IBM Content Manager OnDemand Newsletter

1st Quarter 2022

In This Issue

News

About this newsletter

This newsletter is designed to keep you better informed about IBM® Content Manager OnDemand on all platforms. The newsletter is published quarterly.

Previous editions of this newsletter can be found in support item 628001.

Correspondence related to this newsletter should be directed to darrell.bryant@unicomsi.com.

This newsletter is formatted so that it is easier to read on wide screen devices. Use the full screen viewing option in Adobe Reader or Acrobat (Ctrl+L) for best results.

Server version 10.5.0.4 available

Multiplatforms

The V10.5.0.4 fix pack installation files are available from IBM Fix Central. This is a server only fix pack. You should use the 10.5.0.3 version of the OnDemand Administrator and OnDemand end-user clients with server version 10.5.0.4.

z/OS

To upgrade your system, choose the applicable PTF from the list in support item 347373.

IBM i

See the PTF List for a list of the PTF numbers for your release. You should also review the corresponding Read This First document before installing the PTFs. We recommend that you order the Content Manager OnDemand for i PTF group when upgrading your system to server version 10.5.0.4.

Release	PTF Group	PTF Lists	Read This First
V7.4	SF99652	335651	82189
V7.3	SF99252	335651	82189

Server version 10.1.0.10 available

Multiplatforms

The V10.1.0.10 fix pack installation files are available from IBM Fix Central.

See the Compatibility Matrix for the Content Manager OnDemand clients and servers for compatible OnDemand Administrator and OnDemand end-user clients.

z/OS

To upgrade your system, choose the applicable PTF from the list in support item 347373.

EOS for Content Manager OnDemand for Multiplatforms V10.1

End of support (EOS) for Content Manager OnDemand for Multiplatforms V10.1 is scheduled for April 30, 2022. Customers running Content Manager OnDemand V10.1 should plan to upgrade to V10.5 before the EOS date.

For more information, see IBM United States Withdrawal Announcement 921-071.

EOS for Content Manager OnDemand for z/OS V10.1

End of support (EOS) for Content Manager OnDemand for z/OS V10.1 is scheduled for April 30, 2022. Customers running Content Manager OnDemand V10.1 should plan to upgrade to V10.5 before the EOS date.

For more information, see IBM United States Withdrawal Announcement 921-056.

IBM Content Manager OnDemand education

Still working from home? Now is a great time to get educated on several of the newer features of Content Manager OnDemand V10.5. Make sure your Content Manager OnDemand team has a strong understanding of the fundamentals of the system, how to administer it, and its purpose. All IBM Content Manager OnDemand education is available for remote learning.

Instructor-led

OnDemand University (ODU) instructor-led online training courses from enChoice provide all the benefits of live instruction without the hassle of travel time and costs – students can learn virtually from wherever an internet connection is available.

We are pleased to offer for the following weeks in 2022:

June 6-10, 2022
August 22-26, 2022
October 3-7, 2022

Self-paced

Self-paced online training courses from enChoice are perfect for busy professionals who require flexibility with their class schedules. Classes may be taken anytime, anywhere at the student's own pace. Courses are created and taught in English by certified, IBM-authorized Content Manager OnDemand instructors.

Two self-paced courses are available:

IBM Content Manager OnDemand Administration

This is the foundational course for individuals interested in learning about the major functions of the IBM Content Manager OnDemand system. The course starts with a basic overview of the system, and then teaches students how to:

- Create and maintain Content Manager OnDemand objects such as applications, application groups, and folders
- Index, load, and retrieve various types of documents and report files in a Content Manager OnDemand system

IBM Content Manager OnDemand Advanced System Administration

This self-paced course builds on the foundational course by providing system administration concepts for the Content Manager OnDemand solution. It provides students with a thorough understanding of Content Manager OnDemand architecture and system object concepts as well as storage administration, document storage and indexing components such as the PDF indexer, the 390 indexer, and the XML indexer.

