Port Information

Table B-1   *Ports Used by the Content Server*

Port	Transport Layer Protocol	Used By	Open on the Content Server Firewall
80	TCP	Content Server web interface (HTTP)	Yes
443	TCP	Content Server web interface using SSL (HTTPS)	Yes
554	TCP, UDP	Windows Media Streaming Server RTSP Protocol	Yes
1718	UDP	Gatekeeper discovery	Yes
1719[1]	UDP	RAS port	Yes
1722[1]	UDP	Additional RAS port when in a cluster	Yes
1720[1]	TCP	Q.931 port	Yes
1721[1]	TCP, UDP	Additional Q.931 port when in a cluster	Yes
1755	TCP, UDP	Windows Media Streaming Server MMS Protocol	Yes
2090	TCP	Content Server database connection	No
3389	TCP	Remote Desktop Connection Protocol	Yes
8008	TCP	Content Server application communication	No
8080	TCP	Windows Media Streaming Server HTTP Protocol	Yes
8096	TCP	Windows Media Administration Site using SSL	Yes
8098	TCP	Windows Web Administration using SSL	Yes

1. This port is configurable in **Site Settings** when in a cluster.

This table does not include any ports used in site settings or manually configured media server configurations for streaming to external streaming servers—for example:

- **Port range** in Advanced H.323 Settings in **Site Settings**.
- **Network pull port(s)** for Windows Media streaming servers. For more information, see the Windows Media Services help topics.

- **Streaming port range start** specified for unicast streaming on QuickTime or Darwin streaming servers; Wowza Media Servers for Flash; or multicast streaming in Windows Media streaming servers or QuickTime or Darwin streaming servers.

Ports for Streaming from the Content Server

Streaming Windows Media from the Content Server uses the following ports:

Table B-2   Ports Used for Streaming Windows Media from the Content Server

Port	Streaming Media Protocol	Firewall Information
554	RTSP	At least one of these ports needs to be open between the Content Server and the Windows Media player. For true (RTSP) streaming, open port 554. See the note below.
8080	HTTP	

Note   The Windows Media player will automatically use protocol rollover if necessary. The default streaming protocol for the Windows Media player is RTSP on port 554. If the player cannot obtain the stream using RTSP (because the port is blocked on a firewall, for example), then it will automatically rollover to MMS. MMS (port 1755) is a deprecated streaming protocol and is not used as a streaming transport for Windows Media Player version 9 and above. The player will then try HTTP on port 80. The Content Server will redirect any requests for Windows Media streams on port 80 to the correct HTTP port used by the Windows Media Streaming Server on the Content Server (port 8080).

Streaming Windows Media from the Content Server to the Silverlight player uses the following port:

Table B-3   Port Used for Streaming Windows Media from the Content Server to Silverlight Player

Port	Streaming Media Protocol	Firewall Information
8080	HTTP	Needs to be open between the Content Server and the Silverlight player.

Note   The Silverlight player will request the stream on port 80 because this is the default HTTP port. The Content Server will redirect any requests for Windows Media streams on port 80 to the correct HTTP port used by the Windows Media Streaming Server on the Content Server (port 8080).

MPEG-4 for QuickTime and MPEG-4 for Flash from Content Server using the default "Local IIS Web Server" media server configuration use the following port:

Table B-4   Port Used by MPEG-4 for QuickTime and MPEG-4 for Flash from Content Server using the default "Local IIS Web Server" Media Server Configuration

Port	Streaming Media Protocol	Firewall Information
80	HTTP	Needs to be open between the Content Server and the player.

Ports for Streaming from External Streaming Servers

The default setup for a Windows Media Streaming Server uses the following ports:

Table B-5   Ports Used in the Default Setup for Windows Media Streaming

Port	Streaming Media Protocol	Firewall Information
554	RTSP	At least one of these ports needs to be open between the Content Server and the Windows Media player. For true (RTSP) streaming, open port 554. See the note below.
		If using server push in the media server configuration, ensure that the HTTP port is open between the Content Server and the external streaming server.
80	HTTP	

Note   The Windows Media player will automatically use protocol rollover if necessary. The default streaming protocol for the Windows Media player is RTSP on port 554. If the player cannot obtain the stream using RTSP (because the port is blocked on a firewall, for example), then it will automatically rollover to MMS. MMS (port 1755) is a deprecated streaming protocol and is not used as a streaming transport for Windows Media Player version 9 and above. The player will then try HTTP on port 80.

The default setup for a QuickTime or Darwin streaming server uses the following port:

Table B-6   Port Used in Default Setup for QuickTime or Darwin Streaming Server

Port	Streaming Media Protocol	Firewall Information
554	RTSP	Needs to be open between the Content Server, the external streaming server, and the QuickTime player.

The default setup for a Wowza Media Server for Flash uses the following ports:

Table B-7   ***Ports Used in the Default Setup for Wowza Media Server for Flash***

Port	Streaming Media Protocol	Firewall Information
554	RTSP for communication between the Content Server and the Wowza Media Server.	Needs to be open between the Content Server and the Wowza Media Server.
1935	RTMP for communication between the Wowza Media Server and the Flash player.	Needs to be open between the Wowza Media Server and the Flash player.