

**TalkTalk  
Business**

# Next Generation Voice

Preparing your business for the  
future of communications

[talktalkbusiness.co.uk/voice](http://talktalkbusiness.co.uk/voice)

In association with  
**NewsReach** 

- 1** **Executive summary**  
Page 3
- 2** **Why businesses need to look at new solutions**  
Page 4
- 3** **Drawbacks of legacy systems**  
Page 5
- 4** **The benefits of All-IP communications**  
Page 7
- 5** **What options are available?**  
Page 8
- 6** **Unified Communications to be a top priority**  
Page 10
- 7** **The benefits of hosted communications**  
Page 11
- 8** **Why hosted contact centres can improve services**  
Page 12
- 9** **What would the next steps for business be?**  
Page 13
- 10** **References**  
Page 14

# 1 Executive summary

In the last few years, there have been several major advances in enterprise-grade voice communications. Companies are now able to take advantage of these to improve the way they manage their operations as next generation voice services can offer businesses high-quality, flexible connections at lower costs and greater reliability than in the past.

This is linked to significant developments in IT networking that have seen improved data connection speeds, greater reach of all-IP networks and the emergence of hosted solutions based in the cloud as a mainstream technology for businesses. As a result, converged networks that combine voice and data services will be the future for many companies.

However, despite these opportunities, many firms are still basing much of their communications on outdated legacy systems that are not optimised for handling the current demands of both workers and customers. Therefore, businesses will stand to benefit from upgrading their voice services to more modern solutions that can be integrated as part of a unified communications suite encompassing much more than just voice calls.

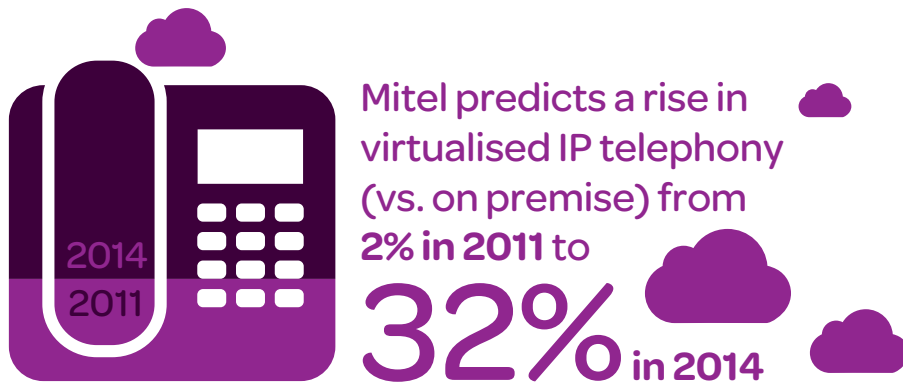
This is a result of one of the key trends of recent years that can offer a competitive advantage to firms - the transition from traditional telephony services to next generation IP data services. These enable enterprises to be more innovative in how they handle their communications, adopt high-quality services at significantly reduced costs to businesses and take advantage of a range of options available that are tailored to the unique needs of firms of all sizes.

Therefore, it will be vital for companies to investigate the choices available to them if they are to be ready to meet the challenges of the coming years and the demands of employees and customers. With new technologies available to suit any business, not deploying the latest next generation solutions could leave enterprises at a serious competitive disadvantage.

# 2 Why businesses need to look at new solutions

For any business that is looking to establish a positive relationship with its customers and offer the best possible experience, having high-quality communications services in place is a must. This is also a priority for internal communications within firms, particularly for companies that have multiple sites or a high number of remote workers who need to keep in constant touch with each other.

It was noted by the Financial Times in September 2012 that companies and employees are beginning to demand much more functionality from their voice communication systems<sup>1</sup>, so businesses will have to adapt their systems to meet the expectations of both workers and customers. As the pace of new technology developments shows no signs of slowing down, firms are likely to find they are at a tipping point as they are forced to make a decision on upgrading legacy voice networks to new technology.



Many firms may also find this is being driven by their younger employees, as these individuals are more familiar with simple-to-use consumer communication technologies such as the iPhone. Figures from Ofcom reveal there were 82 million mobile connections in the UK last year, while Britons spent 124 billion minutes talking through these connections<sup>2</sup>. There is an expectation that they should be able to use similar advanced technologies in the workplace, and doing so will play a key role in boosting their productivity. They are also likely to demand the ability to use personal devices such as smartphones in the office.

Research conducted by Cisco has suggested 95 per cent of organisations allow employee-owned devices in the workplace in some shape or form, with three-quarters of IT leaders stating this offers positive results for their company<sup>3</sup>. Therefore, voice communication solutions that can cost-effectively connect workers using these devices will be another factor firms need to consider.

