Extreme Networks Corporate Overview for AVB Solution Selling

June 2013

Focused & Growing Network Technology Pure-Play

FY2012 revenue results; Cash as of 2 Feb 2013

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Leading Technology Innovator

- 1996 — Pioneer Layer 2/3 Ethernet Switching
- Pioneer Ethernet Quality of Service
- Price/Performance Leadership
- Pioneer Packet-Ring Technology
- Modular OS: ExtremeXOS®
- First On-Switch Programmability
- First Virtualization-Aware Network
- First to Market with 40G
- Highest-Density, Lowest Latency, Lowest Power
- First Cost Effective Cloud Scale 100G
- 2013

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Differentiator: The Power of ExtremeXOS®

Resilient and Proven

- Modular
- Adaptable Across Platforms
- Predictable Performance
- Memory Protected

Intelligent and Personalized

- Virtualization
- Loadable Modules
- Scripting and Open Interfaces
- Distributed Policies

The Power and Service Predictability of A Single OS

From Service Provider, Through The Enterprise Edge And Core, And Into The Data Center

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Significant Installed Customer Base

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Audio Video Bridging Opportunity

Recording Studios

Stadiums

Performance

Corporate Environments

Theme Parks

Broadcasters

$100M+ USD growing to $2B+ USD

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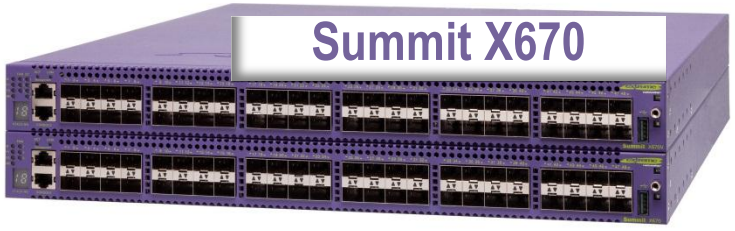
Shipping Since February 2013

- 10 Mbps to 40 Gbps Interfaces
- AVB Software License
- Extensive AVB Interoperability Testing



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Ethernet Port Counts per Summit Model

Part Number	Short Description	Maximum Total Ethernet Ports (All Speeds)	GE Copper Ports (RJ-45)	GE POE+ Ports (RJ-45)	GE Fiber Ports (SFP)	GE Shared / Combo Ports	10GE Copper Ports (RJ-45) Maximum	10GE Fiber Ports (SFP+) Maximum	10GE Shared / Combo Ports	40GE Fiber Ports (QSFP+)
16516	Summit X430-24t	28	24	0	4	0	0	0	0	0
16518	Summit X430-48t	52	48	0	4	0	0	0	0	0
16501	Summit X440-8t	12	8	0	4	0	0	0	0	0
16503	Summit X440-24t	24	24	0	4	4	0	0	0	0
16507	Summit X440-24t-10G	26	24	0	4	4	0	2	0	0
16505	Summit X440-48t	48	48	0	4	4	0	0	0	0
16509	Summit X440-48t-10G	50	48	0	2	2	0	2	0	0
16502	Summit X440-8p	12	8	8	4	0	0	0	0	0
16504	Summit X440-24p	24	24	24	4	4	0	0	0	0
16508	Summit X440-48p	48	48	48	4	4	0	0	0	0
16506	Summit X440-24p-10G	26	24	24	4	4	0	2	0	0
16510	Summit X440-48p-10G	50	48	48	2	2	0	2	0	0
16513	Summit X440-24x	24	4	0	24	4	0	0	0	0
16514	Summit X440-24x-10G	26	4	0	24	4	0	2	0	0
16401	Summit X460-24t	34	24	0	8	4	0	6	0	0
16402	Summit X460-48t	58	48	0	4	0	0	6	0	0
16403	Summit X460-24p	34	24	24	8	4	0	6	0	0
16404	Summit X460-48p	58	48	48	4	0	0	6	0	0
16405	Summit X460-24x	34	8	0	24	4	0	6	0	0
16406	Summit X460-48x	54	0	0	48	0	0	6	0	0
17201	Summit X670V-48t	64	0	0	0	0	48	4	4	4
17103	Summit X670-48x	48	0	0	0	0	0	48	0	0
17101	Summit X670V-48x	64	0	0	0	0	0	48	0	4

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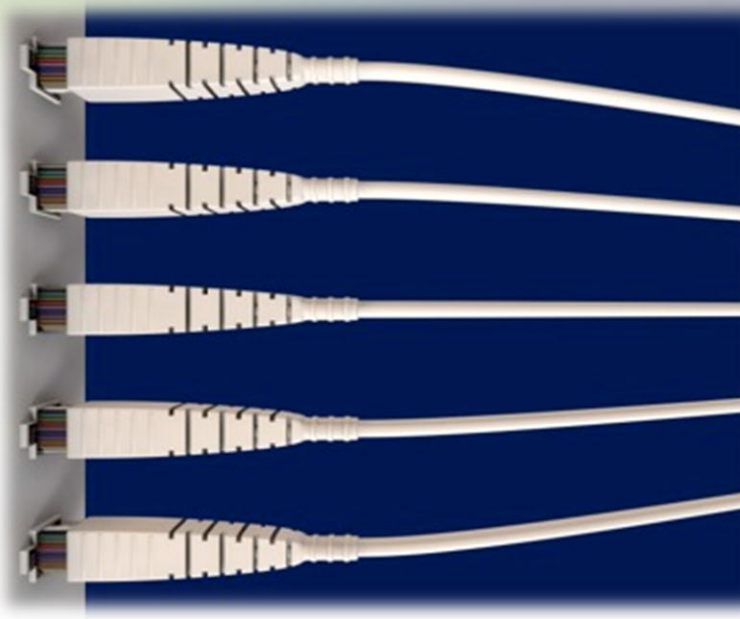
Extreme Networks and AVB Solution Support

