



CHAPTER 10

SNMP V3

Simple Network Management Protocol Version 3 (SNMPv3) is an standards-based protocol for network management.

SNMPv3 provides secure access to devices using a combination of authentication and encryption of packets over the network. This assures that data can be collected securely from SNMP devices and configuration messages cannot be viewed or altered.

The security features provided in SNMPv3 are:

- Message integrity—Ensuring that a packet has not been tampered with in-transit.
- Authentication—Determining that the message is from a valid source.
- Encryption—Scrambling the contents of a packet to prevent it from being seen by an unauthorized source.

SNMPv3 provides for security models and security levels. A security model is an authentication strategy that is set up for a user and the group in which the user resides. A security level is the permitted level of security within a security model.

A combination of a security model and a security level determine which security mechanism is employed when handling an SNMP packet. [Table 10-1](#) lists the combinations of security models and levels supported:

Table 10-1 Supported SNMP Security Models and Levels

Model	Level	Authentication	Encryption	What Happens
v1	noAuthNoPriv	Community string	No	Uses a community string match for authentication.
v3	noAuthNoPriv	Username	No	Uses a username match for authentication.
v3	authNoPriv	MD5 or SHA	No	Provides authentication based on the HMAC-MD5 or HMAC-SHA algorithms.
v3	authPriv	MD5 or SHA	DES, 3DES, or AES	Provides authentication based on the HMAC-MD5 or HMAC-SHA algorithms, encrypted with DES (Data Encryption Standard), 3DES, or AES (Advanced Encryption Standard) algorithms.

SNMPv3 users and groups have the following characteristics:

- Each user belongs to a group.
- A group defines the security model and security level for its users.
- A group defines the access policy (view) for its users. An access policy defines the SNMP objects that can be accessed for reading or writing.
- A group determines the list of notifications its users can receive.

Quickstart for SNMP Server Configuration

The quickstart procedure provides an overview and quick reference for those who have already configured SNMPv3 on Cisco MGX switches.

	Command	Purpose
Step 1	cnfnsnmpmode <snmpMode>	Configures the SNMP server security model. See the Configuring SNMP-Server Model, page 10-3 .
Step 2	addsnmpview <viewName> <subTree> <mask> <type>	Adds SNMP views. See Configuring SNMP-Server Views, page 10-3 .
Step 3	addsnmpgroup <groupName> <securityModel> <securityLevel> [-read <readview>] [-write <writeview>] [-notify <notifyview>]	Adds SNMP server groups. See Configuring SNMP-Server Groups, page 10-4 .
Step 4	addsnmpuser <userName> <authProtocol> <privProtocol>	Adds SNMP server users. See Configuring SNMP-Server Users, page 10-6 .
Step 5	addsnmpusergroup <userName> <securityModel> <groupName>	Adds SNMP users to groups. See Configuring SNMP Users and Groups, page 10-7 .
Step 6	addtrapmgrparams <managerparamsname> <SnmppMessageProcessingModel> <Securityname> <SnmppSecurityLevel> addv3trapmgr <managername> <ipaddress> <portnum> <managerparamsname>	Configures SNMP notifications. See Configuring SNMP Trap Managers, page 10-8 .

Configuring SNMP Server

This section provides procedures for configuring the SNMPv3 server.

Configuring SNMP-Server Model

To configure the SNMP security model, use the following procedure.

- Step 1** Establish a configuration session using a user name with SUPER_GP privileges or higher.
- Step 2** To configure the SNMP security model, enter the **cnfsnmpmode** command:
 mgx8850a.7.PXM.a > **cnfsnmpmode** <snmpMode>
[Table 10-2](#) describes the parameters for this command.

Table 10-2 Parameter Description for **cnfsnmpmode** Command on the PXM

Parameter	Descriptions
<i>snmpMode</i>	The SNMP security model: <ul style="list-style-type: none"> • 1—SNMP v1, all operations (read/write) are allowed for both SNMPv1 requests and SNMPv3 requests. • 2—SNMPv3, read/write operations are allowed only for SNMPv3 requests. Read-only operations are allowed for SNMPv1 requests. • 3—SNMPv3 fully secured, SNMPv3 requests are allowed (authNoPriv and authPriv) and all SNMPv1 requests are blocked. Default: 1

- Step 3** Verify the configuration by entering the **dspsnmpmode** command:
 mgx8850a.7.PXM.a > **dspsnmpmode**
 V1 mode - all operations allowed

Configuring SNMP-Server Views

This section describes how to add, delete, and display SNMP views.

Adding Views

To add SNMP views, use the following procedure.

- Step 1** Establish a configuration session using a user name with SUPER_GP privileges or higher.
- Step 2** To add an SNMP view, enter the **addsnmpview** command:
 mgx8850a.7.PXM.a > **addsnmpview** <viewName> <subTree> <mask> <type>

Table 10-3 describes the parameters for this command.

