Preview: IBM Tivoli Service Management products

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Overview

Today’s corporate data centers are challenged to deliver superior performance of existing IT applications and provide new and innovative processes and methods for new applications for both internal and external users, and do so at reduced costs. The amount and complexity of new applications continues to increase and the combination of disparate operating systems, computer networks, and their associated hardware and software components require superior management software, processes, and structure to deliver and support the business results that are expected from these systems.

IBM® Tivoli® plans to address this complexity and workload through its Service Management offerings. Today’s IT infrastructure must be competently managed by both the automated processes and the human resources that make the tactical and strategic decisions to assure end-to-end business service availability. IBM Tivoli Service Management offerings, in support of your enterprise systems, must:

- Provide a highly reliable, efficient computing environment on a 24/7 basis
- Continually strive to help reduce IT operational costs through automation and product integration
- Deliver a suite of IT operational solutions that support an end-to-end controlled environment
- Help assure that these IBM Tivoli management applications can produce results across all the disparate systems, networks, and databases that are deployed across the enterprise

The technology related business issues regarding Service Management will address five different areas that, when managed properly, can help return impressive benefits back to the IT organization. Those areas are:

- Service availability and performance management - By proactively managing both the performance and the availability of key IT assets, this helps you to identify and then resolve potential problems before they affect the health of the business services.
- Storage management - An integral part of your computing landscape that, when managed properly, can help lower costs by improving storage utilization and performance, to promote application and data availability, help to manage data compliance mandates and to improve flexibility to aid in a faster response to changing business dynamics.
- Security management - An essential component that will aid in protecting users, applications, data, and networks as well as enabling new secure business opportunities and IT deployment models.
- Service delivery and process automation - Key critical components that provide a foundation for process and service management to allow applications, networks, databases, and computing infrastructure components to work together in an integrated manner.
• Asset management - Help to maximize the performance and lifetime value of business assets across the enterprise through enterprise and IT asset management and IT financial management.

This announcement contains a combination of previews and information about complementary products that are already generally available. Note general availability dates for those products which are already available.

Previews provide insight into IBM plans and directions. General availability, prices, ordering information, and terms and conditions will be provided when the products are announced. All statements regarding IBM's future direction and intent are subject to change or withdrawal without notice and represent goals and objectives only.

Planned availability date

The information on any new products or product changes is intended to outline our general product direction and it should not be relied on in making a purchasing decision. The information on any new products or product changes is for informational purposes only and may not be incorporated into any contract. The information on any new products or product changes is not a commitment, promise, or legal obligation to deliver any material, code or functionality. The development, release, and timing of any features or functionality described for our products remains at our sole discretion.

Description

The following products individually are planned to contain valuable features and function to help provide availability and superior performance for their individual domains:

• OMEGAMON® XE for CICS® on z/OS® - transaction processing
• OMEGAMON XE for IMS™ on z/OS and OMEGAMON XE for DB2® Performance Expert on z/OS - database performance management
• OMEGAMON XE on z/VM® and Linux® - virtualization
• NetView® for z/OS and OMEGAMON XE for Mainframe Networks on z/OS - network management

The overriding value associated with this set of products is that they share a common goal (performance and availability management) and were originally designed to achieve that goal by working together. For example, the OMEGAMON family of products rely on the Tivoli Enterprise Portal (TEP) component of the IBM Tivoli Monitoring program to provide the same graphical interface, which allows various end users from different domains (network, database, and so on) to utilize the same tool and the same skill set to perform their function. In addition, the TEP provides Dynamic Workspace Linking (DWL) so that two or more products with TEP share data and linkages between products, which improves productivity and lowers costs. The performance and availability management products consist of:

• IBM Tivoli OMEGAMON XE on z/OS V4.2.0
• IBM Tivoli OMEGAMON XE on z/VM and Linux
• IBM Tivoli OMEGAMON XE for CICS on z/OS
• IBM Tivoli OMEGAMON XE for IMS on z/OS V4.2.0
• IBM Tivoli OMEGAMON XE for DB2 Performance Expert on z/OS V4.2.0
• IBM Tivoli OMEGAMON XE for DB2 Performance Monitor on z/OS V4.2.0
• IBM Tivoli OMEGAMON XE for Mainframe Networks on z/OS V4.2.0
• IBM NetView for z/OS
• IBM Tivoli Netcool/OMNIbus™
• IBM Tivoli Event Pump for z/OS
• IBM Tivoli Business Service Manager V4.2.1

OMEGAMON XE on z/OS V4.2.0

General availability: March 6, 2009

OMEGAMON XE on z/OS increases z/OS memory monitoring functions for critical workload monitoring. New program features exploit recent advances in z/OS services that provide alert and utilization information on critical memory/storage conditions (for example, storage shortage), as well as reduce XE for z/OS collection overhead. Other OMEGAMON XE on z/OS V4.2.0 enhancements:

• Management of HiperDispatch capabilities
• CPU loop detection
• zIIP enablement of parts of its data collection
• Improved workload management capabilities

OMEGAMON XE on z/VM and Linux

OMEGAMON XE on z/VM and Linux provides a wide range of information about the z/VM operating system, its resources, and workloads. Also, information on Linux instances running as z/VM guests and the Linux workloads running on those guests reveal how these instances and workloads on Linux are performing and impacting z/VM and each other. Tivoli OMEGAMON XE on z/VM and Linux helps you minimize the time and costs associated with managing this multifaceted computing environment, and achieve your goals for high availability.

Tivoli OMEGAMON XE on z/VM and Linux provides insight into workload performance by both the z/VM and Linux on System z® by integrating performance information collected in both environments.

Plans may address the following product areas:

• Helping set correct threshold levels and reducing false alerts via visual baselining capabilities.
• Additional graphical trend analysis capabilities including analysis of historical data.

OMEGAMON XE for CICS on z/OS

The product facilitates proactive management of complex CICS systems to help you achieve high performance and avoid costly downtime. Tivoli OMEGAMON XE for CICS on z/OS helps monitor and manage CICS transactions and resources to isolate and quickly detect situations and events in order to avoid or resolve problems as quickly as possible.

Plans may address the following product area:

• Support for new CICS TS and z/OS releases.
• Service level enhancements for analysis for service oriented architecture (SOA) applications.
• Enhancements to resource limiting reporting.
• Improved problem analysis.
• Short-term transaction response time analysis.

