



Implementing Efficiency

Maximo's Integration and Automation Framework

PulseANZ2010

Meet the people who can help
advance your infrastructure





Overview

- What's in the box?
- Where's the value?
 - Communicate
 - Escalate
 - Integrate
 - Orchestrate
- When Services are Relevant
- How to approach Services



What's In The Box?

- IBM Maximo 7.1.1.6
 - Actions
 - Escalations
 - Conditions
 - Workflow
 - Communication Templates
 - Interactions
 - Email / Email Listeners
 - Maximo Integration Framework
 - Maximo Customisation Framework
- **TPAE**
 - Tivoli **P**rocess **A**utomation **E**ngine
 - The **P**ossibilities **A**re **E**ndless !





Where's the Value?



Business Scenarios	ROI Points	Customer Examples
Labor Utilization	Up 10-20%	•A major US railroad saved US \$5M by better tracking labor to specific work
Asset Utilization	Up 3-5%	•A large OEM reduced overhaul process time from 56 days to 21 days
Equipment purchases	Down 3-5%	•A fleet management company saved US \$9.5M by meeting 100% availability with less
Warranty recoveries	Up 10-50%	•A consumer products company increased warranty recovery 50%
Inventory needs	Down 20-30%	•A large passenger railroad was able to identify US \$18M in excess or obsolete inventory
Inventory carrying costs	Down 5-20%	•A nuclear power conglomerate reduced inventory value and associated carrying costs by 26%
Material Costs	Reduced 10-50%	•A rail maintenance service company reduced costs 20% by optimizing material purchases.
Purchasing labor	Reduced 10-50%	•A fleet management company reduced purchasing staff by 20%

“By unifying the management of all our IT and operational assets using IBM solutions, we can maintain an industry leadership position and improve quality of service for travelers. IBM asset management software has also helped us realize a higher percentage of recoverable fees and directly improve revenue as a result.”

McCarran International Airport



- Getting the right data to the right people at the right time
- Reducing data input
- Automating notifications
- Pushing data and reports based on events
- Increasing efficiency and timeliness
- Automatic data enrichment
- Seamless integration across multiple systems and data sets

graphic facilitation by
Brandy Agerbeck
Loosetooth.com



Making your workflow talk...

- Workflow
 - Automated routing/notification of work items
 - Apply process validation
 - Control process execution/adherence
- Communication Templates
 - Notify people/groups using context appropriate messages
 - Embed actual record/system data
 - Embed URLs to access the records
 - Who gets the message?
 - Anyone via email
 - Customers & clients, Service request owners
 - Work dispatchers/coordinators/supervisors, Crew leads/managers
- Why?
 - Notify when action is required, when people are not online with Maximo
 - Provide visibility of work progress (e.g. customer communication)



When it's important ... Escalate!

- Escalations
 - Constructed to find a set of records that satisfy a defined condition and then act upon those records
 - Actions and Notifications can act in combination
 - Action examples
 - Change Ownership
 - Automatically set status to closed after x number of days with status of complete
 - Notification examples
 - Notify all members of an ownergroup when a new work order is assigned to their group
 - Notify the on-behalf of when the work has been complete
- Why?
 - Raise awareness
 - About to break SLA
 - Change in data meets a condition to react



Escalation .. Some examples

- Automate non-critical bulk operations
 - Meet reporting targets for completed work
 - Automatically close work orders
 - Priority = 4 or 5
 - Date closed \geq 30 days old
 - No external services procured for order
- Notify when things change (or don't)
 - Impact on project spend
 - Notify capital works project owner when
 - Work and budget approved work orders exceed their estimated start date by x days
 - In progress build project work orders exceed their scheduled finish date by x days



Benefits

- Improved communication with customers
- Decreased response time
- Increased opportunity to capture labour time
- Increased comfort level for engineers with Maximo





What about value through integration?

