

## Amazing audio processing capabilities

### NO AUDIO COMPRESSION

All microphone audio streams are transported to the Plixus engine in raw format at 48 kHz audio sampling rate and without any compression.

### UNLIMITED GROUPING CAPABILITIES

All audio streams are sent to the Plixus Engine and can be combined into groups and mapped onto Dante audio streams any way that is required by the application: a parliament, council or court room.

### INTERNAL OR EXTERNAL PROCESSING

The Plixus Engine has on-board DSP capabilities so that each audio stream can be tweaked, whether it is to adapt to the speaker's tone of voice or to accommodate for acoustical challenges in any part of the conference room.

If desired, the raw audio streams can be routed to an external DSP, processed there and fed back into the conference system or any other audio system.

## A unique set of benefits

XPLIXUS	PERFORMANCE	SECURITY	RELIABILITY
Packet based	Assigns bandwidth as needed	Advanced access control	Rerouting of packets when needed
Proprietary protocol	Optimized bandwidth handling for conference applications	Extra level of security in data and audio transfer	Optimized for mission-critical conference audio, video and data traffic
IP tunneling	No influence on bandwidth for conference data	No access for viruses No IP eavesdropping	No interference from non-conference IP traffic
Closed network	No performance degradation through 3 <sup>rd</sup> party devices	No possibility for rogue devices to connect	Only Televic devices on the network: no accountability issues
Open edge	Dante™ interface	Gatekeeping by Plixus Engine	No influence by 3 <sup>rd</sup> party devices

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conference

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Conference Network Technology

XPLIXUS

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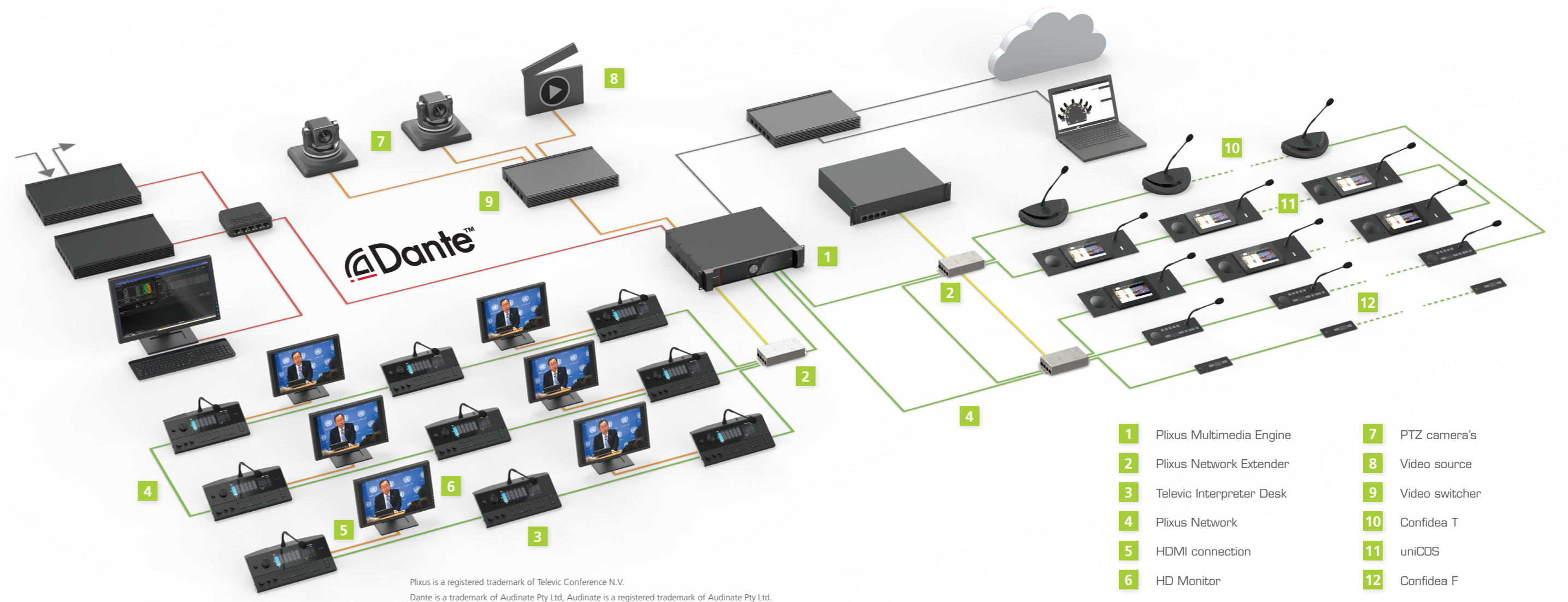
# PERFORMANCE, SECURITY, RELIABILITY

When delegates fly in from all over the world for a high profile meeting they expect to get the most out of their precious time. The meeting environment must be of the highest standards: intelligibility must be optimal, confidentiality should be guaranteed and the conference equipment is expected to perform without a glitch.

