

Asterisk on Sun Servers

Innovative telephony solutions at open source prices

When it comes to phone service, companies want the functionality they need at a price they can afford. At the same time, network equipment providers (NEPs) look to provide the features people want — conference calling, automated attendants, call routing, group voicemail, and more — in cost-effective solutions for carriers. Now, these organizations are turning to automated tools based on open solutions in order to reduce the cost of telephony services. By using open source Asterisk software and Sun servers with CoolThreads™ technology, companies and NEPs can create feature-rich, high-performance solutions that cost less to run.

At the heart of the software is intelligence that performs the internal tasks of a PBX. Organizations can switch calls, manage routes, and activate telephone service features. Asterisk can also be configured as a gateway to connect existing telephone infrastructure to new and innovative VoIP networks. Communications are automatically established with call recipients over IP, analog telephone lines, or digital connections.

Asterisk supports a wide range of protocols, and an advanced telephony application toolkit is available to help developers create applications in less time and with less risk.

Highlights

- Utilize the open source Asterisk software to create VoIP-based PBX solutions and take control of telephony services
- Take advantage of the scalability, high-throughput, and carrier-grade features of Sun servers with CoolThreads™ technology
- Build sophisticated server-based PBX solutions at a fraction of the cost of proprietary systems
- Run solutions on the Solaris™ Operating System to help maximize availability and stability
- Lower acquisition costs and reduce TCO with open source solutions on energy-efficient Sun servers
- Benefit from the technological advancements and ingenuity of community innovation

Open source Asterisk software and energy-efficient Sun servers with CoolThreads technology combine to create new opportunities for building telephony solutions that cost less to run.

Open source Asterisk software

A popular open source Private Branch Exchange (PBX) and telephony engine, Asterisk software provides the functionality needed to build sophisticated server-based PBX solutions at a fraction of the cost of traditional and high-end proprietary systems. Released as open source under the GNU General Public License — and available for download free of charge — Asterisk provides the foundation for Voice over Internet Protocol (VoIP) based solutions. Designed with device independence in mind, Asterisk can run on virtually any server platform and interoperate with a wide variety of telephony hardware.

Sun servers with CoolThreads™ technology — a better foundation for telephony solutions

As companies turn to Asterisk software for building cost-effective PBX solutions and telephony applications, finding the right platform for the task is imperative. Sun servers with CoolThreads technology blend the performance and scalability of midrange servers with the proven economies of energy-efficient, chip multithreading (CMT) designs. Providing a family of servers that scale more with less, Sun servers with CoolThreads technology can help companies build fast telephony solutions at less cost and with greater return on investment.

For NEPs looking for carrier-grade stability and performance, Sun offers a comprehensive line of platforms that are ruggedized and NEBS-certified to handle the demands of NEPs and service providers. Sun Netra™ servers with CoolThreads technology, like the Sun Netra T5220 and Sun Netra T5440 servers, optimize network throughput, density, and power consumption in a robust package.

Greater scalability to support greater demand

Companies with Asterisk solutions deployed on legacy server platforms are pushing servers to the limit. As call demands rise and available capacity is consumed, organizations are finding that solutions are failing to offer the scalability needed to keep pace.

Asterisk is a multithreaded application that can take advantage of the massive thread-level parallelism inherent in the CMT capabilities of Sun servers incorporating UltraSPARC® T1 or T2 processors with CoolThreads technology. With up to eight cores and 64 simultaneous execution threads on a single processor, these servers are ideal for rising multithreaded telephony workload volumes. Now, innovative dual-socket servers incorporating UltraSPARC T2 Plus processors provide up to 128 threads in multiple form factors to take performance and scalability to a new level.

Providing significant throughput gains, Sun servers can support more simultaneous calls than other platforms. For example, many small organizations run Asterisk solutions on legacy server platforms that can handle up to 500 simultaneous calls. Recently, Sun Labs engineers tested the Asterisk software on a Sun server running the Solaris 10 OS.

Results show the system can support at least three times the number of simultaneous calls of typical legacy server-based solutions — right out of the box — without operating system or application tuning.

Exceptional stability and availability

Every business relies on its phone system. In order to help keep solutions running, all Sun servers run the Solaris™ 10 Operating System (OS). Traditionally known for its robustness, carrier-grade performance, support, and innovation, the Solaris 10 OS offers capabilities not found in Linux distributions that can help enhance the scalability, reliability, and management of telephony solutions. For example, Predictive Self Healing technology in the Solaris 10 OS automatically diagnoses, isolates, and recovers from many hardware and software faults. These and other tools can help business-critical telephony deployments to continue without disruption in the event of software failures, major component failures, and software misconfiguration problems.

Low acquisition and operating costs for reduced total cost of ownership

In today's economy, keeping licensing and operating costs down is essential for both small businesses and NEPs alike. With the open source Asterisk software and the OpenSolaris™ operating system, companies and NEPs can take advantage of sophisticated applications and environments that are free to download. As a result, developers can create and deploy simple or advanced telephony applications in an environment with low acquisition costs.

Learn More

For more information visit solarisvoip.com, sun.com/netra/t5220, sun.com/netra/t5440, sun.com/coolthreads, or contact your local Sun sales representative.

In addition, Sun servers can help reduce energy consumption and datacenter footprints. Consuming less power and cooling than many other systems, Sun servers with CoolThreads technology offer industry-leading performance per Watt, resulting in reduced power and cooling costs. With high compute power in a small footprint and industry-leading price/performance, Sun servers continue to set and reset standards for performance, reliability, and energy efficiency.

Sun's commitment to open source

Today, many companies look to open source solutions to lower acquisition costs and reap the benefits of community innovation. With an unwavering commitment to free and open source software, Sun continues to help build, grow, and improve solutions and communities in order to foster technological ingenuity. In fact, Sun ported the Asterisk software to the Solaris 10 OS, and contributed the source code to the open source community. In addition, the Asterisk PBX packages for the Solaris OS, and related device drivers, are available at <http://solarisvoip.com>. Now, companies and NEPs can combine the features and benefits of open source Asterisk software with scalable, energy-efficient, and high-throughput Sun servers to create telephony solutions that deliver more value at less cost.