



System Center Service Manager

Vision and Planned Capabilities

Microsoft Corporation

Published: April 2008

Executive Summary

The Service Desk function is the primary point of contact between end users and the IT organization or service provider. Its primary goal is often described as to restore service to and to fulfill requests from users as quickly as possible. However, best practice suggests that the Service Desk be given a broader role beyond that of a traditional Help Desk, a role that spans the processes of incident, problem, change, and asset and configuration management.

Organizations face three key challenges as they adopt this broader approach:

- 1) Traditional Service or Help Desk products and technologies are inflexible, requiring expensive and time consuming customizations that slow down the adoption of newer capabilities
- 2) Some products lack integration of Service Desk functionality into a broader set of IT management products and capabilities such as operational monitoring and automated configuration management
- 3) Still other products lack direct support for the adoption, integration and optimization of processes that are primarily driven by best practice frameworks such as Microsoft Operations Framework (MOF) and ITIL®.

System Center Service Manager, scheduled for release in early 2010, is being designed to help organizations deal effectively with each of these three challenges.

This whitepaper outlines the vision for Service Manager and its planned capabilities.

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Service Manager Overview and Product Vision

Microsoft System Center solutions help organizations manage their IT environments, from physical to virtual, across desktops, devices and datacenters. The System Center family of products is designed to provide a single window into IT services to allow proactive planning, deployment, management, and optimization across IT platforms. System Center solutions capture and aggregate practical knowledge about infrastructure, policies, processes, and best practices so IT professionals can build manageable systems and automate operations to reduce costs, improve application availability, and enhance service delivery.

Service Manager will extend the System Center family's capabilities by adding a comprehensive, easy to use and customizable Service Desk product. To ensure Service Manager enhances the support optimization efforts of its customers, workflows into the product that directly support service management best practices such as those found in Microsoft Operations Framework (MOF) and ITIL®¹. Service Manager is being built upon a proven and extensible technology infrastructure shared across the System Center family. This will enable workflow integration across the System Center family of products, and will ensure the Service Manager product can be customized to support an organization's specific processes and requirements.

Key technologies in the product include:

- A workflow engine for automating all or portions of IT processes and integrating System Center solutions
- A common data warehouse and reporting platform for integrating business intelligence information across System Center
- A connector framework to support technology integration across System Center, other Microsoft products, and common industry management tools
- A Configuration Management Database (CMDB²) to support the management of information about IT service components and how they relate to one another
- A self-service portal to provide end users access an interface to IT and reduce help desk call volume by enabling users to help themselves .A knowledge base to capture and share practical knowledge for IT professionals and end users

The vision for Service Manager is to achieve each of the following goals:

- 1) Comprehensive, easy to use, and customizable Service Desk capabilities
- 2) Central integration point for service management workflows across System Center solutions
- 3) Built-in support for service management best practice frameworks such as MOF and ITIL®

These goals are explored in more detail in the pages that follow.

¹ For more information on ITIL®, visit www.itil-officialsite.com.

For more info on MOF, visit www.microsoft.com/mof.

² A CMDB is a database used to store information on components of IT Services (known as Configuration Items or CIs) including attributes of CI and relationships with other CIs.

Comprehensive, Easy to use, and Customizable Service Desk Capabilities

Each member of the System Center family of products is designed to help IT Professionals better serve users and the business by automating key service management capabilities. System Center today provides a wide range of capabilities that support IT Professionals in carrying out service management tasks, including:

- End to end service monitoring and control with System Center Operations Manager
- Automated configuration management with System Center Configuration Manager
- Continuous protection and reliable data recovery with System Center Data Protection Manager
- Dynamic virtual and physical machine management with System Center Virtual Machine Manager

As shown in the figure below, Service Manager will integrate with and extend these capabilities through the addition of key Service Desk functionality, including end user self-service, incident management, problem management, change management, and asset and configuration management, and reporting.

