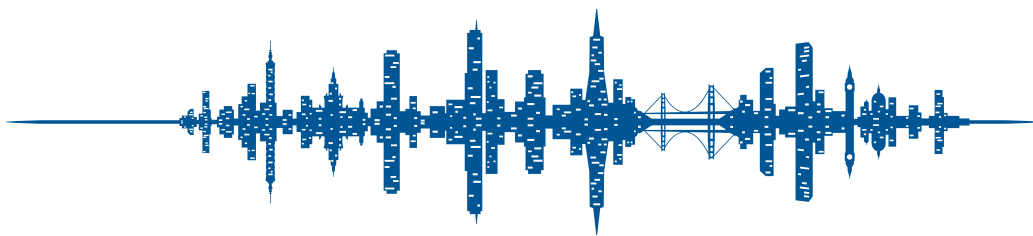


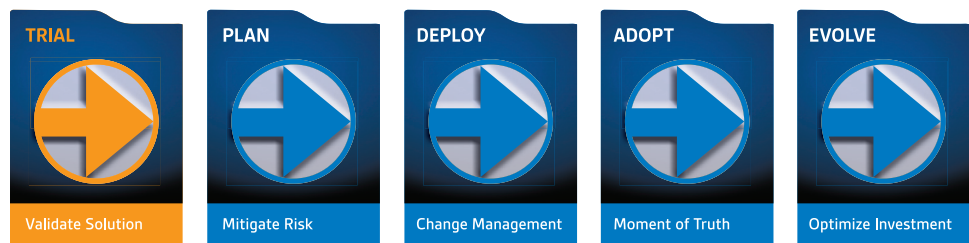
plantronics®



Smarter Working UC Toolkit
Trial Guidelines for Success

Today's business environment is evolving to a new virtual and mobile workspace, enabling greater flexibility and easier communication. As a result, companies are turning to unified communications (UC) platforms to optimize collaboration. Because UC audio devices — including corded headsets, wireless headsets, speakerphones and so on — change the way users perform business communication, it's essential to ensure they meet your company objectives, goals, culture, and user needs. Developing IT processes and best practices is key to selecting the right UC audio devices, minimizing the impact on infrastructure, and ensuring successful integration with your UC platform.

In our experience, we find that the introduction of UC audio devices into an organization usually follows the five steps shown in this figure:



Phases of a unified communications (UC) platform and UC audio device introduction

This guide is one of a series of *Guidelines for Success* that provides best practices for integrating UC audio devices into enterprise environments. It provides insight, advice, and recommendations for conducting an efficient and effective evaluation of the organization's communication needs, UC audio device manufacturers, and appropriate UC audio devices. The *Smarter Working UC Toolkit, Trial Guidelines for Success* offers best practices for effectively collecting user, manufacturer, and UC audio device data, and efficiently analyzing it to make the most informed decision and to select an optimum solution. Other guides in this series include:

RESOURCE

- *Smarter Working UC Toolkit, Planning Guidelines for Success* provides IT best practices and recommendations for the successful integration of UC audio devices through assessing user requirements, developing communication strategies, and preparing the logistical infrastructure needed to ensure a smooth rollout that meets business objectives.

RESOURCE

- *Smarter Working UC Toolkit, Deployment Guidelines for Success* provides IT best practices, and recommendations for managing the physical delivery and installation of UC audio devices and for assisting users through the changes associated with the integration to a UC platform and the way they work.

RESOURCE

- *Smarter Working UC Toolkit, Adoption Guidelines for Success* provides IT best practices and recommendations for ensuring users have a positive initial experience with their UC audio devices, resulting in a trouble-free transition and operation with the UC platform beginning with the very first call.

RESOURCE

- *Smarter Working UC Toolkit, Evolve Guidelines for Success* provides IT best practices and recommendations for increasing UC audio device utilization, accessing and responding to changes in user needs, maintaining the right level of support, and planning for UC audio device upgrades or transitions.

The Trial Process

In order to achieve optimal communications performance with UC audio devices such as headsets, a seamless integration of the UC audio device and UC platform is essential. Consequently, two separate trials are necessary. The first is to evaluate UC platforms. The second — and the focus of this guide — is to evaluate UC audio device manufacturers, their UC audio devices, and associated optimization software. Except where UC is specifically discussed as a part of the UC audio device evaluation, this document assumes you have determined what the UC platform will be.

