
python-asff

Release 0.1.0

xen0l

Aug 06, 2021

CONTENTS

1	Overview	3
2	Examples	5
3	User guide	7
4	Developer page	9
5	API Reference	13
6	Index	183
	Python Module Index	185
	Index	187

python-asff is a library to work with Amazon Security Finding Format (ASFF). It aims to provide simple interface for integrations, minimal number of external dependencies and 100% schema correctness.

OVERVIEW

1.1 Motivation

I run security operations in multi-account AWS organization setup. There are various AWS & open source security tools used for handling security events in AWS. However, I found it very beneficial to centralize all findings in [AWS Security Hub](#) as it provides complete overview of all security events in the AWS organization. Apart from that, it also normalizes all security events into a common format: [Amazon Security Finding Format \(ASFF\)](#).

The benefit of this is that regardless of vendor or tool, all the findings share the same format. However, there are some downsides:

- the format is quite extensive (which is DEFINITELY good for verbose information, but can cause headaches what and how much data should be provided)
- there are no easy to use libraries with proper validation and simple interface
- lack of tooling to build ASFF findings regardless of the programming language

python-asff tries to rectify this.

1.2 Main features

python-asff main features are:

- **schema correctness** - once Python class has been created, it will be fully validated, so user can be certain that class is always suitable for ingestion into AWS Security Hub.
- **simplicity** - the library aims to provide extremely simple interface, so people can ingest finding easily and focus on what matters - fixing them. Moreover, it also provides helpers that allow you to fetch information about resources easily.
- **minimal dependencies** - for as wider adoption as possible, we commit to keep the number of external dependencies very small. Only dependency to stay is [pydantic](#), which provides underlying functionality.
- **CLI tooling** - provide CLI tooling that will allow non-Python projects to create ASFF findings from any security tool suitable for ingestion into Security Hub easily.

EXAMPLES

Code examples of python-asff and how to use it. These snippets are usable “as is”.

2.1 Create a new finding

```
1  #!/usr/bin/env python
2
3  from asff import AmazonSecurityFinding
4
5  f = AmazonSecurityFinding.from_kwargs(
6      aws_account_id="0123456789012",
7      title="Example finding",
8      description="Example finding to demonstrate python-asff usage",
9      types=["Software and Configuration Checks/AWS Security Best Practices"],
10     product_name="python-asff-test",
11 )
12
13 print(f.to_json())
```

2.2 Send a finding to Security Hub

```
1  #!/usr/bin/env python
2
3  import json
4
5  import boto3
6
7  from asff import AmazonSecurityFinding
8
9  sts = boto3.client("sts")
10 aws_account_id = sts.get_caller_identity()["Account"]
11
12 f = AmazonSecurityFinding.from_kwargs(
13     aws_account_id=aws_account_id,
14     title="Example finding",
15     description="Example finding to demonstrate python-asff usage",
16     types=["Software and Configuration Checks/AWS Security Best Practices"],
17     product_name="python-asff-test",
18 )
19
```

(continues on next page)

(continued from previous page)

```
20 sh = boto3.client("securityhub", region_name="eu-west-1")
21 response = sh.batch_import_findings(Findings=[f.to_dict()])
22
23 print(json.dumps(response, indent=4, sort_keys=True))
```

3.1 Installation

3.1.1 Python support

Required minimal version of Python is 3.6+ and project is actively tested on all supported by versions. Python 3 versions prior to 3.6 can also work with some changes, but the code uses language features from Python 3.6+.

3.1.2 PyPI

python-asff is available via PyPI:

```
pip install asff
```


4.1 Contributing

Contributions are welcome in the following categories:

- integration into open source security tools
- reporting bugs
- documentation
- new functionality & code

4.1.1 Reporting bugs

If you found a bug, you should report it in the project [issue tracker](#).

4.1.2 Documentation

All documentation contributions should be written in Markdown. The project uses Sphinx as a documentation generator, but this is because it provides the best support for generating documentation from docstrings. mkddocs alternatives did not provide an output of a similar quality (new project idea?).

4.1.3 Pull requests

All code contributions have to be made as a pull request as CI checks will run automatically. Every new code added should be accompanied by a test as I would like to maintain 100% test coverage, so detecting regressions is simple as well as adding new functionality.

4.2 Testing

4.2.1 Local testing

When adding new or changing existing functionality, it is important to ensure that no regressions were introduced. python-asff comes with a test suite that checks functionality.

Just run this from the root of the repository:

```
./tests/run.py
```

These tests will be run automatically during the Github Actions build. However, if you want to see if it will pass the tests, you can just run that quick command on your machine.

4.3 Maintenance

The repository contains some scripts in *tools* directory, They are essential for project maintenance. This page documents them.

- **class_header.template.py** - header template for code generated from ASFF schema
- **generate_class.py** - script for reading ASFF schema and generating classes in `asff/generated.py`
- **download_securityhub_event_files.py** - helper script for downloading Security Hub event samples used for testing
- **update_schema.py** - script to check for ASFF schema updates (used by Github Actions)

4.4 Interesting read

4.4.1 Security Hub custom providers

- <https://docs.aws.amazon.com/securityhub/latest/userguide/securityhub-custom-providers.html>

4.4.2 Security Hub finding updates

Security Hub findings can be updated. However, there are some limitations on which attributes can be updated and one should be aware of them. The list can be found [here](#).

4.4.3 Findings discovered while working with Security Hub

CreatedAt and UpdatedAt ISO 8601 check

Security Hub schema states that CreatedAt, UpdatedAt and similar fields should follow `date-time` from [RFC 3339](#). However, the schema defines this type as non-empty string. Security Hub API returned the following regular expression:

```
(\\d\\d\\d\\d\\d\\d)-[0-1](\\d)-[0-3](\\d)[Tt](?:[0-2](\\d):[0-5](\\d):[0-5](\\d)
↪d)|23:59:60(?:\\. (\\d)+)?(?:[Zz]|[-+](\\d\\d\\d)(?::(\\d\\d\\d))?)$
```

Resources in AwsSecurityFinding cannot be an empty list

Security Hub schema does not seem to mention anything about requiring at least one resource in Resources. Sample error response:

```
{
  "FailedCount": 1,
  "FailedFindings": [
    {
      "ErrorCode": "InvalidInput",
      "ErrorMessage": "Finding does not adhere to Amazon Finding Format. data.
↪Resources should NOT have fewer than 1 items.",
      "Id": "69b19573-f60c-45f4-bad7-cc39c98dad92"
    }
  ],
  "ResponseMetadata": {
    "HTTPHeaders": {
      "connection": "keep-alive",
      "content-length": "244",
      "content-type": "application/json",
      "date": "Tue, 22 Dec 2020 18:55:23 GMT",
      "x-amz-apigw-id": "X98cTGGnDoEFbEg=",
      "x-amzn-requestid": "20359099-5dbd-4652-ac0c-ed2aa031a224",
      "x-amzn-trace-id": "Root=1-5fe2411b-7f834d21130461413669ff32"
    },
    "HTTPStatusCode": 200,
    "RequestId": "20359099-5dbd-4652-ac0c-ed2aa031a224",
    "RetryAttempts": 0
  },
  "SuccessCount": 0
}
```

It seems that the sensible default is `AwsAccount`.

4.5 Changelog

4.5.1 0.2.0 (unreleased)

- ASFF schema updated to the latest version (19/03/2021)

4.5.2 0.1.1 (2021-01-06)

- ASFF schema is now updated on a weekly basis from Github Actions
- Finding IDs are now calculated in predictable way, so updating findings is easier
- If unset, `resources` now provide an AWS account as the default resource
- All datetime attributes are properly validated for ISO8601 format

4.5.3 0.1.0 (2020-12-13)

- Initial release

4.6 License

BSD 3-Clause License

Copyright (c) 2020, Adam Števkó All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
3. Neither the name of the copyright holder nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS “AS IS” AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

API REFERENCE

This page contains auto-generated API reference documentation¹.

5.1 asff

5.1.1 Submodules

`asff.constants`

Module Contents

```
asff.constants.DEFAULT_GENERATOR_ID = GeneratorId
asff.constants.DEFAULT_PRODUCT_ARN_FMT = arn:aws:securityhub:{region}:{aws_account_id}:prod
asff.constants.DEFAULT_PRODUCT_NAME = default
asff.constants.DEFAULT_PRODUCT_VERSION = 1.0.0
asff.constants.DEFAULT_RECORD_STATE = ACTIVE
asff.constants.DEFAULT_REGION
asff.constants.DEFAULT_SCHEMA_VERSION = 2018-10-08
asff.constants.DEFAULT_SEVERITY = MEDIUM
asff.constants.DEFAULT_WORKFLOW_STATUS = NEW
asff.constants.ISO8601_REGEX = (\\d\\d\\d\\d)-[0-1](\\d)-[0-3](\\d)[Tt](?:[0-2](\\d):[0-5](\\d):[0-
```

`asff.exceptions`

Module Contents

```
exception asff.exceptions.ValidationError(msg)
    Bases: ValueError
```

¹ Created with sphinx-autoapi

ValidationError

Inappropriate argument value (of correct type).

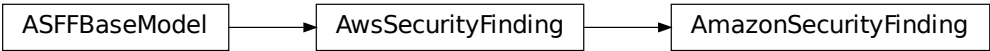
asff.finding

Module Contents

Classes

<i>AmazonSecurityFinding</i>	Provides consistent format for the contents of the Security Hub-aggregated findings. AwsSecurityFinding format enables you to share findings between AWS security services and third-party solutions, and security standards checks. A finding is a potential security issue generated either by AWS services (Amazon GuardDuty, Amazon Inspector, and Amazon Macie) or by the integrated third-party solutions and standards checks.
------------------------------	---

class asff.finding.**AmazonSecurityFinding**(**data)
Bases: *asff.generated.AwsSecurityFinding*



Provides consistent format for the contents of the Security Hub-aggregated findings. AwsSecurityFinding format enables you to share findings between AWS security services and third-party solutions, and security standards checks. A finding is a potential security issue generated either by AWS services (Amazon GuardDuty, Amazon Inspector, and Amazon Macie) or by the integrated third-party solutions and standards checks.

Parameters

- **schema_version** – The schema version that a finding is formatted for.
- **id** – The security findings provider-specific identifier for a finding.
- **product_arn** – The ARN generated by Security Hub that uniquely identifies a product that generates findings. This can be the ARN for a third-party product that is integrated with Security Hub, or the ARN for a custom integration.
- **generator_id** – The identifier for the solution-specific component (a discrete unit of logic) that generated a finding. In various security-findings providers’ solutions, this gener-

ator can be called a rule, a check, a detector, a plugin, etc.

- **aws_account_id** – The AWS account ID that a finding is generated in.
- **types** – One or more finding types in the format of namespace/category/classifier that classify a finding. Valid namespace values are: Software and Configuration Checks | TTPs | Effects | Unusual Behaviors | Sensitive Data Identifications
- **first_observed_at** – Indicates when the security-findings provider first observed the potential security issue that a finding captured. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **last_observed_at** – Indicates when the security-findings provider most recently observed the potential security issue that a finding captured. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **created_at** – Indicates when the security-findings provider created the potential security issue that a finding captured. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **updated_at** – Indicates when the security-findings provider last updated the finding record. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **severity** – A finding's severity.
- **confidence** – A finding's confidence. Confidence is defined as the likelihood that a finding accurately identifies the behavior or issue that it was intended to identify. Confidence is scored on a 0-100 basis using a ratio scale, where 0 means zero percent confidence and 100 means 100 percent confidence.
- **criticality** – The level of importance assigned to the resources associated with the finding. A score of 0 means that the underlying resources have no criticality, and a score of 100 is reserved for the most critical resources.
- **title** – A finding's title. In this release, Title is a required property.
- **description** – A finding's description. In this release, Description is a required property.
- **remediation** – A data type that describes the remediation options for a finding.
- **source_url** – A URL that links to a page about the current finding in the security-findings provider's solution.
- **product_fields** – A data type where security-findings providers can include additional solution-specific details that aren't part of the defined AwsSecurityFinding format.
- **user_defined_fields** – A list of name/value string pairs associated with the finding. These are custom, user-defined fields added to a finding.
- **malware** – A list of malware related to a finding.
- **network** – The details of network-related information about a finding.
- **network_path** – Provides information about a network path that is relevant to a finding. Each entry under NetworkPath represents a component of that path.
- **process** – The details of process-related information about a finding.
- **threat_intel_indicators** – Threat intelligence details related to a finding.

- **resources** – A set of resource data types that describe the resources that the finding refers to.
- **compliance** – This data type is exclusive to findings that are generated as the result of a check run against a specific rule in a supported security standard, such as CIS AWS Foundations. Contains security standard-related finding details.
- **verification_state** – Indicates the veracity of a finding.
- **workflow_state** – The workflow state of a finding.
- **workflow** – Provides information about the status of the investigation into a finding.
- **record_state** – The record state of a finding.
- **related_findings** – A list of related findings.
- **note** – A user-defined note added to a finding.
- **vulnerabilities** – Provides a list of vulnerabilities associated with the findings.
- **patch_summary** – Provides an overview of the patch compliance status for an instance against a selected compliance standard.
- **action** – Provides details about an action that affects or that was taken on a resource.
- **finding_provider_fields** – In a BatchImportFindings request, finding providers use FindingProviderFields to provide and update their own values for confidence, criticality, related findings, severity, and types.

Returns AwsSecurityFinding object

static calculate_finding_id(aws_account_id: str, region: str, product_name: str, title: str)

→ str
Calculate predictable unique finding ID based on immutable finding attributes. The finding ID is calculated as a SHA256 hash of the string consisting of the following attributes: - aws_account_id - region - product_name - title

finding_id = SHA256(aws_account_id + region + product_name + title)

In the future, the list of attributes used for calculating hashes might be extended, but the primary purpose is to have a set of attributes that are unique, yet easy to remember, so the finding ID could be calculated easily and found by this library.

Parameters

- **aws_account_id** – The AWS account ID that the finding applies to.
- **region** – AWS region where the finding was found
- **product_name** – Product name that generated the finding
- **title** – A finding's title.

Returns A predictable unique finding ID

classmethod from_dict(cls, data) → *asff.finding.AmazonSecurityFinding*

Construct the finding from a dictionary.

Parameters data – Dictionary holding finding data

Returns A finding object

classmethod from_json(cls, data: str) → *asff.finding.AmazonSecurityFinding*

Construct the finding from a JSON string.

Parameters data – JSON string with finding data

Returns A finding object

```
classmethod from_kwargs (cls, aws_account_id: str, types: asff.generated.TypeList,
                           title: asff.generated.NonEmptyString, description:
                           asff.generated.NonEmptyString, resources: Optional[List[Any]]
                           = None, id: Optional[str] = None, schema_version: str = DE-
                           FAULT_SCHEMA_VERSION, severity: str = DEFAULT_SEVERITY,
                           product_name: Optional[str] = DEFAULT_PRODUCT_NAME,
                           product_version: Optional[str] = DEFAULT_PRODUCT_VERSION,
                           region: str = DEFAULT_REGION, record_state: str =
                           DEFAULT_RECORD_STATE, workflow_status: str = DE-
                           FAULT_WORKFLOW_STATUS, generator_id: Optional[str] =
                           None, created_at: Optional[str] = None, updated_at: Optional[str]
                           = None, **kwargs)
```

Construct the finding from keyword arguments.

Parameters

- **aws_account_id** – The AWS account ID that the finding applies to.
- **types** – Finding type that classifies the finding
- **title** – A finding’s title.
- **description** – A finding’s description.
- **resources** – A set of resource data types that describe the resources that the finding refers to.
- **id** – The product-specific identifier for a finding.
- **schema_version** – The schema version that a finding is formatted for
- **severity** – A finding’s severity.
- **product_name** – Product name that generated the finding
- **product_version** – Product version that generated the finding
- **region** – AWS region where the finding was found
- **record_state** – The record state of a finding.
- **workflow_status** – Provides information about the status of the investigation into a finding.
- **generator_id** – The identifier for the solution-specific component that generated a finding.
- **created_at** – Indicates when the potential security issue captured by a finding was created.
- **updated_at** – Indicates when the finding provider last updated the finding record.
- **kwargs** – Additional keyword arguments, suitable for passing fields such as notes, user_defined_fields etc

Returns A finding object

```
to_dict (self) → Dict[str, Any]
```

Return a dict representation of the finding.

Returns A dict representation of the finding

```
to_json (self) → str
```

Return a JSON representation of the finding.

Returns JSON representation of the finding

asff.generated

Module Contents

Classes

<i>ASFFBaseModel</i>	Base model with common settings, which other classes inherit from.
<i>Action</i>	Provides details about one of the following actions that affects or that was taken on a resource: A remote IP address issued an AWS API call A DNS request was received A remote IP address attempted to connect to an EC2 instance A remote IP address attempted a port probe on an EC2 instance
<i>ActionLocalIpDetails</i>	Provides information about the IP address where the scanned port is located.
<i>ActionLocalPortDetails</i>	For NetworkConnectionAction and PortProbeDetails, LocalPortDetails provides information about the local port that was involved in the action.
<i>ActionRemoteIpDetails</i>	For AwsApiAction, NetworkConnectionAction, and PortProbeAction, RemoteIpDetails provides information about the remote IP address that was involved in the action.
<i>ActionRemotePortDetails</i>	Provides information about the remote port that was involved in an attempted network connection.
<i>AvailabilityZone</i>	Information about an Availability Zone.
<i>AwsApiCallAction</i>	Provided if ActionType is AWS_API_CALL. It provides details about the API call that was detected.
<i>AwsApiCallActionDomainDetails</i>	Provided if CallerType is domain. It provides information about the DNS domain that issued the API call.
<i>AwsApiGatewayAccessLogSettings</i>	Contains information about settings for logging access for the stage.
<i>AwsApiGatewayCanarySettings</i>	Contains information about settings for canary deployment in the stage.
<i>AwsApiGatewayEndpointConfiguration</i>	Contains information about the endpoints for the API.
<i>AwsApiGatewayMethodSettings</i>	Defines settings for a method for the stage.
<i>AwsApiGatewayRestApiDetails</i>	contains information about a REST API in version 1 of Amazon API Gateway.
<i>AwsApiGatewayStageDetails</i>	Provides information about a version 1 Amazon API Gateway stage.
<i>AwsApiGatewayV2ApiDetails</i>	Contains information about a version 2 API in Amazon API Gateway.
<i>AwsApiGatewayV2RouteSettings</i>	Contains route settings for a stage.
<i>AwsApiGatewayV2StageDetails</i>	Contains information about a version 2 stage for Amazon API Gateway.
<i>AwsAutoScalingAutoScalingGroupDetails</i>	Provides details about an auto scaling group.
<i>AwsCertificateManagerCertificateDetails</i>	Provides details about an AWS Certificate Manager certificate.

continues on next page

Table 2 – continued from previous page

<i>AwsCertificateManagerCertificateDomainValidationOptions</i>	Contains information about one of the following: The initial validation of each domain name that occurs as a result of the RequestCertificate request The validation of each domain name in the certificate, as it pertains to AWS Certificate Manager managed renewal
<i>AwsCertificateManagerCertificateExtendedKeyUsage</i>	Contains information about an extended key usage X.509 v3 extension object.
<i>AwsCertificateManagerCertificateKeyUsage</i>	Contains information about a key usage X.509 v3 extension object.
<i>AwsCertificateManagerCertificateOptions</i>	Contains other options for the certificate.
<i>AwsCertificateManagerCertificateRenewalInformation</i>	Contains information about the AWS Certificate Manager managed renewal for an AMAZON_ISSUED certificate.
<i>AwsCertificateManagerCertificateResourceRecordSet</i>	Provides details about the CNAME record that is added to the DNS database for domain validation.
<i>AwsCloudFrontDistributionCacheBehavior</i>	Information about a cache behavior for the distribution.
<i>AwsCloudFrontDistributionCacheBehaviors</i>	Provides information about caching for the distribution.
<i>AwsCloudFrontDistributionDefaultCacheBehavior</i>	Contains information about the default cache configuration for the distribution.
<i>AwsCloudFrontDistributionDetails</i>	A distribution configuration.
<i>AwsCloudFrontDistributionLogging</i>	A complex type that controls whether access logs are written for the distribution.
<i>AwsCloudFrontDistributionOriginGroup</i>	Information about an origin group for the distribution.
<i>AwsCloudFrontDistributionOriginGroupFailoverConfigurations</i>	Provides information about when an origin group fails over.
<i>AwsCloudFrontDistributionOriginGroupFailoverStatusCodes</i>	The status codes that cause an origin group to fail over.
<i>AwsCloudFrontDistributionOriginGroups</i>	Provides information about origin groups that are associated with the distribution.
<i>AwsCloudFrontDistributionOriginItem</i>	A complex type that describes the Amazon S3 bucket, HTTP server (for example, a web server), Amazon Elemental MediaStore, or other server from which CloudFront gets your files.
<i>AwsCloudFrontDistributionOriginsS3OriginConfigurations</i>	Information about an origin that is an S3 bucket that is not configured with static website hosting.
<i>AwsCloudFrontDistributionOrigins</i>	A complex type that contains information about origins and origin groups for this distribution.
<i>AwsCloudTrailTrailDetails</i>	Provides details about a CloudTrail trail.
<i>AwsCodeBuildProjectDetails</i>	Information about an AWS CodeBuild project.
<i>AwsCodeBuildProjectEnvironment</i>	Information about the build environment for this build project.
<i>AwsCodeBuildProjectEnvironmentRegistryCredentials</i>	The credentials for access to a private registry.
<i>AwsCodeBuildProjectSource</i>	Information about the build input source code for this build project.
<i>AwsCodeBuildProjectVpcConfig</i>	Information about the VPC configuration that AWS CodeBuild accesses.
<i>AwsCorsConfiguration</i>	Contains the cross-origin resource sharing (CORS) configuration for the API. CORS is only supported for HTTP APIs.
<i>AwsDynamoDbTableAttributeDefinition</i>	Contains a definition of an attribute for the table.
<i>AwsDynamoDbTableBillingModeSummary</i>	Provides information about the billing for read/write capacity on the table.

continues on next page

Table 2 – continued from previous page

<i>AwsDynamoDbTableDetails</i>	Provides details about a DynamoDB table.
<i>AwsDynamoDbTableGlobalSecondaryIndex</i>	Information about a global secondary index for the table.
<i>AwsDynamoDbTableKeySchema</i>	A component of the key schema for the DynamoDB table, a global secondary index, or a local secondary index.
<i>AwsDynamoDbTableLocalSecondaryIndex</i>	Information about a local secondary index for a DynamoDB table.
<i>AwsDynamoDbTableProjection</i>	For global and local secondary indexes, identifies the attributes that are copied from the table into the index.
<i>AwsDynamoDbTableProvisionedThroughput</i>	Information about the provisioned throughput for the table or for a global secondary index.
<i>AwsDynamoDbTableProvisionedThroughputOverTime</i>	Replica-specific configuration for the provisioned throughput.
<i>AwsDynamoDbTableReplica</i>	Information about a replica of a DynamoDB table.
<i>AwsDynamoDbTableReplicaGlobalSecondaryIndex</i>	Information about a global secondary index for a DynamoDB table replica.
<i>AwsDynamoDbTableRestoreSummary</i>	Information about the restore for the table.
<i>AwsDynamoDbTableSseDescription</i>	Information about the server-side encryption for the table.
<i>AwsDynamoDbTableStreamSpecification</i>	The current DynamoDB Streams configuration for the table.
<i>AwsEc2EipDetails</i>	Information about an Elastic IP address.
<i>AwsEc2InstanceDetails</i>	The details of an Amazon EC2 instance.
<i>AwsEc2NetworkInterfaceAttachment</i>	Information about the network interface attachment.
<i>AwsEc2NetworkInterfaceDetails</i>	Details about the network interface
<i>AwsEc2NetworkInterfaceIpv6AddressDetails</i>	Provides information about an IPV6 address that is associated with the network interface.
<i>AwsEc2NetworkInterfacePrivateIpAddressDetails</i>	Provides information about a private IPv4 address that is with the network interface.
<i>AwsEc2NetworkInterfaceSecurityGroup</i>	A security group associated with the network interface.
<i>AwsEc2SecurityGroupDetails</i>	Details about an EC2 security group.
<i>AwsEc2SecurityGroupIpPermission</i>	An IP permission for an EC2 security group.
<i>AwsEc2SecurityGroupIpRange</i>	A range of IPv4 addresses.
<i>AwsEc2SecurityGroupIpv6Range</i>	A range of IPv6 addresses.
<i>AwsEc2SecurityGroupPrefixListId</i>	A prefix list ID.
<i>AwsEc2SecurityGroupUserIdGroupPair</i>	A relationship between a security group and a user.
<i>AwsEc2VolumeAttachment</i>	An attachment to an AWS EC2 volume.
<i>AwsEc2VolumeDetails</i>	Details about an EC2 volume.
<i>AwsEc2VpcDetails</i>	Details about an EC2 VPC.
<i>AwsElasticsearchDomainDetails</i>	Information about an Elasticsearch domain.
<i>AwsElasticsearchDomainDomainEndpointOptions</i>	Additional options for the domain endpoint, such as whether to require HTTPS for all traffic.
<i>AwsElasticsearchDomainEncryptionAtRestOptions</i>	Details about the configuration for encryption at rest.
<i>AwsElasticsearchDomainNodeToNodeEncryptionOptions</i>	Details about the configuration for node-to-node encryption.
<i>AwsElasticsearchDomainVPCOptions</i>	Information that Amazon ES derives based on VPCOptions for the domain.
<i>AwsElbAppCookieStickinessPolicy</i>	Contains information about a stickiness policy that was created using CreateAppCookieStickinessPolicy.
<i>AwsElbLbCookieStickinessPolicy</i>	Contains information about a stickiness policy that was created using CreateLBCookieStickinessPolicy.

continues on next page

Table 2 – continued from previous page

<i>AwsElbLoadBalancerAccessLog</i>	Contains information about the access log configuration for the load balancer.
<i>AwsElbLoadBalancerAttributes</i>	Contains attributes for the load balancer.
<i>AwsElbLoadBalancerBackendServerDescription</i>	Provides information about the configuration of an EC2 instance for the load balancer.
<i>AwsElbLoadBalancerConnectionDraining</i>	Contains information about the connection draining configuration for the load balancer.
<i>AwsElbLoadBalancerConnectionSettings</i>	Contains connection settings for the load balancer.
<i>AwsElbLoadBalancerCrossZoneLoadBalancing</i>	Contains cross-zone load balancing settings for the load balancer.
<i>AwsElbLoadBalancerDetails</i>	Contains details about a Classic Load Balancer.
<i>AwsElbLoadBalancerHealthCheck</i>	Contains information about the health checks that are conducted on the load balancer.
<i>AwsElbLoadBalancerInstance</i>	Provides information about an EC2 instance for a load balancer.
<i>AwsElbLoadBalancerListener</i>	Information about a load balancer listener.
<i>AwsElbLoadBalancerListenerDescription</i>	Lists the policies that are enabled for a load balancer listener.
<i>AwsElbLoadBalancerPolicies</i>	Contains information about the policies for a load balancer.
<i>AwsElbLoadBalancerSourceSecurityGroup</i>	Contains information about the security group for the load balancer.
<i>AwsElbv2LoadBalancerDetails</i>	Information about a load balancer.
<i>AwsIamAccessKeyDetails</i>	IAM access key details related to a finding.
<i>AwsIamAccessKeySessionContext</i>	Provides information about the session that the key was used for.
<i>AwsIamAccessKeySessionContextAttributes</i>	Attributes of the session that the key was used for.
<i>AwsIamAccessKeySessionContextSessionIssuer</i>	Information about the entity that created the session.
<i>AwsIamAttachedManagedPolicy</i>	A managed policy that is attached to an IAM principal.
<i>AwsIamGroupDetails</i>	Contains details about an IAM group.
<i>AwsIamGroupPolicy</i>	A managed policy that is attached to the IAM group.
<i>AwsIamInstanceProfile</i>	Information about an instance profile.
<i>AwsIamInstanceProfileRole</i>	Information about a role associated with an instance profile.
<i>AwsIamPermissionsBoundary</i>	Information about the policy used to set the permissions boundary for an IAM principal.
<i>AwsIamPolicyDetails</i>	Represents an IAM permissions policy.
<i>AwsIamPolicyVersion</i>	A version of an IAM policy.
<i>AwsIamRoleDetails</i>	Contains information about an IAM role, including all of the role's policies.
<i>AwsIamRolePolicy</i>	An inline policy that is embedded in the role.
<i>AwsIamUserDetails</i>	Information about an IAM user.
<i>AwsIamUserPolicy</i>	Information about an inline policy that is embedded in the user.
<i>AwsKmsKeyDetails</i>	Contains metadata about a customer master key (CMK).
<i>AwsLambdaFunctionCode</i>	The code for the Lambda function. You can specify either an object in Amazon S3, or upload a deployment package directly.
<i>AwsLambdaFunctionDeadLetterConfig</i>	The dead-letter queue for failed asynchronous invocations.
<i>AwsLambdaFunctionDetails</i>	Details about a function's configuration.

continues on next page

Table 2 – continued from previous page

<i>AwsLambdaFunctionEnvironment</i>	A function's environment variable settings.
<i>AwsLambdaFunctionEnvironmentError</i>	Error messages for environment variables that couldn't be applied.
<i>AwsLambdaFunctionLayer</i>	An AWS Lambda layer.
<i>AwsLambdaFunctionTracingConfig</i>	The function's AWS X-Ray tracing configuration.
<i>AwsLambdaFunctionVpcConfig</i>	The VPC security groups and subnets that are attached to a Lambda function. For more information, see VPC Settings.
<i>AwsLambdaLayerVersionDetails</i>	Details about a Lambda layer version.
<i>AwsRdsDbClusterAssociatedRole</i>	An IAM role that is associated with the Amazon RDS DB cluster.
<i>AwsRdsDbClusterDetails</i>	Information about an Amazon RDS DB cluster.
<i>AwsRdsDbClusterMember</i>	Information about an instance in the DB cluster.
<i>AwsRdsDbClusterOptionGroupMembership</i>	Information about an option group membership for a DB cluster.
<i>AwsRdsDbClusterSnapshotDetails</i>	Information about an Amazon RDS DB cluster snapshot.
<i>AwsRdsDbDomainMembership</i>	Information about an Active Directory domain membership record associated with the DB instance.
<i>AwsRdsDbInstanceAssociatedRole</i>	An AWS Identity and Access Management (IAM) role associated with the DB instance.
<i>AwsRdsDbInstanceDetails</i>	Contains the details of an Amazon RDS DB instance.
<i>AwsRdsDbInstanceEndpoint</i>	Specifies the connection endpoint.
<i>AwsRdsDbInstanceVpcSecurityGroup</i>	A VPC security groups that the DB instance belongs to.
<i>AwsRdsDbOptionGroupMembership</i>	An option group membership.
<i>AwsRdsDbParameterGroup</i>	Provides information about a parameter group for a DB instance.
<i>AwsRdsDbPendingModifiedValues</i>	Changes to a DB instance that are currently pending.
<i>AwsRdsDbProcessorFeature</i>	A processor feature.
<i>AwsRdsDbSnapshotDetails</i>	Provides details about an Amazon RDS DB cluster snapshot.
<i>AwsRdsDbStatusInfo</i>	Information about the status of a read replica.
<i>AwsRdsDbSubnetGroup</i>	Information about the subnet group for the database instance.
<i>AwsRdsDbSubnetGroupSubnet</i>	Information about a subnet in a subnet group.
<i>AwsRdsDbSubnetGroupSubnetAvailabilityZone</i>	An Availability Zone for a subnet in a subnet group.
<i>AwsRdsPendingCloudWatchLogsExports</i>	Identifies the log types to enable and disable.
<i>AwsRedshiftClusterClusterNode</i>	A node in an Amazon Redshift cluster.
<i>AwsRedshiftClusterClusterParameterGroup</i>	A cluster parameter group that is associated with an Amazon Redshift cluster.
<i>AwsRedshiftClusterClusterParameterStatus</i>	The status of a parameter in a cluster parameter group for an Amazon Redshift cluster.
<i>AwsRedshiftClusterClusterSecurityGroup</i>	A security group that is associated with the cluster.
<i>AwsRedshiftClusterClusterSnapshotCopyStatus</i>	Information about a cross-Region snapshot copy.
<i>AwsRedshiftClusterDeferredMaintenanceWindow</i>	A time windows during which maintenance was deferred for an Amazon Redshift cluster.
<i>AwsRedshiftClusterDetails</i>	Details about an Amazon Redshift cluster.
<i>AwsRedshiftClusterElasticIpStatus</i>	The status of the elastic IP (EIP) address for an Amazon Redshift cluster.
<i>AwsRedshiftClusterEndpoint</i>	The connection endpoint for an Amazon Redshift cluster.

continues on next page

Table 2 – continued from previous page

<i>AwsRedshiftClusterHsmStatus</i>	Information about whether an Amazon Redshift cluster finished applying any hardware changes to security module (HSM) settings that were specified in a modify cluster command.
<i>AwsRedshiftClusterIamRole</i>	An IAM role that the cluster can use to access other AWS services.
<i>AwsRedshiftClusterPendingModifiedValues</i>	Changes to the Amazon Redshift cluster that are currently pending.
<i>AwsRedshiftClusterResizeInfo</i>	Information about the resize operation for the cluster.
<i>AwsRedshiftClusterRestoreStatus</i>	Information about the status of a cluster restore action. It only applies if the cluster was created by restoring a snapshot.
<i>AwsRedshiftClusterVpcSecurityGroup</i>	A VPC security group that the cluster belongs to, if the cluster is in a VPC.
<i>AwsS3AccountPublicAccessBlockDetails</i>	provides information about the Amazon S3 Public Access Block configuration for accounts.
<i>AwsS3BucketDetails</i>	The details of an Amazon S3 bucket.
<i>AwsS3BucketServerSideEncryptionByDefault</i>	Specifies the default server-side encryption to apply to new objects in the bucket.
<i>AwsS3BucketServerSideEncryptionConfiguration</i>	The encryption configuration for the S3 bucket.
<i>AwsS3BucketServerSideEncryptionRule</i>	An encryption rule to apply to the S3 bucket.
<i>AwsS3ObjectDetails</i>	Details about an Amazon S3 object.
<i>AwsSecretsManagerSecretDetails</i>	Details about an AWS Secrets Manager secret.
<i>AwsSecretsManagerSecretRotationRules</i>	Defines the rotation schedule for the secret.
<i>AwsSecurityFinding</i>	Provides consistent format for the contents of the Security Hub-aggregated findings. <i>AwsSecurityFinding</i> format enables you to share findings between AWS security services and third-party solutions, and security standards checks. A finding is a potential security issue generated either by AWS services (Amazon GuardDuty, Amazon Inspector, and Amazon Macie) or by the integrated third-party solutions and standards checks.
<i>AwsSnsTopicDetails</i>	A wrapper type for the topic's Amazon Resource Name (ARN).
<i>AwsSnsTopicSubscription</i>	A wrapper type for the attributes of an Amazon SNS subscription.
<i>AwsSqsQueueDetails</i>	Data about a queue.
<i>AwsSsmComplianceSummary</i>	Provides the details about the compliance status for a patch.
<i>AwsSsmPatch</i>	Provides details about the compliance for a patch.
<i>AwsSsmPatchComplianceDetails</i>	Provides information about the state of a patch on an instance based on the patch baseline that was used to patch the instance.
<i>AwsWafWebAclDetails</i>	Details about a WAF WebACL.
<i>AwsWafWebAclRule</i>	Details for a rule in a WAF WebACL.
<i>Cell</i>	An occurrence of sensitive data detected in a Microsoft Excel workbook, comma-separated value (CSV) file, or tab-separated value (TSV) file.
<i>CidrBlockAssociation</i>	An IPv4 CIDR block association.
<i>City</i>	Information about a city.

continues on next page

Table 2 – continued from previous page

<i>ClassificationResult</i>	Details about the sensitive data that was detected on the resource.
<i>ClassificationStatus</i>	Provides details about the current status of the sensitive data detection.
<i>Compliance</i>	Contains finding details that are specific to control-based findings. Only returned for findings generated from controls.
<i>ContainerDetails</i>	Container details related to a finding.
<i>Country</i>	Information about a country.
<i>CustomDataIdentifiersDetections</i>	The list of detected instances of sensitive data.
<i>CustomDataIdentifiersResult</i>	Contains an instance of sensitive data that was detected by a customer-defined identifier.
<i>Cvss</i>	CVSS scores from the advisory related to the vulnerability.
<i>DataClassificationDetails</i>	Provides details about sensitive data that was detected on a resource.
<i>DnsRequestAction</i>	Provided if ActionType is DNS_REQUEST. It provides details about the DNS request that was detected.
<i>FindingProviderFields</i>	In a BatchImportFindings request, finding providers use FindingProviderFields to provide and update values for confidence, criticality, related findings, severity, and types.
<i>FindingProviderSeverity</i>	The severity assigned to the finding by the finding provider.
<i>GeoLocation</i>	Provides the latitude and longitude coordinates of a location.
<i>IpOrganizationDetails</i>	Provides information about an internet provider.
<i>Ipv6CidrBlockAssociation</i>	An IPV6 CIDR block association.
<i>LoadBalancerState</i>	Information about the state of the load balancer.
<i>Malware</i>	A list of malware related to a finding.
<i>Network</i>	The details of network-related information about a finding.
<i>NetworkConnectionAction</i>	Provided if ActionType is NETWORK_CONNECTION. It provides details about the attempted network connection that was detected.
<i>NetworkHeader</i>	Details about a network path component that occurs before or after the current component.
<i>NetworkPathComponent</i>	Information about a network path component.
<i>NetworkPathComponentDetails</i>	Information about the destination of the next component in the network path.
<i>Note</i>	A user-defined note added to a finding.
<i>Occurrences</i>	The detected occurrences of sensitive data.
<i>Page</i>	An occurrence of sensitive data in an Adobe Portable Document Format (PDF) file.
<i>PatchSummary</i>	Provides an overview of the patch compliance status for an instance against a selected compliance standard.
<i>PortProbeAction</i>	Provided if ActionType is PORT_PROBE. It provides details about the attempted port probe that was detected.

continues on next page

Table 2 – continued from previous page

<i>PortProbeDetail</i>	A port scan that was part of the port probe. For each scan, PortProbeDetails provides information about the local IP address and port that were scanned, and the remote IP address that the scan originated from.
<i>PortRange</i>	A range of ports.
<i>ProcessDetails</i>	The details of process-related information about a finding.
<i>Range</i>	Identifies where the sensitive data begins and ends.
<i>Recommendation</i>	A recommendation on how to remediate the issue identified in a finding.
<i>Record</i>	An occurrence of sensitive data in an Apache Avro object container or an Apache Parquet file.
<i>RelatedFinding</i>	Details about a related finding.
<i>Remediation</i>	Details about the remediation steps for a finding.
<i>Resource</i>	A resource related to a finding.
<i>ResourceDetails</i>	Additional details about a resource related to a finding. To provide the details, use the object that corresponds to the resource type. For example, if the resource type is AwsEc2Instance, then you use the AwsEc2Instance object to provide the details. If the type-specific object does not contain all of the fields you want to populate, then you use the Other object to populate those additional fields. You also use the Other object to populate the details when the selected type does not have a corresponding object.
<i>SensitiveDataDetections</i>	The list of detected instances of sensitive data.
<i>SensitiveDataResult</i>	Contains a detected instance of sensitive data that are based on built-in identifiers.
<i>Severity</i>	The severity of the finding. The finding provider can provide the initial severity. The finding provider can only update the severity if it has not been updated using BatchUpdateFindings. The finding must have either Label or Normalized populated. If only one of these attributes is populated, then Security Hub automatically populates the other one. If neither attribute is populated, then the finding is invalid. Label is the preferred attribute.
<i>SoftwarePackage</i>	Information about a software package.
<i>StatusReason</i>	Provides additional context for the value of Compliance.Status.
<i>ThreatIntelIndicator</i>	Details about the threat intelligence related to a finding.
<i>Vulnerability</i>	A vulnerability associated with a finding.
<i>VulnerabilityVendor</i>	A vendor that generates a vulnerability report.
<i>WafAction</i>	Details about the action that CloudFront or AWS WAF takes when a web request matches the conditions in the rule.
<i>WafExcludedRule</i>	Details about a rule to exclude from a rule group.
<i>WafOverrideAction</i>	Details about an override action for a rule.
<i>Workflow</i>	Provides information about the status of the investigation into a finding.

asff.generated.AvailabilityZones

`asff.generated.AwsApiGatewayMethodSettingsList`
`asff.generated.AwsCertificateManagerCertificateDomainValidationOptions`
`asff.generated.AwsCertificateManagerCertificateExtendedKeyUsages`
`asff.generated.AwsCertificateManagerCertificateKeyUsages`
`asff.generated.AwsCloudFrontDistributionCacheBehaviorsItemList`
`asff.generated.AwsCloudFrontDistributionOriginGroupFailoverStatusCodesItemList`
`asff.generated.AwsCloudFrontDistributionOriginGroupsItemList`
`asff.generated.AwsCloudFrontDistributionOriginItemList`
`asff.generated.AwsDynamoDbTableAttributeDefinitionList`
`asff.generated.AwsDynamoDbTableGlobalSecondaryIndexList`
`asff.generated.AwsDynamoDbTableKeySchemaList`
`asff.generated.AwsDynamoDbTableLocalSecondaryIndexList`
`asff.generated.AwsDynamoDbTableReplicaGlobalSecondaryIndexList`
`asff.generated.AwsDynamoDbTableReplicaList`
`asff.generated.AwsEc2NetworkInterfaceIPv6AddressList`
`asff.generated.AwsEc2NetworkInterfacePrivateIpAddressList`
`asff.generated.AwsEc2NetworkInterfaceSecurityGroupList`
`asff.generated.AwsEc2SecurityGroupIpPermissionList`
`asff.generated.AwsEc2SecurityGroupIpRangeList`
`asff.generated.AwsEc2SecurityGroupIpv6RangeList`
`asff.generated.AwsEc2SecurityGroupPrefixListIdList`
`asff.generated.AwsEc2SecurityGroupUserIdGroupPairList`
`asff.generated.AwsEc2VolumeAttachmentList`
`asff.generated.AwsElbAppCookieStickinessPolicies`
`asff.generated.AwsElbLbCookieStickinessPolicies`
`asff.generated.AwsElbLoadBalancerBackendServerDescriptions`
`asff.generated.AwsElbLoadBalancerInstances`
`asff.generated.AwsElbLoadBalancerListenerDescriptions`
`asff.generated.AwsIamAccessKeyStatus`
`asff.generated.AwsIamAttachedManagedPolicyList`
`asff.generated.AwsIamGroupPolicyList`
`asff.generated.AwsIamInstanceProfileList`
`asff.generated.AwsIamInstanceProfileRoles`
`asff.generated.AwsIamPolicyVersionList`
`asff.generated.AwsIamRoleAssumeRolePolicyDocument`
`asff.generated.AwsIamRolePolicyList`

```

asff.generated.AwsIamUserPolicyList
asff.generated.AwsLambdaFunctionLayerList
asff.generated.AwsLambdaLayerVersionNumber
asff.generated.AwsRdsDbClusterAssociatedRoles
asff.generated.AwsRdsDbClusterMembers
asff.generated.AwsRdsDbClusterOptionGroupMemberships
asff.generated.AwsRdsDbDomainMemberships
asff.generated.AwsRdsDbInstanceAssociatedRoles
asff.generated.AwsRdsDbInstanceVpcSecurityGroups
asff.generated.AwsRdsDbOptionGroupMemberships
asff.generated.AwsRdsDbParameterGroups
asff.generated.AwsRdsDbProcessorFeatures
asff.generated.AwsRdsDbStatusInfos
asff.generated.AwsRdsDbSubnetGroupSubnets
asff.generated.AwsRedshiftClusterClusterNodes
asff.generated.AwsRedshiftClusterClusterParameterGroups
asff.generated.AwsRedshiftClusterClusterParameterStatusList
asff.generated.AwsRedshiftClusterClusterSecurityGroups
asff.generated.AwsRedshiftClusterDeferredMaintenanceWindows
asff.generated.AwsRedshiftClusterIamRoles
asff.generated.AwsRedshiftClusterVpcSecurityGroups
asff.generated.AwsS3BucketServerSideEncryptionRules
asff.generated.AwsSnsTopicSubscriptionList
asff.generated.AwsWafWebAclRuleList
asff.generated.Boolean
asff.generated.Cells
asff.generated.CidrBlockAssociationList
asff.generated.ComplianceStatus
asff.generated.CustomDataIdentifiersDetectionsList
asff.generated.CvssList
asff.generated.Double
asff.generated.FieldMap
asff.generated.ISO8601_REGEX = (\d\d\d\d)-[0-1](\d)-[0-3](\d)[Tt](?:[0-2](\d):[0-5](\d):[0-9](\d))
asff.generated.Integer
asff.generated.Ipv6CidrBlockAssociationList
asff.generated.Iso8601Timestamp

```

asff.generated.Long
asff.generated.MalwareList
asff.generated.MalwareState
asff.generated.MalwareType
asff.generated.NetworkDirection
asff.generated.NetworkPathList
asff.generated.NonEmptyString
asff.generated.NonEmptyStringList
asff.generated.Pages
asff.generated.Partition
asff.generated.PortProbeDetailList
asff.generated.PortRangeList
asff.generated.Ranges
asff.generated.RatioScale
asff.generated.RecordState
asff.generated.Records
asff.generated.RelatedFindingList
asff.generated.RelatedRequirementsList
asff.generated.ResourceList
asff.generated.SecurityGroups
asff.generated.SensitiveDataDetectionsList
asff.generated.SensitiveDataResultList
asff.generated.SeverityLabel
asff.generated.SizeBytes
asff.generated.SoftwarePackageList
asff.generated.StatusReasonsList
asff.generated.StringList
asff.generated.ThreatIntelIndicatorCategory
asff.generated.ThreatIntelIndicatorList
asff.generated.ThreatIntelIndicatorType
asff.generated.TypeList
asff.generated.VerificationState
asff.generated.VulnerabilityList
asff.generated.WafExcludedRuleList
asff.generated.WorkflowState
asff.generated.WorkflowStatus


```
class asff.generated.ASFFBaseModel
    Bases: pydantic.BaseModel
```

```
ASFFBaseModel
```

Base model with common settings, which other classes inherit from.

```
class Config

    alias_generator

    allow_population_by_field_name = True

    validate_assignment = True

class asff.generated.Action
    Bases: asff.generated.ASFFBaseModel
```

```
ASFFBaseModel → Action
```

Provides details about one of the following actions that affects or that was taken on a resource: A remote IP address issued an AWS API call A DNS request was received A remote IP address attempted to connect to an EC2 instance A remote IP address attempted a port probe on an EC2 instance

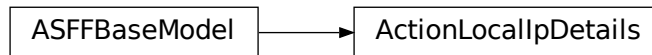
Parameters

- **action_type** – The type of action that was detected. The possible action types are: NETWORK_CONNECTION AWS_API_CALL DNS_REQUEST PORT_PROBE
- **network_connection_action** – Included if ActionType is NETWORK_CONNECTION. Provides details about the network connection that was detected.
- **aws_api_call_action** – Included if ActionType is AWS_API_CALL. Provides details about the API call that was detected.
- **dns_request_action** – Included if ActionType is DNS_REQUEST. Provides details about the DNS request that was detected.
- **port_probe_action** – Included if ActionType is PORT_PROBE. Provides details about the port probe that was detected.

Returns Action object

```
action_type :Optional[NonEmptyString]
aws_api_call_action :Optional[AwsApiCallAction]
```

```
    dns_request_action :Optional[DnsRequestAction]
    network_connection_action :Optional[NetworkConnectionAction]
    port_probe_action :Optional[PortProbeAction]
class asff.generated.ActionLocalIpDetails
    Bases: asff.generated.ASFFBaseModel
```



Provides information about the IP address where the scanned port is located.

Parameters `ip_address_v4` – The IP address.

Returns ActionLocalIpDetails object

```
    ip_address_v4 :Optional[NonEmptyString]
class asff.generated.ActionLocalPortDetails
    Bases: asff.generated.ASFFBaseModel
```



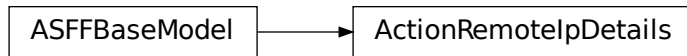
For NetworkConnectionAction and PortProbeDetails, LocalPortDetails provides information about the local port that was involved in the action.

Parameters

- `port` – The number of the port.
- `port_name` – The port name of the local connection.

Returns ActionLocalPortDetails object

```
    port :Optional[Integer]
    port_name :Optional[NonEmptyString]
class asff.generated.ActionRemoteIpDetails
    Bases: asff.generated.ASFFBaseModel
```



For `AwsApiAction`, `NetworkConnectionAction`, and `PortProbeAction`, `RemoteIpDetails` provides information about the remote IP address that was involved in the action.

Parameters

- **ip_address_v4** – The IP address.
- **organization** – The internet service provider (ISP) organization associated with the remote IP address.
- **country** – The country where the remote IP address is located.
- **city** – The city where the remote IP address is located.
- **geo_location** – The coordinates of the location of the remote IP address.

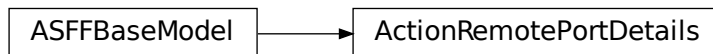
Returns `ActionRemoteIpDetails` object

```

city :Optional[City]
country :Optional[Country]
geo_location :Optional[GeoLocation]
ip_address_v4 :Optional[NonEmptyString]
organization :Optional[IpOrganizationDetails]
  
```

```

class asff.generated.ActionRemotePortDetails
    Bases: asff.generated.ASFFBaseModel
  
```



Provides information about the remote port that was involved in an attempted network connection.

Parameters

- **port** – The number of the port.
- **port_name** – The port name of the remote connection.

Returns `ActionRemotePortDetails` object

```

port :Optional[Integer]
port_name :Optional[NonEmptyString]
  
```

```
class asff.generated.AvailabilityZone
    Bases: asff.generated.ASFFBaseModel
```



Information about an Availability Zone.

Parameters

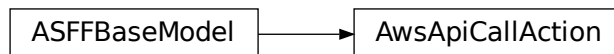
- **zone_name** – The name of the Availability Zone.
- **subnet_id** – The ID of the subnet. You can specify one subnet per Availability Zone.

Returns AvailabilityZone object

subnet_id :Optional[NonEmptyString]

zone_name :Optional[NonEmptyString]

```
class asff.generated.AwsApiCallAction
    Bases: asff.generated.ASFFBaseModel
```



Provided if ActionType is AWS_API_CALL. It provides details about the API call that was detected.

Parameters

- **api** – The name of the API method that was issued.
- **service_name** – The name of the AWS service that the API method belongs to.
- **caller_type** – Indicates whether the API call originated from a remote IP address (remoteip) or from a DNS domain (domain).
- **remote_ip_details** – Provided if CallerType is remoteIp. Provides information about the remote IP address that the API call originated from.
- **domain_details** – Provided if CallerType is domain. Provides information about the DNS domain that the API call originated from.
- **affected_resources** – Identifies the resources that were affected by the API call.
- **first_seen** – An ISO8601-formatted timestamp that indicates when the API call was first observed.
- **last_seen** – An ISO8601-formatted timestamp that indicates when the API call was most recently observed.

Returns AwsApiCallAction object

```

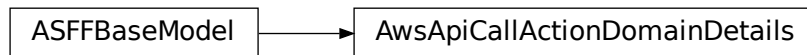
affected_resources :Optional[FieldMap]
api :Optional[NonEmptyString]
caller_type :Optional[NonEmptyString]
domain_details :Optional[AwsApiCallActionDomainDetails]
first_seen :Optional[NonEmptyString]
last_seen :Optional[NonEmptyString]
remote_ip_details :Optional[ActionRemoteIpDetails]
service_name :Optional[NonEmptyString]

```

```

class asff.generated.AwsApiCallActionDomainDetails
    Bases: asff.generated.ASFFBaseModel

```



Provided if CallerType is domain. It provides information about the DNS domain that issued the API call.

Parameters **domain** – The name of the DNS domain that issued the API call.

Returns AwsApiCallActionDomainDetails object

```

domain :Optional[NonEmptyString]

```

```

class asff.generated.AwsApiGatewayAccessLogSettings
    Bases: asff.generated.ASFFBaseModel

```



Contains information about settings for logging access for the stage.

