

AhsayCBS v8.3.4.0 Run on Server (Agentless) backup for Office 365 and Cloud File

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Introduction

With the release of AhsayCBS v8.3.4.0, the Run on Server (Agentless) backup process has received a major overhaul. Run on Server (Agentless) Office 365 and Cloud File backup jobs are now a separate Java process independent from the main AhsayCBS Java process. This means that Office 365 and Cloud File backup jobs will not utilize the Java memory resources of AhsayCBS Java process, as each backup job will run in its own independent Java process with its own dedicated Java memory setting. By default, each Run on Server backup job is assigned 1GB of Java memory. However, the Java memory allocation can be customized by the system administrator.

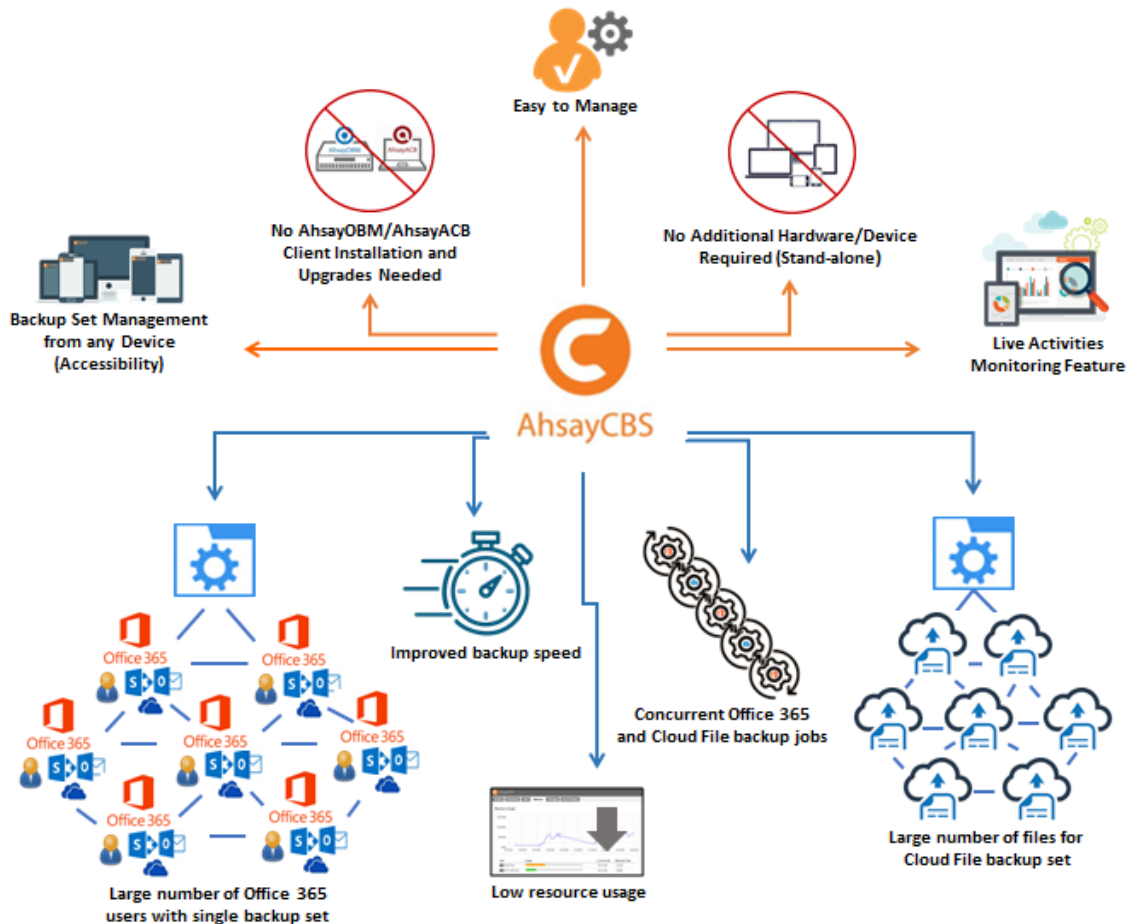
The previous limitations on maximum number of concurrent Run on Server (Agentless) Office 365 and Cloud File backup job on AhsayCBS has been removed, as more concurrent backups can be supported due to the improvements.

The new Run on Server process only applies to backup jobs. Other processes like restore, data integrity check and space freeing up remain integrated with the AhsayCBS Java processes as the resource usage is not significant.

The changes made will improve the overall performance, stability, and scalability of AhsayCBS for Run on Server (Agentless) Office 365 and Cloud File backup jobs; also to prevent instances where Office 365 and Cloud File backup jobs have inadvertently consumed a lot of the available Java memory from AhsayCBS resulting in web management console to be unresponsive. In worst cases some Office 365 and Cloud File backup jobs that have crashed have resulted in AhsayCBS service crashing.



Why deploy Run on Server (Agentless) Office365 and Cloud File backup on AhsayCBS v8.3.4.0



➡ No AhsayOBM/AhsayACB Client Installation and Upgrades Needed

AhsayOBM and AhsayACB client installation is not required as backup jobs are running on the AhsayCBS server. Also, unlike the client backup agent, upgrading when a newer version becomes available is not necessary, as long as the AhsayCBS server version is upgraded by the backup service provider.

➤ **No Additional Hardware/Device Required**

As the Run on Server (Agentless) backup set utilizes the resources of the AhsayCBS backup server, there is no need to provision additional physical or virtual machine to run the backup/restore which means the cost of each backup set is much lower than for an agent based Office 365 and Cloud File backup set.

➤ **Easy to Manage**

The AhsayCBS User Web Console offers you an easy-to-manage user interface. This will help you save time and it reduces the overall cost of support.

➤ **Backup Set Management from any Device (Accessibility)**

Backup/restore operation(s), backup set settings configuration, and backup/restore process monitoring can be done from any device as long as a web browser and internet connection are present in the device.

➤ **Live Activities Monitoring Feature**

The AhsayCBS User Web Console has a live activity monitoring feature which is used to keep track of the backup and restore job(s). The following operations can be performed using this feature:

- ▶ View the status of the backup process that is currently running or finished within 1 hour
- ▶ View the status of the restore process that is currently running or finished within 1 hour

With the additional Run on Server (Agentless) backup process improvements to make the backup experience even better to meet the needs of your customers.

➤ **Handle backups of large number of Office 365 users with a single backup set**

Finish backup of a single Office 365 Run on Server (Agentless) backup set with 2000 users within 24 hours.

➤ **Handle backups of large number of files for Cloud File backup sets**

Easily backup Cloud File Run on Server (Agentless) backup sets containing large number of files.

- **Improved Office 365 backup speed**

The Office 365 backup speed has improved due to Office 365 Change API implementation.

- **Lower resource usage**

The new Run on Server (Agentless) backup process has its own independent Java process, set at 1GB by default, which means it does not use the Java memory resources of the AhsayCBS Java process resulting in lower resource usage.

