

IBM Content Manager OnDemand v10.1.0.3 with Hitachi Content Platform v8.0.0.9 Using Hitachi API for Amazon S3

Tech Note

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Feedback

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Revision History

Revision	Changes	Date
FE-SL-090-00	Initial release	August 10, 2018
MK-SL-090-01	Change to public-facing document	October 19, 2018

Table of Contents

Solution Applicability	1
Hardware Used	1
Software Used	2
Pre-Installation Requirements	3
Configuration	3
Start State	4
Hitachi Content Platform	4
IBM Content Manager OnDemand	5
End State	5
Procedure Steps	6

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Tech Note

This tech note defines how to integrate IBM® Content Manager OnDemand 10.1.0.3 with Hitachi Content Platform v8.0.0.9 (HCP) using Hitachi API for Amazon Simple Storage Service.

These procedures were performed on Hitachi Content Platform:

1. Create Hitachi Content Platform tenant and namespace.
2. Configure Hitachi Content Platform namespace to allow integration using Hitachi API for Amazon S3.
3. Configure tenant and namespace with users having appropriate roles and permissions.

These procedures were performed on Content Manager OnDemand:

1. Configure Content Manager OnDemand with Hitachi Content Platform as Hitachi API for Amazon S3 target.
2. Test and verify that connections are working.

Note — Testing of this configuration was in a lab environment. Many things affect production environments beyond prediction or duplication in a lab environment. Follow the recommended practice of conducting proof-of-concept testing for acceptable results in a non-production, isolated test environment that otherwise matches your production environment before your production implementation of this solution.

Solution Applicability

This integration applies to using Hitachi Content Platform v8.0.0.9 with IBM Content Manager OnDemand 10.1.0.3

Hardware Used

The following hardware was used for this qualification:

- VMware ESX 6.5
 - Server — Rack optimized server for solutions 2U one node
 - Processors — Intel Xeon E5-2680 v3 @ 2.50 GHz 24 CPUs x 2.494 GHz
 - RAM — 256 GB
- IBM Content Manager OnDemand Library Server v10.1.0.3 (VM)
 - Processor — Intel Xeon E5-2680 v3 @2.50 GHz (dual-core), 2.4GHz
 - RAM — 12 GB
 - HDD — 300 GB
- IBM Content Manager OnDemand Object Server v10.1.0.3 (VM)
 - Processor — Intel Xeon E5-2680 v3 @2.50GHz (dual-core), 2.4GHz
 - RAM — 12 GB
 - HDD — 300 GB

- VMware Windows VM
 - Product — IBM Content Manager OnDemand Administrator Clients 10.1.0.3 (2 Units)
 - Processor — Intel 2 x 4-core, E5620, 2.4GHz
 - RAM — 4 GB —
 - HDD — 40 GB
- Hitachi Content Platform (VM) Single Node
 - Processor — 4-core Intel Xeon E5-2680 v3 @2.5GHz
 - RAM — 12 GB
- Brocade VDX 6740 switch (1 Unit)
 - 24-Port
 - 1 GbE—
 - Front-end network
- Brocade VDX 6740 switch (1 Unit)
 - 24-Port
 - 1 GbE
 - Back-end network

Software Used

The following software was used for this qualification:

- Hitachi Content Platform v8.0.0.9
- IBM Content Manager OnDemand Library Server v10.1.0.3
- IBM Content Manager OnDemand Object Server v10.1.0.3
- IBM Content Manager OnDemand Administrator Client v10.1.0.3
- IBM Content Manager OnDemand Client v10.1.0.3
- VMware ESX Server 6.5
- VMware vCenter Client 6.5
- Microsoft® Windows Server® 2012 R2 Standard (64Bit)
 - IBM Content Manager OnDemand Library Server
 - IBM Content Manager OnDemand Object Server
 - VMware VM Content Manager OnDemand Administrator Client
- VMware VM Content Manager OnDemand Client

