Hosting a Lifeway Simulcast

What is a Simulcast?

A Simple Answer — a simulcast is a live internet broadcast of an event from a single venue into multiple venues – such as your own environment. Thus a simultaneous event occurs in both the origin venue and in many satellite locations — your church, home or laptop!

What do I need to host a Simulcast?

In order to host a simulcast you need to make sure you have the following:

- An Internet Connection
- A desktop or laptop computer
- · A mobile phone or tablet

Internet Connection

Your Internet connection should be one of the following:

- DSL service is faster than dial up and runs through your phone line
- Broadband or Cable Modem this is a dedicated line from your cable service

What is the minimum connection speed that you recommend?

We recommend that the minimum connection be 700kbps (1MB for good quality; 2.5mpbs for best quality) download speed. You may test your connection's speed by going to http://www.speedtest.net.

If your download speed is less than the suggested minimum, then you have the following options:

• Connect at the lowest speed we broadcast with (500k) and understand that the quality of the stream may be a bit less than you are used to.

 Contact your Internet Service Provider (ISP) and request a faster connection. In some cases, your current service provider may offer a higher rate of speed for the same rate you are already playing.

Computer

These are the suggested requirements for your PC or Mac for a successful webcast:

Software Requirements:

Browsers

We recommend a "neutral" browser, or one that doesn't depend on the operating system of your computer. These tend to use less on-board resources and result in a higher quality video. Therefore we recommend using Firefox or Chrome in both PC and Mac environments. Please be sure you update your browsers before the event to get the most recent versions.

As a reminder, we recommend not using Internet Explorer to view the simulcast. Instead, download Firefox or Chrome for your event.



Updated Video Software:

ADOBE FLASH — DOWNLOAD FLASH

System Requirements for Flash Installation

Most systems (98%) are pre-installed with Adobe Flash Player, but in case you are one of the 2% who do not have Flash, listed below are the system requirements.

Hardware Requirements: MINIMUM HARDWARE REQUIREMENTS FOR SD AND HD VIDEO PLAYBACK

The following minimum hardware configurations are recommended for optimal playback experience:

Resolution	Windows desktop/laptop ¹	Windows notebook ²	Mac OS
852x480 (480p) 24-30 fps	2.33GHz Intel Pentium 4, AMD Athlon 64 2800+, or faster processor 128MB of RAM 64MB of graphics memory	1.6GHz Intel Atom or faster processor 1GB of RAM Windows 7 or Windows Vista and supported GPU/media accelerator (NVIDIA ION, Broadcom Crystal HD Media Accelerator, Intel GMA 500)	1.33GHz Intel Core Duo or faster processor 256MB of RAM 64MB of graphics memory
1280x720 (720p) 24-30 fps	3HGz Intel Pentium 4, AMD Athlon 64 3400+, or faster processor 128MB of RAM 64MB of graphics memory	1.6GHz Intel Atom or faster processor 1GB of RAM Windows 7 or Windows Vista and supported GPU/media accelerator (NVIDIA ION, Broadcom Crystal HD Media Accelerator)	1.83GHz Intel Core Duo or faster processor 256MB of RAM 64MB of graphics memory
1920x1080 (1080p) 24-30 fps	1.8GHz Intel Core Duo, AMD Athlon 64 x24200+, or faster processor	1.6GHz Intel Atom or faster processor 1GB of RAM	2.66GHz Intel Core Duo or faster processor

128	BMB of RAM	Windows 7 or Windows Vista and supported GPU/media accelerator	512MB of RAM
64N	/IB of graphics memory	(NVIDIA ION)	128MB of graphics memory

¹CPU requirements may be much lower using H.264 hardware video acceleration on supported systems. Supported GPUs or media accelerators listed in the section above can significantly decrease processor requirements for optimal viewing on HD video.

Network Firewall:

What ports do I need to open on my network to watch the broadcast?

Unless you have intentionally blocked your ports using your firewall software, you most likely already have them available. However, if you have disabled ports on your firewall, you will need to have the following opened up in order to watch the live stream: Port 80, Port 1935; both for HTML and Flash traffic.

How Do I View the Simulcast at my Church?

