NetWeaver Process Orchestration
Strategy and Roadmap

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Agenda

Trends

Current Capabilities
  • Current Solution
  • Customer Patterns

Short Term Roadmap

Long Term Strategy
Change Happens
Leaders embrace new trends or face obsolescence

- Increased outsourcing & off-shoring
- Increased global competition
- Shrinking product lifecycles
- Convergence of technologies
- Ever changing compliance regulation
Accommodate Change in Best-Run Business Processes

Complex processes & technologies, with valuable information locked in transaction systems

Difficult to extend business applications in an efficient manner

Unrealistic pace, at the cost you can’t afford, innovation you can’t deliver

Exponential increase of TCO

“Each line (interface) costs $50,000 to $100,000 over 5 to 10 years”. Valero Energy
Process Orchestration
Extend & Integrate processes FOR BUSINESS and in LANGUAGE of BUSINESS

Create Business Differentiation
- *For Process Owners* to have better run business
- *through End Users* to gather and distribute timely process insights

Improve Time to Value
- *Empower business analysts* to model & extend business processes
- *For IT/Developers* to realize the process through model-driven development

Reduce TCO
- *For IT Administrators* by flexibly adapting systems and processes

“Investments in technology enabled business process can deliver up to ten times the impact of traditional IT cost reduction efforts“  

Managing IT in a downturn, McKinsey
Current Capabilities
NetWeaver Process Orchestration
Single Solution for Extending and Integrating Processes

Direct path from business level view to implementation

Collaborative Process Modeling via cloud
- Collaborative, web-based process modeling in SAP StreamWork
- Enables business user participation in process definition and creation
- Seamless process model exchange with BPM using BPMN 2.0

Business Process Blueprint
- Common view and access to SAP’s business process reference content and its extension points
- Supports full business process lifecycle
- Seamlessly extend core processes, implement a blueprint and document processes
Collaborative Process Modeling
Open Standards Import/Export Interface

Seamless Process Model Exchange from Business Process Design Collaboration to Process Implementation (BPMN 2.0)

Capabilities:

- **Collaborative, web-based** process modeling in SAP StreamWork
- Transporting SAP StreamWork content into the process execution environment
- **Openness** for 3rd party tooling
- Refining process model towards process execution

Value Proposition:

- **Direct Path** from business requirement to implementation
- Enabling **business users** for process modeling
- Zero-installation to model a business process
Easily Extend SAP’s Core Processes
Business Process Library (BPL) Integration

Seamlessly extend core processes, implement a blueprint and document NW BPM processes in the Business Process Library (BPL)

Capabilities:
- **Search and Browse** business blueprints (SAP Solution Manager) in Process Composer
- **Implement** a blueprint process or process step as a composite business process (NW BPM)
- **Publish** composite business process assets and documentation to BPL

Value Proposition:
- **Easily extend suite core processes** using composite business processes
- **Comprehensively document** composite business processes and link it to a business blueprint
Collaborative Process Modeling
“Gravity” in SAP StreamWork

Modeling Tool for Business Users in the Web for Simultaneous Omnipresent Process Design Collaboration

Capabilities:
- Business/conceptual modeling freely available in SAP StreamWork
- Simultaneous collaborative modeling
- BPMN validation – without dictating
- Import/Export for SAP NetWeaver
- “Gravity” Foundation could support other modeling paradigms. E.g. mindmaps.