OMEGAMON XE for IMS on z/OS V4.2.0

General availability: January 9, 2009

OMEGAMON XE for IMS on z/OS, a powerful management tool, helps users optimize the performance and availability of their vital information management system (IMS). It delivers a single point of control over IMS in Parallel Sysplex®
environments and reports on performance of coupling facility structure statistics, shared queue counts, database lock conflicts, and a number of key IMS attributes that helps users stay ahead of potential delays or outages.

New features for OMEGamon XE for IMS on z/OS:

- Provide more flexibility on the way reporting can be done
- Increase transaction rate reporting for workloads utilizing IMS Connect
- Provide additional metrics to the TEP interface (for example, IMS Transaction rate)

**OMEGamon XE for DB2 Performance Expert on z/OS V4.2.0; OMEGamon XE for DB2 Performance Monitor on z/OS V4.2.0; DB2 Buffer Pool Analyzer for z/OS V4.2.0**

General availability: May 22, 2009

OMEGamon XE for DB2 Performance Expert on z/OS provides comprehensive monitoring functionality to manage the efficiency and performance of DB2 on z/OS-based applications online, in real time, as well as "offline" via batch reports coupled with a DB2 Performance Warehouse for expert analysis of DB2 application performance data. It also includes buffer pool analysis features for superior overall DB2 management capabilities.

New features in the existing V4.2.0 release are:

- Significant internal architectural improvements to improve code path optimization and to drive convergence resulting in reduced resource consumption
- Improved installation and configuration experience
- Currency support and new features in reporting
- IBM Tivoli Monitoring V6.2.1 features including the high availability hub Tivoli Enterprise Management Server (TEMS) for z/OS

**OMEGamon XE for Mainframe Networks V4.2.0**

OMEGamon XE for Mainframe Networks helps you stay ahead of service delivery performance lags by managing the health of your network connections proactively. It enables users to proactively fine-tune, troubleshoot, and diagnose mainframe network performance for WebSphere®, CICS, DB2, IMS, and other critical applications. Within your z/OS environment, Tivoli OMEGamon XE for Mainframe Networks analyzes TCP/IP performance with TN3270, FTP, high-performance routing/enterprise extender (HPR/EE), and other key communications systems, and alerts you to slow, unstable, or unavailable network connections, adapters, file transfers, and TN3270 sessions. A vast range of metrics helps you pinpoint where TCP/IP stack problems, network traffic flow, bottlenecks, and slow throughput may cause workflow delays. It enables more efficient TCP/IP and SNA network operations through dynamic integration with IBM Tivoli NetView for z/OS.

OMEGamon XE for Mainframe Networks V4.2 enhancements:

- Faster time to value through simplified OMEGamon suite installation based on best practices and more flexible configuration and self-diagnostics
- Improved system programmer productivity and streamline problem diagnostics through improved take action commands, and handling of commands
- Improved system-wide event management through integration improvements to Tivoli Netcool/OMNIbus for event correlation
- Improved network capacity management with insight and analysis of network performance and health trends through inclusion of advanced reporting templates, and standardization of reports on Tivoli Common Reporting
- Expanded support for Communication Storage Manager (CSM), SNA High Performance Routing (HPR) over IP networks, and OSA network adapters

**NetView for z/OS**
NetView for z/OS helps you achieve the highest degree of mainframe and end-to-end network availability, and the network agility, resiliency, and operational excellence needed for a dynamic infrastructure. With NetView for z/OS, you can consolidate IP and SNA network management onto a single point of control to reduce the complexity in managing network topologies, and automatically respond to network events that impact service delivery and availability. This can greatly improve your ability to meet service level requirements, and to dynamically adapt service delivery to changing conditions in your enterprise network. Additionally, NetView for z/OS helps to automate responses to repetitive or complex mainframe console operations and system messages, significantly increasing operational accuracy, speed, and precision, at the lowest possible cost. NetView for z/OS also provides increased insight into network usage and security patterns and trends. Together, Tivoli OMEGAMON XE for Mainframe Networks and NetView for z/OS provide a comprehensive network availability, performance, and automation solution.

Plans may address the following product areas:

- Improved network and system-wide change management
- Better service delivery management through integration with Tivoli Business Service Manager
- Improved incident management through integration with Tivoli Service Request Manager
- Enhanced insight and analysis of network usage, security, and availability trends
- Improved SOA support through Web services gateway
- Better diagnostics efficiency
- Automated command management for improved efficiency, security, and accuracy
- Enhanced end-to-end network availability management and automation
- Consolidated end-to-end network availability management through integration with IBM Tivoli Network Manager

**IBM Tivoli Netcool/OMNibus**

Tivoli Netcool/OMNibus delivers real-time, centralized supervision and event management for complex IT domains and next-generation network environments. With scalability that exceeds many millions of events per day, Tivoli Netcool/OMNibus offers round-the-clock management and high automation to help you deliver continuous uptime of business, IT, and network services.

Tivoli Netcool/OMNibus is designed to scale from the smallest to the largest, most complex environments, across business applications, virtualized servers, network devices and protocols, Internet protocols, and security and storage devices. Breadth of coverage, rapid deployment, ease of use, high resilience, and exceptional scalability and performance are just some of the reasons leading organizations worldwide are leveraging Tivoli Netcool/OMNibus to manage some of the world's largest, most complex environments.

The breadth of management provided by Tivoli Netcool/OMNibus is also enhanced and extended through tight integration with the broader Tivoli suite of products. As the core of the IBM consolidated operations management solution, Tivoli Netcool/OMNibus can consolidate information produced by other IBM sources, such as Tivoli Monitoring, IBM Tivoli Composite Application Manager, IBM Tivoli Enterprise Console®, IBM Tivoli OMEGAMON, the z/OS Event Pump and other Tivoli Monitoring products, to provide a single, clear view across IT domains.

Tight integration with IBM Tivoli Network Manager enables autodiscovery of IP and transmission networks, and provides topology-based root-cause analysis. Operations staff can launch in context directly from Tivoli Netcool/OMNibus events to detailed Tivoli Network Manager topology and root-cause views, as well as other views from the Tivoli Monitoring family, Tivoli Service Request Manager, Tivoli Application Dependency Discovery Manager, and many more. Integration with IBM Tivoli Netcool/Impact enables organizations to collect information from external data.
sources and add that information directly to events to provide greater context and accelerate problem resolutions.