Parameters

- **format** – A single-line format of the access logs of data, as specified by selected \$context variables. The format must include at least \$context.requestId.
- **destination_arn** – The ARN of the CloudWatch Logs log group that receives the access logs.

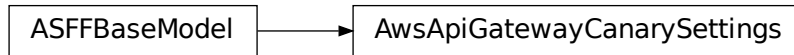
Returns AwsApiGatewayAccessLogSettings object

```

destination_arn :Optional[NonEmptyString]

```

```
format :Optional[NonEmptyString]
class asff.generated.AwsApiGatewayCanarySettings
    Bases: asff.generated.ASFFBaseModel
```



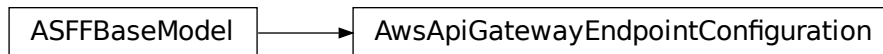
Contains information about settings for canary deployment in the stage.

Parameters

- **percent_traffic** – The percentage of traffic that is diverted to a canary deployment.
- **deployment_id** – The deployment identifier for the canary deployment.
- **stage_variable_overrides** – Stage variables that are overridden in the canary release deployment. The variables include new stage variables that are introduced in the canary. Each variable is represented as a string-to-string map between the stage variable name and the variable value.
- **use_stage_cache** – Indicates whether the canary deployment uses the stage cache.

Returns `AwsApiGatewayCanarySettings` object

```
deployment_id :Optional[NonEmptyString]
percent_traffic :Optional[Double]
stage_variable_overrides :Optional[FieldMap]
use_stage_cache :Optional[Boolean]
class asff.generated.AwsApiGatewayEndpointConfiguration
    Bases: asff.generated.ASFFBaseModel
```

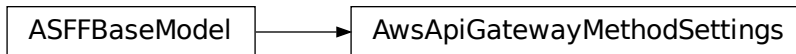


Contains information about the endpoints for the API.

Parameters **types** – A list of endpoint types for the REST API. For an edge-optimized API, the endpoint type is EDGE. For a Regional API, the endpoint type is REGIONAL. For a private API, the endpoint type is PRIVATE.

Returns `AwsApiGatewayEndpointConfiguration` object

```
types :Optional[NonEmptyStringList]
class asff.generated.AwsApiGatewayMethodSettings
    Bases: asff.generated.ASFFBaseModel
```



Defines settings for a method for the stage.

Parameters

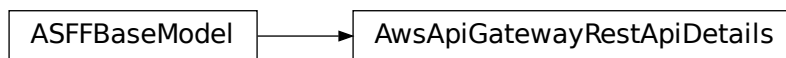
- **metrics_enabled** – Indicates whether CloudWatch metrics are enabled for the method.
- **logging_level** – The logging level for this method. The logging level affects the log entries that are pushed to CloudWatch Logs. If the logging level is `ERROR`, then the logs only include error-level entries. If the logging level is `INFO`, then the logs include both `ERROR` events and extra informational events. Valid values: `OFF` | `ERROR` | `INFO`
- **data_trace_enabled** – Indicates whether data trace logging is enabled for the method. Data trace logging affects the log entries that are pushed to CloudWatch Logs.
- **throttling_burst_limit** – The throttling burst limit for the method.
- **throttling_rate_limit** – The throttling rate limit for the method.
- **caching_enabled** – Indicates whether responses are cached and returned for requests. For responses to be cached, a cache cluster must be enabled on the stage.
- **cache_ttl_in_seconds** – Specifies the time to live (TTL), in seconds, for cached responses. The higher the TTL, the longer the response is cached.
- **cache_data_encrypted** – Indicates whether the cached responses are encrypted.
- **require_authorization_for_cache_control** – Indicates whether authorization is required for a cache invalidation request.
- **unauthorized_cache_control_header_strategy** – Indicates how to handle unauthorized requests for cache invalidation. Valid values: `FAIL_WITH_403` | `SUCCESS_WITH_RESPONSE_HEADER` | `SUCCESS_WITHOUT_RESPONSE_HEADER`
- **http_method** – The HTTP method. You can use an asterisk (*) as a wildcard to apply method settings to multiple methods.
- **resource_path** – The resource path for this method. Forward slashes (/) are encoded as `~1`. The initial slash must include a forward slash. For example, the path value `/resource/subresource` must be encoded as `/~1resource~1subresource`. To specify the root path, use only a slash (/). You can use an asterisk (*) as a wildcard to apply method settings to multiple methods.

Returns `AwsApiGatewayMethodSettings` object

```

cache_data_encrypted :Optional[Boolean]
cache_ttl_in_seconds :Optional[Integer]
caching_enabled :Optional[Boolean]
data_trace_enabled :Optional[Boolean]
http_method :Optional[NonEmptyString]
logging_level :Optional[NonEmptyString]
  
```

```
metrics_enabled :Optional[Boolean]
require_authorization_for_cache_control :Optional[Boolean]
resource_path :Optional[NonEmptyString]
throttling_burst_limit :Optional[Integer]
throttling_rate_limit :Optional[Double]
unauthorized_cache_control_header_strategy :Optional[NonEmptyString]
class asff.generated.AwsApiGatewayRestApiDetails
  Bases: asff.generated.ASFFBaseModel
```



contains information about a REST API in version 1 of Amazon API Gateway.

Parameters

- **id** – The identifier of the REST API.
- **name** – The name of the REST API.
- **description** – A description of the REST API.
- **created_date** – Indicates when the API was created. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **version** – The version identifier for the REST API.
- **binary_media_types** – The list of binary media types supported by the REST API.
- **minimum_compression_size** – The minimum size in bytes of a payload before compression is enabled. If null, then compression is disabled. If 0, then all payloads are compressed.
- **api_key_source** – The source of the API key for metering requests according to a usage plan. HEADER indicates whether to read the API key from the X-API-Key header of a request. AUTHORIZER indicates whether to read the API key from the UsageIdentifierKey from a custom authorizer.
- **endpoint_configuration** – The endpoint configuration of the REST API.

Returns `AwsApiGatewayRestApiDetails` object

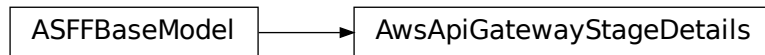
```
api_key_source :Optional[NonEmptyString]
binary_media_types :Optional[NonEmptyStringList]
created_date :Optional[Iso8601Timestamp]
description :Optional[NonEmptyString]
endpoint_configuration :Optional[AwsApiGatewayEndpointConfiguration]
id :Optional[NonEmptyString]
```



```

    minimum_compression_size :Optional[Integer]
    name :Optional[NonEmptyString]
    version :Optional[NonEmptyString]
class asff.generated.AwsApiGatewayStageDetails
    Bases: asff.generated.ASFFBaseModel

```



Provides information about a version 1 Amazon API Gateway stage.

Parameters

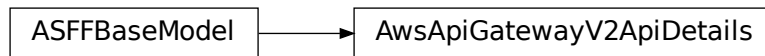
- **deployment_id** – The identifier of the deployment that the stage points to.
- **client_certificate_id** – The identifier of the client certificate for the stage.
- **stage_name** – The name of the stage.
- **description** – A description of the stage.
- **cache_cluster_enabled** – Indicates whether a cache cluster is enabled for the stage.
- **cache_cluster_size** – If a cache cluster is enabled, the size of the cache cluster.
- **cache_cluster_status** – If a cache cluster is enabled, the status of the cache cluster.
- **method_settings** – Defines the method settings for the stage.
- **variables** – A map that defines the stage variables for the stage. Variable names can have alphanumeric and underscore characters. Variable values can contain the following characters: Uppercase and lowercase letters Numbers Special characters `-. _~:/?#&=`,
- **documentation_version** – The version of the API documentation that is associated with the stage.
- **access_log_settings** – Settings for logging access for the stage.
- **canary_settings** – Information about settings for canary deployment in the stage.
- **tracing_enabled** – Indicates whether active tracing with AWS X-Ray is enabled for the stage.
- **created_date** – Indicates when the stage was created. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **last_updated_date** – Indicates when the stage was most recently updated. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **web_acl_arn** – The ARN of the web ACL associated with the stage.

Returns AwsApiGatewayStageDetails object

```
access_log_settings :Optional[AwsApiGatewayAccessLogSettings]
```

```
cache_cluster_enabled :Optional[Boolean]
cache_cluster_size :Optional[NonEmptyString]
cache_cluster_status :Optional[NonEmptyString]
canary_settings :Optional[AwsApiGatewayCanarySettings]
client_certificate_id :Optional[NonEmptyString]
created_date :Optional[Iso8601Timestamp]
deployment_id :Optional[NonEmptyString]
description :Optional[NonEmptyString]
documentation_version :Optional[NonEmptyString]
last_updated_date :Optional[NonEmptyString]
method_settings :Optional[AwsApiGatewayMethodSettingsList]
stage_name :Optional[NonEmptyString]
tracing_enabled :Optional[Boolean]
variables :Optional[FieldMap]
web_acl_arn :Optional[NonEmptyString]

class asff.generated.AwsApiGatewayV2ApiDetails
    Bases: asff.generated.ASFFBaseModel
```



Contains information about a version 2 API in Amazon API Gateway.

Parameters

- **api_endpoint** – The URI of the API. Uses the format `<api-id>.execute-api.<region>.amazonaws.com` The stage name is typically appended to the URI to form a complete path to a deployed API stage.
- **api_id** – The identifier of the API.
- **api_key_selection_expression** – An API key selection expression. Supported only for WebSocket APIs.
- **created_date** – Indicates when the API was created. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, `2020-03-22T13:22:13.933Z`.
- **description** – A description of the API.
- **version** – The version identifier for the API.
- **name** – The name of the API.
- **protocol_type** – The API protocol for the API. Valid values: `WEBSOCKET` | `HTTP`

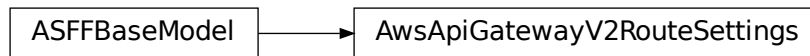
- **route_selection_expression** – The route selection expression for the API. For HTTP APIs, must be `${request.method} ${request.path}`. This is the default value for HTTP APIs. For WebSocket APIs, there is no default value.
- **cors_configuration** – A cross-origin resource sharing (CORS) configuration. Supported only for HTTP APIs.

Returns `AwsApiGatewayV2ApiDetails` object

```
api_endpoint :Optional[NonEmptyString]
api_id :Optional[NonEmptyString]
api_key_selection_expression :Optional[NonEmptyString]
cors_configuration :Optional[AwsCorsConfiguration]
created_date :Optional[Iso8601Timestamp]
description :Optional[NonEmptyString]
name :Optional[NonEmptyString]
protocol_type :Optional[NonEmptyString]
route_selection_expression :Optional[NonEmptyString]
version :Optional[NonEmptyString]
```

class `asff.generated.AwsApiGatewayV2RouteSettings`

Bases: `asff.generated.ASFFBaseModel`



Contains route settings for a stage.

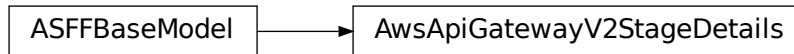
Parameters

- **detailed_metrics_enabled** – Indicates whether detailed metrics are enabled.
- **logging_level** – The logging level. The logging level affects the log entries that are pushed to CloudWatch Logs. Supported only for WebSocket APIs. If the logging level is `ERROR`, then the logs only include error-level entries. If the logging level is `INFO`, then the logs include both `ERROR` events and extra informational events. Valid values: `OFF` | `ERROR` | `INFO`
- **data_trace_enabled** – Indicates whether data trace logging is enabled. Data trace logging affects the log entries that are pushed to CloudWatch Logs. Supported only for WebSocket APIs.
- **throttling_burst_limit** – The throttling burst limit.
- **throttling_rate_limit** – The throttling rate limit.

Returns `AwsApiGatewayV2RouteSettings` object

```
data_trace_enabled :Optional[Boolean]
```

```
    detailed_metrics_enabled :Optional[Boolean]
    logging_level :Optional[NonEmptyString]
    throttling_burst_limit :Optional[Integer]
    throttling_rate_limit :Optional[Double]
class asff.generated.AwsApiGatewayV2StageDetails
    Bases: asff.generated.ASFFBaseModel
```



Contains information about a version 2 stage for Amazon API Gateway.

Parameters

- **created_date** – Indicates when the stage was created. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **description** – The description of the stage.
- **default_route_settings** – Default route settings for the stage.
- **deployment_id** – The identifier of the deployment that the stage is associated with.
- **last_updated_date** – Indicates when the stage was most recently updated. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **route_settings** – The route settings for the stage.
- **stage_name** – The name of the stage.
- **stage_variables** – A map that defines the stage variables for the stage. Variable names can have alphanumeric and underscore characters. Variable values can contain the following characters: Uppercase and lowercase letters Numbers Special characters `-. _ ~ : / ? # & =`,
- **access_log_settings** – Information about settings for logging access for the stage.
- **auto_deploy** – Indicates whether updates to an API automatically trigger a new deployment.
- **last_deployment_status_message** – The status of the last deployment of a stage. Supported only if the stage has automatic deployment enabled.
- **api_gateway_managed** – Indicates whether the stage is managed by API Gateway.

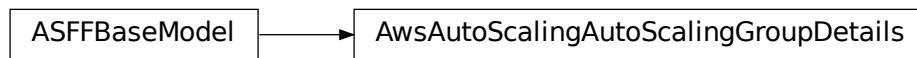
Returns `AwsApiGatewayV2StageDetails` object

```
access_log_settings :Optional[AwsApiGatewayAccessLogSettings]
api_gateway_managed :Optional[Boolean]
auto_deploy :Optional[Boolean]
created_date :Optional[Iso8601Timestamp]
```

```

    default_route_settings :Optional[AwsApiGatewayV2RouteSettings]
    deployment_id :Optional[NonEmptyString]
    description :Optional[NonEmptyString]
    last_deployment_status_message :Optional[NonEmptyString]
    last_updated_date :Optional[NonEmptyString]
    route_settings :Optional[AwsApiGatewayV2RouteSettings]
    stage_name :Optional[NonEmptyString]
    stage_variables :Optional[FieldMap]
class asff.generated.AwsAutoScalingAutoScalingGroupDetails
    Bases: asff.generated.ASFFBaseModel

```



Provides details about an auto scaling group.

Parameters

- **launch_configuration_name** – The name of the launch configuration.
- **load_balancer_names** – The list of load balancers associated with the group.
- **health_check_type** – The service to use for the health checks.
- **health_check_grace_period** – The amount of time, in seconds, that Amazon EC2 Auto Scaling waits before it checks the health status of an EC2 instance that has come into service.
- **created_time** – Indicates when the auto scaling group was created. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.

Returns AwsAutoScalingAutoScalingGroupDetails object

```

    created_time :Optional[Iso8601Timestamp]
    health_check_grace_period :Optional[Integer]
    health_check_type :Optional[NonEmptyString]
    launch_configuration_name :Optional[NonEmptyString]
    load_balancer_names :Optional[StringList]
class asff.generated.AwsCertificateManagerCertificateDetails
    Bases: asff.generated.ASFFBaseModel

```



Provides details about an AWS Certificate Manager certificate.

Parameters

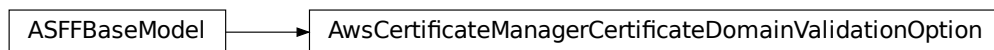
- **certificate_authority_arn** – The ARN of the private certificate authority (CA) that will be used to issue the certificate.
- **created_at** – Indicates when the certificate was requested. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **domain_name** – The fully qualified domain name (FQDN), such as www.example.com, that is secured by the certificate.
- **domain_validation_options** – Contains information about the initial validation of each domain name that occurs as a result of the RequestCertificate request. Only provided if the certificate type is AMAZON_ISSUED.
- **extended_key_usages** – Contains a list of Extended Key Usage X.509 v3 extension objects. Each object specifies a purpose for which the certificate public key can be used and consists of a name and an object identifier (OID).
- **failure_reason** – For a failed certificate request, the reason for the failure. Valid values: NO_AVAILABLE_CONTACTS | ADDITIONAL_VERIFICATION_REQUIRED | DOMAIN_NOT_ALLOWED | INVALID_PUBLIC_DOMAIN | DOMAIN_VALIDATION_DENIED | CAA_ERROR | PCA_LIMIT_EXCEEDED | PCA_INVALID_ARN | PCA_INVALID_STATE | PCA_REQUEST_FAILED | PCA_NAME_CONSTRAINTS_VALIDATION | PCA_RESOURCE_NOT_FOUND | PCA_INVALID_ARGS | PCA_INVALID_DURATION | PCA_ACCESS_DENIED | SLR_NOT_FOUND | OTHER
- **imported_at** – Indicates when the certificate was imported. Provided if the certificate type is IMPORTED. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **in_use_by** – The list of ARNs for the AWS resources that use the certificate.
- **issued_at** – Indicates when the certificate was issued. Provided if the certificate type is AMAZON_ISSUED. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **issuer** – The name of the certificate authority that issued and signed the certificate.
- **key_algorithm** – The algorithm that was used to generate the public-private key pair. Valid values: RSA_2048 | RSA_1024 | RSA_4096 | EC_prime256v1 | EC_secp384r1 | EC_secp521r1
- **key_usages** – A list of key usage X.509 v3 extension objects.

- **not_after** – The time after which the certificate becomes invalid. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **not_before** – The time before which the certificate is not valid. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **options** – Provides a value that specifies whether to add the certificate to a transparency log.
- **renewal_eligibility** – Whether the certificate is eligible for renewal. Valid values: ELIGIBLE | INELIGIBLE
- **renewal_summary** – Information about the status of the AWS Certificate Manager managed renewal for the certificate. Provided only when the certificate type is AMAZON_ISSUED.
- **serial** – The serial number of the certificate.
- **signature_algorithm** – The algorithm that was used to sign the certificate.
- **status** – The status of the certificate. Valid values: PENDING_VALIDATION | ISSUED | INACTIVE | EXPIRED | VALIDATION_TIMED_OUT | REVOKED | FAILED
- **subject** – The name of the entity that is associated with the public key contained in the certificate.
- **subject_alternative_names** – One or more domain names (subject alternative names) included in the certificate. This list contains the domain names that are bound to the public key that is contained in the certificate. The subject alternative names include the canonical domain name (CN) of the certificate and additional domain names that can be used to connect to the website.
- **type** – The source of the certificate. For certificates that AWS Certificate Manager provides, Type is AMAZON_ISSUED. For certificates that are imported with ImportCertificate, Type is IMPORTED. Valid values: IMPORTED | AMAZON_ISSUED | PRIVATE

Returns AwsCertificateManagerCertificateDetails object

```
certificate_authority_arn :Optional[NonEmptyString]
created_at :Optional[Iso8601Timestamp]
domain_name :Optional[NonEmptyString]
domain_validation_options :Optional[AwsCertificateManagerCertificateDomainValidationOptions]
extended_key_usages :Optional[AwsCertificateManagerCertificateExtendedKeyUsages]
failure_reason :Optional[NonEmptyString]
imported_at :Optional[NonEmptyString]
in_use_by :Optional[StringList]
issued_at :Optional[NonEmptyString]
issuer :Optional[NonEmptyString]
key_algorithm :Optional[NonEmptyString]
key_usages :Optional[AwsCertificateManagerCertificateKeyUsages]
not_after :Optional[NonEmptyString]
```

```
not_before :Optional[NonEmptyString]
options :Optional[AwsCertificateManagerCertificateOptions]
renewal_eligibility :Optional[NonEmptyString]
renewal_summary :Optional[AwsCertificateManagerCertificateRenewalSummary]
serial :Optional[NonEmptyString]
signature_algorithm :Optional[NonEmptyString]
status :Optional[NonEmptyString]
subject :Optional[NonEmptyString]
subject_alternative_names :Optional[StringList]
type :Optional[NonEmptyString]
class asff.generated.AwsCertificateManagerCertificateDomainValidationOption
  Bases: asff.generated.ASFFBaseModel
```



Contains information about one of the following: The initial validation of each domain name that occurs as a result of the RequestCertificate request The validation of each domain name in the certificate, as it pertains to AWS Certificate Manager managed renewal

Parameters

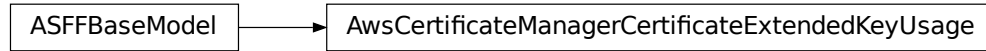
- **domain_name** – A fully qualified domain name (FQDN) in the certificate.
- **resource_record** – The CNAME record that is added to the DNS database for domain validation.
- **validation_domain** – The domain name that AWS Certificate Manager uses to send domain validation emails.
- **validation_emails** – A list of email addresses that AWS Certificate Manager uses to send domain validation emails.
- **validation_method** – The method used to validate the domain name.
- **validation_status** – The validation status of the domain name.

Returns `AwsCertificateManagerCertificateDomainValidationOption` object

```
domain_name :Optional[NonEmptyString]
resource_record :Optional[AwsCertificateManagerCertificateResourceRecord]
validation_domain :Optional[NonEmptyString]
validation_emails :Optional[StringList]
validation_method :Optional[NonEmptyString]
validation_status :Optional[NonEmptyString]
```



```
class asff.generated.AwsCertificateManagerCertificateExtendedKeyUsage
    Bases: asff.generated.ASFFBaseModel
```



Contains information about an extended key usage X.509 v3 extension object.

Parameters

- **name** – The name of an extension value. Indicates the purpose for which the certificate public key can be used.
- **o_id** – An object identifier (OID) for the extension value. The format is numbers separated by periods.

Returns AwsCertificateManagerCertificateExtendedKeyUsage object

name :Optional[NonEmptyString]

o_id :Optional[NonEmptyString]

```
class asff.generated.AwsCertificateManagerCertificateKeyUsage
    Bases: asff.generated.ASFFBaseModel
```



Contains information about a key usage X.509 v3 extension object.

Parameters **name** – The key usage extension name.

Returns AwsCertificateManagerCertificateKeyUsage object

name :Optional[NonEmptyString]

```
class asff.generated.AwsCertificateManagerCertificateOptions
    Bases: asff.generated.ASFFBaseModel
```



Contains other options for the certificate.

Parameters `certificate_transparency_logging_preference` – Whether to add the certificate to a transparency log. Valid values: DISABLED | ENABLED

Returns `AwsCertificateManagerCertificateOptions` object

`certificate_transparency_logging_preference` :Optional[NonEmptyString]

class `asff.generated.AwsCertificateManagerCertificateRenewalSummary`

Bases: `asff.generated.ASFFBaseModel`



Contains information about the AWS Certificate Manager managed renewal for an AMAZON_ISSUED certificate.

Parameters

- **domain_validation_options** – Information about the validation of each domain name in the certificate, as it pertains to AWS Certificate Manager managed renewal. Provided only when the certificate type is AMAZON_ISSUED.
- **renewal_status** – The status of the AWS Certificate Manager managed renewal of the certificate. Valid values: PENDING_AUTO_RENEWAL | PENDING_VALIDATION | SUCCESS | FAILED
- **renewal_status_reason** – The reason that a renewal request was unsuccessful. Valid values: NO_AVAILABLE_CONTACTS | ADDITIONAL_VERIFICATION_REQUIRED | DOMAIN_NOT_ALLOWED | INVALID_PUBLIC_DOMAIN | DOMAIN_VALIDATION_DENIED | CAA_ERROR | PCA_LIMIT_EXCEEDED | PCA_INVALID_ARN | PCA_INVALID_STATE | PCA_REQUEST_FAILED | PCA_NAME_CONSTRAINTS_VALIDATION | PCA_RESOURCE_NOT_FOUND | PCA_INVALID_ARGS | PCA_INVALID_DURATION | PCA_ACCESS_DENIED | SLR_NOT_FOUND | OTHER
- **updated_at** – Indicates when the renewal summary was last updated. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.

Returns `AwsCertificateManagerCertificateRenewalSummary` object

`domain_validation_options` :Optional[AwsCertificateManagerCertificateDomainValidationOptions]

`renewal_status` :Optional[NonEmptyString]

`renewal_status_reason` :Optional[NonEmptyString]

`updated_at` :Optional[Iso8601Timestamp]

class `asff.generated.AwsCertificateManagerCertificateResourceRecord`

Bases: `asff.generated.ASFFBaseModel`



Provides details about the CNAME record that is added to the DNS database for domain validation.

Parameters

- **name** – The name of the resource.
- **type** – The type of resource.
- **value** – The value of the resource.

Returns `AwsCertificateManagerCertificateResourceRecord` object

name : `Optional[NonEmptyString]`

type : `Optional[NonEmptyString]`

value : `Optional[NonEmptyString]`

class `asff.generated.AwsCloudFrontDistributionCacheBehavior`

Bases: `asff.generated.ASFFBaseModel`



Information about a cache behavior for the distribution.

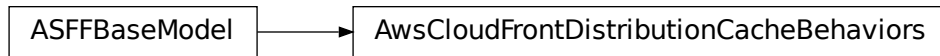
Parameters **viewer_protocol_policy** – The protocol that viewers can use to access the files in an origin. You can specify the following options: `allow-all` - Viewers can use HTTP or HTTPS. `redirect-to-https` - CloudFront responds to HTTP requests with an HTTP status code of 301 (Moved Permanently) and the HTTPS URL. The viewer then uses the new URL to resubmit. `https-only` - CloudFront responds to HTTP request with an HTTP status code of 403 (Forbidden).

Returns `AwsCloudFrontDistributionCacheBehavior` object

viewer_protocol_policy : `Optional[NonEmptyString]`

class `asff.generated.AwsCloudFrontDistributionCacheBehaviors`

Bases: `asff.generated.ASFFBaseModel`



Provides information about caching for the distribution.

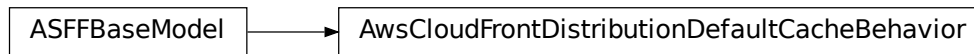
Parameters **items** – The cache behaviors for the distribution.

Returns `AwsCloudFrontDistributionCacheBehaviors` object

items : `Optional[AwsCloudFrontDistributionCacheBehaviorsItemList]`

class `asff.generated.AwsCloudFrontDistributionDefaultCacheBehavior`

Bases: `asff.generated.ASFFBaseModel`



Contains information about the default cache configuration for the distribution.

Parameters **viewer_protocol_policy** – The protocol that viewers can use to access the files in an origin. You can specify the following options: `allow-all` - Viewers can use HTTP or HTTPS. `redirect-to-https` - CloudFront responds to HTTP requests with an HTTP status code of 301 (Moved Permanently) and the HTTPS URL. The viewer then uses the new URL to resubmit. `https-only` - CloudFront responds to HTTP request with an HTTP status code of 403 (Forbidden).

Returns `AwsCloudFrontDistributionDefaultCacheBehavior` object

viewer_protocol_policy : `Optional[NonEmptyString]`

class `asff.generated.AwsCloudFrontDistributionDetails`

Bases: `asff.generated.ASFFBaseModel`



A distribution configuration.

Parameters

- **cache_behaviors** – Provides information about the cache configuration for the distribution.
- **default_cache_behavior** – The default cache behavior for the configuration.

- **default_root_object** – The object that CloudFront sends in response to requests from the origin (for example, index.html) when a viewer requests the root URL for the distribution (<http://www.example.com>) instead of an object in your distribution (<http://www.example.com/product-description.html>).
- **domain_name** – The domain name corresponding to the distribution.
- **e_tag** – The entity tag is a hash of the object.
- **last_modified_time** – Indicates when that the distribution was last modified. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **logging** – A complex type that controls whether access logs are written for the distribution.
- **origins** – A complex type that contains information about origins for this distribution.
- **origin_groups** – Provides information about the origin groups in the distribution.
- **status** – Indicates the current status of the distribution.
- **web_acl_id** – A unique identifier that specifies the AWS WAF web ACL, if any, to associate with this distribution.

Returns AwsCloudFrontDistributionDetails object

```

cache_behaviors :Optional[AwsCloudFrontDistributionCacheBehaviors]
default_cache_behavior :Optional[AwsCloudFrontDistributionDefaultCacheBehavior]
default_root_object :Optional[NonEmptyString]
domain_name :Optional[NonEmptyString]
e_tag :Optional[NonEmptyString]
last_modified_time :Optional[Iso8601Timestamp]
logging :Optional[AwsCloudFrontDistributionLogging]
origin_groups :Optional[AwsCloudFrontDistributionOriginGroups]
origins :Optional[AwsCloudFrontDistributionOrigins]
status :Optional[NonEmptyString]
web_acl_id :Optional[NonEmptyString]

class asff.generated.AwsCloudFrontDistributionLogging
    Bases: asff.generated.ASFFBaseModel

```



A complex type that controls whether access logs are written for the distribution.

Parameters

- **bucket** – The Amazon S3 bucket to store the access logs in.

- **enabled** – With this field, you can enable or disable the selected distribution.
- **include_cookies** – Specifies whether you want CloudFront to include cookies in access logs.
- **prefix** – An optional string that you want CloudFront to use as a prefix to the access log filenames for this distribution.

Returns `AwsCloudFrontDistributionLogging` object

bucket :`Optional[NonEmptyString]`

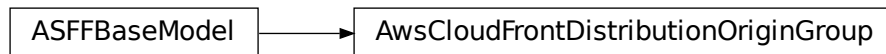
enabled :`Optional[Boolean]`

include_cookies :`Optional[Boolean]`

prefix :`Optional[NonEmptyString]`

class `asff.generated.AwsCloudFrontDistributionOriginGroup`

Bases: `asff.generated.ASFFBaseModel`



Information about an origin group for the distribution.

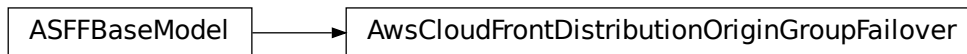
Parameters **failover_criteria** – Provides the criteria for an origin group to fail over.

Returns `AwsCloudFrontDistributionOriginGroup` object

failover_criteria :`Optional[AwsCloudFrontDistributionOriginGroupFailover]`

class `asff.generated.AwsCloudFrontDistributionOriginGroupFailover`

Bases: `asff.generated.ASFFBaseModel`



Provides information about when an origin group fails over.

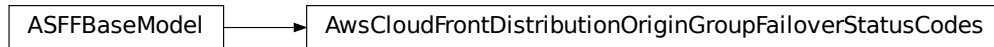
Parameters **status_codes** – Information about the status codes that cause an origin group to fail over.

Returns `AwsCloudFrontDistributionOriginGroupFailover` object

status_codes :`Optional[AwsCloudFrontDistributionOriginGroupFailoverStatusCodes]`

class `asff.generated.AwsCloudFrontDistributionOriginGroupFailoverStatusCodes`

Bases: `asff.generated.ASFFBaseModel`



The status codes that cause an origin group to fail over.

Parameters

- **items** – The list of status code values that can cause a failover to the next origin.
- **quantity** – The number of status codes that can cause a failover.

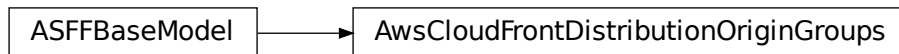
Returns AwsCloudFrontDistributionOriginGroupFailoverStatusCodes object

items :Optional[AwsCloudFrontDistributionOriginGroupFailoverStatusCodesItemList]

quantity :Optional[Integer]

class asff.generated.AwsCloudFrontDistributionOriginGroups

Bases: *asff.generated.ASFFBaseModel*



Provides information about origin groups that are associated with the distribution.

Parameters **items** – The list of origin groups.

Returns AwsCloudFrontDistributionOriginGroups object

items :Optional[AwsCloudFrontDistributionOriginGroupsItemList]

class asff.generated.AwsCloudFrontDistributionOriginItem

Bases: *asff.generated.ASFFBaseModel*



A complex type that describes the Amazon S3 bucket, HTTP server (for example, a web server), Amazon Elemental MediaStore, or other server from which CloudFront gets your files.

Parameters

- **domain_name** – Amazon S3 origins: The DNS name of the Amazon S3 bucket from which you want CloudFront to get objects for this origin.

- **id** – A unique identifier for the origin or origin group.
- **origin_path** – An optional element that causes CloudFront to request your content from a directory in your Amazon S3 bucket or your custom origin.
- **s3_origin_config** – An origin that is an S3 bucket that is not configured with static website hosting.

Returns `AwsCloudFrontDistributionOriginItem` object

domain_name : `Optional[NonEmptyString]`

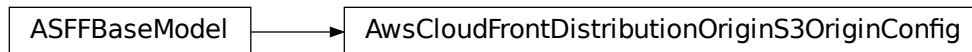
id : `Optional[NonEmptyString]`

origin_path : `Optional[NonEmptyString]`

s3_origin_config : `Optional[AwsCloudFrontDistributionOriginS3OriginConfig]`

class `asff.generated.AwsCloudFrontDistributionOriginS3OriginConfig`

Bases: `asff.generated.ASFFBaseModel`



Information about an origin that is an S3 bucket that is not configured with static website hosting.

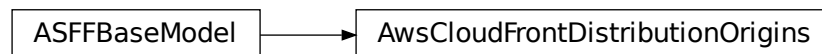
Parameters **origin_access_identity** – The CloudFront origin access identity to associate with the origin.

Returns `AwsCloudFrontDistributionOriginS3OriginConfig` object

origin_access_identity : `Optional[NonEmptyString]`

class `asff.generated.AwsCloudFrontDistributionOrigins`

Bases: `asff.generated.ASFFBaseModel`



A complex type that contains information about origins and origin groups for this distribution.

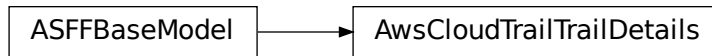
Parameters **items** – A complex type that contains origins or origin groups for this distribution.

Returns `AwsCloudFrontDistributionOrigins` object

items : `Optional[AwsCloudFrontDistributionOriginItemList]`

class `asff.generated.AwsCloudTrailTrailDetails`

Bases: `asff.generated.ASFFBaseModel`



Provides details about a CloudTrail trail.

Parameters

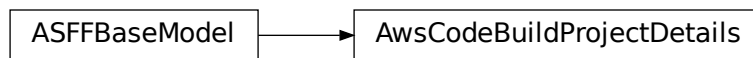
- **cloud_watch_logs_log_group_arn** – The ARN of the log group that CloudTrail logs are delivered to.
- **cloud_watch_logs_role_arn** – The ARN of the role that the CloudWatch Logs endpoint assumes when it writes to the log group.
- **has_custom_event_selectors** – Indicates whether the trail has custom event selectors.
- **home_region** – The Region where the trail was created.
- **include_global_service_events** – Indicates whether the trail publishes events from global services such as IAM to the log files.
- **is_multi_region_trail** – Indicates whether the trail applies only to the current Region or to all Regions.
- **is_organization_trail** – Whether the trail is created for all accounts in an organization in AWS Organizations, or only for the current AWS account.
- **kms_key_id** – The AWS KMS key ID to use to encrypt the logs.
- **log_file_validation_enabled** – Indicates whether CloudTrail log file validation is enabled.
- **name** – The name of the trail.
- **s3_bucket_name** – The name of the S3 bucket where the log files are published.
- **s3_key_prefix** – The S3 key prefix. The key prefix is added after the name of the S3 bucket where the log files are published.
- **sns_topic_arn** – The ARN of the SNS topic that is used for notifications of log file delivery.
- **sns_topic_name** – The name of the SNS topic that is used for notifications of log file delivery.
- **trail_arn** – The ARN of the trail.

Returns AwsCloudTrailTrailDetails object

```

cloud_watch_logs_log_group_arn :Optional[NonEmptyString]
cloud_watch_logs_role_arn :Optional[NonEmptyString]
has_custom_event_selectors :Optional[Boolean]
home_region :Optional[NonEmptyString]
include_global_service_events :Optional[Boolean]
  
```

```
is_multi_region_trail :Optional[Boolean]
is_organization_trail :Optional[Boolean]
kms_key_id :Optional[NonEmptyString]
log_file_validation_enabled :Optional[Boolean]
name :Optional[NonEmptyString]
s3_bucket_name :Optional[NonEmptyString]
s3_key_prefix :Optional[NonEmptyString]
sns_topic_arn :Optional[NonEmptyString]
sns_topic_name :Optional[NonEmptyString]
trail_arn :Optional[NonEmptyString]
class asff.generated.AwsCodeBuildProjectDetails
  Bases: asff.generated.ASFFBaseModel
```



Information about an AWS CodeBuild project.

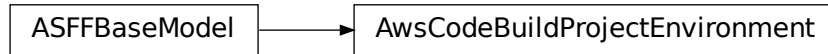
Parameters

- **encryption_key** – The AWS Key Management Service (AWS KMS) customer master key (CMK) used to encrypt the build output artifacts. You can specify either the Amazon Resource Name (ARN) of the CMK or, if available, the CMK alias (using the format alias/alias-name).
- **environment** – Information about the build environment for this build project.
- **name** – The name of the build project.
- **source** – Information about the build input source code for this build project.
- **service_role** – The ARN of the IAM role that enables AWS CodeBuild to interact with dependent AWS services on behalf of the AWS account.
- **vpc_config** – Information about the VPC configuration that AWS CodeBuild accesses.

Returns `AwsCodeBuildProjectDetails` object

```
encryption_key :Optional[NonEmptyString]
environment :Optional[AwsCodeBuildProjectEnvironment]
name :Optional[NonEmptyString]
service_role :Optional[NonEmptyString]
source :Optional[AwsCodeBuildProjectSource]
vpc_config :Optional[AwsCodeBuildProjectVpcConfig]
```

```
class asff.generated.AwsCodeBuildProjectEnvironment
    Bases: asff.generated.ASFFBaseModel
```



Information about the build environment for this build project.

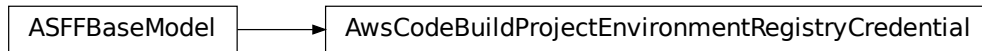
Parameters

- **certificate** – The certificate to use with this build project.
- **image_pull_credentials_type** – The type of credentials AWS CodeBuild uses to pull images in your build. Valid values: CODEBUILD specifies that AWS CodeBuild uses its own credentials. This requires that you modify your ECR repository policy to trust the AWS CodeBuild service principal. SERVICE_ROLE specifies that AWS CodeBuild uses your build project's service role. When you use a cross-account or private registry image, you must use SERVICE_ROLE credentials. When you use an AWS CodeBuild curated image, you must use CODEBUILD credentials.
- **registry_credential** – The credentials for access to a private registry.
- **type** – The type of build environment to use for related builds. The environment type ARM_CONTAINER is available only in Regions US East (N. Virginia), US East (Ohio), US West (Oregon), Europe (Ireland), Asia Pacific (Mumbai), Asia Pacific (Tokyo), Asia Pacific (Sydney), and Europe (Frankfurt). The environment type LINUX_CONTAINER with compute type build.general1.2xlarge is available only in Regions US East (N. Virginia), US East (N. Virginia), US West (Oregon), Canada (Central), Europe (Ireland), Europe (London), Europe (Frankfurt), Asia Pacific (Tokyo), Asia Pacific (Seoul), Asia Pacific (Singapore), Asia Pacific (Sydney), China (Beijing), and China (Ningxia). The environment type LINUX_GPU_CONTAINER is available only in Regions US East (N. Virginia), US East (N. Virginia), US West (Oregon), Canada (Central), Europe (Ireland), Europe (London), Europe (Frankfurt), Asia Pacific (Tokyo), Asia Pacific (Seoul), Asia Pacific (Singapore), Asia Pacific (Sydney), China (Beijing), and China (Ningxia). Valid values: WINDOWS_CONTAINER | LINUX_CONTAINER | LINUX_GPU_CONTAINER | ARM_CONTAINER

Returns AwsCodeBuildProjectEnvironment object

```
certificate :Optional[NonEmptyString]
image_pull_credentials_type :Optional[NonEmptyString]
registry_credential :Optional[AwsCodeBuildProjectEnvironmentRegistryCredential]
type :Optional[NonEmptyString]
```

```
class asff.generated.AwsCodeBuildProjectEnvironmentRegistryCredential
    Bases: asff.generated.ASFFBaseModel
```



The credentials for access to a private registry.

Parameters

- **credential** – The Amazon Resource Name (ARN) or name of credentials created using AWS Secrets Manager. The credential can use the name of the credentials only if they exist in your current AWS Region.
- **credential_provider** – The service that created the credentials to access a private Docker registry. The valid value, SECRETS_MANAGER, is for AWS Secrets Manager.

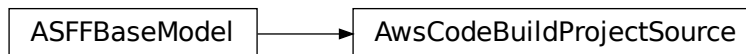
Returns AwsCodeBuildProjectEnvironmentRegistryCredential object

credential :Optional[NonEmptyString]

credential_provider :Optional[NonEmptyString]

class asff.generated.AwsCodeBuildProjectSource

Bases: *asff.generated.ASFFBaseModel*



Information about the build input source code for this build project.

Parameters

- **type** – The type of repository that contains the source code to be built. Valid values are: BITBUCKET - The source code is in a Bitbucket repository. CODECOMMIT - The source code is in an AWS CodeCommit repository. CODEPIPELINE - The source code settings are specified in the source action of a pipeline in AWS CodePipeline. GITHUB - The source code is in a GitHub repository. GITHUB_ENTERPRISE - The source code is in a GitHub Enterprise repository. NO_SOURCE - The project does not have input source code. S3 - The source code is in an S3 input bucket.
- **location** – Information about the location of the source code to be built. Valid values include: For source code settings that are specified in the source action of a pipeline in AWS CodePipeline, location should not be specified. If it is specified, AWS CodePipeline ignores it. This is because AWS CodePipeline uses the settings in a pipeline's source action instead of this value. For source code in an AWS CodeCommit repository, the HTTPS clone URL to the repository that contains the source code and the build spec file (for example, <https://git-codecommit.region-ID.amazonaws.com/v1/repos/repo-name>). For source code in an S3 input bucket, one of the following. The path to the ZIP file that contains the source code (for example, bucket-name/path/to/object-name.zip). The path to the folder that contains the source code (for example, bucket-name/path/to/source-code/folder/). For

source code in a GitHub repository, the HTTPS clone URL to the repository that contains the source and the build spec file. For source code in a Bitbucket repository, the HTTPS clone URL to the repository that contains the source and the build spec file.

- **git_clone_depth** – Information about the Git clone depth for the build project.
- **insecure_ssl** – Whether to ignore SSL warnings while connecting to the project source code.

Returns `AwsCodeBuildProjectSource` object

git_clone_depth : `Optional[Integer]`

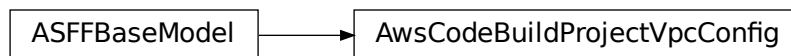
insecure_ssl : `Optional[Boolean]`

location : `Optional[NonEmptyString]`

type : `Optional[NonEmptyString]`

class `asff.generated.AwsCodeBuildProjectVpcConfig`

Bases: `asff.generated.ASFFBaseModel`



Information about the VPC configuration that AWS CodeBuild accesses.

Parameters

- **vpc_id** – The ID of the VPC.
- **subnets** – A list of one or more subnet IDs in your Amazon VPC.
- **security_group_ids** – A list of one or more security group IDs in your Amazon VPC.

Returns `AwsCodeBuildProjectVpcConfig` object

security_group_ids : `Optional[NonEmptyStringList]`

subnets : `Optional[NonEmptyStringList]`

vpc_id : `Optional[NonEmptyString]`

class `asff.generated.AwsCorsConfiguration`

Bases: `asff.generated.ASFFBaseModel`



Contains the cross-origin resource sharing (CORS) configuration for the API. CORS is only supported for HTTP APIs.

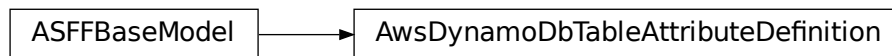
Parameters

- **allow_origins** – The allowed origins for CORS requests.
- **allow_credentials** – Indicates whether the CORS request includes credentials.
- **expose_headers** – The exposed headers for CORS requests.
- **max_age** – The number of seconds for which the browser caches preflight request results.
- **allow_methods** – The allowed methods for CORS requests.
- **allow_headers** – The allowed headers for CORS requests.

Returns `AwsCorsConfiguration` object

```
allow_credentials :Optional[Boolean]
allow_headers :Optional[NonEmptyStringList]
allow_methods :Optional[NonEmptyStringList]
allow_origins :Optional[NonEmptyStringList]
expose_headers :Optional[NonEmptyStringList]
max_age :Optional[Integer]
```

```
class asff.generated.AwsDynamoDbTableAttributeDefinition
    Bases: asff.generated.ASFFBaseModel
```



Contains a definition of an attribute for the table.

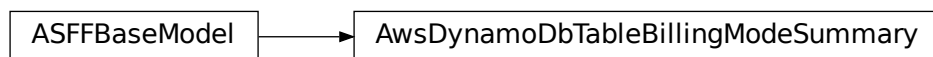
Parameters

- **attribute_name** – The name of the attribute.
- **attribute_type** – The type of the attribute.

Returns `AwsDynamoDbTableAttributeDefinition` object

```
attribute_name :Optional[NonEmptyString]
attribute_type :Optional[NonEmptyString]
```

```
class asff.generated.AwsDynamoDbTableBillingModeSummary
    Bases: asff.generated.ASFFBaseModel
```



Provides information about the billing for read/write capacity on the table.

Parameters

- **billing_mode** – The method used to charge for read and write throughput and to manage capacity.
- **last_update_to_pay_per_request_date_time** – If the billing mode is PAY_PER_REQUEST, indicates when the billing mode was set to that value. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.

Returns AwsDynamoDbTableBillingModeSummary object

billing_mode :Optional[NonEmptyString]

last_update_to_pay_per_request_date_time :Optional[Iso8601Timestamp]

class asff.generated.AwsDynamoDbTableDetails

Bases: *asff.generated.ASFFBaseModel*



Provides details about a DynamoDB table.

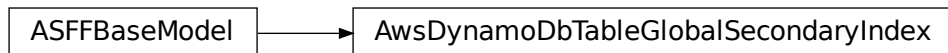
Parameters

- **attribute_definitions** – A list of attribute definitions for the table.
- **billing_mode_summary** – Information about the billing for read/write capacity on the table.
- **creation_date_time** – Indicates when the table was created. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **global_secondary_indexes** – List of global secondary indexes for the table.
- **global_table_version** – The version of global tables being used.
- **item_count** – The number of items in the table.
- **key_schema** – The primary key structure for the table.
- **latest_stream_arn** – The ARN of the latest stream for the table.
- **latest_stream_label** – The label of the latest stream. The label is not a unique identifier.
- **local_secondary_indexes** – The list of local secondary indexes for the table.
- **provisioned_throughput** – Information about the provisioned throughput for the table.
- **replicas** – The list of replicas of this table.
- **restore_summary** – Information about the restore for the table.

- **sse_description** – Information about the server-side encryption for the table.
- **stream_specification** – The current DynamoDB Streams configuration for the table.
- **table_id** – The identifier of the table.
- **table_name** – The name of the table.
- **table_size_bytes** – The total size of the table in bytes.
- **table_status** – The current status of the table.

Returns `AwsDynamoDbTableDetails` object

```
attribute_definitions :Optional[AwsDynamoDbTableAttributeDefinitionList]
billing_mode_summary :Optional[AwsDynamoDbTableBillingModeSummary]
creation_date_time :Optional[Iso8601Timestamp]
global_secondary_indexes :Optional[AwsDynamoDbTableGlobalSecondaryIndexList]
global_table_version :Optional[NonEmptyString]
item_count :Optional[Integer]
key_schema :Optional[AwsDynamoDbTableKeySchemaList]
latest_stream_arn :Optional[NonEmptyString]
latest_stream_label :Optional[NonEmptyString]
local_secondary_indexes :Optional[AwsDynamoDbTableLocalSecondaryIndexList]
provisioned_throughput :Optional[AwsDynamoDbTableProvisionedThroughput]
replicas :Optional[AwsDynamoDbTableReplicaList]
restore_summary :Optional[AwsDynamoDbTableRestoreSummary]
sse_description :Optional[AwsDynamoDbTableSseDescription]
stream_specification :Optional[AwsDynamoDbTableStreamSpecification]
table_id :Optional[NonEmptyString]
table_name :Optional[NonEmptyString]
table_size_bytes :Optional[SizeBytes]
table_status :Optional[NonEmptyString]
class asff.generated.AwsDynamoDbTableGlobalSecondaryIndex
    Bases: asff.generated.ASFFBaseModel
```



Information about a global secondary index for the table.

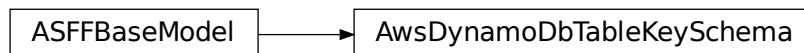
Parameters

- **backfilling** – Whether the index is currently backfilling.
- **index_arn** – The ARN of the index.
- **index_name** – The name of the index.
- **index_size_bytes** – The total size in bytes of the index.
- **index_status** – The current status of the index.
- **item_count** – The number of items in the index.
- **key_schema** – The key schema for the index.
- **projection** – Attributes that are copied from the table into an index.
- **provisioned_throughput** – Information about the provisioned throughput settings for the indexes.

Returns AwsDynamoDbTableGlobalSecondaryIndex object

```
backfilling :Optional[Boolean]
index_arn :Optional[NonEmptyString]
index_name :Optional[NonEmptyString]
index_size_bytes :Optional[SizeBytes]
index_status :Optional[NonEmptyString]
item_count :Optional[Integer]
key_schema :Optional[AwsDynamoDbTableKeySchemaList]
projection :Optional[AwsDynamoDbTableProjection]
provisioned_throughput :Optional[AwsDynamoDbTableProvisionedThroughput]
```

class asff.generated.AwsDynamoDbTableKeySchema
 Bases: *asff.generated.ASFFBaseModel*



A component of the key schema for the DynamoDB table, a global secondary index, or a local secondary index.

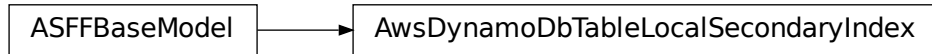
Parameters

- **attribute_name** – The name of the key schema attribute.
- **key_type** – The type of key used for the key schema attribute.

Returns AwsDynamoDbTableKeySchema object

```
attribute_name :Optional[NonEmptyString]
key_type :Optional[NonEmptyString]
```

```
class asff.generated.AwsDynamoDbTableLocalSecondaryIndex
    Bases: asff.generated.ASFFBaseModel
```



Information about a local secondary index for a DynamoDB table.

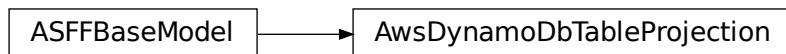
Parameters

- **index_arn** – The ARN of the index.
- **index_name** – The name of the index.
- **key_schema** – The complete key schema for the index.
- **projection** – Attributes that are copied from the table into the index. These are in addition to the primary key attributes and index key attributes, which are automatically projected.

Returns `AwsDynamoDbTableLocalSecondaryIndex` object

```
index_arn :Optional[NonEmptyString]
index_name :Optional[NonEmptyString]
key_schema :Optional[AwsDynamoDbTableKeySchemaList]
projection :Optional[AwsDynamoDbTableProjection]
```

```
class asff.generated.AwsDynamoDbTableProjection
    Bases: asff.generated.ASFFBaseModel
```



For global and local secondary indexes, identifies the attributes that are copied from the table into the index.

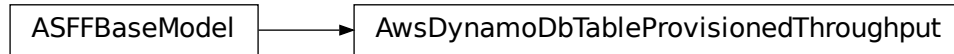
Parameters

- **non_key_attributes** – The nonkey attributes that are projected into the index. For each attribute, provide the attribute name.
- **projection_type** – The types of attributes that are projected into the index.

Returns `AwsDynamoDbTableProjection` object

```
non_key_attributes :Optional[StringList]
projection_type :Optional[NonEmptyString]
```

```
class asff.generated.AwsDynamoDbTableProvisionedThroughput
    Bases: asff.generated.ASFFBaseModel
```



Information about the provisioned throughput for the table or for a global secondary index.

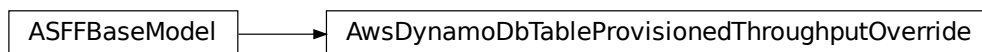
Parameters

- **last_decrease_date_time** – Indicates when the provisioned throughput was last decreased. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **last_increase_date_time** – Indicates when the provisioned throughput was last increased. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **number_of_decreases_today** – The number of times during the current UTC calendar day that the provisioned throughput was decreased.
- **read_capacity_units** – The maximum number of strongly consistent reads consumed per second before DynamoDB returns a `ThrottlingException`.
- **write_capacity_units** – The maximum number of writes consumed per second before DynamoDB returns a `ThrottlingException`.

