Maximize system availability and performance with Tivoli System Automation solutions – Lunch and Learn

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IBM

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System Automation proven to help decrease risk and reduce costs for both business and IT

Today's Data Centers Challenges

- Considerable manual effort, confusing and error prone
- Inability to adapt to infrastructural changes
- Services delayed until problems solved by operations
- Over provisioning of resources – human and computer
- Challenging business requirement for 100% availability
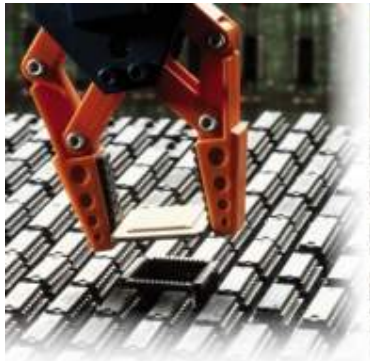
- System Automation is about reacting to events as a human would, but much faster, and more efficiently and effectively.
- System Automation can improve agility, increase revenue, decrease risks and reduce costs for both, business and IT

Value of Tivoli System Automation for Integrated Service Management

Application Level Automation in Complex Environments
- Policy based management for ease of configuration
- Pre-defined policies to accelerate deployments
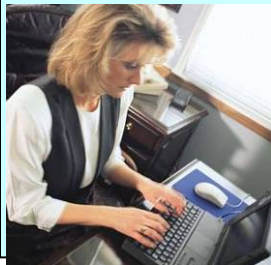
Enterprise-wide View for Resilient Resource Management
- Single point of control across heterogeneous environments
- Minimize unique skills required to support various IT silos

Scalable, Flexible and Open to Meet Future Demands
- Unique capability to support 3rd party cluster technologies for customer investment protection and migration strategy
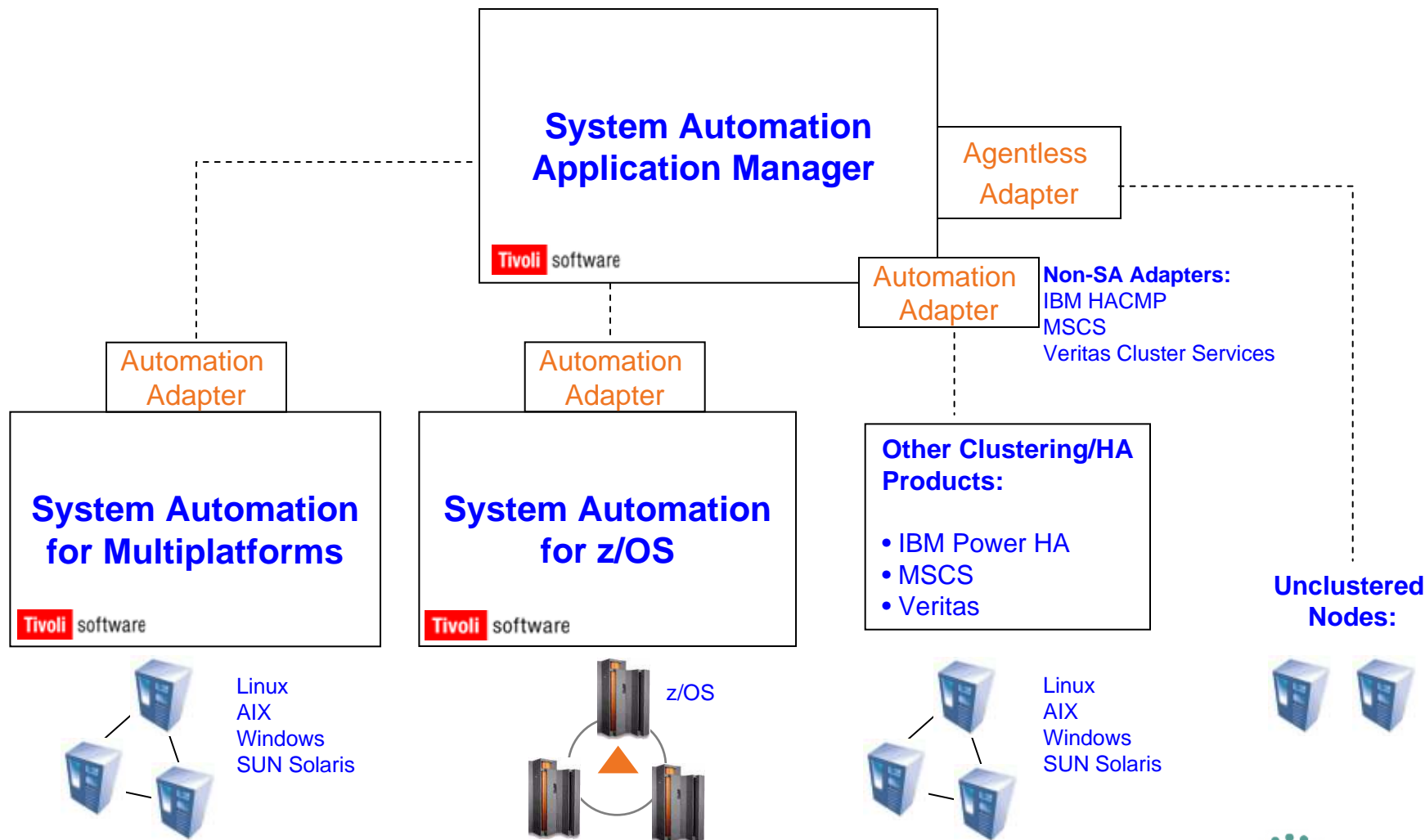- Integration with Tivoli ISM portfolio to provide integrated solution extensions