**"Generation Y's insatiable craving for instant gratification, ubiquitous access to information and ability to communicate flawlessly will drive both ICT innovation and investments to deliver the future workspace for enterprises and businesses."**

**Adrian Dominic Ho**, Principal of Managed & Telecom Service, Networking Research, IDC

# 3 Drawbacks of legacy systems

**For enterprises that are still operating legacy voice systems that have been in place for many years, there could be a range of drawbacks that will harm their profitability and efficiency. This is likely to drive firms to investigate more advanced solutions to ensure their business is up-to-date and ready for any new challenges that will emerge in the coming years.**

## Costs

For starters, firms are likely to be paying over the odds for their voice communications services if they are still using legacy TDM systems. In the current difficult trading environment, with a weak economy and many businesses struggling to grow, this will be an issue for many companies. Any processes that are harming a company financially are likely to come under greater scrutiny as cost-savings become a top priority for enterprises.

Voice-only systems could also be costing enterprises money as they have to be acquired on a separate contract from data networks. This leads to added complexity as well as the need to pay for two systems, which is avoided by converged all-IP networks that offer both voice and data in a single package.

## Lack of flexibility

Older systems relying on obsolete technology also have poor flexibility and scalability, which will pose many problems if a business is trying to expand or add new locations. If they have to figure out ways of scaling up old systems, this can be a time-consuming and costly process that will still result in systems that are not working at their full efficiency.

With next generation voice technology, it is much easier for companies to upgrade their voice solutions to meet the needs of a growing business. All-IP voice networks using advanced internet-based telephony solutions can be added to without major capital investment, giving businesses access to more appropriate solutions at the flick of a switch as their needs evolve.

## Downtime

Also, companies on legacy systems are at greater risk of experiencing disruption to their services, leading to downtime. This is likely to be bad news for businesses that use voice services as a primary means of communications with customers, or for driving revenue. Aside from the lost income and productivity that organisations see when their services are not working, it could also have a negative impact on their reputation and customer retention.

If customers cannot easily get in touch with a company, they are likely to get frustrated and take their business elsewhere. Therefore, keeping customers happy when they wish to speak to a representative over the phone will be a priority for many firms. In fact, having effective communications systems that make it quick and easy to keep in contact with customers could even be a unique selling point a company can use to stand out from its rivals.

**“Customer service enhancement continues to receive priority, as enterprises are investing more capital in contact centres that offer superior client satisfaction.”**

**Krishna Naidya**, Industry Manager, Frost & Sullivan

# 4 The benefits of all-IP communications

**For many firms, the solution to improved voice communications will be in the next generation networks that are becoming commonly available to businesses. While once associated with consumer technologies, internet-based voice calling is now recognised as a true enterprise-grade solution, with interest in the tools among business-to-business customers in particular booming.**

Demand for these technologies can be seen in figures from International Data Corporation. According to the research firm, the combined IP PBX and IP Phone market in the Europe, Middle East and Africa (EMEA) region was worth almost \$3.5 billion (£2.16 billion) in 2011, with Western Europe seeing growth of 7.3 per cent<sup>6</sup>. Ofcom has also noted that while the number of fixed-line calls made by businesses in 2011 fell, broadband take-up is increasing<sup>2</sup>. Therefore, tools that can use the internet to improve voice communications could be highly useful to these firms.

While a key advantage of all-IP technology for many firms is its ability to reduce costs, this is not the only reason to invest in such services. For starters, advanced voice networks can be purchased as part of a single service agreement that combines voice and data traffic into one package. This reduces the complexity and the number of contracts that a company has to deal with and, when partnering with a nationwide provider, organisations can be assured they will have the reach to connect all of their sites as part of a single deal.

There is also a range of productivity and operational benefits that organisations upgrading to IP telephony can expect to see. These include making it easier to manage voice communications through call handling and routing, as well as better scalability. This makes it simpler to increase the scope of a company's solutions without investing in all-new systems.

**"Voice, internet and video traffic were the top apps carried by business connections [in 2011]."**

**Ofcom**, Communications Market Report 2012

# 5 What options are available?

**For businesses seeking to take advantage of the next generation voice technologies on offer, there are a number of options available. All business-grade connectivity solutions offer numerous benefits over legacy TDM networks, such as better reliability, reduced costs and greater bandwidth availability.**

However, some may be more suited to certain business strategies than others, so it will be vital that companies research the market carefully and identify the solution and service provider that is right for them.

## ISDN30

TDM-based ISDN30 is a well established technology in use by many organisations today. However, ISDN30 is changing and newer SIP-based ISDN30 services are emerging that can provide the cost advantages of IP networks whilst allowing customers to retain their existing PBXs.

When looking for these, businesses should consider a provider that has a national reach and can take advantage of next generation networks. Advanced ISDN30 services can also offer an easy migration path to other technologies that growing firms can take advantage of, as well as demonstrating better value for money than legacy networks.

The technology can also offer reduced management costs and better disaster recovery and business continuity solutions.