Table 10-3 Parameter Description for *addsnmpview* Command on the PXM

Parameter	Descriptions
<i>viewName</i>	The name of the MIB view. Range: 1 to 32 characters
<i>subTree</i>	The OID subtree of the MIB view. Defines one or more view subtrees, when combined with the <i>mask</i> parameter.
<i>mask</i>	The OID subtree mask. Defines one or more view subtrees, when combined with the <i>subTree</i> parameter.
<i>type</i>	The access type for the view subtree: <ul style="list-style-type: none"> included excluded

Step 3 Verify the configuration by entering the **dspsnmpview** command:

```
mgx8850a.7.PXM.a > dspsnmpview <viewName>
```

Deleting Views

To delete an SNMP view, enter the **delsnmpview** *<viewName>* *<subTree>* command. Table 10-3 describes the parameter for this command.

Displaying Views

To display SNMP views, enter the **dspsnmpview** *<viewName>* or **dspsnmpviews** command. Table 10-3 describes the **dspsnmpview** parameter.

Configuring SNMP-Server Groups

This section describes how to configure SNMP groups.

Adding Groups

To add SNMP groups, use the following procedure.

Step 1 Establish a configuration session using a user name with SUPER_GP privileges or higher.

Step 2 To add an SNMP group, enter the **addsnmpgroup** command:

```
mgx8850a.7.PXM.a > addsnmpgroup <groupName> <securityModel> <securityLevel> [-read <readview>] [-write <writeview>] [-notify <notifyview>]
```

Table 10-4 describes the parameters for this command.

Table 10-4 Parameter Description for `addsnmpgroup` Command on the PXM

Parameter	Descriptions
<i>groupName</i>	The name of the group. Range: 1 to 32 characters
<i>securityModel</i>	The SNMP security model for the group: <ul style="list-style-type: none"> 1—snmpv1 3—usm (snmpv3)
<i>securityLevel</i>	The SNMP security level for the group: <ul style="list-style-type: none"> 1—noAuthNoPriv 2—authNoPriv 3—authPriv <p>Note For security model 1, the security level must be 1</p>
-read	The SNMP view for read access. To display all views, enter dspsnmpviews .
-write	The SNMP view for write access. To display all views, enter dspsnmpviews .
-notify	The SNMP view for notification. The <i>notify</i> value should be a string with less than 33 characters.

Step 3 Verify the configuration by entering the **dspsnmpgroup** command:

```
mgx8850a.7.PXM.a > dspsnmpgroup <groupName>
```

Changing Groups

To reconfigure SNMP groups, use the following procedure.

Step 1 Establish a configuration session using a user name with SUPER_GP privileges or higher.

Step 2 To change an SNMP group, enter the **cnfsnmpgroup** command:

```
mgx8850a.7.PXM.a > cnfsnmpgroup <groupName> <securityModel> <securityLevel> [-read <readview>] [-write <writeview>]
```

Table 10-4 describes the parameters for this command.

Step 3 Verify the configuration by entering the **dspsnmpgroup** command:

```
mgx8850a.7.PXM.a > dspsnmpgroup <groupName>
```

Deleting Groups

To delete an SNMP view, enter the **delsnmpgroup** *<groupName>* *<securityModel>* *<securityLevel>* command. Table 10-4 describes the parameter for this command.

Displaying Groups

To display SNMP groups, enter the **dspsnmpgroup** *<groupName>* or **dspsnmpgroups** command. [Table 10-4](#) describes the **dspsnmpgroup** parameter.

Configuring SNMP-Server Users

This section describes how to configure SNMP users.

Adding Users

To add SNMP users, use the following procedure.

Step 1 Establish a configuration session using a user name with SUPER_GP privileges or higher.

Step 2 To add an SNMP user, enter the **addsnmpuser** command:

```
mgx8850a.7.PXM.a > addsnmpuser <userName> <authProtocol> <privProtocol>
```

[Table 10-5](#) describes the parameters for this command.

Table 10-5 Parameter Description for **addsnmpuser** Command on the PXM

Parameter	Descriptions
<i>userName</i>	The name of the user. Range: 5 to 12 characters
<i>authProtocol</i>	The authentication protocol: <ul style="list-style-type: none"> • 1—NoAuth • 2—MD5 • 3—SHA
<i>privProtocol</i>	The privacy protocol: <ul style="list-style-type: none"> • 1—NoPriv • 2—DES • 3—3DES • 4—AES

Step 3 Verify the configuration by entering the **dspsnmpusers** command:

```
mgx8850a.7.PXM.a > dspsnmpusers <userName>
```

Changing Users

To reconfigure SNMP users, use the following procedure.

Step 1 Establish a configuration session using a user name with SUPER_GP privileges or higher.

