

ALCATEL-LUCENT ENTERPRISE 2014 GLOBAL RESEARCH

ENTERPRISE COMMUNICATIONS IN A NEW PC ERA

STRATEGIC WHITE PAPER

We recently conducted two surveys to better understand the trends in enterprise communications in the new Personal Cloud Era. The surveys also focused on the resulting challenges and opportunities that face our business partner resellers and enterprise communication users.

This paper provides a background on the three mega trends and the resulting six challenges facing our industry and the opportunities each offers the enterprise. We also present the most interesting and significant results of the surveys.

The questions covered: Unified communications, collaboration, data centers, unified access, customer service, the cloud and new technologies as well as related services. Two surveys were taken: Business partner resellers answered one and the other was answered by enterprise communication users. The users were from small to large businesses that span all geographic areas and industries. The analyzed responses are based on input from over 1000 enterprise users and 300 resellers.

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THE TRANSFORMATION OF ENTERPRISE COMMUNICATIONS

All markets, whatever the industry or geography, evolve over time. The enterprise communications market has also advanced over the past 30 years driven by a continuous technical evolution. Recently, user behavior in the enterprise has also changed dramatically in a very short period of time.

In the beginning, enterprise communications were designed to fulfill basic needs, such as connectivity between two people or locations. Over time, they have gradually become more sophisticated delivering services such as integrated messaging, conferencing and collaboration to name a few.

Enterprise communications have moved up the economic value chain from being personal computer (PC) based to more than just a connectivity tool to help organizations improve productivity—they now empower users and speed up decision making.

While many organizations have not yet harnessed the full power and potential of communications for their own competitive advantage, people are already asking:

The future of this enterprise market is being shaped by mega trends and innovations of the last decade:

- **A consumer revolution** where social networks, smart mobile devices, telecommuting, visual and real-time collaborative content are redefining the way people communicate
- **A technology evolution** that is moving towards open architectures and standardized technologies to support the growing demand for new deployment and consumption models
- **A business model transformation** accelerated by business and economic imperatives, leading to a growing demand for pay-as-you-go models supported by new kinds of hosted and managed architectures often referred to as the “cloud.”

“What’s next? What is the future of enterprise communications?”

The combined impact of these mega trends creates a favorable environment for transforming enterprise communications. The synergy between the unified communications components and the underlying network enables real-time, workforce collaboration with network application fluency.

A new entrant into the enterprise, the tablet, embodies this transformation. Tablets and other personal devices are used in the enterprise either with or without any IT department authorization, in which case they are part of the *BYOD*, “Bring Your Own Device,” phenomenon.

Although the growth in worldwide tablet shipments is expected to slow to 19.4%¹ as the market matures, enterprises are taking a larger part of the mix with 14% of tablets sold this year, and are expected to climb to 18% by 2018.

¹ International Data Corporation, March 6, 2014, <http://www.idc.com/getdoc.jsp?containerId=prUS24716914>

Employees are copying their consumer habits and pasting them into their professional lives. The tablet heralds a future where the device will be nothing more than the access point to individual and personal content. The content will be stored in a “space,” available from anywhere, any device, at any time. Employees are also bringing their own smart phones to work with a significant number in violation of IT policies.²

We are entering the Personal Cloud Era.

Personal Cloud Era

What does the Personal Cloud Era mean for organizations and how can they embrace the opportunities offered by this global transformation? It is important to note that the Personal Cloud Era will not put an end to the Personal Computer Era. Laptops will continue to play a significant role in enterprise communications. The Personal Cloud Era does, however, changes how content is accessed and from where.

Organizations are continuing to invest in fulfilling the needs of an increasingly mobile and collaborative workforce. Recent research by Alcatel-Lucent indicates that 91 % of enterprises allow some employees to work remotely.³ Meanwhile, IT departments are redefining their role and adapting their mandate and mission to shifting business conditions. This is leading to a consumer and technology innovation driven evolution of communications services and network infrastructure, while taking advantage of new business and consumption models such as the ones offered by cloud-based architectures.

In addressing the demand for the Personal Cloud, we are facing a global transformation that requires preparation and planning. In fact, according to our survey only 15% are not concerned, 30% have already have deployed some type of cloud solution and 54% are in process.

The top six challenges facing enterprises today

From within the three mega trends identified – the consumer revolution, technological evolution and the shift to the cloud – there are six challenges that most enterprises must address if they are to successfully enter the new PC era. They are trying to understand how to:

1. Energize their workforce with the new communication experiences available
2. Unify their networks for mobility
3. Enable their business to capitalize on new technologies
4. Automate their data center by virtualization of their network
5. Align their customer service and business objectives
6. Harness their cloud transformation opportunities

Each of these concerns was covered in our surveys and the results are discussed in the following sections.

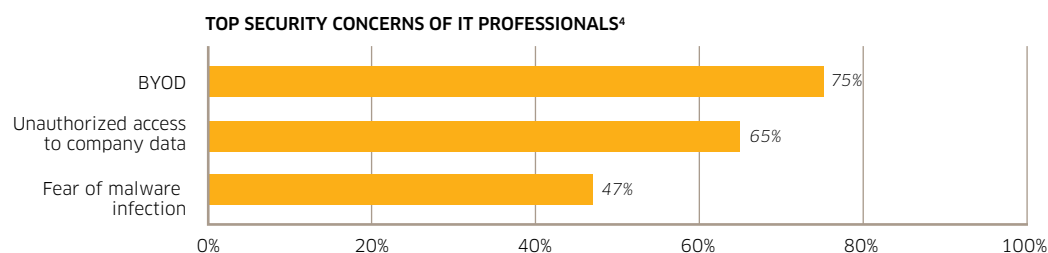
² Ovum Research, Multi-Market BYOD Survey 2013 Results: BYOD Is Not Going Away, <http://ovum.com/research/multi-market-byod-survey-2013-results-byod-is-not-going-away/>