Built on Proven Technologies
- IBM cluster technology deployed in 1000s of Sysplex and distributed environments
- Leverage proven cluster technology for distributed automation engine

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Entire IBM System Automation family works together to provide Enterprise-wide savings

System Automation Application Manager

Tivoli software

Agentless Adapter

Automation Adapter

Non-SA Adapters:
IBM HACMP
MSCS
Veritas Cluster Services

Automation Adapter

Automation Adapter

System Automation for Multiplatforms

Tivoli software

System Automation for z/OS

Tivoli software

Other Clustering/HA Products:

• IBM Power HA
• MSCS
• Veritas

Unclustered Nodes:

Linux
AIX
Windows
SUN Solaris

z/OS

Linux
AIX
Windows
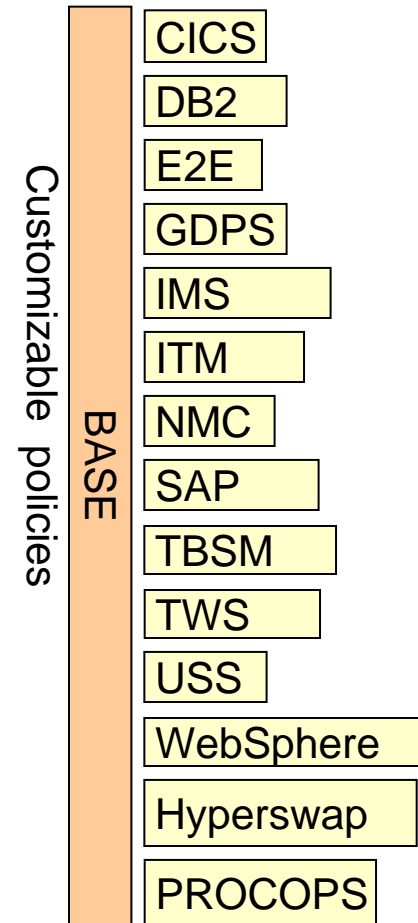SUN Solaris

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IBM System Automation on z provides unique, easy to use policy based methodology
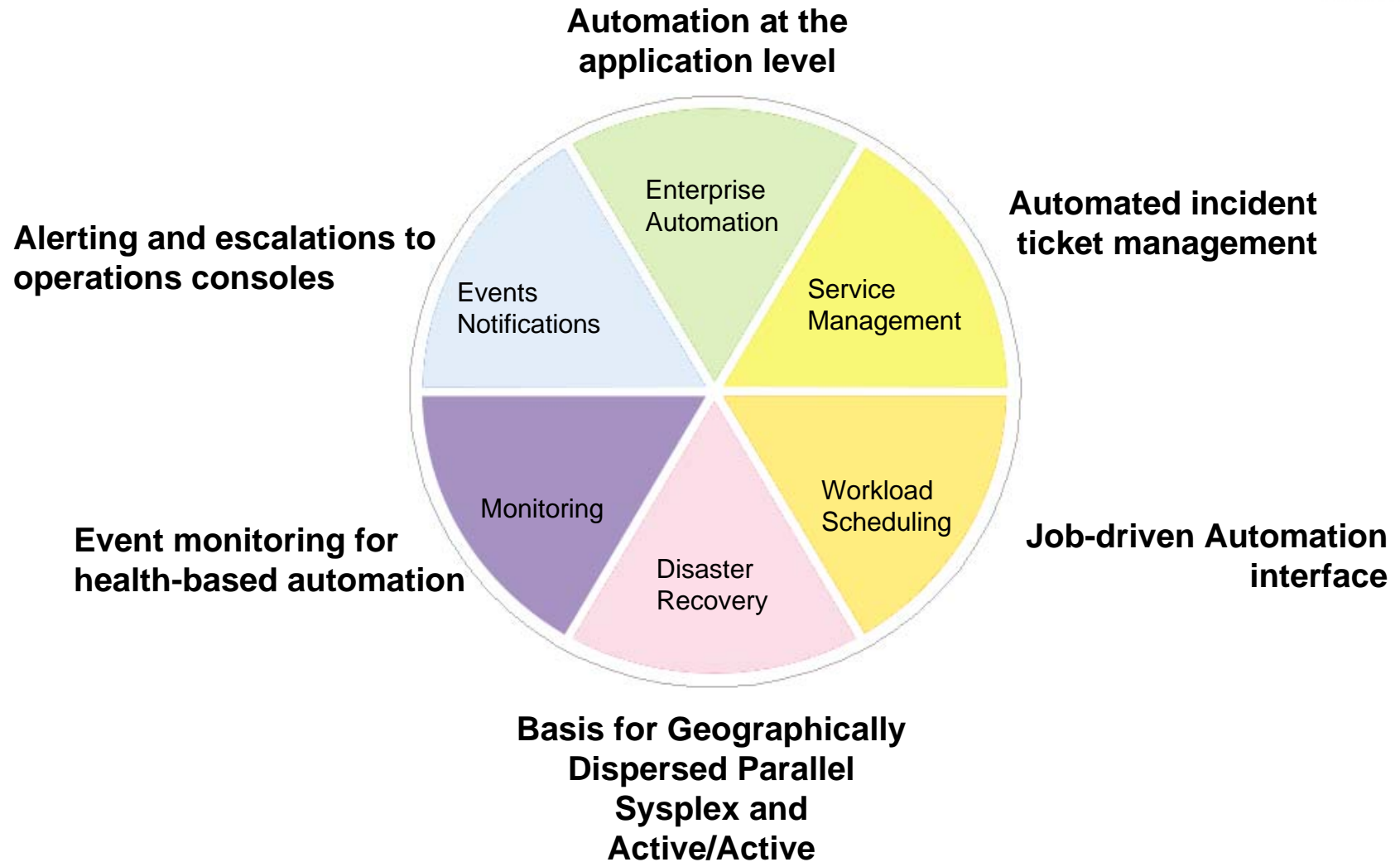
Goal Driven Automation defined via Policy

- No Programming Required
  - Faster time-to-value
  - Less maintenance cost
  - Less human errors

- Manage by State, not Message
  - View set of applications as solution
  - Performance included in state determination

- Intelligent relationships
  - Spans Systems
  - Controls orderly startup and shutdown

