

# Best Practices and Methodologies for Upgrading SAP BusinessObjects Enterprise to SAP BusinessObjects BI 4.0



Martha Levi, SAP Technology RIG  
David Francois Gonzalez, SAP Technology RIG  
Patrice Le Bihan, SAP Technology RIG



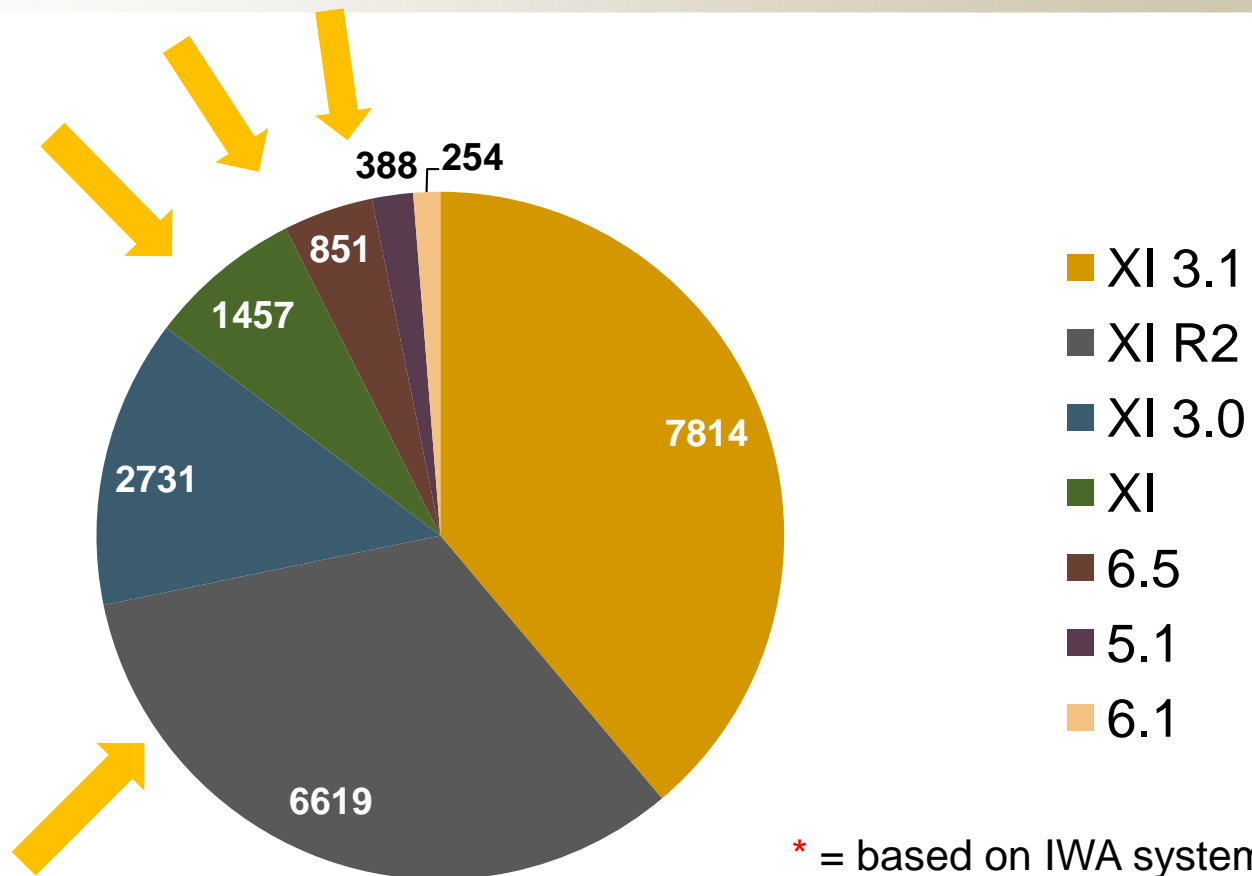
WEBINAR

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# Classic BusinessObjects Enterprise Environment Customer Basis



- 20 000 \* customers on previous version of BOE
- 9 000 customers on BOE versions that have been EOL



# Agenda



- 1. Upgrade Overview and Concepts**
2. Upgrade Best Practices
3. Technical Implementation
4. Appendix

# SAP BusinessObjects 4.0

## New Capabilities when Upgrade



### New Semantic Layer

- Native multi-source support for fresh perspectives
- New information design tool for heterogeneous access over all sources
- New abstraction layer for multi-dimensional data sources

### Engaging User Experience

- Modern styling and unified look and feel
- Refined interactivity with shared charting, alerting, and search options
- Common query design experience across all data sources

### Simplified, Right-Scale Deployment

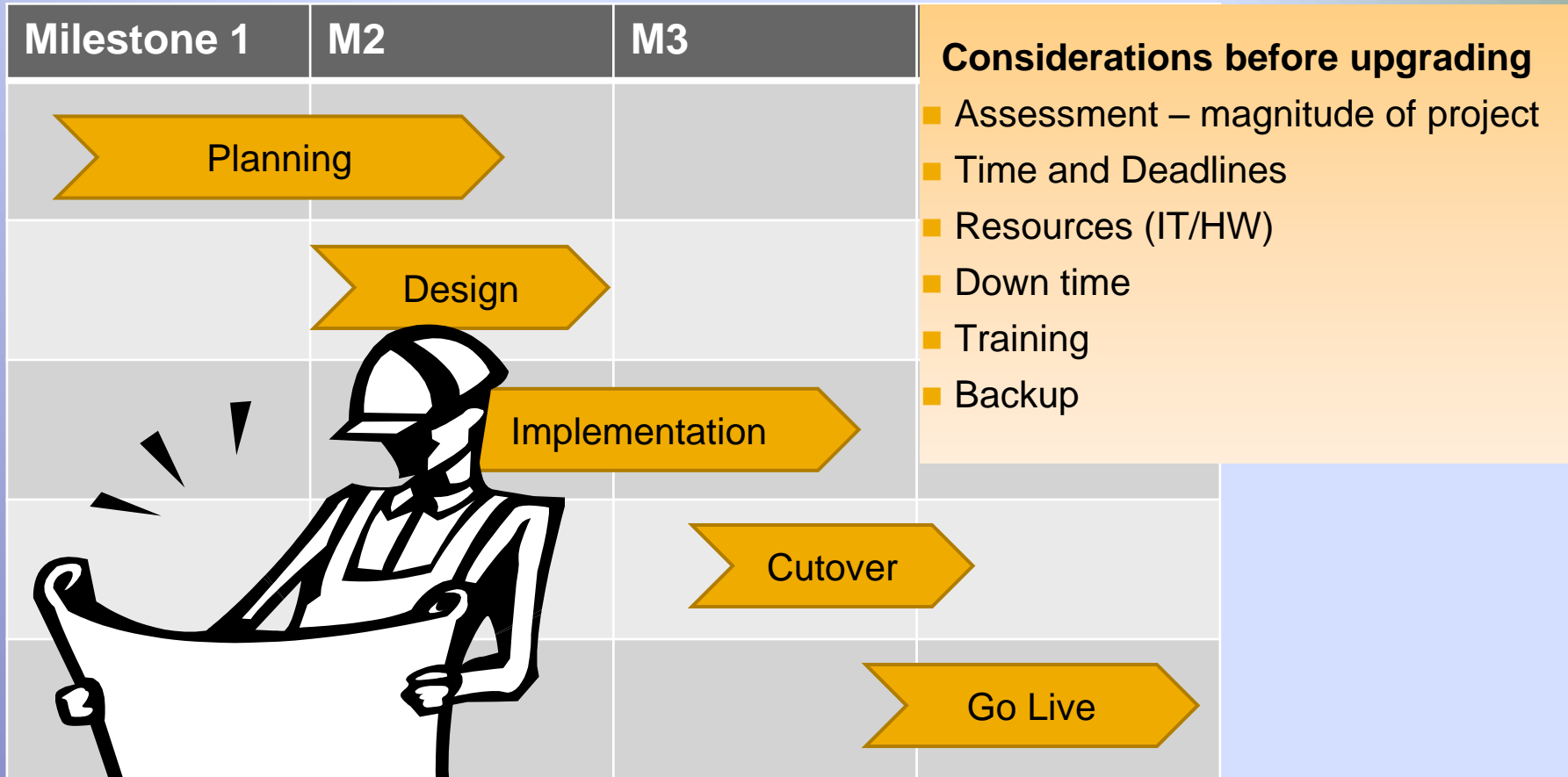
- Enhanced scalability with virtualization and native 64-bit support
- Comprehensive system diagnosis and monitoring
- New auditing for compliance and usage analysis



