

Differences in XAP vs. Vortex

Polycom Vortex	ClearOne XAP	XAP Benefits
1 DSP chip is shared for every 2 mic inputs	A dedicated DSP chip is available for <u>every</u> mic input	❖ Faster, more efficient processing in XAP ensures that fewer audio drop outs or audio anomalies occur
Shared processor for both audio & control communications	Dedicated RISC Processor for audio & control communications	❖ Faster command response times. Problems in priority of audio traffic vs. control can lead to problems such as inconsistent or slower response times for control commands. ❖ Reduced down time ❖ Less end user frustration

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DSP Meter to tell when processing is maxed out	No DSP meter in XAP Unlimited DSP power All processing power available	<ul style="list-style-type: none"> ❖ When the room acoustics and configuration requires the installer to balance and equalize the system to its fullest extent, the XAP will have processing power to spare ❖ Provides more flexibility and power in difficult acoustical environments
Processing on mic inputs and outputs only	Processing available to mic, line and expansion bus	<ul style="list-style-type: none"> ❖ More refined audio since XAP processing blocks allows the audio signals to be filtered individually rather than as a combined signal affecting an entire output ❖ More advanced room applications addressed since XAP provides additional processing for delays, compressors, filters and discrete output volume controls to virtually any input or output.

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Only 2 Acoustic Echo References	<u>12</u> Acoustic Echo Cancellation References <u>in addition to 4 Virtual</u> Echo Cancellation References	<ul style="list-style-type: none"> ❖ Ideal for rooms that require multiple mix minus zones. Each zone can be a dedicated reference point for the most accurate echo cancellation ❖ References can be shared through a multi-unit configuration ❖ Virtual References greatly enhance audio quality in a sound reinforcement environment ❖ Virtual References also reduce the chance for feedback and add to overall room performance
Manual macro building via pull down menus	Macro Recorder allows the programmer to create commands naturally in G-Ware. Easy to edit.	<ul style="list-style-type: none"> ❖ Reduced programming, set up and install time and confidence that the macro will work

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No Ramp command	Ramp Command via macro language	<ul style="list-style-type: none">❖ No need for external volume card in control system. This potentially reduces cost by as much as \$575 per control system❖ Simplified and reduced control system programming charges due to a single line command vs. potentially dozens of lines of code to perform the same function❖ Reduces control system changes and associated costs as required by the user in the future❖ Produces a smooth and natural user experience in adjusting volumes vs. the control system sending individual commands.

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External power supply brick	Integrated power supply	<ul style="list-style-type: none">❖ Fewer rack space issues❖ No overheating issues❖ No DIN connector with potential to come loose during usage
38,400 bps maximum communication speed to the control system	57,600 bps maximum communication speed to the control system	<ul style="list-style-type: none">❖ More accurate troubleshooting and set up due to truly real time metering and control feedback (to control system)❖ Faster firmware upgrades in the field after installation

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No PA Adaptive	PA Adaptive	<ul style="list-style-type: none"> ❖ Simplifies programming and set up ❖ Allows the program audio to pass in the local room, but not to the far end. ❖ Prevents false mic gating from room media (e.g. A video tape being played will not gate on the mics). Audio will not pass to far end.
Limited Filters	4 input filters and 15 filters for each of 8 processing channels	<ul style="list-style-type: none"> ❖ Provides the ability to set up the system and hone it to perfection even in the most challenging environments
Preset re-initialization of system	No preset re-initialization of system	<ul style="list-style-type: none"> ❖ In multi-room (combinable rooms) configurations, no interruption in audio

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2 gating groups (sub mixers)	4 gating groups	<ul style="list-style-type: none">❖ Allows you to separate the mics into individual mixer gating groups thus preventing interaction with the groups❖ For example, an executive's mic will remain gated even if people speaking in a conference room cause other mics to gate on
Lower signal to noise ratio	Higher signal to noise ratio	<ul style="list-style-type: none">❖ Higher Signal to noise ratio provides a cleaner signal throughout the system (quieter)❖ Important with many channels linked together❖ Lower Signal to Noise ratio potentially broadcasts more noise in the system and to the far end

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External EQ devices used in many environments in conjunction with Vortex	XAP internal EQ processing	<ul style="list-style-type: none">❖ No need for external EQ❖ Reduce cost of the overall system❖ Vortex has 5 EQs on its Inputs/Outputs, however the processing is not available to run all 5 on each I/O simultaneously
AGC	AGC or Speech Leveling Options	<ul style="list-style-type: none">❖ Speech Leveler automatically adjusts speech levels throughout the system (e.g. Boosting the levels of a soft-spoken talker or reducing the levels of a loud talker)

Differences in XAP vs. Vortex (Ethernet)

Polycom Vortex <u>Serial to Ethernet</u> <u>Converter</u>	ClearOne <u>XAP Net</u>	XAP Benefits
Off-the-shelf third party converter	Designed & built by ClearOne	<ul style="list-style-type: none">❖ XAPNet brings added management and maintenance capability to our dealers and end users❖ XAPNet was designed specifically for XAP and adds conferencing-specific features
DB-25 connection	DB-9 connection	<ul style="list-style-type: none">❖ No adapter needed to fit XAP family

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Polycom Vortex <u>Serial to Ethernet</u> <u>Converter</u>	ClearOne <u>XAP Net</u>	XAP Benefits
1 serial connection	1 serial connections AND 5 telnet connections	<ul style="list-style-type: none"> ❖ Your control system can remain connected to the serial port, while G-Ware is simultaneously connected via telnet in real time. You can also connect any ASCII interface via telnet (control system, hyper terminal, etc. <i>up to 5</i>) ❖ In the Vortex, the converter will not allow a Crestron system to work simultaneously with the Ethernet connection in a single box system
Conference composer required for modification	2 options for connection: <ul style="list-style-type: none"> ❖ G-Ware 5.0 ❖ any Internet- enabled PC in the world (with appropriate security permissions) 	<ul style="list-style-type: none"> ❖ More efficient troubleshooting with multiple technicians dialed in to the system under XAPNet (e.g. dealer & ClearOne engineers). ❖ Access via different means translates into reduced downtime

Differences in XAP vs. Vortex (Ethernet)

Polycom Vortex <u>Serial to Ethernet</u> <u>Converter</u>	ClearOne <u>XAP Net</u>	XAP Benefits
No remote firmware upgrade	Remote firmware upgrade	<ul style="list-style-type: none">❖ Firmware on the individual XAP products to be updated over Ethernet. Allowing for updates to occur from anywhere on the network.❖ Faster firmware updates
No Cache memory	Built-in Cache memory	<ul style="list-style-type: none">❖ XAPNet cache provides for faster connection to the XAP units and therefore reduced time in monitoring or maintaining the XAP❖ Eliminates some on-site visits for firmware updates. .❖ Firmware changes are made via one command to all units in a multi-unit configuration