

Pulse2011



Advanced Dashboards & Visualization with TIP and Historical Reporting

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Agenda

- Where are we today with TIP 2.1 ?
- Future directions with TIP 2.2
- Tivoli Common Reporting



Tivoli Integrated Portal Mission Statement

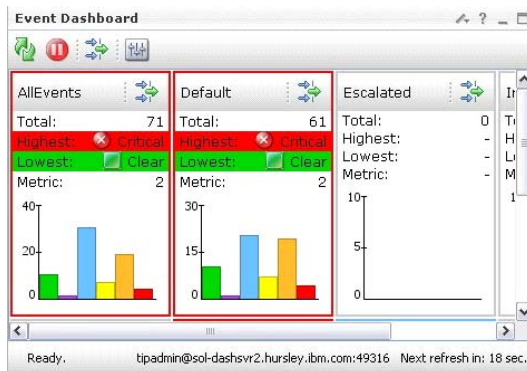
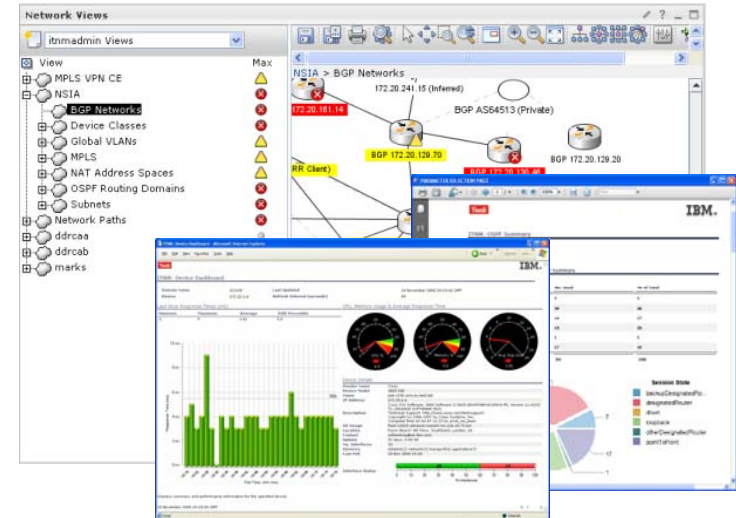
- To provide a Web 2.0 integrated service management portal across multiple Tivoli products which supports:
 - Single sign on
 - A unified security model
 - A consistent look and feel
 - Serving up content from multiple Tivoli products integrated into interactive screens to support drill-down scenarios
 - 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



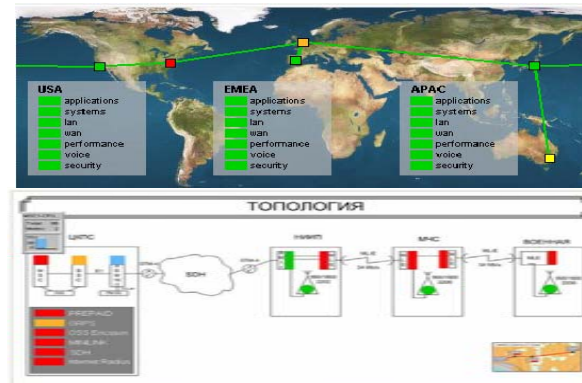
Adopting product example The Web GUI is more than just an Event List...

Sev	Ack	Node	TrendDirec...	Summary	DaysToCr
No		Beijing	Raising	Prediction from Beijing with confidence 90. Time to critical 1. Ti...	2
No		Tokyo	Raising	Prediction from Tokyo with confidence 90. Time to critical 1. Tim...	2
No		London	Raising	Prediction from London with confidence 80. Time to critical 1. Ti...	1
No		Tokyo	Constant	Prediction from Tokyo with confidence 80. Time to critical 5. Tim...	5
No		Shanghai	Raising	Prediction from Shanghai with confidence 80. Time to critical 5. ...	5
No		Washingto...	Constant	Prediction from Washington DC with confidence 80. Time to criti...	5
No		Abuja	Constant	Prediction from Abuja with confidence 80. Time to critical 5. Tim...	5
No		London	Constant	Prediction from London with confidence 80. Time to critical 5. Ti...	5
No		Berlin	Raising	Prediction from Berlin with confidence 80. Time to critical 5. Tim...	5
No		Beijing	Constant	Prediction from Beijing with confidence 75. Time to critical 7. Ti...	7
No		Sydney	Constant	Prediction from Syndey with confidence 75. Time to critical 7. Ti...	7

Active Event List (AEL)



Event Dashboard and Charts



Web GUI Maps



Web GUI Gauges



+ a dedicated XML based API for additional flexibility (WA-API)

Enhanced visualization with Tivoli Netcool/OMNIBus WebGUI Focussed service views driven by event enrichment