- Sophisticated Grouping concepts
  - Enables easy move of entire application either automatically or manually
  - Restart & Failover rules

Customizable policies

BASE

- CICS
- DB2
- E2E
- GDPS
- IMS
- ITM
- NMC
- SAP
- TBSM
- TWS
- USS
- WebSphere
- Hyperswap
- PROCOPS

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It's all about Integration …

Automation at the application level

Enterprise Automation

Alerting and escalations to operations consoles

Events Notifications

Automated incident ticket management

Service Management

Event monitoring for health-based automation

Monitoring

Disaster Recovery

Workload Scheduling

Job-driven Automation interface

Basis for Geographically Dispersed Parallel Sysplex and Active/Active

Tivoli System Automation capability on System z enables simplification across hardware and software

Systems & Applications

- Automate applications
- Automate repetitive and complex tasks
- Monitor applications, messages, and alerts

Processor

- Automate and control hardware operations
- Power on/off and reset processors
- Perform system IPL for z/OS, zVM and Linux
- Automate LPAR settings, e.g. weights/capping

I/O Switches

- Change configuration on the fly
- Stay operational through system-integrated switching
- Manage ESCON and FICON directors

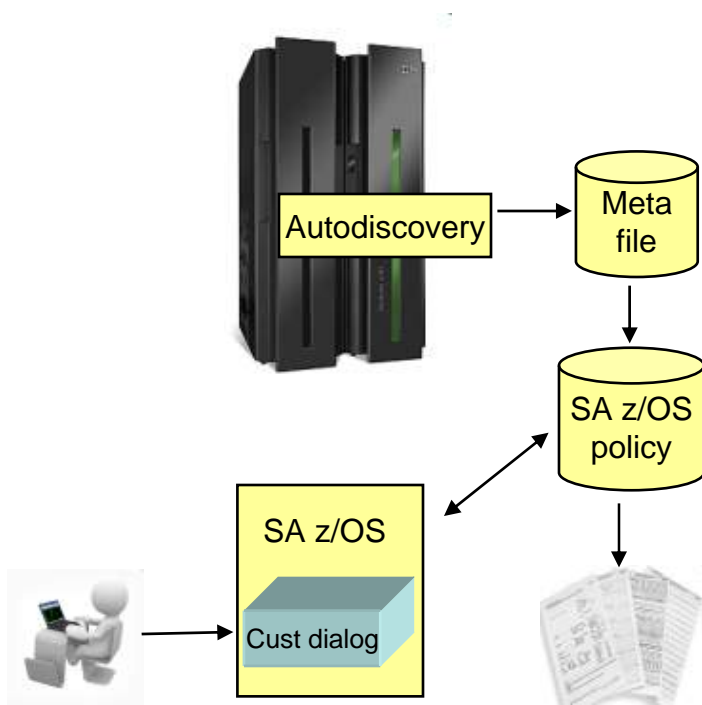# Significant usability and productivity savings with updated Tivoli System Automation for z/OS V3.4

- **Improve Time to Value by 80%** with new Autodiscovery

  - Find applications without manual effort

  - Addresses key customer requirement

- Faster automation customization via enhanced log visibility

  - **Save 80% on customization** to include job-related events

  - Increased administration productivity by 30% via data import and customization

- Faster system restarts with recycle enhancements

  - Lead to **50% higher availability**

- Ability to **speed automation by 90%** across z196/z114 and zBX blades with new zEnterprise API support

SA z/OS V3.4 Announcement Letter: http://ibm.co/KEBUEe

System Automation now provides autodiscovery to find applications and achieve faster value

Customer Challenge today: Automation rules have to be entered manually in SA z/OS policy database, which can be a time consuming process

- Execute autodiscovery to collect all automation relevant data of software components installed

- Save data in Meta file

- SA z/OS builds policy using data Meta file and sample policies

- Automation programmer produces and examines report of policy data and makes adjustments

