



FlipFactory®

DELIVERING MEDIA TO SEACHANGE BMS/BMC SERVERS

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This
App Note
applies to
versions
4.0
& Later



Introduction

FlipFactory users can configure Destinations in their factory workflows to deliver media to SeaChange Broadcast Media Servers (BMS) and Broadcast Media Clusters (BMC).

When delivering media to either of these SeaChange servers, FlipFactory utilizes SeaChange VSTRM Communications Service. VSTRM Communication Service requires network connectivity and authentication to establish communications and accept media files from FlipFactory.

This app note provides information and steps required to establish a network connection from the perspective of the FlipFactory server, to utilize a BMS/BMC server as a destination. Not all steps described may be necessary, but they are listed here for completeness.

Communication between FlipFactory and SeaChange servers is affected by your choice of operating system, your network configuration, and your security requirements.

Configuring FlipFactory Servers

Performed the following tasks as part of the process of configuring a FlipFactory server to connect to a SeaChange BMS or BMC server as a FlipFactory Destination:

Ping the SeaChange Server. Verify network connectivity between the FlipFactory server and the SeaChange BMS/BMC by using PING. You should be able to ping each node in the SeaChange BMC from the FlipFactory server.

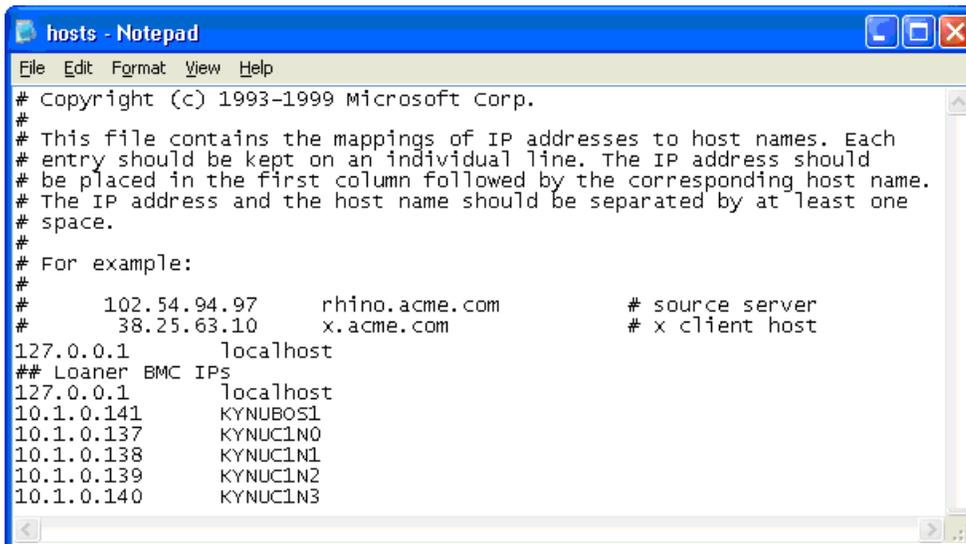
Configure the FlipFactory Server Hosts File. The FlipFactory server's hosts file must be updated with entries for each target BMC/BMS server. A hosts file is a text file which contains entries that map host names to IP addresses without using DNS.

Use Notepad to open the hosts file on:

Windows 2000 / 2003 Server. Go to \<system drive>\winnt\system32\drivers\etc\hosts

Windows XP. Go to \<system drive>\windows\system32\drivers\etc\hosts

Figure 1. Configure your hosts file to include BMC/BMS entries



```
# Copyright (c) 1993-1999 Microsoft Corp.
#
# This file contains the mappings of IP addresses to host names. Each
# entry should be kept on an individual line. The IP address should
# be placed in the first column followed by the corresponding host name.
# The IP address and the host name should be separated by at least one
# space.
#
# For example:
#
#       102.54.94.97      rhino.acme.com          # source server
#       38.25.63.10     x.acme.com              # x client host
127.0.0.1               localhost
## Loaner BMC IPs
127.0.0.1               localhost
10.1.0.141             KYNUBOS1
10.1.0.137             KYNUC1N0
10.1.0.138             KYNUC1N1
10.1.0.139             KYNUC1N2
10.1.0.140             KYNUC1N3
```

Add an entry for each BMS/BMC server node in the form: <IP Address> <BMS Server Name>.

An entry for the SeaChange BOSS computer is not required.

Note: You can use the hosts file on the SeaChange nodes as a guideline, since the SeaChange server's hosts file should have been updated with the system's current IP configuration.

