## Telos O INFINITY

Telos Infinity® IP Intercom does away with the 'traditional' centralized matrix model for more efficient communications, increased flexibility, scalability, and lower cost of ownership at your facility, Site-to-Site or in the Cloud.



## **Telos Infinity®**

Break the Matrix





# Say Goodbye to Inefficient Centralized Matrix Communications

### **Telos Infinity® IP Intercom**



### From the company that invented AoIP for broadcast,

Telos Infinity IP Intercom is the next-generation communication solution that eliminates the matrix, delivering a quantum leap in scalability, ease of integration, and efficiency, while reducing total cost of ownership.

- Seamless interoperability through standards-based Livewire+<sup>™</sup> AES67
- Infinite scalability with plug-and-play device integration
- Intuitive UI for simplified operation
- Matrix-free design
- Distributed DSP architecture
- Lower TCO than traditional intercom systems
- Optimization for broadcast communications
- Suitable for use in all Intercom-related applications

### Voice and Contribution Audio on a Single IT Backbone



Telos Infinity IP Intercom is a complete reimagining of broadcast communications technology developed by the same Telos Alliance engineering team that invented AoIP for broadcast in 2003. More than just a talkback system, Telos Infinity IP Intercom converges voice communication and contribution audio on a single IT backbone employing the latest standards-based VoIP and AoIP transport to provide dedicated features and functionality without compromise or limitations.

#### **Break the Matrix**

Telos Infinity IP Intercom replaces outmoded matrix technology with an advanced, distributed IP network solution that provides superior functionality in a simplified, more elegant form. Because it is matrix-free, you can add plug-and-play networked hardware and software devices to the system as part of a planned or ad-hoc change, without ever worrying that you might exceed the number of available ports on a matrix.

### As Part of an Integrated System...

Telos Infinity IP Intercom unleashes the full potential of a distributed IP audio infrastructure, allowing access to any networked audio endpoint through the intuitive Telos Infinity Dashboard application. Mix-minuses, program busses, mixer auxes, monitor feeds, remote contribution audio, and presenter mics are all available anywhere you need them—for communication or on-air use. And since Telos Infinity IP Intercom natively supports Livewire+ AES67, you can use it with Telos Alliance AoIP products or those from other manufacturers that support AES67 or SMPTE ST 2110-30.

### ... Or as Part of a Legacy Installation

Harnessing the benefits of Telos Infinity IP Intercom doesn't mean you have to abandon existing audio infrastructure. Instead, Telos Infinity seamlessly integrates into analog, AES, SDI, and MADI systems using Telos Alliance xNode baseband-to-IP interfaces and other AES67 partner devices. A transition to AoIP reduces the amount of cabling and its associated costs, system design time and installation expense—all while establishing a pathway to a complete AoIP solution in the future.



# The New Benchmark in Broadcast Talkback Technology

#### Infinite Possibilities

Telos Infinity IP Intercom marks the next generation of Audio over IP solutions destined to revolutionize broadcast communication through the creation of disruptive and innovative technologies—and it's just the start.

### **Award-Winning**

We're honored that Telos Infinity IP Intercom has been the recipient of several awards since its introduction, including TVB Europe Best of Show (IBC 2017), Radio World Best of Show (NAB 2018), TV Technology Best of Show (NAB 2018), and AV Technology Best of Show (InfoComm 2018).

### **Telos Infinity IP Intercom Panels**



By combining familiar hardware Intercom facilities with the flexibility and workflow advantages of matrix-free IP communications, the INF-MP-16, INF-MP-16B, and INF-MPX-20 set a new benchmark in talkback technology.

The INF-MP-16 1RU Intercom Master Panel features 16 multicolor talk/listen lever display keys that can show up to four lines of text plus bitmap images and icons (future feature). Complemented by optimized voice channels and loudspeaker reproduction, the INF-MP-16 features the excellent speech intelligibility required for mission-critical broadcast operations. Each INF-MXP-20 Expansion Panel provides 20 additional display keys.

