

Extreme Control Center

(Formerly NetSight®) End-to-end application visibility and control.

HIGHLIGHTS

BUSINESS ALIGNMENT

- Transform complex network data into business-centric, actionable information
- Centralize and simplify the definition, management, and enforcement of policies such as guest access or personal devices
- Easily integrate with business apps with Software Defined Networking

OPERATIONAL EFFICIENCY

- Reduce IT administrative effort with the automation of routine tasks and web-based dashboard
- Streamline management with the integration of wired and wireless networks
- Easily enforce policies network-wide for QoS, bandwidth, etc.
- Troubleshoot with the convenience of a smart phone or tablet
- Integrate with enterprise management platforms

SECURITY

- Protect corporate data with centralized monitoring, control, and real-time response
- Enhance existing investments in network security
- Preserve LAN/WLAN network integrity with unified policies

SERVICE AND SUPPORT

- Industry-leading first call resolution rates and customer satisfaction rates
- Personalized services, including site surveys, network design, installation and training



- Unified LAN/WLAN management system simplifies tools and automates management tasks across the entire infrastructure
- Easy policy enforcement, network-wide, ensures the availability of network resources for today's bandwidth intensive applications
- Highly automated capabilities avoid time-consuming manual tasks for consistency and increased efficiency
- Specialized identity and access management for visibility and control of users' devices
- Anytime, anywhere management from popular mobile devices for the fastest response times

Product Overview

Extreme Control Center's rich set of integrated management capabilities provides centralized visibility and highly efficient anytime, anywhere control of enterprise wired and wireless network resources. Control Center is distinguished by web-based OneView, the unified control interface. Graphical and exceptionally easy-to-use, OneView simplifies troubleshooting, help desk support tasks, problem solving and reporting. It's Identity and Access interface provides specialized visibility and control for the exploding number of managed and unmanaged devices connecting to today's networks.

Control Center is distinctive for granularity that reaches beyond ports, VLANs and SSIDs down to individual users, applications, and protocols. Control Center increases efficiency, enabling IT staff to avoid time-consuming manual device-by-device configuration tasks. Control Center fills the functionality gap between traditional element managers that offer limited vendor-specific device control, and expensive, complex enterprise management applications. Control Center is a key component of ExtremeControl, Extreme Networks' predictive network management solution for end to end application delivery.

Control Center, with wireless management, is the foundation for centrally monitoring and managing all the components in the infrastructure. Control Center enables the network infrastructure to be viewed as a unified whole rather than as a collection of disparate individual components. It transforms complex network data into graphical, business-centric information making the network less complicated and better aligned with business requirements.

With its distributed client/server architecture, Control Center is exceptionally convenient to use. A user with appropriate security credentials anywhere on the network can access a launch page and log into any of the Control Center capabilities. Control Center simplifies routine and one-time tasks such as reconfiguring switches and access points, monitoring network performance, and isolating faults. It takes advantage of advanced functionality in Extreme Networks switching, routing, and wireless products including topology maps, FlexViews (graphical depictions of a broad range of network parameters), VLAN management, device discovery, and event logging.