The course also covers database configurations, command utilities, server APIs and the Web Enablement Kit (ODWEK).

To register for any of these classes, visit the enChoice Education page, the IBM Education website, or contact your TechData/Exit Certified, or Learn Quest training coordinator.

Custom or private remote or onsite classes are also available – simply contact ODU@enchoice.com for more information.

Tips – Cross Platform

Unsecured and anonymous FTP to upload IBM documentation will be disabled

Effective August 31, 2022, all uploads of documentation to both the IBM testcase and ecurep servers' /toibm directories will require an authenticated log-in using an IBM Support File Transfer ID and password (token). In addition, a secure transport protocol, such as HTTPS, FTPS, or SFTP will need to be used to upload to the testcase and ecurep servers.

Authenticated log-in with an IBM Support File Transfer ID and password (token) will be required, instead of anonymous and any password, to upload to the testcase and ecurep servers' /toibm directories. In addition, only the use of secure protocols will be supported due to the disablement of unsecured plain FTP on the testcase and ecurep servers.

See support item 6541526 for additional information.

log4j security vulnerability in server version 10.5.0.x

Customers running Content Manager OnDemand server version 10.5.0.x should install server version 10.5.0.4 to remediate log4j security vulnerabilities CVE-2021-44228, CVE-2021-44832, CVE-2021-45046, and CVE-2021-45105. **Server version 10.5.0.4 includes log4j 2.17.1.**

In Content Manager OnDemand Version 10.5, the following components use log4j 2.x:

- Full Text Search Exporter
- Content Manager OnDemand REST Services
- Content Manager OnDemand Web Enablement Kit.

See support item 6525888 for additional remediation options.

log4j security vulnerability in server version 10.1.0.x

IBM Content Manager OnDemand Versions 10.1.0.0 through 10.1.0.5 are not affected by the log4j vulnerabilities. Customers running Content Manager OnDemand server versions 10.1.0.6 through 10.1.0.9 should install server version 10.1.0.10 to remediate log4j security vulnerabilities CVE-2021-44228, CVE-2021-44832, CVE-2021-45046, and CVE-2021-45105. **Server version 10.1.0.10 includes log4j 2.17.1.**

In Content Manager OnDemand Version 10.1, only the Full Text Search Exporter uses log4j 2.x.

See support item 6525892 for additional remediation options.

How to determine which levels of Content Manager OnDemand are being used?

There are frequently three levels of Content Manager OnDemand being used on any given instance:

- OnDemand Administrator or OnDemand end-user client
- Content Manager OnDemand Server
- Content Manager OnDemand Web Enablement Kit (ODWEK)

How to tell what level of each you're using?

From any OnDemand client:

Logon to Content Manager OnDemand.

In the lower right hand corner will be the **server** level. It's always 4 digits, for example 10.5.0.4.

On the toolbar at the top, click on Help > OnDemand which will show the **client** level, for example 10.5.0.3.

To determine the ODWEK level in use, there are two ways.

From an OnDemand end-user client, go to the System Log and search for message number 30. Message number 30 will give you the versions used to login. For example:

```
Login: 10.1.2.3 10.1.2.4 non-SSL (Windows) (CLIENT GUI)
   (10.5.0.3)
Login: 10.1.2.5 10.1.2.4 SSL (Windows 64) (ADMIN GUI)
   (10.5.0.3)
Login: 10.1.2.6 10.1.2.4 non-SSL (Windows) (ODWEK JAVA
   API) (10.5.0.4)
```

Support recommends using the ARSRPT utility. Try the following from a command line:

```
arsrpt  -h ARCHIVE
        -t 2022-03-08
        -u userid
        -p /u/x/stash  <<stash file location or password)
        -d /tmp  <<output report location
```

More information on ARSRPT can be found in IBM Documentation.

Using the ODWEK load capabilities

Question

How do I use the Load capabilities through the Content Manager OnDemand Web Enablement Kit (ODWEK)?

