Supporting the Hyper Efficient Worker:

Delivering on a global integrated collaboration, communication & mobility strategy

BT

Executive Summary

More than ever, today's knowledge workers expect access to a full range of collaboration tools available from any device and location. To address the rapidly evolving needs of their workers, BT takes the view that most enterprise customers will gradually replace their often fragmented communications infrastructure with a centrally managed and globally standardised collaboration platform.

The benefits are undeniable, both from a worker productivity and total-cost-of-ownership perspective.

The core challenge for many companies, however, lies in managing that transition while protecting legacy investments, keeping costs under control and maintaining security.

In this paper, BT outlines a framework termed the Collaboration Tower that helps enterprise customers successfully develop their UCC strategy roadmap.

BT finds it important to take a business and user driven approach to define and execute on integrated collaboration and communications (UCC) strategies. The successful definition and deployment of an integrated collaboration strategy entails the following six steps:

Create a global collaboration practice

Demand management: provide a service catalogue for end users and business units

Move to SIP as the key enabler for service integration

Define a leading technology standard

Procure cloud-based technology and services

Execute on a customised UCC roadmap

Context and Challenges

In the midst of the great transition

The way organisations operate is changing rapidly. Trends such as globalisation, mobile working, technology consumerisation and Bring Your Own Device all have a major impact on how people interact together to achieve their business objectives. BT is seeing end user driven adoption of increasingly powerful personal and corporate technologies that enable people to work together across time and place, and to create and harness knowledge more efficiently than ever.

The impact on organisations is profound. Physical spaces are changing to adapt to the fact that in some companies up to 80% of the employees work away from the office. Traditional organisational structures are changing as people increasingly work in international and cross-functional teams.

Supplier and customer relationships are evolving as companies discover ever more efficient and intelligent ways of interacting with each other. And underpinning it all, IT and communications infrastructures are enabling a seamless collaboration experience, independent of people's location and the devices they use. More than ever, users expect to have a full range of collaboration tools available for any device they happen to be using.

We highlight the two major trends we see today: globalisation and the surge in tablet use in a business setting.

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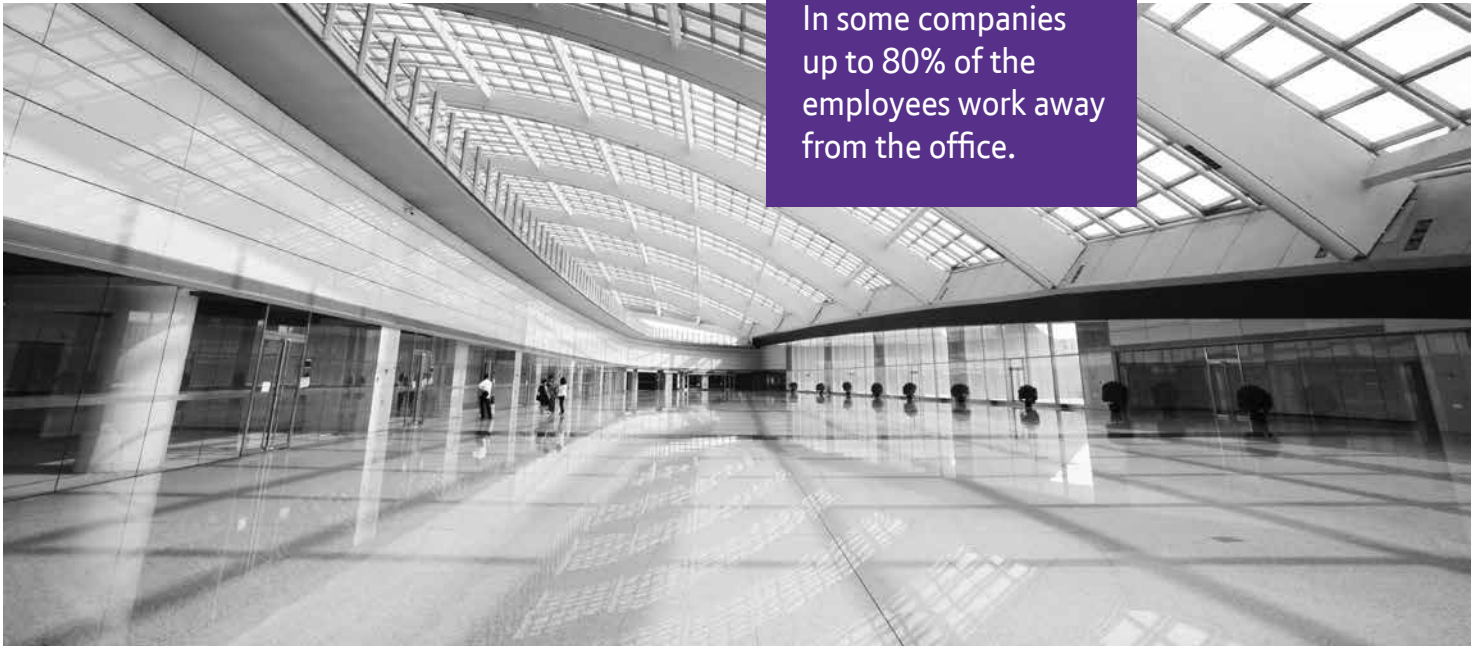
Instantly global