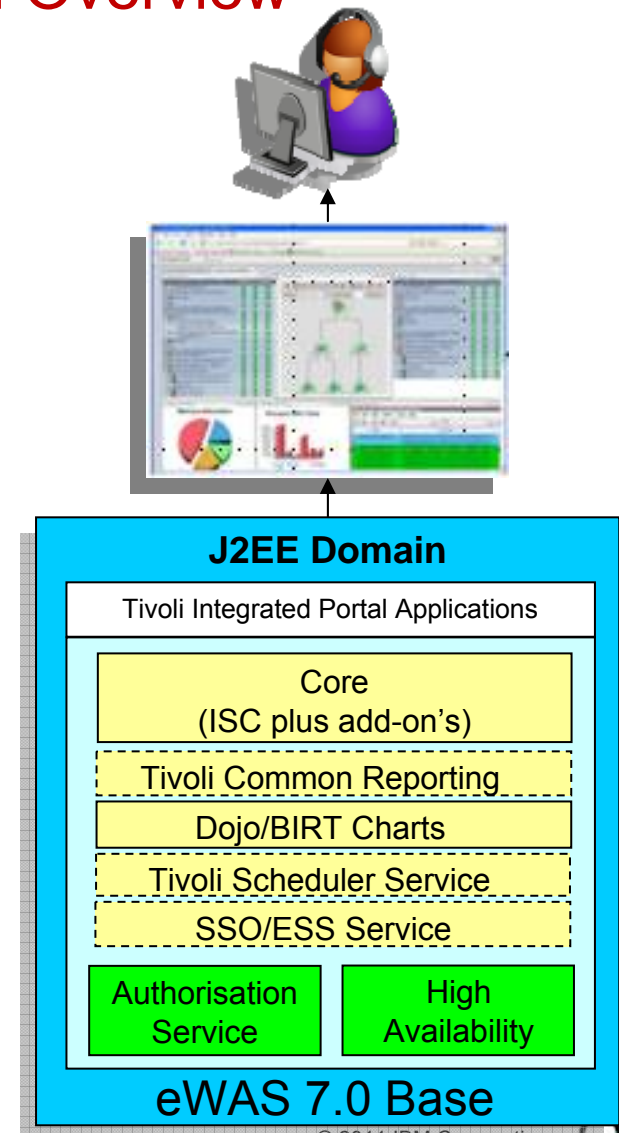


Requires page building skills including application of style sheets



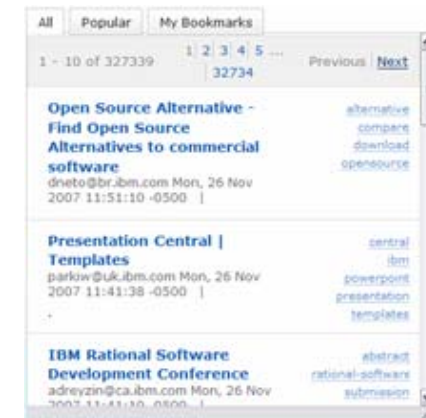
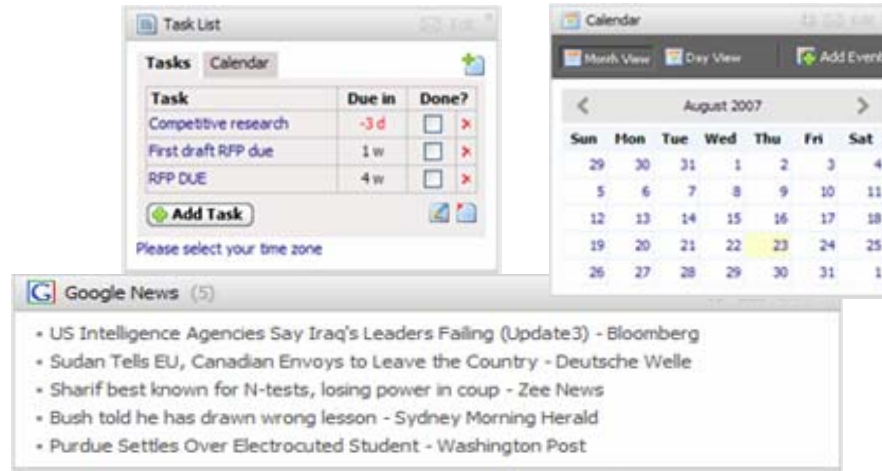
Tivoli Integrated Portal 2.1 Architecture and Overview

- **Tivoli Integrated Portal as a J2EE application**
 - Lays foundation for zOS and WAS ND support
 - Capable of installing into an existing WAS infrastructure
- **Tivoli Integrated Portal Charts**
 - Introduction of Dojo as the Tivoli Integrated Portal charting component maintaining backward compatibility
- **Authorization Provider**
 - Uses Argus which provides Single sign-on, Single sign-off, Identity federation, Policy-based assurance level, Validation against various PKI and LDAP systems, & Flexibility
- **Install Improvements**
 - Installs are modular and faster
- **Cross IBM integration**
 - Uses Naming and Reconciliation service and **iWidget** support
- **Improved staging to production capabilities**
 - Granular steps for customers to move from staging to production



What is a Widget?

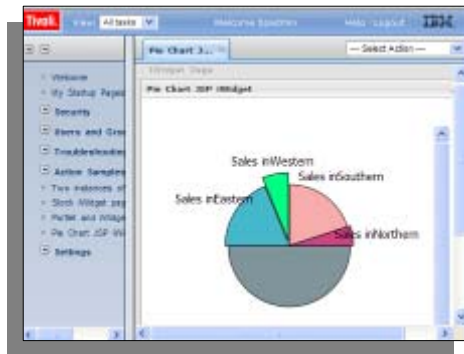
- *A widget is a small program or piece of dynamic content that can be easily placed into a web site.*
- *Widgets are called different names by different vendors: gadgets, blocks, flakes.*
- *Widgets can be written in any language (Java™, .NET, PHP, etc.) and can be as simple as an HTML fragment.*
- *Widgets can be non-visual.*
- *Widgets often encapsulate an API.*
- *“Mashable” widgets pass events, so that they can be wired together to create something new.*



iWidget Support

- Tivoli Integrated Portal 2.1 provide support for iWidgets written to iWidget spec 1.0
 - Provides cross IBM Integration
 - integration with WP, Mashup Maker, BPM and all other Portals that support iWidget spec
 - Reusability of application

iWidget installed in TIP rendered in TIP



iWidget installed in TIP rendered in WPS



Google Gadgets



- Future plan to provide richer iWidget user experience
 - This includes framework interactions like launch pages, Credential service



IBM Lotus Mashups | InfoSphere MashupHub

Lotus Mashups | Trip Planner | dmichaels | Help

Trip Planner

Go to View | Search All

Collaboration | Content Feeds | Demo | Favorites | Tools

OpenStreetMap

IBM:
20 Old Post Road Armonk, New York

Data by [OpenStreetMap](#) and [GeoNames](#)

-105.56990, 54.59550

Google Gadget

Expedia.com

Latest roundtrip fares from **BOS** to **Westchester**

SEPTEMBER 2008						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1 Price	2 Price	3 Price	4 Price	5 Price	6 Price
7 Price	8 Price	9 Price	10 Price	11 Price	12 Price	13 Price
14 Price	15 Price	16 Price	17 Price	18 Price	19 Price	20 Price
21 Price	22 Price	23 Price	24 Price	25 Price	26 Price	27 Price
28 Price	29 Price	30 Price				

AccuWeather

AccuWeather.com

Armonk, NY

Currently: [Hourly Info](#) | [15 Days](#) | [Videos](#)

Cloudy RealFeel®: 79°F
Winds: W at 5 mph
76°F

Your Extended Forecast

Tonight	Tomorrow
-Low 64° A couple of evening t-storms	Mainly clear
Friday	Saturday

Google Gadget

In the news

[Westchester County Board Legislators Approve 450 Saw Mill River ...](#)
Yonkers Tribune, USA
WHITE PLAINS, NY -- The Westchester County Board of Legislators (WCBol) approved a bond act in the amount of \$5 million to purchase 450 Saw Mill River Road, ...

ISC/TIP running some simple iWidgets from Lotus

The screenshot shows the Integrated Solutions Console interface in Mozilla Firefox. The browser address bar displays `https://9.27.48.130:9044/ibm/console/login.do?action=secure`. The page title is "Welcome iscdadmin - 9.27.48.130".

The interface features three iWidgets:

- Weather iWidget:** A "Google gadget" for "New York" showing a current temperature of 37.2°F and a forecast for the next three days (Fri, Sat, Sun).
- News iWidget:** A "CNN.com" widget displaying a list of news headlines, including "1 Romney backs McCain", "2 Pentagon may shoot down errant satellite", "3 U.S.: Al Qaeda in Iraq seeks patients as bombers", and "4 In must-win situation, Clinton sharpens attacks".
- YouTube iWidget:** A "YouTube iWidget" showing a "Top Favorites" list of video thumbnails with titles like "Evolution of...", "guitar", and "Potter Puppe...".

Arrows from the text labels on the right point to these specific iWidgets in the screenshot.



Dojo Charting

The screenshot displays several monitoring components:

- CPU UTILIZATION:** A line chart showing CPU usage for various processes like ksm.exe, java, cmd, etc.
- Logical_Disk_Usage:** Pie charts showing disk usage for C: drive, split into Used and Free space.
- SituationEventsByOwner:** A table listing system events.
- LineChart:** A large line chart showing data over time, with a timestamp of 4:48:42 PM.
- Preferences:** A dialog box for configuring the LineChart.

Severity	Status	Owner	Situation_Name	Display_Item	Source	Impact
Warning	Open		NT_Invalid_Logon_SYSTEM	Primary:JOCO:NT	System	System
Warning	Open		NT_Invalid_Logon_SYSTEM	Primary:JOCO:NT	System	System
Warning	Open		NT_Invalid_Logon_SYSTEM	Primary:JOCO:NT	System	System
Warning	Open		NT_Log_Space_Lo	System	Primary:JOCO:NT	System
Warning	Open		NT_Log_Space_Lo	Security	Primary:JOCO:NT	System
Warning	Open		NT_Log_Space_Lo	Application	Primary:JOCO:NT	System
Warning	Open		NT_Log_Space_Lo	Security	Primary:JOCO:NT	System

Preferences Dialog:

- General | Parameters | About
- Chart Name: LineChart
- Description: [Empty]
- View as: Lines
- Legend: Show Legend, Legend Location: Right
- Options: Auto Update, Show timestamp of last update
- Paging: Page the data, Paging Size: 25



TIP 2.2



TIP 2.2 Self-Service Dashboard

The dashboard interface includes a 'ServerSelection' map of Australia and New Zealand, an 'Overview' section with a world map and a server performance table, and a 'CPU Utilization' section with four gauge charts for Core 1 through Core 4. A 'Details' section on the left lists various banking services with checkboxes and a 'Save' button.