# Planning your Upgrade



## Typical Upgrade Timeline



## 1- Platforms

- Platforms supported with BI 4 change
- Architecture changes - servers are now 64 bits only



Review each component of the landscape to define the appropriate strategy

## 2- Version upgrade path

- Newer systems have a direct upgrade path
- Older systems may require extra steps



Recommendations are provided in this presentation

## 3- Product Changes

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



Understand the upgrade path for each product you are using

## 4- Security upgrade

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



Review your options and needs. Details in this deck.

## 5- Content inventory and cleanup

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



Recommendation to at least do some cleanup before upgrading

## 6- Full system vs Staged upgrade

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



Review the pros and cons depending on your own constraints

## 7- Acceptance / Validation

- Should you test the upgrade process?



Obviously yes! Test your upgrade on a sandbox



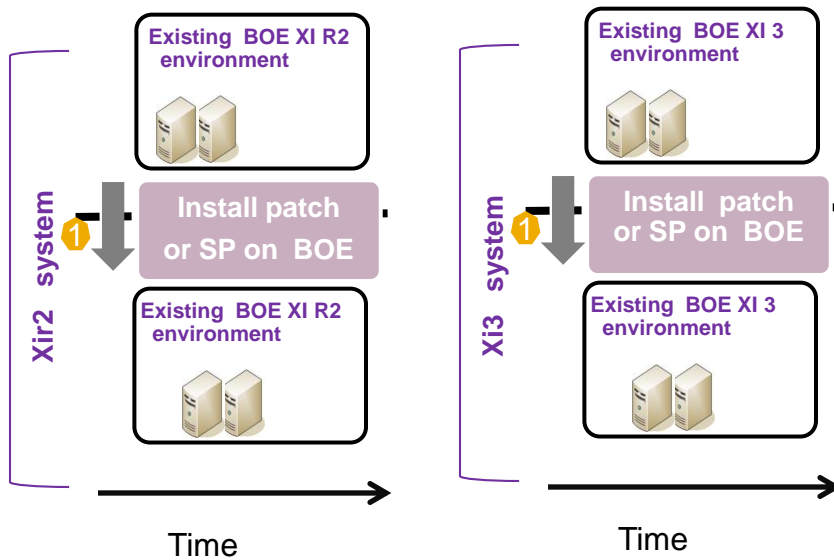
# Agenda



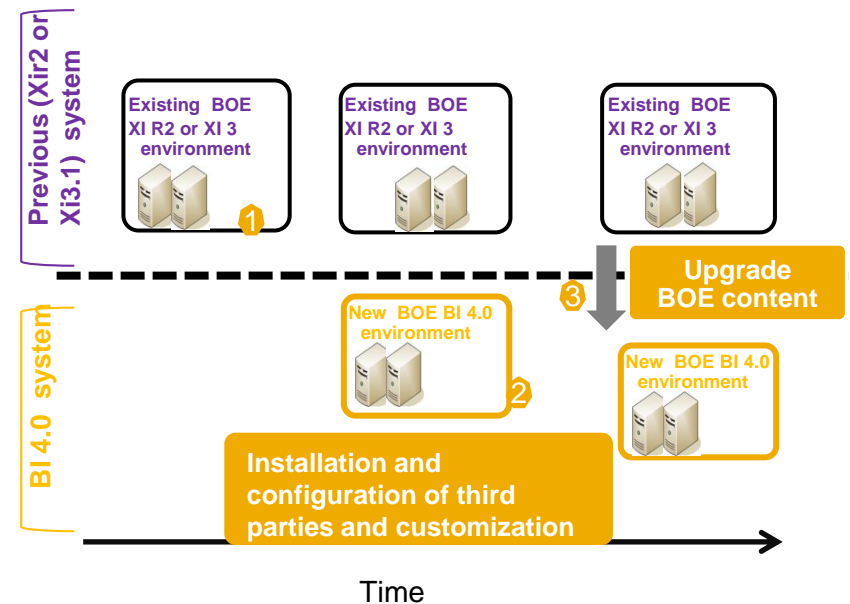
1. Upgrade Overview and Concepts
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# “In Place” versus “In Parallel” upgrade

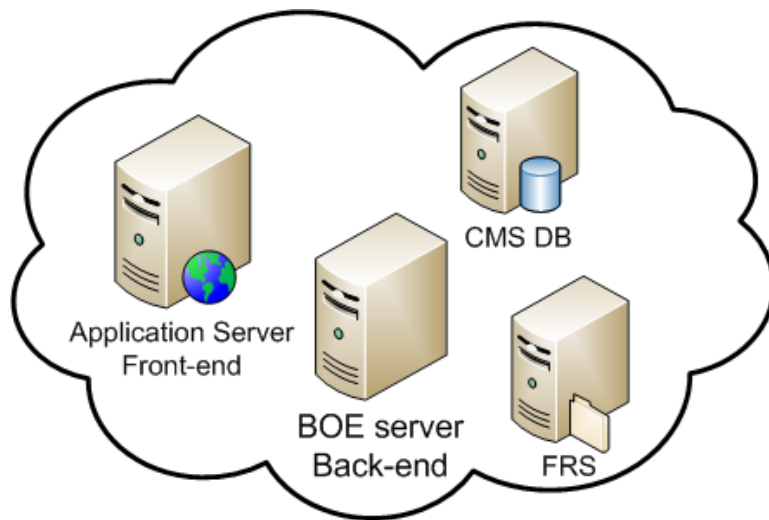
- **In place** upgrade
- Upgrade on the **same** version
- Installing **Patch** or **Service Pack**



- **In parallel** upgrade
- Upgrade on **different** version
- Moving from **XI R2/ XI3** to **BI4.0**



- The BI4.0 architecture has changed
- All servers need to be installed now on 64 bits only
- Are you third parties compliant to 64 bits ?



## Other components

- Third parties as / infrastructure like « reverse proxy, Authentication model , JVM...»