In their search for growth, many companies are focusing on entering new markets. The world's economic centre of gravity is moving toward growth markets such as China, India and Brazil. As a result, multinational companies are investing in these regions via acquisitions and Greenfield investments.

This is affecting the way these companies operate. People-centric jobs and processes are becoming globalised. Administration, financial and manufacturing processes are now being operated by virtual teams spread across the world, making use of low-cost countries in the most optimal ways. And while roles and responsibilities are increasingly geographically dispersed, corporate governance and intellectual property are not and remain central.

This means managers and executives need to travel large distances to coordinate and manage their teams.

Cloud-based collaboration technologies enable tighter integration within these companies, making it possible to connect and collaborate with practically anyone, anywhere instantly at various levels of real-time interaction: IM, voice or video. Instant Globalisation has become a reality with the concept of the cloud. In that regard, IT increasingly is being asked to deliver a consistent cloud-based collaboration experience on a global level. Wherever end-users happen to work or travel, they expect to have access to the corporate network and its resources using any device.

Consumerisation and the tablet surge

While most CIOs recognise this gradual shift in the ways of working and are considering Bring-Your-Own policies, BT finds that the pace of change is accelerating. At many enterprise customers, BT is witnessing a rapid take-up of tablet PCs in the corporate environment. While users often already had access to collaboration tools such as Presence and IM via their corporate PCs or laptops, many users are discovering the real value of such tools via the enhanced user experience of tablet PCs.

> A recent Gartner study forecasts that unit tablet sales will reach 337.8 million by 2015.

With global sales of tablets projected to soon outstrip those of desktop and mobile PCs, this is a trend expected to continue. A recent Gartner study forecasts that unit tablet sales will reach 337.8 million by 2015, outperforming combined desktop and laptop sales of 292.2 million. Given such figures it is likely that more corporate users will embrace the tablet as their primary device.

The tablet market is at a tipping point, and this in turn appears to be tipping user's expectations of their corporate communication infrastructure. A truly seamless collaboration experience that integrates voice, messaging, video and content sharing, across all devices and platforms, and protecting company data, is rapidly becoming the new norm.

Breaking the silos

More urgently than ever, the challenge for IT is to meet their organisation's new requirements while keeping costs and security under control. This is, however, no easy task.

Until recently, most companies had no choice but to source components of their communication infrastructure piecemeal, working with multiple partners for WAN, LAN, cabling, telephony minutes, and video conferencing.
Hardware would also need to be purchased locally from a variety of different partners. This typically creates a major operational burden for companies since procurement models and SLAs will differ, and accountability will be scattered across a range of departments and external suppliers.

In sum, many companies are finding themselves encumbered by a siloed collaboration infrastructure, as a result of historical technology availability or local procurement budgets.

Meanwhile, new devices and collaboration services are gaining traction among users, which in turn is rapidly raising expectations of the broader collaboration environment, and placing tremendous pressure on the enterprise communications network.
WLAN, cellular and network infrastructures need to deliver additional communication and collaboration services and capacity while ensuring core business network services and security.

Telephony, for example, is often procured and managed in the regions, while other components are managed centrally by IT. Conferencing services frequently have been procured on an ad hoc basis by different departments. Furthermore, few of these components are effectively integrated with each other, with creates a cumbersome end-user experience.

