Business Process Management Overview

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Let’s get on the same page… processes, processes, processes…
- What is it… and what is the difference between business processes and business process management?
- Why do you need it?
- How do you ensure you don’t get locked in…?
- What can it do for my organisation?

AquaLogic BPM Suite Technical Overview
BEA is the Integration Solution
Summary
Let’s get on the same page… processes, processes, processes....
A process joke ;-) 

A man is digging a hole at the same time that his friend is covering up the same hole. And thus they spend the day, one digs and the other one covers up. Curious, a passerby who can no longer keep quiet watching the surrealist scene, approaches the two men and asks, "Gentlemen, what exactly does this mean?"

"Well, we're working," one of them answers.

"And are you positive there's nothing wrong with what you're doing?"

"Well, if there is something wrong here, it's Joaquim's fault. He didn't show up today."

"And who's Joaquim?" asks the passerby.

"He is the guy who sows the seed."
How did BEA get into BPM

- Has a long heritage in EAI / Workflow
- Always been involved in System → System Process Integration through WebLogic Integration, WebLogic Process Server, Tuxedo, E-Link
- As part of BEA’s SOA strategy…
  - Acquired Fuego (natural fit after PlumTree)
  - 100+ Employees…60+ in software development and support
  - 250 man years in Research and Development
- History of Success:
  - Profitable and Growing…License Revenues increased by 322% in Q3-05
  - Currently delivering version 5.7 of AquaLogic BPM
  - No failed customer implementations…170+ production projects
Its not new….

• BPM is a big kettle of fish…
• We’ve had these kind of ideas for years
  ▶ Who remembers Groupware …. Couple it with email
  ▶ Who remembers BPR? Workflow?
    • Products like Groupwise, Notes, Exchange, Staffware,
• BP/M got its kick start in 2003….
• 150 vendors at present….
  ▶ Gartner predicts no more than 25 will exist by 2008. 0.8 probability
• “BPMS products are hot and getting hotter, with the worldwide market growing at a compounded annual growth rate (CAGR) of more than 20% between 2005 and 2009 to reach $2.7 billion.” – Forrester – The Forrester Wave Human Centric BPM Suites 2006

• So why is it such a hot topic today?
It’s a hot topic because…

Business managers have always felt “handcuffed” to the It organisation… through long development times, lack of delivery and non alignment of business and IT

If you are interested in “defining, cultivating or measuring your enterprise operational agility” … you should be looking at BPM…

The move towards loosely coupled integration has finally allowed process tooling to be focused on the business process rather than the technical integration - so it now has synergy for the business owner/user rather than the it department

It addresses the pressing need of the new knowledge-driven economy to integrate business process thinking with strategy, organizational structure and people issues. It requires that your executive team lead and manage differently and think more systemically about your business

BPM is seen as a technology enabler for SOA in the drive for SODA and the move towards ISE

Assembly
Orchestration
Process centricity
Rapid change and dynamism
Return on an SOA investment is proportional to the investment in its architecture. Strategic commitment is a prerequisite to a strategic advantage.
A shift in how we build applications is happening....
What BPM is trying to address…

- **Lack of visibility** into how the business is run, because business processes are not documented or real processes differ from documented processes.

- **Low productivity** due to manual execution of processes that span divisional domains or are hard to otherwise automate.

- **Low customer satisfaction** due to long response times, unhandled exceptions in customer processes, or complex, uncoordinated customer service.

- **Inability to launch new business tactics quickly** to compete effectively or attack new opportunities.

- **Inability to comply** (or document compliance) with federal, industry or internal regulations as well as service level agreements with customers and partners.
What is a business process?

A business process is a set of coordinated activities carried out either by people or automatically that together deliver tangible value to the business when it is executed. Some examples of business processes include:

- Applying for a house loan - Loan Origination Process
- Starting a mobile phone service - Account Initiation Process
- Hiring a new employee - Employee On-Boarding Process
- Building a new jet engine - Parts and Assembly Process
Processes can be broken into two categories'...

