



IBM SOA PoT

Monitoring your SOA and Reporting the Status

Monitor and Dashboards

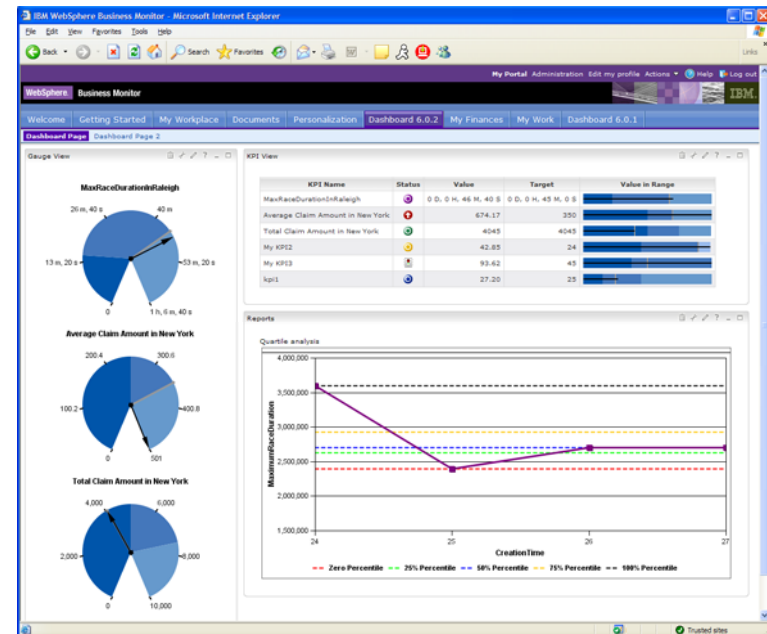


Business Monitoring at a Glance

- **Monitor Business Performance**
 - Active processes can be monitored, bottlenecks can be eliminated
 - Track Key Performance Indicators

- **Respond to Situations**
 - Detect anomalous situations in real-time...
 - ...out of threshold KPIs
 - ...individual process instances that need attention
 - Take corrective action before problems arise

- **Enable earlier and better insight**
 - Analyze KPIs over time and other dimensions
 - Drill up and down, slice and dice business measures to identify trends



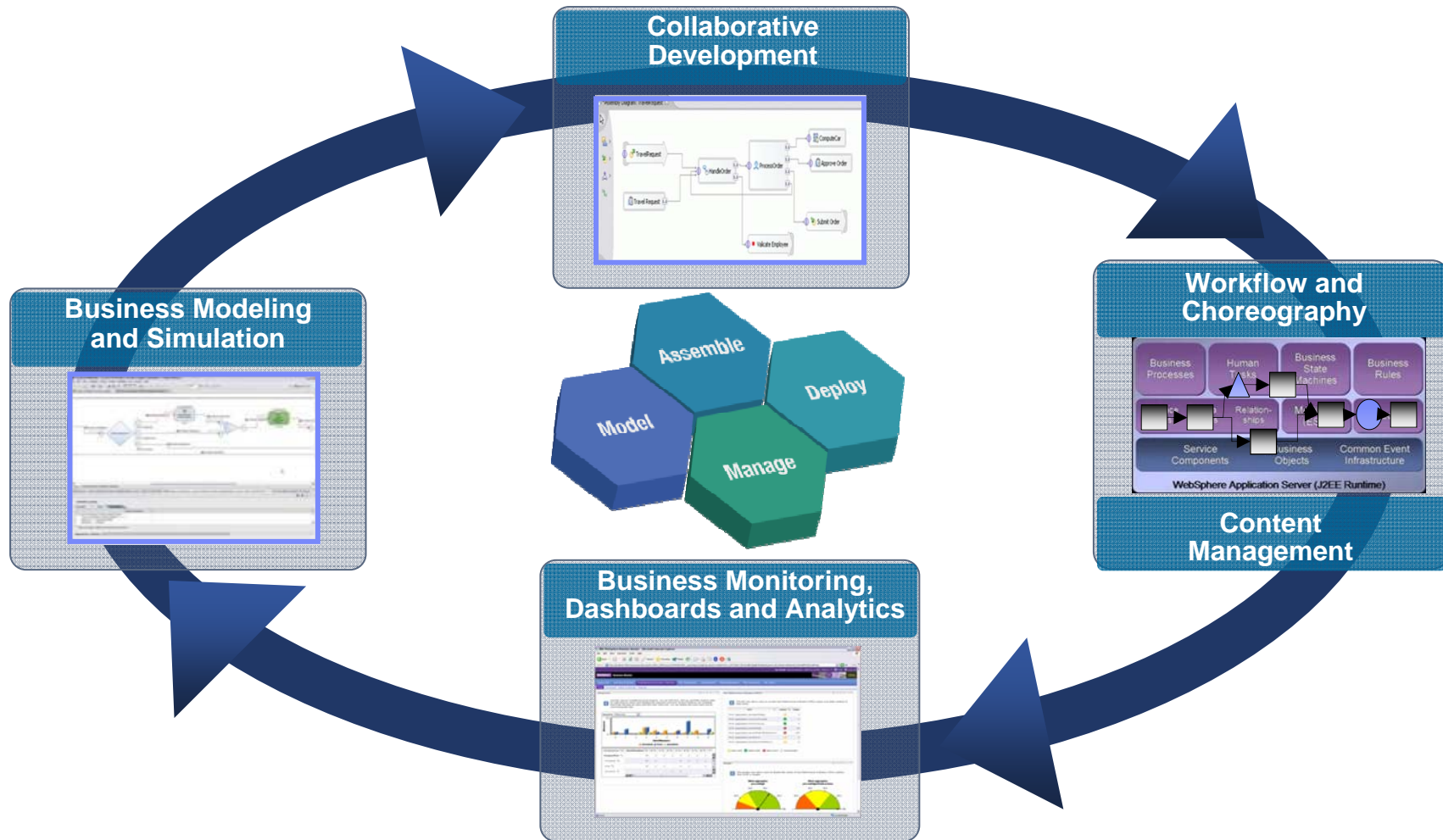
What is Business Activity Monitoring?

- **Business Activity Monitoring refers to the aggregation, analysis, and presentation of real time information about activities inside organizations and involving customers and partners.**
- **The goals of BAM are to provide real time information about the status and results of various operations, processes, and transactions so business decisions can be informed, quickly address problem areas, and re-position organizations to take full advantage of emerging opportunities.**
- **BAM systems are driven by business events, fed directly from integration software or from Business Process Management software**

