

Introducing IBM Tivoli Monitoring

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Pulse2012

Optimizing the World's Infrastructure

Disclaimer

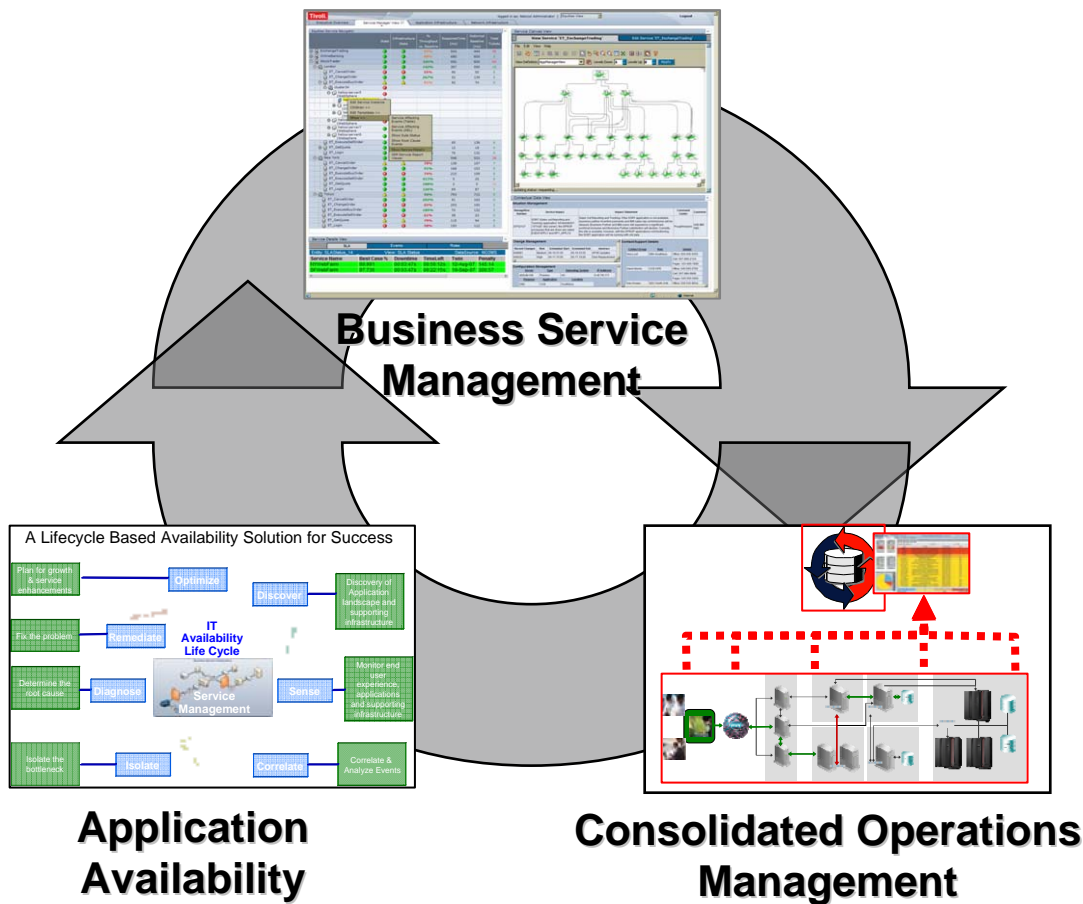
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Agenda

- IBM Tivoli Availability and Performance Monitoring concepts
- IBM Tivoli Monitoring key features
- IBM Tivoli Monitoring reporting
- IBM Tivoli Integrate Portal Mission

Service Availability and Performance

Optimizing Architecture, Applications and Service Performance



Visibility

Visualize service performance and health across all network, server, middleware and application components.