- Process orientated (System to System) .... “BPI”
  - WebLogic Integration, Tibco Rdvz, IBM WebSphere MQ/SI, Sourcecode/K2/BizTalk, SAP Netweaver
- Human orientated (Workflow / Interaction) ..... “BPM”
  - AquaLogic Business Process Management Suite, Lombardi, Oracle BPEL, Tibco Staffware
Characteristics of human orientated..

“Require people to get work done by relying on and interacting extensively with business applications, databases, collaboration tools, and documents.

Examples of human-centric processes include claims processing, loan approvals, accounts payable, and customer service..”

Forrester – The Forrester Wave Human Centric BPM Suites 2006
Characteristics of process orientated...

“Typically involve **millions of transactions** per day that are handled on a straight-through basis with no to minimal human involvement and few exceptions.

Examples include trade reconciliations, supply chain management, and line provisioning.”

Forrester – The Forrester Wave Human Centric BPM Suites 2006
So who owns what in this space?

**OASIS** (Organization for the Advancement of Structured Information Standards)
- A non profit organisation that drives the development, convergence, and adoption of e-business standards
- Have taken over the definition & ownership of standards for BPM & SOA
- The result all major BPM bodies have now joined to define BPM standards
  - This includes W3CF, WfMC, OMG, BPMI.org and BPMG

A consensus seems to be emerging around the right way to do BPM…
- BPMN for notation
  - Essential for defining the business entities to model a process
- XPDL for compatibility
  - Import / Export of process models between vendors
- BPEL 2.0
  - Internal (vendor specific) business process engines
Further into BPM…

- Lots of acronym's and standards
  - BPEL, BPEL/J
  - Choreography / WSCI / XLang
  - XPDL
  - BPMN
  - BPMS ??? BPP ???

- Onto the topic at hand…
What is business process management?

Business Process Management is the discipline of managing and measuring the performance of a business against strategic goals through formalization of business processes that describe how business is conducted as a set of coordinated activities. It often includes the use of technology to aid in modelling, execution and management of those processes.
What is Business Process Management?

Software and methodology to create, execute & optimize dynamic business processes spanning organizations, systems & applications to create REAL business value.

Real-World Business Processes span organizations, systems, and applications.

BPM models, simulates, executes, manages, monitors, & optimizes those Business Processes.
BPM technologies make a process explicit

- …Visible and ready to be changed…
- It separates the process from the implementation
  - Doesn’t need to know the data, applications or infrastructure
- This makes it something business people can use
- It brings together the interactions of people, systems, information and business policies
- It focuses on measuring the process
- It focuses on integration into the SDLC… IMPORTANT!!
- …This results in process improvement…
### Sample Processes

#### Process Impact
- Revenue
- Cost
- Customer Service
- Cycle Time

#### Process Complexity
<table>
<thead>
<tr>
<th># of Process Steps</th>
<th># of Process Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th># of Integration Points</th>
<th># of Transactions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th># of Process Exceptions</th>
<th># of Organizations</th>
</tr>
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</tbody>
</table>

- Risk Management
- Claims Eligibility
- Customer Support/Help Desk
- Sarbanes-Oxley
- Inventory Management
- HR Management
- Transportation Management

- Claims Adjudication
- Order-to-Cash
- Customer Provisioning & Activation
- Field Service Management
- Order Management
- Product Lifecycle Management
- Customer Credit Management

- Service Billing
- Claims Repricing
- Employee On Boarding
- Automated Expense
- Report Management

- Revenue Recovery
- Procurement & Sourcing
- Loan Origination
- Benefits Administration
- Reverse Logistics
- HIPAA Compliance

Low | High
## Value Propositions for Business and IT

### Business Value
- **Visibility** of customer/partner/employee interactions across the enterprise (real-time decision support/risk management)
- Enforces **best practices** (reduces the chance for rogue decisions, institutionalize competitive advantage)
- Improved **productivity** (delivers higher quality output, improves employee ramp-up)
- Improves **cycle/response time** (better customer retention)
- Reduces **exception** events (better resource utilization-human/system)
- **Fast time to value** (ROI in 3-6 months)

### IT Value
- **Align with the business** with near-term tangible value to their business units
- Compliments and accelerates their **SOA** strategy (reuse, speed)
- **Leverages and enhances existing infrastructure** investments (IBM, Oracle, MFST, Tibco, SAP)
- Provides **SLA predictability** and management
- **Scalable, Reliable, Manageable**
- **Standards-based non-proprietary**
What else is important when I think about BPM?

