



THE SUN COBALT RAQ 4 IS ADVANCING SERVER APPLIANCE TECHNOLOGIES BY INTEGRATING THE MOST POWERFUL TOOLS AND APPLICATIONS INTO A RELIABLE, LOW-COST SOLUTION.

### Q. WHAT IS THE SUN COBALT™ RAQ 4 SERVER APPLIANCE AND WHAT DOES IT OFFER?

A. The Sun RaQ 4 server appliance product line is a low cost, high density server appliance for Service Providers (SPs) and application developers that makes the deployment of applications and layered services over the Web quick, easy, and profitable. Combining outstanding features, performance and price, the Sun RaQ server appliance fulfills the SP's need for reliable, comprehensive, dedicated hosting solutions. More importantly, the Web-based user interface simplifies administration and enables out-of-the-box installations in less than 15 minutes.

Sun RaQ 4 server appliances come pre-configured with support for the world's leading development environments, giving customers everything they need to develop and deploy their Web applications. Unlike other Web application servers that tightly link the development environment to the server, the Sun RaQ 4 server appliance lets you choose from a wide variety of development tools such as Microsoft FrontPage® 2000 and Visual InterDev®, Macromedia® Drumbeat™ or NetObjects® Fusion.

Configured with the Linux® OS, Apache® web server, InterBase 6™ SQL Database and RAID 1 disk mirroring (Sun RaQ 4r server appliance), the Sun RaQ 4 server appliance is the ideal platform for deploying business critical applications that demand high requirements for reliability at a fraction of the cost of traditional Unix®, Windows NT®, or "build-it-yourself" alternatives.

### Q. WHAT IS THE DIFFERENCE BETWEEN THE SUN RAQ 4 THE SUN RAQ 3 SERVER APPLIANCES?

A. The Sun RaQ 4 server appliance product line is advancing Sun server appliance technology by integrating powerful tools and applications into a reliable, low-cost solution. It all starts by enhancing powerful development functionality like Active Server Pages and PHP, which means that the Sun RaQ 4 server appliance supports virtually every Web development environment out there - allowing you to choose the tools and technologies that best fit your skills. Second, is the addition of a powerful database to enable more dynamic, business critical applications to be deployed on the Sun RaQ 4 server appliance. Additionally, Sun high reliability standards will offer business critical applications a unique advantage by including software RAID1 as a standard feature in the Sun RaQ 4r server appliance.

All of these features, plus a few more enhancements, make the Sun RaQ 4 server appliances the ideal platform for SPs and application developers to deploy their applications and services.

### Q. WHAT'S NEW IN THE SUN RAQ 4 SERVER APPLIANCE?

A.

#### **Increased reliability:**

The Sun RaQ 4r server appliance, the new premium line in the Sun RaQ 4 family of server appliances, includes internal RAID 1 mirrored disks, thereby protecting the customer from any disk failure. This increased level of reliability allows tremendous opportunities for the service providers to offer new higher value-add packages to their end-customers. The end-customers, especially business critical (e-commerce) clients, will now facilitate their demand for higher reliability by applying the Sun RaQ appliance as their choice of hosting platform.

#### **Integrated Developer Tools (Active Server Page and PHP Support)**

The Sun RaQ 4 server appliance comes pre-configured with support for the world's leading development environments, giving customers everything they need to develop and deploy their Web applications. Unlike other Web application servers that tightly link the development environment to the server, the Sun RaQ 4 server appliance lets customers choose from a wide variety of development tools such as Microsoft FrontPage



## Frequently Asked Questions

---

2000 and Visual InterDev, Macromedia Drumbeat or NetObjects Fusion. This means that customers can take advantage of the following:

- Maximize scarce developer resources.
- Improve time to market of applications.
- Protect existing investment in a cross-platform environment.
- Easily migrate your existing applications to the Sun platform.
- A wide variety of development tools.

**More Power:**

The Sun RaQ 4 server appliance offers an increase of 35% in power over the Sun RaQ 3 server appliance

**Revisions of the applications to the latest stable version:**

Sun RaQ 4 server appliance upgrades the pre-packaged applications and the kernel to the latest stable software version.