To an extent, IT consumerisation has made the situation worse because people are bringing into the corporate environment a range of new devices and services with little to no company control. Obviously this is also a tremendous challenge for the internal IT helpdesk since they need to have the competencies in-house to support these diverse components.
Given the economic malaise, many companies are cutting costs, meaning there is tremendous pressure on company's existing IT resources and staff.

This raises the pivotal question for IT: how to make the transition to an integrated communication and collaboration environment, while protecting legacy investments, keeping costs under control, connecting with the corporate security policy and above all managing change for users adapting to this new collaboration.

The promise of an integrated collaboration tower

What are companies looking for?

Enterprise customers are looking for a collaboration infrastructure that delivers a more intuitive, integrated and faster collaboration experience, but that nevertheless maintains tools that are familiar to end users.

From IT's perspective, a globally consistent service catalogue of collaboration services delivered from the cloud with global SLAs is required. This should make it easy to roll out new services and up- or downscale capacity as needed.

Finally, companies are looking for a centralised collaboration practice, incorporating a single helpdesk, centralised management of user devices and applications, and centralized visibility of communications costs.

> Employee engagement improves which can increase employee retention by up to 20%.

The benefits of an integrated collaboration tower

In BT experience's, companies that have successfully made the transition to an integrated communication and collaboration environment can expect a wide range of strategic benefits.

These include efficiency gains such as 25-40% lower real estate costs per head, lower mobile roaming costs and 10-20% increase in productivity. On the human productivity scale BT has seen absenteeism reductions of up to 60% and 30% travel cost reductions. Competitiveness improves through enhanced brand reputation, increased client satisfaction, an ability to accelerate through the business cycle and perhaps most importantly for many companies, a faster pace of innovation. Finally, employee engagement improves which can increase employee retention by up to 20%.

For IT, the operational burden is significantly reduced and can be almost entirely centralised. This radically improves cost transparency and in most cases will translate into significant cost reduction.

Most importantly, by delivering a seamless collaboration service, a far superior user experience is created, which will drive user adoption.

Key efficiency metrics	Human productivity	Competitiveness	Employer brand
• 25-40% lower real estate cost per head • 10-20% increase in productivity • control mobile costs	• reduce human latency • reduce travel costs 30% • absenteeism down 60% • improve resilience to business disruption	• enhance client brand reputation • increase client satisfaction by 10% • accelerate business cycle • differentiate through innovation	• enhance employer brand reputation • improve employee engagement index • increase employee retention 20% • improve the sustainability of your business

