



Expect More from Your UC Solution  
*Integrating Communications into Workflows*

A Frost & Sullivan White Paper

---

[www.frost.com](http://www.frost.com)

---

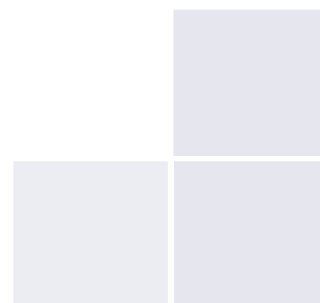
Robert Arnold, Principal Analyst  
Connected Work

Digital Transformation and Convergence.....	3
The Role of Communications in Digital Transformation.....	3
UC Adoption Trends.....	4
UC Industry Landscape—Today’s Solutions.....	6
The Avaya Approach .....	7
How to Get More Value From Your UC Investments .....	11



## **ABOUT AVAYA**

Avaya is a leading, global provider of customer and team engagement solutions and services available in a variety of flexible on-premise and cloud deployment options. Avaya’s fabric-based networking solutions help simplify and accelerate the deployment of business-critical applications and services. For more information, please visit [www.avaya.com](http://www.avaya.com).



## DIGITAL TRANSFORMATION AND CONVERGENCE

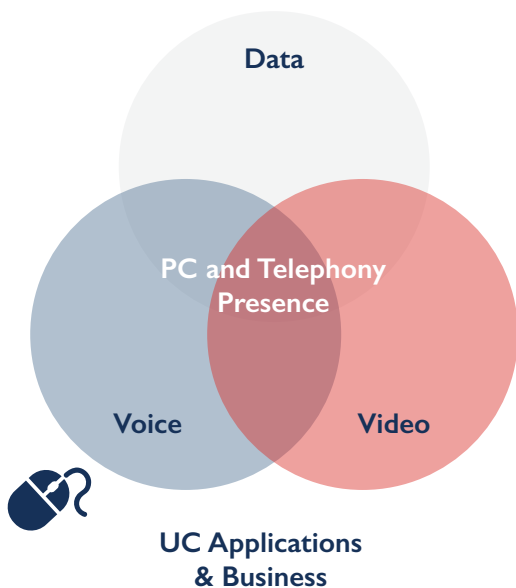
All organizations must modernize how they do business in today's hyper-connected world. A recent global Frost & Sullivan survey found that IT decision makers across geographic regions, industries and company sizes planned to increase their IT and communications budgets by an average of 13% in 2017. The larger budgets fuel digital transformation initiatives that leverage next-generation technology to increase their organization's reach and agility, streamline operations, reduce costs, drive employee engagement and productivity, and improve customer satisfaction.

The time for digital transformation is now. Legacy divides between IT and communications solutions have been bridged. Most telecom responsibilities now reside under the purview of IT. Communications infrastructure is installed in data centers and server rooms alongside IT infrastructure. Communications and IT solutions are transported, secured and managed on a common IP network. Communications capabilities are increasingly integrated and accessed within popular business applications (i.e., office productivity, email, calendars, customer relationship management, etc.). This pervasive convergence is compelling business decision makers to view communications technology as critical to their organizations' digital transformation strategies. Leading unified communications solutions providers such as Avaya are proving these conceptions to be correct.

## COMMUNICATIONS' ROLE IN DIGITAL TRANSFORMATION

Delivering much more than just voice, unified communications (UC) provides leading companies with both tactical and strategic business tools to more effectively compete. Although UC definitions vary, all pivot on the principles of integration.

**“UC is the integration of voice, video, and data applications and networks. UC provides common management utilities and user identities across applications, and integrates communications into IT databases and business workflows.”**