Some IT organizations consider UC audio devices to be a minor component, if not a commodity, in the overall communications strategy. They may let employees select their own devices. Some companies even allow the use of the microphone and speaker system integrated into employee computers and laptops. As the last three feet of a substantial investment, the final link that attaches users to the UC environment for business communications is critical and needs to be robust.

We strongly recommend a rigorous process to select UC audio devices that are appropriate for each job function, and are integrated and compatible with the entire UC environment. The objective of the trial process is to gain trust in the UC audio device manufacturer and confidence in the UC audio devices they offer to meet your business needs — with the ultimate goal being a decision on which UC audio devices you want to buy. The key activities accomplished during the trial are:

- **Determine organizational and employee requirements.** Research and analyze core job functions and requirements to determine the UC audio device needs of the organization and employees.
- **Establish use scenarios and recruit the test team.** Based on the requirements analysis, describe the communications functions of the different scenarios within which the UC audio devices should be tested, and how they should be tested. Recruit a test team that is representative of the defined user community.
- **Select manufacturers and UC audio devices to be tested.** Develop a list of the major UC audio device and manufacturer features and functions that are critical to meeting the communication goals of your organization and employees. Select the manufacturers and UC audio devices that best meet your requirements to participate in the trial.

- **Run tests and analyze results.** Provide the UC audio devices to the test team to evaluate them within the parameters of their defined use scenario. Collect, document, and analyze results.
- **Acquire UC audio devices.** Using the test results as a guide, purchase the selected UC audio devices for your organization.

Determine Organizational and Employee Requirements

The trial phase focuses on doing a rigorous evaluation to ensure you select the appropriate UC audio devices for your business environment and employee usage. It is important to assess the impact of introducing UC audio devices into existing UC platforms, business processes, organizations, and workflows. Before selecting the UC audio devices and manufacturers to evaluate, it is crucial to complete a thorough analysis of the communications requirements of the affected organizations and employees. Such an investigation can help you design clear, well-defined scenarios for the trial process.

During planning, the next phase in the UC audio device introduction, we suggest collecting similar information to that which we recommend in this trial phase. Combining the data collected in the trial and planning phases is key to determining the company's requirements as described in this document. For more information on the planning process see *Smarter Working UC Toolkit, Planning Guidelines for Success*.

BEST PRACTICE

RESOURCE

IDENTIFY ORGANIZATIONAL REQUIREMENTS

Make sure you have a clear and comprehensive understanding of the objectives corporate management has for this implementation, such as cost savings, increased productivity, expanded functionality, or a competitive edge gained through the use of technology. Then determine the features, functionality, and attributes that the UC audio devices and manufacturers must have in order to maximize the potential to achieve your company's goals.

In addition to evaluating products, you should consider other factors such as the business model your company uses for this class of device.

- **High-volume, cost-effective UC audio devices.** Some organizations purchase low-cost UC audio devices such as headsets in quantity, keeping a supply in stock. When a UC audio device stops working and it is out of warranty, it is simply discarded and replaced. If it is still under warranty, it is returned to the manufacturer and replaced with a new device from the supply.
- **High-quality, value-added UC audio devices.** Other organizations acquire higher quality, feature-rich UC audio devices. While these devices typically require a higher investment, they tend to be more functional and have higher durability.

Both of these business models are valid depending on your company's support infrastructure and budgeting processes. In either case, you should determine the total cost of ownership for both approaches and select the business model that best satisfies your corporate goals.

IDENTIFY EMPLOYEE REQUIREMENTS

Study a core and representative sample of employees to determine their UC audio device requirements in terms of factors such as intelligibility, mobility, comfort, ease of installation, sound quality, and style. Look into the functions and processes that the different types of employees perform to assess their communications requirements. For example, are there office workers who are primarily sitting at a desk all day? Do they work in a noisy environment? Are there mobile workers, such as sales representatives or field service technicians? What about home workers? What special considerations should be made for managers and executives? Depending on their role, each type of user may need a different UC audio device to handle their unique requirements.

KEY INSIGHT

You should survey as many employees as practical given the time and resources you have available. In cases where the IT department has limited resources, or if many employees are involved, a subset of the entire employee population can be surveyed. It is tempting to utilize your IT colleagues and staff for this process since they are available to you and they are literate about technical devices. You should, however, select people who are representative of your user types. For example, executive admins and mobile workers have very different needs for communications devices. See the *Smarter Working UC Toolkit, Planning Survey* for sample questions to use during your trial.