## 2- Versions Upgrade Path Migration Versus Upgrade



Moving on a different platform = Migration  
(BO V5/V6 to XI R2)

BusinessObjects  
v5 & v6 platform

XI R2 Platform

Complexity : High

- Major change in architecture, significant rework required
- Need to rewrite the security model
- Conversion from Desktop Intelligence to Web Intelligence difficult due to lack of features

Moving on same platform = Upgrade  
(XIR2 or XI3 to BI4)

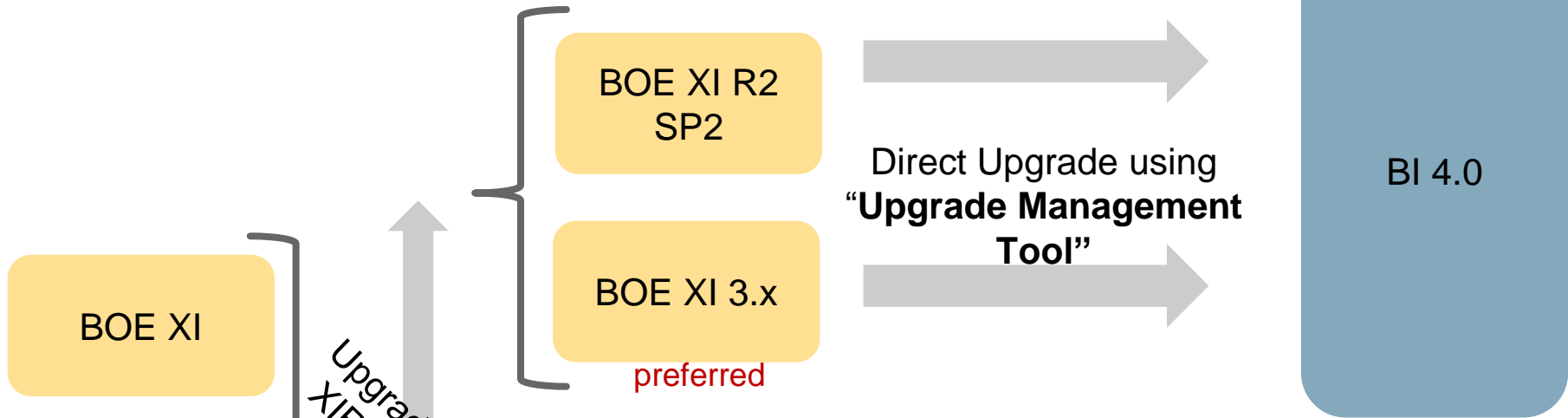
XI R2  
or XI 3.x  
Platform

BI 4.0  
platform

Complexity : Low

- Minimal rework/reconfiguration required
- Continuity in the security model
- Catch up between Desktop Intelligence and Web Intelligence almost complete
- Streamlined upgrade management tool

# 2- Versions Upgrade Path



No direct Upgrade

Go first to XI R2 or XI 3.x








BOE stands for BusinessObjects Enterprise.

BI stands for Business Intelligence

CE for Crystal Enterprise.

# 3- Product Changes - BI Platform Components



Complexity	XI R2 / XI 3.1	BI 4.0	Upgrade Considerations
	Binaries	New binaries	<ul style="list-style-type: none"> <li>■ The full landscape has to be re-installed</li> </ul>
	Audit	New audit schema	<ul style="list-style-type: none"> <li>■ Historical audit data is not kept. Need to plan for a workaround</li> </ul>
	InfoView	BI Launch Pad	<ul style="list-style-type: none"> <li>■ New interface</li> <li>■ Report pinning</li> </ul>
	Dashboard Builder	BI Workspace	<ul style="list-style-type: none"> <li>■ Corporate, Personal and My InfoView Dashboards become BI Workspaces but some analytics must be recreated in Xcelsius</li> </ul>
N/A	Encyclopedia / Discussion	End of Life	<ul style="list-style-type: none"> <li>■ No upgrade</li> </ul>
N/A	Performance manager	End of Life	<ul style="list-style-type: none"> <li>■ No upgrade</li> </ul>
	Search	New search technology	<ul style="list-style-type: none"> <li>■ The search index will be re-built in BI 4.0</li> </ul>

Additional work required beyond typical upgrade:

Minor effort =



Medium effort =



Significant Effort =






# 3- Product Changes - BI Clients



Complexity	XI R2 / XI 3.1	BI 4.0	Upgrade Considerations
	Crystal Reports	CR 2011 and CR for Enterprise	<ul style="list-style-type: none"> <li>All reports are by default upgraded to CR 2011</li> <li>Possible manual upgrade to CR Enterprise</li> </ul>
to	Desktop Intelligence	End Of Life	<ul style="list-style-type: none"> <li>Report Conversion Tool converts into Web Intelligence format prior or after the upgrade</li> </ul>
	Xcelsius 2008	Dashboards	<ul style="list-style-type: none"> <li>Flash files will continue to work</li> <li>Conversion to new format is optional</li> <li>Conversion adds new features (globalization, UNX queries...)</li> </ul>
	Explorer	No UNV support BWA/Accelerated is planned 4.0 SP01	<ul style="list-style-type: none"> <li>Information Spaces based on Excel are upgraded, the ones based on UNV and bookmarks are not !</li> </ul>
to	Voyager	Analysis, edition for OLAP (fka Pioneer Web)	<ul style="list-style-type: none"> <li>Some of workspaces will be upgrade to Advanced Analysis, the others require manual changes</li> </ul>
	Web Intelligence	Web Intelligence	<ul style="list-style-type: none"> <li>Fully upgraded</li> </ul>
N/A	Web Intelligence SDK	No Web Intelligence SDK support	<ul style="list-style-type: none"> <li>Wait until full support and availability of Interactive Analysis (REBEAN) SDK in a later release</li> </ul>

# 3- Product Changes - BI Clients - Semantic Layer



Complexity	XIR2 / XI 3.1	BI 4.0	Upgrade Considerations
	Universe Designer - UNV format	No change	<ul style="list-style-type: none"> <li>None, universes and designer as in XI 3.x</li> </ul>
	n/a	Information Designer – UNX format	<ul style="list-style-type: none"> <li>Relational UNV can be converted to UNX</li> <li>OLAP UNV have to be re-created in UNX (future version will support conversion)</li> </ul>
	Business Views Designer – BV format	No change	<ul style="list-style-type: none"> <li>None, business views and designer as in XI 3.x</li> <li>Via CR 2011 only</li> </ul>

Additional work required beyond typical upgrade:

Minor effort = 

Medium effort = 

Significant Effort = 

## 4- Security Upgrade (Continuity in the security model since XI R2)



### XI R2 → BI 4.0

Continuity + new features have been added since XIR2

In BI 4.0 you have to :

- 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)

### XI 3.x → BI 4.0

Security model is the same as the one of XI 3

In BI 4.0 you have to :

- Specify the new “owner right” for existing products
- Specify rights with new products (IDT, LCM, etc )