Building the integrated collaboration tower

BT has developed a framework – termed the Collaboration Tower – for helping multinational enterprise customers organise and implement UC successfully. The BT Collaboration Tower breaks down geographical barriers and creates new working relationships within the organisations, as well as with internationally dispersed teams, customers and suppliers.
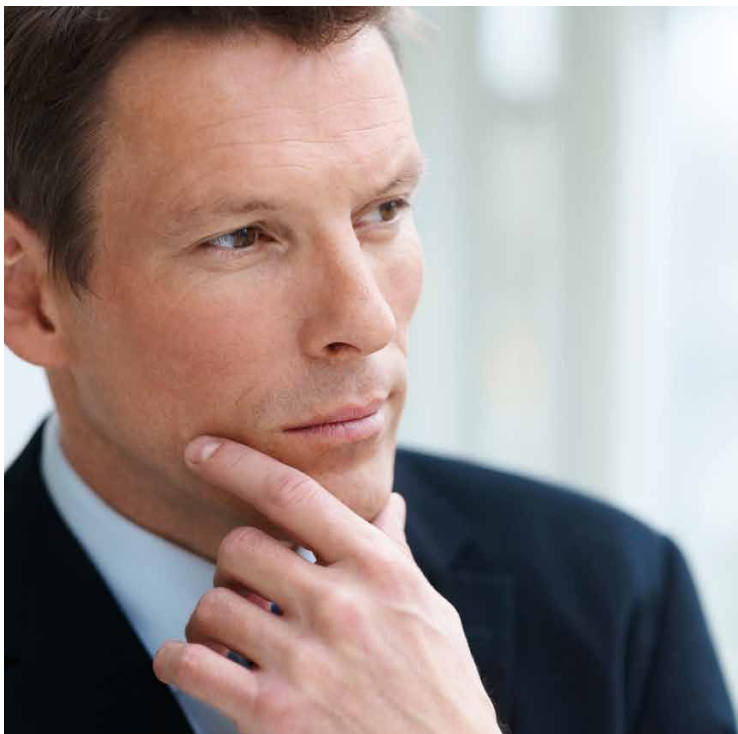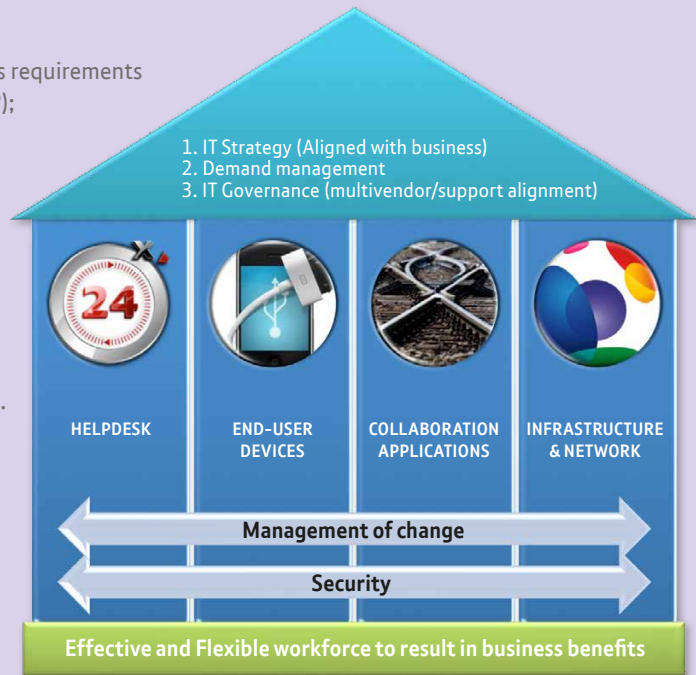
The Collaboration Tower describes ICT sourcing as a house consisting of a roof that is supported by four underlying pillars. The house is the total IT budget.

The roof consists of three key components:

- IT strategy, which is designed to address the business requirements and objectives (how do we enable business strategy?);
- Demand management (what and how much do we need to execute on our strategy?);
- Governance (which parties do we work with and how do we manage all these contracts?).

The roof covers four pillars of activity:

- The helpdesk: responsible for addressing all questions from end-users, including opening and follow-up of trouble tickets and solving outages.
- End-user devices: e.g. desktop, fax, telephone, bring-your-own-device, printers.
- Applications: including voice, video, conferencing services, IM/P, softphone, mobile.
- Underlying infrastructure and network: this covers the required infrastructure that needs to be adapted or upgraded to deliver the applications, like WAN, LAN, Wifi, servers and storage.

1. IT Strategy (Aligned with business)
2. Demand management
3. IT Governance (multivendor/support alignment)

HELPDESK   **END-USER DEVICES**   **COLLABORATION APPLICATIONS**   **INFRASTRUCTURE & NETWORK**

Management of change

Security

Effective and Flexible workforce to result in business benefits

BT finds it important to take a business and user driven approach to define and execute on an integrated collaboration and communications (UCC) strategy.

The successful definition and deployment of an integrated collaboration strategy entails the following six steps:

1. **Create a global collaboration practice**
2. **Demand management: provide a service catalogue for end users and business units**
3. **Move to SIP as the key enabler for service integration**
4. **Define a leading technology standard**
5. **Procure cloud-based technology and services**
6. **Execute on a customised UCC roadmap**

Create a global collaboration practice

BT takes the view that nothing in today's network and communication infrastructure should happen in isolation. Each of the above described components of the Collaboration Tower are interlinked and failing to integrate them will result in poorly performing networks and applications, poor user experience and higher costs.

Develop strategy, roadmap and business case

Companies should begin by defining their integrated communication and collaboration strategy and developing a clear roadmap for the transforming process aligned to their overall IT Strategy. In order to develop a solid business case and roadmap for the deployment of the integrated collaboration tower, it is tremendously helpful if effort has been made to understand the current communications and collaboration environment. This can be challenging, especially with regard to voice, because it typically is procured and managed by local divisions. A company's service provider should have experience in supporting customers with such discovery projects, for example, by helping IT ask the right questions to the right people. Once a more accurate view of current assets and costs commitments is achieved, it is easier to calculate the cost-benefits of a migration to cloud-based services and when such migration should optimally take place.