RESOURCE

The types of workers in a corporate environment that typically require UC audio devices include:

- Executives and executive admins
- Managers
- Office workers
- Remote workers
- Mobile workers
- Phone-intensive workers

Identify the core business processes that are most affected by the implementation of UC audio devices. Consider unique functions or operations that can impact communication, including noise cancelling, echo mitigation, audio processing, or line leveling. Make sure to include potential future conditions in your analysis. For example, the number of wireless UC audio devices you may be able to use in the future can be limited by the density of deployment. The popular wireless UC audio device technologies available today — Digital Enhanced Cordless Telecommunications (DECT™) and Bluetooth® — offer a variety of characteristics and address different user and business needs. It is important to understand the use of wireless UC audio devices in the office and the technology's capabilities. See the *Smarter Working UC Toolkit, Wireless Voice in the Office Environment* white paper for more information.

RESOURCE

SPECIFY UC INTEGRATION REQUIREMENTS

It's important to ensure compatibility of UC audio devices with your selected UC platform to avoid any interoperability issues. Check that the UC audio devices you choose are optimized to operate with UC solutions from companies such as Avaya®, Cisco®, IBM®, and Microsoft®. This helps ensure that the devices you choose will integrate seamlessly with your UC platform.

UC audio devices should be evaluated as part of the complete solution, not in a vacuum. The Plantronics UC Lab facility can test over 24,000 combinations (UC platforms, applications, operating systems, media players, headsets) and is a resource that is available to help you.

RESOURCE

Establish Use Scenarios and Recruit a Test Team

Today's workers find themselves communicating from home, at airports, in cafes, in office elevators, and while riding in cars. Some communicate primarily on their desk phones, some mainly use mobile phones, and others communicate predominantly with their PCs. Some workers want to be free to walk around the office while on the phone or need to be hands-free when on the phone at their desk, and some use a combination of communication technologies during the course of their work day.

In order to ensure that you choose the most appropriate device for different types of functional roles, you should define test scenarios that match as closely as possible the real-world conditions of employees. Create a trial test plan that identifies how long each test will be conducted and which elements you will be testing. It is critical to define the success criteria of each test. This is when the issues of time and resources come into play. In general, the more tests you run in different environments, the better the data, helping you to choose the most appropriate device. Determine the number of tests and scenarios you need, can afford, and have time to run.

The team of testers you recruit to carry out the evaluations should be a representative sample of the user community that you defined earlier in the *Determine Organizational and Employee Needs* section. We recommend leveraging some of the employees that you surveyed earlier to determine individual requirements. They have been thinking about the communications experience and may be able to provide valuable insights. Within the limits of your resources, it can be useful to recruit first-time users or people who are technology averse to the evaluation of UC audio devices. They may discover conditions you never considered and may give you a head start toward developing your communication and adoption strategies.

BEST PRACTICE

Some of the testers you select may be willing to be super users — tech-savvy, early adopters who can act as an extension of IT by assisting users in their office location during future phases. See the *Smarter Working UC Toolkit, Planning Guidelines for Success* for additional details on super users.

BEST PRACTICE

RESOURCE

Select Manufacturers and UC Audio Devices

Selecting the right UC audio devices should not be an afterthought nor should it be based simply on price. It is essential to choose the features, functions, and capabilities needed for your user environment and, at the same time, to pick the right manufacturer to help you achieve the full potential of UC audio device adoption and UC platform. Some of the major areas to consider when selecting your UC audio devices include:

- **Determine UC compatibility.** Integrating UC audio devices into your UC environment requires selecting a manufacturer whose products are compatible with the other components in your UC environment. Ensure the manufacturers are optimized or certified by the companies providing your UC platform, such as Avaya, Cisco, IBM, and Microsoft.
- **Evaluate support processes.** Consider the level and quality of support provided by each manufacturer. Determine if they have the resources and technical know-how to meet your business requirements. Check out the numerous Web sites and publications that offer ratings on technical support services. Find out what their average hold times are and their normal hours of operation. Call your sales representative and support technician to evaluate their responsiveness and technical expertise.
- **Understand how issues are handled.** Upgrades, repairs, and replacements are a fact of life for IT organizations. Knowing how a manufacturer handles these occasions can help you develop your internal support services. Remember, not all warranty programs are equal. You should look into the type and length of warranty and exchange programs offered by manufacturers and put them through their paces. For example, try to return a UC audio device to each manufacturer and record the ease of the replacement process as well as the amount of time it took from sending to receiving a replacement.
- **Ensure availability of a wide range of offerings.** Most organizations implementing new audio technology require a selection of different classes of UC audio devices to meet the needs of different user types. Therefore, it is often preferable to find a single manufacturer that can supply a wide range of UC audio devices that satisfy your requirements.
- **Appraise durability.** This is difficult to evaluate during a short test. You should research the specific devices you are interested in to find independent quality and durability ratings. For example, common failure points in corded headsets can be the cable, the connector, and the microphone boom. Ask users to stress these points and carry out a droptest. Check the battery life and battery charge time.
- **Know your manufacturer.** The manufacturer you select should be able to demonstrate that it has the financial strength, management skills, and technical knowledge to be around for the long term. The *Smarter Working UC Toolkit, Trial Survey* (referenced in the Additional Trial Resources section) provides a set of questions designed to help you obtain information

KEY INSIGHT

RESOURCE

from UC audio device manufacturers. Consider reviewing each manufacturer's past fiscal performance, and study evaluations from key industry analysts. In addition, learn about the company's reputation in the industry. Those with strong products, services, and business practices are more likely to survive.

If supporting a green economy is important to you, look into the environmental record of each manufacturer. Determine the quantity and type of packaging materials they use, and whether they can be recycled. In addition, see if they support programs for properly disposing of UC audio devices at the end of their useful life. Determine the manufacturer's certification with respect to the International Organization for Standards (ISO) 9001 Quality Management Standard as well as the European Union's Restriction of Hazardous Substance (ROHS) Directive.

If you consider community involvement and social responsibility important business functions, research the manufacturer's social presence. For example, look for information about their support of minorities. Check out their record of charitable donations and community activities.

The last link in the business communications chain needs to be solid. Choosing the right UC audio devices and manufacturer is key in making your UC investment a success.

Run Tests and Analyze Results

With your test plans, functional criteria, selected UC audio devices, and test team in place, it is time to perform the actual testing. Test the various UC audio devices selected for evaluation. Some of the factors to consider during the testing phase include:

BEST PRACTICE

- **Intelligibility.** Voice communication is critical in a business environment. Being able to understand what is being said is paramount. Often people consider rich base sounds to be a desired audio quality, however, this characteristic may in fact distract from the intelligibility of voice communications. We recommend using Harvard Sentences to test intelligibility. This collection of sample phrases is used to conduct standardized testing of Voice over Internet Protocol (VoIP), cellular, and other telephone systems. Codified by the Institute of Electrical and Electronics Engineers (IEEE) Recommended Practices for Speech Quality Measurements, these phonetically-balanced sentences use specific sounds at the same frequency they appear in English.
- **Making and receiving a call.** There are several elements to consider when testing UC audio devices. How do you start and end a call? Does the UC audio device automatically know that the telephone is engaged and switched on? Where does it ring — in the PC speakers or the headset? How difficult is it to pick up a call? How many buttons do you have to push in order to pick up a call? Will the UC audio device work when the computer screen is locked? Can you pick up a call using either the UC audio device or the computer? Does the UC audio device communicate seamlessly with the PC, avoiding user frustration over late pick ups? Can you pick up a call on your headset when you are away from your desk?

- **Volume adjustment.** Keeping the volume consistent from call to call and application to application is important for user ease of use. If you adjust the volume on the UC audio device does it automatically adjust the volume in the application as well, or do users need to manage this separately on the UC audio device and the PC?
- **Muting the line.** When a user mutes the line, they need to be sure the entire platform recognizes the operation. When you mute on the computer does the UC audio device recognize this and vice versa? When you unmute is there a delay before you can speak again?
- **Intelligibility features.** Noisy environments pose additional challenges for call quality. Test for sound levels and sound quality in typical noisy environments that your users can be expected to experience. Check out the effectiveness of features such as noise cancellation, echo mitigation, audio processing, line leveling, and so on.
- **Comfort and ergonomics.** UC audio devices such as headsets are the only piece of office equipment that are worn on the user's head. Ears and heads come in different shapes and sizes. Make sure the selected UC audio devices, especially headsets, can be comfortably worn for the length of time required.
- **Special needs.** If you have individuals with a hearing impairment or other physical conditions that could affect their use of UC audio devices, you should design tests specifically to support their needs.
- **Installation.** If you are going to have users install their own UC audio devices, make sure to include this in your testing. Check out how difficult they are to install and start using. Have the testers evaluate the manufacturer's documentation and other supporting materials that come with the UC audio devices.
- **In office mobility and roaming range (wireless devices only).** Many users want to keep their UC audio device, such as a headset, on while walking around the office in order to prevent missed calls. Test how far you can roam in the building and compare it to the roaming capabilities you would like to achieve. Roaming range will change when there are more wireless UC audio devices in the same office area. Note that this needs to be tested in the same environment for all UC audio devices to ensure a proper comparison. Unique office configurations and building construction materials impact roaming range and voice quality. See the *Smarter Working UC Toolkit, Wireless Voice in the Office Environment* white paper for more information.
- **Conference calls.** A major cost savings with the UC environment is that dedicated lines for intra-corporate conference calls are no longer necessary. Test the ease of setting up conference calls with the UC audio devices and UC platform and evaluate call quality.