Tivoli Netcool/OMNIbus also provides integration with IBM Tivoli Data Warehouse and the Tivoli common reporting engine components of the IBM Tivoli Monitoring V6 program. All data collected by Tivoli Netcool/OMNIbus - either through monitoring or from IBM and third-party tools - can then be easily managed in a single, integrated, historical reporting solution. Operations staff can have the real-time and historical intelligence they need to identify developing trends and potential “hot spots” for proactive intervention before larger problems occur, without the need to jump between different management tools and reporting systems.

Integrated visualization and other common capabilities across Tivoli products deliver task-based workflows that represent common operations used to perform operations and service management tasks speeding problem solving across operational domains, with integrated drill down to detailed performance analytics and reporting from Tivoli Monitoring products to help reduce mean time to resolution and increase operator efficiency.

Tivoli Netcool/OMNIbus will include, as the strategic Event Management Desktop, the Web V2.0 based user interface previously provided by Netcool/Webtop. Tivoli Netcool/OMNIbus aims to bring enhanced functionality to both users and administrators and to help deliver significant benefits specifically in the following areas:

• Help improve operational efficiency
• Help reduce total cost of ownership
• Help streamline user workflow reducing MTTR
• Continue Tivoli integration initiatives to further strengthen integration
• Greater event throughput capacity
• Enhanced event flood protection and event rate anomaly detection
• Faster ObjectServer queries
• Usability (install and foot print improvements)
• Support more virtual environments
• Improved map look and feel
• Updated active event list configuration options

IBM Tivoli Event Pump for z/OS

Tivoli Event Pump for z/OS enables monitoring and management of z/OS-based systems, and gives an enterprise-wide view of events and status by enabling z/OS platform products information to be integrated into the business service views of IBM Tivoli Business Service Manager and event consolidation with IBM Tivoli Netcool/OMNIbus Object/Server. The product integrates enterprise events based on system messages for building business service views, and enables out-of-the-box direct collection z/OS, and subsystem state and status.

IBM Tivoli Event Pump for z/OS resides on the z/OS system. It provides the following:

• Collects data and traps events for monitored resources
• Current® supported feeds are DB2, CICS, IMS, z/OS, Tivoli System Automation for z/OS, Tivoli Workload Scheduler, CICS TDQ, as well as third-party feeds
• Enhanced recovery for Sysplex environments as well as automating administrative functions
• Removes NetView dependency for IMS and DB2 event feeds

IBM Tivoli Business Service Manager V4.2.1

General availability: August 21, 2009
Tivoli Business Service Manager V4.2.1 delivers technology for IT and business users to visualize, and assures the health and performance of critical business services. IBM Tivoli Business Service Manager will integrate a logical representation of a business service model with status-affecting alerts raised against the underlying infrastructure that supports the model. Using the browser-based Tivoli Business Service Manager dashboard, executives, line-of-business managers, service managers, and IT operators can then view how the business and enterprise is performing at a particular point in time or how it has performed over a given period of time. In this way, Tivoli Business Service Manager delivers the real-time information that is needed to respond to alerts effectively and in line with business requirements, and optionally to help in managing Service Level Agreements (SLAs).

Because of the size of today's large business enterprises, Tivoli Business Service Manager must be able to represent and manage the status and related attributes of very large business service models. The new Tivoli Business Service Manager V4.2.1 will continue to enhance support for both IBM System z (z/OS) and distributed systems.

Tivoli Business Service Manager V4.2.1 enhancements include:

- New Service Tree Portlet for powerful analysis and faster problem resolution
- Time Window analyzer that delivers faster MTTR
- Service Viewer "Quick Find" capability
- Enhanced visuals and data representation
- Improved security for Tivoli Business Service Manager external interfaces
- Integration and alignment with Event Pump for z/OS

**Storage management**

The second focus is storage management and its importance to the enterprise. The management of our data resources and how they are measured, utilized, and monitored for efficiency and performance is critical in the evolution of next-generation data centers. IBM Tivoli provides one of the industry's most broad-based integrated solution for managing System z storage. The key functions for managing and monitoring System z storage are provided and integrated using the TEP. Key information and diagnostics are displayed both in individual workspaces and are shared across management applications through dynamic workspace links. Key actions can be initiated from the TEP in direct response to pre-defined situations that are "flagged" for attention in the TEP workspaces.

You will continue to get integration across the System z storage portfolio, making it easier for users to monitor and manage all aspects of their System z storage environment. Releases in this area that are planned for later this year:

- IBM Tivoli OMEGAMON XE for Storage on z/OS V4.2
- IBM Tivoli Advanced Catalog Management for z/OS V2.2
- IBM Tivoli Advanced Allocation Management for z/OS V3.1
- IBM Tivoli Tape Optimizer for z/OS V2.2
- IBM Tivoli Automated Tape Allocation Manager for z/OS
- IBM Tivoli Advanced Backup and Recovery for z/OS

**OMEGAMON XE for Storage on z/OS V4.2**

General availability: December 12, 2008

OMEGAMON XE for Storage on z/OS enables you to manage elements of your mainframe storage environment that includes channel, control units, DASD, tape devices, and workloads for optimal performance and resource utilization. A single point of control, the product's built-in tools give you the power to manage disk use down to the individual data set levels. The program's views and reports reveal a detailed picture of your storage environment and workloads utilizing it.
In addition to using Tivoli OMEGAMON XE for Storage on z/OS to manage space, you can rely on the included online toolkit to help resolve issues rapidly. The product provides a wealth of real-time and long-term performance metrics that let you keep tabs on the overall health of those systems. You can easily tailor product views to investigate storage issues within your environment and quickly drill down to pinpoint bottlenecks and other contentions. Additionally, you can use the software to automate daily storage tasks and respond to recurring problems, thereby, help drive staff productivity. This product integrates with a number of IBM Tivoli System z storage management tools to provide additional deep dive storage management functions for DFSMShsm™, ICF Catalog, tape, and allocation capabilities.

New features for V4.2.0:

- Functions allowing users to report on historical data for capacity planning and trouble shooting activities with more detail.
- Functions allowing users to define dataset and volume groups dynamically from the datasets in the "data set attribute database”.
- New device will be available for Solid State Device (SSD).
- New reporting enhancement such that storage group and user DASD group space metrics can display in different measurements.

