Matrox[®] Maevex[™] 5100 Series Configuring Wowza Streaming Engine[™] With The Maevex Encoder

Reference document

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www.matrox.com/graphics

Overview

The following document provides step-by-step instructions on how to configure Wowza server with the Maevex Encoder as a source input to the Wowza streaming server and to play back the stream using the Maevex decoder or a software player.

Note: This document assumes you're using version 1.04 or higher of Matrox PowerStream software and firmware and Wowza Streaming Engine 4.3 or higher. You should are also be generally familiar with the PowerStream and Wowza Streaming Engine applications.

More Information

The following documentation and Maevex software Help feature provides additional documentation such as installation, connection setup, the hardware information, and general software features and configuration details for the Matrox Maevex hardware and software discussed in this document.

- <u>Matrox Maevex 5100 Series User Guide</u> provides information on installing and connecting your Maevex 5100 Series products.
- Matrox PowerStream Help located in the Maevex PowerStream software. It
 provides information on PowerStream software features and options.
- <u>Matrox Maevex I/O Guide</u> provides information on how to determine which display modes are used from the source device to monitors connected to your encoder and decoder units.

Accessing Matrox PowerStream

- Windows 10 Click Start ->All apps->Matrox PowerStream->Matrox PowerStream
- Windows 8.1 From the Start screen, click Matrox PowerStream
- Windows 7 Click Start-> All Programs (or Programs)-> Matrox PowerStream-> Matrox PowerStream

Functional Steps for enabling Wowza Streaming Engine with Maevex

- 1. Configure the Maevex Host Stream file within Wowza
- 2. Activate the stream
- 3. View and verify the test stream
- 4. Setup Maevex decoders to view the Wowza stream.
- 5. Conclusion

1. Configure the Maevex Host Stream file within Wowza

1a. You will need to configure the Wowza Streaming Engine to accept an input from the Maevex Encoder. To do this, once you login to the Wowza Streaming Engine, you will click on "Server". Next, click on the "Stream Files" option.

Wowza Streaming Engine	A Home Server > Applications -		🛔 matrox 🏼 🛛 Help 🕞 Sign Ou
SERVER Server Setup	Virtual Host Stream Files		
Server Monitoring	Stream Files	Hide Help >	About Stream Files
Artual Host Setup	Stream Files		Stream files provide a method to replace
Artual Host Monitoring	+ Add Stream File		(alias) complex stream names that are
ranscoder			published to a Wowza Streaming Engine ¹⁹ server from sources such as MPEG-TS
Aedia Cache			encoders and IP cameras. For example, if
Isers			your complex stream name on the origin
ource Authentication			server is udp://0.0.0.0:10000, you can cre a stream file named mycoolevent.stream
enformance Tuning •			and set the contents to the complex stream
ogs			name. Players can then use mycoolevent.stream in playback URLs in
bout			place of the more complex stream name.
TREAMS			Stream files are stored in an application's streaming file directory and have a .stream
tartuo Steams			file name extension.
tream Files			To add a stream file, click Add Stream Fil
MIL PIRS			the Add Stream File dialog box, do the following:

1b. You will now need to configure the Maevex host stream file by clicking on the "Add Stream File".

🖄 Wowza Streaming Engine	# Home Server & Applications -		🎄 matrox 🛛 Help 🕞 Sign Out
MANAGER SERVER Server Setup Server Monitoring	Virtual Host Stream Files		
	Stream Files	Hide Help >	About Stream Files
Virtual Host Setup Virtual Host Monitoring Transcoder	+ Add Stream File		Stream files provide a method to replace (alias) complex stream names that are published to a Wowza Streaming Engine™
Media Cache			server from sources such as MPEG-TS encoders and IP cameras. For example, if
Users			your complex stream name on the origin
Source Authentication			server is udp://0.0.0.0:10000, you can create a stream file named mycoolevent.stream
Performance Tuning -			and set the contents to the complex stream
Logs			name. Players can then use mycoolevent.stream in playback URLs in
About			place of the more complex stream name.
STREAMS			Stream files are stored in an application's streaming file directory and have a .stream
Startup Streams			file name extension.
Stream Files			To add a stream file, click Add Stream File. In
SMIL Files			the Add Stream File dialog box, do the following:

1c. The "Add Stream File" window will appear and you need to enter a name in the "Enter a name for the new Stream File:"

🛞 🗳 http://localhost.8088	/engineman: 🔎 🕆 🗘 🗳 Virtual Host Stream Files 🛛 🛛	
Wowza Streaming MANAGER	Engine # Home Server & Applications -	🛔 matrox 🛛 Help 🕞 Sign Out
	Add Stream File	×
SERVER Server Setup	* = required field	
Server Monitoring	This will create a new Stream File.	
Virtual Host Setup	Enter a name for the new Stream File: "	
Virtual Host Monitoring	maevex ×	
Transcoder	Stream URI *	About Stream Files
Media Cache		tream files provide a method to
Users		eplace (alias) complex stream ames that are published to a
Source Authentication		Vowza Streaming Engine™ server
Performance Tuning •		ncoders and IP cameras. For
Logs	Cancel + Add	Mample, il your complex scleam
About		ame on the origin server is

1d. You will be required to enter the streaming address in the "Stream URI". The streaming address can be obtained from the Maevex PowerStream software as illustrated below.

i. Start the Maevex PowerStream software and select the encoder for the source.