- SA z/OS is ready to use

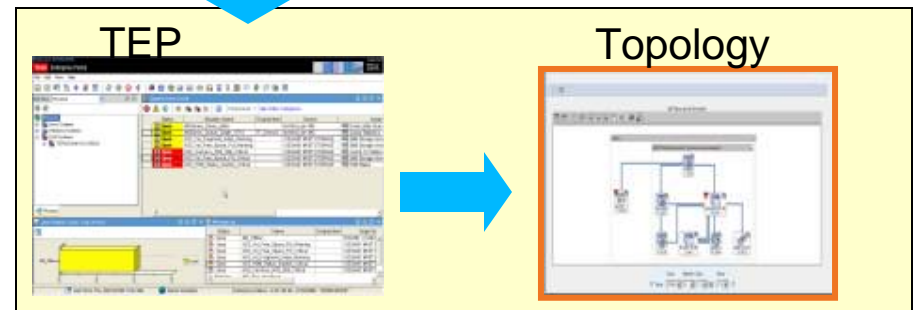Get up and running in 50% of time previously taken

Quicker visibility and direct navigation for easier, enhanced problem determination and management

Addresses key customer requirement for additional graphical display of configuration information rather than just 3270-like view

- Ability to launch to detailed view directly from high level Topology view
  - See a problem and deep dive to cause quickly

- Significant decrease in IT and people resource usage and problem determination time

- Allows Operations to direct System Programmers directly to problem

System Automation for z/OS

Resource status and Topology

TEP   Topology

"Launch in Context" detailed information

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Business Resilience and high availability on System z with GDPS supports by System Automation

Communications, automation, and monitoring components
of GDPS continuous availability solution

Multi-site Synchronisation

Business Value

Ensure resiliency and availability of critical business operations with recovery time objective of less than one minute
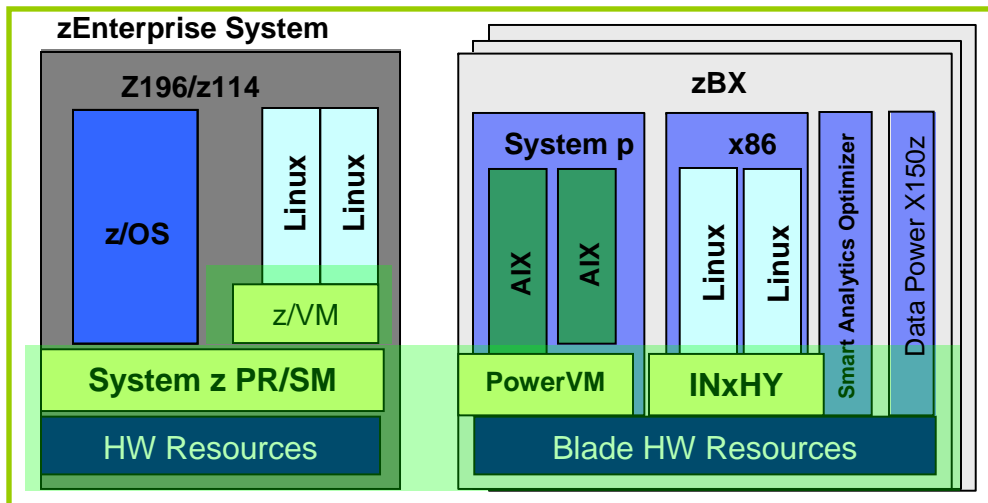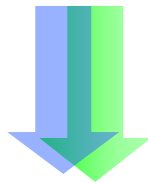
GDPS Support

Maintain business operations with improved disaster recovery, maintenance, and system outage with active synchronization to external site

- IBM NetView for z/OS V6.1
- Tivoli System Automation for z/OS V3.4

New!

