



# Give IT operations the visibility to enhance service availability.



## Highlights

- Achieve IT infrastructure alignment with the business through discovery automation
- Speed problem detection with in-context visibility into the interdependencies of networks, servers and applications
- Reduce time to resolution by enriching event data with detailed change history, helping determine the impact of change on availability
- Understand which events affect network performance with complete configuration insight
- Ensure you are monitoring what is important
- Detect and report on underutilized servers to aid in data center consolidation
- Help reduce rollout time for new applications and services through application visibility
- Keep job scheduling on track by leveraging servers as they come online

## Are your operational products functioning in silos?

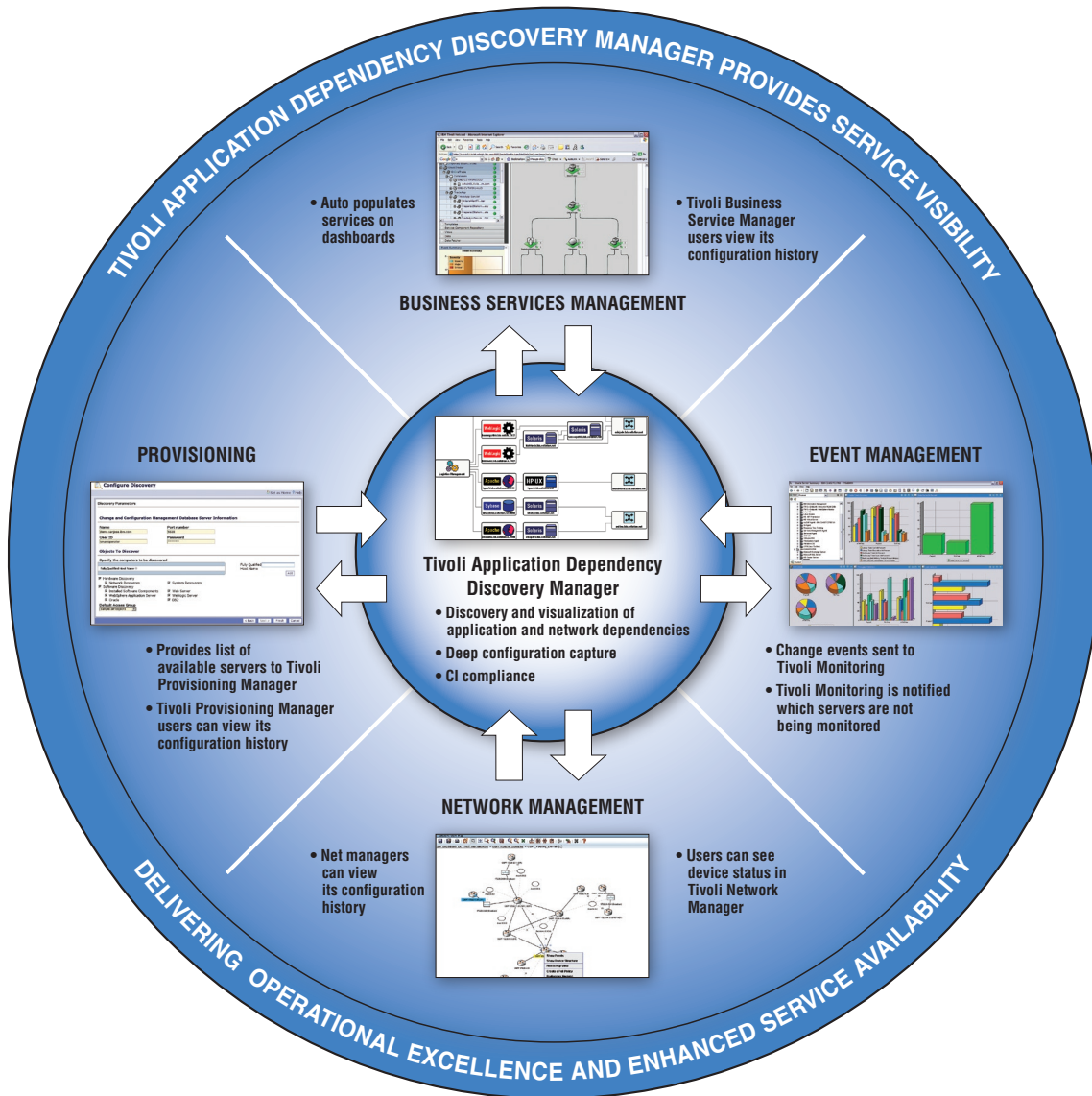
From provisioning and event monitoring to business systems and network management, operational management is fraught with manual, time-consuming tasks that detract from your organization's efficiency. Lack of visibility into network components and their relationships, as well as an inability to track changes that have occurred, means that simple tasks, such as patch distribution — or more complex tasks, such as problem determination — require untold hours to track down configurations and changes.