Server	CPU (%)	Memory (%)	Wait (%)
Tip_24394	83 (90)	20 (30)	30
Tip_24459	20 (50)	02 (50)	0
TSC_22544	43 (60)	50 (60)	10

A list of widgets is displayed, each with a rating of five stars and an update timestamp. The widgets include:

- Type: Widget, Rating: ★★★★★, Updated: 3/29/10 6:58, Author: tipadmin
- TBSM KPIs WS, Type: Feed, Rating: ★★★★★, Updated: 3/29/10 3:47, Author: tipadmin
- TBSMGetInstanceIDFromName, Type: Feed, Rating: ★★★★★, Updated: 3/29/10 2:45, Author: tipadmin
- TBSMGetChildInstanceList

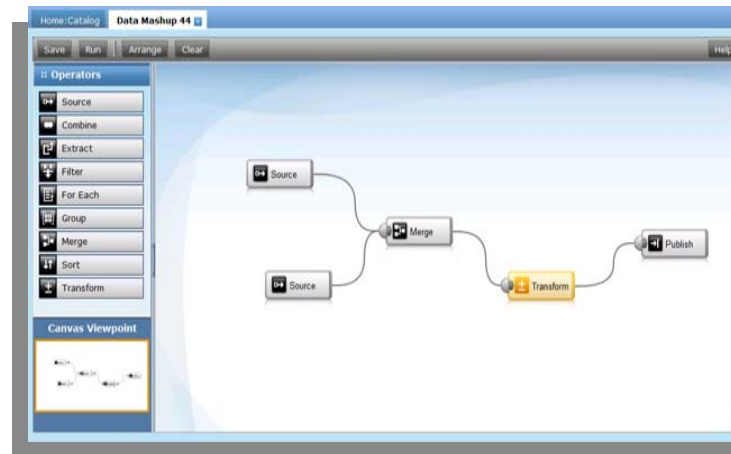
What are mash-ups?

UI Mash-ups



- Drag and drop widgets from multiple products and datasets onto the same page providing an aggregated view
- Interact and drive context changes across widgets
 - Clicking on a resource in one widget can cause the other widgets on the page to update to show information about the selected resource

Data Mash-ups



- Combine data from multiple products, 3rd party vendors, or custom sources into a single data feed to view in a single widget
- Manipulate, transform, and derive new metrics
 - Basic mathematical functions
 - String manipulation & parsing



TIP 2.2 Self-Service Dashboard (cont.)

▪ Dashboard Creation

- Drag and Drop dashboard creation
- Free Form Page Layout
- Portlet and iWidgets communicate
- Customisation of Look and Feel (logos, titles, colours)
- iWidgets including gauges, charts, status, and topology
- iWidget and Portlet Catalogs for simplified content selection



Future TIP 2.2 Capabilities

▪ Data Feeds and Data Mash-ups

- Data Mash-up from multiple data sources
- Data Feed and Data Mash-up Catalogs to support simplified widget creation
- SWG and BPM Data, Widgets, and Integration

The image displays two screenshots from the IBM Data Mashup 4.4 interface. The left screenshot, titled "Select the feed data source," shows a list of data sources categorized into "enterprise" and "departmental". The "enterprise" category includes sources like Content Manager Server (ECM), DB2 XML Columns (pureXML), Domino Server, Enterprise Database (JDBC), IBM Information Server, IBM Optim Archive, IMS Transaction, LDAP Directory, SAP Application Functions, and Tivoli Directory Integrator. The "departmental" category includes Access Data File, Atom or RSS Feed (Registration), Comma Separated Value (CSV) File, Excel Workbook, and XML Document. The "Web Service" option is highlighted. A description below the list reads: "Create a feed from a WSDL Web service".

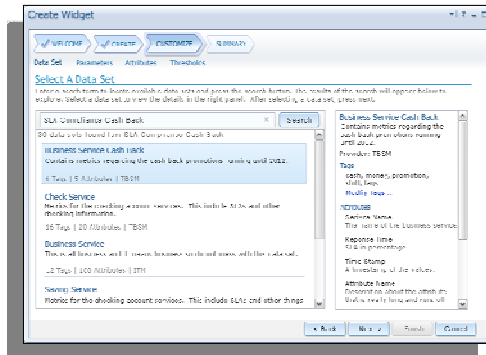
The right screenshot shows the "Data Mashup 4.4" workflow editor. It features a menu of operators: Source, Combine, Extract, Filter, For Each, Group, Merge, Sort, and Transform. The main canvas displays a workflow diagram with two "Source" widgets connected to a "Merge" widget, which is then connected to a "Transform" widget, and finally to a "Publish" widget. A "Canvas Viewpoint" window at the bottom left shows a smaller version of the workflow diagram.



Self Service Dashboard Themes

▪ Build UI Mash-ups in TIP

- Build custom dashboard pages
- Drag & drop and resize widgets
- Search & reuse widgets from a catalog
- Stack, overlap and make widgets transparent

