



Upgrade from Content Server 9.7x to 10

in one step with no
downtime

Open Text – Synergy Webinar

Presented by:

Evan Wheeler & Martin Black



**DATA MOVING >>> Where You
Need It**





Martin Black

Director of Sales

- > 9 years with Syntergy
- > 12 years at Unisys Corporation prior to joining Syntergy
- > Brought Open Text into Unisys as a Partner
- > Managed Open Text partnership at Unisys

Evan Wheeler

Product Manager

- > 6 years with Syntergy
- > Previously an independent consultant and developer for many Open Text customers
- > Worked for Open Text as a Quality Assurance engineer and in their Performance & Scalability lab
- > Created the Open Text Performance Analyzer product



- > 14 Years Experience Serving Global 2000 Customers
 - > Headquarters in San Diego, CA
 - > Key Executives and Engineers from Open Text and other Content Management leaders
 - > Well Funded and Profitable
 - > Distributed Staff throughout USA/Canada/Europe
 - > Open Text Partner, Gold Microsoft Partner & ISV, Metalogix Partner.
- > Provider of more than 20 Enhancement Products for Content Server
 - > Experts in Upgrades/Migrations, Content Moving and Replication
 - > Provide Consulting, Training and Support for our Technologies and Products



Customers Worldwide



Customers



Canada

LOCKHEED MARTIN



GENERAL DYNAMICS
Advanced Information Systems



ConocoPhillips



Philip Morris U.S.A.



SASOL
reaching new frontiers



BARRICK

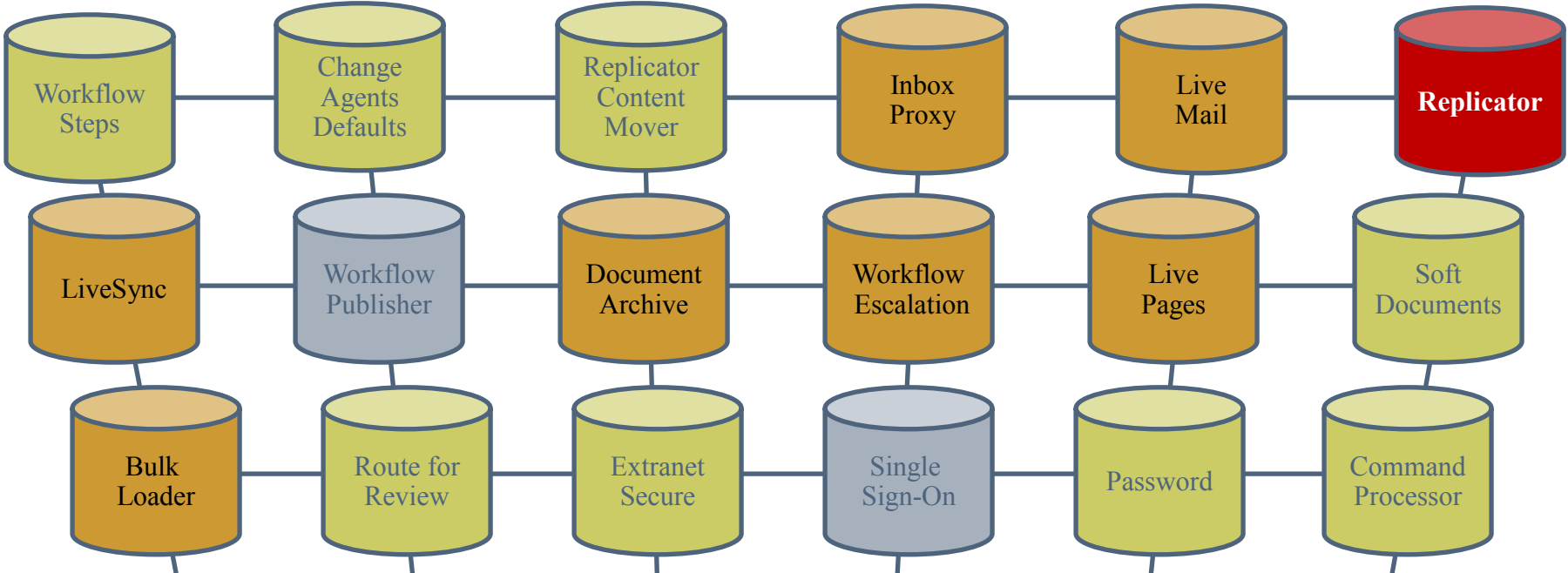
Husky Energy



Deloitte.



Content Server Modules



Livelink ECM & CS10

Enhanced Livelink modules enables a seamless experience for employees, customers and partners.

Support Options



Key Feature	Standard North American	International	Premium	Premium 7x24
Coverage Hours	9am-5pm EST (M-F)	9am-5pm GMT (M-F)	4am-8pm EST (M-F)	7x24x360 coverage
Response Times	48 hours	48 hours	12 hours	4 hours
Number of Named Contacts	2	2	4	4
Dedicated telephone "hotline"				<input checked="" type="checkbox"/>
Dedicated support site with alerting capability of new releases	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Includes all minor and major product releases/upgrades	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Utilizes web technology for investigation of customer environment (if required)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Unlimited email tickets, telephone call center	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



