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# Compaq TaskSmart Appliance Servers: Computing Paradigm of the Future

**Abstract:** Compaq introduces TaskSmart Servers, a new family of appliance servers tuned and optimized for specific applications. These specialized servers, that include integrated and optimized hardware, operating system and application, are easy to deploy and manage, and offer fast, simple answers to current solution deployment bottlenecks.

With this new line of servers, Compaq becomes the first vendor to provide a comprehensive appliance server architecture to help enterprise customers simplify and speed deployment and operation, allowing them to achieve higher levels of performance and reliability. The first products, to be launched in North America within the next 30 days, will be a series of Internet caching appliance servers. Other application areas under investigation or development include file storage, directory, security, and database solutions.

Compaq brings the proven benefits of industry-standard computing to this rapidly emerging market, offering scalable product ranges for selected applications. Each new product will be offered under a new appliance server brand and business architecture, incorporating:

- Powerful enterprise management
- Best-of-breed solutions
- Broadest range of integration and sales support
- Simplified service and complete accountability



**Compaq TaskSmart Appliance Servers:  
empowering customers to achieve greater  
competitive advantage  
in the e-commerce world.**

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# Accelerating Business Advantage with Compaq TaskSmart Servers

## The Customer Challenge

Internet content continues to grow explosively, attracting ever-widening audiences. Nielsen Media Research estimates the United States Internet population at 99 million, up 43% from a year ago. According to the United Nations, the Internet will have 200 million users “within a year or so.” At the same time, companies are drawn to the web by the potential for e-commerce. In a recent Duke University study, 56% of companies surveyed claim they will be selling on the Internet by next year. Analyst predictions for the size of the e-commerce market in 2000 range from \$66 billion (Forrester Research) to \$153 billion (IDC).

This translates into a surge of data and applications, and therefore complexity. Enterprise customers find themselves with proliferating server farms and many new applications awaiting deployment. Also, industry-standard computing has created an ever-widening range of solution choices. This range of choices, together with the continuing shortage of trained IT staff, means that customers are now experiencing serious bottlenecks in deploying their solutions.

One approach to accelerating solution deployment is to deliver hardware, operating system, and application software as a complete product: configured, tuned, and optimized. Using long experience in application integration and partnering with leading software vendors, Compaq is the first leading vendor to support this new computing architecture: **appliance servers**. These products – to be delivered under the Compaq TaskSmart brand – are single-purpose systems, tuned and optimized for one specific application. They include all the hardware and software components necessary to deliver that specific computing function with extremely high performance and reliability.

Appliance servers provide complete integration for key applications – essential building blocks for customers to deploy complete business solutions, augmenting the current industry-standard approach for specific applications.

Uniquely, TaskSmart Appliance servers support two complimentary directions of Compaq’s innovation strategy:

- Driving high-volume, standards-based hardware innovation, such as Automatic Server Recovery, redundant power supplies, PCI Hot Plug, VI Architecture, and PCI-X.
- Advancing smarter solutions, from the original SmartStart and Compaq Insight Manager through activeAnswers and Intelligent Cluster Administration.

The TaskSmart appliance server family is another step forward, providing tools and techniques that empower customers, system integrators, and others with smarter solutions at less complexity and lower cost.

## The Customer Advantage of TaskSmart Servers

Many customers see clear advantages in using TaskSmart servers. For Don Porter, manager of network and information at Salt Lake City-based Utah Link EdNet, using Compaq TaskSmart caching servers to speed Web access in schools was an easy choice.

"I know there are solutions you can put on a general-purpose server, but an appliance is so quick and easy," Porter said. "I've deployed these throughout the state, and the people at the remote sites don't always have the expertise to install the network operating system and do the complicated configuration required with a general-purpose server. The appliance, on the other hand, can be installed and configured in under 15 minutes."

Many industry analysts also see appliance servers as representing the wave of the future. As Carl Howe, research director at Forrester Research in Cambridge, Massachusetts, told *Network World*, "The thing about (general-purpose) servers is that they are a platform, and that function is still required. There are, however, some functions that are just done better by other devices."

