

# Juniper Networks WX Central Management System (CMS) Software

## for WX and WXC Application Acceleration Platforms



The “My WAN” monitoring portal provides IT with a customized view of the health and performance of all deployed WX and WXC platforms.



Trend reports provide performance projections for a future time period based on past performance in any selected data range.

The WX™ Central Management System™ (CMS™) software from Juniper Networks offers a powerful, intuitive solution for centrally managing, monitoring, and configuring Juniper WX™ and WXC™ application acceleration platforms distributed throughout an enterprise. Running on Microsoft Windows 2000 and 2003 servers, the WX CMS software supports multiple versions of the WX Operating System (WXOS™) software and can be accessed securely from any compatible browser connection via HTTPS.

The WX CMS software provides unprecedented visibility into how applications are performing over the WAN, offering detailed information about traffic patterns, bandwidth consumption, and other performance trends that IT can use to maximize WAN resources.

The monitoring software also helps IT learn how users and applications are interacting over the WAN, reporting on bandwidth consumption, top talkers, and how Quality of Service (QoS) policies are impacting overall application throughput. Armed with this insight, IT can quickly pinpoint trouble spots, determine whether the WAN is at fault, and drill down to identify and resolve problems.

The WX CMS software also provides visibility into each element of the WX Framework, which defines the attributes required to accelerate application performance over the WAN. With the WX CMS software, IT can manage additional WAN capacity created by Molecular Sequence Reduction™ (MSR™) and Network Sequence Mirroring™ (NSM™) technologies, see the impact that Packet Flow Acceleration™ (PFA™) and Application Flow Acceleration™ (AppFlow™) technologies have on application performance, allocate bandwidth and prioritize applications through QoS, and direct applications over multiple WAN links with the Policy-based Multipath™ feature.

### WX CMS Software Features

The WX CMS software provides the following benefits for any deployment of multiple Juniper WX and WXC application acceleration platforms:

- **Provides multi-level visibility into WAN applications and performance:** Offering thirty-six reports in total, the WX CMS software provides IT with a complete view into what is happening on their WAN links while support for role-based views enables IT to offer segmented views into WX CMS reports for different types of users.

Executive Summary reports provide an at-a-glance view of key traffic, performance, and reduction results. The “My WAN™” portal allows IT staff to create customized views into the performance metrics of devices and sites they want to focus on – including application mix, bandwidth consumption, and application performance – to enable quick problem diagnosis and troubleshooting. Drill-down reports are available by site, device, and link to view details on WAN throughput, path monitoring, top talkers, and other statistics. Application Acceleration Summary reports bring together all optimization metrics for application traffic between two locations. Trend reports based on WAN throughput, volume by application, WAN latency, WAN loss, and QoS traffic class enable capacity planning and network resource optimization.

- Supports global policies and monitoring:** The WX CMS software allows network managers to centrally manage and modify global configuration settings on all WX and WXC devices. IT can also monitor all WX and WXC platforms, with status reports providing at-a-glance summaries of device health, configuration status, and compression and acceleration statistics.
- Enables granular user access control:** CMS administrators can now provide tiered access privileges and granular access control to WX CMS reports and device configuration functions. The WX CMS software allows devices to be segmented into multiple groups for access control and reporting purposes. Support for customizable user roles enable IT to define what management functions the user has access to, which configurations it can view, and which devices they can access. A set of pre-defined user roles are available but new user roles can be created and customized as needed. Pre-defined role-based views enable the administrator to segment data views on a per user basis, allowing both a management view and a 'read-only' view of WAN and application performance for users. The WX CMS software also supports the Microsoft Active Directory Schema for remote authentication and authorization. Leveraging this feature allows IT to ensure that authorizations in Active Directory/LDAP are used to enforce tiered access to WX CMS functionalities.
- Centralizes and simplifies platform configuration:** The WX CMS software represents a single point from which to manage as many as 2,000 Juniper WX and WXC application acceleration platforms. IT can leverage the WX CMS software to schedule key upgrade and management tasks as well as to perform updates such as rolling out new software revisions to all devices at once. Device configuration publishing gives IT access control over distinct WX device configurations by allowing IT to create a device configuration and publish that configuration to a single or multiple user groups.
- Automates deployment and license management:** Using the WX CMS software, IT can automate configuration of remote WX and WXC devices, greatly simplifying the set-up of tens or hundreds of distributed platforms. IT can also use the WX CMS software to automate license management, simplifying the administration of a large deployment.
- Automates critical provisioning and management functions:** The WX CMS software enables large pervasive deployments of the WX and WXC devices by automating management tasks. Tasks can be scheduled for an entire community or device group. IT simply adds tasks to a pre-defined device group and all scheduled tasks will be executed, eliminating the need to manually schedule ongoing tasks such as collecting configuration backups and diagnostics when new WX/WXC devices are added to the network. Additionally, all thirty-six reports available in the WX CMS software can be scheduled for delivery via email as a PDF. Reports can be delivered immediately to a pre-defined set of users or scheduled to be sent on a recurring basis. IT can also customize the email text that will accompany the attached report(s).
- Simplifies multi-customer management:** Using Network Address Translation (NAT), managed service providers (MSPs) can easily manage multiple customers using a single WX CMS platform to keep the costs of providing that service low and continue to offer high-margin, high-value services to their customers. NAT support allows the service provider to manage WX and WXC devices in a customer's private IP address space while maintaining the WX CMS management platform in their own management network. Using NAT, even though there may be overlapping IP address spaces in these customer networks, each customer network can still be managed as a discrete unit.



