

## Classifying Subscribers (SRC CLI)

---

Changes that you make to subscriber classification scripts do not affect subscriber sessions that are already established. One effect of this behavior is that static IP subscriber sessions are not closed if the classification script is changed in a way that would no longer cause the SAE to load a profile for certain subscribers.

On JUNOS routers that use the COPS-PR or COPS XDR router drivers, you can create a subscriber session for the router interface to start services such as script services and aggregate services. The SAE creates the router interface, but does not install any policies on it. You can create a subscriber classification rule, but not an interface classification rule for this interface.

Use the following configuration statements to define subscriber classification scripts:

```
shared sae subscriber-classifier rule name {  
    target target;  
}  
  
shared sae subscriber-classifier rule name condition name ...  
  
shared sae subscriber-classifier rule name {  
    script-value;  
    include include;  
}
```

A classification script can contain either a target and a condition or a script. If you do not define a script, the classifier must have both a target and a condition.

To define subscriber classification scripts:

1. From configuration mode, enter the subscriber classifier configuration. In this sample procedure, the subscriber classifier is configured in the west-region SAE group.

```
user@host# edit shared sae group west-region subscriber-classifier
```

2. Create a rule for the subscriber classifier. You can create multiple rules for the classifier.

```
[edit shared sae group west-region subscriber-classifier]  
user@host# edit rule rule-2
```

3. Configure either a target or a script for the rule.
  - Configure the target for the rule. If you configure a target, see Subscriber Classification Targets.

```
[edit shared sae group west-region subscriber-classifier rule rule-2]  
user@host# set target target
```

If you configured a target for the rule, you must configure a match condition for the rule. You can create multiple conditions for the rule. See “Subscriber Classification Conditions” on page 4.

```
[edit shared sae group west-region subscriber-classifier rule rule-2]
user@host# edit condition name
```

- Configure the script for the rule.

```
[edit shared sae group west-region subscriber-classifier rule rule-2]
user@host# edit script
```

(Optional) You can specify a script target.

```
[edit shared sae group west-region subscriber-classifier rule rule-2 script]
user@host# set script-value
```

(Optional) You can include a script that has already been created.

```
[edit shared sae group west-region subscriber-classifier rule rule-2 script]
user@host# set include include
```

where *include* is a reference to an existing script that is included in the script you are configuring.

4. (Optional) Change the order of rules.

```
[edit shared sae group west-region subscriber-classifier]
user@host# insert rule rule-5 before rule-4
```

5. (Optional) Rename a rule.

```
[edit shared sae group west-region subscriber-classifier]
user@host# rename rule rule-5 to Retailer
```

6. (Optional) Verify the classifier rule configuration.

```
[edit shared sae group west-region subscriber-classifier rule rule-2]
user@host# show
target <-unauthenticatedUserDn->;
condition {
  "loginType == \"ADDR\"";
  "loginType == \"AUTHADDR\"";
}
```

7. (Optional) Verify the subscriber classifier configuration.

```
[edit shared sae group west-region subscriber-classifier]
user@host# show
rule rule-1 {
  script "# User Classification script
#
# The following attributes MAY be available for comparison.
# Attributes that are not available will have the value \"\" (empty
```

```

string).
#
# loginType: one of \"INTF\", \"AUTHINTF\", \"ADDR\", \"AUTHADDR\",
#               \"PORTAL\", \"ASSIGNEDIP\"
# userName: Everything before the \"@\" in the user's login name.
# domainName: Everything after the \"@\" in the user's login name.
# serviceBundle: A RADIUS VSA available if the login event involves
#               authentication with a properly configured RADIUS server.
# radiusClass: The RADIUS class of user's ERX interface.
# virtualRouterName: The name of the user's virtual router.
# interfaceName: The name of the user's ERX interface (e.g.
#               \"fastEthernet3/1.0\")
# ifAlias: The alias of the user's ERX interface, as configured on the
# ERX.
# ifDesc: The description of the user's ERX interface, as configured on
#         the ERX.
# nasPortId: The user's ERX interface including Layer 2 access
# information
#             (e.g. \"fastEthernet 3/1.0:3\")
# macAddress: The MAC address of the user, if he is a DHCP user.
# retailerDn: Generated by SSP for backwards compatibility; see below.
#
# The loginType value available to this user classifier script will be
# one of the following:
#
# \"INTF\":
# An INTF login is triggered every time an interface comes up and the
# interface classifier script determines that SAE should manage that
# interface, and the interface has not been authenticated by the router.
#
# \"AUTHINTF\":
# An AUTHINTF login is triggered every time an authenticated
# interface comes up, for example as a result of an authenticated PPP
# session.
#
# \"ADDR\":
# An ADDR login is triggered every time an 'unauthenticated' IP
# address is handed out by the DHCP server in the ERX.
#
# \"AUTHADDR\":
# An AUTHADDR login is triggered every time an 'authenticated' IP
# address is handed out by the DHCP server in the ERX.
#
# \"PORTAL\":
# A PORTAL login is triggered every time the portal API is invoked to
# login a user.
#
# See the customer documentation for a description of the values
# for each login type available in the script.
#
# One of the values available during some types of logins is the
# 'retailerDn'. This is a generated value available for backwards
# compatibility with previous versions of SAE. SAE generates this
# value as follows:
#
# The retailerDn value is generated by, first, determining an
# effective user domain name, and second, locating the retailer
# entry in LDAP that contains that effective domain name. If no
# such retailer exists, the retailerDn value will be \"\".
#
# The effective user domain name is the first of the following that yields

