



WHITE PAPER

# Why Hosted Unified Communications is Critical for the Education Sector



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As school and library budgets grow more cost conscientious, acquiring access to modern and affordable technology has never been more critical. However, outdated legacy PBX systems continue to weigh on already shrinking IT budgets, forcing administrators to either endure those costs or risk a significant investment on new, unfamiliar technology.

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This whitepaper explains ways in which a hosted Unified Communications (UC) service gives education organizations a cost-effective, highly scalable solution to achieve their core communications goals without the significant capital expenditures or management responsibilities inherent with premise-based technologies.

## What is Hosted UC?

Hosted UC is a cloud-based communications service that combines an organization's text, audio, and video communication methods to function from a single, cohesive platform. Rather than hiring separate vendors for separate services, hosted UC allows schools and other institutions the ability to consolidate providers and costs into a single, fixed monthly bill.

On top of that, a hosted UC service doesn't require on-premise hardware to function or internal staff to manage the system. All system upgrades and maintenance are completely handled by the service provider at no additional charge. While experts support network hardware and performance on the backend, school administrators can make system adjustments in real time through an intuitive, web-based portal on the frontend.

From single classroom deployments to entire school districts, a hosted UC solution can accommodate and exceed the service requirements of any educational institution – bringing organizations of any size, budget, or distribution closer to their primary educational and strategic goals.

### **SPECIAL NOTE: WHY YOUR E-RATE ELIGIBILITY IS CRITICAL IN 2017**

For many schools, funding for new VoIP services can be acquired at a discounted rate through the E-Rate program. However, E-rate reimbursement for VoIP technology is in the middle of a five-year down phase, with support ending completely in 2019. Until then, hosted UC services can still be reimbursed at a discounted rate. It is strongly recommended that schools interested in upgrading their phone system should capitalize on their eligibility now before government support is eliminated.

## Hosted VoIP vs. On-premise VoIP for Education

For most educational institutions considering a replacement phone system, two prominent options exist: hosted or on-premise VoIP.

While both these options have their clear perks, let's look at the details side-by-side. As detailed in the table below, a hosted solution still outweighs traditional solutions in terms of scalability, costs, resiliency, and other key areas – all of which add up to a smarter total investment for budget-conscious school districts. Because of this, UC services in the education sector is expected to grow at 13.7% CAGR from 2016 to 2023.<sup>1</sup>

### DOTVOX ATTRIBUTES COMPARISON

ATTRIBUTE	HOSTED PBX	PREMISE SOLUTIONS
Scalability	<ul style="list-style-type: none"> <li>Essentially unlimited</li> </ul>	<ul style="list-style-type: none"> <li>Typically 1,000-10,000 users</li> <li>Limited number of IP phones</li> </ul>
Multi-site Networking	<ul style="list-style-type: none"> <li>Uniform dialing plans</li> <li>Full-feature set</li> <li>Centralized management</li> </ul>	<ul style="list-style-type: none"> <li>Hard to manage dial plans</li> <li>Limited network features</li> <li>Service islands</li> </ul>
Total Cost of Ownership	<ul style="list-style-type: none"> <li>Lower cost with outsourcing</li> </ul>	<ul style="list-style-type: none"> <li>Higher costs overall; staff &amp; support, access (PRI vs. T1) and limited equipment choices</li> </ul>
Open and Standards	<ul style="list-style-type: none"> <li>Open and third-party customer premises equipment</li> <li>SIP-based</li> </ul>	<ul style="list-style-type: none"> <li>Limited, closed customer premises equipment</li> <li>Proprietary content</li> </ul>
Reliability, Resiliency, and Survival	<ul style="list-style-type: none"> <li>Carrier-grade platforms (typically well over 5 9s)</li> <li>Cost taken on by service provider</li> <li>Sun Solaris and IBM Linux mission-critical elements</li> <li>Robust IP networking, including geographic redundancy</li> </ul>	<ul style="list-style-type: none"> <li>Typically, 5 9s only by complex, expensive methods</li> <li>Cost taken on by organization</li> <li>Use of Windows and other less-hardened elements; Unix/Linux use growing</li> <li>Software reliability and churn remain an issue</li> </ul>
Technology Risk	<ul style="list-style-type: none"> <li>Taken on by service provider</li> </ul>	<ul style="list-style-type: none"> <li>Taken on by organization</li> </ul>
Operations and Management	<ul style="list-style-type: none"> <li>Centralized system management</li> <li>Hosted in-secure data centers</li> <li>Supports multi-location and multi-tenant usage</li> </ul>	<ul style="list-style-type: none"> <li>Separate management systems</li> <li>Located at customer site</li> <li>Typically supports single site, non-networked</li> </ul>