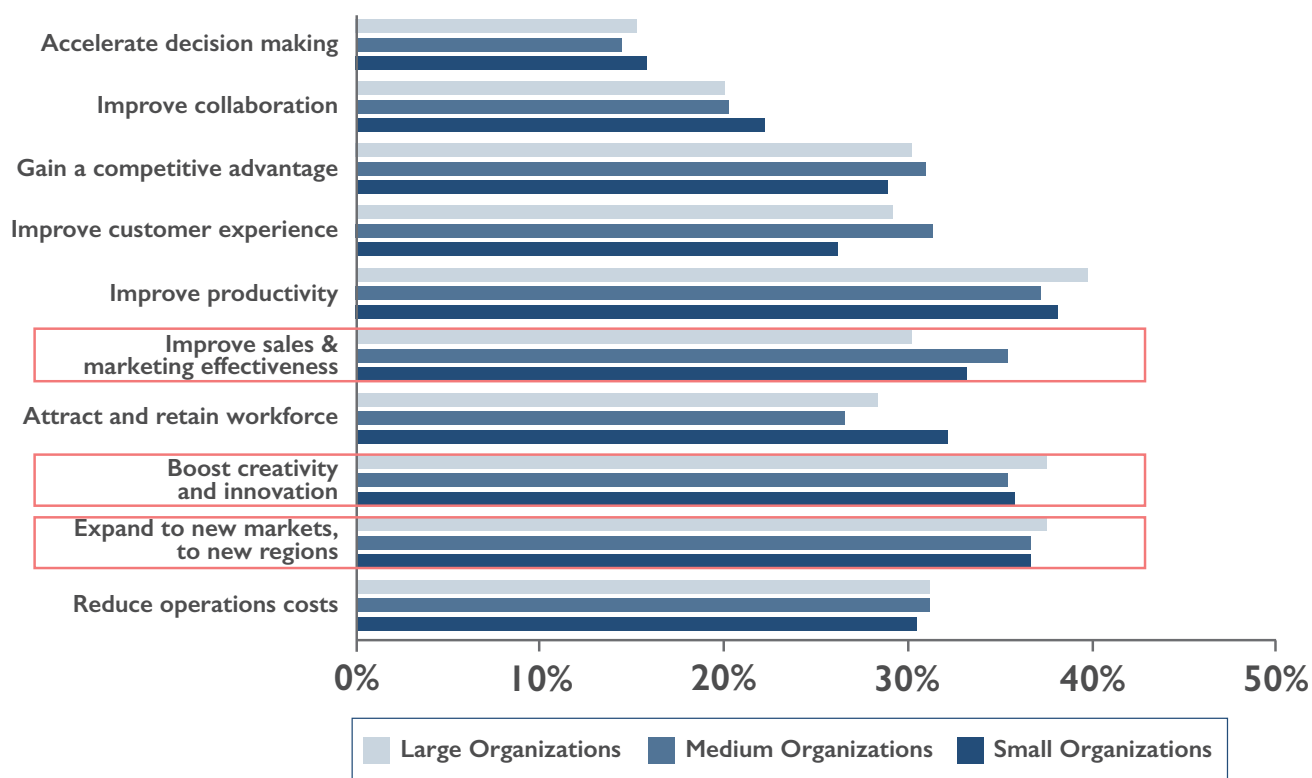


### Unified Communications

- Is an integrated set of voice, data, and video communications applications which leverage a common infrastructure and directory;
- Provides end users with ubiquitous and seamless access to various capabilities—anywhere, anytime, on any device and any network;
- Embeds communications capabilities into IT applications for business process and workflow efficiencies; and
- Empowers IT staff through a consolidated set of networks and applications to secure, manage and maintain.

Organizations that have implemented UC report advantages far beyond the tactical benefits (i.e., cost reduction, centralized management, etc.) they initially expected. Improving sales and marketing effectiveness, boosting creativity and innovation, expanding into new markets, and other strategic benefits now rank highly among UC investment criteria for companies of all sizes. See Exhibit 2.

**Exhibit 2: Future of Digital Transformation Top IT Drivers by Business Size, World, 2016**



Q: What are the top three drivers for IT investment in the next year?  
N=1980 respondents

Source: Frost & Sullivan

### UC ADOPTION TRENDS

With increasing awareness of the greater benefits, growing focus on digital transformation enablement, more powerful solutions, and flexible deployment and consumption options, UC adoption is on the rise across all regions, industries, and organization sizes.