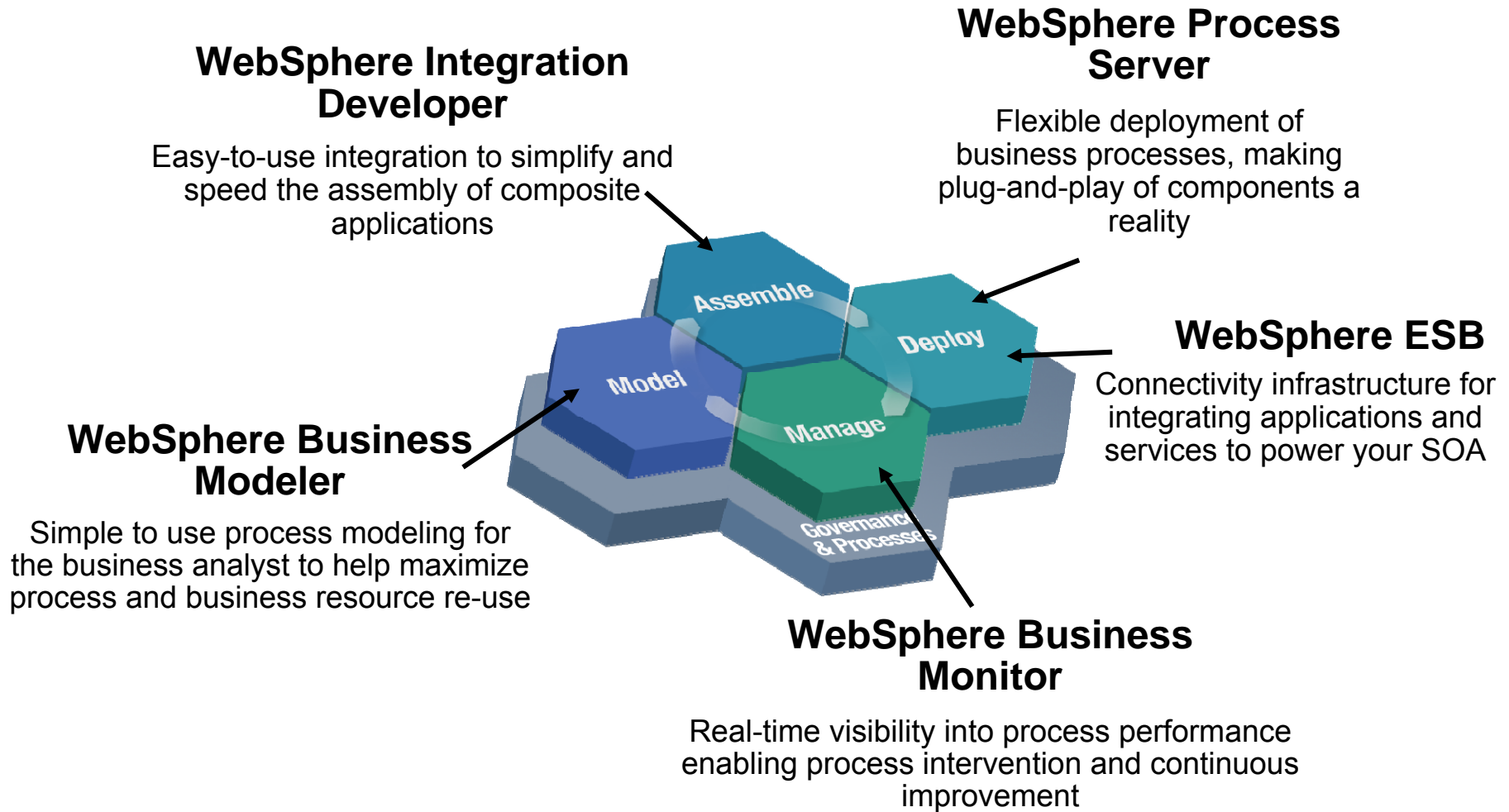


Source: www.wikipedia.org

Business Process Management

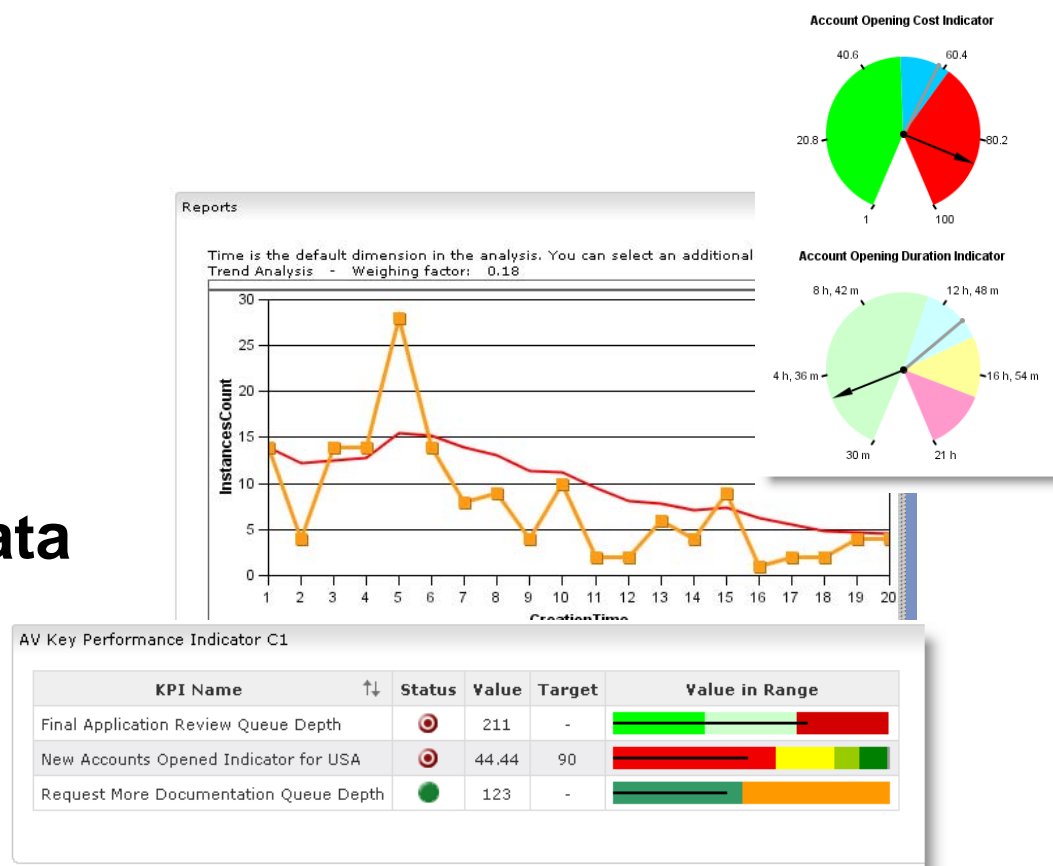


An integrated role in SOA environments



WebSphere Business Monitor - Capabilities

- Monitor the Business Performance of real processes
- Detect Business Situations and take action
- Gather Business Intelligence from collected process data
- Create intuitive role-based dashboards
- Manage in-flight processes



Monitor the business performance of processes



- Display KPIs graphically as gauges or value in range graphs with status indicators

AV Gauge C1

Gauge Layout:

Horizontal
 Vertical
 Grid

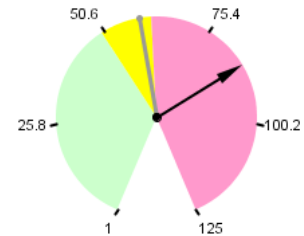
Rows: Columns:

KPI Name	Monitor Model	Show in View	Pe
Account Opening Cost Indicator	AccountVerificationMonitorModel	<input checked="" type="checkbox"/>	
Account Opening Duration Indicator	AccountVerificationMonitorModel	<input checked="" type="checkbox"/>	
	itorModel	<input type="checkbox"/>	
	itorModel	<input type="checkbox"/>	
	itorModel	<input type="checkbox"/>	

