Tomorrow starts today

Unified Communications
Unified Communications is playing an increasingly valued role in enterprise communications as it serves to transform disparate (silo) communication systems into a common interface that makes it quicker and easier to communicate.

Because Unified Communications is designed to support a single communications platform, it breaks down geographical, communication mode, device, and user-accessibility barriers, thus enabling people to be reached easily anywhere, anytime.

While there is a common understanding of the increasing role that Unified Communications is playing across enterprises in various sectors, the solution can also present challenges if not implemented properly. Therefore it is essential that proper guidance is sought and followed in order for enterprises to realise maximum benefits from what the Unified Communications solution has to offer.

In this article, the objectives are to provide enterprises with a thorough understanding of Unified Communications developments as well as its benefits. The article will also provide essential guidance on how to implement the solution and highlight the key strengths of Telkom Business as the right partner to help customers extract the most value for moving to a Unified Communications environment.
Defining Unified Communications

One of the most commonly used and accepted definitions of Unified Communications is the integration of real-time communication services such as Instant Messaging (IM), presence, Internet Protocol Telephony (IP telephony), video and data sharing with non-real-time communication services such as unified messaging (UM) and voice mail.

IP telephony encompasses technologies that use IP networks to transmit voice and other forms of information as packets of data as opposed to being traditionally carried over circuit-switched connections such as Public Switched Telephone Network (PSTN) and public data networks.

Messaging includes UM and IM – the former refers to the integration of non-real-time applications such as email, SMS, voicemail, and fax messages, while the latter refers to the use of real-time applications such as online chats that are transmitted as text.

Presence information allows others to see in real-time the status of someone's availability on the network and to select an appropriate method to communicate with him/her.

Furthermore, Unified Communications includes collaboration tools such as conferencing (audio, video and web conferencing).

Web collaboration provides the tools an organisation requires to increase sales, facilitate new revenue-generating opportunities, and to enhance customer satisfaction and loyalty. Collaboration capabilities include shared workspaces, file and document sharing for employees to manage and share efficiently without having to leave the application.

Understanding unified communications

As presented in figure 1, Unified Communications comprises of various components. Essentially that means the solution does not refer to one product or service offering. Instead, it is a combination of two or more real-time and non-real-time communication service components or categories that provide constant access to the enterprise’s resources for employees and customers or stakeholders to access virtually anywhere.

Similarly, the Unified Communications market comprises of various players. Major vendors include Cisco, Microsoft, Avaya and Unify. The vendors are typically dominant in specific areas within the broader Unified Communications service categories with large enterprises essentially requiring the best-of-breed Unified Communications functionalities across the vendors. Inherently, large enterprises require working with a service provider that can integrate vendor offerings into a seamless solution.
Unified Communications Industry Trends

The Unified Communications market is growing steadily thanks to enterprise mobility demands, innovative technologies and a robust vendor landscape. By contrast, the global telephony market shows the traditional PBX market is in decline. Unified Communications services (and cloud-based IP-PBX services) are seen to be primarily responsible for the decline in the PBX market.

The accelerating adoption of Unified Communications application services has led to a reported 31% year-on-year growth in 2013 and 16% compounded annual growth rate (CAGR) from 2012 to 2018 worldwide. Revenues were estimated at ZAR252.6 billion in 2011 and predicted to reach ZAR691.8 billion in 2018 globally. In South Africa, 91% of large enterprises had strategic plans by 2013 to evaluate and implement two or more components of Unified Communications applications “in the medium term” against 78% two years before.

Several factors are influencing the trends characterising the market today. The most commonly identified trends within the Unified Communications space are:

- The move from on premise (capex intensive) to hosted (opex-based) deployment models necessitated by the enterprises’ need to reduce upfront deployment costs, focus on core business competencies and respond quickly to the rapidly evolving communications landscape.

- The move to cloud-based Unified Communications in order to speed up deployment, and meet scalability and availability requirements. Scalability is essentiality critical for addressing an enterprise’s immediate demands due to growth while availability is critical where an enterprise’s operations become more dispersed and centralised models are unable to meet the distributed operations.

- Selective deployment of Unified Communications components indicating that the solution’s journey is different across enterprises. This is because not all Unified Communications components are deployed at the onset. Most enterprises initially deploy some components of Unified Communications in particular IP telephony, IM, and presence. Further application components such as video conferencing are added later. The applications may come from different vendors depending on what presents the best business case to the enterprise.

