Highlights

Full Stack Management

- Purpose built with a unique operating model that scales to address the growth of mobility and IoT
- Cloud-like simplicity with unified management and integrated services for any type of on-premise deployment

Dashboards and Insights

- User interface and workflows make network enhancements and changes quick and agile, achieving your digital transformation goals faster

Location Services

- Leverage the integrated location analytics to understand visitor footfall, density and traffic flow

Security Services

- Hosts ExtremeDefender for IoT to simply and securely on-board IoT devices

Auto-Provisioning

- Certified with many of Extreme's powerful management, location and security applications
- 100% in-sourced support for fast and accurate resolution

ExtremeCloud IQ Integration

- Optional cloud integration enabling single pane of glass visibility and monitoring
- Supports Extreme Campus Controllers, Switches and Access Points

Extreme Campus Controller™

Unified Wired and Wireless for Centralized Campus Deployments

Extreme Campus Controller is a key offering within the Extreme solution targeted for the on-premise campus solution. Extreme Campus Controller delivers simplified management with tightly integrated services and features required for on-premise deployments, complemented with simplified licensing. Extreme Campus Controller is also available as a virtual machine (VM) for customers that have their own requirements for this type of service.

- High-performance, enterprise-class WLAN appliances
- Scalable to over 10,000 managed devices
- Seamless roaming with centralized and distributed data forwarding
- Virtualized management and control planes for cloud deployments
- High-availability architecture for real-time voice/video/data applications
- Flexible platform automatically adapts to underlying virtual resources
- Unified wired and wireless management

Extreme Elements™
ExtremeCloud Appliance

Hu Pr Lc

Built to Suit Your Business Needs

Extreme Elements are the building blocks that allow you to tailor your network to your specific business environment, goals, and objectives. They enable the creation of an Autonomous Network that delivers the positive experiences and business outcomes most important to your organization.

Combining architecture, automation, and artificial intelligence, Extreme Elements enable you to ensure that your uses get what they need — when and where they need it. Providing these superior user experiences is as simple as mixing and matching the right elements.

Learn more at https://www.extremenetworks.com/extreme-elements/.

Simplified Management
Streamlines configuration and workflow

BYOD, Guest, and IoT
Classification via powerful policy and control

Intelligent RF Visibility
Unique RF Quality Indicator (RFQI)

Wi-Fi Locationing
Integrated location analytics and management

Pervasive APIs
Enable business insights to 3rd party applications

Simplified Management

Extreme Campus Controller provides a streamlined configuration paradigm and workflow designed to enhance visibility of the operational state of the deployment, while simplifying typical network management configurations. Enabling quicker rollouts provides a better outcome towards achieving business digital transformation goals faster.

Secure Onboarding of BYOD, Guest, and IoT

The Extreme Campus Controller incorporates extensive policy and control to securely manage users and devices. The Extreme Campus Controller includes the flexibility and choices needed for today's users so that you can securely on-board BYOD or guest users on campus with social media credentials. Powerful embedded policy and control also ensures that devices are identified and securely segmented to prevent security breaches and leaks.

Intelligent RF Visibility

One of the key characteristics in providing a more intuitive management experience is visualization of the RF performance at each managed site. The Extreme Campus Controller helps you understand the detailed performance of your Wi-Fi by providing Expert Views of the RF State, including; RxRate, TxRates, RSS, WirelessRTT, NetworkRTT and RFQI, along with planning views to understand your channel plan and the live RF coverage across your floor plan. In addition, the Extreme Campus Controller includes a unique RF Quality Indicator (RFQI) which assigns a multi-dimensional score to how well a particular AP is serving its associated clients and paints it over the AP's coverage area.

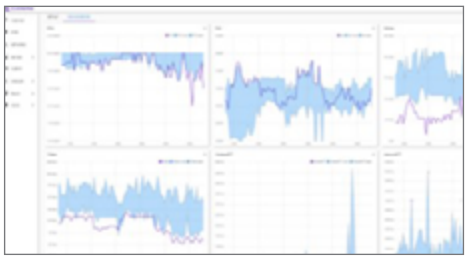
Wi-Fi Locationing

With pervasive wireless coverage throughout enterprises today, many businesses want to leverage location-based services to monitor traffic flow and understand where resources may reside at peak times to help improve efficiency or user experience. Extreme Campus Controller includes an integrated locationing analytics and management system. This embedded capability enables you to understand your locationing coverage, generate heatmaps, or understand the footfall by visitors.

