



# WSMA Enhancements for Wireless Management

Web Services Management Agent (WSMA) Enhancements for Wireless Management feature allows you to reduce the reconnecting rates in an outage when device connections to the management server on wireless networks are disconnected unexpectedly. This feature also allows you to implement payload compression to optimize the bandwidth usage.

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## Finding Feature Information

Your software release may not support all the features documented in this module. For the latest caveats and feature information, see [Bug Search Tool](#) and the release notes for your platform and software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the feature information table at the end of this module.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to [www.cisco.com/go/cfn](http://www.cisco.com/go/cfn). An account on Cisco.com is not required.

## Restrictions for WSMA Enhancements for Wireless Management

- Only Web Services Management Agent (WSMA) EXEC response provides compression on demand.
- WSMA must provide support to all transport protocols including Secure Shell (SSH), Transport Layer Security (TLS), HTTP, HTTPS, and other TCP protocols.

- WSMA does not use the option to support gzip compression for HTTP.

# Information About WSMA Enhancements for Wireless Management

## Smart Back-off Reconnect Support

In a network outage, thousands of devices on the same wireless network (for example, Smartgrids) try to reconnect to the Network Management Server (NMS) at the same time. However, only limited number of devices can reconnect successfully on the first reconnect and subsequent retries. This results in high billings of some devices that fail to reconnect.

Web Services Management Agent (WSMA) enhancements for wireless management allows you to reduce the reconnecting rates with smart back-off reconnect policy by enhancing the existing **reconnect** command.

## EXEC Agent–Response Payload Compression Support

The WSMA EXEC Agent enhancement allows you to optimize the payloads on wireless networks whenever possible to optimize bandwidth usage.

A new optional compression XML attribute in the WSMA EXEC request and WSMA EXEC response supports the new response payload compression feature. By default, there is no payload compression if the new compression XML attribute is not specified in the WSMA EXEC request.

# How to Configure Smart Back-off Reconnect

## Configuring Smart Back-off Reconnect

### SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **wsma profile initiator** *profile-name*
4. **reconnect** [*pause-time* [*exponential-backoff-factor* [**random**]]]
5. **end**

### DETAILED STEPS

	Command or Action	Purpose
Step 1	<b>enable</b>	Enables privileged EXEC mode.

	Command or Action	Purpose
	<b>Example:</b> Device> enable	<ul style="list-style-type: none"> <li>• Enter your password if prompted.</li> </ul>
<b>Step 2</b>	<b>configure terminal</b>  <b>Example:</b> Device# configure terminal	Enters global configuration mode.
<b>Step 3</b>	<b>wsma profile initiator <i>profile-name</i></b>  <b>Example:</b> Device(config)# wsma profile initiator profl	Creates a service initiator and enters WSMA initiator configuration mode.
<b>Step 4</b>	<b>reconnect [<i>pause-time</i> [<i>exponential-backoff-factor</i> [<i>random</i>]]]</b>  <b>Example:</b> Device(config-wsma-init)# reconnect 130 3 random	(Optional) Specifies the time for the WSMA initiator profile to wait before attempting to reconnect a session.
<b>Step 5</b>	<b>end</b>  <b>Example:</b> Device(config-wsma-init)# end	Ends the current configuration session and returns you to privileged EXEC mode.

## Configuration Examples for WSMA Enhancements for Wireless Management

### Example: Configuring the Smart Back-off Reconnect

The following example shows how to configure a smart back-off reconnect policy:

```
Device> enable
Device# configure terminal
Device(config)# wsma profile initiator smartgrid
Device(config-wsma-init)# reconnect 130 4 random
Device(config-wsma-init)# end
```

## Additional References for WSMA Enhancements

### Related Documents

Related Topic	Document Title
Cisco IOS commands	<a href="#">Cisco IOS Master Command List, All Releases</a>
WSMA commands	<a href="#">Cisco IOS Web Services Management Agent Command Reference</a>

### Technical Assistance

Description	Link
The Cisco Support and Documentation website provides online resources to download documentation, software, and tools. Use these resources to install and configure the software and to troubleshoot and resolve technical issues with Cisco products and technologies. Access to most tools on the Cisco Support and Documentation website requires a Cisco.com user ID and password.	<a href="http://www.cisco.com/cisco/web/support/index.html">http://www.cisco.com/cisco/web/support/index.html</a>

## Feature Information for WSMA Enhancements for Wireless Management

The following table provides release information about the feature or features described in this module. This table lists only the software release that introduced support for a given feature in a given software release train. Unless noted otherwise, subsequent releases of that software release train also support that feature.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to [www.cisco.com/go/cfn](http://www.cisco.com/go/cfn). An account on Cisco.com is not required.

**Table 1: Feature Information for Web Services Management Agent**

Feature Name	Releases	Feature Information
WSMA Enhancements for Wireless Management	15.4(1)T Cisco IOS 15.2(2)E	<p>Web Services Management Agent (WSMA) Enhancements for Wireless Management feature allows you to reduce the reconnecting rates in an outage when device connections to the management server on wireless networks are disconnected unexpectedly. This feature also allows you to implement payload compression to optimize the bandwidth usage.</p> <p>In Cisco IOS 15.2(2)E, this feature is supported on the following platforms:</p> <ul style="list-style-type: none"> <li>• Catalyst 4500-X Series Switches</li> <li>• Catalyst 3750</li> <li>• Catalyst 3850</li> <li>• Catalyst 2960</li> <li>• Catalyst XE-4500 Series Switches</li> <li>• Catalyst 5700 Wireless Controllers</li> <li>• Catalyst 3650 Series Switches</li> </ul> <p>The following command was modified: <b>reconnect</b>.</p>

