HP Presents Linux on Itanium2

Why HP?
HP's close involvement in the development of the Itanium 64-bit architecture and ongoing commitment to the advancement of Linux make HP uniquely qualified to help customers and partners make the transition to Linux on Itanium2, and to ensure optimized performance now and in the future.

HP's Itanium Services and Support at a Glance
HP's services and support program smoothes the transition to Itanium and helps companies maximize the architecture's benefits in new and existing environments:

Planning. Expertise to determine strategy, including IT strategy consulting, migration planning, transition analysis, and technology finance.

Porting and migration. Skilled assistance to ease transition, from free porting and migration assessment workshops to actual delivery of porting and migration.

Implementation. Assistance putting plans into action, including installation, startup services, SSL Web server implementation, security consulting and analysis, and data migration.

Support. Ongoing care to ensure always-on success, including hardware and software, proactive and mission critical in your in-house or managed environment.

Education. Wide-ranging curriculum providing skills and knowledge to IT professionals in an Itanium-based environment.

Linux Distributions Certified for Itanium2
Because of the performance-enhanced HP zx1 Chipset, only precertified Linux distributions will run on HP's Itanium2-based systems. Customers have several options. Because Linux can be copied freely, customers need not purchase an OS from HP for each system. Current and forthcoming supported distributions include the following.

- **MSC.Linux**, a distribution that focuses on high-performance computing and includes a set of tools to manage compute clusters, is available.
- **Debian** is available within the open source community for advanced users.
- **Red Hat Linux Technical Workstation** will be available to run on zx2000 and zx6000 workstations beginning in early fall 2002.
- **Red Hat Linux Advanced Server** will also be available to run on rx2600 and rx5670 servers beginning in early fall 2002.
- **SuSE** will be available in fall 2002, possibly as a UnitedLinux distribution.
- HP is actively working to make other leading Linux distributions available on Itanium2.

Every HP Itanium2-based system configured to run Linux comes with an HP Enablement Kit for Linux. This set of tools—which is independent of the OS itself—includes a DVD and manual that provide the framework and documentation for installing, configuring, and recovering Linux on the supported system.
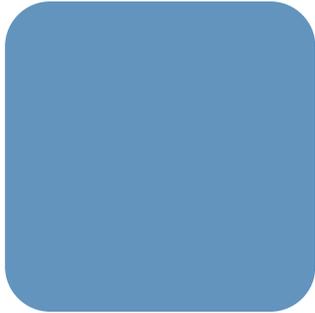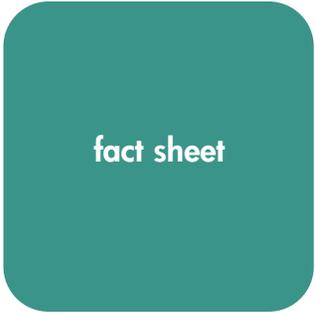
**Unprecedented
Performance for a Range
of Markets**

Linux solutions and Linux ISV applications well-suited for Itanium2 include modeling and simu-lation, design and visualization, scientific research, and SSL acceleration.

Some of the earliest adopters of Linux on Itanium2 have been companies developing their own applications. Developers are free to use either GCC or Intel compilers. In the ISV arena, both BEA and Oracle have strongly stated that they will support their solutions on Itanium2 with Linux. Digital content creation (DCC) companies including SoftImage and Side Effects have also been quick to embrace Linux on Itanium2. Other ISV partners include MSC.Software (computer-aided engineering), and Zeus (Web server software).

Industries expected to be among the earliest to adopt Linux on Itanium2 include:

Science and engineering, including research, CAE, life sciences and pharmaceuticals, DCC, MCAD, EDA
Extended manufacturing
Public sector
Financial services
Network service providers and telcos

**Ideal for Technical
Compute Clusters**

Itanium2 and Linux are ideally suited for high-performance technical compute clusters. Especially since bringing Compaq's robust clustering program on board, HP is aggressively pursuing the cluster market. HP has already begun delivering advanced clustering solutions, including the world's fastest Linux supercomputer at the U.S. Department of Energy's Pacific Northwest National Laboratory.

HP Server rx2600 two-way system is a densely packed compute node for performance in a small form factor. For maximum performance without concern for space, HP offers the Server rx5670 four-way system. HP Workstation zx2000 and HP Workstation zx6000 can be used for design and visualization tasks and later be repurposed as the basis for a cost-effective compute cluster.

HP provides specialized services for customers deploying and using high-performance techni-cal Itanium2 compute clusters:

• Leading planning, migration, integration, implementation, and support services.
• Robust services in system architecture application and system performance, systems and software interaction and management, high-availability infrastructure, change management, and security.
• Education and knowledge transfer for cluster system administrators and application developers.

fact sheet
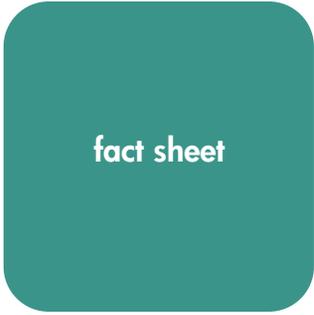
linux on Itanium2

FAQs

Q: What HP Itanium 2-based systems are running Linux?
A: The HP Server rx2600 and HP Server rx5670, HP Workstation zx2000, and HP Workstation zx6000 all run Linux.

Q: Will my existing Linux Itanium application run on Itanium2 without recompilation?
A: Yes. Applications compiled for Itanium Linux should be forward compatible to Itanium2, much like IA-32 Linux applications are generally forward compatible to new revisions of the Pentium chip.

Q: Will my existing Linux IA-32 application run on Itanium2, without recompilation?
A: There is support in the Linux distributions for running unmodified IA-32 applications, taking advantage of the IA-32 emulation mode in the Itanium and Itanium2 processors. While you get effective performance in IA-32 compatibility mode, you won't achieve the full power of Itanium without running your applications in 64-bit native mode.

Q: Will my existing Linux applications easily recompile for Itanium 2?
A: Generally, yes. Linux on Itanium2 is "just Linux," with the same APIs you would find on other platforms. If a Linux application is being ported to Itanium for the first time, there are some potential areas that could be an issue. For example, Linux on Itanium supports 64-bit applications only. In order to successfully port to Itanium, an application would need to be 64-bit clean.