### Optimized for Broadcast, Live Event, and Pro AV Communications



Auxiliary, rear panel stereo analog I/O including a studio-quality mic preamplifier means that the INF-MP-16 can be used as a contribution or monitoring endpoint. The addition of GPIO as standard enables remote control of signalization or complex logic interfacing across the network infrastructure. Features of the INF-MP-16 Intercom Master Panel include:

- 16 multicolor display lever keys with additional shift levels at the touch of a button
- Multichannel duplex voice and contribution audio endpoint
- 24 bit/48 kHz IP audio
- Natively Livewire+ AES67 compliant
- Optional Infinity Link VoIP codec capability
  - 'Free' Standalone 'Link Lite' Mode
- Network connection via standard Gigabit Ethernet
- PoE+ or external DC power (or both for redundancy)
- Aux rear panel I/O including studio-grade mic input for on-air contribution
- GPIO via rear panel D-Sub as standard
- Headset connector supporting industry-standard XLR-4M
- Configurable dynamics processing for improved speech intelligibility
- Full configuration via Telos Infinity Dashboard
- Device management via built-in Web UI

The INF-MP-16B 1RU Intercom Master Panel Base Version offers all of the same features as the INF-MP-16 but without the rear panel audio inputs and outputs, making it a more cost-effective option in applications where local I/O is not required.

The INF-MPX-20 1RU Expansion Panel adds 20 additional display keys when paired with the INF-MP-16 or IN-MP-16B Intercom Master Panels.



# Excellent Speech Intelligibility for Mission-Critical Operations

# **Telos Infinity IP Intercom Desktop Station**



The Telos Infinity INF-DS-16 and INF-DS-16B 16 Key Intercom Master Desktop Station are ideal for locations where a rackmount panel isn't practical but where the same functionality and features from the INF-MP-16 are required in a compact and attractive format. By combining familiar hardware Intercom facilities with the flexibility and workflow advantages of matrix-free IP communications, the INF-MP-16 sets a new benchmark in broadcast talkback technology. The INF-MP-16 1RU Intercom Master Panel features 16 multicolor talk/listen lever display keys that can show up to four lines of text plus bitmap images and icons (future feature). Complemented by optimized voice channels and loudspeaker reproduction, the INF-MP-16 features the excellent speech intelligibility required for mission-critical broadcast operations.

### Optimized Voice Channels and Loudspeaker Reproduction



Auxiliary, rear-panel stereo analog I/O, including a studio-quality mic pre-amplifier, means that the INF-MP-16 can be used as a contribution or monitoring endpoint. The addition of GPIO as standard enables remote control of signalization or complex logic interfacing across the network infrastructure.

- 16 multicolor display lever keys with additional shift levels at the touch of a button
- Multichannel duplex voice and contribution audio endpoint
- 24 bit/48 kHz IP audio
- Natively Livewire+ AES67 compliant
- Optional Infinity Link VoIP codec capability
- Network connection via standard Gigabit Ethernet
- PoE+ or external DC power (or both for redundancy)
- Aux rear panel I/O including studio-grade mic input for on-air contribution
- GPIO via rear panel D-Sub as standard
- Headset connector supporting industry-standard XLR-4M
- Configurable dynamics processing for improved speech intelligibility
- Full configuration via Telos Infinity Dashboard
- Device management via built-in Web UI

The Telos Infinity INF-DS-16B 16 Key Intercom Master Desktop Station Base Version offers all of the same features as the INF-DS-16 but without audio inputs and outputs, making it a more cost-effective option in applications where local I/O is not required.



## **Telos Infinity IP Intercom Beltpacks**



The Telos Infinity INF-BP-2 and INF-BP-4 are next-generation wired Dual and Quad Channel Digital Beltpacks that are powered by PoE (Power over Ethernet) and natively AES67 compliant. Whether via Partyline, Group, IFB, Peer to Peer, or connection to any other IP audio networked element within the wider Telos Infinity IP Intercom, Beltpacks communicate across the network seamlessly while maintaining incredibly low latency.

The BP-2 is a Dual Channel Beltpack. The BP-4 is a Quad Channel version that can either be used in standard 4-channel mode or in 3-channel mode with a dedicated "reply to last caller" button.

Multiple BP-2 and BP-4 units can be daisy-chained together, powered from the same physical PoE port, providing a functionally superior alternative to traditional 2-wire or digital-audio-based partyline systems.

An available neoprene BP Boot provides additional protection for both models in harsh environments or where additional protection is required.