³ Alcatel-Lucent, 2012 Transforming Business Research Study

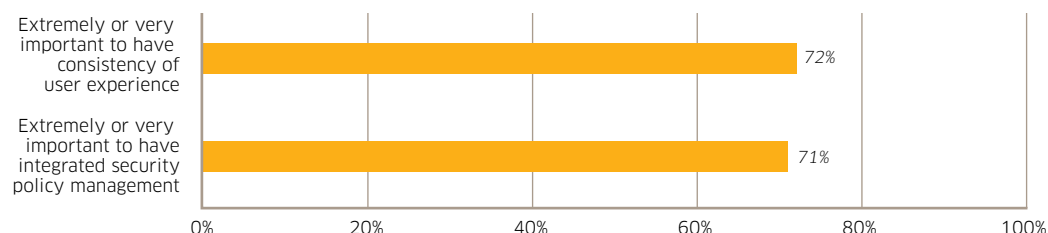


ENERGIZING YOUR WORKFORCE WITH NEW COMMUNICATION EXPERIENCES

The new technologies and communications experiences that are demanded by users create headaches and sleepless nights for IT. Users create their own personal cloud for use at home and then expect IT to support it and their devices at work as well. Users may download unsecured or infected apps onto their mobile devices that could then infect everything their device connects with, causing untold damage to the network environment and challenges for IT.



IT can reclaim control of this highly mobile and widely scattered user environment by adopting user-based application management policies instead of trying to control individual devices. By focusing on the user, IT is able to deliver an engaging and intuitive experience that encourages user adoption of the sanctioned apps while accelerating the company's return on investment (ROI).



New technologies are also improving IT services. Innovations such as virtualization, open architectures and standards-based technologies have created opportunities to expand services that scale easily and offer many features to users. And at the same time, by taking advantage of these new technologies, IT can regain control of their network and communications environments.

⁴ LinkedIn, IPSEC Group Survey, 2013

Workforce mobility has created a never ending work day

With newfound mobility, many employees are no longer confined to the work campus where they use only a trusted device on the network. They are mobile and they use the device most convenient for them – at home and at work - including personal devices. Along with mobility comes constant employee availability resulting in a very long work day. In return, employees expect the same high quality communications experience that they would have in the office, wherever they may be.

To deliver a similar work environment from wherever an employee wishes to access the network, whether it is a trusted or an un-trusted environment, from a fixed or mobile device, IT needs to provide a single communications environment. This environment must support all of the user's devices and provide seamless transfers between media and devices during a conversation, regardless of the underlying infrastructure. In essence, it needs to be a unified network to deliver access across wired and wireless devices.

86% of enterprises consider it extremely important or very important to have the ability to seamlessly connect to the network from anywhere on any device.

Users expect a quality communications experience

Besides supporting BYOD and mobility, IT must provide users a high quality communications experience (QoE). It's important that a high bandwidth data download doesn't interrupt real-time communications such as a voice call.

An enterprise network that has a customizable, application fluent network infrastructure is able to support all modes of communication including video and other high bandwidth applications while maintaining existing business processes. It is accomplished through a unified architecture that integrates the elements of unified communications onto a single platform. It is then deployed in a physical or virtual environment, on premises, in the cloud, or any hybrid of these.

Supporting the shift to conversations

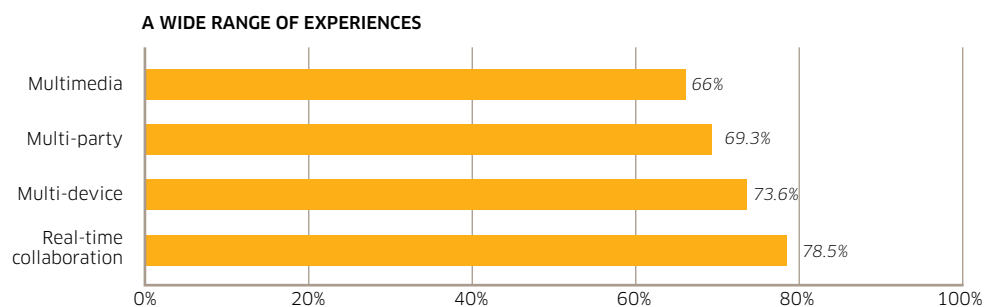
Users expect their conversation that moves between devices and applications be supported in an uninterrupted manner. More devices and network applications have become visual and blended – what was once a series of isolated actions has now become a continuous conversation. To deliver continuity, the network must be application fluent.

What did our research tell us about collaboration?

These are some of the obstacles we've noted enterprises face when supporting collaboration and the benefits of addressing those challenges. We took the next step and asked enterprises around the world about their thoughts on this subject to see if our observations aligned with their real-life experiences. The following are some of the notable results from the more than 1000 responses.

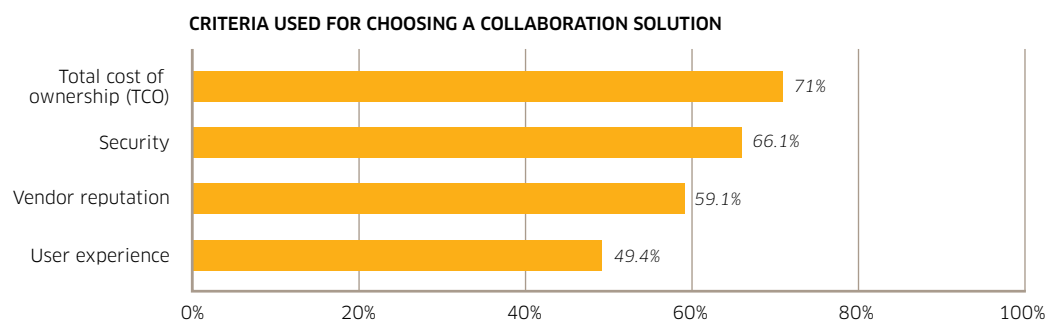
Enterprises are changing their acquisition and operational strategies, driven by the mobilization and consumerization of the workforce and the ability to deliver new services via the cloud.