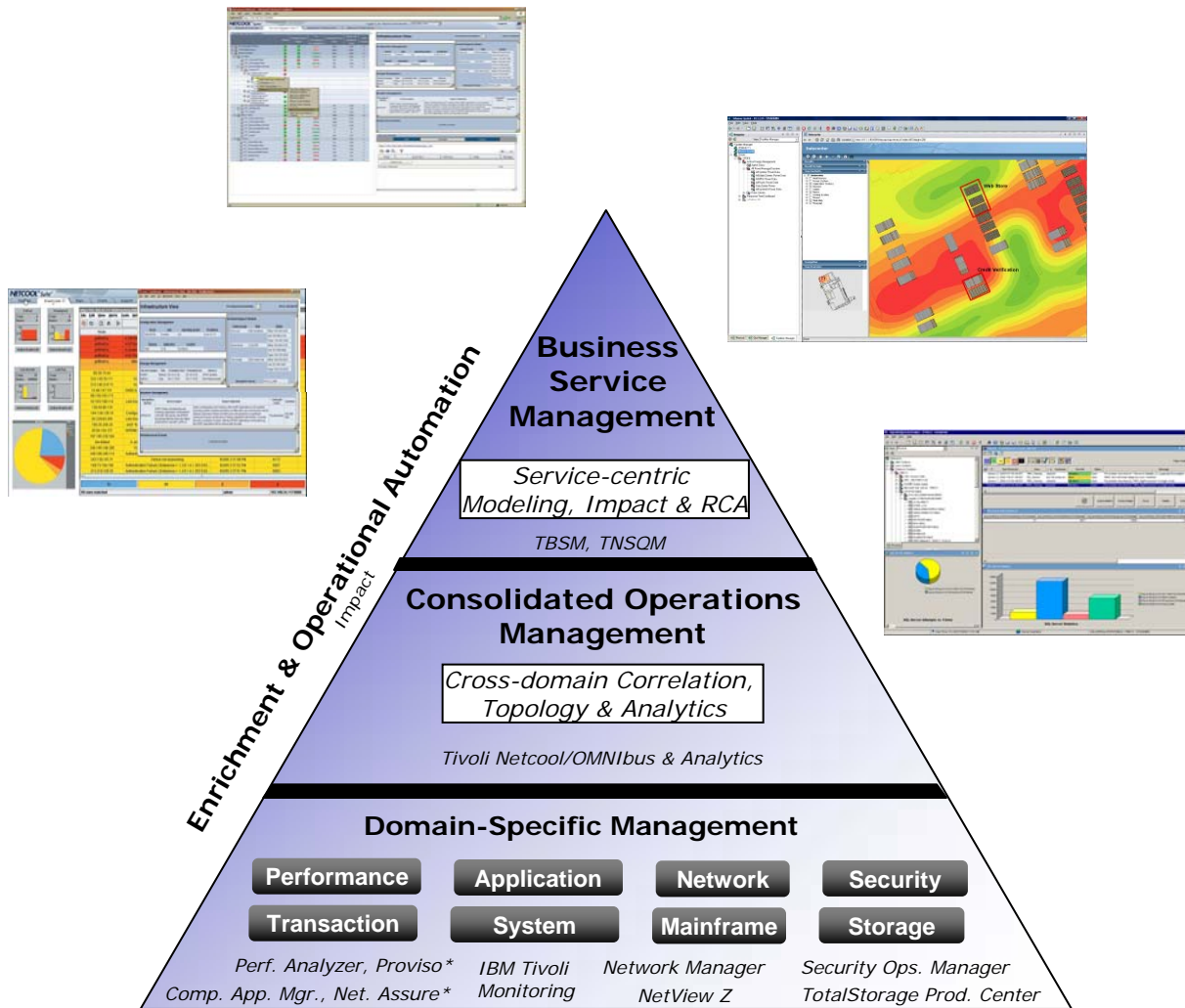
Control

Increase effectiveness and productivity, reduce errors and improve availability through consolidated tooling.

Automation

Keep costs under control as all aspects of infrastructure grows with integrated policy-based automation.

IBM Availability and Performance



- All your operations presented in its Business Context**
- Integrated Operations Console**
 - Over 50 IBM & Tivoli Products integrated today
- Highly Scalable - can start small and grow quickly**
- Massively scalable event management**
- Broadest set of system and device support**
- Fully Integrated Granular Warehousing**
- Nearly Invisible Agents**
 - Low CPU & Memory
- Support for both agent and agent-less monitoring**
- Agent Factory to be able to integrate "anything"**

Customers need availability solutions



Diagnose and Fix

How can I quickly diagnose and fix problems before customers are impacted?

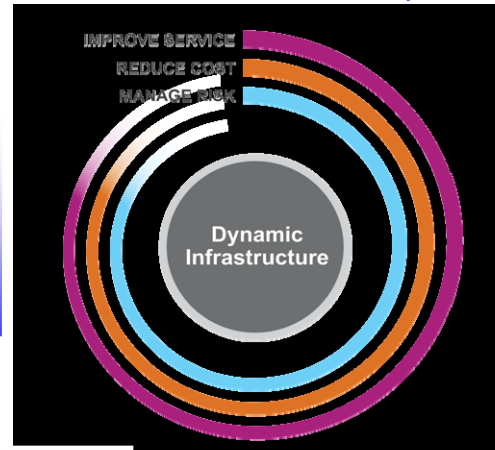
End User Experience

How can I understand my customer's end user experience?



Business Applications

How can I make sure my business applications are supporting my business?



Track and Report

How can I easily understand how well my IT environment is supporting my business?

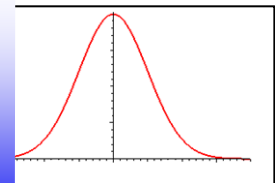


Discover and Manage

How can I know that I am really monitoring all of the servers in my production environment?

Optimize My Hardware

How can I visualize resource utilization to optimize hardware costs?



