# Syntergy Webinar Series

SYNTERGY


## AlwaysOn Content Server >>> High Availability for Content Suite

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# Agenda


- High Availability vs. Disaster Recovery vs. Fault Tolerance
  - What are the Differences?
- Service Level Agreement (SLA)
  - Recovery Point Objective (RPO)
  - Recovery Time Objective (RTO)
- Limitations of Active-Passive Disaster Recovery Solutions
- Syntergy AlwaysOn Content Server
  - Introduction
  - Deployment Architectures
  - Demo
- Q&A

# Syntergy Corporate Profile

SYNTERGY

- 20 Years Experience Serving Global Customers
- Headquarters in San Diego, CA
- Key Executives and Engineers from OpenText and other ECM leaders.
- Distributed Staff & Partners throughout USA/Canada/Europe/Asia Pacific
- OpenText Technology Partner
- SkySync Elite Partner
- SAP PartnerEdge
- Microsoft Gold Partner

- Leader in OpenText Content Suite Data Moving Solutions
- Enhance the Use, Performance & Security of OpenText Content Suite Platform
- Provider of more than 20 Content Suite Products to Increase Usability & Adoption
- Consulting Services Expertise in Upgrades, Migrations, Custom Module Development, Deployment Assistance, Performance Tuning, Taxonomy Consulting, Integration, Systems Analysis, Training and Support
- Key Differentiators – Technical Expertise, Responsiveness & Value

OPENTEXT™ Partner TECHNOLOGY

SKYSYNC

Microsoft Partner
Gold Portals and Collaboration
Gold Web Development

# Content Suite - Popular Technology Solutions

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- Zero Downtime, One Hop Upgrade to Content Server 16.X
- Consolidation of Livelink/Content Servers to Content Server 16.X
- Change Content Server Infrastructure - Unix to Microsoft Windows or Database Vendor (e.g. Oracle to SQL)
- 7x24x365 “Always-On” Content Servers for High Availability/Disaster Recovery
- Powerful Bulk Data Loading & Meta Data Management Solutions
- Synchronize Geo-Distributed OpenText Content Servers in Real Time – Making Content Server Global, Fast and Highly Available
- Data Centric Data Loss Prevention (DLP) for Content Server **New
- Sync & Integrate Content Server with major Cloud Services, ECM platforms and Network File Systems e.g. BOX, OneDrive, Microsoft O-365, SharePoint, Google, Dropbox  using SkySync **New

# High Availability vs. Disaster Recovery vs. Fault Tolerance
# What are the differences?

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## High Availability

- Goal of ensuring critical systems are **always functioning**
- **Automatic or Manual "Failover"** to Secondary System if Primary System goes down for any reason (planned or unplanned)
- Eliminate all **single points of failure** from your infrastructure
- Achieve a system uptime of **99.999% (referred as "five nines")**

## Disaster Recovery

- **Set of Policies and Procedures** to ensure continuity and recovery of mission critical systems in the event of a disruptive event e.g. power outage, flood, fire or cyberattack
- How **quickly** can you get your systems up and running in case of a disaster?
- **How much data loss** is allowed?
- A**ctive-Passive** e.g. Backups, SQL Log Shipping
- Cold Failover

## Fault Tolerance

- Infrastructure is designed in such a way that **when one component fails (hardware or software), a backup component takes over operation immediately** so that there is no loss of service e.g. Web Front End, Database Mirror e.g. SQL Always On

- The concept of having backup components in place is called **redundancy** and the more backup components you have in place, the more **tolerant your infrastructure in case of hardware and software failure.**

# Businesses Are Demanding High Availability

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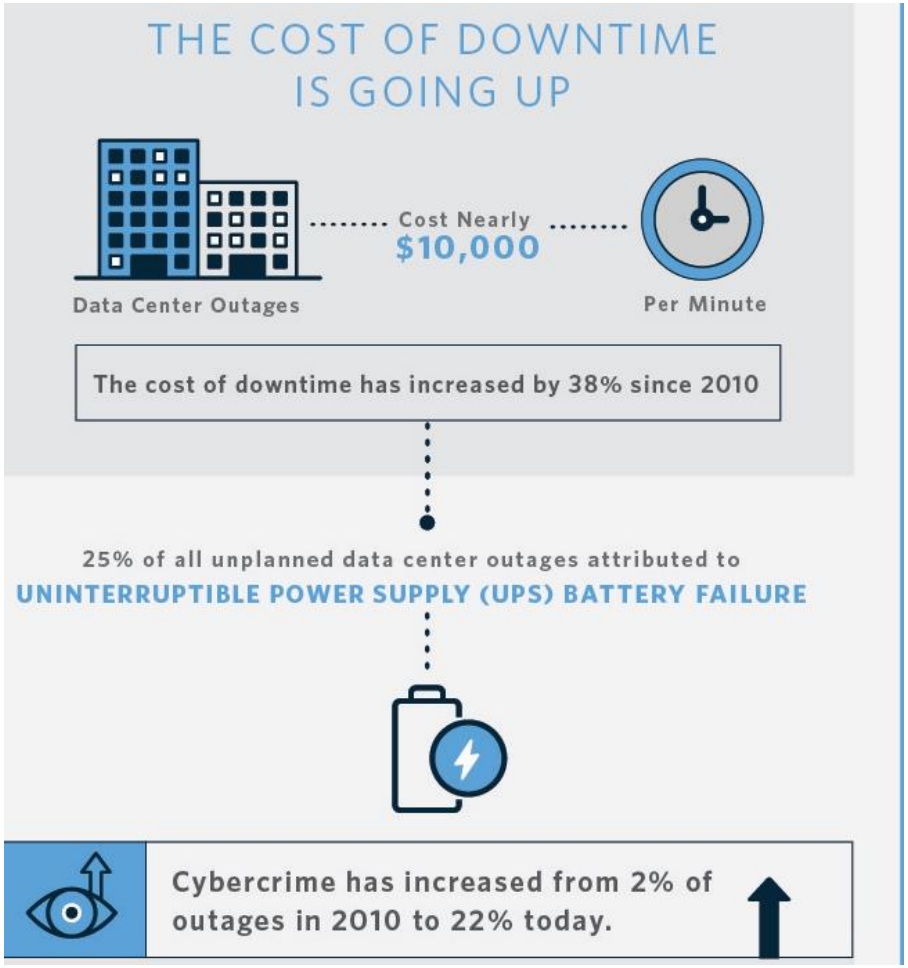


