BEST PRACTICES FOR UpGRADING SAP BUSINESSOBJECTS BI 4.0

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Chief Technology Officer

Condensed and updated from SAP’s “SAP BUSINESSOBJECTS 4.0 - MIGRATION BEST PRACTICES”
Agenda

- DCS Federal Introduction
- Upgrade Overview and Concepts
- Upgrade Best Practices
- Technical Implementation
Technology Expertise

Consultants from DCS have expertise and years of experience implementing market-leading technologies:

- SAP Business Objects
- CGI Momentum Financials
- Domo (Corda)
- Visual Cue

Unleash Your Sleeping Data
Upgrade Overview and Concepts
Why Upgrading?

Data access
• Better integration with SAP BW
• New dimensional semantic layer
• Multi-source universe

Usability / Productivity
• Harmonized user experience across the suite
• Interoperability
• Advanced analytical insight
• Brand new search capability

Cost of Ownership
• Integrated platform monitoring
• Advanced auditing capabilities
• Supportability and root-cause analysis
• 64 bits server architecture
Platforms
• Platforms supported with BI 4 change
• Architecture changes - servers are now 64 bits only

Version upgrade path
• Newer systems have a direct upgrade path
• Older systems may require extra step

Product Changes
• Some features may be staged to a later BI 4 release
• Some products are deprecated or replaced

Parameters and customizations
• Not automatically upgrade
# of people currently running BOE 4.0

# of folks looking to migrate in the next 6 months to 4.0

# of folks still running XI R2 or older

# of folks using Desktop Intelligence
Prior to upgrading do a license & hardware review
- 4.0 min hardware requirements - 4 CPU, 8GB - 16gb of memory

If migrating AD security ensure that you're running SAP 4.0 SP02 Patch 10
- address a couple of issues with migration of AD security

Look at breaking out the APS & ADJ server in 4.0

Refresher training for end-users to get comfortable with the new interface

32bit / 64bit Database connections
- 32bit Universe & Crystal Reports
- 64bit CMS/Audit/UNX

Look at breaking out the APS & ADJ server in 4.0
Checklist - Content Considerations

Security upgrade
- Should you carry over the existing users and associated security?
- Should you take the opportunity to do some redesign?

Content inventory and cleanup
- Should you upgrade the all content or take the opportunity for some cleanup?

Full system vs Staged upgrade
- Upgrade the entire system Or upgrade one department / group at a time

Acceptance / Validation
- Should you test the upgrade process?
Versions Upgrade Path

- BOE XI
- CE X
- BO 5 / 6

- BOE XI R2
- BOE XI 3.x

- Live-to-Live
- BIAR-to-Live
- Live-to-BIAR

BI 4.0
Upgrade Best Practices
## Product Changes - BI Platform Component

<table>
<thead>
<tr>
<th>XI R2 / XI 3.1</th>
<th>BI 4.0</th>
<th>Upgrade Consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Binaries</td>
<td>New Binaries</td>
<td>• Complete re-install required</td>
</tr>
<tr>
<td>Audit</td>
<td>New audit schema</td>
<td>• No compatibility with historical data</td>
</tr>
<tr>
<td>InfoView</td>
<td>Now “BI Launch Pad”</td>
<td>• New interface&lt;br&gt;• Report pinning</td>
</tr>
<tr>
<td>Dashboard Builder</td>
<td>Now “BI Workspace”</td>
<td>• Corporate, Personal and My InfoView Dashboards become BI Workspaces but some analytics must be recreated</td>
</tr>
<tr>
<td>Encyclopedia / Discussions</td>
<td>End of Life</td>
<td></td>
</tr>
<tr>
<td>Performance Manager</td>
<td>End of Life</td>
<td></td>
</tr>
<tr>
<td>Search</td>
<td>Enhanced Search capability</td>
<td>• Includes a search index</td>
</tr>
</tbody>
</table>
## Product Changes - BI Client