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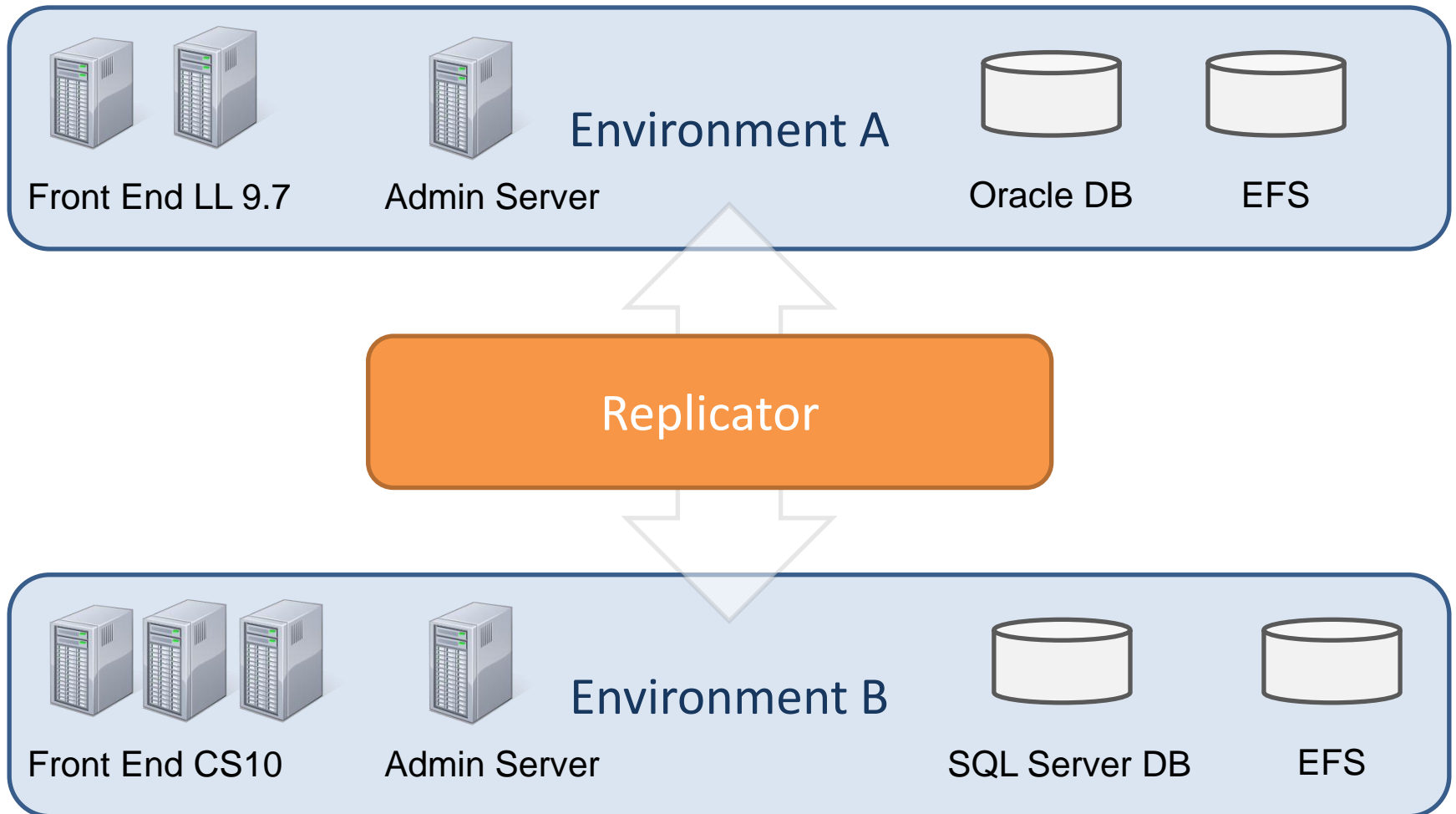
Replicator Overview

- Replicator is a LL/Content Server module
- Installed in two or more separate environments
- Users and groups synchronized during initialization
- All or specific content synchronized between environments
- Subsequent additions/changes to synchronized content are replicated
- Bi-directional and one-way replication supported
- Cross-version replication supported (9.2 - CS10)*