- Maximo Integration Framework
 - Synchronise data around the enterprise (integrated processes)
 - Enrich Maximo data or process with external data
 - Perform external system validation
 - Initiate processes outside of Maximo
- What is possible:
 - Synchronous services
 - Invocation Channels / Interactions
 - Object Service, Enterprise Services, Standard Service
 - Asynchronous services
 - Enterprise Service
 - Publish Channel

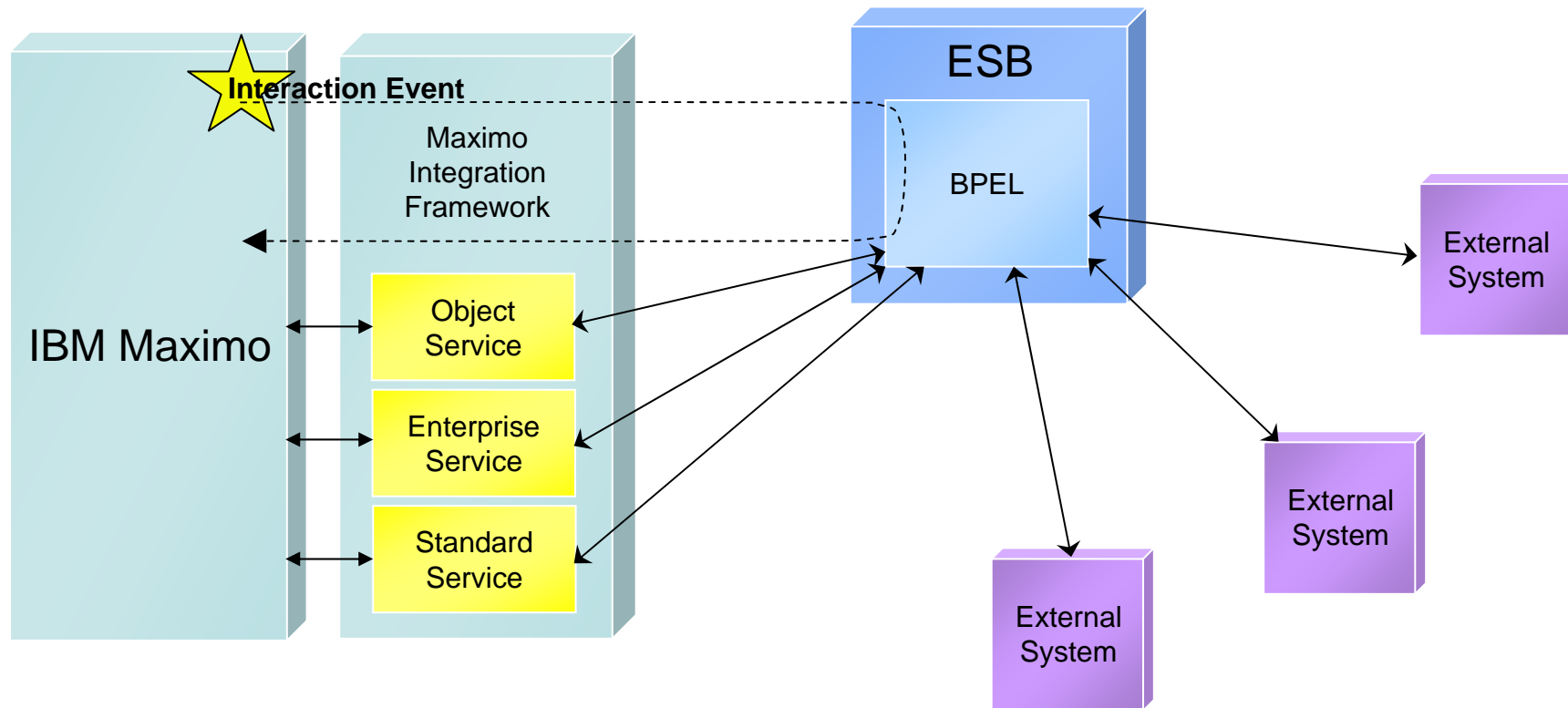


Inline Validation

- Interactions
 - Provide configuration for use of Invocation Channels
 - Synchronous Web Services
 - Request only, or request response
- E.g.
 - Use Web Services to validate data against an external system/repository
 - Retrieve on-line data from external sources
- Gains:
 - Instant validation
 - Automate the population of accurate data
 - Prevent the need to duplicate data across multiple systems
 - Leverage services across multiple touch points (field, applications, processes)

Interactions with an ESB

- Use the interaction as a gateway into BPEL processes





Why Use Services?



