IBM

Tivoli software

IBM Tivoli System Automation Application Manager

Highlights

- ***Leverage a single point of control to manage high-availability operations and cross-cluster resource dependencies across any combination of System z, Linux, AIX, Windows and Solaris platforms***
- ***Increase productivity by consolidating to a single operations and automation team***
- ***Expand capabilities with an additional disaster recovery component***
- ***Speed problem resolution by using a Web-based interface to drill down and determine the impact of failures***
- ***Deploy on the z/OS operating system as the trusted point of control for high availability and disaster recovery***
- ***Mitigate service disruptions due to planned or unplanned outages***

Today's business services increasingly rely on components residing on heterogeneous platforms. Primarily driven by the growing demand to virtualize the server environment, these new, tiered services can deliver numerous benefits, from optimizing available resources to staving off new equipment purchases. Yet as the pressure mounts to move to a virtualized environment, systems administrators struggle with error-prone, manual efforts to initiate, execute and coordinate high-availability operations across multiple, heterogeneous clusters.

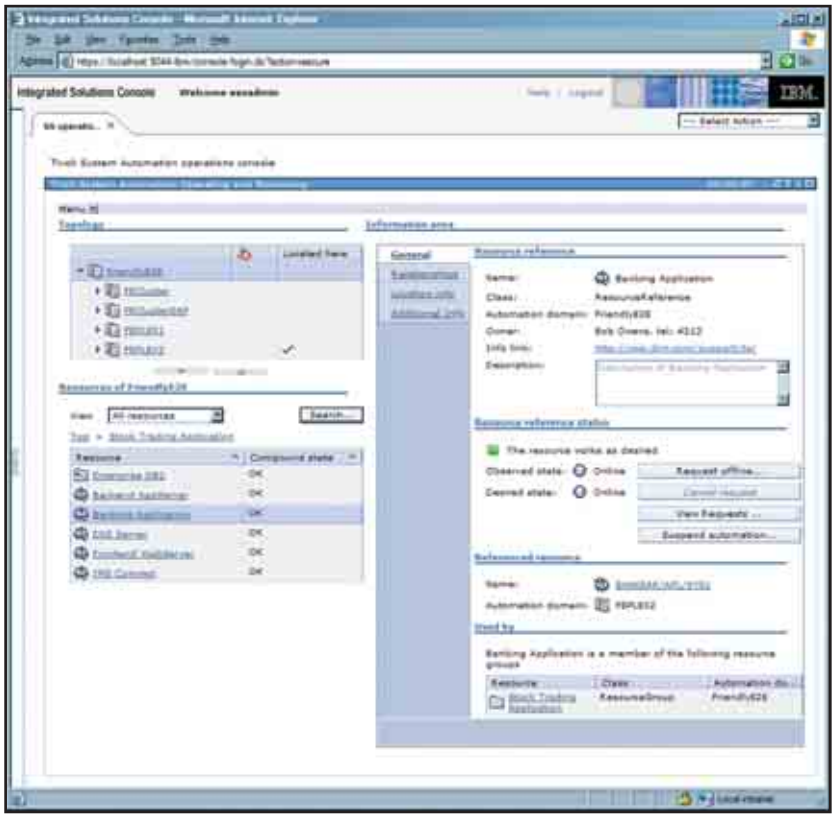
The complexity of these architectures makes it difficult to see what is happening with each business service component—and where the dependencies lie within those components. Consequently, systems administrators are forced to navigate blindly through the service landscape to manage complex, end-to-end high-availability operations across composite business applications, platforms and business units.

Systems administrators need a way to easily manage complex IT infrastructures, to guard against unplanned outages and to reduce costs related to labor-intensive operations and service disruptions. They need the ability to manage heterogeneous cluster technologies—without ripping and replacing existing cluster technology. Moreover, they need the ability to move the IT organization from reactive error correction to proactive service enhancement.