Update FlipFactory Server SeaChange DLLs. The FlipFactory server should use the most current dynamic link libraries (DLLs) from SeaChange. Locate the RemoteVstrmApi.dll and SeaSS.dll files by mapping to a SeaChange node: \\<nodename>\c\$.

The vstrmkit folder on the node contains both of these files. Compare the creation dates of the RemoteVstrmApi.dll and SeaSS.dll files in the system32 folder of the FlipFactory server with the same files on the SeaChange Server.

If the files on the FlipFactory server are older than the files on the SeaChange server, copy the files from the SeaChange server and replace the files in the FlipFactory server's system32 folder.

Verify Streaming Performs Correctly

Verify that the version of Vstream on the SeaChange server is a Telestream-supported version. You should contact SeaChange three days prior to installation of FlipFactory, to provide SeaChange support advance notice before scheduling an upgrade. SeaChange Support will confirm that the SeaChange server is running a supported version of Vstream.

FlipFactory Server Username and Password. The FlipFactory server should be configured to use 'Administrator' as the administrative login, and assign 'cdci' as the password. If you can not use this administrative login and password, you should create the user login name 'SeaChange', with a password of 'SeaChange' on the system. This is used when modifying the FlipFactory service for user authentication.

Conducting a Streaming Test

Verify streaming capabilities on the FlipFactory server using strclient.exe, which is located in the vstrmkit folder on each node of the SeaChange sever. Copy the strclient.exe file into the system32 folder on the FlipFactory server. To run StrClient, the application needs access to the SeaSS.dll file, so make sure that the strclient.exe file is in the same folder as SeaSS.dll.

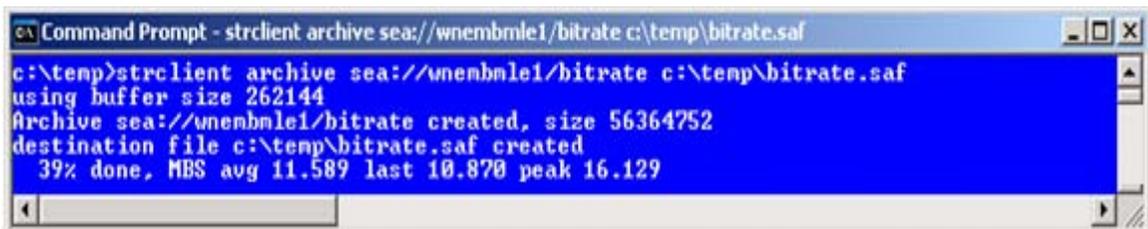
Locate a short file on the SeaChange server to use for streaming. (Use the EXDUtil application on the SeaChange BOSS computer – see Appendix A). After locating the file to use for testing, open a DOS window on the FlipFactory server and navigate to the location of the strclient.exe file.

Test streaming to the FlipFactory server by entering this command:

StrClient Archive sea://<nodename>/<filename> <nt path location>

For example: StrClient Archive sea://KYNUC1N0/CHEERS9C:\temp\CHEERS9.saf

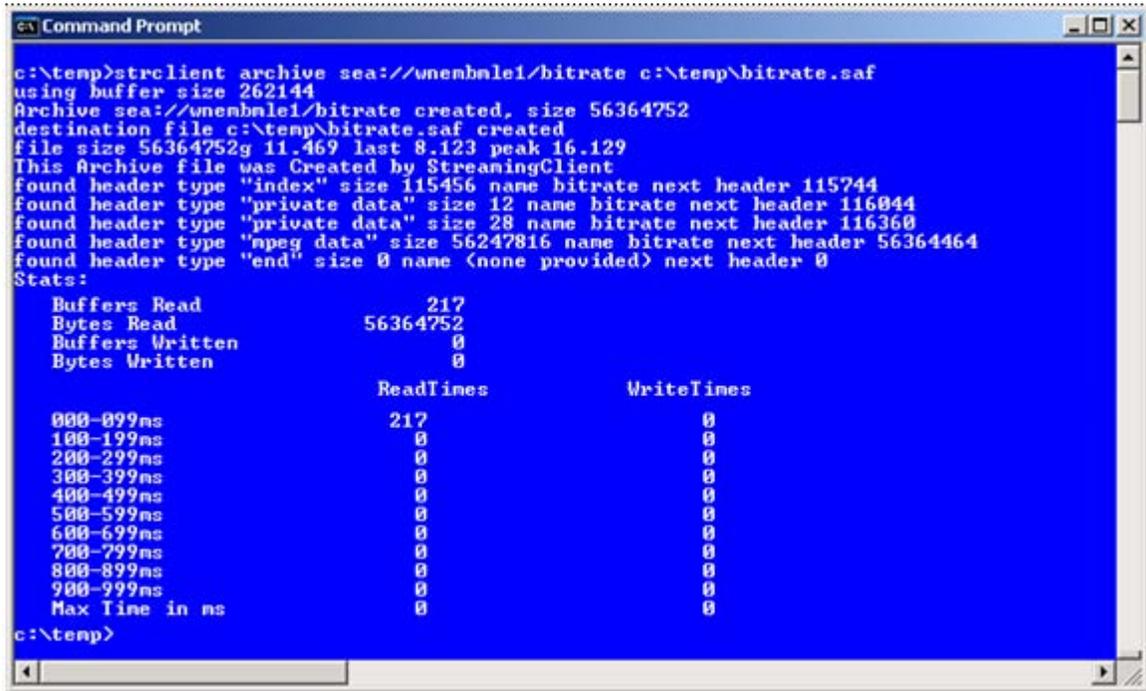
Figure 2. Execute strclient to test streaming



```
Command Prompt - strclient archive sea://wnembmle1/bitrate c:\temp\bitrate.saf
c:\temp>strclient archive sea://wnembmle1/bitrate c:\temp\bitrate.saf
using buffer size 262144
Archive sea://wnembmle1/bitrate created, size 56364752
destination file c:\temp\bitrate.saf created
39% done, MBS avg 11.589 last 10.870 peak 16.129
```

