UC Device Management Report: The Need to Improve Enterprise Endpoint Monitoring and Control

An Osterman Research Survey Report

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UNIFY²
Unified Communications, Accelerated
EXECUTIVE SUMMARY

Unified communications (UC) is an enormous and growing market, with estimates for the UC market growing to anywhere from $96 billion to $143 billion over the next seven to eight years. Microsoft, as a leading provider of UC services as part of its Skype for Business and Office 365 offerings, will help to move the UC market forward and increase UC penetration in organizations of all sizes.

However, a research project undertaken by Osterman Research on behalf of Unify Square has revealed that enterprises are not adequately addressing key issues with regard to UC endpoint device management. Decision makers are quite often choosing to ignore IT’s challenges in managing UC devices and are not willing to provide the resources necessary to make UC device management easier or more efficient. Because of this, end users are more readily willing to abandon the UC system in favor of their personal mobile devices, which are not typically governed as carefully with respect to both call quality and security.

As the overall usage of UC increases, particularly for telephony, and the number of and diversity of UC devices in the enterprise grows, device management will become a problematic and serious issue that can no longer be ignored.

KEY TAKEAWAYS

• **So Many Issues...**
  IT managers face a number of UC management challenges, chief among them being the ability to properly and efficiently/rapidly monitor and troubleshoot individual UC endpoint devices, and dealing with firmware upgrade and/or patch issues. These are the basics of UC device management – namely, getting these devices set up initially and helping users to understand how they work and how to get the most value from them.

• **..... So Little Time**
  IT is not being as proactive as they need to be in the context of remediating problems with UC devices, although much of the lack of proactivity is the result of IT simply not having the bandwidth to deal with UC issues adequately.

• **Tools and Management Practices Low on the Priority List**
  IT finds value in a wide range of different UC management activities, among them being the ability to manage group policies for devices used in the UC infrastructure and the ability to set up devices remotely. However, the vast majority of organizations are not currently or planning to employ any sort of UC device management capabilities or asset management software that would make their UC endpoint management more efficient. Clearly, there is a need to implement better practices and management tools to help reduce UC device management expenditures.

• **Device Management Spend Choke Point?**
  There is a need to implement better practices and management tools to help reduce UC device management expenditures. Over one-third of organizations spend more than $15 per UC endpoint device per year just for device management capabilities, and only a tiny percentage of decision makers believe this amount will decline over the next two years.

• **End-User Device “Training” Required**
  Many users are guilty of “poor” behavior when using UC endpoint devices, such as abandoning the corporate UC system for their personal smartphone devices or forgetting to mute their lines while on a conference call. The use of personal smartphone devices opens the enterprise up to security and compliance implications. It also removes many of the opportunities for “collaborative” workflow, further diminishing return-on-investment (ROI).

• **Device Mix Confusion:** Decision makers believe they have in place the “optimal” mix of UC endpoint devices – but a nearly a quarter of organizations only provide low-quality endpoint experiences for their users.
SURVEY FINDINGS

CONFIGURING, MONITORING AND TROUBLESHOOTING CHALLENGES ABOUND

IT departments face a number of challenges in the context of managing their UC system devices, but the two most serious problems surfaced in the research are the ability to adequately monitor and troubleshoot individual UC endpoint devices and dealing with firmware upgrade and/or patch issues, as shown in Figure 1. Interestingly, nearly one-third of organizations feel that they have lost control of a UC device at some point in the device’s lifecycle.

Figure 1
UC Device Management Challenges
Percentage Responding a Problem or Major Problem

<table>
<thead>
<tr>
<th>Challenge</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>The ability to properly and efficiently/rapidly monitor and troubleshoot individual UC endpoint devices</td>
<td>45%</td>
</tr>
<tr>
<td>Dealing with firmware upgrade and/or patch issues</td>
<td>38%</td>
</tr>
<tr>
<td>Assisting with the troubleshooting of Lync/Skype for Business Room Systems</td>
<td>33%</td>
</tr>
<tr>
<td>Feeling like IT has lost control of a device at some point in the device’s lifecycle</td>
<td>32%</td>
</tr>
<tr>
<td>Assisting with end-user computer mic-plus-speaker configurations</td>
<td>30%</td>
</tr>
<tr>
<td>Assisting with the configuration, provisioning and setup of UC endpoint devices</td>
<td>30%</td>
</tr>
<tr>
<td>Assisting with the configuration, provisioning and setup of Lync/Skype for Business Room Systems</td>
<td>27%</td>
</tr>
<tr>
<td>Assisting with the per-user selection of UC endpoint devices</td>
<td>22%</td>
</tr>
<tr>
<td>Assisting with the troubleshooting of Surface Hubs</td>
<td>22%</td>
</tr>
<tr>
<td>Assisting with the configuration, provisioning and setup of Surface Hubs</td>
<td>19%</td>
</tr>
</tbody>
</table>

Source: Osterman Research, Inc.