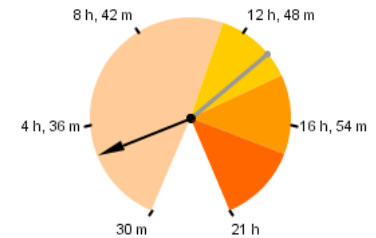
AV Key Performance Indicator C1

KPI Name	Status	Value	Target	Value in Range
Final Application Review Queue Depth		211	-	
New Accounts Opened Indicator for USA		44.44	90	
Request More Documentation Queue Depth		123	-	

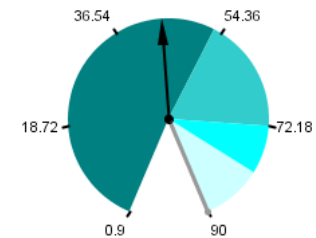
Account Opening Cost Indicator



Account Opening Duration Indicator



New Accounts Opened Indicator for USA



View Key Performance Indicators (KPIs) calculated from real process data

Detect Business Situations and take action

Detect anomalous situations and take action



- View alerts from active processes
- Notifications sent for manual response
 - Email
 - Pager
 - SMS messages
- Invoke automated responses
 - A BPEL process
 - A Web Service

Alerts

Use this view to handle incoming alerts. You can mark an alert read or unread, or remove an alert from the view by using the top button or the Subject hyperlink.

1 to 10 of 10

<input type="checkbox"/>	Time ↑↓	Subject ↑↓	Alert Source ↑↓
<input type="checkbox"/>	Jun 17, 2005 1:52:28 PM	Credit Request AABBC is a high risk request.	BANK X Model.Credit Request
<input checked="" type="checkbox"/>	Jun 17, 2005 1:52:28 PM	Credit Request EEEFFG has been approved by Kim Collin.	BANK X Model.Credit Request
<input checked="" type="checkbox"/>	Jun 17, 2005 1:52:28 PM	Credit Request HHHIJJ is a low risk request.	BANK X Model.Credit Request
<input type="checkbox"/>	Jun 17, 2005 1:52:28 PM	Retail Business Unit Actual Cost YTS is high.	BANK X Model.Business Unit
<input checked="" type="checkbox"/>	Jun 17, 2005 1:52:28 PM	Credit Reuquest EEEFFG has been approved by Kim Collin.	BANK X Model.Credit Request

Gather Business Intelligence from collected data



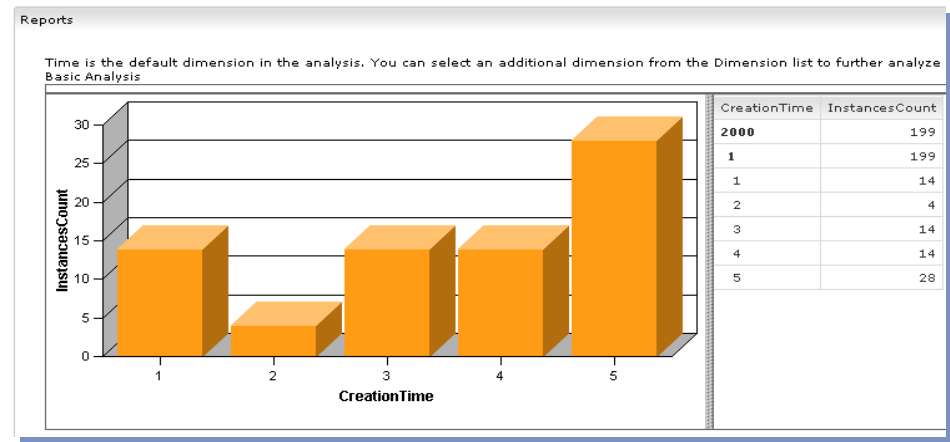
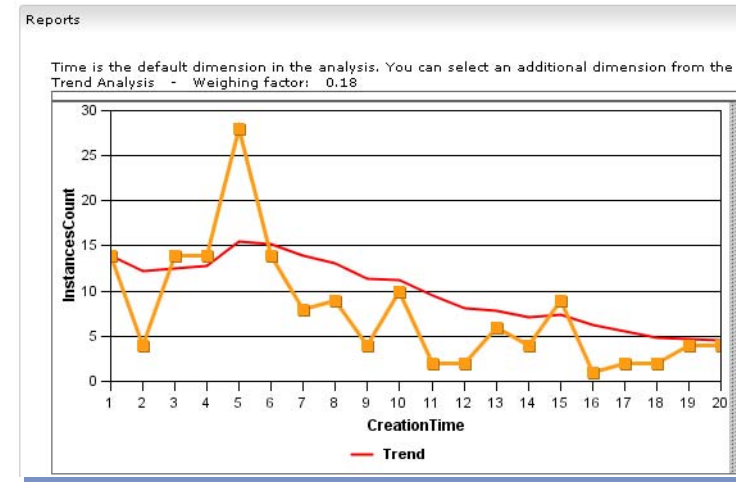
Analyze business metrics over time to identify trends

