



APPLYING TECHNOLOGY. AMPLIFYING RESULTS.

TWD WHITE PAPER

Five Basics That Can Extend the Life of Your Audio/Video Systems





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**Learn how to create
a plan to protect
equipment, assets and
investments.**

Introduction

Audio/Video (AV) systems can save thousands, if not millions of dollars by reducing travel costs and lost productivity over the course of the investment. For example, according to a McKinsey survey, employees who use videoconferencing claim to increase their productivity time by 3.5 hours per week, or 182 hours (22.75 days) over the course of a year.¹ If those systems fail, however, it could have the opposite effect by crippling essential employee collaboration and communication. The same survey revealed that communication systems downtime can take away about 21 percent of total revenue from a business.

While most organizations already have existing AV systems, not all have plans for their maintenance. It is a fact of life that equipment ages and technologies continue to evolve. Knowing this, you can anticipate system problems and develop plans to minimize disruptions, downtime and unnecessary cost.

Whether an organization handles the maintenance internally, or chooses to work with a service provider, developing and following a well thought out maintenance and service plan is a sound business practice.

Audio/Video Systems

Maintenance and Support Services

AV systems come in a variety of sizes, configurations and complexities, from simple meeting rooms and lecture halls to advanced operations or command and control centers. Most corporations, universities and government agencies have a diverse collection of AV systems and equipment that are in various stages of their life cycle. Proper maintenance and support services play a critical role in sustaining their functionality, ensuring positive user experiences and protecting the overall technology investment.

Organizations can benefit from developing a centralized program to manage their AV assets. Consolidating the management and support of AV systems increases maintenance efficiency, return on investment (ROI), usability and long-term viability of existing and future systems by implementing frequent maintenance procedures, using consistent tools and providing thorough guidelines to the end user.

Although centralizing AV maintenance and support services enables organizations to customize their approach to accomplish a wide variety of goals, there are five key elements that must be considered, including:

1. System Status
2. Preventative Maintenance
3. Technical Support
4. System Management
5. Life Cycle Management

1. System Status

System status is an evaluation of the current and future viability of AV systems, which determines the actual life cycle state and the need for system upgrades. An initial status



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survey of all existing systems should be conducted at the onset of any AV maintenance and support program, providing a baseline from which the rest of the program operates. During this survey, any existing documentation including software, graphics files and schematics should be gathered along with the basic elements of every managed system.

Ongoing status reports should be generated during periodic preventative maintenance servicing or during break-fix activities. In more advanced systems and programs, system status can be automatically reported using enterprise management software.

2. Preventative Maintenance

Preventative Maintenance Inspections (PMI) are an industry standard practice of verifying the functionality of AV systems. A PMI includes inspecting system wiring, performing software/firmware updates, cleaning equipment and performing manufacturer-recommended maintenance activities (filter replacement, bulb replacement, touch panel calibration and minor audio adjustments). Routine PMIs can often prevent system outages by preemptively addressing factors that can cause system failure.

PMIs should be performed between two and four times per year, depending on environment and system usage. The reports generated are used to update information on each system and provide guidance on when upgrades are required.

3. Technical Support

Experienced and timely technical support is an essential component for any AV support and maintenance program, and helps in the continued operation of systems. Technical support for AV systems can be handled in a similar manner as IT technical support, including ticket management and reporting, as well as escalation through different support tiers. Details of how this portion of the program is implemented vary depending on the organization, however, technical support service offerings need to remain the same:

- a. Resolving minor, everyday operational issues
These generally include problems such as the projector not powering up or the TV being on the wrong input.
 1. Resolving minor issues are often accomplished through over-the-phone or local in-person support from a help desk.
 2. Advanced systems and programs might require enterprise management and control software that allows support technicians to remotely troubleshoot and control the system in question.
- b. Resolving major, system failure issues (break-fix support)
Minor issues can lead to, or be an indication of, major system faults that require advanced technical or engineering support. Major issues are usually the result of the failed system hardware such as the codec, switcher or display. These often require hardware replacement and can involve AV control system re-configuration and re-programming.
- c. Emergency and after-hours support
Most support issues occur during regular business hours, however, many important and critical events happen on weekends or after normal hours. It is essential to have reliable support for these events.

In advanced systems and programs, after-hours support is easily managed by utilizing enterprise management and control software that allows support technicians to remotely troubleshoot and control the systems in question.



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4. System Management

AV systems management can take a variety of forms depending on the organization and the overall scope of the AV systems maintenance and support program. This ranges from simply keeping track of the status of systems to running a program that involves inventories of spare parts and consumables, enterprise management software, equipment standardization and full life cycle management.

Not every organization needs advanced, comprehensive management for their AV system, but here are some components that can be included:

- a. System status management
Recording, tracking and updating all system status information including benchmark system status, existing documentation, PMI reports, trouble tickets and changes.
- b. Spare parts inventory
Establishing and managing an inventory of spare parts for critical, common or hard use equipment can reduce the downtime of systems when there is a failure. The support staff can replace the malfunctioning equipment with an identical piece during the repair.
- c. Consumables inventory
Having a consolidated inventory of parts for AV components (e.g. bulbs, filters, batteries, etc.) that are most often consumed allows staff to quickly respond to most common usage-based AV support issues.
- d. Standardization
Implementing a managed standardization plan can greatly increase the operational efficiency of any AV operations, maintenance and service program. A standardization plan establishes common guidelines for all equipment, control system interfaces, cabling and labeling. This reduces variation between systems, making them easier to use and support. An organization's support staff will have an established set of equipment to become familiar with, resulting in more effective help when needed.

A systems standard allows for more efficient spare parts and consumables inventory by reducing the variation in stock and allowing for the effective use of enterprise AV management systems that rely on common, core components to operate.

5. Life Cycle Management

AV equipment has an anticipated life cycle after which it is more likely to fail. Known as End-of-Life (EOL), the equipment is no longer supported by manufacturers or third-party service providers. As a result, AV systems that include EOL equipment are at a much greater risk of major failure and are often not repairable due to lack of manufacturer support. This type of failure results in extended downtimes and increased resolution costs that provide very little ROI.

Life cycle management of AV systems track the state of equipment, systems and upgrade options. Properly managing life cycle states can greatly increase system up-time and can incorporate standardization guidelines into system upgrades.



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Conclusion

Proper AV maintenance keeps an organization's communications – and business – moving. It is essential for an organization to understand and have a comprehensive view into system status, as well as where equipment is in its life cycle. Regular preventative maintenance and servicing can extend the life of an organization's AV equipment, resulting in time and money saved.

About TWD

TWD is a technology solutions company that for more than 20 years has served as a trusted partner in delivering the highest quality systems and services to all types of customers, from large federal agencies in highly secure environments to commercial companies and non-profits. Our customers choose us to solve their communication and collaboration needs, taking a holistic view of their current technology investments and customizing solutions to deliver compelling value in the form of lower costs and higher productivity – whether on-premise or from the cloud – whether customer owned or by way of a TWD managed service. For additional information on TWD, please visit www.twd.com.

For more information about your AV maintenance requirements, email us at sales@twd.com.

¹Michael Chui et al., "The social economy: Unlocking value and productivity through social technologies," *McKinsey & Company*, July 2012, http://www.mckinsey.com/insights/high_tech_telecoms_internet/the_social_economy, accessed December 2015.