### BUDGET AND TOTAL COST OF OWNERSHIP (TCO)

Since a hosted system gives schools the opportunity to leverage high performing technology without the additional capital outlay inherent with an on-premise PBX solution, schools can significantly reduce costs that would have otherwise been applied to new equipment, software licenses, specialized staff, and other cost-intensive resources – saving organizations an estimated \$300 to \$500 per line.<sup>2</sup>

For example, a school district may estimate their new on-premise PBX system will become cost-efficient in just a few years of service. When comparing the capital expenditures of the on-premise equipment to the per-seat costs of a hosted PBX deployment, this appears cost-effective at first glance. However, those calculations don't necessarily factor less visible costs such as:

- Replacement equipment and upgrades
- Technician training and/or labor
- Software licenses
- Costs brought on from downtime
- Scaling and expansion costs
- Unused capacity costs

Suddenly the road to cost efficiency just got a lot longer. And since the costs listed above aren't wholly predictable, they can add unexpected strains on the district's IT budget when they do arise – prolonging or postponing work on other pressing IT projects.

With a hosted system, school districts only pay a low, fixed cost per month, which consolidates line items and makes budgeting more predictable. Even further, any costs already allocated to ISDN, T-1, or any other voice circuit can be immediately cut out to lower expenses even further – saving as much as \$1,200 per data line per month.<sup>3</sup>

While an on-premise system allows schools more immediate control over their communications network, a hosted system's consumption-based pricing allows schools to pay only for what they need, not what they anticipate for growth. Additionally, system management is completely in the hands of the service provider, so IT departments won't be burdened with staff recruitment, training, and/or employee turnover. By eliminating the need to dedicate labor costs and hours to network maintenance, solution design, installation, and security, a hosted system gives those departments more flexibility to focus on pressing IT projects and less on their communications system.

## TECHNOLOGY RISK

There's a lot of risk involved when implementing new technology. IT departments not only have to ensure they're getting a cost-effective solution to meet their core objectives, but also a future-proof solution that performs flawlessly for years on end to fully maximize the investment. Since the service provider owns, operates, maintains, and supports the entire communications system, schools and libraries bear none of the technology risk with a hosted UC solution. By avoiding these technology risks, school districts have the opportunity to save thousands of dollars each year.



## After adopting a cloud-delivery model, IT decision makers report:

**68%** Saw hardware savings



**66%** Were able to deploy infrastructure more quickly



**57%** Reduced systems management burdens



**51%** Saved money on ability to scale up or down as needed<sup>4</sup>



## OPERATIONS AND MANAGEMENT

While the service provider manages the backend of the network, school administrators and other authorized users are able to make adjustments to the system through a web-based administration portal on the front end. Accessible from any internet-capable device, administrators can easily make system adjustments through this portal regardless of their physical location or device used.

