

Data Center IT Agility & Control

Intel® Data Center Manager Console and SDK

Intel® DCM Console



**Intel® DCM SDK
(Web Service API)**

- Monitor
- Control
- Trend
- Scale
- Standards

IT Equipment

Blade



Rack





PDU & UPS

Gain Control of Data Center Power

Intel® Data Center Manager (Intel® DCM) provides high value power management features that address power and thermal issues challenging IT organizations.

- **Monitor Power and Thermals**
Aggregated actual and historical trend data and alerts for racks and groups of servers
- **Policy-based Management**
Intelligent heuristics engine maintains group power caps while ensuring optimal performance
- **Scalability**
Manage 10000s nodes using agentless technology
- **Now Available**
A free-standing Intel management console or an SDK for integration into a larger software suite

Challenges in Data Centers

- Older data centers are maxed out in power capacity.
- Poor thermal design leads to hot spots that limit rack loading.
- Establishing a power monitoring capability requires establishing a separate infrastructure of IP based intelligent power strips.
- Lack of visibility into actual power consumption requires significant overprovisioning to maintain reserve margins.

- Current designs are not efficient at low loading levels: an idling server doing zero work still consumes 50% of peak power.
- It is difficult to obtain an integrated view of a server pool.

The Intel DCM Console

- **Easy to Install**
 - Install in minutes with minimal system requirements
 - Scan networks and add devices automatically
 - Easily add racks, rows and rooms of systems
- **Collect Real-Time Power Data**
 - Offers cross platform support
 - Requires no OS rights or privileges
 - Provides historical information
- **Analysis Tools**
 - Identify hot and cold areas
 - Detect underutilized systems
 - Visualize power consumption
- **Historical Trending**
 - Historical data maintained for a year
 - Power and thermal data compiled and aggregated
 - Data is exportable
- **Alerting and Control**
 - Create alerts and have them forwarded
 - Implement power consumption policy
 - Carry out power policies

FEATURES	BENEFITS
Monitoring	<ul style="list-style-type: none"> • Real-time monitoring of actual power and inlet temperature data aggregated to rack, row, room • User-defined physical or logical groups • Receives alerts based on custom power & thermal events • Power estimation engine for legacy servers lacking power monitoring • Displays server asset tag and serial # for HP, IBM, Dell • Cisco Rack & UCS Support • Intel Node Manager 3.0 support for CPU, Intel® Xeon Phi™ and memory subsystem power monitoring
Trending	<ul style="list-style-type: none"> • Logs power & thermal data, query trend data using filters • Saves 1 year of history data for capacity planning
Control	<ul style="list-style-type: none"> • Intelligent and patented group policy engine • Supports multiple concurrent active power policy types at multiple hierarchy levels • Accepts workload priority as policy directive • Allows scheduling of policies including power capping, by time of day or/and day of week • Maintains group power capping while dynamically adapting to changing server loads • Intel Node Manager 3.0 support for CPU, Intel® Xeon Phi™ power limiting and core idling
Agent-less	<ul style="list-style-type: none"> • Does not require installation of any software agents on managed nodes
Easy integration and co-existence	<ul style="list-style-type: none"> • Device inventory pre-scan using IP ranges • Exposes high level Web Services Description Language (WSDL) APIs • Can reside on an independent management server or co-exist with ISV product on same server • Power / thermal aware scheduling – airflow and outlet temp. modeling (OEM dependent) • Outlet temperature sensor (OEM dependent)
Scalability	<ul style="list-style-type: none"> • Manages tens of thousands of servers
Security	<ul style="list-style-type: none"> • Secured APIs • Secured communication with managed nodes • Encryption of all sensitive data

SYSTEM REQUIREMENTS

COMPONENTS	REQUIREMENTS
Operating system of management server	<ul style="list-style-type: none"> • Microsoft* Windows* Server 2012 x64 Edition • Microsoft* Windows* Server 2008 x86 Edition • Microsoft* Windows* Server 2008 x64 Edition • Microsoft* Windows* Server 2003 R2 x86 Edition • Microsoft* Windows* Server 2003 R2 x64 Edition • VMWare ESX 3.5/4.0/4.1
Management server run-time	<p>It is recommended to install the Intel® DCM server on a system with at least:</p> <ul style="list-style-type: none"> • A dual-core processor of 2.6Ghz or higher • 4GB RAM • 60GB of hard drive space
	<p>Automatically installed by Intel® DCM:</p> <ul style="list-style-type: none"> • Sun Microsystems* Java Runtime Environment* 6 • Apache* Tomcat* application server • JAX-WS web service engine • PostgreSQL 8.3 Database

For more information on Intel® Data Center Manager, visit www.intel.com/datacentermanager or contact dcmsales@intel.com



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DCM 4.0

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