**IBM Tivoli Advanced Catalog Management for z/OS V2.2**

General availability: June 12, 2009

Advanced Catalog Management for z/OS V2.2 offers integrated catalog facility (ICF) catalog backup and forward recovery capability, diagnosis and repair facilities, and significant day-to-day utility functions for effectively managing an ICF catalog environment. With the ability to safely reorganize, repair and now merge catalogs while open, Advanced Catalog Management supports 24x7 ICF catalog availability. Advanced Catalog Management also provides backup and recovery capability for VSAM files and integration with other System z storage products such as OMEGAMON XE for Storage using the TEP. Critical information and pre-defined situations regarding ICF catalogs are displayed in the TEP workspace, and key corrective actions can be initiated automatically.

New for V2.2 are key new functions including the ability to merge catalogs while they are open, and refinements to the CATSCRUB function, allowing storage managers finer control for on-site work. Additionally, a new feature, DIAGNOSE BCS, helps analyze the logical structure of a BCS, and automatically build fixes where problems are detected. Also new in V2.2 is the ability to take actions directly from the TEP interface with the click of a mouse, making it easier and more efficient than ever to monitor and maintain the health of critical ICF catalogs.

**IBM Tivoli Advanced Allocation Management for z/OS V3.1**

Planned general availability: Third quarter 2009

Advanced Allocation Management for z/OS will replace IBM Tivoli Allocation Optimizer for z/OS with plans for significant functional improvements available in the new product. Advanced Allocation Management for z/OS aims to provide significant business value by allowing users to prevent out-of-storage abend conditions in running jobs, and by providing control over storage allocations. It aims to provide additional value by integrating with other related System z storage products using the TEP to share information automatically with other related products such as OMEGAMON XE for Storage.

New and significant additional functional value is expected, such as adding centralized control of DASD volume usage and centralized control of allocation attribute usage, as well as a number of other enhancements and improvements.

Advanced Allocation Management will include advanced volume selection.
You will get centralized control of DASD volume usage both at initial allocation and end-of-volume by allowing:

- Definition of volume groups for non-SMS volumes
- Volume groups to be easily refreshed
- Re-direction of unit type (tape to disk, disk to VIO, and so on)
- Allocation direction based on a large variety of variables, such as job name, data set name, program name, space specifications, data set attributes, and so on
- Allocation direction based on a variety of resource metrics:
  - Best fit
  - Performance
  - Largest single extent
  - Most freespace
  - One or more user exits to provide customized installation control

Advanced Allocation Management includes enhanced allocation management.

You will be able to centralize control of allocation attribute usage:

- Set allocation attributes that are not specified or override allocation attributes that do not meet the installation's standards
- Control over 50 allocation attributes, such as:
  - SMS-managed/non-SMS-managed
  - UNITNAME, UNITTYPE, VOLSER
  - DATACLAS, STORCLAS, MGMTCLAS
  - RECFM, LRECL, BLKSIZE (including forcing system-determined blksize)
  - DISPOSITION (allows forcing catalog control)
  - SPACE parameters
  - Expiration date/retention period values
- Fail jobs that specify installation-restricted allocation values
- Make SMS DATACLAS values override values specified via JCL, DEFINE statements, or dynamic allocation
- Customize installation control via one or more user exits

Additional enhancements and improvements planned for Advanced Allocation Management:

- Enhanced syntax for greater control over customization including selection based upon logical operator comparisons of data values
- User specified messaging for specific actions taken
- Over 80 new and improved selection criteria

**IBM Tivoli Tape Optimizer for z/OS V2.2**

Tivoli Tape Optimizer for z/OS utility copies tape volumes to other tapes or tape-compatible storage while preserving DFSMSrmm™ tape library information and updating the system catalog for the copied tapes. The utility can copy from one to thousands of tapes (stacking) in a single copy job. This capability makes migrating large amounts of tape data to virtual tape servers (VTSs) or high-density cartridge tapes easier and optimizes the use of tape resources. It also simplifies the routine task of copying data from old tapes that are starting to degrade to newer tapes in order to preserve tape data.

Plans may address the following product areas:

- Tape Optimizer feature upgrades will primarily focus on performance enhancements as well as additional TEP integration.
IBM Tivoli Automated Tape Allocation Manager for z/OS

IBM Tivoli Automated Tape Allocation Manager for z/OS is designed to address tape device availability issues by providing automatic, unattended sharing of tape resources for optimal use across multiple images. Tivoli Automated Tape Allocation Manager for z/OS helps users to ensure that their existing tape drives are available on demand for requests from multiple images. This can help reduce tape-related bottlenecks and minimize the backlog of job requests that require tape drives.

The tape sharing capabilities and commands of Automated Tape Allocation Manager for z/OS will continue to help you pro-actively manage tape devices across your IBM System z environment with flexibility and control that is designed to help you:

- Maximize use of existing tape resources before you invest in additional hardware
- Minimize batch processing delays and operational overhead by sharing tape storage devices across a multi-system environment without the need for a shared control file
- Automate tape resource management and minimize the need for operator intervention
- Migrate from alternative vendor products to an IBM solution

IBM Tivoli Advanced Backup and Recovery for z/OS

IBM Tivoli Advanced Backup and Recovery for z/OS provides a powerful function to automate the task of identifying critical input and output data assets, for fast, reliable backup and recovery. In addition, Tivoli Advanced Backup and Recovery tracks and inventories backups - and helps identify critical data that is not backed up - to demonstrate that backups are current. Future releases are expected to enable tracking database backups for easy compliance verification. It may help to reduce costs associated with remote DASD replication by identifying critical data for replication and providing a localized backup for recovery.

Centralization and tracking for all backups, including Advanced Catalog Management backups, should be able to help you to quickly recover from local, unplanned outages or to recover the entire z/OS environment off-site with an aim of saving crucial time and money.

Critical input and output data assets are expected to be identified using information from an array of sources, such as job schedulers, JCL, and SMF records. A list of the critical data assets used by the application should be automatically constructed each time the application executes. The critical file list could then be used immediately to create a synchronized application backup. The list would also be an important analysis tool for application developers including identifying application data for replication or remote mirroring. This component is planned to execute continuously, identifying data assets used by production batch applications, started tasks, or by individual users.

