

Achieving High Availability and Resiliency for Your Business with the New Capabilities of Tivoli System Automation Version 3.3

Allison Ferguson, Automation Solutions Product Manager Barbara Kennedy, Tivoli Worldwide Product Market Manager June 24, 2010









Today's Automation Topics







Something meaningful is happening... The world is about to get a whole lot smarter.



"Every human being, company, organization, city, nation, natural system and man-made system is becoming interconnected, instrumented and intelligent. This is leading to new savings and efficiency—but perhaps as important, new possibilities for progress."







IBM Tivoli System Automation: Keeping the Smarter Planet highly available and resilient

Smart is: Maintaining *continuous business and IT operations* while rapidly adapting and responding to risks and opportunities with high availability and business resiliency

SMART IS: Always open for business in a 24/7 world.



SMART IS: Reducing cost through proactive incident response and reduced downtime



SMART IS: Managing risk with enterprise-wide resiliency strategy



SMART IS: Responding with speed and agility while minimizing risk exposure.







SA z/OS Version 3.3 Release Themes

Integration with Other Tivoli Solutions in Support of the Service Center

- Continue tighter interoperation with monitoring products and new TEP workspaces
- Integration with OmniBus and Tivoli Service Request Manager (TSRM) for improved alerting and event notification

Consumability Improvements

- Automatic generation of the Message Revision Table
- Rolling recycle to stop and restart members of server groups, minimizing the impact to application availability
- Feature Integration: Improved CICS and IMSPLEX Support

Focus on Customer Needs and Requests

- CDEMATCH enhancements to support new comparators and wildcard characters
- New INGEXEC command to route a command to one to more systems based on the location of resources
- New INGMSGS command to capturing messages and make them visible in the message history of the associated resource



Integration: Sending Events to TEC/OMNIBus

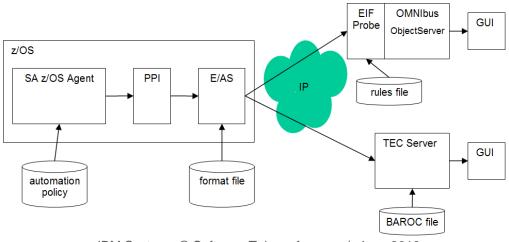
Based on the Alerting support Infrastructure

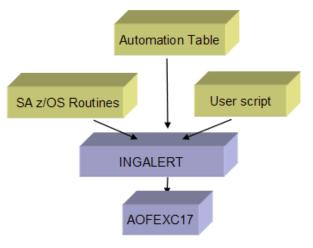
- Same set of pre-defined alert-points
- User defined Events via INGALERT command
 - Events can be issued for APLs, MVC, MTRs, APGs
 - "sysplex" events only processed by one agent

Support for clearing events for given resource

- Clear single event or all events
- Automatic clearing of events for APLs + MTRs

Highly customizable via policy



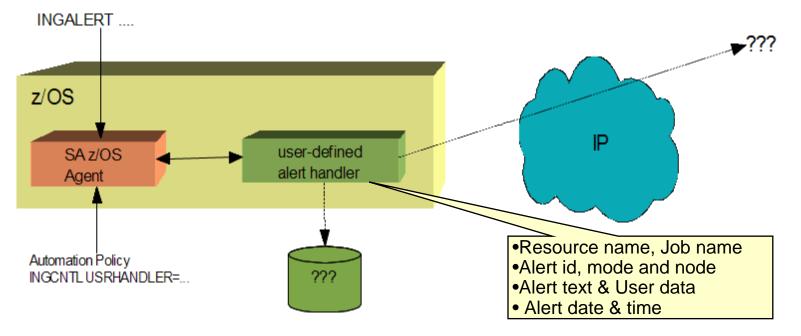


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Integration: Sending Events to User Destination

- Triggered via notification target USR in InformList
- Same Alerting infrastructure
 - Predefined alert points
- Up to the Installation what to do with the event
 - Sample exit AOFEXALT provided by SA z/OS