Step 2 To change an SNMP user, enter the **cnfsnmpuser** command:

```
mgx8850a.7.PXM.a > cnfsnmpuser <userName> <authProtocol> <privProtocol>
```

Table 10-5 describes the parameters for this command.

Step 3 Verify the configuration by entering the **dspsnmpusers** command:

```
mgx8850a.7.PXM.a > dspsnmpusers <userName>
```

Deleting Users

To delete an SNMP user, enter the **delsnmpuser** <userName> command. Table 10-5 describes the parameter for this command.

Displaying Users

To display SNMP users, enter the **dspsnmpusers** <userName> or **dspsnmpusers** command. Table 10-5 describes the **dspsnmpusers** parameter.

Configuring SNMP Users and Groups

This section describes how to associate SNMP users with groups.

Adding Users to Groups

To add an SNMP user to a group, use the following procedure.

Step 1 Establish a configuration session using a user name with SUPER_GP privileges or higher.

Step 2 To add an SNMP user, enter the **addsnmpusergroup** command:

```
mgx8850a.7.PXM.a > addsnmpusergroup <userName> <securityModel> <groupName>
```

Table 10-6 describes the parameters for this command.

Table 10-6 Parameter Description for addsnmpusergroup Command on the PXM

Parameter	Descriptions
<i>userName</i>	The name of a user. To display all users, enter dspsnmpusers .
<i>securityModel</i>	The SNMP security model for the group: <ul style="list-style-type: none"> 1—snmpv1 3—usm (snmpv3)
<i>groupName</i>	The name of a group. To display all groups, enter dspsnmpgroups .

Step 3 Verify the configuration by entering the **dspsnmpusergroups** command:

```
mgx8850a.7.PXM.a > dspsnmpusergroups
```

Deleting Users from Groups

To delete an SNMP user from a group, enter the **delsnmpusergroup** *<userName>* *<securityModel>* command. [Table 10-6](#) describes the parameter for this command.

Displaying Users and Groups

To display SNMP users and their groups, enter the **dspsnmpusergroups** command.

Configuring SNMP Trap Managers

This section describes how to configure SNMPv3 trap managers.

Adding SNMPv3 Trap Managers

To add an SNMPv3 trap manager, use the following procedure.

-
- Step 1** Establish a configuration session using a user name with SUPER_GP privileges or higher.
- Step 2** To define trap manager parameters, enter the **addtrapmgrparams** command:
- ```
mgx8850a.7.PXM.a > addtrapmgrparams <paramsname> <snmpMessageProcessingModel> <securityName> <securityLevel>
```

[Table 10-7](#) describes the parameters for this command.

**Table 10-7** Parameter Description for **addtrapmgrparams** Command on the PXM

| Parameter                         | Descriptions                                                                                                                             |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <i>paramsname</i>                 | The name of the trap manager parameter. Range: 1-32 characters.                                                                          |
| <i>snmpMessageProcessingModel</i> | The SNMP message processing model: <ul style="list-style-type: none"> <li>• 0—SNMPv1</li> <li>• 1—SNMPv2c</li> <li>• 3—SNMPv3</li> </ul> |
| <i>securityName</i>               | The SNMP security name. Range: 1-32 characters.                                                                                          |
| <i>securityLevel</i>              | The SNMP security <ul style="list-style-type: none"> <li>• 1—noAuthNoPriv</li> <li>• 2—authNoPriv</li> <li>• 3—authPriv</li> </ul>       |

- Step 3** To add a trap manager, enter the **adv3trapmgr** command:
- ```
mgx8850a.7.PXM.a > adv3trapmgr <managername> <ipaddress> <portnum> <paramsname>
```


Table 10-8 describes the parameters for this command.

Table 10-8 Parameter Description for *adv3trapmgr* Command on the PXM

Parameter	Descriptions
<i>managername</i>	The name of the trap manager. Range: 1 to 32 characters
<i>ipaddress</i>	The IP address of a management host, using standard IP notation
<i>portnum</i>	The TCP port number of a management host. Range: 0 and 65535
<i>paramsname</i>	The name of the a trap manager parameters to apply.

Step 4 Verify the configuration by entering the **dspv3trapmgr** command:

```
mgx8850a.7.PXM.a > dspv3trapmgr <manager_name>
```

Displaying Trap Managers

To display trap managers, enter the **dspv3trapmgr <manager_name>** or **dspv3trapmgrs** command. Table 10-8 describes the parameters for the **dspv3trapmgr** command.

Monitoring SNMPv3 Server

To display Message Processing and Dispatching (MPD) and User-based Security Model (USM) statistics, enter the **dspsnmpMPDStats** and **dspsnmpUSMStats** commands, respectively.

Command Reference

This section describes the following SNMP commands.