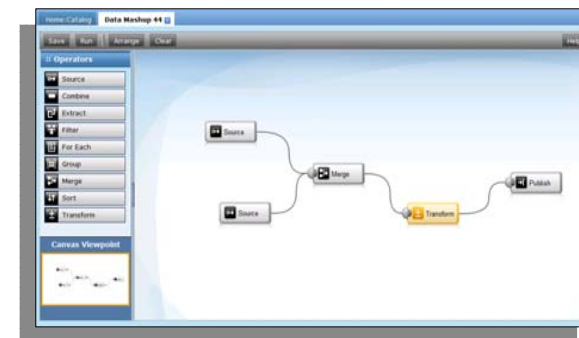


▪ Create reusable widgets

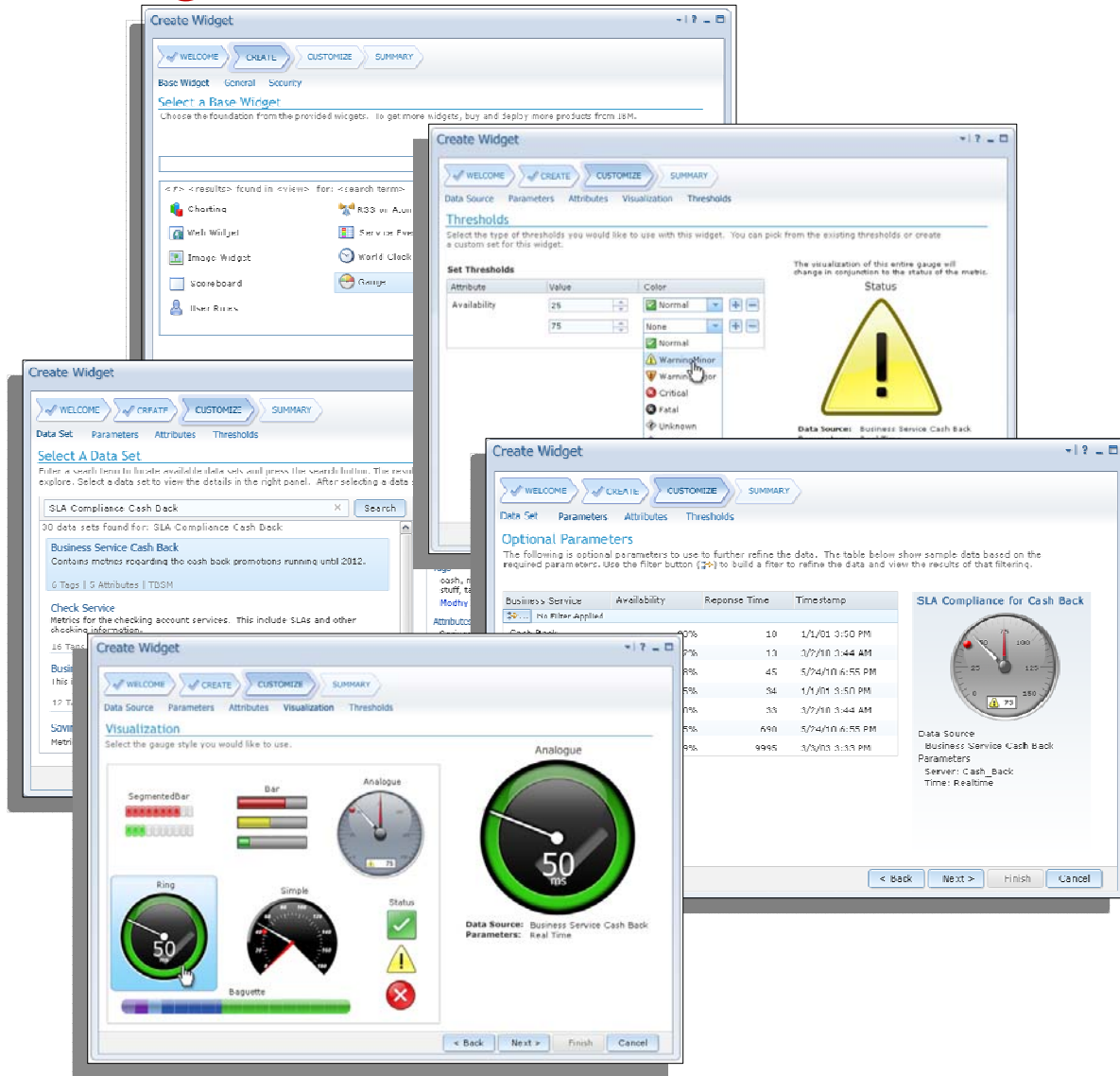
- Widget builder wizard to create new widget instances
- Define and customize out of the box widgets
- Visualize with data from any data source
- Store widgets in custom catalogs
- Secure access to widgets with role based security

▪ Mash-up your data

- Combine, merge and transform Tivoli data and 3rd party data in the InfoSphere MashupHub*
- Custom Tivoli data source makes it easy to access Tivoli data
- Use mash'ed up data in widgets in TIP or Mashup Centre



Widget Builder



- Create new widget instance from many different widget types
- Save widget to custom configured catalogs for reuse
- Role based security of widgets
- Search data, resources, metrics, custom tags
- Filter and live preview data
- Create rules to filter down to the data you want
- Define custom thresholds and colours



Dashboard Construction Support Mechanisms

Select	Name	Type	Contains	Description
<input type="radio"/>	Administration	Custom	1	Administratrion Related Widgets
<input type="radio"/>	Human Resources	Custom	1	Human Resources Widgets
<input type="radio"/>	IT Performance	Custom	2	Performance Measurements: response time, availablity, etc.

Widget & Portlet Catalog

Home > Call Center Metrics

- Pasadena Call Volume
- World Wide Call Volume
- Complaints By Region
- Complaints By Type
- Profit By Region
- World Clocks
- Complains By Region By Country and By Year
- Service Events
- Call Center News
- Revenue By Region

Palette

Customer Portal Performance

logd Search

Home > Search Result

- BBMC Logo

Search



User Interface Look & Feel

The image displays two overlapping screenshots of the IBM Pulse 2011 user interface. The top screenshot shows an 'Image Widget' with a menu open over it. The menu includes options like 'Edit Shared Settings', 'Skin', 'Fill Work Page', and 'Bring to Front'. A sub-menu for 'Skin' is also visible, showing 'Default' (checked), 'Default no title', 'Transparent', and 'Transparent no title'. A callout bubble labeled 'Skin Selection' points to this sub-menu. The bottom screenshot shows a 'Customer Portal Performance' window with a 'Charting' widget. A similar menu is open over the charting widget, with 'Transparent' selected. A callout bubble labeled 'Skin Transparency' points to this menu. The charting widget displays a line graph with the following data points:

Date	Response Time
Feb 3, 2010	2.5
Feb 4, 2010	4.5
Feb 5, 2010	1.5
Feb 6, 2010	7.5
Feb 7, 2010	2.5
Feb 8, 2010	9.5

Skin Transparency

Skin Selection



'Out of the Box' Set of Gauges

The image shows a screenshot of the Tivoli Pulse dashboard interface. The dashboard is divided into several sections, each containing different types of gauges. Callouts point to specific gauge types:

- Default:** A large circular gauge with a needle and a digital display showing '75'.
- Simple:** A smaller circular gauge with a needle and a digital display showing '25 ms'.
- Status Gauges:** Three small square gauges with icons: a green checkmark (001ms), a yellow warning triangle (050ms), and a red 'X' (100ms).
- Baguette:** A horizontal bar gauge with a legend below it showing categories: Pending (1), Investigation (1), Approved (2), Running (2), and Complete (5).
- Ring:** Three circular gauges with colored rings (green, yellow, red) and digital displays showing '000ms'.
- Mantel:** A semi-circular gauge with a needle and a digital display showing '65ms'.
- Beachball:** A semi-circular gauge with a needle and a digital display showing '50ms'.
- Bar:** A collection of various bar gauges, including solid vertical, solid horizontal, spectrum vertical, and spectrum horizontal gauges.

Catalog and Widget Creation

Catalogs
Create Catalog

Create Catalog

General information regarding the catalog you are creating.

Name:
Accounting

Description:
Accounting Related Widgets

Access Controls

Available Roles

- administrator
- chartAdministrator
- chartCreator
- chartViewer
- configurator
- isoadmins
- monitor

Roles which can see the catalog

- operator

Widgets

Available Widgets

- Catalogs
- Change Password
- Charting
- Connection Manager
- Console Preference Profile
- Credential Store
- Export Wizard

Selected Widgets

- BBMC Logo

OK Cancel

Catalog Creation

Portlets
Portlets > Create Widget

Welcome Create Customize Summary

Base Widget: General Security

General

General information regarding the widget you are creating.

