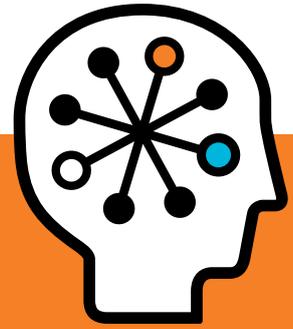# HP ProLiant ML350 Generation 6

Data sheet

Get a competitive edge with the adaptable and reliable HP ProLiant ML350 G6 server

As enhanced productivity translates into customer satisfaction, it is something that you cannot afford to take for granted. Similarly, you would not want downtime to affect business continuity. So an adaptable, reliable and expandable infrastructure is a must for your business. The HP ProLiant ML350 G6 server is designed to help you achieve these business imperatives. It comes with the latest Intel QPI architecture Quad-Core and Dual-Core processor, serial performance I/O, DDR3 memory and tools that simplify management. All these features are available at an affordable price, giving your infrastructure the competitive edge in more ways than one. Additionally, the dual processor tower server delivers excellence with performance, expandability and availability. The ProLiant Onboard

Administrator, SmartStart and HP Systems Insight Manager give you ease of management, while the processor and memory upgrades support additional users, thus boosting response times. The HP ProLiant ML350 G6 server addresses your business needs whether you are a small/medium business, a large organisation or have remote offices.

Key features and benefits

A more secure foundation

Designed with best-in-class availability features, you can count on the ProLiant ML350 G6 to stay up and running 24x7:

- There is no need to panic if there is a system power, thermal memory or disk error. The redundant fans, memory, power and available disk RAID options make sure that your system is up and running

- The ability to upgrade to the second processor enables the capability to upgrade the system memory to 144 GB, and to 16 SFF or 8 LFF hot plug HDD that gives your system architecture the room to grow

- Serial SCSI (SAS) and Serial ATA (SATA) RAID 0/1/10/5/50/6/60 that comes with the HP ProLiant ML350 G6 make storage more reliable, versatile and affordable

- Your data is more secure with the TPM (Trusted Platform Module) functionalities that include performing cryptographic functions, creating and managing keys while performing digital signature operations

- You get to plan capacity and power, provision infrastructure consistently, balance physical/virtual resources, while being able to deploy servers quickly and manage them from a remote location as well. All this is made possible by the ProLiant Onboard Administrator

Enterprise-class performance

Combining the latest Intel QPI architecture Quad-Core and Dual-Core processor, PCI Express Gen 2 and DDR3 memory technology, the ProLiant ML350 G6 provides enterprise-class performance that enables your IT administrators to:

- Get high performance and optimised throughput with advanced ECC and mirroring and with the DDR3, while SAS simplifies cabling up to 8.0 TB of data storage capacity
- Speed up execution with the Intel ultimate processor with the latest QPI technology and multi-threaded applications
- Take high availability to HDD efficiency with the protection awarded by advanced RAID 0/1/10/5/6/60
- Get increased network throughput and redundancy with the integrated dual gigabit Ethernet

Compatible with virtualised environments

Will this server work in tandem with your virtualised IT infrastructure, you may wonder. Put your fears to rest as the ML350 G6 is a Virtualisation ready server system. Compatible with VMware, Microsoft, Red Hat and Linux your IT administrators get a 'single pane of glass' for physical and virtual machine management, through which they can provision, configure, start, stop, delete, re-locate and remotely access virtual machines with keyboard and mouse control.

Advantages include:

- Server consolidation
- Resource management and high availability
- Cost reduction
- Business continuity through improved disaster recovery solutions

Ease of management with HP Systems Insight Manager and HP Integrated Lights-Out 2 management processor

Tools like HP Systems Insight Manager, ProLiant Onboard Administrator (powered by the HP Integrated Lights-Out 2 management processor) and the ProLiant Essentials software ICE help reduce downtime and improve productivity. In fact, the ProLiant Onboard Administrator is a key enabling element for the Insight Control and Insight Dynamics. Insight Dynamics enables advanced management that includes planning capacity and power, consistently provisioning infrastructure and balancing physical/virtual resources. Correspondingly, Insight Control facilitates essential management that helps IT administrators to deploy servers quickly, proactively manage performance control from anywhere and optimise power confidently. Such unified management – throughout the server infrastructures. Forming the core of ProLiant manageability, the ProLiant Onboard Administrator helps you:

- Get hassle-free set up, health monitoring and remote administration with the ProLiant Onboard Administrator (powered by the HP Integrated Lights-Out 2 management processor). You can also access the ProLiant Onboard Administrator remotely through a Web browser
- Enjoy the power and thermal control features that help you get a peek into the power usage pattern of your IT architecture, thus helping you regulate power supply in your IT architecture. The Dynamic Power Capping feature enables enhanced utilisation of power and cooling capacity, which controls the total power consumption for a fix power input in a rackmount
- Benefit from the SmartStart (included in the ProLiant Essentials Foundation shipped with the ML350) and get the server up and running in three easy steps. It provides a stable and reliable configuration for all ProLiant ML and DL 300, 500 and 700 series and BladeSystem (BL) servers
- Take advantage of the HP Systems Insight Manager (SIM) and get your staff to concentrate on priority projects. You can also receive alerts on system status

Adaptable and reliable

Intense competition and ever changing business landscape underscore the need for you to have an infrastructure that is reliable and adaptable. The ProLiant ML350 G6 helps you achieve that by:

- Choosing processor and memory upgrades that support additional users and boost response times
- Opting for the ProLiant ML350 G5 rack when physical location needs change
- Incorporating tape back-up solutions to protect business data
- Attaching a wide array of external storage and back-up devices as data storage needs increase
- Offering redundancy for power supply and fans for reliability
- Enforcing HP strict worst-case scenario environment testing processes for quality