Answer

Prior to ODWEK version 9.5, documents could only to be added to the Content Manager OnDemand archive using the Java API ODFolder.storeDocument. This API results in an archive request to the Content Manager OnDemand server for each document added.

At ODWEK version 9.5 and later, Java APIs exist to allow more than one document to be loaded at a time, similar to the ARSLOAD program. However, loading via ODWEK is not intended to replace ARSLOAD as the primary data ingestion vehicle. For example, ODWEK loading does not include an indexer to automatically parse and extract index values. As such, the indexes must be individually supplied. Additionally, ODWEK loading is not optimized to process very large input files. Performance degradation and potential load failure might result if attempted.

To accomplish loading by using the ODWEK Java APIs, perform the following:

- Call the ODServer.loadInit API to initiate the load process.
- For each document to load, call the ODServer.loadAddDoc API, passing the number of pages, a Hashtable containing database field names (keys) with their corresponding indexes (values), and the document data.
- Call the ODServer.loadCommit API, specifying the application group and application to send the load data and load request to the Content Manager OnDemand server.

Be aware of the following:

- The Content Manager OnDemand server version must be V9.5 or later.
- The steps must be called in this order. Calling them out of order will result in an exception. If you need to reset the process for any reason, call the ODServer.loadReset API and begin the entire process again. All documents loaded during the process must meet all of the requirements of specified application group and application combination. For example, they must be the correct data type and format.
- All dates must be standardized on the ISO date and/or datetime format.
  - The format for Date must be specified as %Y-%m-%d, such as '2014-11-17'
  - The format for Date/Time (with/without TZ) must be specified as %Y-%m-%d %H:%M:%S.%F, such as '2014-11-17 14:07:00.000000'
- The number of pages that the ODServer.loadAddDoc API accepts is valid only if the application group has a field defined with the 'Page Count' attribute. If the application group does not have such a field

defined, the number of pages parameter passed to ODServer.loadAddDoc will be ignored. Additionally, the value must be provided by the caller and will not be calculated as would occur when using ARSLOAD.

- If the application to which the data is being loaded is Large Object-enabled, that attribute is not honored.

Server setup

Steps must be taken to prepare the Content Manager OnDemand archive where the documents will be loaded prior to calling any of the ODWEK load APIs. The directories specified must exist. For example,

- On Unix servers and z/OS servers, add two values to the ARS.CFG configuration file for the instance:

```
ARS_DOWNLOAD_DIR=/arstmp
ARS_DOWNLOAD_TMP_DIR=/arstmp
```

- On Windows servers, use the OnDemand Configurator's Configuration Parameters panel. (Select the Parameters button on the Instance tab to launch the Configuration Parameters panel.) Enter ARS_DOWNLOAD_DIR in the Name field and a valid directory for the Value field and select the Add button. Take similar steps to add an entry for the ARS_DOWNLOAD_TMP_DIR.

- On IBM i servers, add two values to the `/QIBM/UserData/OnDemand/<instance name>/ARS.CFG` configuration file:

```
ARS_DOWNLOAD_DIR=/QIBM/UserData/OnDemand/<instance name>/tmp
ARS_DOWNLOAD_TMP_DIR=/QIBM/UserData/OnDemand/<instance
   name>/tmp
```

See support item 252987 for more information and a sample Java program.

Alternatives for capturing Content Manager OnDemand messages

Problem

Content Manager OnDemand is installed and running, but no messages are getting written to the System Log that are useful to address a problem you are having.

Symptom

No relevant records exist when you look in or query the Content Manager OnDemand System Log, or the Content Manager OnDemand server will not start and no error messages are produced.

Cause

The Content Manager OnDemand server might be encountering an error trying to update the System Log, or the messages you need might be written elsewhere.

Diagnosing The Problem

You can use any of the following methods to generate messages in a location other than the Content Manager OnDemand System Log. This approach might help you identify a problem with the System Log, or find messages that the operating system is sending to an alternate location.

