

# Sun Ray™ Ultra-Thin Clients in Technical Computing



## Key feature highlights

- Lower acquisition and maintenance costs
- Delivers server compute power to the desktop
- Higher compute resource utilization rates
- Single desktop provides access to multiple platforms: Java™ technology, the Solaris™ Operating System, UNIX® environments, mainframes, and Microsoft Windows
- Simplified growth and management: All administration and upgrades are handled at the server
- Hot Desking via a smart card encourages collaboration and improves productivity
- Easily accommodates user demand: Simplifies growth and management through consolidation of resources at the server and in compute farms
- Access to hundreds of technical applications written for the Solaris Operating System

For years, design engineers and software developers have counted on Sun Microsystems to provide them with powerful and reliable systems to support their development needs. The Sun Ray™ ultra-thin client continues in this tradition, delivering the power of the server to the desktop.

As companies make greater use of grid compute farms and server-based applications, Sun Ray ultra-thin clients provide an outstanding zero-administration desktop platform. Sun Ray ultra-thin clients bring server-class performance to the desktop, while freeing users from upgrades and administration headaches. The unique Hot Desking feature encourages collaboration by enabling users to access their desktop from any client or to project it in a conference room.

### Ultra-Thin Technical Computing Environment

The technical marketplace faces unique challenges in today's competitive environment. In addition to time-to-market demands, there is also an increasing need for compute power, high availability, and access to resources. As a result, more companies are making use of the

networked services model of computing, consolidating their compute cycles and memory at the server as well as in compute farms for all to share on an as-needed basis.

Sun Ray ultra-thin clients are zero-maintenance, zero-administration devices that are designed to meet the needs of today's technical

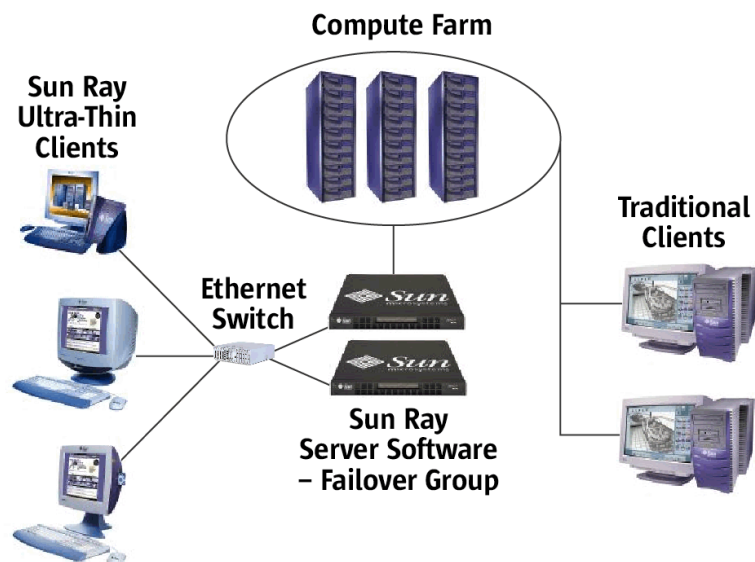


Figure 1: Sun Ray Ultra-Thin Client Computing Model for EDA

## Sun Ray™ Ultra-Thin Clients in Technical Computing

desktop users. With a smart card, users can suspend a session on their desktop and then resume it right where they left off — whether in the lab or at a coworker's desk. This capability provides greater mobility, productivity and collaboration to the team. Sun Ray systems are stateless, plug-and-work clients with multihead support that drives 24-inch displays (1920x1200 resolution, 24-bit color).

Interactive applications such as simulations can be run either locally on the Sun Ray server, in a controlled environment using technologies such as Solaris™ Resource Manager, or on server compute farms controlled by distributed resource management software such as the Sun™ Grid Engine (formerly Sun ONE Grid Engine).

The Sun Grid Engine enables users to submit jobs across a heterogeneous mix of servers: Solaris SPARC® and x86 systems and Linux x86 systems as well as powerful desktops can be added to the grid to ensure maximum CPU utilization.