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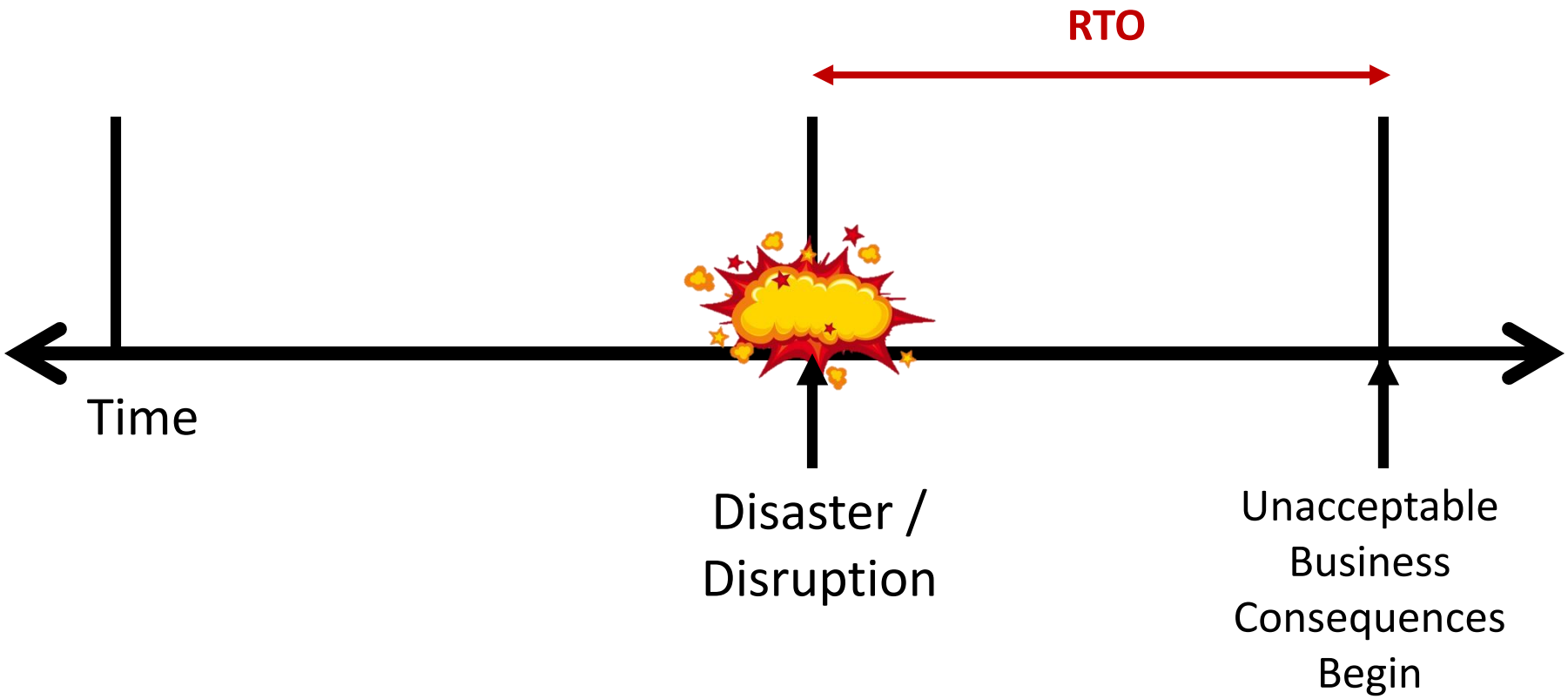
FORRESTER®

"Enterprises today must be always on and always available to an extended network of customer, employees, and partners.