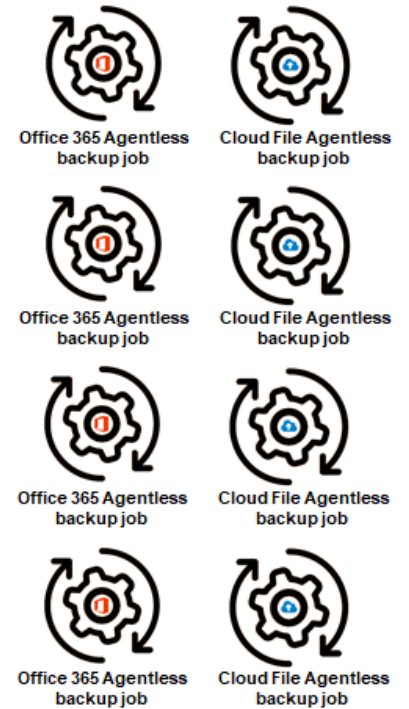
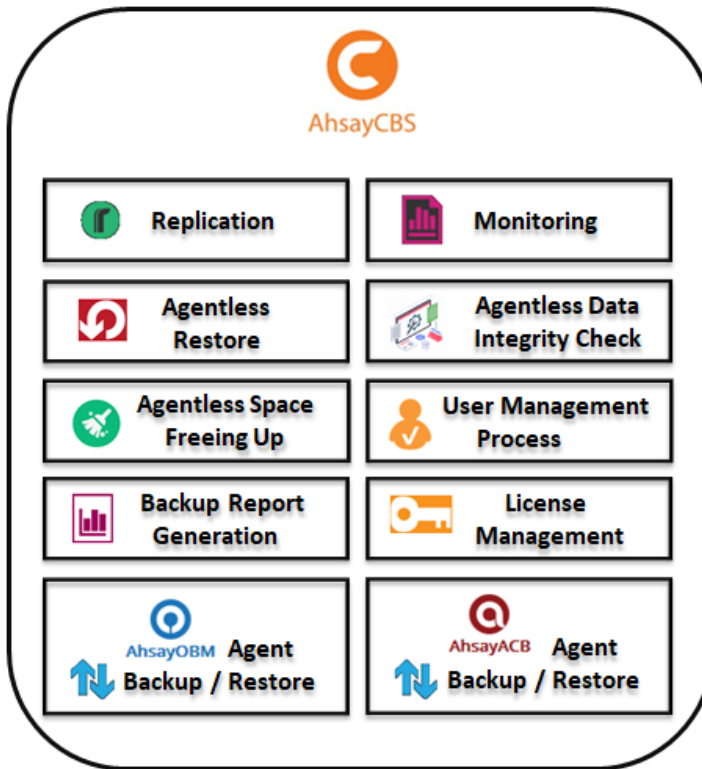
- **Improved capacity for each AhsayCBS server to handle more concurrent Office 365 and Cloud File backup job**

Since the Run on Server (Agentless) backup process is now separate from the main AhsayCBS process, more concurrent Run on Server (Agentless) Office 365 and Cloud File backup jobs can be supported.



How it works

For each Run on Server Office 365 and Cloud File backup job, a separate Java process will be created with its own Java memory setting which is independent of the main AhsayCBS Java process.



Apart from monitoring the backup jobs from the Live Activities on the AhsayCBS web console, each Run on Server backup Java process can be monitored at an operating system level on the AhsayCBS server.

In AhsayCBS for Windows, the following command can be used to check the Run on Server backup Java process: **wmic process where caption="java.exe" get commandline.**

Each Run on Server backup process starts with the \$APPLICATION_HOME path. In the example below, there are three backup jobs running.

```
C:\Users\Administrator>wmic process where caption="java.exe" get commandline

"C:\Program Files\AhsayCBS\java\bin\java" -Xms512m -Xmx1024m -
XX:MaxDirectMemorySize=1024m -Dsun.nio.PageAlignDirectMemory=true -Xrs -
Djava.library.path=lib/WinX64 -cp "C:\Program Files\AhsayCBS\lib\cbs.jar;C:\Program
Files\AhsayCBS\lib\*;C:\Program Files\AhsayCBS\lib;C:\Program
Files\AhsayCBS\tomcat\lib\*" -Dcom.ahsay.obcs.sch.scheduler=false -
Dcom.ahsay.obcs.sch.serverinit=false "-Dcatalina_base=C:\Program Files\AhsayCBS"
RunBackupSet "C:\Program Files\AhsayCBS" 1593767006824 ALL "Cloud File"
QgsSo/AkSjvTl0OVjcf/W9dcqxQKiFnVqI/A9Le/N0u1zfThC2cJPReetUm29xImsRXNzhxQPMICIBgMMXzan1AF
b9mtmknrvGtkszdbfNAU= I false 2020-07-07-15-54-05 ROSUser
QgsSo/AkSjvTl0OVjcf/W9dcqxQKiFnVqI/A9Le/N0sscTUDZdSAWnOeERkREuIxRdd0cLm1Hi0/50vZmzZhDJ3Q
/rucQQFR5WBU+KpFgv/3/r2PJx2pmC7XcfJu+cp1gczq1qkcb4jTI3AIXqWEoA==
QgsSo/AkSjvTl0OVjcf/W9dcqxQKiFnVqI/A9Le/N0voJhU2PJUcvVdhX9RRqMqfFqf8QvBb5kBYA9B8rSVDM6X1
fsUaZnNNijIkqhDiMJo= QgsSo/AkSjvTl0OVjcf/W9dcqxQKiFnVqI/A9Le/N0vASWctVmPYioVyBxBenAD
QgsSo/AkSjvTl0OVjcf/W9dcqxQKiFnVqI/A9Le/N0v1S0NsRs2pazhxGk4KIXvhC0SrP78Dmh7twwLK6Sf7HA==
OBM

"C:\Program Files\AhsayCBS\java\bin\java" -Xms512m -Xmx1024m -
XX:MaxDirectMemorySize=1024m -Dsun.nio.PageAlignDirectMemory=true -Xrs -
Djava.library.path=lib/WinX64 -cp "C:\Program Files\AhsayCBS\lib\cbs.jar;C:\Program
Files\AhsayCBS\lib\*;C:\Program Files\AhsayCBS\lib;C:\Program
Files\AhsayCBS\tomcat\lib\*" -Dcom.ahsay.obcs.sch.scheduler=false -
Dcom.ahsay.obcs.sch.serverinit=false "-Dcatalina_base=C:\Program Files\AhsayCBS"
RunBackupSet "C:\Program Files\AhsayCBS" 1593765511356 ALL "Office 365 Exchange Online"
QgsSo/AkSjvTl0OVjcf/W9dcqxQKiFnVqI/A9Le/N0u1zfThC2cJPReetUm29xImsRXNzhxQPMICIBgMMXzan1AF
b9mtmknrvGtkszdbfNAU= I false 2020-07-07-15-54-13 ROSUser
QgsSo/AkSjvTl0OVjcf/W9dcqxQKiFnVqI/A9Le/N0sscTUDZdSAWnOeERkREuIxRdd0cLm1Hi0/50vZmzZhDJ3Q
/rucQQFR5WBU+KpFgv/3/r2PJx2pmC7XcfJu+cp1gczq1qkcb4jTI3AIXqWEoA==
QgsSo/AkSjvTl0OVjcf/W9dcqxQKiFnVqI/A9Le/N0voJhU2PJUcvVdhX9RRqMqfFqf8QvBb5kBYA9B8rSVDM6X1
fsUaZnNNijIkqhDiMJo= QgsSo/AkSjvTl0OVjcf/W9dcqxQKiFnVqI/A9Le/N0vASWctVmPYioVyBxBenAD
QgsSo/AkSjvTl0OVjcf/W9dcqxQKiFnVqI/A9Le/N0v1S0NsRs2pazhxGk4KIXvhC0SrP78Dmh7twwLK6Sf7HA==
OBM

"C:\Program Files\AhsayCBS\java\bin\java" -Xms512m -Xmx1024m -
XX:MaxDirectMemorySize=1024m -Dsun.nio.PageAlignDirectMemory=true -Xrs -
Djava.library.path=lib/WinX64 -cp "C:\Program Files\AhsayCBS\lib\cbs.jar;C:\Program
Files\AhsayCBS\lib\*;C:\Program Files\AhsayCBS\lib;C:\Program
Files\AhsayCBS\tomcat\lib\*" -Dcom.ahsay.obcs.sch.scheduler=false -
Dcom.ahsay.obcs.sch.serverinit=false "-Dcatalina_base=C:\Program Files\AhsayCBS"
RunBackupSet "C:\Program Files\AhsayCBS" 1593765066840 ALL "Cloud File"
QgsSo/AkSjvTl0OVjcf/W9dcqxQKiFnVqI/A9Le/N0u1zfThC2cJPReetUm29xImsRXNzhxQPMICIBgMMXzan1AF
b9mtmknrvGtkszdbfNAU= I false 2020-07-07-15-54-21 ROSUser
QgsSo/AkSjvTl0OVjcf/W9dcqxQKiFnVqI/A9Le/N0sscTUDZdSAWnOeERkREuIxRdd0cLm1Hi0/50vZmzZhDJ3Q
/rucQQFR5WBU+KpFgv/3/r2PJx2pmC7XcfJu+cp1gczq1qkcb4jTI3AIXqWEoA==
QgsSo/AkSjvTl0OVjcf/W9dcqxQKiFnVqI/A9Le/N0voJhU2PJUcvVdhX9RRqMqfFqf8QvBb5kBYA9B8rSVDM6X1
fsUaZnNNijIkqhDiMJo= QgsSo/AkSjvTl0OVjcf/W9dcqxQKiFnVqI/A9Le/N0vASWctVmPYioVyBxBenAD
QgsSo/AkSjvTl0OVjcf/W9dcqxQKiFnVqI/A9Le/N0v1S0NsRs2pazhxGk4KIXvhC0SrP78Dmh7twwLK6Sf7HA==
OBM
```