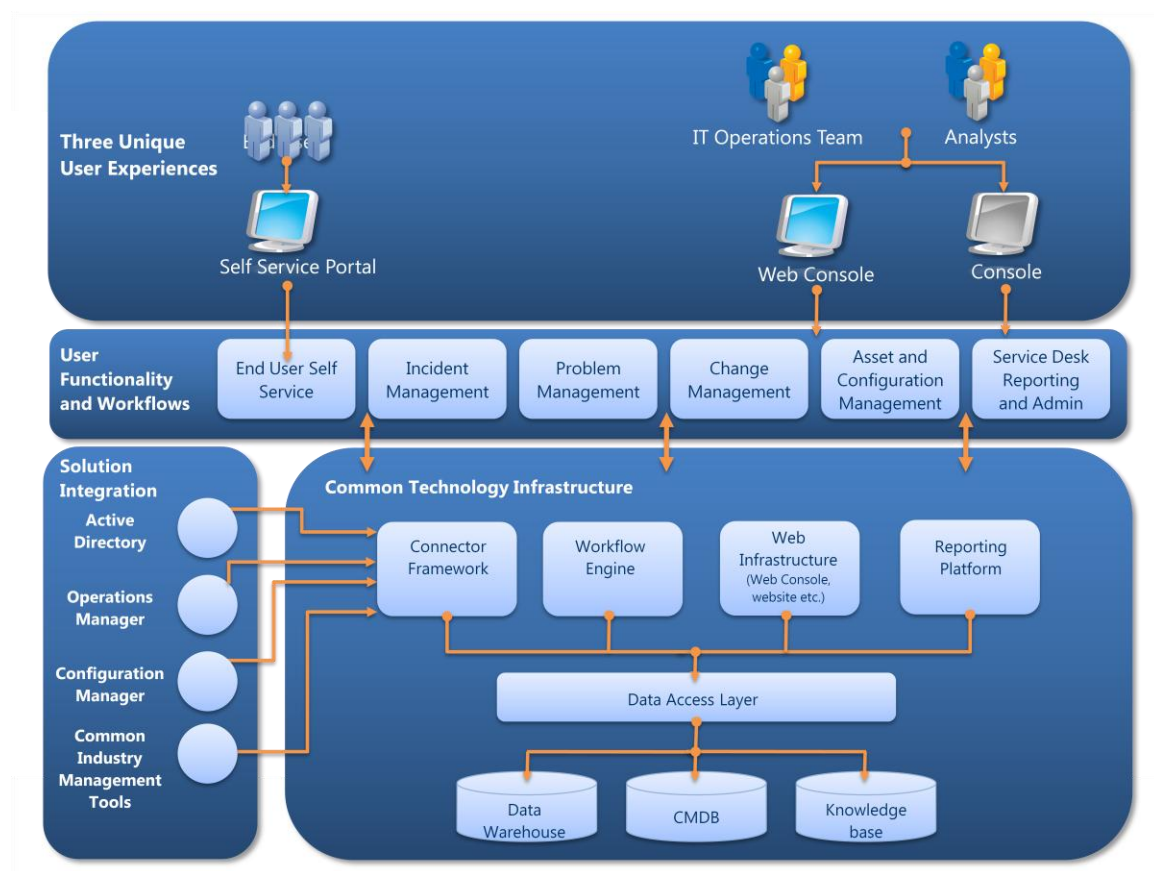


Figure 1: System Center Service Manager Solution Architecture

While existing Service Desk products offer some of these features, Service Manager will differentiate itself by:

- Enabling integration across System Center solutions and other common industry management tools
- Delivering core Service Desk functionality with workflows integrated across System Center solutions
- Making customization a straightforward process without challenges in future versions or updates
- Providing an easy to use and intuitive experience for all user types

A Central Integration Point for IT Service Workflows across System Center

Today Microsoft System Center delivers integrated management capabilities that span from the desktop to the datacenter, from physical to virtual resources and does so via a knowledge driven approach. Service Manager will extend this approach by providing a central point of integration, not only in terms of a platform level, technological integration, but also by incorporating integrated workflows essential to the optimizing service delivery and operations. The sample scenario that follows highlights how Service Manager integrates workflows across System Center, taking time and cost out of service management processes.