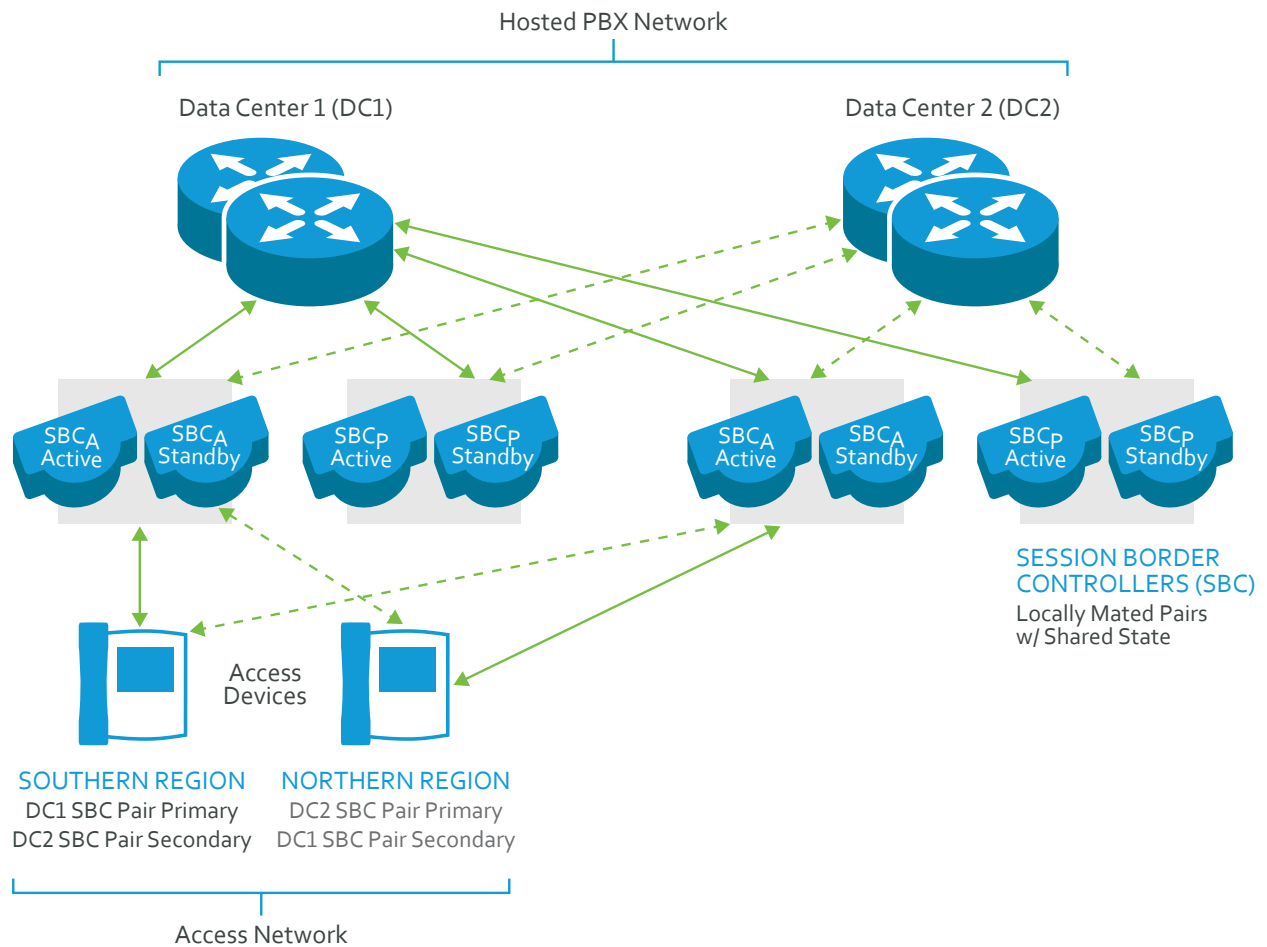
This is particularly useful for larger school districts or campuses that require a more flexible way to manage multiple buildings or branches quickly and easily. Rather than requiring the skill of a technician to add or change users, for example, administrators can make changes in real time from any computer or tablet on their own.

### RESILIENCY AND SURVIVAL

Where on-premise PBX equipment is more prone to local setbacks and requires more resources to maintain a high uptime, hosted networks tout a 99.999% uptime SLA due in part to their geo-redundant server deployments.



## Geo-redundant Network Deployment for Service Continuity



In the rare event a hosting data center is the point of failure, service will failover to the closest hosting data center and continue delivery with minimal impact to the organization leveraging the UC system.

Even during a local emergency or power outage, schools and libraries using the hosted system maintain complete service continuity. Administrators can easily reroute calls to an available number or add a specialized recording to their auto-attendants to notify parents or community members of the emergency in real time.

## Key Hosted UC Benefits

### SCALABILITY

Since hosted UC completely removes volume restrictions for the end user, libraries and schools can scale to hundreds, if not thousands of users in a single deployment. This allows them to add or change subscribers as needed to quickly meet growth demands, support phased deployment strategies, or both.

### MULTI-LOCATIONAL SUPPORT

Eliminating the need for separate telecommunications services for each location, education organizations can leverage hosted UC for all of their sites, branches, or campuses – regardless of the geographic location, user volume, or service need of each. This allows organizations with larger distributions to significantly cut down on costs and resources that would have otherwise been spent on service islands, maintenance, and/or additional personnel.

