



Get a modernized digital signage solution for the Enterprise

Leveraging standards-based AV-over-IP for maximum flexibility, interoperability and scalability for large-scale digital signage deployments.

Introduction

Traditionally in the enterprise, digital signage was purchased, deployed and managed by whichever functional department was using it. Often relying on limited proprietary hardware that over time lacked the security, flexibility and manageability required to scale their digital signage in large-scale. But, digital signage solutions shouldn't be cumbersome to deploy, limited in scalability and constraint IT teams as an Enterprise needs change.

That's why today, standards-based AV-over-IP provides the ability to deploy in just about every environment, and re-imagine how we send corporate communications to areas that would otherwise not have access. All while providing IT leaders the global management to scale and change under centralized control.

End-to-end Management

Not having the ability to standardize infrastructure is a common IT burden. Adopting AV-over-IT at the core of IT for digital signage allows organizations to think more strategically to the overall business goals and pick technology that will support the evolution of the business in the different areas. Userful's Enterprise AV-over-IP platform provides end-to-end management

between the content creation and delivery by offering a native Content Management System (CMS) application for easy-to-use content creation. Connected with Userful Manager platform as the distribution and management layer of the network, endpoint devices, signage displays and monitoring tools for IT to keep the network reliable and secure.

Enterprise AV-over-IP Benefits

- Global distribution and scalability via software-defined AV-over-IP.
- Enterprise-ready management and control of content authoring tools and permissions.
- Optimized to run on a corporate network.
- Centralized control and end-to-end management of displays and end-points.
- Flexible system that supports multiple content sources and use-cases.
- Global distribution and scalability via software-defined AV-over-IP.
- Interoperable with legacy systems using standards-based hardware.

Raising the Standards

Some AV-over-IP solutions use standards-based packetization for transmission on IP networks and compatibility with IP switches, and some use proprietary packetization schemes which also work on IP networks and standard IP switches but which do not work with other solutions in the market.

In general, standards-based schemes provide the potential for interoperability between solutions from different vendors. Far more importantly however, standards arise from the work of many stakeholders balancing the needs from many different technological perspectives. That's why, standards-based solutions tend to have a road map and evolution that provides much greater infrastructure migration benefits than anything based on a single supplier.

Real Interoperability

Whether the packetization scheme is standards-based or proprietary does not alone determine interoperability nor establish whether a product is more, or less, secure. It only refers to the potential for the streams to work with a broad base of technology, or their inability to do so.

Some vendors provide AV-over-IP encoders and decoders that are built to be used together as part of a proprietary solution. In other words, the encoders and decoders need to be from the same vendor. The number one reason for this proprietary solution

is so that vendors can attempt to provide their customers with guaranteed specifications and performance. One of the sacrifices that their customers end up making is what is being locked into that manufacturer for the foreseeable future.

Other vendors provide completely wide-open compatibility. In other words, they either make encoders that work with decoders from other vendors, or they make decoders that work with encoders from other vendors, or they make both. These solutions put a strong emphasis on interoperability and the ability to leverage features and capabilities from a variety of hardware and software providers.

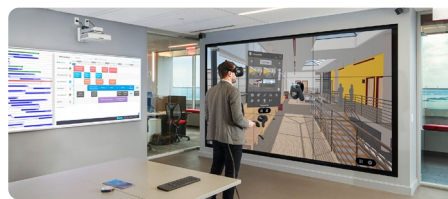
Network security

How to deploy AV-over-IP is a question of fit. AV over IP can be deployed on entirely segregated networks that never co-exist with packets of data from an organization's data network or communications network. Alternatively, existing infrastructures of network cabling and switching are capable of, and already frequently used, for AV-over-IP applications.

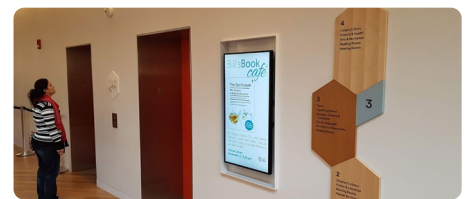
AV-over-IP implementations, whether on separate or existing infrastructure, can be done without compromising the IT network security. In many organizations, the ability to use data, communications, and AV together (also known as "convergence") is a driving force and key benefit for how AV is being re-fitted or newly deployed.