**Q. WHAT THIRD PARTY APPLICATIONS ARE AVAILABLE FOR THE SUN RAQ 4 SERVER APPLIANCE?**

**A.** The array of solutions available for the Sun RaQ 4 server appliance product line makes it an ideal appliance platform for high-traffic Web portals, e-commerce, and application hosting. Sun RaQ 4 server appliance customers and developers can build on leading edge Web and Internet technologies from industry leaders including Intershop™, Oracle®, OpenMarket™, Miva®, RSA™, Sane Solutions, Verisign® and Real Networks®. Refer to the Sun Cobalt solutions page at <http://www.cobalt.com/solutions/>.

**Q. WHO IS THE TARGET CUSTOMER FOR SUN RAQ 4 SERVER APPLIANCE?**

**A.** There are three main markets for the Sun RaQ 4 server appliances. First and foremost are the existing targets of the hosting providers of the world. The hosting industry is familiar with Sun and the Sun RaQ 4 server appliance is something they have requested. The markets main objective is to find a solution that offers the following traits: reliability, economics, simplicity, and flexibility. From a toolset perspective, they now have an easy migration for those existing customers running on the Windows NT platform. They also have the ability to offer their customers virtually any website development tool to go to market with. SPs now will have the ability to offer customers the ability to leverage their existing tool knowledge and deploy a cost effective, reliable Sun platform.

A second target market for the Sun RaQ 4 server appliance is the Application Service Provider. This is a fairly new segment, without clear definition. For the most part, they are Hosting providers that are looking to offer value-added services through the deployment of 3rd party or custom built applications. The majority of these applications are database driven, so the Sun RaQ server appliance offering includes the necessary tools built into the box. These tools include Sun Chili!Soft ASP, PHP, and InterBase Database.

A final target for the Sun RaQ 4 server appliance line is the developer community. This group is focused on getting their applications deployed to the market, while utilizing Sun Cobalt's support and tools for their respective technologies. Because Sun Cobalt provides support for all of the major Web development tool environments, the Sun unique offering becomes the complete solution.

**Q. WHAT SOLUTIONS CAN AN ISP DEPLOY WITH A SUN RAQ 4 SERVER APPLIANCE?**

**A.** The Sun RaQ server appliance made it's introduction into the space by making the concept of dedicated hosting available to the Global 1,000,000 through it's unique offering of price, performance, and simplicity. Born out of the initial Sun RaQ appliance, dedicated web hosting is the most popular solution that an ISP would offer with Sun RaQ 4 server appliance. The RAID functionality of the Sun RaQ 4r server appliance, drives customers to more business critical applications like e-commerce, and the tool set included in the Sun RaQ 4 server appliance attracts developers to the Sun platform.

**Q. HOW DO I BUY A SUN RAQ 4 SERVER APPLIANCE?**

**A.** The Sun RaQ 4 server appliance product line is now available from select Sun resellers. For more information, please contact Sun at 888-702-6225 or visit the Sun Web site at <http://store.sun.com>.

### Q. WHAT SUN RAQ 4 SERVER APPLIANCE CONFIGURATIONS ARE AVAILABLE?

#### A. SKU Number - Description

CBT R46 6J4 HIU	Sun RaQ 4 - 450MHz CPU, 64MB RAM, one 20GB hard drive, single ethernet
CBT R46 C40 HIU	Sun RaQ 4 - 450MHz CPU, 128MB RAM, one 40GB hard drive, single ethernet
CBT R46 CJ4 GIU	Sun RaQ 4i - 450MHz CPU, 128MB RAM, one 20GB hard drive, dual ethernet, SCSI, PCI Slot
CBT R46 GJ4 GIU	Sun RaQ 4i - 450MHz CPU, 256MB RAM, one 20GB hard drive, dual ethernet, SCSI, PCI Slot
CBT R46 H40 GIU	Sun RaQ 4i - 450MHz CPU, 512MB RAM, one 40GB hard drive, dual ethernet, SCSI, PCI Slot
CBT R46 GH8 RIU	Sun RaQ 4r - 450MHz CPU, 256MB RAM, 2x20GB hard drives, dual ethernet, SCSI, PCI Slot
CBT R46 HM4 RIU	Sun RaQ 4r - 450MHz CPU, 512MB RAM, 2x40GB hard drives, dual ethernet, SCSI, PCI Slot

