



SUN MICROSYSTEMS FEDERAL EBOOK: ATCA IN ACTION

STEP 1: Understanding ATCA

STEP 2: ATCA In Action

STEP 3: Broad Benefits

STEP 4: Smarter Solutions

STEP 5: Turn To The Experts


**JUST FIVE SIMPLE STEPS TO
FLEXIBILITY AND FREEDOM WITH
ADVANCED TELECOM COMPUTING
ARCHITECTURE**

SEE ATCA IN ACTION

STEP 1: UNDERSTANDING ATCA

ATCA or Advanced Telecom Computing Architecture (also known as AdvancedTCA) refers to a family of computing and communications specifications that hold tremendous promise for the Department of Defense.

Initially employed by the commercial telecommunications industry, ATCA uses a common architecture to support multiple technologies along with new blade and chassis form factors optimized for communications and data transfer. This architecture enables systems to change along with users' needs and the growth of new technologies. Moreover, ATCA is ideal for building mobile computing platforms (MCPs), which makes ATCA a perfect fit for military computing applications.



With ATCA, military agencies can deploy flexible solutions that leverage commercially available technology components from multiple providers, reduce acquisition costs, and speed time to fielding.

ATCA'S Open Standards Let You:

- ▶ Build compliant platform systems out of modules from different vendors.
- ▶ Save taxpayer money while delivering new services and applications.
- ▶ Reduce space needs, enhance performance and improve energy efficiency.

STEP 2: ATCA IN ACTION

Tired of stovepipe solutions that force agencies to sign long-term exclusive service contracts with just one technology systems integrator, the Department of Defense (DoD) is turning to ATCA to provide the flexible, open framework required for its defense-related computing and communications needs.

Using open ATCA architecture, select military agencies are already enjoying increased bandwidth and availability, high-performance computing, power efficiency, and the freedom to choose hardware and software from multiple service providers.



ATCA enables the timely, reliable sharing of data, regardless of the sender or receiver's platform, system, transport method or application. ATCA-compliant solutions fall directly in line with the Department of Defense's mandate to achieve Network-Centric Warfare.

STEP 3: BROAD BENEFITS

MORE OPTIONS & FEWER HEADACHES

Every ATCA chassis must interoperate with every system integrator's blades – creating a true mix and match computing environment. ATCA supports off-the-shelf components, high-speed interconnects, and a 250-W per slot power budget. ATCA-compliant products simply give you more options when building powerful, efficient, and reliable communications and datacenter infrastructures.

HIGH PERFORMANCE

A high-capacity (up to 4.5 terabits), packet-based backplane coupled with significantly less downtime lets ATCA systems process workloads faster. Plus, ATCA's highly scalable architecture overcomes the bottlenecks typically created by more conventional bus-based architectures.

HARDWARE REDUNDANCY & POWER EFFICIENCY

ATCA architecture provides superior hardware redundancy and reduces single points of failure. Plus, support for up to 250 watts per board and as many as 12 processor boards and 2 switch boards in Sun's ATCA implementation, which increases performance density, enabling each blade to have 2 or more high-end processors through improved heat dissipation.

FASTER FIELD DEPLOYMENTS

As ATCA's open standards are embraced by many commercial vendors, the DoD can choose from a wider assortment of solutions from multiple IT vendors. In fact, ATCA's open architecture and optimal vendor choice enables faster development and shortens time to fielding new computing and data transfer solutions and systems. And, should the supply chain become compromised, alternative components can be located and easily implemented to sustain field operations.

STEP 4 – SMARTER SOLUTIONS

Sun Microsystems Federal offers a rich portfolio of close space ATCA-compliant solutions and services designed specially to help you enable robust, energy-efficient computing across even the most disparate environments. And Sun's integrated system design shortens your development time by months, significantly reducing your total development and operations costs.

The Sun Netra ATCA line offers unparalleled flexibility, with exceptional interoperability and a choice of processors, operating systems, and deployments.



The Sun Netra ATCA Product Family Includes:

- ▶ **Sun Netra CT900 ATCA Server**

Ideal for rugged environments the Netra CT900 Server is the fastest, densest, most reliable ATCA blade server. With it, you can mix and match up to 12 UltraSPARC, Intel and AMD Opteron processor-based blades and 2 10Gb switches, running the Solaris Operating System, Windows[®], RedHat Linux or carrier-grade Linux in the same enclosure.

- ▶ **Sun Netra CP3260 UltraSPARC T2 ATCA Blade** UltraSPARC T2 for breakthrough performance and radical consolidation.

- ▶ **Sun Netra CP3220 ATCA Blade Server**
Next generation computing.

- ▶ **Sun Netra CP3200 AdvancedRTMs**
Carrier-grade expansion cards attach to the Sun Netra CP3220 and CP3260 to simplify rear access connectivity.
- ▶ **Sun Netra CP3060 UltraSPARC T1 ATCA Blade**
The first UltraSPARC T1 ATCA blade.
- ▶ **Sun Netra CP3020 Opteron ATCA Blade**
The first AMD Opteron ATCA blade.
- ▶ **Sun Netra Data Plane Software Suite**
Experience breakthrough performance for Data Plane functions on Netra CoolThreads servers.
- ▶ **Sun Netra High Availability Suite 3.0**
Approach six nines reliability.

STEP 5: TURN TO THE EXPERTS

To ensure that you don't relinquish security, resilience or performance as you migrate to an ATCA-based open environment, turn to the experts at Sun Microsystems Federal.

Sun Microsystems Federal Inc. (a wholly-owned subsidiary of Sun Microsystems, Inc.) identifies, captures, and manages strategic opportunities, including securing government contracts that bring Sun's solutions to the U.S. Federal government.

Sun Microsystems Federal has the experience, insight and technical expertise you need to succeed. [Click here](#) to learn more about ATCA in the DoD. Or, contact us directly to learn how your agency can enable faster field deployments; enjoy hardware and software flexibility; and provide higher performance capacity with ATCA.

Sun Federal Headquarters

7900 Westpark Drive

Suite A110

McLean, VA 22102-4203

Sun Federal Sales Team

(800) 903-3883

Linux is a registered trademark of Linus Torvalds.

Solaris is a registered trademark of Sun Microsystems, Inc.

Microsoft, Windows, Microsoft SQL Server, Microsoft Exchange Server and Microsoft Windows Server 2003 are registered trademarks of Microsoft, Inc. in the United States and other countries.

Intel and Xeon are registered trademarks of the Intel Corporation.

AMD and Opteron are trademarks of Advanced Micro Devices, Inc.

VMware is a registered trademark of VMware, Inc. in the United States and/or other jurisdictions.

All other marks and names mentioned herein may be trademarks of their