- First “Enterprise-class” switches supporting IEEE AVB standards
- Leverages our mission-critical and modular ExtremeXOS® as well as our extensive RFC1588v2 timing experience
- Summit® X430, X440, Summit X460 & Summit X670 families (copper/fiber)
- Extreme is committed to broad support of AVB across the entirety of its products, including the BlackDiamond® X8*



Audinate BOSCH Meyer Sound YAMAHA SENNHEISER

AVID BIAMP SYSTEMS HARMAN RIEDEL XMOS extreme networks

*Upgrade Required

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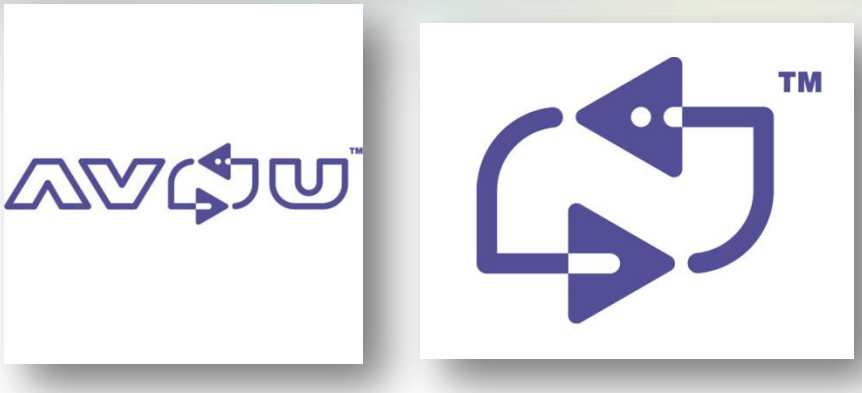
The AVnu Alliance – Certified Interoperability



- Dedicated to enabling an ecosystem of affordable professional-quality streaming for networked audio and video content."
- Marketing to promote AVB systems
- Executing an AVB certification program
  - Designed by AVnu
  - Implemented by UNH-IOL
  - Bridge and endpoint certification
- Conducts periodic interoperability ("Plugfest") events

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Enterprise-Class VS. Consumer Grade

	Functionality	Extreme Networks	Consumer Grade	Benefits
Performance & Scalability	Line Rate Performance All Ports (Non-Blocking)	Yes	No (Blocking)	- Investment Protection from future growth. - Enable Voice & Video convergence onto single network.
	High Speed Stacking (Up to 128 Gbps/sec support)	Yes	No (Up to 5Gbps)	
	Latency (64 byte packet)	< 5 µs	< 20 µs	
Security	Identity aware policy & host integrity enforcement	Yes	No	- Lower OPEX with simplified security deployment. - Enable Company & Employee device and data integrity. - Simplify BYOD.
	CLEAR-Flow Security Engine (Threat Detection & Mitigation instrumentation)	Yes	No	
	Universal port dynamic security profiles & policies.	Yes	No	
Quality of Service	8 queues/port for QoS with dynamic buffering	Yes	Unknown	- Lower CAPEX by not over provisioning your network. - Empower network users with predictable performance.
	Traffic rate limiting, shaping & scheduling	Yes	No	
	Fine grained granularity (8kbps-1Mbps) for QoS metering	Yes	No	
Redundancy & Resiliency	Hardware Redundancy (PSU, FAN, EPS etc)	Yes	No	- Increase Network uptime. - Reduce application and service interruptions with rapid network recovery.
	Multi-Switch LAG (M-LAG)	Yes	No	
	Ethernet Automatic Protection Switching (EAPS)	Yes	No	
	Virtual Router Redundancy Protocol (VRRP) & Extreme Standby Routing Protocol (ESRP).	Yes	No	
Product Modularity & Flexibility	Modular Operating System for greater uptime	Yes	No	- Lower device downtime. - Lower OPEX with simplified configuration. - Superior Features.
	Zero touch auto provisioning simplicity	Yes	No	
	Built-in SYNC capability (Audio Video Bridging)	Yes	No	
	Advanced Layer 3 capabilities, LIC & VIM modules	Yes	No	
Product Support	Software Upgrades (Routing & Predictable)	Yes	No	- Lower OPEX for network operation & troubleshooting. - Lower Overall TCO.
	Advanced Troubleshooting (Remote/stats/logs)	Yes	No	
	Product Warranty (LLW & Advance Hardware Rep)	Yes	No	

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Product Quality Drives Service Effectiveness

How satisfied were you with the Service Experience?

Service Organization with Highly Trained Professionals

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