In AhsayCBS for Linux there are two commands that can be used to check the Run on Server backup Java process.

- You can use the **ps -ef|grep RunBackupSet** command to list only the Run on Server backup jobs that are running. To easily identify the backup job that is running, it starts with the username then the process ID. In the example below, there are three Run on Server backup jobs that are running.

```
# ps -ef|grep RunBackupSet

root      6491    6304 17 22:15 pts/3    00:00:03 /usr/local/cbs/java-linux-x64/bin/java
-Xms512m -Xmx1024m -XX:MaxDirectMemorySize=1024m -Dsun.nio.PageAlignDirectMemory=true -
Xrs -Djava.library.path=/usr/local/cbs/lib/LinX64 -cp
/usr/local/cbs/lib/cbs.jar:/usr/local/cbs/lib/*:/usr/local/cbs/lib:/usr/local/cbs/tomca
t/lib/* -Dcom.ahsay.obcs.sch.scheduler=false -Dcom.ahsay.obcs.sch.serverinit=false -
Dcatalina.base=/usr/local/cbs RunBackupSet /usr/local/cbs 1593776649249 ALL Cloud File
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0uvzIAFFlBJq1ZNFwLLKxfODE8gZiYInGbCqIX/97xW/A=
= F true 2020-07-03-22-15-42 ROSUser
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0t9RweXikmaghJq5Aic6cADx3k7FY2lmwUjWGKgrlxTlqf
C6A6I8VTWV5G1SJ/5iOZ2ruA/FXcgG+sGwJLXFBr1AJNvRgI+8c7t8nMukIBAJA==
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0voJhU2PJUcvVdhX9RRqMqfFqf8QvBb5kBYA9B8rSVDm6X
lfsUaZnNNijIkqhDiMJo= QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0vASWctVmPYioVyBxBenAD
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0v1S0NsRs2pazhxGk4KIxvhC0SrP78Dmh7twmLK6Sf7HA=
= OBM

root      6519    6304 34 22:15 pts/3    00:00:03 /usr/local/cbs/java-linux-x64/bin/java
-Xms512m -Xmx1024m -XX:MaxDirectMemorySize=1024m -Dsun.nio.PageAlignDirectMemory=true -
Xrs -Djava.library.path=/usr/local/cbs/lib/LinX64 -cp
/usr/local/cbs/lib/cbs.jar:/usr/local/cbs/lib/*:/usr/local/cbs/lib:/usr/local/cbs/tomca
t/lib/* -Dcom.ahsay.obcs.sch.scheduler=false -Dcom.ahsay.obcs.sch.serverinit=false -
Dcatalina.base=/usr/local/cbs RunBackupSet /usr/local/cbs 1593784149501 ALL Office 365
Exchange Online
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0uvzIAFFlBJq1ZNFwLLKxfODE8gZiYInGbCqIX/97xW/A=
= F false 2020-07-03-22-15-52 ROSUser
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0t9RweXikmaghJq5Aic6cADx3k7FY2lmwUjWGKgrlxTlqf
C6A6I8VTWV5G1SJ/5iOZ2ruA/FXcgG+sGwJLXFBr1AJNvRgI+8c7t8nMukIBAJA==
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0voJhU2PJUcvVdhX9RRqMqfFqf8QvBb5kBYA9B8rSVDm6X
lfsUaZnNNijIkqhDiMJo= QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0vASWctVmPYioVyBxBenAD
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0v1S0NsRs2pazhxGk4KIxvhC0SrP78Dmh7twmLK6Sf7HA=
= OBM

root      6549    6304 95 22:15 pts/3    00:00:03 /usr/local/cbs/java-linux-x64/bin/java
-Xms512m -Xmx1024m -XX:MaxDirectMemorySize=1024m -Dsun.nio.PageAlignDirectMemory=true -
Xrs -Djava.library.path=/usr/local/cbs/lib/LinX64 -cp
/usr/local/cbs/lib/cbs.jar:/usr/local/cbs/lib/*:/usr/local/cbs/lib:/usr/local/cbs/tomca
t/lib/* -Dcom.ahsay.obcs.sch.scheduler=false -Dcom.ahsay.obcs.sch.serverinit=false -
Dcatalina.base=/usr/local/cbs RunBackupSet /usr/local/cbs 1593785006625 ALL Cloud File
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0uvzIAFFlBJq1ZNFwLLKxfODE8gZiYInGbCqIX/97xW/A=
= F false 2020-07-03-22-16-00 ROSUser
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0t9RweXikmaghJq5Aic6cADx3k7FY2lmwUjWGKgrlxTlqf
C6A6I8VTWV5G1SJ/5iOZ2ruA/FXcgG+sGwJLXFBr1AJNvRgI+8c7t8nMukIBAJA==
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0voJhU2PJUcvVdhX9RRqMqfFqf8QvBb5kBYA9B8rSVDm6X
lfsUaZnNNijIkqhDiMJo= QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0vASWctVmPYioVyBxBenAD
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0v1S0NsRs2pazhxGk4KIxvhC0SrP78Dmh7twmLK6Sf7HA=
= OBM

root      6577    5818  0 22:16 pts/0      00:00:00 grep --color=auto RunBackupSet
```