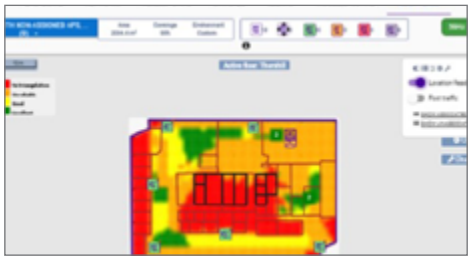
Pervasive APIs

Pervasive APIs across the entire networking portfolio to connect applications to the network. This enables new business insights to be discovered, customer engagements to be personalized, and enables the network to be programmable. The APIs also support third party applications and services to extend business insights.

Extreme Campus Controller Management



Extreme Campus Controller Expert View of RF State



Extreme Campus Controller Wi-Fi Locationing Assessment

Features and Capabilities

Supported Features

- CAPWAP (Pre-Standard)
- Multi-Site support
- Auto-adoption of new managed devices
- Rules Based Adoption of Access Points (Assign to Site based on device model, IP address, name)
- Visibility through Extreme Management Center or ExtremeCloud IQ
- Integration with ExtremeAir Defense
- Integration with ExtremeGuest
- Integrated RF visibility (Coverage, Channel, Quality)
- Integrated Site occupancy view (Associated, non-associated and presence traffic)
- Integrated Enrollment control (Device Grouping and Rules based policy assignement)
- Integrated Policy management (Roles, filters, VLANs)
- Inter-Controller mobility extension for ExtremeWireless migrations
- High availability with automatic failover to a backup controller
- Client mobility with fast failover and session availability (for Centralized Sites)
- SmartRF for Dynamic Radio and Power managment
- Dynamic Radio Management (DRM), Band-steering
- REST API interface/SDK
- Python SDK for Extreme Campus Controller, enhances programmability of the solution. Available at: https://test.pypi.org/project/pyxccsdk/
- Client load balancing with 802.11k
- Management Frame Protection (802.11w)
- Automatic discovery of networks by pre-authenticated devices (802.11u)
- Flexible hybrid traffic forwarding: local switching at AP or controller-based switching (for Centralized Sites)
- Flexible network access topologies, including Bridged-Through-Appliance, Bridge-at-AP, Fabric Attach or Tunnel through VxLAN
- Robust standards-based security: WPA3
- 802.1x Authentication: EAP-TLS, EAP-SIM, EAP-TTLS, EAP-AKA, PEAP, EAP-MD5, EAP-FAST
- RADIUS Authentication and Accounting
- Active Directory Authentication
- Encryption Algorithms: AES (CCMP)
- Guest Services (captive portal, URL redirect and Control) and Walled Garden (unauthorized access to URL)
- Voice-over-WLAN Optimization: 802.11e/WMM, U-APSD, TSPEC, CAC, QBSS
- Wired-Wireless (DSCP/TOS-to-WMM) QoS Mapping
- SNMPv2c/v3
- 802.11-802.3 bridging
- IEEE 802.1D-compliant bridging
- IEEE 802.1Q VLAN tagging and trunking
- Proxy ARP

Extreme Campus Controller Virtual

Supported Features	VE6120 (VMWare)/VE6120H (Hyper-V)			VE6125
Capacity	Small	Medium	Large	X-Large
Total APs managed in Standalone mode	50	250	500	2000
Additional APs supported in high-availability mode	50	250	500	2000
Total managed APs per Appliance Pair	100	500	1,000	4000
Total Switches managed per Appliance	50/100	100/200	200/400	200/400
Total simultaneous users in Standalone mode	1,000	4,000	8,000	16000
Additional simultaneous users in high-availability mode	1,000	4,000	8,000	16000
Total Simultaneous Users per Appliance Pair	2,000	8,000	16,000	32,000
Hardware Requirements				
CPU[1]	4	6	8	32 (physical or hyperthreading cores)
RAM (GB)	8	16	24	32
Hard Disk (GB)	80	80	80	512
Maximum Throughput (Mixed RFC2544)* Open/Encrypted				
2x1 Gbps Host	1,870/1,800	1,870/1,800	1,870/1,800	–
2x10 Gbps Host	5,000/1,870	10,800/5,000	10,800/5,000	–

AP Count Legend: Standalone/HA

1 Consult VMWare ESXi for minimum host performance requirements for virtual environment

*Performance depends on network interface characteristics of underlying host and on utilization on shared interfaces by other virtual appliances. Follow VMWare minimum installation requirements. 10 Gbps host recommended for best results. Supports VMware ESXi 6.0 or higher.