- Service Orientated Architecture (SOA) and Enterprise Service Bus (EBS)
- Business process automation (System → System)
- Workflow support
- Business activity monitoring
- Collaboration support
- Document / Content management
- Legacy integration
- Registry / Repository integration
- Business process / information life cycle support

** In no specific order
AquaLogic BPM Suite
Business Overview
AquaLogic BPM Suite Solution Lifecycle

Process Modeling, Simulation and Documentation

Business Owners

Use Cases
1.0 Get the stuff
2.0 Build the picture
3.0 BAM Consoles

Requirements
1.1 Process Diagram
2.1 Launch screen
3.1 Monitoring screen

Process Analyst

Business Analyst

AquaLogic BPM Enterprise Server

Process Development and Systems Integration

Process Participants

HiPer Workspace

Business Systems

Process Server and Monitoring Repository

Process Management and Real-Time BAM

Historical & Trend Analysis Tools

CRM DB

ERP
BEA AquaLogic™ BPM Suite Components

BEA AquaLogic™ BPM Suite consists of

- AquaLogic™ BPM Studio
  - AquaLogic™ BPM Designer
- AquaLogic™ BPM Enterprise Server
  - AquaLogic™ HiPer Workspace for BPM
  - AquaLogic™ Manager
  - AquaLogic™ Dashboard

What is the AquaLogic Business Service Interaction Product Line?

- A product line is a container for related products.
- AquaLogic Business Service Interaction contains products that optimizes interaction between business activities carried out by either people or systems.
BEA AquaLogic™ BPM Suite Enables…

<table>
<thead>
<tr>
<th>Visibility</th>
<th>Provide real-time and historical insight into business operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agility</td>
<td>Empower line of business to drive change and achieve a new level of agility</td>
</tr>
<tr>
<td>Control</td>
<td>Ensure that the planned business process is the executed business process</td>
</tr>
</tbody>
</table>
Network Computing’s report card on AquaLogic BPM Suite

<table>
<thead>
<tr>
<th>REAL-WORLD LABS REPORT CARD</th>
<th>BPM Suites</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BPM FEATURES</strong></td>
<td></td>
</tr>
<tr>
<td>Alerts/notifications (10%)</td>
<td>4</td>
</tr>
<tr>
<td>Business activity monitoring (10%)</td>
<td>4</td>
</tr>
<tr>
<td>Business rules (10%)</td>
<td>4</td>
</tr>
<tr>
<td>Modeling (10%)</td>
<td>4</td>
</tr>
<tr>
<td>Process management (10%)</td>
<td>4</td>
</tr>
<tr>
<td>Process simulation (10%)</td>
<td>5</td>
</tr>
<tr>
<td><strong>INTEGRATION</strong></td>
<td></td>
</tr>
<tr>
<td>Application infrastructure (10%)</td>
<td>4</td>
</tr>
<tr>
<td>Human (5%)</td>
<td>5</td>
</tr>
<tr>
<td>Application platforms (5%)</td>
<td>4</td>
</tr>
<tr>
<td>Listeners (5%)</td>
<td>5</td>
</tr>
<tr>
<td><strong>PRICE</strong> (5%)</td>
<td>2.5</td>
</tr>
<tr>
<td><strong>STANDARDS SUPPORT</strong> (5%)</td>
<td>4</td>
</tr>
<tr>
<td><strong>TOTAL SCORE</strong> (100%)</td>
<td><strong>4.18</strong></td>
</tr>
</tbody>
</table>

Scores are on a scale of 0-5. B+ is 4.1-4.5, B is 3.6-4.0, B- is 3.1-3.5, C+ is 2.6-3.0, C is 2.1-2.5, C- is 1.6-2.0, C- is 1.5-1.1, F is 0-1.0. Tiebreakers: 1.5 and 1.0 are not awarded. Customized results available at www.mwc.com.