Assuming you have all of the requirements listed previously, the final components include a projector and projection screen. Most likely you have a computer in your main auditorium that is used for PowerPoint or worship lyrics. If you are able to connect this computer to the Internet, then your attendees will have the ability to view the simulcast.

Streaming

Can I use my desk computer in the Church Office to test the streams?

Sure — if you are broadcasting the event in the Pastor's study. We would recommend that you instead test the streams with the actual computer you will be using for the Simulcast, in the actual room you will use, using the Internet connection you will use, and with the projector or IMAG delivery mechanisms that you will use during the actual simulcast.

²Windows system using Broadcom or Intel GMA 500 graphics should use a Windows Aero theme for optimal playback performance.

Can I "Save" my live streaming video for later use?

Live events are streamed and therefore cannot be saved as a file. However, we offer our live streams via DVR. The live content can be paused as well as reviewed in case you have missed something. This content is not saved on your hard drive locally, but instead is delivered from a cached version in the "Cloud."

Finally, saving the live stream content would most likely violate copyright laws.

I know my church has a firewall on the LAN. What should I prepare for in navigating the Firewall software?

Check with your church's Internet Technologies (IT) Professional and communicate with them regarding what ports and/or type of content that is currently being blocked. The live streaming video is delivered over Port 1935, Port 443, and Port 80 (RTMP and HTTP traffic should be enabled).

Our Support Chat also uses Port 80 for the Chat room. In case you have any issues with the Chat, simply close the window and re-launch the Chat application.

I'm in MST, PST and/or Hawaii or Alaska. How do I participate in real-time?

We offer the live Simulcast stream via DVR, which gives you the functionality to pause the stream, rewind it and/or fast-forward as necessary in your Host location. This allows you to promote the event's starting time at the same time as the actual event, but start it based on your time zone needs.

Can I share this event on Facebook or Twitter?

We encourage you to share quotes and experiences of the Simulcast with your social networks. Based on your event, you may even include a hash-tag and an event-specific URL to share details.

We do ask that you not share the **Live Event link** with your networks, however. This link will not work without the login information associated with your LifeWay Digital Pass account. And, this would also violate the LifeWay Digital Events Terms & Conditions agreement.

How do I watch a simulcast from my Home?

Assuming you have all of the previously recommended requirements, the final components include your TV or computer monitor. Most likely you have a computer in your home office. If you are able to connect this computer to your television, following are helpful hints.

How do I connect my HDTV to the stream?

Streaming to your television is a good practice for both individuals and small groups due to their smaller environments.

Here is how you accomplish this:

- 1. Internet Connect your laptop/computer to the Internet via a CAT-5 cable. WiFi is not recommended unless you have a high capacity wireless router.
- 2. Video Connection Plug a 15-pin VGA cable (commonly used to connect a computer tower/laptop to an external monitor) into your computer/laptop and then into your HDTV at the PC connection.
- Audio Connection Using a mini-audio cable, connect the audio out/headphones jack from your computer into the "Audio In" of your HDTV. Based on your computer settings, you may have to click on the Function 5 (F5) to see the image from your computer on to your TV.
- 4. Adjust Your Settings Use your manufacturer's settings to navigate to the correct source for both your TV and your computer. You may need to resolve the resolution sent from your computer to the TV by going to the "Display Settings" (Mac & PC) and adjust the resolution to match the best quality of your desktop image.
- 5. Navigate to Live Stream Once you have completed these steps, simply open a browser (Chrome or Firefox recommended), navigate to the Live Stream page within the Host Event Site, and then click on the Full Screen button on the live streaming player. The TV will now be your new monitor for the event and display the broadcast in full-screen mode.

Depending on the type of computer/laptop you are using, there are many variables to this recommended setup, including the use of HDMI connections, S-Video as well as wireless connections. Any of those connections should work to transfer the display from your computer to an HDTV.

Note: Just because your TV is HD does not mean the stream will be HD. HD live streams will be broadcast in HD resolution (720x400) and a minimum HD bit-rate (2.5mbps).

Can I run the Support Chat and Live stream on the same computer?

Yes and no. If you have a computer that has enough processing horsepower, then yes, it is possible. However, we recommend connecting to your live streams on a separate computer from the one you are using for Chat Support during an event. This will give your live stream the maximum resources available during the live event and reduce the risk of buffering and/or freezing due to low processor availability.