VMWare vMotion or Hyper-V Clustering not supported

Extreme Campus Controller Hardware

Supported Features	E1120	E2120	E3120
Total APs managed per appliance pair	250	4,000	10,000
Total APs managed in standalone mode per appliance	125	2,000	5,000
Additional APs supported in high-availability mode	125	2,000	5,000
Total Switches managed per appliance (S/P)	50/100	400/800	1,000/2,000
Total simultaneous users per appliance pair	4,000	32,000	Scales up to 100,000
Total simultaneous users in standalone mode per appliance	2,000	16,000	Scales up to 50,000
Additional simultaneous users in high-availability mode	2,000	16,000	Scales up to 50,000
Dual, hot swappable power supplies	N/A	Sold Separately	Sold Separately
Maximum Throughput (Mbps): Mixed (RFC2544)/Encrypted	3730/2140	18500/18000	54,000/25,500

Technical Specifications	E1120	E2120	E3120
Length	30.5 cm (12 in)	76.84 cm (32.25 in)	79.38 (31.25 in)
Width	43.1 cm (16.9 in)	43.82 cm (17.25 in)	43.85(17.25 in)
Height	4.4 cm (1.7 in)	4.45 cm (1.75 in) – 1U	4.38 (1.7 in)
Weight	4.3 kg (9.5 lbs)	21.6 kg (47.75 lbs.)	13.26 Kg
Operating Temperature	0° C to 40° C (32° F to 104° F)	10° C to 35° C (50° F to 95° F)	10 ° C to 35° C (50 ° F to 95° F)
Storage Temperature	-20° C to 70° C -4° F to 158° F)	-40° C to 70° C (-40° F to 158° F)	-40 ° C to 70 ° C (-40 ° F to 158° F)
Humidity	5% to 90%, non-condensing	5% to 90%, non-condensing	5% to 90%, non-condensing
19" Rack Mountable	1U configuration to fit standard 19" rack (mounting kit included)	1U configuration to fit standard 19" rack (mounting kit included)	1U configuration to fit standard 19? rack (mounting kit included)
Front and Rear Mount	I/O cabling at back of unit; power cabling and power switch at the rear	I/O cabling and power cabling at back of unit; power switch at the front	I/O cabling and power cabling at back of unit ; power switchat the front
Data Ports	4 x 10/100/1000 Base-T	2 x SFP+ (GBICs sold separately) 2 x 10/100/1000 Base-T	2 x 10/25/40 Gbps QSFP28 (GBICS Sold Separately) 2x 1/10 Gbps BASE-T
Management Ports	1 x 10/100/1000 Base-T 1 x USB Port Console Port DB9	1 x 10/100/1000 Base-T 5x USB Ports available. Use one. Console Port RJ4	1 x 10/100/1000 Mbps Base-T 5 x USB 3.0 ports. Use one. RJ45 Console Port
Power Specifications	Power (max): 150W Voltage: 100-240 VAC Frequency: 50-60 Hz	Power (max): 750 W (Redundant Power Supply Sold Separately) Voltage: 110/240 VAC Frequency: 47-63 Hz	Power (max) : 1100 W (Redundant Power Supply Sold Separately) Voltage: 110/240 VAC Frequency: 47-63 Hz
Regulatory/Safety	• UL 60950-1, 2nd EditionCSA C22.2 No. 60950-1-07,2nd Edition • CB scheme: IEC 60950-1 AS/NZS 60590-1 (Australia/New Zealand) • Mexico via NRTL • BSMI CNS 14336-1 99 (Taiwan) • CCC GB4943.1-2011, GB9254-2008 • GB 176251-2012 (China)	• UL60950 - CSA 60950 (USA/Canada)EN60950 (Europe) • IEC60950 (International) • CB Certificate and Report, IEC60950 GS Certification (Germany) • GOST R 50377-92 - Certification (Russia) • Ukraine Certification (Ukraine) • CE - Low Voltage Directive-2011/65/EU (Europe) • IRAM Certification (Argentina)	• UL60 950 - CSA 60 950 (USA/Canada) • EN60 950 (Europe) • IEC60 950 (International) • CB Certificate and Report • IEC60 950 GS Certification(Germany) • GOST R 50 377-92 - Certification (Russia) • Ukraine Certification (Ukraine) • CE - Low Voltage Directive • 20 11/65/EU (Europe)
Emissions/Immunity	• FCC Part 15,Subpart B, Class A • ICES-003: 2012, Class A • CISPR22:2010, Class A • EN 55022: 2010/AC:2011, Class A • EN 61000-3-2:2006+A2:2009 • EN 61000-3-3:2008 • EN 61000-6-4:2007+A1:2011 • RCM (Australia) • VCCI Class A (Japan) • MSIP KCC (Korea) • BSMI CNS 13438:2006 95 (Taiwan) • ANATEL Res. 442, Category III (Brazil) • CISPR24:2010 • EN 55024:2010 • MSIP KCC (Korea) • EN/IEC 61000-4-2:2008 • EN/IEC 61000-4-3:2010 • EN/IEC 61000-4-4:2012 • EN/IEC 61000-4-5:2005 • EN/IEC 61000-4-6:2008 • EN/IEC 61000-4-11:2004	• 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)	• FCC/ICES-0 0 3 - Emissions (USA/Canada) CISPR 22 - Emissions (International) • EN550 22 - Emissions (Europe) • EN550 24 - Immunity (Europe) • EN610 0 0 -3-2 - Harmonics (Europe) • EN610 0 0 -3-3 - Voltage Flicker (Europe) • CE - EMC Directive 20 0 4/10 8 EC (Europe) • VCCI Emissions (Japan) • AS/NZS 3548 Emissions (Australia/New Zealand) • BSMI CNS13438 Emissions (Taiwan) • GOST R 29216-91Emissions (Russia • GOST R 50 628-95 Immunity (Russia) • Ukraine Certification (Ukraine) • KC Certification (Korea)