TSRM

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TEC

Alertina

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Policy

(SA IOM

User

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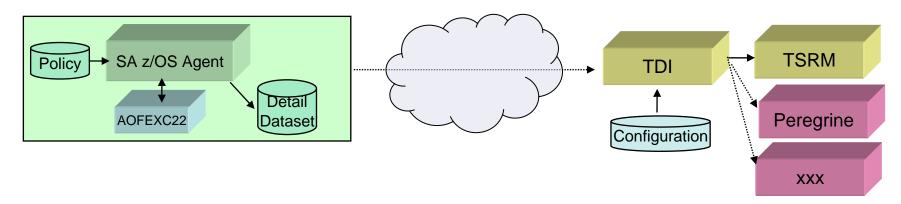
OMNIBus

INGALERT

Error/event/exceptional situation

Integration: Opening a Trouble Ticket

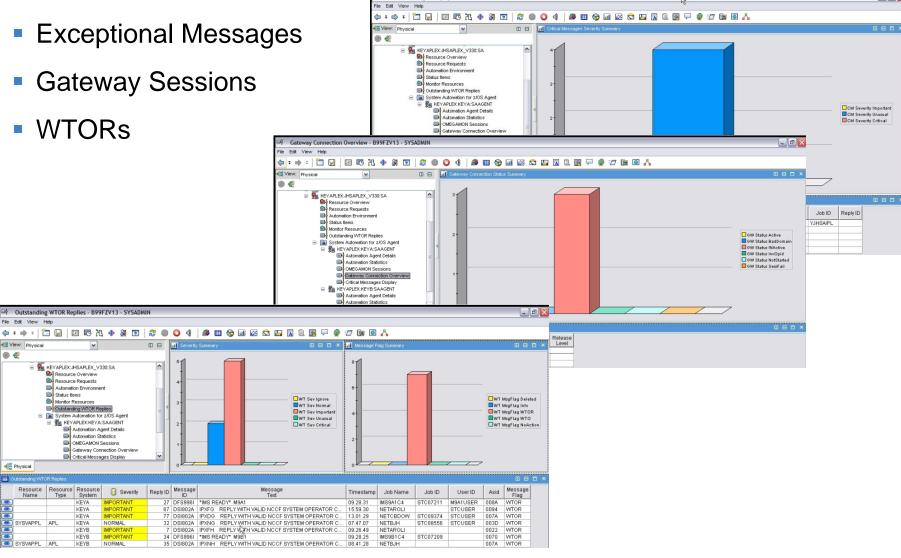
- Based on the Alerting Infrastructure
- Enabled/Disabled via INGCNTL cmd
- Resource dependent context data automatically gathered at point of error
 - Similar to INGLKUP REQ=COLLECT
 - Data stored in Detail Dataset (automatically allocated)
 - Exit AOFEXC22 used to collect user specific data





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Integration: New TEP Workspaces



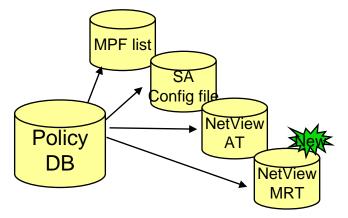
Critical Messages Display - B99FZV13 - SYSADMIN





Consumability: Automatic MRT Generation

- Automatic Generation of Message Revision Table (MRT) based on data stored on the policy database
 - Highlighting of message (coloring)
 - Modifying of message text
 - Capitalization
 - Delete message
 - Suppress message
- No specific MRT syntax skill required
- Common build keeps all configuration files in sync
 - MRT loaded together with AT at configuration refresh
- All automation data in one source







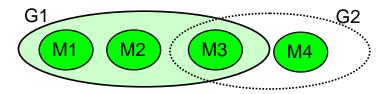
Consumability: Rolling Recycle

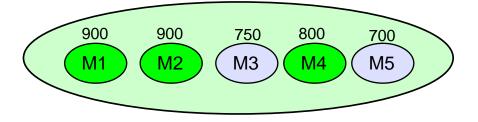
- Stops and restarts members of server groups minimizing impact of application availability
 - Single action to initiate the rolling recycle via INGGROUP command
 - Provision to abort the rolling recycle
 - Rolling recycle continues across an Automation Manager fail over

