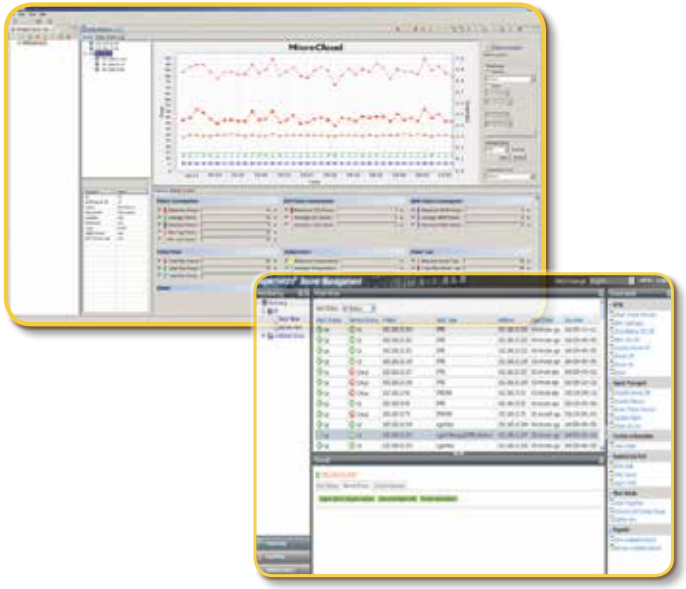
Supermicro Server Management Utilities

SSM | SPM | SUM | SuperDoctor® 5 | IPMI Utilities



- Remotely manage servers deployed worldwide
- Manage hardware with no impact on applications
- Integrate utilities easily with existing infrastructure

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Key Features:

- Remotely manage servers deployed worldwide
  Manage server health, power consumption and firmware maintenance remotely using agent and agent-less mechanisms.

- Manage hardware with no impact on applications
  Perform monitoring, configuration and update operations without affecting application performance or continuity using out-of-band (OOB) utilities.

- Integrate utilities easily with existing infrastructure
  Server management functions can be called through utilities' command line interfaces to support existing data center automated management frameworks. Additionally, our server management utilities provide seamless integration with Nagios and other industry standard plugins.

SUM: Supermicro Update Manager

Supermicro® Update Manager remotely updates the BIOS and BMC/IPMI firmware, as well as, system settings of Supermicro X9 (Romley) and X10 generation based machine through in-band and OOB (Out-Of-Band) communication channels, i.e., communication through the BMC/IPMI interface. Users can locally or remotely edit system BIOS and BMC/IPMI settings from a human-readable text file, and use this utility to update the target machine's system BIOS and BMC/IPMI configuration. Firmware updates and setting operations is independent of operating environment on target machine and can be executed before system OS/hypervisor is installed.

Environment Requirements

Hardware:

- 50 MB free disk space
- 128 MB available RAM
- Ethernet network interface card

Operating System:

- Linux: Red Hat Enterprise Linux Server 5 Update 0 (x86_64) or later
- Windows: Windows Server 2008 (x86_64) or later
- JAVA Runtime Environment:
- OPEN JDK / Oracle JRE 1.6.0 or later

Firmware Requirements

BMC Version:

- X9 ATEN platform (SMT_X9) : 3.14 or later
- X10 ATEN platform (SMT_X10): 1.52 or later
- X9 AMI platform (SMM_X9): 2.32 or later

BIOS Version:

- Version 2.0 or later for select X9 Romley and X10 Denlow systems
- Version 1.0 or later for select X10 Grantley systems

SUM Feature List

Product Key Management

- Activate Product Key

System Checks

- OOB/In-band Support
- Asset Information (X10 Only)
- System Utilization (X10 Only)
- Sensor Data (X10 Only)

BIOS Management

- Get BIOS Info
- Update BIOS FW
- Get/Set Default and
- Get/Set DMI Information
- Current BIOS Settings