Discover previously hidden patterns using dimensional analysis

- Slice & dice process data
- Drill up & down

Leverages DB2® Alphablox and Cube View® technology

Populate a business performance warehouse in near real time



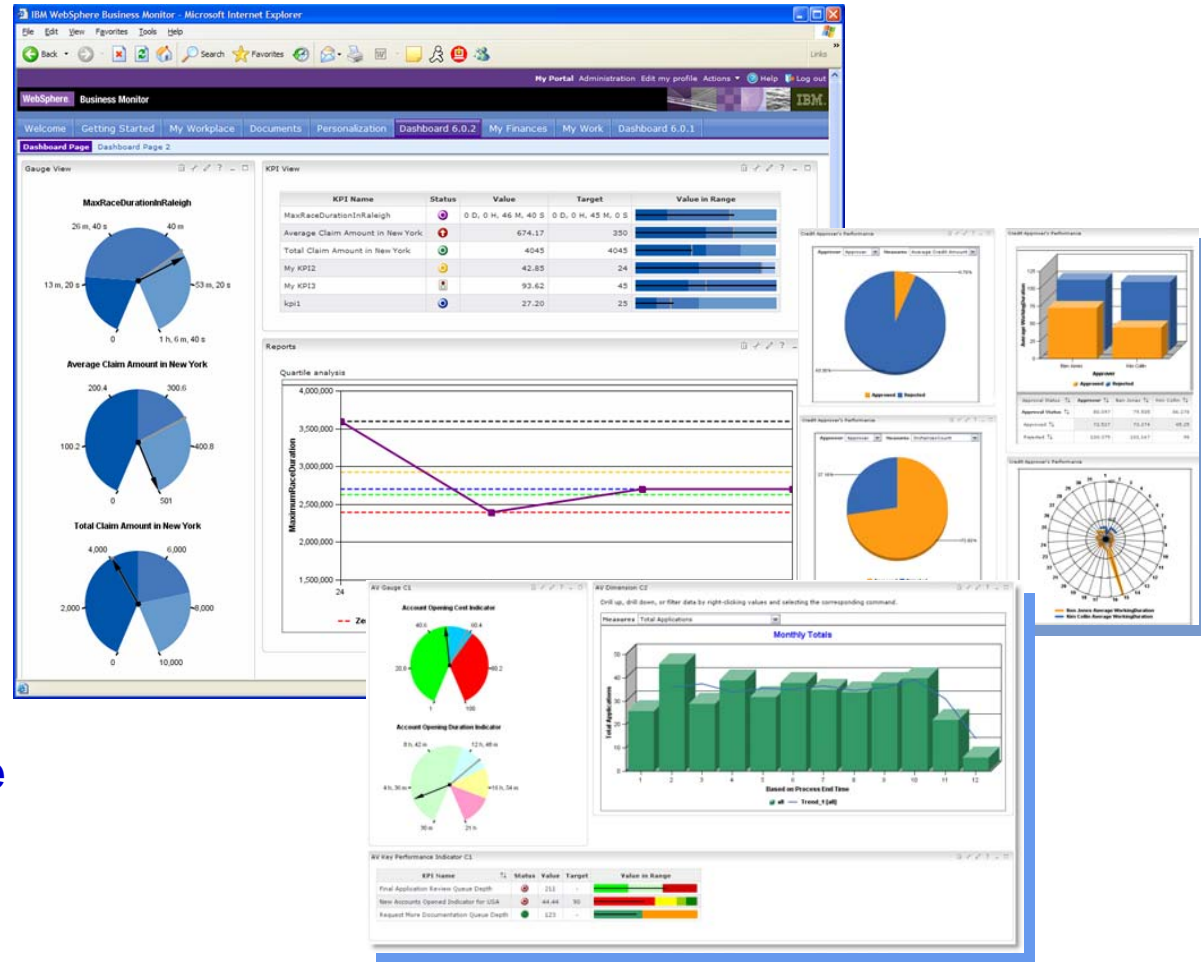
Create Role-based Dashboards



Assemble dashboards from different views

- Instances view
- Report view
- Dimensional view
- KPI view
- Gauge view
- Alert view
- Organizational view

Combine standard & custom views to meet the business need



Manage in flight processes



Monitor processes

- Process Status
- Execution paths
- Inspect process instance data
- Examine durations, costs

Active Instances

This view shows the running instances of a certain process and its activities. You can drill down through the instance.

ReserveFlight

Shows old instances

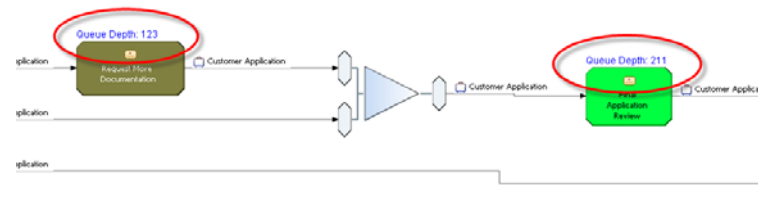
File Edit View Data Tools Help

Results 1 to 7 of 7

Actions	Diagram	State	Description	Is Delayed	Start Time
		Completed		false	Oct 12, 1980 10:10:30 AM
		Completing		false	Oct 12, 1980 10:10:30 AM
		Ready		false	Oct 12, 1980 10:10:30 AM
		Running	Flight Reservation for flight AF6755	false	Oct 12, 1990 10:10:30 AM
		Suspended	Flight Reservation for flight AF6766	false	Oct 12, 2000 10:10:30 AM
		Suspending		false	Oct 12, 1980 10:10:30 AM
		Terminated		false	Oct 12, 1980 10:10:30 AM

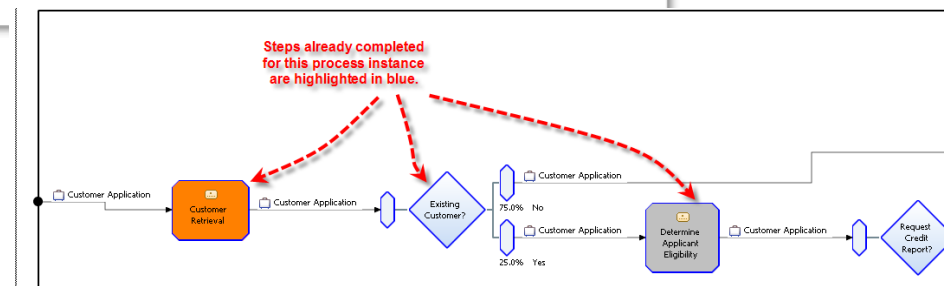
Administer process instances

- Start / Stop process instances
- Transfer work items



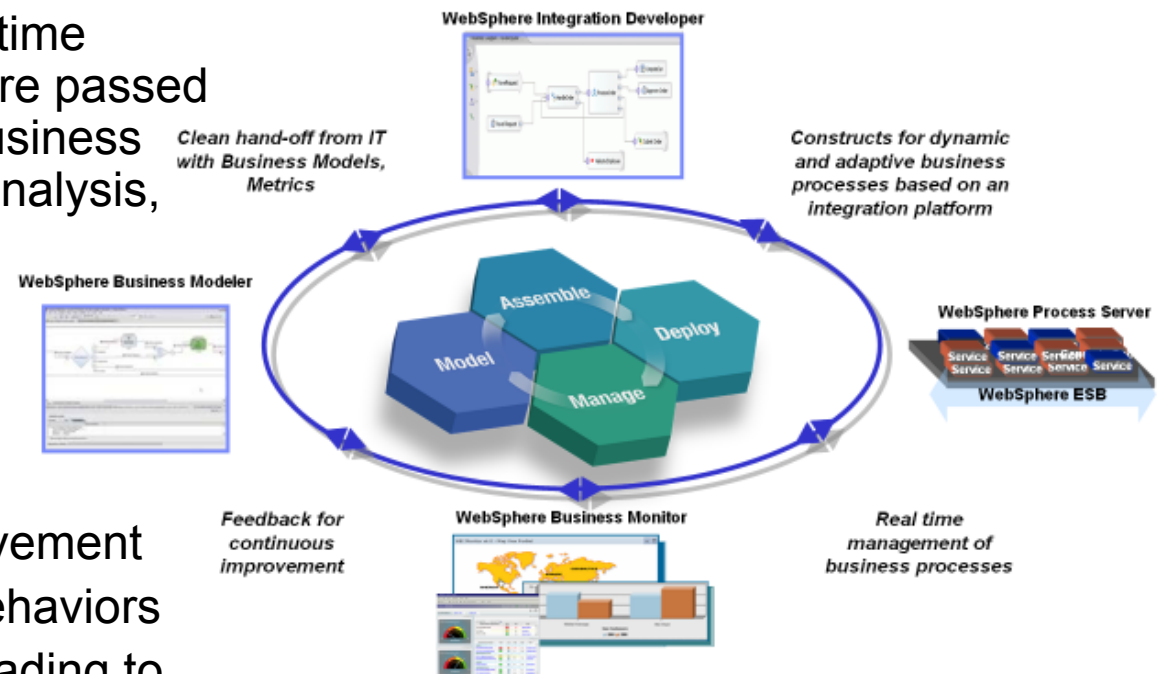
Export actual process data to WebSphere Business Modeler