BEA Confidential | 28
AquaLogic BPM Designer: Process Modeling

- Most comprehensive set of Activity Types
- Time-based Business Rules for SLA management
- Parallel Processing; Synchronous and Asynchronous Processing
- "Active" Swim Lanes
- Supports the Major Process Modeling Standards BPMN, BPEL, UML
- Launch processes from any event
- Process Owners manage Business Rule parameters
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- Supports the Major Process Modeling Standards BPMN, BPEL, UML
- Launch processes from any event
- Process Owners manage Business Rule parameters
AquaLogic BPM Designer: Process Simulation

Configure Simulation Scenarios (Loads)

Observe and manage queues in real time. Adjust staffing/efficiency, etc.

Extensive cost-based, time-based, and unit-based reporting.

Generate detailed reports to assess process design. Export reports for external analysis.
AquaLogic BPM Studio: Process Development

- Build a Re-Usable Component Catalog
- Auto-Generate Web Forms for Interactive Activities
- Auto-Generate Interface Components for a wide variety of Technologies.
Integrated Integration

*Introspect, Catalog, & Re-Use services from all your enterprise information sources*

**BEA AquaLogic™ BPM Suite**
Introspection based Connectivity

Database

automatically connects any application or system to processes with NO need for third party adapters.

Wizards make integration easy – reducing both initial and ongoing costs dramatically!

What used to take days or cost thousands of $$$ is now done at your finger tips…
Introspection based Connectivity

- Web Service
HiPer Workspace

Key Work Portal Features

- Instance Detail
- Audit Trail
- Search
- Applications/Dashboards
- Pause/resume the instance
- Abort the instance
- Grab/un-grab the instance
- Bookmark the instance
- Consultations
- Attachments
- Notations
- Documentation
- Preferences and Options
- Custom Views
Process Owners – Process Manager

Process BI (Business Intelligence) - Real time, graphical BAM with Drill Down to Instance data
Process Executive: Process Dashboard
Historical and “near” Real time, Multi-Process Monitoring
BPM and SOA
BPM and SOA are Complementary

Business Process Management

- Enables the creation, execution and optimization of business processes
- Allows continuous improvement of business processes driven by line of business
- Does not require SOA but SOA greatly simplifies BPM implementations

Service-Oriented Architecture

- Enables creation, composition and governance of loosely coupled business services
- Allows IT to manage complexity while connecting people, processes and systems
- Provides a layer of control and governance for IT underneath BPM
BPM and SOA Together Enables Business Agility and IT Agility

**Business**
- Measure
- Execute

**Process Lifecycle**

**IT**
- Provide
- Build

**Service Lifecycle**

**Model**
- Implement
- Manage

**Enables Business Agility**

**Discover Services**
- Consume Services

**Enables IT Agility**

**Provide**
- Build
- Architect
BPM and SOA Example Stack

**AquaLogic BPM Suite**
- Create, execute, optimize end-to-end business processes involving both human and system interaction

<table>
<thead>
<tr>
<th>Customer</th>
<th>System</th>
<th>Approver</th>
<th>System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Request Loan</td>
<td></td>
<td>Approve Loan</td>
<td></td>
</tr>
</tbody>
</table>

**AquaLogic Service Bus**
- Service Integration (dynamic intermediary)

**WebLogic Integration**
- Process Integration
- Build reusable services that solve complex integration problems

**AquaLogic Data Service Platform**
- Service-enables enterprise data for consistency & reuse

**Backend Systems**
Collaborative Business Process Management
AquaLogic Interaction Process

- Portal, Application Framework for deploying broad solution range
- Activity Services for including collaboration, publishing search, process services into solutions
- Web Services Engine for integrating systems, content, users
Integrated User Interaction

- Interact with Work Items
- Search
- Act
- Launch Applications, View Reports
- Create Customized Views, Presentations
Integrated Collaboration
BEA is the integration solution
BEA is the Integration Solution

- Application Integration
  - Proven with more than 1000 customers, esp Finance and Telco
  - Powerful and simple – integration via point and click or coding

- SOA
  - Open
  - Comprehensive
  - Standards-based
  - Delivering best of breed
    - Best human-intensive and system-intensive process tool
    - Industry-leading service bus
    - Acknowledged thought leader for data integration
    - Integration platform of choice for Finance and Telecommunications
BEA Business Integration Taxonomy

Business Process Management
- Business Activity Monitoring
- Process Modeling, Analysis & Simulation
- Process Automation & Optimization

