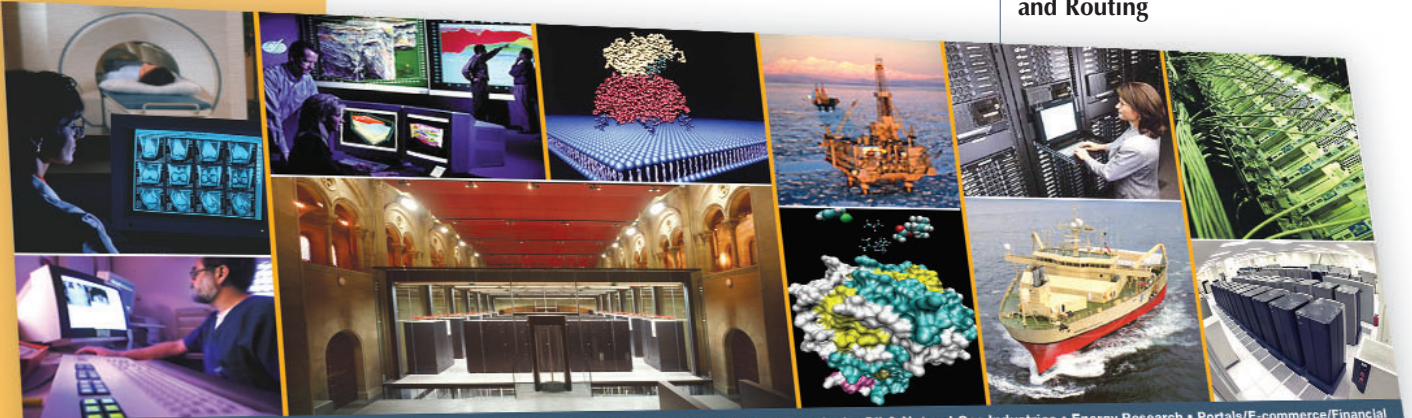


High Performance Clustering Computing Solutions  
Best-of-Breed Ethernet Switching and Routing



Research/University/Government Labs • Geophysical/Atmospheric • Biotechnology/Pharmaceutical • Oil & Natural Gas Industries • Energy Research • Portals/E-commerce/Financial

Industry Leading Port Density



Terabit Speeds with Zero Packet Loss

100 Gigabit Ready Backplane Technology



Innovative Best-of-Breed Technology

IBM leverages Force10 Networks best-of-breed reliable, high performance switching and routing in over 20 worldwide Top500.org SuperComputer Sites. As the foundation of many high performance computer cluster (HPCC) or Grid networks and data centers, the Force10 E-Series switch/routers ensure predictable application performance, increase network availability and reduce operating costs.

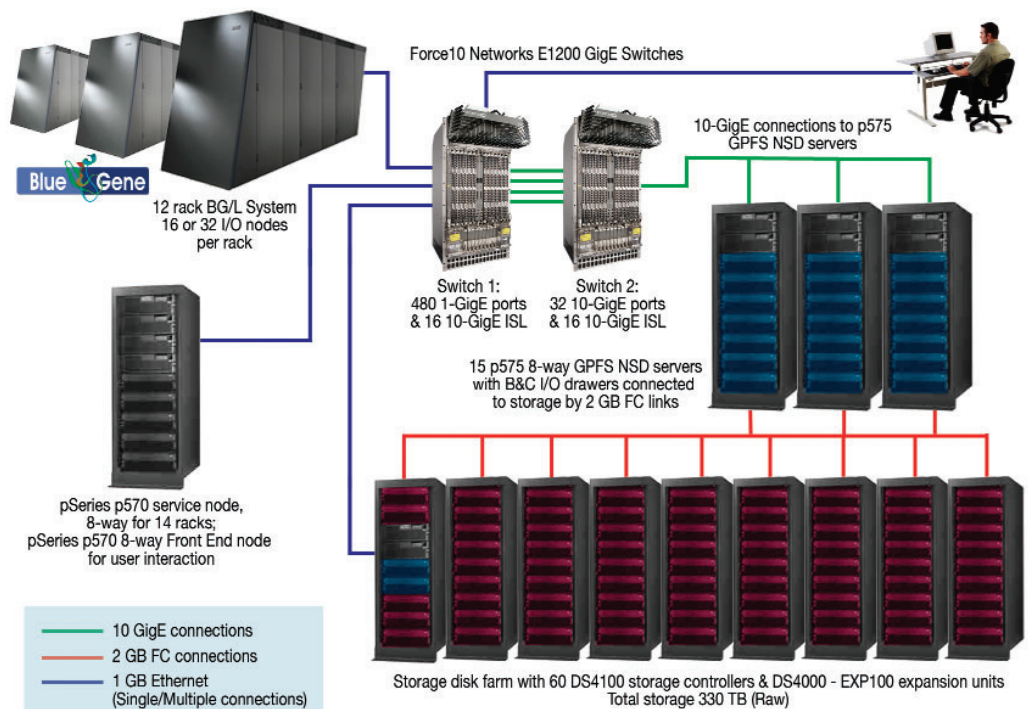


The unique E-Series architecture leverages a separate control and data plane, while distributing routing, switching and system management between three independent CPUs to ensure predictable performance even under tremendous traffic loads and intensive processing tasks. Throughput and line-rate performance are guaranteed, even with features like security filters (Access Control Lists) and Quality of Service (QoS) enabled.