Pre-Installation Requirements

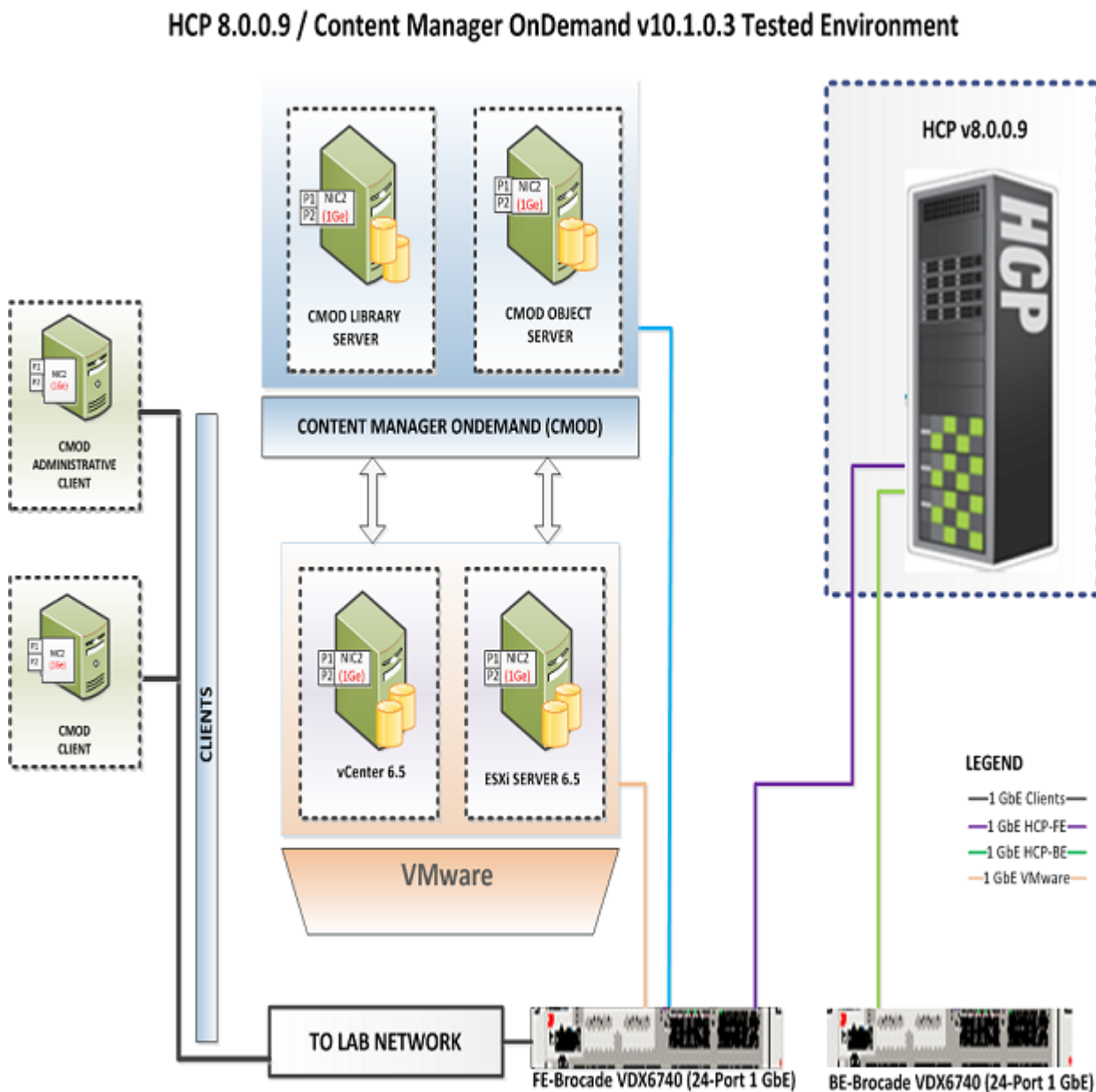
The following was required before starting the integration:

- Configure Hitachi Content Platform tenant and namespace.
- Create Hitachi Content Platform user with administrator role and read, write, and delete permissions.
- Configure Content Manager OnDemand to use Hitachi Content Platform as Hitachi's API for Amazon S3 target storage.

Configuration

Figure 1 shows the configuration of the environment used to qualify the products covered in this tech note.

Figure 1



Start State

The following is the state of solution components before starting the qualification.

