



**NDI<sup>®</sup>**

# NDI® Bridge - Summary

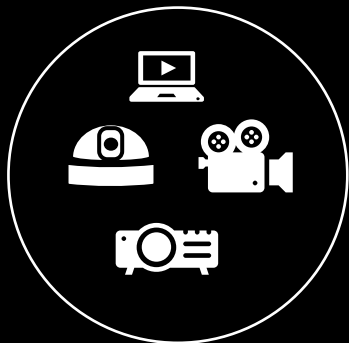
NDI Bridge allows users to securely share NDI® sources between local or remote sites, anywhere in the world, making it easy to set up and manage. This allows live production teams to stay native in NDI , end-to-end, reducing complexity, cost and latency across any distance and with any applications.

NDI Bridge delivers local convenience on a global scale as it handles all the complexity of remote sources, supporting all of the benefits of NDI, including alpha channel, KVM, PTZs, tally, metadata and much more.

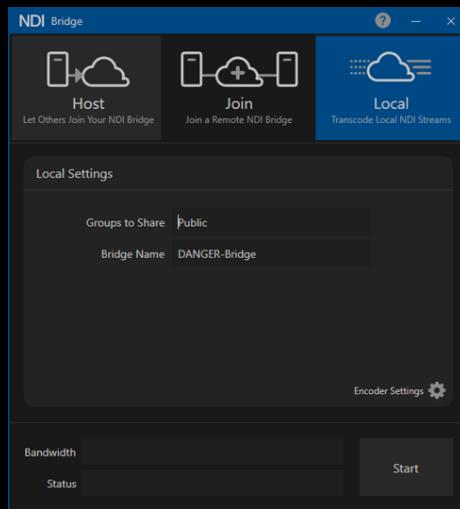
There are two ways of using NDI Bridge...

# NDI Bridge – Local Mode

## NDI Sources



Take all sources on your network or group



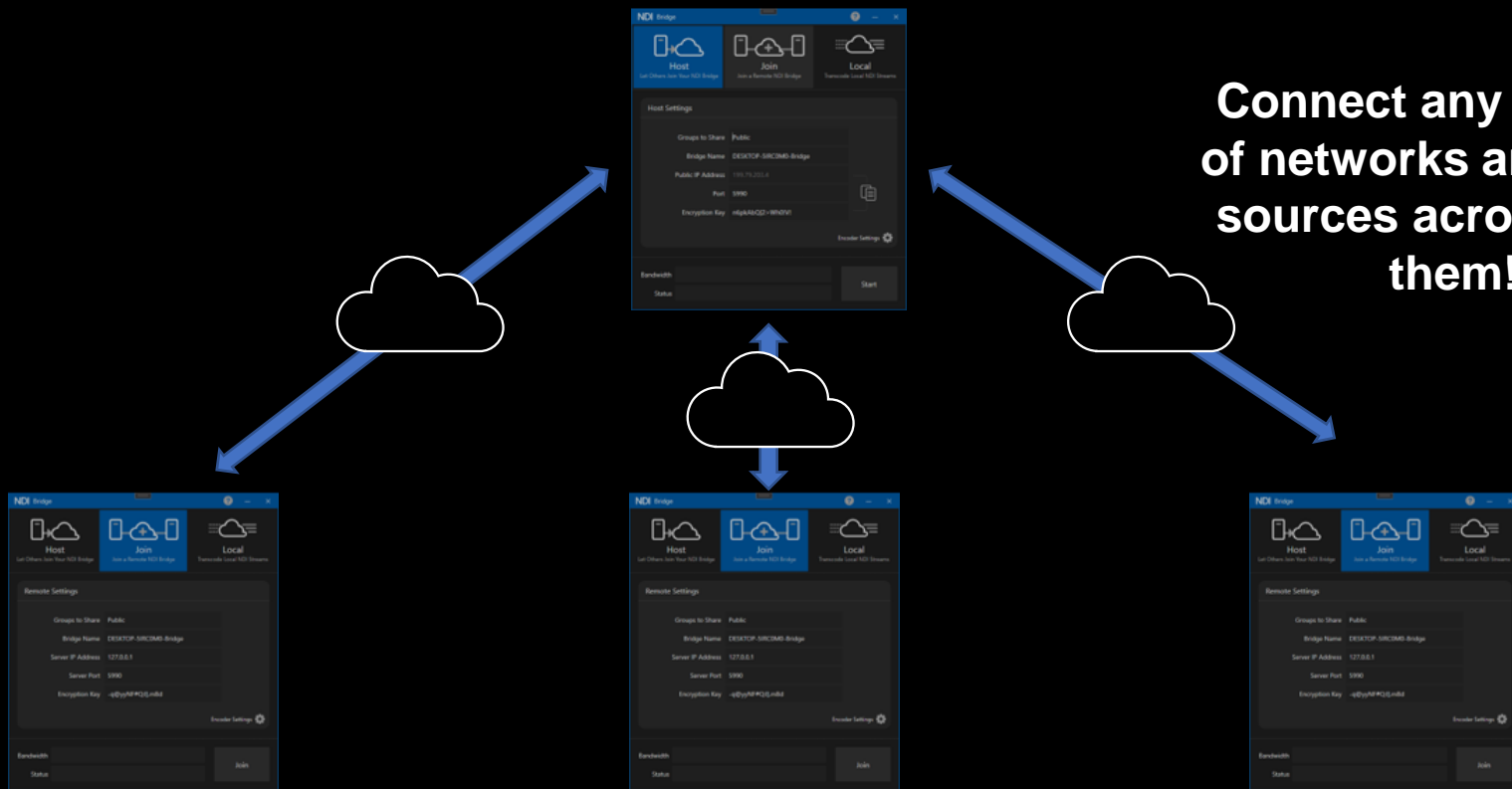
Use Bridge as a proxy to make the most of your bandwidth or transcode to NDI | HX

