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Configure SMA

Create a SMA custom entity group

Follow these steps to create a entity group.

Step 1 Configure a name to entity-group
 Step 2 Add entity-type for the entity group
 Step 3 Add sub entity-type for the entity group

What's next

Add the entity group to a SMA policy.

Create or delete custom entity group

You need a entity-group to act as a filter to monitor similar kind of entities for the SMA poilcy. Entities such as all edge ports, all core ports, ports are filtered with attributes like FDMI, FCNS, device-alias, FCID, FPIN and so on.

The following conditions are applicable for adding or deleting entity-groups.

- Multiple entity-groups can be added to a SMA policy.
- Entity-type or sub-entity cannot be added or deleted when the entity-group is present in an active policy.
- You cannot delete a entity-group that is part of an inactive policy.

```
Step 1 Enter configuration mode:
```

switch# configure terminal

Step 2 Create an entity-group for using in the SMA policy.

switch(config)# [no] sma entity-group name entity-group-name

Step 3 Add the entity-type to the entity-group.

switch(config-sma-entity-group)# [no] entity-type fc-port {all | core | edge | interface}

Create a SMA custom action group

Follow these steps to create action groups.

Step 1 Configure a name to action-group

Step 2 Configure actions for each level (alarm, warning, falling)

What's next

Add the action group to a SMA policy.

Create or delete SMA custom action-group

Action groups provides configuration of actions for a SMA policy. Actions such as flap, error-disable, syslog, call-home, FPIN, SNMP-trap and so on.

Step 1 Enter configuration mode.

Example:

```
switch# configure terminal
```

Step 2 Create an action-group based on the counter group for usage in the SMA policy.

Example:

```
switch(config)# [no] sma action-group name action-group-name counter-group {cg-all | cg-congestion
| cg-datarate | cg-fcport-all | cg-link-integrity | cg-protocol-all | cg-slowdrain }
```

Step 3 Create an action-group based on the counter for usage in the SMA policy.

Example:

```
switch(config)# [no] sma action-group name action-group-name counter {cg-all | cg-congestion |
cg-datarate | cg-fcport-all | cg-link-integrity | cg-protocol-all | cg-slowdrain }
```

Configure SMA Policy

You can create SMA policy by using one of the following options.

- Clone the default policy to create a custom policy or
- Activate the default policy or
- Create a new user defined SMA policy.



- Custom entity-groups and action-groups are created outside the policy before using them under policy.
- Pre-defined entity-groups such as eg-fcport-all, eg-fcport-edge,eg-fcport-core entity-groups are used to configure port counters.
- Pre-defined entity-group such as eg-switch entity-group are used to configure protocol counters.
- **Step 1** Configure a name to the policy
- **Step 2** Configure entity-group (pre-defined / user defined)
- **Step 3** Configure counters or counter-groups for entity-group
- **Step 4** Configure monitoring group with these thresholds.

Choose from:

- default or
- user defined period values for alarm or warning or falling.

Step 5 Configure action group

Associate either pre-defined or user defined action group that is created for existing counter or counter-group.

Create a user-defined SMA Policy

You can create a user-defined SMA policy.

Ensure the following are user-defined

- entity-groups
- action-groups
- **Step 1** Enter configuration mode.

```
switch# configure terminal
```

Step 2 Configure the policy.

```
switch(config) # [no] sma policy name policy name
```

Step 3 Configure the entity-group

```
switch(config)# [no] entity-group name entity-group-name [{before|after} name ref-entity-group-name]
```

Step 4 Configure the counter-group containing the monitor-levels, intervals and action groups.

switch(config)# [no] {counter counter-name|counter-group countergrp-name} monitor-level {default|
period period alarm alarm-threshold [warning warn-threshold] falling fall-threshold} action-group
{ag-default|ag-none|action-group-name}

Activate or deactivate the default SMA Policy

Activate the default SMA policy available in MDS 9000.

You can activate a default policy on when these conditions are met.

- No active policy must exist in order to activate a policy.
- When the no form of the command is used, all the configuration details are to be provided.
- Policy must be active for the policy to be deactivated.
- **Step 1** Enter configuration mode:

```
switch# configure terminal
```

Step 2 Activate or deactivate SMA policy.

```
\verb|switch(config)# [no] sma policy activate name { | default | policy_name |}|
```

Creating or deleting a name to user defined SMA Policy

Provide a name for the user-defined policy.

Step 1 Enter configuration mode:

switch# configure terminal

Step 2 Create an user defined policy.

switch(config)# [no] sma policy name policy name



When the no form of the command is used, all the configuration details are to be provided.

Clone or copy an default SMA Policy

Clone or copy an existing SMA policy.

You cannot copy or clone a policy that is active in MDS 9000.

Step 1 Enter configuration mode:

switch# configure terminal

Step 2 Copy the SMA policy.

switch(config)# sma policy name copy default policy_name