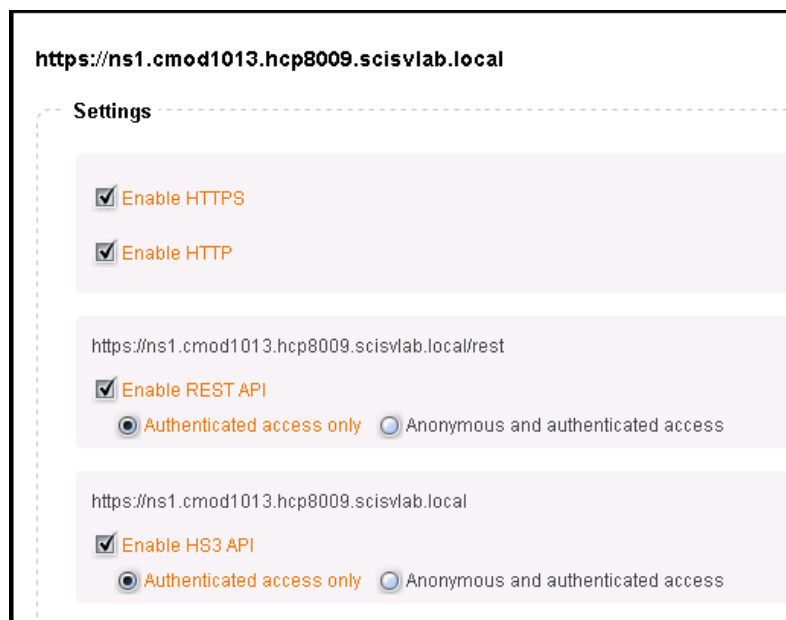
Hitachi Content Platform

Hitachi Content Platform is a distributed object store that provides advanced storage and data management capabilities. This helps address challenges posed by ever-growing volumes of unstructured data.

The Hitachi Content Platform system must be ready and configured, as follows:

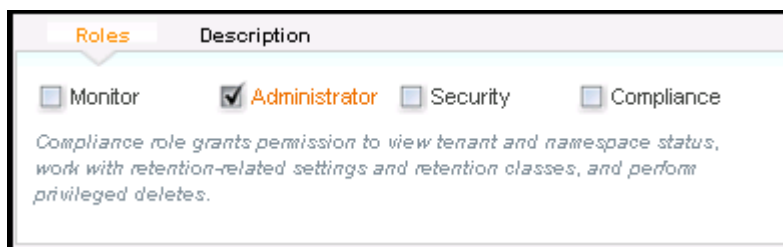
- Content Platform tenant created with the following:
 - Sufficient capacity
 - Defined soft/hard quota
 - Tenant user with full access has been created
- Content Platform tenant-level management API (MAPI) enabled
- Content Platform target namespace has the following:
 - HTTP(S) protocol enabled:
 - HTTP/HTTPS
 - REST
 - S3 API
 - ACLs is enabled
 - Versioning is enabled

Figure 2



- Content Platform tenant user required roles assigned
- Content Platform namespace user data access permissions assigned for selected namespace

Figure 3



IBM Content Manager OnDemand

IBM Content Manager OnDemand for Multiplatforms is a document archive solution. Content Manager OnDemand supports any organization that can benefit from hard copy or microfiche replacement and instant access to information.

Content Manager OnDemand components must be ready and configured as the following:

- Content Manager OnDemand Configurator configured
- Content Manager OnDemand Administrator Client installed
- Content Manager OnDemand Client installed
- Content Manager OnDemand Fixes v10.1.0.3 has been applied to all components

End State

IBM Content Manager OnDemand successfully mapped Hitachi Content Platform as its target storage using Hitachi API for Amazon S3.

- Configuration settings are configured correctly
- Content Manager OnDemand connection to Hitachi Content Platform works as expected.

Table 1 covers the specific integration tests executed after mapping Hitachi Content Platform as the Amazon S3 target storage for Content Manager OnDemand.

TABLE 1. SPECIFIC INTEGRATION TESTS EXECUTED

Test	Results
Configure HCP as CMOD S3 target	Pass
Test CMOD S3 connection to HCP	Pass
Write File	Pass
Read File	Pass

Procedure Steps

This defines the high-level configuration procedure to integrate IBM Content Manager OnDemand with Hitachi Content Platform using Hitachi API for Amazon S3.