- Addressing Evolving Needs:** Businesses move to new communications platforms when their legacy system maintenance costs justify new investments. New deployments and upgrades also address specific needs (i.e., enhanced administration, mobility, conferencing, presence, collaboration, contact center, third-party and vertical integrations) that are poorly supported by legacy platforms.
- Subscription Services:** Hosted IP telephony and unified communications-as-a-service (UCaaS) subscriptions are rapidly gaining traction as businesses seek to avoid upfront capital investments as well as quickly access new and continually enhanced functionality. In 2016, the global hosted IP telephony and UCaaS installed user base grew by 27% and will experience strong double-digit growth rates going forward.
- Analytics and Outcomes:** Demand for business process and workflow integration is accelerating as decision makers emphasize improved business outcomes, cycle times, employee productivity, and customer loyalty. Heightened focus on analytics and reporting is proving the impact of UC on business operations, revenue generation and customer support.
- Desktop Phones:** Business deskphones are not going away any time soon. In new form factors, IP phones continue fast-paced evolution to reach new business segments and deliver more functionality to the desktop.

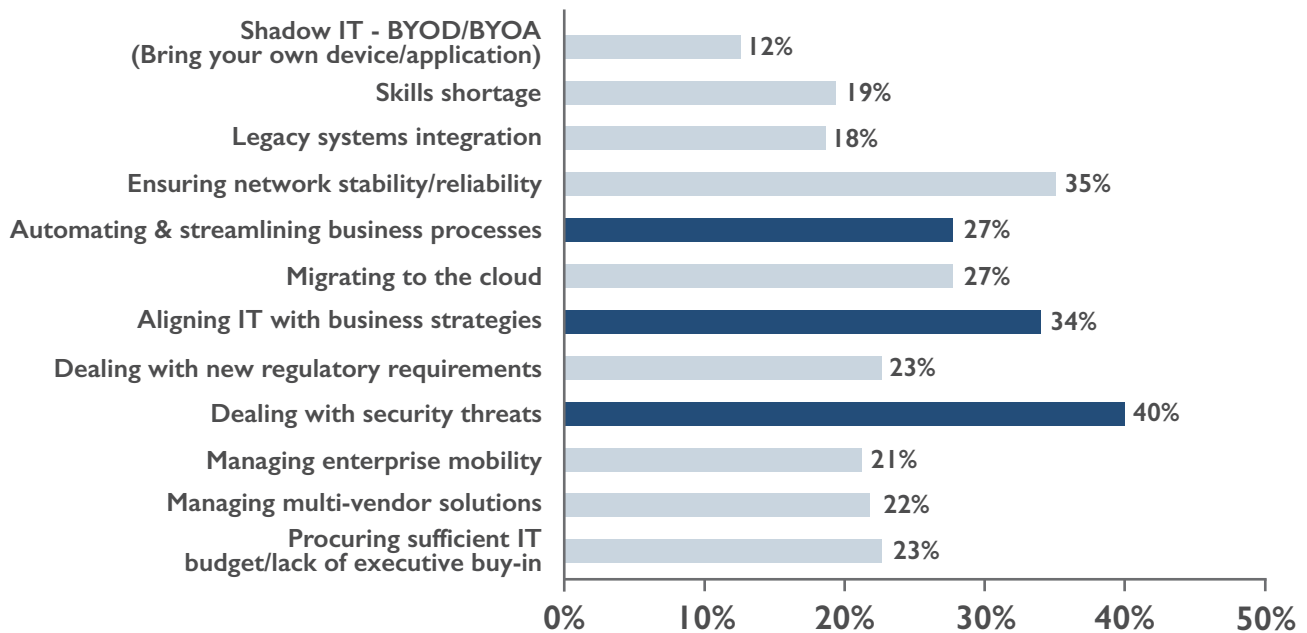
Overall, IP desktop phone unit shipments are forecasted to increase by hundreds of thousands annually, reaching over 30 million devices shipped in 2022.

- **Soft Client Interfaces:** Software-based communication client adoption is growing with increased user familiarity, declining prices, and expanding mobility and flexible-work requirements. In 2016, UC desktop soft client sales increased by more than 1.1 million licenses compared to 2015; mobile UC client license sales increased more than 10%.
- **Next-generation Collaboration:** New software clients are emerging to support next-generation collaborative team spaces with integrated real-time and non-real-time communications, business applications access, gamification, and anytime, anywhere connectivity. There are already hundreds of millions of daily active collaboration client users, which will grow considerably as Millennials further penetrate the workforce and more office workers become accustomed to these environments.