Returns `AwsDynamoDbTableProvisionedThroughput` object

```
last_decrease_date_time :Optional[Iso8601Timestamp]
last_increase_date_time :Optional[Iso8601Timestamp]
number_of_decreases_today :Optional[Integer]
read_capacity_units :Optional[Integer]
write_capacity_units :Optional[Integer]
```

```
class asff.generated.AwsDynamoDbTableProvisionedThroughputOverride
    Bases: asff.generated.ASFFBaseModel
```



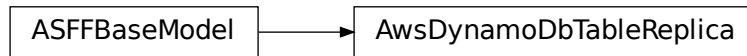
Replica-specific configuration for the provisioned throughput.

Parameters **read_capacity_units** – The read capacity units for the replica.

Returns `AwsDynamoDbTableProvisionedThroughputOverride` object

```
read_capacity_units :Optional[Integer]
```

```
class asff.generated.AwsDynamoDbTableReplica
    Bases: asff.generated.ASFFBaseModel
```



Information about a replica of a DynamoDB table.

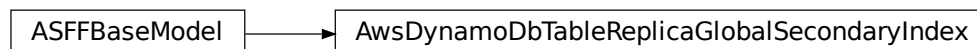
Parameters

- **global_secondary_indexes** – List of global secondary indexes for the replica.
- **kms_master_key_id** – The identifier of the AWS KMS customer master key (CMK) that will be used for AWS KMS encryption for the replica.
- **provisioned_throughput_override** – Replica-specific configuration for the provisioned throughput.
- **region_name** – The name of the Region where the replica is located.
- **replica_status** – The current status of the replica.
- **replica_status_description** – Detailed information about the replica status.

Returns `AwsDynamoDbTableReplica` object

```
global_secondary_indexes :Optional[AwsDynamoDbTableReplicaGlobalSecondaryIndexList]
kms_master_key_id :Optional[NonEmptyString]
provisioned_throughput_override :Optional[AwsDynamoDbTableProvisionedThroughputOverride]
region_name :Optional[NonEmptyString]
replica_status :Optional[NonEmptyString]
replica_status_description :Optional[NonEmptyString]
```

```
class asff.generated.AwsDynamoDbTableReplicaGlobalSecondaryIndex
    Bases: asff.generated.ASFFBaseModel
```



Information about a global secondary index for a DynamoDB table replica.

Parameters

- **index_name** – The name of the index.
- **provisioned_throughput_override** – Replica-specific configuration for the provisioned throughput for the index.

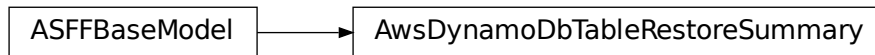
Returns AwsDynamoDbTableReplicaGlobalSecondaryIndex object

index_name :Optional[NonEmptyString]

provisioned_throughput_override :Optional[AwsDynamoDbTableProvisionedThroughputOverride]

class asff.generated.AwsDynamoDbTableRestoreSummary

Bases: *asff.generated.ASFFBaseModel*



Information about the restore for the table.

Parameters

- **source_backup_arn** – The ARN of the source backup from which the table was restored.
- **source_table_arn** – The ARN of the source table for the backup.
- **restore_date_time** – Indicates the point in time that the table was restored to. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **restore_in_progress** – Whether a restore is currently in progress.

Returns AwsDynamoDbTableRestoreSummary object

restore_date_time :Optional[Iso8601Timestamp]

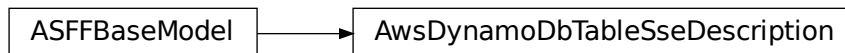
restore_in_progress :Optional[Boolean]

source_backup_arn :Optional[NonEmptyString]

source_table_arn :Optional[NonEmptyString]

class asff.generated.AwsDynamoDbTableSseDescription

Bases: *asff.generated.ASFFBaseModel*



Information about the server-side encryption for the table.

Parameters

- **inaccessible_encryption_date_time** – If the key is inaccessible, the date and time when DynamoDB detected that the key was inaccessible. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.

- **status** – The status of the server-side encryption.
- **sse_type** – The type of server-side encryption.
- **kms_master_key_arn** – The ARN of the AWS KMS customer master key (CMK) that is used for the AWS KMS encryption.

Returns `AwsDynamoDbTableSseDescription` object

inaccessible_encryption_date_time : `Optional[Iso8601Timestamp]`

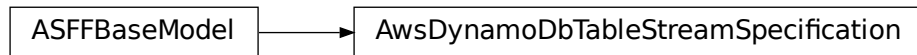
kms_master_key_arn : `Optional[NonEmptyString]`

sse_type : `Optional[NonEmptyString]`

status : `Optional[NonEmptyString]`

class `asff.generated.AwsDynamoDbTableStreamSpecification`

Bases: `asff.generated.ASFFBaseModel`



The current DynamoDB Streams configuration for the table.

Parameters

- **stream_enabled** – Indicates whether DynamoDB Streams is enabled on the table.
- **stream_view_type** – Determines the information that is written to the table.

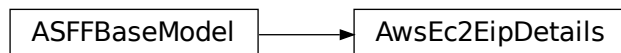
Returns `AwsDynamoDbTableStreamSpecification` object

stream_enabled : `Optional[Boolean]`

stream_view_type : `Optional[NonEmptyString]`

class `asff.generated.AwsEc2EipDetails`

Bases: `asff.generated.ASFFBaseModel`



Information about an Elastic IP address.

Parameters

- **instance_id** – The identifier of the EC2 instance.
- **public_ip** – A public IP address that is associated with the EC2 instance.

- **allocation_id** – The identifier that AWS assigns to represent the allocation of the Elastic IP address for use with Amazon VPC.
- **association_id** – The identifier that represents the association of the Elastic IP address with an EC2 instance.
- **domain** – The domain in which to allocate the address. If the address is for use with EC2 instances in a VPC, then Domain is vpc. Otherwise, Domain is standard.
- **public_ipv4_pool** – The identifier of an IP address pool. This parameter allows Amazon EC2 to select an IP address from the address pool.
- **network_border_group** – The name of the location from which the Elastic IP address is advertised.
- **network_interface_id** – The identifier of the network interface.
- **network_interface_owner_id** – The AWS account ID of the owner of the network interface.
- **private_ip_address** – The private IP address that is associated with the Elastic IP address.

Returns AwsEc2EipDetails object

```
allocation_id :Optional[NonEmptyString]
association_id :Optional[NonEmptyString]
domain :Optional[NonEmptyString]
instance_id :Optional[NonEmptyString]
network_border_group :Optional[NonEmptyString]
network_interface_id :Optional[NonEmptyString]
network_interface_owner_id :Optional[NonEmptyString]
private_ip_address :Optional[NonEmptyString]
public_ip :Optional[NonEmptyString]
public_ipv4_pool :Optional[NonEmptyString]
class asff.generated.AwsEc2InstanceDetails
    Bases: asff.generated.ASFFBaseModel
```



The details of an Amazon EC2 instance.

Parameters

- **type** – The instance type of the instance.
- **image_id** – The Amazon Machine Image (AMI) ID of the instance.
- **ip_v4_addresses** – The IPv4 addresses associated with the instance.

- **ip_v6_addresses** – The IPv6 addresses associated with the instance.
- **key_name** – The key name associated with the instance.
- **iam_instance_profile_arn** – The IAM profile ARN of the instance.
- **vpc_id** – The identifier of the VPC that the instance was launched in.
- **subnet_id** – The identifier of the subnet that the instance was launched in.
- **launched_at** – Indicates when the instance was launched. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.

Returns AwsEc2InstanceDetails object

```
iam_instance_profile_arn :Optional[NonEmptyString]
image_id :Optional[NonEmptyString]
ip_v4_addresses :Optional[StringList]
ip_v6_addresses :Optional[StringList]
key_name :Optional[NonEmptyString]
launched_at :Optional[Iso8601Timestamp]
subnet_id :Optional[NonEmptyString]
type :Optional[NonEmptyString]
vpc_id :Optional[NonEmptyString]
```

```
class asff.generated.AwsEc2NetworkInterfaceAttachment
    Bases: asff.generated.ASFFBaseModel
```



Information about the network interface attachment.

Parameters

- **attach_time** – Indicates when the attachment initiated. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **attachment_id** – The identifier of the network interface attachment
- **delete_on_termination** – Indicates whether the network interface is deleted when the instance is terminated.
- **device_index** – The device index of the network interface attachment on the instance.
- **instance_id** – The ID of the instance.
- **instance_owner_id** – The AWS account ID of the owner of the instance.
- **status** – The attachment state. Valid values: attaching | attached | detaching | detached

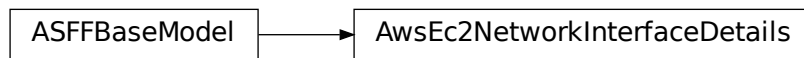
Returns `AwsEc2NetworkInterfaceAttachment` object

```

attach_time :Optional[Iso8601Timestamp]
attachment_id :Optional[NonEmptyString]
delete_on_termination :Optional[Boolean]
device_index :Optional[Integer]
instance_id :Optional[NonEmptyString]
instance_owner_id :Optional[NonEmptyString]
status :Optional[NonEmptyString]

```

class `asff.generated.AwsEc2NetworkInterfaceDetails`
 Bases: `asff.generated.ASFFBaseModel`



Details about the network interface

Parameters

- **attachment** – The network interface attachment.
- **network_interface_id** – The ID of the network interface.
- **security_groups** – Security groups for the network interface.
- **source_dest_check** – Indicates whether traffic to or from the instance is validated.
- **ip_v6_addresses** – The IPv6 addresses associated with the network interface.
- **private_ip_addresses** – The private IPv4 addresses associated with the network interface.
- **public_dns_name** – The public DNS name of the network interface.
- **public_ip** – The address of the Elastic IP address bound to the network interface.

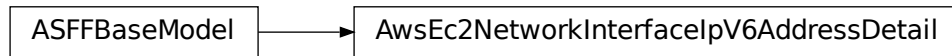
Returns `AwsEc2NetworkInterfaceDetails` object

```

attachment :Optional[AwsEc2NetworkInterfaceAttachment]
ip_v6_addresses :Optional[AwsEc2NetworkInterfaceIpV6AddressList]
network_interface_id :Optional[NonEmptyString]
private_ip_addresses :Optional[AwsEc2NetworkInterfacePrivateIpAddressList]
public_dns_name :Optional[NonEmptyString]
public_ip :Optional[NonEmptyString]
security_groups :Optional[AwsEc2NetworkInterfaceSecurityGroupList]
source_dest_check :Optional[Boolean]

```

```
class asff.generated.AwsEc2NetworkInterfaceIPv6AddressDetail
    Bases: asff.generated.ASFFBaseModel
```



Provides information about an IPV6 address that is associated with the network interface.

Parameters `ip_v6_address` – The IPV6 address.

Returns `AwsEc2NetworkInterfaceIPv6AddressDetail` object

`ip_v6_address` : `Optional[NonEmptyString]`

```
class asff.generated.AwsEc2NetworkInterfacePrivateIpAddressDetail
    Bases: asff.generated.ASFFBaseModel
```



Provides information about a private IPv4 address that is with the network interface.

Parameters

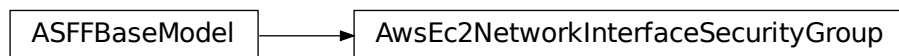
- `private_ip_address` – The IP address.
- `private_dns_name` – The private DNS name for the IP address.

Returns `AwsEc2NetworkInterfacePrivateIpAddressDetail` object

`private_dns_name` : `Optional[NonEmptyString]`

`private_ip_address` : `Optional[NonEmptyString]`

```
class asff.generated.AwsEc2NetworkInterfaceSecurityGroup
    Bases: asff.generated.ASFFBaseModel
```



A security group associated with the network interface.

Parameters

- **group_name** – The name of the security group.
- **group_id** – The ID of the security group.

Returns AwsEc2NetworkInterfaceSecurityGroup object

group_id :Optional[NonEmptyString]

group_name :Optional[NonEmptyString]

class asff.generated.AwsEc2SecurityGroupDetails

Bases: *asff.generated.ASFFBaseModel*



Details about an EC2 security group.

Parameters

- **group_name** – The name of the security group.
- **group_id** – The ID of the security group.
- **owner_id** – The AWS account ID of the owner of the security group.
- **vpc_id** – [VPC only] The ID of the VPC for the security group.
- **ip_permissions** – The inbound rules associated with the security group.
- **ip_permissions_egress** – [VPC only] The outbound rules associated with the security group.

Returns AwsEc2SecurityGroupDetails object

group_id :Optional[NonEmptyString]

group_name :Optional[NonEmptyString]

ip_permissions :Optional[AwsEc2SecurityGroupIpPermissionList]

ip_permissions_egress :Optional[AwsEc2SecurityGroupIpPermissionList]

owner_id :Optional[NonEmptyString]

vpc_id :Optional[NonEmptyString]

class asff.generated.AwsEc2SecurityGroupIpPermission

Bases: *asff.generated.ASFFBaseModel*



An IP permission for an EC2 security group.

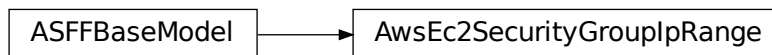
Parameters

- **ip_protocol** – The IP protocol name (tcp, udp, icmp, icmpv6) or number. [VPC only] Use -1 to specify all protocols. When authorizing security group rules, specifying -1 or a protocol number other than tcp, udp, icmp, or icmpv6 allows traffic on all ports, regardless of any port range you specify. For tcp, udp, and icmp, you must specify a port range. For icmpv6, the port range is optional. If you omit the port range, traffic for all types and codes is allowed.
- **from_port** – The start of the port range for the TCP and UDP protocols, or an ICMP/ICMPv6 type number. A value of -1 indicates all ICMP/ICMPv6 types. If you specify all ICMP/ICMPv6 types, you must specify all codes.
- **to_port** – The end of the port range for the TCP and UDP protocols, or an ICMP/ICMPv6 code. A value of -1 indicates all ICMP/ICMPv6 codes. If you specify all ICMP/ICMPv6 types, you must specify all codes.
- **user_id_group_pairs** – The security group and AWS account ID pairs.
- **ip_ranges** – The IPv4 ranges.
- **ipv6_ranges** – The IPv6 ranges.
- **prefix_list_ids** – [VPC only] The prefix list IDs for an AWS service. With outbound rules, this is the AWS service to access through a VPC endpoint from instances associated with the security group.

Returns AwsEc2SecurityGroupIpPermission object

```
from_port :Optional[Integer]
ip_protocol :Optional[NonEmptyString]
ip_ranges :Optional[AwsEc2SecurityGroupIpRangeList]
ipv6_ranges :Optional[AwsEc2SecurityGroupIpv6RangeList]
prefix_list_ids :Optional[AwsEc2SecurityGroupPrefixListIdList]
to_port :Optional[Integer]
user_id_group_pairs :Optional[AwsEc2SecurityGroupUserIdGroupPairList]

class asff.generated.AwsEc2SecurityGroupIpRange
    Bases: asff.generated.ASFFBaseModel
```



A range of IPv4 addresses.

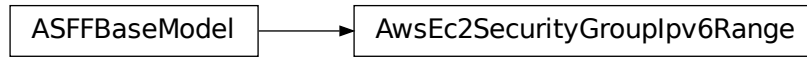
Parameters **cidr_ip** – The IPv4 CIDR range. You can specify either a CIDR range or a source security group, but not both. To specify a single IPv4 address, use the /32 prefix length.

Returns AwsEc2SecurityGroupIpRange object

```

    cidr_ip :Optional[NonEmptyString]
class asff.generated.AwsEc2SecurityGroupIpv6Range
    Bases: asff.generated.ASFFBaseModel

```



A range of IPv6 addresses.

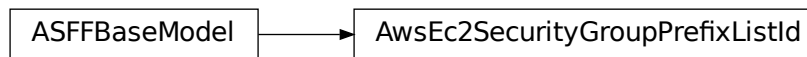
Parameters `cidr_ipv6` – The IPv6 CIDR range. You can specify either a CIDR range or a source security group, but not both. To specify a single IPv6 address, use the /128 prefix length.

Returns `AwsEc2SecurityGroupIpv6Range` object

```

    cidr_ipv6 :Optional[NonEmptyString]
class asff.generated.AwsEc2SecurityGroupPrefixListId
    Bases: asff.generated.ASFFBaseModel

```



A prefix list ID.

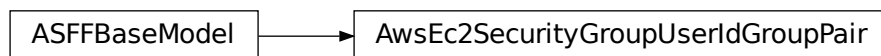
Parameters `prefix_list_id` – The ID of the prefix.

Returns `AwsEc2SecurityGroupPrefixListId` object

```

    prefix_list_id :Optional[NonEmptyString]
class asff.generated.AwsEc2SecurityGroupUserIdGroupPair
    Bases: asff.generated.ASFFBaseModel

```



A relationship between a security group and a user.

Parameters

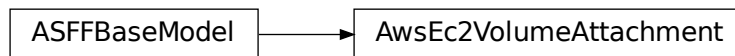
- `group_id` – The ID of the security group.

- **group_name** – The name of the security group.
- **peering_status** – The status of a VPC peering connection, if applicable.
- **user_id** – The ID of an AWS account. For a referenced security group in another VPC, the account ID of the referenced security group is returned in the response. If the referenced security group is deleted, this value is not returned. [EC2-Classic] Required when adding or removing rules that reference a security group in another AWS.
- **vpc_id** – The ID of the VPC for the referenced security group, if applicable.
- **vpc_peering_connection_id** – The ID of the VPC peering connection, if applicable.

Returns `AwsEc2SecurityGroupUserIdGroupPair` object

```
group_id :Optional[NonEmptyString]
group_name :Optional[NonEmptyString]
peering_status :Optional[NonEmptyString]
user_id :Optional[NonEmptyString]
vpc_id :Optional[NonEmptyString]
vpc_peering_connection_id :Optional[NonEmptyString]
```

```
class asff.generated.AwsEc2VolumeAttachment
    Bases: asff.generated.ASFFBaseModel
```



An attachment to an AWS EC2 volume.

Parameters

- **attach_time** – The datetime when the attachment initiated.
- **delete_on_termination** – Whether the EBS volume is deleted when the EC2 instance is terminated.
- **instance_id** – The identifier of the EC2 instance.
- **status** – The attachment state of the volume.

Returns `AwsEc2VolumeAttachment` object

```
attach_time :Optional[Iso8601Timestamp]
delete_on_termination :Optional[Boolean]
instance_id :Optional[NonEmptyString]
status :Optional[NonEmptyString]
```

```
class asff.generated.AwsEc2VolumeDetails
    Bases: asff.generated.ASFFBaseModel
```



Details about an EC2 volume.

Parameters

- **create_time** – Indicates when the volume was created. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **encrypted** – Whether the volume is encrypted.
- **size** – The size of the volume, in GiBs.
- **snapshot_id** – The snapshot from which the volume was created.
- **status** – The volume state.
- **kms_key_id** – The ARN of the AWS Key Management Service (AWS KMS) customer master key (CMK) that was used to protect the volume encryption key for the volume.
- **attachments** – The volume attachments.

Returns AwsEc2VolumeDetails object

attachments :Optional[AwsEc2VolumeAttachmentList]

create_time :Optional[Iso8601Timestamp]

encrypted :Optional[Boolean]

kms_key_id :Optional[NonEmptyString]

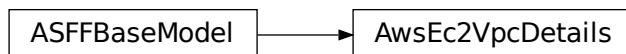
size :Optional[Integer]

snapshot_id :Optional[NonEmptyString]

status :Optional[NonEmptyString]

class asff.generated.AwsEc2VpcDetails

Bases: *asff.generated.ASFFBaseModel*



Details about an EC2 VPC.

Parameters

- **cidr_block_association_set** – Information about the IPv4 CIDR blocks associated with the VPC.

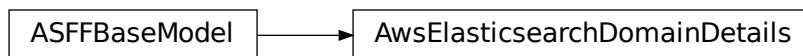
- **ipv6_cidr_block_association_set** – Information about the IPv6 CIDR blocks associated with the VPC.
- **dhcp_options_id** – The identifier of the set of Dynamic Host Configuration Protocol (DHCP) options that are associated with the VPC. If the default options are associated with the VPC, then this is default.
- **state** – The current state of the VPC.

Returns `AwsEc2VpcDetails` object

```
cidr_block_association_set :Optional[CidrBlockAssociationList]  
dhcp_options_id :Optional[NonEmptyString]  
ipv6_cidr_block_association_set :Optional[Ipv6CidrBlockAssociationList]  
state :Optional[NonEmptyString]
```

```
class asff.generated.AwsElasticsearchDomainDetails
```

Bases: *asff.generated.ASFFBaseModel*



Information about an Elasticsearch domain.

Parameters

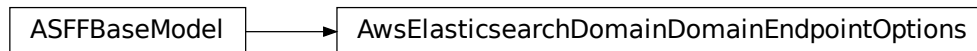
- **access_policies** – IAM policy document specifying the access policies for the new Amazon ES domain.
- **domain_endpoint_options** – Additional options for the domain endpoint.
- **domain_id** – Unique identifier for an Amazon ES domain.
- **domain_name** – Name of an Amazon ES domain. Domain names are unique across all domains owned by the same account within an AWS Region. Domain names must start with a lowercase letter and must be between 3 and 28 characters. Valid characters are a-z (lowercase only), 0-9, and – (hyphen).
- **endpoint** – Domain-specific endpoint used to submit index, search, and data upload requests to an Amazon ES domain. The endpoint is a service URL.
- **endpoints** – The key-value pair that exists if the Amazon ES domain uses VPC endpoints.
- **elasticsearch_version** – Elasticsearch version.
- **encryption_at_rest_options** – Details about the configuration for encryption at rest.
- **node_to_node_encryption_options** – Details about the configuration for node-to-node encryption.
- **vpc_options** – Information that Amazon ES derives based on VPCOptions for the domain.

Returns AwsElasticsearchDomainDetails object

```

access_policies :Optional[NonEmptyString]
domain_endpoint_options :Optional[AwsElasticsearchDomainDomainEndpointOptions]
domain_id :Optional[NonEmptyString]
domain_name :Optional[NonEmptyString]
elasticsearch_version :Optional[NonEmptyString]
encryption_at_rest_options :Optional[AwsElasticsearchDomainEncryptionAtRestOptions]
endpoint :Optional[NonEmptyString]
endpoints :Optional[FieldMap]
node_to_node_encryption_options :Optional[AwsElasticsearchDomainNodeToNodeEncryptionOptions]
vpc_options :Optional[AwsElasticsearchDomainVPCOptions]
class asff.generated.AwsElasticsearchDomainDomainEndpointOptions
  Bases: asff.generated.ASFFBaseModel

```



Additional options for the domain endpoint, such as whether to require HTTPS for all traffic.

Parameters

- **enforce_https** – Whether to require that all traffic to the domain arrive over HTTPS.
- **tls_security_policy** – The TLS security policy to apply to the HTTPS endpoint of the Elasticsearch domain. Valid values: Policy-Min-TLS-1-0-2019-07, which supports TLSv1.0 and higher Policy-Min-TLS-1-2-2019-07, which only supports TLSv1.2

Returns AwsElasticsearchDomainDomainEndpointOptions object

```

enforce_https :Optional[Boolean]
tls_security_policy :Optional[NonEmptyString]
class asff.generated.AwsElasticsearchDomainEncryptionAtRestOptions
  Bases: asff.generated.ASFFBaseModel

```



Details about the configuration for encryption at rest.

Parameters

- **enabled** – Whether encryption at rest is enabled.
- **kms_key_id** – The KMS key ID. Takes the form 1a2a3a4-1a2a-3a4a-5a6a-1a2a3a4a5a6a.

Returns `AwsElasticsearchDomainEncryptionAtRestOptions` object

enabled :Optional[Boolean]

kms_key_id :Optional[NonEmptyString]

class `asff.generated.AwsElasticsearchDomainNodeToNodeEncryptionOptions`
Bases: `asff.generated.ASFFBaseModel`



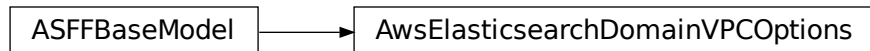
Details about the configuration for node-to-node encryption.

Parameters **enabled** – Whether node-to-node encryption is enabled.

Returns `AwsElasticsearchDomainNodeToNodeEncryptionOptions` object

enabled :Optional[Boolean]

class `asff.generated.AwsElasticsearchDomainVPCOptions`
Bases: `asff.generated.ASFFBaseModel`



Information that Amazon ES derives based on VPCOptions for the domain.

Parameters

- **availability_zones** – The list of Availability Zones associated with the VPC subnets.
- **security_group_ids** – The list of security group IDs associated with the VPC endpoints for the domain.
- **subnet_ids** – A list of subnet IDs associated with the VPC endpoints for the domain.
- **vpc_id** – ID for the VPC.

Returns `AwsElasticsearchDomainVPCOptions` object

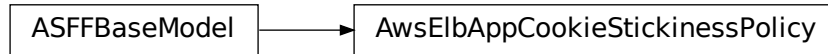
availability_zones :Optional[NonEmptyStringList]

security_group_ids :Optional[NonEmptyStringList]

subnet_ids :Optional[NonEmptyStringList]

vpc_id :Optional[NonEmptyString]

```
class asff.generated.AwsElbAppCookieStickinessPolicy
    Bases: asff.generated.ASFFBaseModel
```



Contains information about a stickiness policy that was created using CreateAppCookieStickinessPolicy.

Parameters

- **cookie_name** – The name of the application cookie used for stickiness.
- **policy_name** – The mnemonic name for the policy being created. The name must be unique within the set of policies for the load balancer.

Returns AwsElbAppCookieStickinessPolicy object

cookie_name :Optional[NonEmptyString]

policy_name :Optional[NonEmptyString]

```
class asff.generated.AwsElbLbCookieStickinessPolicy
    Bases: asff.generated.ASFFBaseModel
```



Contains information about a stickiness policy that was created using CreateLBCookieStickinessPolicy.

Parameters

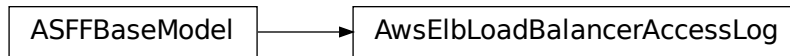
- **cookie_expiration_period** – The amount of time, in seconds, after which the cookie is considered stale. If an expiration period is not specified, the stickiness session lasts for the duration of the browser session.
- **policy_name** – The name of the policy. The name must be unique within the set of policies for the load balancer.

Returns AwsElbLbCookieStickinessPolicy object

cookie_expiration_period :Optional[Long]

policy_name :Optional[NonEmptyString]

```
class asff.generated.AwsElbLoadBalancerAccessLog
    Bases: asff.generated.ASFFBaseModel
```



Contains information about the access log configuration for the load balancer.

Parameters

- **emit_interval** – The interval in minutes for publishing the access logs. You can publish access logs either every 5 minutes or every 60 minutes.
- **enabled** – Indicates whether access logs are enabled for the load balancer.
- **s3_bucket_name** – The name of the S3 bucket where the access logs are stored.
- **s3_bucket_prefix** – The logical hierarchy that was created for the S3 bucket. If a prefix is not provided, the log is placed at the root level of the bucket.

Returns `AwsElbLoadBalancerAccessLog` object

emit_interval :Optional[Integer]

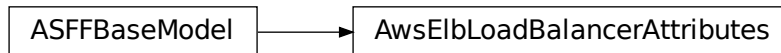
enabled :Optional[Boolean]

s3_bucket_name :Optional[NonEmptyString]

s3_bucket_prefix :Optional[NonEmptyString]

class `asff.generated.AwsElbLoadBalancerAttributes`

Bases: `asff.generated.ASFFBaseModel`



Contains attributes for the load balancer.

Parameters

- **access_log** – Information about the access log configuration for the load balancer. If the access log is enabled, the load balancer captures detailed information about all requests. It delivers the information to a specified S3 bucket.
- **connection_draining** – Information about the connection draining configuration for the load balancer. If connection draining is enabled, the load balancer allows existing requests to complete before it shifts traffic away from a deregistered or unhealthy instance.
- **connection_settings** – Connection settings for the load balancer. If an idle timeout is configured, the load balancer allows connections to remain idle for the specified duration. When a connection is idle, no data is sent over the connection.

- **cross_zone_load_balancing** – Cross-zone load balancing settings for the load balancer. If cross-zone load balancing is enabled, the load balancer routes the request traffic evenly across all instances regardless of the Availability Zones.

Returns `AwsElbLoadBalancerAttributes` object

access_log :Optional[`AwsElbLoadBalancerAccessLog`]

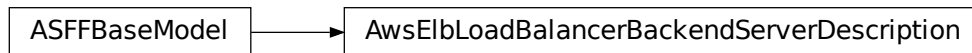
connection_draining :Optional[`AwsElbLoadBalancerConnectionDraining`]

connection_settings :Optional[`AwsElbLoadBalancerConnectionSettings`]

cross_zone_load_balancing :Optional[`AwsElbLoadBalancerCrossZoneLoadBalancing`]

class `asff.generated.AwsElbLoadBalancerBackendServerDescription`

Bases: `asff.generated.ASFFBaseModel`



Provides information about the configuration of an EC2 instance for the load balancer.

Parameters

- **instance_port** – The port on which the EC2 instance is listening.
- **policy_names** – The names of the policies that are enabled for the EC2 instance.

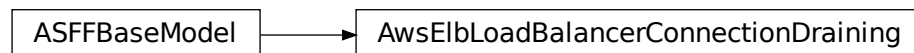
Returns `AwsElbLoadBalancerBackendServerDescription` object

instance_port :Optional[`Integer`]

policy_names :Optional[`StringList`]

class `asff.generated.AwsElbLoadBalancerConnectionDraining`

Bases: `asff.generated.ASFFBaseModel`



Contains information about the connection draining configuration for the load balancer.

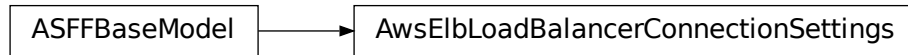
Parameters

- **enabled** – Indicates whether connection draining is enabled for the load balancer.
- **timeout** – The maximum time, in seconds, to keep the existing connections open before deregistering the instances.

Returns `AwsElbLoadBalancerConnectionDraining` object

enabled :Optional[`Boolean`]

```
    timeout :Optional[Integer]
class asff.generated.AwsElbLoadBalancerConnectionSettings
    Bases: asff.generated.ASFFBaseModel
```

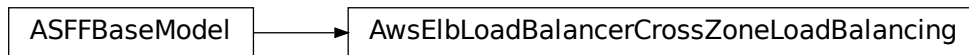


Contains connection settings for the load balancer.

Parameters `idle_timeout` – The time, in seconds, that the connection can be idle (no data is sent over the connection) before it is closed by the load balancer.

Returns `AwsElbLoadBalancerConnectionSettings` object

```
    idle_timeout :Optional[Integer]
class asff.generated.AwsElbLoadBalancerCrossZoneLoadBalancing
    Bases: asff.generated.ASFFBaseModel
```

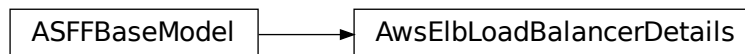


Contains cross-zone load balancing settings for the load balancer.

Parameters `enabled` – Indicates whether cross-zone load balancing is enabled for the load balancer.

Returns `AwsElbLoadBalancerCrossZoneLoadBalancing` object

```
    enabled :Optional[Boolean]
class asff.generated.AwsElbLoadBalancerDetails
    Bases: asff.generated.ASFFBaseModel
```



Contains details about a Classic Load Balancer.

Parameters

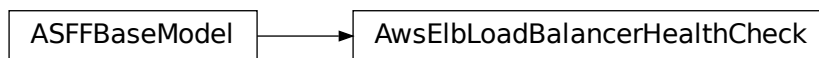
- **availability_zones** – The list of Availability Zones for the load balancer.

- **backend_server_descriptions** – Information about the configuration of the EC2 instances.
- **canonical_hosted_zone_name** – The name of the Amazon Route 53 hosted zone for the load balancer.
- **canonical_hosted_zone_name_id** – The ID of the Amazon Route 53 hosted zone for the load balancer.
- **created_time** – Indicates when the load balancer was created. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **dns_name** – The DNS name of the load balancer.
- **health_check** – Information about the health checks that are conducted on the load balancer.
- **instances** – List of EC2 instances for the load balancer.
- **listener_descriptions** – The policies that are enabled for the load balancer listeners.
- **load_balancer_attributes** – The attributes for a load balancer.
- **load_balancer_name** – The name of the load balancer.
- **policies** – The policies for a load balancer.
- **scheme** – The type of load balancer. Only provided if the load balancer is in a VPC. If Scheme is internet-facing, the load balancer has a public DNS name that resolves to a public IP address. If Scheme is internal, the load balancer has a public DNS name that resolves to a private IP address.
- **security_groups** – The security groups for the load balancer. Only provided if the load balancer is in a VPC.
- **source_security_group** – Information about the security group for the load balancer. This is the security group that is used for inbound rules.
- **subnets** – The list of subnet identifiers for the load balancer.
- **vpc_id** – The identifier of the VPC for the load balancer.

Returns AwsElbLoadBalancerDetails object

```
availability_zones :Optional[StringList]
backend_server_descriptions :Optional[AwsElbLoadBalancerBackendServerDescriptions]
canonical_hosted_zone_name :Optional[NonEmptyString]
canonical_hosted_zone_name_id :Optional[NonEmptyString]
created_time :Optional[Iso8601Timestamp]
dns_name :Optional[NonEmptyString]
health_check :Optional[AwsElbLoadBalancerHealthCheck]
instances :Optional[AwsElbLoadBalancerInstances]
listener_descriptions :Optional[AwsElbLoadBalancerListenerDescriptions]
load_balancer_attributes :Optional[AwsElbLoadBalancerAttributes]
load_balancer_name :Optional[NonEmptyString]
```

```
    policies :Optional[AwsElbLoadBalancerPolicies]
    scheme :Optional[NonEmptyString]
    security_groups :Optional[StringList]
    source_security_group :Optional[AwsElbLoadBalancerSourceSecurityGroup]
    subnets :Optional[StringList]
    vpc_id :Optional[NonEmptyString]
class asff.generated.AwsElbLoadBalancerHealthCheck
    Bases: asff.generated.ASFFBaseModel
```



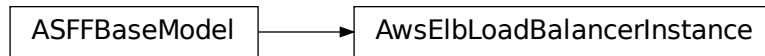
Contains information about the health checks that are conducted on the load balancer.

Parameters

- **healthy_threshold** – The number of consecutive health check successes required before the instance is moved to the Healthy state.
- **interval** – The approximate interval, in seconds, between health checks of an individual instance.
- **target** – The instance that is being checked. The target specifies the protocol and port. The available protocols are TCP, SSL, HTTP, and HTTPS. The range of valid ports is 1 through 65535. For the HTTP and HTTPS protocols, the target also specifies the ping path. For the TCP protocol, the target is specified as TCP: <port> . For the SSL protocol, the target is specified as SSL.<port> . For the HTTP and HTTPS protocols, the target is specified as <protocol>:<port>:<path to ping> .
- **timeout** – The amount of time, in seconds, during which no response means a failed health check.
- **unhealthy_threshold** – The number of consecutive health check failures that must occur before the instance is moved to the Unhealthy state.

Returns `AwsElbLoadBalancerHealthCheck` object

```
    healthy_threshold :Optional[Integer]
    interval :Optional[Integer]
    target :Optional[NonEmptyString]
    timeout :Optional[Integer]
    unhealthy_threshold :Optional[Integer]
class asff.generated.AwsElbLoadBalancerInstance
    Bases: asff.generated.ASFFBaseModel
```

Provides information about an EC2 instance for a load balancer.

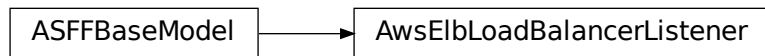
Parameters `instance_id` – The instance identifier.

Returns `AwsElbLoadBalancerInstance` object

`instance_id` : `Optional[NonEmptyString]`

class `asff.generated.AwsElbLoadBalancerListener`

Bases: `asff.generated.ASFFBaseModel`



Information about a load balancer listener.

Parameters

- `instance_port` – The port on which the instance is listening.
- `instance_protocol` – The protocol to use to route traffic to instances. Valid values: HTTP | HTTPS | TCP | SSL
- `load_balancer_port` – The port on which the load balancer is listening. On EC2-VPC, you can specify any port from the range 1-65535. On EC2-Classic, you can specify any port from the following list: 25, 80, 443, 465, 587, 1024-65535.
- `protocol` – The load balancer transport protocol to use for routing. Valid values: HTTP | HTTPS | TCP | SSL
- `ssl_certificate_id` – The ARN of the server certificate.

Returns `AwsElbLoadBalancerListener` object

`instance_port` : `Optional[Integer]`

`instance_protocol` : `Optional[NonEmptyString]`

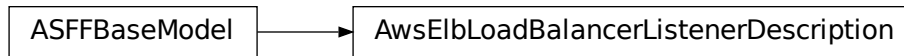
`load_balancer_port` : `Optional[Integer]`

`protocol` : `Optional[NonEmptyString]`

`ssl_certificate_id` : `Optional[NonEmptyString]`

class `asff.generated.AwsElbLoadBalancerListenerDescription`

Bases: `asff.generated.ASFFBaseModel`



Lists the policies that are enabled for a load balancer listener.

Parameters

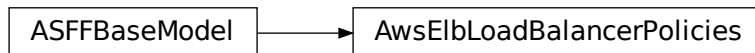
- **listener** – Information about the listener.
- **policy_names** – The policies enabled for the listener.

Returns AwsElbLoadBalancerListenerDescription object

listener :Optional[AwsElbLoadBalancerListener]

policy_names :Optional[StringList]

```
class asff.generated.AwsElbLoadBalancerPolicies
    Bases: asff.generated.ASFFBaseModel
```



Contains information about the policies for a load balancer.

Parameters

- **app_cookie_stickiness_policies** – The stickiness policies that are created using CreateAppCookieStickinessPolicy.
- **lb_cookie_stickiness_policies** – The stickiness policies that are created using CreateLBCookieStickinessPolicy.
- **other_policies** – The policies other than the stickiness policies.

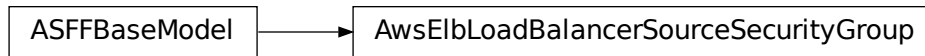
Returns AwsElbLoadBalancerPolicies object

app_cookie_stickiness_policies :Optional[AwsElbAppCookieStickinessPolicies]

lb_cookie_stickiness_policies :Optional[AwsElbLbCookieStickinessPolicies]

other_policies :Optional[StringList]

```
class asff.generated.AwsElbLoadBalancerSourceSecurityGroup
    Bases: asff.generated.ASFFBaseModel
```



Contains information about the security group for the load balancer.

Parameters

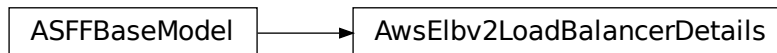
- **group_name** – The name of the security group.
- **owner_alias** – The owner of the security group.

Returns `AwsElbLoadBalancerSourceSecurityGroup` object

group_name : `Optional[NonEmptyString]`

owner_alias : `Optional[NonEmptyString]`

class `asff.generated.AwsElbv2LoadBalancerDetails`
 Bases: `asff.generated.ASFFBaseModel`



Information about a load balancer.

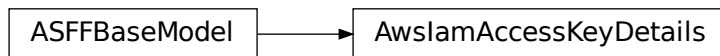
Parameters

- **availability_zones** – The Availability Zones for the load balancer.
- **canonical_hosted_zone_id** – The ID of the Amazon Route 53 hosted zone associated with the load balancer.
- **created_time** – Indicates when the load balancer was created. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **dns_name** – The public DNS name of the load balancer.
- **ip_address_type** – The type of IP addresses used by the subnets for your load balancer. The possible values are `ipv4` (for IPv4 addresses) and `dualstack` (for IPv4 and IPv6 addresses).
- **scheme** – The nodes of an Internet-facing load balancer have public IP addresses.
- **security_groups** – The IDs of the security groups for the load balancer.
- **state** – The state of the load balancer.
- **type** – The type of load balancer.
- **vpc_id** – The ID of the VPC for the load balancer.

Returns `AwsElbv2LoadBalancerDetails` object

`availability_zones` : `Optional[AvailabilityZones]`
`canonical_hosted_zone_id` : `Optional[NonEmptyString]`
`created_time` : `Optional[Iso8601Timestamp]`
`dns_name` : `Optional[NonEmptyString]`
`ip_address_type` : `Optional[NonEmptyString]`
`scheme` : `Optional[NonEmptyString]`
`security_groups` : `Optional[SecurityGroups]`
`state` : `Optional[LoadBalancerState]`
`type` : `Optional[NonEmptyString]`
`vpc_id` : `Optional[NonEmptyString]`

class `asff.generated.AwsIamAccessKeyDetails`
Bases: `asff.generated.ASFFBaseModel`



IAM access key details related to a finding.

Parameters

- **user_name** – The user associated with the IAM access key related to a finding. The `UserName` parameter has been replaced with the `PrincipalName` parameter because access keys can also be assigned to principals that are not IAM users.
- **status** – The status of the IAM access key related to a finding.
- **created_at** – Indicates when the IAM access key was created. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **principal_id** – The ID of the principal associated with an access key.
- **principal_type** – The type of principal associated with an access key.
- **principal_name** – The name of the principal.
- **account_id** – The AWS account ID of the account for the key.
- **access_key_id** – The identifier of the access key.
- **session_context** – Information about the session that the key was used for.

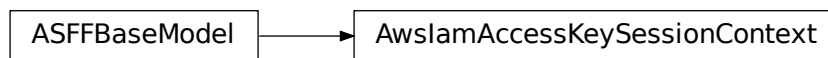
Returns `AwsIamAccessKeyDetails` object

`access_key_id` : `Optional[NonEmptyString]`
`account_id` : `Optional[NonEmptyString]`
`created_at` : `Optional[Iso8601Timestamp]`

```

principal_id :Optional[NonEmptyString]
principal_name :Optional[NonEmptyString]
principal_type :Optional[NonEmptyString]
session_context :Optional[AwsIamAccessKeySessionContext]
status :Optional[AwsIamAccessKeyStatus]
user_name :Optional[NonEmptyString]
class asff.generated.AwsIamAccessKeySessionContext
  Bases: asff.generated.ASFFBaseModel

```



Provides information about the session that the key was used for.

Parameters

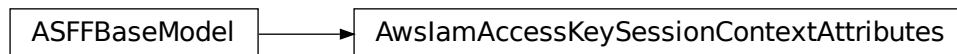
- **attributes** – Attributes of the session that the key was used for.
- **session_issuer** – Information about the entity that created the session.

Returns AwsIamAccessKeySessionContext object

```

attributes :Optional[AwsIamAccessKeySessionContextAttributes]
session_issuer :Optional[AwsIamAccessKeySessionContextSessionIssuer]
class asff.generated.AwsIamAccessKeySessionContextAttributes
  Bases: asff.generated.ASFFBaseModel

```



Attributes of the session that the key was used for.

Parameters

- **mfa_authenticated** – Indicates whether the session used multi-factor authentication (MFA).
- **creation_date** – Indicates when the session was created. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.

Returns AwsIamAccessKeySessionContextAttributes object

```

creation_date :Optional[Iso8601Timestamp]

```

```
mfa_authenticated :Optional[Boolean]
class asff.generated.AwsIamAccessKeySessionContextSessionIssuer
    Bases: asff.generated.ASFFBaseModel
```



Information about the entity that created the session.

Parameters

- **type** – The type of principal (user, role, or group) that created the session.
- **principal_id** – The principal ID of the principal (user, role, or group) that created the session.
- **arn** – The ARN of the session.
- **account_id** – The identifier of the AWS account that created the session.
- **user_name** – The name of the principal that created the session.

Returns `AwsIamAccessKeySessionContextSessionIssuer` object

```
account_id :Optional[NonEmptyString]
arn :Optional[NonEmptyString]
principal_id :Optional[NonEmptyString]
type :Optional[NonEmptyString]
user_name :Optional[NonEmptyString]
class asff.generated.AwsIamAttachedManagedPolicy
    Bases: asff.generated.ASFFBaseModel
```



A managed policy that is attached to an IAM principal.

Parameters

- **policy_name** – The name of the policy.
- **policy_arn** – The ARN of the policy.

Returns `AwsIamAttachedManagedPolicy` object

```
policy_arn :Optional[NonEmptyString]
```

```

    policy_name :Optional[NonEmptyString]
class asff.generated.AwsIamGroupDetails
    Bases: asff.generated.ASFFBaseModel

```



Contains details about an IAM group.

Parameters

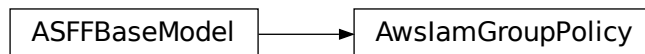
- **attached_managed_policies** – A list of the managed policies that are attached to the IAM group.
- **create_date** – Indicates when the IAM group was created. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **group_id** – The identifier of the IAM group.
- **group_name** – The name of the IAM group.
- **group_policy_list** – The list of inline policies that are embedded in the group.
- **path** – The path to the group.

Returns AwsIamGroupDetails object

```

attached_managed_policies :Optional[AwsIamAttachedManagedPolicyList]
create_date :Optional[Iso8601Timestamp]
group_id :Optional[NonEmptyString]
group_name :Optional[NonEmptyString]
group_policy_list :Optional[AwsIamGroupPolicyList]
path :Optional[NonEmptyString]
class asff.generated.AwsIamGroupPolicy
    Bases: asff.generated.ASFFBaseModel

```



A managed policy that is attached to the IAM group.

Parameters **policy_name** – The name of the policy.

Returns AwsIamGroupPolicy object

```
    policy_name :Optional[NonEmptyString]
class asff.generated.AwsIamInstanceProfile
    Bases: asff.generated.ASFFBaseModel
```



Information about an instance profile.

Parameters

- **arn** – The ARN of the instance profile.
- **create_date** – Indicates when the instance profile was created. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **instance_profile_id** – The identifier of the instance profile.
- **instance_profile_name** – The name of the instance profile.
- **path** – The path to the instance profile.
- **roles** – The roles associated with the instance profile.

Returns AwsIamInstanceProfile object

```
arn :Optional[NonEmptyString]
create_date :Optional[Iso8601Timestamp]
instance_profile_id :Optional[NonEmptyString]
instance_profile_name :Optional[NonEmptyString]
path :Optional[NonEmptyString]
roles :Optional[AwsIamInstanceProfileRoles]
class asff.generated.AwsIamInstanceProfileRole
    Bases: asff.generated.ASFFBaseModel
```



Information about a role associated with an instance profile.

Parameters

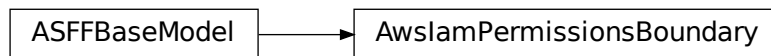
- **arn** – The ARN of the role.

- **assume_role_policy_document** – The policy that grants an entity permission to assume the role.
- **create_date** – Indicates when the role was created. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **path** – The path to the role.
- **role_id** – The identifier of the role.
- **role_name** – The name of the role.

Returns AwsIamInstanceProfileRole object

```
arn :Optional[NonEmptyString]
assume_role_policy_document :Optional[AwsIamRoleAssumeRolePolicyDocument]
create_date :Optional[Iso8601Timestamp]
path :Optional[NonEmptyString]
role_id :Optional[NonEmptyString]
role_name :Optional[NonEmptyString]
```

```
class asff.generated.AwsIamPermissionsBoundary
    Bases: asff.generated.ASFFBaseModel
```



Information about the policy used to set the permissions boundary for an IAM principal.

Parameters

- **permissions_boundary_arn** – The ARN of the policy used to set the permissions boundary.
- **permissions_boundary_type** – The usage type for the permissions boundary.

Returns AwsIamPermissionsBoundary object

```
permissions_boundary_arn :Optional[NonEmptyString]
permissions_boundary_type :Optional[NonEmptyString]
```

```
class asff.generated.AwsIamPolicyDetails
    Bases: asff.generated.ASFFBaseModel
```



Represents an IAM permissions policy.

Parameters

- **attachment_count** – The number of users, groups, and roles that the policy is attached to.
- **create_date** – When the policy was created. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **default_version_id** – The identifier of the default version of the policy.
- **description** – A description of the policy.
- **is_attachable** – Whether the policy can be attached to a user, group, or role.
- **path** – The path to the policy.
- **permissions_boundary_usage_count** – The number of users and roles that use the policy to set the permissions boundary.
- **policy_id** – The unique identifier of the policy.
- **policy_name** – The name of the policy.
- **policy_version_list** – List of versions of the policy.
- **update_date** – When the policy was most recently updated. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.

Returns AwsIamPolicyDetails object

```
attachment_count :Optional[Integer]
create_date :Optional[Iso8601Timestamp]
default_version_id :Optional[NonEmptyString]
description :Optional[NonEmptyString]
is_attachable :Optional[Boolean]
path :Optional[NonEmptyString]
permissions_boundary_usage_count :Optional[Integer]
policy_id :Optional[NonEmptyString]
policy_name :Optional[NonEmptyString]
policy_version_list :Optional[AwsIamPolicyVersionList]
update_date :Optional[Iso8601Timestamp]
```

```
class asff.generated.AwsIamPolicyVersion
    Bases: asff.generated.ASFFBaseModel
```



A version of an IAM policy.

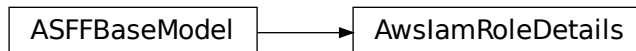
Parameters

- **version_id** – The identifier of the policy version.
- **is_default_version** – Whether the version is the default version.
- **create_date** – Indicates when the version was created. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.

Returns AwsIamPolicyVersion object

```
create_date :Optional[Iso8601Timestamp]
is_default_version :Optional[Boolean]
version_id :Optional[NonEmptyString]
```

```
class asff.generated.AwsIamRoleDetails
    Bases: asff.generated.ASFFBaseModel
```



Contains information about an IAM role, including all of the role's policies.

Parameters

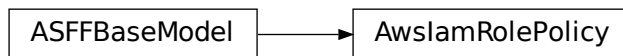
- **assume_role_policy_document** – The trust policy that grants permission to assume the role.
- **attached_managed_policies** – The list of the managed policies that are attached to the role.
- **create_date** – Indicates when the role was created. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **instance_profile_list** – The list of instance profiles that contain this role.
- **role_id** – The stable and unique string identifying the role.
- **role_name** – The friendly name that identifies the role.

- **role_policy_list** – The list of inline policies that are embedded in the role.
- **max_session_duration** – The maximum session duration (in seconds) that you want to set for the specified role.
- **path** – The path to the role.

Returns `AwsIamRoleDetails` object

```
assume_role_policy_document :Optional[AwsIamRoleAssumeRolePolicyDocument]  
attached_managed_policies :Optional[AwsIamAttachedManagedPolicyList]  
create_date :Optional[Iso8601Timestamp]  
instance_profile_list :Optional[AwsIamInstanceProfileList]  
max_session_duration :Optional[Integer]  
path :Optional[NonEmptyString]  
permissions_boundary :Optional[AwsIamPermissionsBoundary]  
role_id :Optional[NonEmptyString]  
role_name :Optional[NonEmptyString]  
role_policy_list :Optional[AwsIamRolePolicyList]
```

```
class asff.generated.AwsIamRolePolicy  
    Bases: asff.generated.ASFFBaseModel
```



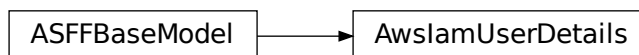
An inline policy that is embedded in the role.

Parameters **policy_name** – The name of the policy.

Returns `AwsIamRolePolicy` object

```
policy_name :Optional[NonEmptyString]
```

```
class asff.generated.AwsIamUserDetails  
    Bases: asff.generated.ASFFBaseModel
```



Information about an IAM user.

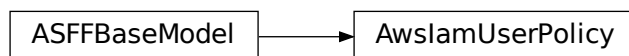
Parameters

- **attached_managed_policies** – A list of the managed policies that are attached to the user.
- **create_date** – Indicates when the user was created. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **group_list** – A list of IAM groups that the user belongs to.
- **path** – The path to the user.
- **permissions_boundary** – The permissions boundary for the user.
- **user_id** – The unique identifier for the user.
- **user_name** – The name of the user.
- **user_policy_list** – The list of inline policies that are embedded in the user.

Returns AwsIamUserDetails object

```
attached_managed_policies :Optional[AwsIamAttachedManagedPolicyList]
create_date :Optional[Iso8601Timestamp]
group_list :Optional[StringList]
path :Optional[NonEmptyString]
permissions_boundary :Optional[AwsIamPermissionsBoundary]
user_id :Optional[NonEmptyString]
user_name :Optional[NonEmptyString]
user_policy_list :Optional[AwsIamUserPolicyList]
```

```
class asff.generated.AwsIamUserPolicy
    Bases: asff.generated.ASFFBaseModel
```



Information about an inline policy that is embedded in the user.