- [addsnmpgroup](#)
- [addsnmpuser](#)
- [addsnmpusergroup](#)
- [addsnmpview](#)
- [addtrapmgrparams](#)
- [adv3trapmgr](#)
- [cnfsnmpgroup](#)
- [cnfsnmpmode](#)
- [cnfsnmpuser](#)
- [delsnmpgroup](#)
- [delsnmpuser](#)
- [delsnmpusergroup](#)
- [delsnmpview](#)
- [deltrapmgrparams](#)

- [delv3trapmgr](#)
- [dspsnmpctx](#)
- [dspsnmpgroup](#)
- [dspsnmpgroups](#)
- [dspsnmpmode](#)
- [dspsnmpMPDStats](#)
- [dspsnmpusers](#)
- [dspsnmpusergroups](#)
- [dspsnmpUSMStats](#)
- [dspsnmpview](#)
- [dspsnmpviews](#)
- [dsptrapmgrparams](#)
- [dspv3trapmgr](#)
- [dspv3trapmgrs](#)

addsnmpgroup

Add SNMP Group—PXM45, PXM1E

The **addsnmpgroup** command adds an SNMP group.



Note

Before adding an SNMP group, you must define SNMP views for read/write/notify access.

Syntax

```
addsnmpgroup <groupName> <securityModel> <securityLevel> [-read <readview>]
[-write <writeview>] [-notify <notifyview>]
```

Syntax Description

<i>groupName</i>	The name of the group. Range: 1 to 32 characters.
<i>securityModel</i>	The SNMP security model for the group: <ul style="list-style-type: none"> 1—snmpv1 3—usm (snmpv3)
<i>securityLevel</i>	The SNMP security level for the group: <ul style="list-style-type: none"> 1—noAuthNoPriv 2—authNoPriv 3—authPriv <p>Note For security model 1, the security level must be 1</p>
-read	The SNMP view for read access. To display all views, enter dspsnmpviews .
-write	The SNMP view for write access. To display all views, enter dspsnmpviews .
-notify	The SNMP view for notification. The <i>notify</i> value should be a string with less than 33 characters.

Related Commands

cnfsnmpgroup, delsnmpgroup, dspsnmpgroup, dspsnmpgroups

Attributes

Log: no State: active Privilege: SUPER_GP

Example

Add an SNMP group named View1 with security model 3 and security level 3.

```
M8850_SF7.PXM.a > addsnmpgroup Group1 3 3 -read View1
```

addsnmpuser

Add SNMP User—PXM45, PXM1E

The **addsnmpuser** command adds an SNMP user. This command prompts for a password, which must be from 5 to 15 characters. The default user is *cisco*.

Syntax

```
addsnmpuser <userName> <authProtocol> <privProtocol>
```

Syntax Description

<i>userName</i>	The name of the user. Range: 5 to 12 characters.
<i>authProtocol</i>	The authentication protocol: <ul style="list-style-type: none"> • 1—NoAuth • 2—MD5 • 3—SHA
<i>privProtocol</i>	The privacy protocol: <ul style="list-style-type: none"> • 1—NoPriv • 2—DES • 3—3DES • 4—AES

Related Commands

cnfsnmpuser, delsnmpuser, dspnsnmpusers

Attributes

Log: yes State: active Privilege: SUPER_GP

Example

Add an SNMP user named User1 with authentication protocol 3 and privacy protocol 4.

```
M8850_SF.7.PXM.a > addsnmpuser User1 3 4
Enter the Auth password:
Re-enter new password:
Enter the Priv password:
Re-enter new password:
```

addsnmpusergroup

Add User to Group—PXM45, PXM1E

The **addsnmpusergroup** command adds an SNMP user to an SNMP group.



Note

Before adding an SNMP users to a group, you must define the corresponding SNMP user and SNMP group.

Syntax

```
addsnmpusergroup <userName> <securityModel> <groupName>
```

Syntax Description

<i>userName</i>	The name of a user. To display all users, enter dspsnmpusers .
<i>securityModel</i>	The SNMP security model for the group: <ul style="list-style-type: none"> • 1—snmpv1 • 3—usm (snmpv3)
<i>groupName</i>	The name of a group. To display all groups, enter dspsnmpgroups .

Related Commands

delsnmpusergroup, **dspsnmpusergroups**

Attributes

Log: yes State: active Privilege: SUPER_GP

Example

Add the user named User1 to the group named Group1.

```
M8850_SF.7.PXM.a > addsnmpusergroup User1 3 Group1
```

addsnmpview

Add SNMP View—PXM45, PXM1E

The **addsnmpview** command adds an SNMP view.