# 5- Content Inventory and Cleanup (daily work)



## Project & Risk control

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

## Governance

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

- 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



Repository Diagnostic Tool



Instance Manager CMC



Auditing

## 5- Special content type (while upgrading)



Inboxes  
Personal Documents

- Upgraded with the user
- Possible to opt-out

Reports Instances

- Come with the report
- Option in Upgrade Management Tool not to import them

Scheduler Jobs

- Automatically carried over with the scheduled report



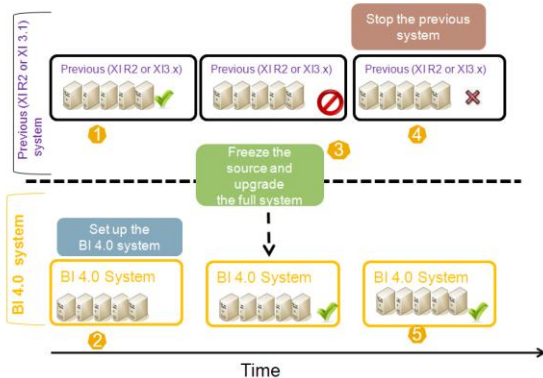
Upgrade  
Management  
Tool

# 6- Full System vs Staged Upgrade



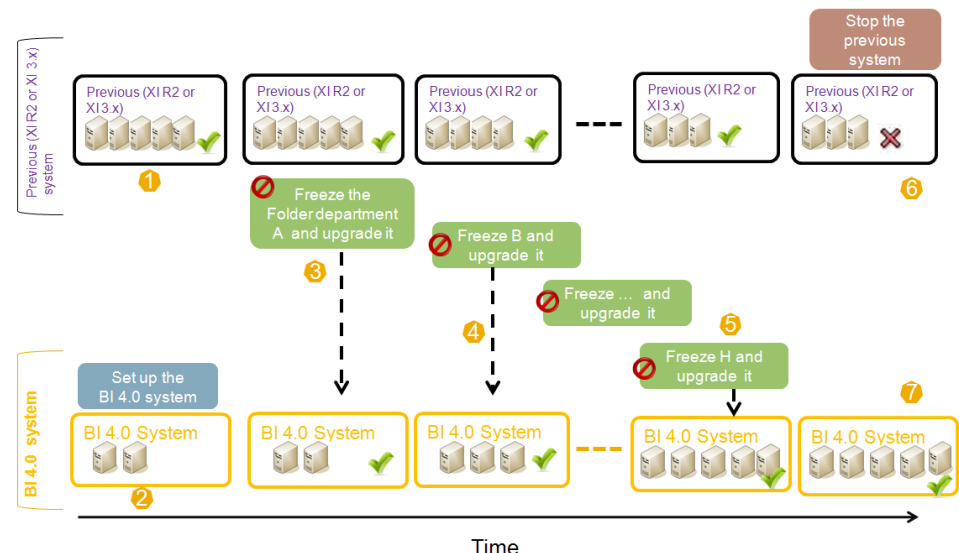
## Full / One Shot Upgrade

- 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)



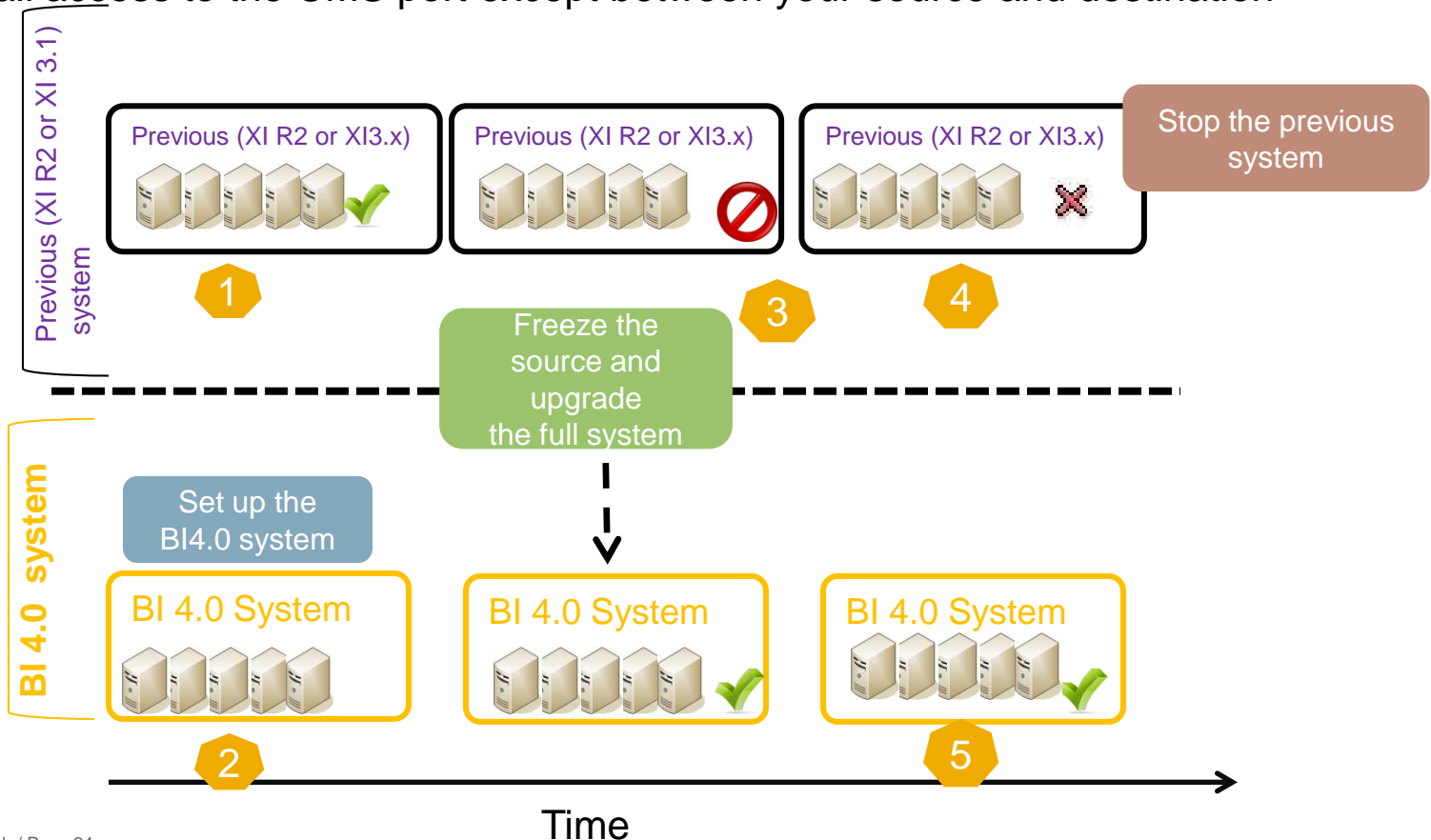
## Stage / Incremental Upgrade per department

- Upgrade content in stages
- 2 systems to maintain
- Requires lockdown of department folder
- Issues affect only the department upgraded
- Short downtime



