

Managed Services — Overview

CDW's Managed Services offerings allow you to contract with CDW for support of your dedicated networks, systems, databases and select applications — at your place or ours. CDW's modular approach to system management allows you to select services that best support your individual business goals and current capabilities.

Generally, CDW provides three Managed Services levels:

Advanced Monitoring

Advanced Monitoring provides comprehensive monitoring and alerting of supported technologies. In addition to basic availability monitoring of devices and services, CDW also provides monitoring for errors/exceptions, thresholds and performance utilization. CDW also provides basic incident management for monitoring events that generate alerts. All monitoring data is available through a web-based reporting engine.

Proactive Maintenance

Proactive Maintenance is a defense-only offering. CDW provides Advanced Monitoring of the technology in question, proactively monitors vendor security patch availability, analyzes security patch necessity and

priority, and applies recommended patches to your system. Reactive (break/fix) technical support is not included in the fixed monthly fee, nor are major software release upgrades (i.e. Exchange 5.5 to Exchange 2003). However, these services are available on a time and materials basis.

Availability Management

Availability Management offers all of the defensive coverage of Proactive Maintenance plus full coverage of regular maintenance of the technology in question. Availability Management also includes SLA guarantees for uptime of managed technologies (99.9% guaranteed uptime for fully redundant technologies and 99.5% for partial or non-redundant). Reactive break/fix engineering is included, as are most day-to-day functions, such as opening firewall conduits, necessary for the technology in question. Backup and recovery functions are also managed and maintained by CDW.

The following table illustrates some of the tasks that are included with the technologies covered by CDW's Managed Services offerings.

Task	Advanced Monitoring	Proactive Maintenance	Availability Management
Critical Service and Event Monitoring	√	√	√
Capacity Threshold Monitoring	√	√	√
Web-Based Performance Reporting	√	√	√
Installation of Security Patches		√	√
Installation of Firmware Updates, Service Packs, Service Releases and Bug Fixes			√
Break/Fix Activities			√
Maintenance of User Access			√
Routine System Maintenance			√
Management of HW/SW Vendor Maintenance			√

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Supported Technologies

CDW supports the following technologies in our Managed Services Offerings:

- **Unified Communications** — Cisco CallManager, Cisco Unity, Cisco UCC and Cisco Gateway
- **Networking Devices** — Cisco Firewall, Cisco ASA, Cisco Content Switch, Cisco Layer 2 and 3 Switch, Cisco Router and Cisco VPN Concentrator
- **Cisco Security** — Cisco IDS/IPS Sensor and Cisco Security MARS.
- **Servers/Operating Systems** — Microsoft Windows, UNIX (IBM AIX/Sun Solaris/Red Hat Linux/SUSE Linux Enterprise Server), Apache Web Server, IBM System i (AS/400) and VMware ESX Server
- **Databases** — Microsoft SQL, IBM DB2 and Oracle DB
- **Applications** — Microsoft Active Directory, Exchange, SharePoint Portal Services, Windows SharePoint Services and ISA Server; IBM applications (LMS/Sametime/QuickPlace/LVC/Domino); IBM WebSphere Application Server; Citrix Presentation Server; and BlackBerry Server

Remote vs. Hosted

CDW provides the same Managed Services Offerings for technology located at your premise (remote) as it does for technology located in a CDW Enterprise Hosting Center (hosted).

Managed Service Requirements

- A secure communications channel to your network — CDW will provide and manage this channel
- SNMP community strings and passwords for the network devices that will be monitored or managed
- Setup and installation of monitoring and connectivity tools for your environment
- An identical Managed Services Offering on the underlying operating system

Remote Managed Services

For devices not located in one of the CDW Enterprise Hosting Centers (remote devices), you are also responsible for all support activities requiring physical device intervention (PDI). These activities include, but are not limited to:

- Performing a visual inspection of devices for error conditions
- Loading media and installing applications requiring local console access to the device
- Rebooting/restarting that requires physical intervention; e.g., power cycling to initiate or complete the restart process
- Replacing defective devices or components

Otherwise, remote managed services are delivered the same as hosted managed services.

Where CDW has identified an incident that requires PDI, we will promptly inform you of this requirement and, depending on the service contracted, guide you through the specific PDI process.

CDW's Managed Services Offerings allow you to focus on your core business, leaving the day-to-day management and support to us.

Contact your CDW account manager for more information.