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Replication Scenario



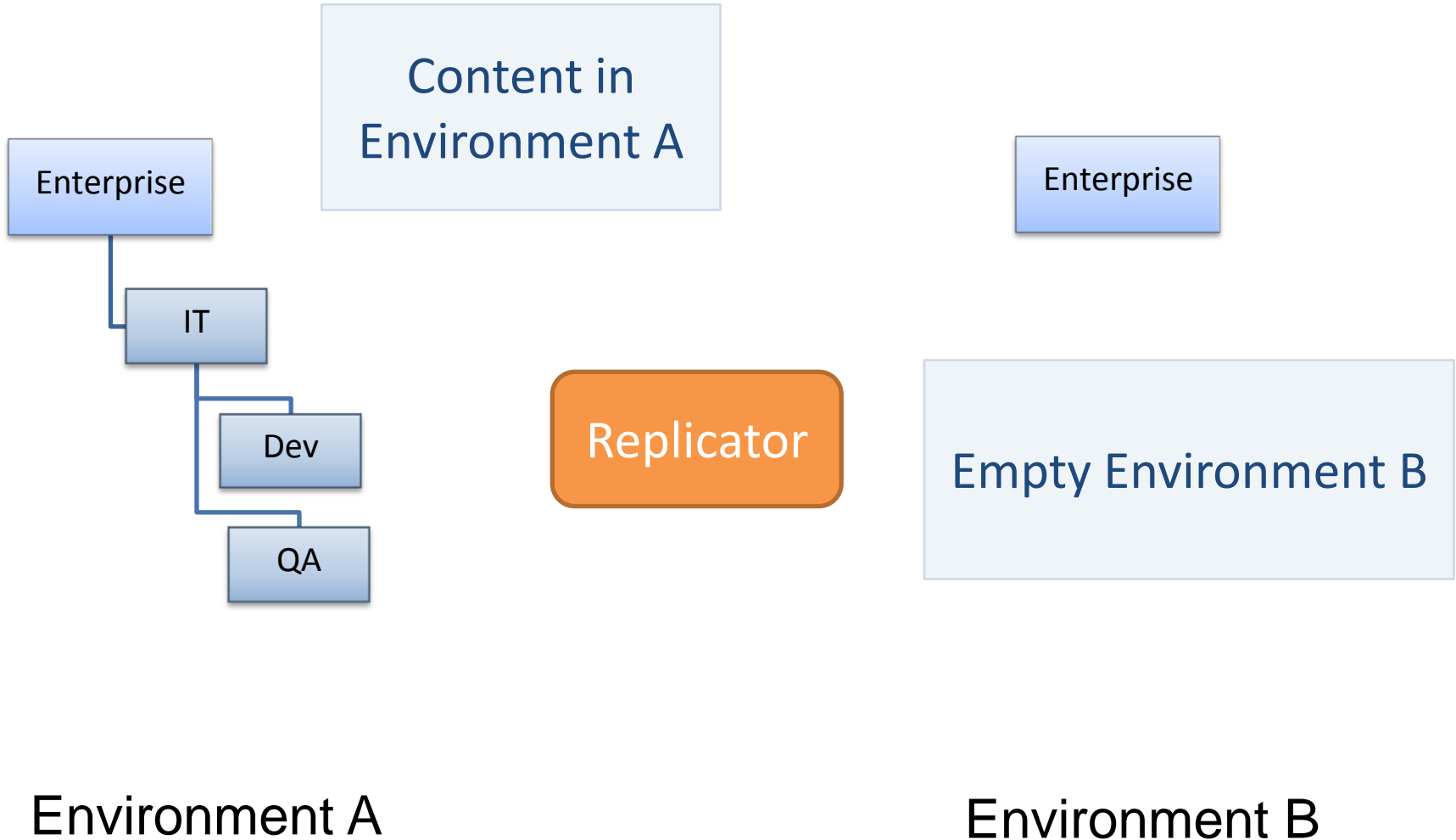


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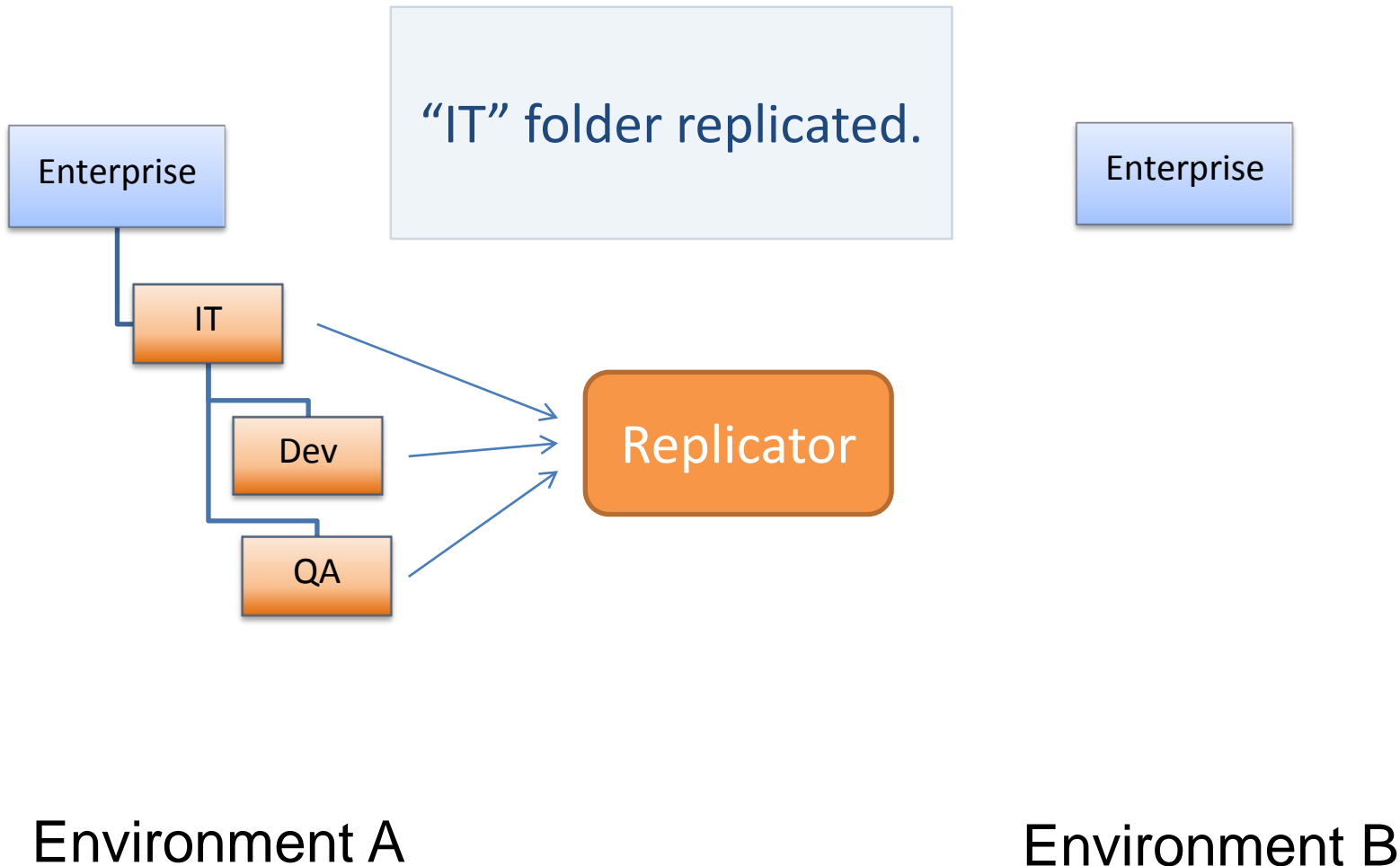
Replicating Content

- Replicating a container automatically replicates its child objects
- Replicated objects stay synchronized as long as replication is enabled
- Replication can be configured on the Enterprise or any object below
- Content can be “re-parented” during replication to reorganize folder structure