### Q. WHAT ARE THE DIFFERENCES BETWEEN THE SUN RAQ 4, SUN RAQ 4I AND SUN RAQ 4R SERVER APPLIANCES?

A. While the software features are the same for the Sun RaQ 4 server appliance and Sun RaQ 4i server appliances, there are a number of hardware differences. Compared to the Sun RaQ 4 server appliance, the Sun RaQ 4i server appliance has additional hardware features including a PCI slot, an external SCSI port, dual 10/100 Ethernet ports and dual internal IDE connectors. The Sun Cobalt RaQ 4 server appliance has a single 10/100 Ethernet port, a single internal IDE connector, no external SCSI port and no PCI slot. The Sun RaQ 4r server appliance is identical to the Sun RaQ 4i server appliance except that it comes with 2 Hard Disks and software RAID 1 for increased reliability.

### Q. YOU SAY THAT THE SUN RAQ 4 SERVER APPLIANCE IS EASY TO USE, CAN YOU PROVE IT?

A. Visit Sun Cobalt's demo web site at <http://demo.cobalt.com>, and check for Sun RaQ server appliance family in the "Products" sections. The Demo button will lead you to complete, fully-interactive UI demo that will demonstrate the ease of use and functionality of the product.

### Q. WHAT INTERNET SERVICES DOES SUN RAQ 4 SERVER APPLIANCE PROVIDE?

A. Sun RaQ 4 server appliance product line comes pre-configured with the latest versions of the Apache Web server, ProFTPd FTP server, Sendmail® Email services, DNS, Sun Chili!Soft ASP, InterBase 6 SQL Database, PHP, Front Page 2000 server extensions, Legato® and Arkeia® backup client, 128-bit SSL, Telnet server, SNMP agent, and Sun Cobalt's Bandwidth Management service.

### Q. WOULD IT BE CHEAPER TO BUILD MY OWN BOX?

A. No. You will find that the price of the build your own box is very comparable to Sun RaQ servers. Also, the Sun RaQ 4 appliance product line comes pre-configured with all the Internet service software wrapped in a very easy to use browser based interface that takes the hassles out of adding and configuring the software. Moreover, Sun servers provide ongoing support and continuous product enhancements.

### Q. HOW EASY IS IT TO INSTALL A SUN RAQ 4 SERVER APPLIANCE?

A. It takes less than 15 minutes to setup the server. All it takes is to configure the IP address, netmask, and default gateway address from the LCD console, and configure a single setup wizard screen.

### Q. WHAT IS INVOLVED IN THE INSTALLATION OF SUN RAQ 4 SERVER APPLIANCE?

A. It is as simple as connecting the power and the Ethernet Port, configuring the IP address from the LCD screen, and configuring a single setup screen.

### Q. ARE NT, NETWARE, MACINTOSH OR UNIX LICENSES NEEDED TO USE SUN RAQ 4 SERVER APPLIANCE?

A. No, there is no additional software license required to run or use the Sun RaQ 4 server appliance.

### Q. CAN I UPGRADE THE FIRMWARE?

A. Sun provides updates and patches to the software through the Sun Cobalt website at <http://www.cobalt.com/support/download/>.



## Frequently Asked Questions

---

**Q. WHAT IS THE MAXIMUM STORAGE CAPACITY OF SUN RAQ 4 SERVER APPLIANCE?**

A. The Sun RaQ 4 and 4i server appliances come standard with one 20GB or 40GB internal hard drive. The Sun RaQ 4r server appliance comes standard with two 20GB or 40GB internal hard drives, however the second drive is set up for disk mirroring and does not work towards additional storage with RAID working.

**Q. DOES SUN RAQ 4 SERVER APPLIANCE HAVE ANY SLOTS FOR EXPANSION?**

A. Yes, an internal PCI slot is available for expansion in both Sun RaQ 4i server appliance and Sun RaQ 4r server appliance. The Sun RaQ 4 server appliance does not offer any PCI connectivity.