CAPABILITY	BENEFITS
Control Center with Wireless Management Graphically displays aggregated wired and wireless network information for centralized and simplified management of all infrastructure components as a single system	<ul style="list-style-type: none"> • Combines WLAN/LAN management for greater IT operational efficiency • Facilitates communication and alignment between IT and line of business • Adds value to existing management platforms • Reduces total cost of ownership
Policy Management Automates the definition and enforcement of network-wide policy rules controlling QoS, priority, bandwidth, and security	<ul style="list-style-type: none"> • Fully aligns the network infrastructure with business objectives • Simplifies policy lifecycle management easing IT burden • Reduces troubleshooting time • Minimizes risk of disruptions
Identity and Access Specialized OneView interface provides easy-to-use, exceptionally detailed information about connected end systems	<ul style="list-style-type: none"> • Enables efficient control in the BYOD environment • Visibility and policy enforcement end-to-end • Monitors and manages risk from unmanaged devices • Ensures network availability and performance
Automated Security Management Integrates with Extreme Networks IPS, NAC, SIEM, and other third party security appliances to respond automatically and remediate threats in real-time	<ul style="list-style-type: none"> • Protects corporate data and ensures network availability • Ensures response actions are policy-based and executed consistently • Reduces IT staff burden and costs
Network Access Control Management Manages the Identity and Access Control solutions providing granular control over users and applications, and featuring a high-level dash-board view of the complete security posture	<ul style="list-style-type: none"> • Ensures that only the right users have access to the right information from the right place and time • Maintains guest/contractor and user productivity • Simplifies end-system compliance monitoring and reporting • Delivers quick time to value
Inventory Management Automates management of device configurations and provides tools to capture, modify, load, and verify configurations	<ul style="list-style-type: none"> • Provides network control and better efficiency • Streamlines IT operations and enhances staff productivity • Enables audit efficiency and cost savings
OneView Unified web-based interface and fine-grained interactive search for network analysis, problem solving, help desk visibility and reporting	<ul style="list-style-type: none"> • State-of-the-art graphics reporting and topology displays enable efficiency and more effective communications • Simplifies troubleshooting, help desk support tasks, problem solving across wireless and wired networks • Streamlines wireless management
Mobile Management Optimizes network management and help desk troubleshooting with anywhere, anytime access to critical information using popular mobile devices	<ul style="list-style-type: none"> • Prevents loss of user productivity • Most responsive network management

OneView

Extreme Networks Control Center unifies all the capabilities under one web-based control interface. With OneView, critical network information is accessible and easy to use. This powerful tool enables both managers and technical staff to be more efficient in their monitoring, reporting, analysis, troubleshooting and problem solving tasks.

Highlights among the OneView capabilities include: wired/wireless dashboards, detailed identity and access information, reports, interactive topology maps, web-based FlexViews, device views and alarm and event management for the entire infrastructure. NetFlow diagnostics are incorporated into OneView enabling diagnosis of network issues and performance through real-time NetFlow analysis.

The OneView wireless dashboard streamlines network monitoring with consolidated status of all the devices and drill down ability for more details. State-of-the-art reporting provides historical and real-time data for high level network summary information and/or details. The reports and other views are interactive allowing users to choose the specific variables they need when analyzing data. Web-based FlexViews enable real-time diagnostics.

OneView's identity and access interface provides a dashboard summary of all connected systems with interactive charts and graphs for further details. Additional dashboards show information about the systems and appliances, and the health status of connected end systems. A unique end system view contains all the available details about connected systems

solving a range of IT issues from troubleshooting user access to quickly identifying types devices (i.e. Windows, MAC, Android, IOS) and how they authenticated to the network.

OneView's search functionality is a powerful diagnostic tool. End systems are searchable by port, MAC address and IP or IP/Port. The results page provides an interactive topology map consolidating all the data sources available for that location such as performance data, NetFlow data and network access control data. Troubleshooting is simple and efficient with all the data in one graphical and easy to use page.

Wireless Management

Wireless management is integrated into Control Center providing a single launch point for wired/wireless management and common management functionality. Control Center's integrated wired/wireless management, streamlines IT effort and lowers costs. Configuration changes are specified and deployed in minutes rather than hours. A single administrator can manage significantly more users and devices by utilizing the inherent automation features in Control Center.

The OneView interface enables highly efficient monitoring, analysis and troubleshooting. For wireless management, OneView features coverage maps, location maps, wireless summary dash-boards, reports, topology display for end-system troubleshooting and wireless client statistics analysis and reporting. The OneView wireless management information available with mobile management makes control easy and responsive with the convenience of a smart phone or tablet.

Policy Management

Control Center policy management centralizes all the policies for users, applications, protocols, VLANs, ports, and data flows. It automates the definition, distribution, and enforcement of policy rules across the entire network. With an intuitive user interface, administrators can define policies once and then automatically enforce them on Extreme Networks policy enabled infrastructure devices.