Enterprises believe to be successful, they need to provide users:



The criteria for choosing a collaboration solution included:

- Integration services to leverage existing investments
- Better ability to manage and reduce TCO
- Ability to incrementally deploy with a shift from CAPEX to OPEX models. This pricing scheme efficiently enables deployment of new services for new users.
- The mobile workforce wants access to corporate resources from any device, regardless of whether it is a personal device or corporate owned. They want access from trusted and un-trusted environments and multiple operating systems.
- One half of respondents believe that USER EXPERIENCE is an important criterion for collaboration.



This workforce consumerization and mobilization model creates security threats and issues around malware that requires network access control to mitigate threats while still providing a seamless experience.



ALIGN CUSTOMER SERVICE AND BUSINESS OBJECTIVES

In many ways, the Consumer Revolution forces organizations to rethink the way they engage with customers. The explosion of mobile and smart devices, the appetite for social platforms and the mass of self-generated content by consumers has turned them into advisors for their peers.

These changes are triggering new challenges and imperatives for companies who value customer engagement and are eager to nurture and protect their relationships as one of their strongest competitive advantages. Companies, regardless of their size and market, must adopt a 360° approach for customer service, enabling customers to engage through any medium, on any device at the moment of need. Customer service will then be the primary instrument to align with the company's global business objectives.

From call centers to conversational customer service

While voice is still the prevalent medium to reach out to agents (customer service reps), the advent of new communication methods such as email or live web chat has reshaped the landscape. As a consequence, many call centers have become multimedia. They are now accessible to customers from any device, not just fixed phones, allowing them to take advantage of new technologies and new media when situations require more than a call.

Over time, voice connections with agents have turned into interactions involving many people, from the customer rep to the pool of back-office experts, over different media – including social networks - and from a full range of devices. We call them customer “conversations.”

Today, these conversations have become the new foundation of efficient customer service, helping organizations raise satisfaction while controlling their e-reputation.

IT support for agent efficiency and customer satisfaction

First call resolution has been the aspiration for most customer service executives. The successful recipe requires enabling the right agent with the right information at the right moment. Workforce management systems help staff the right people at the right time, while intelligent routing engines connect to the right skills and competencies. What about real-time access to the right information?

From easy-to-implement CTI-enabled agent screen pop-ups aimed at retrieving customer information at a glance, to sophisticated integrations with ERP (enterprise resource planning) applications, the scope of capabilities is broad. Setting the course by dedicating the appropriate resources will depend on which key performance indicators a company is willing to monitor.

Integration with IT systems and business processes should be mandatory for any customer-centric company. It provides a visible and measurable return on investment (ROI) by keeping both agent and customer satisfaction at the highest levels, which is required to gain or retain a strong and lasting competitive advantage.

Architecture flexibility

Customer service, from a customer's perspective, is often viewed as being situated in one large location. In reality, customer service resources are often spread across multiple locations connected via applications that integrate business processes. These multi-site customer service operations are often supported by complex architectures connecting networks, devices and IT applications, which enable knowledge, the key element of any customer conversation.

In many cases, flexible architectures are required to accommodate changing business needs. Many businesses have seasonal peaks of activity, triggering the need for more resources to respond to additional customer inquiries. Cloud-compliant architectures address this by being scalable and elastic, enabling customer service to be virtualized and available on an as-needed basis across many locations addressing changes in demand.

Open standards technologies such as IP and SIP enable interoperability between systems, devices and people, giving organizations the flexibility their business operations require, while providing them with investment protection, regardless of future moves.

What did our global research tell us about customer service?

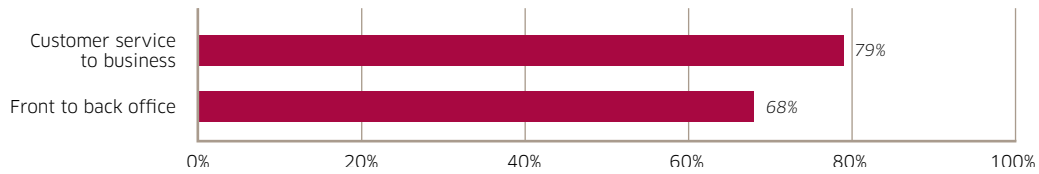
When looking to align customer service with business objectives, enterprises are trying to link front and back office operationally to improve efficiency. They are also looking to provide support in a way that their customers' desire: With multi-channel interactions that adapt to customer preferences and conversation continuity regardless of the customer's media choice.

When surveyed, CIOs focused their concerns on:

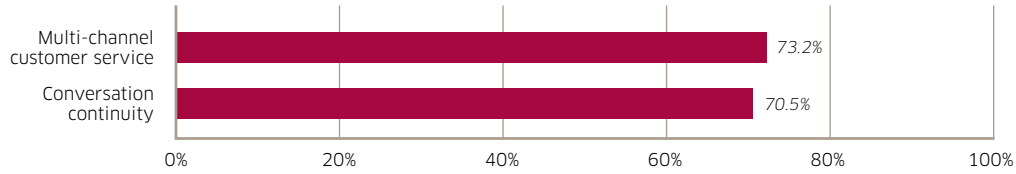
- Scalability
- Cost and pace of investment control
- Real-time business scale monitoring which supports general business concerns of linking front and back offices
- Motivating agents to align customer service with business objectives
- Serving customers where and how they want to be served (multi-channel and social)

This workforce consumerization/mobilization model creates security threats and issues around malware that requires network access control everywhere to mitigate threats while still providing a seamless experience.