Ordering Information

Product SKU	Short Description	Long Description
XCC-ACT-V5-HW	HW Appliance - V5 Activation Key	V5 Activation Key for XCC Hardware Appliances - Applicable to E1120, E2120, E3120
XCC-ACT-V5-HW_EGY	HW Appliance - V5 Activation Key (Egypt)	V5 Activation Key for XCC Hardware Appliances - Applicable to E1120, E2120, E3120 (Restricted for Egypt)
XCC-ACT-V5-VT	VT Appliance - V5 Activiation Key	V5 Activation key for XCC Virtual Appliances- Applicacle to VE6120/H, VE6125
XCC-ACT-V5-VT-EGY	VT Appliance - V5 Activation Key (Egypt)	V5 Activation key for XCC Virtual Appliance- Applicacle to VE6120/H, VE6125(Restricted for Egypt)
XCC-ORC-P-5	XCC - 5 Device PERM Adoption	Extreme Campus Controller - 5 device permanent adoption license (requires services for embedded OS of managed devices unless is covered by warranty)
XCC-ORC-P-25	XCC - 25 Device PERM Adoption	Extreme Campus Controller - 25 device permanent adoption license (requires services for embedded OS of managed devices unless is covered by warranty)
XCC-ORC-P-100	XCC - 100 Device PERM Adoption	Extreme Campus Controller - 100 device permanent adoption license (requires services for embedded OS of managed devices unless is covered by warranty)
XCC-ORC-P-500	XCC - 500 Device PERM Adoption	Extreme Campus Controller - 500 device permanent adoption license (requires services for embedded OS of managed devices unless is covered by warranty)
XCC-ORC-P-2000	XCC - 2000 Device PERM Adoption	Extreme Campus Controller - 2000 device permanent adoption license (requires services for embedded OS of managed devices unless is covered by warranty)
XCC-ORC-S-EW	XCC - Adoption RTU Sub, EW	Extreme Campus Controller - 1 device RTU Subscription, for ExtremeWorks
XCC-ORC-S-PWP	XCC - Adoption RTU Sub, PWP	Extreme Campus Controller - 1 device RTU Subscription, for PartnerWorksPlus