- Consolidation of voice, data and video on to a single (all-IP) network to make for an effective management of all communications networks if they are on a single platform.

- Enterprises recognising the growing importance of “Bring Your Own Device (BYOD)” as employees increasingly use their personal devices such as mobile phones and tablets to perform their work-related functions. That means enterprises that accept the BYOD trend can benefit if personal devices are used to improve employee productivity.

- Increasing interest in WebRTC as a result of users being able to “click-to-call” from a web page or mobile app without having to go through the traditional route of picking up the phone to make a call.

- Video Collaboration evolving the way enterprises interact with their customers. Overall customer experience is transformed by an organisation’s ability to link a customer to an expert first time through video interactions.

- Early Unified Communications adoption rate by enterprises in certain vertical circles such as financial services, healthcare, education and retail. Many have deployed on premise Unified Communications but are moving to hybrid models to take advantage of the increased availability and scalability the hosted or cloud-deployment models offer.

Although the trends presented may paint a global picture, similar trends are prevailing in South Africa. For instance, enterprises are adopting an outsourcing approach as they look to strategic partnerships to manage their day-to-day communications requirements which constantly require updating to meet the expanding or changing needs of the business.

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1 Infonetics Research, Enterprise Unified Communications and Voice Equipment, 2014

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Unified Communications Business Drivers

The changes in communications and application technologies and end-user trends such as mobility and BYOD are influencing the value and therefore the business drivers, compelling the adoption of Unified Communications.

Unified Communications business drivers, however, need to be understood not as an ICT product but rather as a tool to better leverage internal resources and improve the effectiveness and efficiency of communications with customers and business partners.

The key business drivers for Unified Communications typically consist of a combination of internally focused business productivity, employee collaboration and cost avoidance together with externally focused customer sales and service needs.

There are, fundamentally, three ways Unified Communications solutions impact on an enterprise’s business drivers: tangible, intangible and technology business drivers.

Tangible business drivers typically involve quantifiable savings in terms of monetary gains. These are motivated by an enterprise’s need to reduce, eliminate or avoid costs in areas such as:

- Travel expenses
- Cost to communicate
- Redundant infrastructure
- IT staff overheads

The following figure shows the pressing business needs pushing the tangible driver:

![Figure 3: Tangible Drivers and the Areas they Impact](source: Telkom Business, 2014)

Intangible business drivers are those gains that may not be easily quantified in financial value. They revolve around improved organisational efficiency or employee productivity. They also extend to external gains such as customer acquisition and retention. External gains, although likely to quantify, are grouped as intangible business drivers because other factors may influence improvements in this area. The following figure shows the areas seen to be pushing the intangible business driver:

![Figure 2: UC Impact on Business Drivers](source: Telkom Business, 2014)

**Tangible Business Drivers**

- Do enterprises make strategic UC investments based on quantifiable cost savings that they will realise from committing to such investments?

**Intangible Business Drivers**

- Does the enterprise need to evaluate the business case for Unified Communications based on productivity and perceived customer acquisition and loyalty attributes?

**Technology Business Drivers**

- Does Unified Communications complement or augment the existing ICT strategy and key projects (e.g. cloud, big data, virtualisation, convergence, vendor consolidation etc.) in order to meet both tangible and intangible business drivers?

Source: Telkom Business, 2014
Intangible Business Drivers

**Internal**
- A focus on improving employee productivity by eliminating waste such as idle time.
- Changing work culture from being office-bound (on-site) in particular with regard to the traditional mobile workforce such as mobile sales and technical staff.
- An increase in communications applications across traditional, mobile, social media and internet platforms to take advantage of free marketing or business exposure opportunities.
- The pressing need to integrate communications across business processes, communications technology and information systems or applications to support anywhere access to an enterprise's resources.
- Increasing need to improve collaboration to support standard business processes, virtual teams and projects to improve organisational efficiency.
- Increased workplace collaboration and more effective and productive communication between employees to increase exposure to subject matter experts.
- Easy access to employees and improved resource management, including immediate knowledge about employee presence and whereabouts to lessen time wastage.
- A broader range of communication devices in the workplace including BYOD (Bring Your Own Device) strategies.
- Improved and faster access to decision making.

**External**
- The need to support more connected and interactive customers through a wider range of communication channels (omni- or multi-channel strategies) to improve customer satisfaction.
- The increasing value of Business Intelligence obtained through customer touch points.
- Customer becoming more technology savvy and accessible through mobile services (search, social media, banking) to understand customer needs and target them with loyalty programmes or new services to improve revenue.