BMC Management

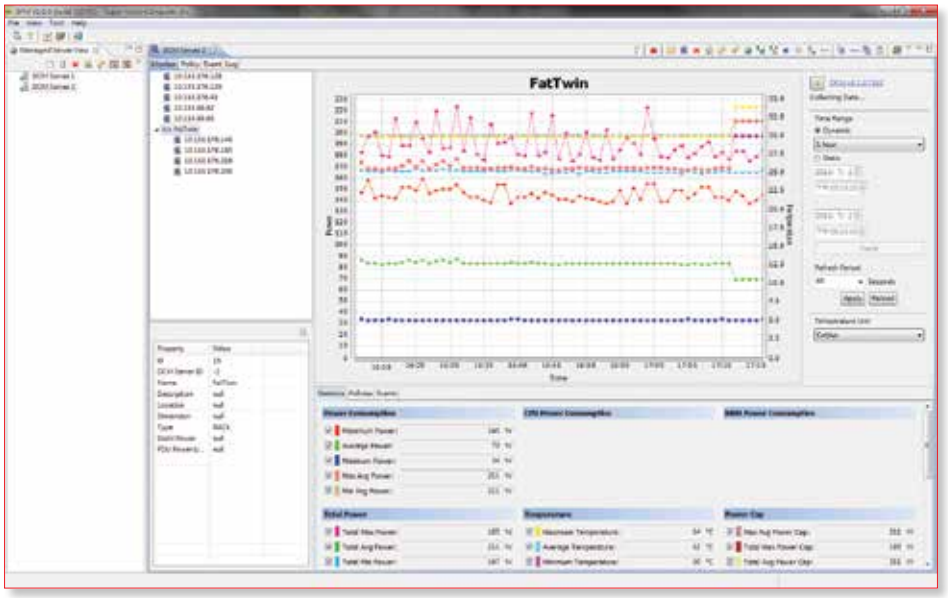
- Get BMC Info
- Update BMC FW
- Get/Set BMC Settings
- System Event Log
- Get/Clear Event Log (X10 Only)

Applications

- TPM Provisioning (X10 Only)
- Mount and Unmount Bootable ISO Image
- Support for Driverless In-Band FW Updates
- (Check for BIOS support)
- Execute Parallel Updates from Centralized Management Server

SPM: Supermicro Power Manager

Supermicro Power Manager leverages Supermicro® IPMI interface and Intel Node Manager Technology to monitor CPU/Memory/System power usage, and remotely control power consumption. It can control power consumption of whole system by policy-based. Administrator can configure policies by data center, room, row, rack, target machine, or logical group defined by self. The policy can be triggered by condition of power or temperature threshold. And you can schedule the policies by time of day and/or day of week.



SPM Feature List

Monitor and Control functions

- Power (system, CPU, memory, PDUs), temperature, P-States, T-States

Configurations

- Power capping limits
- Temperature limits (Celsius/Fahrenheit)
- Refresh periods
- Custom events

Statistics

- Saves historical data up to 1 year
- Max, min, average

Notifications

- SNMP traps
- SMTP messages

Based on Intel Data Center Management software

- Monitor up to 5000 nodes with single DCM instance

SPM Environment Requirements

Hardware:

- 50 MB free disk space
- 1024 MB available RAM

Operating System:

- Red Hat Enterprise Linux Server 6.x
- SUSE Linux Enterprise Server 11.x
- Fedora Core 15
- CentOS 5.x
- Ubuntu 11.x
- Windows Server 2003 / 2003 R2 / 2008 / 2008 R2
- Windows 7 / XP

JAVA:

- JRE 1.6.0 or above

DCM Environment Requirements

Hardware:

- A dual-core processor of 2.6 GHz or higher
- 4 GB available RAM
- 60 GB free disk space

Operating System:

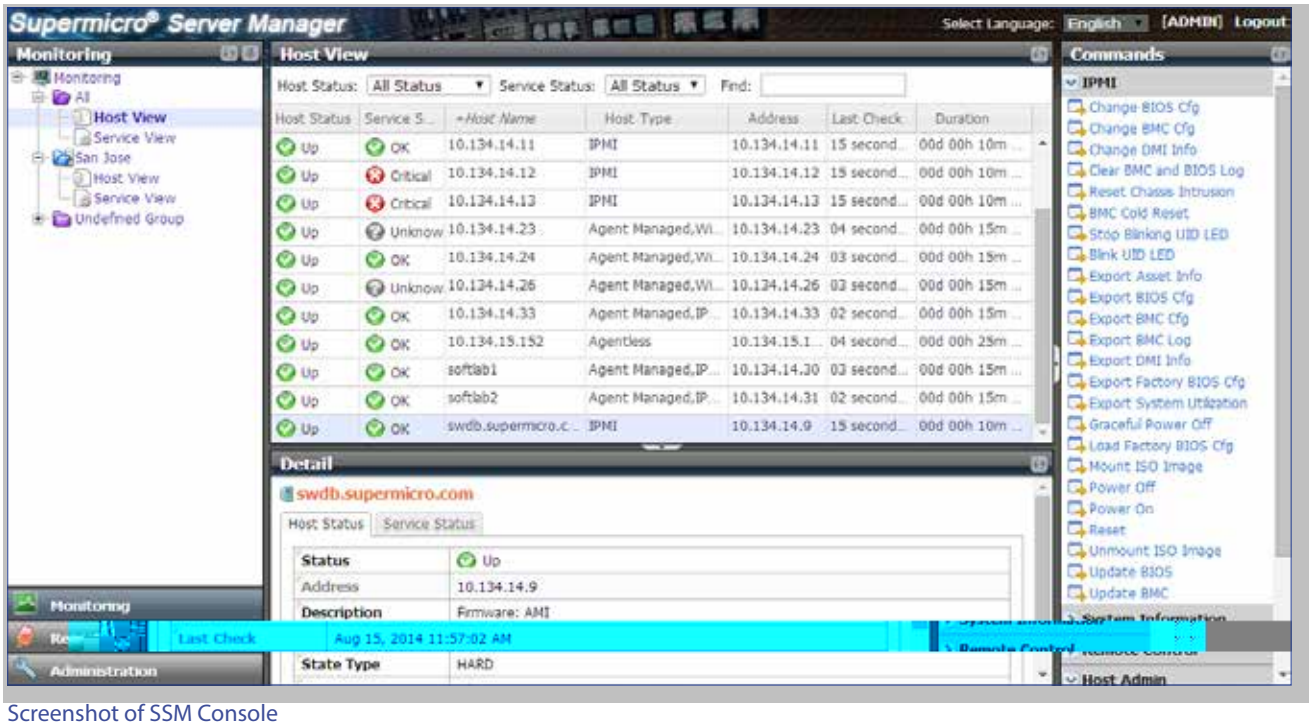
- Windows Server 2003 R2 / 2008 / 2008 R2
- Red Hat Enterprise Linux Server 5.x / 6.x
- SUSE Linux Enterprise Server 10.x / 11.X

JAVA:

- JRE 1.6.0 or above

SSM: Supermicro Server Manager

Supermicro Server Manager monitors and manages a wide portfolio across multiple generations of Supermicro servers within a single console. SSM provides capabilities to monitor the health of server components including memory, hard drives and RAID controllers. It enables the datacenter administrator to monitor and manage power usage across all Supermicro servers allowing users to maximize their CPU payload while mitigating the risk of tripped circuit. Firmware upgrades on Supermicro servers became easier now with a couple of clicks. Administrators can now mount an ISO image on multiple servers and reboot the servers with those images. The tool also provides pre-defined reports and many more features that will make managing Supermicro servers simpler.



Screenshot of SSM Console

BENEFITS

- Easy to use console reduces deployment time of Supermicro servers to hours
- Upgrade and Configuration commands on multiple machines in parallel exponentially reduces hardware maintenance time
- Single tool installation and single console to harness the advantages of multiple features
- REST APIs, CLI, and WebUI provides options to integrate Supermicro server management in existing framework
- Support for open source Nagios Plugins leverages existing work from the community

SD5: Supermicro SuperDoctor® 5

Supermicro SuperDoctor® 5 (SD5) utility monitors the system health of hardware and operating system services from the target nodes in real-time and provides alerts to administrators on the availability of systems in datacenters. The 5th generation version builds on top of SDII and SDIII, which have been supporting customers across the globe for the last 15 years and provides support for industry standard Nagios monitoring frameworks.