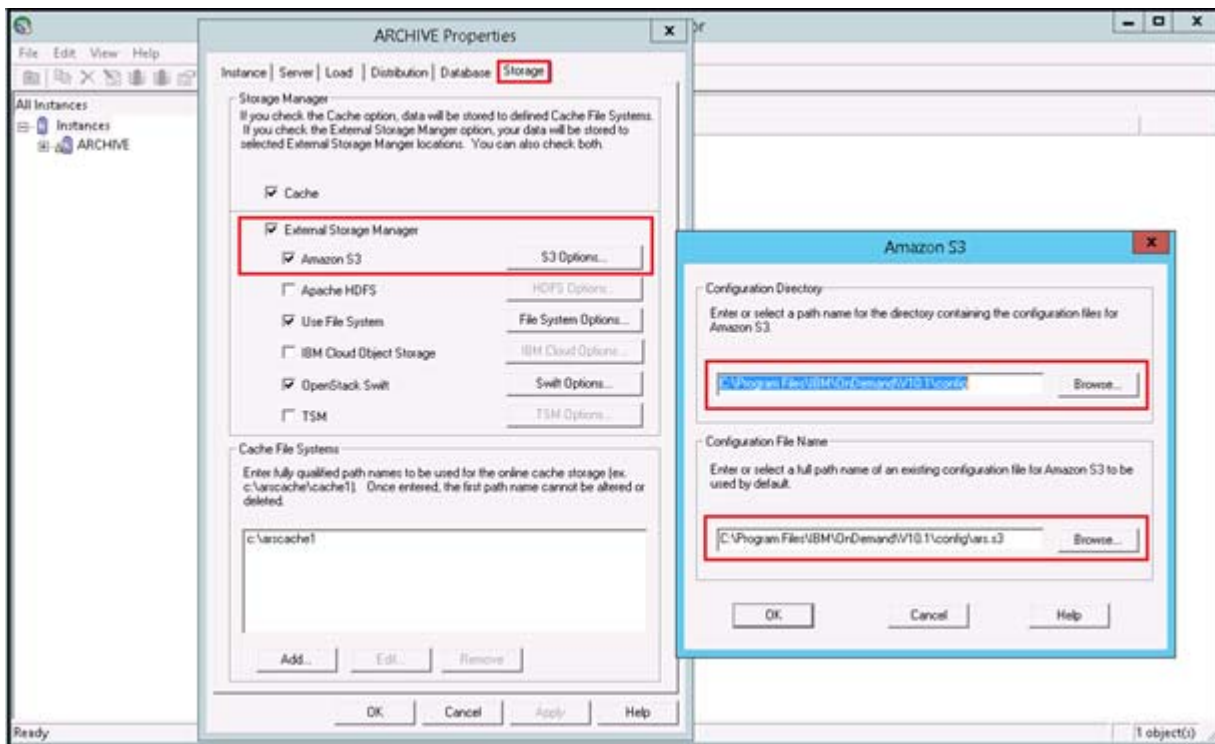
To complete this integration, do the following.

1. Set the Amazon S3 options.
 - (1) Using the Content Manager OnDemand Configurator, from **Instances**, right-click the **Archive** instance.
 - (2) Click **Properties**,
 - (3) Click the **Storage** tab.
 - (4) Select the **Enable External Manager** check box, and then select the **Amazon S3** check box, and then click **S3 Options**.
 - (5) On the **Amazon S3** dialog box, set the following (Figure 4 on page 7).
 - Under **Define Configuration Directory**, click **Browse** to select the following path:
C:\Program Files\IBM\OnDemand\V10.1\config
 - Under **Define Configuration File Name**, click **Browse** to select the following path:
C:\Program Files\IBM\OnDemand\V10.1\config\ars.s3

The Content Manager OnDemand configuration file, **ars.s3**, has this configuration to map Hitachi Content Platform to Amazon S3:

- Amazon S3 Server Name (Required)
ARS_S3_SERVER=ns1.cmod1013.hcp8009.scisvlab.local
- Amazon S3 Region (Required)
ARS_S3_REGION=us-east-1
- Use SSL in Server Communications (Default: 1)
ARS_S3_USE_SSL=0

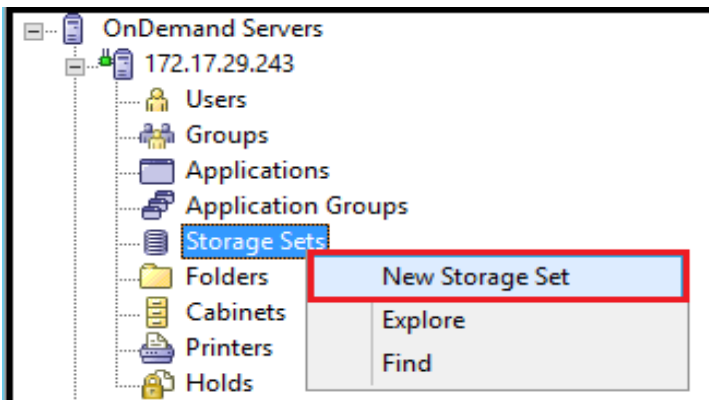
Figure 4



2. Configure IBM Content Manager OnDemand Storage Set for Amazon S3.

- (1) Using the OnDemand Administrator Client web interface, From the server, right-click **Storage Set**, and then click **New Storage Set**.

