



Tivoli software

Support implementation of ITIL-based processes with a unified approach to managing assets and services.



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Overview

Until recently, internal IT departments have been relatively insulated from the corporate concerns of staying ahead of the competition. Certainly, IT has always existed in support of maintaining a competitive advantage, but that support has been largely tactical, given that IT has historically been viewed as a cost center, not a strategic business unit.

Things have changed dramatically in recent years as more and more businesses are moving out of a cost-centric view of IT's potential – and into a realization that IT can transform business processes. This phenomenon is largely driven by increased competition in the marketplace, and the understanding that moving toward an IT-driven, customer-centric business approach isn't a luxury – it's imperative.

IT operations are increasingly expected to operate as a business unit, and with this expectation comes a slew of new challenges: improving performance, reducing operational costs, driving effective organizational change (via new processes and technology) to support IT's bid to succeed in this new role and demonstrating the business impact of the department.

Yet, how does a legacy IT department transform itself into a business unit capable of delivering proactive, responsive service management across the organization? How does it provide not only the technology, but also the services, budgeting forecasts and metrics required to support the business goals of the company?

Failure can mean IT remains a nonstrategic cost center and its leader – the CIO – has no voice in strategic business decisions, or as is the trend recently, IT is outsourced completely. It's a case of evolve or die, and the stakes are high for both the department and the organization it supports. This paper discusses how IT can function more effectively as a business

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ITIL provides a nonproprietary, concrete framework for implementing service management best practices that align with overall business objectives

unit, by using asset and service management solutions to implement and support IT Infrastructure Library® (ITIL®)-based processes for managing:

- Configuration.
- Incidents.
- Problems.
- Change.
- Releases.
- Service levels.
- Availability.

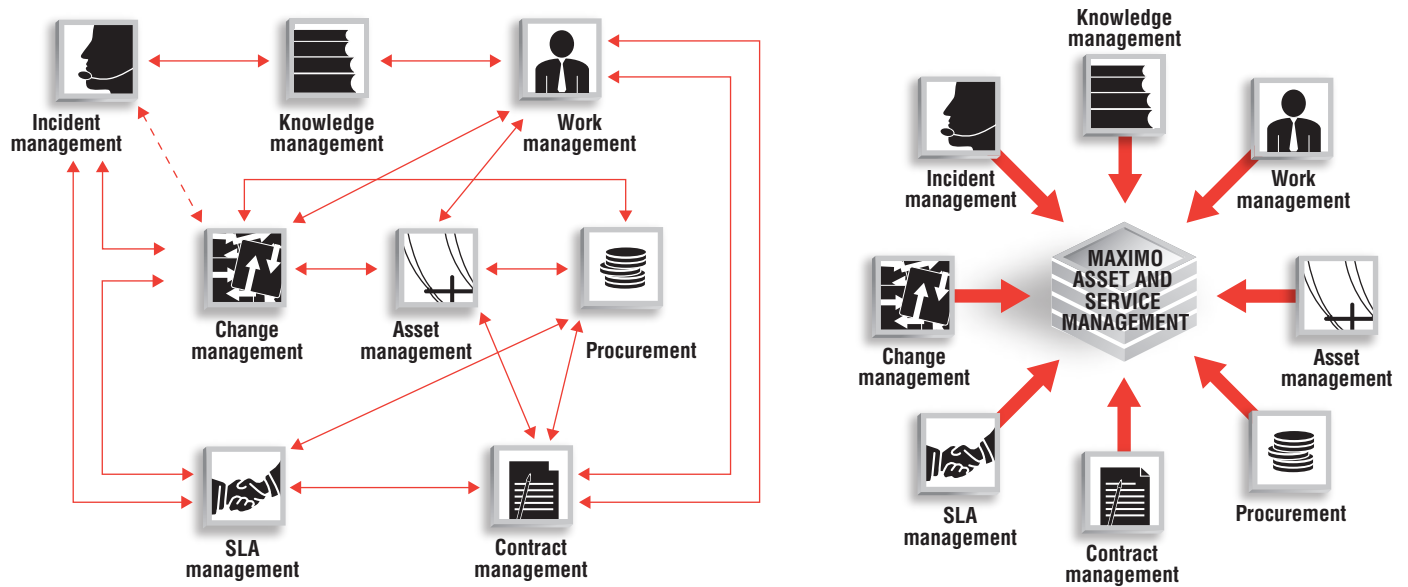
Establish ITIL processes to align IT with business objectives