Application Performance Management Portfolio

Horizontal: problem detection and isolation

ITCAM for Transactions

End-user experience monitoring and problem isolation

Vertical: domain-specific operations tools for diagnosis and repair

ITCAM for SOA Platform

SOA infrastructure monitoring

ITCAM for Apps

Application infrastructure monitoring

ITCAM for MS Apps

MS application infrastructure monitoring

OMEGAMONs

System z Deep Dive diagnostics

Vertical: domain-specific deep-dive tools for diagnosis and repair

ITCAM for Application Diagnostics

Deep dive diagnostics of application servers

Foundation: data center management

ITM, ITM for Virtual Environments, SmartCloud Monitoring

Health monitoring of operating systems and virtualization environments

ITM for Energy Management

Reduce data center energy consumption

Core value proposition of systems monitoring

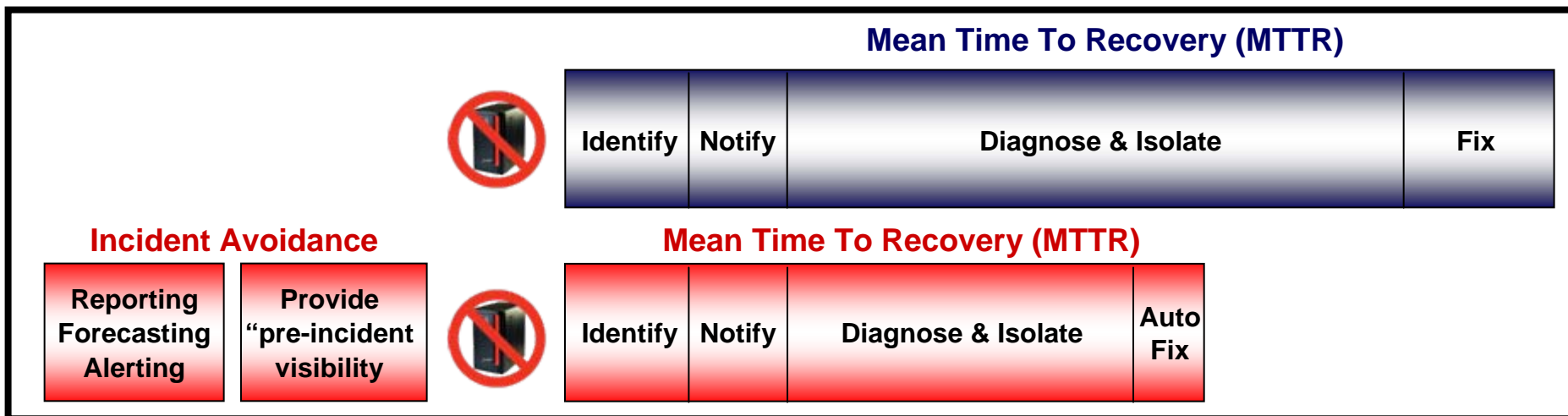
Improve the Mean Time To Recovery (MTTR)

- By Some Estimates
 - 10% of users report a problem they have
 - 90% “try again later” (or not) or move on to something else.
- Can you quickly get to a root cause?

Provide Incident Avoidance

- Could you forecast and prevent a server incident?
- Do you have the tools and processes to report, forecast and alert on a future server incident?

Tivoli can **improve MTTR** by quickly correlating, isolating and diagnosing root cause and provide **incident avoidance** through historical navigation, dynamic thresholding, and capacity forecasting, reporting and alerting



Industries' most extensive resource monitoring

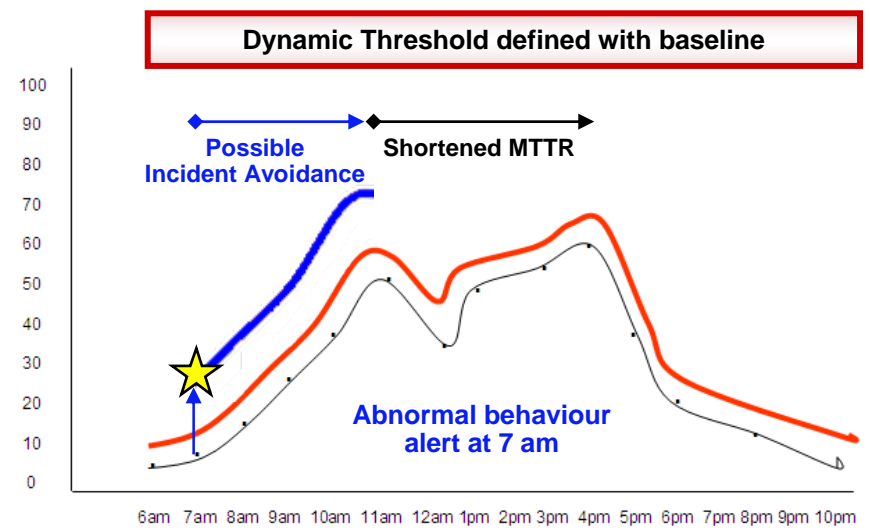
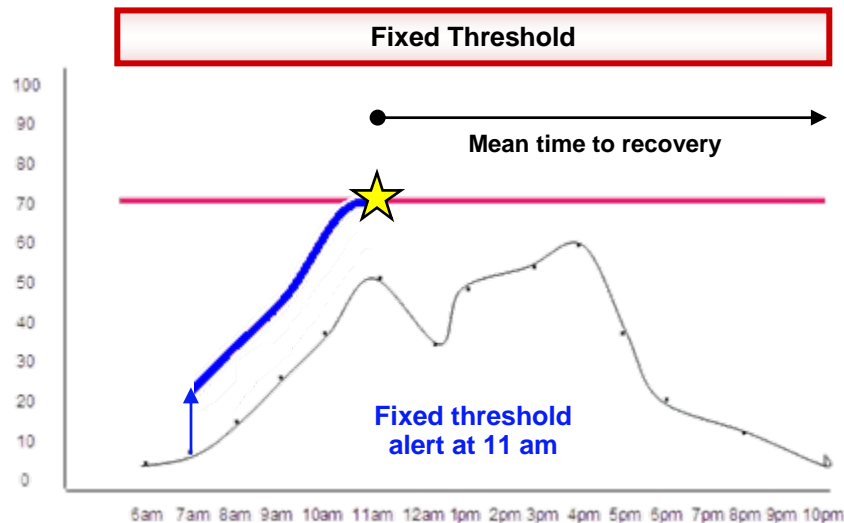
Operating Systems	Infrastructure	Application and Collaboration	Business Integration	Web Environment	Database	Agent Builder
AIX	AIX (LPAR DPAR WPAR) VMware Windows Hyper-V Solaris Zones Citrix Clustering	SAP	CICS	WebSphere	DB2	Agentless or Agent Adapter (Universal Agent) OPAL solutions (100+ packages) Microsoft Message Queue and more.... Blackberry Micromuse
i5/OS		Siebel	Web Services	WebLogic	SQL	
z/OS		PeopleSoft	IMS	IIS	Oracle	
Windows		Tuxedo	MQ	Oracle	Sybase	
Linux		Domino	Message Broker	NetWeaver	Informix	
Unix		Exchange .Net Biztalk Sharepoint		JBoss		
			Apache			
			Sun Java System			

