Coffee Break with HDBaseT

Take 15 minutes with HDBaseT and simplify AV connectivity

The Next Chapter of HDBaseT Connectivity

In the beginning there was HDBaseT...

Simple HDBaseT. An efficient, revolutionary way of transmitting high-throughput content (audio & video, Ethernet, controls, USB and power) over 100m/328ft of simple category cable. Vendors, installers, integrators and AV professionals everywhere understood early on how HDBaseT could simplify installations, eliminate cable clutter, and optimize performance.

By definition, HDBaseT can transmit up to 8Gbps of content. Because of its optimized overhead, thattranslates into 10Gbps transmission of HDMI, or the equivalent of HDMI 1.4. It is the ultimate solution for in-room transmissions, including residential and corporate settings, education and more.

The future is here, there, and everywhere

What about those scenarios where 100m/328ft is not enough, or when we need to connect different rooms in different buildings (say, in a cross-campus installation)?

Or what about HDMI 2.0, and the proliferation of 4K 60Hz 4:4:4 and even 4K 60 Hz 4:2:0/10b HDR content and displays, which demand more than 8Gbps bandwidth?

How can we rely on HDBaseT in these scenarios?

HDBaseT all the way.

HDBaseT can address these scenarios and more, with certain adaptations and modifications to the original standard:

- **4K 60Hz 4:4:4 with Visually Lossless Compression:** the name says it all – visually, you cannot tell the video image apart from uncompressed content because the compression is minimal and does not affect video quality or performance. Latency is limited to a few microseconds.

  This solution enables HDBaseT to support the higher bandwidth necessary until the availability of next-generation HDBaseT chipsets, which will enable much higher throughput transmission, and will be able to support uncompressed HDMI 2.0.

- **HDBaseT over IP:** HDBaseT over IP is an extension of the existing HDBaseT standard, created by adding support for a new physical layer (PHY) which is based on Ethernet and IP. With HDBaseT over IP, you can easily and seamlessly extend HDBaseT from in-room to cross-campus applications. It also means that you can leverage existing pro-AV installations and interfaces to achieve cross-floor and cross-building AV sessions.

HDBT™

HDBaseT and HDBaseT over IP share a common management and control mechanism, for end-to-end system optimization. HDBaseT over IP maintains the known robustness and quality of service expected in traditional HDBaseT networks. It brings unprecedented modularity and breadth of scope, as the solutions being developed will support either 10G, 5G, 2.5G, and even a 1G Ethernet PHY.

Retaining the HDBaseT ID.

When HDBaseT was first introduced, it revolutionized the AV world, expanding the possibilities of connectivity with better, faster, and farther transmission distances. There is no need to start over with a brand-new solution. HDBaseT with Visually Lossless Compression and HDBaseT over IP unbound today's transmission limitations, while building on the benefits and simplicity brought by HDBaseT:

- **Standardization:** by standardizing the technology, the HDBaseT Alliance facilitates compliance and interoperability among different products, vendors, and solutions. There is no need to invent more standards.

- **Optimization:** HDBaseT solutions guarantee cross-layer optimization, for ultimate interoperability and efficiency. HDBaseT is able to combine a variety of video delivery domains, i.e. uncompressed, lightly compressed, medium compressed and deeply compressed, into a single hybrid domain with seamless interoperability.

- **Quality:** with both solutions, there is no discernible impact on the quality or performance of the HDBaseT link. It supports HDCP protection and transmits audio & video, Ethernet, controls, USB and power.

The HDBaseT Alliance continues to address the evolving needs of the audiovisual sector, by expanding the capabilities offered by HDBaseT. The ultimate goal is to provide the highest quality solution for video transmission over the simplest infrastructure. HDBaseT is a versatile technology that adapts itself to different architectures and applications, and with Visually Lossless Compression and HDBaseT over IP, we take HDBaseT all the way – for the ultimate benefit of installers, integrators and end users.