UC adoption is inarguably widespread and mainstream. Frost & Sullivan research finds that 78% of IT and business decision makers consider their organizations early adopters (27%) or part of the early majority (51%) in digital transformation comprising IT and communications solutions. Only a few consider their organization to be a laggard (4%) or among the late majority (18%).

As laggards and late adopters try to catch up, the progressive majority is moving ahead to derive further value from investments, customize solutions, and create competitive advantages. However, obtaining these next-level benefits can be elusive without the right UC solution. A significant portion of IT departments confirm that aligning IT with business strategies, automating and streamlining business processes, and dealing with security threats rank among their top-five challenges. See Exhibit 3.

**Exhibit 3: Future of Digital Transformation Top IT Challenges, World, 2016**



Q: What are the top 3 challenges your IT department faces in the next three years?  
N=1980 respondents

Source: Frost & Sullivan

## UC INDUSTRY LANDSCAPE—TODAY’S SOLUTIONS

UC technology is rapidly evolving to better support how employees today interact with information and other people. Two current focal areas of development are being met with notable adoption: IP media phones and collaborative environments. Both solutions offer a unified endpoint or soft client interface that provides a single pane of glass streamlining user access to a wide range of communications and IT applications.

**“...a unified endpoint or soft client interface that provides a single pane of glass streamlining user access to a wide range of communications and IT applications.”**

### IP Media Phones: Intelligence and Reliability on the Desktop

Although more business calls are taking place on smartphones and soft clients, many professionals still appreciate the always-on reliability and superior audio performance of deskphones. As such, more enterprises demand devices that easily support multiple communications modalities. Businesses also want to extend the familiar look and feel of consumer smartphones and tablets into their enterprise-grade devices. IP media phones are positioned to meet these requirements.

IP media phones aim to combine the best of soft clients and hardware-based desktop endpoints, providing a hardware-based single pane of glass on the desktop.
They typically feature large color displays, standard or optional video communications support, and integration with popular business applications to deliver enhanced capabilities to user workstations. However, the ability to integrate more deeply with a wider expanse of IT applications for greater workflow enhancement is a work in progress with most IP media phones.
Advanced IP media phones connect users to rich features and applications combined with superior audio/video quality. Multimedia endpoints that merge voice and video conferencing, and content sharing are also penetrating a variety of meeting spaces.
IP media phones are evolving with even more cutting-edge attributes, such as large, vivid touchscreens, intelligent operating systems, and further multimedia and business applications support.
IP media devices are growing in prominence. Today they account for approximately 10% of the total IP desktop phones shipped globally. Frost & Sullivan expects IP media phones to experience a solid compound annual growth rate of 15% in shipments from 2016 to 2023.

### Next-generation Collaboration Platforms: Software-based Single Pane of Glass

Next-generation collaboration platforms provide a software-based “single pane of glass” with access to real-time and asynchronous voice, video, and data applications. Most rely on desktop, browser-based or mobile-app user and admin software interfaces. They typically feature application programming interfaces (APIs) and software development kits (SDKs) for integration with popular business and vertical-specific software for a certain degree of customization. Professional services often provide further modification. Advantages include a single environment for user access to multiple communications modalities and tasks; mitigated shadow IT impact by giving workers compelling mobile, social and visual collaboration tools; and potential to unify standalone applications into robust integrated solutions with a single provider relationship to manage and maintain.



However promising, these platforms still leave numerous challenges unaddressed:

<p><b>Limited Differentiation:</b> There is an extensive selection of platforms available with little differentiation apparent without exhaustive investigation. The selection process can be long, tedious and potentially confusing.</p>
<p><b>Security and Management Concerns:</b> Securing and managing employee-owned mobile devices on which next-generation collaboration environments are often accessed add to data security, compliance and governance challenges.</p>
<p><b>Cost and Complexity:</b> Many solutions lack native support for critical business call control and multimedia conferencing. Third-party integrations to add these capabilities increase cost and complexity, while compromising ease of use, functionality breadth and depth, and ongoing support.</p>
<p><b>One Size Fits All:</b> Solutions are often designed for the widest possible audience. “One size fits all” may exclude capabilities distinct lines of business, industries and vertical functions find invaluable. Limited customization opportunities also impede each business’s ability to dovetail UC into their operations, sales, marketing, and customer support processes.</p>
<p><b>Audio/Video Performance:</b> PC, Mac and mobile devices leveraged by many collaboration platforms deliver substantially inferior audio and video performance compared to endpoints purpose-built for such business functionality.</p>
<p><b>Restrictive Deployment Options:</b> Many platforms are available only as cloud services, which can present certain governance, risk, compliance, and control issues. Support for such solutions may also be limited to online self-help materials and email.</p>

## THE AVAYA APPROACH

Avaya addresses evolving business communications and collaboration needs head-on with a progressive software, endpoint and service portfolio. The company focuses tightly on integrating communications with business applications and workflows that enable businesses to more easily advance their digital transformation initiatives.