### SECURITY

In a survey of IT decision makers, 49% admitted they are 'very or extremely anxious' about the security implications of cloud services – up from 10% in 2012.<sup>5</sup>

To ease those anxieties and underscore the security of their services, hosted UC service providers take significant measures to protect the integrity and privacy of their clients' communications by providing physical, network, operational, and environmental security layers to their systems.

- Fully redundant (N+1) datacenter facilities are guarded with 24/7 on-site security personnel, biometric scanning and/or 2-factor authentication, and automatic fire suppression systems.
- Carrier-grade hosting servers run on the industry standard Linux operating system, and implement best practice configurations with strong, standards-based encryption of data at rest and in motion.
- Firewalls are configured in multiple zones for tiered security, and only allow traffic specific to UC applications and services.
- Traffic between public and private networks traverses a proxy server located in a demilitarized zone (DMZ) to improve security in the private network.
- Solutions are fully monitored and managed by expert technicians to mitigate obstacles, prevent security breaches and malicious traffic, and ensure service delivery is at peak performance.

### 24/7/365 PRIORITY SUPPORT

U.S.-based technicians are available to troubleshoot critical issues day and night – even on major holidays. This ensures an expert specialist is able to tend to the needs of the organization without discrimination to business hours, account size, or user level.

## Key UC Features for Education Organizations

Below is a small sample of the different features and functions schools districts can use to greatly improve employee productivity and enrich their overall communications experience – all without the high expenses brought on by on-premise investments.

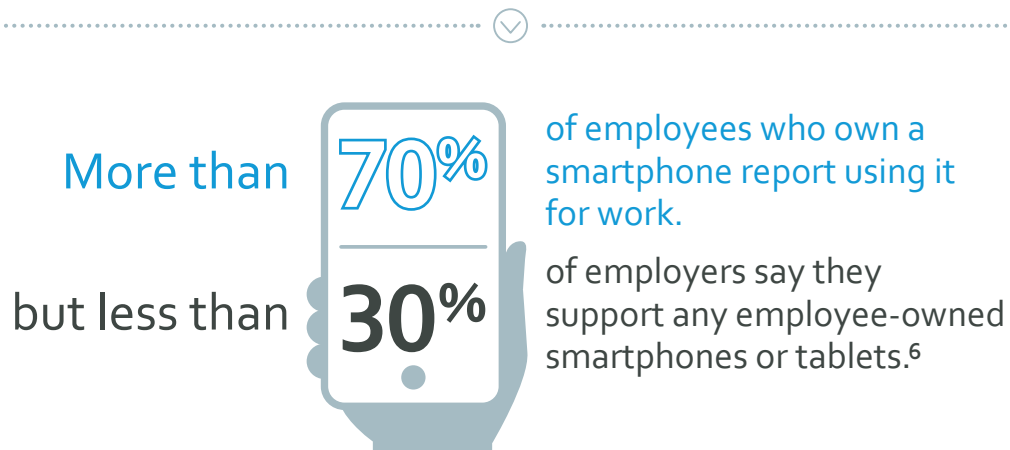
### TELEPHONY

#### INBOUND/OUTBOUND CALLING

Inbound and outbound calls can be made on a variety of devices, including desk phones, computers, and tablets to fit most classroom or office technologies.

#### MOBILITY SOLUTIONS

Teachers and administrators can leverage a mobile app on a personal smartphone to make and take professional calls from any location. In support of Bring Your Own Device (BYOD) plans or policies, the mobile app also allows staff without a designated classroom or workspace to remain reachable at all times.



#### CALL FORWARDING

Inbound calls can be forwarded to any device to ensure urgent calls are never missed. Employees off campus for the day can remain reachable even after hours.

#### GROUP PAGING

Page classrooms and offices through an intercom or desk phone, or page up to 75 target users to relay important information and announcements.

#### HOTELING

Teachers can login to a shared community or classroom phone to use their professional phone number, call features, and user profile as normal.



## COLLABORATION

### INSTANT MESSAGING AND PRESENCE

Users can message other colleagues on the fly using any computer, tablet, or smartphone device to relay useful information as quickly as possible. Presence allows users to see if those colleagues are available for a chat, caught in a meeting, or unavailable altogether.