- Or you can use the **ps -aux|grep java** command to list all the processes using java to run. This also starts with the username then the process ID to identify the running processes. In the example below, the first process you will see is the AhsayCBS process and the next three processes are the Run on Server backup jobs that are running.

```
# ps -aux|grep java

root      16820  3.3  6.8 5810040 552284 pts/2  Sl   16:16   0:51
/usr/local/cbs/java/bin/java -
Djava.util.logging.config.file=/usr/local/cbs/conf/logging.properties -
Djava.util.logging.manager=org.apache.juli.ClassLoaderLogManager -
Djava.library.path=/usr/local/cbs/lib/LinX64 -DCATALINA_PID=/var/run/obsr.pid -Xrs -
Xms512m -Xmx2048m -Xss384k -XX:MetaspaceSize=96m -XX:MaxMetaspaceSize=256m -
XX:MaxDirectMemorySize=512m -XX:NewRatio=3 -XX:SurvivorRatio=32 -XX:MinHeapFreeRatio=20
-XX:MaxHeapFreeRatio=80 -XX:+PrintGCDetails -XX:+PrintGCDateStamps -
XX:+UseConcMarkSweepGC -XX:+UseCMSInitiatingOccupancyOnly -
XX:CMSInitiatingOccupancyFraction=85 -XX:+ScavengeBeforeFullGC -
XX:+CMSScavengeBeforeRemark -Dsun.net.inetaddr.ttl=3600 -Dnetworkaddress.cache.ttl=3600
-Dsun.net.inetaddr.negative.ttl=300 -Dnetworkaddress.cache.negative.ttl=300 -
Dsun.nio.PageAlignDirectMemory=true -Djava.net.preferIPv4Stack=true -
Djava.util.logging.manager=org.apache.juli.ClassLoaderLogManager -
Djava.util.logging.config.file=conf/logging.properties -Dtc.work.path=work -
Dtc.log.path=logs -Djavax.servlet.context.tempdir=work -
Djdk.nio.maxCachedBufferSize=262144 -Dfile.encoding=UTF-8 -Dsun.jnu.encoding=UTF-8 -
Djdk.tls.ephemeralDHKeySize=2048 -
Djava.protocol.handler.pkgs=org.apache.catalina.webresources -
Dorg.apache.catalina.security.SecurityListener.UMASK=0027 -Dignore.endorsed.dirs=
classpath /usr/local/cbs/tomcat/bin/bootstrap.jar:/usr/local/cbs/tomcat/bin/tomcat-
juli.jar -Dcatalina.base=/usr/local/cbs -Dcatalina.home=/usr/local/cbs/tomcat -
Djava.io.tmpdir=/usr/local/cbs/temp org.apache.catalina.startup.Bootstrap start

root      17074  13.0  2.8 3712820 228680 pts/2  Sl   16:41   0:03 /usr/local/cbs/java-
linux-x64/bin/java -Xms512m -Xmx1024m -XX:MaxDirectMemorySize=1024m -
Dsun.nio.PageAlignDirectMemory=true -Xrs -Djava.library.path=/usr/local/cbs/lib/LinX64
-cp
/usr/local/cbs/lib/cbs.jar:/usr/local/cbs/lib/*:/usr/local/cbs/lib:/usr/local/cbs/tomcat/
lib/* -Dcom.ahsay.obcs.sch.scheduler=false -Dcom.ahsay.obcs.sch.serverinit=false -
Dcatalina.base=/usr/local/cbs RunBackupSet /usr/local/cbs 1593776649249 ALL Cloud File
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0uvzIAFFlBJq1ZNFw1LKxfODE8gZiYInGbCqIX/97xW/A=
= I true 2020-07-07-16-41-11 ROSUser
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0t9RweXikmaghJq5Aic6cADx3k7FY21mwUjWgKgrlxTlqf
C6A6I8VTVW5G1SJ/5iOZ2ruA/FXcgG+sGwJLXFBr1AJNvRgI+8c7t8nMukIBAJA==
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0voJhU2PJUcvVdhX9RRqMqfQf8QvBb5kBYA9B8rSvDM6X
lfsUaZnNnijIkqhDiMJo= QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0vASWctVmPYioVyBxBenAD
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0v1S0NsRs2pazhxGk4KIxvhC0SrP78Dmh7twmLK6Sf7HA=
= OBM

root      17103  26.1  2.7 3712820 221984 pts/2  Sl   16:41   0:03 /usr/local/cbs/java-
linux-x64/bin/java -Xms512m -Xmx1024m -XX:MaxDirectMemorySize=1024m -
Dsun.nio.PageAlignDirectMemory=true -Xrs -Djava.library.path=/usr/local/cbs/lib/LinX64
-cp
/usr/local/cbs/lib/cbs.jar:/usr/local/cbs/lib/*:/usr/local/cbs/lib:/usr/local/cbs/tomcat/
lib/* -Dcom.ahsay.obcs.sch.scheduler=false -Dcom.ahsay.obcs.sch.serverinit=false -
Dcatalina.base=/usr/local/cbs RunBackupSet /usr/local/cbs 1593784149501 ALL Office 365
Exchange Online
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0uvzIAFFlBJq1ZNFw1LKxfODE8gZiYInGbCqIX/97xW/A=
= I false 2020-07-07-16-41-24 ROSUser
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0t9RweXikmaghJq5Aic6cADx3k7FY21mwUjWgKgrlxTlqf
```

```
C6A6I8VTWV5G1Sj/5iOZ2ruA/FXcgG+sGwJLXFBrIAJNvRgI+8c7t8nMukIBAJA==
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0voJhU2PJUcvVdhX9RRqMqfFqf8QvBb5kBYA9B8rSvDM6X
lfsUaZnNniIqkqDiMJo= QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0vASWctVmPYioVybBxBenAD
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0v1S0NsRs2pazhxGk4KIxvhC0SrP78Dmh7twmLK6Sf7HA=
= OBM

root 17132 34.7 2.8 3712820 227676 pts/2 S1 16:41 0:03 /usr/local/cbs/java-
linux-x64/bin/java -Xms512m -Xmx1024m -XX:MaxDirectMemorySize=1024m -
Dsun.nio.PageAlignDirectMemory=true -Xrs -Djava.library.path=/usr/local/cbs/lib/LinX64
-cp
/usr/local/cbs/lib/cbs.jar:/usr/local/cbs/lib/*:/usr/local/cbs/lib:/usr/local/cbs/tomcat/
lib/* -Dcom.ahsay.obcs.sch.scheduler=false -Dcom.ahsay.obcs.sch.serverinit=false -
Dcatalina.base=/usr/local/cbs RunBackupSet /usr/local/cbs 1593785006625 ALL Cloud File
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0uvzIAFFlBJqLZNFwLLKxfODE8gZiYInGbCqIX/97xW/A=
= I true 2020-07-07-16-41-33 ROSUser
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0t9RweXikmaghJq5Aic6cADx3k7FY2lmwUjWGKgrlxTlqf
C6A6I8VTWV5G1Sj/5iOZ2ruA/FXcgG+sGwJLXFBrIAJNvRgI+8c7t8nMukIBAJA==
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0voJhU2PJUcvVdhX9RRqMqfFqf8QvBb5kBYA9B8rSvDM6X
lfsUaZnNniIqkqDiMJo= QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0vASWctVmPYioVybBxBenAD
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0v1S0NsRs2pazhxGk4KIxvhC0SrP78Dmh7twmLK6Sf7HA=
= OBM

root 17159 0.0 0.0 112712 980 pts/0 R+ 16:41 0:00 grep --color=auto java
```

In AhsayCBS for FreeBSD, there are two steps to check the Run on Server backup Java process.

1. First find the process ID using the **ps -aux|grep java** command. To identify each process that is running, it also starts with the username then the process ID. In the example below, you will see the AhsayCBS process and two Run on Server backup jobs that are running. The first two processes are the Run on Server backup and the last process is the AhsayCBS process.

```
# ps -aux|grep java
root 68150 144.9 0.5 2455244 21896 2 S 17:20 0:12.39
/usr/local/cbs/jvm/jre/bin/java -Xms512m -Xmx1024m -XX:MaxDirectMemorySize=1024m -
Dsun.nio.PageAlign
root 68151 42.6 0.4 1349592 16152 2 S 17:20 0:02.96
/usr/local/cbs/jvm/jre/bin/java -Xms512m -Xmx1024m -XX:MaxDirectMemorySize=1024m -
Dsun.nio.PageAlign

root 59569 18.5 16.3 3825776 676432 2 I 10:32 26:30.41
/usr/local/cbs/java/bin/java -
Djava.util.logging.config.file=/usr/local/cbs/conf/logging.properties

root 68153 0.0 0.1 14828 2096 4 S+ 17:20 0:00.55 grep java
```