Three central components of Avaya’s robust portfolio in this regard are:

<b>Avaya Vantage</b>	<p>Avaya Vantage™ is a next-generation dedicated desktop device supporting robust enterprise-grade UC and business applications access at the desktop, and a platform to integrate rich communications into business processes.</p>
<b>Avaya Breeze</b>	<p>Avaya Breeze™ provides a full SDK to expose the entire environment or granular components of Avaya UC, contact center and collaboration to developers for integration, customization with third-party solutions, and to mash-up their own interfaces. Avaya Snap-in templates further reduce the legwork for custom WebRTC, Presence, Message Recording, Work Assignment, and other custom integrations.</p>
<b>Avaya Equinox</b>	<p>Avaya Equinox™ is an enterprise communications and collaboration platform available via cloud services or as software. Equinox enables next-generation communications on nearly any device with customers, partners and colleagues through voice and HD video calling, presence, instant messaging (IM), along with collaboration tools such as screen and application sharing, virtual whiteboard and online meeting spaces.</p>

Avaya’s portfolio combines and optimizes the best capabilities of IP media phones and next-generation collaboration environments without the compromises competing solutions require. More specifically, readily available tool sets (Avaya Breeze APIs, SDKs and Snap-ins) for customization and integration with business applications, consistent client support (Avaya Equinox) for multimedia on a range of devices, and a variety of user role-based and industry-specific solution packages uniquely position Avaya Vantage to address business requirements that other providers cannot.

“Avaya’s portfolio combines and optimizes the best capabilities of IP media phones and next-generation collaboration environments without the compromises required with most competing solutions.”

### Solution Spotlight—Avaya Vantage

Avaya Vantage provides a single pane of glass with the tangible benefits of a dedicated business communications device.



The contemporary form factor features an **8”**, *all-glass, color touchscreen display*.

*No visible mechanical buttons* satisfies user demands to evolve away from traditional interfaces with mechanical dial pads. Avaya Vantage supports the way today’s users expect to interact with their devices.

Avaya Vantage is *built for acoustic excellence and performance* in a dedicated device, engineered for audio and video communications that is always on, in reach, and ready.

An embedded *Android operating system* provides access to Google Play apps and an intuitive path to an additional range of business and consumer-centric applications and content.

*Simplified customization and integrations for developers* through Avaya Breeze SDKs and APIs, Snap-ins and Google Play apps to right-fit and easily customize for unique and various user tasks and seamless integration into workflows.

*Out-of-box Avaya Equinox support* immediately provides users access to all their provisioned UC, collaboration and customer care features.

*Enterprise-class security and management* features are employed at several levels with corporate call routing control and reporting, encryption, admin applications access control, user authentication, and more.

It’s *flexible and modular* with corded or cordless handset, with or without an embedded camera, with Bluetooth and Wi-Fi, wideband speaker, USB port, and wall-mount or adjustable desktop stand to easily fit different workplaces and work styles.

Avaya Vantage can be morphed into anything and everything a business wants it to be. Simplified customization and integration enable unique experiences with Vantage meshing into business workflows and processes. Avaya Vantage is particularly well-suited for vertical markets, where it creates opportunities for communications as a contextual part of workflow applications.