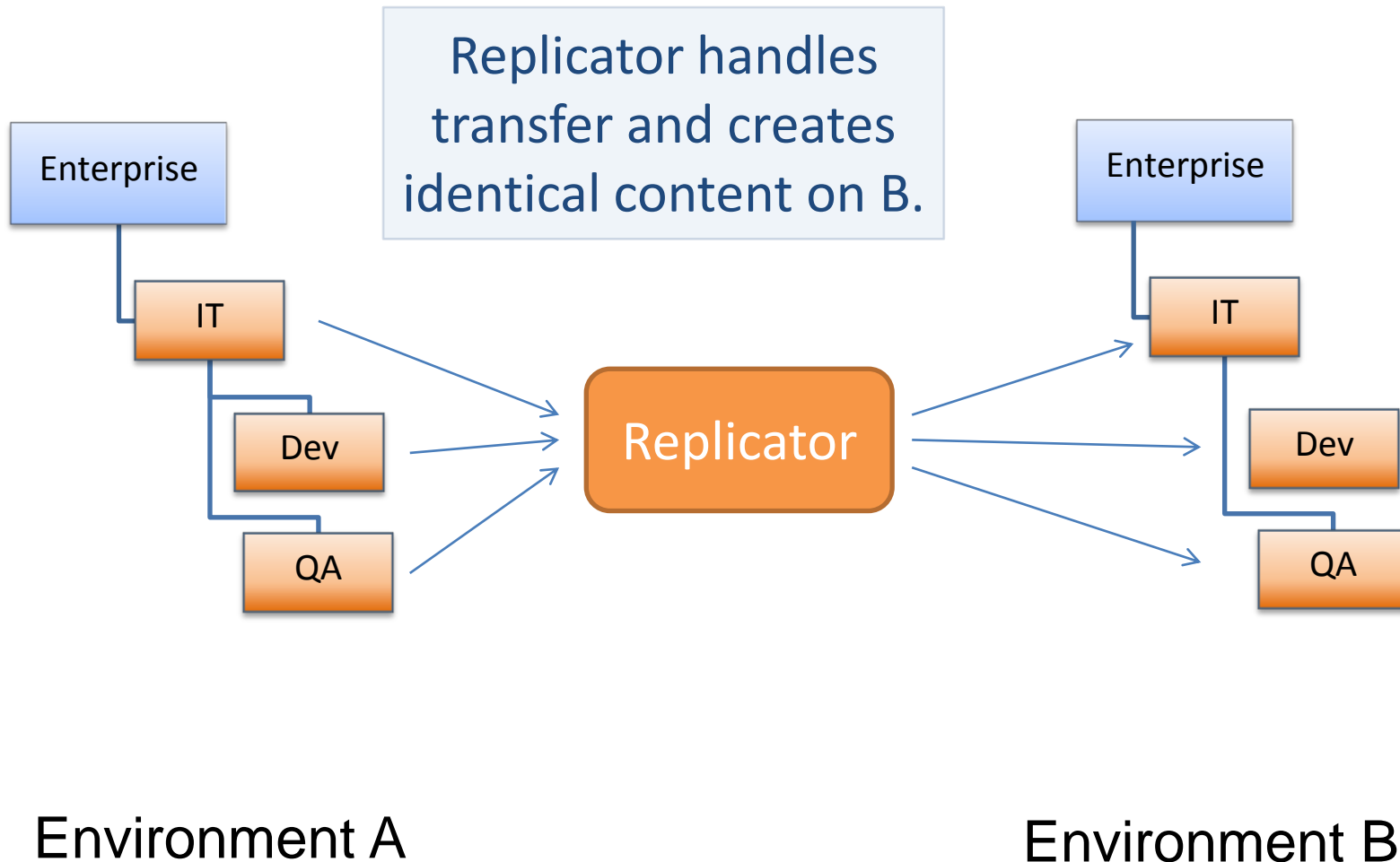
Replicating Content



Content Replication

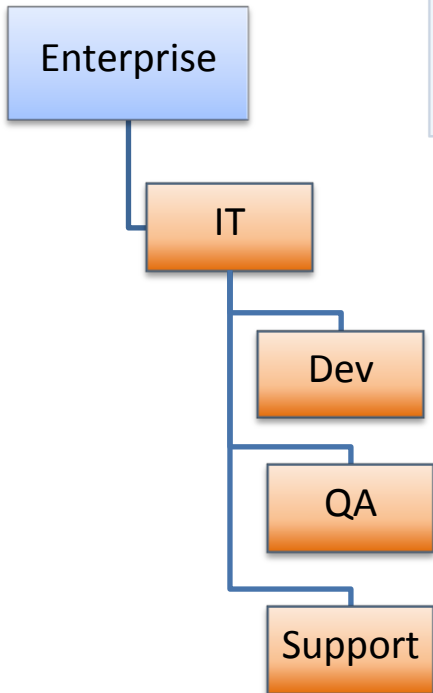


Content Replication

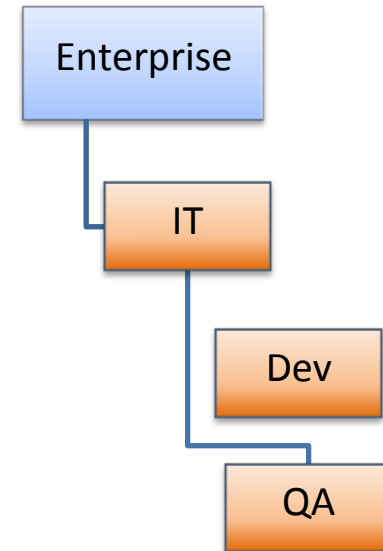
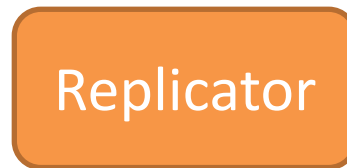


Content Replication

Support folder added
under replicated "IT"
folder.