Sun Ray ultra-thin clients improve productivity and system utilization by harnessing the power of the compute farm, bringing additional compute cycles to developers and engineers when they need them, anywhere on the network. Sun delivers everything from ultra-thin clients to powerful servers for complete grid solutions, offering the right client for the right job. For more details on Sun Ray ultra-thin clients and grid computing solutions, visit [sun.com/sunray](http://sun.com/sunray) or [sun.com/grid](http://sun.com/grid).

### About Sun

For years, customers have turned to Sun Microsystems to help them expand their business, lower their costs, and gain competitive advantage. Sun is a leading provider of industrial-strength hardware, software, services, and technologies that make the Net work.

For more information on Sun, please visit [sun.com](http://sun.com).

### Learn More

Get the inside story on the trends and technologies shaping the future of computing by signing up for the Sun Inner Circle program. You'll receive a monthly newsletter packed with information on the latest innovations, plus access to a wealth of resources. Register today to join the Sun Inner Circle Program at [sun.com/joinic](http://sun.com/joinic).

To receive additional information on Sun software, products, programs, and solutions, visit [sun.com/software](http://sun.com/software).

Sun Microsystems, Inc. 4150 Network Circle, Santa Clara, CA 95054 USA Phone 800 786-7638 or +1 512 434-1577 Web [sun.com](http://sun.com)



We make the net work.

**Sun Worldwide Sales Offices:** Africa (North, West and Central) +33-13-067-4680, Argentina +5411-4317-5600, Australia +61-2-9844-5000, Austria +43-1-60563-0, Belgium +32-2-704-8000, Brazil +55-11-5187-2100, Canada +905-477-6745, Chile +56-2-3724500, Colombia +571-629-2323, Commonwealth of Independent States +7-502-935-8411, Czech Republic +420-2-3300-9311, Denmark +45 4556 5000, Egypt +202-570-9442, Estonia +372-6-308-900, Finland +358-9-525-561, France +33-134-03-00-00, Germany +49-89-46008-0, Greece +30-1-618-8111, Hungary +36-1-489-8900, Iceland +354-563-3010, India-Bangalore +91-80-2298989/2295454; New Delhi +91-11-6106000; Mumbai +91-22-697-8111, Ireland +353-1-8055-666, Israel +972-9-9710500, Italy +39-02-641511, Japan +81-3-5717-5000, Kazakhstan +7-3272-466774, Korea +822-2193-5114, Latvia +371-750-3700, Lithuania +370-729-8468, Luxembourg +352-49 11 33 1, Malaysia +603-21161888, Mexico +52-5-258-6100, The Netherlands +00-31-33-45-15-000, New Zealand-Auckland +64-9-976-6800; Wellington +64-4-462-0780, Norway +47 23 36 96 00, People's Republic of China-Beijing +86-10-6803-5588; Chengdu +86-28-619-9333; Guangzhou +86-20-8755-5900; Shanghai +86-21-6466-1228; Hong Kong +852-2202-6688, Poland +48-22-8747800, Portugal +351-21-4134000, Russia +7-502-935-8411, Singapore +65-6438-1888, Slovak Republic +421-2-4342-94-85, South Africa +27 11 256-6300, Spain +34-91-596-9900, Sweden +46-8-631-10-00, Switzerland-German 41-1-908-90-00; French 41-22-999-0444, Taiwan +886-2-8732-9933, Thailand +662-344-6888, Turkey +90-212-335-22-00, United Arab Emirates +9714-3366333, United Kingdom +44-1-276-20444, United States +1-800-555-9SUN or +1-650-960-1300, Venezuela +58-2-905-3800

**SUN™** © 2003 Sun Microsystems, Inc. All rights reserved. Sun, Sun Microsystems, the Sun logo, Java, the Java Coffee Cup Logo and Solaris are trademarks or registered trademarks of Sun Microsystems, Inc. in the United States and other countries. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. in the U.S. and other countries. Products bearing SPARC trademarks are based upon an architecture developed by Sun Microsystems, Inc. UNIX is a registered trademark in the United States and other countries, exclusively licensed through X/Open Company, Ltd. Information subject to change without notice. v3.0 10/03 R1.1