The program displays information about the streaming file until it completes:

Figure 3. View file streaming details as streaming proceeds



```
c:\temp>strclient archive sea://wnembale1/bitrate c:\temp\bitrate.saf
using buffer size 262144
Archive sea://wnembale1/bitrate created, size 56364752
destination file c:\temp\bitrate.saf created
file size 56364752g 11.469 last 8.123 peak 16.129
This Archive file was Created by StreamingClient
found header type "index" size 115456 name bitrate next header 115744
found header type "private data" size 12 name bitrate next header 116044
found header type "private data" size 28 name bitrate next header 116360
found header type "mpeg data" size 56247816 name bitrate next header 56364464
found header type "end" size 0 name (none provided) next header 0
Stats:
  Buffers Read          217
  Bytes Read           56364752
  Buffers Written       0
  Bytes Written        0

  ReadTimes             WriteTimes
000-099ms              0
100-199ms              0
200-299ms              0
300-399ms              0
400-499ms              0
500-599ms              0
600-699ms              0
700-799ms              0
800-899ms              0
900-999ms              0
Max Time in ns         0
c:\temp>
```

Verifying Access and Authentication

If you still can not deliver media from the FlipFactory server to the SeaChange BMS or BMC, perform the following tasks.

Checking Access to SeaChange Servers

Access the Windows SeaChange server (the BMS and/or the individual nodes of the BMC).

Log onto this server and open Windows Explorer. In Windows Explorer, create a new folder on the C: volume named *FlipFactory*.

After this folder has been created, share this folder and provide remote users with read/write access to this folder.

Next, verify that the new shared folder is accessible from the FlipFactory server. Check this by opening Windows Explorer, open the My Network Places icon and expand until the SeaChange server is accessible.

Open the SeaChange server icon, and verify that the FlipFactory folder displays. The path to the FlipFactory folder should display as \\<SeaChangeServerName>FlipFactory in the address bar of Windows Explorer when the FlipFactory folder is highlighted.

NOTE: If you are prompted for credentials to access either the SeaChange server or the FlipFactory folder that the SeaChange server is sharing, record these values as they will be required to establish communications between FlipFactory and the SeaChange server.

SeaChange BMC. The FlipFactory folder should be created on each node in the BMC. For example, if the BMC has 3 nodes named nodeA, nodeB, and nodeC, there should be three shared folders accessible to the FlipFactory server: \\nodeA\FlipFactory, \\nodeB\FlipFactory and \\nodeC\FlipFactory.

When you've created and accessed folders from the FlipFactory server, continue.

Providing Authentication to the Flip Engine

Authentication can be provided to the FlipEngine service in one of two ways. The simplest method is to change the identity of the Flip Engine service to run as an account that has the proper level of access required to access the FlipFactory folders on the BMC/BMS server. Alternatively, you can enter credentials in the Windows registry that the Flip Engine can use to establish an authenticated connection to the BMS/BMC server.

