Content Manager OnDemand for i: Considerations for High Availability

This document applies to Content Manager OnDemand for i version 7.2 and later.

High Availability (HA) system requirements

Both the source and target IBM i systems should be at the same version and release of the operating system, and the same major server version of Content Manager OnDemand for i. For example, your operating system and Content Manager OnDemand for i might be at V7.4, and your Content Manager OnDemand major server version might be at V10.5 on both the source and the target systems.

Running Content Manager OnDemand for i after replicating from a system at a different version or release of IBM i or different major server version of Content Manager OnDemand for i might cause errors or unpredictable results due to database table changes. As you plan for the next operating system release or major server version of Content Manager OnDemand, you should contact IBM Software Support for information on database changes before proceeding with the source or target system upgrade.

To determine your server version, you can run this command: QSH CMD(arsdoc)

The files in the instance libraries are journaled to the journal named QSQJRN in the respective instance libraries. Because this journaling is required for Content Manager OnDemand commitment control, these settings must not be changed.

What to replicate

In a High Availability environment on IBM i, it is recommended that you replicate:

- All instance libraries.

- Everything in the /QIBM/UserData/OnDemand path with the exceptions noted later in this document.

- All data areas in QUSRRDARS library and the file named QRLWUSRINF in QUSRRDARS library. If you are using IASPs with Content Manager OnDemand, you should also replicate file QARLCASP in QUSRRDARS library.

- Any exit programs you are using with Content Manager OnDemand. For example, if you are using a System Log exit, or if you have specified a Post-processor exit specified in any Content Manager OnDemand application definitions, you should replicate those programs and their source files.

- If you have migrated to Common Server from Spool File Archive and you still have data in the /QIBM/UserData/RDARS/SpoolFile directory, that directory should be replicated.

Note that in a future release, support for retrieving Spool File Archive data located in directory /QIBM/UserData/RDARS/SpoolFile will be deprecated. Data located in this directory should be migrated to Archived Storage Manager (ASM) by using the Migrate Media (MGRMEDRDAR) command.

What not to replicate

It is recommended that you NOT replicate the following:

- Do not replicate the QRDARS library. Library QRDARS should only be updated by installing PTFs and new releases.
- Do not replicate any work directories. High Availability software will lock the stream files during replication. This can result in failed loads, or orphan files left in the Integrated File System (IFS) on your IBM i system. See the following sections for details regarding various work directories used by Content Manager OnDemand.

Loading data temporary files

When you are loading data by using the Add Report (ADDRPTOND), Start Monitor (STRMONOND), or ARSLOAD commands, temporary work files are written to the home directory of the IBM i user profile that is running the command. If the directory that contains these temporary files is being replicated by the HA software, the files might be locked when Content Manager OnDemand tries to delete them, causing them to remain on the system. Because these are temporary files, they should not be locked during the load process and are not expected to be there after the data is loaded successfully. This can lead to unexpected and intermittent errors when you try to archive other files in the future.

- If the user's home directory, as specified in the HOMEDIR parameter of the user's IBM i user profile, does not exist, you should create it. If the user's home directory does not exist, the root directory (/) is used.
- If you need to replicate the user's home directory for other reasons, you should ensure the files in that directory with names beginning with DB_ and SP_ are not replicated.

Do not replicate any directories that are being monitored by the Start Monitor (STRMONOND) command.

Server printing temporary files

Server printing is performed by using the Server Print function of the OnDemand client or by using the Print Report (PRTRPTOND), Print Document (PRTDOCOND), or ARSDOC PRINT commands. Server printing creates temporary files in the directory specified by the ARS_PRINT_PATH parameter in the ARS.CFG configuration file for the instance.

For example:

```
/QIBM/UserData/OnDemand/QUSROND/PRTTMP
```

The instance temporary directory

When loading data, some temporary files are created in the instance temporary directory. In addition, some log files are written to the instance temporary directory. The instance temporary directory is specified by the ARS_TMP parameter in the ARS.CFG configuration file for the instance.

For example:

```
/QIBM/UserData/OnDemand/QUSROND/TMP
```

ODWEK CGI cache directories (server version 10.1 and earlier only)

Any files that exist in these directories will be cached again, as needed, on the backup system. For this reason, they should not be replicated.

For example:

```
/QIBM/UserData/OnDemand/www/1141/CACHE
```

The system temporary directory

Some work files are written to the system temporary directory.

For example:

```
/TMP
```

The Content Manager OnDemand licensed program product directories

The licensed program directory and its subdirectories should be updated only by installing PTFs and new releases. For this reason, it should not be replicated.

```
/QIBM/ProdData/OnDemand
```

Considerations for using mounted file systems

In a High Availability setup, you will have a source system and a target system. On the source system, each time the instance is started, Archived Storage Manager (ASM) will mount the file systems the first time that data is migrated to or retrieved from a User Defined File System (UDFS) disk pool. On the target system, the instance will not be

active, so you must mount the file system. This can be done manually or by your High Availability software.

An example of the MOUNT command for the primary disk pool in ASP01 is given below:

```
MOUNT TYPE(*UDFS) MFS('/dev/qasp01/ondemand_qusrond_primary_01.udfs')
MNTOVRDIR('/qibm/userdata/ondemand/QUSROND/ASMASP01/PRIMARY')
```

You must ensure that the disk pools are always mounted on both the source and target systems when replication is running.

Note that if you are using a disk pool located in an Independent Auxiliary Storage Pool (IASP), there is no User Defined File System (UDFS) to mount.