- Run new simulations based on REAL data
- Improve accuracy – reduce risk



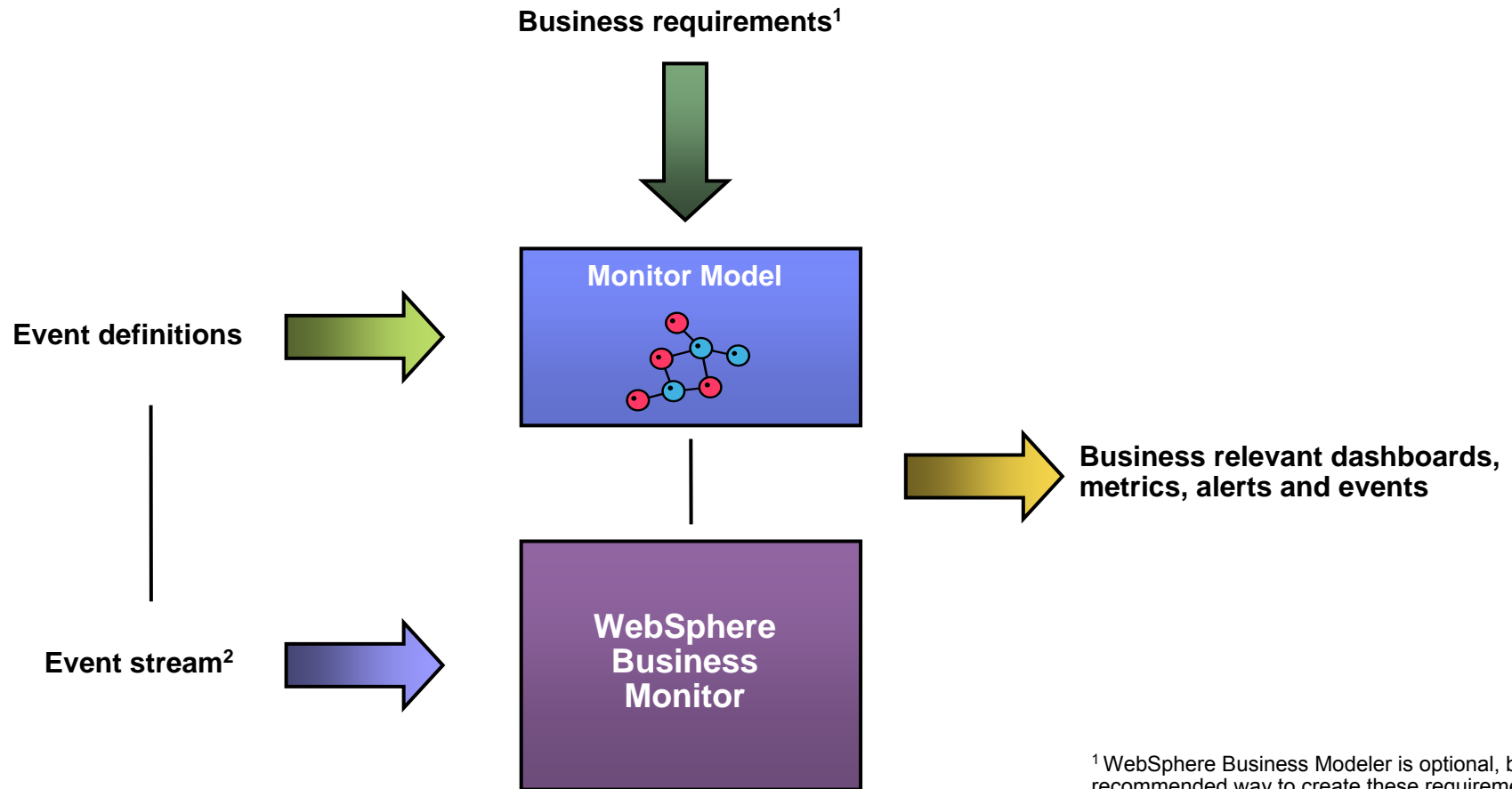
Feedback Enables Continuous Improvement

- Leverage real information about your business
 - Better decisions, quicker
 - Core business facts (runtime statistics) from monitor are passed back into WebSphere Business Modeler for simulation, analysis, diagnosis, and action



- Improve your business
 - Business process improvement
 - Discover true process behaviors
 - Fact based simulation leading to improved process design

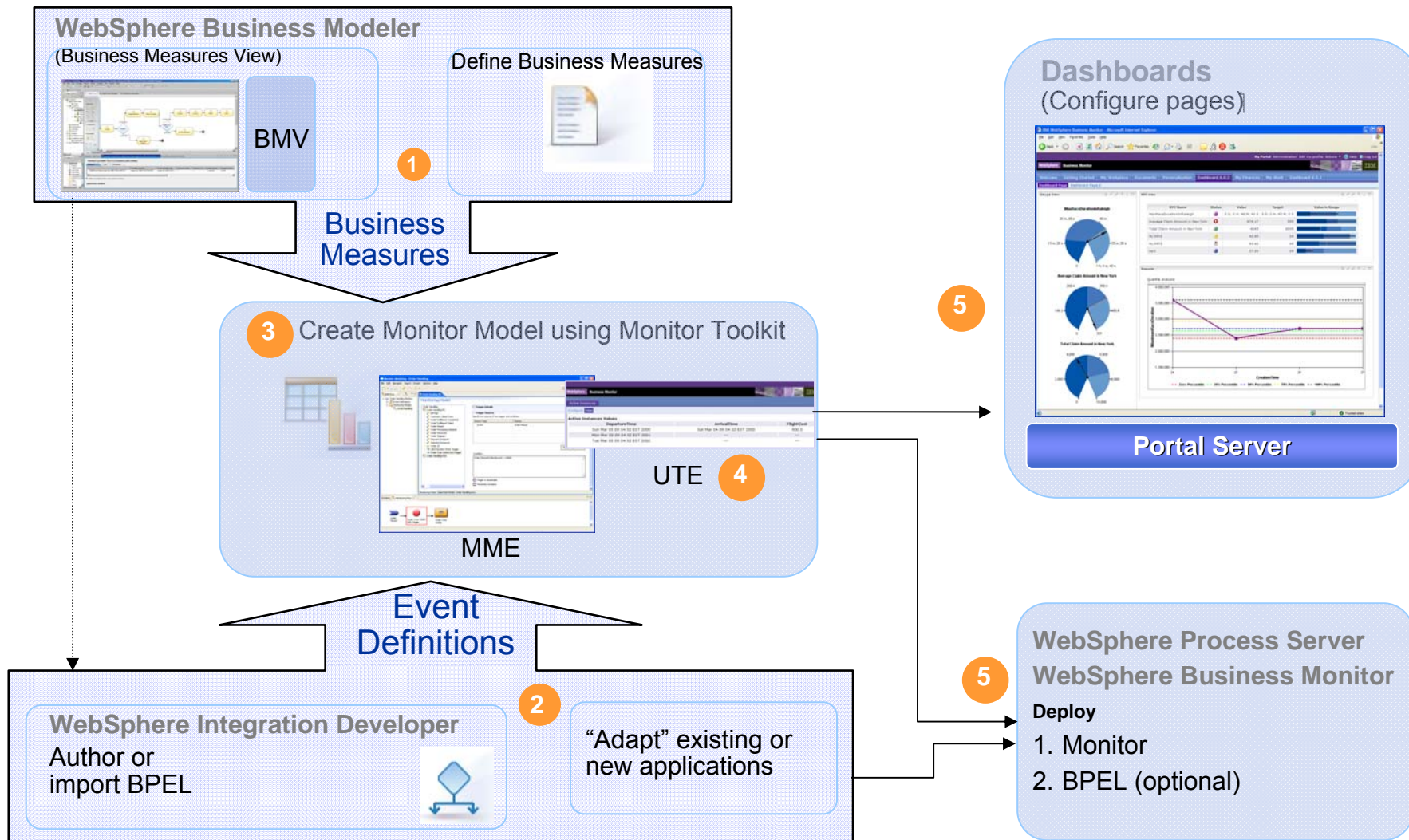
Simplest Picture of WebSphere Business Monitor