Organizations must evolve beyond reactive business continuity and IT disaster recovery"

# Service Level Agreement (SLA) - A Few Terms

## Recovery Time Objective or “RTO” looks FORWARD



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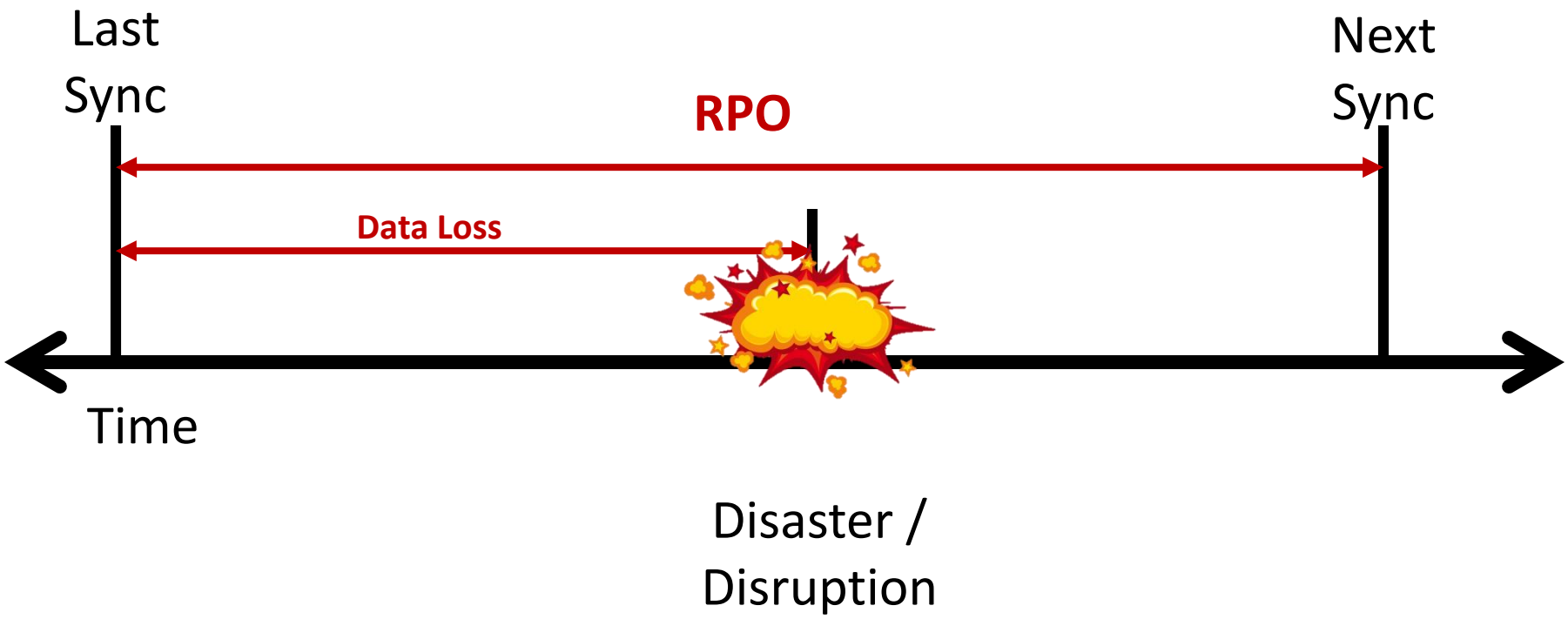

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# Disruptions can be Planned and Expected

- OS Updates
- SQL Updates
- Content Server Updates
- Infrastructure Maintenance
- Building Maintenance

# Recovery is Costly

- Time consuming
- Often manual
- Impractical or impossible to test
- Shifts resources away from addressing the outage

# Active-Passive DR Solutions & Limitations

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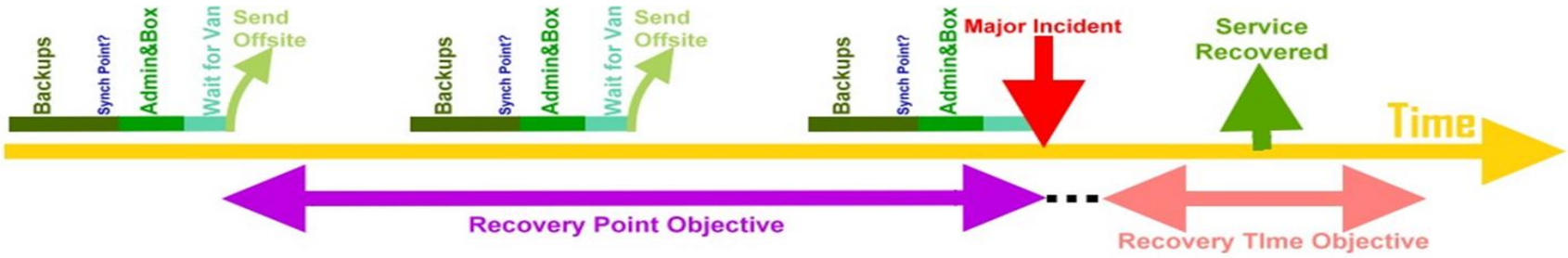
- Content Server has a complex Multi-Tiered Architecture
  - WFE, Database, External File System (EFS), Search Index, Admin Server, Archive Server
- Typical DR Solutions & Strategies are based on
  - Backups or a combination of Database Sync, EFS copies, VM Replication
  - Database Clustering, SQL Log Shipping, Mirroring, SQL Always On Availability Groups
- Active-Passive Solutions do not handle multi-tiered Content Server Architecture well!
  - e.g. keeping Database, External File System (EFS), Index in Sync -> Impacting RPO & RTO
  - EFS and Index needs to replicated separately from the database to the DR location impacting RPO (data loss)
  - Copying over a WAN would further impact RPO (data loss)