Set up the environment you wish to use by following the instructions in one of the options below to attempt to capture the error messages that you need. Then, deliberately cause an error that should be written to the System Log by attempting a failed login with the OnDemand Windows client, by using the wrong user id or password. Finally, check the system's message facility (such as the console, server job log, or system operator message queue), ARSLOG user exit log file, or formatted trace file to find the error messages that you have captured. If an error is found, you can look up the error message in the Content Manager OnDemand documentation. Or, if it is a database error, you can review the Db2, Oracle, or SQL Server documentation to resolve the error. In the process of finding the additional messages in these alternate locations, you might see an error message indicating a problem that needs to be resolved that is related to writing to the System Log, such as a Db2 error. In that case, resolving that error might then cause future messages to be written to the System Log successfully.

1) Check to see if the Content Manager OnDemand server wrote an error message to the operating system's message facility, such as the console, server job log, or system operator message queue.
   - On AIX, run the command: alog –t console –o
   - On Linux, run the command: cat /dev/log/messages
   - On Windows, check the Event Viewer for the message.
   - On z/OS, check the ARSSOCKD JESLOG.
   - On IBM i, check the server job log, or display the QSYSOPR message queue: dspmsg qsysopr. Note that the server job log typically contains more detail than the QSYSOPR message queue. For example, the QSYSOPR message queue will not include messages about failed logins but will have messages about failed loads or issues such as Db2 errors.

   After deliberately causing the failed login as described above, check to see if the Content Manager OnDemand server wrote an error message to the operating system's message facility.

2) Use the ARSLOG user exit script or program to write System Log messages to a log file. A sample ARSLOG user exit script or program is shipped with Content Manager OnDemand. Modify the ARSLOG user exit script or program as shown below. By default, the Content Manager OnDemand for Multiplatforms server calls the ARSLOG user exit script when there is an error. By default, the Content Manager OnDemand for z/OS server calls the ARSLOG dynamic exit when there is an error. By default, the Content Manager OnDemand for i server will not call the ARSLOG user exit program when there is an error. On IBM i, you must set the ARS_DISABLE_ARSLOG parameter in the ARS.CFG configuration file to a value of 0 (zero; such as ARS_DISABLE_ARSLOG=0) to enable the ARSLOG user exit.

   The ARSLOG user exit script or program can be modified to write to a log file by adding the following lines:

   AIX or Linux:

   ```
   if [ -n ${ARS_TMP} ] ; then
         echo $@ >> ${ARS_TMP}/${1}.log
   fi
   ```

   This sample will create a log file named <CMOD_Instance>.log.

   Windows:

   ```
   IF EXIST %ARS_TMP% (
       echo "%*" >> %ARS_TMP%\%1%.log
   )
   ```

   This sample will create a log file named <CMOD_Instance>.log.

   z/OS:

   The ARSLOG dynamic exit interface can be used to write messages to a log or issue WTOs to the operator's console.

   IBM i:

   The sample ARSLOG user exit program in QSAMPLES2 source file in library QRDARS contains the necessary CL commands to write log messages to the QSYSOPR message queue. No updates need to be made to the sample program on IBM i. However, the sample program does need to be compiled. Instructions are included within the comments in the sample program.

   The ARSLOG user exit script or program must have execute permission for the user running the Content Manager OnDemand server. Also ensure that the ARS_TMP directory exists and the user running the Content Manager OnDemand server is able to write to it.

   After deliberately causing the error as described above, check the ARSLOG user exit log file to see if the Content Manager OnDemand server wrote an error message to the log file.

3) Enable the Content Manager OnDemand server trace by using the trace.settings file, setting the TRACE_FILE=<CMOD Instance>.trc and TRACE_LEVELS=ALL=15 parameter values within the trace.settings file. This will cause a server trace file to be created in the ARS_TMP directory. Make sure the ARS_TMP directory exists and the user running the Content Manager OnDemand server is able to write to it.