Environment A



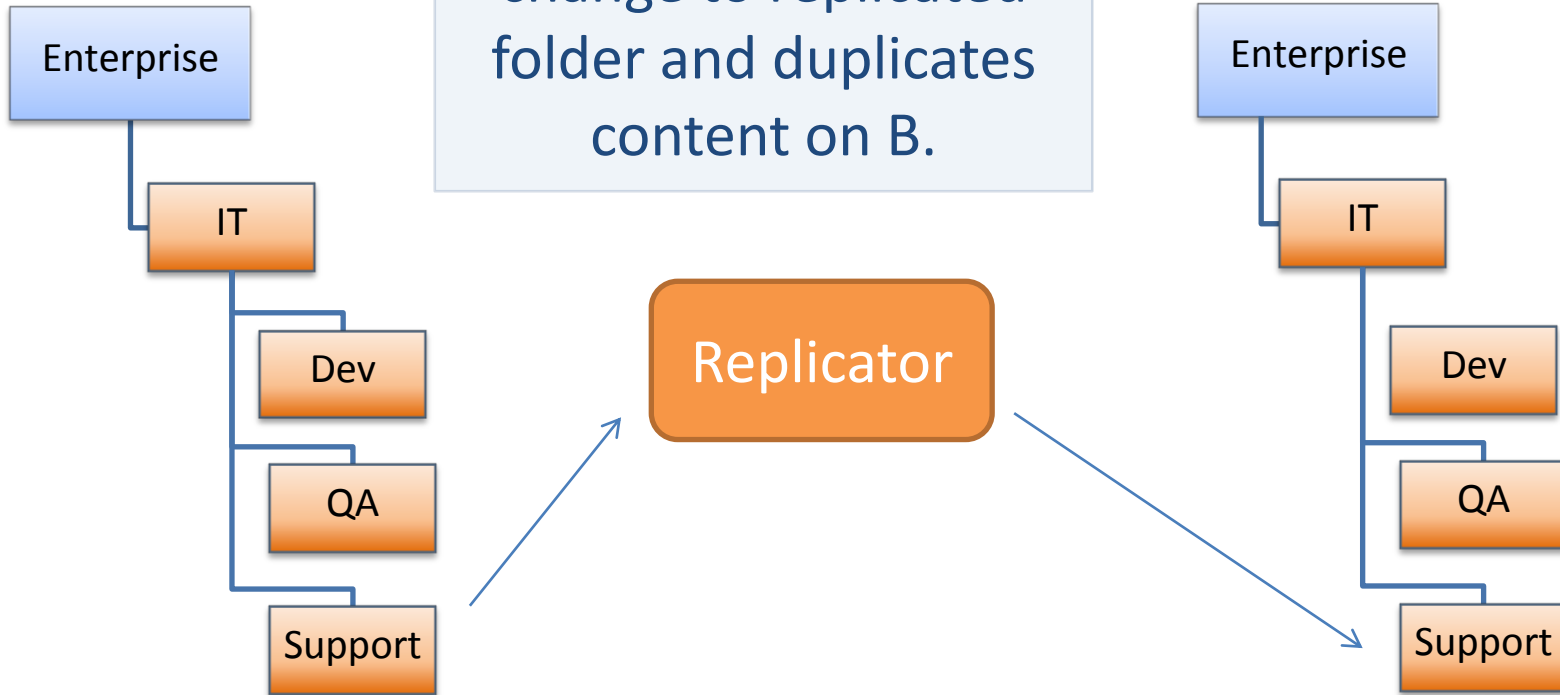
Environment B



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Content Replication

Replicator detects change to replicated folder and duplicates content on B.



Environment A

Environment B



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Supported Object Types

- Support for basic object types and many optional modules:
 - Documents
 - Compound Docs
 - Folders
 - Categories/Attributes
 - Tasks
 - Projects
 - Communities of Practice
 - Workflow & Forms
 - Maps
 - Templates/Views
 - Forms
 - SQL Storage
 - Multi-server workflow execution and step completion



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Efficient Transport

- HTTP/HTTPS used for all communication
- No special firewall requirements
- Meta-data and file content is compressed before transfer
- Flexible options for file transfers allows Replicator to operate on unreliable or slow connections
 - Export file size is configurable
 - Compressed export files can be chunked and transferred for increased reliability
- No network activity unless content changes



Efficient Activity Detection

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- Activity is detected immediately when changes occur
- Content Server API callbacks used when possible
- Light-weight database triggers used when needed
- Changes are queued and packaged on a configurable schedule
 - Control how often activity is packaged
 - Control how frequently activity is delivered



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Replicating Content

The screenshot shows the OpenText Content Server interface. The browser address bar displays `localhost:8080/CS10_1/livelink.exe?func=llworkspace`. The main content area shows a file list with columns: Created By, Size, Modified, Owner, and Version. A context menu is open over the 'Replication' folder, showing options like Open, Configure, Rename, Add to Favorites, Copy, Make Shortcut, Move, Set Notification, Make News, Permissions, Print, Version Control, Zip & Download, Delete, and Properties. The 'Properties' option is expanded to show a 'Replication' sub-menu.

Created By	Size	Modified	Owner	Version
Admin	0 Items	07/17/2012 10:38 AM	Admin	
Admin	4 Items	07/17/2012 10:44 AM	Admin	
Admin	0 Items	07/17/2012 10:07 AM	Admin	
Admin	0 Items	07/17/2012 10:50 AM	Admin	
Admin	5 Items	07/19/2012 10:33 AM	Admin	

Objects in Content Server that support replication have a Replication properties page



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Replication Tab

The screenshot shows a web browser window titled "Replication Status for" with the URL `localhost:8080/CS10_1/livelink.exe?func=ll&objId=62679&objAction=replicationInfo&nexturl=%2FCS10_1%2Flivelink%2Eexe%3Ffunc%`. The page has a navigation bar with "Main" and "Content Server" tabs, and a menu with "Enterprise", "Personal", and "Tools". A search bar is also present.