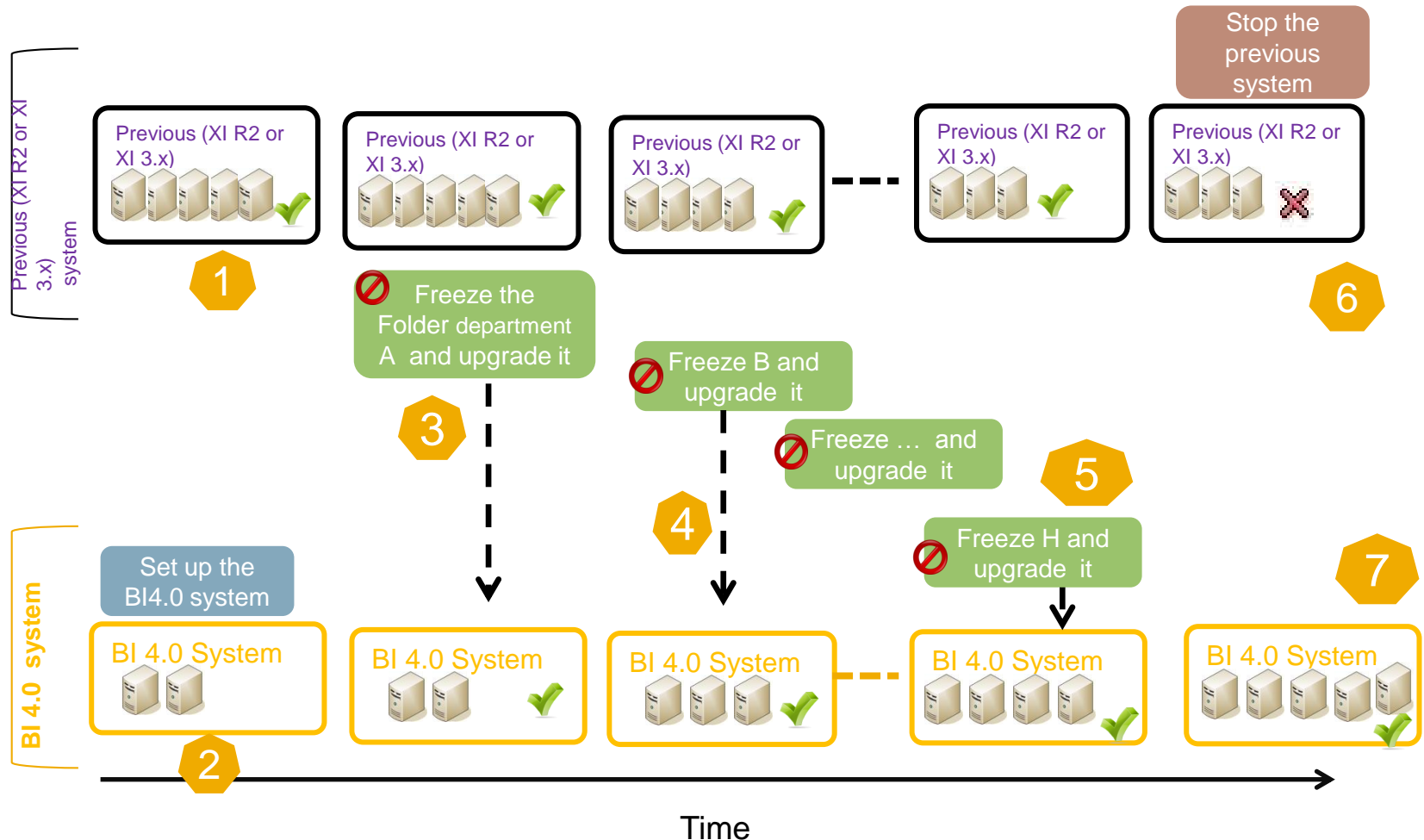
# 6- Full System Upgrade Considerations

- No lockdown or read only options available in BOE
- To lockdown a BOE system:
  - Shutdown your application server
  - Disable and stop all “BusinessObjects servers” except the “CMS, Input and output”
  - Block all access to the CMS port except between your source and destination



# 6- Staged Upgrade Considerations

- To lockdown a department folder, modify folder rights:
  - XI R2: explicitly deny view objects rights
  - XI 3: create a custom access level and explicitly deny view objects rights



## On a Sandbox

As part of the planning and discover process

- Products features and functions
- Compatibility with existing systems
- Estimate time to upgrade
- Success of the content upgrade (users, security, universes, reports...)

## In Place

Acceptance process right after the actual upgrade to the TEST system

- Products features and functions
- Security model
  - critical folder & groups
  - top 10 most used
- BI Content
  - 50 documents most frequently used
  - 50 documents with longest refresh time
  - 5 most critical documents for power users and VIPs (Inboxes / Personals / Public Folders)
  - 10 universes most frequently used

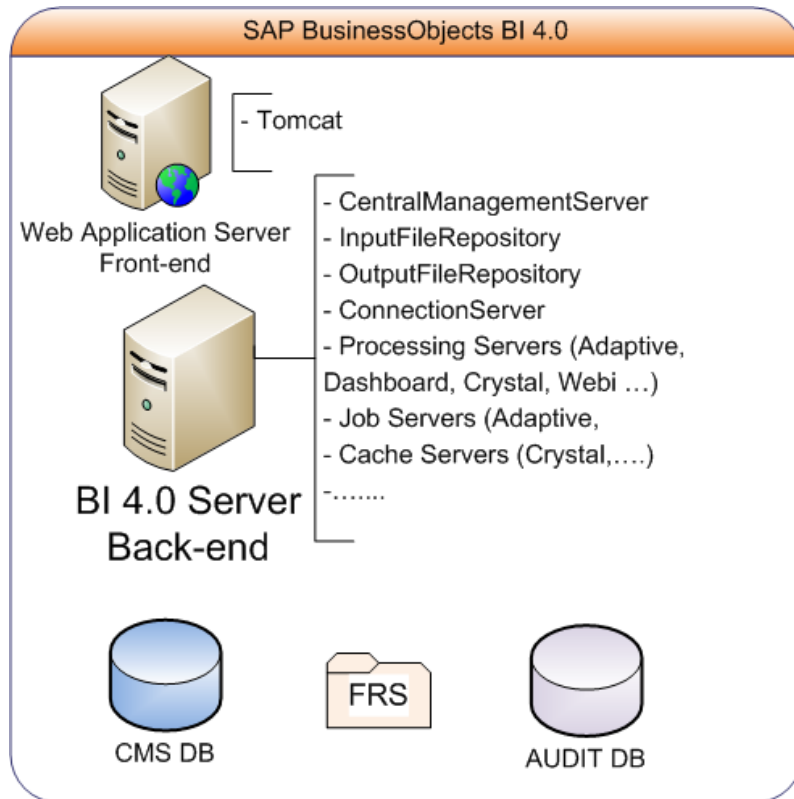


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- The general BI 4.0 architecture hasn't changed compare to XI R2 and XI 3