>>--INGGROUP-- group_name -- ACTION={RECYCLE|CANCEL} ---- ... --->

Currently active number of members maintained

- Active members are recycled one after the other
- Inactive members are untouched
- Watch for intersecting groups

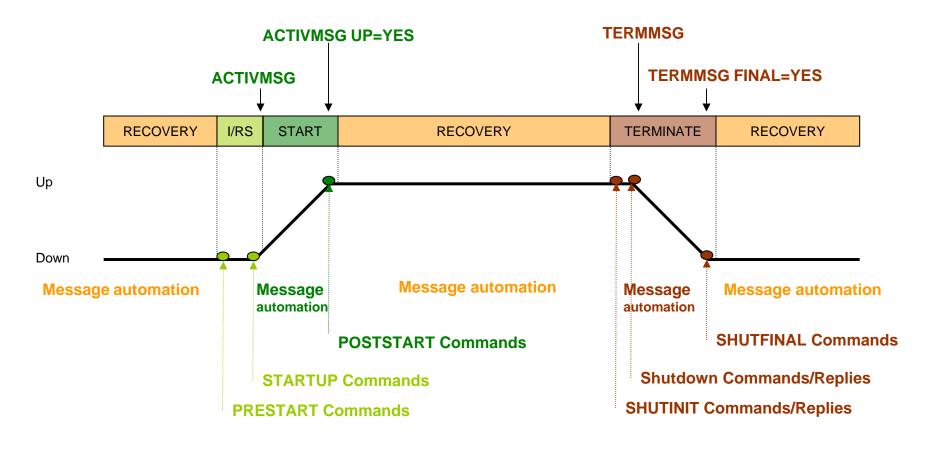








Features: Flow of CICS Automation Startup/Shutdown



CICS automation now functions in the same manner as other features of System Automation for z/OS.

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Features: IMSPlex Support

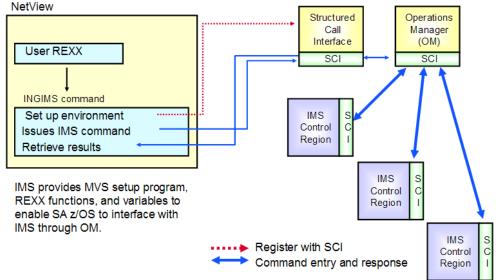
INGIMS command enhanced to provide an API for IMS commands

- Type 1 IMS commands (/cmd ...)
 - Type-1 command output is in message format, encapsulated within XML tags
 - SA z/OS does not format Type-1 command output
- Type 2 IMSplex commands (QRY, INIT, TERM, DEL, UPD, CRE)
 - Command Response returned in XML format
 - Automatically translated to display format

Advantage

Commands can be entered to one or more IMS systems in an IMSplex

- Routes commands to IMSplex members registered for the command
- Consolidates command responses from individual IMSplex members into a single response to present to the command originator



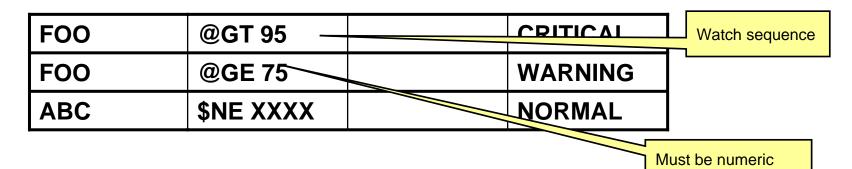




Customer Requests: CDEMATCH Command Enhancements

Support of Comparators

- @EQ (=), @GT (>), @GE (>=), @LT (<), @LE (>=), @NE → numeric comparison
- \$EQ (=), \$GT (>), \$GE (>=), \$LT (<), \$LE (>=), \$NE → text comparison