Name:
Portal Performance

Description:

Thumbnail:

Description Image:

Available Catalogs

- Administration
- Human Resources

Selected Catalogs

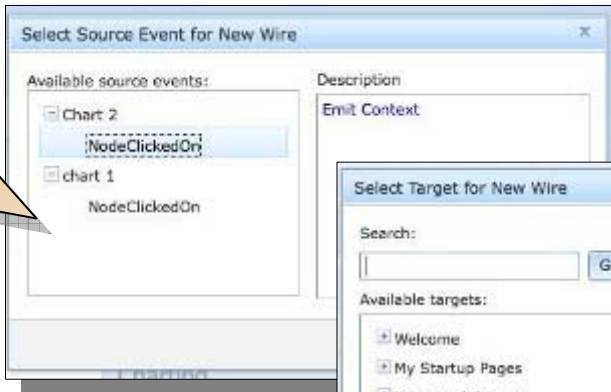
- IT Performance

Back Next Finish Cancel

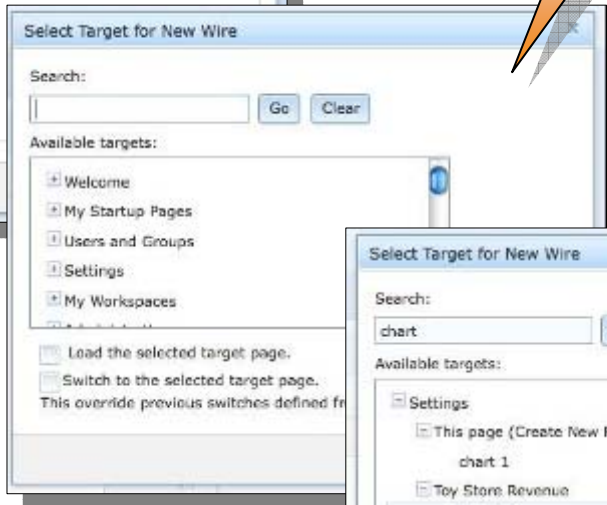
Widget Creation

Wire Creation Wizard

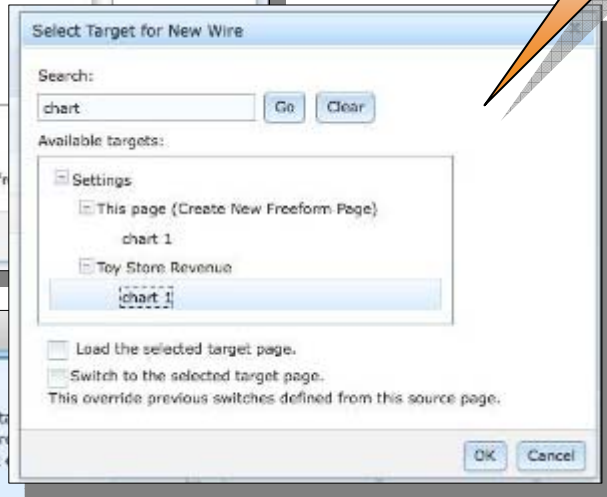
Select Source Event for New Wires



Select Target for New Wire



Select Target for New Wire



Summary of wires - new wire - event selection

Summary of wires

Wires are connections between portlets on this page and to other portlets on other pages. Create these wires either by clicking New Wire or dragging and dropping a portlet, click on the Events icon in the portlet title bar. This icon is available only for portlets that support...

New Wire

Type	Source	Event	Target	Transformation	Enable	Delete
system	chart 1	NodeClickedOn	Chart 2	None	<input checked="" type="checkbox"/>	
system	Chart 2	NodeClickedOn	chart 1	None	<input checked="" type="checkbox"/>	
custom	Chart 2	NodeClickedOn	chart 1	None	<input checked="" type="checkbox"/>	

Total : 3



Business Service Management

Portlet Icon and Name

Palette Paging Controls

Expand / Collapse Palette

Drag and drop onto a page

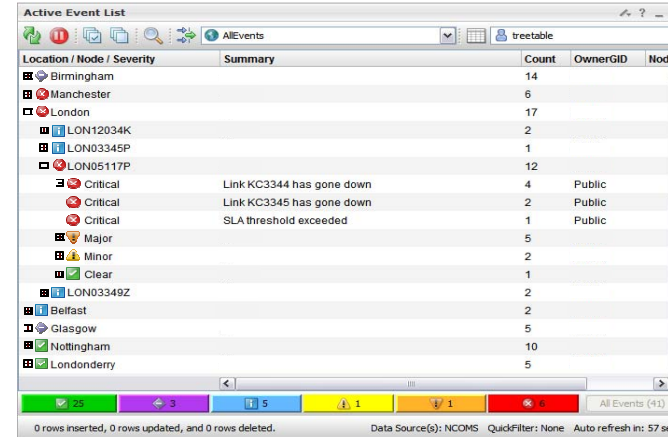
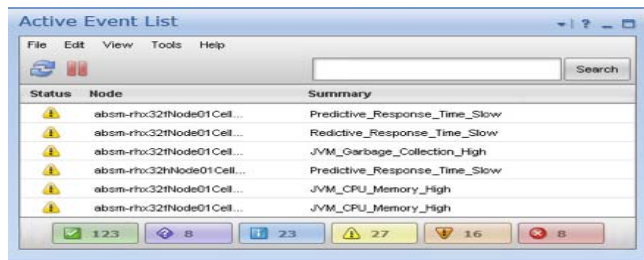
Description image and text on-hover state

The screenshot shows the Tivoli Integrated Portal interface. At the top, there's a navigation bar with 'Tivoli' logo, a search bar, and a 'View: All tasks' dropdown. Below this is a 'My Business' tab and a search field. The main content area features several portlets: 'Pasadena Call Volume', 'World Wide Call Volume', 'Complaints By Region', 'Complaints By Type', 'Profit By Region', 'World Clocks', 'Complaints By Region By Country and By Year', 'Service Events', 'Call Center News', and 'Revenue By Region'. A 'Call Center News' portlet is highlighted with a callout. Below the main content, there's a 'Details' section with a map of China and a 'CPU Utilization' section with four gauges. On the right, a 'News' portlet is expanded, showing a list of news items with icons and a 'Diagnose Problem' button. The interface is displayed in a Mozilla Firefox browser window.



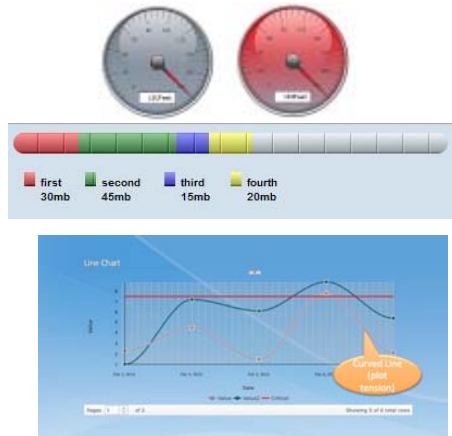
Adopting product Coming sooner rather than later...the Next Generation Web GUI

- Increased serviceability, no Java plug-in required
- Introduce never seen before features
- Initially a full replacement for the LEL
- Eventually completely replace the need for AEL
- iWidget enabled, re-use in other products

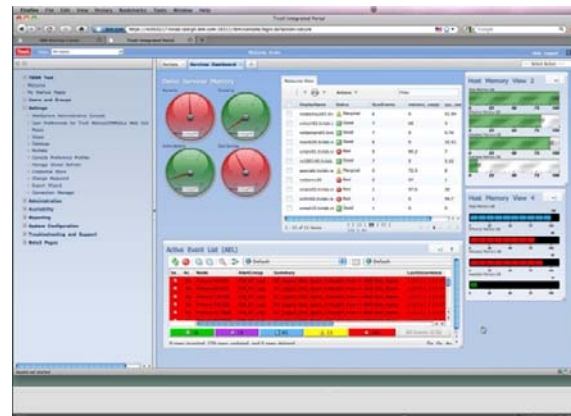


Tree table views / Hierarchical navigation

Next Generation Event List...phased release...



