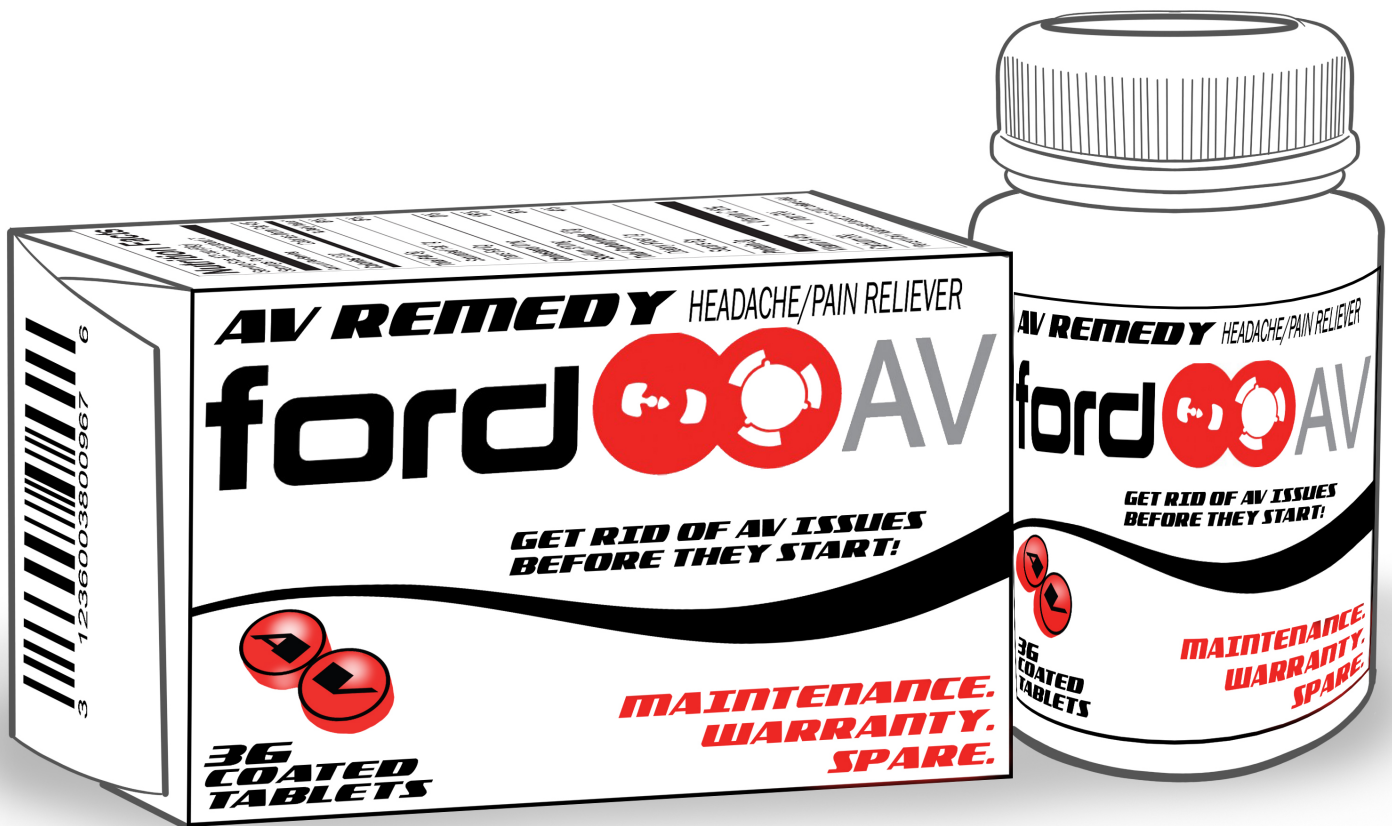


AV & IT

Migraine or Migration?



