

Data Center End to End Monitoring with System Center Solutions



Data centers are undergoing tremendous change. Enterprises are increasing their investments in the data center to take advantage of economies of scale and improved security. At the same time, more IT services and applications that require increased service levels for uptime and responsiveness are moving into the data center.

As applications become increasingly complex and interconnected, the challenge of tracking and meeting the required service levels in the data center also increases. Meeting these service level requirements and demands for increased performance and overall system availability in the data center are driving the need for an end-to-end monitoring solution.

The difficulty is compounded further because most data centers over time have put in place a mix of Microsoft and non-Microsoft operating systems, applications, and virtualization technologies.

To monitor their servers, applications, and service levels, data center managers need end-to-end visibility across the entire IT infrastructure. The Microsoft System Center data center end-to-end monitoring solution is designed to deal with these issues.

The Microsoft System Center Data Center End-to-End Monitoring Solution

Microsoft has brought together the key capabilities in the System Center data center monitoring solution to provide comprehensive visibility, service-level

management, and problem resolution through an open and extensible monitoring platform.

This end-to-end monitoring solution helps data center managers see across the data center and identify any potential problems that could affect business processes and IT service.

Platform Monitoring

The System Center solution allows data center managers to centrally monitor their mixed operating system environments for data center server availability, performance, and configuration issues.

With this solution, the “gold standard” or “perfect state” configuration baseline is monitored on a deployed and configured server in the data center. All configuration changes (intentional and unintentional) are reported as part of a drift notification that alerts data center managers to potential configuration errors.

Along with configuration monitoring, data center managers can use this solution to centrally monitor Microsoft, Unix, and Linux platforms from one centralized console to ensure each platform remains available and performs as expected. The solution monitors data center servers for potential performance, availability, or security issues. The solution helps data center managers prevent unplanned outages, avoid performance degradation, and accelerate problem diagnosis on both Microsoft and non-Microsoft systems.

In addition to monitoring across operating systems, the end-to-end solution also manages Microsoft and VMware virtualization platforms to ensure that the data center’s virtual server infrastructure is operating at optimum levels. The solution dynamically responds to poor performance or failures of virtualized systems with a proposed corrective action such as creating a new virtual system or with an automatic response to help ensure maximum availability and responsiveness.

These platform-monitoring capabilities come together in a diagram view that is continually updated with near real-time monitoring information. Data center managers can use this view to easily visualize the status and location of their data center assets.

Application- and Service-Level Monitoring

In addition to platform monitoring, data center managers require proactive monitoring and insight into the performance of line-of-business applications and IT processes to meet and track established service-level goals and ensure business operations are available.

To meet this requirement, the end-to-end solution monitors applications and web services, providing knowledge on issues and recommended actions so data center managers can quickly identify, investigate, and resolve incidents and anomalies.

The solution brings monitored components together in a service view through which data center managers gain visibility into the entire line of business or IT service. The solution performs synthetic transactions, looking at application services from an end-user perspective, to proactively identify potential problems and performance issues. Early detection helps managers address bottlenecks before they become critical failures.

A service-level dashboard provides application and service information and status. The dashboard collates performance metrics to measure end-to-end performance. It also continually tracks service-level targets and overall service-level health.

Data center managers can use the end-to-end monitoring solution to take advantage of guidance and best-practice services to monitor the data center systems, applications, and IT processes. With this solution, data center managers can get systems up and running quickly to meet service-level goals and improve IT productivity.

Demands for increased service levels and availability are driving the need for an end-to-end monitoring solution in the data center. Microsoft's end-to-end monitoring solution helps ensure IT services, applications, and servers run smoothly with optimal uptime and responsiveness.

Interoperability and Extensibility

To meet their need for openness and choice, data center managers must be able to monitor connected systems and technologies from different vendors. The System Center data center end-to-end monitoring solution is based on open standards (e.g., [WS-](#)



Figure . System Center Operations Management Service Level Dashboard

[Management](#) and [Open Pegasus](#)) and common models to ensure utmost interoperability and extensibility to manage both Microsoft and non-Microsoft products and technologies.

This interoperability also includes the capability to interoperate and share information with third-party management systems such as HP, Tivoli, BMC, and other management systems and help desks through the open standards and APIs.

With this solution's highly extensible platform, industry partners can develop and extend the System Center data center end-to-end monitoring solution to manage a wide range of non-Microsoft applications and technologies.

Microsoft Data Center Management Solutions

System Center data center management solutions address greater interoperability, openness, and choice while improving overall efficiency. These solutions are:

Configuration Management

Automated provisioning and updating with server consolidation through virtualization.

End-to-End Monitoring

Application and service-level monitoring with proactive platform monitoring.

Server Compliance

Configuration controls and reporting plus centralized audit of system security.

Data Protection and Recovery

Backup and restore in addition to business continuity through server virtualization.

Microsoft System Center Server Management Suite Enterprise

The Microsoft System Center Server Management Suite Enterprise offers the System Center products that together enable IT organizations to proactively manage their physical and virtual environments. The Server Management Suite Enterprise is a cost-effective way to acquire the core components of the System Center data center management solutions.

The System Center solutions lower costs, improve efficiency, and ensure the data center remains available for critical business needs.

For more information about System Center Data Center Solutions, visit <http://www.microsoft.com/systemcenter>.