- SOA integration approach allows common and scalable processes to be implemented across the fleet
- SOA facilitates sustainable future improvements
- Corner stone to success of IT's standardisation goals
- Helped leverage shared resources
- Improved ROI by reducing procurement, work management and operation cycles

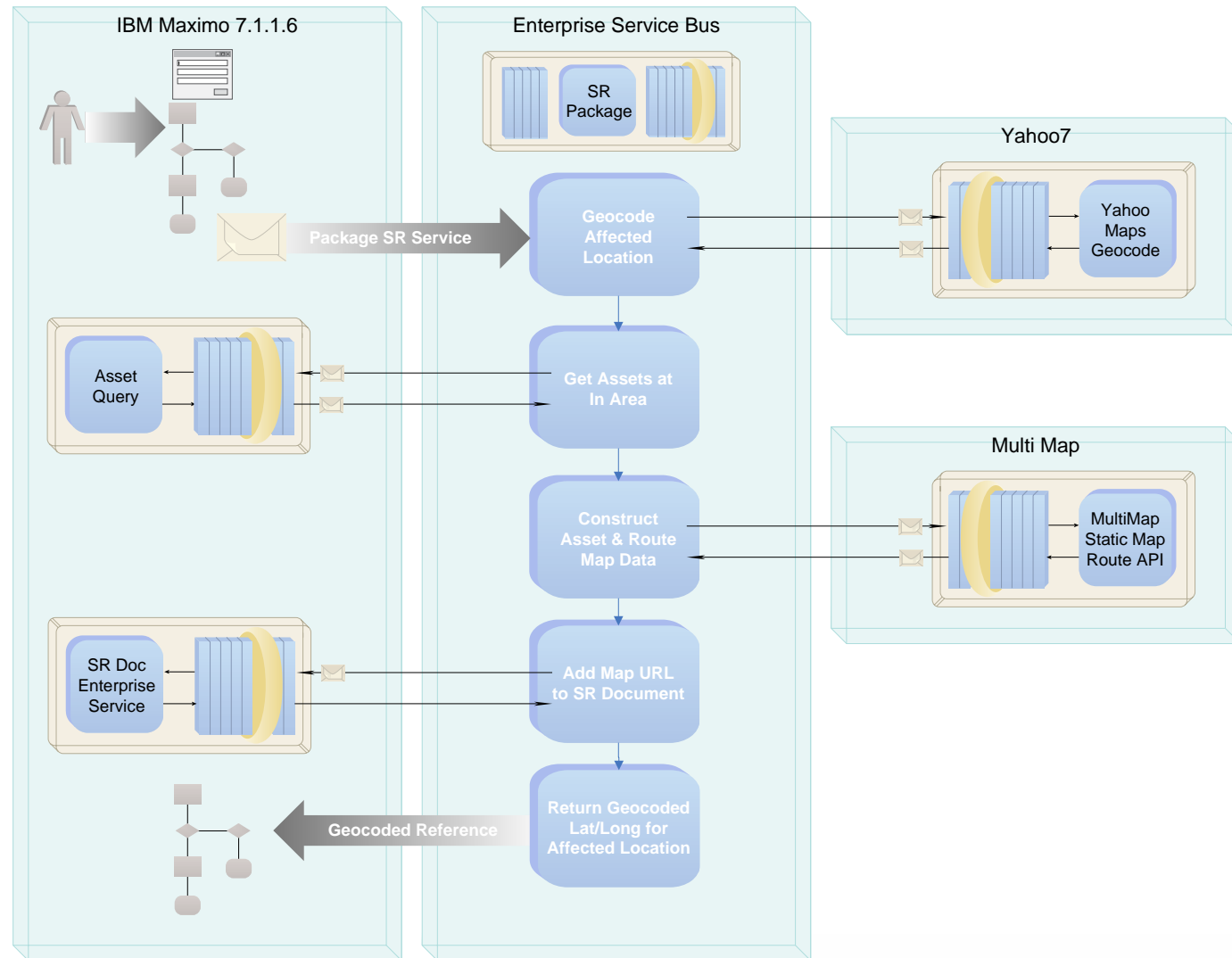


A Basic Example - What Could It Do For You?