Specifying Flip Engine Logon Identity

To change the identity, follow these steps:

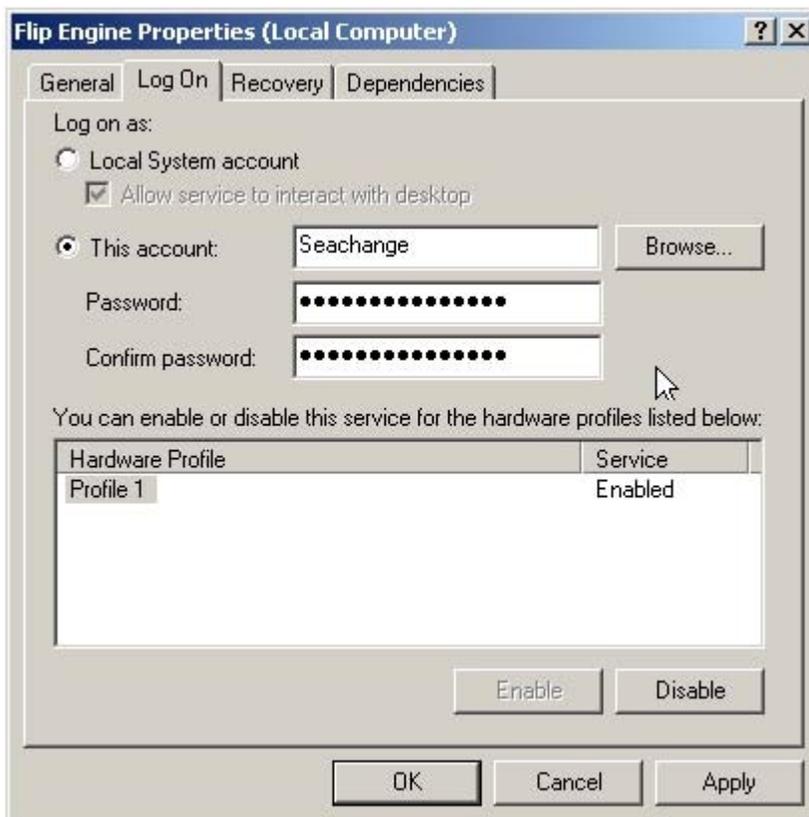
Open the Services window (open Control Panel > Administrative Tools > Services).

Select and stop the Flip Engine service.

Now, right-click Flip Engine and select Properties to display the Properties window.

Use the Properties window Log On tab to specify the desired Windows account as the log on identity for the Flip Engine service.

Figure 4. Specify the account and password that the Flip Engine service should use to log on



In this example, This Account is selected, and "Seachange" is specified as the login that the FlipEngine service will utilize.

If a specific account was required when checking access to SeaChange server folders, use that account for Flip Engine service here, to provide access to the shared Flipfactory folders on the BMS/BMC server.

Click OK and restart the Flip Engine service under the new login name you just provided.

Note: *This method works best when the FlipFactory server and the target SeaChange server(s) are both located within the same DOMAIN. If the FlipFactory server or the SeaChange servers are in different DOMAINS or different WORKGROUPs, it is suggested to utilize a second mechanism for providing the requisite credentials, which is the registry.*

Providing Credentials via the Registry

Credentials can be entered in the Windows registry that the Flip Engine service can use to establish an authenticated connection to the BMS/BMC server. To enter these credentials and configure Flip Engine to use them, follow these steps:

Open the Services window (open Control Panel > Administrative Tools > Services).

Select and stop the Flip Engine service.

Now, right-click Flip Engine and select Properties to display the Properties window.

Use the Properties window Log On tab to select Local System account, and check Allow Service to Interact with Desktop.

Click OK and enter an account in the Windows registry.

Click Start > Run to display the DOS command window.

Enter *regedit* and press Enter to start the regedit program.

Navigate to the following location:

HKEY_LOCAL_MACHINE\Software\JavaSoft\Prefs\net\telestream\flip\engine\storage\drives

Under this key, create a new registry key named "bms1", for example. Navigate into the newly created key.

In the key, create three new string values:

username

The value of the new username key should be the Windows account required to access the FlipFactory share on the BMS/BMC server.

password

The value of the new password key should be the password for the "username" account.