A related study question also juxtaposed the above list of top challenges against two additional frequently heard challenges – namely employee training and UC device proliferation/diversity. Even when adding in these other challenges:

- The primary challenge was setup/configuration, provisioning and troubleshooting of individual user UC devices.
- The second highest challenge was training employees how to use their UC devices properly.
- The least challenging aspect of UC device management was the sheer number of UC devices that employees use.

These findings continue to reveal IT’s struggles with the basics of UC device management – namely, getting these devices set up initially and helping users to understand how they work and how to get the most value from them.
**FIRMWARE UPDATE “SCHIZOPHRENIA”**

The survey queried IT managers about the impact that increasing the frequency of UC endpoint device firmware updates has on pushing these updates down to devices. Firmware updates clearly emerged as the second most serious device management challenge in Figure 1 above. In spite of this challenge priority, though, as shown in Figure 2, only about one in six IT managers (17 percent) believe that the increasing frequency of these updates leads to more apathy on the part of both IT and end-users, while a slightly greater number (22 percent) believe they lead to more focus. However, a plurality of respondents (33 percent) believe there is no impact from more frequent UC endpoint device firmware updates, while nearly as many (28 percent) simply do not have enough data to determine what impact they have.

Overall, as will be shown later in this report, the lack of detailed reporting analytics (as opposed to subjective IT speculation here) due to underspending on UC system operations tools, is leading to the above noted schizophrenia. As UC systems grow, and with them the number and age of devices, this issue of firmware updates will likely loom larger over time.

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**Figure 2**

"Does the increasing frequency of UC endpoint device firmware updates lead to more apathy or more focus with regard to ensuring that these updates get pushed down to the devices?"

- More apathy: 28%
- More focus: 17%
- They have no impact: 22%
- Not enough data to know for sure: 33%

*Source: Osterman Research, Inc.*
KEY DEVICE MANAGEMENT NEEDS FROM IT

IT managers charged with UC device management activities see value in a wide range of activities, although chief among them are the ability to manage group policies for devices, the ability to set up devices remotely, and the ability to define call quality as it relates to the core UC infrastructure, as shown in Figure 3.

Figure 3
Perceived Value in Various UC Management Activities
Percentage Responding Valuable or Very Valuable

<table>
<thead>
<tr>
<th>Capability</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>The ability to manage group policies for devices used in your UC infrastructure</td>
<td>66%</td>
</tr>
<tr>
<td>The ability to set up devices remotely (i.e. &quot;zero touch&quot; installation)</td>
<td>66%</td>
</tr>
<tr>
<td>The ability to define &quot;call quality&quot; as related to the core infrastructure vs. related to the UC endpoint devices</td>
<td>57%</td>
</tr>
<tr>
<td>Consolidated UC endpoint management (a single vendor/system to manage all devices vs. siloed management)</td>
<td>55%</td>
</tr>
<tr>
<td>The ability to import prior device settings and then re-assign to a different device</td>
<td>47%</td>
</tr>
<tr>
<td>The ability to offer your users customized, per-user settings</td>
<td>44%</td>
</tr>
<tr>
<td>The ability to monitor, create and audit trail and generate end user profile information, e.g., geolocation data, minutes used, general usage patterns, etc.</td>
<td>42%</td>
</tr>
<tr>
<td>The ability to aggregate key device quality metrics per type of device (make, model, geo-location, etc.) to assist with troubleshooting</td>
<td>42%</td>
</tr>
<tr>
<td>The concept of &quot;devices as a service&quot; rather than having to purchase UC devices</td>
<td>27%</td>
</tr>
</tbody>
</table>

Source: Osterman Research, Inc.

What is important to note about the figure above is that IT managers see value in a wide range of UC device management activities, ranging from managing group policies for devices to extracting quality metrics and profile information from devices used in their infrastructure. Most UC device managers do not currently have access to these capabilities today, but many/most would like to have them.
WHY IS IT NOT ADDRESSING THE ISSUES?

