Pega 7 Webinar Series

01. The Power to Simplify – Pega 7 Overview
Thursday, October 3rd (recorded session available for replay)

02. Engage More Users through More Channels
Wednesday, October 9th at 10AM ET (recorded session available for replay)

03. Achieve the Highest Levels of Availability, Scalability and Performance
TODAY: Wednesday, October 16th at 10AM ET
Pega 7 “ilities”

Availability

Scalability & Performance

Manageability
High Availability

The problem with “nines”

<table>
<thead>
<tr>
<th>AVAILABILITY %</th>
<th>DOWNTIME PER YEAR</th>
<th>DOWNTIME PER MONTH</th>
<th>DOWNTIME PER WEEK</th>
</tr>
</thead>
<tbody>
<tr>
<td>90%</td>
<td>36.5 days</td>
<td>72 hours</td>
<td>16.8 hours</td>
</tr>
<tr>
<td>99%</td>
<td>3.65 days</td>
<td>7.20 hours</td>
<td>1.68 hours</td>
</tr>
<tr>
<td>99.9% (“three nines”)</td>
<td>8.76 hours</td>
<td>43.2 min</td>
<td>10.1 min</td>
</tr>
<tr>
<td>99.99% (“four nines”)</td>
<td>52.6 min</td>
<td>4.32 min</td>
<td>1.01 min</td>
</tr>
<tr>
<td>99.999% (“five nines”)</td>
<td>5.26 min</td>
<td>25.9 s</td>
<td>6.05 s</td>
</tr>
<tr>
<td>99.9999% (“six nines”)</td>
<td>31.5 s</td>
<td>2.59 s</td>
<td>0.065 s</td>
</tr>
</tbody>
</table>
Zero-Disruption Architecture

Planned/Initiated shutdown

Application Server

PRPC

Single Sign On

Load Balancer

Application Server

PRPC

Active Database

Replication

Replica Database
Zero-Disruption Architecture

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Replication
Zero-Disruption Architecture

Recover from catastrophe

Application Server PRPC

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Load Balancer
Zero-Disruption Architecture
Recover from catastrophe
Zero-Disruption Architecture

Recover from catastrophe

- Single Sign On
- Load Balancer
- Application Server PRPC
- Active Database
- Replication
- Replica Database
Zero-Disruption Architecture

Recover from catastrophe
Zero-Disruption Architecture

Recover from browser crash

<table>
<thead>
<tr>
<th>User Story</th>
<th>HA: CR - Admin control of &quot;in progress&quot; work list persistence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description:</td>
<td>As PRPC I need to be able to turn saving operator / work relationships for high availability. There must be a global switch that can be set by an administrator. The name of the switch should be pzHASaveWork. Note that other teams may add other conditions (to save work), these will be an or condition.</td>
</tr>
<tr>
<td>Technical Details:</td>
<td>Data system admin setting</td>
</tr>
<tr>
<td>Feature:</td>
<td></td>
</tr>
<tr>
<td>Originator Priority:</td>
<td>10</td>
</tr>
</tbody>
</table>

Planned Story Points: 2
Status: Open-InProgress

Acceptance Criteria
1. Demonstrate that the switch work in both the on / off cases
2. Document the the switch on the mesh

Created By: Ed Bagdonas
Created On: 10/20/2012 5:25 AM
Zero-Disruption Architecture

Recover from browser crash

Browser state is fully recovered after a crash. The user can continue working the case(s) that were active.
Zero Disruption Architecture

- Failover is invisible to users. They are instantly migrated to a standby server and experience zero disruption.
- Perform planned system maintenance without disrupting users.
- These benefits work on premises or in the cloud.
Pega 7 “ilities”

Availability
Scalability & Performance
Manageability
Pega Live Data
Simplifies the use of data in business processes

Traditional Approach

Data management clutters business process definitions.
Hard to understand. Hard to change.

Pega Live Data

Data are managed “behind the scenes” and automatically flow to the right process steps at the right time.
Easy to understand. Easy to change.
Pega Live Data

The right data, in the right places, at the right times

FETCH UPON REFERENCE  INTELLIGENT CACHING  BACKGROUND RETRIEVAL

YOUR PROCESSES AND SCREENS

PEGA LIVE DATA

SYSTEMS OF RECORD AND BIG DATA
Pega Live Data

Example: Load Customer info into a case management screen

- The customer ID is set when the call is received

- The customer property in the case is set to automatically populate from a Pega Live Data object

- The information needed is automatically copied into the case and screen

- This can be layered, so further embedded properties for accounts, transactions, etc. are also auto-populated
Pega Live Data