Incident avoidance - dynamic thresholds

Dynamic thresholds can calculate baseline values using one of several statistical functions based on historical data from the Tivoli Data Warehouse and agents. Allowing you to tracking deviations **from the norm** as predictors of future problems.

- No automated approach to define
- No warning of abnormal behaviors prior to peak periods
- No flexibility in the monitoring environment

- Automated definitions with + or – variations
- Thresholds can be defined for select systems, under certain conditions, or scheduled periods
- **Proactive** warning for abnormal behavior occurring before peak periods or during non-peak periods



Integrate with IBM SPSS Statistics for forecasting



Non-seasonal models:

- ▶ Simple
- ▶ Holt's
- ▶ Brown's
- ▶ Damped

Seasonal models:

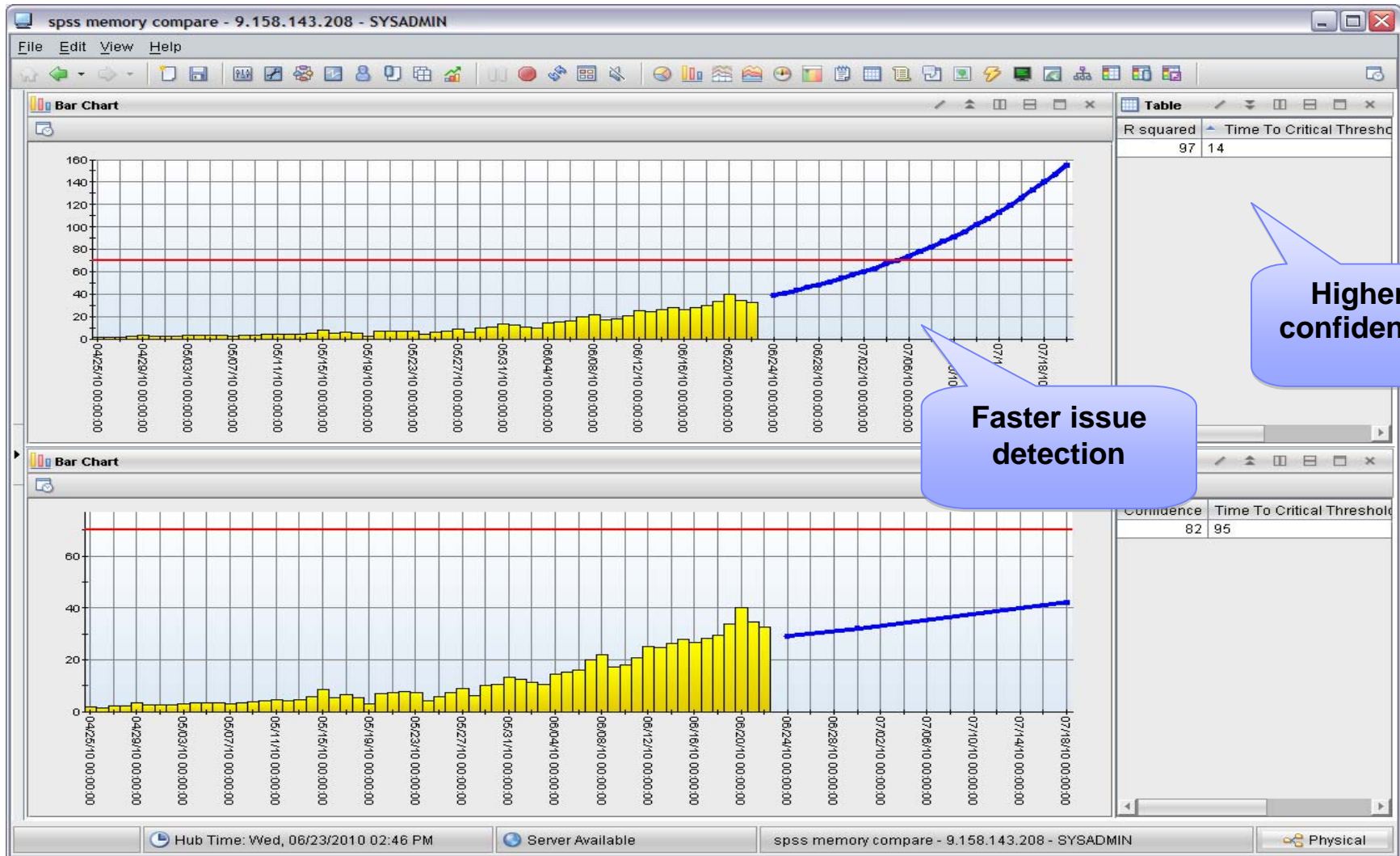
- ▶ Simple
- ▶ Winters' additive
- ▶ Winter's multiplicative
- ▶ ARIMA (*)