As shown in Figure 4, a plurality of IT managers charged with UC device management would prefer to be proactive when dealing with UC device remediation activities – dealing with problems before they have the opportunity to impact employee productivity or cause other problems. Nearly as many IT managers would prefer proactive UC device remediation, but they simply do not have the bandwidth or the tools (as evidenced later in the paper) to support doing so. Only a tiny minority of managers would prefer to do nothing about remediation, while nearly one in six simply has not thought about the issue.

Figure 4
Views on Whether UC Device Remediation Should be Reactive or Proactive

Source: Osterman Research, Inc.

IT BUDGET ALLOCATION MISALIGNED WITH UC MANAGEMENT TOOLS REQUIREMENTS

Despite the challenges that IT departments face in the context of UC device management as shown in Figure 3, the survey revealed some rather surprising issues:

• More than three out of four (77 percent) of organizations do not employ any sort of UC device management capabilities or asset management software to help in managing their UC devices.

• The vast majority of organizations (88 percent) are not using any kind of managed service to assist them with UC endpoint management, such as a service that would assist with device provisioning, support services or cost management.

• Among organizations that are not using any of the capabilities noted in the bullet points above, only 42 percent will adopt UC device management software and only 36 percent plan to implement some kind of UC-device managed service. Forty-one percent of the organizations surveyed will simply continue to handle these tasks in-house without additional software or services.

Moreover, even among those organizations that spend $15 per device per year on UC device management, only one in six organizations (17 percent) will invest in management tools, dropping to
just 10 percent in three years’ time. Given the expected growth in overall UC systems adoption, this lack of corresponding growth in focus on the “endpoints” of that UC growth may end up being a serious ROI and adoption risk.

**CURRENT ORGANIZATIONAL SPENDING HABITS**

Nearly two-thirds (64 percent) of organizations spend no more than $15 per device per year for UC device management, as shown in Figure 5. In fact, while 11 percent spend more than $25 per device annually on UC device management, more than twice as many organizations spend under $5. The survey also found that 42 percent of the amount spent on “UC device management” actually consists of manual management activities, such as physical management of devices on a periodic basis to address user problems and related types of activities. If we take the mean manual per user annual device management spend ($4.77) and combine it with the weighted average total spend of all respondents and then apply it to a sample size 10,000 seat enterprise organization (while also assuming a conservative extra 10% multiplier to account for multiple devices per person, in certain cases, and devices in conference rooms and common areas), we quickly get to a nearly $100K/year cost ($97,837) for manual device management which could be almost entirely avoided with better automated systems.

![Figure 5](image)

*Figure 5: Annual Expenditures per Device for UC Device Management*

Source: Osterman Research, Inc.

The amounts spent on UC device management, coupled with the significant proportion of spending on manual management activities, points to a significant opportunity to implement improved best practices and management tools to help reduce these expenditures as a percent of the total UC outlay. For example, as discussed later in this report, only a tiny proportion of survey respondents report that their spending on UC will decline over the next two years – optimized UC device management would lead to more efficient UC device management, resulting in a much larger number of organizations reporting an anticipated decline in UC device management spending.
WHAT ARE THE IMPLICATIONS OF POOR BEHAVIOR?

When enterprises don’t prioritize UC device management, “poor” behavior becomes more common. Our research found that the most common “poor” behavior when users are employing UC endpoint devices is forgetting to mute their conversations when in a loud area and/or forgetting to unmute when talking. While this can be annoying and disruptive, a more serious poor behavior is users abandoning the UC system and simply using their own mobile devices. Almost as common is for users to employ the microphone and speaker from their computers rather than using a UC endpoint device, such as a headset.

Figure 6
The Most Common Poor End User Behavior on UC Endpoint Devices

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Users on a conference call forgetting to “mute” when in a loud area OR</td>
<td>41%</td>
</tr>
<tr>
<td>forgetting to “ unmute” when they’ve started to talk</td>
<td></td>
</tr>
<tr>
<td>Users “abandoning” the UC system and using their cellphones instead</td>
<td>22%</td>
</tr>
<tr>
<td>Using PC microphone and speaker, instead of an endpoint device</td>
<td>21%</td>
</tr>
<tr>
<td>Using common cellphone earbuds as headsets</td>
<td>8%</td>
</tr>
<tr>
<td>Trying to make UC phone calls in a bad Wi-Fi zone</td>
<td>6%</td>
</tr>
<tr>
<td>Other</td>
<td>1%</td>
</tr>
</tbody>
</table>

Source: Osterman Research, Inc.