## NDI Sources



NDI Bridge intelligently sends the sources and streams that you need, making the most of your bandwidth. Working in scenarios with over 1000 sources and many audio channels.

# NDI Bridge – Host Mode



# NDI Bridge

## Key Information & Guidance

- When testing NDI Bridge please ensure that your network connection has sufficient sustained network bandwidth to maintain the video streams that you wish to use with reasonable network jitter. You can use a tool like iPerf to test your connection speed.
- NDI Bridge supports all NDI features; Video, Alpha Channel, Multichannel Audio, Metadata, KVM, Tally, PTZ Support.
- One or more users can join an NDI Bridge connection, enabled by a single NDI Bridge Host.
- NDI Bridge makes it easy to access the Public IP/Port values that must be shared with clients wishing to join the Bridge.
- A single public IP address and port number is needed on the host side of a bridge connection. To run a host connection on a local network “port forwarding” might need to be enabled on your router.
- NDI Bridge can detect whether port forwarding is enabled on your network and also recover your public IP address which is often not the same as your local network IP address.
- NDI Bridge connections are secured using AES256 encryption. Each side needs the encryption key in order to share data over Bridge.
- NDI Bridge can use H.264 and HEVC compression.
- NDI Bridge takes advantage of improved NDI 5 audio support to achieve floating point precision of high channel counts over a WAN connection. This is not backwards compatible with NDI version 4 which will be unable to play audio in this format, there is a “compatibility mode” switch that supports version 4 although it is restricted to the capabilities of that version.

# NDI Bridge

## Key Information & Guidance

- Due to the resolution limitations of H.264 compression, it is only possible to use HD resolution with alpha channel or UHD without it. HEVC supports all reasonable resolutions with and without alpha.
- HEVC decoding might require a license that can be purchased from the Windows Store. Windows Store access might not be available on some cloud services.
- NDI bridge uses the GPU to perform encoding and decoding. A high-end GPU is not required, and it will work even with integrated graphics system. NDI Bridge will take advantage of multiple GPUs within a single system.
- The number of channels of that may be decoded in real-time is limited by the video encoding performance of your GPU.
- Some GPUs are limited to a low number of simultaneous encoders, these will not work well with NDI Bridge since they are unable to compress many channels of video at one time.
- Video and audio sources that are needed are transferred across Bridge, unused sources will take no bandwidth.
- NDI Bridge includes automatic jitter correction which can correct many line problems while minimizing the latency.