- Are your locations really locations?
 - Assets, locations, service requests, storeroom locations, vendors, service providers, repair locations, work orders, work routes
- Enrich - automatically geocode within a seamless UI
- Visualise - view locations and connections graphically
- Value
 - travel time
 - route planning
 - customer awareness and responsiveness
 - awareness of the work/asset environment

An Example of Orchestration to Automate

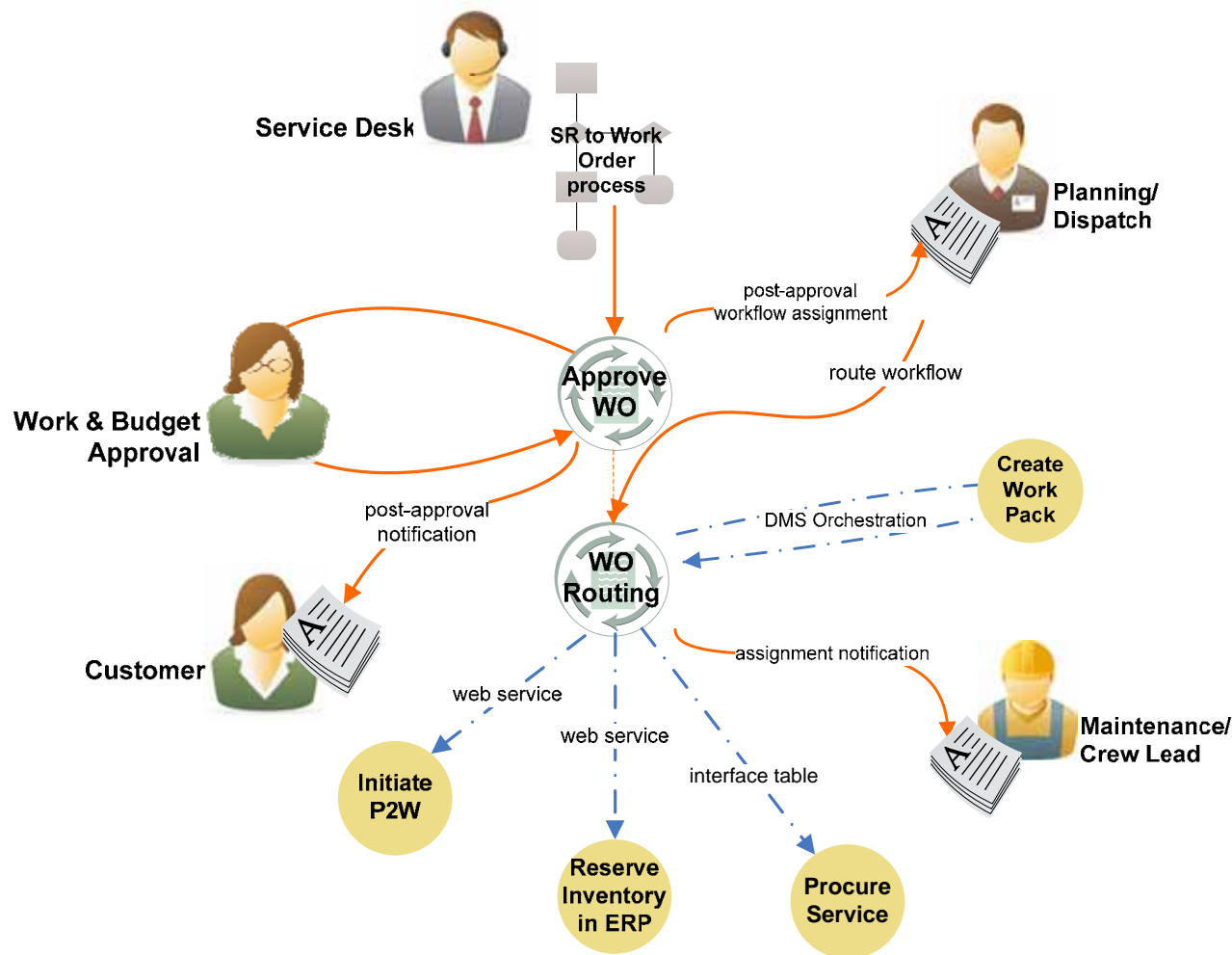
User enters SR base data. Selects the Interaction from the action menu...