Figure 5



- (2) Fill out the information required on the **Add a Storage Set** dialog box and click **Add**.

Figure 6

The screenshot shows the 'Add a Storage Set' dialog box. The 'Name' field contains 'AMAZONS3TOHCP8009'. The 'Description' field contains 'Using CMOD Amazon S3 to HCP8.0.0.9'. The 'Load Type' dropdown is set to 'Fixed'. The 'Storage Nodes' section contains a table with one row: 'Primary Object Server' and 'Primary Storage Node'. The 'Add...' button is highlighted with a red rectangle.

- (3) Fill out all the information required on the **Add a Primary Node** dialog box, including the following (Figure 7 on page 9):
- For **Logon**, type the Hitachi Content Platform user name (base64encode).
 - For **Password** and **Verify Password**, type the Hitachi Content Platform user password (md5).
 - For **Access Method**, click the **Amazon S3** option.
 - For **Configuration File Name**, type the following: **ars.s3**

There are other text boxes and check boxes to complete.

Figure 7

Add a Primary Node

Primary

Object Server: *ONDEMAND

Bucket Name: ns1.cmod1013.hcp8009.scisvlab.local

Description: HCP 8.0.0.9

Logon: YWRtaW4=

Password:

Verify Password:

☒ Load Data

☐ Cache Only

☐ OD/zOS Object Server

☐ Reload Hold Data

Access Method

☐ TSM

☐ OpenStack Swift

☐ Apache HDFS

☒ Amazon S3

☐ IBM Cloud Object Storage

☐ File System

☐ OAM

☐ VSAM

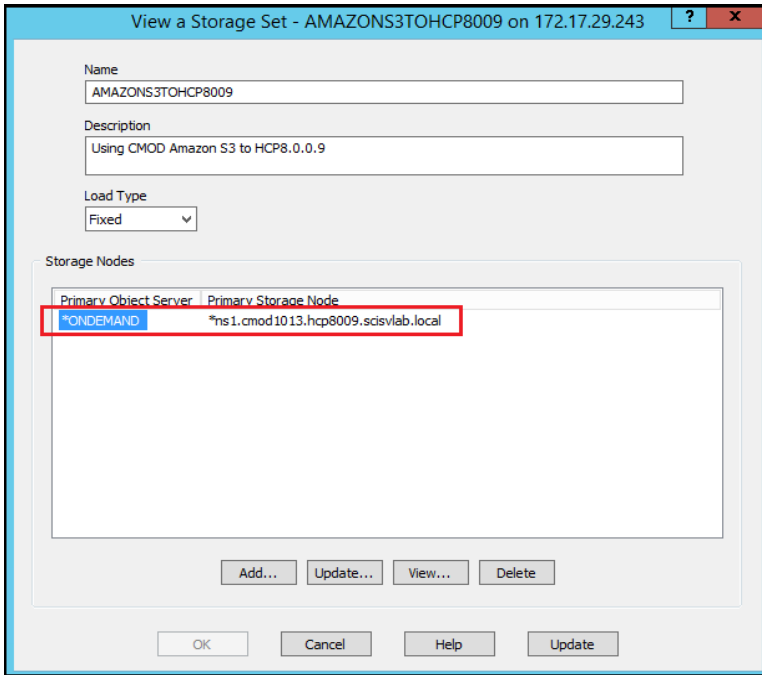
Configuration File Name

ars.s3

OK Cancel Help

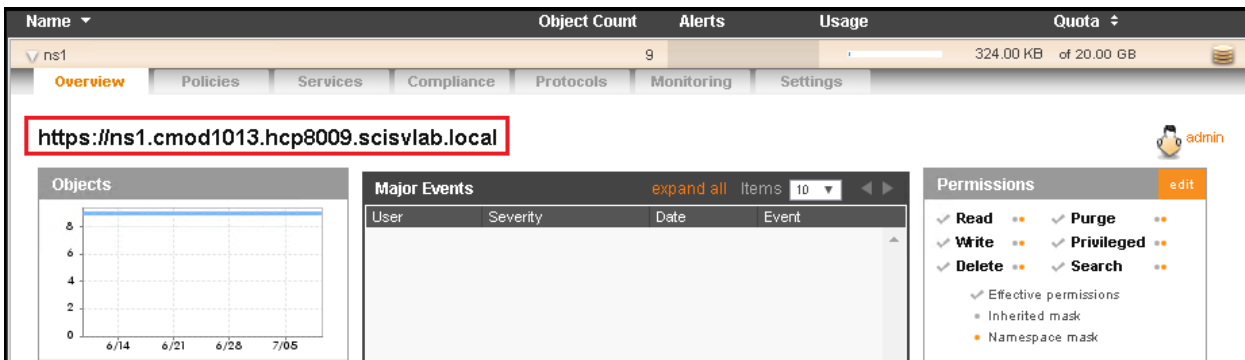
Newly added storage set is listed (Figure 8).

