



Extreme AirDefense: SNMP Optimizations for Polling WiNG Controllers



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Preface

This guide provides the instructions and supporting information required to reduce your device polling time significantly by optimizing SNMP Polling of your wireless controllers.

Conventions

This section discusses the conventions used in this guide.

Text Conventions

The following tables list text conventions that are used throughout this guide.

Table 1: Notice Icons





Icon	Notice Type	Alerts you to...
	General Notice	Helpful tips and notices for using the product.
	Note	Important features or instructions.
	Caution	Risk of personal injury, system damage, or loss of data.
	Warning	Risk of severe personal injury.
<i>New!</i>	New Content	Displayed next to new content. This is searchable text within the PDF.

Table 2: Text Conventions

Convention	Description
Screen displays	This typeface indicates command syntax, or represents information as it appears on the screen.
The words enter and type	When you see the word “enter” in this guide, you must type something, and then press the Return or Enter key. Do not press the Return or Enter key when an instruction simply says “type.”
[Key] names	Key names are written with brackets, such as [Return] or [Esc] . If you must press two or more keys simultaneously, the key names are linked with a plus sign (+). Example: Press [Ctrl]+[Alt]+[Del]
<i>Words in italicized type</i>	Italics emphasize a point or denote new terms at the place where they are defined in the text. Italics are also used when referring to publication titles.

Terminology

When features, functionality, or operation is specific to a switch family, such as ExtremeSwitching, the family name is used. Explanations about features and operations that are the same across all product families simply refer to the product as the switch.

Providing Feedback to Us

Quality is our first concern at Extreme Networks, and we have made every effort to ensure the accuracy and completeness of this document. We are always striving to improve our documentation and help you work better, so we want to hear from you! We welcome all feedback but especially want to know about:

- Content errors or confusing or conflicting information.
- Ideas for improvements to our documentation so you can find the information you need faster.
- Broken links or usability issues.

If you would like to provide feedback to the Extreme Networks Information Development team, you can do so in two ways:

- Use our short online feedback form at <https://www.extremenetworks.com/documentation-feedback/>.
- Email us at documentation@extremenetworks.com.

Please provide the publication title, part number, and as much detail as possible, including the topic heading and page number if applicable, as well as your suggestions for improvement.

Getting Help

If you require assistance, contact Extreme Networks using one of the following methods:

Extreme Portal	Search the GTAC (Global Technical Assistance Center) knowledge base, manage support cases and service contracts, download software, and obtain product licensing, training, and certifications.
The Hub	A forum for Extreme Networks customers to connect with one another, answer questions, and share ideas and feedback. This community is monitored by Extreme Networks employees, but is not intended to replace specific guidance from GTAC.
Call GTAC	For immediate support: 1-800-998-2408 (toll-free in U.S. and Canada) or +1 408-579-2826. For the support phone number in your country, visit: www.extremenetworks.com/support/contact

Before contacting Extreme Networks for technical support, have the following information ready:

- Your Extreme Networks service contract number and/or serial numbers for all involved Extreme Networks products
- A description of the failure
- A description of any action(s) already taken to resolve the problem
- A description of your network environment (such as layout, cable type, other relevant environmental information)
- Network load at the time of trouble (if known)

- The device history (for example, if you have returned the device before, or if this is a recurring problem)
- Any related RMA (Return Material Authorization) numbers

Subscribing to Service Notifications

You can subscribe to email notifications for product and software release announcements, Vulnerability Notices, and Service Notifications.

- 1 Go to www.extremenetworks.com/support/service-notification-form.
- 2 Complete the form with your information (all fields are required).
- 3 Select the products for which you would like to receive notifications.



Note

You can modify your product selections or unsubscribe at any time.

- 4 Click **Submit**.

Documentation and Training

To find Extreme Networks product guides, visit our documentation pages at:

Current Product Documentation	www.extremenetworks.com/documentation/
Archived Documentation (for earlier versions and legacy products)	www.extremenetworks.com/support/documentation-archives/
Release Notes	www.extremenetworks.com/support/release-notes
Hardware/Software Compatibility Matrices	https://www.extremenetworks.com/support/compatibility-matrices/
White papers, data sheets, case studies, and other product resources	https://www.extremenetworks.com/resources/

Training

Extreme Networks offers product training courses, both online and in person, as well as specialized certifications. For more information, visit www.extremenetworks.com/education/.