ITIL provides a nonproprietary, concrete framework for implementing service management best practices that are aligned with overall business objectives. Basing IT processes on ITIL guidelines enables organizations to more effectively manage IT changes, assets, personnel and service levels – going beyond simple IT asset management and service desk applications to deliver proactive IT business improvement. A well-implemented service can help:

- Reduce the occurrence of IT failures.
- Improve service levels and customer satisfaction.
- Reduce fixed and variable costs.

This helps IT to develop credibility, improve performance, reduce costs and achieve business effectiveness and efficiency in the use of information systems. Moving toward a service oriented IT model is daunting but possible – especially given the best-in-breed service management software tools that are available and specifically designed to facilitate ITIL processes.

However, most ITIL-related offerings fall short in two important areas: resource management and service costs. If a solution has built-in capabilities for detailed analysis of labor, materials, and asset and service provisioning costs related to ITIL process activities, IT managers would have the



Maximo asset and service management solutions support an organization's ITIL implementation, right out of the box.

information they need to support both a more effective service delivery process and ongoing service delivery investment decisions.

IBM Maximo® asset and service management solutions are built on a single, unified platform to support key IT business processes – enabling different groups to work together more seamlessly, generally free of data conflicts or duplication.

Two core products generate a single comprehensive view

Combining two core products – IBM Maximo Asset Management for IT and IBM Tivoli® Service Desk – Maximo asset and service management solutions provide a comprehensive view that helps:

- Optimize IT processes.
- Maximize return on assets.
- Reduce risks and costs.
- Improve service levels.

One of the keys to more efficient management of IT assets is knowing what the organization has and where it's located. That's why Maximo asset and

service management solutions integrate with autodiscovery solutions such as Maximo Discovery to help an organization build and maintain information on deployed IT assets more efficiently. By incorporating this information into Maximo asset and service management solutions, customers can make more prudent investment decisions regarding technology resources and capital.

Even better, Maximo asset and service management solutions can grow with the organization as the ITIL processes are phased in. Each organization can implement Maximo software to create a more complete asset and service management solution – or choose to establish individual components according to a phased ITIL service delivery implementation. However the organization chooses to use them, Maximo asset and service management solutions integrate with most business systems, allowing each customer to work the way he or she wants to work.

Integrate ITIL processes with the IT environment

As described in the following sections, Maximo asset and service management solutions integrate seven ITIL processes from the ITIL Service Support and Service Delivery groupings. Consequently, they help organizations bridge what is sometimes an enormous gap between business and technology – and develop a superior service delivery approach to better meet internal and external customers' needs, at a justifiable cost.

Optimize ITIL service support processes

Configuration management

Configuration management is the process of identifying, recording and reporting on all IT components in your infrastructure. The key to a successful configuration management process is the ability to discover, identify, verify and record all configuration items (CIs) and their relationships in a central or federated configuration management database (CMDB) and use this as the official database of record to help maintain an accurate picture of your IT infrastructure.

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Maximo Asset Management for IT supports asset tracking, asset reconciliation, compliance management, contract management and procurement

CIIs comprise all components of the IT infrastructure that currently exist, or will exist in the future, in the IT environment – such as PCs, servers and network devices, software and software license agreements. A CMDB not only contains the attributes and history of each CI but also the relationships between and among them. Organizations that actively engage in a configuration management process benefit from:

- Accurate and detailed IT asset information.
- Greater peace of mind regarding software license compliance.
- Better understanding of the potential impact of changes and fewer problems as the result of changes.
- Expanded knowledge of budget needs.