RESOURCE

- **Computer notifications.** While users depend on event notifications from calendars, email messages, and more, these reminders can be annoying to users if the sounds they generate come through the UC audio device. This is usually a failure of the platform to identify a UC audio device, such as a headset, as a telephony device rather than a speaker/microphone.
- **Firmware upgrades.** Keeping UC audio devices current with the UC platform can require upgrades. Test how difficult it is for users to install UC audio device firmware upgrades.
- **Multipoint connections.** A multipoint-capable UC audio device can be paired simultaneously with a mobile phone and another UC endpoint, allowing the user to use one UC audio device and switch conveniently between UC endpoints such as a phone system. If multipoint-capable devices are evaluated as part of your trial, test the ease with which users can switch the UC audio device between a computer and a cell phone.

The test results should be determined as quantitatively as possible in order to facilitate the comparison of the ratings of different devices and different testers. Doing so can help you calculate an unbiased rating for each UC audio device. Recording the results in a spreadsheet or on a chart provides a solid basis upon which to make your ultimate selection.

Acquire UC Audio Devices

It is tempting to look at the bottom line of the test results and choose the UC audio devices with the highest ratings. As is the case with most things having to do with human trials, there are often qualitative issues that may be hard to evaluate or describe that should be taken into consideration.

In most trials, the majority of results tend to be as anticipated. You may discover, however, some unanticipated results — ratings that do not match your expectations. For this reason, we suggest you conduct interviews or focus groups with the testers after the trial phase is complete. These conversations may help you understand and interpret any surprising results, and gain insight into the real capabilities and ultimate value of the UC audio devices to your organization.

Once you have reviewed and reconciled your test results, you can now confidently select the right UC audio devices for your UC platform and environment.

Plan the UC Audio Device Implementation

Once the trial is complete and you have selected your UC audio devices, you can begin to plan the actual deployment of the devices throughout your organization. Best practices and recommendations for developing an effective plan can be found in *Smarter Working UC Toolkit, Planning Guidelines for Success*.

KEY INSIGHT

RESOURCE

For More Information

The Smarter Working UC Toolkit is the collective wisdom of customer experiences and lessons learned while integrating audio devices into a UC environment. It's a portfolio of best practices, recommendations, and off-the-shelf training tools designed specifically for IT organizations to leverage – ensuring accelerated end-user adoption. To access the Smarter Working UC Toolkit visit plantronics.com/uctoolkit. We'd like you to be part of our community of learning.

Additional Trial Resources

The following resources, available at plantronics.com/uctoolkit/trial, provide supplementary information to help in the trial process.

RESOURCE

TRIAL RESOURCES	
Trial FAQ	Provides responses and direction to typical questions IT organizations raise during trial and evaluation of UC audio devices
Trial Guidelines for Success	Helps IT organizations prepare and conduct the trial and evaluation of UC audio devices on a UC platform
Trial Checklist	Provides IT with a high-level list of items to consider when evaluating UC audio devices
Trial Survey	Provides a list of suggested questions IT organizations can use to assess vendor and product characteristics when selecting audio devices to evaluate

For more information, contact Plantronics at 1-855-UCTOOLS (1-855-828-6657) for US and Canada, or (001) 831-458-7628 (all other countries).

©2012 Plantronics, Inc. All rights reserved. Plantronics, Simply Smarter Communications and the Sound World graphic are trademarks or registered trademarks of Plantronics, Inc. All other trademarks are the property of their respective owners. 01/12