And in addition:

- ▶ Expert Modeler – SPSS selects the best model automatically

(*) ARIMA = Auto-Regressive Integrated Moving Average

Comparison – linear vs non-linear







Agent technologies in ITM v6.2.3



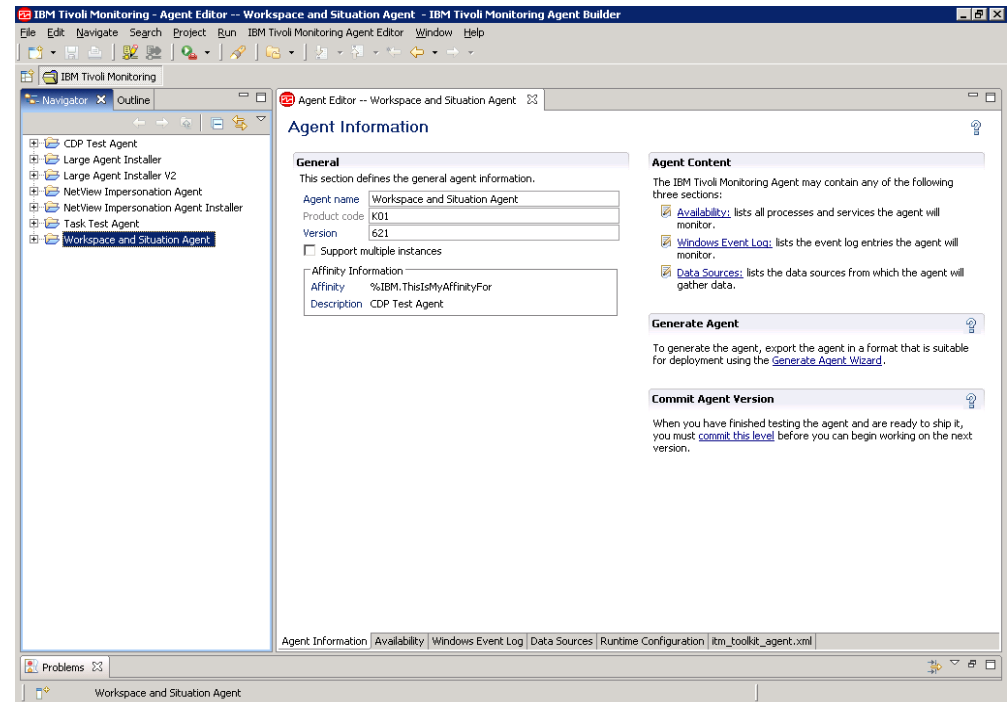
Native Indicates **Native Eventing** through ITM Infrastructure