Sample Scenario: Integrated Incident Workflow across System Center Operations Manager, Configuration Manager, and Service Manager

When a application service monitored by Operations Manager stops unexpectedly, Operations Manager will detect the application failure and generate an alert. The alert will be automatically converted into a new incident in Service Manager and assigned to an IT operations analyst. The analyst will use the Service Manager console to open the incident ticket and view the knowledge (provided by Operations Manager) useful in handling this kind of incident. The knowledge will instruct the analyst to first try to restart the service by clicking on the task link provided. The analyst will then submit the task through the Operations Manager infrastructure to the agent managing the server where the Windows service stopped unexpectedly. The results of trying to restart the service will then be returned to the user in the Service Manager console. In this case the incident will not be resolved because the task fails to start the service. To further diagnose the incident, the analyst while still in the Service Manager console will pivot to view the performance data and events collected by Operations Manager. After further investigation and searching the knowledge base provided by Service Manager, the analyst will then determine that the incident is typically caused by a missing software update. While still in the Service Manager console, the analyst will then pivot to view the software and updates installed on the server as reported by Configuration Manager. After confirming that the update is in fact missing, the analyst will create a new emergency change request related to the incident. The analyst will then add a review activity to get approval from the Emergency Change Advisory Board and an automated activity to add the computer to the right collection in Configuration Manager so that the correct software updates will be automatically applied once the request is approved. The Emergency Change Advisory Board will then be notified immediately and in this case will approve the Change Request. The automated activity will immediately start and communicate with Configuration Manager, putting the computer in the right collection. The software update will then be applied by Configuration Manager at the next opportunity. When the change request is completed, the analyst will be notified via email automatically. The analyst will then again try to start the service by running the task. This time the result will be successful and the Operations Manager alert and corresponding Service Manager incident will be automatically resolved.

As Service Manager will use integrated and proven infrastructure components from across the System Center family, this level of workflow integration will be delivered directly with the product, rather than requiring additional integration work. Further integration with other Microsoft products and common industry management tools is planned via Management Packs and Connectors.

To accommodate the specific requirements each organization will have, Service Manager will be extensible by customers and partners using the same platform components used to develop the baseline functionality of the product. Microsoft partners are planning to further extend Service Manager's capabilities by creating Process Management Packs. These will be similar, both in terms of design and delivery, to Operations Manager Monitoring Management Packs and Configuration Manager Configuration Management Packs, and will add significant capabilities to a customer's deployment.

Built-in Support for Service Management Frameworks including MOF and ITIL®

One of the key motivations for shifting from a traditional Help Desk to a broader Service Desk approach is to improve the delivery of services to end users. While technology has a clear role to play, meeting this challenge is clearly not something technology alone can solve. In the end, IT professionals support and deliver services. To optimize IT services, organizations often utilize their own processes based guidance from service management frameworks such as MOF and ITIL®. Automation, integration and customization of these service management processes workflows are a key factor in success.

Service Manager is designed with key process workflows that support MOF and ITIL® built directly into the product. Service Manager will provide direct support for key processes for incident, problem, asset and change management, ensuring that each action taken in these areas complies with the best practices recommended in these frameworks. As each implementation of these frameworks is unique to the processes, technology, and structure of the organization concerned, Service Manager will deliver the ability to easily customize workflows and processes.

Service Manager Planned Product Capabilities

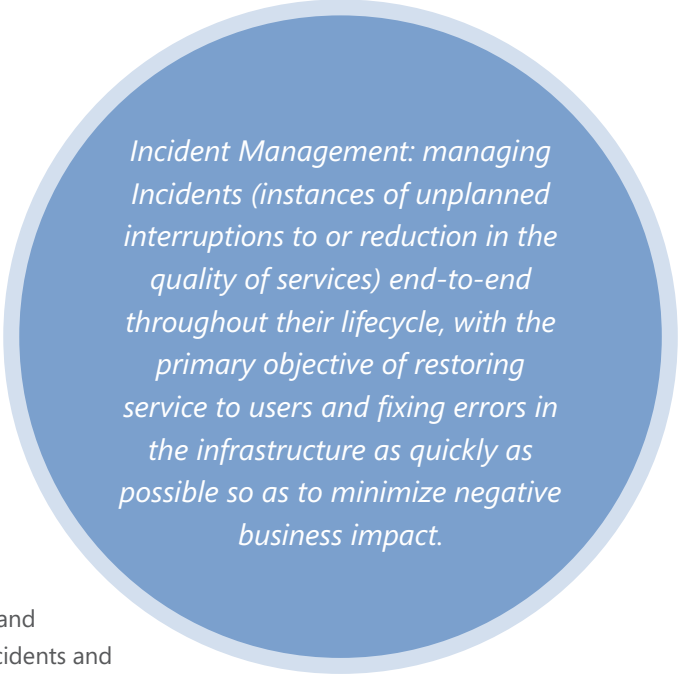
Service Manager's planned capabilities can be viewed as two separate but tightly integrated areas: user functionality and platform components supporting this functionality. The sections that follow list and describe Service Manager's planned user functionality and the platform components that support it.