### GROUP CHAT

Message a group of colleagues to communicate quickly and efficiently rather than turning to email to relay urgent or timely information.

### FILE SHARING

Rather than printing out materials or sending dozens of emails a day, teachers and office staff can quickly share files directly with one another through an instant message.

## CONFERENCING

### N-WAY CALLING

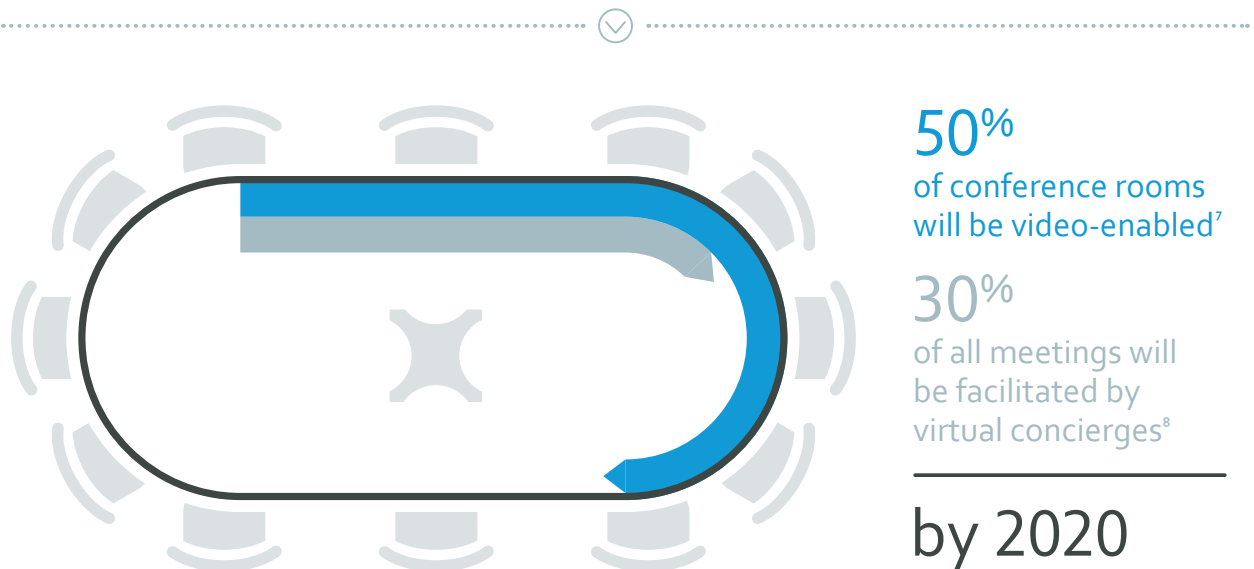
Without expensive conference phone equipment, users have the ability to join or originate a call that supports up to 5 people to set up an impromptu conference using any call-capable device.

### VIDEO CONFERENCING

Teachers and administrators – even students – can participate in a video conference session using a computer, smartphone, or desk phone with the appropriate attachment. This provides the luxury and clarity of a face-to-face interaction without the need for travel.

### SCREEN/DESKTOP SHARING

Share specific apps or an entire computer screen to other colleagues during a video conference to provide an extra layer of training or detailed explanation on a project.



## Conclusion

A hosted UC solution delivers a diverse and powerful suite of communications tools to budget-conscious education institutions across the US. The high capital outlay one would expect from adopting new technology is significantly reduced, and operating expenses are kept to a low, flat rate to ease budgets ever further. To add, hosted UC services require no special resources or accommodations on the organization's behalf to manage or support. Therefore, schools can safely and confidently phase out their legacy PBX systems and begin adopting a solution that not only future-proofs their communications system, but also actively supports their core educational and academic missions for success.

### END NOTES

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- 5: Information Age, "The great IT myth: is cloud really less secure than on-premise?" Article, March 2015.
- 6: Dimension Data, "The Future of Unified Communications and Collaboration is Managed." Whitepaper.
- 7: Aragon Research, "The Aragon Research Globe for Web and Video Conferencing, 2015: Focus On Platforms And Outcomes." Whitepaper, Dec 2015.
- 8: Gartner, "Magic Quadrant for Web Conferencing." Whitepaper, Nov 201

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