SNMP Indicates **Direct SNMP Eventing** from Agent

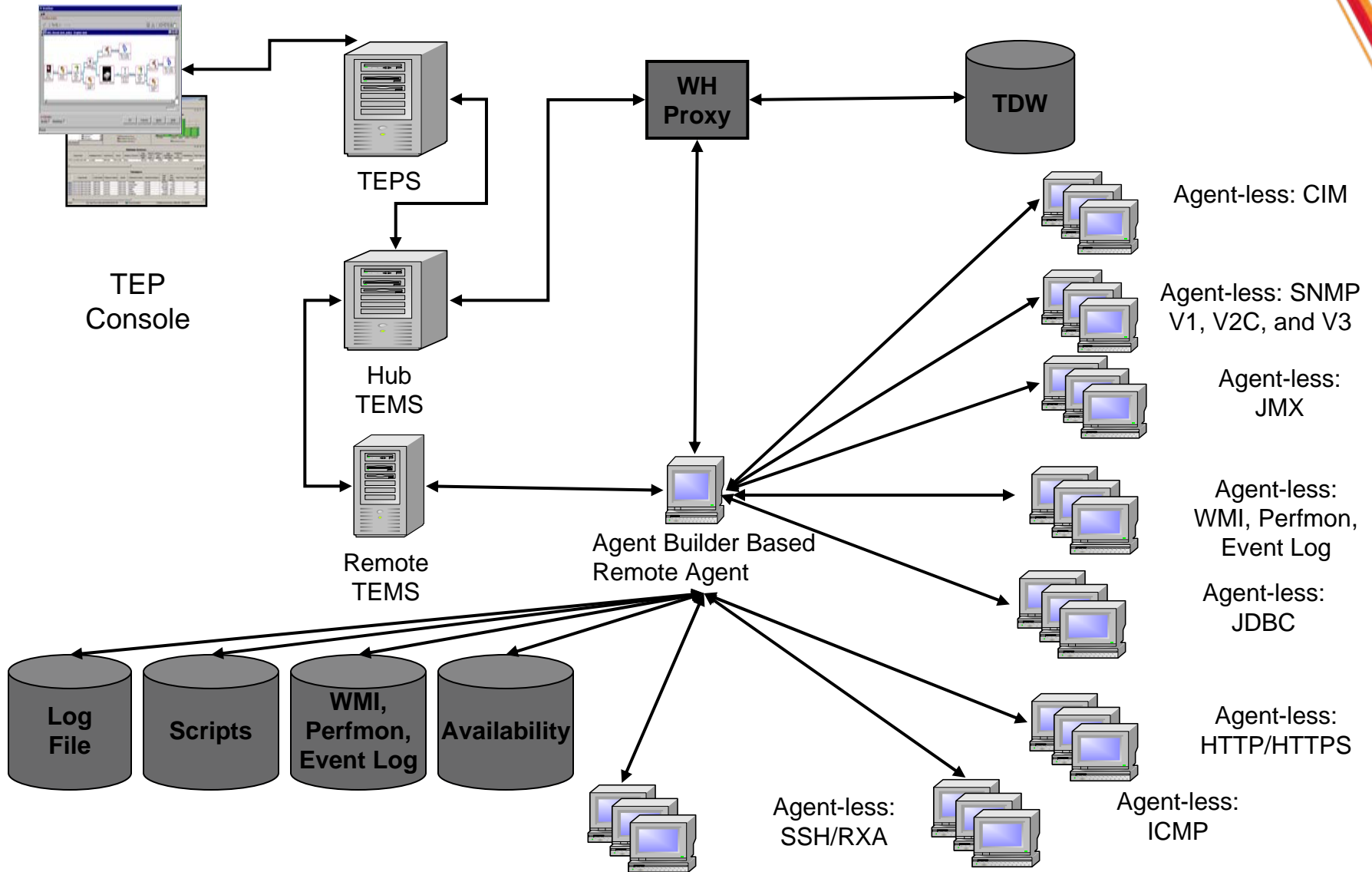
	OS Agents <ul style="list-style-type: none"> • Agent-Driven • Autonomous or Connected • Direct SNMP or Native Eventing
	Remote OS Agents <ul style="list-style-type: none"> • Remote Monitoring (SNMP, CIM, WMI) • Autonomous or Connected • Direct SNMP or Native Eventing
	System Monitor Agent <ul style="list-style-type: none"> • Agent-Driven • Autonomous • Direct SNMP Eventing
	Agent Builder Agents <ul style="list-style-type: none"> • Agent-Driven or Remote • Autonomous or Connected • Direct SNMP or Native Eventing

What is the Agent Builder

- Eclipse based GUI for agent development
 - Wizard guides you through developing an agent
 - Browsers for common data sources
 - Generated Agents run on Windows, AIX, Linux, Solaris, HP-UX
 - Create a full Agent by incorporating queries, situations and workspaces.
 - Create an installable image – local install and remote deploy image
 - Create a single agent for availability, log monitoring, and performance metric gathering
- Agent features
 - Includes support for common management data sources and extensions to allow gathering of custom data
 - Includes common data manipulation

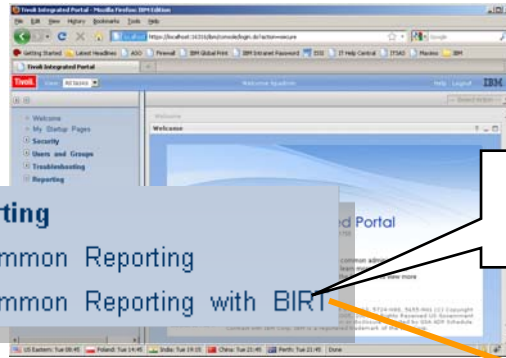


Agent Builder Toolkit

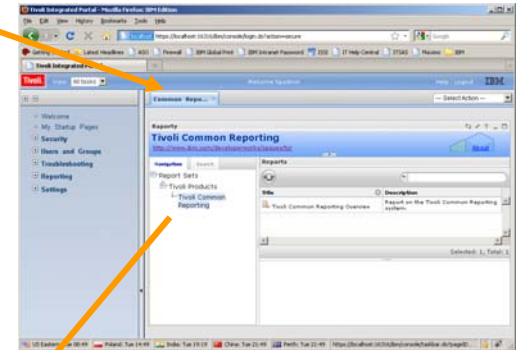
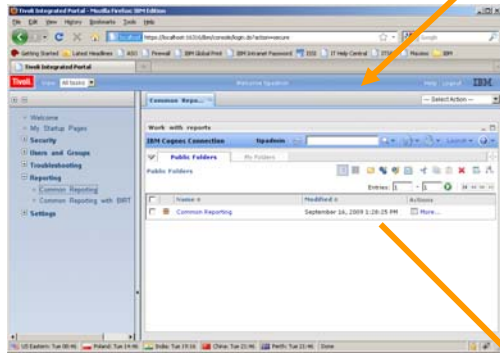


Tivoli Common Reporting (TCR)

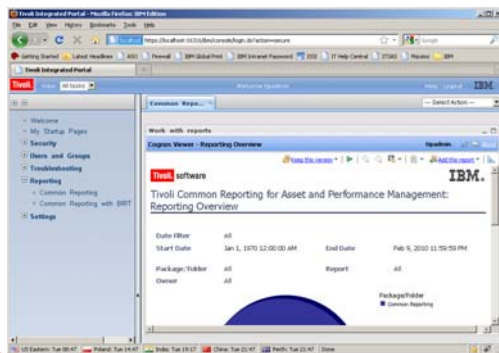
Cognos portlet in TIP for Cognos report administration



