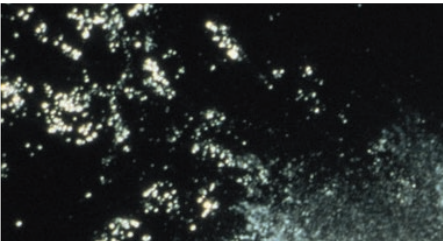


Help reduce the costs of managing your IT environment by automating operations across the IT service life cycle.



Highlights

- Enhance efficiency and effectiveness of operational tasks across the enterprise using systems automation
- Synchronize and speed processes using a service management platform built on standardized, shared information
- Transform core IT processes into responsive business services using an integrated, automated service management approach

In today's ultracompetitive marketplace, leading businesses of all types and sizes must constantly look for better ways to contain the operational costs of managing their IT environments. Businesses often deal with tremendous numbers of complex applications, multiple platforms and systems, and globally distributed operational and development teams. As complexity grows, the pace of change can heighten and compliance requirements can multiply — forcing IT organizations to try to do more with the same amount of resources. At the same time, IT staffs are challenged to

improve visibility, control and automation of their IT environments to better meet the needs of the business.

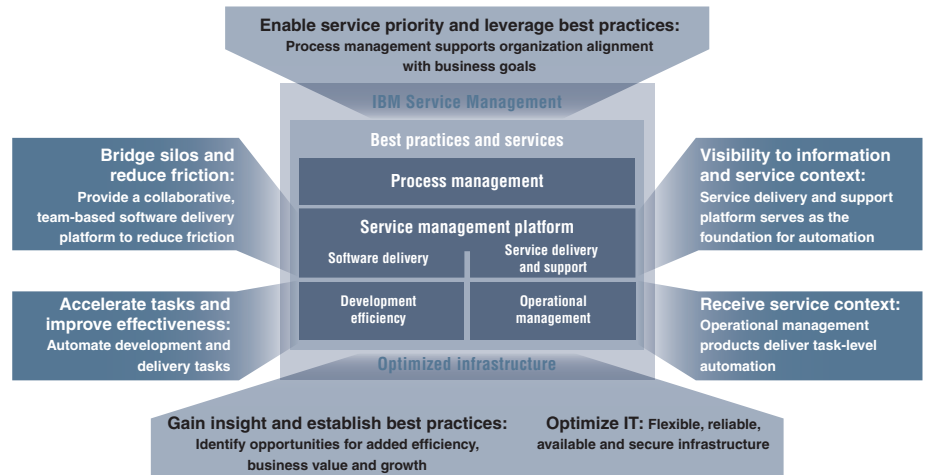
Innovative automation solutions are one way businesses can streamline operational tasks and workflows. Automation helps ensure that critical business functions occur on time, as planned and without interruption. They also help reduce the source of human errors due to manual and error-prone processes, relieve people of repetitive and mundane tasks and free up resources for the creation of innovative services.



IBM can help you proactively manage and optimize complex, dynamic IT environments by providing policy-based and event-driven task automation across organizational silos. Automation solutions from IBM can reduce complexity, increase productivity and free administrators and developers from time-consuming, manual chores. As they help mitigate the risk of human errors and associated costs, IBM automation solutions unite development, delivery and operational resources in the creation of innovative, new services aligned with service priority and context.

To capture the full benefits of automation, IT managers should be able to:

- Automate tasks to enhance both the efficiency and effectiveness of IT operations.
- Use standardized, shared information as part of an integrated service management platform to support process automation.
- Integrate and automate service management processes across organizational silos.



Automation: part of the IBM Service Management platform

IBM offers a broad portfolio of solutions to help organizations implement automation throughout the IT service life cycle. Automation offerings represent one of several modular entry points into IBM Service Management, a comprehensive, fully integrated approach to closing the gap between business and IT innovation. IBM Service Management helps organizations both create and manage value with products and services that address the complete service management life cycle — from business management to IT development

and operations — with solutions spanning hardware, software, consulting and financing services.

Following are some key products and services you can use to incorporate leading-edge automation technology across your enterprise.

Automate systems to drive efficiency and alignment with business goals

The underlying IT infrastructure keeps services available so you can be responsive to variable market, industry and business demands. To effectively support both applications and people, this foundation needs to perform optimally — without sinking your budget.