Widget Gallery & TIP Charts



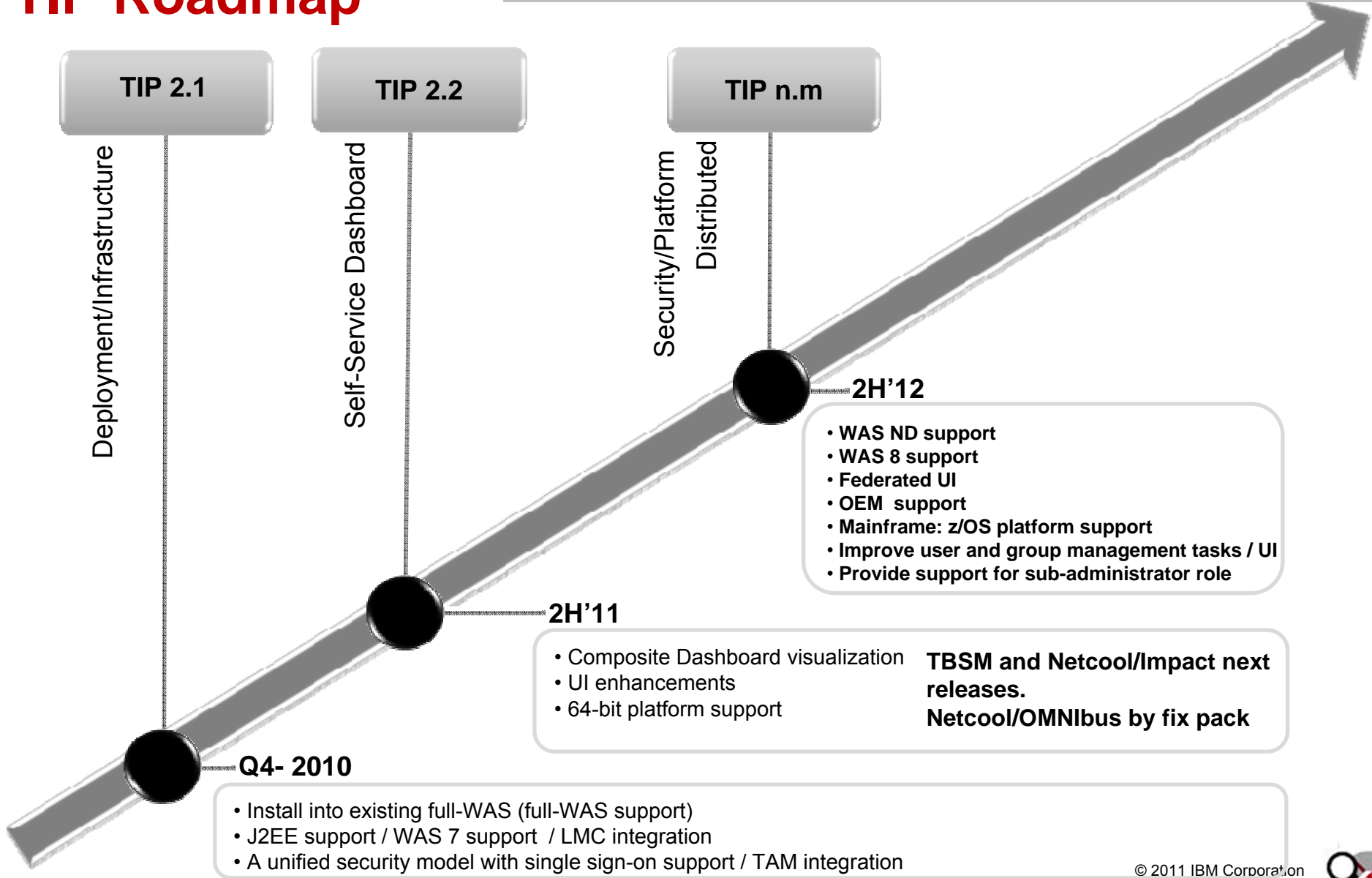
Self Service Dashboard (Map replacement)

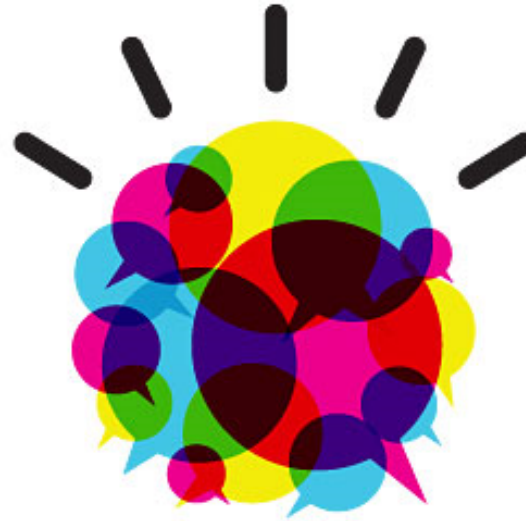


Multiple Platforms (HTML / non-app strategy)

TIP Roadmap*

* Roadmap is subject to change, based on the needs of customers/business





Questions?





Tivoli Common Reporting



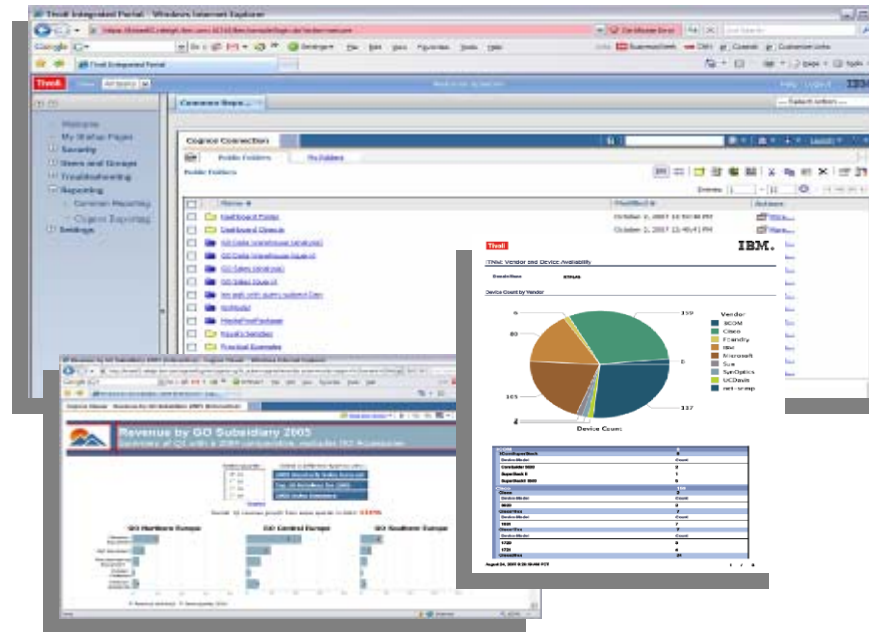
Tivoli Common Reporting - Mission Statement

- Provide a solution which converges around an **incredibly simple launch point** for reports, where users can see what is available and use it with no training
- Provide an **effective way to deliver and share reports** and reporting ideas, and find the set of content that gives the greatest value
- Focus the individual reports on **quality of information and value**, not on the quantity of reports available
- Provide **consistency of the content and enable linkage between reports** for best analysis flow, even if they cross individual product boundaries



Tivoli Common Reporting moving forward

- **Cognos 8.4 BI Reporting technology added to TCR**
 - Includes UI to administer reports and edit reports
 - Enables cross-domain analytics and reporting
- **Brings industry leading reporting suite to Tivoli customers at no additional charge**
 - License restricts usage to reporting on “Tivoli data” or “Tivoli data” in combination with non-Tivoli data