<table>
<thead>
<tr>
<th>XI R2 / XI 3.1</th>
<th>BI 4.0</th>
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</tr>
</thead>
</table>
| Crystal Reports  | CR 2011 and CR Enterprise | • All reports are by default upgraded to CR 2011  
|                  |                            | • Possible manual upgrade to CR Enterprise                                              |
| Desktop Intelligence | End of Life                |                                                                                        |
| Xcelsius 2008    | Dashboards                 | • Flash files will continue to work  
|                  |                            | • Conversion to new format is optional  
<p>|                  |                            | • Conversion adds new features (globalization, UNX queries…)                           |
| Explorer         | No Universe Support        | • Information Spaces based on Excel are upgraded, the ones based on UNV and bookmarks are not! |
| Voyager          | Analysis, edition for OLA  | • Some of workspaces will be upgrade to Advanced Analysis, the others require manual changes |
| Web Intelligence | Web Intelligence           | • Fully upgraded                                                                        |</p>
<table>
<thead>
<tr>
<th>XI R2/ XI 3.1</th>
<th>BI 4.0</th>
<th>Upgrade Consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universe Designer - UNV format</td>
<td>No Change to Universe Designer - UNV format</td>
<td>• None, universes and designer as in XI 3.</td>
</tr>
</tbody>
</table>
| Information Designer – UNX format | | • Relational UNV can be converted to UNX  
|  |  | • OLAP UNV have to be re-created in UNX (future version will support conversion) |
## Product Changes - Tools

<table>
<thead>
<tr>
<th>XI R2 / XI 3.1</th>
<th>BI 4.0</th>
<th>Upgrade Consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>LCM (XI 3.1 only)</td>
<td>Integrated in BI 4.0</td>
<td>• None</td>
</tr>
<tr>
<td>Report Conversion</td>
<td>No change</td>
<td>• Same feature as in XI 3.1 with the support of the Online to Online mode</td>
</tr>
<tr>
<td>Translation Manager</td>
<td>Integrated in BI 4.0 client tools</td>
<td>• Parity of features with XI 3.1 is maintained</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• All translations previously done will be retained</td>
</tr>
<tr>
<td>WDeploy</td>
<td>Integrated in BI 4.0</td>
<td>• WDeploy GUI available</td>
</tr>
<tr>
<td>Voyager</td>
<td>Analysis, edition for OLAP</td>
<td>• Some of workspaces will be upgrade to Advanced Analysis, the others require manual</td>
</tr>
<tr>
<td></td>
<td></td>
<td>changes</td>
</tr>
<tr>
<td>Import Wizard</td>
<td>Upgrade Manager Tool</td>
<td>• New tool</td>
</tr>
</tbody>
</table>
## Product Changes - Other Components

<table>
<thead>
<tr>
<th>XI R2 / XI 3.1</th>
<th>BI 4.0</th>
<th>Upgrade Consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integration Kits for SAP, PeopleSoft, Siebel, JD Edwards, Oracle</td>
<td>Integrated in BI 4.0</td>
<td>• No separate installation require</td>
</tr>
<tr>
<td>Integration Kit for SharePoint</td>
<td>Integrated in BI 4.0 SP2</td>
<td>• Same feature as in XI 3.1 with the support of the Online to Online mode</td>
</tr>
<tr>
<td>Data Federator</td>
<td>Partially integrated in BI 4.0</td>
<td>• Existing DF 3.x deployments remain compatible with BI 4.0</td>
</tr>
<tr>
<td>Live Office</td>
<td>No Change</td>
<td>• Existing documents will continue to work</td>
</tr>
<tr>
<td>Mobile</td>
<td>Integrated in BI 4.0</td>
<td>• Need to update client machine</td>
</tr>
<tr>
<td>Query as a Web Service (QaaWS)</td>
<td>No Change</td>
<td>• Local content moved with upgrade manager</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 3.1 and BI 4.0 may coexist (2 client versions on the device)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Parameters to be re-set or copied</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• QaaWS will continue to work</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Upgrade Manager will detect dependencies to universes (UNV)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Dashboards on QaaWS will continue to work</td>
</tr>
</tbody>
</table>
### Security Upgrade

#### XIR2 > BI40
- Continuity + new features have been added since XI R

- **Set up rights at the root folder**
- **Specify the new “owner right” for existing products**
- **Specify rights with new products (WRC, IDT, LCM, etc)**
- **Simplify your security model by:**
  - creating Custom Access Level
  - using selective enforcement of rights (Objects or Sub Object)

#### XI3.1 > BI40
- Security model is the same as the one of XI

- **Specify the new “owner right” for existing products**
- **Specify rights with new products (IDT, LCM, etc)**
Content Inventory and Cleanup

Upgrading content that is not needed increases risks and time to upgrade.

Limiting the proliferation of universes and reports allows the business to be more efficient.