# Content Server Multi-Tier Architecture

- Content Server -> Highly Scalable Multi-Tier Architecture
- To Minimize RTO & RPO
  - Database, EFS, Index must be in sync at all times




# Active-Passive DR Solutions & Costs

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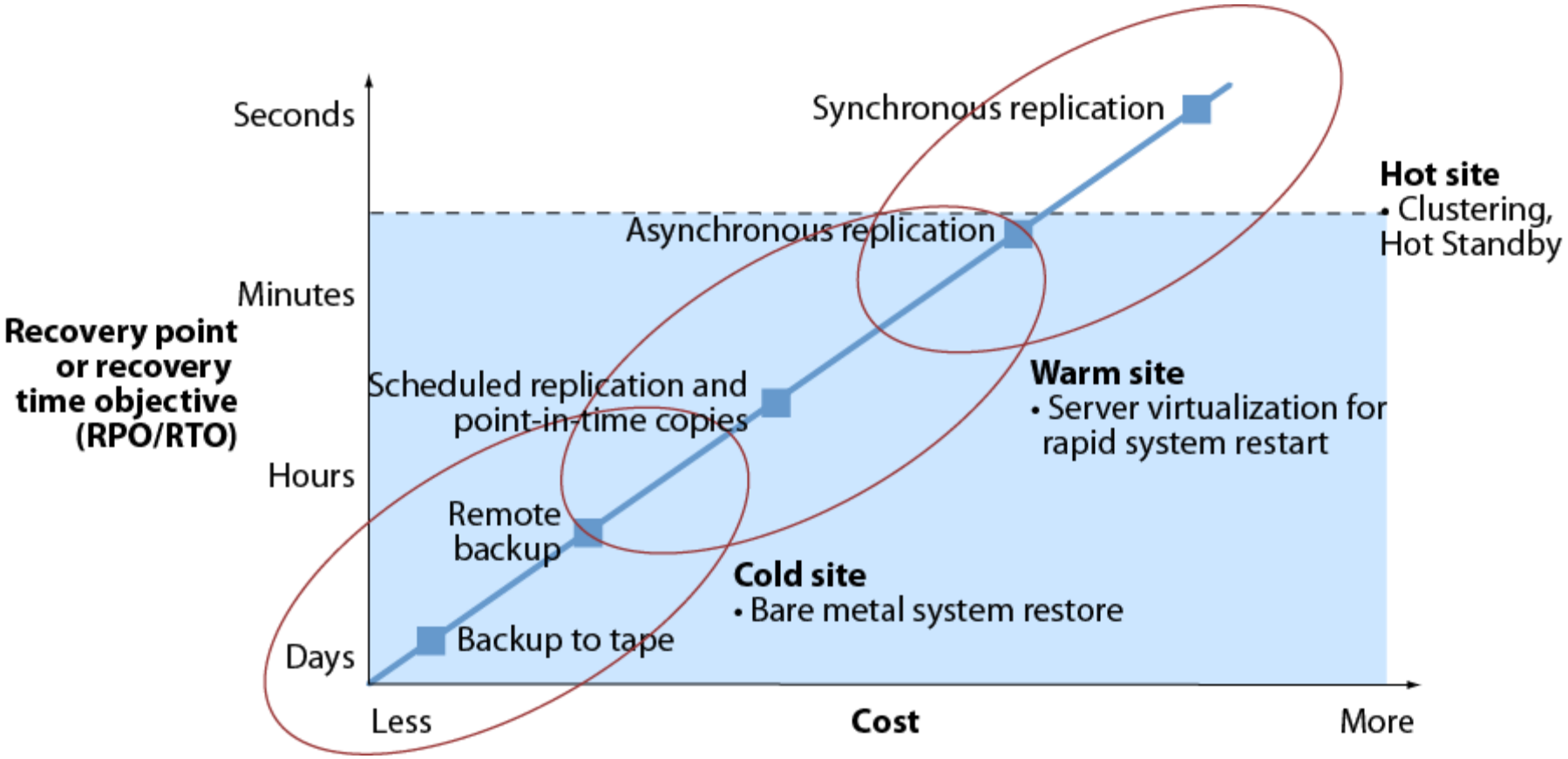

# Decision Factors

| | Disaster Recovery | AlwaysOn Content Server (High Availability) |
|---|---|---|
| RPO | Typically Hours + | From Minutes down to Zero |
| RTO | Typically Hours + | From Minutes down to Zero |
| Process | Manual / Involved | Light to Automatic |
| Servers | Homogenous setup | Heterogeneous setup |
| Access | Cold during recovery | Hot / Live |
| Content | Must be identical | Identical or Subset |