Simulcast Technical Support

Access

- Access to the Live Simulcast Support will be available through the event
 Host Site via Email <u>DigitalPassSupport@lifeway.com</u> and in some events
 via Live Support Chat.
- Phone Support is available Monday-Friday (7am-6pm CT) as well as posted hours for each event. Digital Pass Phone Support can be reached at: 1-866-713-3512.

Best Practices for Quality Streaming

Here are some suggested action steps for End Users to create the best environment for receiving uninterrupted video streams during a broadcast.

- DO not use your wireless networks if possible. Any connection to your wireless environment could result in video buffering.
- DON'T forget to remind any office staff or personnel that multiple connections to the video stream at the same location adds additional traffic and may diminish optimal conditions for bandwidth consumption.
- CHECK your computer for active screensavers or hibernation modes and deactivate them. While streaming, your computer won't recognize the activity of the streaming video as active use. A screensaver popping up in the middle of a broadcast can be embarrassing.
- CHECK your video projector resolution to ensure that it matches your computer output. At full-screen on your computer, turn on your projector and let it auto-detect the resolution. This should provide the optimal resolution for your environment.
- DON'T run other programs on your computer simultaneous to the active broadcast times. Simply put, the streams will need all of the computer's processing power available.

- DO check with your Internet Service Provider if you suspect your download speed is not consistent. Cable-modem Broadband and DSL users may see fluctuation in the available bandwidth during a live streaming event which could cause buffering in the stream. Suggested available download speed for the optimal live streaming is 1.5MBps.
- DON'T panic. If you have questions or concerns, we have several options to help:
 - 1. You can chat with us during all test sessions and also during the live event.
 - 2. You can post questions on our forum. We will monitor and respond to posts daily.

General Questions

If the system is so reliable, why am I having buffering (freezing, stopping, skipping) issues with my stream delivery?

Great question. The CDN is the largest component in delivering high quality, uninterrupted streams to you, but it is not the only delivery component in the puzzle. The World Wide Web is called a "web" for a reason. A very complex delivery system is in place to get your streams down to your local Internet Service Provider (ISP) and in fact, they are part of the complex web of delivery. You may know your ISP as Comcast, AT&T, Qwest or one of hundreds of ISP's that are available in each locality.

Once the live stream reaches your ISP's area network, it is delivered to you over your own Local Area Network (LAN) usually within the walls of your church, building or home. Here is where the majority of the delivery mishaps occur when live streaming video is interrupted. Firewalls, the routers, and shared access to the network will all have bearing into your connectivity reliability.

Troubleshooting

I am buffering/freezing my video. What do I do?

Streaming live content in Flash requires a constant connection. If the player connected you at a higher bit-rate than your connection can maintain, simply go to the "MENU" button on the player, choose the "QUALITY" option and select a lower bit-rate than what you are currently connected.

My audio or video is freezing and/or stuttering in the middle of the broadcast. How can I fix it?

First, check your computer to ensure that no other programs are running in the background. Click on CTRL (button), ALT (button) and DELETE (button) simultaneously in order to stop the other software processes.

Next, check your anti-virus application and confirm it is not running in the background. If it is possible to disable it, do so and then try to connect to the stream again.

Try to minimize the traffic on your network. If there are others on the network, confirm that they are not also streaming or downloading large files. Streaming radio and video commonly cause a fluctuation in available bandwidth on a local network.

If you have a wireless network, consider disabling it for the event as well. Smartphones often will connect to an unsecured network as soon as they are in proximity to that network, which will cut down on your available bandwidth, as well.

Why does my video jitter and freeze?

You may have a slower Internet connection from when the event started due to network congestion in your area. If you have a DSL connection, it is common for the stream to initially start off at a higher bit-rate than what the connection throttles down to. Simply choose the MENU button, choose the QUALITY button, and select a lower bit-rate than what you are currently connected.

I am getting a blank video screen on the Live webcast page. What do I do?

This is probably due to the live video stream being blocked at your location. This could be due to a firewall, a network router or directly on your PC within a security application such as McAfee, Norton, Avast, etc. This is very common in a corporate worship environment. Please check with your Church IT department in advance of the event you would like to host.