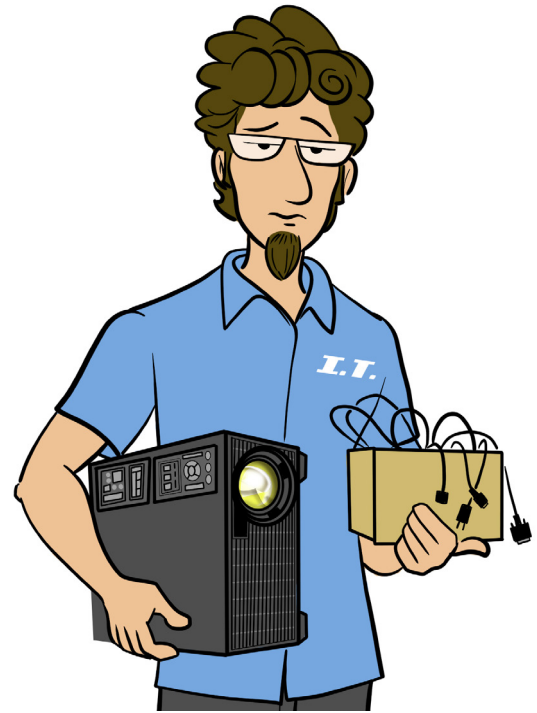
THREE STEPS TO HEADACHE PREVENTION

Audio Video (AV) communication and collaboration systems, strategies and support needs are coming your way, if not already at your doorstep. This paper is for IT professionals who find themselves in the position of taking on the support and strategy for legacy conference room audio-video systems.

Looking back at the introduction of VoIP and IP phone systems, IT departments rapidly found themselves in the role of telephone end-user and infrastructure support.

Corporate trends now point to the IT department as the natural choice to “pick up and organize AV support.” The migration is underway across all industries, markets and organizations.

Taking on support responsibilities for Audio Video communication and collaboration systems might feel like an oncoming headache if you are not aware this is different from taking over telephone support.



Missed Expectations

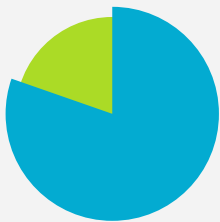
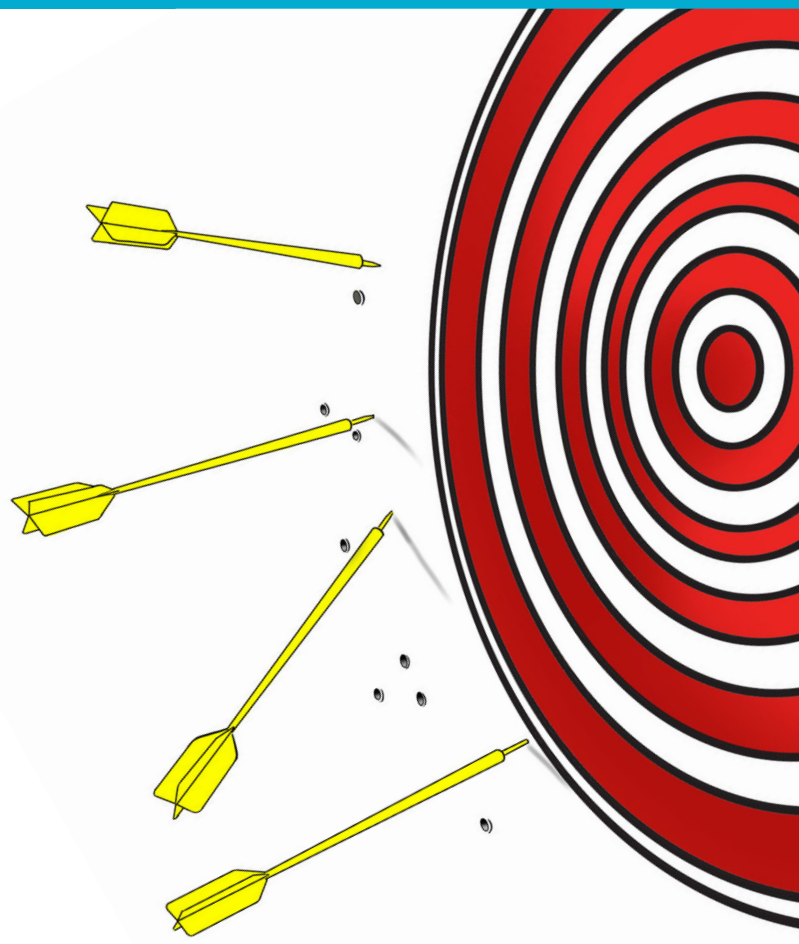
This may be one of the first challenges you encounter.