PowerStream				- = ×
Environment Settings				
•				?
				Ŭ
Encoders				
Foodcourt - News Ready	S/W Hall - News/Ads Encoding 15/41 Mb/s	Atrium - Mall Events Ready	S/W Entrance - Ads Ready N/E Entrance - Ads Recording 16.16 Mb/s	
Decoders				
Southwest Hallway Decoding 13.63 Mb/s	Northeast Entrance Ready	Southwest Entrance Ready	Atrium Decoding 13.48Mb/s	

ii. From the encoder settings page, copy the stream address as illustrated below;

1e. You will need to add the stream address from step 1d-ii above to the "Stream URI" entry. Once completed click on the "+Add" button.

🔶 🛞 🗳 http://localhost.8088	/enginemani 🔎 = C 🗳 Virtual Host Stream Files 🗴			
Wowza Streaming	Add Stream File	plications -	X	A matrox 🛛 Help 🕞 Sign Out
SERVER Server Setup Server Monitoring Virtual Host Setup Virtual Host Monitoring Transcoder Media Cache Users	* = required field This will create a new Stream File. Enter a name for the new Stream File: * maevex Stream URI * rtsp://192.168.155.183:8554	×		About Stream Files Itream files provide a method to eplace (alias) complex stream ames that are published to a Vowza Streaming Engine™ server tom sources such as MPEG-TS mcoders and IP cameras. For
Source Authentication Performance Tuning + Logs		Cancel + A	ad)	xample, if your complex stream ame on the origin server is up://0.0.0.0:10000, you can create is tream file named coolevent.stream and set the dents to the complex stream

2. Activate the stream

2a. You will now need to activate the stream. Click on the "arrow" from the illustration below (this should be the screen on the interface after the last step);

Wowza Streaming En	i gine 🛛 🖷 Home 🖵 Server 🛸 Applications 🗣		🛔 matrox 🛛 Help 🕞 Sign Out
SERVER Server Setup	Virtual Host Stream Files		
Server Monitoring Virtual Host Setup Virtual Host Monitoring	Stream Files Q) Copy Stream File + Add Stream File	Hide Help »	About Stream Files Stream files provide a method to replace (alias) complex stream name
Transcoder Media Cache	Name	Actions	that are published to a Wowza Streaming Engine™ server from sources such as MPEG-TS encoder
Users Source Authentication Performance Tuning •	maevex stream	+) + ∥ ₪	and IP cameras. For example, if you complex stream name on the origin server is udp://0.0.0.0:10000, you c create a stream file named

2b. The following window will appear. For the "Application Name", select "live" from the dropdown menu. For the rest of the options leave the default values. Click on "OK".

Wowza Streaming E MANAGER	ngine 🖉 Home 🖵 Server 🖕 Applications 👻	💩 matrox \varTheta Help 🔄 Sign Ou
	Connect a Stream File X	
SERVER		
Server Setup	Stream Name maevex stream	
Server Monitoring		About Stream Files
Virtual Host Setup	Application Name	
Virtual Host Monitoring	live 💌	Stream files provide a method to replace (alias) complex stream name
Transcoder	Application Instance	that are published to a Wowza
Media Cache	Connect to default application instance: _definst_	Streaming Engine [™] server from sources such as MPEG-TS encode
Users	 Connect to application instance: 	and IP cameras. For example, if yo
Source Authentication		complex stream name on the origin server is udp://0.0.0:10000, you
Performance Tuning +	Enter an existing application instance name. The application instance will be	create a stream file named
Logs	created if it does not exist.	mycoolevent.stream and set the contents to the complex stream nar
About	MediaCaster Type	Players can then use
STREAMS	dh dh	mycoolevent.stream in playback URLs in place of the more complex
Startup Streams		stream name. Stream files are store
		in an application's streaming file

2c. The highlighted annotation will appear in the Wowza Streaming Engine UI. If the configuration is done correctly you will see the "Connection successful Maevex.stream" message.