Unified wired/wireless policy management consolidates user access to protect IT services. Policy management defines global user policies, dynamically updates and continuously enforces policy across wired and wireless environments. Packets are inspected and filtered at the AP and admitted or blocked based on the user's policy. Policy also controls topology management, traffic flows and unlimited Class of Service for wireless controllers.

Policy is role-based, significantly streamlining policy administration. Individual users with similar behavior profiles, such as sales managers, executives, or guest users are grouped into a far smaller number of roles. Applying roles makes it far easier to align the net-work infrastructure with the business and control guest users, en-force regulatory mandates, and enforce acceptable use rules.

Policy management includes a unique tool for delegating limited administration controls to non-technical line of business users. From a secure web-based console, a delegated user such as a line of business manager, receptionist, or classroom instructor can easily select a policy to implement. Policies are enabled or disabled with a simple mouse click and changes are instantly acknowledged on the console.

Identity and Access Control Management

Identity and Access Control management combines with Identity and Access Control appliances or virtual appliances for a complete network access control solution, ensuring that only the right users have the right access to the right information from the right place at the right time. Identity and Access Control management software provides secure, policy-based management. From one, centralized location IT staff can configure and control the solution, simplifying deployment and on-going administration. The IP-to-ID Mapping capability binds together the username, IP address and MAC address, and physical port of each endpoint. Control Center reports this important information for audit or forensics analysis.

Control Center management provides additional value through its integration with other Control Center capabilities and Extreme Networks security products. For example, Identity and Access Control management with policy management enable "one click" enforcement of role-based policies. IP-to-ID Mapping is also used by ASM for location-independent distributed intrusion prevention and by Extreme's Security Information and Event Manager (SIEM) to pinpoint the source of the threat.

Inventory Management

Control Center inventory management efficiently documents and updates the details of the ever-changing network. It simplifies the deployment and management of Extreme Networks devices and supports basic configuration and firmware device management functions for popular third party devices. IT staff can easily perform a broad list of tasks including device administration on configuration files, schedule firmware updates, archive configuration data, or restore one or multiple devices to a known good state. Script-based configuration allows custom configuration scripts to be pushed to a set of devices. Control Center identifies unused ports and chassis slots and tracks moves, adds, and changes for Field Replaceable Units.

Inventory management also tracks configuration changes for Extreme Networks devices made by Control Center, third-party management applications, or the command line interface.

Automated Security Management

Automated Security Management is a unique threat response solution that translates security intelligence into security enforcement. It interoperates with the Extreme Networks Intrusion Prevention System (IPS) and third-party network security appliances to automate responses to security incidents, remediating threats in real-time. It ensures that corporate data is protected, secure, and available.

ASM executes policy-based rules, and when triggered, maps IP addresses to ports and takes assigned actions. The range of possible response actions is broad and configurable, including quarantining the user, disconnecting a wired or wireless client, or rate-limiting the traffic flow. Taking the action does not disrupt other users.

Combined with policy management functions and IPS, ASM provides sophisticated identification and management of threats and vulnerabilities. For example, when notified by the IPS, ASM can determine the exact source location of a threat, determine a response based on the security policy, and trigger the configured action on the network switch, access point or wireless controller.

Mobile Management

Control Center mobile management extends OneView™ optimizing network management and help desk troubleshooting with anywhere, anytime access to critical information using popular mobile devices such as Pad®, iPhone® and Android™ devices. Capabilities include: Identity and Access Control end-system view, system location and tracking, wireless dashboards; detailed views of controllers and APs; event logs, and wireless client search.

ExtremeControl SDK Connect

The SDK Connect API provides a simple, open, programmable and centrally managed way to implement Software Defined Networking (SDN) for any network. With SDK Connect, business applications can be directly controlled from the Control Center. The result is a complete SDN solution. More information is available in the SDK Connect Datasheet.