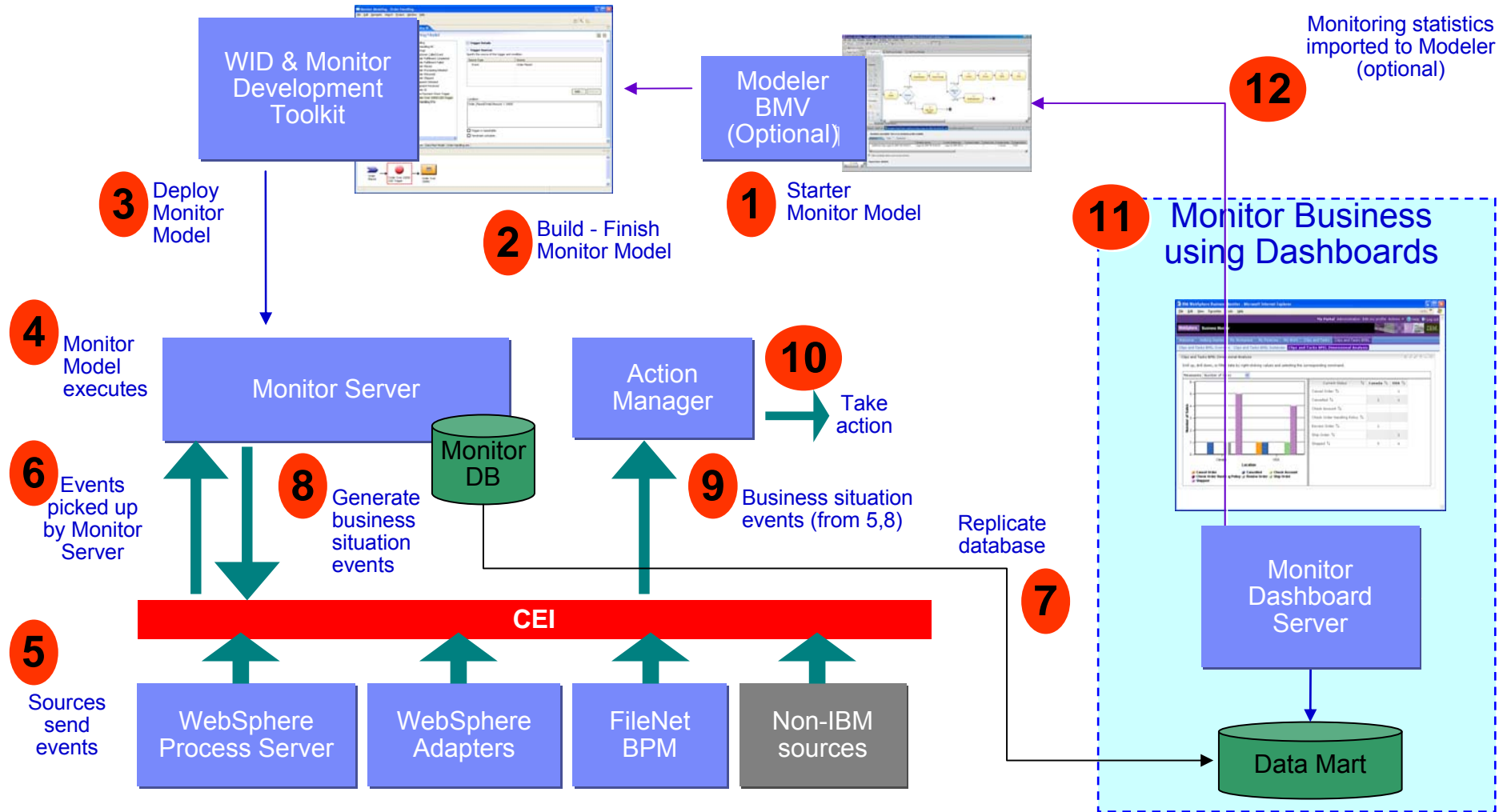
¹ WebSphere Business Modeler is optional, but a recommended way to create these requirements.

² WebSphere Process Server is a primary source, but other IBM and non IBM sources are supported as well