The main content area is titled "Replication Status for" and features a tabbed interface with "General", "Audit", "Categories", "Columns", "Presentation", "References", and "Replication" tabs. The "Replication" tab is active, showing a table with two rows:

Replication Server	Object Replication State
Production (Bi-Directional):	Object Replication State: HOME SERVER
Backup (Bi-Directional):	Object Replication State: No Replication Options are: <input type="text" value="<select an Option>"/> Browse to reparent: <input type="text"/> <input type="button" value="Browse Backup"/> <small>if system is in another domain you must manually enter the reparent Data ID below instead</small> Manual reparent ID: <input type="text"/>

At the bottom of the configuration area, there are "Update" and "Reset" buttons.

Replication state can be configured for each object



Changing Replication State

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The screenshot shows a web browser window titled "Replication Status for" with the URL `localhost:8080/CS10_1/livelink.exe?func=ll&objId=62679&objAction=replicationInfo&nexturl=%2FCS10_1%2Flivelink%2Eexe%3Ffunc%`. The interface includes a navigation bar with "Main" and "Content Server" tabs, and a menu with "Enterprise", "Personal", and "Tools". A search bar is also present. The main content area is titled "Replication Status for" and features a tabbed interface with "General", "Audit", "Categories", "Columns", "Presentation", "References", and "Replication". The "Replication" tab is active, displaying a table with two rows: "Production (Bi-Directional)" and "Backup (Bi-Directional)". The "Production" row shows an "Object Replication State" of "HOME SERVER". The "Backup" row shows an "Object Replication State" of "No Replication" and includes a dropdown menu for "Options are:" with a "Browse Backup" button. The dropdown menu is open, showing options: "<select an Option>", "Full Replica", "Export Only Replica", and "Replication Stop Point". Below the table are "Update" and "Reset" buttons.

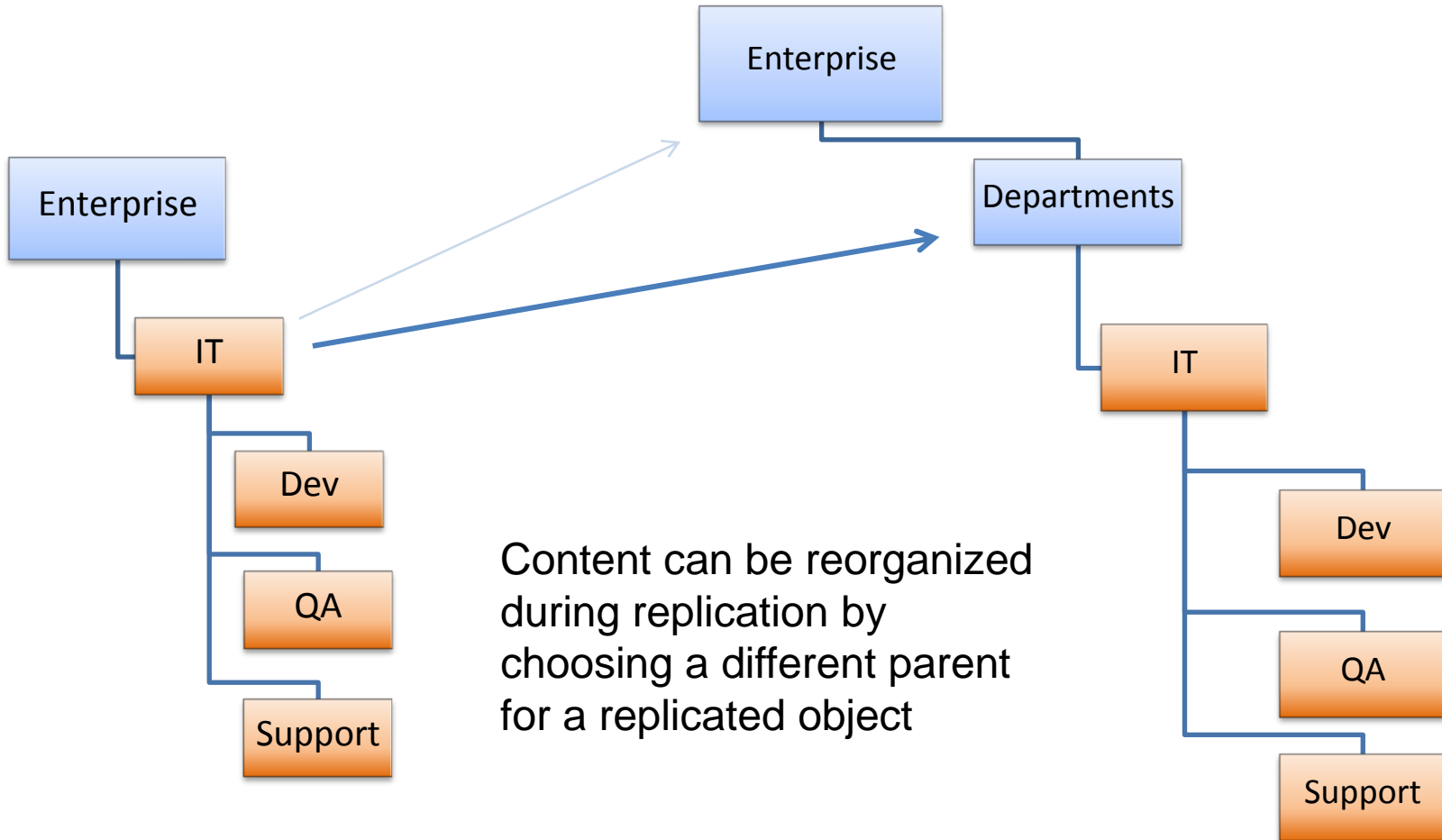
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Replication states: Full Replica (bi-directional), Export Only Replica, or Stop Point

