What the UNIX Developer's Interface Guide will do for you

Functionally, the UDIG specification will provide a means to enhance interoperability and compatibility across UNIX operating systems and diverse hardware devices used on Intel-based servers. Equally important, the UDIG specification will have far-ranging impact on the way UNIX is perceived and evaluated by IT users.

Benefits for IT Departments and UNIX users

The UDIG specifications provide a higher degree of UNIX operating system standardization at the base system level. For UNIX customers, this increases reliability and confidence in deployment. It reduces qualification effort for Intel-based server solutions, and provides a much broader choice of products. Moreover, the industry's cooperative work in developing the UDIG specification is proof of a good-faith effort toward uniformity. IT users know from experience that industry specifications work to their advantage. The UDIG specification will reduce the issues of UNIX fragmentation on Intel-based servers.

Benefits for UNIX OSVs

The common interfaces identified in the UDIG specification will reduce OS porting time and effort across hardware platforms, enabling OS products to get to market in less time. Likewise, it will minimize porting efforts for peripheral devices, expanding the market of peripheral products available for each OS implementation. This will then allow OSVs to focus their development work on product features that add more tangible customer value and product differentiation.

Benefits for IHVs

The common interfaces identified in the UDIG specification will reduce porting efforts for peripheral devices enabling IHV products to get to market in less time, and with portability across UNIX OS implementations, allow those products to reach a much broader market. This will then allow IHVs to focus their development work on product features that add more tangible customer value and product differentiation.

Conclusion

The UNIX Developer's Interface Guide for Intel-based servers is the result of an ambitious cooperative effort among the vendors of UNIX for Intel-architecture systems, including OSVs, IHVs and BIOS vendors. It answers IT users' demand for improved compatibility and interoperability among UNIX operating systems and devices installed on Intel-based servers. By adhering to the UDIG specification, companies developing UNIX products aimed at Intel-based server platforms will benefit from reduced porting costs and access to a much broader selection of compatible software and hardware devices.

For more information please visit http://developer.intel.com/go/dev_guides
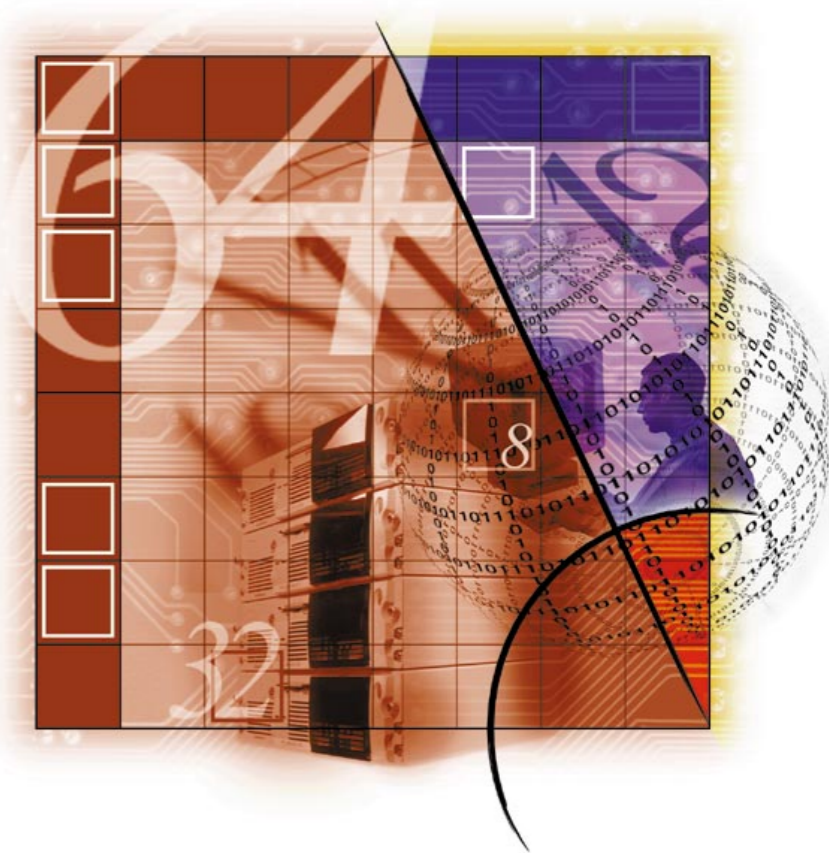
UNIX* Developer's Interface Guide
for Intel®-Based Servers