On the benefits side of the cost-benefit analysis, BT recommends focusing on the hard benefits first, especially in the areas of roaming, conferencing, outbound voice, TDM-to-SIP consolidation, etc.
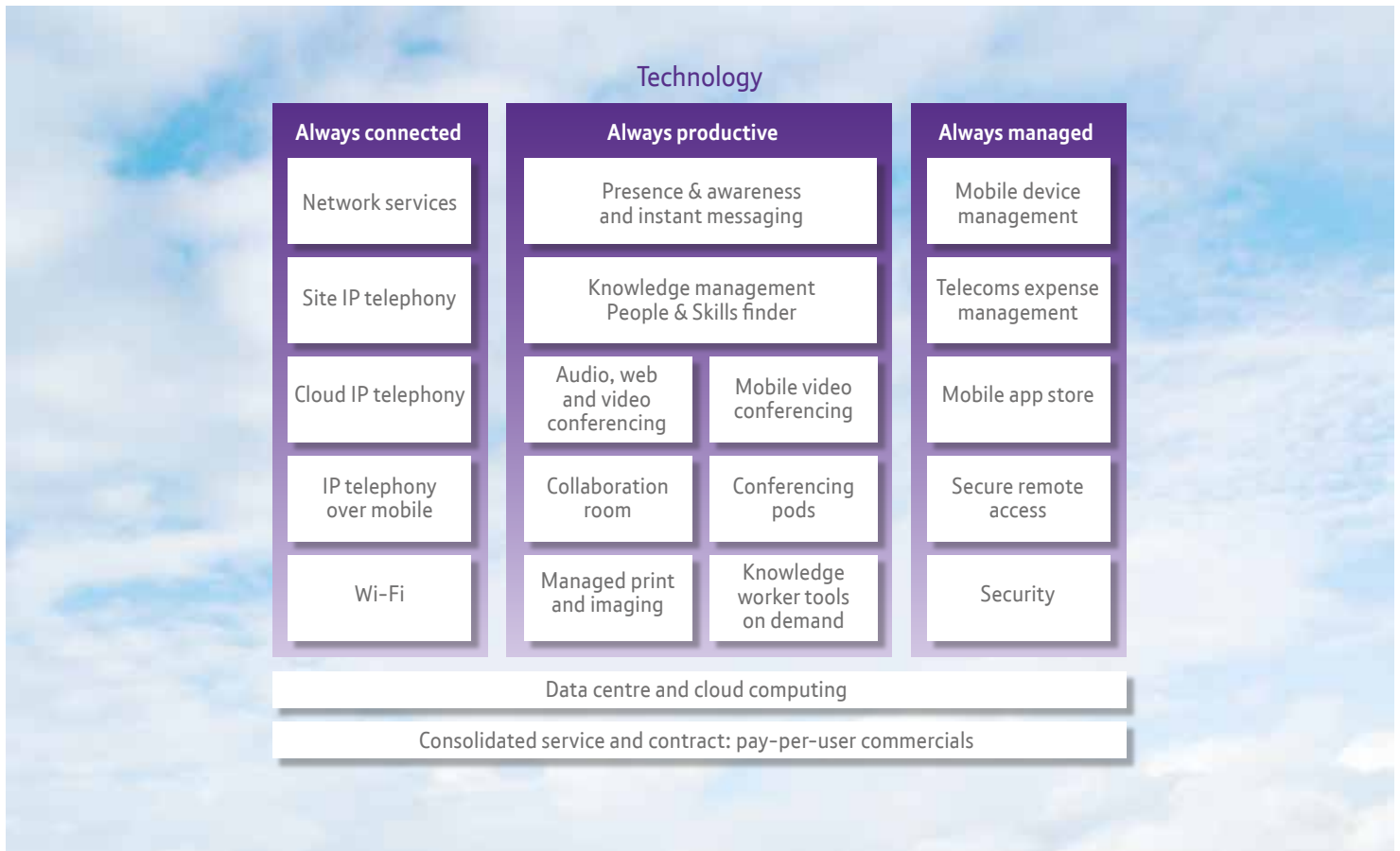
Centralise management of helpdesk, applications, devices and the network

The benefits of a more centralised, standardised and cloud-based approach to managing helpdesk, applications, devices and the network are undeniable. Companies that have begun migrating components of their collaboration stack to the cloud will find that they need less equipment and operational support at local sites. Simultaneously, the centre gains far more visibility and control over the collaboration services. Clearer lines of responsibility are established and supplier relationships are simplified.