Operations Dashboards



Experience Centers



Common Areas/Hallways



Lobbies & Lounge Areas



Factory & Warehouse Signage



Interactive Kiosk Signage

Summary

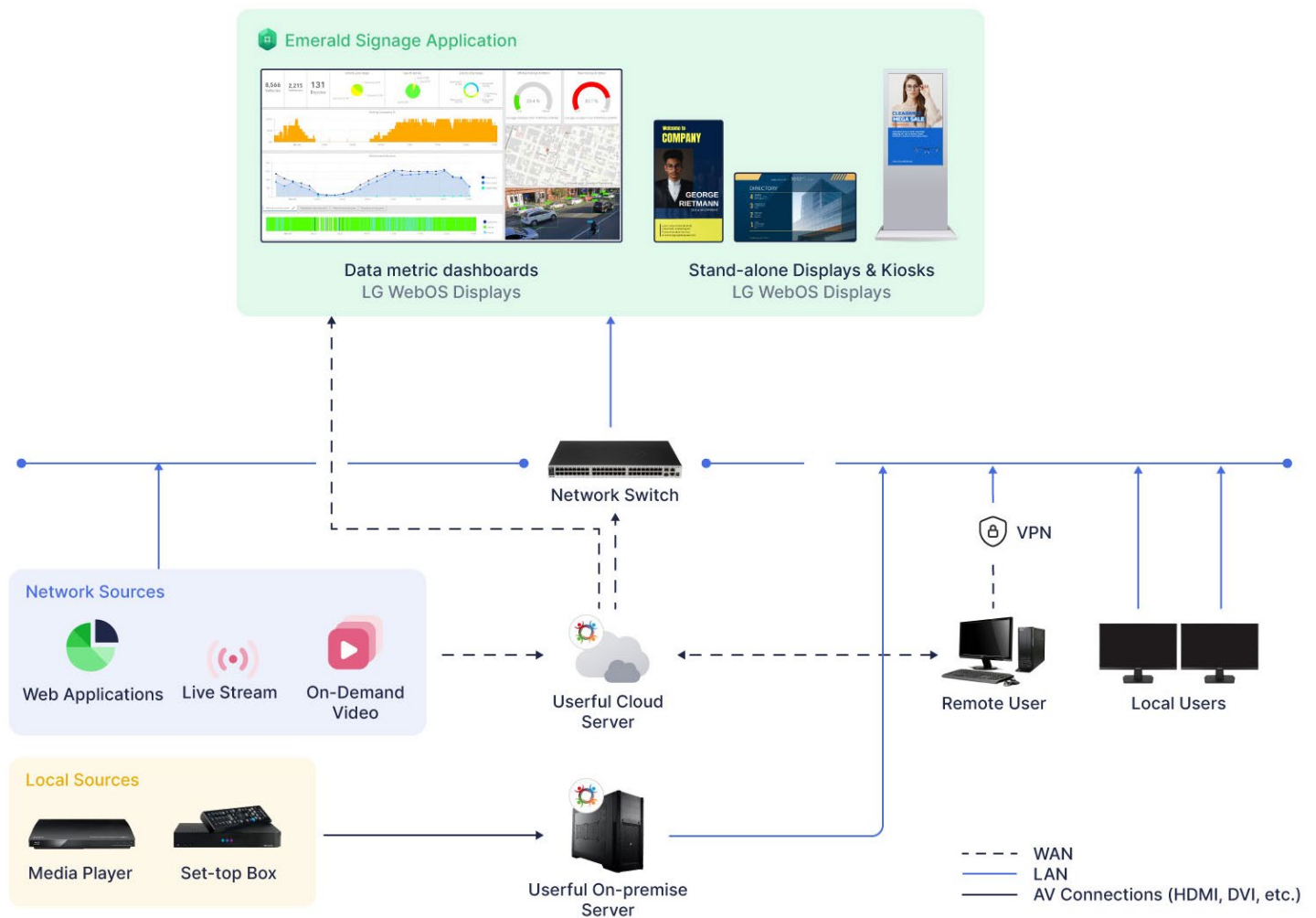
A strong understanding of AV-over-IP technologies and network requirements is still field-of-expertise focused on one thing only: providing maximum value to customers for their audio and video assets.

Moving away from centralized A/V switching to distributed encoding and decoding, AV-over-IP puts the emphasis back on

the value of the audio-video assets themselves. This is possible because IP allows better distribution of the AV processing capabilities and the ability to easily scale with user needs.

This is why Userful's Corporate Digital Signage Solution allows users more flexible deployments, providing options for using AV assets over greater distances, and letting users to pursue powerful new capabilities that better reflect evolving technology and changing worker habits.