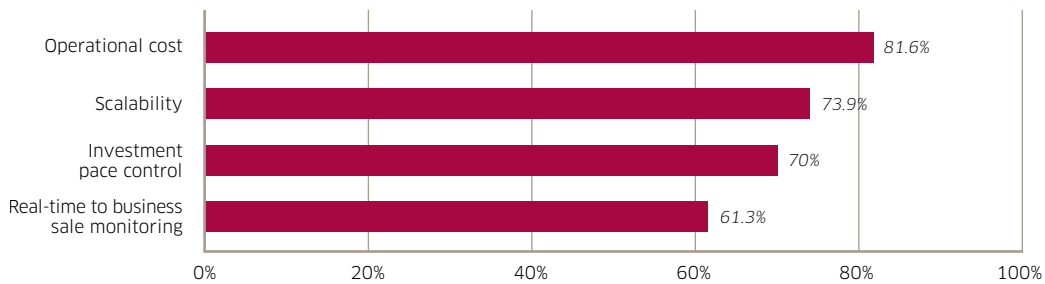
STRONG FOCUS ON LINKING...



RESPONDENTS DESIRE...



TOP CIO CONCERNS WHEN CHOOSING A CUSTOMER SERVICE SOLUTION





UNIFY YOUR NETWORKS FOR THE MOBILE ENTERPRISE

Enabling mobility within enterprise networks has become a top priority for improving productivity, increasing employee satisfaction and driving greater profitability. For network infrastructures to support mobility, they must provide reliable connectivity and support a variety of devices and the increased amount of traffic generated by these various new sources including multimedia.

91% of enterprises allow some employees to work remotely⁵

Challenges exist today that were not a concern even a few years ago:

- Employees are leveraging an expanding array of company provided wired and wireless devices to perform their jobs efficiently, increasing the workload on the network.
- Employees, partners and guests are bringing personal devices into the workplace and expecting seamless connections.
- Compounding the challenge, many new network applications rely on video or real-time application delivery, putting a strain on networks with heavy bandwidth requirements.

With these new challenges, security has become an even bigger issue. The answer is a unified network that automatically adjusts to the various applications, users, and devices to deliver the best possible experience. This application fluent network approach offers automation, resiliency, and simplified operations to support the mobile enterprise.

86.6% of enterprises are already offering or planning to offer video conferencing to desktop and mobile devices

Pervasive mobility - connect anywhere with the best device

User experience matters in the mobile enterprise. The ability to easily connect, whether over wires or wirelessly, is required if a user is to have the freedom to move seamlessly between media and devices that they prefer at that time. Connectivity and quality access to the applications users need – must be from anywhere, anytime, and with any device.

Bring Your Own Device

Employees who take their own devices to work add complexity to existing enterprise mobile network environments. While security is often the principal objection to BYOD, most campus networks are challenged because today's networks were not designed for the operational management and security demands of enterprise mobility.

Although challenges remain, there are solutions that automate operational management and improve security. Embracing BYOD and mobility provides the baseline to increase productivity and enable innovative new business processes with tangible business benefits and ROI.

New applications, multimedia and automation

Adding to the complexity of supporting mobility are the real-time, video-enabled applications that are bandwidth hungry which are pushing legacy networks to their limit. Real-time video is here to stay as there is a high demand for it from employees and customers. Yet, it increases network issues including jitter and delay, resulting in a decreased quality of experience (QoE) for real-time applications. Furthermore, the experience is inconsistent as users move from a wired to a wireless network and some applications are not available on both.

Growing beyond separate wired and wireless networks is an important shift in the future of mobile enterprise networks – the unified access approach. This is where wired and wireless equipment work in a unified mode, offering the same services and seamless experience for users with a common management that simplifies IT operations.

86.6% of enterprises are already or planning to offer video conferencing to desktop and mobile devices

What did our global research tell us about unified networks?

Survey responses from enterprises indicated that it was difficult to make the business case for unified networks. Yet, there was strong interest around the ability to:

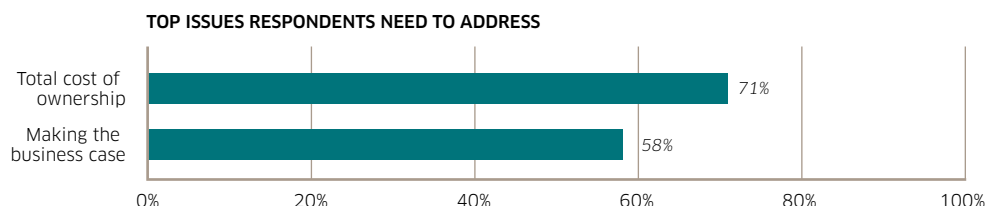
- Prioritize streams (QoS)
- Seamlessly connect from anywhere on any device
- Have security policy management

85% consider audio/video quality to be very or extremely important

It's interesting to note that all of these require a unified network.

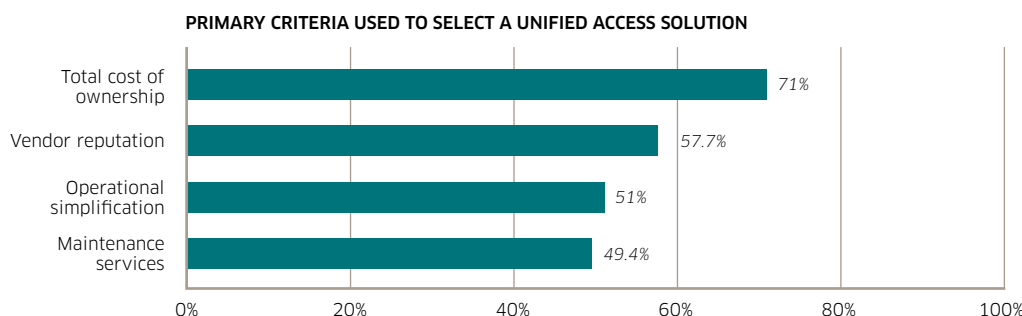
Total cost of ownership (TCO) is a recurring concern across all businesses regardless of size: Whether strictly CAPEX/OPEX/TCO or as simplified operations and simplification of integration.