Tivoli Advanced Backup and Recovery plans to add integration with IBM Tivoli Monitoring.

Security management

The third focus area is security. The products show an integrated set of functions that are not just IBM Tivoli centric but span IBM and the IT industry. Support for existing and developing security standards is what transforms products into solutions that benefit the entire enterprise.

With the constant daily threat of both internal and external breaches of security, it is now more important to show a cross-domain approach to security management. The operating systems support, combined with IBM Tivoli product support and interfacing with the related hardware components, brings together for end users and installations alike a centralized management approach to address your security concerns.
Solutions in this area are:

- IBM Tivoli zSecure Suite
- IBM Tivoli Security Management for z/OS V1.10
- IBM Tivoli Key Lifecycle Manager V1.0

**IBM Tivoli zSecure Suite**

The IBM Tivoli zSecure suite for z/OS consists of seven individual products designed to help you administer your mainframe security server, monitor for threats, assist in compliance monitoring and auditing, audit usage and configurations, and enforce policy compliance. Administration time, efforts, and costs can be significantly reduced through decentralized administration, contributing to improved productivity, faster response time, and reduced training time needed for new administrators. Audit, monitoring and compliance management components help ease the burden of compliance audits, can improve security and incident handling, and can increase overall operational effectiveness.

Plans may address the following product areas:

- Currency with z/OS releases, including the new RACF® capabilities
- Advanced reporting for security events and security related z/OS events
- New auditing and monitoring for compliance
- Integration with other software products
- Further globalization enhancements for DBCS

**IBM Tivoli Security Management for z/OS V1.10**

General availability: May 22, 2009

IBM Tivoli Security Management for z/OS enhances and accelerates security management with security administration, user management, audit and compliance for z/OS RACF. It simplifies security administration and automates routine tasks to help increase efficiency while proactively enforcing policy compliance, and to help prevent noncompliant commands by privileged users. IBM Tivoli Security Management for z/OS provides the ability to capture comprehensive log data, interpret that data through sophisticated log analysis, and communicate results in an efficient, streamlined manner for full enterprise-wide audit and compliance reporting. This comprehensive security solution can help you automate compliance reporting, enhance security posture to help reduce risks, improve business agility and reliability, reduce costs, increase productivity, and develop operational efficiencies for your dynamic infrastructure.

IBM Tivoli Security Management for z/OS V1.10:

- Helps facilitate compliance with security requirements and policies
- Leverages almost seamless integration with an enterprise-wide view of audit and compliance efforts
- Monitors and audits incidents to help detect and prevent security exposures, as well as access compliance
- Automates routine administrative tasks to help reduce costs and improve productivity
- Includes centralized server administration integrity, including virtual servers
- Helps to minimize risk and to increase efficiency
- Assists in increasing security and decreasing complexity
- Proactively enforces policy compliance on RACF
- Allows selective distribution of RACF command access
- Can decrease RACF database pollution by helping prevent noncompliant security commands
- Verifies RACF security commands before processing
• Retrieve security command information effortlessly with command audit

**IBM Tivoli Key Lifecycle Manager for z/OS V1.0**

General availability: March 6, 2009

IBM Tivoli Key Lifecycle Manager for z/OS V1.0 manages encryption keys for storage, helping simplify deployment and maintaining availability to data at rest. IBM Tivoli Key Lifecycle Manager for z/OS V1.0 addresses the dynamics that make key lifecycle management a vital initiative that helps prevent data losses. These dynamics:

• Support for storage management solutions - Encryption is a critical capability for storage management, and effective key lifecycle management should be a critical control point in a computing infrastructure.

• Help reduce the cost of data loss - The costs associated with the loss of data can be significant. Clearly, investment now to develop a data security strategy can help avoid the much higher costs associated with cleaning up after a breach. To get ahead of this data breach risk, encryption and key lifecycle management should be high on your priority lists.

**Service delivery and process automation**

The fourth area of focus addresses two distinct but related areas: service delivery and process automation. A secure foundation of products that support service delivery (Tivoli Change and Configuration Management Database (CCMDB), Tivoli Service Request Manager, Tivoli Application Dependency Discovery Manager) along with other Tivoli core products provide the base support on which to build our management applications. The key integration points of change and configuration management, combined with Tivoli Service Request Manager, which supplies both a Service Desk and Service Catalog, provide the integration that allows for key assets to be managed as one. For example, the piece of IT equipment currently referenced in a Tivoli Service Request Manager incident is fully described (and its relationships) in the CCMDB. This helps in the resolution of the incident.

Resource management, as mentioned previously, is a key component in the everyday IT management world. The identification and resolution of problems and configuration changes need that detailed information to target specific resources and that detail data helps to resolve issues, install components correctly, and deploy the next server. What Tivoli’s business management products (Tivoli Business Service Manager and Impact) provide are a business view of those resources. It’s not whether the IT device in Detroit is operational, but if the inventory application that is tied to that IT device is operational. So, the focus is one layer up from resource management to business application availability.

New releases that are planned for later this year:

- IBM Tivoli Service Request Manager
- IBM Tivoli Change and Configuration Management Database
- IBM Tivoli Application Dependency Discovery Manager
- IBM Tivoli Provisioning Manager V7.1.1
- IBM Tivoli Provisioning Manager for OS Deployment V7.1.1
- IBM Tivoli Service Automation Manager
- IBM Tivoli Workload Scheduler
- IBM Tivoli Output Manager for z/OS V2.3

**IBM Tivoli Service Request Manager**

In today’s volatile, ever-changing IT environment, the service desk delivers critical support to the entire organization by keeping key business systems and services available and reliable. As technology becomes increasingly complex, problem resolution becomes more time-consuming, skill requirements increase, and costs to maintain quality services escalate. In the face of tighter budgets and
fewer resources, prioritization and responsiveness are the keys to maximizing the availability of business-critical IT services.

IBM Tivoli Service Request Manager combines the service desk and service catalog capabilities on top of a common process automation engine to provide a seamless, unified solution for all aspects of service requests, enabling a "one touch" IT experience.

Tivoli Service Request Manager enables a unified solution with complementary products such as IBM Tivoli Asset Management for IT, IBM Maximo® Asset Management, and IBM Tivoli CCMDB, facilitating a seamless approach to problem and incident management, change and configuration management, IT asset management, and enterprise asset management.