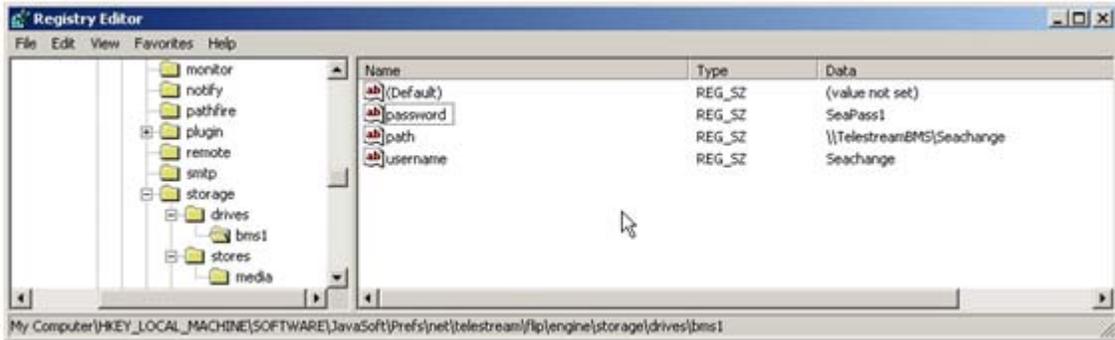
path

The value of the new path key should be the UNC alias to the FlipFactory shared folder. For example, on a BMS server named *TelestreamBMS*, the FlipFactory folder is accessed as \\TelestreamBMS\FliPFactory.

Note: Verify the username and password by logging onto the FlipFactory server with these credentials, to access the shared FlipFactory folder on the BMS/BMC server.

The following window provides an example of a completed entry:

Figure 5. Use Regedit to supply Windows credentials for Flip Engine service



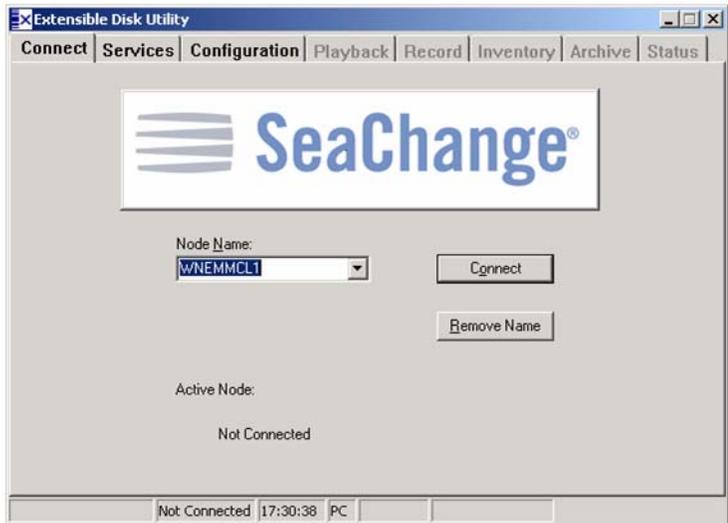
Note: A separate entry should be made for each node in a BMC configuration (each of which should have a shared FlipFactory folder). The FlipFactory service must be restarted for the new changes to apply.

Appendix A – Using the EXD Utility

To use the EXDutil application to locate files on the SeaChange server, use the KVM to switch to the SeaChange BOSS computer.

On the BOSS computer, locate the EXDutil icon and double-click to launch the application.

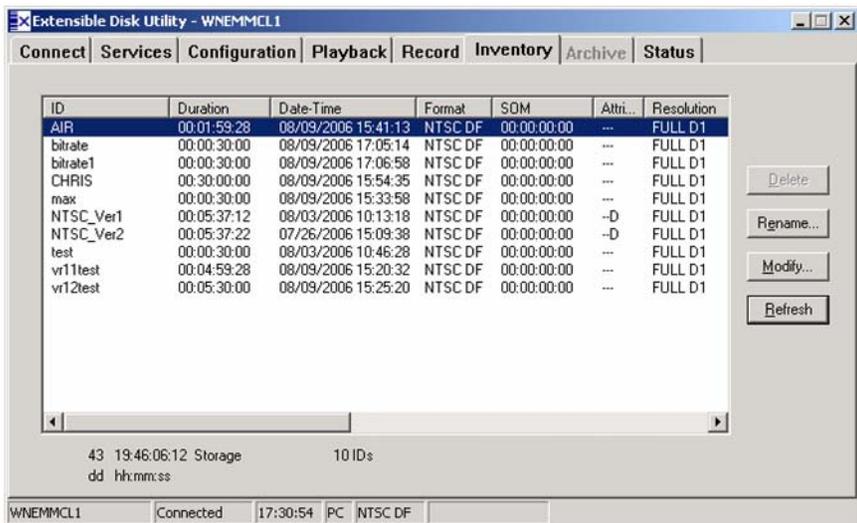
Figure 6. Use EXDutil to locate files on the SeaChange server



Use EXDutil to connect to any node on a BMC cluster, or if you are using a BMLe system, connect to an MCL.

After you connect, select the inventory tab and press Refresh.

Figure 7. On the Inventory tab, select a file from inventory



Use the slider to move through the inventory to locate a small duration file.

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