# Syntergy AlwaysOn Content Server

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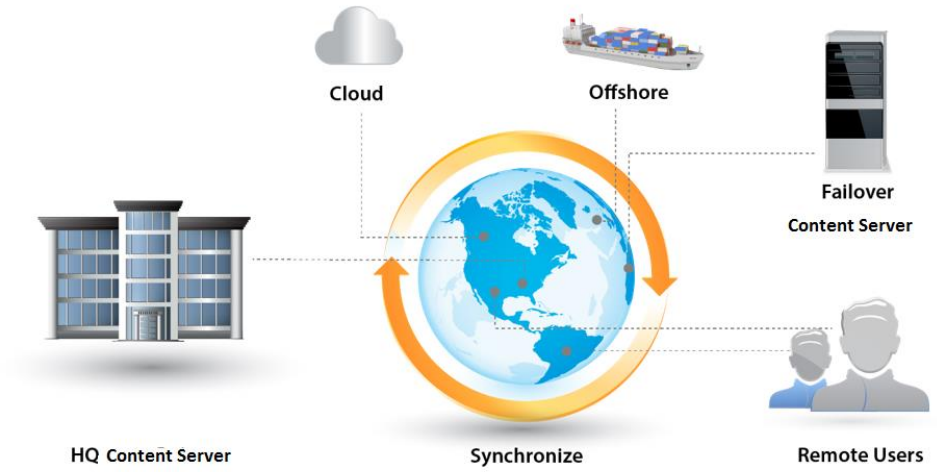
## #1

## Content Server Synchronization Engine




- 7x24x365 “Always-On” Content Servers
- Active/Active Disaster Recovery Data Centers
- Service Level Agreement with very low RTO and RPO requirements
- Read/Write (Synchronous) DR Content Servers over a wide area network with network bandwidth and latency limitations
- Multiple Standby “Always-On” Content Servers

- ✓ **Metro-Level** Disaster Recovery Solution
- ✓ **Immediate, live, bidirectional replication**
- ✓ Synchronize across **large, dispersed, multi-version** Content Server deployments
- ✓ Sync **across multiple Content Server versions** (9.X, 10.X, 16.X)
- ✓ Install and use **within Content Server**.

# AlwaysOn Content Server – High Availability

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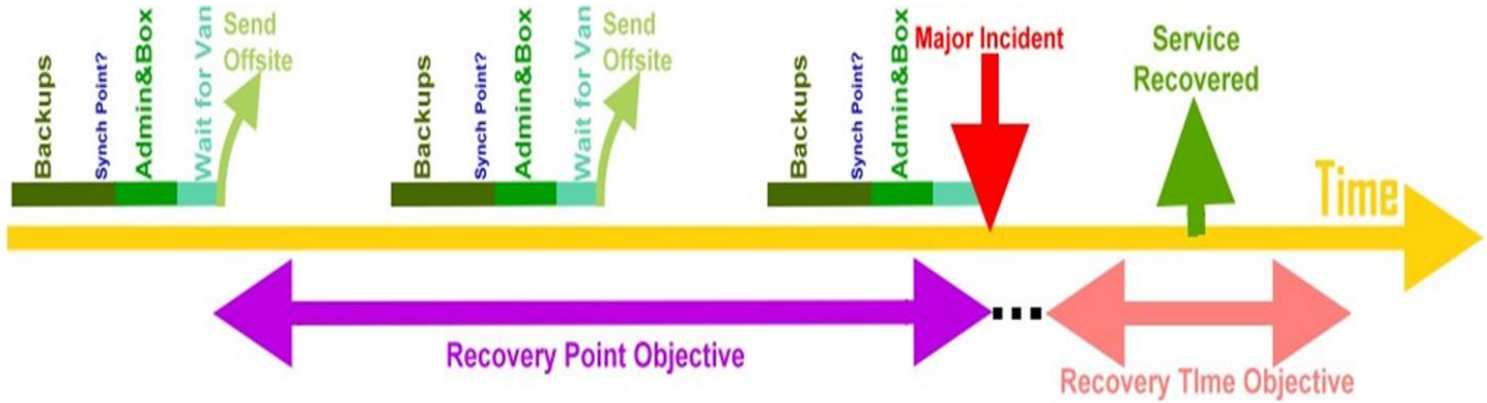
- ✓ Full Instance Replication
- ✓ Business Unit Replication
- ✓ Data Scope Replication
- ✓ Perform DR Audits compliance exercises without impacting production servers
- ✓ Back up database content and documents (blobs) that are in the EFS at the same time

- ✓ Uninterrupted Content Server Access During Server Outages (Planned & Unplanned)
- ✓ Read/Write DR Servers
- ✓ Bi-Directional Sync Capability over WAN
- ✓ No single point of catastrophic failure for Content Server
- ✓ Implement multiple standby, geographically dispersed Content Servers
- ✓ Heterogeneous setup – Content Server architecture does not have to be identical