User Functionality

Incident Management

Service Manager will support the Incident Management process by providing out-of-the-box implementation of core ITIL® / MOF functionality. The product will help reduce call handling time by providing:

- Instant access to related configuration, asset and system health information.
- The ability to map the Service Desk system to the business with user-defined queues, service level metrics, and escalation policies.
- Built-in performance dashboards and trending reports for tracking of team and overall progress in relation to both incidents and performance goals.
- A single unified search engine designed to help Service Desk analysts find answers quickly and accurately within disparate knowledge stores.
- Automatic incident creation and routing, from services monitored by Operations Manager 2007 and Configuration Manager 2007, enabling the tracking of resolution of one-time and recurring incidents using problem records.

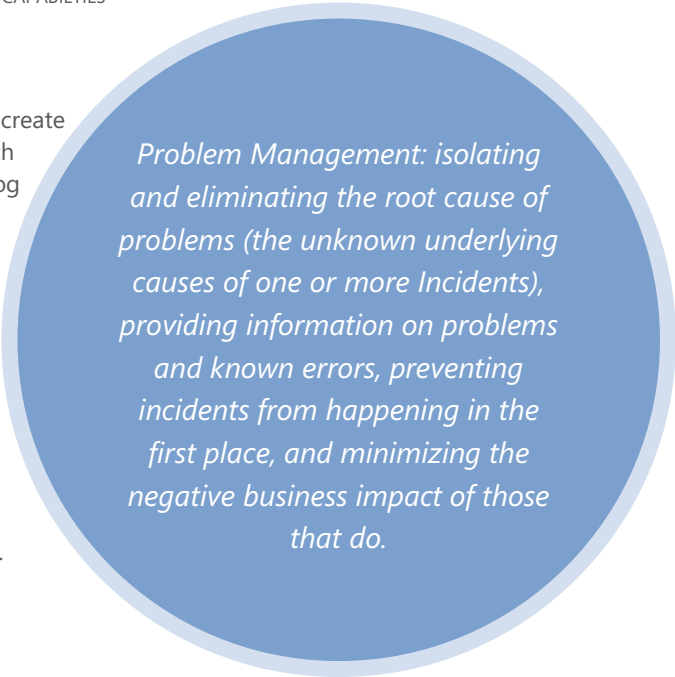


Incident Management: managing Incidents (instances of unplanned interruptions to or reduction in the quality of services) end-to-end throughout their lifecycle, with the primary objective of restoring service to users and fixing errors in the infrastructure as quickly as possible so as to minimize negative business impact.

Problem Management

In Service Manager, a user will be able to easily create a new problem record from an incident or attach an incident to an existing problem. An action log will be used to capture the actions the IT team has undertaken to diagnose and resolve the problem.

Analysts will be able to mark problem records as known errors to make them more visible to other analysts trying to resolve incidents. This will reduce the amount of time spent investigating errors since an analyst will be able to simply link incidents to a problem, for example, linking multiple network outage incidents to a network switch being unavailable.

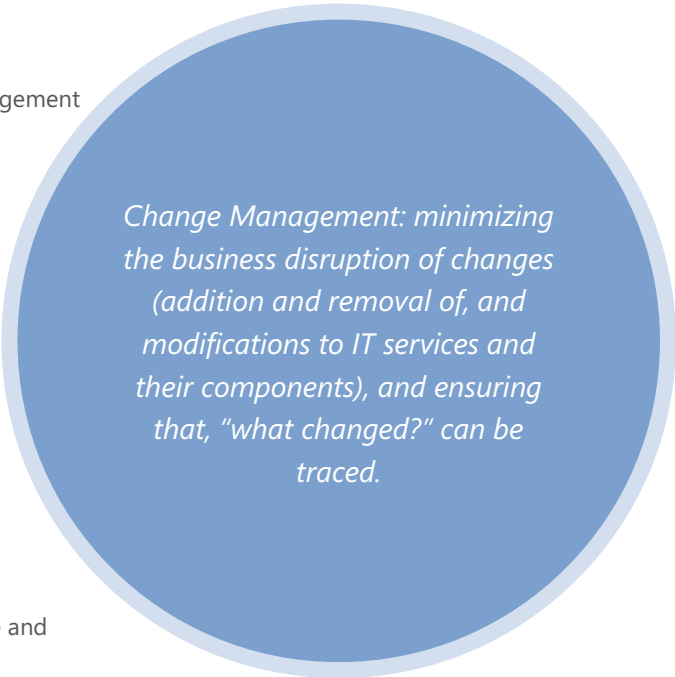


Problem Management: isolating and eliminating the root cause of problems (the unknown underlying causes of one or more Incidents), providing information on problems and known errors, preventing incidents from happening in the first place, and minimizing the negative business impact of those that do.