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Turbo - Tracer

- 300% performance improvement
- Offline mode for easier analysis

<table>
<thead>
<tr>
<th>LINE</th>
<th>THREAD</th>
<th>INT</th>
<th>RULE#</th>
<th>STEP METHOD</th>
<th>STEP PAGE</th>
<th>STEP</th>
<th>STATUS</th>
<th>EVENT TYPE</th>
<th>ELAPSED</th>
<th>NAME</th>
<th>RULESET</th>
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<tr>
<td>213</td>
<td>Tracer</td>
<td>11</td>
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<td>49(b)</td>
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<td>Interaction End</td>
<td>0.0780</td>
<td>pyActivity=Data-TRACERSETTINGS, $</td>
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<td>Pega.Desktop 07-01-01</td>
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<td>SQL Updates</td>
<td>0.0200</td>
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<td>update</td>
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<td>insert</td>
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<td>0.0200</td>
<td>SQL Updates</td>
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<td>0.0780</td>
<td>pyActivity=Data-TRACERSETTINGS, $</td>
<td>Data-TRACERSETTINGS, SetTracerOptions</td>
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<td>0.0780</td>
<td>4,621(b) Interaction Begin</td>
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<td></td>
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<td>Activity End</td>
<td>0.0490</td>
<td>Activity End</td>
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<td></td>
<td></td>
<td>Activity End</td>
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<td></td>
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</table>
Storage Size Reduction

- The size of a work object reduced by 25% on an average.
- Faster encoding of clipboard pages
- Improves access to Rules, Data and Work
- **No application changes needed**
Clipboard Improved Too

- Property reduced 60%
- Page reduced 40%
- Access time reduced 20%-35%
- **No application changes needed**
Pervasive Use of Optimized List Structures

- Light weight constructs now the default
- Most applications need no changes
XML Parsing

- 50% reduction in XML parse times
More Turbo Chargers

- Data-Transform execution speed improved 10%
- Improved throughput with concurrent compilation
- More targeted class invalidation
- Java Generation streamlined
- **No application changes needed**
Pega 7 “ilities”

Availability
Scalability & Performance
Manageability
Zero-Disruption Production Upgrade

Upgrade app or PRPC without system shutdown

Single Sign On

Load Balancer

Application Server PEGA

Work & Data

Rules Schema

© 2013, Confidential, Pegasystems Inc.
Zero-Disruption Production Upgrade
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Application Server
PRPC
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PRPC
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PRPC

Single Sign On
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Load Balancer
Load Balancer

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New Rules Schema

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Security Access Manager

- Built on your application’s existing security model
- Intuitive UI provides all the information you need
- Manage all work types, flows, and flow actions used in your application
- Easily grant or deny access to features without leaving the landing page
See Your Entire Security Model Easily

The diagram illustrates the Organization and Security - Access Manager tool, which allows viewing and changing access to application work, assignments, and processes. Users can select an access group and expand a case type to configure role-based access permissions.

- **User types**: This column indicates the access level for different user types, such as Full Access, Conditional Access, and No Access.

- **Case Types**: The table lists various case types, including Program Fund, Purchase Order, Purchase Request, PurchaseFW - Framework, and Vendor Maintenance. Each case type is assigned to specific access groups, showing who can do what.

- **Access Groups**: The grid shows the assignment of access groups to case types, ensuring a clear view of role-based permissions.
Drill Down to Manage Permissions

Select a user type

Roles for this user type

Specific permissions broken out by role

Types of Access

<table>
<thead>
<tr>
<th>CASE TYPES</th>
<th>Purchase Requestor</th>
<th>Purchase Manager</th>
<th>Roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Fund</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>✓ Open</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>✓ Run Reports</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>✓ Modify</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>✗ Delete</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>✓ View History</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>✓ Perform Assignments</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>▶ Process Flows</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>▶ Flow Actions</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
Grant or Deny Access with a Few Clicks

<table>
<thead>
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<td>Run Reports</td>
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</tr>
<tr>
<td>Modify</td>
<td>✓</td>
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</tr>
<tr>
<td>Delete</td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>View History</td>
<td>✓</td>
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<tr>
<td>Flow Actions</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Simply click a cell to edit the role configuration.
Multi-Tenancy Support

Reduces infrastructure costs, speeds provisioning, simplifies administration

One Pega 7 application instance can serve multiple client organizations.
New Platforms

- Cisco UCS Platform
- PostgreSQL DBMS
- VMware tc Server
Pega 7 “ilities”

Availability
Scalability & Performance
Manageability
October 27 – 28, 2013
Hyderabad International Convention Centre
Hyderabad, India

Sunday  2:00pm – 10:00pm
Monday  9:30am – 8:00pm
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- **YouTube**
  [http://www.youtube.com/user/Pegasystems](http://www.youtube.com/user/Pegasystems)
Q&A
Build for Change

*Pega software revolutionizes how leading organizations optimize the customer experience & automate operations*