Content Manager Version 8

Resource Manager Overview

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Agenda

CM V8.3 Resource Manager
Content Manager Architecture

Resource Manager

- One or more servers per Library Server, managing "objects"
- WAS on Windows/UNIX, HTTP Server or WAS on z/OS
- TSM provides HSM function on Windows/UNIX
- OAM provides SMS/HSM function on z/OS
- Video Charger supported as RM
- Sysplex Distributor on z/OS for scalability, availability
Content Manager Architecture

Control flow through Components

- Thin client requests a document
- Application server sends request to Library Server
- If user is authorized, LS returns URL, Object Token
- Page with URL is returned to thin client
- Thin client opens URL, sending HTTP message to Resource Manager
- Object is returned to thin client for display or mid-tier for transform

No "run time" communication between LS and RM
Resource Manager

Resource Manager and Collection selected based on

- ItemType
- User Default
- Mix

Collection specifies volume, directory, retention, migration, and replication policies

Diagram:

```
CM API -> Library Server

<table>
<thead>
<tr>
<th>Resource Manager</th>
<th>Resource Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>ItemType Default</td>
<td>User Default</td>
</tr>
</tbody>
</table>
```
Resource Manager
Migration -- Multiplatform

- Content Manager implements System Managed Storage
- Migration policy can specify that objects should move
  - To a different storage class on the same system - usually TSM
  - To a storage class on a different system
  - After "n" days or when storage group is "x" percent full
Resource Manager Replication

- Peer copies of an object on multiple resource managers
- Availability -- Failure of the primary Resource Manager doesn't interfere with use of the system
- Recoverability -- If data is lost on a Resource Manager, another can provide access to the missing objects
  - A LS/RM validation utility detects missing objects from the RM file system or database
- Backup -- By replicating to a collection on the same or different server, a backup copy can be on optical, tape, or dasd
- Performance -- By replicating objects to remote Resource Managers, retrieval time can be reduced
An object may be stored to the RM associated with the ItemType or assigned as the default for the user.

Administrator defines Replication Source and Target

- Resource Manager + Collection

List of RMs is sent along with Store request.

Replicator process copies objects to other RMs

- If active and not busy, a copy is created immediately.
Resource Manager
Replication - Retrieve

Library Server selects Resource Manager marked as "available" containing a current copy
  - User default RM is preferred
  - Default RM for ItemType next
  - Any RM with current copy next
Resource Manager
Replication - Failover

- Library Server monitors availability of Resource Managers
  - Administrator defines interval and timeout
  - Default 60 and 15 seconds
- Store or retrieve requests can bypass a RM that is not available

Diagram:

- Library Server Monitor
- "Are you there?"
- Resource Manager
- Resource Manager
- Resource Manager
Resource Manager
LAN Cache

If the default Resource Manager assigned to a user is enabled for LAN Cache, Retrieve requests are routed through LAN Cache server:

- If a current copy exists, it is returned to the client.
- Otherwise, the object is retrieved from another RM and a copy left on the LAN Cache Server.
- Cached objects are removed when limit on directory size is approached.
IBM Content Manager Version 8

- Rich function to meet the requirements of many types of applications
- Extensible architecture to meet future requirements
- Exploiting the strengths of strategic IBM technologies
- Achieving both performance and scalability

The foundation for Enterprise Content Management