Syntax

```
addsnmpview <viewName> <subTree> <mask> <type>
```

Syntax Description

<i>viewName</i>	The name of the MIB view. Range: 1 to 32 characters.
<i>subTree</i>	The OID subtree of the MIB view. Defines one or more view subtrees, when combined with the <i>mask</i> parameter. Format: n.n..., where n is a decimal.
<i>mask</i>	The OID subtree mask. Defines one or more view subtrees, when combined with the <i>subTree</i> parameter. Format aa:aa..., where a is a hexadecimal digit.
<i>type</i>	The access type for the view subtree: <ul style="list-style-type: none"> • 1—included • 2—excluded

Related Commands

delsnmpview, **dpsnmpview**, **dpsnmpviews**

Attributes

Log: yes

State: active

Privilege: SUPER_GP

Example

Add an SNMP view named View1 for subtree 1.3.6.1.2.1 with mask F0 and type 1 (included).

```
M8850_SF.7.PXM.a > addsnmpview View1 1.3.6.1.2.1 f0 1
```

addtrapmgrparams

Add SNMP Trap Manager Parameters—PXM45, PXM1E

The **addtrapmgrparams** command configures SNMP trap manager parameters.

Syntax

```
addtrapmgrparams <paramsname> <snmpMessageProcessingModel> <securityName>
<securityLevel>
```

Syntax Description

<i>paramsname</i>	The name of the trap manager parameter. Range: 1-32 characters.
<i>snmpMessageProcessingModel</i>	The SNMP message processing model: <ul style="list-style-type: none"> • 0—SNMPv1 • 1—SNMPv2c • 3—SNMPv3
<i>securityName</i>	The SNMP security name. Range: 1-32 characters.
<i>securityLevel</i>	1—noAuthNoPriv 2—authNoPriv 3—authPriv

Related Commands

adv3trapmgr, **deltrapmgrparams**, **dsptrapmgrparams**

Attributes

Log: yes State: active Privilege: SUPER_GP

Example

Add trap manager parameter named Params1 for SNMPv3 and security level 3.

```
M8850_SF.7.PXM.a > addtrapmgrparams Params1 3 trapCommunity 3
```

adv3trapmgr

Add SNMPv3 Trap Manager—PXM45, PXM1E

The **adv3trapmgr** command adds an SNMPv3 trap manager.



Note

Before adding an SNMPv3 trap manager, you must define SNMP trap manager parameters.

Syntax

```
adv3trapmgr <managername> <ipaddress> <portnum> <paramsname>
```

Syntax Description

<i>managername</i>	The name of the trap manager. Range: 1 to 32 characters.
<i>ipaddress</i>	The IP address of a management host, using standard IP notation.
<i>portnum</i>	The TCP port number of a management host. Range: 0 and 65535.
<i>paramsname</i>	The name of the a trap manager parameters to apply.

Related Commands

delv3trapmgr, **dspv3trapmgr**, **dspv3trapmgrs**

Attributes

Log: yes State: active Privilege: SUPER_GP

Example

Add an SNMPv3 trap manager named V3Trap1 for the host at 10.10.10.150:9910 using Params1.

```
M8850_SF.7.PXM.a > adv3trapmgr V3Trap1 10.10.10.150 9910 Params1
```


cnfsmnpgroup

Configure SNMP Group—PXM45, PXM1E

The `cnfsmnpgroup` command configures an SNMP group.

Syntax

```
cnfsmnpgroup <groupName> <securityModel> <securityLevel> [-read <readview>]
[-write <writeview>]
```

Syntax Description

<i>groupName</i>	The name of the group to configure. To view all groups, enter dspsnmgroups .
<i>securityModel</i>	The SNMP security model for the group: <ul style="list-style-type: none"> • 1—snmpv1 • 3—usm (snmpv3)
<i>securityLevel</i>	The SNMP security level for the group: <ul style="list-style-type: none"> • 1—noAuthNoPriv • 2—authNoPriv • 3—authPriv
-read	The SNMP view for which the group has read access. Range: 1 to 32 characters.
-write	The SNMP view for which the group has write access. Range: 1 to 32 characters.

Related Commands

addsnmgroup, delsnmgroup, dspsnmgroup, dspsnmgroups

Attributes

Log: no State: active Privilege: SUPER_GP

Example

Configure the SNMP group named Group1 with security model 3 and security level 3, specifying read access for View1.

```
M8850_SF.7.PXM.a > cnfsmnpgroup Group1 3 3 -read View1
```

cnfsnmpmode

Configure SNMP Mode—PXM45, PXM1E

The **cnfsnmpmode** command configures the SNMP operational mode.

Syntax

```
cnfsnmpmode <snmpMode>
```

Syntax Description

<i>snmpMode</i>	<p>The SNMP operational mode:</p> <ul style="list-style-type: none"> • 1—SNMP v1 mode, all operations (read/write) are allowed for both SNMPv1 requests and SNMPv3 requests. • 2—SNMPv3 mode, read/write operations are allowed only for SNMPv3 requests. Read-only operations are allowed for SNMPv1 requests. • 3—SNMPv3 fully secured mode, SNMPv3 requests are allowed (authNoPriv and authPriv) but all SNMPv1 requests are blocked. <p>Default: 1</p>
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Related Commands

dspsnmpmode

Attributes

Log: yes State: active Privilege: SUPER_GP

Example

Configure the full-secured SNMPv3 mode.

```
M8850_SF.7.PXM.a > cnfsnmpmode 3
Mode is changed to Secured Mode. Unsecured queries blocked
```

cnfsnmpuser

Configure SNMP User—PXM45, PXM1E

The `cnfsnmpuser` command configures an SNMP user.