Value Proposition:
- Omnipresent – Involve business users anywhere, anytime in process define
- Contributor view to see who did what
- One tool spans the complete spectrum from simple decision flows to fully-fledged BPM
NetWeaver Process Orchestration
Single Solution for Extending and Integrating Processes

Simplified design and configuration, lowering cost of development

Improved Developer Experience

- Eclipse-based mapping design
- Re-use of PI mappings in NW BPM
- Simplified design and configuration models for iFlows using pre-defined templates and patterns
- Common look and feel with business process modeling tools (BPMN 2.0 based)

Support for Offline Form Templates

- Integration with ECM for packaging and deploying offline form templates with process models
- Import form templates using a simple wizard
- Create localized versions of templates
AEX and BPM Runtime Integration
Fully Integrated Stack

SAP NetWeaver BPM and SAP NetWeaver PI on one SID fully integrated

Capabilities:
- Bi-directional communication between BPM and PI for message orchestration and routing
- Process flow orchestration through SAP NetWeaver BPM and integration of interfaces and data types through Advanced Adapter Engine Extended (AEX)
- Common Eclipse based design time for process flow (process composer) and integration flow (iFlow Editor)

Value Proposition:
- Single stack installation
- Reduced development and operations cost
- Common monitoring infrastructure
Exposing Business Process Instances
Process Instance-ID Access

Developers can access the process instance-ID in design time

Capabilities:
- **Model Process-Instance ID** as integral semantic aspect of BPM process
- **Access** to Process Instance-ID at runtime

Value Proposition:
- Use Process-Instance ID as actual **business process identifier**
- **Improved administration capabilities** (process participants can use the process instance-ID for search and business administration)
NetWeaver Process Orchestration
Single Solution for Extending and Integrating Processes

Lower TCO and TCD

BPM for high-volume scenarios

- 2400 concurrent users
- 28,000 processes/hour, 82,000 tasks/hour

Flexible Deployment Options

- One enterprise repository across multiple PI domains
- Support for additional deployments of ESB (Adapter Engine) on java-only stack
- Co-deployment of PI and BPM/BRM
- Process Orchestration certified on Virtualization platforms and private clouds

Business Rules Improvements

- Decentralized deployment of rules outside of app server
- Import/export of decision table with other conditions and actions
- Fine-grained access control for RuleSet entities
- Improved editing of reusable RuleSets in Rules Manager
Improved Lifecycle Management of Rules for Business Users

Several improvements in managing rules artifacts using Rules Manager for Business Users

Capabilities:

- **Import/Export** of decision table with other conditions and other actions
- **Edit** common definitions and re-usable rulesets in Rules Manager
- “**Diff**” of ruleset entities in rules manager
- **Fine-grained** access control for ruleset entities in Rules Manager

Value Proposition:

- **Improved** business user experience to manage rules
- **Improved governance** due to fine-grained access control to rule entities
NetWeaver Process Orchestration
Single Solution for Extending and Integrating Processes

**Improved end user experience with process interaction**

New BPM inbox and mobile access via APIs

- HTML 5 client with personalized view of assigned tasks
- Automatic refresh of WorkList
- Fast full text search on all task instances and columns
- Support for task notification emails
- Mass execution of task instances
- Full API set to mobilize tasks

Task Instance Collaboration via cloud

- Collaborate to take a decision with SAP StreamWork activities
- Invite others for participation in task instance decision
- Provide task context and content to SAP StreamWork activity
Task Instance Collaboration
Integration with SAP StreamWork™

Extending process flexibility and collaboration through SAP StreamWork

Capabilities:
- Invite others to **participate in taking a decision** on a business user task
- **Submit task details** (description, attachments, notes) to an SAP StreamWork activity
- **Collaborate to take a decision** with SAP StreamWork activities

Value Proposition:
- Moving from **structured to unstructured process execution** for specific business user tasks
- **Extending the reach** of the business process through an on-demand collaboration platform
- **Simple and ad-hoc integration** of additional process participants.
- **Contextualization** of process data
Task Instance Collaboration
Integration with SAP StreamWork™

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Enhanced Task Notifications
Custom-email-notification for tasks

Send task notification emails with process context information

Capabilities:
- Enable notification emails per task definition
- Define parameterized texts which shall be included in the email

Value Proposition:
- End users receive task notification emails with process-related content
- Fine-grained control over task notifications

Note: Feature is planned to be downported to BPM 7.2 SP05 and 7.3 SP03
Process User Authorization
Process/Message Trigger Through Separate Role