Maximo Asset Management for IT supports asset tracking, asset reconciliation, compliance management, contract management and procurement, helping the organization to:

- Track IT assets, locations and changes and understand the relationship of assets to services.
- Record and manage all contracts for software licenses, leases, warranties and maintenance.
- Create and enforce technology standards.
- Provide a streamlined process for procuring and receiving IT assets.
- Reconcile deployed assets against authorized assets (those purchased and under contract).
- Support other key ITIL processes such as incident management, problem management, change management, release management and service level management via a comprehensive, integrated asset database.

With Maximo asset and service management products, CIIs are stored in a central database that is accessible to all – which helps avoid costly integrations. The products present a logical, current picture of the organization’s infrastructure and services by identifying, controlling, maintaining and verifying each version of existing CIIs, as well as their relationships with each other and the customers they support – helping to improve service management processes.

Incident management

Incident management is the process of restoring normal service operation as quickly as possible to help minimize an incident's adverse impact on business operations. In ITIL terms, an incident is any deviation from the expected standard operation of a system or service. Best-practice incident management involves immediate service restoration utilizing standard processes of investigation, diagnosis, resolution and recovery.

Tivoli Service Desk documents incidents from end users, service technicians and network systems management applications. Streamlining the process further, it leverages ticket types and classifications with powerful visual workflow escalation and e-mail notifications for quicker resolution, helping to meet customer expectations and improve service desk efficiency. Consolidation of user communication across channels – including phone, e-mail, Web and fax – captures each incident, creating a searchable knowledgebase that can vastly reduce staff response time to anomalies or outages if similar incidents reoccur. Incidents can be linked with appropriate problems or changes, and are associated with their related CIs in the CMDB.

Problem management

A problem is the underlying error in the infrastructure that is the cause of one or more incidents. Problem management is the process of diagnosing the root cause of the error and arranging for a correction. Furthermore, it seeks to prevent recurrence of incidents related to these errors. Effective problem management depends on IT's ability to quickly and accurately determine the root cause and turn an unknown error into a known error – that is, problems for which the root cause is determined and attributed to a specific CI.

With Tivoli Service Desk, IT operations can more readily identify and classify the root cause of problems, assisting staff to quickly recognize and resolve known errors with minimal downtime. Built-in, real-time dashboards provide insight into all levels of service desk operations, so that any support staff,

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manager or executive can monitor role-based key performance indicators (KPIs) in an intuitive, graphical display. Dashboards provide actionable information and can identify potential problem areas, enabling IT to take appropriate corrective actions in most cases before critical services are adversely affected. Tivoli Service Desk enables the creation of changes from identified problems and ties appropriate incidents to these problems.

Change management

Change management is the process of ensuring that standardized methods and procedures are used for efficient and prompt handling of all changes – to help minimize the risk of change-related incidents and improve day-to-day operations.

In ITIL terms, a change is any action that alters the form, fit or function of one or more CIs. Most often, an authorized individual initiates a change via an approved request for change (RFC), which details the proposed change and includes both a justification and authorization for the change. Change management is vital to any IT organization that wishes to provide the highest level of service delivery. A finely tuned process enables improved stability of the IT environment, provides a clear audit trail for compliance and helps to maximize the efficiency of IT staff. In addition, a true change management process helps decrease help-desk incidents generated by random, unapproved or unmapped changes.

Change management is vital to any IT organization wanting to provide the highest level of service delivery

Change management is an essential process in the overall service delivery approach because it arms IT staff with the ammunition to respond to change, and to more successfully support the organization's business goals. Change management should offer a road map for significant alterations to the IT infrastructure, thereby helping to reduce operational risk and decrease the time and effort of implementing the alterations.