Enhanced Wildcard Support

FOO*		CRITICAL
*FOO		WARNING
F%%O *		NORMAL
Placeholder for 1 character		





Customer Requests: INGEXEC Command

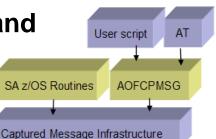
- New command to route given command to one to more systems based on the location of resources
- Eliminates the need to know where the resource is currently running
- Resource can be:
 - Application, Appl group, Monitor, SYS resource, etc
- Can be used to fan out command to multiple systems
- Command can contain subsystem variables (&SUBSxxxx)
 - Resolved at the target system where resource runs
 - Use #SUBSxxxx when command is defined in SA policy
- Output of command(s) is collected and returned to the operator in one or more multi-line messages

Customer Requests: Message Capturing Function

- Enables installation to trap "important" messages and to make them visible in the message history of the associated resource
 - Optionally forwarded to SDF and NMC
 - But several shortcuts done to update SDF/NMC directly
- Restructured to be central "portal" for any kind of message forwarding to final destination
 - Maintains central place for all exceptional messages
 - Message automatically removed from the exception table when the condition is no longer true
 - Message deleted by operator
 - Message deleted by SA user
 - By SA recovery/automation routine (eg CHKTHRES)
 - Forwarded to SDF, NMC, TEP, SA IOM, TEC/OMNIBus
 - Controlled by INFORM attribute of resource

New INGMSGS command to display all "exceptional" messages

- Exceptional message have severity UNUSUAL, IMPORTANT, CRITICAL









Customer Feedback About SA V3.3

"We manage all our mainframe services with SA z/OS. It makes a huge difference to the time and effort needed. Over 15 years we have grown our infrastructure by a factor of 4 or 5 times without increasing staff. Every new release improves our efficiency because we need less home-grown scripting. In 3.3, we especially like the closer integration with GDPS, and improvements in the customisation dialogue could save us an additional 5% effort. Also, we get closer to our goal of 24/7 availability while still having significant maintenance windows. We're really happy with this product.

The Beta gives us a closer connection to the lab and a better understanding of the product, so we use it more effectively."

Peter Erbstoesser, Itergo, Germany



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Customer Feedback About SA V3.3

"We have been testing SA 3.3 and we are very satisfied. We feel that SA 3.3 is very stable and reliable. We have changed our SDF configuration and are now using dynamic SDF panel definition and we are very satisfied with that. We have recently started to use DB2 automation and so far we are satisfied. We also use TWS automation."

Niclas Voltaire, Svenska Handelsbanken, Sweden







IBM Tivoli Automation Resources

System Automation for z/OS Resources

- System Automation for z/OS web site
- <u>SA for z/OS V3.3 Announcement Letter</u>
- <u>SA for z/OS V3.3 Information Center</u>
- <u>SAUsers Discussion Forum</u>
- System Automation Education
- Annual User Conference
 - 2010 Conference Summary
 - <u>2011 Conference Plans</u>

Portfolio Information

- Business Continuity Process Manager web site
- Business Continuity Process Manager demo
- System Automation Application Manager web site
- System Automation for Integrated Operations
 Management web site
- System Automation for Multiplatforms web site
- System Automation for Multiplatforms demo
- GDPS web site





SAUsers Discussion Group: Home Page

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SAUsers Discussion Group: Files

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SAUsers Discussion Group: Opinion Polls

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SAUsers Discussion Group: Event Calendar