Industry Leading Density and Non-blocking Performance

- Industry leading capacity and density of GbE and 10 GbE ports with line-rate performance
- Pre-provisioning, hot insertion and removal features ensure seamless growth
- Deep buffering and congestion management technology ensure maximum network efficiency
- 100 GbE ready chassis and passive copper backplane guarantee investment protection

BNL 14 Rack BlueGene/L System Schematic



**Product Specifications Summary**

Character	S25P	S50N/S50V	S2410CP	S2410P	C150	C300	E300	E600	E1200 (E1200-A)
Chassis Height (RU)	1	1	1	1	9	13	8	16	21/24 (E1200-A)
Line Card Slots	2	2	—	—	4	8	6	7	14
Expansion Module Slots	—	—	—	—	—	—	—	—	—
Backplane Capacity (Gbps)	144	288	480	480	768	1,536	1,200	2,700	5,000
Raw Switching Capacity (Gbps)	—	—	—	—	768	1,536	400	900	1,687.5
Slot Capacity - Half Duplex (Gbps)	—	—	—	—	96	96	25	56.25	56.25
Forwarding Capacity (Mpps)	95	131	360	360	476	952	196	500	1,000
40 GBE and 100 GBE Ready	—	—	—	—	—	—	40 GBE	Yes	Yes
<b>Ports:</b>									
10/100/1000Base-T	4 (Shared)	48	—	—	192	384	288	630	1,260
GBE (SFP)	24	4 (Shared)	—	—	192	384	144	336	672
Line-rate GBE	24	48	—	—	192	384	132	336	672
10 GBE (CX4)	4	4	24 (4 XFP)	12 (XFP)	32 (XFP)	64 (XFP)	24 (XFP)	56 (XFP)	112 (XFP)
10 GBE (XFP)	4	4	4	24	32	64	48	112	224
Line-rate 10 GBE	4	4	24	24	32	64	12	28	56
Line-rate OC3c/OC12c/OC48c	—	—	—	—	—	—	—	—	—
Power over Ethernet (IEEE 802.3af)	—	Yes (S50V)	—	—	—	Yes	—	—	—
<b>Power:</b>									
AC + AC Power Redundancy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DC + DC Power Redundancy	Yes	Yes (S50N)	—	—	—	—	Yes	Yes	Yes
AC + DC Power Redundancy	—	Yes	—	—	—	—	—	—	—
<b>Features:</b>									
CLI (Console, Tether, SSH, V2)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SNMPv1/v2/v3	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Max VLANs (Configured / Choices)	1K / 4K	1K / 4K	1K / 4K	1K / 4K	1K / 4K	1K / 4K	4K / 4K	4K / 4K	4K / 4K
Max MAC Entries (Linecard / System)	16K	16K	16K	16K	16K	16K	32K / 192K	64K / 448K	64K / 896K
Link Aggregation (Groups / Members)	48 / 8	48 / 8	12 / 12	12 / 12	128 / 8	128 / 8	255 / 16	255 / 16	255 / 16
STP RSTP MSTP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Jumbo Frames (Bytes)	9,216	9,216	10,240	10,240	9,252	9,252	9,252	9,252	9,252
Max IP Interfaces	128	128	—	—	128	128	1,100	1,100	1,100
Max ARP Entries	4K	4K	—	—	4K	4K	100K	100K	100K
Max Routes (IPv4 / IPv6)	8K / 0	8K / 0	—	—	12K / 0	12K / 0	512K / 32K	512K / 32K	512K / 32K
RIP OSPF	Yes	Yes	—	—	Yes	Yes	Yes	Yes	Yes
ISIS, BGP	Future	Future	—	—	Future	Future	Yes	Yes	Yes
IPv6 Capable Hardware	Yes	Yes	—	—	Yes	Yes	Yes	Yes	Yes
IPv6 Routing	Future	Future	—	—	Future	Future	Yes	Yes	Yes
<b>Expansion Module Options:</b>									
2-port 12 Gbps Stacking	Yes	Yes	—	—	—	—	—	—	—
1-port 24 Gbps Stacking	Yes	Yes	—	—	—	—	—	—	—
2-port 10 GBE (CX4)	Yes	Yes	—	—	—	—	—	—	—
2-port 10 GBE (XFP)	Yes	Yes	—	—	—	—	—	—	—
<b>Line Card Options:</b>									
24-port Gigabit SFP	—	—	—	—	—	—	6	—	—
48-port Gigabit SFP	—	—	—	—	4	8	—	7	—
48-port 10/1000/1000Base-T	—	—	—	—	4	8	—	7	14
48-port 10/1000/1000Base-T with PoE	—	—	—	—	4	8	—	—	—
48-port 10/1000/1000Base-T (OS)	—	—	—	—	—	—	6	7	14
90-port 10/1000/1000Base-T (OS)	—	—	—	—	—	—	—	7	14
2-port 10 GBE XFP	—	—	—	—	—	—	6	—	—
4-port 10 GBE XFP	—	—	—	—	4	8	—	7	14
8-port 10 GBE XFP	—	—	—	—	4	8	—	—	—
8-port 10 GBE XFP (OS)	—	—	—	—	—	—	6	—	—
16-port 10 GBE XFP (OS)	—	—	—	—	—	—	—	7	14
4-port OC3c/12c/48c SFP	—	—	—	—	—	—	—	7	14



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