The Service Desk component of Tivoli Service Request Manager encompasses a broad variety of features that enable a single point of contact to automate incident and problem management.

Built-in features streamline service desk functions and configure workflows and escalation across your organization, while a searchable knowledge base delivers fast answers to help-desk agents. Additional features include:

- Dashboards that provide real-time performance views
- Out-of-the-box content such as workflows, templates, KPIs, queries, and reports
- Remote diagnostics capability
- Instant messenger support
- Survey management capability
- Migration of configuration settings from test environment to production
- Integration with computer telephony and interactive voice response product

The Service Catalog component of IBM Tivoli Service Request Manager allows users to select services directly from a catalog, enabling self service requests to help lower the cost of providing services. Options can range from simple end-user services such as password reset, to more complex services such as provisioning a server or upgrading an application environment. This versatile catalog also reflects the terms of any associated SLAs, rating and billing terms, and contractual agreements.

Plans may address the following product areas:

- Helping reduce operational cost for IT Service Providers through multi-customer support.
- Helping to reduce mean time to resolution.
- Helping to reduce mean time to resolution through knowledge management enhancements.
- Improving usability of global search functions.
- Helping reduce service delivery time through improved service catalog features.
- Providing accelerated time to value - faster upgrades.
- Providing additional language support.

**IBM Tivoli CCMDB**

IBM Tivoli CCMDB is evaluating plans to deliver the following product improvements in the future:

Service providers or customers who would like to run their environment in a service provider configuration would have the ability to support multiple customers with a single instance of Tivoli CCMDB. Tivoli Change and Configuration Management plans enhancements to assist you in minimizing costs associated for running a service process environment.

Other planned features may include:
• Improved time to value through enhanced usability, function, and performance
• Improved graphics capability surrounding topology viewing and process status that aims to result in higher productivity for change administrators

**IBM Tivoli Application Dependency Discovery Manager**

IBM Tivoli Application Dependency Discovery Manager is an auto-discovery solution that provides application dependency mapping and configuration auditing. It discovers and models the relationships among the various hardware and software components that together constitute an application. It provides a comprehensive view of interdependencies between applications, computer systems, and network devices, using agent-less and credential-free discovery and automated application mapping. Besides information about current configuration of applications and their dependencies across the infrastructure, it also displays configuration changes over time.

Tivoli Application Dependency Discovery Manager automatically creates and maintains maps that describe run-time dependencies and includes deep configuration values and accurate change histories. The software performs complete discovery and stores information on:

• Applications, including their dependencies
• Servers that are hosting applications, both in the distributed world and on mainframes
• Networks (routers, switches, load balancers)
• The relationships across all, from layer 2 to layer 7 of the Open System Interconnection (OSI) model
• Application dependencies between mainframe and distributed applications

Tivoli Application Dependency Discovery Manager performs configuration auditing by tracking application changes and depicting that information on application maps and reports, delivering comprehensive visibility into configuration drift. Because the software can provide "discovery snapshots" about what components of an application have changed, you can help minimize time needed for root cause analysis. You can use Tivoli Application Dependency Discovery Manager to compare configurations to a "reference configuration" to reveal policy violations, and audit the impact of changes to your business processes to ensure they have the expected results.

Plans may address the following product areas:

• Additional discovery sources
• Use IBM Tivoli Monitoring for L1/L2 discovery
• New sensors for storage
• Sensors for virtualization
• Serviceability improvements
• Improved visualization scalability
• IPv6 compliance to discover IPv6
• FIPS compliance

**IBM Tivoli Provisioning Manager V7.1.1**

Planned general availability: Third quarter 2009

IBM Tivoli Provisioning Manager V7.1.1 is a key product in the IBM Service Management suite of products. It provides underlying resource provisioning and configuration management functions that can be executed as specific steps in systems management processes. The previous release, IBM Tivoli Provisioning Manager V7.1, integrated Tivoli Provisioning Manager functionality onto the Tivoli process automation engine. This platform is used by other IBM Service Management products such as CCMDB and Tivoli Service Request Manager.
IBM Tivoli Provisioning Manager V7.1.1 enhancement plans include the following:

- Migration assistance from V5.1.1.2
- Additional platform support for both the Tivoli Provisioning Manager management server and managed servers
- Network protocols supported
- High availability configurations
- Support of virtualized environments
- Operating system patch management
- Managed server agent functionality

**IBM Tivoli Provisioning Manager for OS Deployment V7.1.1**

Planned general availability: Third quarter 2009

IBM Tivoli Provisioning Manager for OS Deployment V7.1.1 and Tivoli Provisioning Manager for Images V7.1.1 (for x86 hypervisors) deliver unified physical and virtual image management, as an integrated heterogeneous systems management offering. Together, they provide automated bare metal operating system deployment, hardware-independent imaging, and virtual image management from a single easy-to-use console to quickly determine technical relationships, customize, correlate, and convert system resources according to business needs. This solution helps clients improve business continuity, simplify server consolidations, and provide workload mobility towards the goal of improving resource efficiency while lowering IT costs.

IBM Tivoli Provisioning for OS Deployment:

- May help lower labor costs by enabling remote, unattended operating system installation from bare metal
- Can assist in accelerating time to value for remote operations by detecting and efficiently deploying only OS image differences, rather than deploying the whole image
- Standardizes on fewer "golden master" images through Tivoli Provisioning for OS Deployment universal image, driver injection, and optimized image repository features
- Automates remote deployment of operating systems and eliminate costly on-site support
- Automates large scale desktop and server OS migrations through IBM Tivoli Provisioning for OS Deployment's robust multi-cast distribution mechanism
- Helps minimize security risks by offering encryption of your image data
- Deploys your Windows®, Linux, and Solaris operating systems from one simple interface

IBM Tivoli Provisioning Manager for Images is a chargeable component that extends IBM Tivoli Provisioning Manager for OS Deployment's value proposition, and helps you to:

- Optimize server assets with automated image conversions
- Discover on-line/off-line hypervisors infrastructures (Virtual Machines (VM) and images)
- Enable rapid image-to-virtual (I2V) or image-to-physical (I2P) recovery
- Automate consolidation process through physical to virtual (P2V) migration
- Enable de-virtualization physical (V2P) migration
- Enable offline customization and configuration
- Have snapshot and recover servers with complete hardware independence
- Enable virtual to virtual (V2V) migration across hypervisors or virtual platforms
Tivoli Provisioning Manager for Images eases the path to virtualization for organizations that were previously concerned about transitional risk or disruption. Together, IBM Tivoli Provisioning Manager for Images and IBM Tivoli Provisioning Manager for OS Deployment can help to lower the CAPEX and OPEX to effectively manage change in your entire enterprise data center infrastructure.