2. Then use **procstat -c [process ID]** to display the details of the Run on Server backup Java process.

```
# procstat -c 68150

PID COMM          ARGS

68150 java           /usr/local/cbs/jvm/jre/bin/java -Xms512m -Xmx1024m -
XX:MaxDirectMemorySize=1024m -Dsun.nio.PageAlignDirectMemory=true -Xrs -
Djava.library.path=/usr/local/cbs/lib/FbdX64 -cp
/usr/local/cbs/lib/cbs.jar:/usr/local/cbs/lib/*:/usr/local/cbs/lib:/usr/local/cbs/tomca
t/lib/* -Dcom.ahsay.obcs.sch.scheduler=false -Dcom.ahsay.obcs.sch.serverinit=false -
Dcatalina.base=/usr/local/cbs RunBackupSet /usr/local/cbs 1594037087130 ALL Cloud File
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0uvzIAFFlBJq1ZNFwLLKxfODE8gZiYInGbCqIX/97xW/A=
= I true 2020-07-07-17-20-06 ROSUser
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0s89Y0XStiERf9PjB9NZu/igbTHxSAA511w6nKgeWtBZqU
noT0hgp5X7PQTqTcvX1WcOHdUHHHUUnnRwBYWnCH5rY+qkScYei6KtEg4yB0wlQ==
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0voJhU2PJUcvVdhX9RRqMqfFqf8QvBb5kBYA9B8rSVDm6X
lfsUaZnNNijIkqhDiMJo=
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0uzvzjluNHq9X3XpxeAQo7ljqISmlnwlTgT9xva+0YL4A=
=
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0v1S0NsRs2pazhxGk4KIxvhC0SrP78Dmh7twmLK6Sf7HA=
= OBM

# procstat -c 68151

PID COMM          ARGS

68151 java           /usr/local/cbs/jvm/jre/bin/java -Xms512m -Xmx1024m -
XX:MaxDirectMemorySize=1024m -Dsun.nio.PageAlignDirectMemory=true -Xrs -
Djava.library.path=/usr/local/cbs/lib/FbdX64 -cp
/usr/local/cbs/lib/cbs.jar:/usr/local/cbs/lib/*:/usr/local/cbs/lib:/usr/local/cbs/tomca
t/lib/* -Dcom.ahsay.obcs.sch.scheduler=false -Dcom.ahsay.obcs.sch.serverinit=false -
Dcatalina.base=/usr/local/cbs RunBackupSet /usr/local/cbs 1594037275026 ALL Cloud File
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0uvzIAFFlBJq1ZNFwLLKxfODE8gZiYInGbCqIX/97xW/A=
= I true 2020-07-07-17-20-15 ROSUser
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0s89Y0XStiERf9PjB9NZu/igbTHxSAA511w6nKgeWtBZqU
noT0hgp5X7PQTqTcvX1WcOHdUHHHUUnnRwBYWnCH5rY+qkScYei6KtEg4yB0wlQ==
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0voJhU2PJUcvVdhX9RRqMqfFqf8QvBb5kBYA9B8rSVDm6X
lfsUaZnNNijIkqhDiMJo=
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0uzvzjluNHq9X3XpxeAQo7ljqISmlnwlTgT9xva+0YL4A=
=
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0v1S0NsRs2pazhxGk4KIxvhC0SrP78Dmh7twmLK6Sf7HA=
= OBM
```

In AhsayUBS there are two steps to check the Run on Server backup Java process.

1. First find the process ID using the `ps -aux|grep java` command. To identify each process that is running, it also starts with the username then the process ID. In the example below, you will see the AhsayCBS process and two Run on Server backup jobs that are running. The first two processes are the Run on Server backup and the last process is the AhsayCBS process.

```
# ps -aux|grep java

root 2057 71.3 10.2 2754428 408560 - I 09:10 0:24.95
/ubs/mnt/esfmfw/obsr/system/obsr/java-freebsd-x64/bin/java -Xms512m -Xmx1024m -
XX:MaxDirectMemorySize=1024m -Dsun.nio.PageAlignDirectMemory=true -Xrs -
```

```
Djava.library.path=/u
root 2044 63.5 9.8 2736352 390348 - I 09:10 0:30.30
/ubs/mnt/esfmfw/obsr/system/obsr/java-freebsd-x64/bin/java -Xms512m -Xmx1024m -
XX:MaxDirectMemorySize=1024m -Dsun.nio.PageAlignDirectMemory=true -Xrs -
Djava.library.path=/u
root 1696 14.5 27.0 3944540 1077780 v0- I 09:05 4:42.34
/ubs/module/obsr/system/obsr/java-freebsd-x64/bin/java -
Djava.util.logging.config.file=/ubs/module/obsr/system/obsr/conf/logging.properties -
Djava.util.logging.manager=org.
root 2100 0.0 0.1 6740 2624 0 S+ 09:11 0:00.00 grep java
```

2. Then use **procstat -c [process ID]** to display the details of the Run on Server backup Java process.

```
# procstat -c 2044
PID COMM ARGS
2044 java /ubs/mnt/esfmfw/obsr/system/obsr/java-freebsd-x64/bin/java -
Xms512m -Xmx1024m -XX:MaxDirectMemorySize=1024m -Dsun.nio.PageAlignDirectMemory=true -
Xrs -Djava.library.path=/ubs/module/obsr/system/obsr/lib/FbdX64 -cp
/ubs/mnt/esfmfw/obsr/system/obsr/lib/cbs.jar:/ubs/mnt/esfmfw/obsr/system/obsr/lib/*:/ub
s/mnt/esfmfw/obsr/system/obsr/lib:/ubs/mnt/esfmfw/obsr/system/obsr/tomcat/lib/* -
Dcom.ahsay.obcs.sch.scheduler=false -Dcom.ahsay.obcs.sch.serverinit=false -
Dcatalina.base=/ubs/mnt/esfmfw/obsr/system/obsr
/ubs/mnt/esfmfw/obsr/system/obsr 1594198116726 ALL Cloud File
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0uPoAT6LpXuDZrAlUZ/Au6qhWmk1cZY7WQ2wa4GkkmYONI
iKV0f/0wq9C6ToKx0NP8= I true 2020-07-08-09-10-40 jbl
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0uZXCgNt4YiXna4J32rj9iA2qKp+k2HoRYeH1AIFiIE6tb
JjIvq/f+b08VfjppUUbfgiYHKaf7vRlnHNKajxnhTVkdS1EIFc5IKC44IxeoTNkQ==
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0vFc//x+ToY40LvcH0MLc19hIVvmHepWoPelQDujrHQML
haSVFMO8g8OH9PjNlWDI=
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0tG9XdrUhlc95GxYUziti5jfpwmFgg3l7eYCG9UriFvyA=
=
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0v1S0NsRs2pazhxGk4KixvhC0SrP78Dmh7twmLK6Sf7HA=
= OBM

# procstat -c 2057
PID COMM ARGS
2057 java /ubs/mnt/esfmfw/obsr/system/obsr/java-freebsd-x64/bin/java -
Xms512m -Xmx1024m -XX:MaxDirectMemorySize=1024m -Dsun.nio.PageAlignDirectMemory=true -
Xrs -Djava.library.path=/ubs/module/obsr/system/obsr/lib/FbdX64 -cp
/ubs/mnt/esfmfw/obsr/system/obsr/lib/cbs.jar:/ubs/mnt/esfmfw/obsr/system/obsr/lib/*:/ub
s/mnt/esfmfw/obsr/system/obsr/lib:/ubs/mnt/esfmfw/obsr/system/obsr/tomcat/lib/* -
Dcom.ahsay.obcs.sch.scheduler=false -Dcom.ahsay.obcs.sch.serverinit=false -
Dcatalina.base=/ubs/mnt/esfmfw/obsr/system/obsr
/ubs/mnt/esfmfw/obsr/system/obsr 1594198338872 ALL Cloud File
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0uPoAT6LpXuDZrAlUZ/Au6qhWmk1cZY7WQ2wa4GkkmYONI
iKV0f/0wq9C6ToKx0NP8= I true 2020-07-08-09-10-47 jbl
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0uZXCgNt4YiXna4J32rj9iA2qKp+k2HoRYeH1AIFiIE6tb
JjIvq/f+b08VfjppUUbfgiYHKaf7vRlnHNKajxnhTVkdS1EIFc5IKC44IxeoTNkQ==
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0vFc//x+ToY40LvcH0MLc19hIVvmHepWoPelQDujrHQML
haSVFMO8g8OH9PjNlWDI=
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0tG9XdrUhlc95GxYUziti5jfpwmFgg3l7eYCG9UriFvyA=
=
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0v1S0NsRs2pazhxGk4KixvhC0SrP78Dmh7twmLK6Sf7HA=
= OBM
```



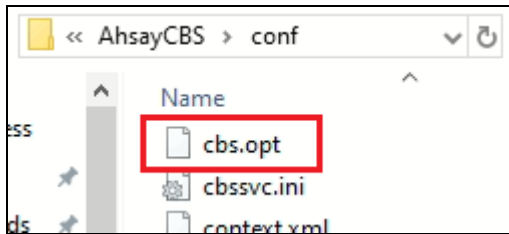
Setup and configuration

By default, the maximum Java heap size is set to 1GB while the minimum Java heap size is set to 128MB for each Run on Server backup Java process. This can be changed by appending the options “**com.ahsay.obs.core.job.ServerRunBackup.Xmx=value**” for the maximum Java heap size and “**com.ahsay.obs.core.job.ServerRunBackup.Xms=value**” for the minimum Java heap size in the **cbs.opt** file.