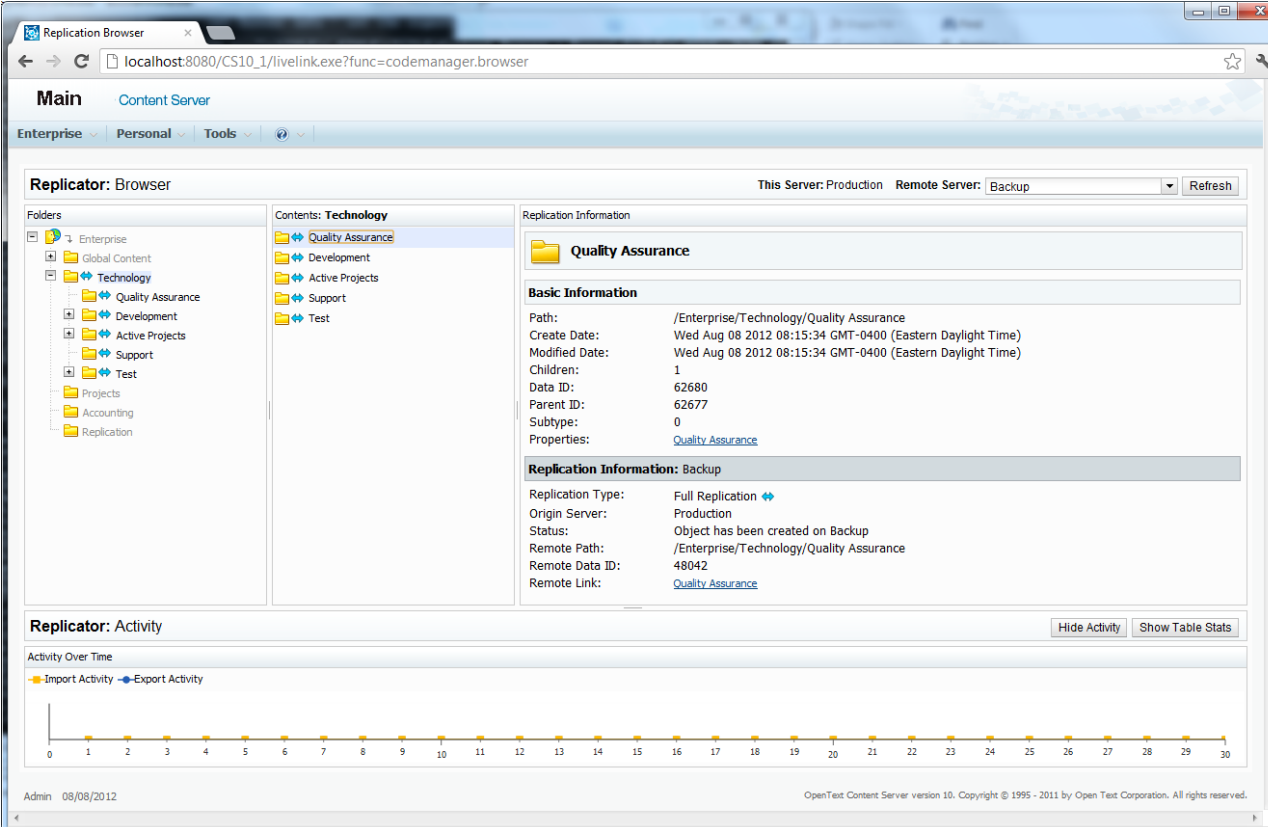


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Re-Parent Options



Replication Browser



The screenshot displays the Replication Browser interface. The main window shows a tree view of folders under 'Enterprise', with 'Technology' expanded to show 'Quality Assurance', 'Development', 'Active Projects', 'Support', and 'Test'. The 'Contents: Technology' pane shows 'Quality Assurance' selected. The 'Replication Information' pane provides details for the selected folder:

Basic Information	
Path:	/Enterprise/Technology/Quality Assurance
Create Date:	Wed Aug 08 2012 08:15:34 GMT-0400 (Eastern Daylight Time)
Modified Date:	Wed Aug 08 2012 08:15:34 GMT-0400 (Eastern Daylight Time)
Children:	1
Data ID:	62680
Parent ID:	62677
Subtype:	0
Properties:	Quality Assurance

Replication Information: Backup	
Replication Type:	Full Replication
Origin Server:	Production
Status:	Object has been created on Backup
Remote Path:	/Enterprise/Technology/Quality Assurance
Remote Data ID:	48042
Remote Link:	Quality Assurance

At the bottom, the 'Replicator: Activity' section shows a line graph for 'Activity Over Time' with 'Import Activity' (orange) and 'Export Activity' (blue) plotted over 30 days. The status bar at the bottom indicates 'Admin 08/08/2012' and 'OpenText Content Server version 10. Copyright © 1995 - 2011 by Open Text Corporation. All rights reserved.'