**Q. WHAT NETWORK PROTOCOLS DOES THE SUN RAQ 4 SERVER APPLIANCE SUPPORT?**

A. TCP/IP.

**Q. HOW DO I CONFIGURE THE SUN RAQ 4 SERVER APPLIANCE FOR TCP/IP?**

A. IP address, netmask and gateway address are configured through the front panel LCD screen. Additional parameters are configured through the browser-based user interface.

**Q. DOES THE SUN RAQ 4 SERVER APPLIANCE SUPPORT NAME BASED VIRTUAL HOSTING?**

A. Name based virtual hosting means that the server can host multiple web sites on a single IP address. Along with IP based virtual hosting, the Sun RaQ 4 server appliance does currently support this feature through the user interface. Do not forget that as you add more and more virtual domains this will degrade the speed of the memory and disk.

**Q. HOW CAN I BACK UP MY SUN RAQ 4 SERVER APPLIANCE?**

A. In addition to the standard web-based backup support, the Sun RaQ 4 server appliance provides the option to remotely backup the server by using either Legato or Arkeia backup software. The Legato and Arkeia client software are included with the Sun Cobalt RaQ 4 server appliance which require a separate network based Legato or Arkeia backup server.

**Q. HOW DIFFICULT IS IT TO USE CHILI!SOFT ASP TO CONNECT AND USE CONTENT FROM A DATABASE?**

A. Not difficult at all. Since the Sun™ Chili!Soft ASP application is integrated into the Sun RaQ 4 server appliance, it follows the simplicity value of the appliance. Simply go to the Chili!Soft configuration page in the user interface and use the wizard to connect to the database of choice (PostgreSQL, MySQL™, SequeLink™, Oracle 8, Sybase®, Informix®, etc.)

**Q. WHAT ABOUT SERVER AUTHENTICATION?**

A. Authentication is provided by Thawte® Certification, a global leader in the digital certificate market place, will be the preferred provider of SSL certificates to Sun Servers. Please visit Thawte at: <http://www.thawte.com>.

**Q. DOES THE SUN RAQ 4 SERVER APPLIANCE SUPPORT DRIVE MIRRORING?**

A. Yes. The Sun RaQ 4r server appliance comes standard with RAID 1 software technology, allowing for data redundancy over two disks.

**Q. CAN I UPGRADE MY SUN RAQ 4 SERVER APPLIANCE STORAGE CAPACITY BY ADDING ANOTHER HARD DISK?**

A. Yes, attaching an external storage device to the SCSI port of Sun RaQ 4i server appliance and Sun 4r appliance can do this very easily. Then just click the "Add Storage" button from the Web-based user interface and the additional storage will seamlessly integrate into the Sun RaQ 4i/4r appliance.

**Q. HOW MUCH MEMORY CAN I PUT IN?**

A. The Sun RaQ 4 server appliance product line is expandable up to 512MB. The memory type is the: 3.3V, 60ns, 72-pin EDO non-parity SIMMs. Be aware that there is a memory module 1.15" height limit inside the case, so check with your memory vendor, and be sure to specify low profile memory when you order.

**Q. HOW MUCH POWER DOES THE SUN RAQ 4 SERVER APPLIANCE DRAW?**

A. The Sun RaQ 4 power supply is rated at 80 watts. It actually runs continuously at much less than 40W and draws less than 30W in idle state. This is far less than other rack mountable servers.

## Frequently Asked Questions

---

● **Q. DOES THE SUN RAQ 4 SERVER APPLIANCE FIT IN A STANDARD SIZED (19") SERVER ROOM RACK?**

A. Absolutely! The Sun RaQ 4 server appliance ships with mounting ears, so it's very easy to install. You can stack up to 40, in a standard rack chassis.

● **Q. CAN SUN PRODUCTS BE USED AS A SECURE (SSL) WEB SERVER?**

A. Yes, the Sun RaQ 4 server appliances come standard with 128-bit SSL and are manageable through the browser based interface.

● **Q. WHAT ABOUT SUN RAQ 4 SERVER APPLIANCE'S WARRANTY AND SUPPORT?**

A. 30 day consulting, 1 year parts and labor. Additional warranty and support are available. For more information on Sun Cobalt support packages, please visit the website at <http://www.cobalt.com/support>.