Change Management

Service Manager will support the Change Management process by:

- Accurately creating Requests for Change (RFCs³), including all required details such as the reason, priority, and impact of the change, as well as links to affected Configuration Items (CIs)⁴.
- Initiating RFCs directly from incidents, filling in RFC information quickly using pre-defined templates for common types of RFCs.
- Providing configurable review stages and manual or automatic activities that give structure to IT processes.
- Allowing measurement of the performance and effectiveness of the process through process-specific dashboards and reports.
- Featuring automatic update of the CMDB via automatic discovery when RFCs are completed, helping ensure its integrity as the definitive configuration record.



Change Management: minimizing the business disruption of changes (addition and removal of, and modifications to IT services and their components), and ensuring that, "what changed?" can be traced.

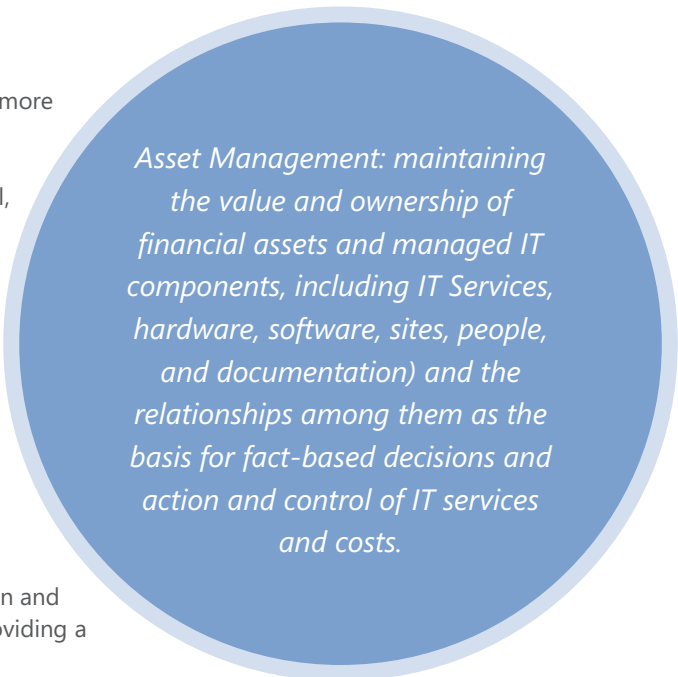
³ A Request for Change (RFC) is a formal proposal for a Change to be made. An RFC includes details of the proposed Change, and may be recorded on paper or electronically. The term RFC is often misused to mean a Change Record, or the Change itself.

⁴ A Configuration Item (CI) is a component that must be managed to successfully deliver an IT service, and can include services, hardware, software, locations, people, and documentation.

Asset and Configuration Management

Service Manager will help manage assets with more than just inventory. The product will provide workflows to help IT professionals manage the lifecycle of assets from procurement to disposal, and the ability to relate CIs to incidents, RFCs, problems, and known errors, providing integrated data that gives not just a clear and accurate picture of actual inventory of software, hardware, and application component assets, but how they relate to other key components of IT services and workflows. This information will be automatically populated from what is discovered by Operations Manager, Configuration Manager and Active Directory.

Service Manager will include CMDB visualization and customizable levels of component tracking, providing a clear view into the configuration and the right level of granularity of information. Additional features include CI change history, detailed asset models, and comparison reporting.