```

```

# a result:
#
# 1. For PPP, PORTAL, and PUBLIC logins where a non-empty domainName
# is supplied, that non-empty domain name is used as the effective
# domain name.
#
# 2. For INTF logins, and for PPP, PORTAL, and PUBLIC logins where a
# non-empty domain name is not supplied, the effective domain name
# is the name of the user's virtual router, unless that effective
# domain does not exist in some retailer in LDAP.
#
# 3. If neither step 1 nor step 2 yields an effective domain name,
# "default\" is used as the effective domain name.
#

";
}
rule rule-2 {
  target <-unauthenticatedUserDn->;
  condition {
    "loginType == \"ADDR\"";
    "loginType == \"AUTHADDR\"";
  }
}
rule rule-3 {
  target <-retailerDn->??sub?(uniqueID=<-userName->);
  condition {
    "retailerDn != \"\"";
    "& userName != \"\"";
  }
}
}

```

- Related Topics**
- Classifying Subscribers (C-Web Interface)
  - Sending DHCP Options to the JUNOS Router
  - Example: Subscriber Classification Scripts for Static IP Subscriber
  - Overview of Classification Scripts
  - Overview of Subscribers

## Subscriber Classification Conditions

Subscriber classification conditions define match criteria that are used to find the subscriber profile. Use the fields in this section to define subscriber classification conditions.

### *dhcp*

- DHCP options. See Sending DHCP Options to the JUNOS Router .

### *domainName*

- Domain name of the subscriber.
- Value—Valid domain name
- Example—domainName = “ isp99.com”

### ***ifAlias***

- Description of the interface.
- Value—Interface description that is configured on the router. For JUNOSe routers, it is the description configured with the **interface description** command
- Example—ifAlias = “ dhcp-subscriber12”

### ***ifDesc***

- Alternate name for the interface that is used by SNMP. This name is a system-generated name.
- Value
  - On a JUNOSe router, the format of the description is  
     ip<slot>/<port>.<subinterface>
  - On the JUNOS routing platform, ifDesc is the same as interfaceName.
- Example—ifDesc = “ IP3/1.1 ”

### ***interfaceName***

- Name of the interface.
- Value
  - Name of the interface in your router CLI syntax
  - FORWARDING\_INTERFACE for routing instance (used by traffic mirroring)
  - Router for a JUNOSe router instance
- Example—For JUNOSe routers: interfaceName = “ fastEthernet6/0”

For JUNOS routing platforms: interfaceName = “ fe-0/1/0.0”

For forwarding interface: interfaceName = “ FORWARDING\_INTERFACE”

### ***loginName***

- Name to be used to create a loginName attribute for a subscriber session for JUNOS interfaces that are not otherwise assigned a loginName when a session starts, such as unauthenticated DHCP addresses, unauthenticated IP interfaces (that are not using PPP connections), or core-facing interfaces.

The loginName can also be used to identify a subscriber session through the SAE CORBA remote API.

- Value—Name in the form subscriber@domain
- Guideline—The format is not defined. A loginName can be of form subscriber, domain\subscriber, subscriber@domain, or as otherwise defined by the login setup of the operator.
- < Login name >
- Example—idp@idp

### ***loginType***

- Type of subscriber session to be created.
- Value—One of the following login types:
  - ASSIGNEDIP—For assigned IP subscribers. Triggered when an application accesses a subscriber object for an assigned IP subscriber that is not currently loaded into memory. (Supported on JUNOS routers.)
  - AUTHINTF—For authenticated interface login requests. Triggered when a login Name is reported together with the interface, such as authenticated PPP or autoconfigured ATM interface, by means of the **subscriber** command. (Supported on JUNOS routers.)
  - INTF—For unauthenticated interface login requests. Triggered when an interface comes up and the interface classification script determines that the SAE should manage the interface. (Supported on JUNOS routing platforms and JUNOS routers.)
  - ADDR—For unauthenticated address login requests. Triggered when the DHCP server in the JUNOS router provides an unauthenticated IP address. (Supported on JUNOS routers.)
  - AUTHADDR—For authenticated address login requests. Triggered when the DHCP server in the JUNOS router provides an authenticated IP address. (Supported on JUNOS routers.)
  - PORTAL—Triggered when the portal API is invoked to log in a subscriber. (Supported on JUNOS routing platforms and JUNOS routers.)
- Example—loginType = “ AUTHADDR”

### ***macAddress***

- String representation of the DHCP subscriber media access control (MAC) address.
- Value—Valid MAC address
- Example—macAddress = “ 00:11:22:33:44:55”

#### ***nasPortId***

- Port identifier of an interface.
- Value—Includes interface name and additional layer 2 information
- Example—nasPortId = “ fastEthernet 3/1 ” (There is a space between fastEthernet and slot number 3/1 in the nasPortId.)

#### ***radiusClass***

- RADIUS class used for authorization.
- Value—RADIUS class name
- Example—radiusClass = “ Premium”

#### ***retailerDn***

- DN of the retailer object. The object is found when the domain name is mapped to a retailer object in LDAP.
- Value—DN of a retailer

#### ***serviceBundle***

- Content of the vendor-specific RADIUS attribute for the service bundle.
- Value—Name of a service bundle
- Example—serviceBundle = “ goldSubscriber”

#### ***unauthenticatedUserDn***

- DN of the unauthenticated subscriber profile (usable for target expressions only).
- Value—DN of a subscriber profile

#### ***userName***

- Name of the subscriber.
- Value—Subscriber name without the domain name
- Example—userName = “ peter”

#### ***virtualRouterName***

- Name of the virtual router or routing instance.
- Value—For JUNOS routers: name of the virtual router in the format `vrname@hostname`  
  
For JUNOS routing platforms: name of the routing instance
- Example—`virtualRouterName = " default@e_series5"`

---

Published: 2009-09-13