# AlwaysOn Content Server

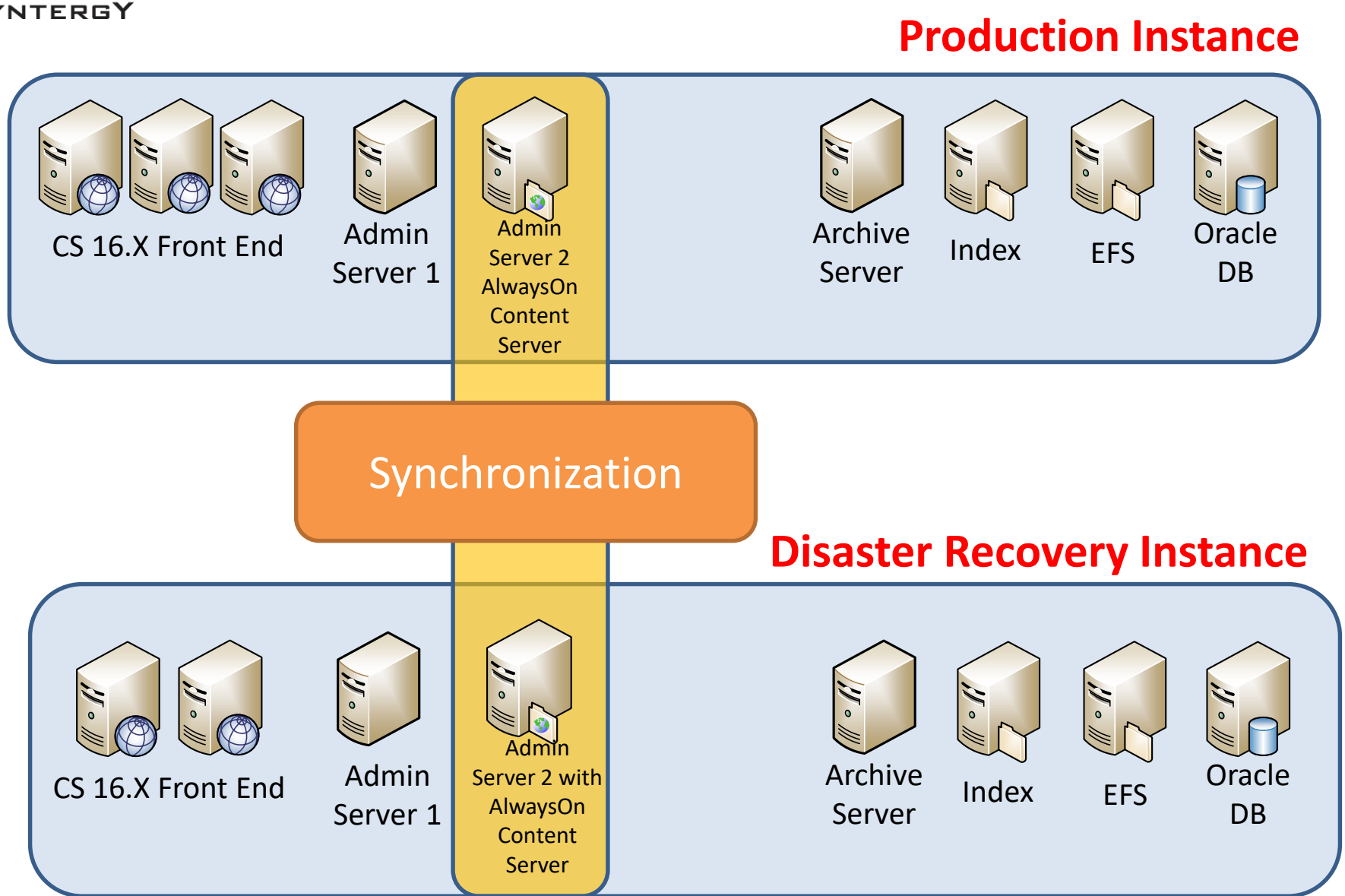

Always On

Automated

Testable

Distributed

# AlwaysOn Content Server Architecture



# High Availability – Full Instance

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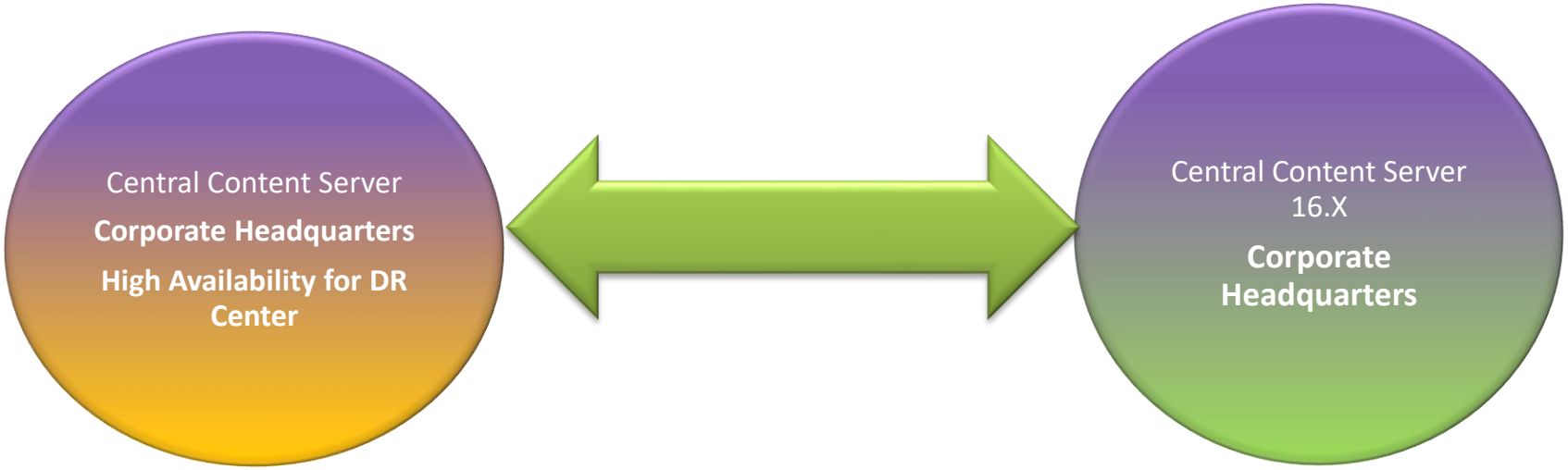