Process Administrators assign a dedicated user role to start a process and send messages for correlation

Capabilities:
- **New BPM role** “SAP_BPM_TRIGGER_EVENT” & assigned action “SAP_BPM_TRIGGER_EVENT"
- More **fine-granular authorization concept** for process start and message trigger
- No technical user (BPM_Super_Admin) required anymore for process instantiation

Value Proposition:
- Improved **authorization management**
- **Adhering to security standard** for customers
- Separating **process participants** from process administrators
- Leverage **initiator identity** for business process execution

Note: Feature is downported to BPM 7.2 SP04 and 7.3 SP03
Process Performance vs. Process Auditing

Business Log Granularity

Process Administrators define pre-delivered log-levels for business log

<table>
<thead>
<tr>
<th>Business Logs: Log Viewer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Global log level</strong></td>
</tr>
<tr>
<td><strong>Business Log Viewer</strong></td>
</tr>
<tr>
<td><strong>List of Business Logs</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Title</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>11/10/2012</td>
<td>6:30 PM</td>
<td>Process BackgroundProcess started</td>
<td>ControlFlow</td>
</tr>
<tr>
<td>11/10/2012</td>
<td>6:45 PM</td>
<td>Web service call initiated</td>
<td>Application</td>
</tr>
<tr>
<td>11/10/2012</td>
<td>6:55 PM</td>
<td>Process BackgroundProcess completed</td>
<td>ControlFlow</td>
</tr>
<tr>
<td>11/11/2012</td>
<td>2:09 AM</td>
<td>Process BackgroundSampleProcess started</td>
<td>ControlFlow</td>
</tr>
<tr>
<td>11/11/2012</td>
<td>2:19 AM</td>
<td>Web service call started</td>
<td>Application</td>
</tr>
<tr>
<td>11/11/2012</td>
<td>4:09 AM</td>
<td>Web service call initiated</td>
<td>Application</td>
</tr>
<tr>
<td>11/11/2012</td>
<td>4:10 AM</td>
<td>Process BackgroundSampleProcess started</td>
<td>ControlFlow</td>
</tr>
<tr>
<td>11/11/2012</td>
<td>5:07 AM</td>
<td>Web service call completed</td>
<td>Application</td>
</tr>
<tr>
<td>11/12/2012</td>
<td>0:22 AM</td>
<td>WEB SERVICE CALL COMPLETED</td>
<td>Application</td>
</tr>
</tbody>
</table>

Details of the logentry Web service call started

<table>
<thead>
<tr>
<th>Log Entry ID</th>
<th>189f1134-39-4b-107c-36100-00008203-6789</th>
</tr>
</thead>
<tbody>
<tr>
<td>Container ID</td>
<td>789f1145-39-4b-107c-36100-00008203-6789</td>
</tr>
<tr>
<td>User</td>
<td>PROCESS</td>
</tr>
<tr>
<td>Description</td>
<td>Web service operation can be redirected to: <a href="http://www.sap.com/ProcessAdmin">http://www.sap.com/ProcessAdmin</a> and has been started successfully</td>
</tr>
</tbody>
</table>

Capabilities:
- **Define log granularity** on global level for BPM Process Server
- **Select from 5 logging granularity levels** from NONE, FAILURE, STANDARD, DETAILED to FULL

Value Proposition:
- **Flexibly balance** execution tracking vs. performance impact
- **Tailor auditing information** to business requirements
- **Reduce database load** and volume during operations

Note: Feature is downported to BPM 7.2 SP04 and 7.3 SP01
Faster incident resolution with improved message monitoring

Centralized Message Monitoring

- Central monitoring of complex integration landscapes
- ITIL compliant operations in SAP Solution Manager
- Streamlined access to local monitoring, configuration, and testing
- User defined message search by business payload
- Message Alerting with simplified configuration
- Trend graph representation based on message alerts
Correcting Erroneous Process Instances
Edit Business Process Context (Process Container)