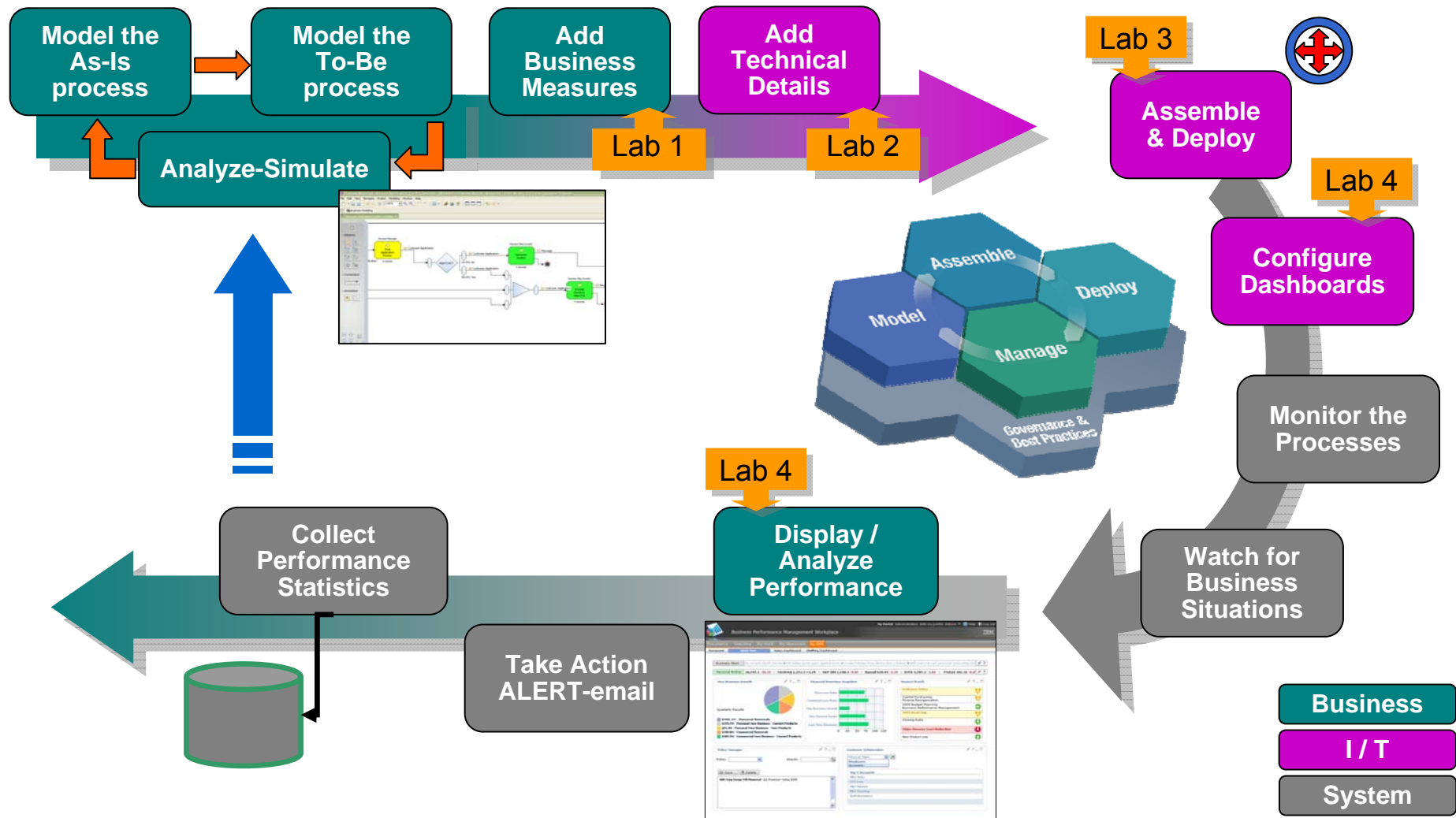
Major build steps – overview



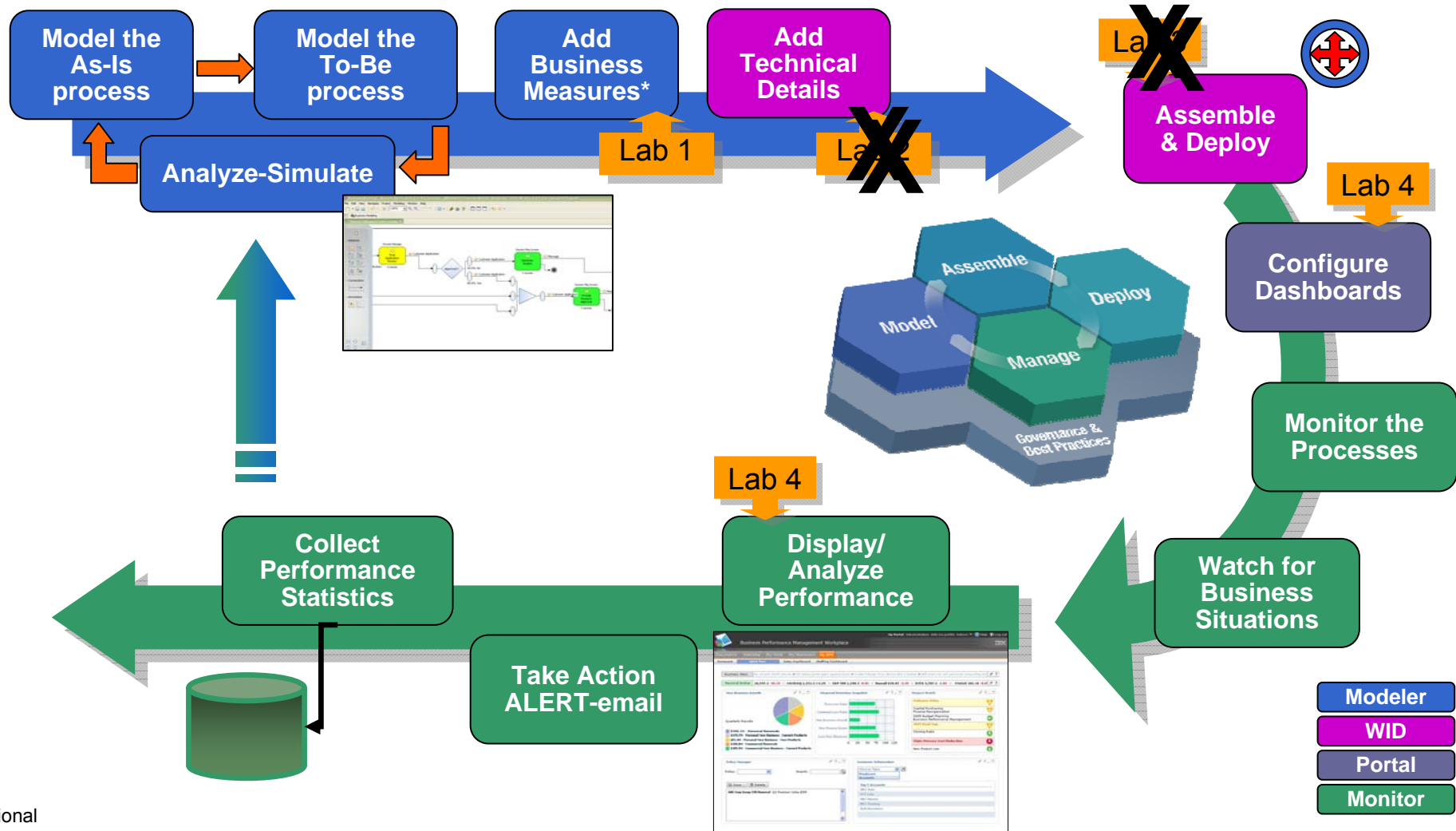
Logical Sequence for Monitoring



Model / Monitor Lifecycle – role perspective



Model / Monitor lifecycle – product perspective



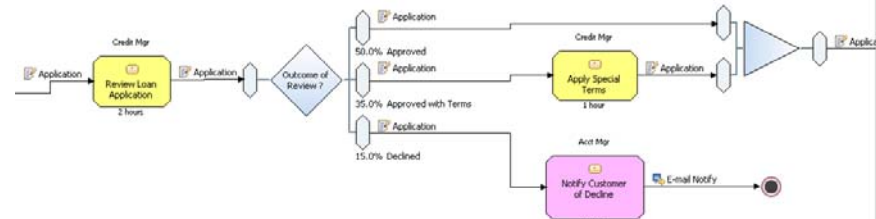
*optional

Agenda - Labs

- **Labs**
 - **Lab 15 – Create Business Measures**
 - Use WebSphere Business Modeler to create high level KPI descriptions for an existing process.
 - **Lab 15.2 – Implement Business Measures**
 - Use WebSphere Integration Developer's Business Monitoring perspective (Monitor Model Editor) to define how and when the KPIs are calculated and displayed.
 - **Lab 15.3 – Deployment Overview**
 - Use WebSphere Application Server Administration features to examine the deployment steps for the Monitor Model.
 - **Lab 16 – Dashboard Lab**
 - Use WebSphere Portal Server Administration features to define dashboard pages, configure and personalize the portlets, and review the process data.