Facts

- TCR comes at no extra cost with adopting Tivoli products
- TCR is not the same as Cognos, e.g., is not
 - Cognos Lite
 - Cognos Express
 - Etc.
- The Cognos reporting engine is a modified version
- Entitlement to TCR, does not come with entitlement to full Cognos
- The inclusion of Cognos technology is as a sub component of TCR itself
- License restricts usage to reporting on “Tivoli data” or “Tivoli data” in combination with non-Tivoli data



Tivoli Common Reporting Focus

- Extend the Usability and Consumability of current TCR reports and reporting tools
 - Simplified interfaces and interactions for report writers to create, customize, and publish reports – let's you build reports faster and easier
 - Extend the level of cross-product report linkage for seamless flow between related reports, blurring the boundaries among Tivoli products
 - Enable report end-users to create and save ad-hoc reports, without the need for a report writer's involvement
 - Integration of BIRT-based and Cognos-based reporting within TCR
 - The continued adoption of TCR across the Tivoli portfolio
 - Drive for new out-of-the-box reports for products in all areas – Maximo, Storage, Security, Service Availability and Performance Management, Service Delivery and Process Automation



Value that TCR/Cognos brings to Tivoli customers

1. Simplified report editing

- Launch web-based Report Studio in context from a report
 - You can run an out-of-the-box report, like an ITM report, and launch the editor in context to change something.

2. Ad-Hoc Reporting

- Create ad-hoc, on the fly reports
- Even novice users will be able to rapidly create reports with intuitive drag & drop function via the Query Studio, allowing for greater report usage with little training

3. Other capabilities

- Automatic emailing of reports
- Additional report formats
 - XML
 - Excel 2000 & 2000 Single Sheet, 2002, and 2007
 - CSV
- Granular data security (row-level authorization)



Value Proposition

- Consistency in reporting with other Tivoli products
- Provides the basis of end-to-end reporting for Tivoli
 - Allowing report data correlation with other Tivoli product data and business data (e.g. asset management, financial planning etc)
 - Including longer term goal of single reports using data from multiple Tivoli Products
- Provide ad-hoc reporting capabilities
- Standard architecture (TIP/eWAS)
- Allowing customers access (via upgrade) to Cognos advanced analytics modules for advanced reporting capabilities never possible before
 - Will be able to drill down, slice and dice to see what is driving client's business
 - What if Analysis
 - Trend Analysis and Forecasting



TCR 1.1/1.2 to TCR 2.1 Upgrade Key Points

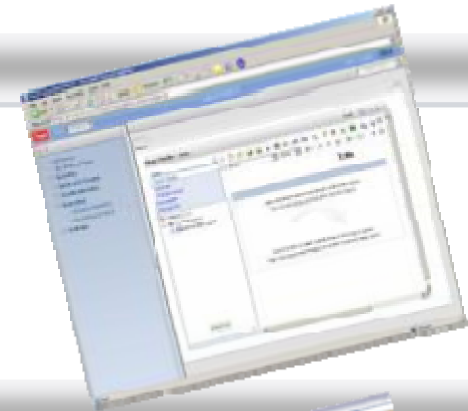
- Existing TCR customer **have a smooth upgrade** to the new Cognos Based TCR 2.1
- The current time and effort you have invested in TCR 1.1 or 1.2 based reports **are not wasted** with the new TCR solution
- BIRT based reports **continue to be usable** in the new system
 - If you want to keep using your old reports, or edit them, etc., you will have no worries at all



Tivoli Common Reporting 2.1 Components

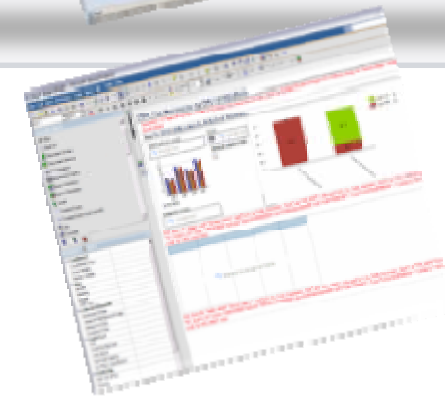
Query Studio (web-based)

- Intuitive, self-service “ad hoc” reporting
- Drag and drop
- Easy sorting and filtering
- Save, edit, and share



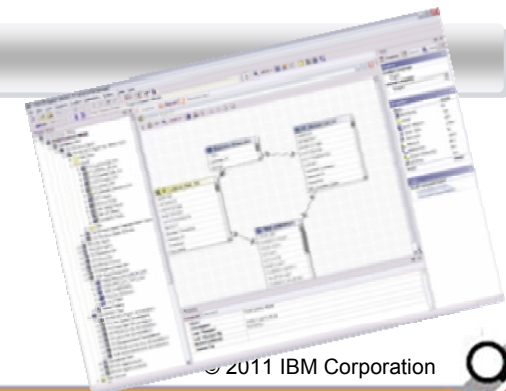
Report Studio (web-based)

- Create and edit more advanced reports
- Query Studio functions plus
 - Parameterization
 - Globalization
 - Advanced query manipulation
 - Additional chart types (e.g., maps, gauges)