Parameters **policy_name** – The name of the policy.

Returns AwsIamUserPolicy object

```
policy_name :Optional[NonEmptyString]
```

```
class asff.generated.AwsKmsKeyDetails
    Bases: asff.generated.ASFFBaseModel
```



Contains metadata about a customer master key (CMK).

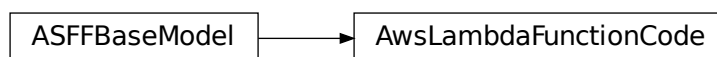
Parameters

- **aws_account_id** – The twelve-digit account ID of the AWS account that owns the CMK.
- **creation_date** – Indicates when the CMK was created. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **key_id** – The globally unique identifier for the CMK.
- **key_manager** – The manager of the CMK. CMKs in your AWS account are either customer managed or AWS managed.
- **key_state** – The state of the CMK.
- **origin** – The source of the CMK's key material. When this value is `AWS_KMS`, AWS KMS created the key material. When this value is `EXTERNAL`, the key material was imported from your existing key management infrastructure or the CMK lacks key material. When this value is `AWS_CLOUDHSM`, the key material was created in the AWS CloudHSM cluster associated with a custom key store.
- **description** – A description of the key.

Returns `AwsKmsKeyDetails` object

```
aws_account_id :Optional[NonEmptyString]
creation_date  :Optional[Iso8601Timestamp]
description    :Optional[NonEmptyString]
key_id         :Optional[NonEmptyString]
key_manager    :Optional[NonEmptyString]
key_state      :Optional[NonEmptyString]
origin         :Optional[NonEmptyString]
```

```
class asff.generated.AwsLambdaFunctionCode
    Bases: asff.generated.ASFFBaseModel
```



The code for the Lambda function. You can specify either an object in Amazon S3, or upload a deployment package directly.

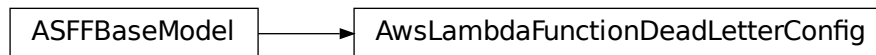
Parameters

- **s3_bucket** – An Amazon S3 bucket in the same AWS Region as your function. The bucket can be in a different AWS account.
- **s3_key** – The Amazon S3 key of the deployment package.
- **s3_object_version** – For versioned objects, the version of the deployment package object to use.
- **zip_file** – The base64-encoded contents of the deployment package. AWS SDK and AWS CLI clients handle the encoding for you.

Returns `AwsLambdaFunctionCode` object

```
s3_bucket :Optional[NonEmptyString]
s3_key :Optional[NonEmptyString]
s3_object_version :Optional[NonEmptyString]
zip_file :Optional[NonEmptyString]
```

```
class asff.generated.AwsLambdaFunctionDeadLetterConfig
Bases: asff.generated.ASFFBaseModel
```



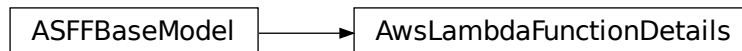
The dead-letter queue for failed asynchronous invocations.

Parameters **target_arn** – The Amazon Resource Name (ARN) of an Amazon SQS queue or Amazon SNS topic.

Returns `AwsLambdaFunctionDeadLetterConfig` object

```
target_arn :Optional[NonEmptyString]
```

```
class asff.generated.AwsLambdaFunctionDetails
Bases: asff.generated.ASFFBaseModel
```



Details about a function's configuration.

Parameters

- **code** – An `AwsLambdaFunctionCode` object.
- **code_sha256** – The SHA256 hash of the function’s deployment package.
- **dead_letter_config** – The function’s dead letter queue.
- **environment** – The function’s environment variables.
- **function_name** – The name of the function.
- **handler** – The function that Lambda calls to begin executing your function.
- **kms_key_arn** – The KMS key that’s used to encrypt the function’s environment variables. This key is only returned if you’ve configured a customer managed CMK.
- **last_modified** – Indicates when the function was last updated. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **layers** – The function’s layers.
- **master_arn** – For `Lambda@Edge` functions, the ARN of the master function.
- **memory_size** – The memory that’s allocated to the function.
- **revision_id** – The latest updated revision of the function or alias.
- **role** – The function’s execution role.
- **runtime** – The runtime environment for the Lambda function.
- **timeout** – The amount of time that Lambda allows a function to run before stopping it.
- **tracing_config** – The function’s AWS X-Ray tracing configuration.
- **vpc_config** – The function’s networking configuration.
- **version** – The version of the Lambda function.

Returns `AwsLambdaFunctionDetails` object

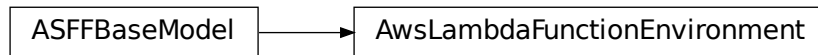
```
code :Optional[AwsLambdaFunctionCode]
code_sha256 :Optional[NonEmptyString]
dead_letter_config :Optional[AwsLambdaFunctionDeadLetterConfig]
environment :Optional[AwsLambdaFunctionEnvironment]
function_name :Optional[NonEmptyString]
handler :Optional[NonEmptyString]
kms_key_arn :Optional[NonEmptyString]
last_modified :Optional[Iso8601Timestamp]
layers :Optional[AwsLambdaFunctionLayerList]
master_arn :Optional[NonEmptyString]
memory_size :Optional[Integer]
revision_id :Optional[NonEmptyString]
role :Optional[NonEmptyString]
runtime :Optional[NonEmptyString]
timeout :Optional[Integer]
```



```

    tracing_config :Optional[AwsLambdaFunctionTracingConfig]
    version :Optional[NonEmptyString]
    vpc_config :Optional[AwsLambdaFunctionVpcConfig]
class asff.generated.AwsLambdaFunctionEnvironment
    Bases: asff.generated.ASFFBaseModel

```



A function's environment variable settings.

Parameters

- **variables** – Environment variable key-value pairs.
- **error** – An AwsLambdaFunctionEnvironmentError object.

Returns AwsLambdaFunctionEnvironment object

```

    error :Optional[AwsLambdaFunctionEnvironmentError]
    variables :Optional[FieldMap]
class asff.generated.AwsLambdaFunctionEnvironmentError
    Bases: asff.generated.ASFFBaseModel

```



Error messages for environment variables that couldn't be applied.

Parameters

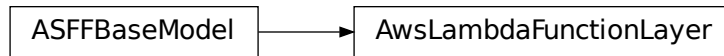
- **error_code** – The error code.
- **message** – The error message.

Returns AwsLambdaFunctionEnvironmentError object

```

    error_code :Optional[NonEmptyString]
    message :Optional[NonEmptyString]
class asff.generated.AwsLambdaFunctionLayer
    Bases: asff.generated.ASFFBaseModel

```



An AWS Lambda layer.

Parameters

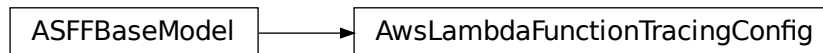
- **arn** – The Amazon Resource Name (ARN) of the function layer.
- **code_size** – The size of the layer archive in bytes.

Returns AwsLambdaFunctionLayer object

arn :Optional[NonEmptyString]

code_size :Optional[Integer]

class asff.generated.AwsLambdaFunctionTracingConfig
Bases: *asff.generated.ASFFBaseModel*



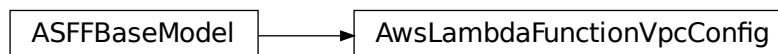
The function's AWS X-Ray tracing configuration.

Parameters **mode** – The tracing mode.

Returns AwsLambdaFunctionTracingConfig object

mode :Optional[NonEmptyString]

class asff.generated.AwsLambdaFunctionVpcConfig
Bases: *asff.generated.ASFFBaseModel*



The VPC security groups and subnets that are attached to a Lambda function. For more information, see VPC Settings.

Parameters

- **security_group_ids** – A list of VPC security groups IDs.

- **subnet_ids** – A list of VPC subnet IDs.
- **vpc_id** – The ID of the VPC.

Returns AwsLambdaFunctionVpcConfig object

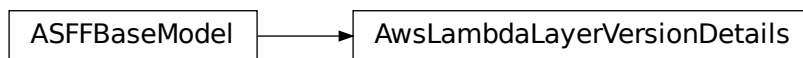
security_group_ids :Optional[NonEmptyStringList]

subnet_ids :Optional[NonEmptyStringList]

vpc_id :Optional[NonEmptyString]

class asff.generated.AwsLambdaLayerVersionDetails

Bases: *asff.generated.ASFFBaseModel*



Details about a Lambda layer version.

Parameters

- **version** – The version number.
- **compatible_runtimes** – The layer's compatible runtimes. Maximum number of five items. Valid values: nodejs10.x | nodejs12.x | java8 | java11 | python2.7 | python3.6 | python3.7 | python3.8 | dotnetcore1.0 | dotnetcore2.1 | go1.x | ruby2.5 | provided
- **created_date** – Indicates when the version was created. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.

Returns AwsLambdaLayerVersionDetails object

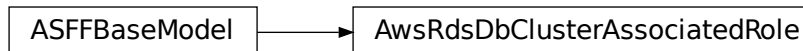
compatible_runtimes :Optional[NonEmptyStringList]

created_date :Optional[Iso8601Timestamp]

version :Optional[AwsLambdaLayerVersionNumber]

class asff.generated.AwsRdsDbClusterAssociatedRole

Bases: *asff.generated.ASFFBaseModel*



An IAM role that is associated with the Amazon RDS DB cluster.

Parameters

- **role_arn** – The ARN of the IAM role.

- **status** – The status of the association between the IAM role and the DB cluster.

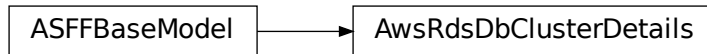
Returns `AwsRdsDbClusterAssociatedRole` object

role_arn :Optional[NonEmptyString]

status :Optional[NonEmptyString]

class `asff.generated.AwsRdsDbClusterDetails`

Bases: `asff.generated.ASFFBaseModel`



Information about an Amazon RDS DB cluster.

Parameters

- **allocated_storage** – For all database engines except Aurora, specifies the allocated storage size in gibibytes (GiB).
- **availability_zones** – A list of Availability Zones (AZs) where instances in the DB cluster can be created.
- **backup_retention_period** – The number of days for which automated backups are retained.
- **database_name** – The name of the database.
- **status** – The current status of this DB cluster.
- **endpoint** – The connection endpoint for the primary instance of the DB cluster.
- **reader_endpoint** – The reader endpoint for the DB cluster.
- **custom_endpoints** – A list of custom endpoints for the DB cluster.
- **multi_az** – Whether the DB cluster has instances in multiple Availability Zones.
- **engine** – The name of the database engine to use for this DB cluster.
- **engine_version** – The version number of the database engine to use.
- **port** – The port number on which the DB instances in the DB cluster accept connections.
- **master_username** – The name of the master user for the DB cluster.
- **preferred_backup_window** – The range of time each day when automated backups are created, if automated backups are enabled. Uses the format HH:MM-HH:MM. For example, 04:52-05:22.
- **preferred_maintenance_window** – The weekly time range during which system maintenance can occur, in Universal Coordinated Time (UTC). Uses the format <day>:HH:MM-<day>:HH:MM. For the day values, use mon|tue|wed|thu|fri|sat|sun. For example, sun:09:32-sun:10:02.
- **read_replica_identifiers** – The identifiers of the read replicas that are associated with this DB cluster.

- **vpc_security_groups** – A list of VPC security groups that the DB cluster belongs to.
- **hosted_zone_id** – Specifies the identifier that Amazon Route 53 assigns when you create a hosted zone.
- **storage_encrypted** – Whether the DB cluster is encrypted.
- **kms_key_id** – The ARN of the AWS KMS master key that is used to encrypt the database instances in the DB cluster.
- **db_cluster_resource_id** – The identifier of the DB cluster. The identifier must be unique within each AWS Region and is immutable.
- **associated_roles** – A list of the IAM roles that are associated with the DB cluster.
- **cluster_create_time** – Indicates when the DB cluster was created, in Universal Coordinated Time (UTC). Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **enabled_cloud_watch_logs_exports** – A list of log types that this DB cluster is configured to export to CloudWatch Logs.
- **engine_mode** – The database engine mode of the DB cluster.
- **deletion_protection** – Whether the DB cluster has deletion protection enabled.
- **http_endpoint_enabled** – Whether the HTTP endpoint for an Aurora Serverless DB cluster is enabled.
- **activity_stream_status** – The status of the database activity stream.
- **copy_tags_to_snapshot** – Whether tags are copied from the DB cluster to snapshots of the DB cluster.
- **cross_account_clone** – Whether the DB cluster is a clone of a DB cluster owned by a different AWS account.
- **domain_memberships** – The Active Directory domain membership records that are associated with the DB cluster.
- **db_cluster_parameter_group** – The name of the DB cluster parameter group for the DB cluster.
- **db_subnet_group** – The subnet group that is associated with the DB cluster, including the name, description, and subnets in the subnet group.
- **db_cluster_option_group_memberships** – The list of option group memberships for this DB cluster.
- **db_cluster_identifier** – The DB cluster identifier that the user assigned to the cluster. This identifier is the unique key that identifies a DB cluster.
- **db_cluster_members** – The list of instances that make up the DB cluster.
- **iam_database_authentication_enabled** – Whether the mapping of IAM accounts to database accounts is enabled.

Returns AwsRdsDbClusterDetails object

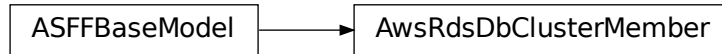
```

activity_stream_status :Optional[NonEmptyString]
allocated_storage :Optional[Integer]
associated_roles :Optional[AwsRdsDbClusterAssociatedRoles]

```

```
availability_zones :Optional[StringList]
backup_retention_period :Optional[Integer]
cluster_create_time :Optional[Iso8601Timestamp]
copy_tags_to_snapshot :Optional[Boolean]
cross_account_clone :Optional[Boolean]
custom_endpoints :Optional[StringList]
database_name :Optional[NonEmptyString]
db_cluster_identifier :Optional[NonEmptyString]
db_cluster_members :Optional[AwsRdsDbClusterMembers]
db_cluster_option_group_memberships :Optional[AwsRdsDbClusterOptionGroupMemberships]
db_cluster_parameter_group :Optional[NonEmptyString]
db_cluster_resource_id :Optional[NonEmptyString]
db_subnet_group :Optional[NonEmptyString]
deletion_protection :Optional[Boolean]
domain_memberships :Optional[AwsRdsDbDomainMemberships]
enabled_cloud_watch_logs_exports :Optional[StringList]
endpoint :Optional[NonEmptyString]
engine :Optional[NonEmptyString]
engine_mode :Optional[NonEmptyString]
engine_version :Optional[NonEmptyString]
hosted_zone_id :Optional[NonEmptyString]
http_endpoint_enabled :Optional[Boolean]
iam_database_authentication_enabled :Optional[Boolean]
kms_key_id :Optional[NonEmptyString]
master_username :Optional[NonEmptyString]
multi_az :Optional[Boolean]
port :Optional[Integer]
preferred_backup_window :Optional[NonEmptyString]
preferred_maintenance_window :Optional[NonEmptyString]
read_replica_identifiers :Optional[StringList]
reader_endpoint :Optional[NonEmptyString]
status :Optional[NonEmptyString]
storage_encrypted :Optional[Boolean]
vpc_security_groups :Optional[AwsRdsDbInstanceVpcSecurityGroups]
```

```
class asff.generated.AwsRdsDbClusterMember
    Bases: asff.generated.ASFFBaseModel
```



Information about an instance in the DB cluster.

Parameters

- **is_cluster_writer** – Whether the cluster member is the primary instance for the DB cluster.
- **promotion_tier** – Specifies the order in which an Aurora replica is promoted to the primary instance when the existing primary instance fails.
- **db_instance_identifier** – The instance identifier for this member of the DB cluster.
- **db_cluster_parameter_group_status** – The status of the DB cluster parameter group for this member of the DB cluster.

Returns AwsRdsDbClusterMember object

```
db_cluster_parameter_group_status :Optional[NonEmptyString]
db_instance_identifier :Optional[NonEmptyString]
is_cluster_writer :Optional[Boolean]
promotion_tier :Optional[Integer]
```

```
class asff.generated.AwsRdsDbClusterOptionGroupMembership
    Bases: asff.generated.ASFFBaseModel
```



Information about an option group membership for a DB cluster.

Parameters

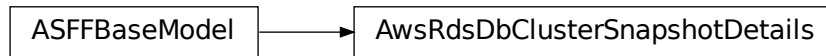
- **db_cluster_option_group_name** – The name of the DB cluster option group.
- **status** – The status of the DB cluster option group.

Returns AwsRdsDbClusterOptionGroupMembership object

```
db_cluster_option_group_name :Optional[NonEmptyString]
status :Optional[NonEmptyString]
```

```
class asff.generated.AwsRdsDbClusterSnapshotDetails
```

```
    Bases: asff.generated.ASFFBaseModel
```



Information about an Amazon RDS DB cluster snapshot.

Parameters

- **availability_zones** – A list of Availability Zones where instances in the DB cluster can be created.
- **snapshot_create_time** – Indicates when the snapshot was taken. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **engine** – The name of the database engine that you want to use for this DB instance.
- **allocated_storage** – Specifies the allocated storage size in gibibytes (GiB).
- **status** – The status of this DB cluster snapshot.
- **port** – The port number on which the DB instances in the DB cluster accept connections.
- **vpc_id** – The VPC ID that is associated with the DB cluster snapshot.
- **cluster_create_time** – Indicates when the DB cluster was created, in Universal Coordinated Time (UTC). Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **master_username** – The name of the master user for the DB cluster.
- **engine_version** – The version of the database engine to use.
- **license_model** – The license model information for this DB cluster snapshot.
- **snapshot_type** – The type of DB cluster snapshot.
- **percent_progress** – Specifies the percentage of the estimated data that has been transferred.
- **storage_encrypted** – Whether the DB cluster is encrypted.
- **kms_key_id** – The ARN of the AWS KMS master key that is used to encrypt the database instances in the DB cluster.
- **db_cluster_identifier** – The DB cluster identifier.
- **db_cluster_snapshot_identifier** – The identifier of the DB cluster snapshot.
- **iam_database_authentication_enabled** – Whether mapping of IAM accounts to database accounts is enabled.

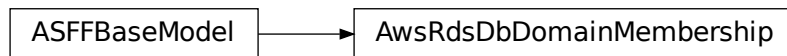
Returns AwsRdsDbClusterSnapshotDetails object

allocated_storage :Optional[Integer]


```

availability_zones :Optional[StringList]
cluster_create_time :Optional[Iso8601Timestamp]
db_cluster_identifier :Optional[NonEmptyString]
db_cluster_snapshot_identifier :Optional[NonEmptyString]
engine :Optional[NonEmptyString]
engine_version :Optional[NonEmptyString]
iam_database_authentication_enabled :Optional[Boolean]
kms_key_id :Optional[NonEmptyString]
license_model :Optional[NonEmptyString]
master_username :Optional[NonEmptyString]
percent_progress :Optional[Integer]
port :Optional[Integer]
snapshot_create_time :Optional[Iso8601Timestamp]
snapshot_type :Optional[NonEmptyString]
status :Optional[NonEmptyString]
storage_encrypted :Optional[Boolean]
vpc_id :Optional[NonEmptyString]
class asff.generated.AwsRdsDbDomainMembership
  Bases: asff.generated.ASFFBaseModel

```



Information about an Active Directory domain membership record associated with the DB instance.

Parameters

- **domain** – The identifier of the Active Directory domain.
- **status** – The status of the Active Directory Domain membership for the DB instance.
- **fqdn** – The fully qualified domain name of the Active Directory domain.
- **iam_role_name** – The name of the IAM role to use when making API calls to the Directory Service.

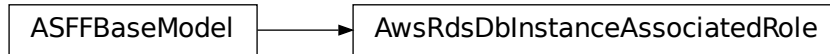
Returns AwsRdsDbDomainMembership object

```

domain :Optional[NonEmptyString]
fqdn :Optional[NonEmptyString]
iam_role_name :Optional[NonEmptyString]
status :Optional[NonEmptyString]

```

```
class asff.generated.AwsRdsDbInstanceAssociatedRole
    Bases: asff.generated.ASFFBaseModel
```



An AWS Identity and Access Management (IAM) role associated with the DB instance.

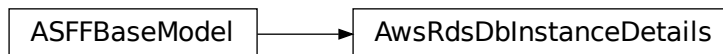
Parameters

- **role_arn** – The Amazon Resource Name (ARN) of the IAM role that is associated with the DB instance.
- **feature_name** – The name of the feature associated with the IAM role.
- **status** – Describes the state of the association between the IAM role and the DB instance. The Status property returns one of the following values: ACTIVE - The IAM role ARN is associated with the DB instance and can be used to access other AWS services on your behalf. PENDING - The IAM role ARN is being associated with the DB instance. INVALID - The IAM role ARN is associated with the DB instance. But the DB instance is unable to assume the IAM role in order to access other AWS services on your behalf.

Returns AwsRdsDbInstanceAssociatedRole object

```
feature_name :Optional[NonEmptyString]
role_arn :Optional[NonEmptyString]
status :Optional[NonEmptyString]
```

```
class asff.generated.AwsRdsDbInstanceDetails
    Bases: asff.generated.ASFFBaseModel
```



Contains the details of an Amazon RDS DB instance.

Parameters

- **associated_roles** – The AWS Identity and Access Management (IAM) roles associated with the DB instance.
- **ca_certificate_identifier** – The identifier of the CA certificate for this DB instance.
- **db_cluster_identifier** – If the DB instance is a member of a DB cluster, contains the name of the DB cluster that the DB instance is a member of.

- **db_instance_identifier** – Contains a user-supplied database identifier. This identifier is the unique key that identifies a DB instance.
- **db_instance_class** – Contains the name of the compute and memory capacity class of the DB instance.
- **db_instance_port** – Specifies the port that the DB instance listens on. If the DB instance is part of a DB cluster, this can be a different port than the DB cluster port.
- **dbi_resource_id** – The AWS Region-unique, immutable identifier for the DB instance. This identifier is found in AWS CloudTrail log entries whenever the AWS KMS key for the DB instance is accessed.
- **db_name** – The meaning of this parameter differs according to the database engine you use. MySQL, MariaDB, SQL Server, PostgreSQL Contains the name of the initial database of this instance that was provided at create time, if one was specified when the DB instance was created. This same name is returned for the life of the DB instance. Oracle Contains the Oracle System ID (SID) of the created DB instance. Not shown when the returned parameters do not apply to an Oracle DB instance.
- **deletion_protection** – Indicates whether the DB instance has deletion protection enabled. When deletion protection is enabled, the database cannot be deleted.
- **endpoint** – Specifies the connection endpoint.
- **engine** – Provides the name of the database engine to use for this DB instance.
- **engine_version** – Indicates the database engine version.
- **iam_database_authentication_enabled** – True if mapping of AWS Identity and Access Management (IAM) accounts to database accounts is enabled, and otherwise false. IAM database authentication can be enabled for the following database engines. For MySQL 5.6, minor version 5.6.34 or higher For MySQL 5.7, minor version 5.7.16 or higher Aurora 5.6 or higher
- **instance_create_time** – Indicates when the DB instance was created. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **kms_key_id** – If StorageEncrypted is true, the AWS KMS key identifier for the encrypted DB instance.
- **publicly_accessible** – Specifies the accessibility options for the DB instance. A value of true specifies an Internet-facing instance with a publicly resolvable DNS name, which resolves to a public IP address. A value of false specifies an internal instance with a DNS name that resolves to a private IP address.
- **storage_encrypted** – Specifies whether the DB instance is encrypted.
- **tde_credential_arn** – The ARN from the key store with which the instance is associated for TDE encryption.
- **vpc_security_groups** – A list of VPC security groups that the DB instance belongs to.
- **multi_az** – Whether the DB instance is a multiple Availability Zone deployment.
- **enhanced_monitoring_resource_arn** – The ARN of the CloudWatch Logs log stream that receives the enhanced monitoring metrics data for the DB instance.
- **db_instance_status** – The current status of the DB instance.
- **master_username** – The master user name of the DB instance.

- **allocated_storage** – The amount of storage (in gigabytes) to initially allocate for the DB instance.
- **preferred_backup_window** – The range of time each day when automated backups are created, if automated backups are enabled. Uses the format HH:MM-HH:MM. For example, 04:52-05:22.
- **backup_retention_period** – The number of days for which to retain automated backups.
- **db_security_groups** – A list of the DB security groups to assign to the DB instance.
- **db_parameter_groups** – A list of the DB parameter groups to assign to the DB instance.
- **availability_zone** – The Availability Zone where the DB instance will be created.
- **db_subnet_group** – Information about the subnet group that is associated with the DB instance.
- **preferred_maintenance_window** – The weekly time range during which system maintenance can occur, in Universal Coordinated Time (UTC). Uses the format <day>:HH:MM-<day>:HH:MM. For the day values, use mon|tue|wed|thu|fri|sat|sun. For example, sun:09:32-sun:10:02.
- **pending_modified_values** – Changes to the DB instance that are currently pending.
- **latest_restorable_time** – Specifies the latest time to which a database can be restored with point-in-time restore. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **auto_minor_version_upgrade** – Indicates whether minor version patches are applied automatically.
- **read_replica_source_db_instance_identifier** – If this DB instance is a read replica, contains the identifier of the source DB instance.
- **read_replica_db_instance_identifiers** – List of identifiers of the read replicas associated with this DB instance.
- **read_replica_db_cluster_identifiers** – List of identifiers of Aurora DB clusters to which the RDS DB instance is replicated as a read replica.
- **license_model** – License model information for this DB instance.
- **iops** – Specifies the provisioned IOPS (I/O operations per second) for this DB instance.
- **option_group_memberships** – The list of option group memberships for this DB instance.
- **character_set_name** – The name of the character set that this DB instance is associated with.
- **secondary_availability_zone** – For a DB instance with multi-Availability Zone support, the name of the secondary Availability Zone.
- **status_infos** – The status of a read replica. If the instance isn't a read replica, this is empty.
- **storage_type** – The storage type for the DB instance.
- **domain_memberships** – The Active Directory domain membership records associated with the DB instance.

- **copy_tags_to_snapshot** – Whether to copy resource tags to snapshots of the DB instance.
- **monitoring_interval** – The interval, in seconds, between points when enhanced monitoring metrics are collected for the DB instance.
- **monitoring_role_arn** – The ARN for the IAM role that permits Amazon RDS to send enhanced monitoring metrics to CloudWatch Logs.
- **promotion_tier** – The order in which to promote an Aurora replica to the primary instance after a failure of the existing primary instance.
- **timezone** – The time zone of the DB instance.
- **performance_insights_enabled** – Indicates whether Performance Insights is enabled for the DB instance.
- **performance_insights_kms_key_id** – The identifier of the AWS KMS key used to encrypt the Performance Insights data.
- **performance_insights_retention_period** – The number of days to retain Performance Insights data.
- **enabled_cloud_watch_logs_exports** – A list of log types that this DB instance is configured to export to CloudWatch Logs.
- **processor_features** – The number of CPU cores and the number of threads per core for the DB instance class of the DB instance.
- **max_allocated_storage** – The upper limit to which Amazon RDS can automatically scale the storage of the DB instance.

Returns AwsRdsDbInstanceDetails object

```

allocated_storage :Optional[Integer]
associated_roles  :Optional[AwsRdsDbInstanceAssociatedRoles]
auto_minor_version_upgrade :Optional[Boolean]
availability_zone :Optional[NonEmptyString]
backup_retention_period :Optional[Integer]
ca_certificate_identifier :Optional[NonEmptyString]
character_set_name :Optional[NonEmptyString]
copy_tags_to_snapshot :Optional[Boolean]
db_cluster_identifier :Optional[NonEmptyString]
db_instance_class :Optional[NonEmptyString]
db_instance_identifier :Optional[NonEmptyString]
db_instance_port :Optional[Integer]
db_instance_status :Optional[NonEmptyString]
db_name :Optional[NonEmptyString]
db_parameter_groups :Optional[AwsRdsDbParameterGroups]
db_security_groups :Optional[StringList]
db_subnet_group :Optional[AwsRdsDbSubnetGroup]

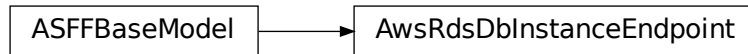
```

```
dbi_resource_id :Optional[NonEmptyString]
deletion_protection :Optional[Boolean]
domain_memberships :Optional[AwsRdsDbDomainMemberships]
enabled_cloud_watch_logs_exports :Optional[StringList]
endpoint :Optional[AwsRdsDbInstanceEndpoint]
engine :Optional[NonEmptyString]
engine_version :Optional[NonEmptyString]
enhanced_monitoring_resource_arn :Optional[NonEmptyString]
iam_database_authentication_enabled :Optional[Boolean]
instance_create_time :Optional[Iso8601Timestamp]
iops :Optional[Integer]
kms_key_id :Optional[NonEmptyString]
latest_restorable_time :Optional[Iso8601Timestamp]
license_model :Optional[NonEmptyString]
listener_endpoint :Optional[AwsRdsDbInstanceEndpoint]
master_username :Optional[NonEmptyString]
max_allocated_storage :Optional[Integer]
monitoring_interval :Optional[Integer]
monitoring_role_arn :Optional[NonEmptyString]
multi_az :Optional[Boolean]
option_group_memberships :Optional[AwsRdsDbOptionGroupMemberships]
pending_modified_values :Optional[AwsRdsDbPendingModifiedValues]
performance_insights_enabled :Optional[Boolean]
performance_insights_kms_key_id :Optional[NonEmptyString]
performance_insights_retention_period :Optional[Integer]
preferred_backup_window :Optional[NonEmptyString]
preferred_maintenance_window :Optional[NonEmptyString]
processor_features :Optional[AwsRdsDbProcessorFeatures]
promotion_tier :Optional[Integer]
publicly_accessible :Optional[Boolean]
read_replica_db_cluster_identifiers :Optional[StringList]
read_replica_db_instance_identifiers :Optional[StringList]
read_replica_source_db_instance_identifier :Optional[NonEmptyString]
secondary_availability_zone :Optional[NonEmptyString]
status_infos :Optional[AwsRdsDbStatusInfos]
storage_encrypted :Optional[Boolean]
```

```

storage_type :Optional[NonEmptyString]
tde_credential_arn :Optional[NonEmptyString]
timezone :Optional[NonEmptyString]
vpc_security_groups :Optional[AwsRdsDbInstanceVpcSecurityGroups]
class asff.generated.AwsRdsDbInstanceEndpoint
  Bases: asff.generated.ASFFBaseModel

```



Specifies the connection endpoint.

Parameters

- **address** – Specifies the DNS address of the DB instance.
- **port** – Specifies the port that the database engine is listening on.
- **hosted_zone_id** – Specifies the ID that Amazon Route 53 assigns when you create a hosted zone.

Returns AwsRdsDbInstanceEndpoint object

```

address :Optional[NonEmptyString]
hosted_zone_id :Optional[NonEmptyString]
port :Optional[Integer]
class asff.generated.AwsRdsDbInstanceVpcSecurityGroup
  Bases: asff.generated.ASFFBaseModel

```



A VPC security groups that the DB instance belongs to.

Parameters

- **vpc_security_group_id** – The name of the VPC security group.
- **status** – The status of the VPC security group.

Returns AwsRdsDbInstanceVpcSecurityGroup object

```

status :Optional[NonEmptyString]
vpc_security_group_id :Optional[NonEmptyString]

```

```
class asff.generated.AwsRdsDbOptionGroupMembership
    Bases: asff.generated.ASFFBaseModel
```



An option group membership.

Parameters

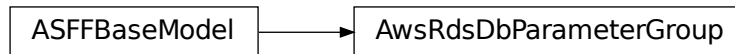
- **option_group_name** – The name of the option group.
- **status** – The status of the option group membership.

Returns `AwsRdsDbOptionGroupMembership` object

option_group_name : `Optional[NonEmptyString]`

status : `Optional[NonEmptyString]`

```
class asff.generated.AwsRdsDbParameterGroup
    Bases: asff.generated.ASFFBaseModel
```



Provides information about a parameter group for a DB instance.

Parameters

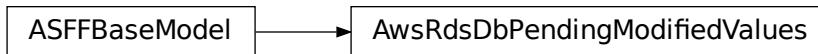
- **db_parameter_group_name** – The name of the parameter group.
- **parameter_apply_status** – The status of parameter updates.

Returns `AwsRdsDbParameterGroup` object

db_parameter_group_name : `Optional[NonEmptyString]`

parameter_apply_status : `Optional[NonEmptyString]`

```
class asff.generated.AwsRdsDbPendingModifiedValues
    Bases: asff.generated.ASFFBaseModel
```

Changes to a DB instance that are currently pending.

Parameters

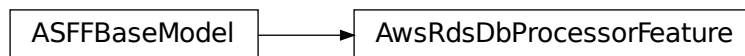
- **db_instance_class** – The new DB instance class for the DB instance.
- **allocated_storage** – The new value of the allocated storage for the DB instance.
- **master_user_password** – The new master user password for the DB instance.
- **port** – The new port for the DB instance.
- **backup_retention_period** – The new backup retention period for the DB instance.
- **multi_az** – Indicates that a single Availability Zone DB instance is changing to a multiple Availability Zone deployment.
- **engine_version** – The new engine version for the DB instance.
- **license_model** – The new license model value for the DB instance.
- **iops** – The new provisioned IOPS value for the DB instance.
- **db_instance_identifier** – The new DB instance identifier for the DB instance.
- **storage_type** – The new storage type for the DB instance.
- **ca_certificate_identifier** – The new CA certificate identifier for the DB instance.
- **db_subnet_group_name** – The name of the new subnet group for the DB instance.
- **pending_cloud_watch_logs_exports** – A list of log types that are being enabled or disabled.
- **processor_features** – Processor features that are being updated.

Returns AwsRdsDbPendingModifiedValues object

```

allocated_storage :Optional[Integer]
backup_retention_period :Optional[Integer]
ca_certificate_identifier :Optional[NonEmptyString]
db_instance_class :Optional[NonEmptyString]
db_instance_identifier :Optional[NonEmptyString]
db_subnet_group_name :Optional[NonEmptyString]
engine_version :Optional[NonEmptyString]
iops :Optional[Integer]
license_model :Optional[NonEmptyString]
master_user_password :Optional[NonEmptyString]
  
```

```
multi_az :Optional[Boolean]
pending_cloud_watch_logs_exports :Optional[AwsRdsPendingCloudWatchLogsExports]
port :Optional[Integer]
processor_features :Optional[AwsRdsDbProcessorFeatures]
storage_type :Optional[NonEmptyString]
class asff.generated.AwsRdsDbProcessorFeature
    Bases: asff.generated.ASFFBaseModel
```



A processor feature.

Parameters

- **name** – The name of the processor feature.
- **value** – The value of the processor feature.

Returns AwsRdsDbProcessorFeature object

```
name :Optional[NonEmptyString]
```

```
value :Optional[NonEmptyString]
```

```
class asff.generated.AwsRdsDbSnapshotDetails
    Bases: asff.generated.ASFFBaseModel
```



Provides details about an Amazon RDS DB cluster snapshot.

Parameters

- **db_snapshot_identifier** – The name or ARN of the DB snapshot that is used to restore the DB instance.
- **db_instance_identifier** – A name for the DB instance.
- **snapshot_create_time** – When the snapshot was taken in Coordinated Universal Time (UTC).
- **engine** – The name of the database engine to use for this DB instance.
- **allocated_storage** – The amount of storage (in gigabytes) to be initially allocated for the database instance.

- **status** – The status of this DB snapshot.
- **port** – The port that the database engine was listening on at the time of the snapshot.
- **availability_zone** – Specifies the name of the Availability Zone in which the DB instance was located at the time of the DB snapshot.
- **vpc_id** – The VPC ID associated with the DB snapshot.
- **instance_create_time** – Specifies the time in Coordinated Universal Time (UTC) when the DB instance, from which the snapshot was taken, was created.
- **master_username** – The master user name for the DB snapshot.
- **engine_version** – The version of the database engine.
- **license_model** – License model information for the restored DB instance.
- **snapshot_type** – The type of the DB snapshot.
- **iops** – The provisioned IOPS (I/O operations per second) value of the DB instance at the time of the snapshot.
- **option_group_name** – The option group name for the DB snapshot.
- **percent_progress** – The percentage of the estimated data that has been transferred.
- **source_region** – The AWS Region that the DB snapshot was created in or copied from.
- **source_db_snapshot_identifier** – The DB snapshot ARN that the DB snapshot was copied from.
- **storage_type** – The storage type associated with the DB snapshot.
- **tde_credential_arn** – The ARN from the key store with which to associate the instance for TDE encryption.
- **encrypted** – Whether the DB snapshot is encrypted.
- **kms_key_id** – If Encrypted is true, the AWS KMS key identifier for the encrypted DB snapshot.
- **timezone** – The time zone of the DB snapshot.
- **iam_database_authentication_enabled** – Whether mapping of IAM accounts to database accounts is enabled.
- **processor_features** – The number of CPU cores and the number of threads per core for the DB instance class of the DB instance.
- **dbi_resource_id** – The identifier for the source DB instance.

Returns AwsRdsDbSnapshotDetails object

```

allocated_storage :Optional[Integer]
availability_zone :Optional[NonEmptyString]
db_instance_identifier :Optional[NonEmptyString]
db_snapshot_identifier :Optional[NonEmptyString]
dbi_resource_id :Optional[NonEmptyString]
encrypted :Optional[Boolean]
engine :Optional[NonEmptyString]
engine_version :Optional[NonEmptyString]

```

```
iam_database_authentication_enabled :Optional[Boolean]
instance_create_time :Optional[Iso8601Timestamp]
iops :Optional[Integer]
kms_key_id :Optional[NonEmptyString]
license_model :Optional[NonEmptyString]
master_username :Optional[NonEmptyString]
option_group_name :Optional[NonEmptyString]
percent_progress :Optional[Integer]
port :Optional[Integer]
processor_features :Optional[AwsRdsDbProcessorFeatures]
snapshot_create_time :Optional[Iso8601Timestamp]
snapshot_type :Optional[NonEmptyString]
source_db_snapshot_identifier :Optional[NonEmptyString]
source_region :Optional[NonEmptyString]
status :Optional[NonEmptyString]
storage_type :Optional[NonEmptyString]
tde_credential_arn :Optional[NonEmptyString]
timezone :Optional[NonEmptyString]
vpc_id :Optional[NonEmptyString]
class asff.generated.AwsRdsDbStatusInfo
    Bases: asff.generated.ASFFBaseModel
```



Information about the status of a read replica.

Parameters

- **status_type** – The type of status. For a read replica, the status type is read replication.
- **normal** – Whether the read replica instance is operating normally.
- **status** – The status of the read replica instance.
- **message** – If the read replica is currently in an error state, provides the error details.

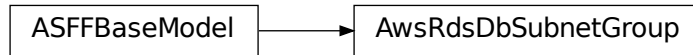
Returns AwsRdsDbStatusInfo object

```
message :Optional[NonEmptyString]
normal :Optional[Boolean]
```

```

    status :Optional[NonEmptyString]
    status_type :Optional[NonEmptyString]
class asff.generated.AwsRdsDbSubnetGroup
    Bases: asff.generated.ASFFBaseModel

```



Information about the subnet group for the database instance.

Parameters

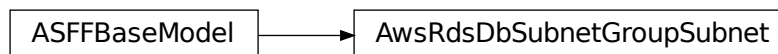
- **db_subnet_group_name** – The name of the subnet group.
- **db_subnet_group_description** – The description of the subnet group.
- **vpc_id** – The VPC ID of the subnet group.
- **subnet_group_status** – The status of the subnet group.
- **subnets** – A list of subnets in the subnet group.
- **db_subnet_group_arn** – The ARN of the subnet group.

Returns AwsRdsDbSubnetGroup object

```

db_subnet_group_arn :Optional[NonEmptyString]
db_subnet_group_description :Optional[NonEmptyString]
db_subnet_group_name :Optional[NonEmptyString]
subnet_group_status :Optional[NonEmptyString]
subnets :Optional[AwsRdsDbSubnetGroupSubnets]
vpc_id :Optional[NonEmptyString]
class asff.generated.AwsRdsDbSubnetGroupSubnet
    Bases: asff.generated.ASFFBaseModel

```



Information about a subnet in a subnet group.

Parameters

- **subnet_identifier** – The identifier of a subnet in the subnet group.

- **subnet_availability_zone** – Information about the Availability Zone for a subnet in the subnet group.
- **subnet_status** – The status of a subnet in the subnet group.

Returns `AwsRdsDbSubnetGroupSubnet` object

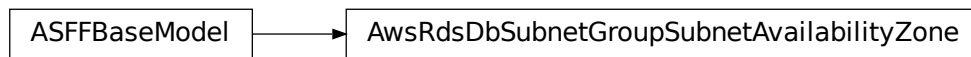
subnet_availability_zone : `Optional[AwsRdsDbSubnetGroupSubnetAvailabilityZone]`

subnet_identifier : `Optional[NonEmptyString]`

subnet_status : `Optional[NonEmptyString]`

class `asff.generated.AwsRdsDbSubnetGroupSubnetAvailabilityZone`

Bases: `asff.generated.ASFFBaseModel`



An Availability Zone for a subnet in a subnet group.

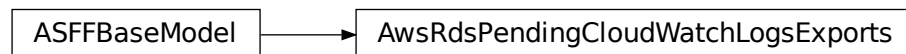
Parameters **name** – The name of the Availability Zone for a subnet in the subnet group.

Returns `AwsRdsDbSubnetGroupSubnetAvailabilityZone` object

name : `Optional[NonEmptyString]`

class `asff.generated.AwsRdsPendingCloudWatchLogsExports`

Bases: `asff.generated.ASFFBaseModel`



Identifies the log types to enable and disable.

Parameters

- **log_types_to_enable** – A list of log types that are being enabled.
- **log_types_to_disable** – A list of log types that are being disabled.

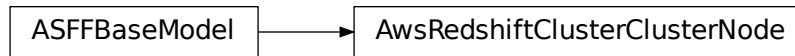
Returns `AwsRdsPendingCloudWatchLogsExports` object

log_types_to_disable : `Optional[StringList]`

log_types_to_enable : `Optional[StringList]`

class `asff.generated.AwsRedshiftClusterClusterNode`

Bases: `asff.generated.ASFFBaseModel`



A node in an Amazon Redshift cluster.

Parameters

- **node_role** – The role of the node. A node might be a leader node or a compute node.
- **private_ip_address** – The private IP address of the node.
- **public_ip_address** – The public IP address of the node.

Returns AwsRedshiftClusterClusterNode object

```
node_role :Optional[NonEmptyString]
private_ip_address :Optional[NonEmptyString]
public_ip_address :Optional[NonEmptyString]
```

```
class asff.generated.AwsRedshiftClusterClusterParameterGroup
  Bases: asff.generated.ASFFBaseModel
```



A cluster parameter group that is associated with an Amazon Redshift cluster.

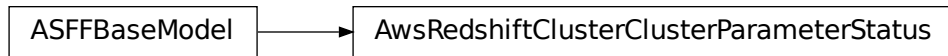
Parameters

- **cluster_parameter_status_list** – The list of parameter statuses.
- **parameter_apply_status** – The status of updates to the parameters.
- **parameter_group_name** – The name of the parameter group.

Returns AwsRedshiftClusterClusterParameterGroup object

```
cluster_parameter_status_list :Optional[AwsRedshiftClusterClusterParameterStatusList]
parameter_apply_status :Optional[NonEmptyString]
parameter_group_name :Optional[NonEmptyString]
```

```
class asff.generated.AwsRedshiftClusterClusterParameterStatus
  Bases: asff.generated.ASFFBaseModel
```



The status of a parameter in a cluster parameter group for an Amazon Redshift cluster.

Parameters

- **parameter_name** – The name of the parameter.
- **parameter_apply_status** – The status of the parameter. Indicates whether the parameter is in sync with the database, waiting for a cluster reboot, or encountered an error when it was applied. Valid values: in-sync | pending-reboot | applying | invalid-parameter | apply-deferred | apply-error | unknown-error
- **parameter_apply_error_description** – The error that prevented the parameter from being applied to the database.

Returns AwsRedshiftClusterClusterParameterStatus object

parameter_apply_error_description :Optional[NonEmptyString]

parameter_apply_status :Optional[NonEmptyString]

parameter_name :Optional[NonEmptyString]

class asff.generated.AwsRedshiftClusterClusterSecurityGroup

Bases: *asff.generated.ASFFBaseModel*



A security group that is associated with the cluster.

Parameters

- **cluster_security_group_name** – The name of the cluster security group.
- **status** – The status of the cluster security group.

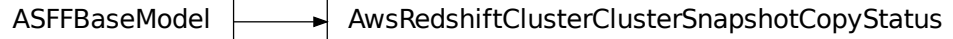
Returns AwsRedshiftClusterClusterSecurityGroup object

cluster_security_group_name :Optional[NonEmptyString]

status :Optional[NonEmptyString]

class asff.generated.AwsRedshiftClusterClusterSnapshotCopyStatus

Bases: *asff.generated.ASFFBaseModel*



Information about a cross-Region snapshot copy.

Parameters

- **destination_region** – The destination Region that snapshots are automatically copied to when cross-Region snapshot copy is enabled.
- **manual_snapshot_retention_period** – The number of days that manual snapshots are retained in the destination region after they are copied from a source region. If the value is -1, then the manual snapshot is retained indefinitely. Valid values: Either -1 or an integer between 1 and 3,653
- **retention_period** – The number of days to retain automated snapshots in the destination Region after they are copied from a source Region.
- **snapshot_copy_grant_name** – The name of the snapshot copy grant.

Returns `AwsRedshiftClusterClusterSnapshotCopyStatus` object

destination_region : `Optional[NonEmptyString]`

manual_snapshot_retention_period : `Optional[Integer]`

retention_period : `Optional[Integer]`

snapshot_copy_grant_name : `Optional[NonEmptyString]`

class `asff.generated.AwsRedshiftClusterDeferredMaintenanceWindow`

Bases: `asff.generated.ASFFBaseModel`



A time windows during which maintenance was deferred for an Amazon Redshift cluster.

Parameters

- **defer_maintenance_end_time** – The end of the time window for which maintenance was deferred. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **defer_maintenance_identifier** – The identifier of the maintenance window.
- **defer_maintenance_start_time** – The start of the time window for which maintenance was deferred. Uses the date-time format specified in RFC 3339 section 5.6,

Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.

Returns `AwsRedshiftClusterDeferredMaintenanceWindow` object

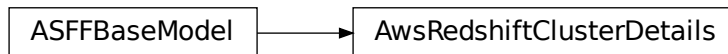
defer_maintenance_end_time : `Optional[NonEmptyString]`

defer_maintenance_identifier : `Optional[NonEmptyString]`

defer_maintenance_start_time : `Optional[NonEmptyString]`

class `asff.generated.AwsRedshiftClusterDetails`

Bases: `asff.generated.ASFFBaseModel`



Details about an Amazon Redshift cluster.

Parameters

- **allow_version_upgrade** – Indicates whether major version upgrades are applied automatically to the cluster during the maintenance window.
- **automated_snapshot_retention_period** – The number of days that automatic cluster snapshots are retained.
- **availability_zone** – The name of the Availability Zone in which the cluster is located.
- **cluster_availability_status** – The availability status of the cluster for queries. Possible values are the following: Available - The cluster is available for queries. Unavailable - The cluster is not available for queries. Maintenance - The cluster is intermittently available for queries due to maintenance activities. Modifying - The cluster is intermittently available for queries due to changes that modify the cluster. Failed - The cluster failed and is not available for queries.
- **cluster_create_time** – Indicates when the cluster was created. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **cluster_identifier** – The unique identifier of the cluster.
- **cluster_nodes** – The nodes in the cluster.
- **cluster_parameter_groups** – The list of cluster parameter groups that are associated with this cluster.
- **cluster_public_key** – The public key for the cluster.
- **cluster_revision_number** – The specific revision number of the database in the cluster.
- **cluster_security_groups** – A list of cluster security groups that are associated with the cluster.

- **cluster_snapshot_copy_status** – Information about the destination Region and retention period for the cross-Region snapshot copy.
- **cluster_status** – The current status of the cluster. Valid values: available | available, prep-for-resize | available, resize-cleanup | cancelling-resize | creating | deleting | final-snapshot | hardware-failure | incompatible-hsm | incompatible-network | incompatible-parameters | incompatible-restore | modifying | paused | rebooting | renaming | resizing | rotating-keys | storage-full | updating-hsm
- **cluster_subnet_group_name** – The name of the subnet group that is associated with the cluster. This parameter is valid only when the cluster is in a VPC.
- **cluster_version** – The version ID of the Amazon Redshift engine that runs on the cluster.
- **db_name** – The name of the initial database that was created when the cluster was created. The same name is returned for the life of the cluster. If an initial database is not specified, a database named devdev is created by default.
- **deferred_maintenance_windows** – List of time windows during which maintenance was deferred.
- **elastic_ip_status** – Information about the status of the Elastic IP (EIP) address.
- **elastic_resize_number_of_node_options** – The number of nodes that you can use the elastic resize method to resize the cluster to.
- **encrypted** – Indicates whether the data in the cluster is encrypted at rest.
- **endpoint** – The connection endpoint.
- **enhanced_vpc_routing** – Indicates whether to create the cluster with enhanced VPC routing enabled.
- **expected_next_snapshot_schedule_time** – Indicates when the next snapshot is expected to be taken. The cluster must have a valid snapshot schedule and have backups enabled. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **expected_next_snapshot_schedule_time_status** – The status of the next expected snapshot. Valid values: OnTrack | Pending
- **hsm_status** – Information about whether the Amazon Redshift cluster finished applying any changes to hardware security module (HSM) settings that were specified in a modify cluster command.
- **iam_roles** – A list of IAM roles that the cluster can use to access other AWS services.
- **kms_key_id** – The identifier of the AWS KMS encryption key that is used to encrypt data in the cluster.
- **maintenance_track_name** – The name of the maintenance track for the cluster.
- **manual_snapshot_retention_period** – The default number of days to retain a manual snapshot. If the value is -1, the snapshot is retained indefinitely. This setting doesn't change the retention period of existing snapshots. Valid values: Either -1 or an integer between 1 and 3,653
- **master_username** – The master user name for the cluster. This name is used to connect to the database that is specified in as the value of DBName.

- **next_maintenance_window_start_time** – Indicates the start of the next maintenance window. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **node_type** – The node type for the nodes in the cluster.
- **number_of_nodes** – The number of compute nodes in the cluster.
- **pending_actions** – A list of cluster operations that are waiting to start.
- **pending_modified_values** – A list of changes to the cluster that are currently pending.
- **preferred_maintenance_window** – The weekly time range, in Universal Coordinated Time (UTC), during which system maintenance can occur. Format: <day>;HH:MM-<day>;HH:MM For the day values, use mon | tue | wed | thu | fri | sat | sun For example, sun:09:32-sun:10:02
- **publicly_accessible** – Whether the cluster can be accessed from a public network.
- **resize_info** – Information about the resize operation for the cluster.
- **restore_status** – Information about the status of a cluster restore action. Only applies to a cluster that was created by restoring a snapshot.
- **snapshot_schedule_identifier** – A unique identifier for the cluster snapshot schedule.
- **snapshot_schedule_state** – The current state of the cluster snapshot schedule. Valid values: MODIFYING | ACTIVE | FAILED
- **vpc_id** – The identifier of the VPC that the cluster is in, if the cluster is in a VPC.
- **vpc_security_groups** – The list of VPC security groups that the cluster belongs to, if the cluster is in a VPC.