SD5 Feature List

Monitoring Functions

- Hardware Monitoring (fan speed, temperature, voltage, chassis intrusion, redundant power failure, power consumption, disk health, and memory health)
- Software Monitoring (HTTP, FTP, and SMTP services)

Notification Functions

- Notifications Sent When Host or Service State Changes
- Notifications Sent via E-mail and SNMP Traps

Configuration Functions

- Monitored Items
- Alert Functions
- Password Settings

System Information and Report Functions

- 15 System Information Types (baseboard, services, etc.)
- Report Types (Supermicro SuperDoctor® 5 (SD5) Server Availability, Host Status Change, and Service Status Change)

IPMI Utilities

Supermicro's IPMI utilities monitor and configure information related to the Baseboard Management Controller (BMC). Some commonly used utilities are highlighted below.

IPMICFG - BMC/FRU Configuration Utility

IPMICFG Feature List

- Set up BMC IP Address
- NM (Node Manager) 2.0 Management
- IPMI User and Configuration Management
- IPMI Sensor and Event Management
- FRU Management

SMCIPMITool - CLI Based IPMI Utility

SMCIPMITool Feature List

- Remote IPMI Management
- Remote NM (Node Manager) Management
- Remote IPMI Sensor and Event Management
- Remote FRU Management
- Remote IPMI User/Group Management
- Remote Blade System Management
- IPMI Firmware Upgrade

IPMIView - GUI Based IPMI Utility

IPMIView Feature List

- IPMI System Management
- KVM Console Redirection
- Text Console Redirection
- Virtual Media Management
- IPMI User/Group Management
- Trap Receiver
- Mobile App (Android/iOS)

Supermicro Server Management Utilities Feature Summary

Features	SSM	SPM	SUM	SD5*	IPMIView*	IPMICFG*	SMCIPMITool*
Management Interface	Local (In-band) Remote (OOB)	Remote (OOB)	Local (In-band) Remote (OOB)	Local (In-band)	Remote (OOB)	Local (In-band)	Remote (OOB)
OS Support for Manager	Linux Windows	Linux Windows	Linux Windows	Linux Windows	Linux Windows	DOS Linux Windows	Linux Windows
Hardware Monitoring	✔			✔	✔		✔
Power Management	✔	✔					
Firmware Upgrades	✔		✔		✔ (IPMI FW)		✔ (IPMI FW)
Firmware Configuration	✔		✔		✔ (IPMI FW)	✔ (IPMI FW)	✔ (IPMI FW)
Discovery	✔	✔			✔		✔
Group Management	✔	✔	✔		✔		✔
Remote Power On/Off/Cycle	✔	✔		✔	✔		✔
Alert Notification	✔	✔		✔	✔		✔
User Interface	REST APIs, WebUI, CLI	GUI, CLI	CLI	WebUI, CLI	GUI	CLI	CLI
Mobile App					✔		

Why Supermicro?

- Supermicro is a market leader in Green Computing and Server Building Block Solutions™. Our system management software ties these building blocks together to provide seamless management in data center operations.
- Our expertise in Enterprise IT, Cloud Computing, Hadoop/Big Data, and HPC environments provides customers with highly scalable, application optimized solutions designed to meet most challenging business requirements. Our expanded software features are designed to streamline IT operations with lights-out management functionality for remote monitoring, control, and maintenance.
- Every datacenter center is unique when it comes to its operations; Supermicro collaborates with you to integrate our system management software into your existing infrastructure. We provide customizable functionality via individual software modules to reduce your operational overhead and the total cost of ownership.
- Supermicro is committed to rapidly address customer issues. With our integrated hardware and system management software, you can be assured that you will receive the most optimized solution and the most effective technical support.

SKU	Description
SFT-DCMS-Single	Per node license for System Management Suite (all packages)
SFT-OOB-LIC	Per node license for OOB BIOS management mechanism
SFT-SPM-LIC	Per node license for Power Management Utility

Contact your Supermicro sales representative for more information