The user experience in its many facets is also of key concern whether the response was from an end user or the IT department. Users were interested in connectivity from anywhere on any device and consistency of the user experience. IT was interested in operational simplification with security policies and operations maintenance and integration – including multi-vendor. The technology and product roadmap were also of considerable importance to almost 45% of respondents.



Features that respondents desired were:

- An exceptional user experience
- Integration
- Simplified operations
- Seamless software updates
- Low cost





ENABLE YOUR BUSINESS TO CAPITALIZE ON NEW TECHNOLOGIES

New technologies are fueling the potential of global innovation. Businesses that understand this will take advantage of new technologies, capturing a strategic advantage from redefined business models with streamlined operations and lower costs.

According to a recent report from the Information Technology and Innovation Foundation, companies that invested heavily in IT assets between 2006 and 2010 increased productivity **three times faster** than companies that did not.

Technology has leveled the business field. Markets that were previously accessible only by local or regional businesses now face global competition. Employees are no longer restricted by geography, only by access to communications tools and business applications.

The top reasons, according to our survey, that enterprises deploy new technologies included reducing the cost of service deployment, increased flexibility, and the ability to serve new customer segments and markets.

Centralization, virtualization and automation

When most people think of new technology, they most likely think of consumer devices such as new phones and TVs. However, new technology is also booming in business concerns, including the data center. Virtualization and automation inside the data center have brought efficiency and flexibility to the enterprise network, streamlining its operations. The network infrastructure has been simplified so much that deployments that took days a few years ago are now done in seconds through a central controller.

Communications applications, by being moved into the data center, also benefit from automation and the improved scalability. In fact, 43 % of survey respondents indicated that the lack of scalability was triggering their need to upgrade or modify their data center networking infrastructure.

Business processes are also enhanced by communications being integrated with other business applications. As the data center and applications expand to the cloud, the economies of scale continue to grow.

While automation has dramatically improved performance inside the data center, the network that connects users with applications is also experiencing an evolution. Once the network is upgraded to match the intelligence and efficiency inside the data center, application throughput is dramatically increased.

Mobility, video, and user experience

The growth in mobile and remote access to centralized business applications is being driven by multimedia which dominates network traffic. To deliver an exceptional remote user experience requires more than just an increase in bandwidth. New technologies that allow IT teams to secure and efficiently administrate wired and wireless access are the answer.

This next-generation network must be application fluent and automated. The network dynamically recognizes and manages users, applies policy-based QoS instantly and prioritizes content delivery based on preset rules across the entire local and virtual network.

The net result is that IT teams spend less time managing the network. The quality of experience for end users is much greater and the productivity of all employees increases. Although an investment in infrastructure is necessary, it doesn't have to be a forklift upgrade. Solutions exist that allow you to upgrade at your pace now and in the future.

Open systems and “à la carte” business models

Open standards based interoperability is the foundation of flexibility and system integration. By deploying solutions that are based on open standards, businesses are able to pick and choose what best suits their needs from vendors who support the standard without being stuck with one vendor because of their proprietary, or closed, protocols.

In addition to the efficiencies and freedoms provided by interoperability, enterprise IT is adopting the consumer-led trend of easy access to app stores. Applications and tools are becoming more use-case focused empowered by a broad base of application developers and delivered directly to business end-users through “à la carte” application subscription and delivery models.

Open systems, user-centric apps, maturing applications and APIs will connect applications and assets needed to deliver context-aware resources to employees and customers. These are just some of the many opportunities for enterprises to take advantage of new technologies that provide a strategic advantage with streamlined operations and lower costs.

What did our global research tell us about new technologies?

When selecting a vendor for data center technology, our survey found that enterprises ranked the following traits as most important to least:

- Longevity and experience of company
- Investment protection that allows future required upgrades while containing costs (eliminate forklift)
- Supports open standard interfaces for third-party products
- Offers the required features
- Maintains current/incumbent vendor solution
- Provides professional services to successfully deploy
- Provides training and trained resources on the platform
- Complete turnkey bundled data center
- Strong knowledgeable network of channel partners

When asked about new technologies in their network, over half of the business indicated they intend to:

- Capitalize on new network technologies to reduce the cost of service deployment including a shorter time to deploy
- Increase network flexibility by deploying technology that can adapt and be upgraded without a large expense
- Open up new customer segments and markets

However there are barriers, such as:

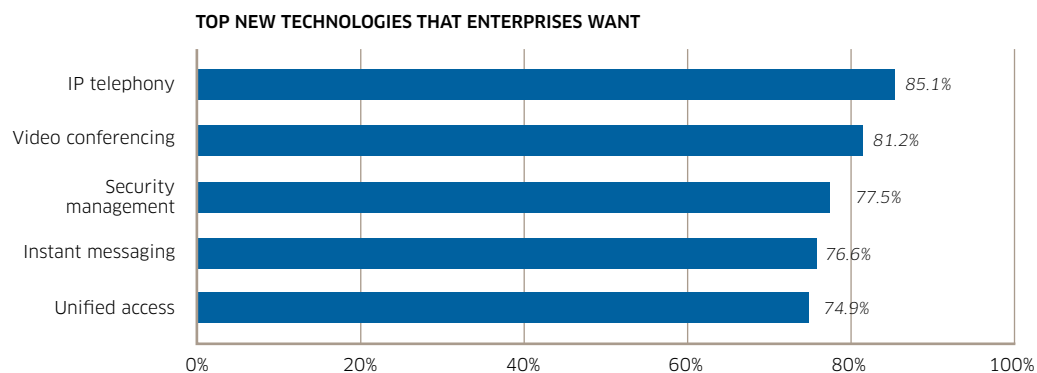
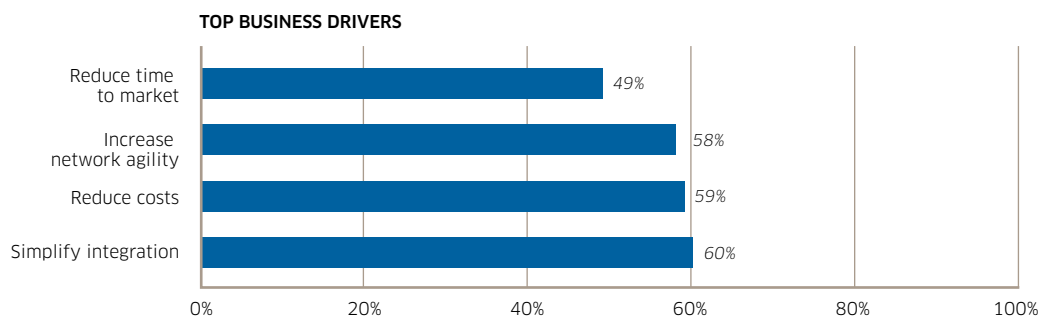
- Making the business case to management
- Complexity of integration with existing applications and services
- Consolidation of networks
- Lack of budget

Technology challenges that must be addressed

Quality of service (QoS) is the key issue in enterprise IP telephony. The ability to prioritize different streams is critical in a unified communications system as well as ensuring voice communications.

Criteria businesses used for choosing a system was based on the total cost of operation, the security of the system and the reputation of the vendor. The end user experience mattered as well. These security concerns heightened when the cloud was added to the mix.

To summarize, top challenges and concerns are integration issues and the lack of a budget. It was also important to go with a vendor who provided a good user experience, had the experience to manage the integration with existing systems and pricing and deployment models that address their lack of budget and need to control the TCO.



AUTOMATE!



AUTOMATE THE DATA CENTER BY VIRTUALIZING THE NETWORK

Data centers have become the cornerstone of business. New technologies, as mentioned in the previous section, are helping businesses to improve their data centers on an ever-shrinking budget.

However, most enterprise networks can't handle the dramatic increase in IP traffic that the sudden influx of devices and bandwidth choking multimedia applications has caused. It has become increasingly difficult to provide a high quality user experience with real-time applications while reducing costs.

The answer lies in transforming the network to support these changes. When done right, the transformation will reduce the network's total cost of operation while providing customers and employees with the experience they expect.

One way to enable any service, content or application – for all users, no matter the device or where they are located – is by virtualization. Moreover, interoperability can be achieved without requiring a forklift upgrade to existing equipment when based on open standards. Evolving the data center and transformation of the network is critical for supporting the numerous devices, multimedia applications on a small budget.

Automation and consolidation in the data center

Server virtualization, as well as desktop virtualization, has enabled rapid application deployment between virtualized servers as well as data centers. Legacy multi-tier hierarchical networks and manual, machine movement have become unsustainable as they were not designed to handle this level of change.

The number of physical servers is also being reduced by consolidation, but more bandwidth is required as ports move from 1GigE to 10GigE or even 40Gig. If more bandwidth and other innovations are not provided, poor application performance and latency will result. By automating and deploying advanced technology, most of these problems can be addressed while also lowering costs through reduced power and cooling requirements and fewer demands for manual IT services.

Innovative new data center fabrics cost effectively serve enterprises of all sizes with flexible, scalable, highly resilient pay-as-you-grow architecture. Through automation, new requirements placed on the network by virtualized workloads are addressed by reducing operational complexity. Deployment models include virtual data centers, multi-site private clouds and hybrid clouds.

Application proliferation

As the number of applications in use grows, so does the demand on the network. For the applications to properly perform, the network needs to have visibility of all applications and users across multiple data center sites. This network management must also support multi-modal communications that could have small to very large bandwidth demands – from IM to video. In fact, 72 % of the survey respondents thought simplification of operations was important or extremely important.

Virtual application movement and other activities, such as poor application performance or even network failure, need a fast response to ensure they are quickly addressed and by automating it, in the most cost-effective manner. Since bandwidth is not unlimited, the capability to prioritize and implement quality of service is mandatory to ensure continuity of multi-modal calls and provide appropriate levels of service based on other network activity. In fact, our research indicated that QoS and five 9s of reliability were the most important requirements for unified communications solutions.

A user's quality of experience is also important. An enterprise network that has an application fluent network infrastructure is able to accommodate new applications while maintaining existing business processes. It is accomplished through a unified architecture that integrates all the elements onto a single platform that can then be deployed in a physical or virtual environment, on premises, in the cloud, or any hybrid of these.

What did our global research tell us about data centers?

The top concerns enterprises have around data centers were the complexity of migration, the complexity of integrating data centers with existing applications and services, and the ability to scale and virtualize the data centers.