Returns AwsRedshiftClusterDetails object

```
allow_version_upgrade :Optional[Boolean]
automated_snapshot_retention_period :Optional[Integer]
availability_zone :Optional[NonEmptyString]
cluster_availability_status :Optional[NonEmptyString]
cluster_create_time :Optional[Iso8601Timestamp]
cluster_identifier :Optional[NonEmptyString]
cluster_nodes :Optional[AwsRedshiftClusterClusterNodes]
cluster_parameter_groups :Optional[AwsRedshiftClusterClusterParameterGroups]
cluster_public_key :Optional[NonEmptyString]
cluster_revision_number :Optional[NonEmptyString]
cluster_security_groups :Optional[AwsRedshiftClusterClusterSecurityGroups]
cluster_snapshot_copy_status :Optional[AwsRedshiftClusterClusterSnapshotCopyStatus]
cluster_status :Optional[NonEmptyString]
cluster_subnet_group_name :Optional[NonEmptyString]
cluster_version :Optional[NonEmptyString]
```

```

db_name :Optional[NonEmptyString]
deferred_maintenance_windows :Optional[AwsRedshiftClusterDeferredMaintenanceWindows]
elastic_ip_status :Optional[AwsRedshiftClusterElasticIpStatus]
elastic_resize_number_of_node_options :Optional[NonEmptyString]
encrypted :Optional[Boolean]
endpoint :Optional[AwsRedshiftClusterEndpoint]
enhanced_vpc_routing :Optional[Boolean]
expected_next_snapshot_schedule_time :Optional[NonEmptyString]
expected_next_snapshot_schedule_time_status :Optional[NonEmptyString]
hsm_status :Optional[AwsRedshiftClusterHsmStatus]
iam_roles :Optional[AwsRedshiftClusterIamRoles]
kms_key_id :Optional[NonEmptyString]
maintenance_track_name :Optional[NonEmptyString]
manual_snapshot_retention_period :Optional[Integer]
master_username :Optional[NonEmptyString]
next_maintenance_window_start_time :Optional[NonEmptyString]
node_type :Optional[NonEmptyString]
number_of_nodes :Optional[Integer]
pending_actions :Optional[StringList]
pending_modified_values :Optional[AwsRedshiftClusterPendingModifiedValues]
preferred_maintenance_window :Optional[NonEmptyString]
publicly_accessible :Optional[Boolean]
resize_info :Optional[AwsRedshiftClusterResizeInfo]
restore_status :Optional[AwsRedshiftClusterRestoreStatus]
snapshot_schedule_identifier :Optional[NonEmptyString]
snapshot_schedule_state :Optional[NonEmptyString]
vpc_id :Optional[NonEmptyString]
vpc_security_groups :Optional[AwsRedshiftClusterVpcSecurityGroups]
class asff.generated.AwsRedshiftClusterElasticIpStatus
  Bases: asff.generated.ASFFBaseModel

```



The status of the elastic IP (EIP) address for an Amazon Redshift cluster.

Parameters

- **elastic_ip** – The elastic IP address for the cluster.
- **status** – The status of the elastic IP address.

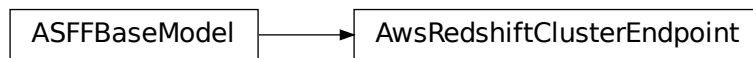
Returns `AwsRedshiftClusterElasticIpStatus` object

elastic_ip : `Optional[NonEmptyString]`

status : `Optional[NonEmptyString]`

class `asff.generated.AwsRedshiftClusterEndpoint`

Bases: `asff.generated.ASFFBaseModel`



The connection endpoint for an Amazon Redshift cluster.

Parameters

- **address** – The DNS address of the cluster.
- **port** – The port that the database engine listens on.

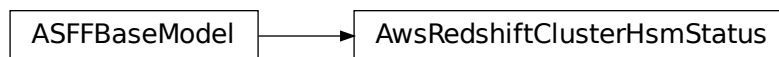
Returns `AwsRedshiftClusterEndpoint` object

address : `Optional[NonEmptyString]`

port : `Optional[Integer]`

class `asff.generated.AwsRedshiftClusterHsmStatus`

Bases: `asff.generated.ASFFBaseModel`



Information about whether an Amazon Redshift cluster finished applying any hardware changes to security module (HSM) settings that were specified in a modify cluster command.

Parameters

- **hsm_client_certificate_identifier** – The name of the HSM client certificate that the Amazon Redshift cluster uses to retrieve the data encryption keys that are stored in an HSM.

- **hsm_configuration_identifier** – The name of the HSM configuration that contains the information that the Amazon Redshift cluster can use to retrieve and store keys in an HSM.
- **status** – Indicates whether the Amazon Redshift cluster has finished applying any HSM settings changes specified in a modify cluster command. Type: String Valid values: active | applying

Returns AwsRedshiftClusterHsmStatus object

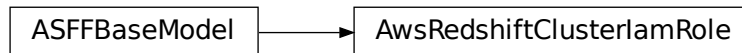
hsm_client_certificate_identifier :Optional[NonEmptyString]

hsm_configuration_identifier :Optional[NonEmptyString]

status :Optional[NonEmptyString]

class asff.generated.AwsRedshiftClusterIamRole

Bases: *asff.generated.ASFFBaseModel*



An IAM role that the cluster can use to access other AWS services.

Parameters

- **apply_status** – The status of the IAM role’s association with the cluster. Valid values: in-sync | adding | removing
- **iam_role_arn** – The ARN of the IAM role.

Returns AwsRedshiftClusterIamRole object

apply_status :Optional[NonEmptyString]

iam_role_arn :Optional[NonEmptyString]

class asff.generated.AwsRedshiftClusterPendingModifiedValues

Bases: *asff.generated.ASFFBaseModel*



Changes to the Amazon Redshift cluster that are currently pending.

Parameters

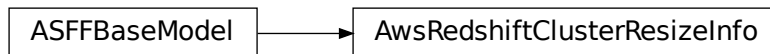
- **automated_snapshot_retention_period** – The pending or in-progress change to the automated snapshot retention period.

- **cluster_identifier** – The pending or in-progress change to the identifier for the cluster.
- **cluster_type** – The pending or in-progress change to the cluster type.
- **cluster_version** – The pending or in-progress change to the service version.
- **encryption_type** – The encryption type for a cluster.
- **enhanced_vpc_routing** – Indicates whether to create the cluster with enhanced VPC routing enabled.
- **maintenance_track_name** – The name of the maintenance track that the cluster changes to during the next maintenance window.
- **master_user_password** – The pending or in-progress change to the master user password for the cluster.
- **node_type** – The pending or in-progress change to the cluster’s node type.
- **number_of_nodes** – The pending or in-progress change to the number of nodes in the cluster.
- **publicly_accessible** – The pending or in-progress change to whether the cluster can be connected to from the public network.

Returns AwsRedshiftClusterPendingModifiedValues object

```
automated_snapshot_retention_period :Optional[Integer]
cluster_identifier :Optional[NonEmptyString]
cluster_type :Optional[NonEmptyString]
cluster_version :Optional[NonEmptyString]
encryption_type :Optional[NonEmptyString]
enhanced_vpc_routing :Optional[Boolean]
maintenance_track_name :Optional[NonEmptyString]
master_user_password :Optional[NonEmptyString]
node_type :Optional[NonEmptyString]
number_of_nodes :Optional[Integer]
publicly_accessible :Optional[Boolean]

class asff.generated.AwsRedshiftClusterResizeInfo
    Bases: asff.generated.ASFFBaseModel
```



Information about the resize operation for the cluster.

Parameters

- **allow_cancel_resize** – Indicates whether the resize operation can be canceled.
- **resize_type** – The type of resize operation. Valid values: ClassicResize

Returns AwsRedshiftClusterResizeInfo object

allow_cancel_resize :Optional[Boolean]

resize_type :Optional[NonEmptyString]

class asff.generated.AwsRedshiftClusterRestoreStatus

Bases: *asff.generated.ASFFBaseModel*



Information about the status of a cluster restore action. It only applies if the cluster was created by restoring a snapshot.

Parameters

- **current_restore_rate_in_mega_bytes_per_second** – The number of megabytes per second being transferred from the backup storage. Returns the average rate for a completed backup. This field is only updated when you restore to DC2 and DS2 node types.
- **elapsed_time_in_seconds** – The amount of time an in-progress restore has been running, or the amount of time it took a completed restore to finish. This field is only updated when you restore to DC2 and DS2 node types.
- **estimated_time_to_completion_in_seconds** – The estimate of the time remaining before the restore is complete. Returns 0 for a completed restore. This field is only updated when you restore to DC2 and DS2 node types.
- **progress_in_mega_bytes** – The number of megabytes that were transferred from snapshot storage. This field is only updated when you restore to DC2 and DS2 node types.
- **snapshot_size_in_mega_bytes** – The size of the set of snapshot data that was used to restore the cluster. This field is only updated when you restore to DC2 and DS2 node types.
- **status** – The status of the restore action. Valid values: starting | restoring | completed | failed

Returns AwsRedshiftClusterRestoreStatus object

current_restore_rate_in_mega_bytes_per_second :Optional[Double]

elapsed_time_in_seconds :Optional[Long]

estimated_time_to_completion_in_seconds :Optional[Long]

progress_in_mega_bytes :Optional[Long]

snapshot_size_in_mega_bytes :Optional[Long]

status :Optional[NonEmptyString]

```
class asff.generated.AwsRedshiftClusterVpcSecurityGroup
    Bases: asff.generated.ASFFBaseModel
```



A VPC security group that the cluster belongs to, if the cluster is in a VPC.

Parameters

- **status** – The status of the VPC security group.
- **vpc_security_group_id** – The identifier of the VPC security group.

Returns AwsRedshiftClusterVpcSecurityGroup object

status :Optional[NonEmptyString]

vpc_security_group_id :Optional[NonEmptyString]

```
class asff.generated.AwsS3AccountPublicAccessBlockDetails
    Bases: asff.generated.ASFFBaseModel
```



provides information about the Amazon S3 Public Access Block configuration for accounts.

Parameters

- **block_public_acls** – Indicates whether to reject calls to update an S3 bucket if the calls include a public access control list (ACL).
- **block_public_policy** – Indicates whether to reject calls to update the access policy for an S3 bucket or access point if the policy allows public access.
- **ignore_public_acls** – Indicates whether Amazon S3 ignores public ACLs that are associated with an S3 bucket.
- **restrict_public_buckets** – Indicates whether to restrict access to an access point or S3 bucket that has a public policy to only AWS service principals and authorized users within the S3 bucket owner's account.

Returns AwsS3AccountPublicAccessBlockDetails object

block_public_acls :Optional[Boolean]

block_public_policy :Optional[Boolean]

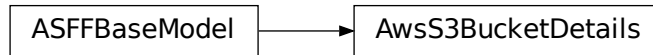
ignore_public_acls :Optional[Boolean]

```

    restrict_public_buckets :Optional[Boolean]

class asff.generated.AwsS3BucketDetails
    Bases: asff.generated.ASFFBaseModel

```



The details of an Amazon S3 bucket.

Parameters

- **owner_id** – The canonical user ID of the owner of the S3 bucket.
- **owner_name** – The display name of the owner of the S3 bucket.
- **created_at** – Indicates when the S3 bucket was created. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **server_side_encryption_configuration** – The encryption rules that are applied to the S3 bucket.
- **public_access_block_configuration** – Provides information about the Amazon S3 Public Access Block configuration for the S3 bucket.

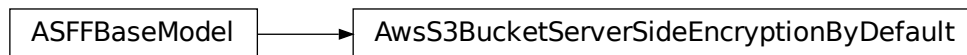
Returns AwsS3BucketDetails object

```

created_at :Optional[Iso8601Timestamp]
owner_id :Optional[NonEmptyString]
owner_name :Optional[NonEmptyString]
public_access_block_configuration :Optional[AwsS3AccountPublicAccessBlockDetails]
server_side_encryption_configuration :Optional[AwsS3BucketServerSideEncryptionConfiguration]

class asff.generated.AwsS3BucketServerSideEncryptionByDefault
    Bases: asff.generated.ASFFBaseModel

```



Specifies the default server-side encryption to apply to new objects in the bucket.

Parameters

- **sse_algorithm** – Server-side encryption algorithm to use for the default encryption.

- **kms_master_key_id** – AWS KMS customer master key (CMK) ID to use for the default encryption.

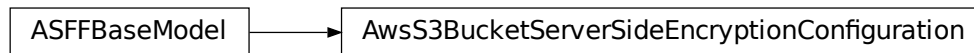
Returns `AwsS3BucketServerSideEncryptionByDefault` object

kms_master_key_id : `Optional[NonEmptyString]`

sse_algorithm : `Optional[NonEmptyString]`

class `asff.generated.AwsS3BucketServerSideEncryptionConfiguration`

Bases: `asff.generated.ASFFBaseModel`



The encryption configuration for the S3 bucket.

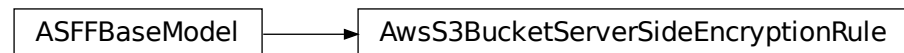
Parameters **rules** – The encryption rules that are applied to the S3 bucket.

Returns `AwsS3BucketServerSideEncryptionConfiguration` object

rules : `Optional[AwsS3BucketServerSideEncryptionRules]`

class `asff.generated.AwsS3BucketServerSideEncryptionRule`

Bases: `asff.generated.ASFFBaseModel`



An encryption rule to apply to the S3 bucket.

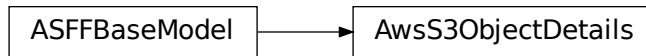
Parameters **apply_server_side_encryption_by_default** – Specifies the default server-side encryption to apply to new objects in the bucket. If a PUT object request doesn't specify any server-side encryption, this default encryption is applied.

Returns `AwsS3BucketServerSideEncryptionRule` object

apply_server_side_encryption_by_default : `Optional[AwsS3BucketServerSideEncryptionByDefault]`

class `asff.generated.AwsS3ObjectDetails`

Bases: `asff.generated.ASFFBaseModel`



Details about an Amazon S3 object.

Parameters

- **last_modified** – Indicates when the object was last modified. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **e_tag** – The opaque identifier assigned by a web server to a specific version of a resource found at a URL.
- **version_id** – The version of the object.
- **content_type** – A standard MIME type describing the format of the object data.
- **server_side_encryption** – If the object is stored using server-side encryption, the value of the server-side encryption algorithm used when storing this object in Amazon S3.
- **ssekms_key_id** – The identifier of the AWS Key Management Service (AWS KMS) symmetric customer managed customer master key (CMK) that was used for the object.

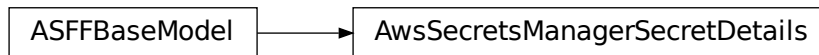
Returns AwsS3ObjectDetails object

```

content_type :Optional[NonEmptyString]
e_tag :Optional[NonEmptyString]
last_modified :Optional[Iso8601Timestamp]
server_side_encryption :Optional[NonEmptyString]
ssekms_key_id :Optional[NonEmptyString]
version_id :Optional[NonEmptyString]
  
```

```

class asff.generated.AwsSecretsManagerSecretDetails
  Bases: asff.generated.ASFFBaseModel
  
```



Details about an AWS Secrets Manager secret.

Parameters

- **rotation_rules** – Defines the rotation schedule for the secret.

- **rotation_occurred_within_frequency** – Whether the rotation occurred within the specified rotation frequency.
- **kms_key_id** – The ARN, Key ID, or alias of the AWS KMS customer master key (CMK) used to encrypt the SecretString or SecretBinary values for versions of this secret.
- **rotation_enabled** – Whether rotation is enabled.
- **rotation_lambda_arn** – The ARN of the Lambda function that rotates the secret.
- **deleted** – Whether the secret is deleted.
- **name** – The name of the secret.
- **description** – The user-provided description of the secret.

Returns AwsSecretsManagerSecretDetails object

```
deleted :Optional[Boolean]
description :Optional[NonEmptyString]
kms_key_id :Optional[NonEmptyString]
name :Optional[NonEmptyString]
rotation_enabled :Optional[Boolean]
rotation_lambda_arn :Optional[NonEmptyString]
rotation_occurred_within_frequency :Optional[Boolean]
rotation_rules :Optional[AwsSecretsManagerSecretRotationRules]
```

```
class asff.generated.AwsSecretsManagerSecretRotationRules
  Bases: asff.generated.ASFFBaseModel
```



Defines the rotation schedule for the secret.

Parameters **automatically_after_days** – The number of days after the previous rotation to rotate the secret.

Returns AwsSecretsManagerSecretRotationRules object

```
automatically_after_days :Optional[Integer]
```

```
class asff.generated.AwsSecurityFinding
  Bases: asff.generated.ASFFBaseModel
```



Provides consistent format for the contents of the Security Hub-aggregated findings. `AwsSecurityFinding` format enables you to share findings between AWS security services and third-party solutions, and security standards checks. A finding is a potential security issue generated either by AWS services (Amazon GuardDuty, Amazon Inspector, and Amazon Macie) or by the integrated third-party solutions and standards checks.

Parameters

- **schema_version** – The schema version that a finding is formatted for.
- **id** – The security findings provider-specific identifier for a finding.
- **product_arn** – The ARN generated by Security Hub that uniquely identifies a product that generates findings. This can be the ARN for a third-party product that is integrated with Security Hub, or the ARN for a custom integration.
- **generator_id** – The identifier for the solution-specific component (a discrete unit of logic) that generated a finding. In various security-findings providers' solutions, this generator can be called a rule, a check, a detector, a plugin, etc.
- **aws_account_id** – The AWS account ID that a finding is generated in.
- **types** – One or more finding types in the format of namespace/category/classifier that classify a finding. Valid namespace values are: Software and Configuration Checks | TTPs | Effects | Unusual Behaviors | Sensitive Data Identifications
- **first_observed_at** – Indicates when the security-findings provider first observed the potential security issue that a finding captured. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **last_observed_at** – Indicates when the security-findings provider most recently observed the potential security issue that a finding captured. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **created_at** – Indicates when the security-findings provider created the potential security issue that a finding captured. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **updated_at** – Indicates when the security-findings provider last updated the finding record. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **severity** – A finding's severity.
- **confidence** – A finding's confidence. Confidence is defined as the likelihood that a finding accurately identifies the behavior or issue that it was intended to identify. Confidence is scored on a 0-100 basis using a ratio scale, where 0 means zero percent confidence and 100 means 100 percent confidence.

- **criticality** – The level of importance assigned to the resources associated with the finding. A score of 0 means that the underlying resources have no criticality, and a score of 100 is reserved for the most critical resources.
- **title** – A finding’s title. In this release, Title is a required property.
- **description** – A finding’s description. In this release, Description is a required property.
- **remediation** – A data type that describes the remediation options for a finding.
- **source_url** – A URL that links to a page about the current finding in the security-findings provider’s solution.
- **product_fields** – A data type where security-findings providers can include additional solution-specific details that aren’t part of the defined AwsSecurityFinding format.
- **user_defined_fields** – A list of name/value string pairs associated with the finding. These are custom, user-defined fields added to a finding.
- **malware** – A list of malware related to a finding.
- **network** – The details of network-related information about a finding.
- **network_path** – Provides information about a network path that is relevant to a finding. Each entry under NetworkPath represents a component of that path.
- **process** – The details of process-related information about a finding.
- **threat_intel_indicators** – Threat intelligence details related to a finding.
- **resources** – A set of resource data types that describe the resources that the finding refers to.
- **compliance** – This data type is exclusive to findings that are generated as the result of a check run against a specific rule in a supported security standard, such as CIS AWS Foundations. Contains security standard-related finding details.
- **verification_state** – Indicates the veracity of a finding.
- **workflow_state** – The workflow state of a finding.
- **workflow** – Provides information about the status of the investigation into a finding.
- **record_state** – The record state of a finding.
- **related_findings** – A list of related findings.
- **note** – A user-defined note added to a finding.
- **vulnerabilities** – Provides a list of vulnerabilities associated with the findings.
- **patch_summary** – Provides an overview of the patch compliance status for an instance against a selected compliance standard.
- **action** – Provides details about an action that affects or that was taken on a resource.
- **finding_provider_fields** – In a BatchImportFindings request, finding providers use FindingProviderFields to provide and update their own values for confidence, criticality, related findings, severity, and types.

Returns AwsSecurityFinding object

action :Optional[Action]
aws_account_id :NonEmptyString
compliance :Optional[Compliance]


```

confidence :Optional[Integer]
created_at :Iso8601Timestamp
criticality :Optional[Integer]
description :NonEmptyString
finding_provider_fields :Optional[FindingProviderFields]
first_observed_at :Optional[Iso8601Timestamp]
generator_id :NonEmptyString
id :NonEmptyString
last_observed_at :Optional[Iso8601Timestamp]
malware :Optional[MalwareList]
network :Optional[Network]
network_path :Optional[NetworkPathList]
note :Optional[Note]
patch_summary :Optional[PatchSummary]
process :Optional[ProcessDetails]
product_arn :NonEmptyString
product_fields :Optional[FieldMap]
record_state :Optional[RecordState]
related_findings :Optional[RelatedFindingList]
remediation :Optional[Remediation]
resources :ResourceList
schema_version :NonEmptyString
severity :Optional[Severity]
source_url :Optional[NonEmptyString]
threat_intel_indicators :Optional[ThreatIntelIndicatorList]
title :NonEmptyString
types :Optional[TypeList]
updated_at :Iso8601Timestamp
user_defined_fields :Optional[FieldMap]
verification_state :Optional[VerificationState]
vulnerabilities :Optional[VulnerabilityList]
workflow :Optional[Workflow]
workflow_state :Optional[WorkflowState]
class asff.generated.AwsSnsTopicDetails
    Bases: asff.generated.ASFFBaseModel

```



A wrapper type for the topic's Amazon Resource Name (ARN).

Parameters

- **kms_master_key_id** – The ID of an AWS managed customer master key (CMK) for Amazon SNS or a custom CMK.
- **subscription** – Subscription is an embedded property that describes the subscription endpoints of an Amazon SNS topic.
- **topic_name** – The name of the topic.
- **owner** – The subscription's owner.

Returns AwsSnsTopicDetails object

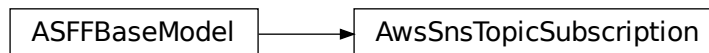
kms_master_key_id :Optional[NonEmptyString]

owner :Optional[NonEmptyString]

subscription :Optional[AwsSnsTopicSubscriptionList]

topic_name :Optional[NonEmptyString]

```
class asff.generated.AwsSnsTopicSubscription
    Bases: asff.generated.ASFFBaseModel
```



A wrapper type for the attributes of an Amazon SNS subscription.

Parameters

- **endpoint** – The subscription's endpoint (format depends on the protocol).
- **protocol** – The subscription's protocol.

Returns AwsSnsTopicSubscription object

endpoint :Optional[NonEmptyString]

protocol :Optional[NonEmptyString]

```
class asff.generated.AwsSnsTopicSubscription
    Bases: asff.generated.ASFFBaseModel
```



Data about a queue.

Parameters

- **kms_data_key_reuse_period_seconds** – The length of time, in seconds, for which Amazon SQS can reuse a data key to encrypt or decrypt messages before calling AWS KMS again.
- **kms_master_key_id** – The ID of an AWS managed customer master key (CMK) for Amazon SQS or a custom CMK.
- **queue_name** – The name of the new queue.
- **dead_letter_target_arn** – The Amazon Resource Name (ARN) of the dead-letter queue to which Amazon SQS moves messages after the value of maxReceiveCount is exceeded.

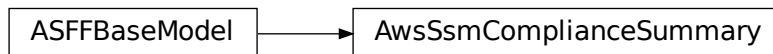
Returns AwsSqsQueueDetails object

```

dead_letter_target_arn :Optional[NonEmptyString]
kms_data_key_reuse_period_seconds :Optional[Integer]
kms_master_key_id :Optional[NonEmptyString]
queue_name :Optional[NonEmptyString]
  
```

```

class asff.generated.AwsSsmComplianceSummary
  Bases: asff.generated.ASFFBaseModel
  
```



Provides the details about the compliance status for a patch.

Parameters

- **status** – The current patch compliance status. The possible status values are: COMPLIANT NON_COMPLIANT UNSPECIFIED_DATA
- **compliant_critical_count** – For the patches that are compliant, the number that have a severity of CRITICAL.
- **compliant_high_count** – For the patches that are compliant, the number that have a severity of HIGH.

- **compliant_medium_count** – For the patches that are compliant, the number that have a severity of MEDIUM.
- **execution_type** – The type of execution that was used determine compliance.
- **non_compliant_critical_count** – For the patch items that are noncompliant, the number of items that have a severity of CRITICAL.
- **compliant_informational_count** – For the patches that are compliant, the number that have a severity of INFORMATIONAL.
- **non_compliant_informational_count** – For the patches that are noncompliant, the number that have a severity of INFORMATIONAL.
- **compliant_unspecified_count** – For the patches that are compliant, the number that have a severity of UNSPECIFIED.
- **non_compliant_low_count** – For the patches that are noncompliant, the number that have a severity of LOW.
- **non_compliant_high_count** – For the patches that are noncompliant, the number that have a severity of HIGH.
- **compliant_low_count** – For the patches that are compliant, the number that have a severity of LOW.
- **compliance_type** – The type of resource for which the compliance was determined. For AwsSsmPatchCompliance, ComplianceType is Patch.
- **patch_baseline_id** – The identifier of the patch baseline. The patch baseline lists the patches that are approved for installation.
- **overall_severity** – The highest severity for the patches.
- **non_compliant_medium_count** – For the patches that are noncompliant, the number that have a severity of MEDIUM.
- **non_compliant_unspecified_count** – For the patches that are noncompliant, the number that have a severity of UNSPECIFIED.
- **patch_group** – The identifier of the patch group for which compliance was determined. A patch group uses tags to group EC2 instances that should have the same patch compliance.

Returns AwsSsmComplianceSummary object

```
compliance_type :Optional[NonEmptyString]
compliant_critical_count :Optional[Integer]
compliant_high_count :Optional[Integer]
compliant_informational_count :Optional[Integer]
compliant_low_count :Optional[Integer]
compliant_medium_count :Optional[Integer]
compliant_unspecified_count :Optional[Integer]
execution_type :Optional[NonEmptyString]
non_compliant_critical_count :Optional[Integer]
non_compliant_high_count :Optional[Integer]
non_compliant_informational_count :Optional[Integer]
```

```

    non_compliant_low_count :Optional[Integer]
    non_compliant_medium_count :Optional[Integer]
    non_compliant_unspecified_count :Optional[Integer]
    overall_severity :Optional[NonEmptyString]
    patch_baseline_id :Optional[NonEmptyString]
    patch_group :Optional[NonEmptyString]
    status :Optional[NonEmptyString]
class asff.generated.AwsSsmPatch
    Bases: asff.generated.ASFFBaseModel

```



Provides details about the compliance for a patch.

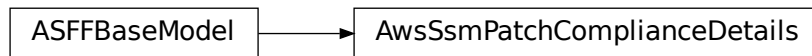
Parameters `compliance_summary` – The compliance status details for the patch.

Returns `AwsSsmPatch` object

```

    compliance_summary :Optional[AwsSsmComplianceSummary]
class asff.generated.AwsSsmPatchComplianceDetails
    Bases: asff.generated.ASFFBaseModel

```



Provides information about the state of a patch on an instance based on the patch baseline that was used to patch the instance.

Parameters `patch` – Information about the status of a patch.

Returns `AwsSsmPatchComplianceDetails` object

```

    patch :Optional[AwsSsmPatch]
class asff.generated.AwsWafWebAclDetails
    Bases: asff.generated.ASFFBaseModel

```



Details about a WAF WebACL.

Parameters

- **name** – A friendly name or description of the WebACL. You can't change the name of a WebACL after you create it.
- **default_action** – The action to perform if none of the rules contained in the WebACL match.
- **rules** – An array that contains the action for each rule in a WebACL, the priority of the rule, and the ID of the rule.
- **web_acl_id** – A unique identifier for a WebACL.

Returns AwsWafWebAclDetails object

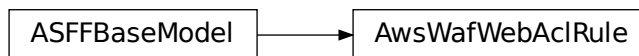
default_action :Optional[NonEmptyString]

name :Optional[NonEmptyString]

rules :Optional[AwsWafWebAclRuleList]

web_acl_id :Optional[NonEmptyString]

class asff.generated.AwsWafWebAclRule
Bases: *asff.generated.ASFFBaseModel*



Details for a rule in a WAF WebACL.

Parameters

- **action** – Specifies the action that CloudFront or AWS WAF takes when a web request matches the conditions in the rule.
- **excluded_rules** – Rules to exclude from a rule group.
- **override_action** – Use the OverrideAction to test your RuleGroup. Any rule in a RuleGroup can potentially block a request. If you set the OverrideAction to None, the RuleGroup blocks a request if any individual rule in the RuleGroup matches the request and is configured to block that request. However, if you first want to test the RuleGroup, set the OverrideAction to Count. The RuleGroup then overrides any block action specified by individual rules contained within the group. Instead of blocking matching requests, those requests are counted. ActivatedRuleOverrideAction applies only when updating or adding

a RuleGroup to a WebACL. In this case you do not use `ActivatedRuleAction`. For all other update requests, `ActivatedRuleAction` is used instead of `ActivatedRuleOverrideAction`.

- **priority** – Specifies the order in which the rules in a WebACL are evaluated. Rules with a lower value for Priority are evaluated before rules with a higher value. The value must be a unique integer. If you add multiple rules to a WebACL, the values do not need to be consecutive.
- **rule_id** – The identifier for a rule.
- **type** – The rule type. Valid values: `REGULAR` | `RATE_BASED` | `GROUP` The default is `REGULAR`.

Returns `AwsWafWebAclRule` object

```

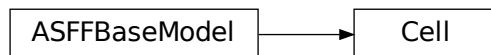
action :Optional[WafAction]
excluded_rules :Optional[WafExcludedRuleList]
override_action :Optional[WafOverrideAction]
priority :Optional[Integer]
rule_id :Optional[NonEmptyString]
type :Optional[NonEmptyString]

```

```

class asff.generated.Cell
    Bases: asff.generated.ASFFBaseModel

```



An occurrence of sensitive data detected in a Microsoft Excel workbook, comma-separated value (CSV) file, or tab-separated value (TSV) file.

Parameters

- **column** – The column number of the column that contains the data. For a Microsoft Excel workbook, the column number corresponds to the alphabetical column identifiers. For example, a value of 1 for Column corresponds to the A column in the workbook.
- **row** – The row number of the row that contains the data.
- **column_name** – The name of the column that contains the data.
- **cell_reference** – For a Microsoft Excel workbook, provides the location of the cell, as an absolute cell reference, that contains the data. For example, `Sheet2!C5` for cell C5 on Sheet2.

Returns `Cell` object

```

cell_reference :Optional[NonEmptyString]
column :Optional[Long]
column_name :Optional[NonEmptyString]
row :Optional[Long]

```

```
class asff.generated.CidrBlockAssociation
    Bases: asff.generated.ASFFBaseModel
```



An IPv4 CIDR block association.

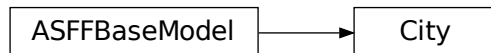
Parameters

- **association_id** – The association ID for the IPv4 CIDR block.
- **cidr_block** – The IPv4 CIDR block.
- **cidr_block_state** – Information about the state of the IPv4 CIDR block.

Returns CidrBlockAssociation object

```
association_id :Optional[NonEmptyString]
cidr_block :Optional[NonEmptyString]
cidr_block_state :Optional[NonEmptyString]
```

```
class asff.generated.City
    Bases: asff.generated.ASFFBaseModel
```



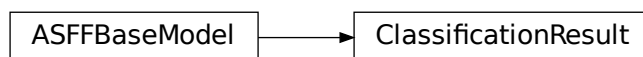
Information about a city.

Parameters **city_name** – The name of the city.

Returns City object

```
city_name :Optional[NonEmptyString]
```

```
class asff.generated.ClassificationResult
    Bases: asff.generated.ASFFBaseModel
```



Details about the sensitive data that was detected on the resource.

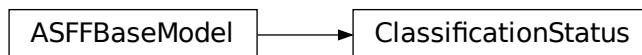
Parameters

- **mime_type** – The type of content that the finding applies to.
- **size_classified** – The total size in bytes of the affected data.
- **additional_occurrences** – Indicates whether there are additional occurrences of sensitive data that are not included in the finding. This occurs when the number of occurrences exceeds the maximum that can be included.
- **status** – The current status of the sensitive data detection.
- **sensitive_data** – Provides details about sensitive data that was identified based on built-in configuration.
- **custom_data_identifiers** – Provides details about sensitive data that was identified based on customer-defined configuration.

Returns ClassificationResult object

```
additional_occurrences :Optional[Boolean]
custom_data_identifiers :Optional[CustomDataIdentifiersResult]
mime_type :Optional[NonEmptyString]
sensitive_data :Optional[SensitiveDataResultList]
size_classified :Optional[Long]
status :Optional[ClassificationStatus]
```

```
class asff.generated.ClassificationStatus
    Bases: asff.generated.ASFFBaseModel
```



Provides details about the current status of the sensitive data detection.

Parameters

- **code** – The code that represents the status of the sensitive data detection.
- **reason** – A longer description of the current status of the sensitive data detection.

Returns ClassificationStatus object

```
code :Optional[NonEmptyString]
reason :Optional[NonEmptyString]
```

```
class asff.generated.Compliance
    Bases: asff.generated.ASFFBaseModel
```



Contains finding details that are specific to control-based findings. Only returned for findings generated from controls.

Parameters

- **status** – The result of a standards check. The valid values for Status are as follows. PASSED - Standards check passed for all evaluated resources. WARNING - Some information is missing or this check is not supported for your configuration. FAILED - Standards check failed for at least one evaluated resource. NOT_AVAILABLE - Check could not be performed due to a service outage, API error, or because the result of the AWS Config evaluation was NOT_APPLICABLE. If the AWS Config evaluation result was NOT_APPLICABLE, then after 3 days, Security Hub automatically archives the finding.
- **related_requirements** – For a control, the industry or regulatory framework requirements that are related to the control. The check for that control is aligned with these requirements.
- **status_reasons** – For findings generated from controls, a list of reasons behind the value of Status. For the list of status reason codes and their meanings, see Standards-related information in the ASFF in the AWS Security Hub User Guide.

Returns Compliance object

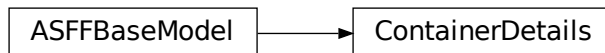
related_requirements :Optional[RelatedRequirementsList]

status :Optional[ComplianceStatus]

status_reasons :Optional[StatusReasonsList]

class asff.generated.ContainerDetails

Bases: *asff.generated.ASFFBaseModel*



Container details related to a finding.

Parameters

- **name** – The name of the container related to a finding.
- **image_id** – The identifier of the image related to a finding.
- **image_name** – The name of the image related to a finding.

- **launched_at** – Indicates when the container started. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.

Returns ContainerDetails object

```
image_id :Optional[NonEmptyString]
image_name :Optional[NonEmptyString]
launched_at :Optional[Iso8601Timestamp]
name :Optional[NonEmptyString]
```

```
class asff.generated.Country
Bases: asff.generated.ASFFBaseModel
```



Information about a country.

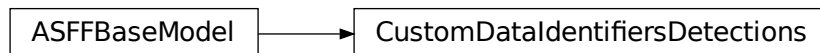
Parameters

- **country_code** – The 2-letter ISO 3166 country code for the country.
- **country_name** – The name of the country.

Returns Country object

```
country_code :Optional[NonEmptyString]
country_name :Optional[NonEmptyString]
```

```
class asff.generated.CustomDataIdentifiersDetections
Bases: asff.generated.ASFFBaseModel
```



The list of detected instances of sensitive data.

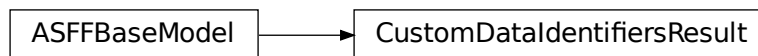
Parameters

- **count** – The total number of occurrences of sensitive data that were detected.
- **arn** – The ARN of the custom identifier that was used to detect the sensitive data.
- **name** – he name of the custom identifier that detected the sensitive data.
- **occurrences** – Details about the sensitive data that was detected.

Returns CustomDataIdentifiersDetections object

```
arn :Optional[NonEmptyString]
count :Optional[Long]
name :Optional[NonEmptyString]
occurrences :Optional[Occurrences]
```

```
class asff.generated.CustomDataIdentifiersResult
Bases: asff.generated.ASFFBaseModel
```



Contains an instance of sensitive data that was detected by a customer-defined identifier.

Parameters

- **detections** – The list of detected instances of sensitive data.
- **total_count** – The total number of occurrences of sensitive data.

Returns CustomDataIdentifiersResult object

```
detections :Optional[CustomDataIdentifiersDetectionsList]
total_count :Optional[Long]
```

```
class asff.generated.Cvss
Bases: asff.generated.ASFFBaseModel
```



CVSS scores from the advisory related to the vulnerability.

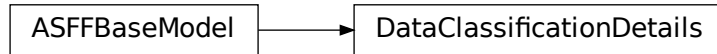
Parameters

- **version** – The version of CVSS for the CVSS score.
- **base_score** – The base CVSS score.
- **base_vector** – The base scoring vector for the CVSS score.

Returns Cvss object

```
base_score :Optional[Double]
base_vector :Optional[NonEmptyString]
version :Optional[NonEmptyString]
```

```
class asff.generated.DataClassificationDetails
    Bases: asff.generated.ASFFBaseModel
```



Provides details about sensitive data that was detected on a resource.

Parameters

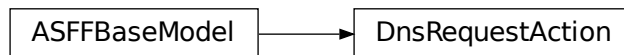
- **detailed_results_location** – The path to the folder or file that contains the sensitive data.
- **result** – The details about the sensitive data that was detected on the resource.

Returns DataClassificationDetails object

detailed_results_location :Optional[NonEmptyString]

result :Optional[ClassificationResult]

```
class asff.generated.DnsRequestAction
    Bases: asff.generated.ASFFBaseModel
```



Provided if ActionType is DNS_REQUEST. It provides details about the DNS request that was detected.

Parameters

- **domain** – The DNS domain that is associated with the DNS request.
- **protocol** – The protocol that was used for the DNS request.
- **blocked** – Indicates whether the DNS request was blocked.

Returns DnsRequestAction object

blocked :Optional[Boolean]

domain :Optional[NonEmptyString]

protocol :Optional[NonEmptyString]

```
class asff.generated.FindingProviderFields
    Bases: asff.generated.ASFFBaseModel
```



In a `BatchImportFindings` request, finding providers use `FindingProviderFields` to provide and update values for confidence, criticality, related findings, severity, and types.

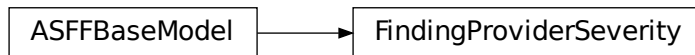
Parameters

- **confidence** – A finding’s confidence. Confidence is defined as the likelihood that a finding accurately identifies the behavior or issue that it was intended to identify. Confidence is scored on a 0-100 basis using a ratio scale, where 0 means zero percent confidence and 100 means 100 percent confidence.
- **criticality** – The level of importance assigned to the resources associated with the finding. A score of 0 means that the underlying resources have no criticality, and a score of 100 is reserved for the most critical resources.
- **related_findings** – A list of findings that are related to the current finding.
- **severity** – The severity of a finding.
- **types** – One or more finding types in the format of namespace/category/classifier that classify a finding. Valid namespace values are: Software and Configuration Checks | TTPs | Effects | Unusual Behaviors | Sensitive Data Identifications

Returns `FindingProviderFields` object

```
confidence :Optional[RatioScale]
criticality :Optional[RatioScale]
related_findings :Optional[RelatedFindingList]
severity :Optional[FindingProviderSeverity]
types :Optional[TypeList]
```

```
class asff.generated.FindingProviderSeverity
    Bases: asff.generated.ASFFBaseModel
```



The severity assigned to the finding by the finding provider.

Parameters

- **label** – The severity label assigned to the finding by the finding provider.
- **original** – The finding provider’s original value for the severity.

Returns FindingProviderSeverity object

label :Optional[SeverityLabel]

original :Optional[NonEmptyString]

class asff.generated.GeoLocation

Bases: *asff.generated.ASFFBaseModel*



Provides the latitude and longitude coordinates of a location.

Parameters

- **lon** – The longitude of the location.
- **lat** – The latitude of the location.

Returns GeoLocation object

lat :Optional[Double]

lon :Optional[Double]

class asff.generated.IpOrganizationDetails

Bases: *asff.generated.ASFFBaseModel*



Provides information about an internet provider.

Parameters

- **asn** – The Autonomous System Number (ASN) of the internet provider
- **asn_org** – The name of the organization that registered the ASN.
- **isp** – The ISP information for the internet provider.
- **org** – The name of the internet provider.

Returns IpOrganizationDetails object

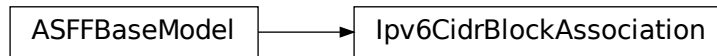
asn :Optional[Integer]

asn_org :Optional[NonEmptyString]

isp :Optional[NonEmptyString]

org :Optional[NonEmptyString]

```
class asff.generated.Ipv6CidrBlockAssociation
    Bases: asff.generated.ASFFBaseModel
```



An IPV6 CIDR block association.

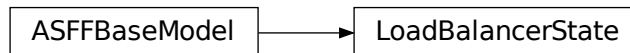
Parameters

- **association_id** – The association ID for the IPv6 CIDR block.
- **ipv6_cidr_block** – The IPv6 CIDR block.
- **cidr_block_state** – Information about the state of the CIDR block.

Returns Ipv6CidrBlockAssociation object

```
association_id :Optional[NonEmptyString]
cidr_block_state :Optional[NonEmptyString]
ipv6_cidr_block :Optional[NonEmptyString]
```

```
class asff.generated.LoadBalancerState
    Bases: asff.generated.ASFFBaseModel
```



Information about the state of the load balancer.

Parameters

- **code** – The state code. The initial state of the load balancer is provisioning. After the load balancer is fully set up and ready to route traffic, its state is active. If the load balancer could not be set up, its state is failed.
- **reason** – A description of the state.

Returns LoadBalancerState object

```
code :Optional[NonEmptyString]
reason :Optional[NonEmptyString]
```

```
class asff.generated.Malware
    Bases: asff.generated.ASFFBaseModel
```




A list of malware related to a finding.

Parameters

- **name** – The name of the malware that was observed.
- **type** – The type of the malware that was observed.
- **path** – The file system path of the malware that was observed.
- **state** – The state of the malware that was observed.

Returns Malware object

```

name :NonEmptyString
path :Optional[NonEmptyString]
state :Optional[MalwareState]
type :Optional[MalwareType]
  
```

```

class asff.generated.Network
  Bases: asff.generated.ASFFBaseModel
  
```



The details of network-related information about a finding.

Parameters

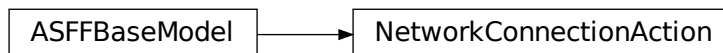
- **direction** – The direction of network traffic associated with a finding.
- **protocol** – The protocol of network-related information about a finding.
- **open_port_range** – The range of open ports that is present on the network.
- **source_ip_v4** – The source IPv4 address of network-related information about a finding.
- **source_ip_v6** – The source IPv6 address of network-related information about a finding.
- **source_port** – The source port of network-related information about a finding.
- **source_domain** – The source domain of network-related information about a finding.
- **source_mac** – The source media access control (MAC) address of network-related information about a finding.

- **destination_ip_v4** – The destination IPv4 address of network-related information about a finding.
- **destination_ip_v6** – The destination IPv6 address of network-related information about a finding.
- **destination_port** – The destination port of network-related information about a finding.
- **destination_domain** – The destination domain of network-related information about a finding.

Returns Network object

```
destination_domain :Optional[NonEmptyString]
destination_ip_v4  :Optional[NonEmptyString]
destination_ip_v6  :Optional[NonEmptyString]
destination_port   :Optional[Integer]
direction          :Optional[NetworkDirection]
open_port_range    :Optional[PortRange]
protocol           :Optional[NonEmptyString]
source_domain      :Optional[NonEmptyString]
source_ip_v4       :Optional[NonEmptyString]
source_ip_v6       :Optional[NonEmptyString]
source_mac         :Optional[NonEmptyString]
source_port        :Optional[Integer]

class asff.generated.NetworkConnectionAction
    Bases: asff.generated.ASFFBaseModel
```



Provided if ActionType is NETWORK_CONNECTION. It provides details about the attempted network connection that was detected.

Parameters

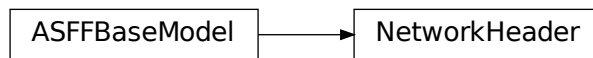
- **connection_direction** – The direction of the network connection request (IN or OUT).
- **remote_ip_details** – Information about the remote IP address that issued the network connection request.
- **remote_port_details** – Information about the port on the remote IP address.
- **local_port_details** – Information about the port on the EC2 instance.
- **protocol** – The protocol used to make the network connection request.

- **blocked** – Indicates whether the network connection attempt was blocked.

Returns NetworkConnectionAction object

```
blocked :Optional[Boolean]
connection_direction :Optional[NonEmptyString]
local_port_details :Optional[ActionLocalPortDetails]
protocol :Optional[NonEmptyString]
remote_ip_details :Optional[ActionRemoteIpDetails]
remote_port_details :Optional[ActionRemotePortDetails]
```

```
class asff.generated.NetworkHeader
  Bases: asff.generated.ASFFBaseModel
```



Details about a network path component that occurs before or after the current component.

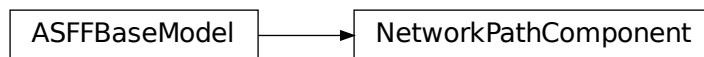
Parameters

- **protocol** – The protocol used for the component.
- **destination** – Information about the destination of the component.
- **source** – Information about the origin of the component.

Returns NetworkHeader object

```
destination :Optional[NetworkPathComponentDetails]
protocol :Optional[NonEmptyString]
source :Optional[NetworkPathComponentDetails]
```

```
class asff.generated.NetworkPathComponent
  Bases: asff.generated.ASFFBaseModel
```



Information about a network path component.

Parameters

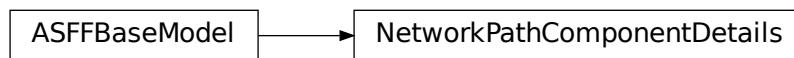
- **component_id** – The identifier of a component in the network path.
- **component_type** – The type of component.

- **egress** – Information about the component that comes after the current component in the network path.
- **ingress** – Information about the component that comes before the current node in the network path.

Returns NetworkPathComponent object

```
component_id :Optional[NonEmptyString]
component_type :Optional[NonEmptyString]
egress :Optional[NetworkHeader]
ingress :Optional[NetworkHeader]
```

```
class asff.generated.NetworkPathComponentDetails
    Bases: asff.generated.ASFFBaseModel
```



Information about the destination of the next component in the network path.

Parameters

- **address** – The IP addresses of the destination.
- **port_ranges** – A list of port ranges for the destination.

Returns NetworkPathComponentDetails object

```
address :Optional[StringList]
port_ranges :Optional[PortRangeList]
```

```
class asff.generated.Note
    Bases: asff.generated.ASFFBaseModel
```



A user-defined note added to a finding.

Parameters

- **text** – The text of a note.
- **updated_by** – The principal that created a note.

- **updated_at** – The timestamp of when the note was updated. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.

Returns Note object

text :NonEmptyString

updated_at :Iso8601Timestamp

updated_by :NonEmptyString

class asff.generated.Occurrences

Bases: *asff.generated.ASFFBaseModel*



The detected occurrences of sensitive data.

Parameters

- **line_ranges** – Occurrences of sensitive data detected in a non-binary text file or a Microsoft Word file. Non-binary text files include files such as HTML, XML, JSON, and TXT files.
- **offset_ranges** – Occurrences of sensitive data detected in a binary text file.
- **pages** – Occurrences of sensitive data in an Adobe Portable Document Format (PDF) file.
- **records** – Occurrences of sensitive data in an Apache Avro object container or an Apache Parquet file.
- **cells** – Occurrences of sensitive data detected in Microsoft Excel workbooks, comma-separated value (CSV) files, or tab-separated value (TSV) files.

Returns Occurrences object

cells :Optional[Cells]

line_ranges :Optional[Ranges]

offset_ranges :Optional[Ranges]

pages :Optional[Pages]

records :Optional[Records]

class asff.generated.Page

Bases: *asff.generated.ASFFBaseModel*



An occurrence of sensitive data in an Adobe Portable Document Format (PDF) file.

Parameters

- **page_number** – The page number of the page that contains the sensitive data.
- **line_range** – An occurrence of sensitive data detected in a non-binary text file or a Microsoft Word file. Non-binary text files include files such as HTML, XML, JSON, and TXT files.
- **offset_range** – An occurrence of sensitive data detected in a binary text file.

Returns Page object

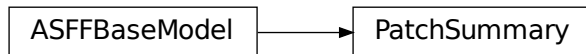
line_range :Optional[Range]

offset_range :Optional[Range]

page_number :Optional[Long]

class asff.generated.PatchSummary

Bases: *asff.generated.ASFFBaseModel*



Provides an overview of the patch compliance status for an instance against a selected compliance standard.

Parameters

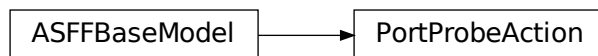
- **id** – The identifier of the compliance standard that was used to determine the patch compliance status.
- **installed_count** – The number of patches from the compliance standard that were installed successfully.
- **missing_count** – The number of patches that are part of the compliance standard but are not installed. The count includes patches that failed to install.
- **failed_count** – The number of patches from the compliance standard that failed to install.
- **installed_other_count** – The number of installed patches that are not part of the compliance standard.
- **installed_rejected_count** – The number of patches that are installed but are also on a list of patches that the customer rejected.

- **installed_pending_reboot** – The number of patches that were applied, but that require the instance to be rebooted in order to be marked as installed.
- **operation_start_time** – Indicates when the operation started. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **operation_end_time** – Indicates when the operation completed. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **reboot_option** – The reboot option specified for the instance.
- **operation** – The type of patch operation performed. For Patch Manager, the values are SCAN and INSTALL.

Returns PatchSummary object

```
failed_count :Optional[Integer]
id :NonEmptyString
installed_count :Optional[Integer]
installed_other_count :Optional[Integer]
installed_pending_reboot :Optional[Integer]
installed_rejected_count :Optional[Integer]
missing_count :Optional[Integer]
operation :Optional[NonEmptyString]
operation_end_time :Optional[Iso8601Timestamp]
operation_start_time :Optional[Iso8601Timestamp]
reboot_option :Optional[NonEmptyString]

class asff.generated.PortProbeAction
    Bases: asff.generated.ASFFBaseModel
```



Provided if ActionType is PORT_PROBE. It provides details about the attempted port probe that was detected.

Parameters

- **port_probe_details** – Information about the ports affected by the port probe.
- **blocked** – Indicates whether the port probe was blocked.

Returns PortProbeAction object

```
blocked :Optional[Boolean]
port_probe_details :Optional[PortProbeDetailList]
```

```
class asff.generated.PortProbeDetail
    Bases: asff.generated.ASFFBaseModel
```



A port scan that was part of the port probe. For each scan, PortProbeDetails provides information about the local IP address and port that were scanned, and the remote IP address that the scan originated from.

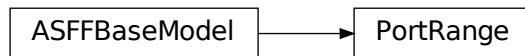
Parameters

- **local_port_details** – Provides information about the port that was scanned.
- **local_ip_details** – Provides information about the IP address where the scanned port is located.
- **remote_ip_details** – Provides information about the remote IP address that performed the scan.

Returns PortProbeDetail object

```
local_ip_details :Optional[ActionLocalIpDetails]
local_port_details :Optional[ActionLocalPortDetails]
remote_ip_details :Optional[ActionRemoteIpDetails]
```

```
class asff.generated.PortRange
    Bases: asff.generated.ASFFBaseModel
```



A range of ports.

Parameters

- **begin** – The first port in the port range.
- **end** – The last port in the port range.

Returns PortRange object

```
begin :Optional[Integer]
end :Optional[Integer]
```

```
class asff.generated.ProcessDetails
    Bases: asff.generated.ASFFBaseModel
```




The details of process-related information about a finding.

Parameters

- **name** – The name of the process.
- **path** – The path to the process executable.
- **pid** – The process ID.
- **parent_pid** – The parent process ID.
- **launched_at** – Indicates when the process was launched. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **terminated_at** – Indicates when the process was terminated. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.

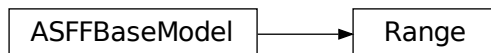
Returns ProcessDetails object

```

launched_at :Optional[Iso8601Timestamp]
name :Optional[NonEmptyString]
parent_pid :Optional[Integer]
path :Optional[NonEmptyString]
pid :Optional[Integer]
terminated_at :Optional[Iso8601Timestamp]
  
```

```

class asff.generated.Range
  Bases: asff.generated.ASFFBaseModel
  
```



Identifies where the sensitive data begins and ends.

Parameters

- **start** – The number of lines (for a line range) or characters (for an offset range) from the beginning of the file to the end of the sensitive data.

- **end** – The number of lines (for a line range) or characters (for an offset range) from the beginning of the file to the end of the sensitive data.
- **start_column** – In the line where the sensitive data starts, the column within the line where the sensitive data starts.

Returns Range object

end :Optional[Long]

start :Optional[Long]

start_column :Optional[Long]

class asff.generated.Recommendation

Bases: *asff.generated.ASFFBaseModel*



A recommendation on how to remediate the issue identified in a finding.