Syntax

```
cnfsnmpuser <userName> <authProtocol> <privProtocol>]
```

Syntax Description

<i>userName</i>	The name of the user. To display all users, enter dspsnmpusers .
<i>authProtocol</i>	The authentication protocol: <ul style="list-style-type: none"> • 1—NoAuth • 2—MD5 • 3—SHA
<i>privProtocol</i>	The privacy protocol: <ul style="list-style-type: none"> • 1—NoPriv • 2—DES • 3—3DES • 4—AES

Related Commands

`addsnmpuser`, `delsnmpuser`, `dspsnmpusers`

Attributes

Log: yes State: active Privilege: SUPER_GP

Example

Configure the SNMP user named User1 with security model 3 and security level 3.

```
M8850_SF.7.PXM.a > cnfsnmpusers User1 3 3
Enter the Auth password:
Re-enter new password:
Enter the Priv password:
Re-enter new password:
```

delsnmpgroup

Delete SNMP Group—PXM45, PXM1E

The **delsnmpgroup** command deletes an SNMP group.

Syntax

```
delsnmpgroup <groupName> <securityModel> <securityLevel>
```

Syntax Description

<i>groupName</i>	The name of the group to configure. To view all groups, enter dspsnmpgroups .
<i>securityModel</i>	The SNMP security model for the group: <ul style="list-style-type: none"> • 1—snmpv1 • 3—usm (snmpv3)
<i>securityLevel</i>	The SNMP security level for the group: <ul style="list-style-type: none"> • 1—noAuthNoPriv • 2—authNoPriv • 3—authPriv

Related Commands

addsnmpgroup, cnfsnmpgroup, dspsnmpgroup, dspsnmpgroups

Attributes

Log: yes State: active Privilege: SUPER_GP

Example

Delete the SNMP group named Group1 with security model 3 and security level 3.

```
M8850_SF.7.PXM.a > delsnmpgroup Group1 3 3
```

delsnmpuser

Delete SNMP User—PXM45, PXM1E

The **delsnmpuser** command deletes an SNMP user.

Syntax

```
delsnmpuser <userName>
```

Syntax Description

<i>userName</i>	The name of the user. To display all users, enter dspsnmpusers .
-----------------	-------------------------------------------------------------------------

Related Commands

addsnmpuser, **cnfsnmpuser**, **dspsnmpusers**

Attributes

Log: yes State: active Privilege: SUPER_GP

Example

Delete the SNMP user named User1.

```
M8850_SF.7.PXM.a > delsnmpuser User1
```

delsnmpusergroup

Delete User from Group—PXM45, PXM1E

The **delsnmpusergroup** command deletes an SNMP user from an SNMP group.

Syntax

```
delsnmpusergroup <userName> <securityModel>
```

Syntax Description

<i>userName</i>	The user name. For a list of users and their groups, enter dspsnmpusergroups .
<i>securityModel</i>	The SNMP security model for the group: <ul style="list-style-type: none"> • 1—snmpv1 • 3—usm (snmpv3)

Related Commands

addsnmpusergroup, **dspsnmpusergroups**

Attributes

Log: yes

State: active

Privilege: SUPER_GP

Example

Delete the user User1 from the group named Group1.

```
M8850_SF.7.PXM.a > delsnmpusergroup User1 3
```

delsnmpview

Delete an SNMP View—PXM45, PXM1E

The **delsnmpview** command deletes an SNMP view.

Syntax

```
delsnmpview <viewName> <subTree>
```

Syntax Description

<i>viewName</i>	The name of the MIB view. To display all views, enter dspsnmpviews .
<i>subTree</i>	The OID subtree of the MIB view.

Related Commands

addsnmpview, **dspsnmpview**, **dspsnmpviews**

Attributes

Log: yes State: active Privilege: SUPER_GP

Example

Delete the SNMP view named View1 for subtree 1.3.6.1.1.2.1.

```
M8850_SF.7.PXM.a > delsnmpview View1 1.3.6.1.2.1
```

deltrapmgrparams

Delete SNMP Trap Manager—PXM45, PXM1E

The **deltrapmgrparams** command deletes SNMP trap manager parameters.

