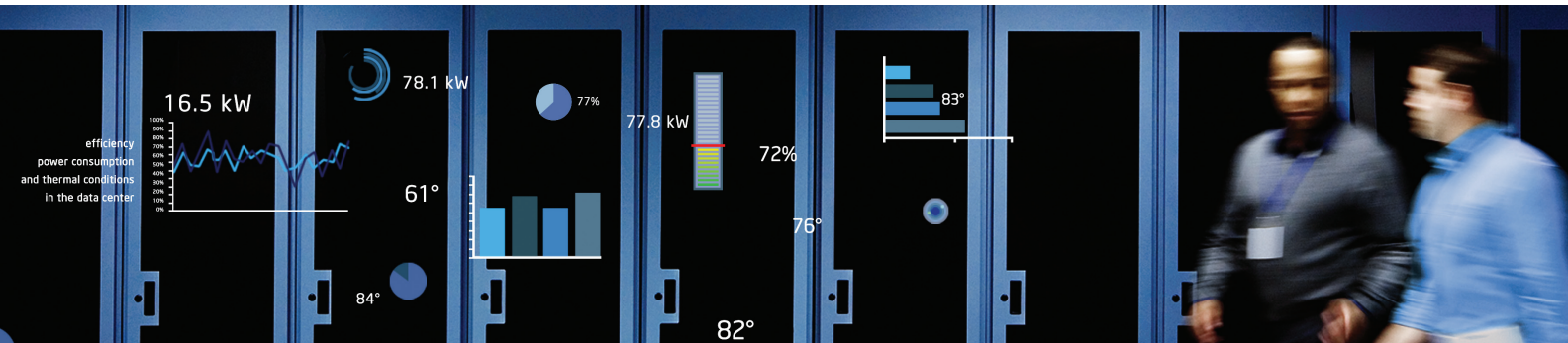


Product Brief
Intel® DCM SDK

Intel® Data Center Manager

The Development Framework for Energy Efficiency

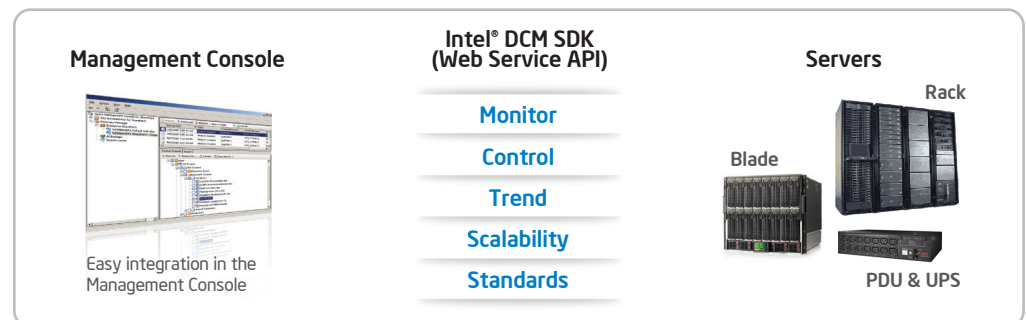


Gain Control of Data Center Power

Intel® Data Center Manager (Intel® DCM) SDK 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 cap on demand
- **Scalability** - Manage 10000s nodes using agentless technology
- **Robust Implementation** - Reference GUI and extensive validation with data center proof-of-concepts to lower deployment risks

SDK with Web Service APIs for Data Center Power and Thermal Power Management



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.

Features and Benefits

Monitoring

- 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 2.0 support for CPU and memory subsystem power monitoring

Trending

- Logs power & thermal data, query trend data using filters
- Saves 1 year of history data for capacity planning

Control

- 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 2.0 support for CPU power limiting and core idling

Agent-less

- Does not require installation of any software agents on managed nodes

Easy integration and co-existence

- 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

- Manages tens of thousands of servers

Security

- 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 2003 R2 x86 Edition▪ Microsoft* Windows* Server 2003 R2 x64 Edition▪ Microsoft* Windows* Server 2008 x86 Edition▪ Microsoft* Windows* Server 2008 x64 Edition▪ Red Hat* Enterprise Linux 5 (EL5) Server x86 Edition▪ Red Hat* Enterprise Linux 5 (EL5) Server x64 Edition▪ Red Hat* Enterprise Linux 6▪ Novell* SUSE* Linux Enterprise Server 10 (SLES10) x86 Edition▪ Novell* SUSE* Linux Enterprise Server 10 (SLES10) x64 Edition▪ Novell* SUSE* (SLES 11)
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® Data Center Manager:</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 datacentermanager.intel.com or contact dcmsales@intel.com


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