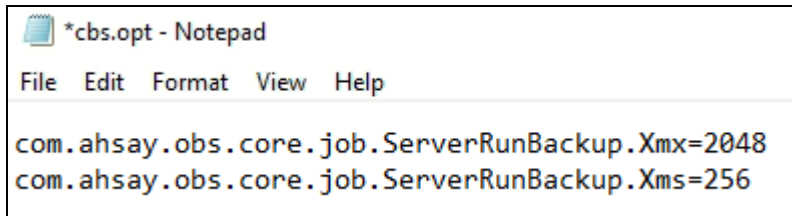
To configure follow the steps below:

In AhsayCBS for Windows:

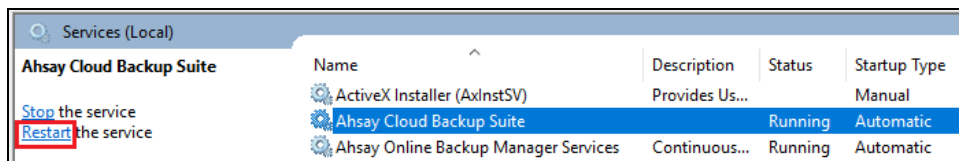
1. Locate the cbs.opt file in the \$APPLICATION_HOME\conf folder.



2. Open the file, add the options “com.ahsay.obs.core.job.ServerRunBackup.Xmx=value” and “com.ahsay.obs.core.job.ServerRunBackup.Xms=value” then save.



3. Restart the AhsayCBS service.



In AhsayCBS for Linux/FreeBSD:

1. Locate the cbs.opt file in /usr/local/cbs/conf folder.

```
# cd /usr/local/cbs/conf
# ls -la
total 896
drwxr-xr-x.  3 root root   4096 Jul  3 17:45 .
drwxr-xr-x. 22 root root   4096 Jul  3 11:59 ..
-rwxr-xr-x.  1 root root    316 Oct 16 2014 acb-config.xml
-rwxr-xr-x.  1 root root   4961 Jun 28 2017 afc.opt
-rwxr-xr-x.  1 root root    70 May 23 2008 autoDiscovery.xml
-rwxr-xr-x.  1 root root   1152 Jul  3 12:46 autoUpdate.bdb
-rwxr-xr-x.  1 root root   1952 Apr  4 2014 ca.crt
-rwxr-xr-x.  1 root root    0 Feb 23 2015 Catalina
-rwxr-xr-x.  1 root root  12505 May 19 2014 catalina.policy
-rwxr-xr-x.  1 root root  12839 Jun 16 16:03 catalina.properties
-rwxr-xr-x.  1 root root  19366 Jul  3 15:15 cbs.json
-rwxr-xr-x.  1 root root  19371 Jul  3 15:15 cbs.json.1
-rwxr-xr-x.  1 root root  19649 Jul  3 12:27 cbs.json.10
-rwxr-xr-x.  1 root root  19649 Jul  3 12:27 cbs.json.11
-rwxr-xr-x.  1 root root  19371 Jul  3 14:25 cbs.json.2
-rwxr-xr-x.  1 root root  19375 Jul  3 14:25 cbs.json.3
-rwxr-xr-x.  1 root root  19375 Jul  3 14:21 cbs.json.4
-rwxr-xr-x.  1 root root  19374 Jul  3 14:21 cbs.json.5
-rwxr-xr-x.  1 root root  19657 Jul  3 13:58 cbs.json.6
-rwxr-xr-x.  1 root root  19653 Jul  3 13:58 cbs.json.7
-rwxr-xr-x.  1 root root  19653 Jul  3 13:50 cbs.json.8
-rwxr-xr-x.  1 root root  19649 Jul  3 13:50 cbs.json.9
-rwxr-xr-x.  1 root root   9667 Jul  3 14:17 cbs.opt
```

2. Open the file, using a text editor add the options
“com.ahsay.obs.core.job.ServerRunBackup.Xmx=value” and
“com.ahsay.obs.core.job.ServerRunBackup.Xms=value” then save.

```
com.ahsay.obs.core.job.ServerRunBackup.Xmx=2048
com.ahsay.obs.core.job.ServerRunBackup.Xms=256
```

3. Restart the AhsayCBS service.

```
# cd /usr/local/cbs/bin
# sh restart.sh
```

In AhsayUBS:

1. Locate the cbs.opt file in /ubs/mnt/eslsfw/obsr/conf folder.

```
# cd /ubs/mnt/eslsfw/obsr/conf
# ls -la
total 925
drwxr-xr-x  3 root  wheel   142 Jul  9 02:15 .
drwxr-xr-x 13 root  wheel    13 Jul  8 08:25 ..
-rwxr-xr-x  1 root  wheel   316 Nov 19 2018 acb-config.xml
-rwxr-xr-x  1 root  wheel  4966 Jul  8 08:35 afc.opt
-rwxr-xr-x  1 root  wheel    70 Nov 19 2018 autoDiscovery.xml
-rwxr-xr-x  1 root  wheel  1152 Jul  8 08:48 autoUpdate.bdb
-rwxr-xr-x  1 root  wheel  1952 Nov 19 2018 ca.crt
-rwxr-xr-x  1 root  wheel    0 Nov 19 2018 Catalina
-rwxr-xr-x  1 root  wheel 12505 Nov 19 2018 catalina.policy
-rwxr-xr-x  1 root  wheel   8008 Nov 19 2018 catalina.properties
-rwxr-xr-x  1 root  wheel 19671 Jul  8 10:25 cbs.json
-rwxr-xr-x  1 root  wheel 19672 Jul  8 10:25 cbs.json.1
-rwxr-xr-x  1 root  wheel 18755 Jul  8 08:43 cbs.json.10
-rwxr-xr-x  1 root  wheel 19028 Jul  8 08:28 cbs.json.11
-rwxr-xr-x  1 root  wheel 19672 Jul  8 09:09 cbs.json.2
-rwxr-xr-x  1 root  wheel 19672 Jul  8 09:09 cbs.json.3
-rwxr-xr-x  1 root  wheel 19373 Jul  8 08:46 cbs.json.4
-rwxr-xr-x  1 root  wheel 19169 Jul  8 08:46 cbs.json.5
-rwxr-xr-x  1 root  wheel 19169 Jul  8 08:44 cbs.json.6
-rwxr-xr-x  1 root  wheel 19208 Jul  8 08:44 cbs.json.7
-rwxr-xr-x  1 root  wheel 19208 Jul  8 08:43 cbs.json.8
-rwxr-xr-x  1 root  wheel 18958 Jul  8 08:43 cbs.json.9
-rwxr-xr-x  1 root  wheel   9666 Jul  8 08:54 cbs.opt
```

2. Open the file, using a text editor add the options
“com.ahsay.obs.core.job.ServerRunBackup.Xmx=value” and
“com.ahsay.obs.core.job.ServerRunBackup.Xms=value” then save.

```
com.ahsay.obs.core.job.ServerRunBackup.Xmx=2048
com.ahsay.obs.core.job.ServerRunBackup.Xms=256
```