THE EXPECTATIONS

- ▶ If it's technical and plugs in, IT will support it and make it successful.
- ▶ Technology is generally plug and play. If not, it just needs "a little code" to make it work.
- ▶ AV is pretty easy, just some displays and speakers... right...?
- ▶ High reliability, standardization and ease of use.

THE REALITY

- ▶ Unlike taking on telephony support, audio/video systems are not coming from standards-based platforms.
- ▶ The deployment and use of AV communication and collaboration systems is not in a steady-state condition.
- ▶ End users, including executive staff, are demanding broader, more sophisticated AV system deployments.
- ▶ The technology target and expectations are moving and changing.



80% of organizations say they need more collaboration to achieve goals.



62% say video is important and adds value, making them more productive and efficient.



Only **28%** use video collaboration daily.



53% never use video collaboration.



78% are unsatisfied with current technology.

Source: Commercial Integrator / Forrester - 1.27.2016

The demand is there.

The technology is underutilized.

The user experience is inconsistent.

Here come the headaches.

R_x for Preventing Headaches

Follow these three steps for a smooth transition and a happily-ever-after ending to your AV support migration.

- 1 **STABILIZE** the environment.
- 2 **NORMALIZE** end-user support.
- 3 **FORMALIZE** processes and measures.



1. STABILIZE the Environment

A review of your corporate-wide AV system deployments will likely reveal little standardization of system designs, equipment and user control interfaces. Over years of autonomous decision making and ad hoc support, not much looks or works the same, resulting in an AV support nightmare.

Stabilizing your environment will take time and a dedicated, organized effort. You need to start with a baseline determination of what you have, and where it is. You may find help from your facilities (workplace services) department.

GEO-LOCATION

Request (or create) a list of all facilities in your enterprise and the number of meeting spaces at each facility. In cooperation with local site IT or facilities, further refine the list to include only those rooms with installed AV communication and collaboration systems. This report should include a minimum of the following:

- ▶ Country
- ▶ State/Province
- ▶ City
- ▶ Building/Office
- ▶ Number, name and floor of technology-enabled meeting rooms

SYSTEM DOCUMENTATION

Necessary support documentation will include:

- ▶ System (one-line) as-built drawings.
- ▶ Access to control system and user-interface source code.

- ▶ Equipment settings/configurations, including but not limited to:
 - ▶ IP Addresses
 - ▶ MAC Addresses
 - ▶ Firmware Revisions
 - ▶ Configuration Settings

Gathering and standardizing your support documentation can be quick and easy or time consuming depending on how system records have been previously maintained. Where records have not been maintained, documentation may need to be “reverse engineered” in the verification phase.

VERIFICATION

Moving forward to stabilize the existing environment will require the verification and certification of each meeting room/system. This phase should include:

- ▶ Confirm existing system drawings and control system code operation
- ▶ Document and name common system types to the extent they exist
- ▶ Document/confirm all equipment and configurations/settings
- ▶ Execute functional test procedure for each room/system
- ▶ Repair/replace any failed equipment required for daily operation
- ▶ Certify room/system operation

ASSET MANAGEMENT DATABASE

You found the technology assets, you fixed and documented them. Time to upload all the knowledge you have gained into a central database for asset tracking, management and facilitating future support requirements.