Parameters

- **text** – Describes the recommended steps to take to remediate an issue identified in a finding.
- **url** – A URL to a page or site that contains information about how to remediate a finding.

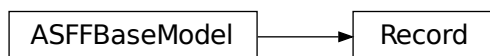
Returns Recommendation object

text :Optional[NonEmptyString]

url :Optional[NonEmptyString]

class asff.generated.Record

Bases: *asff.generated.ASFFBaseModel*



An occurrence of sensitive data in an Apache Avro object container or an Apache Parquet file.

Parameters

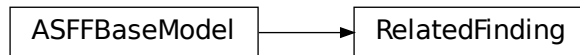
- **json_path** – The path, as a JSONPath expression, to the field in the record that contains the data. If the field name is longer than 20 characters, it is truncated. If the path is longer than 250 characters, it is truncated.
- **record_index** – The record index, starting from 0, for the record that contains the data.

Returns Record object

json_path :Optional[NonEmptyString]

record_index :Optional[Long]

class asff.generated.RelatedFinding
Bases: *asff.generated.ASFFBaseModel*



Details about a related finding.

Parameters

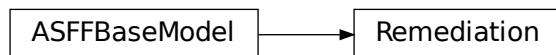
- **product_arn** – The ARN of the product that generated a related finding.
- **id** – The product-generated identifier for a related finding.

Returns RelatedFinding object

id :NonEmptyString

product_arn :NonEmptyString

class asff.generated.Remediation
Bases: *asff.generated.ASFFBaseModel*



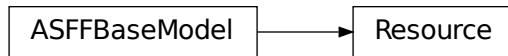
Details about the remediation steps for a finding.

Parameters **recommendation** – A recommendation on the steps to take to remediate the issue identified by a finding.

Returns Remediation object

recommendation :Optional[Recommendation]

class asff.generated.Resource
Bases: *asff.generated.ASFFBaseModel*



A resource related to a finding.

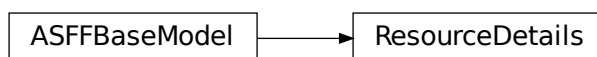
Parameters

- **type** – The type of the resource that details are provided for. If possible, set Type to one of the supported resource types. For example, if the resource is an EC2 instance, then set Type to `AwsEc2Instance`. If the resource does not match any of the provided types, then set Type to `Other`.
- **id** – The canonical identifier for the given resource type.
- **partition** – The canonical AWS partition name that the Region is assigned to.
- **region** – The canonical AWS external Region name where this resource is located.
- **resource_role** – Identifies the role of the resource in the finding. A resource is either the actor or target of the finding activity,
- **tags** – A list of AWS tags associated with a resource at the time the finding was processed.
- **data_classification** – Contains information about sensitive data that was detected on the resource.
- **details** – Additional details about the resource related to a finding.

Returns Resource object

```
data_classification :Optional[DataClassificationDetails]
details :Optional[ResourceDetails]
id :NonEmptyString
partition :Optional[Partition]
region :Optional[NonEmptyString]
resource_role :Optional[NonEmptyString]
tags :Optional[FieldMap]
type :NonEmptyString

class asff.generated.ResourceDetails
    Bases: asff.generated.ASFFBaseModel
```



Additional details about a resource related to a finding. To provide the details, use the object that corresponds to the resource type. For example, if the resource type is `AwsEc2Instance`, then you use the `AwsEc2Instance` object to provide the details. If the type-specific object does not contain all of the fields you want to populate, then you use the `Other` object to populate those additional fields. You also use the `Other` object to populate the details when the selected type does not have a corresponding object.

Parameters

- **aws_auto_scaling_auto_scaling_group** – Details for an autoscaling group.
- **aws_code_build_project** – Details for an AWS CodeBuild project.
- **aws_cloud_front_distribution** – Details about a CloudFront distribution.
- **aws_ec2_instance** – Details about an Amazon EC2 instance related to a finding.
- **aws_ec2_network_interface** – Details for an Amazon EC2 network interface.
- **aws_ec2_security_group** – Details for an EC2 security group.
- **aws_ec2_volume** – Details for an EC2 volume.
- **aws_ec2_vpc** – Details for an EC2 VPC.
- **aws_ec2_eip** – Details about an Elastic IP address.
- **aws_elbv2_load_balancer** – Details about a load balancer.
- **aws_elasticsearch_domain** – Details for an Elasticsearch domain.
- **aws_s3_bucket** – Details about an Amazon S3 bucket related to a finding.
- **aws_s3_account_public_access_block** – Details about the Amazon S3 Public Access Block configuration for an account.
- **aws_s3_object** – Details about an Amazon S3 object related to a finding.
- **aws_secrets_manager_secret** – Details about a Secrets Manager secret.
- **aws_iam_access_key** – Details about an IAM access key related to a finding.
- **aws_iam_user** – Details about an IAM user.
- **aws_iam_policy** – Details about an IAM permissions policy.
- **aws_api_gateway_v2_stage** – Provides information about a version 2 stage for Amazon API Gateway.
- **aws_api_gateway_v2_api** – Provides information about a version 2 API in Amazon API Gateway.
- **aws_dynamo_db_table** – Details about a DynamoDB table.
- **aws_api_gateway_stage** – Provides information about a version 1 Amazon API Gateway stage.
- **aws_api_gateway_rest_api** – Provides information about a REST API in version 1 of Amazon API Gateway.
- **aws_cloud_trail_trail** – Provides details about a CloudTrail trail.
- **aws_ssm_patch_compliance** – Provides information about the state of a patch on an instance based on the patch baseline that was used to patch the instance.
- **aws_certificate_manager_certificate** – Provides details about an AWS Certificate Manager (ACM) certificate.
- **aws_redshift_cluster** – Contains details about an Amazon Redshift cluster.

- **aws_elb_load_balancer** – contains details about a Classic Load Balancer.
- **aws_iam_group** – Contains details about an IAM group.
- **aws_iam_role** – Details about an IAM role.
- **aws_kms_key** – Details about a KMS key.
- **aws_lambda_function** – Details about a Lambda function.
- **aws_lambda_layer_version** – Details for a Lambda layer version.
- **aws_rds_db_instance** – Details about an Amazon RDS database instance.
- **aws_sns_topic** – Details about an SNS topic.
- **aws_sqs_queue** – Details about an SQS queue.
- **aws_waf_web_acl** – Details for a WAF WebACL.
- **aws_rds_db_snapshot** – Details about an Amazon RDS database snapshot.
- **aws_rds_db_cluster_snapshot** – Details about an Amazon RDS database cluster snapshot.
- **aws_rds_db_cluster** – Details about an Amazon RDS database cluster.
- **container** – Details about a container resource related to a finding.
- **other** – Details about a resource that are not available in a type-specific details object. Use the Other object in the following cases. The type-specific object does not contain all of the fields that you want to populate. In this case, first use the type-specific object to populate those fields. Use the Other object to populate the fields that are missing from the type-specific object. The resource type does not have a corresponding object. This includes resources for which the type is Other.

Returns ResourceDetails object

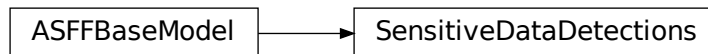
```
aws_api_gateway_rest_api :Optional[AwsApiGatewayRestApiDetails]
aws_api_gateway_stage :Optional[AwsApiGatewayStageDetails]
aws_api_gateway_v2_api :Optional[AwsApiGatewayV2ApiDetails]
aws_api_gateway_v2_stage :Optional[AwsApiGatewayV2StageDetails]
aws_auto_scaling_auto_scaling_group :Optional[AwsAutoScalingAutoScalingGroupDetails]
aws_certificate_manager_certificate :Optional[AwsCertificateManagerCertificateDetails]
aws_cloud_front_distribution :Optional[AwsCloudFrontDistributionDetails]
aws_cloud_trail_trail :Optional[AwsCloudTrailTrailDetails]
aws_code_build_project :Optional[AwsCodeBuildProjectDetails]
aws_dynamo_db_table :Optional[AwsDynamoDbTableDetails]
aws_ec2_eip :Optional[AwsEc2EipDetails]
aws_ec2_instance :Optional[AwsEc2InstanceDetails]
aws_ec2_network_interface :Optional[AwsEc2NetworkInterfaceDetails]
aws_ec2_security_group :Optional[AwsEc2SecurityGroupDetails]
aws_ec2_volume :Optional[AwsEc2VolumeDetails]
aws_ec2_vpc :Optional[AwsEc2VpcDetails]
```

```

aws_elasticsearch_domain :Optional[AwsElasticsearchDomainDetails]
aws_elb_load_balancer :Optional[AwsElbLoadBalancerDetails]
aws_elbv2_load_balancer :Optional[AwsElbv2LoadBalancerDetails]
aws_iam_access_key :Optional[AwsIamAccessKeyDetails]
aws_iam_group :Optional[AwsIamGroupDetails]
aws_iam_policy :Optional[AwsIamPolicyDetails]
aws_iam_role :Optional[AwsIamRoleDetails]
aws_iam_user :Optional[AwsIamUserDetails]
aws_kms_key :Optional[AwsKmsKeyDetails]
aws_lambda_function :Optional[AwsLambdaFunctionDetails]
aws_lambda_layer_version :Optional[AwsLambdaLayerVersionDetails]
aws_rds_db_cluster :Optional[AwsRdsDbClusterDetails]
aws_rds_db_cluster_snapshot :Optional[AwsRdsDbClusterSnapshotDetails]
aws_rds_db_instance :Optional[AwsRdsDbInstanceDetails]
aws_rds_db_snapshot :Optional[AwsRdsDbSnapshotDetails]
aws_redshift_cluster :Optional[AwsRedshiftClusterDetails]
aws_s3_account_public_access_block :Optional[AwsS3AccountPublicAccessBlockDetails]
aws_s3_bucket :Optional[AwsS3BucketDetails]
aws_s3_object :Optional[AwsS3ObjectDetails]
aws_secrets_manager_secret :Optional[AwsSecretsManagerSecretDetails]
aws_sns_topic :Optional[AwsSnsTopicDetails]
aws_sqs_queue :Optional[AwsSqsQueueDetails]
aws_ssm_patch_compliance :Optional[AwsSsmPatchComplianceDetails]
aws_waf_web_acl :Optional[AwsWafWebAclDetails]
container :Optional[ContainerDetails]
other :Optional[FieldMap]

```

class asff.generated.SensitiveDataDetections
 Bases: *asff.generated.ASFFBaseModel*



The list of detected instances of sensitive data.

Parameters

- **count** – The total number of occurrences of sensitive data that were detected.
- **type** – The type of sensitive data that was detected. For example, the type might indicate that the data is an email address.
- **occurrences** – Details about the sensitive data that was detected.

Returns SensitiveDataDetections object

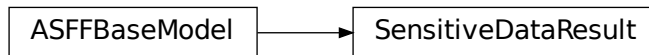
count :Optional[Long]

occurrences :Optional[Occurrences]

type :Optional[NonEmptyString]

class asff.generated.SensitiveDataResult

Bases: *asff.generated.ASFFBaseModel*



Contains a detected instance of sensitive data that are based on built-in identifiers.

Parameters

- **category** – The category of sensitive data that was detected. For example, the category can indicate that the sensitive data involved credentials, financial information, or personal information.
- **detections** – The list of detected instances of sensitive data.
- **total_count** – The total number of occurrences of sensitive data.

Returns SensitiveDataResult object

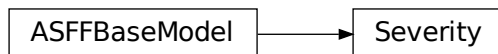
category :Optional[NonEmptyString]

detections :Optional[SensitiveDataDetectionsList]

total_count :Optional[Long]

class asff.generated.Severity

Bases: *asff.generated.ASFFBaseModel*



The severity of the finding. The finding provider can provide the initial severity. The finding provider can only update the severity if it has not been updated using BatchUpdateFindings. The finding must have either Label or Normalized populated. If only one of these attributes is populated, then Security Hub automatically populates the other one. If neither attribute is populated, then the finding is invalid. Label is the preferred attribute.

Parameters

- **product** – Deprecated. This attribute is being deprecated. Instead of providing Product, provide Original. The native severity as defined by the AWS service or integrated partner product that generated the finding.
- **label** – The severity value of the finding. The allowed values are the following. INFORMATIONAL - No issue was found. LOW - The issue does not require action on its own. MEDIUM - The issue must be addressed but not urgently. HIGH - The issue must be addressed as a priority. CRITICAL - The issue must be remediated immediately to avoid it escalating. If you provide Normalized and do not provide Label, then Label is set automatically as follows. 0 - INFORMATIONAL 1–39 - LOW 40–69 - MEDIUM 70–89 - HIGH 90–100 - CRITICAL
- **normalized** – Deprecated. The normalized severity of a finding. This attribute is being deprecated. Instead of providing Normalized, provide Label. If you provide Label and do not provide Normalized, then Normalized is set automatically as follows. INFORMATIONAL - 0 LOW - 1 MEDIUM - 40 HIGH - 70 CRITICAL - 90
- **original** – The native severity from the finding product that generated the finding.

Returns Severity object

```
label :Optional[SeverityLabel]
normalized :Optional[Integer]
original :Optional[NonEmptyString]
product :Optional[Double]
```

```
class asff.generated.SoftwarePackage
  Bases: asff.generated.ASFFBaseModel
```



Information about a software package.

Parameters

- **name** – The name of the software package.
- **version** – The version of the software package.
- **epoch** – The epoch of the software package.
- **release** – The release of the software package.
- **architecture** – The architecture used for the software package.

Returns SoftwarePackage object

```
architecture :Optional[NonEmptyString]
epoch :Optional[NonEmptyString]
name :Optional[NonEmptyString]
```

```
release :Optional[NonEmptyString]
version :Optional[NonEmptyString]
class asff.generated.StatusReason
  Bases: asff.generated.ASFFBaseModel
```



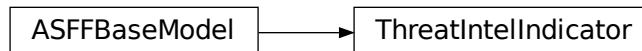
Provides additional context for the value of Compliance.Status.

Parameters

- **reason_code** – A code that represents a reason for the control status. For the list of status reason codes and their meanings, see Standards-related information in the ASFF in the AWS Security Hub User Guide.
- **description** – The corresponding description for the status reason code.

Returns StatusReason object

```
description :Optional[NonEmptyString]
reason_code :NonEmptyString
class asff.generated.ThreatIntelIndicator
  Bases: asff.generated.ASFFBaseModel
```



Details about the threat intelligence related to a finding.

Parameters

- **type** – The type of threat intelligence indicator.
- **value** – The value of a threat intelligence indicator.
- **category** – The category of a threat intelligence indicator.
- **last_observed_at** – Indicates when the most recent instance of a threat intelligence indicator was observed. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **source** – The source of the threat intelligence indicator.
- **source_url** – The URL to the page or site where you can get more information about the threat intelligence indicator.

Returns ThreatIntelIndicator object

```
category :Optional[ThreatIntelIndicatorCategory]
last_observed_at :Optional[Iso8601Timestamp]
source :Optional[NonEmptyString]
source_url :Optional[NonEmptyString]
type :Optional[ThreatIntelIndicatorType]
value :Optional[NonEmptyString]
```

```
class asff.generated.Vulnerability
    Bases: asff.generated.ASFFBaseModel
```



A vulnerability associated with a finding.

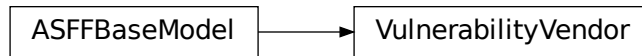
Parameters

- **id** – The identifier of the vulnerability.
- **vulnerable_packages** – List of software packages that have the vulnerability.
- **cvss** – CVSS scores from the advisory related to the vulnerability.
- **related_vulnerabilities** – List of vulnerabilities that are related to this vulnerability.
- **vendor** – Information about the vendor that generates the vulnerability report.
- **reference_urls** – A list of URLs that provide additional information about the vulnerability.

Returns Vulnerability object

```
cvss :Optional[CvssList]
id :NonEmptyString
reference_urls :Optional[StringList]
related_vulnerabilities :Optional[StringList]
vendor :Optional[VulnerabilityVendor]
vulnerable_packages :Optional[SoftwarePackageList]
```

```
class asff.generated.VulnerabilityVendor
    Bases: asff.generated.ASFFBaseModel
```



A vendor that generates a vulnerability report.

Parameters

- **name** – The name of the vendor.
- **url** – The URL of the vulnerability advisory.
- **vendor_severity** – The severity that the vendor assigned to the vulnerability.
- **vendor_created_at** – Indicates when the vulnerability advisory was created. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **vendor_updated_at** – Indicates when the vulnerability advisory was last updated. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.

Returns VulnerabilityVendor object

```
name :NonEmptyString
url :Optional[NonEmptyString]
vendor_created_at :Optional[Iso8601Timestamp]
vendor_severity :Optional[NonEmptyString]
vendor_updated_at :Optional[Iso8601Timestamp]
```

```
class asff.generated.WafAction
  Bases: asff.generated.ASFFBaseModel
```



Details about the action that CloudFront or AWS WAF takes when a web request matches the conditions in the rule.

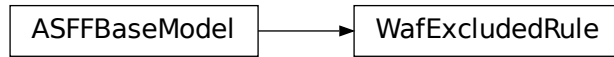
Parameters type – Specifies how you want AWS WAF to respond to requests that match the settings in a rule. Valid settings include the following: ALLOW - AWS WAF allows requests BLOCK - AWS WAF blocks requests COUNT - AWS WAF increments a counter of the requests that match all of the conditions in the rule. AWS WAF then continues to inspect the web request based on the remaining rules in the web ACL. You can't specify COUNT for the default action for a WebACL.

Returns WafAction object

```

    type :Optional[NonEmptyString]
class asff.generated.WafExcludedRule
    Bases: asff.generated.ASFFBaseModel

```



Details about a rule to exclude from a rule group.

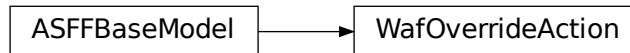
Parameters `rule_id` – The unique identifier for the rule to exclude from the rule group.

Returns WafExcludedRule object

```

    rule_id :Optional[NonEmptyString]
class asff.generated.WafOverrideAction
    Bases: asff.generated.ASFFBaseModel

```



Details about an override action for a rule.

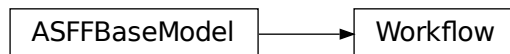
Parameters `type` – COUNT overrides the action specified by the individual rule within a Rule-Group . If set to NONE, the rule's action takes place.

Returns WafOverrideAction object

```

    type :Optional[NonEmptyString]
class asff.generated.Workflow
    Bases: asff.generated.ASFFBaseModel

```



Provides information about the status of the investigation into a finding.

Parameters `status` – The status of the investigation into the finding. The allowed values are the following. NEW - The initial state of a finding, before it is reviewed. Security Hub also resets the workflow status from NOTIFIED or RESOLVED to NEW in the following cases:

RecordState changes from ARCHIVED to ACTIVE. ComplianceStatus changes from PASSED to either WARNING, FAILED, or NOT_AVAILABLE. NOTIFIED - Indicates that you notified the resource owner about the security issue. Used when the initial reviewer is not the resource owner, and needs intervention from the resource owner. SUPPRESSED - The finding will not be reviewed again and will not be acted upon. RESOLVED - The finding was reviewed and remediated and is now considered resolved.

Returns Workflow object

status :Optional[WorkflowStatus]

5.1.2 Package Contents

Classes

AmazonSecurityFinding

Provides consistent format for the contents of the Security Hub-aggregated findings. AwsSecurityFinding format enables you to share findings between AWS security services and third-party solutions, and security standards checks. A finding is a potential security issue generated either by AWS services (Amazon GuardDuty, Amazon Inspector, and Amazon Macie) or by the integrated third-party solutions and standards checks.

exception `asff.ValidationError(msg)`

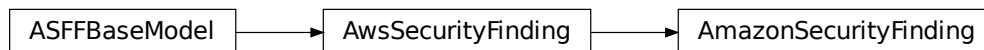
Bases: `ValueError`

ValidationError

Inappropriate argument value (of correct type).

class `asff.AmazonSecurityFinding(**data)`

Bases: `asff.generated.AwsSecurityFinding`



Provides consistent format for the contents of the Security Hub-aggregated findings. AwsSecurityFinding format enables you to share findings between AWS security services and third-party solutions, and security standards checks. A finding is a potential security issue generated either by AWS services (Amazon GuardDuty, Amazon Inspector, and Amazon Macie) or by the integrated third-party solutions and standards checks.

Parameters

- **schema_version** – The schema version that a finding is formatted for.
- **id** – The security findings provider-specific identifier for a finding.
- **product_arn** – The ARN generated by Security Hub that uniquely identifies a product that generates findings. This can be the ARN for a third-party product that is integrated with Security Hub, or the ARN for a custom integration.
- **generator_id** – The identifier for the solution-specific component (a discrete unit of logic) that generated a finding. In various security-findings providers' solutions, this generator can be called a rule, a check, a detector, a plugin, etc.
- **aws_account_id** – The AWS account ID that a finding is generated in.
- **types** – One or more finding types in the format of namespace/category/classifier that classify a finding. Valid namespace values are: Software and Configuration Checks | TTPs | Effects | Unusual Behaviors | Sensitive Data Identifications
- **first_observed_at** – Indicates when the security-findings provider first observed the potential security issue that a finding captured. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **last_observed_at** – Indicates when the security-findings provider most recently observed the potential security issue that a finding captured. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **created_at** – Indicates when the security-findings provider created the potential security issue that a finding captured. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **updated_at** – Indicates when the security-findings provider last updated the finding record. Uses the date-time format specified in RFC 3339 section 5.6, Internet Date/Time Format. The value cannot contain spaces. For example, 2020-03-22T13:22:13.933Z.
- **severity** – A finding's severity.
- **confidence** – A finding's confidence. Confidence is defined as the likelihood that a finding accurately identifies the behavior or issue that it was intended to identify. Confidence is scored on a 0-100 basis using a ratio scale, where 0 means zero percent confidence and 100 means 100 percent confidence.
- **criticality** – The level of importance assigned to the resources associated with the finding. A score of 0 means that the underlying resources have no criticality, and a score of 100 is reserved for the most critical resources.
- **title** – A finding's title. In this release, Title is a required property.
- **description** – A finding's description. In this release, Description is a required property.
- **remediation** – A data type that describes the remediation options for a finding.
- **source_url** – A URL that links to a page about the current finding in the security-findings provider's solution.
- **product_fields** – A data type where security-findings providers can include additional solution-specific details that aren't part of the defined AwsSecurityFinding format.
- **user_defined_fields** – A list of name/value string pairs associated with the finding. These are custom, user-defined fields added to a finding.

- **malware** – A list of malware related to a finding.
- **network** – The details of network-related information about a finding.
- **network_path** – Provides information about a network path that is relevant to a finding. Each entry under NetworkPath represents a component of that path.
- **process** – The details of process-related information about a finding.
- **threat_intel_indicators** – Threat intelligence details related to a finding.
- **resources** – A set of resource data types that describe the resources that the finding refers to.
- **compliance** – This data type is exclusive to findings that are generated as the result of a check run against a specific rule in a supported security standard, such as CIS AWS Foundations. Contains security standard-related finding details.
- **verification_state** – Indicates the veracity of a finding.
- **workflow_state** – The workflow state of a finding.
- **workflow** – Provides information about the status of the investigation into a finding.
- **record_state** – The record state of a finding.
- **related_findings** – A list of related findings.
- **note** – A user-defined note added to a finding.
- **vulnerabilities** – Provides a list of vulnerabilities associated with the findings.
- **patch_summary** – Provides an overview of the patch compliance status for an instance against a selected compliance standard.
- **action** – Provides details about an action that affects or that was taken on a resource.
- **finding_provider_fields** – In a BatchImportFindings request, finding providers use FindingProviderFields to provide and update their own values for confidence, criticality, related findings, severity, and types.

Returns AwsSecurityFinding object

static calculate_finding_id(aws_account_id: str, region: str, product_name: str, title: str)
→ str

Calculate predictable unique finding ID based on immutable finding attributes. The finding ID is calculated as a SHA256 hash of the string consisting of the following attributes: - aws_account_id - region - product_name - title

finding_id = SHA256(aws_account_id + region + product_name + title)

In the future, the list of attributes used for calculating hashes might be extended, but the primary purpose is to have a set of attributes that are unique, yet easy to remember, so the finding ID could be calculated easily and found by this library.

Parameters

- **aws_account_id** – The AWS account ID that the finding applies to.
- **region** – AWS region where the finding was found
- **product_name** – Product name that generated the finding
- **title** – A finding's title.

Returns A predictable unique finding ID

classmethod from_dict (*cls*, *data*) → *asff.finding.AmazonSecurityFinding*

Construct the finding from a dictionary.

Parameters *data* – Dictionary holding finding data

Returns A finding object

classmethod from_json (*cls*, *data: str*) → *asff.finding.AmazonSecurityFinding*

Construct the finding from a JSON string.

Parameters *data* – JSON string with finding data

Returns A finding object

classmethod from_kwargs (*cls*, *aws_account_id: str*, *types: asff.generated.TypeList*,
title: asff.generated.NonEmptyString, *description: asff.generated.NonEmptyString*, *resources: Optional[List[Any]]*
= None, *id: Optional[str] = None*, *schema_version: str = DEFAULT_SCHEMA_VERSION*, *severity: str = DEFAULT_SEVERITY*,
product_name: Optional[str] = DEFAULT_PRODUCT_NAME, *product_version: Optional[str] = DEFAULT_PRODUCT_VERSION*,
region: str = DEFAULT_REGION, *record_state: str = DEFAULT_RECORD_STATE*, *workflow_status: str = DEFAULT_WORKFLOW_STATUS*,
generator_id: Optional[str] = None, *created_at: Optional[str] = None*, *updated_at: Optional[str] = None*, ***kwargs*)

Construct the finding from keyword arguments.

Parameters

- **aws_account_id** – The AWS account ID that the finding applies to.
- **types** – Finding type that classifies the finding
- **title** – A finding's title.
- **description** – A finding's description.
- **resources** – A set of resource data types that describe the resources that the finding refers to.
- **id** – The product-specific identifier for a finding.
- **schema_version** – The schema version that a finding is formatted for
- **severity** – A finding's severity.
- **product_name** – Product name that generated the finding
- **product_version** – Product version that generated the finding
- **region** – AWS region where the finding was found
- **record_state** – The record state of a finding.
- **workflow_status** – Provides information about the status of the investigation into a finding.
- **generator_id** – The identifier for the solution-specific component that generated a finding.
- **created_at** – Indicates when the potential security issue captured by a finding was created.
- **updated_at** – Indicates when the finding provider last updated the finding record.

- **kwargs** – Additional keyword arguments, suitable for passing fields such as notes, user_defined_fields etc

Returns A finding object

to_dict (*self*) → Dict[str, Any]

Return a dict representation of the finding.

Returns A dict representation of the finding

to_json (*self*) → str

Return a JSON representation of the finding.

Returns JSON representation of the finding

INDEX

- genindex

PYTHON MODULE INDEX

a

- `asff`, [13](#)
- `asff.constants`, [13](#)
- `asff.exceptions`, [13](#)
- `asff.finding`, [14](#)
- `asff.generated`, [18](#)

A

- `access_key_id` (*asff.generated.AwsIamAccessKeyDetails* attribute), 88
- `access_log` (*asff.generated.AwsElbLoadBalancerAttributes* attribute), 81
- `access_log_settings` (*asff.generated.AwsApiGatewayStageDetails* attribute), 37
- `access_log_settings` (*asff.generated.AwsApiGatewayV2StageDetails* attribute), 40
- `access_policies` (*asff.generated.AwsElasticsearchDomainDetails* attribute), 77
- `account_id` (*asff.generated.AwsIamAccessKeyDetails* attribute), 88
- `account_id` (*asff.generated.AwsIamAccessKeySessionContextSessionIssuer* attribute), 90
- `action` (*asff.generated.AwsSecurityFinding* attribute), 140
- `action` (*asff.generated.AwsWafWebAclRule* attribute), 147
- `Action` (class in *asff.generated*), 29
- `action_type` (*asff.generated.Action* attribute), 29
- `ActionLocalIpDetails` (class in *asff.generated*), 30
- `ActionLocalPortDetails` (class in *asff.generated*), 30
- `ActionRemoteIpDetails` (class in *asff.generated*), 30
- `ActionRemotePortDetails` (class in *asff.generated*), 31
- `activity_stream_status` (*asff.generated.AwsRdsDbClusterDetails* attribute), 105
- `additional_occurrences` (*asff.generated.ClassificationResult* attribute), 149
- `address` (*asff.generated.AwsRdsDbInstanceEndpoint* attribute), 115
- `address` (*asff.generated.AwsRedshiftClusterEndpoint* attribute), 130
- `address` (*asff.generated.NetworkPathComponentDetails* attribute), 160
- `affected_resources` (*asff.generated.AwsApiCallAction* attribute), 33
- `alias_generator` (*asff.generated.ASFFBaseModel.Config* attribute), 29
- `allocated_storage` (*asff.generated.AwsRdsDbClusterDetails* attribute), 105
- `allocated_storage` (*asff.generated.AwsRdsDbClusterSnapshotDetails* attribute), 108
- `allocated_storage` (*asff.generated.AwsRdsDbInstanceDetails* attribute), 113
- `allocated_storage` (*asff.generated.AwsRdsDbPendingModifiedValues* attribute), 117
- `allocated_storage` (*asff.generated.AwsRdsDbSnapshotDetails* attribute), 119
- `allocation_id` (*asff.generated.AwsEc2EipDetails* attribute), 67
- `allow_cancel_resize` (*asff.generated.AwsRedshiftClusterResizeInfo* attribute), 133
- `allow_credentials` (*asff.generated.AwsCorsConfiguration* attribute), 58
- `allow_headers` (*asff.generated.AwsCorsConfiguration* attribute), 58
- `allow_methods` (*asff.generated.AwsCorsConfiguration* attribute), 58
- `allow_origins` (*asff.generated.AwsCorsConfiguration* attribute), 58
- `allow_population_by_field_name` (*asff.generated.ASFFBaseModel.Config* attribute), 29
- `allow_version_upgrade` (*asff.generated.AwsRedshiftClusterDetails* attribute), 128
- `AmazonSecurityFinding` (class in *asff*), 178

AmazonSecurityFinding (class in asff.finding), 14
 api (asff.generated.AwsApiCallAction attribute), 33
 api_endpoint (asff.generated.AwsApiGatewayV2ApiDetails attribute), 39
 api_gateway_managed (asff.generated.AwsApiGatewayV2StageDetails attribute), 40
 api_id (asff.generated.AwsApiGatewayV2ApiDetails attribute), 39
 api_key_selection_expression (asff.generated.AwsApiGatewayV2ApiDetails attribute), 39
 api_key_source (asff.generated.AwsApiGatewayRestApiDetails attribute), 36
 app_cookie_stickiness_policies (asff.generated.AwsElbLoadBalancerPolicies attribute), 86
 apply_server_side_encryption_by_default (asff.generated.AwsS3BucketServerSideEncryptionRule attribute), 136
 apply_status (asff.generated.AwsRedshiftClusterIamRole attribute), 131
 architecture (asff.generated.SoftwarePackage attribute), 173
 arn (asff.generated.AwsIamAccessKeySessionContextSessionIssuer attribute), 90
 arn (asff.generated.AwsIamInstanceProfile attribute), 92
 arn (asff.generated.AwsIamInstanceProfileRole attribute), 93
 arn (asff.generated.AwsLambdaFunctionLayer attribute), 102
 arn (asff.generated.CustomDataIdentifiersDetections attribute), 152
 asff
 module, 13
 asff.constants
 module, 13
 asff.exceptions
 module, 13
 asff.finding
 module, 14
 asff.generated
 module, 18
 ASFFBaseModel (class in asff.generated), 28
 ASFFBaseModel.Config (class in asff.generated), 29
 asn (asff.generated.IpOrganizationDetails attribute), 155
 asn_org (asff.generated.IpOrganizationDetails attribute), 155
 associated_roles (asff.generated.AwsRdsDbClusterDetails attribute), 105
 associated_roles (asff.generated.AwsRdsDbInstanceDetails attribute), 113
 association_id (asff.generated.AwsEc2EipDetails attribute), 67
 association_id (asff.generated.CidrBlockAssociation attribute), 148
 association_id (asff.generated.Ipv6CidrBlockAssociation attribute), 156
 assume_role_policy_document (asff.generated.AwsIamInstanceProfileRole attribute), 93
 assume_role_policy_document (asff.generated.AwsIamRoleDetails attribute), 96
 attach_time (asff.generated.AwsEc2NetworkInterfaceAttachment attribute), 69
 attach_time (asff.generated.AwsEc2VolumeAttachment attribute), 74
 attached_managed_policies (asff.generated.AwsIamGroupDetails attribute), 91
 attached_managed_policies (asff.generated.AwsIamRoleDetails attribute), 96
 attached_managed_policies (asff.generated.AwsIamUserDetails attribute), 97
 attachment (asff.generated.AwsEc2NetworkInterfaceDetails attribute), 69
 attachment_count (asff.generated.AwsIamPolicyDetails attribute), 94
 attachment_id (asff.generated.AwsEc2NetworkInterfaceAttachment attribute), 69
 attachments (asff.generated.AwsEc2VolumeDetails attribute), 75
 attribute_definitions (asff.generated.AwsDynamoDbTableDetails attribute), 60
 attribute_name (asff.generated.AwsDynamoDbTableAttributeDefinition attribute), 58
 attribute_name (asff.generated.AwsDynamoDbTableKeySchema attribute), 61
 attribute_type (asff.generated.AwsDynamoDbTableAttributeDefinition attribute), 58
 attributes (asff.generated.AwsIamAccessKeySessionContext attribute), 89
 auto_deploy (asff.generated.AwsApiGatewayV2StageDetails attribute), 40
 auto_minor_version_upgrade (asff.generated.AwsRdsDbInstanceDetails attribute), 113
 automated_snapshot_retention_period (asff.generated.AwsRedshiftClusterDetails attribute), 128
 automated_snapshot_retention_period (asff.generated.AwsRedshiftClusterPendingModifiedValues attribute), 128

<code>attribute</code>), 132	
<code>automatically_after_days</code> (<code>asff.generated.AwsSecretsManagerSecretRotationRules</code> <code>attribute</code>), 138	<code>aws_cloud_trail_trail</code> (<code>asff.generated.ResourceDetails</code> <code>attribute</code>), 170
<code>availability_zone</code> (<code>asff.generated.AwsRdsDbInstanceDetails</code> <code>attribute</code>), 113	<code>aws_code_build_project</code> (<code>asff.generated.ResourceDetails</code> <code>attribute</code>), 170
<code>availability_zone</code> (<code>asff.generated.AwsRdsDbSnapshotDetails</code> <code>attribute</code>), 119	<code>aws_dynamo_db_table</code> (<code>asff.generated.ResourceDetails</code> <code>attribute</code>), 170
<code>availability_zone</code> (<code>asff.generated.AwsRedshiftClusterDetails</code> <code>attribute</code>), 128	<code>aws_ec2_eip</code> (<code>asff.generated.ResourceDetails</code> <code>attribute</code>), 170
<code>availability_zones</code> (<code>asff.generated.AwsElasticsearchDomainVPCOptions</code> <code>attribute</code>), 78	<code>aws_ec2_instance</code> (<code>asff.generated.ResourceDetails</code> <code>attribute</code>), 170
<code>availability_zones</code> (<code>asff.generated.AwsElbLoadBalancerDetails</code> <code>attribute</code>), 83	<code>aws_ec2_network_interface</code> (<code>asff.generated.ResourceDetails</code> <code>attribute</code>), 170
<code>availability_zones</code> (<code>asff.generated.AwsElbv2LoadBalancerDetails</code> <code>attribute</code>), 88	<code>aws_ec2_security_group</code> (<code>asff.generated.ResourceDetails</code> <code>attribute</code>), 170
<code>availability_zones</code> (<code>asff.generated.AwsRdsDbClusterDetails</code> <code>attribute</code>), 105	<code>aws_ec2_volume</code> (<code>asff.generated.ResourceDetails</code> <code>attribute</code>), 170
<code>availability_zones</code> (<code>asff.generated.AwsRdsDbClusterSnapshotDetails</code> <code>attribute</code>), 108	<code>aws_ec2_vpc</code> (<code>asff.generated.ResourceDetails</code> <code>attribute</code>), 170
<code>AvailabilityZone</code> (class in <code>asff.generated</code>), 31	<code>aws_elasticsearch_domain</code> (<code>asff.generated.ResourceDetails</code> <code>attribute</code>), 170
<code>AvailabilityZones</code> (in module <code>asff.generated</code>), 25	<code>aws_elb_load_balancer</code> (<code>asff.generated.ResourceDetails</code> <code>attribute</code>), 171
<code>aws_account_id</code> (<code>asff.generated.AwsKmsKeyDetails</code> <code>attribute</code>), 98	<code>aws_elbv2_load_balancer</code> (<code>asff.generated.ResourceDetails</code> <code>attribute</code>), 171
<code>aws_account_id</code> (<code>asff.generated.AwsSecurityFinding</code> <code>attribute</code>), 140	<code>aws_iam_access_key</code> (<code>asff.generated.ResourceDetails</code> <code>attribute</code>), 171
<code>aws_api_call_action</code> (<code>asff.generated.Action</code> at- <code>tribute</code>), 29	<code>aws_iam_group</code> (<code>asff.generated.ResourceDetails</code> at- <code>tribute</code>), 171
<code>aws_api_gateway_rest_api</code> (<code>asff.generated.ResourceDetails</code> <code>attribute</code>), 170	<code>aws_iam_policy</code> (<code>asff.generated.ResourceDetails</code> at- <code>tribute</code>), 171
<code>aws_api_gateway_stage</code> (<code>asff.generated.ResourceDetails</code> <code>attribute</code>), 170	<code>aws_iam_role</code> (<code>asff.generated.ResourceDetails</code> <code>attribute</code>), 171
<code>aws_api_gateway_v2_api</code> (<code>asff.generated.ResourceDetails</code> <code>attribute</code>), 170	<code>aws_iam_user</code> (<code>asff.generated.ResourceDetails</code> <code>attribute</code>), 171
<code>aws_api_gateway_v2_stage</code> (<code>asff.generated.ResourceDetails</code> <code>attribute</code>), 170	<code>aws_kms_key</code> (<code>asff.generated.ResourceDetails</code> at- <code>tribute</code>), 171
<code>aws_auto_scaling_auto_scaling_group</code> (<code>asff.generated.ResourceDetails</code> <code>attribute</code>), 170	<code>aws_lambda_function</code> (<code>asff.generated.ResourceDetails</code> <code>attribute</code>), 171
<code>aws_certificate_manager_certificate</code> (<code>asff.generated.ResourceDetails</code> <code>attribute</code>), 170	<code>aws_lambda_layer_version</code> (<code>asff.generated.ResourceDetails</code> <code>attribute</code>), 171
<code>aws_cloud_front_distribution</code> (<code>asff.generated.ResourceDetails</code> <code>attribute</code>),	<code>aws_rds_db_cluster</code> (<code>asff.generated.ResourceDetails</code> <code>attribute</code>),

171				AwsAutoScalingAutoScalingGroupDetails
aws_rds_db_cluster_snapshot	(asff.generated.ResourceDetails	attribute),		(class in asff.generated), 41
171				AwsCertificateManagerCertificateDetails
aws_rds_db_instance	(asff.generated.ResourceDetails	attribute),		(class in asff.generated), 41
171				AwsCertificateManagerCertificateDomainValidationOptions
aws_rds_db_snapshot	(asff.generated.ResourceDetails	attribute),		(class in asff.generated), 44
171				AwsCertificateManagerCertificateDomainValidationOptions
aws_redshift_cluster	(asff.generated.ResourceDetails	attribute),		(in module asff.generated), 26
171				AwsCertificateManagerCertificateExtendedKeyUsage
aws_s3_account_public_access_block	(asff.generated.ResourceDetails	attribute),		(class in asff.generated), 44
171				AwsCertificateManagerCertificateExtendedKeyUsages
aws_s3_bucket	(asff.generated.ResourceDetails	attribute),		(in module asff.generated), 26
171				AwsCertificateManagerCertificateKeyUsage
aws_s3_object	(asff.generated.ResourceDetails	attribute),		(class in asff.generated), 45
171				AwsCertificateManagerCertificateKeyUsages
aws_secrets_manager_secret	(asff.generated.ResourceDetails	attribute),		(in module asff.generated), 26
171				AwsCertificateManagerCertificateOptions
aws_sns_topic	(asff.generated.ResourceDetails	attribute),		(class in asff.generated), 45
171				AwsCertificateManagerCertificateRenewalSummary
aws_sqs_queue	(asff.generated.ResourceDetails	attribute),		(class in asff.generated), 46
171				AwsCertificateManagerCertificateResourceRecord
aws_ssm_patch_compliance	(asff.generated.ResourceDetails	attribute),		(class in asff.generated), 46
171				AwsCloudFrontDistributionCacheBehavior
aws_waf_web_acl	(asff.generated.ResourceDetails	attribute),		(class in asff.generated), 47
171				AwsCloudFrontDistributionCacheBehaviors
AwsApiCallAction	(class in asff.generated),	32		(class in asff.generated), 47
AwsApiCallActionDomainDetails	(class in			(class in asff.generated), 47
asff.generated),	33			AwsCloudFrontDistributionCacheBehaviorsItemList
AwsApiGatewayAccessLogSettings	(class in			(in module asff.generated), 26
asff.generated),	33			AwsCloudFrontDistributionDefaultCacheBehavior
AwsApiGatewayCanarySettings	(class in			(class in asff.generated), 48
asff.generated),	34			AwsCloudFrontDistributionDetails (class in
AwsApiGatewayEndpointConfiguration	(class			asff.generated), 48
in asff.generated),	34			AwsCloudFrontDistributionLogging (class in
AwsApiGatewayMethodSettings	(class in			asff.generated), 49
asff.generated),	34			AwsCloudFrontDistributionOriginGroup
AwsApiGatewayMethodSettingsList	(in mod-			(class in asff.generated), 50
ule asff.generated),	25			AwsCloudFrontDistributionOriginGroupFailover
AwsApiGatewayRestApiDetails	(class in			(class in asff.generated), 50
asff.generated),	36			AwsCloudFrontDistributionOriginGroupFailoverStatus
AwsApiGatewayStageDetails	(class in			(class in asff.generated), 50
asff.generated),	37			AwsCloudFrontDistributionOriginGroupFailoverStatus
AwsApiGatewayV2ApiDetails	(class in			(in module asff.generated), 26
asff.generated),	38			AwsCloudFrontDistributionOriginGroups
AwsApiGatewayV2RouteSettings	(class in			(class in asff.generated), 51
asff.generated),	39			AwsCloudFrontDistributionOriginGroupsItemList
AwsApiGatewayV2StageDetails	(class in			(in module asff.generated), 26
asff.generated),	40			AwsCloudFrontDistributionOriginItem
				(class in asff.generated), 51
				AwsCloudFrontDistributionOriginItemList
				(in module asff.generated), 26
				AwsCloudFrontDistributionOrigins (class in
				asff.generated), 52
				AwsCloudFrontDistributionOriginS3OriginConfig
				(class in asff.generated), 52

AwsCloudTrailTrailDetails	(class in <i>asff.generated</i>), 52	AwsEc2EipDetails	(class in <i>asff.generated</i>), 66
AwsCodeBuildProjectDetails	(class in <i>asff.generated</i>), 54	AwsEc2InstanceDetails	(class in <i>asff.generated</i>), 67
AwsCodeBuildProjectEnvironment	(class in <i>asff.generated</i>), 54	AwsEc2NetworkInterfaceAttachment	(class in <i>asff.generated</i>), 68
AwsCodeBuildProjectEnvironmentRegistryCredentials	(class in <i>asff.generated</i>), 55	AwsEc2NetworkInterfaceDetails	(class in <i>asff.generated</i>), 69
AwsCodeBuildProjectSource	(class in <i>asff.generated</i>), 56	AwsEc2NetworkInterfaceIpV6AddressDetail	(class in <i>asff.generated</i>), 69
AwsCodeBuildProjectVpcConfig	(class in <i>asff.generated</i>), 57	AwsEc2NetworkInterfaceIpV6AddressList	(in module <i>asff.generated</i>), 26
AwsCorsConfiguration	(class in <i>asff.generated</i>), 57	AwsEc2NetworkInterfacePrivateIpAddressDetail	(class in <i>asff.generated</i>), 70
AwsDynamoDbTableAttributeDefinition	(class in <i>asff.generated</i>), 58	AwsEc2NetworkInterfacePrivateIpAddressList	(in module <i>asff.generated</i>), 26
AwsDynamoDbTableAttributeDefinitionList	(in module <i>asff.generated</i>), 26	AwsEc2NetworkInterfaceSecurityGroup	(class in <i>asff.generated</i>), 70
AwsDynamoDbTableBillingModeSummary	(class in <i>asff.generated</i>), 58	AwsEc2NetworkInterfaceSecurityGroupList	(in module <i>asff.generated</i>), 26
AwsDynamoDbTableDetails	(class in <i>asff.generated</i>), 59	AwsEc2SecurityGroupDetails	(class in <i>asff.generated</i>), 71
AwsDynamoDbTableGlobalSecondaryIndex	(class in <i>asff.generated</i>), 60	AwsEc2SecurityGroupIpPermission	(class in <i>asff.generated</i>), 71
AwsDynamoDbTableGlobalSecondaryIndexList	(in module <i>asff.generated</i>), 26	AwsEc2SecurityGroupIpPermissionList	(in module <i>asff.generated</i>), 26
AwsDynamoDbTableKeySchema	(class in <i>asff.generated</i>), 61	AwsEc2SecurityGroupIpRange	(class in <i>asff.generated</i>), 72
AwsDynamoDbTableKeySchemaList	(in module <i>asff.generated</i>), 26	AwsEc2SecurityGroupIpRangeList	(in module <i>asff.generated</i>), 26
AwsDynamoDbTableLocalSecondaryIndex	(class in <i>asff.generated</i>), 61	AwsEc2SecurityGroupIpv6Range	(class in <i>asff.generated</i>), 73
AwsDynamoDbTableLocalSecondaryIndexList	(in module <i>asff.generated</i>), 26	AwsEc2SecurityGroupIpv6RangeList	(in module <i>asff.generated</i>), 26
AwsDynamoDbTableProjection	(class in <i>asff.generated</i>), 62	AwsEc2SecurityGroupPrefixListId	(class in <i>asff.generated</i>), 73
AwsDynamoDbTableProvisionedThroughput	(class in <i>asff.generated</i>), 62	AwsEc2SecurityGroupPrefixListIdList	(in module <i>asff.generated</i>), 26
AwsDynamoDbTableProvisionedThroughputOverride	(class in <i>asff.generated</i>), 63	AwsEc2SecurityGroupUserIdGroupPair	(class in <i>asff.generated</i>), 73
AwsDynamoDbTableReplica	(class in <i>asff.generated</i>), 64	AwsEc2SecurityGroupUserIdGroupPairList	(in module <i>asff.generated</i>), 26
AwsDynamoDbTableReplicaGlobalSecondaryIndex	(class in <i>asff.generated</i>), 64	AwsEc2VolumeAttachment	(class in <i>asff.generated</i>), 74
AwsDynamoDbTableReplicaGlobalSecondaryIndexList	(in module <i>asff.generated</i>), 26	AwsEc2VolumeAttachmentList	(in module <i>asff.generated</i>), 26
AwsDynamoDbTableReplicaList	(in module <i>asff.generated</i>), 26	AwsEc2VolumeDetails	(class in <i>asff.generated</i>), 74
AwsDynamoDbTableRestoreSummary	(class in <i>asff.generated</i>), 65	AwsEc2VpcDetails	(class in <i>asff.generated</i>), 75
AwsDynamoDbTableSseDescription	(class in <i>asff.generated</i>), 65	AwsElasticsearchDomainDetails	(class in <i>asff.generated</i>), 76
AwsDynamoDbTableStreamSpecification	(class in <i>asff.generated</i>), 66	AwsElasticsearchDomainDomainEndpointOptions	(class in <i>asff.generated</i>), 77
		AwsElasticsearchDomainEncryptionAtRestOptions	(class in <i>asff.generated</i>), 77
		AwsElasticsearchDomainNodeToNodeEncryptionOptions	

	(class in <i>asff.generated</i>), 78				<i>asff.generated</i>), 26
AwsElasticsearchDomainVPCOptions	(class in <i>asff.generated</i>), 78	AwsIamAttachedManagedPolicy	(class in <i>asff.generated</i>), 90		
AwsElbAppCookieStickinessPolicies	(in module <i>asff.generated</i>), 26	AwsIamAttachedManagedPolicyList	(in module <i>asff.generated</i>), 26		
AwsElbAppCookieStickinessPolicy	(class in <i>asff.generated</i>), 78	AwsIamGroupDetails	(class in <i>asff.generated</i>), 91		
AwsElbLbCookieStickinessPolicies	(in module <i>asff.generated</i>), 26	AwsIamGroupPolicy	(class in <i>asff.generated</i>), 91		
AwsElbLbCookieStickinessPolicy	(class in <i>asff.generated</i>), 79	AwsIamGroupPolicyList	(in module <i>asff.generated</i>), 26		
AwsElbLoadBalancerAccessLog	(class in <i>asff.generated</i>), 79	AwsIamInstanceProfile	(class in <i>asff.generated</i>), 92		
AwsElbLoadBalancerAttributes	(class in <i>asff.generated</i>), 80	AwsIamInstanceProfileList	(in module <i>asff.generated</i>), 26		
AwsElbLoadBalancerBackendServerDescription	(class in <i>asff.generated</i>), 81	AwsIamInstanceProfileRole	(class in <i>asff.generated</i>), 92		
AwsElbLoadBalancerBackendServerDescriptionList	(in module <i>asff.generated</i>), 26	AwsIamInstanceProfileRoles	(in module <i>asff.generated</i>), 26		
AwsElbLoadBalancerConnectionDraining	(class in <i>asff.generated</i>), 81	AwsIamPermissionsBoundary	(class in <i>asff.generated</i>), 93		
AwsElbLoadBalancerConnectionSettings	(class in <i>asff.generated</i>), 82	AwsIamPolicyDetails	(class in <i>asff.generated</i>), 93		
AwsElbLoadBalancerCrossZoneLoadBalancing	(class in <i>asff.generated</i>), 82	AwsIamPolicyVersion	(class in <i>asff.generated</i>), 94		
AwsElbLoadBalancerDetails	(class in <i>asff.generated</i>), 82	AwsIamPolicyVersionList	(in module <i>asff.generated</i>), 26		
AwsElbLoadBalancerHealthCheck	(class in <i>asff.generated</i>), 84	AwsIamRoleAssumeRolePolicyDocument	(in module <i>asff.generated</i>), 26		
AwsElbLoadBalancerInstance	(class in <i>asff.generated</i>), 84	AwsIamRoleDetails	(class in <i>asff.generated</i>), 95		
AwsElbLoadBalancerInstances	(in module <i>asff.generated</i>), 26	AwsIamRolePolicy	(class in <i>asff.generated</i>), 96		
AwsElbLoadBalancerListener	(class in <i>asff.generated</i>), 85	AwsIamRolePolicyList	(in module <i>asff.generated</i>), 26		
AwsElbLoadBalancerListenerDescription	(class in <i>asff.generated</i>), 85	AwsIamUserDetails	(class in <i>asff.generated</i>), 96		
AwsElbLoadBalancerListenerDescriptions	(in module <i>asff.generated</i>), 26	AwsIamUserPolicy	(class in <i>asff.generated</i>), 97		
AwsElbLoadBalancerPolicies	(class in <i>asff.generated</i>), 86	AwsIamUserPolicyList	(in module <i>asff.generated</i>), 26		
AwsElbLoadBalancerSourceSecurityGroup	(class in <i>asff.generated</i>), 86	AwsKmsKeyDetails	(class in <i>asff.generated</i>), 97		
AwsElbv2LoadBalancerDetails	(class in <i>asff.generated</i>), 87	AwsLambdaFunctionCode	(class in <i>asff.generated</i>), 98		
AwsIamAccessKeyDetails	(class in <i>asff.generated</i>), 88	AwsLambdaFunctionDeadLetterConfig	(class in <i>asff.generated</i>), 99		
AwsIamAccessKeySessionContext	(class in <i>asff.generated</i>), 89	AwsLambdaFunctionDetails	(class in <i>asff.generated</i>), 99		
AwsIamAccessKeySessionContextAttributes	(class in <i>asff.generated</i>), 89	AwsLambdaFunctionEnvironment	(class in <i>asff.generated</i>), 101		
AwsIamAccessKeySessionContextSessionIssuer	(class in <i>asff.generated</i>), 90	AwsLambdaFunctionEnvironmentError	(class in <i>asff.generated</i>), 101		
AwsIamAccessKeyStatus	(in module <i>asff.generated</i>), 26	AwsLambdaFunctionLayer	(class in <i>asff.generated</i>), 101		
		AwsLambdaFunctionLayerList	(in module <i>asff.generated</i>), 27		
		AwsLambdaFunctionTracingConfig	(class in <i>asff.generated</i>), 102		
		AwsLambdaFunctionVpcConfig	(class in <i>asff.generated</i>), 102		
		AwsLambdaLayerVersionDetails	(class in <i>asff.generated</i>), 103		