1 Introduction

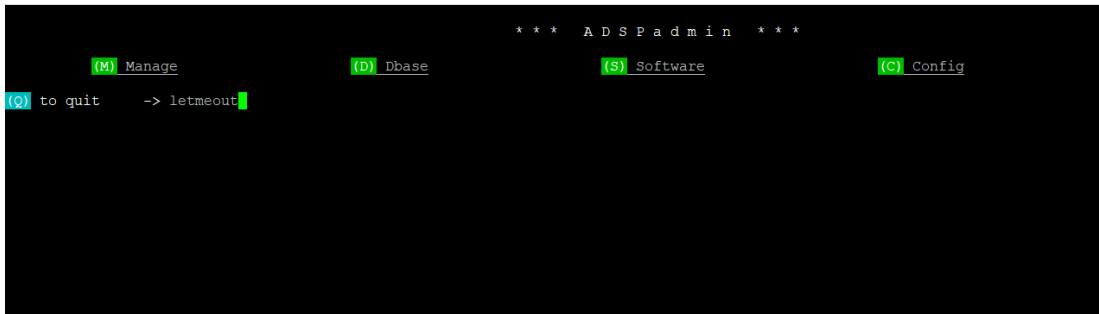
This document describes a method to decrease your device polling time significantly.

The AirDefense server polls your controllers to retrieve devices (APs, BSSs and Wireless Clients) that need to be authorized by the server. This polling information is required for WIPS to work as intended. In large and very large wireless deployments, the wireless controllers are heavily loaded and their response time for SNMP queries from AirDefense servers was found to be inordinately long. To optimize this query process and to reduce the wireless controller's response time to the SNMP queries, these queries have been optimized and fine tuned.

2 Optimize SNMP Polling

To optimize SNMP Polling:

- 1 Login to your WIPsAdmin CLI user interface using the `smxmgr` credentials.
- 2 On successful login, type the command `letmeout` in the **(Q) to quit** prompt.



```
*** ADSPAdmin ***
(M) Manage      (D) Dbase      (S) Software    (C) Config
(Q) to quit    -> letmeout
```

You will exit out of the WIPsAdmin CLI interface and into the underlying operating system's command prompt.

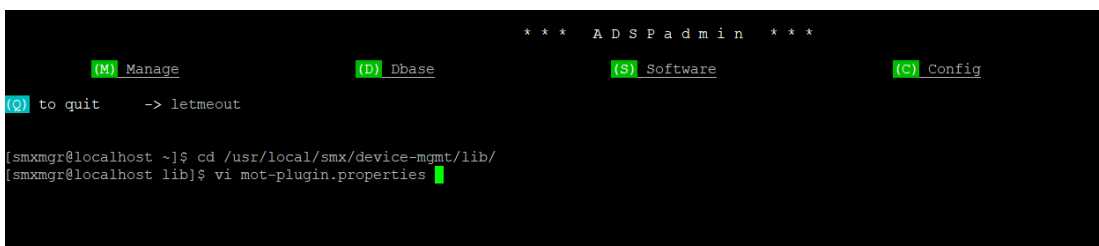
- 3 At the command prompt, navigate to the folder (directory) named `/usr/local/smx/device-mgmt/lib`.



```
*** ADSPAdmin ***
(M) Manage      (D) Dbase      (S) Software    (C) Config
(Q) to quit    -> letmeout

[smxmgr@localhost ~]$ cd /usr/local/smx/device-mgmt/lib/
[smxmgr@localhost lib]$
```

- 4 Open the file `mot-plugin.properties` in your favourite text editor.
For the purpose of this document, we use the `vi` editor that is included in most Unix based systems.



```
*** ADSPAdmin ***
(M) Manage      (D) Dbase      (S) Software    (C) Config
(Q) to quit    -> letmeout

[smxmgr@localhost ~]$ cd /usr/local/smx/device-mgmt/lib/
[smxmgr@localhost lib]$ vi mot-plugin.properties
```