IBM automation technology can help you integrate and automate key tasks so that you can proactively manage and ensure your IT infrastructure health.

Optimize availability using end-to-end system automation

In heterogeneous environments built on complex tiered or composite applications that span multiple platforms and systems, base clustering technologies often are not sufficient to manage system availability. Instead, businesses need end-to-end automation of operational tasks to optimize availability.

The IBM Tivoli® System Automation family provides a base clustering solution and an end-to-end solution for managing heterogeneous clustering technologies. Tivoli System Automation delivers best-of-breed failure detection and recovery, operational cost savings and continuous high availability through prebuilt policies that help you set up and automate availability of key middleware applications such as SAP, IBM DB2®, IBM Tivoli Monitoring, IBM Tivoli Workload Scheduler and IBM Tivoli Change and Configuration Management Database (CCMDB). These out-of-the-box policies avoid reliance on scripts and can ease

operational effort and maintain high availability of the applications that are integral to your service management architecture and strategy.

Automate workloads with virtualization and dynamic workload brokering

Companies often automate workloads using multiple point products tied to specific applications or environments. Unfortunately, point products often cannot operate flexibly or cohesively to optimize workloads across large environments with multitiered, composite applications.

Using the IBM Tivoli Workload Automation family, IT organizations can establish a virtual control point to build and automate a consistent, predictable and scalable service execution process across the enterprise. Use these tools to manage your entire workload environment in an end-to-end, integrated fashion. Covering distributed, mainframe and grid environments, the Tivoli Workload Automation family decouples jobs from resources and then groups the resources into a virtual pool. Through dynamic workload brokering, it selects appropriate resources and runs them automatically — avoiding reliance on traditional, static scheduling

techniques. The solution integrates seamlessly with multiple IBM and other third-party products to provide a single-point console view across the business.

Utilize resources more efficiently with automatic provisioning

By capturing the execution of process in workflows, IBM Tivoli Provisioning Manager can automate provisioning, configuration and maintenance of physical and virtual servers, operating systems, middleware, applications, and storage and network devices. For example, IT administrators can use automated provisioning to install an operating system, add a new server or enable a network port. You can also use the software in conjunction with IBM Rational® ClearCase® and IBM Rational Build Forge® to automate an auditable build and deploy process.

Tivoli Provisioning Manager also integrates with Tivoli Workload Automation products to provision additional resources when sudden, unexpected workloads arrive — helping avoid disruptions. When you introduce new resources into the pool, the software senses them and automatically allocates workloads using a minimal amount of resources.

Through close integration, IBM Tivoli system, workload and provisioning solutions can automatically:

- Monitor applications for correction operation.
- Start and stop applications as needed to meet goals defined by policies.
- Restart failed applications.

Optimize storage resource utilization

Across heterogeneous infrastructures, including multivendor disks, tapes, servers, applications, databases and e-mail systems, virtually all businesses need to simplify storage management to accommodate exponential data growth. The IBM Tivoli Storage Manager family automates data backup and restore functions, archiving and retrieval, disaster recovery, space management, database and application protection, bare machine recovery and continuous data protection. To optimize storage resource utilization, the solution lets you centrally manage backup copies in a hierarchy of policy-based storage. You can also use policy-based file archiving to enhance productivity and keep pace with your fast-growing environment.

Rely on standardized, shared information to automate processes

For most businesses, important details about operations and development are

contained in silos that make information difficult to access and share across the organization. The result may be software development and service delivery delays. To fulfil the promise of IBM Service Management, the IBM platform uses self-managing, autonomic technologies not only at the resource level, but also at the organization and process level. At the heart of this approach is Tivoli CCMDB, an open standards-based integration and automation platform that stores deep data about configurations and change histories.

Using this platform, you can automatically discover and federate IT information from across the business. Because it integrates, automates and optimizes data, workflows and policies, this platform can increase the speed and quality of change and configuration management. Using this foundation to deliver IT processes as responsive services, you can reduce costs and align your IT infrastructure management with your business priorities.