# NDI Remote - Summary

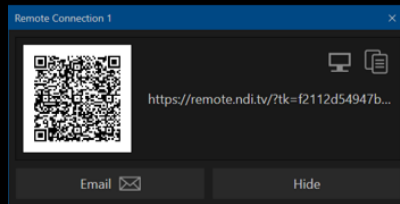
The need to bring live sources into productions at the last minute or simply using a mobile device as a camera, with little time to establish secure and stable connections, is one of the greatest headaches for anyone working in media production.

NDI Remote means you can connect with any remote or local user to receive their video and audio over your wifi, or the public internet by simply sharing a link. This is ideal both to quickly add sources to live productions, or to receive video from any mobile device, anywhere in the world, into virtually any video software application.

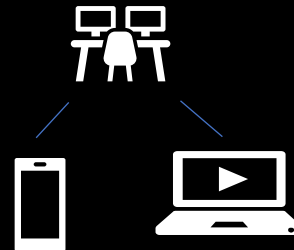
# NDI Remote – Sample Workflows



Producer uses NDI remote Application to create the connection link



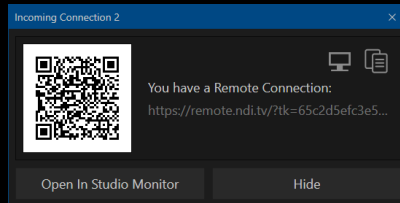
The remote connection link is shared with the remote user who simply follows the link or scans the QR code.



The remote user opens the link to enable transmission – that source is then received by the NDI remote application



Remote user opens the remote.ndi.tv web page to enable the transmission and selects their Channel name.



The connection link is shared with the receiver which, when opened, enables stream reception



NDI application receives and can transmit the remote source



# | NDI Remote

## Key Information & Guidance

Creating an NDI Remote connection is incredibly simple.

- Users can send invitations to connect or accept incoming connections
- Open and connect to the NDI Remote connection anywhere on your network
- Simply scan a QR code to pair the remote device to the NDI connection
- Your device is now an NDI Remote source – no specialist apps required!  
Just a browser, an internet connection and a camera is all you need!
- Even share the link with friends.
- NDI Remote works with any existing NDI device.

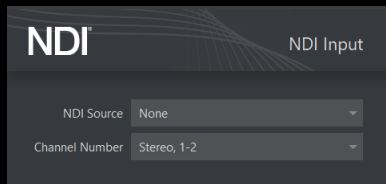
# NDI Audio Direct - Summary

NDI has now harnessed its incredible power for audio as well as video. This plug-in allows virtually any audio mixing software to support NDI without any synchronization issues.

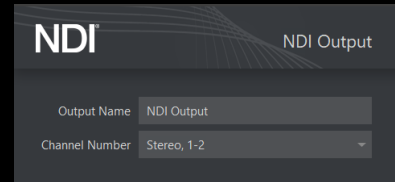
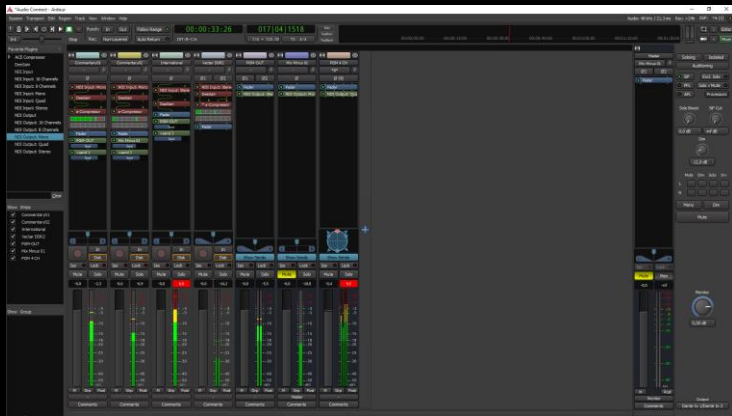
For the first time, NDI enables users to receive only the required audio stream rather than the full NDI stream with video. NDI Audio Direct for the first time makes it truly easy to for anyone to use audio-over-IP and supports workflows both on premises and remote environments, giving you the freedom to use the digital audio software of your choice. Because this is NDI it will work perfectly with your existing video workflow and equipment!