Lab 15 Intro – Create Business Measures

- Examine the existing process model
- Plan the business measures
- Create the business measures
- Review the monitored values
- Prepare the model for completion and export for assembly



Lab 15.2 Intro – Implement Business Measures

- Generate Event Definitions and the Monitor Model from the BPEL process created by WebSphere Business Modeler
- Merge the contents from the Monitor Model created by WebSphere Business Modeler
- Define the low level elements required for KPIs
- Define the low level elements required for Dimensions
- Complete the data mart portion of the Monitor Model
- Complete the KPI portion of the Monitor

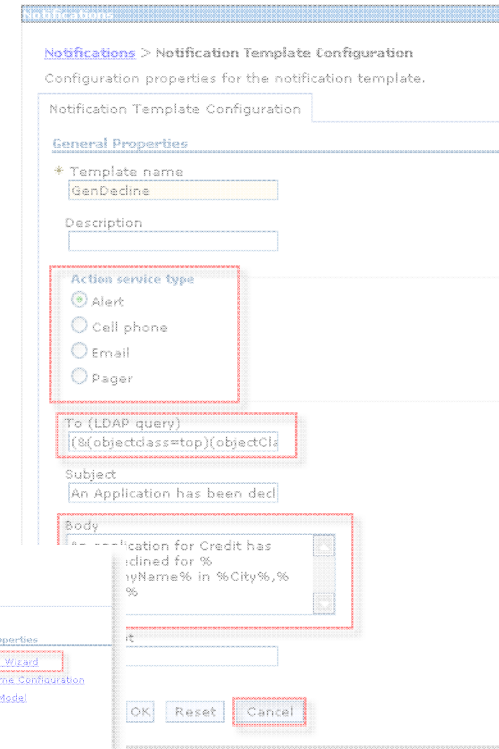
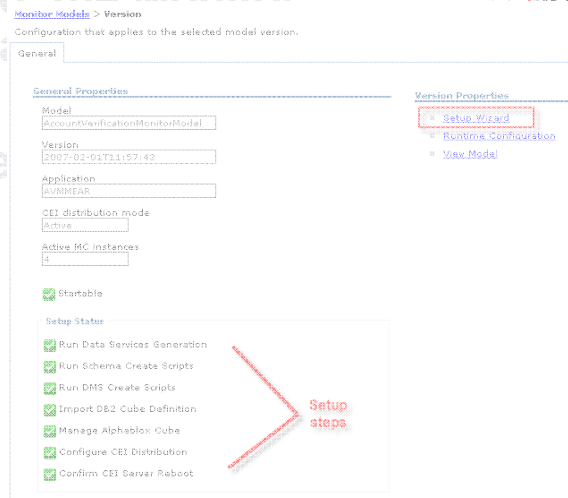
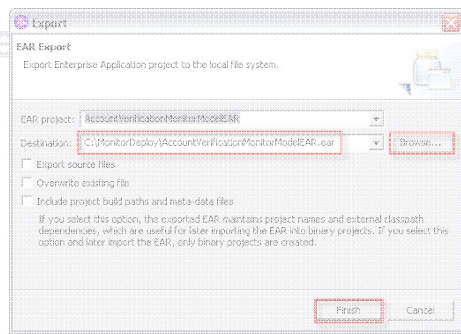
The image displays three screenshots from the IBM Business Modeler interface:

- Top Screenshot:** A process flow diagram for 'Account Verification (To-Be)'. It shows a sequence of steps: 'Account Verification (To-Be) Receive' → 'Customer Retrieval' → 'Customer Acquire Eligibility' → 'Credit Report Service - Electronic' → 'Credit Risk Assessment - Business Rule' → 'Request More Documentation' → 'Close Data'.
- Middle Screenshot:** The 'Monitor Details Model' configuration for 'Account Verification (To-Be)'. It shows settings for 'Status' (set to 'All'), 'Severity' (set to 'Error'), and 'Trigger Sources' (set to 'Monitoring Model').
- Bottom Screenshot:** The 'KPI Model' for 'AccountVerificationMonitorModel'. It lists several KPIs: 'Account Opening Cost Indicator', 'Account Opening Duration Indicator', and 'New Accounts Opened Indicator for USA'. It also shows event messages like 'ERMINATED', 'FAILED', and 'COMPAILED'.

Cube	Measure	Source	Aggregation Function
AccountVerificationToBe Cube		AccountVerificationToBe	Average
	Average Process Duration	Account Verification Duration Stopwatch Fact	Average
AccountVerificationToBe_InputCriteri...		AccountVerificationToBe_InputCriterion	Minimum
CustomerRebrieval_InputCriterion C...		CustomerRetrieval_InputCriterion	Maximum
CreditReportServiceElectronic_Input...		CreditReportServiceElectronic_InputCriterion	Sum
CreditRiskAssessmentBusinessRule_I...		CreditRiskAssessmentBusinessRule_InputCri...	Count
			Average

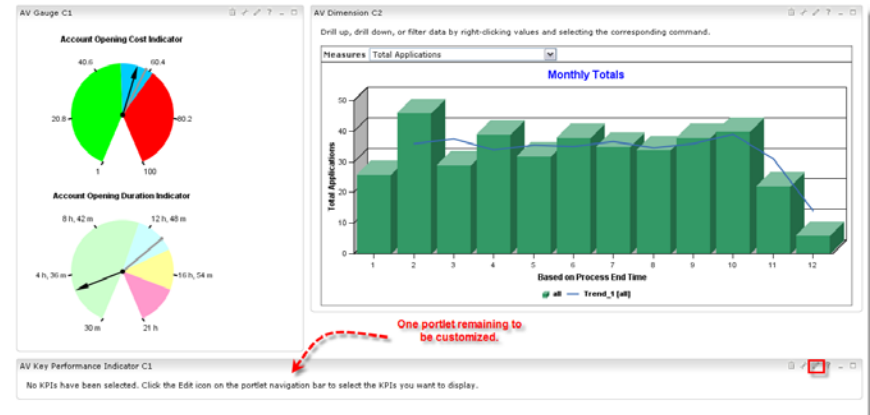
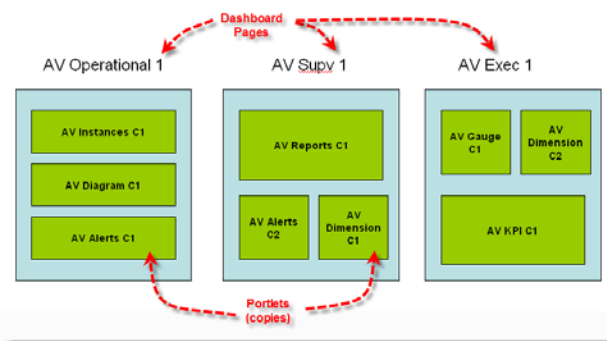
Lab 15.3 Intro – Deployment Overview

- Generate the runtime application (Enterprise Archive or EAR file) that represents your Monitor Model.
- Install the application in the Monitor Server, and use the Setup Wizard to define several additional artifacts/definitions for your Monitor Model as it will run in the Monitor Server environment:
 - ▶ Once these steps are completed, the Monitor Model has been installed and can process events.
- Examine the Monitor Model configuration.



Lab 16 Intro – Dashboard Lab

- **Configure new dashboard pages**
 - Visualize the layout of the new dashboard pages
 - Make copies of the supplied WebSphere Business Monitor portlets
 - Create new dashboard pages
 - Add the copied portlets to the dashboard pages
- **Configure, Edit and Personalize the portlets**
- **Examine data presented by the dashboard pages**



Range Name	Start Value	End Value	Color
Excellent	1	< 50	[Blue]
Acceptable	50	< 62	[Light Blue]
Poor	62	< 100	[Dark Blue]

Buttons: Add New Range, Restore Defaults, OK, Cancel

Page title: AV Operational 1

+ Add portlets

- Customer City Metric
- Credit Risk Status
- Cleanse Data Status
- Request More Documentation Queue Counter
- Account Verification Start Time Metric
- Customer Retrieval Status
- Request More Documentation Status
- Provide Pricing Status
- Final Application Review Queue Counter
- Account Verification Duration Stopwatch



Last Lab!

Thank You