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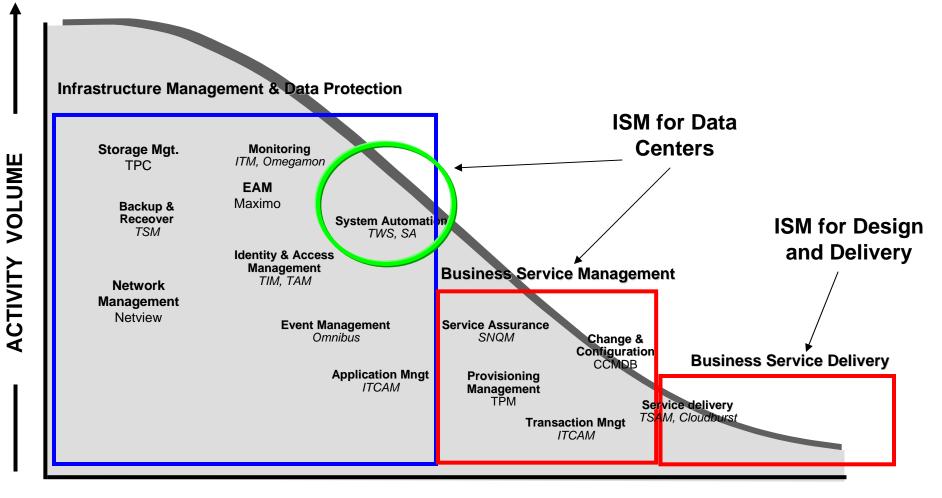
SAUsers Discussion Group: User Profile

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roups Labs (Beta) Applications	The following email addresses from Account Info are not available for this membership: 8173209435@mobile.mycingular.com (verty) If you want to use one of the unvertified email addresses, bease click on the "verty" links. Vertification ensures that you are the owner of the email address.	
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	Step 3. Message Preference	
	Select a display format for any email messages you may receive: (See samples)	





THE Critical Position of Automation



RELATIVE SCOPE AND COMPLEXITY

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Service Management Center for System z Landing Page

http://www-01.ibm.com/software/tivoli/solutions/zsmc/



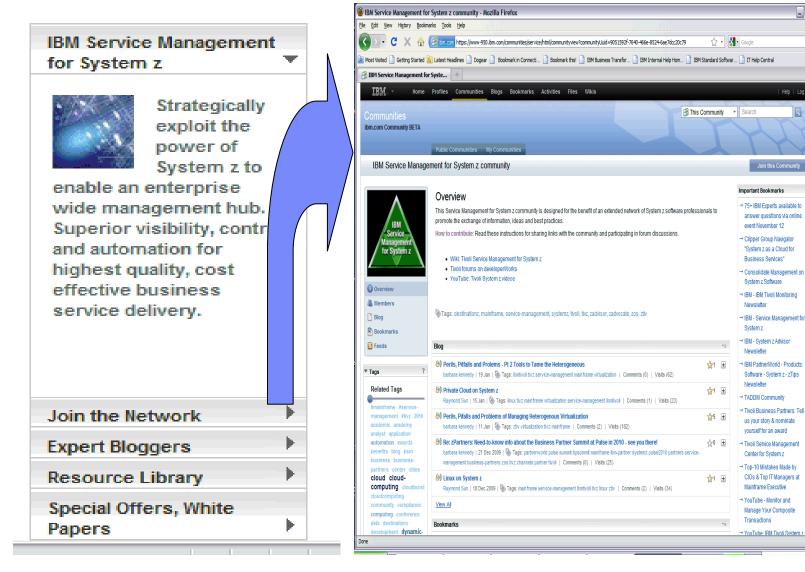




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Tivoli System z Community: Why? To Share Information