Leverage a single point of control to manage composite applications in complex, cross-cluster environments

IBM Tivoli® System Automation Application Manager addresses those challenges head-on by using advanced, policy-based automation to initiate, execute and coordinate starting, stopping, restarting and failover across entire composite applications in complex cluster environments. Through a single point of control, the software helps you ease management of cross-cluster resource dependencies and improve IT operating efficiency by curtailing manual tasks and maximizing application availability across your enterprise.

Unlike many competitive offerings, Tivoli System Automation Application Manager helps you easily coordinate and manage across cluster technologies, so you can better control your



A snapshot of the multiuser, Web-based interface that provides a single view of all managed systems and clusters.

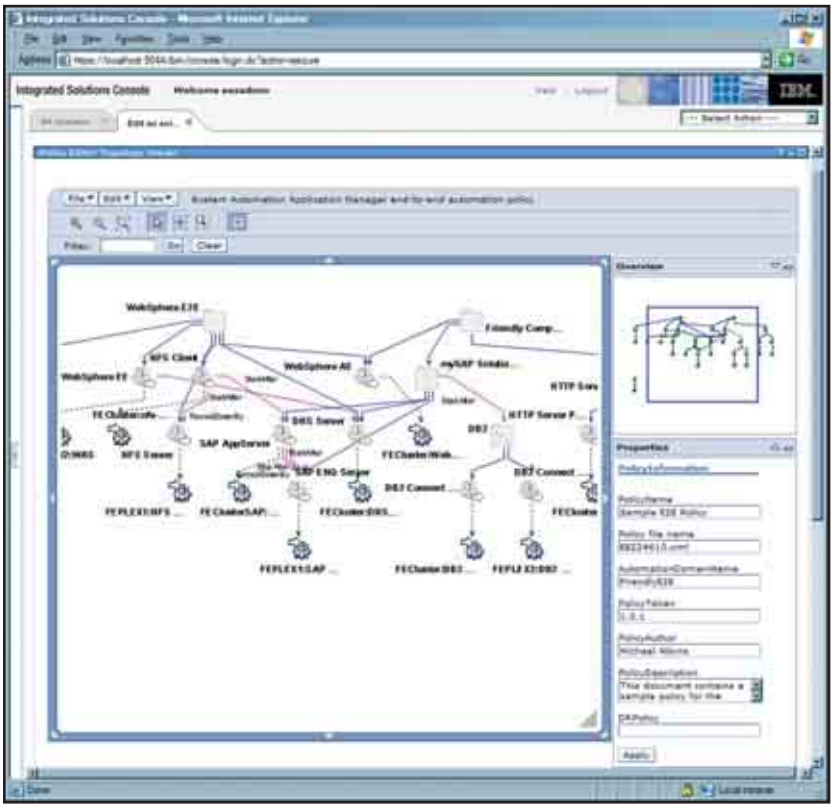
enterprise business services. The software provides adapters to help manage any combination of the following major clustering technologies:

- *Veritas Cluster Server (VCS) on Solaris*
- *High Availability Cluster Multi-Processing (HACMP™) on IBM AIX®*
- *Microsoft® Cluster Server (MCS) on Windows®*
- *IBM Tivoli System Automation for Multiplatforms (Linux®, AIX, Windows, Solaris)*
- *IBM Tivoli System Automation for z/OS®*

For instance, you can use Tivoli System Automation Application Manager to increase the availability and management of a multitiered application like SAP, including its dependent resources and applications. By using adapters to automatically learn about applications and their status from the platform-specific clustering technology, only the cross-platform resources, groups and dependencies need to be defined.

Speed problem resolution with quick drill-down via Web-based interface

When errors do occur within a cluster, the easy-to-use, Web-based interface—IBM Integrated Solutions



A snapshot of the Policy Editor that enables users to easily edit automation policies. It provides a graphical depiction of policy elements, including grouping constructs and relationships, integration into the Integrated Solutions Console, filtering capabilities and policy checking to detect potential semantic errors early.