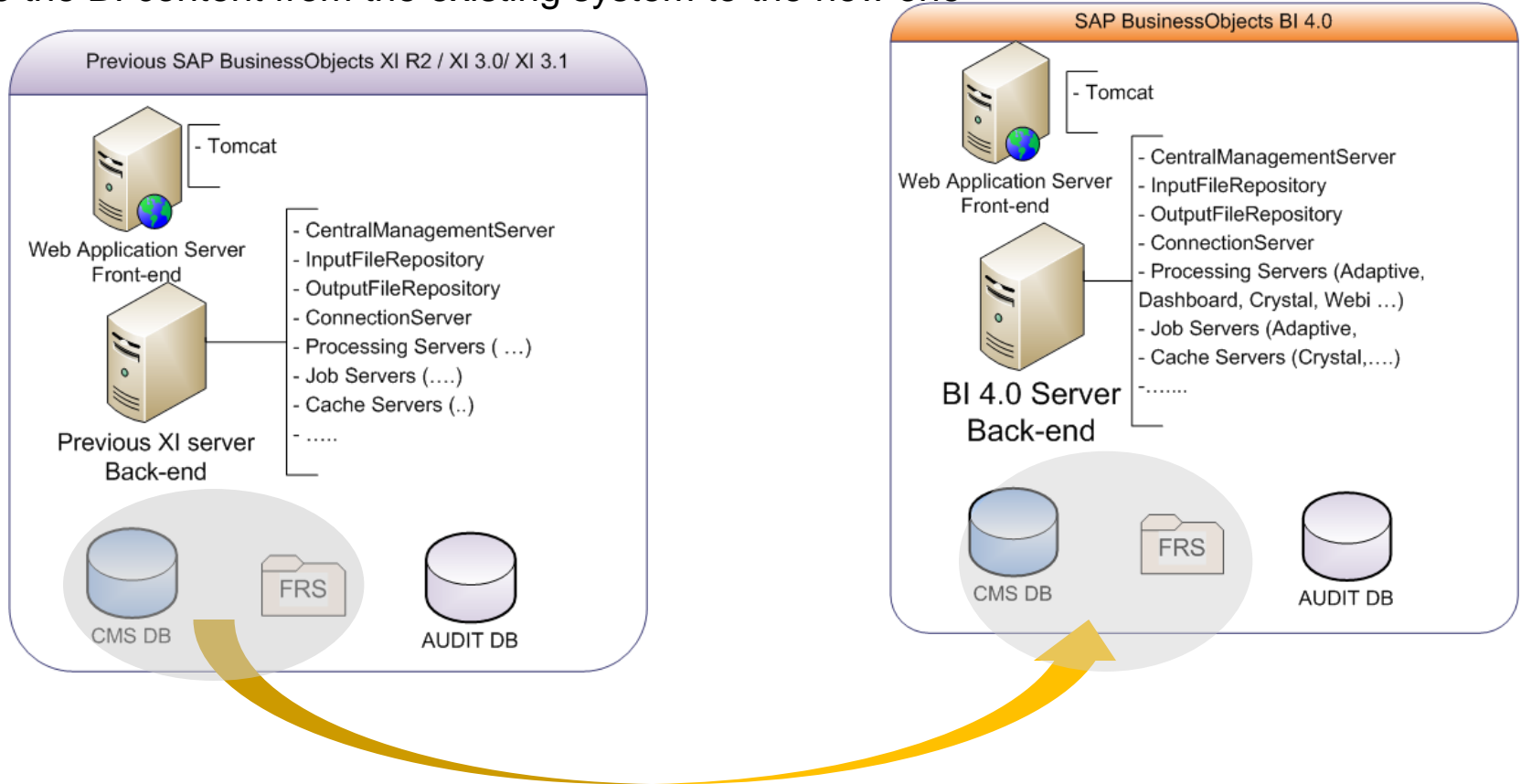


## 5 main components

- Web Application Server
- Back-end Servers
- 1 Central Management System (CMS) database (infoobjects)
- 1 File Repository (physical reports repository)
- 1 Audit Database

## Main steps

- Setup the new landscape with the new software version
- Move the BI content from the existing system to the new one



- On Windows, use different servers to install and run both systems in parallel
- On UNIX, use different servers OR different user accounts & ports on the same server

## Upgrade

## Promotion

### Upgrade Manager

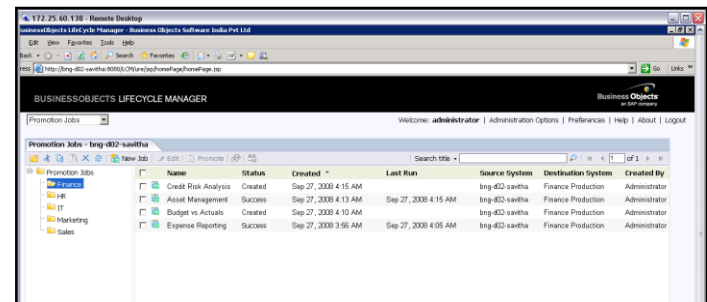
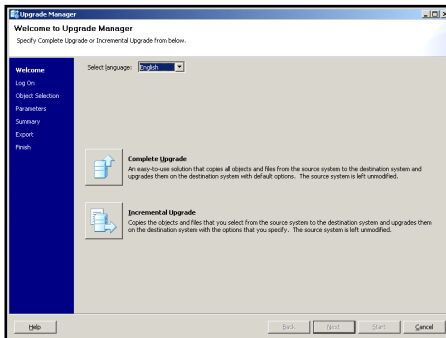
### LCM

**Upgrade:** “Transport and transform content from previous version to newer version” Content includes all objects.

**Promotion:** “Transport content from like system to like system”

**Improvement over previous releases:** Now a unique and scalable tool dedicated to upgrade

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.