UNIX* is the leading solution for financial and database applications in corporate IT environments. While UNIX historically has been delivered on proprietary server platforms, many companies are moving to Intel® architecture systems for use throughout their organizations. Many of these users want the openness and cost-efficiency of Intel-based servers combined with the strengths of UNIX, particularly its reliability and feature performance.

intel®

Developing Common UNIX Hardware Interfaces

Intel is committed to supporting the needs of IT professionals, and to removing obstacles to expanded use of the UNIX® operating system and devices on Intel-based servers. One of these obstacles has been a lack of common hardware and software interfaces among the many proprietary variants of UNIX. Until now, OSVs and IHVs have had to spend tremendous amounts of redundant effort to develop products for and port to the diverse implementations of UNIX. Both vendors and users will benefit if unnecessary differences among UNIX variants are minimized.

For this reason, Intel and leading UNIX industry vendors have joined forces to create the UNIX Developer's Interface Guide (UDIG) for Intel-based servers. For UNIX OSVs, IHVs and BIOS vendors, the UDIG specification will facilitate:

- **Design based on common frameworks**

- **Standard design conventions**

- **Programming to standard interfaces**

- **Use of DDKs and SDKs, and reference implementations to accelerate product development**

What's in the UNIX Developer's Interface Guide for Intel-Based Servers

The UDIG specification will focus on specific areas affecting the development of common hardware interfaces for the UNIX operating system and peripheral devices for 32-bit and IA-64-based server systems. The content is determined by a working group made up of leading OSVs, BIOS vendors and IHVs. The guide contains a description of system and component architecture from existing industry standards and future technology trends to provide a context for programmers and system engineers. It describes programmatic interfaces and usage guidelines, and it provides examples.

The guide will also contain documentation about compliance test procedures as appropriate: test criteria, test suites and tools. OSVs and IHVs will administer and monitor their own compliance testing processes.

Sample Topics

Expected to be Documented in the UDIG Include:

Boot and Configuration BIOS
- [Pre]Boot Environment
- System Configuration

Device Interfaces
- Device Drivers
- I/O Technology
- IA-Specific Conventions

Server Management
- Dedicated Platform Management Interfaces
- Diagnostics

RAS Hardware Support
- Recoverability
- CPU
- Memory
- I/O

High Performance
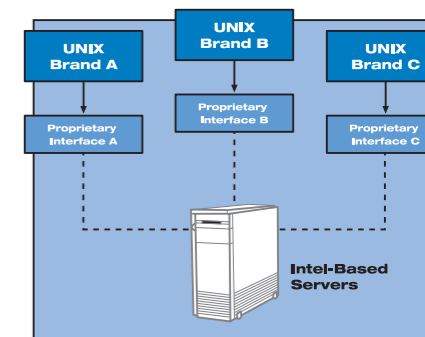- Clustering
- Scalability

Figure 1
With no consistent interface to the Intel-based server platforms, each UNIX® OS brand has required its own proprietary interface.
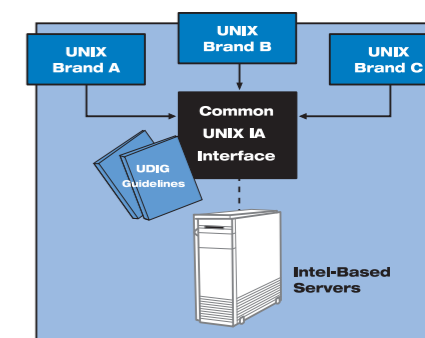
Figure 2
With the frameworks contained in the UNIX® Developer's Interface Guide for Intel-based servers, every compliant UNIX OS sees a single, consistent interface.