Extreme Control Center Features

IPV6

Control Center supports IPv6 management for IPv6 capable devices.

DEVICE DISCOVERY

A topology map is an automatically generated visual representation of network connectivity. Topology maps, encompassing integrated wired and wireless networks, provide network administrators with in-depth graphical views of device groupings, device links, VLANs, and Spanning Tree status. Color codes are used to indicate device status and SNMP/SNMPv3 or information traps are easily generated.

NETWORK TOPOLOGY MAPS

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FLEXVIEWS AND GRAPHING

Incorporating both wired and wireless systems, FlexViews are Con-sole tools that allow network support staff to view a broad range of network configuration parameters in graphical format—including tables, bar graphs, line graphs, and pie charts. FlexView data is searchable and sortable. For example, an administrator can use a FlexView to quickly determine the top instances of ports with sustained load over 30% across all networked devices. Console ships with predefined FlexViews that depict status and-configuration information for the entire network. An administrator can easily modify and apply filters to these predefined FlexViews, or create additional ones. FlexView data may also be exported in CSV, XML, and HTML formats.

REALCAPTURE

RealCapture allows the on-demand, real time collection of over-the-air traffic for troubleshooting and problem resolution. It gives IT administrators visibility into the RF environment for quicker problem resolution.

BASIC POLICY MANAGEMENT

Basic Policy Management allows users to view and configure port default policy for network attached devices. Use Basic Policy Management to view information about each port login session, including authentication type and authenticated user role.

COMPASS

Compass is an endpoint and user search tool that allows the user to quickly locate information pertaining to an individual network user or group of users across the integrated wired and wireless network. It provides searches by user name, switch authentication, physical location, MAC address, IP address, IP Subnet, and other parameters.

VLAN TOOLS

Console includes a set of VLAN management tools to simplify the system-wide deployment of VLAN configuration and monitoring capabilities. Using these tools a user can easily create VLAN con-figuration parameters which may be deployed automatically to mul-tiple devices or to groups of ports.

MIB BROWSER TOOLS

Console's Management Information Base (MIB) Browser allows the user to examine the SNMP MIB variables of network attached devices and set the values of writable MIB objects.

ALARMS AND EVENTS

Control Center provides advanced alarm management significantly reducing problem response time. Any event can be configured to create an alarm along with a color-coded severity scheme. Alarms may be configured based on statistical thresholds. Alarm actions such as emails or other notifications are completely configurable. Alarms are highly visible including at-a-glance alarm status integrated with existing displays and visual indicators in device status. Alarm information may be archived, exported, filtered or searched. Alarm clearing can be manual or automatic.

EASE OF INSTALLATION

All Control Center client-server applications are installed in a single step and the license key automatically determines which features are enabled. Product upgrades to add additional functionality are fast and straightforward. The Java®-based Control Center client application is automatically installed and launched by clicking on a URL and is automatically upgraded if not at the correct revision level. This ensures that the server and client are always in sync, and all installation and upgrades only need to be performed on the server. The Control Center client supports single sign-on so users are prompted just once for their authentication credentials across any of the Control Center capabilities. Permission consistency also limits user access to only authorized MIB information.

DATABASE BACKUPS

Administrators can schedule backups of the Control Center database for easier recovery.

FAILOVER

Control Center may be implemented in failover mode when it is deployed as a virtual machine. Leveraging VMware ESC and vCenter, an automatic failover based on hardware failure is provided if contact to the Control Center server is lost.

Deployment Flexibility

Control Center is typically downloaded and installed on enterprise server machines. It is also available as an appliance or virtual appliance for enterprises that seek the benefits of these other deployment alternatives.

Control Center Appliance- server with all capabilities pre-installed (activated via license keys) for enterprises that prefer the easy deployment of an appliance.

Control Center Virtual Appliance - virtual appliance with capabilities pre-installed (activated via license keys) for enterprises who wish to further leverage their virtualized environments. It provides all the benefits of the management suite with the advantages of a virtual environment - simple installation and cost savings from the use of existing hardware.