IT operations managers need a way to discover their network, servers and applications and track changes that

occur across their configurations, to get an in-context view of their data centers for:

- Determining the impact of change on availability.
- Ensuring coverage by discovering if management tools are effectively monitoring their environment and, if not, remediating.
- Effective problem analysis.
- Taking action to repair a problem.

IBM Tivoli® Application Dependency Discovery Manager delivers automated discovery and configuration tracking capabilities to build application maps that provide real-time visibility into application complexity. These detailed maps include complete data on run-time dependencies, deep configuration values and accurate change histories.



*Tivoli Application Dependency Discovery Manager provides the necessary visibility in order to achieve both operational excellence and improved service availability through integration with Tivoli operational management products.*

IBM offers a complete portfolio of operational management products that, when used with Tivoli Application Dependency Discovery Manager, form the basis of solutions to enhance:

- Business systems management.
- Availability management.
- Provisioning of software and servers.

- Monitoring and event management.
- Network management.
- Job scheduling.

By combining this integrated, comprehensive view of your application infrastructure with your operational management products, you gain the actionable information you need to

reduce time to resolution and increase operational efficiency by automating and ensuring the accuracy of tasks that previously required time-consuming manual intervention.

Together with the operational management products, Tivoli Application Dependency Discovery Manager

provides a three-step, closed-loop approach to operational management: discover, analyze and fix.

### **Better manage business service levels with real-time visibility**

Managing business service levels is taxing without the ability to identify what has changed in an application in order to resolve performance and availability issues. Nevertheless, IT is charged with aligning IT goals with the business. It is very difficult to accomplish that without visibility into the infrastructure that populates business services.

IBM Tivoli Business Service Manager can provide real-time service maps to help you visualize the health of services, automate service impact and track key performance indicators. But the business service visibility provided by Tivoli Business Service Manager alone will not indicate what infrastructure components comprise these services and the changes that could affect business service health.

Operations managers need the ability to automatically discover their infrastructure and its dependencies, and track the configuration changes made to the network, the application infrastructure and the business service layers. Tivoli Application Dependency Discovery Manager can automate

feeding this information to Tivoli Business Service Manager. You can use Tivoli Application Dependency Discovery Manager to:

- Load infrastructure topology into Tivoli Business Service Manager to create or populate business systems.
- Automatically sync discovered changes and update Tivoli Business Service Manager.
- Launch-in-context from Tivoli Business Service Manager into a configuration details view in Tivoli Application Dependency Discovery Manager to aid in troubleshooting, and then move from the configuration details view to the change histories view.

When used together, Tivoli Business Service Manager and Tivoli Application Dependency Discovery Manager help you align IT with the business and reduce the time needed to repair service outages by delivering access to cross-tier service visibility, configuration and dependency details, and change history data. The combined solution provides the context you need to take action and gain a meaningful understanding of your business services.

### **Help ensure you are monitoring your most critical resources**

A lack of visibility into monitoring coverage can wreak havoc in today's volatile IT environments. Without actual insight into all the resources in your

infrastructure, it is impossible to know what must be monitored to maintain high availability levels. As a result, operations managers are often forced to manually track thousands of IT resources spread across organizational and geographical boundaries. Monitoring software, such as IBM Tivoli Monitoring, offers powerful capabilities for monitoring operating systems, databases and servers across distributed and host environments. The software can even detect bottlenecks and automatically recover critical business systems.

However, Tivoli Monitoring alone will not provide the visibility you need to monitor coverage across your enterprise, nor will it show you which resources are going unused and are not providing a service to other resources. By using Tivoli Application Dependency Discovery Manager alongside your monitoring software, you are able to:

- Discover all IT resources and their dependencies.
- Understand which resources are not being monitored.
- Automatically dispatch a Tivoli Monitoring agent where coverage is absent.
- Launch-in-context to Tivoli Monitoring for performance and availability metrics.
- Detect underutilized servers.

Tivoli Application Dependency Discovery Manager provides the detailed insight you need to ensure that you are monitoring your critical resources. It also helps you gain a clear understanding of unused resources.