Demand management:
provide a service catalogue to end-users and business units

An integrated, cloud-based collaboration tower enables IT to deliver a globally consistent service catalogue of collaboration, mobility and cloud services to business units and end-users. A service catalogue typically consists of the following elements:

Technology

Always connected	Always productive		Always managed
Network services	Presence & awareness and instant messaging		Mobile device management
Site IP telephony	Knowledge management People & Skills finder		Telecoms expense management
Cloud IP telephony	Audio, web and video conferencing	Mobile video conferencing	Mobile app store
IP telephony over mobile	Collaboration room	Conferencing pods	Secure remote access
Wi-Fi	Managed print and imaging	Knowledge worker tools on demand	Security

Data centre and cloud computing

Consolidated service and contract: pay-per-user commercials

This framework should allow IT to easily roll out new services as needed, and up or downscale capacity in response to business needs. Services are also offered with global SLAs, greatly simplifying management and accountability.

From a budgeting perspective, clear cross-charging paths can be defined so that business units pay for the services they are using. This is especially important in decentralised organisations, so that local budgets can be kept in place but locally procured equipment and services can gradually be replaced by cloud-based services. Ultimately, however, the company's management will need to take a stand on where the company is going with regard to its UC platform; a situation should be avoided where some business units or sites opt out of the centralised platform.

BT advises its customers to develop user profiles along the different business units. By understanding the needs of specific user segments it is possible to plan, in a targeted manner, what services should be offered to whom and how they should interconnect with business processes.

Recall that given the rapid pace of technological change, people's needs will evolve and adapt to achieve new and accelerated business goals. For example, users considered desk bound a year ago are now enthusiastic users of tablets. Also, given the range of available services, it will make little sense to offer everything to everybody. In other words, do not blanket people with services.

Finally, user adoption should be the core performance metric of the collaboration tower, a metric that is easily tracked in a managed, cloud-based environment.
For example, previous use of company's video conferencing facilities were rarely monitored effectively, but in a managed environment usage is systematically monitored and analysed in context of the broader set of collaboration services.
In response, specific tools can be deployed that let companies drive adoption in ways that were impossible in the past.

Move to SIP – the key enabler for services integration

Enterprises are replacing legacy TDM telephone networks with more efficient and cost-effective end-to-end IP networks. SIP lowers voice costs and brings resilience, flexibility, and a roadmap to feature-rich multimedia. UC will be an application on a data network, engineered to high levels of performance for voice and accommodating the growth in video.

By converging voice, video and data onto a common IP network, businesses can consolidate and centralise their infrastructure; at the same time, operations, administrations and maintenance are streamlined.
By moving to SIP, it enables businesses of all sizes to connect autonomously to IP telephony islands, protect and extend previous investments and overcome multi-vendor, multi-protocol interoperability issues brought on by decentralised purchasing decisions, mergers and acquisitions.

Realizing immediate cost savings

Customers who spend more than €700,000 on voice per year can save on average 25% by combining voice and global VPN traffic and moving to SIP Trunking to eliminate voice access network infrastructure costs.

Further cost savings can be realized by connecting your voice network to a global Telecom provider such as BT, enabling companies to have outbound voice at the best available rates to any destination.

To illustrate, Prudential recently aggregated its voice channels across the UK saving the company over €115,000 per annum on line-rental charges alone. Additionally annual maintenance and support savings of around €467,000 are forecast once the legacy PBXs are fully decommissioned.

Benefits and Myths for SIP-Services

Benefits:
- Many corporates have invested in voice ready MPLS WAN infrastructure
- Voice traffic carried on net site-to-site is free of charge
- SIP is the standard of choice for inbound and outbound services on converged networks
- Avoid point-to-point trunking and instead consider fully meshed and global reach for fixed/mobile traffic
- Managed as service
- Reduce other access charges – for example adoption of on-net conferencing.