Assessing Tangible and Intangible Business Drivers

Cost is seen by many enterprises to be the biggest concern around deploying a fully Unified Communications environment. Companies therefore need to be clear about whether their investment in Unified Communications is going to be made on a strategic level where the value of the tangible driver is widely accepted and Unified Communications is seen as a necessary and important cost of doing business and remaining competitive in their industries.

Other organisations may decide that Unified Communications investments need to be justified on incremental business cases that have to quantify the direct and indirect benefits for each Unified Communications application or functionality. These organisations might look to benefits under the intangible business drivers and take a more tactical approach to their UC investments.

Understanding the specific Unified Communications business drivers, their benefits within an organisation and their contribution towards company strategy is an important step towards determining the extent and pace at which companies should mature their Unified Communications strategies. This helps to determine whether to take a ‘strategic business value’ approach or a more incremental ‘business case-by-business case’ approach towards maturing their Unified Communications capability.

Application of unified communications

Unified Communications in Industry Sectors

The tangible or intangible business drivers for Unified Communications are more common across large enterprises in various key vertical sectors such as retail, financial services, health, education, local and national government.

For South African organisations an additional challenge is to define how Unified Communications can serve a more heterogeneous customer and employee base with a wide range of communication preferences and competencies that is spread across a large geographical area with varying levels of communications infrastructure.

While organisations can explore many different approaches to address this challenge to realise the value of Unified Communications, the simplest technique is to develop a thorough understanding of how Unified Communications is being applied in the industry within which an organisation operates. This can be achieved through peer reviews, benchmarking and engaging with service providers to understand the adoption rates, business applications and benefits realised both on an international and local level.

Retailers for example have made various Unified Communications investments to address the following business processes and benefits:

- Improve retail sales and customer services workflow planning activities (back-office and contact centre)
- Increase the capacity of existing resources to handle increased volumes of customer sales and service communications without hiring additional people.
- Increase the volume and range of communication channels for managing a range of processes including customer call campaigns, customer reminders for services and debtor management and inbound email and web queries, including social media.
- Support roaming store managers or at-home customer service or subject matter experts to have the same capabilities that they would have if they worked in the company’s offices.
- Integrate communications into customer sales, service and loyalty management databases and improve customer behaviour analysis capabilities.
- Make use of collaboration and conferencing facilities to reduce cost and time spent on internal planning and management and with suppliers or partners.

Retailers also look for ways to identify how Unified Communications investments can improve productivity and collaboration across the whole value chain including the following areas:

- Supply-side sourcing, purchasing and vendor management activities.
- Logistics and fulfilment processes including inventory, transport and warehouse management.
- Demand-side store operations, direct sales and customer services.
- Management processes, for example debtor management, workforce management and risk management.

Similarly, the financial, health, public sector and other industries look at how Unified Communications can drive value within their respective key business processes by improving productivity, collaboration and sales and service outcomes across these processes and related communications activities.
by managing user awareness, training and business process performance management activities.

In following a business-led approach, the upgrade and integration of the technology (communications infrastructure and applications) must be managed in parallel (at the same pace that the business is implementing its changes) so that the technology element does not hamper or delay the realisation of the improved business processes.

Typical processes in a Unified Communications implementation would include the following:

- Identifying and defining high-level business needs and opportunities
- Profiling and selecting appropriate divisions, business processes and user profiles for Unified Communications
- Establishing the success metrics that will be used to evaluate the business value and business case
- Performing a review of the current environment to determine the baseline or readiness for Unified Communications implementation
- Compiling a detailed business case on an organisational level or incremental business cases for various divisions and / or Unified Communications functionalities
- Designing or architecting the solution on business process, functional, technical and performance management levels (including requirements for the various types of physical sites and roaming or virtual users)
- Conducting Proof of Concepts (POC) to test and refine the deployment of Unified Communications capabilities
- Assessing end-user readiness for Unified Communications and conducting awareness and training initiatives
- Implementing the necessary hardware and software upgrades and managing the integration and deployment across technologies, applications and vendors
- Realigning the management practices and operating models on both a business and technology level to align with the enhanced capabilities and capacity
- Reviewing the business and technology gains and optimising the Unified Communications deployment, again on either the business process level or the technology integration

The processes are applied irrespective of whether or not an enterprise plans to implement full Unified Communications or only a carefully selected number of components from the solution.