- Two- and four-channel duplex communication plus auxiliary program source
- 24 bit/48 kHz IP audio
- Natively Livewire+ AES67 compliant
- Optional Infinity Link VoIP codec capability
- Standalone 'Link Lite' VolP Mode
- Rugged, lightweight design with interchangeable belt clip/mounting accessory
- Network connection via standard 100mbit Ethernet

### Versatility Like No Other



- PoE or PoE+ with managed daisy-chain connectivity
- Headset connector supporting industry-standard XLR-4M
- Internal mic/speaker for hands-free walkie-talkie, desktop or wall-mount use
- Configurable dynamics processing for improved speech intelligibility
- Full configuration via Telos Infinity Dashboard
- Device management via built-in Web UI

# Telos Infinity<sup>®</sup> VIP Virtual Intercom Platform

New to the Telos Infinity family is Telos Infinity® Virtual Intercom Platform (VIP), the first fully featured Cloud-based intercom system. It delivers sophisticated comms virtually, making Cloud-based media production workflows available on any device—smartphone, laptop, desktop, or tablet. Users can even use third-party control devices, like Elgato's Stream Deck®, to control Telos Infinity VIP. Now you can harness Telos Infinity IP Intercom's award-winning performance, scalability, ease of integration, and operational/cost efficiencies anywhere—At Home, On-Prem, Site-to-Site or in the Cloud.



- Cost-Efficient Less Maintenance, Infrastructure, Space Required
- Scaleable Pay for Only What you Need
- Ease of Use Virtual Panels on Familiar Devices (Smartphone, Computer, Tablet)
- Workflow Flexibility At Home, On-Prem, Site-to-Site, In the Cloud



## Scales to Suit Users' Varying Requirements

- Reliable, Proven Cloud Workflows
- Flexible Deployment Options
- TelosCare™ PLUS Service Option for Premium Service & Support

### **Deployment Options**

Meeting users where they are on the path toward virtualization, Telos Alliance offers several deployment options for VIP, which scales to suit users' varying requirements, from a few remote smartphone VIP instances to an enterprise solution requiring hundreds of instances.

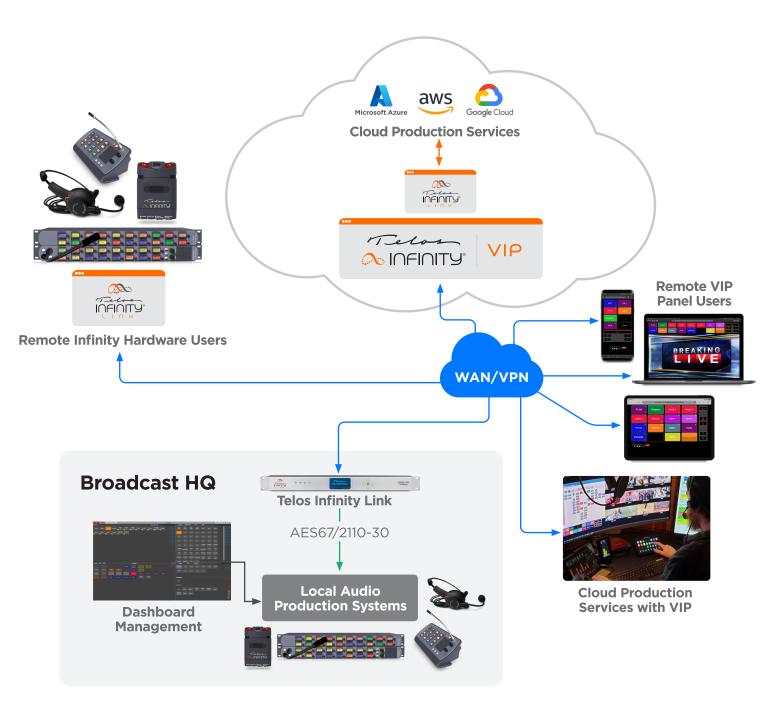
 On-Prem - Use Telos Infinity VIP hardware appliance or your own server for on-prem installations.