Architecture Diagram



Key Features

- **CMS Canvas Content Creator** - Create designs from scratch or use one of 400+ templates.
- **Built-in Integrations** - Leverage existing content sources and live content sources to update in real-time.
- **Connect Any Source** - Leverage multiple content sources including secure sources, physical local sources, desktop streams, for virtually any use case.
- **REST API** - Integrate other communication tools, third-party applications and device triggers.
- **User Roles and Access Controls** - Control who can create content and give different permission levels, including viewing, proposing content and approving content changes.
- **End-to-end Management** - Connect to and manage all of your on-premise servers or cloud instances, end-points and displays from a single interface.

Emerald Signage: Native Content Management System

- **Canvas Content Creator** - Create designs from scratch or use one of 400+ templates for different messaging needs. From employee recognition, to event announcements, campus messaging, health and safety messaging, and much more.
- **Built-in Integrations** - Leverage existing content sources and live content sources to update in real-time. Organizations can showcase social media content, news, weather, any RSS feed and more to have self updating and engaging content.
- **Templating** - Template single screens into different sections. The content manager can have a main section for videos, a news feed scroller on the bottom and weather info on the right of the screen.
- **Tagging** - Displays can be tagged for targeted content distribution, ie, per location, per department, public-facing, etc. Tagging is also helpful for pushing emergency messaging to specific locations.
- **Playlists and Scheduling** - Any asset (widget or content) can be placed in a playlist that can be tuned to the second. Content can also be scheduled up to months in advance.
- **User Roles and Access Controls** - Control who can create content and what makes it to the screens. With user roles admins can give different permission levels, including viewing, proposing content and approving content changes.

uClient App & Adapter Features: Endpoint

- **4k High Resolution** - Userful's uClient Adapter can output up to 4K @ 60FPS per display and unlimited resolution on video walls.
- **Any Content** - The uClient Adapter can support any type of content available from a server in the Userful Network.
- **Supports Any Display Technology** - LCD, OLED, Direct-view LED.
- **End-point Manageability** - Userful uClients feature full manageability for the admins, including remote reboot capability, power management, locked external accessibility, remote updates, and more.
- **Pair With On-Premise or Cloud Servers** - Compatible with all of Userful's server architectures, including being run directly from the cloud, enabling any display or video wall to show any type of content.
- **High Performance** - The uClient Adapter is a robust solid-state device featuring 32GB of local storage and a cutting-edge chipset optimized to run smooth video.

Enterprise AV-over-IP Platform Features

- **Any Content Source** - Use the same screens to leverage other content sources including canned content, live content, local sources, or desktop streams.
- **Display Mapping & Management** - Userful Control Center is used to assign and manage individual displays and zones, and also create and manage content sources.
- **End-to-end Management** - Connect to and manage all of your on-premise servers or cloud instances, end-points and displays from a single interface.
- **Secure** - Userful uses a secured server, with locked-down OS and no use of apps to ensure peace of mind.
- **24/7 Support** - Increase up-time and troubleshoot issues with our 24 hour support team. Fail-over options ensure continuous up-time.
- **API** - REST API available for custom deployments and integrations, ties into other communication tools, third-party applications and device triggers.
- **Monitoring Tools** - Live dashboard on on-premise deployment for IT to supervise servers, network traffic, CPU and GPU performance to maintain peak visual network performance.
- **Single Sign On (SSO)** - Single Sign On options available to enable a more seamless user experience and comply with customer authentication protocols.

About Userful

Userful is the world's leading provider of software-defined platforms in the AV-over-IP market. Userful's Visual Networking Platform allows customers to choose from a suite of highly-integrated AV applications to support high-quality AV needs across the enterprise.

From corporate signage to control room solutions to streaming platforms and data metrics, Userful's solutions enable modernized business operations for IT leaders and the functional departments they support. Userful helps organizations advance the way they work, learn and govern with secure, scalable and centrally managed solutions for employee and customer engagement worldwide.

Userful's Visual Networking Platform replaces all proprietary hardware limitations with a single software-defined platform to stream any video source onto any digital signage display. No more independent systems or maintenance complexity.

[Explore the Userful Visual Networking Platform](#)

Consult with a Userful Specialist

Consult with one of our subject matter experts to understand how we can simplify your AV infrastructure and increase manageability for your next large-scale digital signage project.

[Schedule Consultation](#)