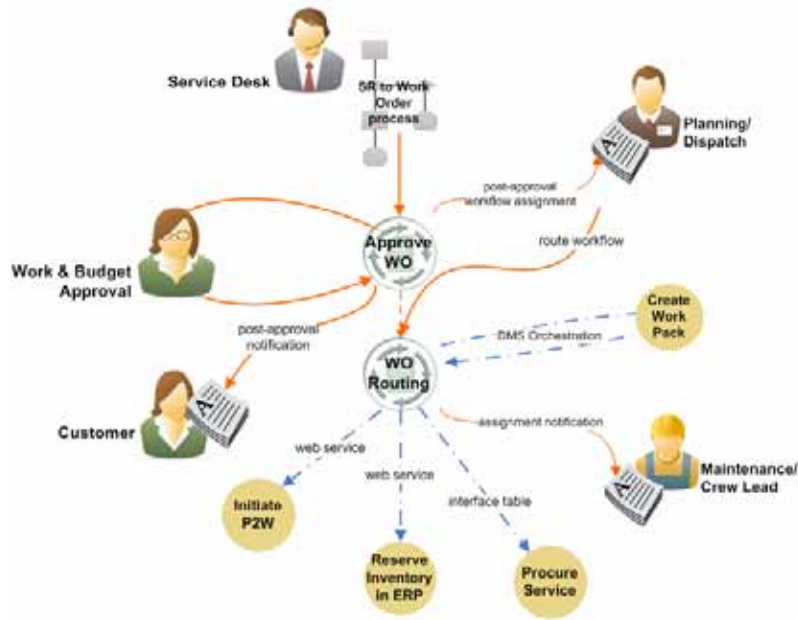
... and gets the results back here with key location and related asset data pre-populated



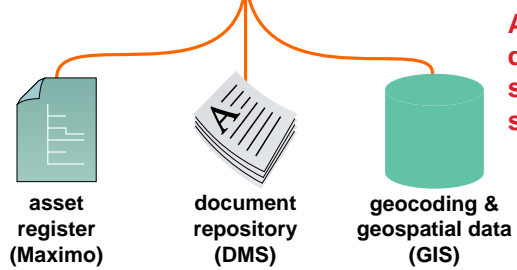
Workflow, Communication & Integration A Scenario



1. Enter Service Request
2. Convert to Work Order
3. Initial WO Approval
4. Route task for approval according to delegation of authority (WORKFLOW)
5. Route work order for scheduling and dispatch (WORKFLOW) and notify customer or status (COMM TEMPLATE)
6. Route workflow to complete
7. Execute invocation channel for DMS orchestration (INTEGRATION)
8. Notify work team (COMM TEMPLATE)
9. Execute Publish Channel to start Permit to Work application (INTEGRATION)
10. Execute Publish Channel to reserve Inventory in ERP (INTEGRATION)
11. Execute Publish Channel to raise PO in ERP (INTEGRATION)

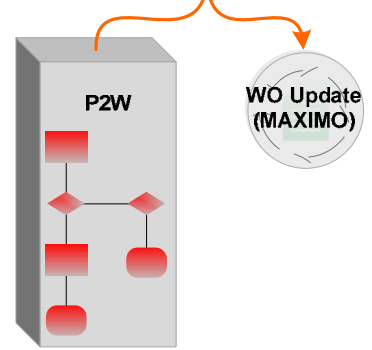


Generate Work Pack Service



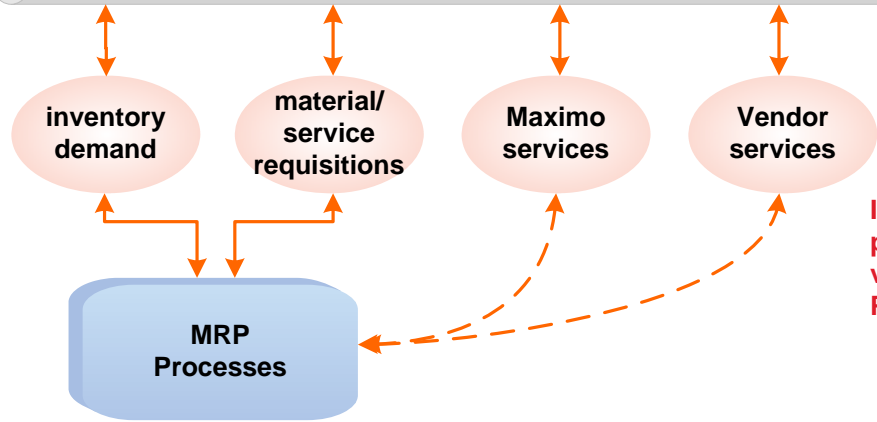
Automate the collation of related data and formats from multiple sources and attach to the Maximo source record