Figure 8



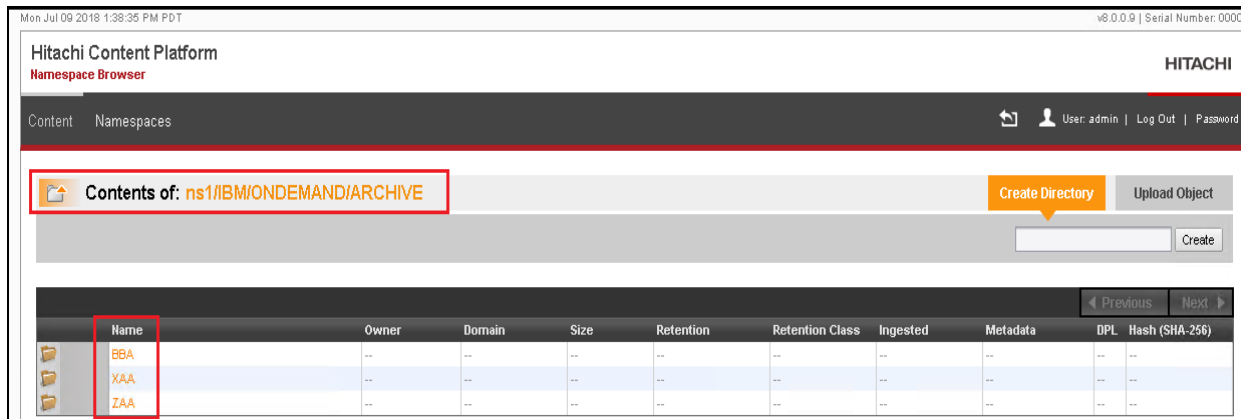
3. Configure Content Manager OnDemand administrator client.
For details, refer to *Hitachi Content Platform 7.2.x with Content Manager OnDemand 10.1 Implementation Guide*.
4. Configure Content Manager OnDemand client.
For details, refer to *Hitachi Content Platform 7.2.x with Content Manager OnDemand 10.1 Implementation Guide*.
5. Verify Content Manager OnDemand was able to map Hitachi Content Platform as a target. Use Hitachi Content Platform Tenant Management Console (TMC) to list the directories created by CMOD.
 - (1) Select the target namespace (bucket).
 - (2) Go to the **Overview** tab and click the link for the URL (Figure 9).

Figure 9



- (3) Select the IBM/OnDemand/ARCHIVE folder. This lists the directories created by CMOD.

Figure 10

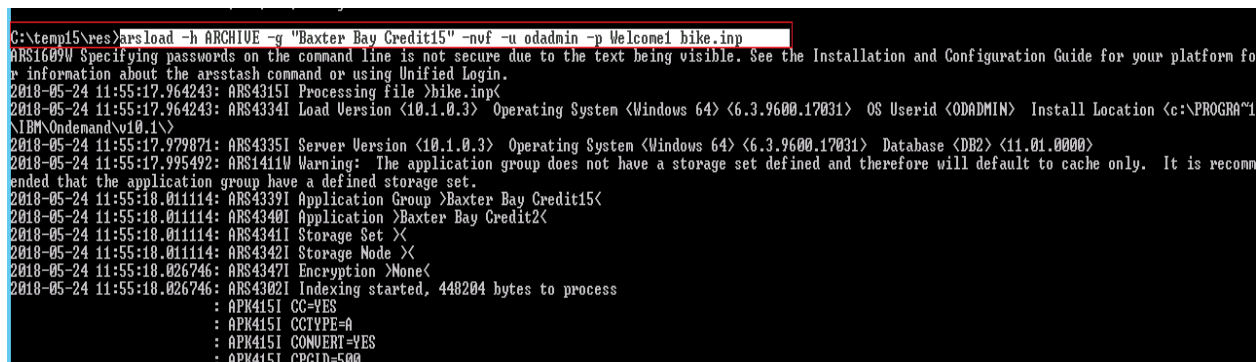


6. Run and verify IBM Content Manager OnDemand writes to Hitachi Content Platform using AmazonS3.

- (1) Load the sample data or report using the Content Manager OnDemand command line with the **arsload** command.

