Performance and manageability to scale your business
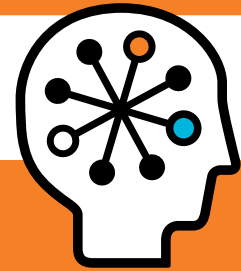
As a small and medium business (SMB) entrepreneur, you may realize that keeping your IT infrastructure in sync with rapidly changing demands and competition can be a tough job. Since your business is growing, you cannot block much investment on your infrastructure, yet you would prefer to scale it up to match your needs for greater computing and uptime. We also understand that for IT managers who run remote or duplicate data centers, lacking an efficient remote management tool can cause sleepless nights.

The HP ProLiant ML330 G6 is a new dual processor tower platform built on the latest Intel® Xeon® processors with QuickPath Interconnect (QPI) technology having a unique system architecture.

This unique architecture enables you to scale your business as needed and allows you to improve the efficiency of how you spend your IT. Besides delivering excellent performance with the latest technology, it also incorporates one of the most powerful embedded management technology in the industry, the ProLiant Onboard Administrator powered by Integrated Lights-Out 2 (iLO 2) controller, which allows you to manage servers from any location round the clock. This makes it the ultimate, affordable remote office server suited to your needs.

With the latest Intel® Series processors with QPI technology (Six-Core, Quad-Core, and Dual-Core), choice of DDR3 Registered or Unbuffered DIMMs, Serial Attached SCSI (SAS), and PCI Express Gen2 technology, the ML330 G6 provides a high-performance system ideal for rapid expansion of your business as needed.

Key features and benefits

Improved Performance
An affordable tower server with a brand new design, the ProLiant ML330 delivers outstanding performance.

- **Unique architecture:** Up to two 2.66 GHz Intel Xeon X5600 series processors with Turbo Mode or only one 2.93 GHz Intel Xeon W3500 series processors with Turbo Mode allow optimizing both power consumption and performance based on your needs. While the first processor is on-board, the second processor is on the Mezzanine board as an option. You can cut costs at ordering and choose to add the second processor when needed on a later date.

- **Increased memory:** 18 DIMM slots support up to 192 GB of DDR3 Memory and 12 DIMM slots up to 48 GB for DDR3 unbuffered memory—making the ML330 ideal for memory-intensive applications. Besides, DDR3 achieves 20 percent lower power consumption than DDR2 while effecting a 10 percent performance gain.

- **Intel QPI architecture:** Intel® QuickPath Interconnect QPI architecture integrates a memory controller into each microprocessor and provides high-speed connections between the microprocessors and other components like external memory and the I/O hub. It also allows a processor to access the dedicated memory of any other processor through the QPI which links all the processors.

- **Energy efficient**—The **HP Sea of Sensors** technology enhances server performance while reducing energy usage and expense. Achieve up to 90[1] percent reduction in power usage at the server level with the HP Sea of Sensors—the heart of HP Thermal Logic technologies. It automatically tracks thermal activity across the server through a collection of up to 32 smart sensors. These sensors dynamically adjust system components such as fans, memory, and input/output processing to optimize system cooling. In other words, the HP Sea of Sensors makes intelligent decisions about how much cooling is needed for the server to perform efficiently. The ML330 G6 server satisfies the Climate Saver Gold criteria.

- **PCI-Express:** Four available PCI-Express Gen 2 expansion slots (standard) with optional PCI-X slots provide the latest I/O performance technologies to meet different market requirements for various applications.

- **Smart Array:** Embedded HP Smart Array B110i with SAS HW RAID meet your unique storage needs. Optional Advanced RAID controller provides up to RAID 6/60 and Battery Write Back Cache protection adding high availability to HDD efficiency. The Battery Write Back Cache also helps in data protection.

- **Data security:** Customer and business information stored on corporate databases is a critical business asset, vulnerable to hackers and other similar catastrophic mishaps. HP ProLiant ML330 G6 offers an optional feature called Trusted Platform Module (TPM) that encrypts the hard drive and prevents unauthorized access from another operating system (OS). It also prevents offline viewing of the files that make up the OS itself.

- **Dual-port network adaptors:** Two embedded Gigabit Network ports provide increased network throughput and redundancy.

Manageability

The HP ProLiant ML330 G6 is equipped with a set of powerful management tools like the HP Onboard Administrator (powered by iLO 2) and SmartStart deployment tool to enhance and control all aspects of your infrastructure. You may also purchase the HP Insight Control suite (ICE) with new Dynamic Power Capping technology to take charge of power and cooling efficiency throughout your data center.