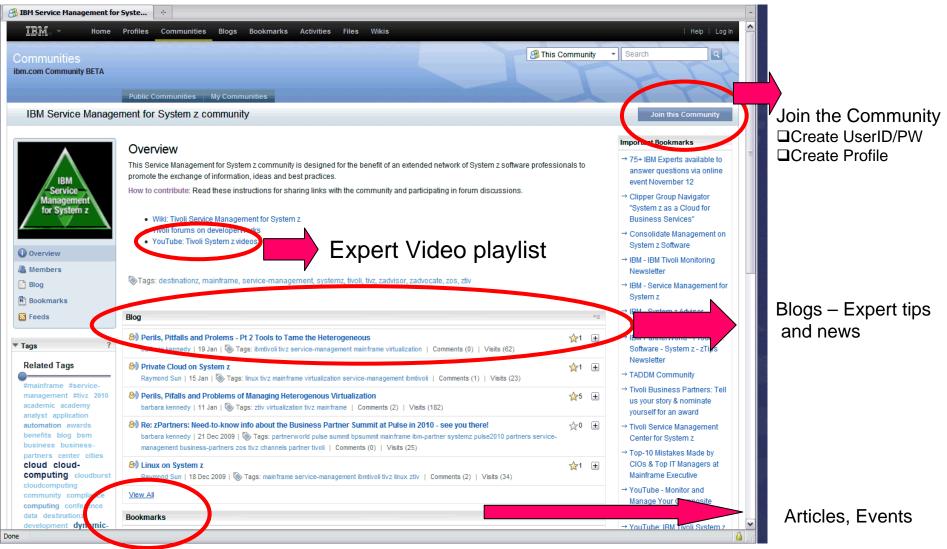






Tivoli Service Management for System z

https://www-950.ibm.com/communities/service/html/communityview?communityUuid=9051592f-7640-466e-8524-6ae7dcc20c79







Thanks for Your Participation Need More Information?





Please contact us:

Allison Ferguson fergusoa@us.ibm.com Barbara Kennedy bjkenned@us.ibm.com



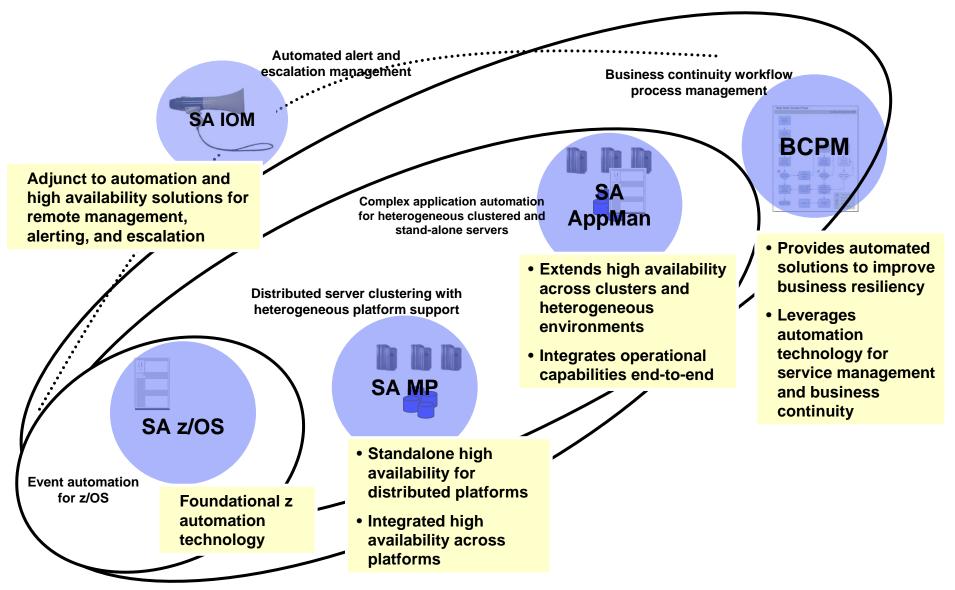


Additional Information





System Automation High Availability and Resiliency Solutions



GDPS: The Right Level of Protection for Your Business

Continuous Availability of Data within a Data Center	Continuous Availability & Disaster Recovery Metropolitan Region	Disaster Recovery at Extended Distance	Continuous Availability Regionally and Disaster Recovery Extended Distance
Single Data Center Applications remain active	Two Data Centers Systems remain active	Two Data Centers	Three Data Centers
Near-continuous availability to data	Automated D/R across site or storage failure No data loss	Automated Disaster Recovery "seconds" of Data Loss	Data availability No data loss Extended distances

GDPS/PPRC HM

GDPS/ PPRC HM

GDPS/PPRC

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GDPS/MGM

GDPS/MzGM

GDPS/GM (blue line) **GDPS/XRC** (red line)





System Automation for Multiplatforms System Automation Application Manager