Maximo asset and service management solutions offer comprehensive change management capabilities within IBM Maximo Change Manager, which is available with both Maximo Asset Management for IT and Tivoli Service Desk. Maximo Change Manager helps minimize the often overwhelming breadth of a change management process by parceling its components into smaller, more manageable pieces:

- Tasks
- Labor
- Materials
- Services
- Tools

Maximo Change Manager automates requests and approvals, leveraging powerful visual workflow and escalations, and provides proactive service to help reduce outages. Thanks to a shared central database and unified design of Maximo asset and service management, IT staff can invoke change management from problem management, thus proactively planning for changes as part of an overall IT asset management process. Changes are automatically updated, and notifications of scheduled changes can alert support staff to actions that could temporarily increase the number of incidents. Additionally, Maximo Change Manager can identify and classify RFCs, and its workflow utilizes predefined processes for review and approval according to ITIL guidelines.

Release management

Release management is the process of ensuring that all aspects of a release, both technical and nontechnical, are considered together in order to optimally navigate the release, and bridge the gap between application development and operations.

An effective release management process depends on the ability to ensure that only authorized and correct versions of software, hardware and other related

assets (training materials and documentation, for example) are available for use. This requires two key elements: the Definitive Software Library (DSL) and the Definitive Hardware Store (DHS). The DSL is a physical location that holds all original software in use throughout the organization, whether third-party or in-house. Similarly, the DHS (which may comprise one or several locations) securely stores spare hardware that has been preconfigured to meet the operating standards within the live environment.

Maximo Change Manager includes release management capabilities and simplifies the release management process by making available, anytime, all available information about approved software and hardware. Maximo Change Manager draws the information from a CMDB that serves as a virtual complement to DSL and DHS, and as the basis from which all technology releases are defined and deployed.

Maximo Change Manager includes built-in capabilities to identify and classify releases, and to plan and schedule their rollouts. Capabilities include defining individual rollout tasks and identifying the required personnel resources, materials, services and tools.

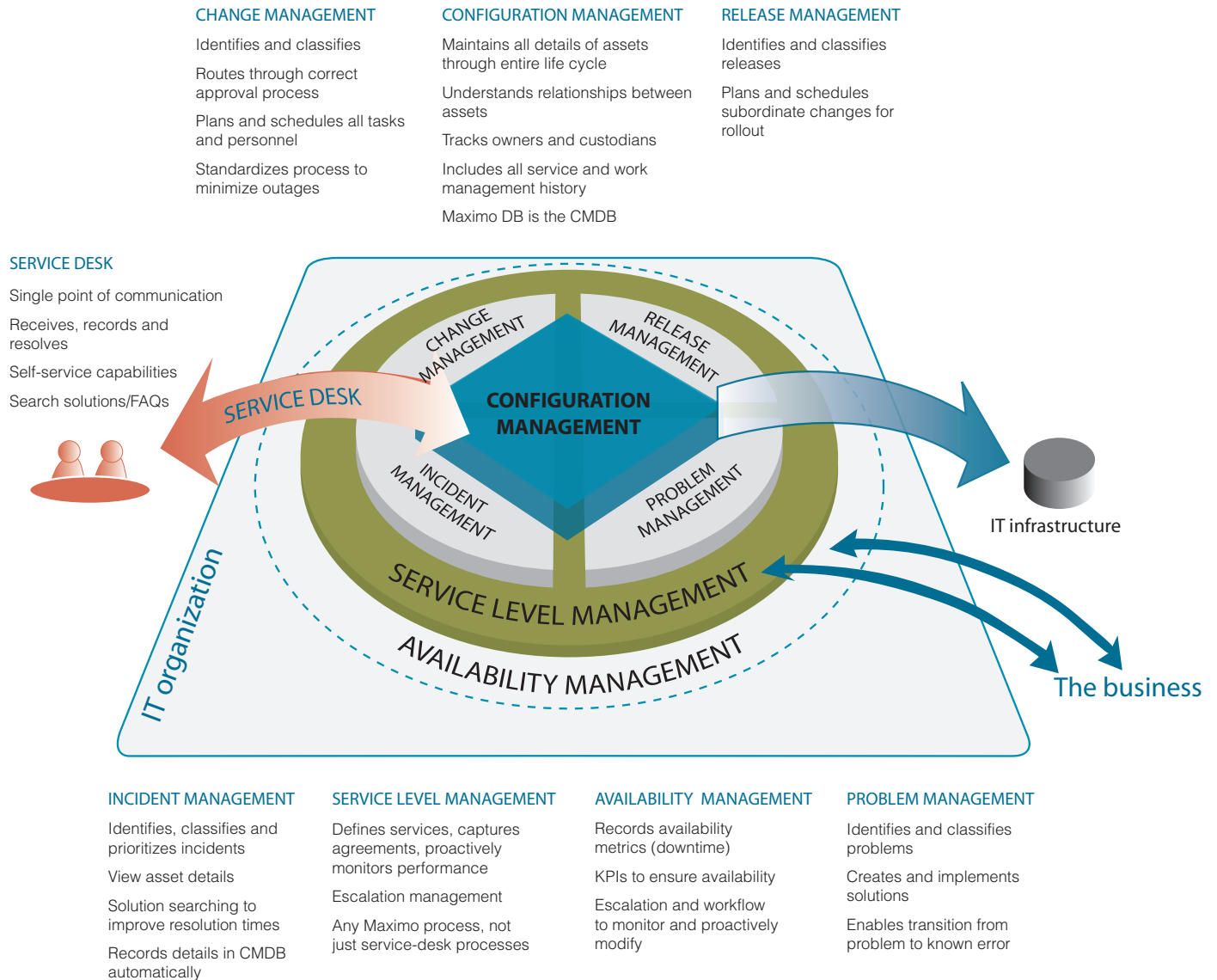
And, since all releases are changes, Maximo Change Manager creates logical associations between the two processes. As a result, it enables an organization to bundle changes (rather than execute similar changes one at a time) to help increase change efficiency and cost efficiency. Once releases are deployed, CIs are automatically updated in the CMDB.

