



# Scaling 3WXM for Large Deployments

## Current Limits

In Release 6.0 and prior, a single 3WXM server supports a maximum of 64 switches or 1000 Access Points, whichever limit is reached first. To manage such large deployments you can tune or disable polling options. If all log, client session, rogue, and traffic statistics polling is disabled a single 3WXM server has been tested to support up to 500 WXR-100 sized devices for all configuration management and basic monitoring features.

To manage even larger networks, you will need to deploy additional 3WXM servers. The typical model is to have a server manage a “region” or logical group of switches.

## Hardware & OS

For large deployments, the server must be installed on an adequate machine. Here is a typical and recommended configuration:

### **Dell PowerEdge 2950:**

*Primary Processor:* Dual Core Intel® Xeon® 5130

*Additional Processor:* Dual Core Intel® Xeon® 5130

*Memory:* 4GB 667MHz (4x1GB)

*Operating System:* Windows Server® 2003 R2, Standard Edition (32 bit)

*Note: 64-bit operating systems are not recommended due to performance and memory issues. If a 64-bit processor is used, be sure to install or configure the operating system to run in 32-bit mode.*

## Server Settings

The following settings must be adjusted after 3WXM is installed. The installer may overwrite some settings with default values; hence these must be reset after each installation. Once these changes are made, the server must be restarted.

### **Memory**

During installation, set the server memory to 1536MB, and set the client memory to 512 MB.

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## Thread Count

By default, the server allocates 20 threads for device communication. For scaled deployments, the server thread count should be calculated as  $1.5 \times$  (number of WX devices) or a maximum of 200, and the lower value used for the thread count.

**Note:** A higher thread count increases CPU and memory usage and for lower performance computers, this can cause degradation in performance.

To configure thread count, locate the services-conf.xml file in the <installdir>/conf/ directory on the 3WXM server. Then edit this file and replace the string ‘threads=”20”’ with ‘threads=”N”’ where N is the calculated thread count.

## Polling Settings

Locate the polling settings under Setup>Monitoring Settings on the 3WXM server’s web interface:

1. Change the Status Polling Interval to 60 minutes
2. Disable Log Monitor
3. Disable RF & Traffic Trending
4. Disable Rogue Detection Polling

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**3COM 3Com Wireless Switch Manager 6.0**

Home **Setup** Plan Management Reports

Server Settings  
Licensing  
Access Control  
WX Configuration Settings  
**Monitoring Settings**

**Monitoring Settings**

**Status Monitor**  
Polling Interval (Minutes)

**Log Monitor**  
Enable Log Monitoring   
Polling Interval (Minutes)   
Entries per WX

**Client Monitor**  
Enable Client Session Collection   
Polling Interval (Minutes)

**RF & Traffic Trending**  
Enable RF & Traffic Trending   
Polling Interval (Minutes)   
Use selected hours for daily averages   
Start hour   
End hour

**RF Threshold Settings**

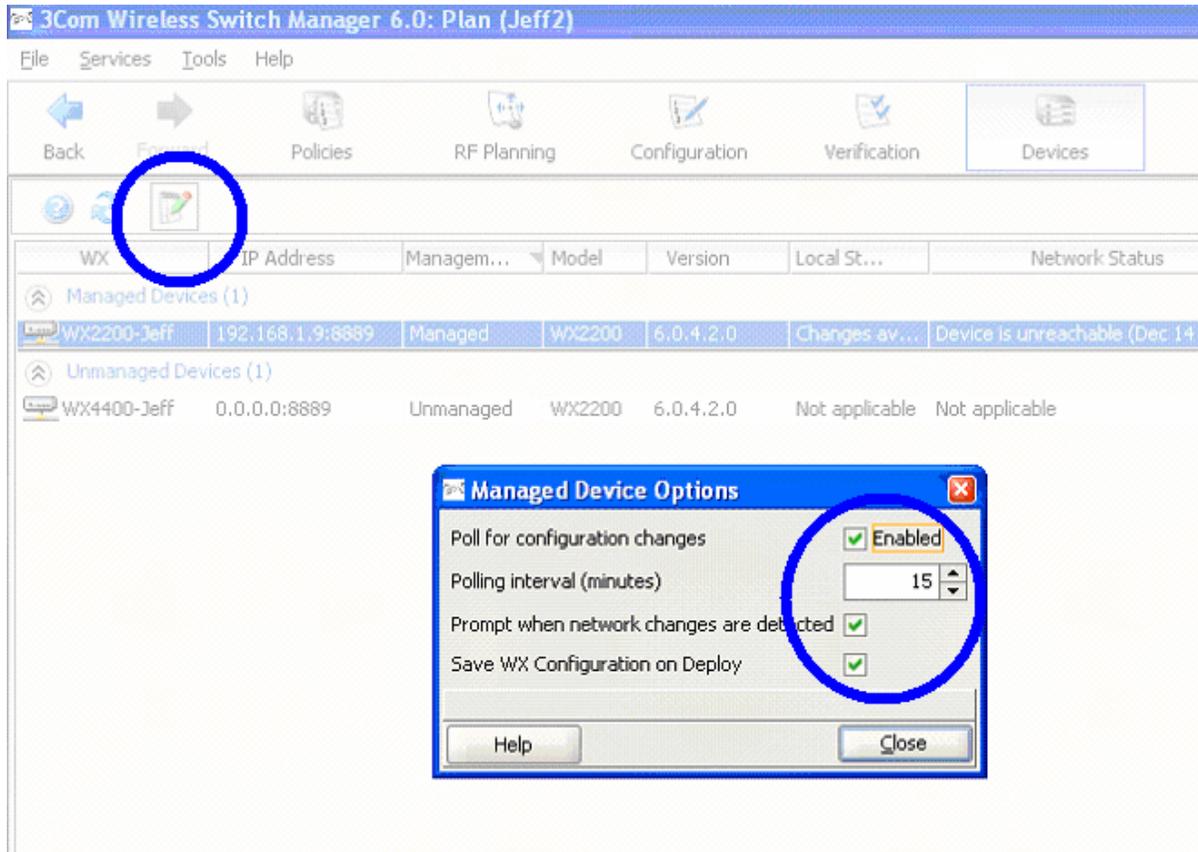
Radio Retransmit Rate (%)	<input type="text" value="10"/>	Radio Utilization (%)	<input type="text" value="80"/>
Radio Noise Floor (dBm)	<input type="text" value="-85"/>	Low Radio SNR (dB)	<input type="text" value="15"/>
Low Radio RSSI (dBm)	<input type="text" value="-75"/>	Number of Clients per Radio	<input type="text" value="15"/>

**Rogue Detection**  
Enable Rogue Detection   
Polling Interval (Minutes)

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Launch the 3WXM client and navigate to the “Devices” panel. Click on the “Options” icon on the toolbar (looks like a notepad with a pencil):

Change Device Configuration Polling interval to 60 minutes.



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