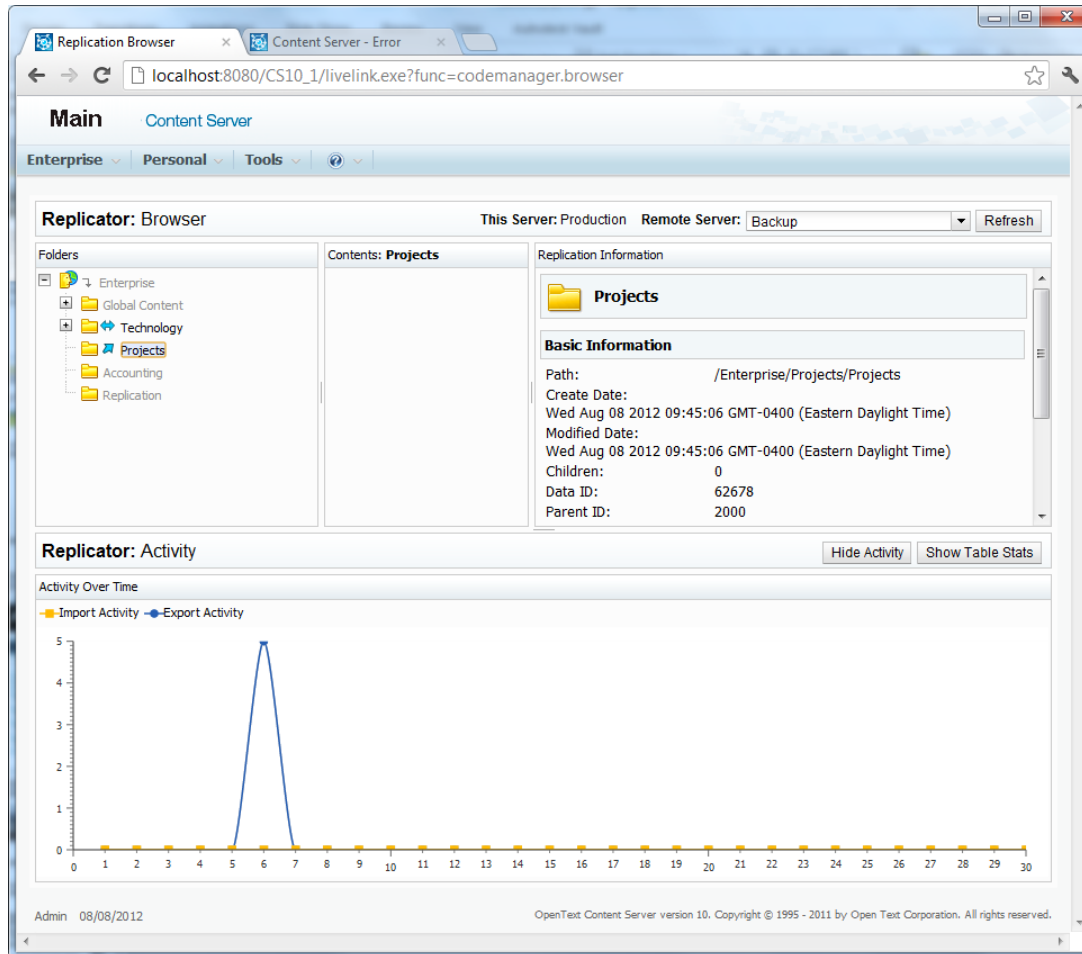
All replicated objects can be easily displayed using the Replicator Browser



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Real-time Information

Built-in dashboard displays import and export activity in real-time





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Upgrades Made Easy

- Standard upgrade to CS10 can be very complicated
 - Many steps must be performed during upgrade
 - May need to convert to UTF-8
 - Upgrade must occur during maintenance window
 - Upgrade complexity and time can mean production outages or tough go/no-go decisions
 - Testing must be done during upgrade window or during test upgrades
 - Upgrade from versions prior to 9.7.1 not directly possible



Standard Upgrade Steps

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- Perform UTF-8 conversion if using Latin-1 (non-trivial)
- If Livelink version < 9.7.1, upgrade to Livelink 9.7.1 (non-trivial)
- Build Content Server 10 environment
- **Production outage begins**
- Take database snapshot and transfer to new system
- Image EFS and transfer to new system
- Copy search index (unless rebuilding)
- Update database
 - Point to new EFS location via SQL
 - Other changes - recycle bin, etc.
- Perform upgrade
- Post-upgrade steps (rebuild or restore index, etc)
- Test (if time remains)
- Change DNS to point to CS10
- **Production outage ends**
- All steps should ideally happen twice for upgrade testing



Replicator Upgrade Steps

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- Build Content Server 10 environment
- Install Replicator module in LL (9.2 to 9.7.1) and Content Server
- Initialize replication
- Wait for systems to synchronize
- Test
- Change DNS to point to CS10

- No production outage
- Both systems can be live simultaneously



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Upgrade with Flexibility

- Upgrade directly to CS10 from 9.2, 9.5, 9.6 or 9.7x
- No need for production outage or large maintenance windows
- UTF-8 conversion is automatic if necessary
- Testing can occur as system is synchronizing
- Consolidate or split environments while upgrading
 - Move multiple environments to one large CS10
 - Split large system into multiple smaller systems during upgrade
- Modify storage or DB as part of upgrade (switch storage providers, change DB platform, etc.)
- Built-in options for audit cleanup and version cleanup



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A Few Upgrade Details

- Search index is built during replication so index migration is unnecessary
- Replication may take longer than normal upgrade in some cases but does not require production outage
- Replicator does not support all optional modules
- Custom modules may need custom migration



Alternate Upgrade Method

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- Build duplicate 9.7.1 environment
- Copy EFS, search index and database
- Initialize replication between duplicate environments
- Disable Replicator outbound traffic
- Perform upgrade to CS10 on duplicate system
- Enable replication traffic and changes will be synchronized
- Switch DNS entries

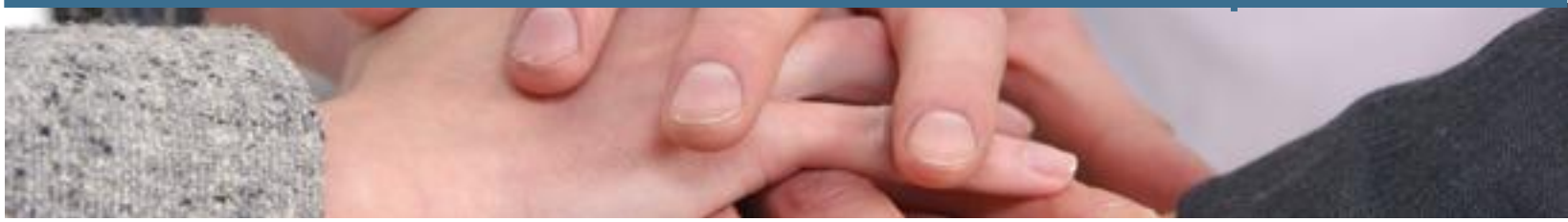


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If you are interested to learn more about Synergy's products, please contact Martin Black at mblack@synergy.com.



Martin Black

mblack@synergy.com

Tel: +1.561.483.2020