Cuts costs and helps achieve better control

HP Onboard Administrator (powered by the HP Integrated Lights-Out 2 management processor) enables systems administrators address problems within the data centre or in remote offices spread throughout the country. It enables:

- Integrated Remote Console direct interaction with the server OS or pre-OS environment helps you save travel costs
- Virtual media, including Virtual Folders to deliver emergency updates of remote servers
- IT staff throughout multiple locations to collaborate effectively through the multi-user console and video record and playback ability

HP ProLiant ML350 G6

Technical specifications

Processors supported	**Quad-Core Processors** Intel® Xeon® Processor X5570 (2.93 GHz, 8 MB L3 Cache, 95W, DDR3-1333, HT, Turbo 2/2/3/3) Intel® Xeon® Processor X5560 (2.80 GHz, 8 MB L3 Cache, 95W, DDR3-1333, HT, Turbo 2/2/3/3) Intel® Xeon® Processor X5550 (2.66 GHz, 8 MB L3 Cache, 95W, DDR3-1333, HT, Turbo 2/2/3/3) 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 L5520 (2.26 GHz, 8 MB L3 Cache, 60W, DDR3-1066, HT, Turbo 1/1/2/2) 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) Intel® Xeon® Processor L5506 (2.13 GHz, 4 MB L3 Cache, 60W, DDR3-800) **Dual-Core Processors** Intel® Xeon® Processor E5502 (1.86 GHz, 4 MB L3 Cache, 80W, DDR3-800)
Processor cores	Quad core and dual core
Cache	8 MB (1 x 8 MB) Level 2 cache **Note:** For processors X5570/X5560/X5550/E5540/E5530/E5520/L5520 4 MB (1 x 4 MB) Level 2 cache **Note:** For processors E5506/E5504/E5502/L5506
Standard memory	Entry models: 4 GB Base models: 6 GB Performance models: 12 GB
Maximum memory	144 GB (18 slots) DDR3 Registered Memory 24 GB (12 slots) DDR3 Unbuffered Memory
RAM type/speed	PC3-6400/8500/10600 (DDR3 800/1066/1333 MHz) Registered or Unbuffered Memory
Maximum internal storage	8.0 TB
Drives supported	**Up to 16 (SFF):** Hot plug SFF SAS 15K 146/72/36 GB Hot plug SFF SAS 10K 300/72 GB Hot plug SFF SATA 5.4K 250/120 GB **Up to 8 (LFF):** Hot plug LFF SAS 15K 450/300/146/72 GB Hot plug LFF SAS 7.2K 1 TB/750 GB Hot plug LFF SATA 7.2K 1 TB/750/500/250/160 GB
Hard drive controller	HP Smart Array P410i SAS/SATA controller
Media bays	5 (1 for DVD ROM)
Memory protection	Advanced ECC, Mirroring
Form factor	Tower or 5U rack
Expansion slots	1 x PCI Express Gen 2 x16 (x8 speed) 1 x PCI Express Gen 2 x8 (x8 speed) 4 x PCI Express Gen 2 x8 (x4 speed) Optional: 2 x PCI-X 100 MHz (replaces 1 x PCI Express slot)
Operating systems supported *	Microsoft® Windows® Server 2003/R2 Microsoft® Windows® Server 2008 Microsoft Windows Smalls Business Server 2008 and Microsoft Windows Essential Business Server 2008 Windows Server 2008 Hyper-V Novell NetWare Red Hat Enterprise Linux SUSE Linux Enterprise Server VMware ESX Citrix XenServer Redhat and SLEX Xen
Warranty (parts/labour/on site)	3-year/3-year/3-year

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

Ideal environments and applications

Growing businesses
Easy on your pocket, the HP ProLiant ML350 G6 server's modular chassis provides both the flexibility to deploy in a tower or rack environment, and the ability to expand – you can add a second processor, additional hard drive space, more memory and more storage.

Remote and branch office deployment
Security is the key issue in remote and branch office deployments. HP Onboard Administrator provides more secure and dedicated remote management, and control for communicating with the head office. In addition, the Trusted Platform Module (TPM) functionalities make your data more secure.

Midmarket and entry organisation
The 2.93 GHz, 8M cache and 6.4GT/s QPI technology with Turbo mode, coupled with advanced RAID protection makes it an ideal choice for highly available environments. In addition, the redundant power and fan maintain the system's performance, therefore reducing downtime. Also, where HP Systems Insight Manager enhances system health and uptime, HP Insight Control suite Control suite delivers comprehensive system health monitoring, remote control, vulnerability scanning and patch management, as well as flexible deployment, virtual machine management and power management in one easy to install package.

HP Financial Services

HP Financial Services provides innovative financing and financial asset management programmes to help you acquire, manage and ultimately retire your HP solutions cost-effectively. For more information on these services, contact your local HP representative, or visit **www.hp.com/go/hpfinancialservices**

For more information

For more information about the HP ProLiant ML350 G6 server contact your local HP representative, or visit **www.hp.com/servers/proliantml350-g6**

HP Services

When Technology Works, Business Works.

The challenge of virtually every IT organisation 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 range 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, easy-to-use support packages.

Minimum Recommended HP Care Pack services
• Three-year, 4-hour response on site 24-hour x 7-day hardware support
• Server Installation and Startup service

Enhanced service level Care Pack services
• Three-year Support Plus 24: 24-hour x 7-day coverage, integrated hardware and software OS support
• Three-year, Proactive Select delivers flexibly priced consultancy product line

Benefit from HP Care Pack Services helping you:
• Reduce deployment time and manage ProLiant server solutions smoothly and efficiently
• Increase uptime and performance of server 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

Technology for better business outcomes

To learn more, visit www.hp.com/servers/proliantml350-g6