You now have powerful information at your fingertips allowing you to manage anything from enterprise-wide firmware updates to system refreshes. Access to support information is streamlined and finding assets approaching end-of-life or end-of-support is a snap.

IMPLEMENT PREVENTATIVE MAINTENANCE

The final phase to stabilizing your AV communication and collaboration environments is to implement scheduled preventative maintenance.



2. NORMALIZE the Support Process

Start with a review of the current support provided for meeting room AV communication and collaboration systems. It is not uncommon to find the current support situation is:

- ▶ **Informal, unstructured and undocumented.**
- ▶ **Provided by local facilities, IT or whatever department is the primary user.**

SEGREGATE YOUR ENVIRONMENT INTO TWO CAMPS

- ▶ **Video Conferencing.** This is a unique part of the environment from a support perspective because it is 1.) standards based and 2.) on the network. The nature of video conferencing infrastructure and endpoints lends itself to centralized (including off-premise) monitoring, management and support. Standard SLA terms can be written around system-measured parameters such as system uptime.

Changes to look out for in this camp include the rapid virtualization of infrastructure and endpoints, followed quickly by cloud hosted “as a service” applications (e.g. Virtual Meeting Rooms). We are also seeing meetings extending beyond traditional meeting spaces with deployments of Skype for Business and other platforms. This will blur the lines between desktop and meeting room support.

- ▶ **Everything Else.** The rest of the environment is typically going to be systems which are not on any network or possibly on dedicated

and segregated AV networks. This is the rapidly changing world of audio video systems including displays, screens, projectors, microphones, speakers, digital signal processors and video switchers. It is not uncommon to have disparate platforms and system types with very little that is standards based. It is important to recognize that this camp will likely require specific skill sets and may not immediately lend itself to systematically-measured parameters for Service Level Agreements.

Changes to look out for in this camp are ever-increasing levels of sophistication in audio and video processing, along with many manufacturers working to pack more and more functionality into a single box so they can win a greater “share of rack”. Ultra-High Definition (4K, UHD) is gaining traction and depending on its deployment, may consume enormous amounts of bandwidth.

MERGE END-USER SUPPORT PROCESS INTO A SINGLE TIER-1

Chances are you already have a standard desktop support process that end users are familiar with using for printer, email or other PC support. Extending Tier-1 support to meeting rooms streamlines support in the new, blended environment where video conferencing and collaboration is taking place between meeting rooms, desktop and mobile users.

TICKET MANAGEMENT AND TRAINING

Existing ticket management systems may include specific PC support and facilities requests. You may need to modify your system structure to include meeting room support requests for ticket entry and management.

Training and communication will be needed to support your merged process. This includes training and scripting for your Tier-1 staff to accurately and efficiently triage, route and escalate meeting room support issues. In addition, training and communication will be needed for your end users including in-room signage for how to contact support.

DETERMINE YOUR TIER-2 STRATEGY

After stabilizing your environment and taking a good look at the front end of the support process, you may find this is a good time for the in-source vs. out-source discussion. The direction you go will depend, at least in part, on the degree to which your company wants to gain and maintain audio video technical knowledge as a core competency.

If you decide to in-source higher levels of support, go forward with eyes wide open as to the level of technical skill and knowledge that will be required by your support staff. Finding the cause of why high bandwidth/protected video content is not passing signal requires far more skill than may be provided by the average “AV guy”. Consider InfoComm International as a good starting point for

education and certification through their CTS program.

If you decide to out-source higher levels of support, look for a firm with deep and wide technical resources including audio video engineering, information technology and software programming. This is necessary for solving problems with modern AV communication and collaboration systems and is just as true for local onsite support as well as remote/centralized support.

Also consider an organization with a national or global footprint even if they do not have a local presence in every one of your locations. Solving tough problems in modern systems likely requires more than just a “truck roll”. In fact, attacking tough problems without the needed skills and knowledge can actually exacerbate and prolong your problems.