3. Restart the AhsayCBS service.

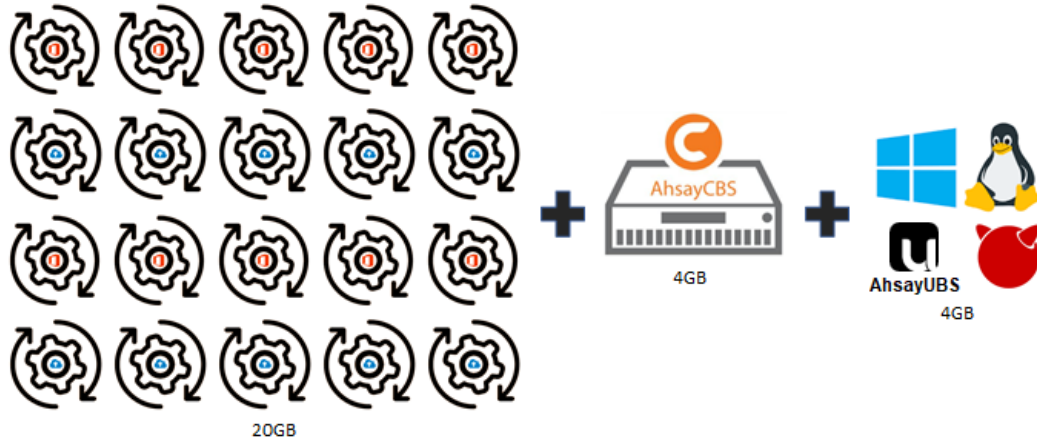
```
# cd /ubs/mnt/esfmfw/obsr/system/obsr/bin
# sh restart.sh
```



In the example, 2048 and 256 are the maximum and minimum Java heap size. The size of the Java memory that you will set for each backup job depends on the number of Office 365 user selected in your backup sets and how much RAM your system has.

- Assumption is each job needs 1GB of memory, so the size of the memory depends on how many backup jobs are concurrently running in AhsayCBS excluding memory being utilized by the OS and the maximum 4GB Java heap size allocated to AhsayCBS.

Example: For 20 backup jobs that will run



Assuming there are no performance bottlenecks related to CPU, storage I/O and internet bandwidth on the AhsayCBS server, the machine will need at least 28GB of RAM.



Best Practices and Recommendations

- ▶ In general we recommend that each Office 365 Run on Server backup set does not contain more than 2000 Office 365 users, to ensure a daily incremental backup job completes within 24 hours assuming that only small incremental daily changes will be made on the Run on Server backup set.

However, the actual number of Office 365 users in a backup set may vary depending on the total number of Outlook, OneDrive and SharePoint items, as well as the total size of these items. The actual number of Office 365 users in a Run on Server backup set could be considerably less or could be more than 2000.

- ▶ If you have a single Office 365 Run on Server backup set with more than 2000 users, you may increase the number of threads for the Office 365 Run on Server backup job by adding the parameter `"obx.core.backup.file.BackupResourceManager.maxConcurrentSubCmd"` in the `afc.opt` file to change the value. After increasing the number of threads, you should also increase the memory of the Run on Server backup process as it is expected to consume more memory. But this does not guarantee that the overall backup speed will be faster since there will be an increased chance of throttling issue.



The value of 4 concurrent backup threads is found to be the optimal setting for Office 365 Run on Server backups to ensure the best backup performance, minimal resource usage, and lowest probability of throttling of AhsayCBS backup requests by Microsoft Office 365.

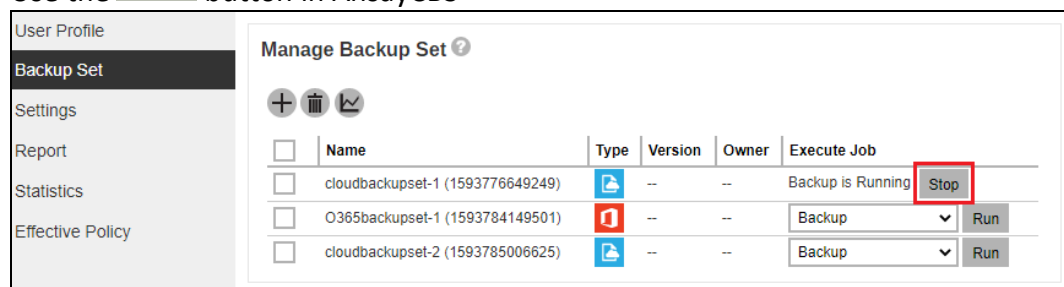


Troubleshooting

In situations where a Run on Server backup job encounters errors/warnings, becomes unresponsive or appears to be “stuck”, or even crashes; the following methods can be used to terminate the problematic backup job.

Terminate a Run on Server backup job in this order:

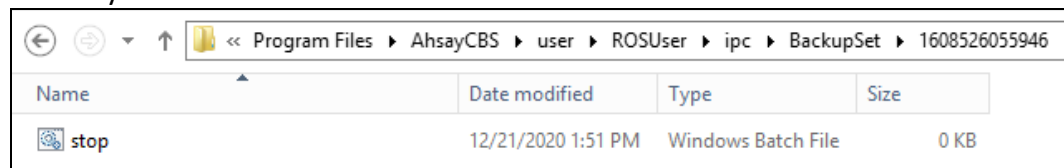
1. Use the **Stop** button in AhsayCBS



This will only work for manually triggered backup job.

2. Create an empty “stop” file in \$USER_HOME/%user%/ipc/BackupSet/%backup set ID%/ if “running” is found

In AhsayCBS for Windows:



In AhsayCBS for Linux/FreeBSD:

```
# touch /usr/local/cbs/user/ROSUser/ipc/BackupSet/1593753612991/stop
```

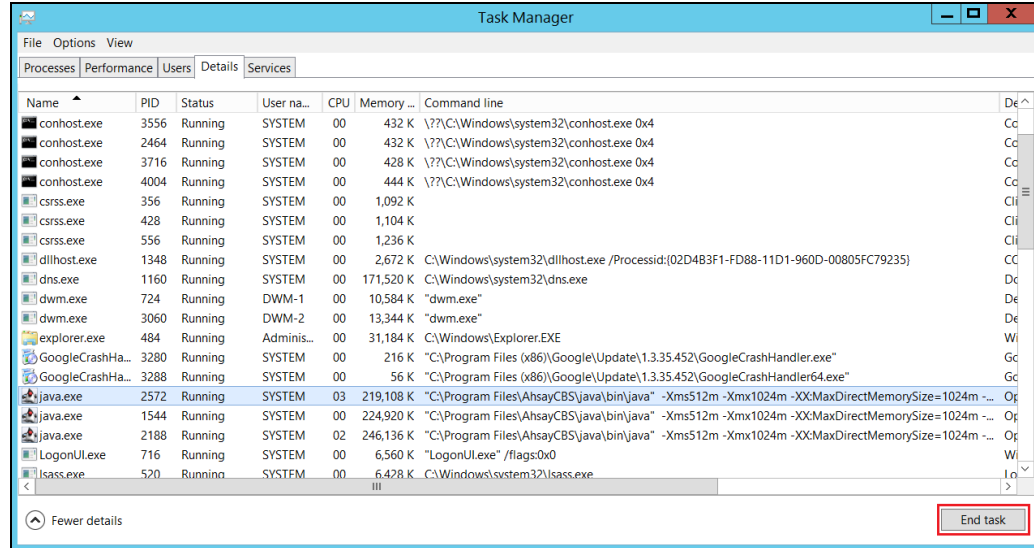
In AhsayUBS:

```
# touch /ubs/mnt/esfmfw/obsr/system/obsr/user/jbl/ipc/BackupSet/1594198116726/stop
```

3. Use the Windows Task Manager to end task or kill in Linux

In AhsayCBS for Windows:

Go to the Windows Task Manager, select the backup job (java.exe) that you want to stop and click **End task**.