Enterprise Integration
- Process Integration
- Data Access
- Service Integration
- Application Connectivity

LOB Focus
IT Focus
BEA Product Portfolio for Business Integration

- Business Activity Monitoring
- Process Modeling, Analysis, Simulation
- Process Automation & Optimization
- Process Integration
- Service Integration
- Data Access
- Application Connectivity

AquaLogic BPM Suite
WebLogic Integration
AquaLogic Service Bus
AquaLogic Data Services Platform
BEA Adapters
## Delivering Tangible Value

<table>
<thead>
<tr>
<th>Company</th>
<th>Business Process Opportunity</th>
<th>Results</th>
</tr>
</thead>
</table>
| Citigroup         | BPM Standard within Investment Bank for all Middle Office and Back Office processes.           | • Linked Design and Delivery layers into cohesive platform  
• Eliminate costly exceptions  
• Extend existing systems |
| JPMorgan Chase    | **Market Risk Management**  
Automate the management of Market data feeds required to evaluate market risk position. FuegoBPM handles all the error management and reporting. Ensures JPMorgan Chase has accurate risk position data, thereby improving risk management. Service Level Agreements improved increasing the time available to execute investment decisions. Fuego is now the standard in the Investment Bank. | • Decreased cycle time 78%  
• In production < 90 days  
• Now working on 12 BPM projects, each with multi-million dollar savings |
| Sallie Mae        | **Customer Service for Student Loans**  
Automate, manage and improve the entire loan process. FuegoBPM provides consistent, repeatable management of exceptions during the loan application process that were previously not handled. | • Providing $5M+ savings  
• Enabling entry into multi-billion student lending market without rewriting systems |
| bhp billiton      | **Warranty/Repair & Parts Replacement**  
Automate and simplify the process of warranty/repair recovery to reclaim millions in unclaimed dollars. FuegoBPM manages the business process across SAP, field work order systems, and home office/field personnel. | • Recovered additional $26M in warranty rebates in the first year… equates to $250M in top line revenue |
| United Healthcare | **Claims Repricing**  
Needed HIPAA compliant BPM solution to work with proprietary claims processing system. FuegoBPM is the primary bridge providing IT a smooth transition from legacy applications to a modern IT architecture. | • Over $1M in immediate savings.  
• Project $20M in 18 months  
• Running in 6 weeks |
The benefits of BPM

- The payoffs of going the BPM route can be breathtaking. Costs melt away, quality goes through the roof, and time spans shrink to a fraction of what they were. In 1999 Hammer and Company (http://www.hammerandco.com/) surveyed dozens of companies that had adopted the process approach to work and business.
- In order fulfilment, cycle times had typically decreased by 60% to 90%
  - "Perfect orders" (those delivered on time, with no mistakes) had increased by 25%
  - The cost of performing procurement transactions had been slashed by more than 80%
  - Procurement times had shrunk 90%
  - In product development, the percentage of successful launches rose by 30% to 50%
  - The time required to bring a new product to market was shortened by 50% to 75%
- These improvements in process performance paid off in the critical enterprise currencies of customer satisfaction, customer retention, and corporate profits.
- The good news is that these remarkable improvements are not atypical. In fact, they are the norm. The bad news is that achieving them requires a wholehearted commitment to process and an abandonment of the thinking and practices inherent in functional organizations.
What the future holds…
Summary

- BPM is the key to SOA
- Go online to BEA’s SOA centre of excellence
  - [http://www.bea.com/soa](http://www.bea.com/soa)
- Go online to BEA’s BPM centre of excellence
  - Complete the BPM self assessment study [BEA BPM Lifecycle Assessment](http://bea.com/bpm/)
- Some good reading material
  - Essential Business Process Modelling
  - Agenda by Michael Hammer
- Other links…
Thank you ....
dcrowder@bea.com
darrencrowder@yahoo.co.uk
Case Studies
United Healthcare

Opportunities & Challenges
- Bridge legacy applications to modern IT architectures
- Improve performance and “cleanliness” of records
- Eliminate numerous eligibility exceptions
- Reduce processing time

Solution Powered by ALBPM
- AquaLogic BPM Suite (BPMS) validates and edits process
- Ensure compliance with HIPAA
- Update and clean eligibility records
- Enterprise process platform supported their service-oriented architecture

Results
- Reduced eligibility exceptions by more than 91%
- Process reuse provides UHC significant cost savings and efficiencies
- Supports 30+ million updates per month

Validation and correction occurs as the eligibility records flow through critical activities and processes.

