DIGITAL CONTENT PROTECTION

HDCP White Paper

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Protecting Streamed Content with HDCP 2.2 Pro

Executive Summary

HDCP – or High-bandwidth Digital Content Protection – is a technology designed to enable a secure connection to protect copyrighted content when connecting sources (e.g. Set Top Boxes, Internet Delivered Content Devices, DVD, Blu-ray) and sinks (TVs, Monitors and Audio Equipment) with a digital interface such as HDMI, DVI, DisplayPort, MHL, Miracast and others. HDCP supports the transmission of compressed and uncompressed data, using strong, standards-based RSA public-key authentication and AES 128 encryption.

The HDCP 2.2 Pro Specification was defined and released to meet the industry demand for the use of existing HDCP enabled devices in commercial applications such as video walls, stadiums, military bases, etc. Just as with original HDCP specifications, HDCP 2.2 Pro is designed to enable seamless integration with other HDCP implementations over interfaces like HDMI and DisplayPort.

This white paper describes the benefits of the HDCP 2.2 Pro Specification, and its role in protecting content and compatibility with other HDCP implementations.

Introduction

High-value digital content, such as motion pictures, television programs, gaming and audio files, require a seamless and secure integration capable of simultaneous distribution to an incredible number of devices. The HDCP 2.2 Pro Specification was introduced in 2016 to take advantage of the billions of devices already supporting HDCP and to allow them to interconnect via commercial AV networks, supporting a nearly limitless number of devices.

Since its introduction, more than 500 industry-leading companies have licensed and implemented the HDCP Specification and over 11 billion HDCP enabled interfaces are being utilized. Along with the continued backing of industry leaders across the ecosystem – including U.S. broadcasters, major motion picture studios, semiconductor companies, CE manufacturers, and computer companies – HDCP 2.2 Pro is set to deliver key benefits to content providers, device manufacturers, and A/V professionals alike.

Understanding HDCP 2.2 Pro

HDCP 2.2 Pro Builds Upon Current HDCP Device Support

HDCP 2.2 Pro is deployed solely in repeater devices that take in content and then securely distribute it to a multitude of sink devices supporting any version of the HDCP technology. The extensive list of source and sink devices currently deploying HDCP will seamlessly interoperate with HDCP 2.2 Pro.

HDCP 2.2 Pro Accommodates Update Delays and Does Not Require Internet Access During Installation

HDCP 2.2 Pro requires quarterly updates and, in certain cases, can accommodate an extended period between updates. Additionally, updates do not require an internet connection to the HDCP 2.2 Pro device; the update can be downloaded to a transfer device – such as a thumb drive – allowing them to be completed remotely. This is particularly of interest in situations where the highest levels of security are required or automated access to external DCP servers may not be possible, such as in military installations.

As with all security standards, there are requirements in place for installers. Though anyone can manage the HDCP 2.2 Pro installation, these industry-driven standards ensure that the systems are properly arranged and secure content flows to client devices.

HDCP 2.2 Pro Can Be Deployed Virtually Anywhere

HDCP 2.2 Pro can be deployed by HDCP Adopters in virtually any scenario imaginable. Approved locations vary from large venues (arenas, airports and shopping malls) to single family dwellings. Also, HDCP Professional Adopters and/or HDCP Professional Installers can petition the DCP LLC for additional Authorized Locations.

HDCP is not a DRM

HDCP and HDCP 2.2 Pro Specifications work with Digital Rights Management (DRM)-encrypted content as part of a chain of trust. HDCP is a link protection technology, delivering the end link for many DRM systems that are commercially utilized today. HDCP 2.2 Pro is compatible with most DRM systems, so content providers leveraging link protection technology are helping to ensure a competitive, accessible ecosystem.

HDCP (including HDCP 2.2 Pro) is also not intended to be utilized as a substitute for a DRM. DRM systems enable copyright protection for digital media to prevent unauthorized usage, copying, and distribution. DRM guarantees content encryption prior to storage and transmission, ensuring that authorized consumers and devices have content access.

Conclusion

Digital content streaming is a necessity of daily life for enterprises and individuals. Seamless, secure transmission of content is necessary for the continued usage of this digital content in home or commercial application settings. The HDCP 2.2 Pro Specification provides enhanced content protection while offering ease of deployment and seamless compatibility with existing HDCP-enabled devices.

About DCP LLC

DCP LLC – the organization behind HDCP – works diligently to evolve HDCP technology to meet market needs. More information about the HDCP 2.2 Pro Specification and a list of available HDCP Products can be found on our website at www.digital-cp.com.