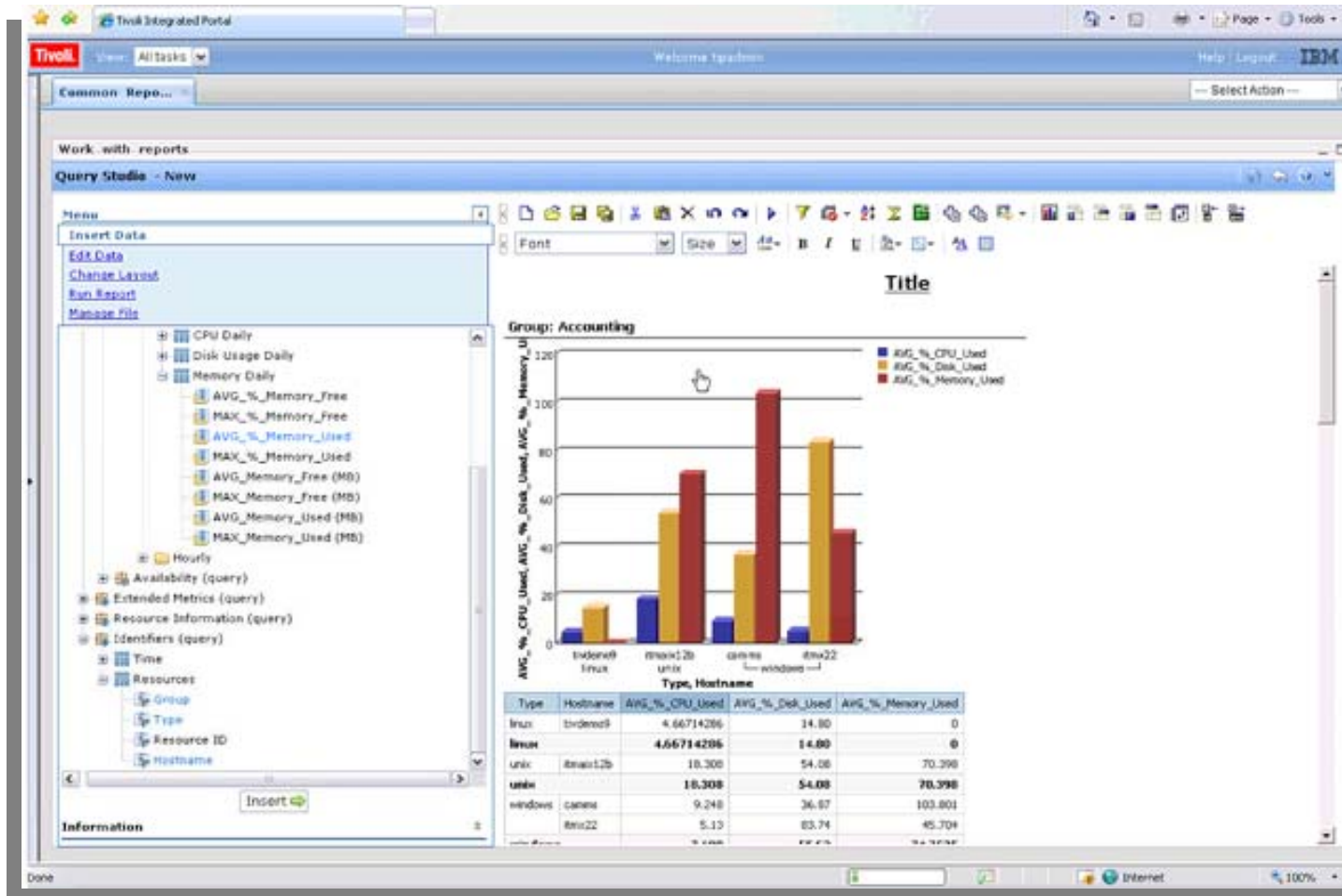
Framework Manager

- Common infrastructure
- Plug-and-play
- Common security, metadata, administration, and portal
- Ability to adapt deployment as infrastructure changes



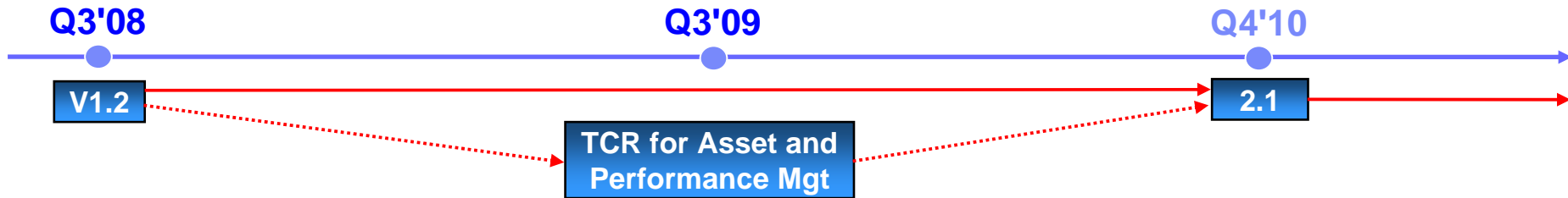
One Minute Reporting

- Uses TCR-Cognos to create a new ITM report in under 60 seconds
- Drag and drop of key metrics such as memory, disk and CPU utilization
- Organized by user defined business groups and operating system



* Content subject to change, is not a commitment, and should be used for guidance only. reserve the right to adjust the release and release points as business decisions are made.

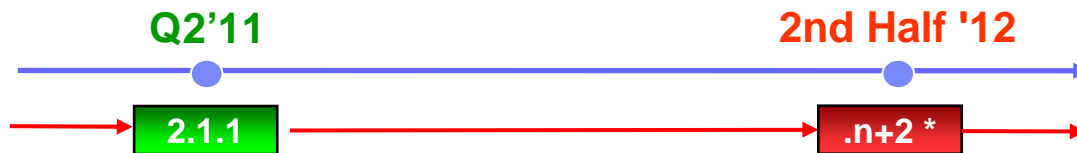
TCR Roadmap



- Report Set authorization
- Scheduling
- GUI enhancements
- Integrated into TIP or stand-alone

- Limited use capabilities
- Stand-alone only release
- Web-based report viewer and editor
- Launch from TIP to view or edit reports
- Ad-hoc reporting
- Report distribution via email

- BIRT merged into new TCR reporting technology
- Administered from a single UI
- Existing BIRT users gain new capabilities:
 - Email of reports
 - Conversion Assistant
- Aligned with TIP 2.1
- Command line interface
- Local OS Authentication



- TIP 2.2 support
- Native 64 bit platform support
- Aligned with TIP 2.2 and TBSM 6.1

- Updated reporting technology
- Creation of portal pages with context specific content
- Enables COTS UI's with integrated context specific reporting with eventing



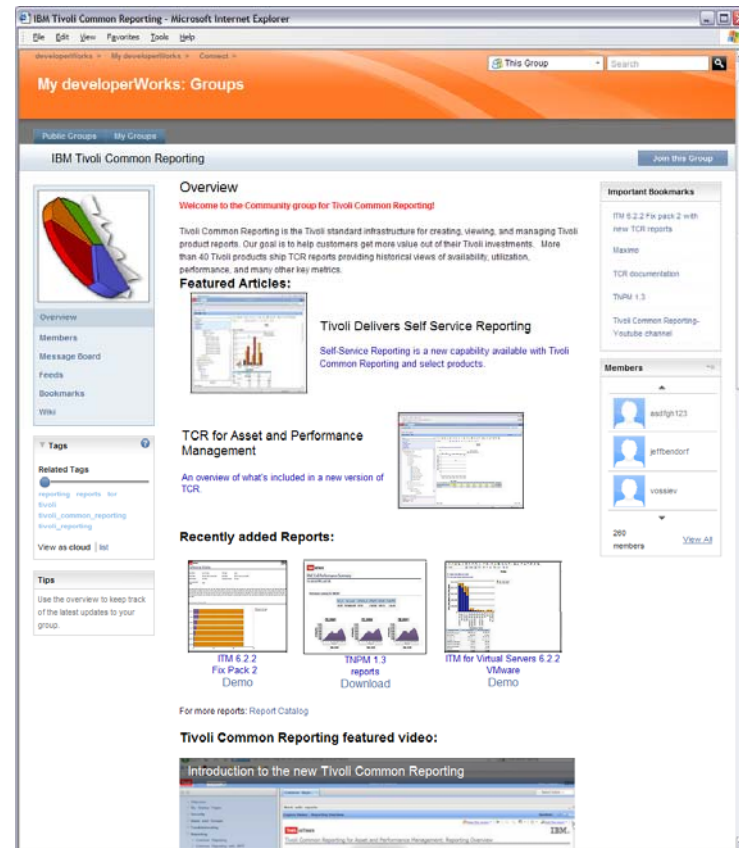
Tivoli Common Reporting – Community News

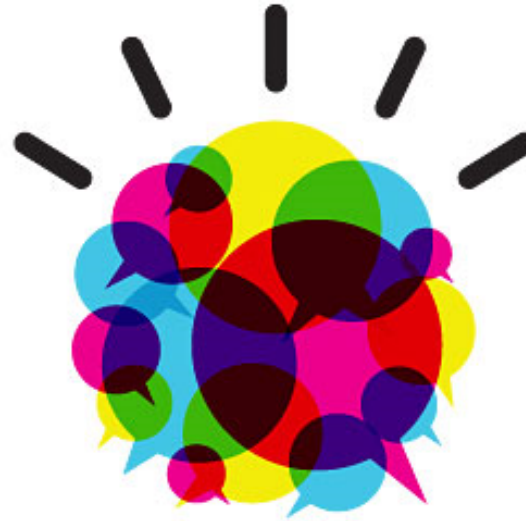
- Follow TCR news and interact with other users at

<http://www.ibm.com/developerworks/spaces/tcr>

(or use your search engine to find: *Tivoli Common Reporting*)

- Catalog of reports to download
- Tips and techniques
- Forums for general and specific help
- Sample style guide for consistent report layout





Thank you!



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