While considering the impact of deploying Unified Communications enterprise-wide, additional key factors should be evaluated and these are:

**Organisational Strategy Alignment and Buy-in**

Both the internal and external demands of the organisation need to be addressed by understanding the requirements and impact on customer and employee communications. The following questions need to be answered with regard to ensuring successful internal buy-in:

- Has buy-in been obtained from the relevant sections of the business?
- Are the customers likely to adopt the additional communication interfaces or capabilities?

**Security & Control**

It is crucial that organisations identify potential risks within the Unified Communications solution deployment as the information that is transported within the network can be sensitive and require to be secured properly. Organisations need to have a security policy in place to define the required levels of security for its data and ensure that these are implemented accordingly.

Often security requirements will differ for each component of Unified Communications i.e. voice, IM, and collaboration. Therefore it is important to realise that a one-size-fits-all or a simple extension of existing security would not necessarily be effective or sufficient.

**Organisational Readiness**

The following graphic presentation shows the factors that need to be considered at a detailed level in reviewing an organisation’s readiness for Unified Communications.

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**Key Factors to Help Develop a Successful Unified Communications Solution**

Once organisations are clear about the benefits and their planned approach to implementing or extending their Unified Communications capabilities, the next step is to develop a strong implementation strategy that takes into consideration the extent of the business and technology changes that will be required.

It may be useful to consider that the deployment of Unified Communications in an enterprise follows a similar path to the roll-out of other key ICT investments. These initiatives need to be managed on both a business and a technology level simultaneously. In some organisations the roll-out of Unified Communications initiatives will be led by business drivers, milestones and time-bound performance objectives, while in other organisations the IS or IT departments will lead the initiative based on a ‘you can have it when its ready’ approach.

Irrespective of the approach, to ensure that the full value of Unified Communications is extracted out of the business processes (e.g. the expected productivity, cost and customer service benefits), enterprises need to also ensure that the user behaviour follows in line with the additional Unified Communications-driven capabilities and capacity demonstrated the direct financial benefits from a sales and customer experience perspective?
Figure 6: Factors to Consider in Reviewing an Enterprise’s UC Readiness

IT Infrastructure Readiness
Is the current infrastructure able to support the new technologies? What updates are required in order to ensure seamless integration?

Application Readiness
Are the applications used by the business able to integrate with and support new technologies?

Business Process Readiness
What business processes are affected by new technologies and how are they going to be aligned with the new technologies or updated to suit them?

Internal User Readiness
Have employees been sufficiently educated to both use and accept new technologies? Have the necessary change management interventions been put in place?

Customer Readiness
Have customers been informed regarding changes and have the benefits of updated technologies been communicated sufficiently? Have customers been educated with regard to how to use new technologies?

Source: Telkom Business, 2014

Unified communications key benefits

- More effective and productive communication among employees
- Increased workplace collaboration
- Easy access to employees and immediate knowledge regarding employee presence and whereabouts
- Integrated business processes
- Support for a mobile workforce
- More connected and interactive customers
- Cost reduction and avoidance

Value Created from Implementing Unified Communications Correctly

The benefits are immense if a Unified Communications strategy is well defined and implementation is successful. If implemented correctly, an organisation will start realising benefits such as:

Unified communications case studies

Sample Unified Communications Case Studies

Case Study #1
In the Government sector, the Oregon Employment Department (OED), which consists of about 450 agents and adjudicators across 38 branches, deployed a unified contact centre solution.

The solution combined intelligent contact routing, call treatment, network-to-desktop computer telephony integration (CTI), and multichannel contact management over an IP infrastructure. It combined multichannel automatic call distributor functionality with IP telephony in a unified solution, thus enabling the OED to rapidly deploy a distributed contact centre infrastructure.

Ultimately, the solution allowed them to consolidate their infrastructure, offer the same service over multiple locations, make the management of those services less complex (for example being able to easily self-manage and customise automated answering messages for their citizens) and seamlessly tap into agents who can cover the variety of languages that need to be supported across the State.

Case Study #2
In the Education sector, Cegos, a leading European provider of professional training and continuing education services (operating in 30 countries, with over 1200 staff and 1800 external consultants) implemented IM (Instant Messaging), collaboration, presence, and conferencing capabilities, among others.

The improvements gained encouraged internal collaboration and easily facilitated communications with external partners. The tight integration within its office productivity applications made it possible to communicate and share information more efficiently.

