

BEST PRACTICES FOR VIRTUALIZATION OF BROADCAST AUTOMATION

In recent years, virtualization has gained in popularity among multiple different industries. This document highlights the advantages of virtualization and explains the increased interest seen in recent years. Furthermore, this document helps to identify facilities which could benefit greatly from the advent of a virtual automation system.

ADVANTAGES OF VIRTUALIZATION

One of the principle advantages of virtualization is the reduction in cost of ownership. While the initial capital outlay may be higher than traditional automation workstations, the cost savings are realized in maintenance costs and the cost of hardware upgrades. This is due, in large part, because the upgraded hardware is a shared resource utilized by every virtual workstation and file server on the network. Additionally, the cost of powering and cooling the system is drastically lower than powering and cooling a traditional system, especially considering the power drawn when systems are in standby.

The initial deployment of a virtual system is easier than deployment of traditional workstations. An existing AoIP network provides further ease when deploying a virtual automation system.

Furthermore, when station personnel decide it is time to upgrade the hardware, the upgrades can be done quickly and with less downtime.

With a virtual system, any studio can access any workstation session using the thin clients. This enables operators to use studios as a multipurpose space. Operators can go live to air from any studio or can use any of the available studios for production work.

Finally, a virtual system protects your facility against data loss because of the ability to keep redundant copies of audio assets and databases. This redundant environment allows for easy virus removal and cloning of virtual workstations to scale upward when your facility's needs change.

UNDERSTAND YOUR OPERATION

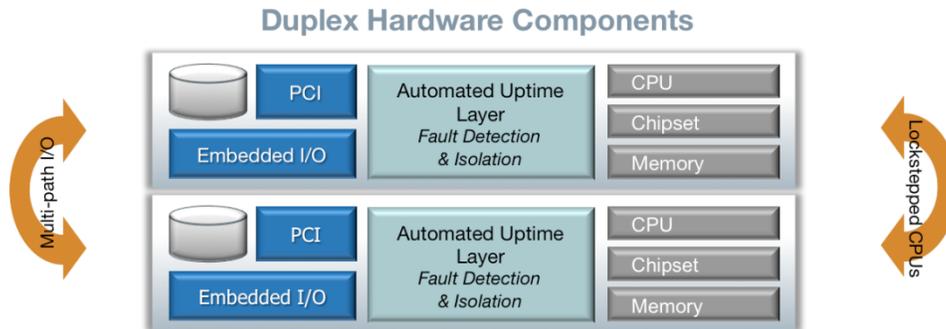
The key to a successful deployment of a virtual server in your broadcast facility is understanding the needs of your operation. If your facility is not currently using audio-over-IP based broadcast and production consoles, it is important to understand the limitations in I/O on a virtual system. It is also important to understand what kind of flexibility an AoIP network can offer in terms of audio routing and studio versatility.

The number of workstations and servers your facility requires must also be taken to account. For instance, a large station, complex cluster, or broadcast network could certainly take advantage of the economies of scale afforded by a virtual system.



FAULT TOLERANCE

With a virtual environment relying upon shared hardware for all operations, a hardware fault could undoubtedly cause an interruption if not properly setup to handle such a fault. The processors and memory in the ENCO1^{SS} work in lockstep to provide zero-interruption should the hardware fail or be taken offline for routine maintenance. This mitigates the risk of being off-the-air on account of a hardware glitch or a complete failure. In addition to lockstepped CPUs providing fault tolerance to the virtual system, multipath I/O provides a redundant connection to your AoIP and thin client networks.



ENCO1^{SS}

ENCO1^{SS} is a fault tolerant virtualized solution designed around a unique specification for the radio automation environment. It increases reliability, reduces operating expenses, and decreases your automation system's footprint - all while lowering a facility's total cost of ownership. ENCO1^{SS} is capable of replacing 5, 10, 20 or more workstations and servers in a single facility.



ABOUT ENCO SYSTEMS

Founded in 1983, ENCO Systems is a world leader in audio playout and automation system solutions for demanding radio and television organizations. ENCO is headquartered in Southfield, Michigan and retains distributors throughout the rest of the world. To learn more, visit www.enco.com.

Building on a heritage in automation technology and an in-depth understanding of challenges faced by television and radio broadcasters, ENCO has found its way into thousands of stations globally, where our flagship product, DAD, runs every minute of every day. We maintain our competitive edge through constant innovation and adapting to the needs of the ever-changing radio landscape. Pair this with world-class customer service and it's no wonder that the largest broadcasters in the world rely on DAD.