# NDI Audio Direct – Sample Workflow

Digital Audio Workstation applications that support audio plugins are now able to receive and transmit NDI Audio streams.



Simply select the NDI Source and Channel number



Stream can be transmitted via NDI by easily selecting the output and channel

The NDI® Audio stream can be used seamlessly with many Digital Audio Workstation Applications

# NDI Audio Direct

## Key Information & Guidance

There are several key features that makes NDI a unique solution for your live audio production workflow.

- A single NDI Stream can support an unlimited number of audio channels, with floating point audio and high sample rates.
- Audio channels in an NDI stream are interleaved, keeping the synchronization between audio and video streams.
- NDI SDK developers can create an application that receives only audio streams from the transmitter, avoiding the need to use the full A/V stream.
- NDI requires no synchronization, NDI Audio can even easily work where synchronization is not possible.
- NDI Audio streams support metadata, multicast, discovery servers and much more.

An abstract graphic consisting of numerous thin, white, curved lines that originate from the left side of the frame and sweep downwards and to the right, creating a sense of motion and depth. The lines are closely spaced and overlap, forming a dynamic, wave-like pattern against the solid black background.

**That's not all...**

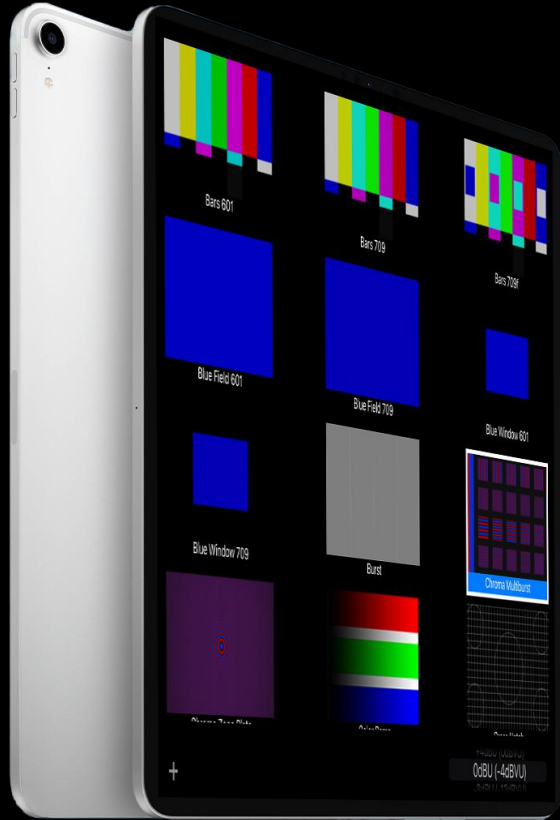
# NDI - The Screen Saver

The NDI logo is centered in the image. It consists of the letters "NDI" in a bold, white, sans-serif font, followed by a registered trademark symbol (®). A blue, wavy line graphic, composed of many thin, parallel lines, flows horizontally across the middle of the image, passing behind the logo. The background is solid black.

NDI®

Available in the NDI Tools download!

# NDI iOS Test Patterns



This app allows users to test NDI signals and NDI enabled devices for color and sound, independent of other hardware.



Download on the  
App Store

Available FREE  
from the App  
Store