Help improve ITIL service delivery processes

Service level management

Service level management is the process of maintaining and improving IT service quality through a constant cycle of establishing agreements, then monitoring and reporting on them to meet the customers' business objectives.

Maximo Asset Management for IT: unified ITIL-based service management



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Successful service level management depends on planning and implementing service level agreements (SLAs), or contracts between IT and its customers that guarantee a service deliverable in quantitative terms. The building blocks of SLAs are:

- Operational level agreements (OLAs) that document all goals and metrics agreed on by internal IT groups working toward a common goal.
- Underpinning service contracts that capture the metrics agreed on by IT and any of its external vendors.

Once defined and agreed on, SLA metrics must be actively monitored by both IT and the customer to ensure the commitments are met and to verify that service quality is cost-justified and gradually improved.

Maximo asset and service management helps manage service level operations and provides advanced processes for creating, managing and monitoring SLAs. It enables increased communication between IT and its internal customers and helps to align service levels with business strategies. For example, the service catalog feature allows IT organizations to more clearly define the services they will provide the business. They can then link assets, locations, contracts and SLAs to these services. Users can proactively monitor service levels via predefined key performance metrics (KPMs). Escalation management capabilities help manage resources properly to more consistently achieve service level commitments.

Maximo asset and service management enables increased communication between IT and its internal customers and aligns service levels with business strategies

While SLAs are most closely associated with the service desk, service level management capabilities enable an organization to tie SLAs to other ITIL processes, enabling tighter management of configurations, changes, releases, problems and incidents. For example, it can be used to establish target response and resolution dates in incidents, problems, changes and releases, allowing for more agile service support and greater reliability in daily operations.

Finally, Maximo asset and service management solutions can be used to establish reliability, capacity and availability commitments for assets, locations and services, assisting users to more proactively deliver critical business services.

Availability management

Availability management is the process of optimizing the capabilities of the IT infrastructure, services and supporting organization to deliver a cost-effective and sustained level of availability, to help the business meet its objectives. “Availability” tends to be a catch-all term that encompasses system reliability and resilience, maintainability, serviceability and security.