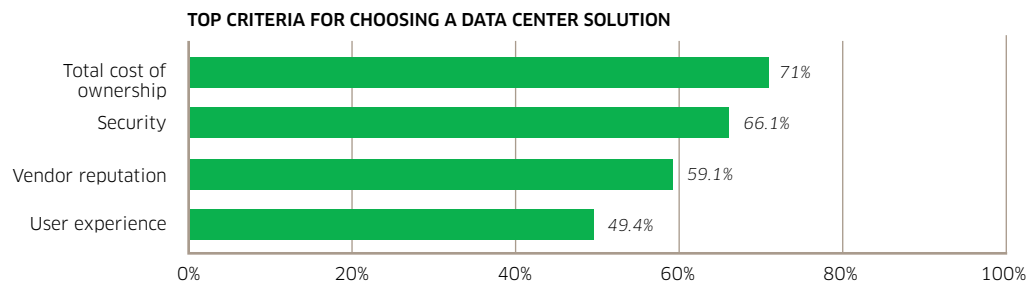
This need to be able to scale and virtualize data centers is driven by migration issues, complexity, integration and budget. Because of the perception of difficulty and costs associated with an upgrade, enterprises want infrequent upgrades and when they must do an upgrade, that it be easy and inexpensive.

Enterprises understand the need to upgrade for reasons of scalability, virtualization and consolidation. However, they do not want a forklift upgrade where they must dump everything they currently have deployed, making integration with the current vendor important as well.

This is why survey respondents ranked highly the longevity and experience of a company and investment protection provided by being able to upgrade selected pieces of a network resulting in lower costs.

Survey respondents indicated the following were challenges in deploying a data center:

- Complexity of migration and integration
- Scalability
- Virtualization





HARNESS CLOUD TRANSFORMATION OPPORTUNITIES

The shift to the cloud represents an opportunity for businesses to capitalize on the latest technology innovations to increase flexibility, while at the same time reducing IT's burden of building and managing infrastructures. Such a transformation creates an opportunity for IT to increase the strategic business value of technology assets and services by making them more adaptable to changing business dynamics.

According to IDC, investment in every category of cloud services is likely to increase in the next year, accounting for approximately 15% of the median IT budget. The reasons are clear - the cloud offers rapid deployment, flexible cost-structures, and advanced applications. And when a cloud solution is strategically deployed, it also provides an improved user experience.

Cloud use also enables an a-la-carte approach that can be applied to the unique challenges of each business. While studies show that more than half of organizations are still working to identify the most appropriate cloud-based solutions for their business, the enterprises have common goals – to simplify operations and improve employee productivity while protecting cash flow. Our research indicates that 30% have deployed a cloud solution and 54% are in the process of doing so. Most indicated a desire and need for a partner in this endeavor.

Technology is transforming businesses in fundamental ways

The potential for an organization to contract and consume almost everything as a service from the cloud is a dramatic shift for IT business models, and it is occurring rapidly. One of the important implications is the effect this is having on traditional business models. Most of the capabilities enabled by using cloud technologies were available only with significant CAPEX investment and IT staff to design, deploy and manage them. That is no longer the case.

New financial and business model options

The desire to not spend money yet wanting to take advantage of new opportunities requires pay-as-you-go service models, such as managed services delivered from the cloud. As the “app”-ification of the enterprise gains momentum, enterprises are discovering new ways to integrate and deploy new features and value into existing infrastructure without a great deal of investment.

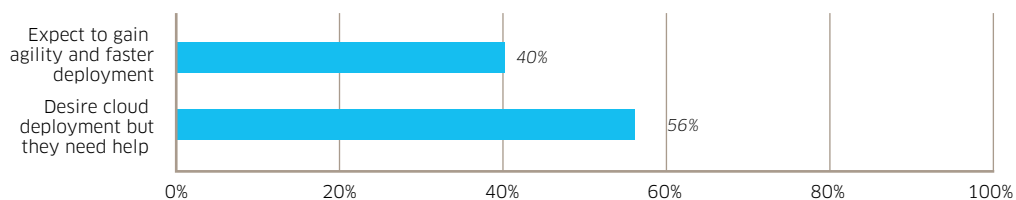
The cloud is helping businesses who have been faced with economic uncertainty in recent years and positively impacted their willingness to make investments in new technologies, applications, and infrastructures as they offer performance improvements and opportunities to increase their competitive advantage.

What did our global research tell us about the cloud and the enterprise?

Our research indicated that enterprises recognize the need to move to the cloud if they are to increase the flexibility of their deployment of services and realize significant cost savings. However, they are stuck due to a lack of knowledge of the technology and what it has to offer them, the lack of a partner to implement it with and no understanding of the right business model for their particular use.

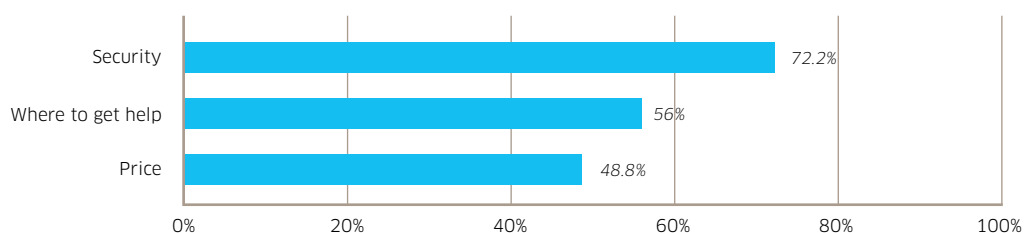
According to IDC, by 2015, one of every seven dollars spent on packaged software, server, and storage offerings will be through the public cloud model. Growth in this area is four times the worldwide IT market growth (CAGR-27.6%).

SURVEY RESPONDENTS INDICATED THAT THEY...

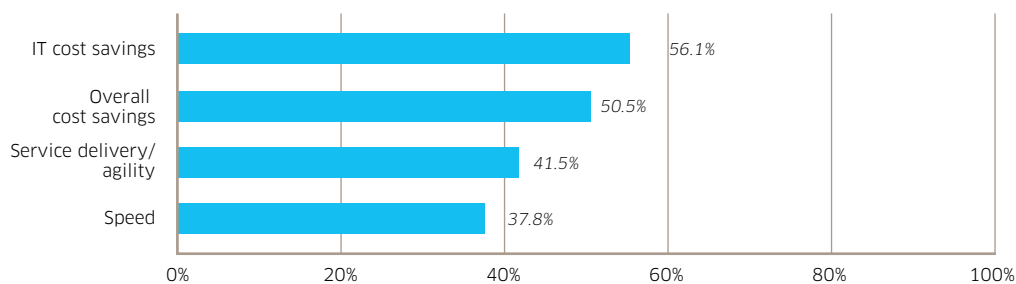


Enterprises are most concerned about the security and related issues of confidentiality and privacy and the price of the cloud-based model.