Permit to Work



Initiate process in external system and coordinate the process result back into Maximo, initiating appropriate follow-on actions (E.g. release work to commence on availability of permit)

Procure to Pay Services



Initiation and synchronisation of integrated Procure to Pay processes, including vendor notification/integration to provide visibility and seamless process between Maximo and all related P2P systems



Increase data accuracy and decision making

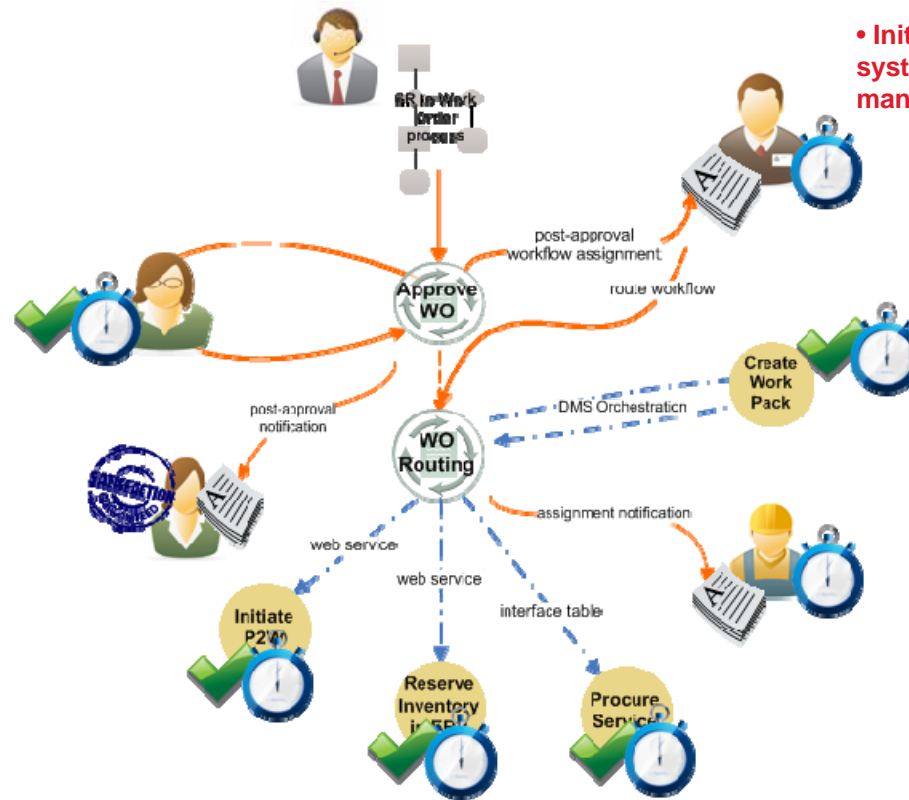
- Facilitate business process with responsive and agile systems
- Embed rules and processes for business flexibility

Increase customer satisfaction

- Keep internal and external customers informed
- Meet or exceed SLAs

Improve efficiency and reduce system time

- Implement business process decision points in the IT solution
- Automate data collection from multiple sources in common data format
- Initiate tasks/notifications in multiple systems from a central work and asset management process





When Does a Service Approach Add Value?

1. Do you need services?
 - Can you encapsulate processes and decision points within a service framework?
 - Does your business process require the collation of multiple sources at key process decision points?
 - Is there a benefit to the business?
2. Do your services represent:
 - simple message/event processing?
 - orchestration of multiple services, or dependency between services?
3. Do you anticipate service reuse across the enterprise?
4. Do your services need to be loosely coupled with regards to time, location, version or similar?



So What is Outside the Box?

- If you need service orchestration or anticipate reuse across multiple services
 - Enterprise Service Bus / Process Server
- If you want apply business process standards to services
 - Leverage BPEL for managing the implementation of service components
- Common requirements for successful implementation of services
 - Governance is key (standards, policies, processes)
 - Identify service owners
 - Define common information models
 - Leverage patterns and standards
 - Think Big, Start Small



Summary

- TPAAE provides extensive capability
 - Automate the user experience
 - Reduce keyboard time
 - Improve data accuracy and relevance
 - Assist decision making
 - Streamline and automate business process
 - Proactively manage compliance and communication
 - Maximise the benefits of the platform
- Service approach adds a new dimension of capabilities



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