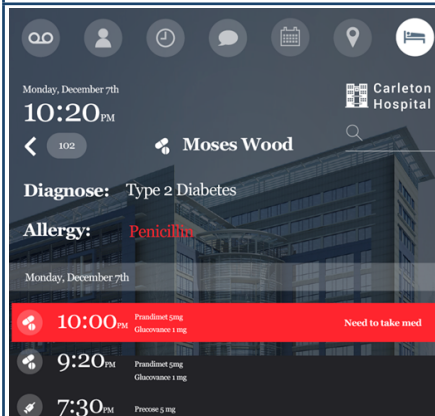


## Avaya Vantage in the Healthcare Industry

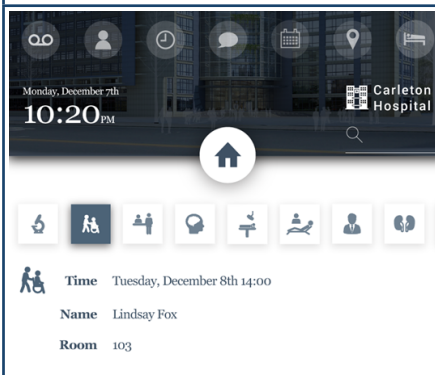
In the typical nurse's station, each nurse has access to different doctors' schedules, patient schedules, and various areas of care. Vantage can be deployed on in-patient and outpatient care facility nurse stations to improve information access and communications within workflows.



Nursing staff can log in to the device and have custom screen layouts and buttons, depending on their job function, to simplify access to patient information, doctor locations and schedules for improved job efficiency.



Using Vantage, each nurse can receive only the information they need. Cutting the clutter by streamlining reminders, messages and calls into their daily workflows helps them focus and reduce potential for error.



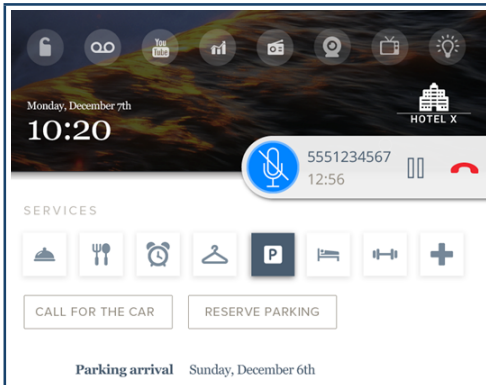
The Avaya Breeze Client SDK can be used to create a nursing staff app to easily access functions that typically involve looking up information on a computer screen and separately using a phone to dial a number. The nursing staff app makes these tasks simple, automatic and part of the same process flow on the Vantage device.



Rather than a traditional dial pad with small keys with autodial buttons, nurses can have large on-screen keys for frequently called numbers, such as radiology, triage, and patient dispatch. The communication-enabled application makes it easy to alert the right person in case of emergency, access relevant patient records, schedule patient-doctor appointments, and much more.

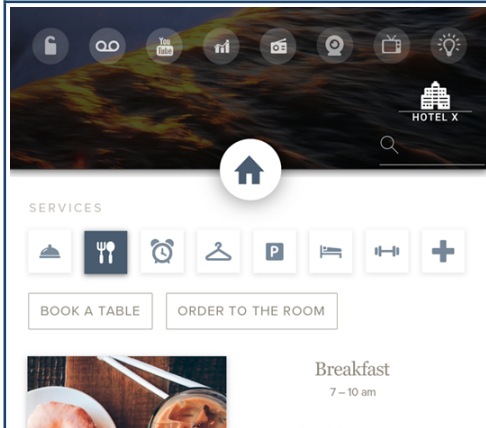
### Avaya Vantage in the Hospitality Industry

Unlike typical monolithic hotel room phones, Avaya Vantage supports capabilities guests expect, as well as unexpected and differentiated capabilities created by leveraging the Avaya Breeze Client SDK to elevate the guest experience.



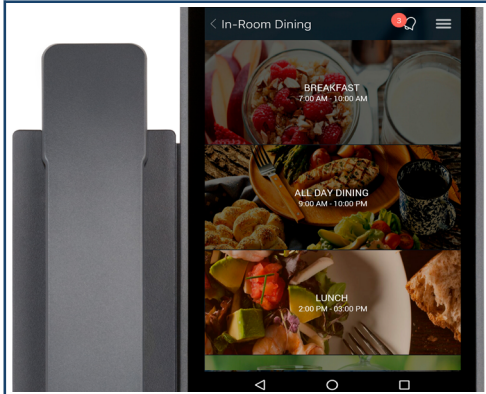
In an appealing contemporary form factor, Vantage is a reliable phone for incoming and outgoing calls.