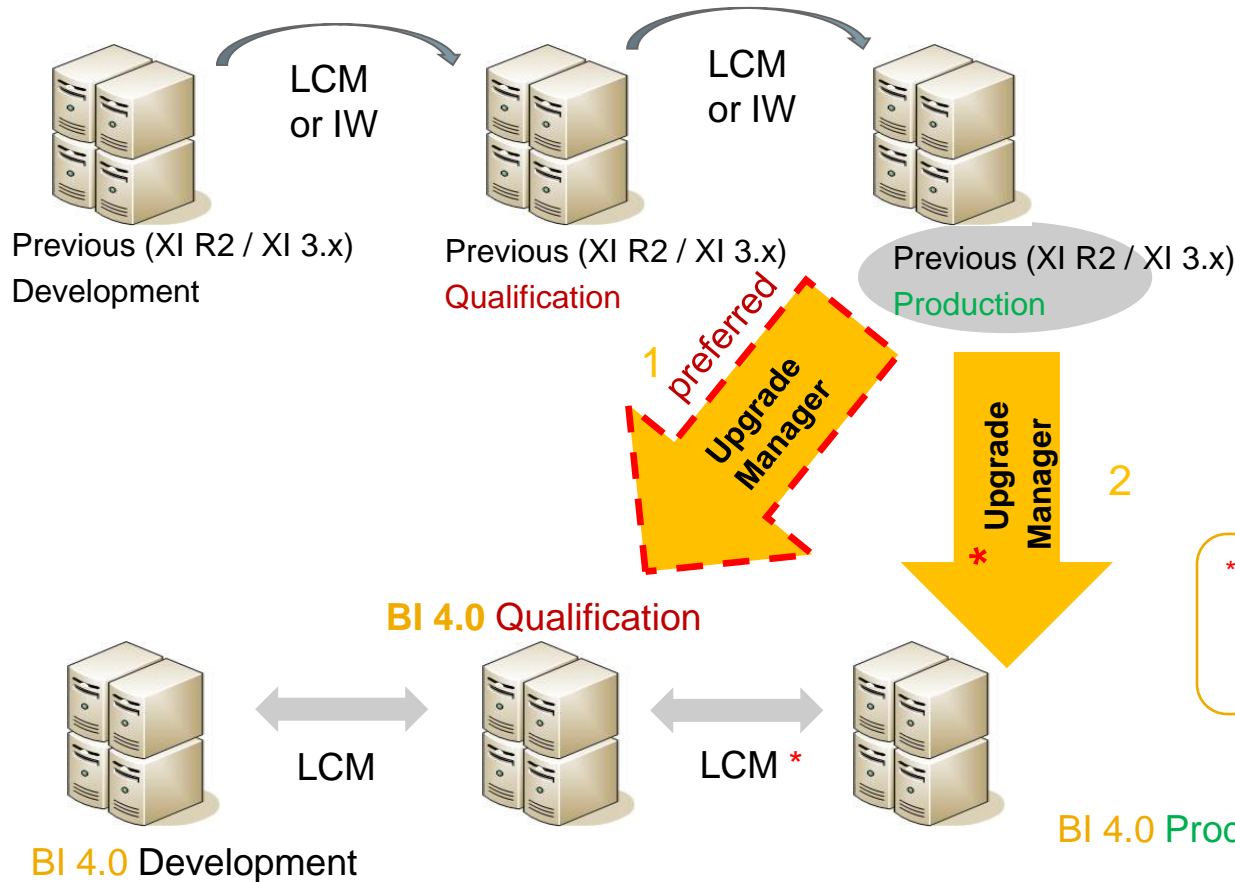


# Upgrade Considerations (DEV/ QUAL / PROD)



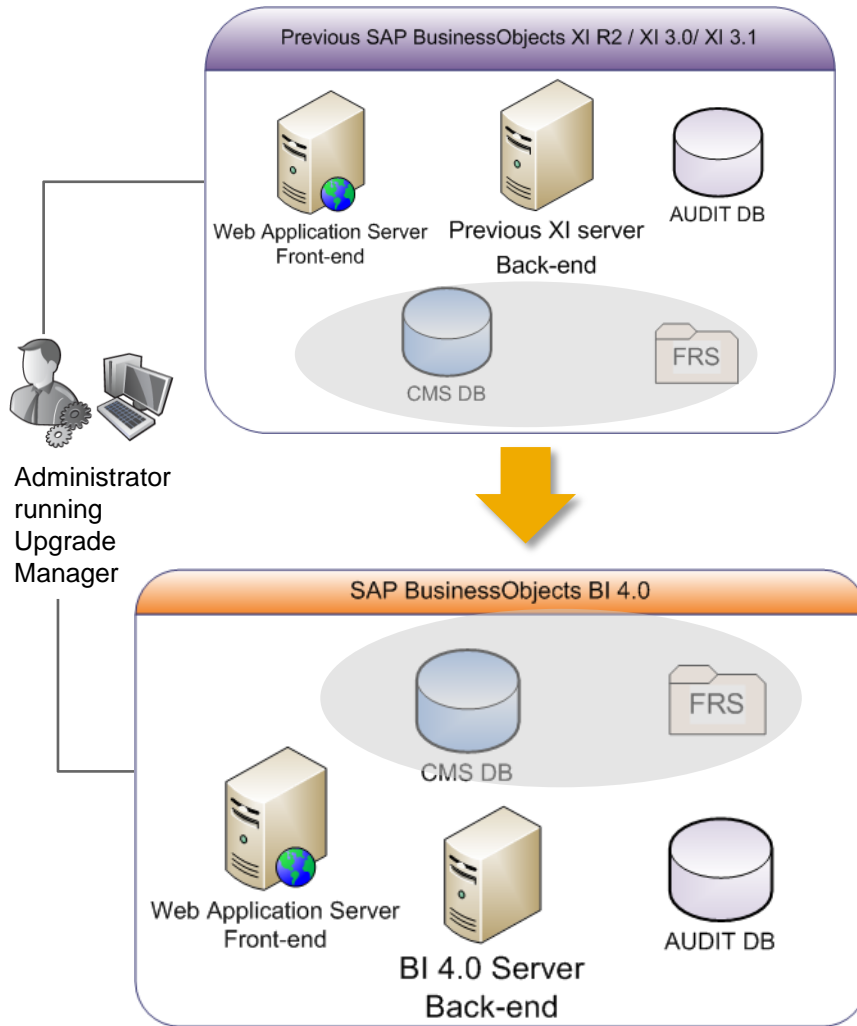
1. Best practice: upgrade from previous version (XI R2 / XI 3.x) Production to BI 4.0 Qualification
2. Current limitation of LCM in BI 4.0 (to be addressed in a future minor release) may lead to: upgrade from previous version (XI R2 / XI 3.x) Production to BI 4.0 Production

New version



\* In BI 4.0, Life Cycle Management (LCM) does not move document instances, user inboxes and personals documents

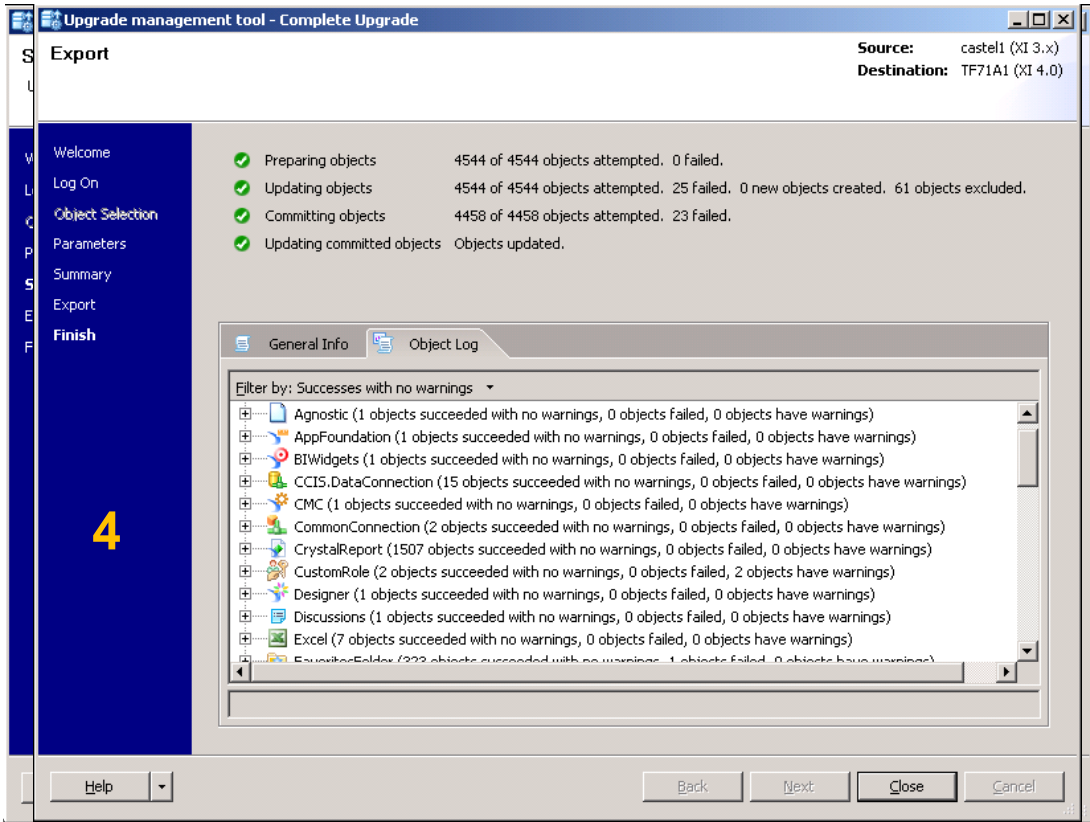
# Upgrade Manager Live-to-Live Scenario



Systems running in parallel and connected

- 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

# Basic Upgrade Workflow Demo - Full System



- Replaces Database Migration in Central Configuration Manager

- Easy, upgrade your entire repository in 4 steps

- Available in Windows GUI and Unix command line

End

# Basic Upgrade Workflow Demo - Staged



To perform an Incremental Upgrade:

The screenshot displays the SAP Upgrade management tool interface for an Incremental Upgrade. The main window is titled "Upgrade management tool - Incremental Upgrade" and shows the progress of the upgrade process. The source system is "castell (XI 3.x)" and the destination is "TF71A1 (XI 4.0)".

