

Dell Multi-UPS Management Console and  
UPS Local Node Manager Software  
Version 01.06

User Guide Update



## Operating Systems supported by MUMC and ULNM

MUMC and ULNM v01.06 support the following systems:

| Operating system               |   | MUMC          |          |     |                  | ULNM  |               |           |     |                  |       |
|--------------------------------|---|---------------|----------|-----|------------------|-------|---------------|-----------|-----|------------------|-------|
|                                |   | Service Pack  | Platform |     | Software version |       | Service Pack  | Platform  |     | Software version |       |
|                                |   |               | x86      | x64 | V1.04            | V1.06 |               | x86       | x64 | V1.04            | V1.06 |
| <b>Windows Server 2012</b>     | Windows Small Business Server 2012 Standard                         | <b>Latest</b> |          | √   |                  | √     | <b>Latest</b> |           | √   |                  | √     |
| <b>Windows Server 2011</b>     | Windows Small Business Server 2011 Standard                         | <b>Latest</b> |          | √   | √                | √     | <b>Latest</b> |           | √   | √                | √     |
| <b>Windows Server 2008</b>     | Windows Server 2008 R2 Standard, Enterprise, Datacenter             | <b>SP1</b>    |          | √   | √                | √     | <b>SP1</b>    |           | √   | √                | √     |
|                                | Windows Server 2008 R1 Standard, Enterprise, Datacenter             | <b>SP2</b>    | √        | √   | √                | √     | <b>SP2</b>    | √         | √   | √                | √     |
|                                | Windows Server 2008 Small Business Server R2                        | <b>Latest</b> | √        | √   | √                | √     | <b>Latest</b> | √         | √   | √                | √     |
|                                | Windows Server 2008 Small Business Server                           | <b>Latest</b> | √        | √   | √                | √     | <b>Latest</b> | √         | √   | √                | √     |
| <b>Windows Server 2003</b>     | Windows Server 2003 Standard, Enterprise, Datacenter R2             | <b>SP2</b>    | √        | √   | √                | √     | <b>SP2</b>    | √         | √   | √                | √     |
|                                | Windows Server 2003 Standard, Enterprise, Datacenter R1             | <b>SP1</b>    | √        | √   | √                | √     | <b>SP1</b>    | √         | √   | √                | √     |
|                                | Windows Small Business Server 2003 Standard, Enterprise, Premium R2 | <b>Latest</b> | √        |     | √                | √     | <b>Latest</b> | √         |     | √                | √     |
| <b>Windows 8</b>               | Windows 8 (Enterprise, Premium, Professional, Ultimate, Basic)      | <b>Latest</b> |          | √   |                  | √     | <b>Latest</b> |           | √   |                  | √     |
| <b>Windows 7</b>               | Windows 7 (Enterprise, Premium, Professional, Ultimate, Basic)      | <b>SP1</b>    | √        | √   | √                | √     | <b>SP1</b>    | √         | √   | √                | √     |
| <b>Windows Vista</b>           | Windows Vista (Enterprise, Ultimate, Business)                      | <b>SP2</b>    | √        | √   | √                | √     | <b>SP2</b>    | √         | √   | √                | √     |
| <b>Windows XP</b>              | Windows XP Professional   | <b>SP3</b>    | √        |     | √                | √     | <b>SP3</b>    | √         |     | √                | √     |
| <b>RedHat Enterprise Linux</b> | Red Hat Enterprise Linux 6.3  |               |          |     |                  |       |               | √         | √   |                  | √     |
|                                | Red Hat Enterprise Linux 6.2  |               |          |     |                  |       |               | √         | √   | √                | √     |
|                                | Red Hat Enterprise Linux 5.9  |               |          |     |                  |       |               | √         | √   | √                | √     |
|                                | Red Hat Enterprise Linux 5.8  |               |          |     |                  |       |               | √         | √   | √                | √     |
|                                | Red Hat Enterprise Linux 5.7  |               |          |     |                  |       |               | √         | √   | √                | √     |
|                                | Red Hat Enterprise Linux Advanced Platform 5.4 (Latest)             |               |          |     |                  |       |               | <b>U7</b> | √   | √                | √     |