GUI STANDARDIZATION

31 flavors is great — for ice cream! Large organizations are coming to the realization that years of random and asynchronous implementations of AV systems have led to many types of graphical user interfaces. This is far from ideal from a support or user-experience perspective.

Part of normalizing your support process may include a GUI standardization project to update and bring all user interfaces under one common code base, all with a similar look and feel for a consistent end user experience and support process.



3. FORMALIZE Processes, Measures and Long-Term Strategies

DOCUMENT PROCESSES AND MEASURES

Make a record of your new support processes including call routing and escalation paths. You should also document quality measures including SLAs (Service Level Agreements), KPIs (Key Performance Indicators), SLOs (Service Level Objectives), etc.

Establish a critical-space list along with escalation priorities and paths. This will provide the basis for training, communication and

setting expectations for case-dependent support response times and prioritization.

Develop and publish an escalation chart communicating contact information and expectations for resolving open support cases.

SCHEDULE QUARTERLY REVIEWS WITH YOUR STAKEHOLDERS

This is very important and the key to preventing missed expectations with stakeholders. Whether you have selected quantitative, data-driven SLAs or more qualitative KPIs or SLOs, this is where you will have a meeting of minds and mutually discover how on-track or off-track your support program is with regard to meeting the stated expectations.

This is also the time to report on pending end-of-life and end-of-support situations for deployed systems. Getting these facts in front of your stakeholders will create a forward-looking upgrade and migration path with plenty of time for thoughtful consideration, planning and budgeting.

The outcome from these meetings should be to identify deviations from an ideal state. These deviations will in turn become improvement actions with owners and deadlines which enable continuous improvement.

DEVELOP YOUR LONG-TERM AV COMMUNICATION AND COLLABORATION STRATEGY

By now you have thoroughly reviewed the history of your enterprise technology deployments. If you looked back and found a technological “wild west,” this is now your time to create the future.

STANDARDIZE YOUR DESIGNS

Start now. Work with a professional AV system designer and begin developing standard systems for standard applications. The applications are use cases for who will be using the technology and how they will be using it. Consider three common applications:

- ▶ **Formal Meetings.** In these meetings content is presented and considered. Information is shared and decisions get made.
- ▶ **Generative Activities.** Here you will find R&D, product development and marketing. In these spaces people are researching, creating and inventing. The meetings and environments are typically informal and visually oriented (e.g. large, high-resolution displays).
- ▶ **Informal Collaboration.** We have seen a continuing trend toward the proliferation of small, informal meetings spaces often called “team spaces” or “huddle spaces” which typically accommodate 2 – 6 participants. Typified by transient users for teamwork and information sharing, you will see a lot of mobile and BYOD (Bring Your Own Device) technology in these spaces.

Integrate a network strategy to increasingly bring your legacy systems on the network for support purposes. With centralized access to your systems, you can:

- ▶ Speed time to resolution for support issues
- ▶ Improve user experience and room utilization
- ▶ Reduce costs for onsite maintenance and support

Document your standard AV meeting space designs including:

- ▶ Equipment lists
- ▶ System drawings
- ▶ Photorealistic renderings
- ▶ Cost estimates

You are now well prepared for all future planning meetings and to bring your technology under control, with less variation and a higher degree of supportability and usability.

Consider outsourced managed services for all, or part of your support migration and operations.

If you are migrating legacy AV system support to your IT organization, you have a moving target on top of another moving target. In addition to migrating and updating your support model, the technology itself is in a rapid state of change requiring depth and breadth of technical knowledge ranging from networks and programming to speaker and microphone patterns.

Ford AV invites you to consider a Technology Assurance plan tailored to meet your current and future support needs. As technology becomes more mission critical to the enterprise, you can benefit from over 40 years of experience and more than 60 engineers and programmers to help with any aspect of your technology support migration and operation.

We hope this paper has provided useful insights, ideas and practical steps you can take in migrating legacy AV system support and strategy into existing IT support and planning processes.

Contact us anytime. We can help predict and prevent headaches in your journey ahead.



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