Use an integrated, automated service management approach to deliver responsive business services

Rather than just automating at the resource level, IBM process management products integrate and automate IT management processes across

silos for rapid responsiveness and greater flexibility — in context with your business objectives. Tivoli process management products can help you:

- Identify bottlenecks as processes execute.
- Monitor and dynamically adjust actual work.
- Automate specific tasks in a process.
- Support next-generation networks.
- Deploy at the right pace for your business.

The process managers work in synch with operational management and process management solutions. They're built to incorporate predefined, implemented processes based on IBM's experience applying IT Infrastructure Library® (ITIL®) processes, enhanced Telecom Operations Map (eTOM), Control Objectives for Information and related Technology (COBIT) and Capability Maturity Model Integration (CMMI).

There are five IBM Tivoli process managers that can help you turn core IT processes into responsive business services.

Storage

To obtain a comprehensive, centralized view of your storage environment in relation to the larger IT infrastructure, you can use IBM Tivoli Storage Process Manager. Tivoli Storage Process

Manager automates and streamlines both simple and complex change, configuration and incident management processes across the storage environment, relying on a set of customizable, ITIL-aligned processes. You can use off-the-shelf auto discovery of key storage configuration items to optimize resources and align your storage management metrics with your business goals.

Availability

To help improve the efficiency and effectiveness of incident, problem and availability processes enterprise wide, IBM Tivoli Availability Process Manager leverages information from Tivoli CCMDB and Tivoli operational management products. So you can quickly identify any failing component and determine the business impact and service level urgency of the issue to prioritize it appropriately.

Capacity

To unite your organization's capacity-related knowledge, experience and tools — and establish a disciplined approach to using capacity planning tools regularly and in a repeatable pattern — you can use IBM Tivoli Capacity Process Manager. By putting the right tools and experts back in the

loop, at the right time, you can avoid relying on educated guesses and make capacity planning a prerequisite to every infrastructure change.

Release

To manage, audit and coordinate release tasks more productively — and put you in control of all your software and related hardware releases — you can use IBM Tivoli Release Process Manager. This tool automates complex deployments and lets you assess the impact to your IT infrastructure and business-critical functions *before* you release — helping protect the IT environment and your committed service levels.

Best practices

For detailed documentation of IBM Service Management processes based on industry best practices and real-life knowledge, you can use IBM Tivoli Unified Process Composer. Through Tivoli Unified Process Composer, you can understand and build optimal relationships among people, processes, information and technology in your organization — and capture the full value of industry best practices to help increase efficiency and effectiveness, and help improve governance and control.

Leverage IBM global expertise and services to design your automation solution

IBM has global, real-life experiences with thousands of successful service management implementations. Why not leverage our expertise and services to help your service management initiative succeed?

IBM Service Management Strategy, Planning and Design Services —

provides a business-oriented, standards-based approach to IT service management planning.

IBM IT Lifecycle Management and Governance Services — Service

Management Implementation — helps you define and implement an integrated service management framework and a set of service management tools based on leading software, process automation and ITIL best practices.

IBM Global Financing — to keep automation solutions affordable, IBM offers flexible leases and loans, competitive terms and powerful management and tracking tools. All based on an individualized approach that lets you finance solutions in a way that makes sense for your business.



Conclusion

Automation is a strategic business enabler you can use as part of an overall IBM Service Management strategy to deliver new services, processes and business models. Autonomic products from IBM can manage themselves and fluidly respond to change, aligned with business policies and objectives. As a result, you can become more resilient, responsive and effective in your ability to innovate and respond successfully to an ever-changing landscape.

For more information

For more information about how your organization can use IBM automation solutions to improve service management or to find the service management entry point that is right for your organization, contact your IBM representative or IBM Business Partner, or visit ibm.com

About IBM solutions for enabling IT governance and risk management

IBM enables IT organizations to support governance and risk management by aligning IT policies, processes and projects with business goals. Organizations can leverage IBM services, software and hardware to plan, execute and manage initiatives for IT service management, business resilience and security across the enterprise. Organizations of every size can benefit from flexible, modular IBM offerings that span business management, IT development and IT operations and draw on extensive customer experience, best practices and open standards-based technology. IBM helps clients implement the right IT solutions to achieve rapid business results and become a strategic partner in business growth. For more information about IBM Governance and Risk Management, visit ibm.com/itsolutions/governance

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