System Requirements

CONTROL CENTER SERVER AND CLIENT OS REQUIREMENTS

These are the operating system requirements for both the Control Center Server and remote Control Center client machines.

Windows (qualified on the English version of the operating systems)

Windows Server® 2003 w/ Service Pack 2 (64-bit & 32-bit)

Windows XP® w/ Service Pack 2 or 3 (32-bit only)

Windows Server® 2008 Enterprise (64-bit & 32-bit)

Windows Server® 2012 Enterprise (64-bit only)

Windows® 7 (64-bit & 32-bit)

Windows® 8 & 8.1 (64-bit & 32-bit)

Linux

Red Hat Enterprise Linux WS and ES v5 and v6 (64-bit & 32-bit)

SuSE Linux versions 10, 11, and 12.3 (64-bit & 32-bit)

Ubuntu 11.10 Desktop version

(32-bit, remote Control Center client only)

Ubuntu 11.10, 12.04, and 13.04 (64-bit)

Mac OS® X (remote Control Center client only)

Snow Leopard®

VMware® (64-bit Control Center Virtual Appliance)

VMware ESXi™ 4.0, 4.1, 5.0, 5.1, or 5.5 server

CONTROL CENTER SERVER AND CLIENT HARDWARE REQUIREMENTS

These are the hardware requirements for the Control Center Server and Control Center client machines:

Control Center Server

Minimum - 32-bit Windows 7; Dual-Core 2.4 GHz Processor, 2 GB RAM, 10 GB Free Disk Space

Medium - 64-bit Desktop, Windows 2008 R2 or Linux; Quad-Core 2.66 GHz Processor, 8 GB RAM, 40 GB Free Disk Space

Large - 64-bit Server Linux; Dual Quad-Core Intel® Xeon CPU E5530 2.4 GHz Processors, 12 GB RAM, 100 GB Free Disk Space

Control Center Client

Recommended-Dual-Core 2.4 GHz Processor, 2 GB RAM Free Disk Space-100MB (User's home directory requires 50MB for file storage Java Runtime Environment (JRE) 6 or 7 (also referred to as 1.6 or 1.7)

Supported Web Browsers:

- Internet Explorer version 8, 9, and 10
- Mozilla Firefox 23 and 24
- Google Chrome 29.x

Control Center OneView

OneView supports reporting on about 2,500 devices/interfaces in a typical enterprise network which stores: raw data for 7 days with a 15 minute polling interval, hourly rollups for 8 weeks, and daily rollups for 6 months. More information on tuning the deployment is available in the OneView™ Users Guide.

CONTROL CENTER APPLIANCE

The NS-A-20 Control Center Appliance includes (2) XEON E5-2620 CPUs (24 cores), dual 1 TB hard drives with RAID controller, 24 GB RAM, and dual power supplies.

Physical Specifications

Height: 1.75" (4.45 cm) - 1U

Length: 27.95" (70.9 cm)

Width 16.93" (43 cm)

Weight 31.8 lbs (14.4 kg)

Power

Wattage: 750 Watt (max), each power supply

Voltage: 110/240 VAC;

Frequency 47- 63Hz

Environmental Specifications

Operating Temperature: 10° to 35°C (50° to 95°F)

Storage Temperature: -40° to 70°C (-40° to 158°F)

Operating Humidity: 5% to 90% (noncondensing)

Standards Compliance

Regulatory/Safety:
 UL60950 - CSA 60950
 (USA/Canada)
 EN60950 (Europe)
 IEC60950 (International)
 CB Certificate & Report, IEC60950
 GS Certification (Germany)
 GOST R 50377-92 - Certification (Russia)
 Ukraine Certification (Ukraine)
 CE - Low Voltage Directive
 2006/95/EC (Europe)
 IRAM Certification (Argentina)