- Integrated For both On-Prem or Cloud versions, Telos Infinity VIP can be integrated with Telos Infinity hardware comms, or any third-party intercom or audio subsystem using AES67 or SMPTE 2110-30 connectivity.
- Cloud Server Software for supported Cloud platform installations. A complete communications infrastructure in the Cloud with connectivity options for integration with third-party Cloud-based and On-Prem audio subsystems.
- Software as a Service (SaaS) Grass Valley and Telos Alliance have partnered to bring you Telos Infinity® VIP (Virtual Intercom Platform) on GV AMPP (Agile Media Processing Platform), a professional intercom solution for cloud-based media production workflows. For more info visit: <a href="www.grassvalley.com/products/cloud-based-workflows/telos-infinity-vip-on-ampp/">www.grassvalley.com/products/cloud-based-workflows/telos-infinity-vip-on-ampp/</a>

# Example Hybrid VIP Deployment

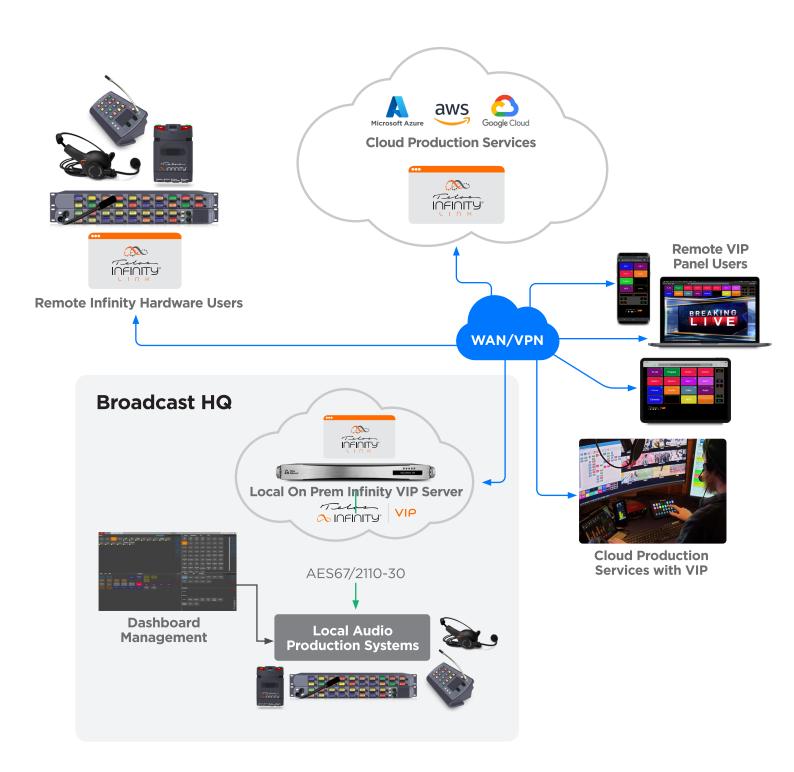




**Cloud Deployment** 



# **Example Hybrid VIP Deployment**

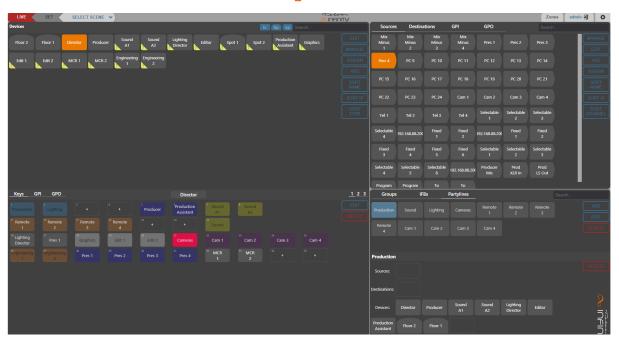


# Define Dedicated System Views or Quickly Create Scenes



### On Premise Deployment

# **Telos Infinity IP Intercom Dashboard Enterprise**



Telos Infinity Dashboard Enterprise represents an optimized configuration and system management tool for systems of any size that unlocks the full potential of the multi-award-winning Telos Infinity matrix-free IP Intercom System.

Dashboard Enterprise is accessible through an HTML 5 browser interface that supports single or multiple user workflows on-prem or in the cloud. By displaying the entire Intercom system as a single page view without the clutter of multiple tabs and embedded menus, the operator can navigate quickly, and within minutes take control to create or manage a working IP Intercom. Much more than a simple configuration tool, Dashboard also manages all hardware and software elements within the system, including software and firmware updates, and monitors network performance and fault logging.

