NDI® Basics

Create. Connect. NewTek™

CHANGE

NewTek applies software, computer, and network technologies to make advanced media creation and sharing accessible to millions – and fun, too!

Changing Environment

Powerful currents have dramatically re-sculpted the production landscape.

- Inexpensive cameras with incredible features are everywhere, producing an explosion of valuable content
- Storage media for content acquisition is faster and more affordable than ever
- Economical high-quality file formats abound
- Non-linear editing is quicker, cheaper and more fun than anyone could have imagined
- Capabilities with media content that formerly cost millions of dollars are now a few taps away on your mobile device

NewTek believes in making media inherent to common IT environments. Many suppliers of media technology have adopted a strategy of picking and choosing certain IT technologies and trying to wedge them into their products. NewTek has taken a much different approach.

ORIGINS

By developing Network Device Interface (NDI®) and then setting it free, NewTek has changed the paradigm-giving virtually everyone access to easy-to-use, high-quality video over IP.

- NDI® is a software standard that requires no special hardware of any kind
- NDI® works with your existing software applications, computer platforms, and network infrastructure
- NDI® is implemented with a lightweight, low overhead approach
- Simply download an NDI® tool at no charge, and see live video moving across your network with Windows, Mac and Linux software applications

ADOPTION

NDI® represents the transport mechanism that NewTek has designed to permit all type of suppliers to work together.

- NDI® has achieving the widest support of any IP protocol for media by far
- There are now thousands of companies supporting NDI®, and millions of users incorporating it into their environments
- NDI® is easy for manufacturers of production systems to develop all types of software and hardware compliant applications that range from gaming to broadcast
- Developers build commercial applications with no royalties that include real-time media and interoperability with the huge number of other NDI® products
- An FPGA reference design and embedded SDK for use in IoT type devices, at no charge, which enables companies to experiment, design and build products
- Cameras, converters, and applications ranging from Vizrt, Panasonic, Sony, Avid, EVS, and many more are available so you have a wide choice to find everything you need
- Because NDI® is so interoperable, you are not forced to discard everything you already have

NDI®, NDI® Tools, and NDI® Applications form a powerful combination to make creative imagination the only post-production limitation.

Reducing the costs and complexities of editing media perfectly matches the need for collaboratively creating more content, more quickly, for more platforms, with less time and resources.
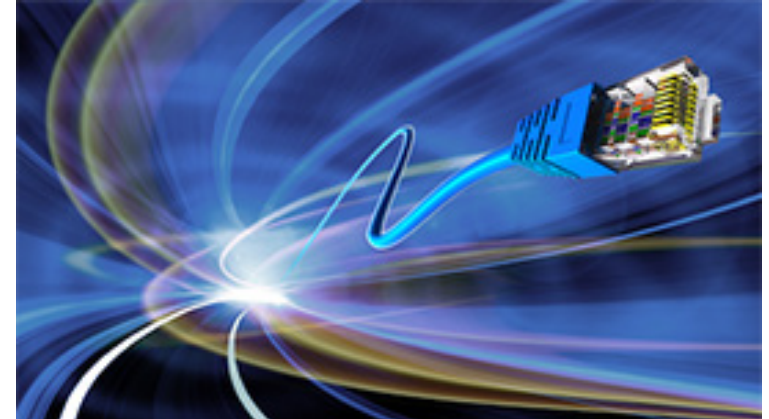
NewTek™

NDI®

EVOLUTION

You have probably heard something about using Internet Protocol (IP) for live media production, but maybe you are not sure if it makes sense for you and how complicated it might be to use in your organization. Actually, IP has been in use for delivering media for some time. Just think about the streaming services you use.

- IP has now become the last media standard, because IP has the capability to grow and scale in bandwidth, complexity, and installation type
- If you build your media around IP, then you will never need a new standard again, which is not true of SDI or HDMI

The challenge has been in how to get enough performance out of mainstream IT practices and infrastructures to make it practical and reliable enough to use for producing live video content. That challenge has been met with NDI®.

Of course live video production is just part of the picture. The majority of what we all watch is still produced. Video acquisition and post-production are central to this, and both in dire need of similar disruption. NDI® is extensible and is expanding to be a key enabler of all stages of digital media production.

SOFTWARE-BASED

NDI® is a software-based standard for media over Internet Protocol (IP) that offers:

- Connectivity for networked media systems and devices
- Multiple source encoding of signals for viewing, hearing, mixing, recording, and editing
- Retention of visual quality, frame accuracy, and source synchronization

NDI® is not just an SDI cable replacement, it enhances workflows with new capabilities

- Usual video formats such as 3G and 4K UHD plus resolution, aspect ratio, and frame rate independent encoding
- Floating point audio processing starting at 16 channels and scaling to virtually unlimited numbers
- 16-bit video color computations for image precision and quality
- Support for- video, proxy, key, audio, control, tally, custom metadata, and precision time stamps
- Recording of NDI® sources without recompression limited only by disk and network speeds with time-stamp and time-based correction that provides multi-channel