- The new HP ProLiant Onboard Administrator (powered by the iLO 2 management processor) simplifies server setup, health monitoring, power and thermal control, and lights-out remote administration of ProLiant ML, DL, and BL servers. ProLiant Onboard Administrator functions without additional software and functionality can be accessed locally to the server or remotely through a Web browser.

- Tools like SmartStart, Insight Rapid Deployment software, PXE, and ROM-Based Setup Utility (RBSU) simplify server configuration and deployment.

Ideal environments

HP ML330 G6 with its unique system architecture for easy scale-up is suited for SMBs and remote-site applications.

Growing business (SMBs)

HP ML330 G6 offers excellent performance with affordable price and ease of use making it suited for SMB applications. With its highly flexible modular configurations, it provides upgradeability with room to grow for such businesses. Its modular chassis and whisper-quiet fans make it ideal for small office environment.

Remote and replicate sites

HP Onboard Administrator (powered by embedded iLO 2 controller) provides ML330 with enhanced security features and dedicated remote management and control for communicating with the headquarters. Integrated dual Gigabit Ethernet equips it with increased network throughput and redundancy. Maximum memory slots provide it with flexible configuration for low cost memory expansion.

Applications

ML330 is suited for various applications like:

- Application/Messaging Server
- Microsoft 2008 Small Business Server
- Microsoft Embedded Server
- Mailing/Printing Server
- Red Hat/SUSE Linux Enterprise Server

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[1] Energy efficiency based on HP testing.

HP ProLiant ML330 G6 Server

Processor type	Intel® Xeon® 5600, 5500 and 3500 series
Available processors	**Intel Xeon processors** **Six-Core Processors** Intel® Xeon® Processor X5650 (2.66 GHz, 12 MB L3 Cache, 95W, DDR3-1333, HT, Turbo 2/2/3/3/4/4) **Quad-Core** Intel® Xeon® Processor E5640 (2.66 GHz, 12 MB L3 Cache, 80W, DDR3-1066, HT, Turbo NA/NA/1/1/2/2) Intel® Xeon® Processor E5630 (2.53 GHz, 12 MB L3 Cache, 80W, DDR3-1066, HT, Turbo NA/NA/1/1/2/2) Intel® Xeon® Processor E5620 (2.40 GHz, 12 MB L3 Cache, 80W, DDR3-1066, HT, Turbo NA/NA/1/1/2/2) Intel® Xeon® Processor E5540 (2.53 GHz, 8 MB L3 Cache, 80W, DDR3-1066, HT, Turbo 1/1/2/2) Intel® Xeon® Processor E5530 (2.40 GHz, 8 MB L3 Cache, 80W, DDR3-1066, HT, Turbo 1/1/2/2) Intel® Xeon® Processor E5520 (2.26 GHz, 8 MB L3 Cache, 80W, DDR3-1066, HT, Turbo 1/1/2/2) Intel® Xeon® Processor E5507 (2.26 GHz, 4 MB L3 Cache, 80W, DDR3-800) Intel® Xeon® Processor E5506 (2.13 GHz, 4 MB L3 Cache, 80W, DDR3-800) Intel® Xeon® Processor E5504 (2.00 GHz, 4 MB L3 Cache, 80W, DDR3-800) **Dual-Core** Intel® Xeon® Processor E5503 (2.00 GHz, 4 MB L3 Cache, 80W, DDR3-800) Intel® Xeon® Processor E5502 (1.86 GHz, 4 MB L3 Cache, 80W, DDR3-800) **Xeon W3500 (UP) family:** **Quad-Core** Intel® Xeon® Processor W3540 (2.93 GHz, 8 MB L3 Cache, 130W, DDR3-1066, HT, Turbo 1/1/1/2) Intel® Xeon® Processor W3520 (2.66 GHz, 8 MB L3 Cache, 130W, DDR3-1066, HT, Turbo 1/1/1/2) **Dual-Core** Intel® Xeon® Processor W3505 (2.53 GHz, 4 MB L3 Cache, 130W, DDR3-1066) Intel® Xeon® Processor W3503 (2.40 GHz, 4 MB L3 Cache, 130W, DDR3-1066)
Processor core	Dual, Quad, and Six
Cache memory	4 MB, 8 MB, or 12 MB
Maximum processor speed	2.93 GHz
Multi-processor	1 or 2
Memory type	PC3-8500R/10600R DDR3 Registered memory PC3-10600E DDR3 Unbuffered memory
Standard memory	2 GB for Entry model, 4 GB for Base model, 6 GB for Performance model
Maximum memory	192 GB DDR3 Registered DIMM, 48 GB DDR3 Unbuffered DIMM
Memory slots	18 Slots • 9 slots on system board • 9 slots on mezzanine board in Processor Option Kit
Maximum internal storage	16 TB LFF 3.5"
Advanced memory protection	Advanced ECC Mirrored Memory
Storage type	Hot plug 3.5-inch SATA Hot plug 3.5-inch SAS Non-hot plug 3.5-inch SATA Non-hot plug 3.5-inch SAS
Removable media bays	3 (1 for DVD-ROM)
Expansion slot	4 total: 3 PCI-E Gen 2, 1 PCI-E Gen 1, Optional 2 PCI-X
Storage controller	HP Smart Array B110i SATA RAID Controller (integrated) HP Smart Array P212/Zero Memory Controller HP Smart Array P410/256 MB Controller HP Smart Array P411/256 MB Controller
Form factor	5U Tower
Networking	HP NC326i Dual ports Gigabit Server Adapter (integrated), HP NC112T PCIe Gigabit Server Adapter, HP NC360T PCIe Dual Port Gigabit Server Adapter
Remote management	HP Onboard Administrator (embedded) HP Insight Control suite (ICE) HP System Insight Manager HP Foundation Pack
Operating systems Supported*	Microsoft Windows Server Microsoft Windows Server Hyper V Red Hat Enterprise Linux (RHEL) SUSE Linux Enterprise Server (SLES) Oracle Enterprise Linux (OEL) VMware Citrix Essentials for XenServer
Redundant power supply	Optional
Redundant fans	Optional
Warranty—year(s) (parts/labor/onsite)	3/1/1