Console—within Tivoli System Automation Application Manager makes it fast and easy for your teams to immediately see affected components and drill down to determine the impact of the failure on business services. With clear views of system dependencies, you can see applications and their relationship to other applications, servers and systems, greatly enhancing problem determination and resolution. So if an application is failing because of its relationship to a server on another platform, you can quickly understand why the application is failing and take measures to resolve the issue before it impacts the business.

Enhance planning and mitigate disruptions due to planned or unplanned outages

Ideal for organizations that need high levels of availability and disaster recovery to optimize IT performance, improve IT processes and meet strict service level agreements (SLAs), Tivoli System Automation Application Manager provides centralized control for all clusters and sysplex environments. This helps ensure that you can make time-critical decisions to prevent unplanned outages and better prepare for planned outages, such as routine maintenance. The software can alert administrators to system dependencies, to help better understand the impact of the outage on business-critical components.

A Web-based, single point of control across z/OS, Linux, AIX, Windows and Solaris clusters enables you to:

- *Display aggregated and detailed status of application components.*
- *Start or stop application components on all platforms with a single action in the right order, without detailed knowledge of either the application or the platform it resides on.*
- *Increase application availability by resolving cross-platform dependencies, like recycling a Web application on Linux when IBM DB2® for z/OS is down.*
- *Quickly move applications to another cluster or platform.*

Create and modify automation policies with the Policy Editor GUI

You can also add a policy set to Tivoli System Automation Application Manager to help automatically manage dependencies of applications or application systems that span multiple hardware platforms, operating systems and cluster technologies, and to mitigate a service disruption associated with a

planned outage. You can use the graphical user interface (GUI) to create and modify policies without the need to view or edit XML. Use the Policy Editor to:

- *Edit automation policies.*
- *Integrate into the IBM Integrated Solutions Console, so that it can be used in conjunction with the existing operations console.*
- *Graphically display policy elements such as grouping constructs and relationships.*
- *Integrate a policy checker to detect semantic errors.*

Streamline operations and increase productivity with a single operations and automation team

One of the obstacles to efficiently managing cross-cluster technologies is the number of expert teams required to manage across disparate platforms. Tivoli System Automation Application Manager enables your teams to manage heterogeneous clusters without having detailed knowledge of either the application or the platform it relies on, so you can minimize the skill level required by operators and consolidate systems management into a single team responsible for z/OS, Linux, AIX, Windows and Solaris applications.

To configure Tivoli System Automation Application Manager to your specific applications, middleware and infrastructure, you simply need to declare resource relationships and dependencies, and group resources together to ease operations and management of high availability across complex, multi-tiered environments. The software automatically and continuously maintains complex resource dependencies while driving your system to high levels of availability—without highly skilled, manual involvement.

Expand your capabilities with an additional disaster recovery component

The addition of the disaster recovery component enables customers using IBM System z™ mainframes and Geographically Dispersed Parallel Sysplex™ (GDPS®)—the world-class disaster recovery solution for z/OS—to leverage GDPS to not only failover mainframes but also open clusters between sites. Tivoli System Automation Application Manager will detect critical application and resource outages on either open systems or z/OS, and then notify GDPS. GDPS will then use these notifications as triggers for disaster recovery actions. In case of planned disaster recovery actions, GDPS can notify Tivoli System Automation Application Manager to take appropriate, coordinated actions on open systems and z/OS, such as stopping the workload or restarting the workload with a modified configuration on a backup site.

Manage against a recovery time objective

A central issue in business continuity is the management of recovery times against a recovery time objective (RTO). To effectively manage recovery times, it is important to measure, aggregate and report them in an ascending hierarchy, from the recovery time for resources in a cluster to the recovery time of a distributed cross-platform application. This information can be used to optimize the configuration to ensure a given RTO. By using the Tivoli System Automation Application Manager disaster recovery component, you can easily measure recovery times via an open interface.