The Cegos IS department also acknowledged that efficiency had improved at the support level, the infrastructure became more easily managed as an enterprise application and maintenance costs were reduced.

Cegos has experienced huge growth in the use of video conferences with about forty video-conferences organised each day, and the use of chat and instant messaging is expanding continuously, over 30% in one year, with the added advantage of decreasing overall costs.

4 Cisco, State Agency Invests in Technology to Manage Increased Calls
5 Microsoft, Cegos encourages internal collaboration and facilitates communications with external partners through Microsoft Lync
Enabling unified communications value

**Telkom Business Unified Communications Value Proposition**

It is important to ensure that the service provider chosen to implement your Unified Communications solution has well-developed infrastructure, expertise, best-of-breed partners and experience to offer you the best value for your investment. Telkom Business is able to meet these requirements and more.

Telkom Business is a leading provider of voice, data and broader ICT services in the South African market. The core fixed and mobile services act as the foundation on top of which the Telkom Business unified communications service stack is built.

With a national fibre network of 166 000 km spanning the country, the best fixed and mobile broadband network (Mybroadband-2013) and a field force in excess of 1900 Cisco engineers, Telkom Business is in the best position to support all types of businesses from small to large enterprises and government.

Through partnerships with leading technology vendors, Telkom Business deploys the best-of-breed service stack to empower our customers to be more agile and competitive in their markets. Thus, Telkom Business’s service approach offers customers flexibility, choice and competitive sustainability. Our customers can move away from long-term technology vendor lock in, while being able to respond to changes in their business markets.

In addition, we treat our Unified Communications services as over-the-top applications that leverage our best-of-breed infrastructure services. Multiple deployment architectures allow Telkom Business to remain relevant to all types of customers regardless of their business operating architecture or IT strategy.

Telkom Business has endeavoured to make complex technology easier to consume and to be agile enough to respond to change. The consultative technology agnostic approach to Unified Communications solution selling has allowed Telkom Business to add value to our customers. When engaging, the questions asked are not, is it Cisco, Microsoft, Unify or Avaya? The engagement interactions revolve around business challenges and organisational strategy; this allows the Telkom Business team to map technology to business strategy as opposed to business strategy to technology limitations.

**Telkom Business’s Unified Communications Roadmap**

Telkom Business is an integrated converged communications provider that is positioned to deliver value-added services to our customers. The ever-evolving Unified Communications service roadmap builds on foundational services to more advanced cost to consumption mapping.

The Telkom Business Unified Communications roadmap is designed to work alongside organisations after they have determined their high-level approach to implementing or extending their Unified Communications capabilities. Organisations are likely to review whether they take an iterative approach rather than a ‘rip and replace’ approach and whether their Unified Communications strategy is key to their business strategy or whether it evolves alongside technology upgrades in the communications infrastructure stack and as communications technologies are integrated into business systems.

Ultimately, Telkom Business’s approach is to support the various approaches and stages of an organisation’s path to full Unified Communications maturity. Our preferred ownership approach to Unified Communications services might differ for head office or branch environments or for different use cases within the organisation.

- Basic Unified Communications services supports organisations to acquire and integrate Unified Communications and convergence solutions to form the foundational elements for a full UC deployment
- UCaaS (Unified Communications as a Service) is supporting converged telecommunications maturity and offers selected Unified Communications services in the cloud
- MCaaS (Managed Communications as a Service) will provide a stronger focus on on-demand, unitised and bundled convergence and Unified Communications offerings

Source: Telkom Business, 2014

**Figure 7: Telkom Business Unified Communications Roadmap**
Final Remarks on Unified Communications

Unified Communications is evidently impacting many areas of an organisation’s operations by presenting tangible and intangible benefits across a wide variety of industry sectors. Most notably, Unified Communications is driving business processes from cost improvements, and employee productivity and efficiency gains through to external collaboration with customers and other stakeholders. Yet, some organisations doubt they can realise optimal benefits from deploying Unified Communications solutions irrespective of the components they choose to consider.

Unified Communications solutions can positively impact on an organisation based on not the various Unified Communications components organisations deploy but by choosing the best strategic service provider as a partner to design and champion the whole implementation process that ultimately offers the most benefits.

Many organisations in key sectors, such as financial, retail, health, education, and government, have realised how critical it is to choose the right partner. The decisions they have taken are remarkably driving the trends and subsequently the positive outlook for Unified Communications.