- 5 In the above file, search for the string `pollingOptimization` and locate it.
This option is indicated in this image.


```
! This is for WS2K
com.mot.wlan.wsp.mgmt.mot.plugin.ws2000.ProvWS2000CLIHelper.firmwareDownloadTimeoutWS2KInMinutes=7

! This is for WING4 and MAP devices
com.mot.wlan.wsp.mgmt.mot.plugin.ws5100.ProvWIOSCLIHelper.loadFirmwareTimeoutWIOSInMinutes=330

! This is for WS5100 V2 devices
com.mot.wlan.wsp.mgmt.mot.plugin.ws5100v2.ProvWS5100V2CLIHelper.loadFirmwareTimeoutWS5100V2InMinutes=9

! This is for Firmware Upgrades's task timeout in milli-seconds
com.mot.wlan.wsp.mgmt.server.DeviceTaskManager.FWUpdateHandler.maxTime=43200000

! Firmware Provisioning Manager Properties End
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

! The VLAN id to use when firewall rule specifies any
com.mot.wlan.wsp.mgmt.mot.plugin.map.MapPlugin.FirewallMACRuleAnyVLANID=1002

! Retries for MAP devices
com.mot.wlan.wsp.mgmt.mot.plugin.map.MapConfigHandler.rebootRetryCount=25
com.mot.wlan.wsp.mgmt.mot.plugin.map.MapConfigHandler.rebootRetrySleep=10000

! Timeout to download running configuration
com.mot.wlan.wsp.mgmt.mot.plugin.map.MapCliHelper.getConfigTimeout=180000
com.mot.wlan.wsp.mgmt.mot.plugin.common.cli.WIOSCLIHelper.getConfigTimeout=180000
com.mot.wlan.wsp.mgmt.mot.plugin.map.MapConfigHandler.postRebootSleep=800000

! To enable polling optimization for Wing Controller/Switches
com.mot.wlan.wsp.mgmt.mot.plugin.map.MapSnmHandler pollingOptimization=false

! Defect 107220 changes
com.mot.wlan.wsp.mgmt.server.DeviceTaskManager.CollectionHandler.maxTime=10800000
com.mot.wlan.wsp.mgmt.server.Discovery.discovery.maxTime=10800000
! Defect 107220 changes end
```

By default, the value for this option is set to *false*.

Change this value from *false* to *true* as shown in this image.

```
! Timeout to download running configuration
!
com.mot.wlan.wsp.mgmt.mot.plugin.map.MapCliHelper.getConfigTimeout=180000
com.mot.wlan.wsp.mgmt.mot.plugin.common.cli.WIOSCLIHelper.getConfigTimeout=180000

com.mot.wlan.wsp.mgmt.mot.plugin.map.MapConfigHandler.postRebootSleep=800000
!
! To enable polling optimization for Wing Controller/Switches
!
com.mot.wlan.wsp.mgmt.mot.plugin.map.MapSnmHandler pollingOptimization=true

! Defect 107220 changes
com.mot.wlan.wsp.mgmt.server.DeviceTaskManager.CollectionHandler.maxTime=10800000
com.mot.wlan.wsp.mgmt.server.Discovery.discovery.maxTime=10800000
```

6 Save the file.

In the *vi* editor, the command to save and quit is `:wq!`.

The file is saved and you are taken back to the operating system's command prompt.

7 Type the command `WIPsadmin` in the command prompt to launch WIPsAdmin CLI interface.

- 8 Select (M) anage option.

The following screen displays.

```
*** ADSPadmin ***  
  
(M) Manage  
  
(STATUS) Display system status  
(SYSLOG) Gather system logs  
(TRIMLOG) Trim system logs if too big  
(ADMU) Reset admin user  
(PASSWD) Change smxmgr command line user password  
(WHITELIST) Manage UI/SSH whitelist  
(RESTART) Restart ADSP processes  
(REBOOT) Reboot system  
(HALT) Halt system  
  
(Q) to quit -> restart
```

- 9 Type restart in the (Q) to quit prompt.

The AirDefense server is restarted.

Once the AirDefense server restarts, login to the graphical user interface (GUI) and import or discover your wireless controllers again.