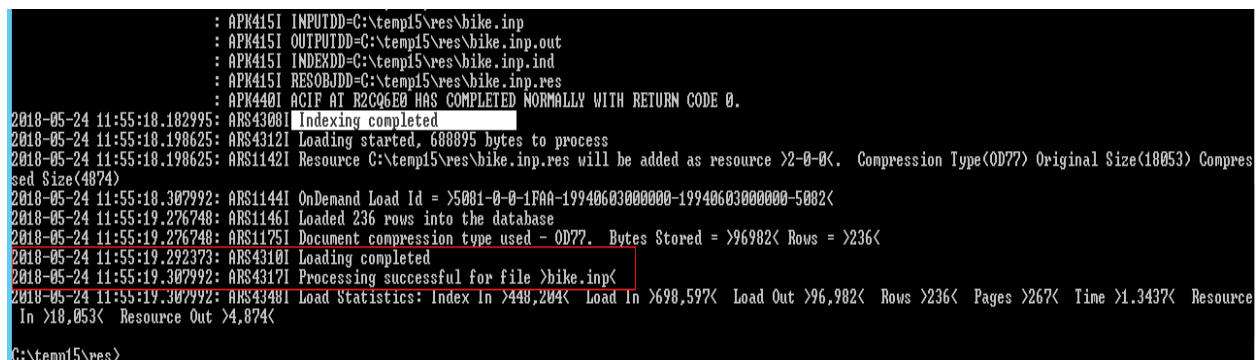
arsload -h ARCHIVE -g "Baxter Bay Credit15" -nvf -u odadmin -p Welcome1 bike.inp

Figure 11



- (2) Verify that the Content Manager OnDemand write operation completed successfully (Figure 12).

Figure 12



(3) Verify Content Manager OnDemand writes to Hitachi Content Platform successfully (Figure 13).

Figure 13

Hitachi Content Platform
Namespace Browser

Contents of: ns1/IBM/ONDEMAND/ARCHIVE/XAA

Name	Owner	Domain	Size	Retention	Retention Class	Ingested	Metadata	DPL	Hash (SHA-256)
1FAA	--	--	--	--	--	--	--	--	--
RES	--	--	--	--	--	--	--	--	--

Figure 14 shows files written to the 1FAA folder.

Figure 14

Hitachi Content Platform
Namespace Browser

Contents of: ns1/IBM/ONDEMAND/ARCHIVE/XAA/1FAA

Name	Owner	Domain	Size	Retention	Retention Class	Ingested	Metadata	DPL	Hash (SHA-256)
1FAA1	admin		5249	Deletion Allowed		5/24/2018 2:12PM		1	View Hash
1FAAA	admin		91738	Deletion Allowed		5/24/2018 2:12PM		1	View Hash

Figure 15 shows files written to the RES folder.

Figure 15

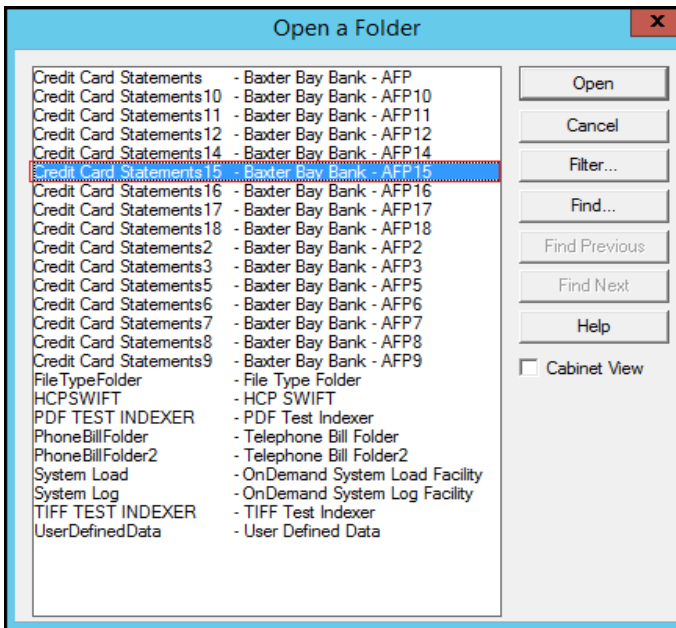
Hitachi Content Platform
Namespace Browser