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Single Point of Control to manage the entire Data Center

System Automation for z/OS

zEnterprise System

- ***Automation and Disaster Recovery*** *capabilities improve productivity of today's multi architecture data centers*

- *Simplify, automate, and **improve service quality** thru Management of Blades, Blade Centers, and Virtual Servers*

- *Optimize data center operations on a secure and reliable IT infrastructure*

Tivoli System Automation Application Manager 3.2.2 adds Cloud, monitoring and zEnterprise support

- **Continuous availability** of business applications in virtualized infrastructure
  - Reduced costs with automatic site failover of composite workloads
  - Faster operations with reduced manual intervention and dynamic policies

- zEnterprise **disaster recovery (DR)** capability
  - Site failover of entire business environment across unlimited distances
  - Reduced costs thru simplified cross-platform DR capabilities

- **Enhanced Cloud** Application Management
  - Managed applications increased by 700%
  - DR for Cloud: Automated site failover thru SA AM/DB2 pre-canned replication policy

- **Performance-based automation:** Smart integration with IBM Tivoli Monitoring (ITM)
  - Enhanced availability through automatic recovery actions across multiple systems
  - Save 50% on environment customization effort

SA AM V3.2.2 Announcement Letter: http://ibm.co/KEDwOd

End-to-End Automation with SA Application Manager and ITM simplify operations and increase availability

Scenario:

- Operator triggers start of application with command

- After startup, ITM Agents reports online status to SA

- SA AppMan sets aggregated state of "Online Trading Appl." to "online"

- ITM agents monitor application and report to SA AM

Value:

- System Automation Application Manager provides single view of entire application (distributed and z)

- SA AM can monitor application based on KPIs and manage problems before they become outages

- Manage availability with automatic recovery actions across entire application

- Automate operations to free up staff to handle more important tasks.

Issue Command

"Start Online Trading"

Report Status

SA App Mgr

ITM

DB2   WAS   Web

Online Trading Application
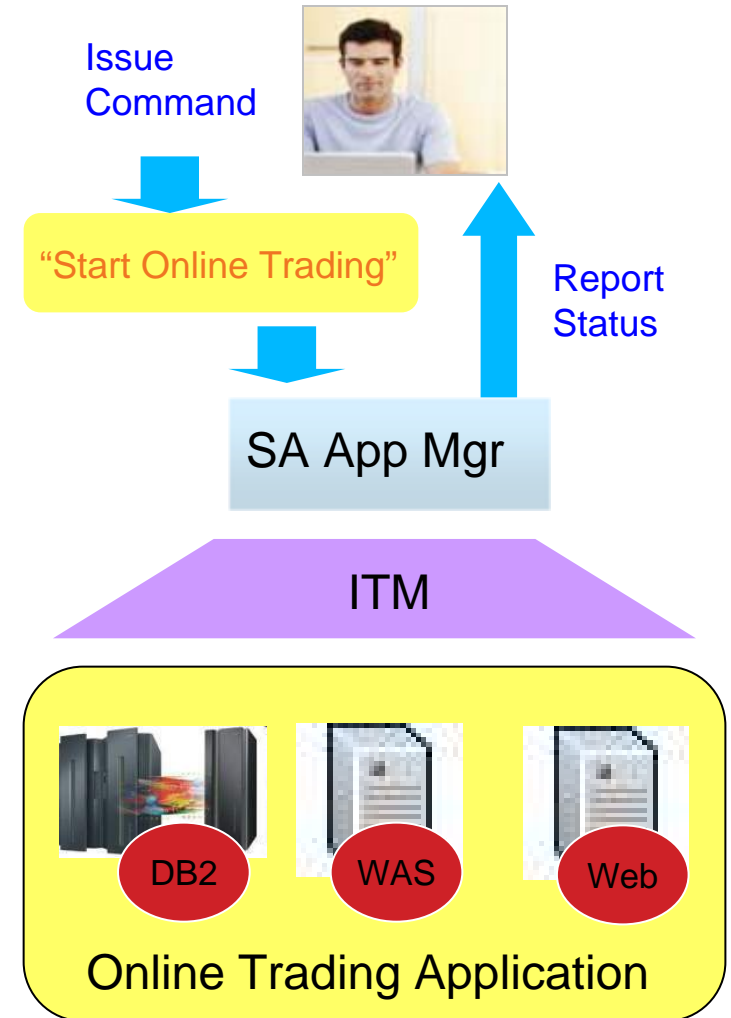
Global Food & Beverage Org gained real ROI from implementing System Automation

Challenge

- Unplanned downtime of large SAP app hurting business.