Myths:
- Moving from TDM to SIP will cost more
- Legacy alarms and fax will not work on SIP
- Reduced voice quality

Define your technology standard: choose one or two leading technology vendors

Many organisations have deployed technology from multiple communication and collaboration vendors. BT recommends that customers choose one or two anchor vendors.
The choice of vendor will depend on the needs of end-users (which tools are they familiar with?, how is the organisation's communication culture evolving?), the needs of the business (what processes need to be supported by collaboration tools?), and is the existing infrastructure in place.

Benefits for this approach are multiple: it reduces complexity, simplifies the user experience and resulting in overall cost savings by consolidating maintenance, leveraging economies of scale and licensing discounts.

Hybrid Architecture

BT finds that a big-bang approach to implementing a collaboration platform is inadvisable. Instead, we recommend an approach that protects legacy investments.
Existing equipment should be utilised so customers can continue to benefit from the capital investment they have already made.

Therefore, customers require enterprise UCC solutions that are integrated with existing and third party equipment. This integration needs to be global, across multiple vendors, and managed end-to-end.
While the hybrid architecture approach is good for a certain time period, customers will eventually smoothly transition to the newly declared vendor standards.

Procure cloud-based technology and services

To the cloud, while protecting legacy

BT finds that companies increasingly seek to procure collaboration tools as a service and on a utility basis. In that regard, companies are moving to cloud-based offerings that are managed on an end-to-end basis. While a centralised, cloud-based approach makes sense, many corporates have invested in converged communications infrastructure such as IP Telephony. When companies have made such significant investments, it makes sense to merge these platforms with new centralized UC platforms through a secure E-SBC (Enterprise Session border Controller) layer allowing adoption of the cloud while protecting large IPT investments.

In this scenario the company will obviously still need a clear vision of where it ultimately is going with communication and collaboration and let that vision drive what is invested in.

"Many companies have video room based systems that are underutilised because of lack of training of the end-users, lack of working set-up. In a global video bridging service, these systems can be booked, proactively managed and interconnected to both company and partner networks while being integrated to other audio/video/web collaboration services."

Jerry Teahan,
Director Solutions Sales - Europe at BT Global Services

Ensure governance: assess your service provider's global capabilities

Delivering a cloud-based collaboration platform on a global basis requires significant capabilities and global presence. It requires ownership of a comprehensive systems and services stack, partnerships with the leading collaboration vendors and regulatory approval to run SIP services in numerous countries. It is worth conducting a thorough evaluation of prospective service providers upfront so as to avoid problems later on.

Security: know where your data is

Moving to a globalised and integrated collaboration environment does have security implications. Simply put, your data will be dispersed on multiple devices (both corporate and personal devices), systems (in the cloud and in the office) and locations. The challenge, therefore, is to keep track of where your data is, protect it from internal and external threats, and ensure compliance with regulation. Also important is that your security measures enable you to do more, not less.
To address these challenges, BT advises its customers to embed security principles in the organisation's technology, processes and policies. This is not something that should be bolted on as an afterthought. For example, security of mobile devices can be integrated in a company's cloud-based mobile device management platform. This simplifies the management of all stages of the mobile application lifecycle, making it easier to support constantly changing applications, operating systems and devices.

Execute on a customised UCC roadmap

Besides defining a strategy and fulfilling your organisational requirements, BT recommends that companies set a clear IT roadmap for UCC. These are lessons that BT has learned through its track record in UCC infrastructure design and integrations.

BT typically advises three steps to create a converged and integrated collaboration and communications infrastructure.

1. Consolidate legacy:
   rationalise existing estate and consolidate infrastructure that comprise a mixture of technologies, contracts and vendor equipment