|                         |  |  |  |  |  |  |            |   |   |   |   |
|-------------------------|--|--|--|--|--|--|------------|---|---|---|---|
|                         | Update)  |  |  |  |  |  |            |   |   |   |   |
|                         | Red Hat Enterprise Linux Base Server 5.4 (Latest Update) |  |  |  |  |  | <b>U7</b>  | √ | √ | √ | √ |
|                         | Red Hat Enterprise Linux Version 5                       |  |  |  |  |  | <b>U6</b>  | √ | √ | √ | √ |
|                         | Fedora core 15   |  |  |  |  |  |            | √ | √ | √ | √ |
|                         | Fedora core 14   |  |  |  |  |  |            | √ | √ | √ | √ |
| <b>SUSE/Novel</b>       | SuSE Linux Enterprise Server 11                          |  |  |  |  |  | <b>SP2</b> | √ | √ | √ | √ |
|                         | SuSE Linux Enterprise Server 11                          |  |  |  |  |  | <b>SP1</b> | √ | √ | √ | √ |
|                         | SuSE Linux Enterprise Server 10                          |  |  |  |  |  | <b>SP4</b> | √ | √ | √ | √ |
|                         | OpenSuse 11.4  |  |  |  |  |  |            | √ | √ | √ | √ |
|                         | OpenSuse 11.2  |  |  |  |  |  |            | √ | √ | √ | √ |
| <b>Debian GNU Linux</b> | Debian 6 (Squeeze)                                       |  |  |  |  |  |            | √ | √ | √ | √ |
|                         | Debian 5 (Lenny)   |  |  |  |  |  |            | √ | √ | √ | √ |
| <b>Ubuntu</b>           | 12.10  |  |  |  |  |  |            | √ | √ | √ | √ |
|                         | 12.04 LTS  |  |  |  |  |  |            | √ | √ | √ | √ |
|                         | 11.04 LTS  |  |  |  |  |  |            | √ | √ | √ | √ |
|                         | 10.04 LTS  |  |  |  |  |  |            | √ | √ | √ | √ |

## Virtualization environments supported by MUMC and ULNM

MUMC and ULNM v01.06 support the following environments:

| Virtualization Environment |                                     | MUMC         |          |     |                  | ULNM      |              |          |     |                  |       |
|----------------------------|-------------------------------------|--------------|----------|-----|------------------|-----------|--------------|----------|-----|------------------|-------|
|                            |                                     | Service Pack | Platform |     | Software version |           | Service Pack | Platform |     | Software version |       |
|                            |                                     |              | x86      | x64 | V1.04            | V1.06     |              | x86      | x64 | V1.04            | V1.06 |
| <b>VMware</b>              | ESXi 5.1 (pay version only)         |              | √        |     | √                |           | √            |          | √   |                  |       |
|                            | ESXi 5.0 (pay version only)         | <b>U1</b>    | √        | √   | √                | <b>U1</b> | √            | √        | √   |                  |       |
|                            | ESX 4.0 (pay version only)          | <b>U4</b>    | √        | √   | √                | <b>U4</b> | √            | √        | √   |                  |       |
|                            | ESXi 4.1 (pay version only)         | <b>U4</b>    | √        | √   | √                | <b>U4</b> | √            | √        | √   |                  |       |
|                            | ESX 4.0 (pay version only)          |              | √        | √   | √                |           | √            | √        | √   |                  |       |
|                            | ESXi 4.1 (pay version only)         |              | √        | √   | √                |           | √            | √        | √   |                  |       |
| <b>Microsoft HyperV</b>    | Windows Hyper-V Server 2012         |              | √        |     | √                |           | √            |          | √   |                  |       |
|                            | Windows Hyper-V Server 2008 R2      |              | √        | √   | √                |           | √            | √        | √   |                  |       |
|                            | Windows Hyper-V Server 2008         |              | √        | √   | √                |           | √            | √        | √   |                  |       |
| <b>Citrix</b>              | XenServer 6.0                       |              | √        | √   | √                |           | √            | √        | √   |                  |       |
|                            | XenServer 5.6                       |              | √        | √   | √                |           | √            | √        | √   |                  |       |
|                            | OpenSource Xen 2.6 on RHEL 5        |              | √        | √   | √                |           | √            | √        | √   |                  |       |
|                            | OpenSource Xen 3.2 on Debian 5      |              | √        | √   | √                |           | √            | √        | √   |                  |       |
| <b>KVM</b>                 | KVM 0.12.1.2 on RHEL 6 and Debian 5 |              | √        | √   | √                |           | √            | √        | √   |                  |       |