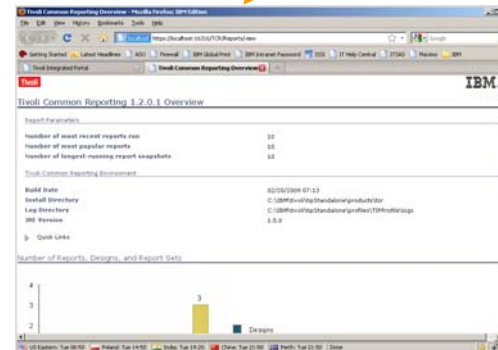
Existing TCR portlet for legacy reports



View Cognos based Report



View BIRT based Report



Mobile support via COGNOS

- **Cognos Mobile includes native and web-based clients for:**
 - Apple iPhone and iPad
 - RIM BlackBerry smart phones and PlayBook
- **Support for devices using the following operating systems:**
 - Android 3
 - Symbian
 - Windows Mobile
- **Broad BI capabilities on mobile devices**
 - Seamlessly view and interact with reports, dashboards, analysis, plus more
- **The most up to date BI available at your fingertips**
 - Make timely and accurate decisions
- **Analysis on the go**
 - Helps you keep a pulse on your business while on the road
- **Location-aware intelligence**
 - Receive relevant information based on your location¹
- **Interact with information offline or online**
 - Drill up and drill down
 - Drill through
 - Zoom in and out
 - Cell highlights
- **Confidently deploy BI to any mobile device**
 - BI and device-level security
 - Single authoring environment
 - Single administration environment
 - Flexible support for the leading mobile devices



Tivoli Integrated Portal Mission Statement

- To provide a Web 2.0 integrated service management portal across multiple Tivoli products which supports:
 - Single sign on
 - A unified security model
 - A consistent look and feel
 - Serving up content from multiple Tivoli products integrated into interactive screens to support drill-down scenarios
 - Is highly customizable by systems-integrators, administrators and end users
- Eliminate siloed product consoles and the need to jump between multiple windows to perform service management tasks
- Supports multiple user personas, ranging from end users to service administrators



TIP Operating Systems dashboard

1 Southeast Managed Systems

Hostname	# of Critical Situations	Overall Status	Managing System	OS Type	Version
WINDOWS_Virginia	10	✖ *ONLINE	HUB_2543	Windows	6.2.3.01
WINDOWS_WestVirginia	6	✖ *ONLINE			
WINDOWS_NorthCarolina	4	✖ *ONLINE			
LINUX_SouthCarolina		⚠ *ONLINE			
WINDOWS_Georgia	2	⚠ *ONLINE			
WINDOWS_Alabama	1	⚠ *OFFLINE			
WINDOWS_Tennessee	0	✔ *ONLINE	HUB_3321	Windows	6.2.2.02
Tennessee	0	✔ *ONLINE	HUB_3321	Linux	6.2.2.02
WINDOWS_Kentucky	0	✔ *ONLINE	HUB_3321	Windows	6.2.2.02
WINDOWS_Delaware	0	✔ *ONLINE	HUB_3321	Windows	6.2.2.02

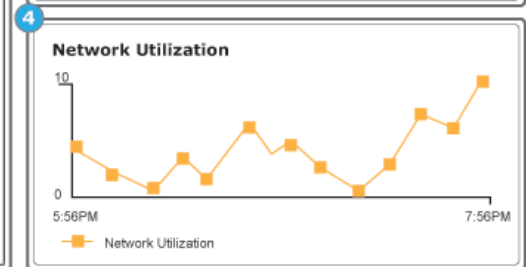
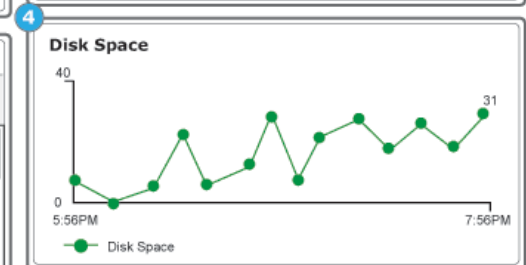
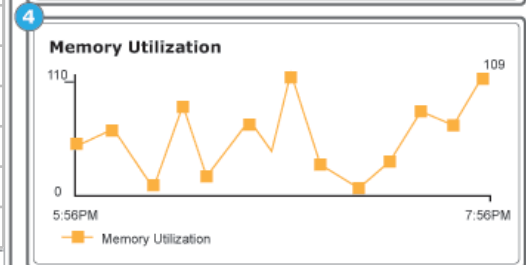
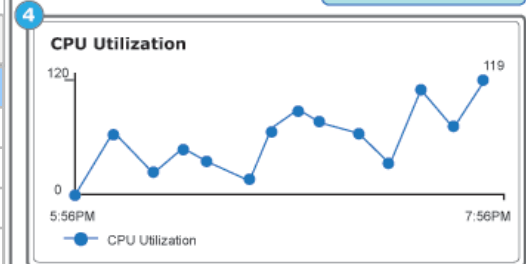
- Show CPU details
- Show Memory details
- Show Disk details
- Show Network details
- Show Process details

Right click Launch in context to Detail dashboard pages for selected system (row) based on OS type.