Dashboard Enterprise allows users to create unlimited Groups, Partylines, and IFBs, dragand-drop functions directly onto Panel and Beltpack keys in real-time, and manage AoIP sources and destinations as though they are physical ports on a virtualized Intercom matrix. Remote control of Panels, Desktop Stations, and Beltpacks is now possible via the web



## Take Control Instantly with Infinity's Intuitive UI

interface for all Infinity systems.

#### **Dashboard Enterprise Features:**

- Optimized user experience
- Online and offline configuration
- Create unlimited Groups, Partylines and IFBs
- Drag-and-drop system configuration
- Remote control of Panels, Desktop Stations, and Beltpacks
- Manages all Telos Infinity and Telos Alliance AoIP devices
- Livewire+ AES67 source and destination management (virtual matrix ports)
- GPIO / Logic configuration and management
- Constantly updating system database backup
- Native AES67 input/output support for all Livewire+ and non-Livewire+ streams (including SAP discovery and advertisement)
- Drag-and-drop Intercom Device copy and cloning of Panel and Beltpack configurations
- System Zones enable user-restricted or bespoke system viewports
- System Scenes enable multiple 'snapshots' for offline creation, save and live recall of show specific configurations
- ISO Keys
- Zone by Zone System Update Tool (allows user to choose when and what hardware devices to update)

Additional features like System Zone and Scene support enable the user to define dedicated system views of specific components and quickly create snapshots (Scenes) for different productions and applications. Tailored access to specific Zones and Scenes as well as offline configuration modes are all protected by centrally managed user rights administration, ensuring that operators at all levels have restricted access to the resources that they need. Zones and Scenes can be edited, cloned and recalled both in Live and Offline modes.

Features in the latest version of Dashboard Enterprise include ISO key support, advanced VOX Detection with noise gating, redundant Ethernet support per SMPTE ST 2022-7 and Bonded Failover modes, and alerts when device firmware is out of date.

Critical for use within the wider Audio over IP ecosystem, Dashboard Enterprise supports SAP for AES67 discovery and advertisement enabling a direct connection of third-party

### Enable Infinity Systems in Remote Locations with Infinity Link



AES67 streams including SAP for Dante and future NMOS modes.

### **Telos Infinity Link**



**Telos Infinity Link** enables Infinity systems in remote locations to connect to one another using an embedded, versatile, speech-optimized OPUS codec, over the public internet or private infrastructure

Telos Infinity Link is available in the form of software licenses that can be added to any host Infinity Panel or Beltpack hardware, or by way of a dedicated higher-density 1RU hardware gateway.

**Infinity Link for Panels** is available for Infinity Intercom Master Panel, Infinity Expansion Panel, and Infinity Desktop Panel by way of either the Link 4 or Link 8 options, offering four or eight bi-directional codecs respectively.

Infinity Link for Beltpack adds two bi-directional codecs via the Link 2 option...

**Link Lite (VoIP Only) Mode** 'Link Lite' VoIP mode for Beltpacks and Panels enables instant connectivity for at-home/remote workflows with minimal config and adaptive bandwidth. This is a free feature released with all devices running V1.7 firmware and above, but with a limited feature set that is optimized for remote users running in standalone applications.

**Infinity Link Gateway** supports either eight or sixteen bi-directional codecs running on a dedicated 1RU hardware platform, making it ideal for higher-density applications. Infinity Link Gateway features dual redundant internal power supplies and dual Gigabit Ethernet ports.

Once connected, the resulting Livewire+ AES67 streams from the remote locations appear as sources and destinations within the Telos Infinity Dashboard software and behave just like local networked audio sources, providing the ultimate flexibility.



# Designed for Comfort, Flexibility, and Durability

# **Telos Infinity IP Intercom Lite Single Ear Wired Headset**



Professional single-ear lightweight headset specifically designed for exceptional comfort, flexibility, and durability as needed in the most demanding environments.

#### Features:

- Single-ear lightweight design with enhanced acoustic isolation
- Closed back supra-aural (on ear) design
- Flexible, ambidextrous swiveling mic boom
- Flip-up microphone mute
- Dynamic noise-cancelling cardioid microphone optimized for voice communications
- Comfort fit adjustable headband
- Replaceable ear cushion pads
- Non-reflective rubberized matte black finish

#### Includes:

- Fixed 5 ft. (1.52 m) cable with 4-pin XLR Female connector termination
- Ear Sock
- Magnetic Cable Clip