

WEBCAST.NO

WN Contribution for NDI®

NDI to NDI contribution over public internet.



What is WN Contribution for NDI® ?

WN Contribution for NDI® is an application that allows you to deliver end to end NDI® streams over the internet. The solution handles NDI video and metadata such as PTZ commands and tally.

A platform independent daemon application installed on the transmitting and receiving machines communicate with the WN cloud server to allow management of your connections. The raw video streams are transported end to end between transmitting and receiving machines directly.

One daemon can handle multiple connections, the number of streams depends on the hardware running it and if GPU encoding is enabled. From our web based admin page, a user can manage all connections, daemon groups, users, edit encoder parameters and share connections with other companies.

The application uses SRT (srtalliance.org) as a transport protocol to ensure reliable transport over lossy networks. Connection data of the SRT stream delivers confidence by providing information in the web interface.

The screenshot shows the WN web interface. At the top, there are navigation links: Endpoints, Endpoint Groups, Configurations, Claim, Companies, Users. On the right, it says "Logged in as admin (Superadmin) with Webcast Norge" and a "Logout" button. The main content area is titled "CONNECTION MATRIX" and shows a table with columns for TX and RX, and rows for NUC 1 Office, XMG Laptop, and Surface. The matrix shows connection status between these devices. Below the matrix is a section titled "SRT STATS" with a table showing detailed statistics for a specific connection.

	Bytes	Packets	Lost	Resent	Bitrate	Belated	Reorder	Window	Window	Window	RTT	Buffer	Uptime	Reconnects
			Packets	Packets	(Mbps)	Received	Distance	Congestion	Flight	Flow	(ms)	Left		
HUMANICS-BENE (VLC) from Surface to NUC 1 Office on port 5555														
TX	10.14 MB	8861	31	30	8.066	0	0	8192	35	8015	41.353	11.67 MB	00:00:11	0
RX	10.27 MB	8975	14	0	8.031	12	1	8192	0	8192	39.965	11.6 MB		



Main features

- * **Single stream** - sending one NDI source from TX to RX
- * **Multi stream** - sending multiple NDI streams from TX to RX over one SRT link, each NDI stream is encoded separately
- * **Multi view** - sending multiple NDI streams over one SRT connection as a multi viewer. NDI names can be shown as overlay and Tally (if sent) is shown over the sources on preview and program.
- * **GPU encoding/decoding** - NVENC/NVDEC H264/H265 and Quick Link H264/265 are supported.
- * **Alpha support** - Send remote graphics or other sources with alpha over the SRT link
- * **PTZ and Tally** - Remote PTZ control of PTZ cameras with NDI, and Tally (if provided) return over SRT link.
- * **Recording** - Record on both TX and RX side
- * **SRT Encryption** - Up to 256 bits encryption of the SRT link
- * **Endpoint Grouping** - Group endpoints together for better oversight in connection matrix.
- * **Endpoint Sharing** - Share one or more endpoints to 3rd parties to allow them to send NDI to your facility without giving access to the full account.
- * **Endpoint RTMP streaming** - TX endpoint can output RTMP
- * **NDI to WebRTC** - Convert NDI to WebRTC with very low latency as Program out back channel to ENG or other remote productions.

NDI[®]



What powers WN Contribution for NDI®

WN Contribution for NDI® is powered by:

Newtek NDI®, see more at <https://www.newtek.com/ndi/>

Open SRT, see more at srtalliance.org

Amazon Web Services, see more at aws.amazon.com

Google WebRTC framework

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