AwsLambdaLayerVersionNumber (in module *asff.generated*), 27
 AwsRdsDbClusterAssociatedRole (class in *asff.generated*), 103
 AwsRdsDbClusterAssociatedRoles (in module *asff.generated*), 27
 AwsRdsDbClusterDetails (class in *asff.generated*), 104
 AwsRdsDbClusterMember (class in *asff.generated*), 106
 AwsRdsDbClusterMembers (in module *asff.generated*), 27
 AwsRdsDbClusterOptionGroupMembership (class in *asff.generated*), 107
 AwsRdsDbClusterOptionGroupMemberships (in module *asff.generated*), 27
 AwsRdsDbClusterSnapshotDetails (class in *asff.generated*), 107
 AwsRdsDbDomainMembership (class in *asff.generated*), 109
 AwsRdsDbDomainMemberships (in module *asff.generated*), 27
 AwsRdsDbInstanceAssociatedRole (class in *asff.generated*), 109
 AwsRdsDbInstanceAssociatedRoles (in module *asff.generated*), 27
 AwsRdsDbInstanceDetails (class in *asff.generated*), 110
 AwsRdsDbInstanceEndpoint (class in *asff.generated*), 115
 AwsRdsDbInstanceVpcSecurityGroup (class in *asff.generated*), 115
 AwsRdsDbInstanceVpcSecurityGroups (in module *asff.generated*), 27
 AwsRdsDbOptionGroupMembership (class in *asff.generated*), 115
 AwsRdsDbOptionGroupMemberships (in module *asff.generated*), 27
 AwsRdsDbParameterGroup (class in *asff.generated*), 116
 AwsRdsDbParameterGroups (in module *asff.generated*), 27
 AwsRdsDbPendingModifiedValues (class in *asff.generated*), 116
 AwsRdsDbProcessorFeature (class in *asff.generated*), 118
 AwsRdsDbProcessorFeatures (in module *asff.generated*), 27
 AwsRdsDbSnapshotDetails (class in *asff.generated*), 118
 AwsRdsDbStatusInfo (class in *asff.generated*), 120
 AwsRdsDbStatusInfos (in module *asff.generated*), 27
 AwsRdsDbSubnetGroup (class in *asff.generated*), 121
 AwsRdsDbSubnetGroupSubnet (class in *asff.generated*), 121
 AwsRdsDbSubnetGroupSubnetAvailabilityZone (class in *asff.generated*), 122
 AwsRdsDbSubnetGroupSubnets (in module *asff.generated*), 27
 AwsRdsPendingCloudWatchLogsExports (class in *asff.generated*), 122
 AwsRedshiftClusterClusterNode (class in *asff.generated*), 122
 AwsRedshiftClusterClusterNodes (in module *asff.generated*), 27
 AwsRedshiftClusterClusterParameterGroup (class in *asff.generated*), 123
 AwsRedshiftClusterClusterParameterGroups (in module *asff.generated*), 27
 AwsRedshiftClusterClusterParameterStatus (class in *asff.generated*), 123
 AwsRedshiftClusterClusterParameterStatusList (in module *asff.generated*), 27
 AwsRedshiftClusterClusterSecurityGroup (class in *asff.generated*), 124
 AwsRedshiftClusterClusterSecurityGroups (in module *asff.generated*), 27
 AwsRedshiftClusterClusterSnapshotCopyStatus (class in *asff.generated*), 124
 AwsRedshiftClusterDeferredMaintenanceWindow (class in *asff.generated*), 125
 AwsRedshiftClusterDeferredMaintenanceWindows (in module *asff.generated*), 27
 AwsRedshiftClusterDetails (class in *asff.generated*), 126
 AwsRedshiftClusterElasticIpStatus (class in *asff.generated*), 129
 AwsRedshiftClusterEndpoint (class in *asff.generated*), 130
 AwsRedshiftClusterHsmStatus (class in *asff.generated*), 130
 AwsRedshiftClusterIamRole (class in *asff.generated*), 131
 AwsRedshiftClusterIamRoles (in module *asff.generated*), 27
 AwsRedshiftClusterPendingModifiedValues (class in *asff.generated*), 131
 AwsRedshiftClusterResizeInfo (class in *asff.generated*), 132
 AwsRedshiftClusterRestoreStatus (class in *asff.generated*), 133
 AwsRedshiftClusterVpcSecurityGroup (class in *asff.generated*), 133
 AwsRedshiftClusterVpcSecurityGroups (in module *asff.generated*), 27
 AwsS3AccountPublicAccessBlockDetails

- (*class in asff.generated*), 134
- AwsS3BucketDetails (*class in asff.generated*), 135
- AwsS3BucketServerSideEncryptionByDefault (*class in asff.generated*), 135
- AwsS3BucketServerSideEncryptionConfiguration (*class in asff.generated*), 136
- AwsS3BucketServerSideEncryptionRule (*class in asff.generated*), 136
- AwsS3BucketServerSideEncryptionRules (*in module asff.generated*), 27
- AwsS3ObjectDetails (*class in asff.generated*), 136
- AwsSecretsManagerSecretDetails (*class in asff.generated*), 137
- AwsSecretsManagerSecretRotationRules (*class in asff.generated*), 138
- AwsSecurityFinding (*class in asff.generated*), 138
- AwsSnsTopicDetails (*class in asff.generated*), 141
- AwsSnsTopicSubscription (*class in asff.generated*), 142
- AwsSnsTopicSubscriptionList (*in module asff.generated*), 27
- AwsSqsQueueDetails (*class in asff.generated*), 142
- AwsSsmComplianceSummary (*class in asff.generated*), 143
- AwsSsmPatch (*class in asff.generated*), 145
- AwsSsmPatchComplianceDetails (*class in asff.generated*), 145
- AwsWafWebAclDetails (*class in asff.generated*), 145
- AwsWafWebAclRule (*class in asff.generated*), 146
- AwsWafWebAclRuleList (*in module asff.generated*), 27
- ## B
- backend_server_descriptions (*asff.generated.AwsElbLoadBalancerDetails attribute*), 83
- backfilling (*asff.generated.AwsDynamoDbTableGlobalSecondaryIndex attribute*), 61
- backup_retention_period (*asff.generated.AwsRdsDbClusterDetails attribute*), 106
- backup_retention_period (*asff.generated.AwsRdsDbInstanceDetails attribute*), 113
- backup_retention_period (*asff.generated.AwsRdsDbPendingModifiedValues attribute*), 117
- base_score (*asff.generated.Cvss attribute*), 152
- base_vector (*asff.generated.Cvss attribute*), 152
- begin (*asff.generated.PortRange attribute*), 164
- billing_mode (*asff.generated.AwsDynamoDbTableBillingModeSummary attribute*), 59
- billing_mode_summary (*asff.generated.AwsDynamoDbTableDetails attribute*), 60
- binary_media_types (*asff.generated.AwsApiGatewayRestApiDetails attribute*), 36
- block_public_acls (*asff.generated.AwsS3AccountPublicAccessBlockDetails attribute*), 134
- block_public_policy (*asff.generated.AwsS3AccountPublicAccessBlockDetails attribute*), 134
- blocked (*asff.generated.DnsRequestAction attribute*), 153
- blocked (*asff.generated.NetworkConnectionAction attribute*), 159
- blocked (*asff.generated.PortProbeAction attribute*), 163
- Boolean (*in module asff.generated*), 27
- bucket (*asff.generated.AwsCloudFrontDistributionLogging attribute*), 50
- ## C
- ca_certificate_identifier (*asff.generated.AwsRdsDbInstanceDetails attribute*), 113
- ca_certificate_identifier (*asff.generated.AwsRdsDbPendingModifiedValues attribute*), 117
- cache_behaviors (*asff.generated.AwsCloudFrontDistributionDetails attribute*), 49
- cache_cluster_enabled (*asff.generated.AwsApiGatewayStageDetails attribute*), 37
- cache_cluster_size (*asff.generated.AwsApiGatewayStageDetails attribute*), 38
- cache_status (*asff.generated.AwsApiGatewayStageDetails attribute*), 38
- cache_data_encrypted (*asff.generated.AwsApiGatewayMethodSettings attribute*), 35
- cache_ttl_in_seconds (*asff.generated.AwsApiGatewayMethodSettings attribute*), 35
- caching_enabled (*asff.generated.AwsApiGatewayMethodSettings attribute*), 35
- calculate_finding_id() (*asff.AmazonSecurityFinding static method*), 180
- calculate_finding_id() (*asff.finding.AmazonSecurityFinding static method*), 16

caller_type (asff.generated.AwsApiCallAction attribute), 33	148
canary_settings (asff.generated.AwsApiGatewayStageDetails attribute), 38	ClassificationStatus (class in asff.generated), 149
canonical_hosted_zone_id (asff.generated.AwsElbv2LoadBalancerDetails attribute), 88	client_certificate_id (asff.generated.AwsApiGatewayStageDetails attribute), 38
canonical_hosted_zone_name (asff.generated.AwsElbLoadBalancerDetails attribute), 83	cloud_watch_logs_log_group_arn (asff.generated.AwsCloudTrailTrailDetails attribute), 53
canonical_hosted_zone_name_id (asff.generated.AwsElbLoadBalancerDetails attribute), 83	cloud_watch_logs_role_arn (asff.generated.AwsCloudTrailTrailDetails attribute), 53
category (asff.generated.SensitiveDataResult attribute), 172	cluster_availability_status (asff.generated.AwsRedshiftClusterDetails attribute), 128
category (asff.generated.ThreatIntelIndicator attribute), 175	cluster_create_time (asff.generated.AwsRdsDbClusterDetails attribute), 106
Cell (class in asff.generated), 147	cluster_create_time (asff.generated.AwsRdsDbClusterSnapshotDetails attribute), 109
cell_reference (asff.generated.Cell attribute), 147	cluster_create_time (asff.generated.AwsRedshiftClusterDetails attribute), 128
cells (asff.generated.Occurrences attribute), 161	cluster_create_time (asff.generated.AwsRedshiftClusterDetails attribute), 128
Cells (in module asff.generated), 27	cluster_create_time (asff.generated.AwsRedshiftClusterDetails attribute), 128
certificate (asff.generated.AwsCodeBuildProjectEnvironment attribute), 55	cluster_create_time (asff.generated.AwsRedshiftClusterDetails attribute), 128
certificate_authority_arn (asff.generated.AwsCertificateManagerCertificateDetails attribute), 43	cluster_create_time (asff.generated.AwsRedshiftClusterDetails attribute), 128
certificate_transparency_logging_preference (asff.generated.AwsCertificateManagerCertificateOptions attribute), 46	cluster_create_time (asff.generated.AwsRedshiftClusterDetails attribute), 128
character_set_name (asff.generated.AwsRdsDbInstanceDetails attribute), 113	cluster_create_time (asff.generated.AwsRedshiftClusterDetails attribute), 128
cidr_block (asff.generated.CidrBlockAssociation attribute), 148	cluster_create_time (asff.generated.AwsRedshiftClusterDetails attribute), 128
cidr_block_association_set (asff.generated.AwsEc2VpcDetails attribute), 76	cluster_create_time (asff.generated.AwsRedshiftClusterDetails attribute), 128
cidr_block_state (asff.generated.CidrBlockAssociation attribute), 148	cluster_create_time (asff.generated.AwsRedshiftClusterDetails attribute), 128
cidr_block_state (asff.generated.Ipv6CidrBlockAssociation attribute), 156	cluster_create_time (asff.generated.AwsRedshiftClusterDetails attribute), 128
cidr_ip (asff.generated.AwsEc2SecurityGroupIpRange attribute), 72	cluster_create_time (asff.generated.AwsRedshiftClusterDetails attribute), 128
cidr_ipv6 (asff.generated.AwsEc2SecurityGroupIpv6Range attribute), 73	cluster_create_time (asff.generated.AwsRedshiftClusterDetails attribute), 128
CidrBlockAssociation (class in asff.generated), 147	cluster_create_time (asff.generated.AwsRedshiftClusterDetails attribute), 128
CidrBlockAssociationList (in module asff.generated), 27	cluster_create_time (asff.generated.AwsRedshiftClusterDetails attribute), 128
city (asff.generated.ActionRemoteIpDetails attribute), 31	cluster_create_time (asff.generated.AwsRedshiftClusterDetails attribute), 128
City (class in asff.generated), 148	cluster_create_time (asff.generated.AwsRedshiftClusterDetails attribute), 128
city_name (asff.generated.City attribute), 148	cluster_create_time (asff.generated.AwsRedshiftClusterDetails attribute), 128
ClassificationResult (class in asff.generated), 148	cluster_create_time (asff.generated.AwsRedshiftClusterDetails attribute), 128

attribute), 128
 cluster_subnet_group_name (asff.generated.AwsRedshiftClusterDetails attribute), 128
 cluster_type (asff.generated.AwsRedshiftClusterPendingModifiedAttributes attribute), 132
 cluster_version (asff.generated.AwsRedshiftClusterDetails attribute), 128
 cluster_version (asff.generated.AwsRedshiftClusterPendingModifiedAttributes attribute), 132
 code (asff.generated.AwsLambdaFunctionDetails attribute), 100
 code (asff.generated.ClassificationStatus attribute), 149
 code (asff.generated.LoadBalancerState attribute), 156
 code_sha256 (asff.generated.AwsLambdaFunctionDetails attribute), 100
 code_size (asff.generated.AwsLambdaFunctionLayer attribute), 102
 column (asff.generated.Cell attribute), 147
 column_name (asff.generated.Cell attribute), 147
 compatible_runtimes (asff.generated.AwsLambdaLayerVersionDetails attribute), 103
 compliance (asff.generated.AwsSecurityFinding attribute), 140
 Compliance (class in asff.generated), 149
 compliance_summary (asff.generated.AwsSsmPatch attribute), 145
 compliance_type (asff.generated.AwsSsmComplianceSummary attribute), 144
 ComplianceStatus (in module asff.generated), 27
 compliant_critical_count (asff.generated.AwsSsmComplianceSummary attribute), 144
 compliant_high_count (asff.generated.AwsSsmComplianceSummary attribute), 144
 compliant_informational_count (asff.generated.AwsSsmComplianceSummary attribute), 144
 compliant_low_count (asff.generated.AwsSsmComplianceSummary attribute), 144
 compliant_medium_count (asff.generated.AwsSsmComplianceSummary attribute), 144
 compliant_unspecified_count (asff.generated.AwsSsmComplianceSummary attribute), 144
 component_id (asff.generated.NetworkPathComponent attribute), 160
 component_type (asff.generated.NetworkPathComponent attribute), 160
 confidence (asff.generated.AwsSecurityFinding attribute), 140
 confidence (asff.generated.FindingProviderFields attribute), 154
 connection_direction (asff.generated.NetworkConnectionAction attribute), 159
 connection_draining (asff.generated.AwsElbLoadBalancerAttributes attribute), 81
 connection_settings (asff.generated.AwsElbLoadBalancerAttributes attribute), 81
 container (asff.generated.ResourceDetails attribute), 171
 ContainerDetails (class in asff.generated), 150
 content_type (asff.generated.AwsS3ObjectDetails attribute), 137
 cookie_expiration_period (asff.generated.AwsElbLbCookieStickinessPolicy attribute), 79
 cookie_name (asff.generated.AwsElbAppCookieStickinessPolicy attribute), 79
 copy_tags_to_snapshot (asff.generated.AwsRdsDbClusterDetails attribute), 106
 copy_tags_to_snapshot (asff.generated.AwsRdsDbInstanceDetails attribute), 113
 configuration (asff.generated.AwsApiGatewayV2ApiDetails attribute), 39
 count (asff.generated.CustomDataIdentifiersDetections attribute), 152
 count (asff.generated.SensitiveDataDetections attribute), 172
 country (asff.generated.ActionRemoteIpDetails attribute), 31
 Country (class in asff.generated), 151
 country_code (asff.generated.Country attribute), 151
 country_name (asff.generated.Country attribute), 151
 create_date (asff.generated.AwsIamGroupDetails attribute), 91
 create_date (asff.generated.AwsIamInstanceProfile attribute), 92
 create_date (asff.generated.AwsIamInstanceProfileRole attribute), 93
 create_date (asff.generated.AwsIamPolicyDetails attribute), 94
 create_date (asff.generated.AwsIamPolicyVersion attribute), 95
 create_date (asff.generated.AwsIamRoleDetails attribute), 96
 create_date (asff.generated.AwsIamUserDetails attribute), 97

create_time (*asff.generated.AwsEc2VolumeDetails* attribute), 75
 created_at (*asff.generated.AwsCertificateManagerCertificateDetails* attribute), 43
 created_at (*asff.generated.AwsIamAccessKeyDetails* attribute), 88
 created_at (*asff.generated.AwsS3BucketDetails* attribute), 135
 created_at (*asff.generated.AwsSecurityFinding* attribute), 141
 created_date (*asff.generated.AwsApiGatewayRestApiDetails* attribute), 36
 created_date (*asff.generated.AwsApiGatewayStageDetails* attribute), 38
 created_date (*asff.generated.AwsApiGatewayV2ApiDetails* attribute), 39
 created_date (*asff.generated.AwsApiGatewayV2StageDetails* attribute), 40
 created_date (*asff.generated.AwsLambdaLayerVersionDetails* attribute), 103
 created_time (*asff.generated.AwsAutoScalingAutoScalingGroupDetails* attribute), 41
 created_time (*asff.generated.AwsElbLoadBalancerDetails* attribute), 83
 created_time (*asff.generated.AwsElbv2LoadBalancerDetails* attribute), 88
 creation_date (*asff.generated.AwsIamAccessKeySessionContextAttributes* attribute), 89
 creation_date (*asff.generated.AwsKmsKeyDetails* attribute), 98
 creation_date_time (*asff.generated.AwsDynamoDbTableDetails* attribute), 60
 credential (*asff.generated.AwsCodeBuildProjectEnvironmentRegistryCredential* attribute), 56
 credential_provider (*asff.generated.AwsCodeBuildProjectEnvironmentRegistryCredential* attribute), 56
 criticality (*asff.generated.AwsSecurityFinding* attribute), 141
 criticality (*asff.generated.FindingProviderFields* attribute), 154
 cross_account_clone (*asff.generated.AwsRdsDbClusterDetails* attribute), 106
 cross_zone_load_balancing (*asff.generated.AwsElbLoadBalancerAttributes* attribute), 81
 current_restore_rate_in_mega_bytes_per_second (*asff.generated.AwsRedshiftClusterRestoreStatus* attribute), 133
 custom_data_identifiers (*asff.generated.ClassificationResult* attribute), 149
 custom_endpoints (*asff.generated.AwsRdsDbClusterDetails* attribute), 106
 CustomDataIdentifiersDetections (class in *asff.generated*), 151
 CustomDataIdentifiersDetectionsList (in module *asff.generated*), 27
 CustomDataIdentifiersResult (class in *asff.generated*), 152
 cvss (*asff.generated.Vulnerability* attribute), 175
 Cvss (class in *asff.generated*), 152
 DetailsList (in module *asff.generated*), 27
 data_classification (*asff.generated.Resource* attribute), 168
 data_trace_enabled (*asff.generated.AwsApiGatewayMethodSettings* attribute), 35
 data_trace_enabled (*asff.generated.AwsApiGatewayV2RouteSettings* attribute), 39
 database_name (*asff.generated.AwsRdsDbClusterDetails* attribute), 106
 DataClassificationDetails (class in *asff.generated*), 152
 db_cluster_identifier (*asff.generated.AwsRdsDbClusterDetails* attribute), 106
 db_cluster_identifier (*asff.generated.AwsRdsDbClusterSnapshotDetails* attribute), 109
 db_cluster_identifier (*asff.generated.AwsRdsDbInstanceDetails* attribute), 106
 db_cluster_members (*asff.generated.AwsRdsDbClusterDetails* attribute), 106
 db_cluster_option_group_memberships (*asff.generated.AwsRdsDbClusterDetails* attribute), 106
 db_cluster_option_group_name (*asff.generated.AwsRdsDbClusterOptionGroupMembership* attribute), 107
 db_cluster_parameter_group (*asff.generated.AwsRdsDbClusterDetails* attribute), 106
 db_cluster_parameter_group_status (*asff.generated.AwsRdsDbClusterMember* attribute), 107
 db_cluster_resource_id (*asff.generated.AwsRdsDbClusterDetails* attribute), 106
 db_cluster_snapshot_identifier (*asff.generated.AwsRdsDbClusterSnapshotDetails* attribute), 106

<i>attribute</i>), 109	<i>(asff.generated.AwsRdsDbSubnetGroup attribute)</i> , 121
db_instance_class <i>(asff.generated.AwsRdsDbInstanceDetails attribute)</i> , 113	dbi_resource_id <i>(asff.generated.AwsRdsDbInstanceDetails attribute)</i> , 113
db_instance_class <i>(asff.generated.AwsRdsDbPendingModifiedValues attribute)</i> , 117	dbi_resource_id <i>(asff.generated.AwsRdsDbSnapshotDetails attribute)</i> , 119
db_instance_identifier <i>(asff.generated.AwsRdsDbClusterMember attribute)</i> , 107	dead_letter_config <i>(asff.generated.AwsLambdaFunctionDetails attribute)</i> , 100
db_instance_identifier <i>(asff.generated.AwsRdsDbInstanceDetails attribute)</i> , 113	dead_letter_target_arn <i>(asff.generated.AwsSqsQueueDetails attribute)</i> , 143
db_instance_identifier <i>(asff.generated.AwsRdsDbPendingModifiedValues attribute)</i> , 117	default_action <i>(asff.generated.AwsWafWebAclDetails attribute)</i> , 146
db_instance_identifier <i>(asff.generated.AwsRdsDbSnapshotDetails attribute)</i> , 119	default_cache_behavior <i>(asff.generated.AwsCloudFrontDistributionDetails attribute)</i> , 49
db_instance_port <i>(asff.generated.AwsRdsDbInstanceDetails attribute)</i> , 113	DEFAULT_GENERATOR_ID <i>(in module asff.constants)</i> , 13
db_instance_status <i>(asff.generated.AwsRdsDbInstanceDetails attribute)</i> , 113	DEFAULT_PRODUCT_ARN_FMT <i>(in module asff.constants)</i> , 13
db_name <i>(asff.generated.AwsRdsDbInstanceDetails attribute)</i> , 113	DEFAULT_PRODUCT_NAME <i>(in module asff.constants)</i> , 13
db_name <i>(asff.generated.AwsRedshiftClusterDetails attribute)</i> , 128	DEFAULT_PRODUCT_VERSION <i>(in module asff.constants)</i> , 13
db_parameter_group_name <i>(asff.generated.AwsRdsDbParameterGroup attribute)</i> , 116	DEFAULT_RECORD_STATE <i>(in module asff.constants)</i> , 13
db_parameter_groups <i>(asff.generated.AwsRdsDbInstanceDetails attribute)</i> , 113	DEFAULT_REGION <i>(in module asff.constants)</i> , 13
db_security_groups <i>(asff.generated.AwsRdsDbInstanceDetails attribute)</i> , 113	default_root_object <i>(asff.generated.AwsCloudFrontDistributionDetails attribute)</i> , 49
db_snapshot_identifier <i>(asff.generated.AwsRdsDbSnapshotDetails attribute)</i> , 119	default_route_settings <i>(asff.generated.AwsApiGatewayV2StageDetails attribute)</i> , 40
db_subnet_group <i>(asff.generated.AwsRdsDbClusterDetails attribute)</i> , 106	DEFAULT_SCHEMA_VERSION <i>(in module asff.constants)</i> , 13
db_subnet_group <i>(asff.generated.AwsRdsDbInstanceDetails attribute)</i> , 113	DEFAULT_SEVERITY <i>(in module asff.constants)</i> , 13
db_subnet_group_arn <i>(asff.generated.AwsRdsDbSubnetGroup attribute)</i> , 121	default_version_id <i>(asff.generated.AwsIamPolicyDetails attribute)</i> , 94
db_subnet_group_description <i>(asff.generated.AwsRdsDbSubnetGroup attribute)</i> , 121	DEFAULT_WORKFLOW_STATUS <i>(in module asff.constants)</i> , 13
db_subnet_group_name <i>(asff.generated.AwsRdsDbPendingModifiedValues attribute)</i> , 117	defer_maintenance_end_time <i>(asff.generated.AwsRedshiftClusterDeferredMaintenanceWindow attribute)</i> , 126
db_subnet_group_name	defer_maintenance_identifier <i>(asff.generated.AwsRedshiftClusterDeferredMaintenanceWindow attribute)</i> , 126
	defer_maintenance_start_time <i>(asff.generated.AwsRedshiftClusterDeferredMaintenanceWindow attribute)</i> , 126
	deferred_maintenance_windows <i>(asff.generated.AwsRedshiftClusterDetails attribute)</i> , 129

`delete_on_termination` (*asff.generated.AwsEc2NetworkInterfaceAttachment attribute*), 39
`delete_on_termination` (*asff.generated.AwsEc2VolumeAttachment attribute*), 69
`deleted` (*asff.generated.AwsSecretsManagerSecretDetails attribute*), 138
`deletion_protection` (*asff.generated.AwsRdsDbClusterDetails attribute*), 106
`deletion_protection` (*asff.generated.AwsRdsDbInstanceDetails attribute*), 114
`deployment_id` (*asff.generated.AwsApiGatewayCanarySettings attribute*), 34
`deployment_id` (*asff.generated.AwsApiGatewayStageDetails attribute*), 38
`deployment_id` (*asff.generated.AwsApiGatewayV2StageDetails attribute*), 41
`description` (*asff.generated.AwsApiGatewayRestApiDetails attribute*), 36
`description` (*asff.generated.AwsApiGatewayStageDetails attribute*), 38
`description` (*asff.generated.AwsApiGatewayV2ApiDetails attribute*), 39
`description` (*asff.generated.AwsApiGatewayV2StageDetails attribute*), 41
`description` (*asff.generated.AwsIamPolicyDetails attribute*), 94
`description` (*asff.generated.AwsKmsKeyDetails attribute*), 98
`description` (*asff.generated.AwsSecretsManagerSecretDetails attribute*), 138
`description` (*asff.generated.AwsSecurityFinding attribute*), 141
`description` (*asff.generated.StatusReason attribute*), 174
`destination` (*asff.generated.NetworkHeader attribute*), 159
`destination_arn` (*asff.generated.AwsApiGatewayAccessLogSettings attribute*), 33
`destination_domain` (*asff.generated.Network attribute*), 158
`destination_ip_v4` (*asff.generated.Network attribute*), 158
`destination_ip_v6` (*asff.generated.Network attribute*), 158
`destination_port` (*asff.generated.Network attribute*), 158
`destination_region` (*asff.generated.AwsRedshiftClusterClusterSnapshotCopyStatus attribute*), 125
`detailed_metrics_enabled` (*asff.generated.AwsApiGatewayV2RouteSettings attribute*), 39
`detailed_results_location` (*asff.generated.DataClassificationDetails attribute*), 153
`details` (*asff.generated.Resource attribute*), 168
`detections` (*asff.generated.CustomDataIdentifiersResult attribute*), 152
`detections` (*asff.generated.SensitiveDataResult attribute*), 172
`device_index` (*asff.generated.AwsEc2NetworkInterfaceAttachment attribute*), 69
`dhcp_options_id` (*asff.generated.AwsEc2VpcDetails attribute*), 76
`dns_name` (*asff.generated.Network attribute*), 158
`dns_name` (*asff.generated.AwsElbLoadBalancerDetails attribute*), 83
`dns_name` (*asff.generated.AwsElbv2LoadBalancerDetails attribute*), 88
`dns_request_action` (*asff.generated.Action attribute*), 29
`DnsRequestAction` (class in *asff.generated*), 153
`documentation_version` (*asff.generated.AwsApiGatewayStageDetails attribute*), 38
`domain` (*asff.generated.AwsApiCallActionDomainDetails attribute*), 33
`domain` (*asff.generated.AwsEc2EipDetails attribute*), 67
`domain` (*asff.generated.AwsRdsDbDomainMembership attribute*), 109
`domain` (*asff.generated.DnsRequestAction attribute*), 153
`domain_details` (*asff.generated.AwsApiCallAction attribute*), 33
`domain_endpoint_options` (*asff.generated.AwsElasticsearchDomainDetails attribute*), 77
`domain_id` (*asff.generated.AwsElasticsearchDomainDetails attribute*), 77
`domain_memberships` (*asff.generated.AwsRdsDbClusterDetails attribute*), 106
`domain_memberships` (*asff.generated.AwsRdsDbInstanceDetails attribute*), 114
`domain_name` (*asff.generated.AwsCertificateManagerCertificateDetails attribute*), 43
`domain_name` (*asff.generated.AwsCertificateManagerCertificateDomain attribute*), 44
`domain_name` (*asff.generated.AwsCloudFrontDistributionDetails attribute*), 49
`domain_name` (*asff.generated.AwsCloudFrontDistributionOriginItem attribute*), 52
`domain_name` (*asff.generated.AwsElasticsearchDomainDetails attribute*), 77

attribute), 77
 domain_validation_options (asff.generated.AwsCertificateManagerCertificateDetails attribute), 43
 domain_validation_options (asff.generated.AwsCertificateManagerCertificateRenewalSummary attribute), 46
 Double (in module asff.generated), 27

E

e_tag (asff.generated.AwsCloudFrontDistributionDetails attribute), 49
 e_tag (asff.generated.AwsS3ObjectDetails attribute), 137
 egress (asff.generated.NetworkPathComponent attribute), 160
 elapsed_time_in_seconds (asff.generated.AwsRedshiftClusterRestoreStatus attribute), 133
 elastic_ip (asff.generated.AwsRedshiftClusterElasticIpStatus attribute), 130
 elastic_ip_status (asff.generated.AwsRedshiftClusterDetails attribute), 129
 elastic_resize_number_of_node_options (asff.generated.AwsRedshiftClusterDetails attribute), 129
 elasticsearch_version (asff.generated.AwsElasticsearchDomainDetails attribute), 77
 emit_interval (asff.generated.AwsElbLoadBalancerAccessLog attribute), 80
 enabled (asff.generated.AwsCloudFrontDistributionLogging attribute), 50
 enabled (asff.generated.AwsElasticsearchDomainEncryptionAtRestOptions attribute), 78
 enabled (asff.generated.AwsElasticsearchDomainNodeToNodeEncryptionOptions attribute), 78
 enabled (asff.generated.AwsElbLoadBalancerAccessLog attribute), 80
 enabled (asff.generated.AwsElbLoadBalancerConnectionDraining attribute), 81
 enabled (asff.generated.AwsElbLoadBalancerCrossZoneLoadBalancing attribute), 82
 enabled_cloud_watch_logs_exports (asff.generated.AwsRdsDbClusterDetails attribute), 106
 enabled_cloud_watch_logs_exports (asff.generated.AwsRdsDbInstanceDetails attribute), 114
 encrypted (asff.generated.AwsEc2VolumeDetails attribute), 75
 encrypted (asff.generated.AwsRdsDbSnapshotDetails attribute), 119
 encrypted (asff.generated.AwsRedshiftClusterDetails attribute), 129
 encryption_at_rest_options (asff.generated.AwsElasticsearchDomainDetails attribute), 77
 encryption_key (asff.generated.AwsCodeBuildProjectDetails attribute), 54
 encryption_type (asff.generated.AwsRedshiftClusterPendingModifiedValues attribute), 132
 end (asff.generated.PortRange attribute), 164
 end (asff.generated.Range attribute), 166
 endpoint (asff.generated.AwsElasticsearchDomainDetails attribute), 77
 endpoint (asff.generated.AwsRdsDbClusterDetails attribute), 106
 endpoint (asff.generated.AwsRdsDbInstanceDetails attribute), 114
 endpoint (asff.generated.AwsRedshiftClusterDetails attribute), 129
 endpoint (asff.generated.AwsSnsTopicSubscription attribute), 142
 endpoint_configuration (asff.generated.AwsApiGatewayRestApiDetails attribute), 36
 endpoints (asff.generated.AwsElasticsearchDomainDetails attribute), 77
 enforce_https (asff.generated.AwsElasticsearchDomainDomainEndpointOptions attribute), 77
 engine (asff.generated.AwsRdsDbClusterDetails attribute), 106
 engine (asff.generated.AwsRdsDbClusterSnapshotDetails attribute), 109
 engine (asff.generated.AwsRdsDbInstanceDetails attribute), 114
 engine (asff.generated.AwsRdsDbSnapshotDetails attribute), 119
 engine_mode (asff.generated.AwsRdsDbClusterDetails attribute), 106
 engine_version (asff.generated.AwsRdsDbClusterDetails attribute), 106
 engine_version (asff.generated.AwsRdsDbClusterSnapshotDetails attribute), 109
 engine_version (asff.generated.AwsRdsDbInstanceDetails attribute), 114
 engine_version (asff.generated.AwsRdsDbPendingModifiedValues attribute), 117
 engine_version (asff.generated.AwsRdsDbSnapshotDetails attribute), 119
 enhanced_monitoring_resource_arn (asff.generated.AwsRdsDbInstanceDetails attribute), 114
 enhanced_vpc_routing (asff.generated.AwsRedshiftClusterDetails attribute), 129

enhanced_vpc_routing (*asff.generated.AwsRedshiftClusterPendingModifiedValues* attribute), 33
 attribute), 132
 environment (*asff.generated.AwsCodeBuildProjectDetails* attribute), 109
 attribute), 54
 environment (*asff.generated.AwsLambdaFunctionDetails* attribute), 100
 attribute), 100
 epoch (*asff.generated.SoftwarePackage* attribute), 173
 error (*asff.generated.AwsLambdaFunctionEnvironment* attribute), 101
 attribute), 101
 error_code (*asff.generated.AwsLambdaFunctionEnvironment* attribute), 101
 attribute), 101
 estimated_time_to_completion_in_seconds (*asff.generated.AwsRedshiftClusterRestoreStatus* attribute), 133
 attribute), 133
 excluded_rules (*asff.generated.AwsWafWebAclRule* attribute), 147
 attribute), 147
 execution_type (*asff.generated.AwsSsmComplianceSummary* attribute), 72
 attribute), 144
 expected_next_snapshot_schedule_time (*asff.generated.AwsRedshiftClusterDetails* attribute), 129
 attribute), 129
 expected_next_snapshot_schedule_time_status (*asff.generated.AwsRedshiftClusterDetails* attribute), 129
 attribute), 129
 expose_headers (*asff.generated.AwsCorsConfiguration* attribute), 58
 attribute), 58
 extended_key_usages (*asff.generated.AwsCertificateManagerCertificateDetails* attribute), 43
 attribute), 43

F

failed_count (*asff.generated.PatchSummary* attribute), 163
 attribute), 163
 failover_criteria (*asff.generated.AwsCloudFrontDistributionOriginGroup* attribute), 50
 attribute), 50
 failure_reason (*asff.generated.AwsCertificateManagerCertificateDetails* attribute), 43
 attribute), 43
 feature_name (*asff.generated.AwsRdsDbInstanceAssociatedRole* attribute), 71
 attribute), 110
 FieldMap (in module *asff.generated*), 27
 finding_provider_fields (*asff.generated.AwsSecurityFinding* attribute), 141
 attribute), 141
 FindingProviderFields (class in *asff.generated*), 153
 attribute), 153
 FindingProviderSeverity (class in *asff.generated*), 154
 attribute), 154
 first_observed_at (*asff.generated.AwsSecurityFinding* attribute), 141
 attribute), 141
 first_seen (*asff.generated.AwsApiCallAction* attribute), 33
 attribute), 33

format (*asff.generated.AwsApiGatewayAccessLogSettings* attribute), 33
 attribute), 33
 fqdn (*asff.generated.AwsRdsDbDomainMembership* attribute), 109
 attribute), 109
 from_dict () (*asff.AmazonSecurityFinding* class method), 180
 attribute), 180
 from_dict () (*asff.finding.AmazonSecurityFinding* class method), 16
 attribute), 16
 from_json () (*asff.AmazonSecurityFinding* class method), 181
 attribute), 181
 from_json () (*asff.finding.AmazonSecurityFinding* class method), 16
 attribute), 16
 from_kwargs () (*asff.AmazonSecurityFinding* class method), 181
 attribute), 181
 from_kwargs () (*asff.finding.AmazonSecurityFinding* class method), 17
 attribute), 17
 from_port (*asff.generated.AwsEc2SecurityGroupIpPermission* attribute), 72
 attribute), 72
 function_name (*asff.generated.AwsLambdaFunctionDetails* attribute), 100
 attribute), 100

G

generator_id (*asff.generated.AwsSecurityFinding* attribute), 141
 attribute), 141
 geo_location (*asff.generated.ActionRemoteIpDetails* attribute), 31
 attribute), 31
 GeoLocation (class in *asff.generated*), 155
 attribute), 155
 git_clone_depth (*asff.generated.AwsCodeBuildProjectSource* attribute), 57
 attribute), 57
 global_secondary_indexes (*asff.generated.AwsDynamoDbTableDetails* attribute), 60
 attribute), 60
 global_secondary_indexes (*asff.generated.AwsDynamoDbTableReplica* attribute), 64
 attribute), 64
 global_table_version (*asff.generated.AwsDynamoDbTableDetails* attribute), 60
 attribute), 60
 group_id (*asff.generated.AwsEc2NetworkInterfaceSecurityGroup* attribute), 71
 attribute), 71
 group_id (*asff.generated.AwsEc2SecurityGroupDetails* attribute), 71
 attribute), 71
 group_id (*asff.generated.AwsEc2SecurityGroupUserIdGroupPair* attribute), 74
 attribute), 74
 group_id (*asff.generated.AwsIamGroupDetails* attribute), 91
 attribute), 91
 group_list (*asff.generated.AwsIamUserDetails* attribute), 97
 attribute), 97
 group_name (*asff.generated.AwsEc2NetworkInterfaceSecurityGroup* attribute), 71
 attribute), 71
 group_name (*asff.generated.AwsEc2SecurityGroupDetails* attribute), 71
 attribute), 71
 group_name (*asff.generated.AwsEc2SecurityGroupUserIdGroupPair* attribute), 74
 attribute), 74

group_name (*asff.generated.AwsElbLoadBalancerSourceSecurityGroupDetails attribute*), 114
 attribute), 87
 group_name (*asff.generated.AwsIamGroupDetails attribute*), 91
 group_policy_list (*asff.generated.AwsIamGroupDetails attribute*), 91
 iam_database_authentication_enabled (*asff.generated.AwsRdsDbSnapshotDetails attribute*), 119
 iam_instance_profile_arn (*asff.generated.AwsEc2InstanceDetails attribute*), 68
 iam_role_arn (*asff.generated.AwsRedshiftClusterIamRole attribute*), 131
 iam_role_name (*asff.generated.AwsRdsDbDomainMembership attribute*), 109
 iam_roles (*asff.generated.AwsRedshiftClusterDetails attribute*), 129
 id (*asff.generated.AwsApiGatewayRestApiDetails attribute*), 36
 id (*asff.generated.AwsCloudFrontDistributionOriginItem attribute*), 52
 id (*asff.generated.AwsSecurityFinding attribute*), 141
 id (*asff.generated.PatchSummary attribute*), 163
 id (*asff.generated.RelatedFinding attribute*), 167
 id (*asff.generated.Resource attribute*), 168
 id (*asff.generated.Vulnerability attribute*), 175
 idle_timeout (*asff.generated.AwsElbLoadBalancerConnectionSettings attribute*), 82
 ignore_public_acls (*asff.generated.AwsS3AccountPublicAccessBlockDetails attribute*), 134
 image_id (*asff.generated.AwsEc2InstanceDetails attribute*), 68
 image_id (*asff.generated.ContainerDetails attribute*), 151
 image_name (*asff.generated.ContainerDetails attribute*), 151
 image_pull_credentials_type (*asff.generated.AwsCodeBuildProjectEnvironment attribute*), 55
 imported_at (*asff.generated.AwsCertificateManagerCertificateDetails attribute*), 43
 in_use_by (*asff.generated.AwsCertificateManagerCertificateDetails attribute*), 43
 inaccessible_encryption_date_time (*asff.generated.AwsDynamoDbTableSseDescription attribute*), 66
 include_cookies (*asff.generated.AwsCloudFrontDistributionLogging attribute*), 50
 include_global_service_events (*asff.generated.AwsCloudTrailTrailDetails attribute*), 53
 index_arn (*asff.generated.AwsDynamoDbTableGlobalSecondaryIndex attribute*), 61
 index_arn (*asff.generated.AwsDynamoDbTableLocalSecondaryIndex attribute*), 62
 index_name (*asff.generated.AwsDynamoDbTableGlobalSecondaryIndex attribute*), 61
 handler (*asff.generated.AwsLambdaFunctionDetails attribute*), 100
 has_custom_event_selectors (*asff.generated.AwsCloudTrailTrailDetails attribute*), 53
 health_check (*asff.generated.AwsElbLoadBalancerDetails attribute*), 83
 health_check_grace_period (*asff.generated.AwsAutoScalingAutoScalingGroupDetails attribute*), 41
 health_check_type (*asff.generated.AwsAutoScalingAutoScalingGroupDetails attribute*), 41
 healthy_threshold (*asff.generated.AwsElbLoadBalancerHealthCheck attribute*), 84
 home_region (*asff.generated.AwsCloudTrailTrailDetails attribute*), 53
 hosted_zone_id (*asff.generated.AwsRdsDbClusterDetails attribute*), 106
 hosted_zone_id (*asff.generated.AwsRdsDbInstanceEndpointDetails attribute*), 115
 hsm_client_certificate_identifier (*asff.generated.AwsRedshiftClusterHsmStatus attribute*), 131
 hsm_configuration_identifier (*asff.generated.AwsRedshiftClusterHsmStatus attribute*), 131
 hsm_status (*asff.generated.AwsRedshiftClusterDetails attribute*), 129
 http_endpoint_enabled (*asff.generated.AwsRdsDbClusterDetails attribute*), 106
 http_method (*asff.generated.AwsApiGatewayMethodSettings attribute*), 35
 iam_database_authentication_enabled (*asff.generated.AwsRdsDbClusterDetails attribute*), 106
 iam_database_authentication_enabled (*asff.generated.AwsRdsDbClusterSnapshotDetails attribute*), 109
 iam_database_authentication_enabled (*asff.generated.AwsRdsDbInstanceDetails attribute*), 114

index_name (asff.generated.AwsDynamoDbTableLocalSecondaryIndex attribute), 62
 index_name (asff.generated.AwsDynamoDbTableGlobalSecondaryIndex attribute), 65
 index_size_bytes (asff.generated.AwsDynamoDbTableGlobalSecondaryIndex attribute), 61
 index_status (asff.generated.AwsDynamoDbTableGlobalSecondaryIndex attribute), 61
 ingress (asff.generated.NetworkPathComponent attribute), 160
 insecure_ssl (asff.generated.AwsCodeBuildProjectSource attribute), 57
 installed_count (asff.generated.PatchSummary attribute), 163
 installed_other_count (asff.generated.PatchSummary attribute), 163
 installed_pending_reboot (asff.generated.PatchSummary attribute), 163
 installed_rejected_count (asff.generated.PatchSummary attribute), 163
 instance_create_time (asff.generated.AwsRdsDbInstanceDetails attribute), 114
 instance_create_time (asff.generated.AwsRdsDbSnapshotDetails attribute), 120
 instance_id (asff.generated.AwsEc2EipDetails attribute), 67
 instance_id (asff.generated.AwsEc2NetworkInterfaceAttachment attribute), 69
 instance_id (asff.generated.AwsEc2VolumeAttachment attribute), 74
 instance_id (asff.generated.AwsElbLoadBalancerInstance attribute), 85
 instance_owner_id (asff.generated.AwsEc2NetworkInterfaceAttachment attribute), 69
 instance_port (asff.generated.AwsElbLoadBalancerBackendServiceDescription attribute), 81
 instance_port (asff.generated.AwsElbLoadBalancerListener attribute), 85
 instance_profile_id (asff.generated.AwsIamInstanceProfile attribute), 92
 instance_profile_list (asff.generated.AwsIamRoleDetails attribute), 96
 instance_profile_name (asff.generated.AwsIamInstanceProfile attribute), 92
 instance_protocol (asff.generated.AwsElbLoadBalancerListener attribute), 85
 interval (asff.generated.AwsElbLoadBalancerHealthCheck attribute), 84
 iops (asff.generated.AwsRdsDbInstanceDetails attribute), 114
 iops (asff.generated.AwsRdsDbPendingModifiedValues attribute), 117
 iops (asff.generated.AwsRdsDbSnapshotDetails attribute), 120
 ip_address_type (asff.generated.AwsElbv2LoadBalancerDetails attribute), 88
 ip_address_v4 (asff.generated.ActionLocalIpDetails attribute), 30
 ip_address_v4 (asff.generated.ActionRemoteIpDetails attribute), 31
 ip_permissions (asff.generated.AwsEc2SecurityGroupDetails attribute), 71
 ip_permissions_egress (asff.generated.AwsEc2SecurityGroupDetails attribute), 71
 ip_protocol (asff.generated.AwsEc2SecurityGroupIpPermission attribute), 72
 ip_ranges (asff.generated.AwsEc2SecurityGroupIpPermission attribute), 72
 ip_v4_addresses (asff.generated.AwsEc2InstanceDetails attribute), 68
 ip_v6_address (asff.generated.AwsEc2NetworkInterfaceIpV6Address attribute), 70
 ip_v6_addresses (asff.generated.AwsEc2InstanceDetails attribute), 68
 ip_v6_addresses (asff.generated.AwsEc2NetworkInterfaceDetails attribute), 69
 IpOrganizationDetails (class in asff.generated), 155
 ipv6_cidr_block (asff.generated.Ipv6CidrBlockAssociation attribute), 156
 IpV6CidrBlockAssociationSet (class in asff.generated), 155
 IpV6CidrBlockAssociationList (in module asff.generated), 27
 is_attachable (asff.generated.AwsIamPolicyDetails attribute), 94
 is_cluster_writer (asff.generated.AwsRdsDbClusterMember attribute), 107

is_default_version (asff.generated.AwsIamPolicyVersion attribute), 95
 is_multi_region_trail (asff.generated.AwsCloudTrailTrailDetails attribute), 53
 is_organization_trail (asff.generated.AwsCloudTrailTrailDetails attribute), 54
 ISO8601_REGEX (in module asff.constants), 13
 ISO8601_REGEX (in module asff.generated), 27
 Iso8601Timestamp (in module asff.generated), 27
 isp (asff.generated.IpOrganizationDetails attribute), 155
 issued_at (asff.generated.AwsCertificateManagerCertificateDetails attribute), 43
 issuer (asff.generated.AwsCertificateManagerCertificateDetails attribute), 43
 item_count (asff.generated.AwsDynamoDbTableDetails attribute), 60
 item_count (asff.generated.AwsDynamoDbTableGlobalSecondaryIndex attribute), 61
 items (asff.generated.AwsCloudFrontDistributionCacheBehaviors attribute), 48
 items (asff.generated.AwsCloudFrontDistributionOriginGroupFailoverGroups attribute), 51
 items (asff.generated.AwsCloudFrontDistributionOriginGroups attribute), 51
 items (asff.generated.AwsCloudFrontDistributionOrigins attribute), 52
J
 json_path (asff.generated.Record attribute), 167
K
 key_algorithm (asff.generated.AwsCertificateManagerCertificateDetails attribute), 43
 key_id (asff.generated.AwsKmsKeyDetails attribute), 98
 key_manager (asff.generated.AwsKmsKeyDetails attribute), 98
 key_name (asff.generated.AwsEc2InstanceDetails attribute), 68
 key_schema (asff.generated.AwsDynamoDbTableDetails attribute), 60
 key_schema (asff.generated.AwsDynamoDbTableGlobalSecondaryIndex attribute), 61
 key_schema (asff.generated.AwsDynamoDbTableLocalSecondaryIndex attribute), 62
 key_state (asff.generated.AwsKmsKeyDetails attribute), 98
 key_type (asff.generated.AwsDynamoDbTableKeySchema attribute), 61
 key_usages (asff.generated.AwsCertificateManagerCertificateDetails attribute), 43
 kms_data_key_reuse_period_seconds (asff.generated.AwsSqsQueueDetails attribute), 143
 kms_key_arn (asff.generated.AwsLambdaFunctionDetails attribute), 100
 kms_key_id (asff.generated.AwsCloudTrailTrailDetails attribute), 54
 kms_key_id (asff.generated.AwsEc2VolumeDetails attribute), 75
 kms_key_id (asff.generated.AwsElasticsearchDomainEncryptionAtRestConfig attribute), 78
 kms_key_id (asff.generated.AwsRdsDbClusterDetails attribute), 106
 kms_key_id (asff.generated.AwsRdsDbClusterSnapshotDetails attribute), 109
 kms_key_id (asff.generated.AwsRdsDbInstanceDetails attribute), 114
 kms_key_id (asff.generated.AwsRdsDbSnapshotDetails attribute), 120
 kms_key_id (asff.generated.AwsRedshiftClusterDetails attribute), 129
 kms_key_id (asff.generated.AwsSecretsManagerSecretDetails attribute), 138
 kms_master_key_arn (asff.generated.AwsDynamoDbTableSseDescription attribute), 66
 kms_master_key_id (asff.generated.AwsDynamoDbTableReplica attribute), 64
 kms_master_key_id (asff.generated.AwsS3BucketServerSideEncryptionByDefault attribute), 136
 kms_master_key_id (asff.generated.AwsSnsTopicDetails attribute), 142
 kms_master_key_id (asff.generated.AwsSqsQueueDetails attribute), 143
L
 label (asff.generated.FindingProviderSeverity attribute), 155
 label (asff.generated.Severity attribute), 173
 last_decrease_date_time (asff.generated.AwsDynamoDbTableProvisionedThroughput attribute), 63
 last_deployment_status_message (asff.generated.AwsApiGatewayV2StageDetails attribute), 41
 last_increase_date_time (asff.generated.AwsDynamoDbTableProvisionedThroughput attribute), 63