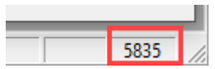
   After deliberately causing the error as described above, run the ARSTFMT command, such as arstfmt –I <CMOD_Instance>.trc –o <CMOD_Instance>.txt, to format the trace. Then, check the formatted trace file, searching for 'ERROR,' to see if the Content Manager OnDemand server wrote an error message to the trace file.

This tip adapted from support item 6564773.

Is there a way to determine the number of reports loaded into Content Manager OnDemand in a month?

Search the System Load folder with a date range of one month. Select the 'Between' operator for the Load Time field. You can specify specific dates or use the value of 't' for today and 't-30' for 30 days before today.

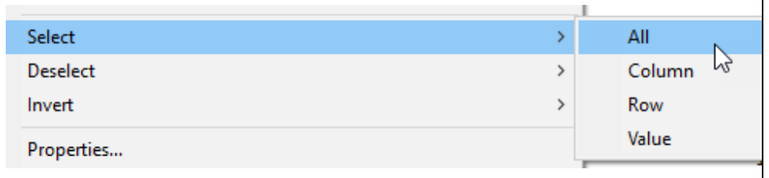
You will get a list of all loads for that month (or other date range you specify). The total number of loads for the month is displayed at the bottom right corner of the Windows client.



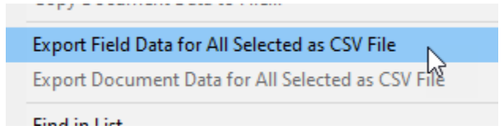
For each load there is a "Row Count". The Row Count is the number of individual documents loaded in the specific load.

Row Count
3297
172
1
20
48
11
175

Right click on the document list, click on "Select" and then "All". All the rows in the document list will be selected.



Then right click and click on "Export Field Data for All Selected as CSV File".



The CSV file will open automatically in the application registered in Windows for that file type, for example Microsoft Excel. You can sum the row count column to calculate the total number of rows loaded last month. You could also total the "Output Size" and "Res Output Size" columns to calculate the size of the data loaded last month.

Note that if you unload data, the information for that load is not removed from the System Load folder and will be included in your totals.

Tips – Multiplatform

What causes an accumulation of ARSSOCKD threads in a Content Manager OnDemand server?

Problem

Users report performance issues with the IBM® Content Manager OnDemand server. Logons, open folder, searches, and loads or document retrievals seem slow during these problem periods. This slow performance occurs intermittently or during periods of high volume and can at times be characterized as a "hang" or "no response" symptom. During these periods, the number of ARSSOCKD threads are considerably higher compared to periods of normal performance. Restarting the Content Manager OnDemand server instance temporarily alleviates the problem. What is causing ARSSOCKD threads to accumulate? Is this causing poor performance in Content Manager OnDemand?

Cause

ARSSOCKD is the name of the Content Manager OnDemand server process. The ARSSOCKD command is a single multi-threaded process. This can be seen by issuing the command `arssockd -I instance -px`, for a multi-threaded listing of the ARSSOCKD process.

The ARSSOCKD processes consist of an accepting parent thread, a license server thread, a Message server thread, and multiple database server threads. The ARS_NUM_DBSRVR environment variable configured in the ARS.CFG configuration file determines the number of database server threads. The other ARSSOCKD threads that accumulate are known as client threads.

The purpose of the client threads in the ARSSOCKD process is to manage a request between the user and the Content Manager OnDemand server. This might involve facilitating a database request (logon, open folder, search, load, System Log entry, and so on), a document retrieval request to the object server (Content Manager OnDemand cache or IBM Spectrum Protect Storage Manager), or managing a cancel request issued by the user. Each user request will create a thread in the ARSSOCKD process to manage that request, while a document retrieval will create an additional thread to handle cancelling the request. A client thread will exist until the request has been satisfied or cancelled.