### **Speed provisioning and improve accuracy through enhanced visibility**

Automated server and service provisioning can save time and valuable IT resources from being wasted on a series of repeatable, manual tasks. Yet unauthorized configuration changes can make the provisioning process problematic. Often, it is difficult to even know what is available to be provisioned. An effective provisioning process requires automation, to get an accurate view of the hardware or software to be provisioned and their interdependencies. It is equally important to have a clear understanding of how configuration changes may affect the provisioning process.

Software like IBM Tivoli Provisioning Manager can help you manage inventory, operating system provisioning, software distribution and patch management. But when combined with the automated discovery capabilities of Tivoli Application Dependency Discovery Manager, you can:

- Provide a list of targets for provisioning.
- Reduce manual data entry of configurations.
- Provision new resources to the same configuration as the golden master.
- Reduce time needed for application and services rollouts.
- Improve accuracy through a better understanding of changes within your production environment.

The in-context view provided by Tivoli Application Dependency Discovery Manager helps increase the efficiency of the provisioning process, reduce errors and accelerate rollouts.

### **Use complete configuration insight to understand which events affect business systems**

Because the majority of problems in the IT environment are caused by unplanned changes, it makes sense for systems managers to receive automatic notifications when changes occur. However, in most event management systems, the events describe changes in availability, performance and capacity — not configuration changes. Software such as IBM Tivoli Business Service Manager, IBM Tivoli Enterprise Console<sup>®</sup> and IBM Tivoli Netcool<sup>®</sup>/OMNIBus<sup>™</sup> enable you to manage the ongoing health of your operational infrastructure.

Yet it is difficult to relate configuration changes to event notifications that you receive from your availability and performance products — a huge impediment to problem management. What's more, it is simply impossible to remember all the configurations and what events — such as an outage — result from those changes.

Tivoli Application Dependency Discovery Manager provides the insight you need to understand complex configurations and how those configurations have changed. Tivoli Application Dependency Discovery Manager is able to proactively notify your event management products when a change has occurred, so you have the ability to better understand which changes may be the root cause of problems your business-critical systems are experiencing.

### **View change histories of network components to reduce time to resolution**

Just as operations managers need visibility into configuration changes made to applications, it is equally important for network managers to see change histories for network components. A product like IBM Tivoli Network Manager IP Edition can help you by collecting and distributing network data to build knowledge about physical and logical

network connectivity. However, the software does not provide you with the critical information needed to identify changes in your discovered network resources to aid in problem determination and resolution. And with updates continually being made to thousands of resources, it can be difficult to verify that resources have been updated correctly.

Tivoli Application Dependency Discovery Manager enables network managers to launch-in-context between it and Tivoli Network Manager IP Edition to gain actionable information for problem determination. Through automatic change tracking, Tivoli Application Dependency Discovery Manager provides network managers with an in-context view of change histories — including updates — of all your network devices, to determine, for instance, whether or not a particular device received a patch and whether the patch was accurately applied. This capability not only eliminates the need to manually track this information, but also helps speed problem resolution.

### **Base scheduling decisions on accurate computer inventories**

Maintaining accurate computer inventories in large organizations is an arduous and time-consuming task. With thousands of computers spread across your infrastructure — and even around the globe — the number of available computers changes daily. So understanding which computers are available for running jobs can be nearly impossible.

A product such as IBM Tivoli Workload Broker can help improve operational efficiency by eliminating the manual processes for planning workload assignments across multiple, heterogeneous resources — and by dynamically routing workloads to the best available resources. Yet without an accurate discovery of all available resources and dependencies, you cannot have a clear picture of where jobs can be routed. Manual discovery of your inventory is time-consuming and fraught with errors, since your

manual list still might not provide an accurate view of your inventory.

By using the automatic discovery capabilities in Tivoli Application Dependency Discovery Manager, systems managers can easily make scheduling decisions based on accurate, up-to-date information on available system resources. Even though your resources continually change, Tivoli Application Dependency Discovery Manager easily tracks all these changes and automatically makes this information available, so you can adapt your job execution to those configuration changes, helping you keep schedules running without interruption.

### **For more information**

To learn more about how Tivoli Application Dependency Discovery Manager can increase the effectiveness of your operational management products, contact your IBM representative or IBM Business Partner, or visit [ibm.com/tivoli](http://ibm.com/tivoli)



### About Tivoli software from IBM

Tivoli software provides a 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. Helping meet 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 business 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](http://www.tivoli-ug.org)

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