The WX CMS software is a powerful tool that provides easy, centralized configuration, management, and monitoring of WX and WXC application acceleration platforms.

## Key Features

Configuration and Ongoing Management	
Full centralized configuration:	Dramatically simplifies large deployments
Configuration templates:	Enables quick replication to dozens or hundreds of WX and WXC platforms
Reuse deployed configurations:	Helps in rapid deployment of new WX and WXC devices
View and compare configurations:	Line-by-line comparison highlights differences
Track configuration changes:	Simplifies troubleshooting
Device configuration publishing:	Provides access control for distinct WX device configurations to a single or multiple user groups
Automated deployment:	Requires remote site to provide only power, Ethernet, and DHCP
Device software upgrades:	Easily and quickly roll out new features to full deployment
Scheduling of tasks:	On a one-time or recurring basis for tasks such as software updates, configuration changes, and configuration backups and diagnostics
Report scheduling and distribution via email:	Automates email delivery of any of the thirty-six reports available in WX CMS software to a pre-defined set of users on a one-time or recurrent basis
NAT support:	Despite overlapping IP address spaces, support for NAT enables managed service providers to manage WX and WXC devices in a customer's private IT address space while maintaining the WX CMS software in their own network
Monitoring and Reporting	
Reporting:	Thirty-six reports are available in WX CMS software
Application acceleration summary report:	Brings together all optimization metrics for application traffic between two locations without requiring accessing reports from two devices
Trend reports for capacity planning and network resource optimization:	Trend reports can be generated by WAN throughput, volume by application, WAN latency, WAN loss, and QoS traffic class
View feature status:	Per device, per application, with a global view of all reduction, acceleration, and QoS statistics
View top talkers:	By user, device, and subnet
At-a-glance device status:	Shows current status, features enabled, any errors
Automatic data collection:	Polls for statistics on traffic, reduction, QoS, and acceleration results
Storage of monitoring data:	Up to one year
Security	
Multiple access levels:	Three: administrator, read/write, read-only
SSL to WX and WXC devices:	Ensures secure device administration
Configurable port number for remote access:	Allows changing port number from "80" to any user-chosen value
Access lists for remote access:	Include and exclude lists for IP addresses that can access CMS software
User/group access control:	Allows granular access to individual devices or groups of devices
Remote AAA integration with Microsoft Active Directory Schema:	Ensures that authorizations in Active Directory/LDAP are used to enforce tiered access to WX CMS functionalities

## WX Central Management System (CMS) Software

Requirements and Scalability				
<b>Platform:</b>	Microsoft Windows Server 2003 or Windows Server 2000 Server Service Pack 3 or 4 (cannot be a Domain Controller)			
<b>Web browser:</b>	IE 6.0 or later			
<b>Number of simultaneous users:</b>	50			
<b>Number of platforms:</b>	2,000			
<b>Supported devices:</b>	All platforms running WXOS v5.x or higher			
	<b># Devices</b>	<b>Pentium 4 CPU (GHz)</b>	<b>RAM</b>	<b>Disk Space (GB)</b>
	Under 100	2.0+	768 MB	40+
	100-500	2.8+	1.5 GB	60+
	500-1000	3.0+	2.0 GB	80+
	1000-1500	3.2+	3.0 GB	100+
	1500-2000	3.2+ dual CPU	4.0 GB	120+



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