2. Converge technologies:
   migrate to a converged WAN and LAN and examine voice integration options and full IP telephony
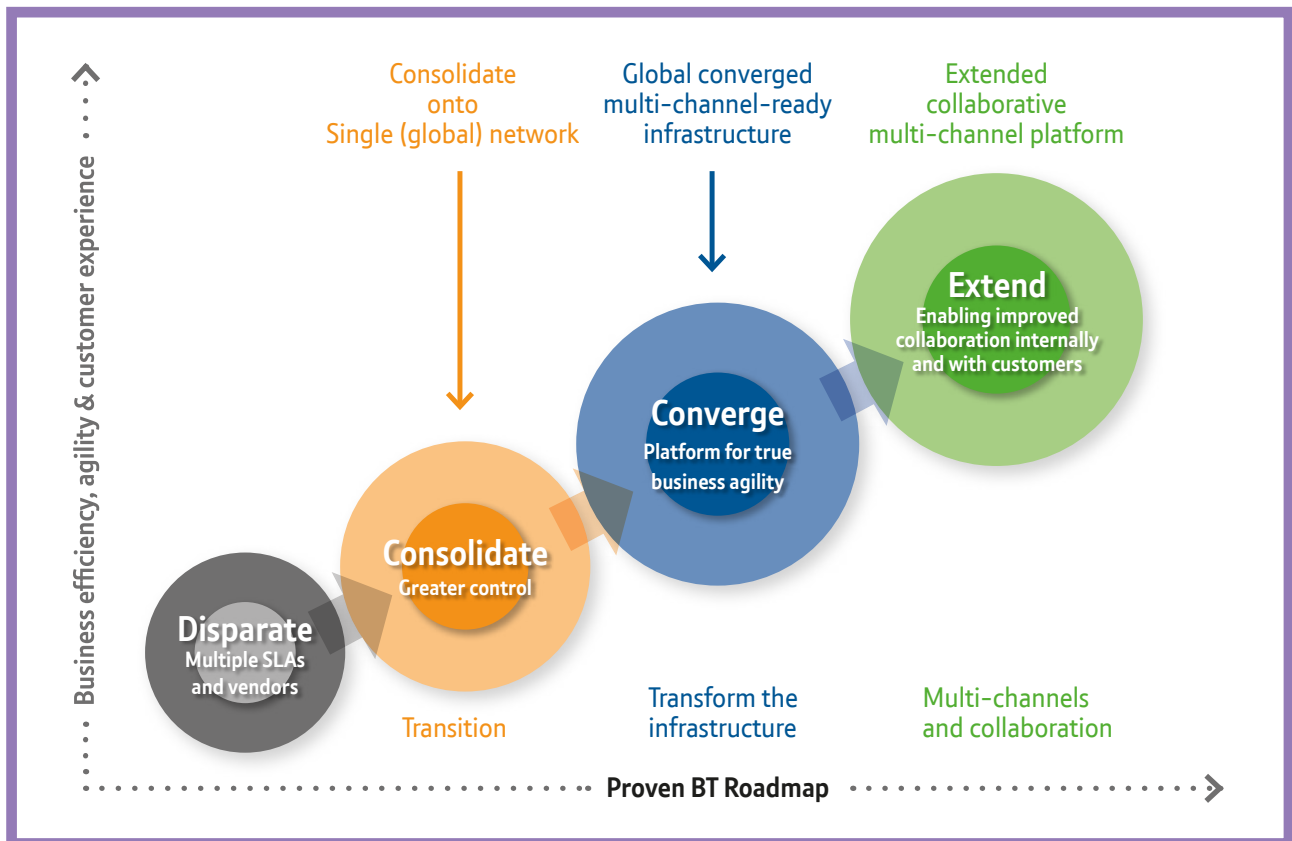
3. Extend to UCC:
   select the technology options that suits your business and user needs best, such as Microsoft, Avaya or Cisco. And choose your service delivery methods (e.g. hosted and/or managed), and professional SI partner, like BT Advise.

Case study: the London 2012 Olympics

When it came to voice services for the London 2012 Olympic and Paralympic Games, it was natural that calls would be carried as IP traffic between the 94 venues, including 34 competition arenas.

"The London 2012 voice architecture of choice, BT One Cloud, hosted IP telephony had already proved highly successful in major public and private organisations," says Hannah Wignall of the BT London 2012 Delivery Programme team. This well-proven architecture is highly scalable and offers advanced features while saving money by keeping calls off the public network. And during Games-time, London 2012 would become the largest BT One Cloud customer implementation project in history.

Hannah Wignall sums up: "The BT One Cloud service offered a total plug-and-play capability and, along with the BT IP Connect wide area network, provided virtually 100 percent availability."

Business efficiency, agility & customer experience

Consolidate onto Single (global) network

Global converged multi-channel-ready infrastructure

Extended collaborative multi-channel platform

Disparate
Multiple SLAs and vendors

Consolidate
Greater control

Converge
Platform for true business agility

Extend
Enabling improved collaboration internally and with customers

Transition

Transform the infrastructure

Multi-channels and collaboration

Proven BT Roadmap

BT

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