The workflow is divided into five main steps, each with a corresponding tab and a numbered yellow box below it:

- 1** Welcome / Specify Configuration
- 2** Log On / Select existing scenario
- 3** Object Selection / Select objects to be upgraded
- 4** Summary / Upgrade objects to be checked
- 5** Export / Export upgrade objects

The progress bar shows the following steps completed:

- ✓ Preparing objects: 5416 of 5416 objects attempted, 0 failed.
- ✓ Updating objects: 5416 of 5416 objects attempted, 25 failed, 0 new objects created, 48 objects excluded.
- ✓ Committing objects: 5343 of 5343 objects attempted, 9 failed.
- ✓ Updating committed objects: Objects updated

An "Object Log" window is open, showing the following log entries:

- Step "Preparing objects" started.
- Step finished.
- 5416 of 5416 objects attempted, 0 failed.
- Step "Updating objects" started.
- Desktop Intelligence is no longer supported in XI 4.0. None of the Desktop intelligence documents will be committed to the destination.
- Step finished.
- 5416 of 5416 objects attempted, 25 failed, 0 new objects created, 48 objects excluded.
- Step "Committing objects" started.
- Step finished.
- 5343 of 5343 objects attempted, 9 failed.
- Step "Updating committed objects" started.
- Step finished.
- Objects updated.

At the bottom of the window, there are buttons for "Back", "Next", "Close", and "Cancel".

## Plan the upgrade

- Upgrading is a 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 be tested and execute a relevant testing campaign



## ➔ Related SAP Education and Certification Opportunities

<http://www.sap.com/education/>

## ➔ SAP BusinessObjects 4.0 Information

- BI 4.0 eLearning: <http://www.sdn.sap.com/irj/scn/bi-suite-tutorials>
- SAP.com: [www.sap.com/business-analytics](http://www.sap.com/business-analytics)
- SAP Community Network (SCN): [www.sdn.sap.com/irj/scn](http://www.sdn.sap.com/irj/scn) and <http://www.sdn.sap.com/irj/sdn/bi>
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-  Twitter: <http://www.twitter.com/businessobjects>
-  YouTube: <http://www.youtube.com/user/SAPBusinessObjects>

## SAP RIG:

Further technical information from the SAP Technology RIG

- Upgrade Wiki :  
<http://wiki.sdn.sap.com/wiki/display/BOBJ/All+you+need+to+know+before+upgrading+to+BI4.0>
- Webinars: <http://www.sdn.sap.com/irj/scn/ipnw-khnc>
- How to Guides: <http://www.sdn.sap.com/irj/scn/howtoguides>.
- Podcasts: <http://www.sdn.sap.com/irj/scn/sap-how-it-works-elearning>.





**Feedback**

**THANK YOU !**



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# Product Changes - Parameters and Customization



XI R2 / XI 3.1	BI 4.0	Upgrade Considerations
Security and Authentication settings (AD / LDAP / SSL / SAP)	To be set up in BI 4.0	■ No upgrade
Reporting databases connectivity	To be set up in BI 4.0	■ No upgrade
BOE Server configuration settings	To be set up in BI 4.0	■ No upgrade
Web Application configuration settings	To be set up in BI 4.0	■ No upgrade. BOE specific settings moved from Web.xml file to properties file.
InfoView Customization (picture, logo, ...)	To be set up in BI 4.0	■ No upgrade
Custom Java code using the BOE SDK and Report Engine SDK		■ Need to validate your custom code will still work in BI 4.0. Some of the Java functions can be deprecated.



## Checked if your version are still supported?

- OS
- Application Server
- CMS repository database
- Reporting Databases connectivity
- Third parties as / infrastructure like « reverse proxy, Authentication model , JVM...»

## Go to : BusinessObjects Product Availability Report (PAR)

- <http://service.sap.com/support> -> Help & Support -> SAP BusinessObjects Support -> Supported platform documents



## 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





## 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)

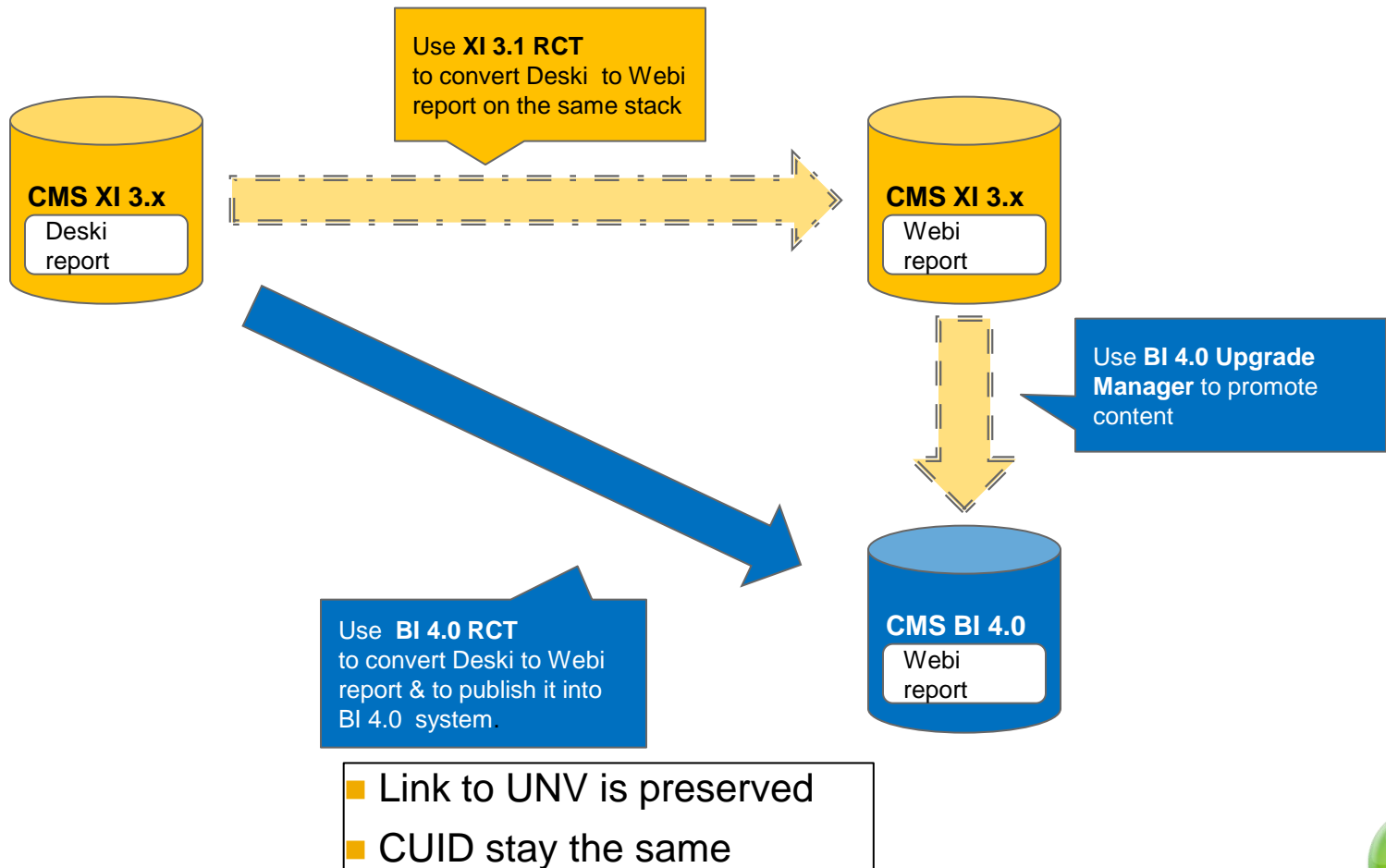
## New XIR2 & XI 3 Desktop Intelligence Features converted with RCT 4.0

- Query on Query
- Fold/Unfold
- Show/Hide
- Fit to page

# Desktop Intelligence & Report Conversion Tool



- 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:



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