Availability is defined and promised within individual SLAs, but availability management moves a step beyond service level management in that it requires a thorough understanding of the IT infrastructure’s capabilities to deliver, and a sound process improvement loop to help optimize performance.

Both Tivoli Service Desk and Maximo Asset Management for IT utilize KPIs to calculate the following availability metrics:

- Total availability and unavailability
- Mean time between failures (reliability)
- Mean time to repair (maintainability)
- Vendor responsiveness (serviceability)

Escalation and workflow capabilities monitor and proactively notify managers of availability shortfalls and flag opportunities to improve. Specific availability metrics – such as downtime – can be analyzed using operational availability data provided by integrations to third-party solutions.

Maximo asset and service management solutions deliver extended benefits

Most comparable software solutions offer tools and processes to jump-start ITIL implementation, but they fall short in two important areas: resource

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management and service costs. While a robust system to manage IT assets and services is an excellent start on the journey toward a service delivery model, it's not enough. An organization must also understand the impact such a model has on its labor, materials, assets and ongoing service costs. An IT organization's ability to implement each of the seven critical ITIL processes and its understanding of how to best deploy resources both impact corporate service delivery effectiveness. Similarly, the ongoing management of costs associated with service provisioning also influences corporate service delivery effectiveness. Only when an organization has all of these capabilities will it achieve true unification among the business processes in IT.

To this end, in addition to its embedded ITIL service delivery principles, Maximo asset and service management solutions include core work management capabilities that allow organizations to granularly track reported costs associated with:

- Resources (labor, equipment).
- Tools.
- Materials (spare parts, consumables).
- Time.

Maximo asset and service management solutions support reactive and proactive work activities and enable mature work management processes in the IT department

Work management capabilities in Maximo asset and service management solutions support both reactive and proactive work activities and support mature work management processes in the IT department. Managers can track costs and set priorities based on service levels; they can also match job tasks to available resources and resource requirements, estimate and obtain

approval of costs, establish priorities and initiate actions across the enterprise using the following features:

- Tracking tools enable detailed analysis of resource usage and costs — helping decrease both internal and external labor costs.
- Graphical work assignment manager helps optimize schedules and labor utilization, and assign the right person with the right skills to the right job.
- Standard procedures functionality enables IT to streamline known processes and verify quality of work.
- Analysis tools and KPIs help IT make informed decisions about resource and skills investments, according to the requirements expected to meet service levels.
- Operating agreements help improve organizational communication and can be used to verify that other internal or external providers support service level commitments appropriately.

Conclusion

IT organizations face a substantially higher burden of proof when demonstrating their organizational viability and justifying new IT investments than they did just a few years ago. To prove its value to the rest of the organization and protect its position within it, IT must strive to become a proactive, business-driven entity. Moving toward an ITIL-informed service delivery model can be used to enable this transformation in ways that enhance IT's ability to function as a value-added business unit.

Maximo asset and service management solutions help provide a smooth implementation of ITIL best practices, directly out of the box. Designed on a single, modern and agile platform, its processes are designed to work together and help minimize the cost of ownership. Maximo asset and service management solutions are part of IBM Service Management, which helps align IT functions with business objectives.



For more information

To learn more about how Maximo asset and service management solutions can help your organization implement ITIL processes across your infrastructure, contact your IBM representative or IBM Business Partner, or visit www.mro.com

About Tivoli software from IBM

Tivoli software provides a comprehensive set of offerings and capabilities in support of IBM Service Management, a scalable, modular approach used to deliver more efficient and effective services to your business. Meeting the needs of any size business, Tivoli software enables you to deliver service excellence in support of your business objectives through integration and automation of processes, workflows and tasks. The security-rich, open standards-based Tivoli service management platform is complemented by proactive operational management solutions that provide end-to-end visibility and control. It is also backed by world-class IBM Services, IBM Support and an active ecosystem of IBM Business Partners. Tivoli customers and partners can also leverage each other's best practices by participating in independently run IBM Tivoli User Groups around the world – visit www.tivoli-ug.org

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