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# Home 🖵 Server 🖕 Applications 👻	🏯 matrox 🥹 Help 🔄 Sign O
Connection successful maevex.stream	
Virtual Host Stream Files	
default/Host_	
	Connection successful maevex.stream

3. View and verify the test stream

3a. Once steps 1 to 3 are completed, you are now able to view the stream in the Wowza Streaming Engine UI. To be able to see and access the stream, click on "Application" as illustrated below;

Wowza Streaming Eng	ine 🖷 Home 🖵 Server 🖻 Appl	ications 👻	👗 matrox 🛛 Help 🕞 Sign Out
+ Add Application	Add Application		
SELECTED APPLICATION Select an application below	Select an Application Type.	Hide Help >	About Applications An application is a set of configuration
LIVE APPLICATIONS	Live	Video On Demand	options in Wowza Streaming Engine that supports a specific use case for the delivery of streaming content. You
VOD APPLICATIONS	Single server or origin	G VOD Single server	can use these options and configurable properties to tune and modify an application's default
	H Live Edge	⊖ VOD Edge	streaming configuration. Application functionality can be extended by modules, which are Java classes that
	Not available for your license	OD HTTP Origin	are loaded dynamically when an application instance is loaded. Many AdOn packages provide addition: functionality through the use of modules. For basic application

3b. Then on the left side of the UI, click on the "Live" option and then click on "Incoming Streams". You will notice that the stream "status" is "Active" which indicates that the Wowza Streaming Engine is receiving the stream from the Maevex encoder. At this point, click on "Maevex.stream" (see blue arrow).

Add Application	live > Incoming						
SELECTED APPLICATION	Live Single Server or Origin	Streams	5	► Test Players	운) Copy	C Restart	B Delete
Ne - Monitoring Sources (Live) Stream Files	Active Streams Streams application. C Refresh View by Stream Default Instance (_definst_	View by Group		Hide He	You ca stream live stre connec video o	You can view details about all lin streams published to this applica- live streams that this application connects to and record the streat video on demand (VOD) files for	
Succen Targets Source Security Playback Security SMIL Files nDVR	Stream maevex.stream rtsp:///92.168.155.183.3	8554	Status Active	Actions	playback. To update the list of incoming click Refresh . Wowza Stream Engine™ software doesn't up list automatically as new strea published to this application.		Streaming sn't update the v streams are

3c. Once you have clicked on the "maevex.stream" from step 3b the following will appear. You can now test the stream by clicking on "Test Players" as illustrated below;

Wowza Streaming Eng MANAGER	gine 🖷 Home 🖵 Server 🖕 Applications 🔸		🋔 matrox 💿 Help 🕞 Sign Out
+ Add Application SELECTED APPLICATION live - Monitoring	live > Incoming Streams > maevex.stream Live Single Server or Origin € Return to Incoming Streams Page	► Test Players Q	g Copy ☎ Restart 會 Delete
Sources (Live)	C Refresh Record X Disconnect	Hide Help >	About Live Stream Recordin

3d. The default test player, Adobe RTMP window will appear. Click on the "Start" button as illustrated below;

Wowza Stream	Test Play	vers O				Tox 🛛 Help 🚺 Sign Ou X
+ Add Application	Server	192.168.155.81.1935	Application	Rve		C Restart
SELECTED APPLICAT	Stream	maevex stream				
Monitoring Sources (Live) Stream Files	MPEG DASH Apple HLS Adobe RTMP Adobe HDS MS Smooth Mobile Server: mg./112 168 155 81 1905/we Stream: maevex stream Start				Mobile	Live Stream Recordin
Incoming Streams						record incoming live stream on demand files for later
Stream Targets						. You can split in-process li into multiple on-demand Mi
Source Security						me container) files or FLV
Playback Security						ideo container) files, with th its based on video duration
SMIL Files						e, or file size.
nDVR						te the recording details that
Transcoder						layed, click Refresh. Wow2 ng Engine™ software does
DRM						he details automatically as

The video from Maevex encoder will now be playing.



4. Setup Maevex decoders to view the Wowza stream.

Now, you can play back the video using the Maevex decoder. In order to accomplish this click on the "Mobile" option and copy the URL from the "Android/Other" section to the "Stream Address" entry of the Maevex decoder settings page from the Maevex PowerStream and then click on "apply" as illustrated below;



Alternatively, the above procedure can be applied to software players that support RTSP streaming.

5. Conclusion

With the help of this document, you should now be able to setup the Wowza Streaming Engine with the Matrox Maevex encoder. The Wowza Streaming Engine will deliver the Maevex streaming content to third party applications and also to the Maevex decoder.

If there are any issues, please contact Matrox tech support at <u>www.matrox.com/graphics/support</u>.

Thank you for using the Matrox Maevex and the Wowza Streaming Engine.

Special thanks to Wowza for their help and support in putting together this document.

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