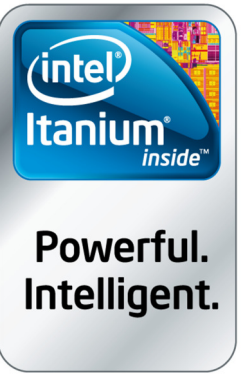


Mission Critical CloudSystem with Itanium Processors

Infrastructure as a Service (IaaS) Offering



Enabling new features with Itanium

HP and Intel already provide world-leading hardware and software for mission-critical applications. The two companies now introduce a platform on which to run these applications as cloud-based services.

Cloud computing promises greatly improved cost models for mission-critical applications, as well as increased flexibility, scalability, and reliability.

HP Integrity BL860c i2 server blade with Intel® Itanium® processors is now available into HP's cloud offering. This platform allows service and network equipment providers to develop new mission-critical services based on the Infrastructure as a Service (IaaS) cloud computing model.

HP's current functional cloud computing architecture uses software and application programming interfaces running on servers with Intel® Xeon® processors. The new project adds HP Integrity servers to this hardware mix and propagates specific features of the Itanium processor family across the solution's software layers.

Propose new IaaS services to address the needs of mission-critical applications

The benefits obtained by enriching the cloud infrastructure with support for mission-critical applications include:

- Customers' primary concerns with cloud computing are availability, privacy, and security. The HP-UX operating system running on HP Integrity server blades delivers built-in resilience and scalability, and provides the high-performance infrastructure necessary for mission-critical applications.
- HP Integrity servers and HP-UX offer a smooth transition path to the cloud for existing mission-critical hardware and applications, thereby leveraging existing investments.
- Itanium processors are perfectly adapted to the intensive calculations, database support needs, and complex n-tier architectures of mission-critical applications, while guaranteeing compatibility with all existing HP-UX applications.

Components of the Itanium platform

HP BladeSystem Matrix for HP-UX dynamically allocates resources to real and virtual servers. It can be instantly reconfigured to meet changes in demand, delivering leading-edge scalability. Matrix blades can also be easily expanded from 2 to 4 or even 8 sockets to satisfy future growth needs.

HP BladeSystem Matrix for HP-UX includes Integrity Virtual Machines. Specifically designed for mission-critical environments, this virtualization software performs equally well within high-availability clusters as on individual servers.

HP Serviceguard is a high-availability clustering solution, providing mainframe-class reliability and disaster tolerance, seamless control over availability, and the capability to manage the entire hardware environment, including storage. HP Serviceguard also includes disaster recovery options to satisfy even the most cost-sensitive of customers.

HP-UX provides multi-layered security to protect critical systems from external threats, while cross-platform LDAP and Active Directory integration allows servers to be centrally secured and managed. Figure 1 provides an overview of this new cloud architecture.

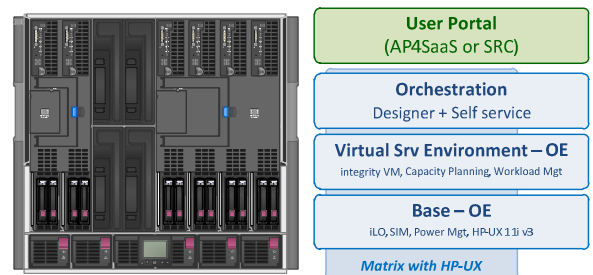


Figure 1: Technical architecture

The HP Integrity BL860c i2 server blade is fully integrated into this infrastructure. Equipped with mezzanine cards for maximum flexibility, it shares the same blade chassis and Storage Area Network (SAN) equipment as the equivalent Xeon processor-based blades.





The operating system is HP-UX 11i v3, incorporating the Integrity Virtual Machine hypervisor. The Insight Software suite manages the server blades.

Some of the innovative new categories of IaaS cloud services supported by this platform include:

- **Designed Solutions** allow system architects to use a graphical designer to create templates, which can then be published to create infrastructure services for users.
- **Provisioned Solutions** allow self-service users to select predefined infrastructure templates then request their provisioning from an assigned pool of resources. An administrator can approve or deny provisioning requests and monitor overall progress.
- **Operating Solutions** enable administrators to manage hardware pools, deployment jobs, and task provisioning while monitoring the platform's health and resource utilization.
- **Integrated Solutions** allow administrators to integrate I/O with existing IT processes by creating or adapting workflows to customize I/O automation.

HP Intel CME Solution Centers' team and facilities

The HP Intel CME Solution Centers in France, China, and the United States have implemented a new Infrastructure as a Service (IaaS) solution for mission-critical environments. This solution is now available for demonstrations and can be experienced either online or at our premises.

The HP Intel CME Solution Centers host reference laboratories for cloud-based services and related innovations. These have now been recognized as the HP Cloud Reference Architecture and the Cloud Center of Excellence.

With its team of dedicated experts from HP and Intel, the HP Intel CME Solution Centers offer personalized consultation, integration, and support services.

The HP Intel CME Solution Centers also play a key role in assisting service and network equipment providers plan their migration to the cloud. Their role includes helping to define the objectives of migration projects and answering questions specific to the communications, media, and entertainment fields.

The Solution Centers also offer a range of practical programs, including innovation workshops and proofs-of-concept.

HP and Intel key hardware components

HP Blade System c7000 Enclosure

Provides all the power, cooling, and I/O infrastructure needed to support modular server, interconnect, and storage components today and throughout the next several years.

Intel® Itanium® Processors 9000 Series

Deliver powerful and scalable performance for UNIX and mainframe environments, along with world-class availability and uninterrupted business for your most mission-critical applications.

For more information

To read more about the HP Intel CME Solution Center, visit www.hpintelco.net

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