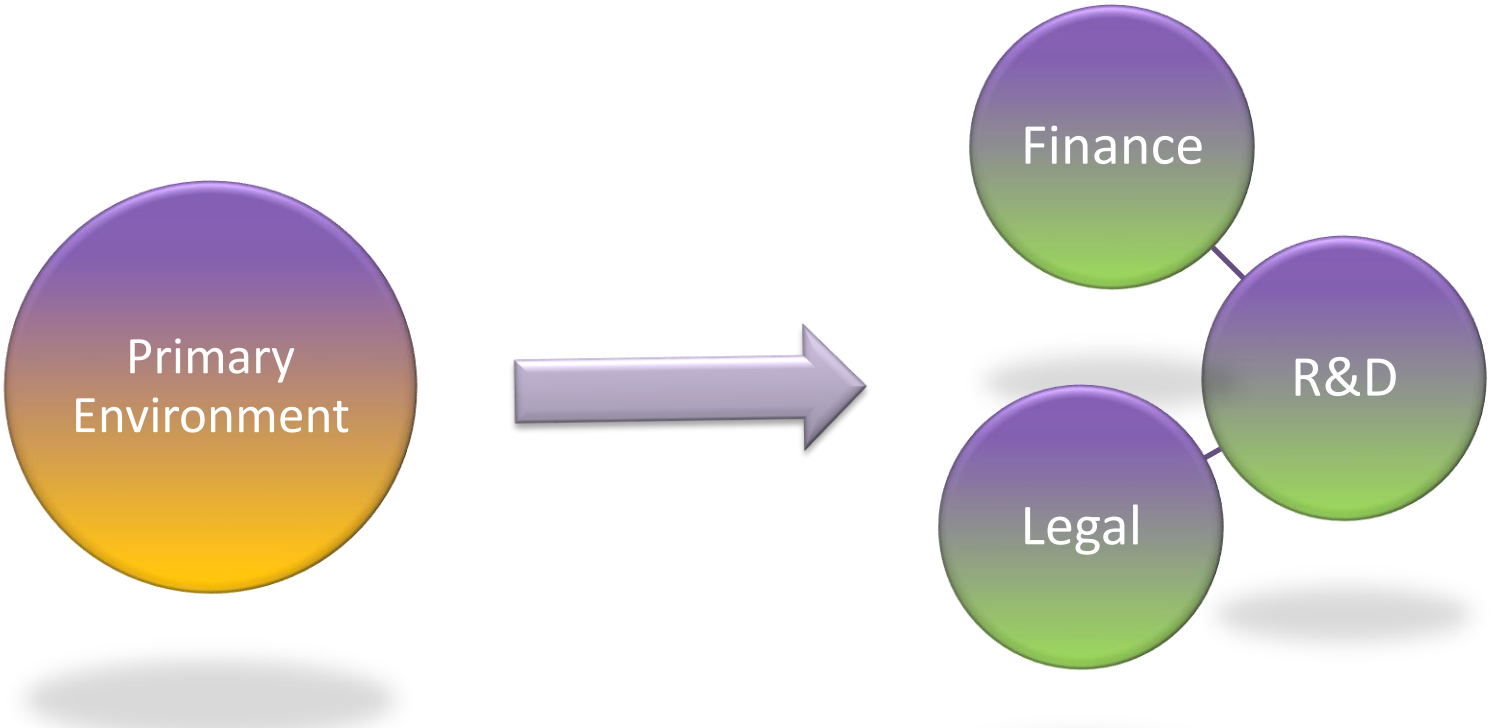
## AlwaysOn Content Server (Bi-Directional, Synchronous)

- Data
- Metadata
- Hierarchies
- Permissions
- Personal Workspaces



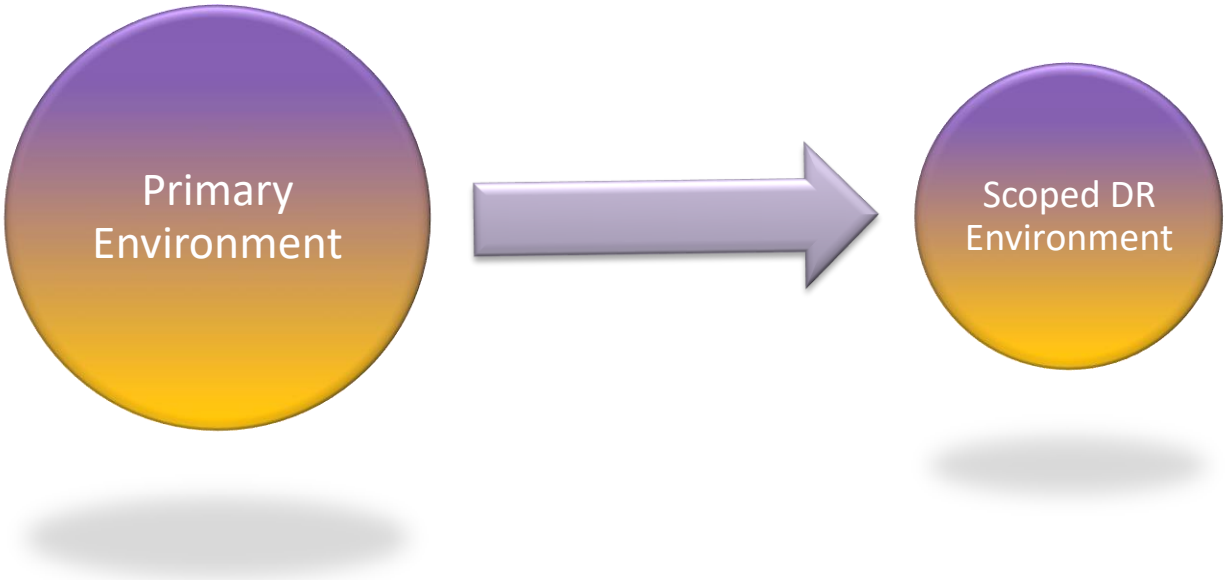
# High Availability – Business Unit Replication