Several vendors are developing integrated hardware/software offerings. However, Compaq is the first vendor to propose a comprehensive approach – an overall strategy for addressing customer needs across a broad application range. This underlying business architecture, an effort to ensure customers have the fastest, simplest solution, is focused on four main areas:

- Powerful enterprise management
- Best-of-breed solutions
- Broadest range of integration and sales support
- Simplified service and complete accountability

### **Powerful Enterprise Management**

Compaq recognizes that IT managers look to standardize their architectures and vendors. The last thing many companies want is another new platform to manage, another new application to learn and integrate, and another new vendor to build a service relationship with. Consequently, Compaq TaskSmart servers will be delivered with a unified management architecture that includes powerful enterprise management tools.

Every server in the TaskSmart family will have simple, intuitive interfaces and tools for application setup and management. Complete remote setup and administration will be supported as a TaskSmart server standard. In addition, all products in the TaskSmart family will have a common management framework, and common interfaces, reducing the need for training and increasing user familiarity. Compaq TaskSmart servers will provide seamless integration with enterprise management tools, including Compaq Insight Manager, HP OpenView, Tivoli, BMC, and CA, to meet the broadest range of business needs.

### **Best-of-Breed Solutions**

As the volume and market leader in server hardware, Compaq has an unmatched track record of industry-standard hardware innovation. This leadership has been maintained by combining Compaq's engineering excellence with unrivalled integration expertise. Compaq works constantly with partners to deliver fully tested and optimized standards-based solutions, culminating in more customers and a leading market share position across a range of operating systems and applications. The development leverage inherent in industry-standard solutions drives both a faster pace of innovation as well as significant economies. Customers know that a Compaq solution will have high value, will be brought to market quickly, and will be fully tested and optimized for the industry-standard computing environment.

Combining Compaq engineering excellence with our strong software partner relationships, Compaq will deliver the best-optimized products based on the unique characteristics of each application and how it fits within a customer environment.

## **Broadest Range of Integration and Sales Support**

Compaq TaskSmart servers provide a self-contained solution at the hardware/operating system/application level. However, for many applications, customers are looking for a best-of-class total solution at the business process level. As such, Compaq TaskSmart servers represent critical building blocks to help customers deploy a total solution more quickly and cost-effectively than a proprietary alternative. Particularly in an environment of IT skill shortage and time constraints, Compaq is working closely with broader solution providers to meet these needs.

Compaq Network System Integration Services, other business solution providers, and high value channel partners will all be empowered to use Compaq appliance servers as components in broader business process solutions. In addition, pre-sales services such as network planning, product sizing and application suitability will soon be available to aid customers in confident appliance deployment.

Compaq industry-standard server account teams will also be offering TaskSmart servers, along with the full range of ProLiant and Prosignia products, through new online ordering mechanisms as well as traditional Compaq channels. As TaskSmart servers are pre-configured, optimized, and tested in the factory, Compaq will deliver them quickly and easily directly to customers however they are ordered.

## **Simplified Service and Complete Accountability**

Many customers require early support when deploying new applications. However, support quality can vary between hardware, operating system, and application software providers, and for some problems, responsibility for a specific problem may be difficult to assign. Many customers complain about vendor finger-pointing.

Compaq appliance server architecture completely eliminates this concern. Compaq will take complete responsibility for hardware, operating system, and application software support. Compaq Services or our service partners will be the single point of contact for any service event associated with any product in the Compaq appliance server family. To enhance the customer purchase and ownership experience, Compaq will provide additional appliance-specific services.

Compaq is offering appliance servers as complements to the ProLiant general-purpose server hardware family. Compaq plans to offer common spares within the appliance server family as well as between appliance servers and ProLiant hardware.

# **Compaq TaskSmart Servers for Internet Caching**

Compaq TaskSmart servers for Internet caching, also known as the Compaq TaskSmart C-Series, will be the first to carry the new Compaq appliance brand, and will be available worldwide within the next 30 days.

The explosion of web content and the intense demands of new e-business applications stress web servers and client access performance alike. At the Internet Service Provider level, and increasingly with web-enabled businesses, caches are becoming critical to deliver content faster and more cheaply. Many tiered hierarchical caches have been set up to accelerate the web. The disparity between the cost of storage and the cost of bandwidth makes web caches a compelling value proposition both now and for the foreseeable future. Web object caching, today often bundled as part of general multi-application solutions, benefits greatly from specifically tuned and optimized hardware and software. This solution delivers huge performance advantages,

which easily translate into WAN bandwidth savings, vastly improved user/customer response and greater web server farm scalability.