There are several reasons why poor performance and subsequently an accumulation of threads in the ARSSOCKD process might occur:

- Poor performing database
- Database server processes are servicing a long-running request or a server-based text search
- Incorrect configuration of ARS_NUM_DBSRVR
- Poor object server performance
- Poor network performance
- User volume has exceeded system capacity or configuration

Resolving The Problem

For each reason listed in the previous section, the respective action should be taken in the following section.

Poor performing database

On initialization, the Content Manager OnDemand server creates a number of database server threads that exist until the Content Manager OnDemand server is stopped. This number is determined by the ARS_NUM_DBSRVR parameter value in the ARS.CFG file. These database server threads maintain a persistent pool of connections to the database. When a database request is made (logon, open folder, search, loading, System Log messages, and so on), a client thread is created for the life of this request, and will wait for a free database server thread to service its database request. After the request is fulfilled, the database server thread will service the next request or return to idle, while the client ARSSOCKD thread managing that request exits. When an accumulation of ARSSOCKD threads occurs, this is due to the client threads being queued, and subsequently waiting for a free database server thread to fulfill its request. These database server threads are busy waiting for the database to fulfill its request. Investigation into the database manager's performance should be performed.

Database servers are servicing a long-running request or a server-based text search

Server based full text search or a search request that yields a large result set might tie up an ARSSOCKD database server thread for a long period of time. If a high number of these long searches are performed, Content Manager OnDemand database performance will be affected. For example, if 20 ARSSOCKD database server threads are started on initialization (ARS_NUM_DBSRVR=20) and 20 long searches are issued simultaneously, all subsequent requests (logon, open folder, search, System Log, and so on) will be queued until at least one of the 20 searches has finished or is cancelled. Reviewing the thread listing, `arssockd -I instance -px`, can help determine if database server threads are not responding. All database server threads should have relatively the same CPU TIME. Search queries can be examined by enabling database query message logging on a per application group basis.

Incorrect configuration of ARS_NUM_DBSRVR

The ARS_NUM_DBSRVR parameter in the ARS.CFG file specifies the number of ARSSOCKD database server threads that will be created when the Content Manager OnDemand server is started and controls general throughput of requests to the database. Setting a value too low will cause database requests to bottleneck, while setting a value too high will consume more memory, CPU, and database resources. Support item 154721 provides further information on how to tune this parameter.

For a Content Manager OnDemand system that is using Db2, ensure that the database configuration parameter MAXAPPLS is configured to at least the ARS_NUM_DBSRVR value or AUTO.

Poor object server performance

If the poor performance is isolated to document retrieval operations only (logon, search, open folder, and loading are normal), then an accumulation of ARSSOCKD threads or ARSOBJD threads might indicate an issue with the object server or storage manager. A determination of whether document retrieval performance is poor when retrieving from Content Manager OnDemand cache, IBM Spectrum Protect Storage Manager, or cloud storage will need to be made. The amount of time that the Content Manager OnDemand server takes to retrieve a document and AFP resource is recorded in the System Log if document retrieval message logging is enabled in the application group.

If retrieval performance is poor from only IBM Spectrum Protect Storage Manager, investigation into the IBM Spectrum Protect Storage Manager Client API and IBM Spectrum Protect Storage Manager server will need to be made. If retrieval performance is poor from the Content Manager OnDemand cache, see the following "Poor network performance" section. If cloud storage is used, the cloud storage server should be investigated.

Poor network performance

Poor network performance can be between the client, Content Manager OnDemand library server, Content Manager OnDemand object server(s). or cloud storage manager. Typically, if network performance is an issue, performance can be said to have been acceptable at one time, but suddenly to be noticeably poor with no change to Content Manager OnDemand usage or volume. In addition, the other potential problem areas described in this article have been investigated and eliminated. Therefore, investigation into a possible network problem should be performed.