Emissions/Immunity

FCC/ICES-003 - Emissions (USA/Canada)
 CISPR 22 - Emissions (International)
 EN55022 - Emissions (Europe)
 EN55024 - Immunity (Europe)
 EN61000-3-2 - Harmonics (Europe)
 EN61000-3-3 - Voltage Flicker (Europe)
 CE - EMC Directive 2004/108 EC (Europe)
 VCCI Emissions (Japan)
 AS/NZS 3548 Emissions (Australia/New Zealand)
 BSMI CNS13438 Emissions (Taiwan)
 GOST R 29216-91 Emissions (Russia)
 GOST R 50628-95 Immunity (Russia)
 Ukraine Certification (Ukraine)
 KC Certification (Korea)

Ordering Information

Extreme Networks Control Center provides cost-efficient choices enabling enterprises to address their priorities, optimize their budget use and demonstrate quick time-to-value. Control Center models range from a cost-efficient entry solution to full functionality for device intensive enterprises. Flexible upgrade options support deployment growth.

The three Control Center models are:

NMS-BASE-XX which includes basic wired/wireless management features as well as inventory management, policy management and OneView™ Basic (device management, alarm management and administration). 3 remote clients are included.

NMS-XX which includes basic wired/wireless management features as well as inventory management, policy management, NAC management, automated security management, mobile management, and the full OneView™ interface. 25 remote clients are included.

NMS-ADV-XX which includes basic wired/wireless management features as well as inventory management, policy management, Identity and Access Control management, automated security management, mobile management, and the full OneView interface. In addition, Control Center Advanced includes advanced wireless management, with triangulated location, location tracking, wireless coverage maps and other advanced mapping functionality, the SDK Connect API, ability to install on a primary server, redundant server and lab server, a 500 end-system license, and virtual Identity and Access Control appliances for full Identity and Access Control deployment flexibility (require end-system licenses if needed in addition to the 500 included). 25 remote clients are included.

CONTROL CENTER APPLIANCE

PART NUMBER	CONTROL CENTER APPLIANCE
NS-A-20	Rack mountable server with all capabilities pre-installed. Purchased applications (licensed separately) are activated via license keys.

CONTROL CENTER SIZING CHART

# MANAGED DEVICES	# APS	MODEL NUMBERS		
5	50	NMS-ADV-5	NMS-5	
10	100	NMS-ADV-10	NMS-10	NMS-BASE-10
25	250	NMS-ADV-25	NMS-25	NMS-BASE-25
50	500	NMS-ADV-50	NMS-50	NMS-BASE-50
100	1000	NMS-ADV-100	NMS-100	NMS-BASE-100
250	2500	NMS-ADV-250	NMS-250	NMS-BASE-250
500	5000	NMS-ADV-500	NMS-500	NMS-BASE-500
Unrestricted	Unrestricted	NMS-ADV-U	NMS-U	NMS-BASE-U

POWER CORDS

In support of its expanding Green initiatives as of July 1st 2014, Extreme Networks will no longer ship power cords with products. Power cords can be ordered separately but need to be specified at the time order. Please refer to www.extremenetworks.com/product/powercords/ for details on power cord availability for this product.

Warranty

As a customer-centric company, Extreme Networks is committed to providing quality products and solutions. In the event that one of our products fails due to a defect, we have developed a comprehensive warranty that protects you and provides a simple way to get your product repaired or media replaced as soon as possible.

The Control Center appliance comes with a one year warranty against manufacturing defects. Software warranties are ninety (90) days and cover defects in media only. For full warranty terms and conditions please go to:

<http://www.extremenetworks.com/support/policies>

Service and Support

Extreme Networks provides comprehensive service offerings that range from Professional Services to design, deploy and optimize customer networks, customized technical training, to service and support tailored to individual customer needs. Please contact your Extreme Networks account executive for more information about Extreme Networks Service and Support.

Additional Information

For additional technical information on Control Center, please go to:

<http://www.extremenetworks.com/product/Control Center>



<http://www.extremenetworks.com/contact> / Phone +1-408-579-2800

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