Deploy on z/OS as your trusted point of control for disaster recovery

Tivoli System Automation Application Manager integrates high availability and disaster recovery operations across integrated System z topologies, making it particularly valuable for System z customers. The software's server can be installed directly onto the z/OS operating system, allowing you to leverage your investment and knowledge in IBM Tivoli System Automation for z/OS and enabling you to manage your critical business systems on the highly available z/OS operating system as your trusted point of control for high availability and disaster recovery.

Support service management to enhance quality service delivery

Tivoli System Automation Application Manager supports the IBM Service Management model for quality service

delivery, providing you with enhanced service visibility, control over business-critical systems and advanced, policy-based automation to ease the management of complex IT infrastructures. Discovery library adapters allow Tivoli System Automation Application Manager to feed information into—and pull information from—IBM Tivoli Change and Configuration Management Database (CCMDB), so other products that integrate with Tivoli CCMDB can leverage this valuable change and configuration data to enhance service delivery. You can also use Tivoli System Automation Application Manager alongside IBM Business Continuity Process Manager for managing IT Infrastructure Library® (ITIL®) service continuity processes.

Leverage your investment in the broader Tivoli portfolio

Tivoli System Automation Application Manager is part of an integrated suite of high-availability, disaster recovery and event automation products that enable systematic implementation and execution of high-availability operations—across applications, middleware and platforms—from a single point of control. You can use Tivoli System Automation Application Manager to coordinate the actions of Tivoli System Automation for z/OS, Tivoli System Automation for Multiplatforms and other IBM and third-party clustering technologies. You can also use the software to send events to IBM Tivoli Enterprise Console® or IBM Tivoli Netcool®/OMNIbus™ and integrate the software with IBM Tivoli Enterprise Portal.

In addition, the Tivoli system automation family offers plug-and-play policies that are available to support key IBM and third-party applications and middleware, including SAP, DB2 and IBM Tivoli Monitoring, to help operational staff avoid writing and managing complex scripts to executive stopping and starting procedures.

About IBM Tivoli service management software

Tivoli software offers a service management platform for organizations to deliver quality service by providing visibility, control and automation—visibility to see and understand the workings of their business; control to effectively manage their business, minimize risk and protect their brand; and automation to optimize their business, reduce the cost of operations and deliver new services more rapidly. Unlike IT-centric service management, Tivoli software delivers a common foundation for managing, integrating and aligning both business and technology requirements. Tivoli software is designed to quickly address an organization's most pressing service management needs and help proactively respond to changing business demands. The Tivoli portfolio is backed by world-class IBM Services, IBM Support and an active ecosystem of IBM Business Partners. Tivoli clients 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

Tivoli System Automation Application Manager at a glance

Tivoli System Automation Application Manager server requires one of the following platforms:

- Supported Linux on System z, Linux on IBM System p™, Linux on IBM System i™, Linux on IBM System x™ and IBM BladeCenter®
- Supported Linux on any 32-bit Intel®-based server or any 64-bit AMD64- or EMT64T-based server
- AIX 5.3 or 6.1 on System p
- Microsoft Windows Server® 2003 or Windows Server 2008 on any 32-bit Intel-based server or any 64-bit AMD64- or EM64T-based server
- Solaris 10 on any SPARC server
- z/OS

For more information

IBM offers a strong history of success in the system automation and high-availability arena. Unlike many competitive offerings, Tivoli System Automation Application Manager enables organizations to easily coordinate and manage cross-cluster technologies without requiring you to "rip and replace" your current cluster technology.

To learn more about how Tivoli System Automation Application Manager can help your organization better manage your cross-cluster technologies, contact your IBM representative or IBM Business Partner, or visit **ibm.com**/tivoli

TAKE BACK CONTROL WITH Tivoli.

IBM Corporation
Software Group
Route 100
Somers, NY 10589
U.S.A.

Produced in the United States of America
May 2008

TID14019-USEN-00