IBM Tivoli Provisioning Manager for OS Deployment V7.1.1 plans include significantly improved features:

- Enhanced WinPE Windows deployments
- Federal Information Processing Standard (FIPS) 140-2 cryptographic compliance for Windows and Linux on Intel®
- Improved operating system support
  - Manage from Linux on System z, 64-bit SLES 10, RHEL5
  - Manage from Linux on System p®, 64-bit SLES 10, 11 RHEL5
  - Deploy Solaris 10 u6
  - Manage from Windows XP
- Enhanced hardware migration support
  - Driver injection for Linux (32-bit only, no 64-bit kernel support)
- Improved unicast robustness
- USB boot/deploy/restore
- Network boot CD or USB key to boot either WinPE or Linux without DHCP or PXE

**IBM Tivoli Provisioning Manager for Images V7.1.1 (chargeable component)**

- Discover virtual system images from x86 hypervisor or physical machine images
- Capture VM image snapshot, query, and restore images
  - Compression, disk defrag, file system defrag, explicit replication
- Customize image offline/online
- Discovery of imported images instantiated directly on a hypervisor
- Repository image import and export
- Import image from external repository
- Copy, convert, migrate an image - I2I manipulation (P2V, V2V)
- Deploy an image to new hypervisor
- De-virtualization (V2P)

Integration with IBM Tivoli Provisioning Manager will provide new and simplified management of physical and virtual system resources from a datacenter automation solution.

**IBM Tivoli Service Automation Manager**

Businesses that manually deploy and manage applications and IT services face a number of challenges. First, it can take weeks or months to receive the hardware and software needed to deploy many applications. Next, the cost associated with the wait for needed equipment as well as the cost to provide highly skilled IT staff members to manage the deployment process can be substantial. Lastly, significant time and financial resources are required to help ensure that the organization has audit processes integrated with process governance.

IBM Tivoli Service Automation Manager, the cornerstone for IBM’s Service Management Center for Cloud Computing, enables a more modern and dynamic data center. It provides full cloud services lifecycle management from self-service provisioning, dynamic instantiation, and integrated management of IT services. It includes templates and best practices for deploying and managing IT services, including process governance, audit trail, integrated management, low-touch to no-touch deployments.
With IBM Tivoli Service Automation Manager, your IT department can define service offerings and make them available to lines-of-business through a self-service portal. Your IT organizations can offer typical computing resources and configurations to IT consumers. These requestors can book resource capacity in advance for a specific period. They can save and restore such IT services. Typical offerings, such as virtualized operating systems and application middleware stacks, are more easily available to end users. This includes a comprehensive offering with defined process workflow steps, defined configurations, automated deployment, and automated management of the offering. Through the use of templates and predefined content, IT organizations can dramatically reduce the time necessary to respond to business needs.

IBM Tivoli Service Automation Manager deploys and manages IT environments across multiple platforms including Linux on System z as managed to environments.

Plans may address the following product areas:

- Improved self-service capabilities
- Improved delivery for Cloud services
- Support of additional platforms
- Extended and improved integration with IBM Tivoli Service Management components

**IBM Tivoli Workload Scheduler for z/OS**

IBM Tivoli Workload Scheduler delivers service-based workload automation. Tivoli Workload Scheduler is built on an service oriented architecture (SOA), with open, published J2EE and Web services interfaces to easily integrate and align heterogeneous applications and systems workloads with enterprise-level business services. It provides built-in fault tolerance and easily scales to manage high levels of activity up to hundreds of thousands of workloads per day in production environments from a single point of control. Not only does this give you the flexibility and reliability you require, it also helps you to improve workload coordination, visibility, and control across the organization, increases workload velocity into existing resources, and improves operational performance and cost efficiency.

Planned features for IBM Tivoli Workload Scheduler for z/OS may also include:

- Graphical view to model and monitor flows
- Capability to connect distributed agents to a z/OS system in lightweight mode, with no infrastructure on the distributed systems
- Conditional dependencies on the status of a step inside a job

**IBM Tivoli Output Manager for z/OS V2.3**

General availability: June 12, 2009

IBM Tivoli Output Manager for z/OS is an online report management and distribution product that helps to ease the pain of everyday report management tasks by automating report creation, viewing, print, distribution, and archiving. The release of IBM Tivoli Output Manager V2.3 brings an abundance of new features and functionality offering you a viable, robust competitive replacement for your current z/OS output management solutions. Tivoli Output Manager utilizes trusted products inherent to z/OS with the aim of passing the savings onto the customer.

Key highlights include the ability to:

- Access reports, archives, and printing capabilities through an advanced Web interface
- Customize reports with advanced features such as indexes, formatted views, and filters
• Perform™ robust output management tasks with advanced bundling, report definition, and query features
• Automate report distribution to save on printing costs and speedy report delivery
• Simplify report administrator tasks with tools for common queries and controlling actions
• Help reduce paper costs by sharing Web address link to archives and reports
• Deploy one solution to replace costly multiple products and solutions

There are many upgrades and enhancements above and beyond IBM Tivoli Output Manager V2.2. The most noticeable enhancement is the advanced Web user interface. This interface comes standard in Tivoli Output Manager (whereas competitors usually charge extra for an added Web interface) and has included many advanced features for its end users. The Web interface is accessed through a standard installed browser (for example, Internet Explorer or Firefox) and requires no extra APIs, plug-ins, installed clients, or extra costs!

First, the new Web interface is highly scalable because the Web server bypasses the Tivoli Output Manager started task and talks directly to DB2, handling tens of thousands of users at a time. In addition to better performance, the new Web interface in V2.3 includes advanced functionality such as report indexing (for both basic and custom reports), formatted views and filters (hide or display rows of data that match certain criteria), improved searches and find feature, partial print or reprint for archives, banner override support, download reports to text files for importing into other applications, third-party archive recall, and new online help files with detailed example reports.