"Internet caches are at once a simple and obvious engineering enhancement to the basic publish and browse model of the Internet, and at the same time offer a diverse set of valuable benefits that are not immediately obvious, ranging from acceleration of existing web servers, replacing existing cumbersome file mirroring schemes, to significantly enhancing the performance of Internet browsers over dial-up modem connections," notes Peter Christy, Senior Analyst at Collaborative Collaborative Research, a Silicon-Valley based consultancy which tracks the caching marketplace.

These new TaskSmart caching servers, available shortly, will allow any businesses relying on Internet or Intranet applications to accelerate their business advantage through improved quality of service and significant cost savings.

Deployed between firewalls and web content servers in server acceleration or reverse proxy mode, cache servers reduce the load on web server farms and bring the most-requested data closer to customers. Client acceleration or forward proxy deployment speeds client web access, reduces bandwidth traffic, and results in significant savings.

Compaq will offer a powerful but affordable web caching solution that interoperates with and can be managed within *any* enterprise infrastructure. Based on award-winning industry-standard hardware, tuned and optimized with custom Internet caching software from an industry-leading partner, Compaq is providing the fastest and smartest web cache server to optimize and accelerate Internet business solutions.

Compaq TaskSmart C-Series servers for Internet caching will include an OS kernel that is specifically optimized for storing web objects to deliver blazing performance. They will be delivered in a range of scalability and availability options, rack-mounted, ready for clustering, and transparent to the client browsers.

Unique setup and administration tools will make these servers easy to deploy, even in remote offices without MIS support. Tools will be provided to make it unnecessary to send a central MIS manager to install the server at a remote site. Each server will be managed by a client computer via a simple web-browser interface, with simple, easy-to-follow configuration menus and tools to guide customers through the process. Software agents will be integrated into the pre-configured and tuned hardware to allow the hardware to be managed through Compaq Insight Manager and other industry-leading systems management tools. The optimized software will also include other caching features such as filtering, scheduled downloads, and cache refreshing as well as various log file options.

Compaq's Internet caching appliance servers will be suitable for any operating environment. No specialized operating system or file system knowledge is required for full utilization and maximum efficiency. UNIX, NT, and NetWare environments will all be fully supported. Beta versions of these products have been in test at customer sites since Q4/98.

## Other TaskSmart Solutions

These imminent products are only the start of Compaq appliance server plans. Within this new brand and appliance architecture, Compaq has identified many other major applications where appliance servers can provide significant time-to-solution and price/performance advantages over existing general-purpose server deployments.

Many industry analysts have already identified network file storage appliances (also known as network-attached storage or NAS) as a large and growing market. IDC values the worldwide NAS market at \$12 billion by 2002. Several closed proprietary offerings have been developed. As with the Internet caching solution, the Compaq approach will integrate our innovative standards-based hardware technologies with an optimal file server software solution to bring customers a trusted solution. Meeting customer demands for multi-protocol file system support, ease of deployment, scalability, and related solutions such as back-up offerings, Compaq plans to deliver a range of dedicated file storage servers later this year.

Many other solutions are at various stages of investigation and development. Applications under consideration include security, web servers, messaging, telecom, and database solutions. In each case, Compaq will work with one or two leading partners, optimize the systems, integrate them within the overall appliance server family framework, and deliver the same high level of management support so that all appliances in the family have the same look and feel and management functionality. Customers will not need to support new architectures or develop new vendor relationships. Compaq will provide, support, and manage the integrated application.

Compaq appliance choices are based on two key factors:

- Whether the application and communication standards for the application are well-defined
- The amount of customization required by most common deployments of that application

If standards are well-defined, the appliance server based on those standards will be broadly accepted. When little application customization is required, those servers can be integrated before shipment, easily deployed, and plugged seamlessly into a customer network.

The Compaq vision of appliance servers incorporates two differing technical approaches. For some applications, tuning and/or embedding the operating system and integrating with general-purpose server hardware achieves the best balance between optimizing the performance and reliability of that application and flexibility. For others, truly optimal performance requires tuning and specializing the hardware as well as the operating system.

## Conclusion

With this announcement, Compaq brings the industry-standard approach to appliance servers. Compaq TaskSmart appliance servers will guarantee customers the flexibility, cost advantages, and performance enhancements delivered by traditional Compaq server platforms, along with application integration expertise forged through close and long-term industry partnerships. Customers deploying Compaq appliance servers will know their server appliances are tuned and optimized for best application performance, comply with industry-standard protocols, and can be integrated and managed within any computing environment. Compaq TaskSmart servers accelerate customer time-to-solution and provide excellent business advantage.