2 Situation Even List

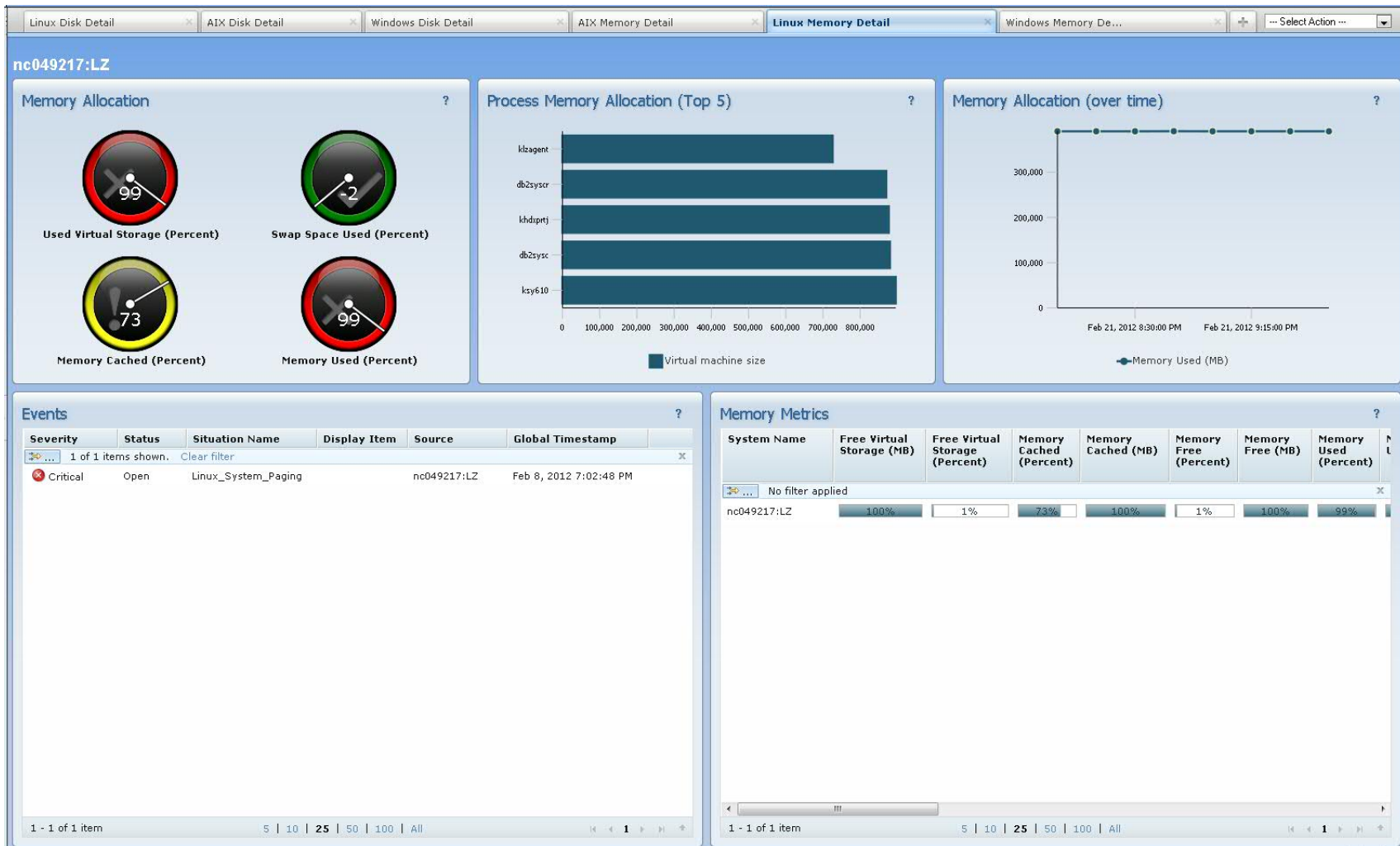
Severity	Situation Name	Occurrences	Time Stamp	Owner
●	WIN_VG_host_Memory_exceeding_max_thresh...	1	2011-06-27 17:56:01 GMT	JSmith
●	WIN_VG_CPU_exceeding_max_threshold100	1	2011-06-27 18:01:17 GMT	JSmith
●	WIN_VG_Disk_latency_exceeding_max_thresho...	1	2011-06-27 18:31:11 GMT	JSmith
●	WIN_VG_Network_latency_exceeding_max_thr...	1	2011-06-27 18:56:05 GMT	JSmith
●	WIN_VG_outage_SE_region	1	2011-06-27 19:10:25 GMT	JSmith
●	WIN_VG_response_time_exceeding_max_thres...	1	2011-06-27 19:16:45 GMT	JSmith
●	WIN_VG_login_fail	1	2011-06-27 19:21:32 GMT	JSmith
●	WIN_VG_host_Memory_exceeding_max_thresh...	1	2011-06-27 19:34:21 GMT	JSmith
●	WIN_VG_login_fail	1	2011-06-27 19:45:35 GMT	JSmith
●	WIN_VG_outage_N_region	1	2011-06-27 19:56:19 GMT	JSmith

3 Realtime + Last 2 hours



* Content subject to change, is not a commitment

TIP Operating Systems dashboard



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Questions?