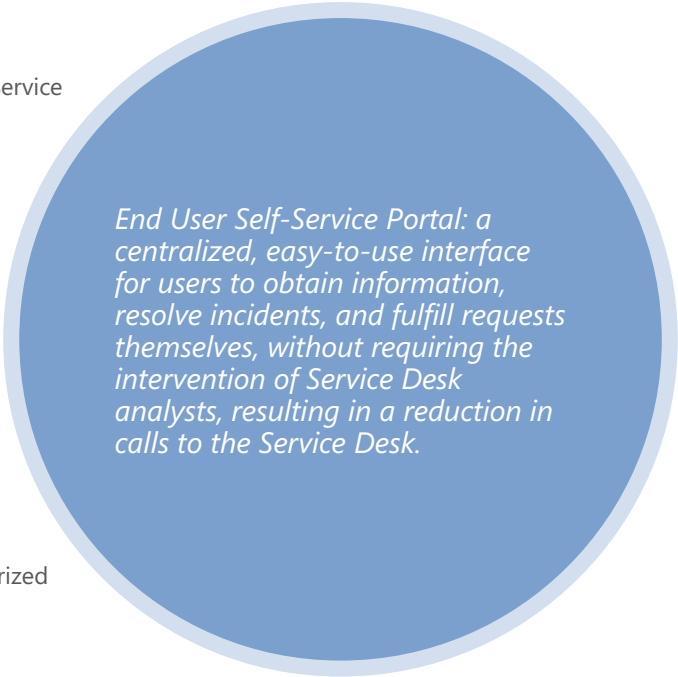


Asset Management: maintaining the value and ownership of financial assets and managed IT components, including IT Services, hardware, software, sites, people, and documentation) and the relationships among them as the basis for fact-based decisions and action and control of IT services and costs.

End User Self-Service

Service Manager will feature an End User Self-Service Portal with key capabilities including:

- A centralized, easy to use interface for end users to get information on the health of their services, relevant announcements from IT and the status of their requests.
- Reduction in calls to the Service Desk by enabling end users to resolve their own incidents through the ability to search the knowledge base and consult a list of common issues and resolutions.
- Reduction in calls to the Service Desk by enabling end users to fulfill their own requests, such as a request to install authorized applications software.



End User Self-Service Portal: a centralized, easy-to-use interface for users to obtain information, resolve incidents, and fulfill requests themselves, without requiring the intervention of Service Desk analysts, resulting in a reduction in calls to the Service Desk.

Service Desk Performance Reporting

Service Manager's integrated data and reporting capabilities will directly support Service Improvement Programs. Reporting capabilities will span incident, problem, change, configuration and asset management. Asset, change history, inventory, and comparison reporting will be built in to the product.

Reporting features will include trend reports, ad-hoc reporting, performance metrics, dashboards, all integrated across the System Center family of products.

Platform Components

Platform Components supporting System Center Service Manager's capabilities and workflows will include:

- Connector framework
- Workflow engine
- Web console
- Self-service portal website
- Common data warehouse and reporting infrastructure
- CMDB
- Knowledge Base

The pages that follow outline these capabilities.

Connector framework

Service Manager will provide data integration through a common Connector Framework. Connectors will include those for Configuration Manager 2007, Operations Manager 2007, and Active Directory. Partners and customers will be able to create solutions for support of 3rd party management environments. A wizard based interface will enable easy configuration of connectors.

Workflow engine

Service Manager will share a common workflow engine with System Center Operations Manager and System Center Essentials. Customization will be available to ensure customers can tailor the best practice workflows available in Service Manager to meet their specific needs. Workflows for core service management processes including incident, problem, change, and asset and configuration management will be provided out of the box. Examples include templates and workflows for Standard, Minor, Major, Significant, and Urgent changes.

The workflow engine will support hosting and execution of relevant Windows Workflow Foundation workflows and PowerShell scripts. This will help customers leverage existing workflow and script libraries to quickly author new process automation workflows.

Web console

The product will provide browser-based access for IT professionals, in addition to its traditional console access option. Users will be able to view incidents, change requests, problems, configuration items, and search knowledge conveniently over the Intranet or Internet. The web console will use the same role-based security and authorization infrastructure as the main administrative console.

Self-service portal website

Service Manager will also include a standard ASP.net website to host the relevant SharePoint web parts that will make up the web user experience for the product. This will deliver a simple set up and maintenance process, and still allow the option of embedding self-service web parts in existing SharePoint-based websites.

Common Data Warehouse and Reporting Infrastructure

System Center Service Manager will provide a common data warehouse for the System Center family of products, enabling integrated cross-product reporting. The data warehouse will be extensible to allow new types of work items or configuration items to be stored for reporting.