- System processed close to $20B of business

- Wanted solution that would span across multiple platforms and automate recovery of application components in case of failure

Customer View of Solution

"IBM Tivoli System Automation products automate high availability of our application infrastructure.

The current solution extends automation to the hardware and network layer in addition to keeping the SAP components and DB2 database highly available.

In case of any unplanned outages, TSA automatically initiates recovery across the stack which saves us millions of dollars in terms of lost business.

Additionally we drive operational efficiencies by being able to manage the entire application from one management console"

Business Benefits

- Eliminated most unplanned outages saving $M in lost business

- Quickly and efficiently respond to unplanned outages

- Better managed and executed planned outages

- Predictable and reliable recovery of application components saved overtime and labor related costs

- Drove operator efficiencies and better usage of IT teams

- Better alignment IT team duties, skills and responsibilities

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Learn more about the individual capabilities of IBM's System Automation Solution and components

Tivoli System Automation for z/OS	http://www-01.ibm.com/software/tivoli/products/system-automation-zos/
Tivoli System Automation AppMgr	http://www-142.ibm.com/software/products/au/en/systemautomationapplicationmanager
Tivoli System Automation for Multiplatforms	http://www-01.ibm.com/software/tivoli/products/sys-auto-multi/
IBM Geographically Dispersed Parallel Sysplex	http://www-03.ibm.com/systems/z/advantages/gdps/index.html
IBM Tivoli NetView for z/OS	http://www-01.ibm.com/software/tivoli/products/netview-zos/
Tivoli Workload Scheduler	http://www-01.ibm.com/software/tivoli/products/scheduler/
Tivoli Netcool/OMNIbus	http://www-01.ibm.com/software/tivoli/products/netcool-omnibus/
Tivoli Business Service Manager	http://www-01.ibm.com/software/tivoli/products/bus-srv-mgr/
IBM Tivoli Monitoring	http://www-01.ibm.com/software/tivoli/products/monitor/
Tivoli OMEGAMON XE for Mainframe Networks	http://www-01.ibm.com/software/tivoli/products/omegamon-xe-mainframe/
Tivoli Application Dependency Discovery Manager	http://www-01.ibm.com/software/tivoli/products/taddm/

Tivoli System z Sessions at SHARE

Monday

11:00	11207: Automating your IMSplex with System Automation for z/OS	Platinum 7
1:30	11832: What's New with Tivoli System Automation for z/OS	Elite 1
1:30	11896: Problem Solving with Consolidated Logs	Grand Salon A
3:00	11886: Improve Service Levels with Enhanced Data Analysis	Elite 1

Tuesday

9:30	11792: What's New with System z Monitoring with OMEGAMON	Elite 1
11:00	11791: Tuning Tips To Lower Costs with OMEGAMON Monitoring	Platinum 8
1:30	11900: Understanding Impact of Network on z/OS Performance	Grand Salon A

Wednesday
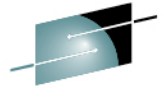
9:30	11835: Automated Shutdowns using either SA for z/OS or GDPS	Elite 1
1:30	11479: Predictive Analytics and IT Service Management	Grand Salon E/F
1:30	11899: Top 10 Tips for Network Perf. Monitoring w/ OMEGAMON	Platinum 9
4:30	11836: Save z/OS Software License Costs with TADz	Elite 1

Thursday

8:00	11887: Learn How To Implement Cloud on System z	Grand Salon E/F
9:30	11905: Using NetView for z/OS for Enterprise-Wide Mgmt and Auto	Grand Salon A
11:00	11909: Get up and running with NetView IP Management	Grand Salon A

Friday

9:30	11630: Getting Started with URM APIs for Monitoring & Discovery	Elite 1

Complete your sessions evaluation online at SHARE.org/AnaheimEval