

Solving Blade-Based Server Industry Challenges

In today's business environment, blade-based servers offer critical advantages to companies seeking to expand business services, while containing or cutting their IT costs. The blade-based server market is responding, but it's hampered in its ability to offer innovative solutions at competitive prices. The Server System InfrastructureSM (SSI) Forum (<https://ssiforum.org>), a server industry group, instituted an industry-wide initiative to standardize interfaces between blade-based server components. SSI standards enable growing opportunities for component vendors, System Integrators (SIs), and IT departments to benefit from what blade-based server technologies can deliver.

The SSI Forum drives infrastructure standards by building on ten years of open standards for redundant server power systems, rack-mount server chassis, power control and management, and other components and services that simplify the build of server solutions. The organization's comprehensive, open-standards approach extends this legacy to *blade-based server standards*, addressing a wide range of customer and ecosystem challenges.

In 2009, The SSI Forum's various Working Groups publicly released several new specifications for blade-based server components to be applied throughout the industry. Released specifications include:

- SSI Compute Blade Specification
- SSI Compute Blade Mezzanine Specification
- SSI Chassis Management Module (CMM) Specification
- SSI Switch Management Specification
- SSI System Management Design Guide
- SSI Ethernet Base Midplane Design Guide
- SSI Ethernet Midplane Electrical Specification
- SSI External Management Specification.

In addition, The SSI Forum manages the specifications for electronics bays and power supplies. IBM® BladeServer switch specifications are also available to its members.

In 2009, The SSI Forum's Compliance and Interoperability(C & I) Working Group also released Product Development Kits (PDKs) and Test Kits to help accelerate SSI-compliant product development and testing by OEMs and ODMs.

Members can access all specifications and find information on the PDKs and Test Kits at <https://ssiforum.org>. The specs are also available to *prospective members* for evaluation purposes. See the web site for details.

Strong Vendor Commitment

Over 40 manufacturers, suppliers, and SIs in the server components community support The SSI Forum and its standards efforts. Many SSI-compliant products are already available today. Technology leaders, OEMs, LOEMs, ODMs, and IHVs participate in various Working Groups, and in the organization's C & I program. Their widespread commitment benefits both their customers and the entire blade-based server industry.

Industry Benefits

Standardization across markets and industry has well-documented benefits for customers, vendors, and the rest of the ecosystem, including

- Components interoperability
- Reduced acquisition and migration costs
- Reduced operating and maintenance costs
- Faster time-to-solutions
- Greater flexibility and choice
- Better business solutions
- Increased competitive advantage
- Reduced manufacturing costs
- Reduced engineering costs
- Faster time-to-market
- Innovation enabling

In addition, with the help of the SSI Forum's C & I program, vendors can accelerate development and testing of their products against SSI standards through standardized testing processes, test equipment, and software. The organization's C & I program enables customers and SIs to select known SSI Forum-compliant components for blade-based, interoperable solutions. These standards benefit vendors and customers together, helping blade-based server solutions continue to grow.

Solutions for Today and the Future

The SSI Forum standards are not just about the future of the blade-based servers market. They seek to optimize the platform for existing data center power and cooling infrastructures, taking into account the challenges data centers and vendors face today, and the solutions available to them.

SSI Forum standards focus on costs, interoperability, and emphasize rack motherboard and design re-use to protect customer and vendor investments in the industry. They also allow headroom for at least three generations of processor and fabric technology. Most importantly, the standards provide for member innovation and differentiation, two key factors that drive progress in any industry and enable competitive advantage.

These standards offer the greatest benefits to participants – vendors and customers alike – in the fastest-growing segment of the server market. SSI Forum standards enable opportunity for growth and innovation – today and tomorrow.

Join SSI

To learn more, and to find how to join the SSI Forum and SSI Working Groups, visit <https://ssiforum.org>.