RESPONDENTS' TOP CONCERNS WHEN CHOOSING A CLOUD-BASED SOLUTION



REASONS RESPONDENTS WOULD SELECT A CLOUD-BASED SOLUTION



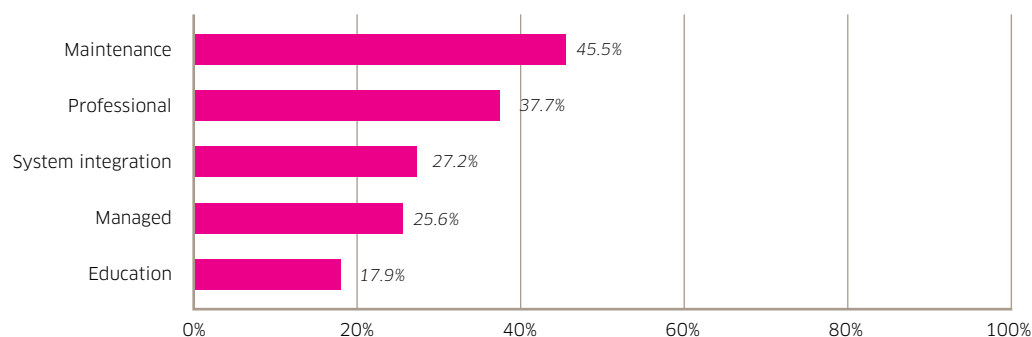


ENTERPRISES LOOK TO VENDORS FOR TRAINING AND DEPLOYMENT

The dynamic changes that are occurring have even the most competent IT department worried about how they will be able to deliver everything that is expected of them and their communications network. Off loading to the cloud buys only some relief as they still need help with the cloud. Survey respondents were very clear about their need for knowledge, training and help from the vendors they buy from.

Respondents expect vendors to provide service package options and resources so that they can jointly address their complex transformation processes including integration, application and support services.

SERVICES RESPONDENTS NEED FOR UNIFIED NETWORKS TO BE SUCCESSFULLY DEPLOYED



CONCLUSION

What does this mean in the Personal Cloud Era?

The truth is, addressing these trends is complex and places demands on an enterprise's budget. However, new technologies provide enterprises an opportunity to expand and differentiate their business while improving customer engagement and workforce satisfaction.

Business executives need to focus on the total cost of ownership as they make a business case for the technology investment required to support their business needs. As the shift to the cloud occurs, other business models need to be explored to provide optimum service at a minimum cost.

IT managers need to address several concerns including migration, integration and the complexity of the task at hand. They need to consider multi-vendor integration for their networks and data centers as well as applications. Ideally, any technology they deploy should be future proof so that they are able to avoid a forklift replacement of their current network. And, their needs to be policy driven management as part of an overall security plan.

Employees and customers both demand and expect to be able to use whatever device they bring to work and run whatever application they desire. To deliver on this expectation, the network needs to be secure, application fluent and able to support collaboration tools.

The challenges and trends faced by enterprises today are significant. However, with the right partner and technology, it is possible to benefit from the new technologies available. New technologies are important to an organization's ability to differentiate itself and grow its business. Your IT department's workload will get more manageable while taking on more devices. Your finance department will be happy that the enhancements are within budget. And lastly, the users whether they are employees or customers, will be happy with the latest technology available to them when interacting with your company.

ACRONYMS

BYOD	bring your own device
CAPEX	capital expenditure
CIO	chief information officer
CTI	computer telephony integration
ERP	enterprise resource planning
IT	information technology
PC Era	personal cloud era
OPEX	operating expenses
QoE	quality of experience
QoS	quality of service
ROI	return on investment
TCO	total cost of ownership

FOR MORE INFORMATION

For additional information on the results of the *Alcatel-Lucent Enterprise 2014 Global Research: Enterprise Communications Challenges & Opportunities* survey please go to <http://www.enterprise.alcatel-lucent.com>. For information on the *Alcatel-Lucent Enterprise 2014 Global Research: Business Partner Challenges & Opportunities* survey please check the Alcatel-Lucent Business Partner website.

ABOUT THE AUTHOR

Vicki Vaughn

Vicki Vaughn, currently a technical marketing writer and editor of marketing and communications materials for various traditional and social media outlets, has over 18 years of experience in the telecommunications industry working in various marketing, public relations and investor relations positions. Prior to telecom, she worked several years as a product manager for a software engineering company and prior to that as a CAD/CAM software programmer.

Recently, Ms. Vaughn became a Registered Patent Agent with the USPTO. Prior to that accreditation, she earned a J.D. in Law from Abraham Lincoln University, an M.B.A. from the University of Southern California with an emphasis on brand marketing and a B.S.E. in Computer Engineering from the University of Michigan.

ABOUT ALCATEL-LUCENT ENTERPRISE

Alcatel-Lucent Enterprise is a world leader in communications, networking and cloud solutions for businesses of all sizes, serving more than 500,000 customers worldwide. Our on-premise and cloud-based solutions help organizations enable collaborative conversations fostering customer and employee engagement over intelligent, adaptable and cost-effective networks.

Alcatel-Lucent Enterprise leverages a global team of technology experts, service professionals, and a global partner ecosystem to meet the unique needs of small businesses to global companies with tailored offers that meet requirements of various market segments and industries.