Reporting will be integrated into the main administrative console in the same way as can be seen in Operations Manager 2007. Leveraging the capabilities of SQL Reporting Services, users will be able to create favorite reports, schedule reports, and automatically generate reports that are sent by mail, uploaded to a Share Point site, or stored on a file share. Users will be able to launch a report from the context of a particular CI or work item and run tasks in the context of the reports to drill down on details or to run diagnostics.

Configuration Management Database (CMDB)

The CMDB plays a critical role in ensuring consistency across incident, problem, change, and asset and configuration management workflows. Service Manager will use an enhanced version of the database schema used by Operations Manager and System Center Essentials. This will enable tighter integration and better data sharing across the System Center family of products. Rich models of assets and their relationships and connectors for Configuration Manager 2007, Operations Manager 2007, and Active Directory will be provided out-of-the-box. Service Manager will provide the ability to federate its CMDB with other System Center data stores to establish a unified, reconciled view of the environment. To allow tailoring to meet the specific needs of the organization, the database schema will be extensible by partners and customers.

Knowledge Base

Service Manager will include a knowledge base for end users and IT professionals which will feature:

- Easy access to detailed expert knowledge for troubleshooting and problem solving.
- The ability to leverage the Microsoft Product Groups and Microsoft Premier Support Services Knowledge Bases.
- Inclusion of procedures and processes defined by MOF.
- The ability for users to customize or add their own organization-specific knowledge to Service Manager.
- Inclusion of knowledge from other sources, for example, knowledge from System Center Operations Manager, or websites, such as Microsoft TechNet, through integrations with the Service Manager console and portal.
- Accessibility by both IT professionals and end users.
- Knowledge base search using either full text search or specific criteria.

Service Manager's knowledge base will reside within the CMDB. Knowledge will be delivered and populated automatically in three ways: via Management Packs such as those seen in Operations Manager, via the Process Management Packs discussed earlier in this paper, or via manual entry.

In addition to searching the knowledge base stored in the CMDB, users will be able to search other knowledge stores such as Intranet SharePoint document libraries, or Internet sites such as live.com, support.microsoft.com, or technet.microsoft.com using customizable "Search Providers". Users will be able to provide a single search term to search both the CMDB knowledge base and the external knowledge sources via the Search Providers at the same time. Any knowledge article, whether in the CMDB or in an external source, will be able to be linked to work items or configuration items. Lastly, both end users and IT professionals will be able to provide feedback on knowledge articles and the product will provide reports based on this feedback that can be used to improve the quality of the knowledge base over time.

Getting Started with Service Manager

System Center Service Manager will provide comprehensive, easy to use, and customizable Service Desk capabilities, a central integration point for service management workflows across the System Center family of products, and built-in support for service management best practice frameworks such as MOF and ITIL®. Service Manager will differentiate itself by:

- Enabling integration across System Center solutions and other common industry management tools
- Delivering core Service Desk functionality with workflows integrated across System Center solutions
- Making customization a straightforward process without challenges in future versions or updates
- Providing an easy to use and intuitive experience for all user types

Organizations that implement Service Manager will benefit by leveraging their existing investments in Microsoft technologies, in particular, through integration of technologies in the System Center family of products. Other benefits will include improved alignment of service support, an improved productivity and experience for end users across the organization, practical knowledge for fact-based decisions and actions, and the platform for measurable continuous improvement.

While full release of the Service Manager product is not planned until early 2010, now is the time to begin preparing for implementation by establishing a solid systems management foundation through the System Center family of products and exploring how MOF can improve IT throughout the IT services lifecycle.

For more information on Service Manager, including current release timelines and opportunities for early adoption, visit the Service Manager website at www.microsoft.com/systemcenter/svcmgr/default.aspx, and the System Center blog at <http://blogs.technet.com/systemcenter>.

For more information on the System Center Family of products, visit:

System Center Configuration Manager www.microsoft.com/systemcenter/configmgr/default.aspx

System Center Operations Manager www.microsoft.com/systemcenter/opsmgr/default.aspx

System Center Data Protection Manager www.microsoft.com/systemcenter/dpm/default.aspx

System Center Virtual Machine Manager www.microsoft.com/systemcenter/scvmm/default.aspx

System Center Essentials www.microsoft.com/systemcenter/essentials/default.aspx

System Center Mobile Device Manager 2008 www.microsoft.com/systemcenter/mobile/default.aspx

System Center Capacity Planner 2007 www.microsoft.com/systemcenter/sccp/default.aspx

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