One other advanced feature new to IBM Tivoli Output Manager is the addition of report administrator tools. These tools allow simplified access to useful queries and some take action abilities from the interface.

• The count of Tivoli Output Manager archives stored on primary DASD, migrated, or on third-party tape
• Lists archives or reports on tape volsers that have not yet been recalled by Tivoli Output Manager
• Reports lists such as reports that have formatted views, that are defined which might no longer be used or have no distribution list
• Top archive names, top job names
• The SAF USERIDS of all users who have more than one recipient definition (with ability to delete)
• Distribution list reports pertaining to users, reports, and their associations
• Reports which have formatted views

Also new in V2.3 is ISV duplex tape support, archive viewer enhancements, advanced security for archives, and report bundling enhancements.

Asset management

The fifth and final area of focus addresses enterprise and IT asset management. Tivoli’s Asset Management solutions provide you with visibility, control, and automation of all aspects of managing both IT and non-IT assets. Tivoli Asset Management solutions help:

• Enable access to all aspects of asset description, configuration, and financial information in a service context.
• Improve quality and aid in reducing risks across the asset management lifecycle through integrated management tools.
• Create integrated workflows to speed delivery and service times, increase efficiency, and reduce re-work costs and quality problems.

Enterprise Asset Management® is an integrated solution used to design, build, procure, operate, maintain, modify, and dispose an enterprises’ critical assets such as the buildings, real estate, facilities, fleet, and plant equipment, as well as the
inventory and human resources associated with maintaining those assets. Enterprise Asset Management helps you to extend the life of these critical assets and optimize their value to the enterprise, while maximizing production and reducing operational cost in a safe and reliable operation. IBM Maximo Asset Management is IBM’s industry-leading Enterprise Asset Management solution which includes offerings for deep industry capabilities.

IT asset management helps efficiently and effectively track and manage the lifecycle of IT assets by combining the inventory, financial, maintenance, contract, procurement, and license management of IT hardware and software from planning through end-of-life. The solution helps lower cost, assists in the management of licenses and data management, and supports better alignment of IT with business goals. The Tivoli IT Asset Management portfolio consists of Tivoli Asset Management for IT, Tivoli Asset Discovery for Distributed, and Tivoli Asset Discovery for z/OS.

IBM IT Financial Management offering Tivoli Usage and Accounting Manager helps reduce IT cost by determining the cost of providing IT services. Tivoli Usage and Accounting Manager accurately assesses shared computing resource usage. It can help you to understand your costs and track, allocate, and invoice by department, user, and many additional criteria. Tivoli Usage and Accounting Manager transforms raw IT data into business information for cost allocation that spans business units, cost centers, applications, and users. Tivoli Usage and Accounting Manager delivers detailed information and reports about the intricate use of shared resources while masking the underlying complexity. Armed with this information, organizations can find valuable assistance in making informed decisions on where to reduce IT cost.

**Tivoli Asset Discovery for z/OS V7.2**

General availability: August 2009

IBM Tivoli Asset Discovery for z/OS provides discovery, monitoring, and reporting to understand z/OS product and application usage. Discovery is performed by a discovery match engine, which uses a knowledge base containing product module signatures for IBM products and third-party products. Products that are discovered or tagged (internal applications) can be monitored for usage and trends to help with future planning or removal. Finally, Tivoli Asset Discovery for z/OS provides interactive Web reporting with Tivoli Common Reporting, including high level reports and trend graphs with direct hyperlink drill down to details.

**Tivoli Asset Management for IT V7.2**

General availability: July 2009

IBM Tivoli Asset Management for IT is designed to help track and manage your hardware and software IT assets and costs, with particular emphasis on inventory, license management, and end-to-end IT asset lifecycle management. Asset Management for IT delivers a complete one stop shop for management of all of your IT assets - from distributed to mainframe - including non-traditional IT assets including things as chillers for your data center.

**Tivoli Asset Discovery for Distributed V7.2**

General availability: July 2009

IBM Tivoli Asset Discovery for Distributed V7.2 is a new chargeable feature of IBM Tivoli Asset Management for IT. It is an agent-based discovery service for distributed platforms that helps you maintain an up-to-date inventory of your installed distributed software, hardware, and software use data. Tivoli Asset Discovery for Distributed is designed specifically for the rigors of software license management and has support for many partitioning technologies and virtual machines including VMWare.

**Tivoli Usage and Accounting Manager V7.1.2**

IBM Tivoli Usage and Accounting Manager is an extremely flexible, end-to-end tool that helps you improve IT cost management. It can provide valuable information
to understand your costs. Plus, you can track, allocate, and invoice based on actual resource use by department, user, and many additional criteria. The product aggregates and reports on use of applications, servers, storage, networks, and other IT resources - and their complex interactions across distributed and mainframe platforms. So organizations that wish to consolidate their servers can now virtualize confidently, with the ability to accurately charge for related use.

**Customized offerings**

Product deliverables are shipped only via Customized Offerings (for example, CBPDO, ServerPac, SystemPac®).

CBPDO and ServerPac are offered for Internet delivery, where ShopzSeries product ordering is available. Internet delivery of ServerPac may help improve automation and software delivery time. For more details on Internet delivery, refer to the ShopzSeries help information at http://www.software.ibm.com/ShopzSeries

Media type for this software product is chosen during the customized offerings ordering process. Based on your customer environment, it is recommended that the highest possible density tape media is selected. Currently offered media types are:

- CBPDOs - 3480, 3480 Compressed, 3490E, 3590, 3592*
- ServerPacs - 3480, 3480 Compressed, 3490E, 3590, 3592*
- SystemPacs - 3480, 3480 Compressed, 3490E, 3590, 3592*

*3592 is highest density media. Selecting 3592 will ship the fewest number of media.

Once a product becomes generally available, it will be included in the next ServerPac and SystemPac monthly update.

Production of software product orders will begin on the planned general availability date.

- CBPDO shipments will begin one week after general availability.
- ServerPac shipments will begin two weeks after inclusion in ServerPac.
- SystemPac shipments will begin four weeks after inclusion in SystemPac due to additional customization, and data input verification.

**Announcement countries**

All European, Middle Eastern and African countries.

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**Corrections**

*(Corrected on February 7, 2012)*

Description section modified.