The goal of having a conference system in the room is to improve the meeting experience. If the conference system is to improve intelligibility and reduce fatigue, there cannot be any compromise on audio quality. For high-profile meetings delegates

must also be assured of confidentiality and security: what goes on in the room stays in the room. Not to mention reliability: what is often overlooked is the huge incurred cost when a meeting is delayed or when it simply can't continue because of a system failure.

It is clear that conference venues are *mission-critical* environments requiring equipment that offers performance, security and reliability. That kind of equipment needs a solid technological foundation, it needs **Plixus**.



Plixus is a registered trademark of Televic Conference N.V.  
Dante is a trademark of Audinate Pty Ltd, Audinate is a registered trademark of Audinate Pty Ltd.

- 1 Plixus Multimedia Engine
- 2 Plixus Network Extender
- 3 Televic Interpreter Desk
- 4 Plixus Network
- 5 HDMI connection
- 6 HD Monitor
- 7 PTZ camera's
- 8 Video source
- 9 Video switcher
- 10 Confidea T
- 11 uniCDS
- 12 Confidea F

## Performance

**Plixus offers more bandwidth, better quality and less latency than any other commercial network technology.**

### PACKET BASED

Plixus is a packet based network with a proprietary protocol developed by Televic, specifically for mission-critical conference applications. Through dynamic bandwidth attribution, it offers guaranteed quality for both audio and video. Unlike regular IP, the Plixus protocol will not drop audio or video packets to free up bandwidth. It will simply guarantee availability of the required bandwidth so that audio and video are transmitted over the conference network without any packet loss. This results in pristine audio and video quality for the delegates – all the time.

### NO LOSS OF DATA (+ VISUAL)

Regular IP traffic is tunneled over the Plixus network. This can be traffic of a local area network (LAN) or traffic coming of an internet connection. There is not a single point in the network where this traffic enters in direct contact with the conference network data. Bandwidth reserved for high definition conference audio and video can simply not be affected by bursts of high volume IP traffic. The conference system's performance is hence guaranteed and not affected by what happens in the IP tunnel.

### LOW LATENCY HD VIDEO

The network is capable of transporting HD 1080p/60 video with an extremely low latency of less than a frame!

### HIGH DEFINITION AUDIO

The philosophy of Plixus is to maximize the use of available bandwidth so that there is no need to compromise on quality of video and audio. 64 Channels of audio are passed uncompressed over the network at 48 kHz audio sampling rate.

## Security

**Plixus is secure by nature: fully isolated foreign IP traffic, no 3rd party interference on the mission-critical part of the network and Plixus engine gatekeeping**

### IP ISOLATION

The strict separation between the conference data and IP traffic through IP tunneling means that viruses have absolutely no access to the mission-critical part of the system. On the conference network it is impossible to tap into the conference data via a rogue IP connection so the confidentiality of the meeting is guaranteed.

### A CLOSED ARCHITECTURE

It speaks for itself that the integrity of the mission critical part of conference network cannot be compromised under any circumstance.

Therefore, the Plixus network is a closed network: no third party devices or –connections are allowed on that part of the network that interconnects delegates and chairmen with the central equipment or Plixus Engine. Also, no device or system outside of the conference system has direct access to the mission critical part of the conference network.

In this way, not only performance and reliability of the system is maximized, but also the security is guaranteed.

### AN OPEN ARCHITECTURE

The Plixus Engine acts as a gatekeeper handling all communication between the outside world and the mission critical part of the conference system.

**Dante** The Dante interface on the Plixus Engine ensures an open communication to third party Dante enabled systems creating a wealth of possibilities for signal routing and signal processing.

In this way Plixus combines the best of both worlds and offers an open yet secure interface at the edge of the conference network.

## Reliability

**Plixus incorporates advanced self-healing technology for dedicated, no-compromise conference networks.**

### SELF-HEALING TOPOLOGY

The packet based nature of Plixus allows the conference network to be aware of its topology at any given moment in time. During normal operation data will travel the shortest route from the Plixus Engine to the delegate unit and vice versa. In case of a failure along that route (i.e. a unit failing or a cable breaking) Plixus will self-correct and calculate a new shortest route so that data packets still reach their intended destination.

### LOOP CABLING

For this self-healing mechanism to work, redundant paths must be provided through loop cabling. And why not take it a step further and also set up Plixus Network Extenders in a redundant configuration?

### HOTSWAP

In a mission critical environment, the possibility of any downtime of the conference system must be minimized. The self-healing topology and loop cabling are a great way to achieve this. Additionally, the

“Hot Swap” feature built into Plixus reduces any possible downtime to an absolute minimum.

This “Hot Swap” capability allows replacing defective units or cables while the system is operational. After swapping out a broken cable or failing unit the conference system will automatically recover, initializing and reconfiguring the unit to its original state. And it will do this without the need to restart the system!