Cleanup Tasks

- Fix or delete scheduled jobs that are paused or failed
- Detect and delete un-used reports after checking with users
- Remove older report instances or un-used instances
- Fix repository inconsistencies

Using Tools

- Repository Diagnostic Tool
- Instance Mngr / CMC
- Auditing
- Upgrade Mngr Tool
Full System vs Staged Upgrade

**Full / One Shot Upgrade**
- Upgrade all content at once
- Only 1 system to maintain
- Requires lockdown of the entire system
- Issues affect the entire system
- Long downtime
- Simpler (less options)

**Stage / Incremental Upgrade per department**
- Upgrade content in stages
- 2 systems to maintain
- Requires lockdown of department folder
- Issues affect only the department upgraded
- Short downtime
## Acceptance / Validation

<table>
<thead>
<tr>
<th>On a Sandbox</th>
<th>In Place</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Products features and functions</td>
<td>• Products features and functions</td>
</tr>
<tr>
<td>• Compatibility with existing systems</td>
<td>• Security model</td>
</tr>
<tr>
<td>• Estimate time to upgrade</td>
<td>• critical folder &amp; groups</td>
</tr>
<tr>
<td>• Success of the content upgrade (users, security, universes, reports...)</td>
<td>• top 10 most used</td>
</tr>
<tr>
<td></td>
<td>• BI Content</td>
</tr>
<tr>
<td></td>
<td>• 50 documents most frequently used</td>
</tr>
<tr>
<td></td>
<td>• 50 documents with longest refresh time</td>
</tr>
<tr>
<td></td>
<td>• 5 most critical documents for power users and VIPs (Inboxes / Personals / Public Folders)</td>
</tr>
<tr>
<td></td>
<td>• 10 universes most frequently use</td>
</tr>
</tbody>
</table>
Technical Implementation
Best practice: upgrade from previous version (XI R2 / XI 3.x) Production to BI 4.0 Qualification

Current limitation of LCM in BI 4.0 (to be addressed in a future minor release) may lead to: previous version (XI R2 / XI 3.x) Production to BI 4.0 Production
The right tool for the job in BI 4.0

**Upgrade Management Tool**
- **Upgrade:** "Transport and transform content from previous version to newer version" Content includes all objects.
- **Improvement over previous releases:** Now a unique and scalable tool dedicated to upgrade

**Promotion LCM**
- **Promotion:** "Transport content from like system to like system"
- **Systems are the same major version e.g. Dev to Test to Production** Content is primarily document templates and metadata and schedules. Not document instances
Upgrade Manager Live-to-Live Scenario

- Optimized for a large amount of objects. No intermediate step or Storage
- 2 ways (Incremental or Complete)
- Required to have source and destination systems up and running
- Ports must be opened between source and destination
Upgrade Manager BIAR-to-Live Scenario

- Needs to be used when the previous and new systems cannot be connected
- Allows to keep a snapshot of the content and possibly re-start the process from it
- Use small BIAR (10,000 objects, 1Gb max recommended)
Overview

- Keep your XI 3.1 audit data and do reporting from BI 4.0 on it. And upgrade XI 3.x universes and reports.

Audit solutions that use the XI 3.x audit schema:

- Keep existing XI 3.x audit database for historical data
- Move the XI 3.x audit application (universe + reports) into the new system
- Start BI 4.0 with a fresh BI 4.0 audit database
- Install the BI 4.0 sample audit universe and reports (found on the web site)
- Customize the samples or re-develop reports to match XI 3.x and BI 4.0 needs
- If continuity is needed: Create a multi-source universe and appropriate reports to get audit continuity before and after the upgrade
Desktop Intelligence

Overview
- Desktop Intelligence documents will no longer be available in BI 4.0 CMS.

How to convert Desktop Intelligence Document:
- Desktop Intelligence to Web Intelligence (convert with RCT)

New XIR2 & XI 3 Desktop Intelligence Features converted with RCT 4.0
- Query on Query
- Fold/Unfold
- Show/Hide
- Fit to page
Desktop Intelligence documents will no longer be available in BI 4.0 CMS.

The only way for a user to bring Desktop Intelligence content is

- Link to UNV is preserved
- CUID stay the same
Take Away

- **Plan the upgrade**
  - Upgrading is a demanding project. Need plan, milestones, backup and test strategies...

- **Platforms / Product changes**
  - Platforms supported with BI 4.0 may be different from your existing system
  - Some features may be staged to a later BI 4 release / some products are deprecated or replaced

- **Content inventory and cleanup**
  - Should you upgrade the all content or take the opportunity for some cleanup?
  - Upgrading content that is not needed just increases risks and time to upgrade

- **Full system versus Staged upgrade**
  - Shutdown the production system and upgrade it all or upgrade one application / group at a time
  - Validate the upgrade
  - Identify what needs to tested and execute a relevant testing campaign