In AhsayCBS for Linux:

Type `ps -aux|grep java`. Locate the process ID of the backup job (%java home% -Xms%xms% -Xmx%mx% -XX:MaxDirectMemorySize=1024) that you want to stop. Then use the kill command.

```
# ps -aux|grep java

root      6491  4.3  2.8 4799704 226524 pts/3  Sl   22:15   0:03
/usr/local/cbs/java-linux-x64/bin/java -Xms512m -Xmx1024m -
XX:MaxDirectMemorySize=1024m -Dsun.nio.PageAlignDirectMemory=true -Xrs -
Djava.library.path=/usr/local/cbs/lib/LinX64 -cp
/usr/local/cbs/lib/cbs.jar:/usr/local/cbs/lib/*:/usr/local
/cbs/tomcat/lib/* -Dcom.ahsay.obcs.sch.scheduler=false -
Dcom.ahsay.obcs.sch.serverinit=false -Dcatalina.base=/usr/local/cbs
RunBackupSet /usr/local/cbs 1593776649249 ALL Cloud File
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0uvzIAFFlBJq1ZNFw1LKxf0De8gZiYInGbCq
IX/97xw/A== F true 2020-07-03-22-15-42 ROSUser
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0t9RweXikmaghJq5Aic6cADx3k7FY21mwUjW
GKgrlxTlqfC6A6I8VTWV5G1SJ/5iOZ2ruA/FXcgG+sGwJLXFBr1AJNvRgI+8c7t8nMukIBAJA==
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0voJhU2PJUcvVdhX9RRqMqfFqf8QvBb5kBYA
9B8rSvDM6XlfsUaZnNniJkqhDiMJo=
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0vASWctVmPYioVyBxBxBenAD
QgsSo/AkSjvTl0OVjcF/W9dcqxQKiFnVqI/A9Le/N0v1S0NsRs2pazhxGk4KIxvhC0SrP78Dmh7tw
mLK6Sf7HA== OBM

# kill -9 6491
```

In AhsayCBS for FreeBSD:

Use the `ps -aux|grep java` command to locate the process ID of the backup job (%java home% -Xms%xms% -Xmx%xmx% -XX:MaxDirectMemorySize=1024) that you want to stop. Check the details of the Run on Server backup Java process to make sure that you are terminating the correct backup job by using the `procstat -c [process ID]` command. Then use the `kill` command.

```
# ps -aux|grep java

root 68150 144.9 0.5 2455244 21896 2 S 17:20 0:12.39
/usr/local/cbs/jvm/jre/bin/java -Xms512m -Xmx1024m -
XX:MaxDirectMemorySize=1024m -Dsun.nio.PageAlign

# procstat -c 68150

PID COMM          ARGS

68150 java            /usr/local/cbs/jvm/jre/bin/java -Xms512m -Xmx1024m -
XX:MaxDirectMemorySize=1024m -Dsun.nio.PageAlignDirectMemory=true -Xrs -
Djava.library.path=/usr/local/cbs/lib/FbdX64 -cp
/usr/local/cbs/lib/cbs.jar:/usr/local/cbs/lib/*:/usr/local/cbs/lib:/usr/local
/cbs/tomcat/lib/* -Dcom.ahsay.obcs.scheduler=false -
Dcom.ahsay.obcs.scheduler.serverinit=false -Dcatalina.base=/usr/local/cbs
RunBackupSet /usr/local/cbs 1594037087130 ALL Cloud File
QgsSo/AkSjvTlOOVjcF/W9dcqxQKiFnVqI/A9Le/N0uvzIAFFlBJq1ZNFw1LKxfODE8gZiYInGbCq
IX/97xW/A== I true 2020-07-07-17-20-06 ROSUser
QgsSo/AkSjvTlOOVjcF/W9dcqxQKiFnVqI/A9Le/N0s89Y0XStiERf9PjB9NZu/iqbTHxSAA511w6
nKgeWtBZqUnoT0hgp5X7PQTqTcvX1WcOHdUHHHUUnnRwBYWnCH5rY+qkScYei6KtEg4yB0wlQ==
QgsSo/AkSjvTlOOVjcF/W9dcqxQKiFnVqI/A9Le/N0voJhU2PJUcvVdhX9RRqMqfFqf8QvBb5kBYA
9B8rSVDm6XlfsUaZnNNijIkqhDiMJo=
QgsSo/AkSjvTlOOVjcF/W9dcqxQKiFnVqI/A9Le/N0uzvzj1uNHq9X3XpxeAQo71jqISmlnwlTgT9
xva+0YL4A==
QgsSo/AkSjvTlOOVjcF/W9dcqxQKiFnVqI/A9Le/N0v1S0NsRs2pazhxGk4KIxvhC0SrP78Dmh7tw
mLK6Sf7HA== OBM

# kill -9 68150
```

In AhsayUBS:

Use the `ps -aux|grep java` command to locate the process ID of the backup job (%java home% -Xms%xms% -Xmx%xmx% -XX:MaxDirectMemorySize=1024) that you want to stop. Check the details of the Run on Server backup Java process to make sure that you are terminating the correct backup job by using the `procstat -c [process ID]` command. Then use the `kill` command.

```
# ps -aux|grep java

root 2057  71.3 10.2 2754428 408560  -  I   09:10   0:24.95
/ubs/mnt/esfmfw/obsr/system/obsr/java-freebsd-x64/bin/java -Xms512m -Xmx1024m
-XX:MaxDirectMemorySize=1024m -Dsun.nio.PageAlignDirectMemory=true -Xrs -
Djava.library.path=/u

# procstat -c 2057
  PID COMM                ARGS
  2057 java                  /ubs/mnt/esfmfw/obsr/system/obsr/java-freebsd-
x64/bin/java -Xms512m -Xmx1024m -XX:MaxDirectMemorySize=1024m -
Dsun.nio.PageAlignDirectMemory=true -Xrs -
Djava.library.path=/ubs/module/obsr/system/obsr/lib/FbdX64 -cp
/ubs/mnt/esfmfw/obsr/system/obsr/lib/cbs.jar:/ubs/mnt/esfmfw/obsr/system/obsr
/lib/*:/ubs/mnt/esfmfw/obsr/system/obsr/lib:/ubs/mnt/esfmfw/obsr/system/obsr/
tomcat/lib/* -Dcom.ahsay.obcs.sch.scheduler=false -
Dcom.ahsay.obcs.sch.serverinit=false -
Dcatalina.base=/ubs/mnt/esfmfw/obsr/system/obsr RunBackupSet
/ubs/mnt/esfmfw/obsr/system/obsr 1594198338872 ALL Cloud File
QgsSo/AkSjvTlOOVjcF/W9dcqxQKiFnVqI/A9Le/N0uPoAT6LpXuDZrAlUZ/Au6qhWmk1cZY7WQ2w
a4GkkmyONIiKV0f/0wq9C6ToKx0NP8= I true 2020-07-08-09-10-47 jbl
QgsSo/AkSjvTlOOVjcF/W9dcqxQKiFnVqI/A9Le/N0uZXCgNt4YiXna4J32rj9iA2qKp+k2HoRYeH
1AIFiIE6tbJjIvq/f+b08VfjpUUbfgiYHKaf7vR1nHNKajxnhTVkdS1EIFc5IKC44IxeoTNkQ==
QgsSo/AkSjvTlOOVjcF/W9dcqxQKiFnVqI/A9Le/N0vFc//x+ToY40LvcH0MLc19hIVvmHepWoPe
1QDujrHQMLhaSVFMO8g8OH9PJnLwDI=
QgsSo/AkSjvTlOOVjcF/W9dcqxQKiFnVqI/A9Le/N0tG9XdrUhlc95GxYUziti5jfpmwFgg317eYC
g9UriFvyA==
QgsSo/AkSjvTlOOVjcF/W9dcqxQKiFnVqI/A9Le/N0v1S0NsRs2pazhxGk4KIxvhC0SrP78Dmh7tw
mLK6Sf7HA== OBM

# kill -9 2057
```