- Individual Objects
- Specified Hierarchies
- Hierarchies with Stop-Points



# High Availability – Data Scope

- Audit History date range selection or omission
- Limit number of document versions
- Permission change, read-only environment
- Personal Workspaces are optional
- Workflows are optional



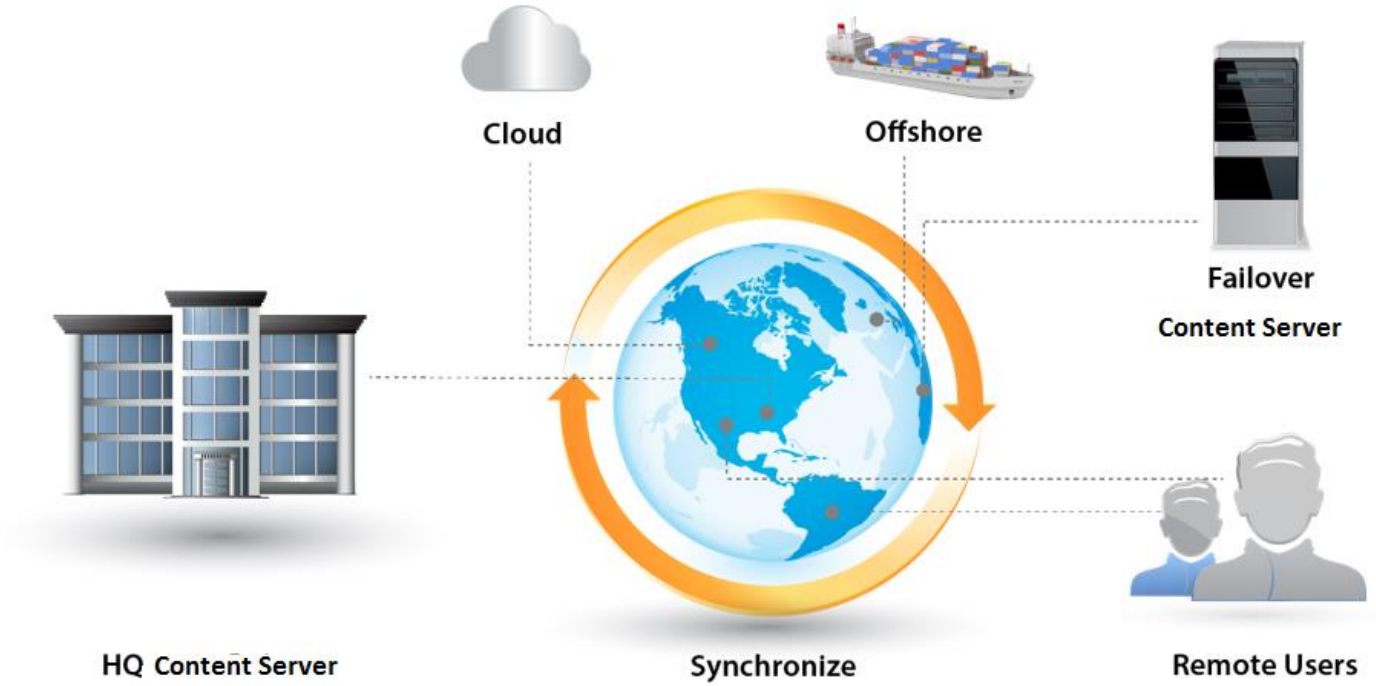
# Supported Object Types

- Support for basic object types and many optional modules:
  - Documents
  - Compound Docs
  - Folders
  - Categories/Attributes
  - Tasks
  - Projects
  - Communities of Practice
  - Workflows & Forms
  - Records Management
  - Physical Objects
  - Transmittals
  - CAD Manager
  - Automatic Document Numbering
  - Security Clearance
  - Contracts Management
  - Communities of Practice
  - xECM
  - Custom objects and new objects types can be easily added

# Efficient Transport

- HTTP/HTTPS used for all communication
- No special firewall requirements
- Flexible options for file transfers allows AlwaysOn Content Server to operate on unreliable or slow connections
  - Transfer file size is configurable
  - Metadata and file content is compressed before transfer
  - Compressed export files can be chunked up and transferred for increased reliability
- Changes are queued and packaged on a configurable schedule
  - Control how often activity is packaged
  - Control how frequently activity is delivered
- No network activity unless content changes

# AlwaysOn Content Server Demo



# Questions

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