[last_modified \(asff.generated.AwsLambdaFunctionDetails attribute\), 100](#)
[last_modified \(asff.generated.AwsS3ObjectDetails attribute\), 137](#)
[last_modified_time \(asff.generated.AwsCloudFrontDistributionDetails attribute\), 49](#)
[last_observed_at \(asff.generated.AwsSecurityFinding attribute\), 141](#)
[last_observed_at \(asff.generated.ThreatIntelIndicator attribute\), 175](#)
[last_seen \(asff.generated.AwsApiCallAction attribute\), 33](#)
[last_update_to_pay_per_request_date_time \(asff.generated.AwsDynamoDbTableBillingModeSummary attribute\), 59](#)
[last_updated_date \(asff.generated.AwsApiGatewayStageDetails attribute\), 38](#)
[last_updated_date \(asff.generated.AwsApiGatewayV2StageDetails attribute\), 41](#)
[lat \(asff.generated.GeoLocation attribute\), 155](#)
[latest_restorable_time \(asff.generated.AwsRdsDbInstanceDetails attribute\), 114](#)
[latest_stream_arn \(asff.generated.AwsDynamoDbTableDetails attribute\), 60](#)
[latest_stream_label \(asff.generated.AwsDynamoDbTableDetails attribute\), 60](#)
[launch_configuration_name \(asff.generated.AwsAutoScalingAutoScalingGroupDetails attribute\), 41](#)
[launched_at \(asff.generated.AwsEc2InstanceDetails attribute\), 68](#)
[launched_at \(asff.generated.ContainerDetails attribute\), 151](#)
[launched_at \(asff.generated.ProcessDetails attribute\), 165](#)
[layers \(asff.generated.AwsLambdaFunctionDetails attribute\), 100](#)
[lb_cookie_stickiness_policies \(asff.generated.AwsElbLoadBalancerPolicies attribute\), 86](#)
[license_model \(asff.generated.AwsRdsDbClusterSnapshotDetails attribute\), 109](#)
[license_model \(asff.generated.AwsRdsDbInstanceDetails attribute\), 114](#)
[license_model \(asff.generated.AwsRdsDbPendingModifiedInstanceDetails attribute\), 117](#)
[license_model \(asff.generated.AwsRdsDbSnapshotDetails attribute\), 120](#)
[line_range \(asff.generated.Page attribute\), 162](#)
[line_ranges \(asff.generated.Occurrences attribute\), 161](#)
[listener \(asff.generated.AwsElbLoadBalancerListenerDescription attribute\), 86](#)
[listener_descriptions \(asff.generated.AwsElbLoadBalancerDetails attribute\), 83](#)
[listener_endpoint \(asff.generated.AwsRdsDbInstanceDetails attribute\), 114](#)
[load_balancer_attributes \(asff.generated.AwsElbLoadBalancerDetails attribute\), 83](#)
[load_balancer_name \(asff.generated.AwsElbLoadBalancerDetails attribute\), 83](#)
[load_balancer_names \(asff.generated.AwsAutoScalingAutoScalingGroupDetails attribute\), 41](#)
[load_balancer_port \(asff.generated.AwsElbLoadBalancerListener attribute\), 85](#)
[LoadBalancerState \(class in asff.generated\), 156](#)
[local_ip_details \(asff.generated.PortProbeDetail attribute\), 164](#)
[local_port_details \(asff.generated.NetworkConnectionAction attribute\), 159](#)
[local_port_details \(asff.generated.PortProbeDetail attribute\), 164](#)
[local_secondary_indexes \(asff.generated.AwsDynamoDbTableDetails attribute\), 60](#)
[location \(asff.generated.AwsCodeBuildProjectSource attribute\), 57](#)
[log_file_validation_enabled \(asff.generated.AwsCloudTrailTrailDetails attribute\), 54](#)
[log_types_to_disable \(asff.generated.AwsRdsPendingCloudWatchLogsExports attribute\), 122](#)
[log_types_to_enable \(asff.generated.AwsRdsPendingCloudWatchLogsExports attribute\), 122](#)
[logs \(asff.generated.AwsCloudFrontDistributionDetails attribute\), 49](#)
[logging_level \(asff.generated.AwsApiGatewayMethodSettings attribute\), 35](#)
[logging_level \(asff.generated.AwsApiGatewayV2RouteSettings attribute\), 40](#)
[lon \(asff.generated.GeoLocation attribute\), 155](#)
[Long \(in module asff.generated\), 27](#)

M

maintenance_track_name (*asff.generated.AwsRedshiftClusterDetails* attribute), 129
 maintenance_track_name (*asff.generated.AwsRedshiftClusterPendingModifiedValues* attribute), 132
 malware (*asff.generated.AwsSecurityFinding* attribute), 141
 Malware (*class in asff.generated*), 156
 MalwareList (*in module asff.generated*), 28
 MalwareState (*in module asff.generated*), 28
 MalwareType (*in module asff.generated*), 28
 manual_snapshot_retention_period (*asff.generated.AwsRedshiftClusterClusterSnapshotCopyStatus* attribute), 125
 manual_snapshot_retention_period (*asff.generated.AwsRedshiftClusterDetails* attribute), 129
 master_arn (*asff.generated.AwsLambdaFunctionDetails* attribute), 100
 master_user_password (*asff.generated.AwsRdsDbPendingModifiedValues* attribute), 117
 master_user_password (*asff.generated.AwsRedshiftClusterPendingModifiedValues* attribute), 132
 master_username (*asff.generated.AwsRdsDbClusterDetails* attribute), 106
 master_username (*asff.generated.AwsRdsDbClusterSnapshotDetails* attribute), 109
 master_username (*asff.generated.AwsRdsDbInstanceDetails* attribute), 114
 master_username (*asff.generated.AwsRdsDbSnapshotDetails* attribute), 120
 master_username (*asff.generated.AwsRedshiftClusterDetails* attribute), 129
 max_age (*asff.generated.AwsCorsConfiguration* attribute), 58
 max_allocated_storage (*asff.generated.AwsRdsDbInstanceDetails* attribute), 114
 max_session_duration (*asff.generated.AwsIamRoleDetails* attribute), 96
 memory_size (*asff.generated.AwsLambdaFunctionDetails* attribute), 100
 message (*asff.generated.AwsLambdaFunctionEnvironmentError* attribute), 101
 message (*asff.generated.AwsRdsDbStatusInfo* attribute), 120
 method_settings (*asff.generated.AwsApiGatewayStageDetails* attribute), 38
 metrics_enabled (*asff.generated.AwsApiGatewayMethodSettings* attribute), 35
 mfa_authenticated (*asff.generated.AwsIamAccessKeySessionContextAttributes* attribute), 89
 mime_type (*asff.generated.ClassificationResult* attribute), 149
 minimum_compression_size (*asff.generated.AwsApiGatewayRestApiDetails* attribute), 36
 missing_count (*asff.generated.PatchSummary* attribute), 163
 mode (*asff.generated.AwsLambdaFunctionTracingConfig* attribute), 102
 module
 asff, 13
 asff.constants, 13
 asff.exceptions, 13
 asff.finding, 14
 asff.generated, 18
 monitoring_interval (*asff.generated.AwsRdsDbInstanceDetails* attribute), 114
 monitoring_role_arn (*asff.generated.AwsRdsDbInstanceDetails* attribute), 114
 multi_az (*asff.generated.AwsRdsDbClusterDetails* attribute), 106
 multi_az (*asff.generated.AwsRdsDbInstanceDetails* attribute), 114
 multi_az (*asff.generated.AwsRdsDbPendingModifiedValues* attribute), 117

N

name (*asff.generated.AwsApiGatewayRestApiDetails* attribute), 37
 name (*asff.generated.AwsApiGatewayV2ApiDetails* attribute), 39
 name (*asff.generated.AwsCertificateManagerCertificateExtendedKeyUsage* attribute), 45
 name (*asff.generated.AwsCertificateManagerCertificateKeyUsage* attribute), 45
 name (*asff.generated.AwsCertificateManagerCertificateResourceRecord* attribute), 47
 name (*asff.generated.AwsCloudTrailTrailDetails* attribute), 54
 name (*asff.generated.AwsCodeBuildProjectDetails* attribute), 54
 name (*asff.generated.AwsRdsDbProcessorFeature* attribute), 118
 name (*asff.generated.AwsRdsDbSubnetGroupSubnetAvailabilityZone* attribute), 122
 name (*asff.generated.AwsSecretsManagerSecretDetails* attribute), 138

name (*asff.generated.AwsWafWebAclDetails* attribute), 146
 name (*asff.generated.ContainerDetails* attribute), 151
 name (*asff.generated.CustomDataIdentifiersDetections* attribute), 152
 name (*asff.generated.Malware* attribute), 157
 name (*asff.generated.ProcessDetails* attribute), 165
 name (*asff.generated.SoftwarePackage* attribute), 173
 name (*asff.generated.VulnerabilityVendor* attribute), 176
 network (*asff.generated.AwsSecurityFinding* attribute), 141
 Network (class in *asff.generated*), 157
 network_border_group (*asff.generated.AwsEc2EipDetails* attribute), 67
 network_connection_action (*asff.generated.Action* attribute), 30
 network_interface_id (*asff.generated.AwsEc2EipDetails* attribute), 67
 network_interface_id (*asff.generated.AwsEc2NetworkInterfaceDetails* attribute), 69
 network_interface_owner_id (*asff.generated.AwsEc2EipDetails* attribute), 67
 network_path (*asff.generated.AwsSecurityFinding* attribute), 141
 NetworkConnectionAction (class in *asff.generated*), 158
 NetworkDirection (in module *asff.generated*), 28
 NetworkHeader (class in *asff.generated*), 159
 NetworkPathComponent (class in *asff.generated*), 159
 NetworkPathComponentDetails (class in *asff.generated*), 160
 NetworkPathList (in module *asff.generated*), 28
 next_maintenance_window_start_time (*asff.generated.AwsRedshiftClusterDetails* attribute), 129
 node_role (*asff.generated.AwsRedshiftClusterClusterNode* attribute), 123
 node_to_node_encryption_options (*asff.generated.AwsElasticsearchDomainDetails* attribute), 77
 node_type (*asff.generated.AwsRedshiftClusterDetails* attribute), 129
 node_type (*asff.generated.AwsRedshiftClusterPendingModifiedValues* attribute), 132
 non_compliant_critical_count (*asff.generated.AwsSsmComplianceSummary* attribute), 144
 non_compliant_high_count (*asff.generated.AwsSsmComplianceSummary* attribute), 144
 non_compliant_informational_count (*asff.generated.AwsSsmComplianceSummary* attribute), 144
 non_compliant_low_count (*asff.generated.AwsSsmComplianceSummary* attribute), 144
 non_compliant_medium_count (*asff.generated.AwsSsmComplianceSummary* attribute), 145
 non_compliant_unspecified_count (*asff.generated.AwsSsmComplianceSummary* attribute), 145
 non_key_attributes (*asff.generated.AwsDynamoDbTableProjection* attribute), 62
 NonEmptyString (in module *asff.generated*), 28
 NonEmptyStringList (in module *asff.generated*), 28
 normal (*asff.generated.AwsRdsDbStatusInfo* attribute), 120
 normalized (*asff.generated.Severity* attribute), 173
 not_after (*asff.generated.AwsCertificateManagerCertificateDetails* attribute), 43
 not_before (*asff.generated.AwsCertificateManagerCertificateDetails* attribute), 43
 note (*asff.generated.AwsSecurityFinding* attribute), 141
 Note (class in *asff.generated*), 160
 number_of_decreases_today (*asff.generated.AwsDynamoDbTableProvisionedThroughput* attribute), 63
 number_of_nodes (*asff.generated.AwsRedshiftClusterDetails* attribute), 129
 number_of_nodes (*asff.generated.AwsRedshiftClusterPendingModifiedValues* attribute), 132

O

o_id (*asff.generated.AwsCertificateManagerCertificateExtendedKeyUsage* attribute), 45
 occurrences (*asff.generated.CustomDataIdentifiersDetections* attribute), 152
 occurrences (*asff.generated.SensitiveDataDetections* attribute), 172
 Occurrences (class in *asff.generated*), 161
 offset_range (*asff.generated.Page* attribute), 162
 offset_ranges (*asff.generated.Occurrences* attribute), 161
 open_port_range (*asff.generated.Network* attribute), 158
 operation (*asff.generated.PatchSummary* attribute), 163
 operation_end_time (*asff.generated.PatchSummary* attribute), 163

operation_start_time (asff.generated.PatchSummary attribute), 163
 option_group_memberships (asff.generated.AwsRdsDbInstanceDetails attribute), 114
 option_group_name (asff.generated.AwsRdsDbOptionGroupMemberships attribute), 116
 option_group_name (asff.generated.AwsRdsDbSnapshotDetails attribute), 120
 options (asff.generated.AwsCertificateManagerCertificateDetails attribute), 44
 org (asff.generated.IpOrganizationDetails attribute), 155
 organization (asff.generated.ActionRemoteIpDetails attribute), 31
 origin (asff.generated.AwsKmsKeyDetails attribute), 98
 origin_access_identity (asff.generated.AwsCloudFrontDistributionOriginAccessIdentity attribute), 52
 origin_groups (asff.generated.AwsCloudFrontDistributionDetails attribute), 49
 origin_path (asff.generated.AwsCloudFrontDistributionOriginItems attribute), 52
 original (asff.generated.FindingProviderSeverity attribute), 155
 original (asff.generated.Severity attribute), 173
 origins (asff.generated.AwsCloudFrontDistributionDetails attribute), 49
 other (asff.generated.ResourceDetails attribute), 171
 other_policies (asff.generated.AwsElbLoadBalancerPolicies attribute), 86
 overall_severity (asff.generated.AwsSsmComplianceSummary attribute), 145
 override_action (asff.generated.AwsWafWebAclRule attribute), 147
 owner (asff.generated.AwsSnsTopicDetails attribute), 142
 owner_alias (asff.generated.AwsElbLoadBalancerSourceSecurityGroups attribute), 87
 owner_id (asff.generated.AwsEc2SecurityGroupDetails attribute), 71
 owner_id (asff.generated.AwsS3BucketDetails attribute), 135
 owner_name (asff.generated.AwsS3BucketDetails attribute), 135
 Pages (in module asff.generated), 28
 parameter_apply_error_description (asff.generated.AwsRedshiftClusterClusterParameterStatus attribute), 124
 parameter_apply_status (asff.generated.AwsRdsDbParameterGroup attribute), 116
 parameter_apply_status (asff.generated.AwsRedshiftClusterClusterParameterGroup attribute), 123
 parameter_apply_status (asff.generated.AwsRedshiftClusterClusterParameterStatus attribute), 124
 parameter_group_name (asff.generated.AwsRedshiftClusterClusterParameterGroup attribute), 123
 parameter_name (asff.generated.AwsRedshiftClusterClusterParameterStatus attribute), 124
 parent_pid (asff.generated.ProcessDetails attribute), 165
 partition (asff.generated.Resource attribute), 168
 PatchSummary (class in module asff.generated), 28
 patch (asff.generated.AwsSsmPatchComplianceDetails attribute), 145
 patch_baseline_id (asff.generated.AwsSsmComplianceSummary attribute), 145
 patch_group (asff.generated.AwsSsmComplianceSummary attribute), 145
 patch_summary (asff.generated.AwsSecurityFinding attribute), 141
 PatchSummary (class in asff.generated), 162
 path (asff.generated.AwsIamGroupDetails attribute), 91
 Policies (asff.generated.AwsIamInstanceProfile attribute), 92
 path (asff.generated.AwsIamInstanceProfileRole attribute), 93
 path (asff.generated.AwsIamPolicyDetails attribute), 94
 path (asff.generated.AwsIamRoleDetails attribute), 96
 path (asff.generated.AwsIamUserDetails attribute), 97
 path (asff.generated.Malware attribute), 157
 peering_status (asff.generated.ProcessDetails attribute), 165
 peering_status (asff.generated.AwsEc2SecurityGroupUserIdGroupPairs attribute), 74
 pending_actions (asff.generated.AwsRedshiftClusterDetails attribute), 129
 pending_cloud_watch_logs_exports (asff.generated.AwsRdsDbPendingModifiedValues attribute), 118
 pending_modified_values (asff.generated.AwsRdsDbInstanceDetails attribute), 114
 pending_modified_values (asff.generated.AwsRedshiftClusterDetails attribute), 129
 Page (class in asff.generated), 161
 page_number (asff.generated.Page attribute), 162
 pages (asff.generated.Occurrences attribute), 161

P

attribute), 129
 percent_progress (asff.generated.AwsRdsDbClusterSnapshotDetails attribute), 109
 percent_progress (asff.generated.AwsRdsDbSnapshotDetails attribute), 120
 percent_traffic (asff.generated.AwsApiGatewayCanarySettings attribute), 34
 performance_insights_enabled (asff.generated.AwsRdsDbInstanceDetails attribute), 114
 performance_insights_kms_key_id (asff.generated.AwsRdsDbInstanceDetails attribute), 114
 performance_insights_retention_period (asff.generated.AwsRdsDbInstanceDetails attribute), 114
 permissions_boundary (asff.generated.AwsIamRoleDetails attribute), 96
 permissions_boundary (asff.generated.AwsIamUserDetails attribute), 97
 permissions_boundary_arn (asff.generated.AwsIamPermissionsBoundary attribute), 93
 permissions_boundary_type (asff.generated.AwsIamPermissionsBoundary attribute), 93
 permissions_boundary_usage_count (asff.generated.AwsIamPolicyDetails attribute), 94
 pid (asff.generated.ProcessDetails attribute), 165
 policies (asff.generated.AwsElbLoadBalancerDetails attribute), 83
 policy_arn (asff.generated.AwsIamAttachedManagedPolicy attribute), 90
 policy_id (asff.generated.AwsIamPolicyDetails attribute), 94
 policy_name (asff.generated.AwsElbAppCookieStickinessPolicy attribute), 79
 policy_name (asff.generated.AwsElbLbCookieStickinessPolicy attribute), 79
 policy_name (asff.generated.AwsIamAttachedManagedPolicy attribute), 90
 policy_name (asff.generated.AwsIamGroupPolicy attribute), 91
 policy_name (asff.generated.AwsIamPolicyDetails attribute), 94
 policy_name (asff.generated.AwsIamRolePolicy attribute), 96
 policy_name (asff.generated.AwsIamUserPolicy attribute), 97
 policy_names (asff.generated.AwsElbLoadBalancerBackendServerDescriptions attribute), 81
 policy_names (asff.generated.AwsElbLoadBalancerListenerDescriptions attribute), 86
 policy_version_list (asff.generated.AwsIamPolicyDetails attribute), 94
 port (asff.generated.ActionLocalPortDetails attribute), 30
 port (asff.generated.ActionRemotePortDetails attribute), 31
 port (asff.generated.AwsRdsDbClusterDetails attribute), 106
 port (asff.generated.AwsRdsDbClusterSnapshotDetails attribute), 109
 port (asff.generated.AwsRdsDbInstanceEndpoint attribute), 115
 port (asff.generated.AwsRdsDbPendingModifiedValues attribute), 118
 port (asff.generated.AwsRdsDbSnapshotDetails attribute), 120
 port (asff.generated.AwsRedshiftClusterEndpoint attribute), 130
 port_name (asff.generated.ActionLocalPortDetails attribute), 30
 port_name (asff.generated.ActionRemotePortDetails attribute), 31
 port_probe_action (asff.generated.Action attribute), 30
 port_probe_details (asff.generated.PortProbeAction attribute), 163
 port_ranges (asff.generated.NetworkPathComponentDetails attribute), 160
 PortProbeAction (class in asff.generated), 163
 PortProbeDetail (class in asff.generated), 163
 PortProbeDetailList (in module asff.generated), 28
 PortRange (class in asff.generated), 164
 PortRangeList (in module asff.generated), 28
 preferred_backup_window (asff.generated.AwsRdsDbClusterDetails attribute), 106
 preferred_backup_window (asff.generated.AwsRdsDbInstanceDetails attribute), 114
 preferred_maintenance_window (asff.generated.AwsRdsDbClusterDetails attribute), 106
 preferred_maintenance_window (asff.generated.AwsRdsDbInstanceDetails attribute), 114
 preferred_maintenance_window (asff.generated.AwsRedshiftClusterDetails attribute), 129
 prefix (asff.generated.AwsCloudFrontDistributionLogging

attribute), 50
 prefix_list_id (asff.generated.AwsEc2SecurityGroupPrefixList attribute), 73
 prefix_list_ids (asff.generated.AwsEc2SecurityGroupPrefixList attribute), 72
 principal_id (asff.generated.AwsIamAccessKeyDetails attribute), 88
 principal_id (asff.generated.AwsIamAccessKeySessionContext attribute), 90
 principal_name (asff.generated.AwsIamAccessKeyDetails attribute), 89
 principal_type (asff.generated.AwsIamAccessKeyDetails attribute), 89
 priority (asff.generated.AwsWafWebAclRule attribute), 147
 private_dns_name (asff.generated.AwsEc2NetworkInterfacePrivateIpAddress attribute), 70
 private_ip_address (asff.generated.AwsEc2EipDetails attribute), 67
 private_ip_address (asff.generated.AwsEc2NetworkInterfacePrivateIpAddress attribute), 70
 private_ip_address (asff.generated.AwsRedshiftClusterClusterNode attribute), 123
 private_ip_addresses (asff.generated.AwsEc2NetworkInterfaceDetails attribute), 69
 process (asff.generated.AwsSecurityFinding attribute), 141
 ProcessDetails (class in asff.generated), 164
 processor_features (asff.generated.AwsRdsDbInstanceDetails attribute), 114
 processor_features (asff.generated.AwsRdsDbPendingModifiedValues attribute), 118
 processor_features (asff.generated.AwsRdsDbSnapshotDetails attribute), 120
 product (asff.generated.Severity attribute), 173
 product_arn (asff.generated.AwsSecurityFinding attribute), 141
 product_arn (asff.generated.RelatedFinding attribute), 167
 product_fields (asff.generated.AwsSecurityFinding attribute), 141
 progress_in_mega_bytes (asff.generated.AwsRedshiftClusterRestoreStatus attribute), 133
 projection (asff.generated.AwsDynamoDbTableGlobalSecondaryIndex attribute), 61
 projection (asff.generated.AwsDynamoDbTableLocalSecondaryIndex attribute), 62
 projection_type (asff.generated.AwsDynamoDbTableProjection attribute), 62
 provisioned_throughput (asff.generated.AwsRdsDbClusterMember attribute), 107
 promotion_tier (asff.generated.AwsRdsDbInstanceDetails attribute), 114
 context_session (asff.generated.AwsElbLoadBalancerListener attribute), 85
 protocol (asff.generated.AwsSnsTopicSubscription attribute), 142
 protocol (asff.generated.DnsRequestAction attribute), 153
 protocol (asff.generated.Network attribute), 158
 protocol (asff.generated.NetworkConnectionAction attribute), 159
 protocol (asff.generated.NetworkHeader attribute), 159
 protocol_type (asff.generated.AwsApiGatewayV2ApiDetails attribute), 39
 provisioned_throughput (asff.generated.AwsDynamoDbTableDetails attribute), 60
 provisioned_throughput (asff.generated.AwsDynamoDbTableGlobalSecondaryIndex attribute), 61
 provisioned_throughput_override (asff.generated.AwsDynamoDbTableReplica attribute), 64
 provisioned_throughput_override (asff.generated.AwsDynamoDbTableReplicaGlobalSecondaryIndex attribute), 65
 public_access_block_configuration (asff.generated.AwsS3BucketDetails attribute), 135
 public_dns_name (asff.generated.AwsEc2NetworkInterfaceDetails attribute), 69
 public_ip (asff.generated.AwsEc2EipDetails attribute), 67
 public_ip (asff.generated.AwsEc2NetworkInterfaceDetails attribute), 69
 public_ip_address (asff.generated.AwsRedshiftClusterClusterNode attribute), 123
 public_ipv4_pool (asff.generated.AwsEc2EipDetails attribute), 67
 publicly_accessible (asff.generated.AwsRdsDbInstanceDetails attribute), 114
 publicly_accessible (asff.generated.AwsRedshiftClusterDetails attribute), 129
 publicly_accessible (asff.generated.AwsRedshiftClusterPendingModifiedValues attribute), 129

attribute), 132

Q

quantity (*asff.generated.AwsCloudFrontDistributionOriginGroupFindingsStatusCodes* *attribute*), 51

queue_name (*asff.generated.AwsSqsQueueDetails* *attribute*), 143

R

Range (*class in asff.generated*), 165

Ranges (*in module asff.generated*), 28

RatioScale (*in module asff.generated*), 28

read_capacity_units (*asff.generated.AwsDynamoDbTableProvisionedThroughput* *attribute*), 63

read_capacity_units (*asff.generated.AwsDynamoDbTableProvisionedThroughput* *attribute*), 63

read_replica_db_cluster_identifiers (*asff.generated.AwsRdsDbInstanceDetails* *attribute*), 114

read_replica_db_instance_identifiers (*asff.generated.AwsRdsDbInstanceDetails* *attribute*), 114

read_replica_identifiers (*asff.generated.AwsRdsDbClusterDetails* *attribute*), 106

read_replica_source_db_instance_identifier (*asff.generated.AwsRdsDbInstanceDetails* *attribute*), 114

reader_endpoint (*asff.generated.AwsRdsDbClusterDetails* *attribute*), 106

reason (*asff.generated.ClassificationStatus* *attribute*), 149

reason (*asff.generated.LoadBalancerState* *attribute*), 156

reason_code (*asff.generated.StatusReason* *attribute*), 174

reboot_option (*asff.generated.PatchSummary* *attribute*), 163

recommendation (*asff.generated.Remediation* *attribute*), 167

Recommendation (*class in asff.generated*), 166

Record (*class in asff.generated*), 166

record_index (*asff.generated.Record* *attribute*), 167

record_state (*asff.generated.AwsSecurityFinding* *attribute*), 141

records (*asff.generated.Occurrences* *attribute*), 161

Records (*in module asff.generated*), 28

RecordState (*in module asff.generated*), 28

reference_urls (*asff.generated.Vulnerability* *attribute*), 175

region (*asff.generated.Resource* *attribute*), 168

region_name (*asff.generated.AwsDynamoDbTableReplica* *attribute*), 64

registry_credential

related_findings (*asff.generated.AwsSecurityFinding* *attribute*), 141

related_findings (*asff.generated.FindingProviderFields* *attribute*), 154

related_requirements (*asff.generated.Compliance* *attribute*), 150

related_vulnerabilities (*asff.generated.Vulnerability* *attribute*), 175

RelatedFinding (*class in asff.generated*), 167

RelatedFindingList (*in module asff.generated*), 28

RelatedRequirementsList (*in module asff.generated*), 28

release (*asff.generated.SoftwarePackage* *attribute*), 173

remediation (*asff.generated.AwsSecurityFinding* *attribute*), 141

Remediation (*class in asff.generated*), 167

remote_ip_details (*asff.generated.AwsApiCallAction* *attribute*), 33

remote_ip_details (*asff.generated.NetworkConnectionAction* *attribute*), 159

remote_ip_details (*asff.generated.PortProbeDetail* *attribute*), 164

remote_port_details (*asff.generated.NetworkConnectionAction* *attribute*), 159

renewal_eligibility (*asff.generated.AwsCertificateManagerCertificateDetails* *attribute*), 44

renewal_status (*asff.generated.AwsCertificateManagerCertificateRenewalSummary* *attribute*), 46

renewal_status_reason (*asff.generated.AwsCertificateManagerCertificateRenewalSummary* *attribute*), 46

renewal_summary (*asff.generated.AwsCertificateManagerCertificateRenewalSummary* *attribute*), 44

replica_status (*asff.generated.AwsDynamoDbTableReplica* *attribute*), 64

replica_status_description (*asff.generated.AwsDynamoDbTableReplica* *attribute*), 64

replicas (*asff.generated.AwsDynamoDbTableDetails* *attribute*), 60

require_authorization_for_cache_control (*asff.generated.AwsApiGatewayMethodSettings* *attribute*), 36

[resize_info \(asff.generated.AwsRedshiftClusterDetails attribute\), 129](#)
[resize_type \(asff.generated.AwsRedshiftClusterResizeInfo attribute\), 133](#)
[Resource \(class in asff.generated\), 167](#)
[resource_path \(asff.generated.AwsApiGatewayMethodSettings attribute\), 36](#)
[resource_record \(asff.generated.AwsCertificateManagerCertificateDomainValidationOption attribute\), 44](#)
[resource_role \(asff.generated.Resource attribute\), 168](#)
[ResourceDetails \(class in asff.generated\), 168](#)
[ResourceList \(in module asff.generated\), 28](#)
[resources \(asff.generated.AwsSecurityFinding attribute\), 141](#)
[restore_date_time \(asff.generated.AwsDynamoDbTableRestoreSummary attribute\), 65](#)
[restore_in_progress \(asff.generated.AwsDynamoDbTableRestoreSummary attribute\), 65](#)
[restore_status \(asff.generated.AwsRedshiftClusterDetails attribute\), 129](#)
[restore_summary \(asff.generated.AwsDynamoDbTableDetails attribute\), 60](#)
[restrict_public_buckets \(asff.generated.AwsS3AccountPublicAccessBlockDetails attribute\), 134](#)
[result \(asff.generated.DataClassificationDetails attribute\), 153](#)
[retention_period \(asff.generated.AwsRedshiftClusterClusterSnapshotCopyStatus attribute\), 125](#)
[revision_id \(asff.generated.AwsLambdaFunctionDetails attribute\), 100](#)
[role \(asff.generated.AwsLambdaFunctionDetails attribute\), 100](#)
[role_arn \(asff.generated.AwsRdsDbClusterAssociatedRole attribute\), 104](#)
[role_arn \(asff.generated.AwsRdsDbInstanceAssociatedRole attribute\), 110](#)
[role_id \(asff.generated.AwsIamInstanceProfileRole attribute\), 93](#)
[role_id \(asff.generated.AwsIamRoleDetails attribute\), 96](#)
[role_name \(asff.generated.AwsIamInstanceProfileRole attribute\), 93](#)
[role_name \(asff.generated.AwsIamRoleDetails attribute\), 96](#)
[role_policy_list \(asff.generated.AwsIamRoleDetails attribute\), 96](#)
[roles \(asff.generated.AwsIamInstanceProfile attribute\), 92](#)
[rotation_enabled \(asff.generated.AwsSecretsManagerSecretDetails attribute\), 138](#)
[rotation_lambda_arn \(asff.generated.AwsSecretsManagerSecretDetails attribute\), 138](#)
[rotation_occurred_within_frequency \(asff.generated.AwsSecretsManagerSecretDetails attribute\), 138](#)
[rotation_rules \(asff.generated.AwsSecretsManagerSecretDetails attribute\), 138](#)
[route_selection_expression \(asff.generated.AwsApiGatewayV2ApiDetails attribute\), 39](#)
[route_settings \(asff.generated.AwsApiGatewayV2StageDetails attribute\), 41](#)
[row \(asff.generated.Cell attribute\), 147](#)
[rule_id \(asff.generated.AwsWafWebAclRule attribute\), 147](#)
[rule_id \(asff.generated.WafExcludedRule attribute\), 177](#)
[rules \(asff.generated.AwsS3BucketServerSideEncryptionConfiguration attribute\), 136](#)
[rules \(asff.generated.AwsWafWebAclDetails attribute\), 146](#)
[runtime \(asff.generated.AwsLambdaFunctionDetails attribute\), 100](#)

S

[s3_bucket \(asff.generated.AwsLambdaFunctionCode attribute\), 99](#)
[s3_bucket_name \(asff.generated.AwsCloudTrailTrailDetails attribute\), 54](#)
[s3_bucket_name \(asff.generated.AwsElbLoadBalancerAccessLog attribute\), 80](#)
[s3_bucket_prefix \(asff.generated.AwsElbLoadBalancerAccessLog attribute\), 80](#)
[s3_key \(asff.generated.AwsLambdaFunctionCode attribute\), 99](#)
[s3_key_prefix \(asff.generated.AwsCloudTrailTrailDetails attribute\), 54](#)
[s3_object_version \(asff.generated.AwsLambdaFunctionCode attribute\), 99](#)
[s3_origin_config \(asff.generated.AwsCloudFrontDistributionOriginInfo attribute\), 52](#)
[schema_version \(asff.generated.AwsSecurityFinding attribute\), 141](#)
[scheme \(asff.generated.AwsElbLoadBalancerDetails attribute\), 84](#)
[scheme \(asff.generated.AwsElbv2LoadBalancerDetails attribute\), 88](#)
[secondary_availability_zone \(asff.generated.AwsRdsDbInstanceDetails attribute\), 114](#)
[security_group_ids \(asff.generated.AwsCodeBuildProjectVpcConfig attribute\), 114](#)

attribute), 57
 security_group_ids (asff.generated.AwsElasticsearchDomainVPCOptions attribute), 78
 security_group_ids (asff.generated.AwsLambdaFunctionVpcConfig attribute), 103
 security_groups (asff.generated.AwsEc2NetworkInterfaceDetails attribute), 69
 security_groups (asff.generated.AwsElbLoadBalancerDetails attribute), 84
 security_groups (asff.generated.AwsElbv2LoadBalancerDetails attribute), 88
 SecurityGroups (in module asff.generated), 28
 sensitive_data (asff.generated.ClassificationResult attribute), 149
 SensitiveDataDetections (class in asff.generated), 171
 SensitiveDataDetectionsList (in module asff.generated), 28
 SensitiveDataResult (class in asff.generated), 172
 SensitiveDataResultList (in module asff.generated), 28
 serial (asff.generated.AwsCertificateManagerCertificateDetails attribute), 44
 server_side_encryption (asff.generated.AwsS3ObjectDetails attribute), 137
 server_side_encryption_configuration (asff.generated.AwsS3BucketDetails attribute), 135
 service_name (asff.generated.AwsApiCallAction attribute), 33
 service_role (asff.generated.AwsCodeBuildProjectDetails attribute), 54
 session_context (asff.generated.AwsIamAccessKeyDetails attribute), 89
 session_issuer (asff.generated.AwsIamAccessKeySessionContext attribute), 89
 severity (asff.generated.AwsSecurityFinding attribute), 141
 severity (asff.generated.FindingProviderFields attribute), 154
 Severity (class in asff.generated), 172
 SeverityLabel (in module asff.generated), 28
 signature_algorithm (asff.generated.AwsCertificateManagerCertificateDetails attribute), 44
 size (asff.generated.AwsEc2VolumeDetails attribute), 75
 size_classified (asff.generated.ClassificationResult attribute), 149
 SizeBytes (in module asff.generated), 28
 snapshot_copy_grant_name (asff.generated.AwsRedshiftClusterClusterSnapshotCopyStatus attribute), 125
 snapshot_create_time (asff.generated.AwsRdsDbClusterSnapshotDetails attribute), 109
 snapshot_create_time (asff.generated.AwsRdsDbSnapshotDetails attribute), 120
 snapshot_id (asff.generated.AwsEc2VolumeDetails attribute), 75
 snapshot_schedule_identifier (asff.generated.AwsRedshiftClusterDetails attribute), 129
 snapshot_schedule_state (asff.generated.AwsRedshiftClusterDetails attribute), 129
 snapshot_size_in_mega_bytes (asff.generated.AwsRedshiftClusterRestoreStatus attribute), 133
 snapshot_type (asff.generated.AwsRdsDbClusterSnapshotDetails attribute), 109
 snapshot_type (asff.generated.AwsRdsDbSnapshotDetails attribute), 120
 sns_topic_arn (asff.generated.AwsCloudTrailTrailDetails attribute), 54
 sns_topic_name (asff.generated.AwsCloudTrailTrailDetails attribute), 54
 SoftwarePackage (class in asff.generated), 173
 SoftwarePackageList (in module asff.generated), 28
 source (asff.generated.AwsCodeBuildProjectDetails attribute), 54
 source (asff.generated.NetworkHeader attribute), 159
 source (asff.generated.ThreatIntelIndicator attribute), 175
 source_backup_arn (asff.generated.AwsDynamoDbTableRestoreSummary attribute), 65
 source_db_snapshot_identifier (asff.generated.AwsRdsDbSnapshotDetails attribute), 120
 source_dest_check (asff.generated.AwsEc2NetworkInterfaceDetails attribute), 69
 source_domain (asff.generated.Network attribute), 158
 source_ip_v4 (asff.generated.Network attribute), 158
 source_ip_v6 (asff.generated.Network attribute), 158
 source_mac (asff.generated.Network attribute), 158
 source_port (asff.generated.Network attribute), 158
 source_region (asff.generated.AwsRdsDbSnapshotDetails attribute), 120
 source_security_group

<code>(asff.generated.AwsElbLoadBalancerDetails attribute), 84</code>	<code>status (asff.generated.AwsRdsDbClusterSnapshotDetails attribute), 109</code>
<code>source_table_arn (asff.generated.AwsDynamoDbTableRestoreSummary attribute), 65</code>	<code>status (asff.generated.AwsRdsDbDomainMembership attribute), 109</code>
<code>source_url (asff.generated.AwsSecurityFinding attribute), 141</code>	<code>status (asff.generated.AwsRdsDbInstanceAssociatedRole attribute), 110</code>
<code>source_url (asff.generated.ThreatIntelIndicator attribute), 175</code>	<code>status (asff.generated.AwsRdsDbInstanceVpcSecurityGroup attribute), 115</code>
<code>sse_algorithm (asff.generated.AwsS3BucketServerSideEncryptionByDefault attribute), 136</code>	<code>status (asff.generated.AwsRdsDbOptionGroupMembership attribute), 116</code>
<code>sse_description (asff.generated.AwsDynamoDbTableDetails attribute), 60</code>	<code>status (asff.generated.AwsRdsDbSnapshotDetails attribute), 120</code>
<code>sse_type (asff.generated.AwsDynamoDbTableSseDescription attribute), 66</code>	<code>status (asff.generated.AwsRdsDbStatusInfo attribute), 120</code>
<code>ssekms_key_id (asff.generated.AwsS3ObjectDetails attribute), 137</code>	<code>status (asff.generated.AwsRedshiftClusterClusterSecurityGroup attribute), 124</code>
<code>ssl_certificate_id (asff.generated.AwsElbLoadBalancerListener attribute), 85</code>	<code>status (asff.generated.AwsRedshiftClusterElasticIpStatus attribute), 130</code>
<code>stage_name (asff.generated.AwsApiGatewayStageDetails attribute), 38</code>	<code>status (asff.generated.AwsRedshiftClusterHsmStatus attribute), 131</code>
<code>stage_name (asff.generated.AwsApiGatewayV2StageDetails attribute), 41</code>	<code>status (asff.generated.AwsRedshiftClusterRestoreStatus attribute), 133</code>
<code>stage_variable_overrides (asff.generated.AwsApiGatewayCanarySettings attribute), 34</code>	<code>status (asff.generated.AwsRedshiftClusterVpcSecurityGroup attribute), 134</code>
<code>stage_variables (asff.generated.AwsApiGatewayV2StageDetails attribute), 41</code>	<code>status (asff.generated.AwsSsmComplianceSummary attribute), 145</code>
<code>start (asff.generated.Range attribute), 166</code>	<code>status (asff.generated.ClassificationResult attribute), 149</code>
<code>start_column (asff.generated.Range attribute), 166</code>	<code>status (asff.generated.Compliance attribute), 150</code>
<code>state (asff.generated.AwsEc2VpcDetails attribute), 76</code>	<code>status (asff.generated.Workflow attribute), 178</code>
<code>state (asff.generated.AwsElbv2LoadBalancerDetails attribute), 88</code>	<code>status_codes (asff.generated.AwsCloudFrontDistributionOriginGroup attribute), 50</code>
<code>state (asff.generated.Malware attribute), 157</code>	<code>status_infos (asff.generated.AwsRdsDbInstanceDetails attribute), 114</code>
<code>status (asff.generated.AwsCertificateManagerCertificateDetails attribute), 44</code>	<code>status_reasons (asff.generated.Compliance attribute), 150</code>
<code>status (asff.generated.AwsCloudFrontDistributionDetails attribute), 49</code>	<code>status_type (asff.generated.AwsRdsDbStatusInfo attribute), 121</code>
<code>status (asff.generated.AwsDynamoDbTableSseDescription attribute), 66</code>	<code>StatusReason (class in asff.generated), 174</code>
<code>status (asff.generated.AwsEc2NetworkInterfaceAttachment attribute), 69</code>	<code>StatusReasonsList (in module asff.generated), 28</code>
<code>status (asff.generated.AwsEc2VolumeAttachment attribute), 74</code>	<code>storage_encrypted (asff.generated.AwsRdsDbClusterDetails attribute), 106</code>
<code>status (asff.generated.AwsEc2VolumeDetails attribute), 75</code>	<code>storage_encrypted (asff.generated.AwsRdsDbClusterSnapshotDetails attribute), 109</code>
<code>status (asff.generated.AwsIamAccessKeyDetails attribute), 89</code>	<code>storage_encrypted (asff.generated.AwsRdsDbInstanceDetails attribute), 114</code>
<code>status (asff.generated.AwsRdsDbClusterAssociatedRole attribute), 104</code>	<code>storage_type (asff.generated.AwsRdsDbInstanceDetails attribute), 114</code>
<code>status (asff.generated.AwsRdsDbClusterDetails attribute), 106</code>	<code>storage_type (asff.generated.AwsRdsDbPendingModifiedValues attribute), 118</code>
<code>status (asff.generated.AwsRdsDbClusterOptionGroupMembership attribute), 107</code>	<code>storage_type (asff.generated.AwsRdsDbSnapshotDetails attribute), 118</code>

attribute), 120
 stream_enabled (asff.generated.AwsDynamoDbTableStreamSpecification attribute), 99
 attribute), 66
 stream_specification (asff.generated.AwsDynamoDbTableDetails attribute), 60
 stream_view_type (asff.generated.AwsDynamoDbTableStreamSpecification attribute), 66
 StringList (in module asff.generated), 28
 subject (asff.generated.AwsCertificateManagerCertificateDetails attribute), 44
 subject_alternative_names (asff.generated.AwsCertificateManagerCertificateDetails attribute), 44
 subnet_availability_zone (asff.generated.AwsRdsDbSubnetGroupSubnet attribute), 122
 subnet_group_status (asff.generated.AwsRdsDbSubnetGroup attribute), 121
 subnet_id (asff.generated.AwsAvailabilityZone attribute), 32
 subnet_id (asff.generated.AwsEc2InstanceDetails attribute), 68
 subnet_identifier (asff.generated.AwsRdsDbSubnetGroupSubnet attribute), 122
 subnet_ids (asff.generated.AwsElasticsearchDomainVPCOptions attribute), 78
 subnet_ids (asff.generated.AwsLambdaFunctionVpcConfiguration attribute), 103
 subnet_status (asff.generated.AwsRdsDbSubnetGroupSubnet attribute), 122
 subnets (asff.generated.AwsCodeBuildProjectVpcConfiguration attribute), 57
 subnets (asff.generated.AwsElbLoadBalancerDetails attribute), 84
 subnets (asff.generated.AwsRdsDbSubnetGroup attribute), 121
 subscription (asff.generated.AwsSnsTopicDetails attribute), 142

T

table_id (asff.generated.AwsDynamoDbTableDetails attribute), 60
 table_name (asff.generated.AwsDynamoDbTableDetails attribute), 60
 table_size_bytes (asff.generated.AwsDynamoDbTableDetails attribute), 60
 table_status (asff.generated.AwsDynamoDbTableDetails attribute), 60
 tags (asff.generated.Resource attribute), 168
 target (asff.generated.AwsElbLoadBalancerHealthCheck attribute), 84
 target_arn (asff.generated.AwsLambdaFunctionDeadLetterConfiguration attribute), 99
 tde_credential_arn (asff.generated.AwsRdsDbInstanceDetails attribute), 115
 tde_credential_arn (asff.generated.AwsRdsDbSnapshotDetails attribute), 120
 terminated_at (asff.generated.ProcessDetails attribute), 165
 text (asff.generated.Note attribute), 161
 text (asff.generated.Recommendation attribute), 166
 threat_intel_indicators (asff.generated.AwsSecurityFinding attribute), 141
 ThreatIntelIndicator (class in asff.generated), 174
 ThreatIntelIndicatorCategory (in module asff.generated), 28
 ThreatIntelIndicatorList (in module asff.generated), 28
 ThreatIntelIndicatorType (in module asff.generated), 28
 throttling_burst_limit (asff.generated.AwsApiGatewayMethodSettings attribute), 36
 throttling_burst_limit (asff.generated.AwsApiGatewayV2RouteSettings attribute), 40
 throttling_rate_limit (asff.generated.AwsApiGatewayMethodSettings attribute), 36
 throttling_rate_limit (asff.generated.AwsApiGatewayV2RouteSettings attribute), 40
 timeout (asff.generated.AwsElbLoadBalancerConnectionDraining attribute), 81
 timeout (asff.generated.AwsElbLoadBalancerHealthCheck attribute), 84
 timeout (asff.generated.AwsLambdaFunctionDetails attribute), 100
 timezone (asff.generated.AwsRdsDbInstanceDetails attribute), 115
 timezone (asff.generated.AwsRdsDbSnapshotDetails attribute), 120
 title (asff.generated.AwsSecurityFinding attribute), 141
 trust_security_policy (asff.generated.AwsElasticsearchDomainDomainEndpointOptions attribute), 77
 to_dict () (asff.AmazonSecurityFinding method), 182
 to_dict () (asff.finding.AmazonSecurityFinding method), 17
 to_json () (asff.AmazonSecurityFinding method), 182

`to_json()` (`asff.finding.AmazonSecurityFinding` `update_date` (`asff.generated.AwsIamPolicyDetails` `attribute`), 17
`to_port` (`asff.generated.AwsEc2SecurityGroupIpPermissions` `updated_at` (`asff.generated.AwsCertificateManagerCertificateRenewalS` `attribute`), 72
`topic_name` (`asff.generated.AwsSnsTopicDetails` `attribute`), 142
`total_count` (`asff.generated.CustomDataIdentifiersResults` `updated_at` (`asff.generated.Note` `attribute`), 152
`total_count` (`asff.generated.SensitiveDataResult` `attribute`), 172
`tracing_config` (`asff.generated.AwsLambdaFunctionDetails` `updated_at` (`asff.generated.Note` `attribute`), 100
`tracing_enabled` (`asff.generated.AwsApiGatewayStageDetails` `updated_by` (`asff.generated.Note` `attribute`), 38
`trail_arn` (`asff.generated.AwsCloudTrailTrailDetails` `url` (`asff.generated.Recommendation` `attribute`), 54
`type` (`asff.generated.AwsCertificateManagerCertificateDetails` `url` (`asff.generated.VulnerabilityVendor` `attribute`), 44
`type` (`asff.generated.AwsCertificateManagerCertificateResourceRecords` `url` (`asff.generated.AwsApiGatewayCanarySettings` `attribute`), 47
`type` (`asff.generated.AwsCodeBuildProjectEnvironment` `user_id` (`asff.generated.AwsSecurityFinding` `attribute`), 55
`type` (`asff.generated.AwsCodeBuildProjectSource` `attribute`), 57
`type` (`asff.generated.AwsEc2InstanceDetails` `attribute`), 68
`type` (`asff.generated.AwsElbv2LoadBalancerDetails` `attribute`), 88
`type` (`asff.generated.AwsIamAccessKeySessionContextSessionIssues` `attribute`), 90
`type` (`asff.generated.AwsWafWebAclRule` `attribute`), 147
`type` (`asff.generated.Malware` `attribute`), 157
`type` (`asff.generated.Resource` `attribute`), 168
`type` (`asff.generated.SensitiveDataDetections` `attribute`), 172
`type` (`asff.generated.ThreatIntelIndicator` `attribute`), 175
`type` (`asff.generated.WafAction` `attribute`), 176
`type` (`asff.generated.WafOverrideAction` `attribute`), 177
`TypeList` (in module `asff.generated`), 28
`types` (`asff.generated.AwsApiGatewayEndpointConfiguration` `attribute`), 34
`types` (`asff.generated.AwsSecurityFinding` `attribute`), 141
`types` (`asff.generated.FindingProviderFields` `attribute`), 154

U
`unauthorized_cache_control_header_strategy` (`asff.generated.AwsApiGatewayMethodSettings` `attribute`), 36
`unhealthy_threshold` (`asff.generated.AwsElbLoadBalancerHealthCheck` `attribute`), 84

V
`validate_assignment` (`asff.generated.ASFFBaseModel.Config` `attribute`), 29
`validation_domain` (`asff.generated.AwsCertificateManagerCertificateDomainValidation` `attribute`), 44
`validation_emails` (`asff.generated.AwsCertificateManagerCertificateDomainValidation` `attribute`), 44
`validation_method` (`asff.generated.AwsCertificateManagerCertificateDomainValidation` `attribute`), 44
`validation_status` (`asff.generated.AwsCertificateManagerCertificateDomainValidation` `attribute`), 44
`ValidationError`, 13, 178
`value` (`asff.generated.AwsCertificateManagerCertificateResourceRecord` `attribute`), 47
`value` (`asff.generated.AwsRdsDbProcessorFeature` `attribute`), 118
`value` (`asff.generated.ThreatIntelIndicator` `attribute`), 175

variables (*asff.generated.AwsApiGatewayStageDetails* attribute), 38
 variables (*asff.generated.AwsLambdaFunctionEnvironment* attribute), 101
 vendor (*asff.generated.Vulnerability* attribute), 175
 vendor_created_at (*asff.generated.VulnerabilityVendor* attribute), 176
 vendor_severity (*asff.generated.VulnerabilityVendor* attribute), 176
 vendor_updated_at (*asff.generated.VulnerabilityVendor* attribute), 176
 verification_state (*asff.generated.AwsSecurityFinding* attribute), 141
 VerificationState (in module *asff.generated*), 28
 version (*asff.generated.AwsApiGatewayRestApiDetails* attribute), 37
 version (*asff.generated.AwsApiGatewayV2ApiDetails* attribute), 39
 version (*asff.generated.AwsLambdaFunctionDetails* attribute), 101
 version (*asff.generated.AwsLambdaLayerVersionDetails* attribute), 103
 version (*asff.generated.Cvss* attribute), 152
 version (*asff.generated.SoftwarePackage* attribute), 174
 version_id (*asff.generated.AwsIamPolicyVersion* attribute), 95
 version_id (*asff.generated.AwsS3ObjectDetails* attribute), 137
 viewer_protocol_policy (*asff.generated.AwsCloudFrontDistributionCacheBehavior* attribute), 47
 viewer_protocol_policy (*asff.generated.AwsCloudFrontDistributionDefaultCacheBehavior* attribute), 48
 vpc_config (*asff.generated.AwsCodeBuildProjectDetails* attribute), 54
 vpc_config (*asff.generated.AwsLambdaFunctionDetails* attribute), 101
 vpc_id (*asff.generated.AwsCodeBuildProjectVpcConfig* attribute), 57
 vpc_id (*asff.generated.AwsEc2InstanceDetails* attribute), 68
 vpc_id (*asff.generated.AwsEc2SecurityGroupDetails* attribute), 71
 vpc_id (*asff.generated.AwsEc2SecurityGroupUserIdGroupPair* attribute), 74
 vpc_id (*asff.generated.AwsElasticsearchDomainVPCOptions* attribute), 78
 vpc_id (*asff.generated.AwsElbLoadBalancerDetails* attribute), 84
 vpc_id (*asff.generated.AwsElbv2LoadBalancerDetails* attribute), 88
 vpc_id (*asff.generated.AwsLambdaFunctionVpcConfig* attribute), 103
 vpc_id (*asff.generated.AwsRdsDbClusterSnapshotDetails* attribute), 109
 vpc_id (*asff.generated.AwsRdsDbSnapshotDetails* attribute), 120
 vpc_id (*asff.generated.AwsRdsDbSubnetGroup* attribute), 121
 vpc_id (*asff.generated.AwsRedshiftClusterDetails* attribute), 129
 vpc_options (*asff.generated.AwsElasticsearchDomainDetails* attribute), 77
 vpc_peering_connection_id (*asff.generated.AwsEc2SecurityGroupUserIdGroupPair* attribute), 74
 vpc_security_group_id (*asff.generated.AwsRdsDbInstanceVpcSecurityGroup* attribute), 115
 vpc_security_group_id (*asff.generated.AwsRedshiftClusterVpcSecurityGroup* attribute), 134
 vpc_security_groups (*asff.generated.AwsRdsDbClusterDetails* attribute), 106
 vpc_security_groups (*asff.generated.AwsRdsDbInstanceDetails* attribute), 115
 vpc_security_groups (*asff.generated.AwsRedshiftClusterDetails* attribute), 129
 vulnerabilities (*asff.generated.AwsSecurityFinding* attribute), 141
 Vulnerability (class in *asff.generated*), 175
 VulnerabilityList (in module *asff.generated*), 28
 VulnerabilityVendor (class in *asff.generated*), 175
 vulnerable_packages (*asff.generated.Vulnerability* attribute), 175

W

WafAction (class in *asff.generated*), 176
 WafExcludedRule (class in *asff.generated*), 177
 WafExcludedRuleList (in module *asff.generated*), 28
 WafOverrideAction (class in *asff.generated*), 177
 web_acl_arn (*asff.generated.AwsApiGatewayStageDetails* attribute), 38
 web_acl_id (*asff.generated.AwsCloudFrontDistributionDetails* attribute), 49
 web_acl_id (*asff.generated.AwsWafWebAclDetails* attribute), 146

`workflow` (*asff.generated.AwsSecurityFinding* attribute), [141](#)
`Workflow` (class in *asff.generated*), [177](#)
`workflow_state` (*asff.generated.AwsSecurityFinding* attribute), [141](#)
`WorkflowState` (in module *asff.generated*), [28](#)
`WorkflowStatus` (in module *asff.generated*), [28](#)
`write_capacity_units`
(*asff.generated.AwsDynamoDbTableProvisionedThroughput* attribute), [63](#)

Z

`zip_file` (*asff.generated.AwsLambdaFunctionCode* attribute), [99](#)
`zone_name` (*asff.generated.AvailabilityZone* attribute), [32](#)