Syntax

```
deltrapmgrparams <paramsname>
```

Syntax Description

<i>paramsname</i>	The name of the trap manager parameter.
-------------------	-----------------------------------------

Related Commands

addtrapmgrparams, **dspttrapmgrparams**

Attributes

Log: yes

State: active

Privilege: SUPER_GP

Example

Delete the SNMP trap manager parameters named Params1.

```
M8850_SF.7.PXM.a > deltrapmgrparams Params1
```


delv3trapmgr

Delete SNMPv3 Trap Manager—PXM45, PXM1E

The **delv3trapmgr** command deletes an SNMPv3 trap manager.

Syntax

```
delv3trapmgr <managename>]
```

Syntax Description

<i>managename</i>	The name of the trap manager. To display all trap managers, enter dspv3trapmgrs .
-------------------	------------------------------------------------------------------------------------------

Related Commands

addv3trapmgr, **dspv3trapmgr**, **dspv3trapmgrs**

Attributes

Log: yes State: active Privilege: SUPER_GP

Example

Delete the SNMPv3 trap manager named Trap1.

```
M8850_SF.7.PXM.a > delv3trapmgr Trap1
```

dspsnmpctx

Display SNMP Context—PXM45, PXM1E

The **dspsnmpctx** command displays the SNMP context.

Syntax

```
dspsnmpctx
```

Related Commands

```
dspsnmpMPDStats
```

Attributes

Log: no

State: active

Privilege: ANYUSER

Example

Display the SNMP context.

```
M8850_SF.7.PXM.a > dspsnmpctx  
vacmContextName
```

```
-----
```

```
public
```

dspsnmpgroup

Display SNMP Group—PXM45, PXM1E

The **dspsnmpgroup** command displays an SNMP group.

Syntax

```
dspsnmpgroup <groupName>
```

Syntax Description

<i>groupName</i>	The name of the group to display. To view all groups, enter dspsnmpgroups .
------------------	------------------------------------------------------------------------------------

Related Commands

addsnmpgroup, **cnfsnmpgroup**, **delsnmpgroup**, **dspsnmpgroups**

Attributes

Log: no State: active Privilege: ANYUSER

Example

Display the SNMP group named Group1.

```
M8850_SF.7.PXM.a > dspsnmpgroup Group1
```

```
Group Name : Group1  
Context Name :  
Security Model : SNMPV3 (USM)  
Security Level : AuthPriv  
Read View Name : View1  
Write View Name :
```

dspsnmpgroups

Display all SNMP Groups—PXM45, PXM1E

The `dspsnmpgroups` command displays all SNMP groups.

Syntax

```
dspsnmpgroups
```

Related Commands

`addsnmpgroup`, `cnfsnmpgroup`, `delsnmpgroup`, `dspsnmpgroup`

Attributes

Log: no State: active Privilege: ANYUSER

Example

Display all SNMP groups.

```
M8850_SF.7.PXM.a > dspsnmpgroups
-----
      GroupName          SecurityModel      SecurityLevel
-----
Group1                  SNMPV3            AuthPriv
public                  SNMPV1            NoAuthNoPriv
private                 SNMPV1            NoAuthNoPriv
cisco_group             SNMPV3            AuthPriv
```

dspsnmpmode

Display SNMP Mode—PXM45, PXM1E

The **dspsnmpmode** command displays the SNMP security mode.

Syntax

```
dspsnmpmode
```

Related Commands

```
cnfsnmpmode
```

Attributes

Log: no State: active Privilege: ANYUSER

Example

Display the SNMP security mode.

```
M8850_SF.7.PXM.a > dspsnmpmode  
Fully Secured Mode - Unsecured operations blocked
```

dspsnmpMPDStats

Display SNMP MPD Stats—PXM45, PXM1E

The **dspsnmpMPDStats** command displays the SNMP Message Processing and Dispatching (MPD) statistics.

Syntax

```
dspsnmpMPDStats
```

Related Commands

```
dspsnmpUSMStats
```

Attributes

Log: no State: active Privilege: ANYUSER

Example

Display the SNMP MPD statistics.

```
M8850_SF.7.PXM.a > dspsnmpMPDStats
```

```
snmpUnknownSecurityModels      : 0
snmpInvalidMsgs                : 0
snmpUnknownPDUHandlers        : 0
```

dspsnmpusers

Display all SNMP Users—PXM45, PXM1E

The `dspsnmpusers` command displays all SNMP users.

Syntax

```
dspsnmpusers
```

Related Commands

`addsnpuser`, `cnfsnmpuser`, `delsnmpuser`

Attributes

Log: no State: active Privilege: ANYUSER

Example

Display all SNMP users.

```
M8850_SF.7.PXM.a > dspsnmpusers
      UserName                AuthProto  PrivProto
-----
User1                        SHA        3DES
cisco                        MD5        DES
```

dspsnmpusergroups

Display all SNMP Groups—PXM45, PXM1E

The **dspsnmpusergroups** command displays all SNMP users and their group.