* For a complete list of supported operating systems, visit: **www.hp.com/go/ossupport**

Enhance performance with additional HP solutions

You can gain even greater performance from your ProLiant ML330 G6 server by combining it with these HP solutions:

- **HP Insight software:** HP Insight software lets you build infrastructure management capabilities as you need them:
  - The HP Insight Control suite allows you to deploy servers rapidly, monitor system health and performance, enhance power consumption, and remotely control your entire server environment from any location.
  - At the advanced level, the HP Insight Dynamics—VSE suite for ProLiant delivers comprehensive functions for optimizing and balancing resources and workloads in real-time.

- **HP Financial Services:** HP Financial Services can help reduce your costs as you make a transition from legacy equipment, acquire new hardware and software, manage your data center cost-effectively, and dispose of equipment safely at the end of its lifecycle. **www.hp.com/go/hpfinancialservices**

- **HP Factory Express:** HP Factory Express offers configuration, customization, integration, and deployment services for HP server and storage products. Customers can choose how their factory solutions are built, tested, integrated, shipped, and deployed. **www.hp.com/go/factory-express**

For more information

For more information about the HP ProLiant ML330 G6 Server contact your local HP representative, or visit: **www.hp.com/servers/proliantml330-g6**

HP Services

When technology works, business works.
The challenge of virtually every IT organization is similar: To develop and maintain an agile, efficient server infrastructure that delivers the service levels your business needs.

HP Technology Services offer a comprehensive portfolio of HP Care Pack Services to help design, deploy, manage, and support your IT environment, enabling cost-effective upgrades to standard warranty with easy-to-buy, and easy-to-use support packages.

Minimum Recommended HP Care Pack offerings
- Three-year, next business day response onsite 9-hour x 5-day coverage, hardware support
- Hardware Installation only

Enhanced service level Care Pack offerings
- Three-year same business day 4 hour response onsite 13-hour x 5-day coverage, hardware support
- Hardware Installation plus operating system installation and startup

Benefit from HP Care Pack Services helping you:
- Reduce deployment time and manage ProLiant server solutions smoothly and efficiently
- Increase uptime and performance of servers availability to your business
- Detect, diagnose, and repair problems to quickly save time, money, and resources

For more information, visit:
www.hp.com/services/proliantservices or
www.hp.com/go/proliant/carepack

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Technology for better business outcomes

To learn more, visit www.hp.com/servers/proliantml330-g6