Contents of: ns1/IBM/ONDEMAND/ARCHIVE/XAA/RES

Name	Owner	Domain	Size	Retention	Retention Class	Ingested	Metadata	DPL	Hash (SHA-256)
2	admin		4874	Deletion Allowed		5/24/2018 2:12PM		1	View Hash

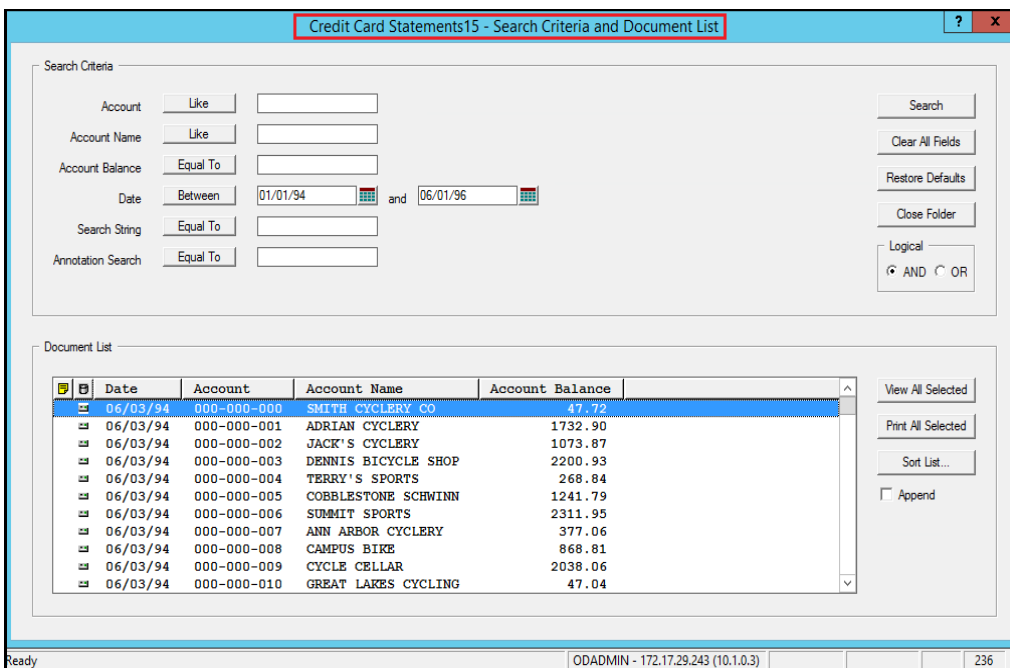
7. Run and verify the IBM Content Manager OnDemand read operation from Hitachi Content Platform using the Hitachi Adapter for Amazon S3.
- (1) Using the OnDemand Client web interface, select the folder and click **Open**. Figure 16 shows selecting the Credit Card Statement15 folder.

Figure 16



- (2) In **Search Criteria**, define the criteria for the search and click **Search**. Figure 17 shows searching by **Date**, setting a search between two dates.

Figure 17




(3) To view the report, click **View All Selected** (Figure 18).

Figure 18

OnDemand - [06/03/94]

File Edit View Search Notes Options Window Help

 **BAXTER BAY BANK**
More Bank for the Buck

P 1
A G E
O F
1

06/03/94	
0.00	
0	48
000-000-000	

MAKE CHECKS PAYABLE TO: BigBucksCard

DIRECT PAYMENT OR INQUIRIES TO: BigBucksCard Center
CUSTOMER SERVICES
P.O. BOX 100/BOULDER, CO 99999
PHONE (123) 123-4567

Smith Cyclery Co
113 W. Maumee St
Adrian, MI 49221

\$
AMOUNT PAID

PLEASE DETACH AND RETURN THIS TOP PORTION WITH PAYMENT

POST DATE	CURRENT BALANCE	MINIMUM PAYMENT DUE	PAY EITHER AMOUNT	NEW BALANCE	DATE TO PAY	AMOUNT DUE
2	4.77	4.77	47.72	07/03/94	245.38	

Ready ODADMIN - 172.17.29.243 (10.1.0.3) Page 1 of 1 100% 236

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