User volume has exceeded system capacity or configuration

If the number of users has increased, performance is consistently poor, and investigation into the other potential problem areas described in this article has been performed, then an evaluation of the system sizing and configuration needs to be performed. The volume of users or workload has likely exceeded the system capacity.

Contact IBM Software Support if assistance is needed. Collecting the Content Manager OnDemand server hang MustGather diagnostics will help speed the initial investigation. Because performance tuning and configuration are outside the scope of defect support, a recommendation for you to contact IBM Services might ultimately be made.

This tip adapted from support item 358683.

How to resolve error message ARS0015E - Unable to find SMS tablespace filesystems

Problem

Content Manager OnDemand is installed and running, but a Content Manager OnDemand application group is unable to create new tables.

Symptom

You are trying to load data to a Content Manager OnDemand application group and receiving message “ARS0015E - Unable to find SMS tablespace filesystems. Either the defined SMS filesystems are full or there are no SMS filesystems defined” in the System Log, or the Content Manager OnDemand server is unable to write messages to the System Log.

Cause

This can be caused by incorrectly configured tablespaces for use with Db2 and Oracle, or filegroups for use with SQL Server.

You can configure Content Manager OnDemand to use tablespaces or filegroups in any application group definition, including the System Log application group that is predefined when you install Content Manager OnDemand. By default, the System Log application group definition is not defined to use tablespaces or filegroups.

An explanation of tablespaces and filegroups is provided in the OnDemand Administrator client help text:

Use Tablespace

For Content Manager OnDemand for Multiplatforms servers with Oracle, select this option to store application group data in table spaces.

Before application group data can be stored in tablespaces, you must configure the system to use tablespaces by identifying file systems on one or more storage volumes. For UNIX servers, the file systems are added to the ARS.DBFS configuration file. For Windows servers, the file systems are added using the Configurator. Content Manager OnDemand looks for the file system that has the most available space to create the tablespace.

If the database server is remote, Content Manager OnDemand cannot analyze the available file systems on the remote server. As a result, the Content Manager OnDemand tablespace creation user exit named arsutbl.c must be created and used if Use Tablespace is selected. See the arscsxit.h file, located in the installation directory, for information on the tablespace creation user exit.

Use Filegroups

For Content Manager OnDemand for Multiplatforms servers with Microsoft SQL Server, select this option to store application group data in filegroups.

Before application group data can be stored in filegroups, you must configure the system to use filegroups by identifying file systems on one or more storage volumes. The file systems are added using the Configurator. Content Manager OnDemand looks for the file system that has the most available space to create the filegroup.

If the database server is remote, Content Manager OnDemand cannot analyze the available file systems on the remote server. As a result, the Content Manager OnDemand tablespace creation user exit named arsutbl.c must be created and used if Use Filegroups is selected. See the arscsxit.h file, located in the installation directory, for information on the tablespace creation user exit.

In summary, it is likely that the cause of the problem is that the application group has been defined to use tablespaces or filegroups but the required configuration has not been added to the ARS.DBFS file (on AIX or Linux) or the Content Manager OnDemand instance (on Windows).

Diagnosing The Problem

Review the Content Manager OnDemand System Log for errors that occurred during the loading of data to the application group that is having the problem. If you are having problems with the System Log itself, see cross platform tip titled “Alternatives for capturing Content Manager OnDemand messages”.

Note that the ARS0015E message refers to SMS, which is only available with Db2. Oracle uses tablespaces for data files and MSSQL uses tablespaces for filegroups. The ARS0015E message is a general one used for all platforms; in this case, you can ignore the reference to SMS.