Administrators can fix erroneous process instance data

Capabilities:
- Manage failed process instances
- Change process context information
- Resume execution of failed process instances

Value Proposition:
- Corrective measures for running process instances
- Avoiding redundant process instantiation in case of instance failure
- Empowering Process Administrator to resume erroneous process instances
Opening-up UI Technology for Task UIs
Enabling custom UI’s for human tasks

Build task UIs by using your favorite framework or technology

Capabilities:
- Create a UI-independent task (without importing a UI component)
- Define the data structure of the task interface
- Specify the URL of your task UI
- Open the task UI at runtime from the Universal Work List or BPM Inbox

Value Proposition:
- Improved business user experience
- More flexibility for the UI developer

Example: iPad prototype developed together with sovanta AG
BPM Public API’s
Leverage Public API to build your custom UI and Logic

Enhancements enabling more sophisticated use cases and performance of custom implementations

Capabilities:
- **Release** a task again after claiming it
- **Delegate** a task to someone else
- **Nominate** someone to be the new actual owner of a task
- **Change the priority** of a task
- **Traverse** process and task hierarchies
- **Paging** support for inbox queries
- **Manage** Substitution Rules

Value Proposition:
- More sophisticated custom UIs for BPM End Users (Task Execution UIs, Process List UIs)
- Better performance of inbox queries through paging support

iPad prototype developed together with sovanta AG
NetWeaver Process Orchestration
Single Solution for Extending and Integrating Processes

**Enhanced B2B & Security**

**SAP B2B Add-On**

- Enables a secure & reliable exchange of EDI documents with business partners
- Broad support of EDI document & connectivity standards
- Rich functionality for handling EDI/B2B specifics
- Tightly integrated in SAP NetWeaver Process Orchestration

**Additional message & transport level security**

- **SFTP adapter** for encrypting files being exchanged over a secure connection
- **Adapter module for PGP** encrypting data using public key cryptography
- Support towards the Payment Card Industry Data Security Standard
- Packaged with SAP NetWeaver Process Orchestration

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Short Term Roadmap
**NetWeaver Process Orchestration**

**Unified lifecycle and Tooling**

*Improved Productivity and lower total cost of development*

**Improved lifecycle**

- Easier asset consumption and sharing across lifecycle stages
- Leverage Power Designer for simulation capabilities
- Pervasive BPMN representation across tooling (BPM, PI, BPB, Collaborative Process Modeling)
- More integrated B2B capabilities

**Simplified Design and Configuration**

- Eclipse plug-ins installation option for “pure Eclipse”
- BPMN representation of integration scenarios
- Combined design and configuration on a single tool
- BPM UI composition accelerator (via RDS)
- Usability improvements

**Pattern-Based Modeling**

- Modeling based on Enterprise Integration Patterns
- Easier to understand and integrate systems

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**PLANNED INNOVATIONS**

This is the current state of planning and may be changed by SAP at any time.
NetWeaver Process Orchestration
Best Practices and Own Practices

Integrates best practices and own practices into a harmonized model

Scenario Flow Modeler

- Combine and link processes in a scenario to communicate how they jointly fulfill business needs
- Combine best practices and own practices into holistic solutions

BPMN support within SAP Solution Manager

- Embedding BPMN graphs
- Supporting project and solution area
- Enablement of n-level solution manager modeling

Interface maintenance

- Create and edit interfaces
- Enhanced visibility of interfaces in SAP Solution Manager
- Leverage PI iFlow Editor to drive Interface definitions

Exchange Formats and Documentation

- Simplify creation of Solution documentation
- BPMN 2.0 XML Exchange Format

PLANNED INNOVATIONS

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NetWeaver Process Orchestration
Improved Visibility, traceability and diagnosis

**Improved combined process and system level visibility**

B2B Message monitoring
- B2B Messaging traceability extending existing system and process monitoring

Exception Management
- Message alerting with simplified configuration
- Search message payload based on user-defined rules
- BPM visibility in Solution Manager along with PI and B2B tracing

Trend Analysis
- Trend graph representation based on message alerts
- Reporting based on user criteria, e.g. interfaces, systems, etc.