Part Numbers	Tranceivers for E2120
MGBIC-02	1 Gb, 1000BASE-T, IEEE 802.3 Cat5, Copper Twisted Pair, 100 m, RJ 45 SFP
MGBIC-LC01	1 Gb, 1000BASE-SX, IEEE 802.3 MM, 850 nm Short Wave Length, 220/550 m, LC SFP
MGBIC-LC03	1 Gb, 1000BASE-LX, MM, 1310 nm Long Wave Length, 2 km, LC SFP
10GB-LR-SFPP	10 Gb, 10GBASE-LR, IEEE 802.3 SM, 1310 nm Long Wave Length, 10 km, LC SFP+
10GB-SR-SFPP	10 Gb, 10GBASE-SR, IEEE 802.3 MM, 850 nm Short Wave Length, 33/82 m, LC SFP+
10GB-LW-SFPP	10Gb, Laserwire®SFP+ adapter for use with Laserwire cable assembly
10GB-C10-SFPP	10 Gb, pluggable copper cable assembly with integrated SFP+ transceivers, 10 meters
10GB-C03-SFPP	10 Gb, pluggable copper cable assembly with integrated SFP+ transceivers, 3 meters
10GB-C01-SFPP	10 Gb, pluggable copper cable assembly with integrated SFP+ transceivers, 1 meter
10GB-USR-SFPP	10 Gb, Ultra Short Reach Multi-mode, 850 nm, 100m on OM3/150m on OM4, LC SFP+ (requires V9.01 or higher)
Accessories	
30522	WS-PSI-C5215-750W-01 750W redundant power supply for network appliances
30527	WS-PSI-1100W-1 : 1100W Redundant Power Supply for E3120

Part Number	E3120 Connectivity Accessories
40 Gb QSFP	
10319	QSFP+ SR4 module
40GB-ESR4-QSFP	QSFP+ ESR4
10320	QSFP+ LR4
QSFP-SFPP-ADPT	QSFP+ to SFP+ Adapter
10311	QSFP+ passive copper cable, 0.5M
10312	QSFP+ passive copper cable, 1 .0M
10313	QSFP+ passive copper cable, 3.0M
10323	QSFP+ passive copper cable, 5.0M
10336	3m QSFP+ Active Optical Cable

Ordering Information (cont.)

Part Number	E3120 Connectivity Accessories (cont.)
40 Gb QSFP (cont.)	
10337	5m QSFP+ Active Optical Cable
10315	10m QSFP+ Active Optical Cable
10316	20m QSFP+ Active Optical Cable
10318	100m QSFP+ Active Optical
25 Gb SFP28	
10501	25GBASE-SR SFP28 SR 850nm
10502	25G SFP28 SR Lite-FEC 850nm
10503	25G SFP28 ESR
10504	SFP28 LR 10Km 1310 nm
10Gb SFP+	
10GB-SR-SFPP	10Gb SR MMF
10GB-LR-SFPP	10Gb LR SMF
10GB-C01-SFPP	10Gb DAC 1m
10GB-C03-SFPP	10Gb DAC 3m
10Gb-C10-SFPP	10Gb DAC 10m
10301	10Gb SR MMF
10302	10Gb LR SMF
10304	10Gb DAC 1m
10305	10Gb DAC 3m
10307	10Gb DAC 10m
10338	10Gb 10GBASE-T
10303	10Gb LRM MMF
10GB-F10-SFPP	10Gb Active Optical Cable 10m
10GB-F20-SFPP	10Gb Active Optical Cable 20m
Accessories	
30527	WS-PSI-1100W-1 : 1100W Redundant Power Supply for E3120

Power Cords

In support of the Extreme Networks Green initiatives, 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.

Straight Cord Part #	# Cords	Reference Country	Straight Cord Description
5601313-U1	1	America	USA,CORD,NEMA 5-15,C13,125V, 16AWG
10036	1	Australia	Pwr Cord,10A,AS3112,IEC320-C13,250V, 0.75MMSQ
10034	1	Britain	Pwr Cord,10A,BS1363,IEC320-C13,250V, 0.75MMSQ
5601513-F	1	Brazil	BRAZIL,CORD NBR 14136, 20A, C13,250V, 1.5MMSQ
5601013-D	1	Denmark	Pwr Cord,10A,SRAF,IEC320-C13,250V, 0.75MMSQ
10033	1	Europe	Pwr Cord,10A,CEE 7/7,IEC320-C13,250V, 0.75MMSQ
10062	1	Japan	Pwr Cord,12A,JISC8303,IEC320-C13,125V, 1.25MMSQ
10035	1	South Africa	Pwr Cord,10A,BS546,IEC320-C13,250V, 0.75MMSQ
10037	1	Switzerland	Pwr Cord,10A,SEC1011,IEC320-C13,250V, 0.75MMSQ

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 products repaired or media replaced as soon as possible.

For full warranty terms and conditions please go to: www.extremenetworks.com/support/policies/warranty

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: www.extremenetworks.com/support

The AWS Qualified Device IoT Logo is a certification mark of Amazon Web Services.

Extreme networks

http://www.extremenetworks.com/contact