Resolving The Problem

You have two choices. Either:

- Select SMS under the Create Tablespace Type heading (for Db2), select the Use Tablespace checkbox (for Oracle) or select Yes under the Use Filegroups heading (for SQL Server). Then add the required tablespace configuration information to the ARS.DBFS file (on AIX or Linux), or use the OnDemand Configurator to add filesystems (on Windows), or write a tablespace creation user exit if the Oracle database is remote.
- Or, do not select the tablespace or filegroups options described above. Instead, select None or Automatic Storage under the Create Tablespace Type heading (for Db2), clear the Use Tablespace checkbox (for Oracle) or select No under the Use Filegroups heading (for SQL Server). In this case, you do not need to provide tablespace or filegroups configuration information in the ARS.DBFS file or the OnDemand Configurator, or write a tablespace creation user exit.

This tip adapted from support item 6565043.

Tips – IBM i

log4j security vulnerability on IBM i

Customers running Content Manager OnDemand for i Versions 7.3, and 7.4 should install server version 10.5.0.4 to remediate log4j security vulnerabilities CVE-2021-44228, CVE-2021-44832, CVE-2021-45046, and CVE-2021-45105. **Server version 10.5.0.4 includes log4j 2.17.1.**

Customers running Content Manager OnDemand for i Version 7.2 should install PTF SI78368, which requires server version 10.5.0.2, to remediate log4j security vulnerabilities CVE-2021-44228, CVE-2021-44832, CVE-2021-45046, and CVE-2021-45105. **PTF SI78368 includes log4j 2.17.1.**

See support item 6525888 for information on manual remediation options.

Customers performing manual remediation, as described in support item 6525888, should note that for remediation option 2, steps 3, 4, and 5 should be revised as follows:

3. Remove log4j-api-2.xx.y.jar and log4j-core-2.xx.y.jar from the /QIBM/ProdData/OnDemand/jars directory where xx is any number and y is any number.

   Remove the symbolic links for log4j-api-2.xx.y.jar and log4j-core-2.xx.y.jar from the /QIBM/ProdData/OnDemand/www/api directory.

   On v7.2, also delete the log4j-api-2.xx.y.jar and log4j-core-2.xx.y.jar from the /QIBM/ProdData/OnDemand/bin directory

4. Copy the new log4j jar files (for example, log4j-api-2.17.1.jar and log4j-core-2.17.1.jar) into the /QIBM/ProdData/OnDemand/jars directory.

   On v7.2, also copy the new log4j jar files into the /QIBM/ProdData/OnDemand/bin directory.

   Create symbolic links in the /QIBM/ProdData/OnDemand/www/api directory, for example:

```
ADDLNK OBJ('/QIBM/PRODDATA/ONDEMAND/JARS/log4j-api-
    2.17.1.jar')
    NEWLNK('/QIBM/ProdData/OnDemand/www/api/log4j-api-
    2.17.1.jar')
ADDLNK OBJ('/QIBM/PRODDATA/ONDEMAND/JARS/log4j-core-
    2.17.1.jar')
    NEWLNK('/QIBM/ProdData/OnDemand/www/api/log4j-core-
    2.17.1.jar')
```

5. Because you created the symbolic links in step 4, you do not need to adjust your CLASSPATH for the new jar file versions.

Additional Information

Documentation

Content Manager OnDemand for Multiplatforms Documentation

Content Manager OnDemand for z/OS Documentation

Content Manager OnDemand for i Documentation

Content Navigator Documentation

Publication Libraries - PDF versions of the documentation

Multiplatforms	Version 10.1	Version 10.5
z/OS	Version 10.1	Version 10.5
IBM i	Version 7.3	Version 7.4

Product System Requirements

Multiplatforms	Version 10.1	Version 10.5
z/OS	Version 10.1	Version 10.5
IBM i	Version 7.3	Version 7.4

More Enterprise Content Management web sites

IBM Content Manager OnDemand Product Overview

Compatibility Matrix for the Content Manager OnDemand clients and servers

IBM Software Support Lifecycle Policies (search for Content Manager OnDemand)

OnDemand User Group

The primary objective of the OnDemand User Group (ODUG) is to create an environment and network encouraging the exchange and development of information regarding Content Manager OnDemand and its associated products.

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