The fact that more than one in five end users abandons the UC system in favor of a smartphone device should be a cause for concern among decision makers. Because many of these mobile devices are personally owned, not company-supplied, they are typically not governed as carefully with respect to both call quality and security issues. Osterman Research has found that the content from mobile devices is not commonly archived, and so corporate information stored on a mobile device may not be retained in compliance with corporate policies or legal obligations. Additionally, a shift to mobile device (vs. UC device) usage removes many of the opportunities for “collaborative” workflow (e.g., application sharing, screen sharing, etc.). Improved device selection and governance might at least partially address the issues noted above, leading to greater end-user satisfaction and improved corporate ROI.
POOR DEVICE SELECTION CHOICES COMPLICATE OVERALL UC SYSTEM SUCCESS

Nearly three in five of those surveyed (57 percent) believe that their organizations have in place the “optimal” mix of unified communications endpoint devices for their user base. However, an examination of Figure 7 reveals that nearly one-quarter of the organizations surveyed provide only an earbud or a PC mic/speaker for their UC users. This sub-optimal configuration provides a clearly sub-optimal voice quality experience for all UC system users and leads to slowed system adoption and diminished ROI. Robust UC system monitoring software can quickly identify pockets of sub-optimal device deployments within the organization. However, as noted earlier in the paper, many IT organizations have not made the necessary investments in these monitoring tools.

Figure 7
Mix of UC Endpoint Devices in Use, 2016 and 2019

<table>
<thead>
<tr>
<th>Device Type</th>
<th>2016</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP phone handsets</td>
<td>33%</td>
<td>31%</td>
</tr>
<tr>
<td>UC-purpose-built softphones/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>headsets</td>
<td>27%</td>
<td>36%</td>
</tr>
<tr>
<td>Common area phones</td>
<td>16%</td>
<td></td>
</tr>
<tr>
<td>Computer mic and speaker</td>
<td>14%</td>
<td>11%</td>
</tr>
<tr>
<td>Common earbud Headsets</td>
<td>9%</td>
<td>9%</td>
</tr>
</tbody>
</table>

Source: Osterman Research, Inc.

THE OPPORTUNITY TO GROW THE BREADTH OF UC USAGE

The survey found that only slightly more than two-thirds (68 percent) of conference rooms have a UC-enabled speakerphone available, revealing that there is still substantial room to grow access to UC capabilities in the typical organization.

An examination of Figures 8 and 9 reveals that Polycom and Plantronics, respectively, dominate the deployment of handsets and UC softphones/headsets. While the survey was not intended to demonstrate current vendor share for each of these markets, we believe that the data in the figures approximately represents the shares for vendors in their respective markets.
Figure 8
Current Mix of IP Phone Handset Vendor Devices in Use

Polycom 72%
Spectralink 11%
Audiocodes 4%
Yealink 4%
Other 41%

Source: Osterman Research, Inc.

Figure 9
Current Mix of UC Softphone/Headset Vendor Devices in Use

Plantronics 77%
Jabra 46%
Sennheiser 11%
Other 20%

Source: Osterman Research, Inc.
ABOUT THE SURVEY AND REPORT

Osterman Research conducted a survey on behalf of Unify Square in late 2016 with 143 members of the Osterman Research survey panel. The online survey was conducted with individuals who are knowledgeable about device management in their organizations, specifically with regard to how devices are managed in their UC systems. The median number of employees and email users in the organizations surveyed was 1,500.

ABOUT UNIFY SQUARE

Unify Square’s software, consulting, and smart cloud managed services power the world’s largest Microsoft Skype for Business (SfB) deployments. Built on innovative technology, our solutions create actionable insights and help enterprises transform their unified communications infrastructure, delivering enterprise-grade service availability, data-driven end-user satisfaction, and double-digit ROI increases. Founded by SfB product visionaries, Unify Square is a member of the Skype for Business Partner Advisory Council and one of Microsoft’s global elite partners. Our software and services have delivered value to more than five million Skype for Business seats, in over 275 global enterprises across more than 50 countries, and in most major industry verticals.

Headquartered in Bellevue, Washington, Unify Square also has offices in the United Kingdom, Germany, Switzerland, India, Australia and Singapore.

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