Syntax

```
dspsnmpusergroups
```

Related Commands

addsnmpusergroup, delsnmpusergroup

Attributes

Log: no State: active Privilege: ANYUSER

Example

Display all SNMP users and their groups.

```
M8850_SF.7.PXM.a > dspsnmpusergroups
```

UserName	SNMP MODEL	GroupName
-----	-----	-----
User1	SNMPV3 (USM)	Group1

dspsnmpUSMStats

Display SNMP USM Stats—PXM45, PXM1E

The `dspsnmpUSMStats` command displays the SNMP User-based Security Model (USM) statistics.

Syntax

```
dspsnmpUSMStats
```

Related Commands

```
dspsnmpMPDStats
```

Attributes

Log: no State: active Privilege: ANYUSER

Example

Display the SNMP MPD statistics.

```
M8850_SF.7.PXM.a > dspsnmpUSMStats
```

```
usmStatsUnsupportedSecLevels : 0
usmStatsNotInTimeWindow     : 0
usmStatsUnknownUserNames    : 0
usmStatsUnknownEngineIds    : 1
usmStatsWrongDigests        : 0
usmStatsDecryptErrors        : 0
```

dspsnmpview

Display an SNMP View—PXM45, PXM1E

The **dspsnmpview** command displays an SNMP view.

Syntax

```
dspsnmpview <viewName>
```

Syntax Description

<i>viewName</i>	The name of the MIB view. To display all views, enter dspsnmpviews .
-----------------	-----------------------------------------------------------------------------

Related Commands

addsnmpview, **delsnmpview**, **dspsnmpviews**

Attributes

Log: no State: active Privilege: ANYUSER

Example

Display the SNMP view named View1.

```
M8850_SF.7.PXM.a > dspsnmpview View1

View Name      : View1
OID            : mib_2
SubtreeMask    : f0
ViewType       : included
```

dspsnmpviews

Display all SNMP Views—PXM45, PXM1E

The `dspsnmpviews` command displays all SNMP views.

Syntax

```
dspsnmpviews
```

Related Commands

```
addsnmpview, delsnmpview, dspsnmpview
```

Attributes

Log: no State: active Privilege: ANYUSER

Example

Display all SNMP views.

```
M8850_SF.7.PXM.a > dspsnmpviews
```

```
View Name      : ALL
OID            : iso
SubtreeMask    :
ViewType       : included
```

```
View Name      : View1
OID            : mib_2
SubtreeMask    : f0
ViewType       : included
```

```
...
```

dsptrapmgrparams

Display SNMP Trap Manager Parameters—PXM45, PXM1E

The `dsptrapmgrparams` command displays all SNMPv3 trap manager parameters.

Syntax

```
dsptrapmgrparams
```

Related Commands

```
addtrapmgrparams, deltrapmgrparams
```

Attributes

Log: no State: active Privilege: ANYUSER

Example

Display all SNMPv3 trap manager parameters.

```
M8850_SF.7.PXM.a > dsptrapmgrparams
  ParamsName      : Params1
  MPModel         : SNMPv3
  SecurityModel   : SNMPv3 (USM)
  SecurityName    : trapCommunity
  SecurityLevel   : authPriv

  ParamsName      : public
  MPModel         : SNMPv1
  SecurityModel   : SNMPv1
  SecurityName    : trapCommunity
```

dspv3trapmgr

Display SNMPv3 Trap Manager—PXM45, PXM1E

The **dspv3trapmgr** command displays an SNMPv3 trap manager.

Syntax

```
dspv3trapmgr <manager_name>
```

Syntax Description

<i>managername</i>	The name of the trap manager. To display all trap managers, enter dspv3trapmgrs .
--------------------	------------------------------------------------------------------------------------------

Related Commands

addv3trapmgr, **delv3trapmgr**, **dspv3trapmgrs**

Attributes

Log: no State: active Privilege: ANYUSER

Example

Display the SNMPv3 trap manager named V3Trap1.

```
M8850_SF.7.PXM.a > dspv3trapmgr V3Trap1
```

```

Manager Name      : V3Trap1
IPAddress         : 10.10.10.150
Port Number      : 9910
Parameter        : Params1
ReadingTrapsFlag : OFF
NextTrapSeqNum   : 0

```

dspv3trapmgrs

Display SNMP Group—PXM45, PXM1E

The **dspv3trapmgrs** command displays all SNMPv3 trap managers.

Syntax

```
dspv3trapmgrs
```

Related Commands

addv3trapmgr, **delv3trapmgr**, **dspv3trapmgr**

Attributes

Log: no State: active Privilege: ANYUSER

Example

Display all SNMPv3 trap managers.

```
M8850_SF.7.PXM.a > dspv3trapmgrs
```

ManagerName	ipAddress:Port	ManagerParams
V3Trap1	10.10.10.150:9910	Params1
NumOfValidEntries	1	