The user interface includes a convenient button to quickly and easily reach a live person from hotel staff when needed.



The interface displays the hotel's many services and conveniences and enables simple click-to-book and click-to-call. The on-screen menu encourages guests to visit the hotel restaurant, or order room service, book a spa appointment and more via the device's touchscreen.

The interface can also be designed to allow guests to manage their in-room preferences such as curtains, lighting and temperature.



Vantage integrates with many third-party applications, enabling guests to book a car service, make local theater or restaurant reservations, check in for airline flights, and more that eliminate the need to call hotel concierge services.



Vantage can extend hotel Wi-Fi by serving as an additional access point with the same network identity as the hotel Wi-Fi system.

The integration and use-case possibilities in other verticals such as entertainment, media, and finance are nearly endless as well.

## HOW TO GET MORE VALUE FROM YOUR UC INVESTMENTS

Globalization of business, evolving work styles, shifting worker demographics, and increasingly demanding customers make digital transformation imperative for long-term survival and success. Businesses will require ever-more flexibility and customization to reap greater value and most effectively leverage technology to become more efficient, agile and proactive. Attaining next-level UC benefits is less about communications as a standalone process and more about communications integrated as a natural part of daily workflows.

Key attributes that business decision makers should look for when evaluating solutions include the following:

	<ul style="list-style-type: none"><li>• A unified and consistent user experience that extends comprehensive functionality across deskphones and mobile devices to support the changing environments, tasks and preferences of today's workforce.</li><li>• Simplified customization and personalization through native hardware and software device capabilities to drive adoption and utilization for increased productivity.</li><li>• Mobile app simplicity with the benefits of a familiar dedicated device that provides users touchscreen access to both communications and IT applications, facilitating collaboration within the context of the right information at the right time.</li><li>• Easy communications (calling, conferencing, chat, presence, etc.) integration into business applications and workflows through APIs and SDKs to streamline business processes.</li><li>• Support for modern, open operating environments (iOS, Android, Windows and Mac) that empower developers to use readily available apps and elements thereof to mash up with their own specific capabilities and satisfy unique use cases and workflows.</li><li>• Reliable, always-on access to business communications and IT functionality without degradation by the processing demands of IT applications as well as the superior audio quality business-grade deskphones are known to support.</li><li>• Enterprise management and security for provisioning, call routing and control, user authentication, application access control, encryption, reporting and more.</li><li>• Ability to integrate UC, contact center and conferencing into any workflow and user experience.</li></ul>
--	--

### LEARN MORE

For more information on digital transformation, Avaya Vantage and other unified communications and customer experience capabilities from Avaya, contact your Avaya Account Manager or Authorized Partner, or visit [avaya.com/vantage](http://avaya.com/vantage).

## NEXT STEPS



**Schedule a meeting with our global team** to experience our thought leadership and to integrate your ideas, opportunities and challenges into the discussion.



Interested in learning more about the topics covered in this white paper? Call us at 877.GoFrost and reference the paper you're interested in. We'll have an analyst get in touch with you.



Visit our **Digital Transformation** web page.



Attend one of our **Growth Innovation & Leadership (GIL)** events to unearth hidden growth opportunities.

### **SILICON VALLEY**

3211 Scott Blvd  
Santa Clara, CA 95054  
Tel 650.475.4500

Fax 650.475.1571

### **SAN ANTONIO**

7550 West Interstate 10  
Suite 400  
San Antonio, TX 78229  
Tel 210.348.1000

Fax 210.348.1003

### **LONDON**

Floor 3 - Building 5,  
Chiswick Business Park  
566 Chiswick High Road  
London W4 5YF  
Tel +44 (0)20 8996 8500  
Fax +44 (0)20 8994 1389

Frost & Sullivan, the Growth Partnership Company, works in collaboration with clients to leverage visionary innovation that addresses the global challenges and related growth opportunities that will make or break today's market participants. For more than 50 years, we have been developing growth strategies for the Global 1000, emerging businesses, the public sector and the investment community. Is your organization prepared for the next profound wave of industry convergence, disruptive technologies, increasing competitive intensity, Mega Trends, breakthrough best practices, changing customer dynamics and emerging economies?

*For information regarding permission, write:*

Frost & Sullivan  
3211 Scott Blvd  
Santa Clara CA, 95054