**PLANNED INNOVATIONS**

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NetWeaver Process Orchestration
Enhanced Interoperability

Extend value by leveraging best of all worlds

Process Gateway
- Process Façade across different backend process solutions (Business Suite, NW BPM, NW PI, Business Workflow, etc)
- Single service entry point for consuming consolidated process information and metadata
- Enables end to end process reporting

Optimized & Flexible B2B
- Tighter integration with SAP Information Interchange OnDemand (e.g. monitoring)
- Pre-packed PI based solutions (RDS) enabling multiple delivery options for B2B: On premise, managed service or the combination of both (hybrid)

Cloud Integration
- Partnership with MuleSoft (SFDC adapter)
- REST adapter from partner(s) for cloud and mobile application integrations

PLANNED INNOVATIONS

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NetWeaver Process Orchestration
Embracing New Trends

*Innovate faster with new solution on SAP’s portfolio*

**Mobility**

- Reach out more process participants through mobility channels leveraging Sybase Unwired Platform (SUP)
- Enrich existing API channels to create improved mobile end user experiences
- Support out of the box departmental workflow approvals

**PLANNED INNOVATIONS**

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Long Term Strategy
Lifecycle Unification
Unify lifecycle participant involvement

- Unify the lifecycle and the participants involved
  - Unified tooling
  - Unified operations
  - Common metadata
  - Shared runtime components

- Seamlessly transition between lifecycle stages without re-creation

- Provide uniform access to metadata with different perspectives
  - Business analysts
  - IT/development
  - Process Owners
  - End Users
  - IT Operations

FUTURE DIRECTION
This is the current state of planning and may be changed by SAP at any time.
Modular Platform
For reduced TCO

• Next generation architecture
  – **Dynamic and modular** components with flexible deployment options (on-premise & cloud)
  – Common toolset with **fluent context transition** from process integration to orchestration
  – Optimized connectivity (**shared Integration Bus**)  
  – **Shared, unified mapping**  
  – **End-to-end** business process & integration monitoring

• Instills cloud principles for flexibility
  – Tenant-aware
  – Segmentation
  – User provisioning and security
  – Performance and scalability

FUTURE DIRECTION

This is the current state of planning and may be changed by SAP at any time.
Bridging Business & IT
Combine methodology and tooling for value-driven BPM

Integrated IT solution planning
• Combine solution blueprint models with portfolio and requirements management environments
• Pure Web-based solution modeling environment with configurable modeling layers, attributes, and representations

Capture and communicate the business model
• Environment for capability-based planning supporting value-driven BPM approach
• Tool-supported break down of strategy to operational business model and its inherent business capabilities
• Push business requirements towards Business Process Blueprinting and communicate solution design
• End user able to consume organizational handbook with insights into corporate processes
• Enabling runtime and monitoring feedback through Business Flows

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Intelligent Processes
BPM/BI combined value added

Real-time E2E Process BAM
- Configurable dashboards showing process and task metrics, KPIs
- Real-time visibility
- End-to-end process scope, unifying packaged app and custom processes

“Process in BI”
- Merges process events and transactional data
- New insights to drive to desired business outcomes

“BI in Process”
- Rules engine invokes BI as services for automated intelligence
- Human process participants have in-context dashboards and query tools for optimal decisions

FUTURE DIRECTION
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Business Network Foundation
Flexible & Lean

Based on next generation architecture
- Enabling cloud based business network solutions
- Generic integration & mediation services
- B2B application services such as partner on-boarding
- Value apps for specific B2B integration use cases
- Tight integration with SAP applications (on premise and on demand)
- Supporting end-to-end process visibility

FUTURE DIRECTION
Thank You!

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