## Virtualization consoles and features supported by MUMC and ULNM

MUMC and ULNM v01.06 support the following virtual environment consoles and features:

| Virtualization consoles and features |                          | MUMC         |          |     |                  | ULNM  |              |          |     |                  |       |
|--------------------------------------|--------------------------|--------------|----------|-----|------------------|-------|--------------|----------|-----|------------------|-------|
|                                      |                          | Service Pack | Platform |     | Software version |       | Service Pack | Platform |     | Software version |       |
|                                      |                          |              | x86      | x64 | V1.04            | V1.06 |              | x86      | x64 | V1.04            | V1.06 |
| VMware console                       | vCenter                  |              | √        |     | √                |       | √            |          | √   |                  |       |
| VMware feature                       | vMotion                  |              | √        |     | √                |       | √            |          | √   |                  |       |
|                                      | vSphere                  |              |          |     | √                |       |              |          |     |                  |       |
| Microsoft HyperV console             | SCVMM 2012               |              | √        |     | √                |       | √            |          | √   |                  |       |
| Microsoft HyperV feature             | LiveMigration            |              | √        |     | √                |       | √            |          | √   |                  |       |
| Citrix console                       | XenCenter                |              | √        |     | √                |       | √            |          | √   |                  |       |
| Citrix feature                       | XenMotion Live Migration |              | √        |     | √                |       | √            |          | √   |                  |       |

## Release notes

### MUMC and ULNM version 01.06

#### Operating systems updates compatibility:

- Windows 8
- Add new etoast notification tool for operating system providing Metro interface.
- SCVMM 2012
- ESXi 5.1
- RedHat 6.3

#### Bug fixes:

- Remove vCenter plugin does not remove MUMC tab in vCenter
- Fix issue with IE10 (Windows 8) compatibility
- Fix bad icon in Windows 8 task bar when notification popup is displayed
- Fix a crash when special network interfaces are set. This crash has been reported in Red Hat 5.6 using a tuned interface created via openvprn.

## **MUMC and ULNM version 01.04**

### **Usability enhancements to the graphical user interface**

- System tray menu added (Windows) including ability to stop/start service from the tray icon contextual menu
- Improved alarm acknowledgement options, and audible alarm added to notification events
- Improved event sorting options
- Display of active power in watts, not Volt-Amps
- UPS shutdown settings menu now available in shutdown menu location

### **New functionality in the graphical user interface**

- Improved mass configuration of multiple Dell UPS Network Cards and ULNM agents
- XML v4 implementation for improved security
- Improved reverse name resolution capabilities for ULNM agents and hardware nodes
- Enhanced detection of communication loss, which is now available as a shutdown criteria
- Added ability to force UDP or TCP subscription for NMC
- MUMC now can be registered as “powered application” in NMC Web interface.
- Database logs optimized to handle larger installations

### **Expanded virtualization platform support and integration**

- XenCenter plugin
- Force VM shutdown in HA clusters using Remote Virtual Machine Shutdown (RVMS)
- Smoother operation of host management shutdown
- Improved documentation for VMware setup

### **Support for two or more UPSs powering redundant power supply unit (PSU) devices**

- UPS software considers multiple UPS battery status before reaching “low battery” status and shutting down servers.
- Ability to create virtual composite groups of UPSs to manage redundant installations as one device

### **Support of Dell’s unique power metrics**

- Peak headroom, peak consumption, all metrics now in Watts (W) and not Volt-Amps (VA).

### **Virtualization**

- Subscribe MUMC is shown as a “notified application” in the UPS NMC card when a VM host node has a UPS configured in MUMC.

### **Microsoft Integration**

- Trigger vCenter vMotion™ and SCVMM Live Migration™ applications
- Transparently move virtual machines from a server affected by a power interruption to a non-affected server

### **Citrix integration**

- **XenServer:** Remote shutdown from MUMC, remote maintenance from MUMC, can Add/Protect a XenServer in MUMC
- **XenCenter:** Create an MUMC XenCenter plug-in, agent-less host management from MUMC, agent-less XenMotion

### **VMware integration**

- Removed the prerequisite of Pearl SDK installation for MUMC to communicate with VMware vCenter
- New power events and alarms logs created in VMware vCenter console
- Added ability to force VM shutdown for HA clusters
- Can now Add/Protect a standalone ESX/ESXi in MUMC without vCenter

### **Linux Support**

- Added support for latest Linux distributions (see User Guide for full list)

### **Bug fixes:**

- Crash when emc2 runs out of resources (memory)
- ULNM does not detect UPS connected with USB connectivity
- Transfer to high efficiency mode not visible in the events list
- MUMC may lose nodes, and generates alarms on non-UPS SNMP devices
- When a proxy client reaches shutdown time, all other proxy clients along with server get shut down
- No communication lost after network cable is removed
- Make sure Scan and communication behaves correctly when USB module is not present
- Proxy: when changing power source, previous endpoint is not removed
- MUMC upgrade will disable the "Set as Power Source"
- ULNM in connected mode in Notified Applications of NMC
- Event Pane in Power Source View is Off by One
- Detect Lansafe, Netwatch, Lansafe Web View in the installer
- Silent uninstall does not remove the install folder

### **Other bug fixes and improvements:**

- Outlet management improvements
- Scan sometime never stops
- Removing devices hangs the server