Ensure Compliance with HIPAA regulations.

Updated & cleaned eligibility records are loaded into Facets as “single version of the truth.”

Facets

Sybase

Confirm Receipt of valid files based on client specific profiles and agreements

Lookup/compare individual records with mainframe systems
Eligibility files are received in a variety of formats (e.g., FTP, email attachments, tapes) and begin process. Validation and correction occurs as the eligibility records flow through critical activities and processes.

- **Eligibility Intake and Editing Process**
- **Facets**
- **Sybase**
- **Ensure Compliance with HIPAA regulations**
- **Updated & cleaned eligibility records are loaded into Facets as “single version of the truth”**

The process is interfacing with the following systems:  
- FTP Server  
- Microsoft Outlook  
- Sybase 12.5  
- Facets  
- Neon ecMap  
- IBM WehSphere 4.05
**JP Morgan Chase**

**Opportunities & Challenges**
- Implement an automated risk management process instead of a manual process for tracking and reporting
- Manage large volume of files, dynamic scheduling changes, trading and investment portfolio positions

**Solution Powered by ALBPM**
- Manages and automates complex tasks and files held in various equities worldwide 24/7
- Eliminate manual effort and reduces errors
- Allow for real-time update and status tracking
- Deliver timely and accurate reports to clients on performance
- Aggregate receipt of hundreds of feeds and deliver to appropriate Front Office managers for action

**Results**
- Delivered production system within three months
- Processing time for received files decreased by 79%
- Moved business rules from Excel spreadsheets to business rules within AquaLogic BPMS
- Improved staff productivity by eliminating the manual escalation process and shifting focus on higher priority system issues
Market Risk Position Case Study

Risk Management Process

- Automatically Receive over 300 feeds
- Management and validation of appropriate business rules for Risk Management occurs automatically as it flows throughout the process
- Inter-process communication
- Automated escalation
- Archive

Management and validation of appropriate business rules for Risk Management occurs automatically as it flows throughout the process.

Underlying systems the process is interfacing with:
- Oracle 11i
- External systems

A instance of the process is started at a set time each day.

Manually start process if desired.

View status reports and real-time status.

The status is communicated to the external systems throughout the entire process.
British Petroleum

Opportunities & Challenges

- Automate and process accounts payable to over 30,000 non-recurring transactions, 2,500 AP approvers in numerous time zones, 10,000 vendors and 30 BPO AP “specialists” to handle exceptions and provide user support
- Streamline the hodgepodge of invoicing systems and approval processes

Solution Powered by ALBPM

- AquaLogic BPM Suite (BPMS) to streamline client AP interaction and approval process
- Assign invoice to appropriate approvers
- Enable approval notification e-mails curb cost reductions
- Provide self-service Web portal access to 3,000 vendors

Results

- Increase turnaround, data accuracy and consistency, audit trails and quality assurance
- Cost per transaction reduced by 80%
- ROI of 300% over two years
- Maximize cash flow and reduction in personnel costs
- Eliminate data re-entry, processing bottlenecks
Fuego polls Oracle DB (FileNET representation) for new invoices. After performing validation and business logic, Fuego assigns invoices to one of over 2,500 approvers and where appropriate, sends email with a “1 click” approval button. Approver can email “1 click” approvals or change account info, forward, etc in the Work Portal. Exceptions are handled by 30 “super users”. Approval notification emails are sent to the approver for where Fuego approved the invoice without human intervention. Exceptions are handled by 30 “super users”. Aging reports are generated and accessible on demand via the Work Portal.

Paper Invoices are routed for manual coding in FileNET. 1,000 Invoices are mailed, faxed, and sent via EDI to the Tulsa Processing Center each day. Approved invoices are posted to SAP for payment. Up to 3,000 vendors have self service web portal access. Up to 3,000 vendors have self service web portal access.