For example, if a firm has two locations and one goes offline, a next generation ISDN30 makes it simple to re-route calls to the other location, ensuring the business does not suffer any complete downtime.

## SIP Trunking

However, as companies expand, they may find they outgrow ISDN30 tools. There are currently around 2.7 million business ISDN30 connections in the UK, but as firms grow, these may no longer be appropriate. As the number of employees needing communication solutions increases, it is likely to be more cost-effective to switch to a SIP trunking solution over multiple ISDN30 lines, as this is rapidly becoming recognised as a key technology for businesses.

According to Sonus Networks, SIP trunking and a move to IP-based voice communications can collectively reduce traditional enterprise telecom bills by up to 75%. A July 2012 report by the firm suggested the technology can also lead to productivity gains of up to 23% compared with legacy networks.



Businesses can upgrade to SIP solutions from ISDN30 easily and take advantage of the numerous benefits that can be provided. These include greater flexibility when it comes to numbering, allowing companies to set up geographical and non-geographical numbers as required, which can be kept if a business needs to relocate.

It is also better able to handle volatile capacity requirements, allowing a company to scale its systems up as and when this is needed. Businesses can also be assured they are getting a reliable system with identical call quality to ISDN30 solutions.

## Voice over Ethernet

For larger firms and those looking to run a high number of simultaneous voice connections, such as in contact centres, Voice over Ethernet technology may be the ideal solution. This is a highly scalable technology, with the ability to add new connections quickly and simply, while it is also very cost-effective.

The flexibility that comes with Voice over Ethernet technology also helps businesses secure their systems for the future. As they run on next generation networks, enterprises are provided with the robust, futureproofed infrastructure they need to move to a converged data and voice solution, resulting in reduced complexity, greater productivity and opportunities for adding new working methods as technologies continue to advance.

Although some businesses may be under the impression that Voice over Ethernet requires a high degree of customisation and is only suitable for companies with the resources to dedicate to this, in fact, this technology is designed to also offer a standardised solution for the needs of any business.

**"SIP trunking offers true advantages over legacy TDM services. The ability to combine voice and data connections on a converged network provides evolutionary cost and overhead savings for any organisation."**

**Jon Nowell**, Head of Communication Services Product Management, TalkTalk Business

# 6 Unified communications to be a top priority

In future, however, it will be important for businesses to look beyond single voice solutions in favour of converged networks. In the coming years, voice is likely to be just one application that enterprises use as part of a single system that combines data and unified communications.

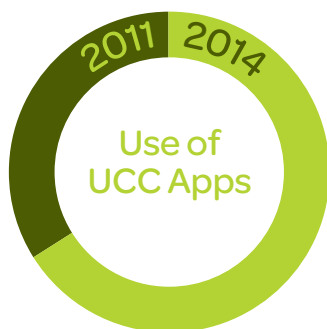
This will also encompass tools such as videoconferencing and enterprise-grade instant messaging (IM) software - with the latter already in use by many firms for customer communications as well as internal use. For example, many companies are now using IM services to connect website visitors directly to an advisor, eliminating the need for lengthy email exchanges should an individual have a query or complaint.

Meanwhile, videoconferencing will also play an expanded role in enterprises, driven by new trends such as flexible and remote working. Revenues for the technology grew by 20.5 per cent in the EMEA region last year, with further growth of 18.5 per cent expected in 2012.

Businesses that do not have unified communications services in place are likely to be left behind in an increasingly competitive environment where efficiency is a top priority. The productivity benefits of advanced communications services are clear, as PBX vendors estimate such tools can save employees up to two hours a week that would previously have been spent dealing with inefficient communications.

**"Recent trends emphasise the fundamental transformation of the IP PBX business. An increasing number of IP PBXs are being installed as part of unified communications and collaboration deployments."**

**Michael Vorisek**, senior research analyst, IDC

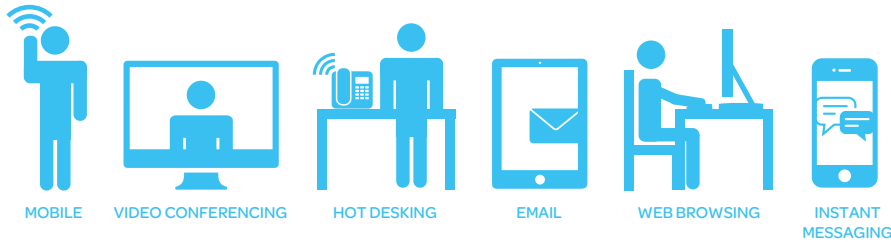


**Mitel forecasts a rise in virtual Unified Communications and Collaborations Apps from 34% in 2011 to 66% in 2014 (vs. on premise)**

The demand for these services is reflected in the spending companies are allocating to the area. While the market for unified communications solutions in EMEA stood at \$5.7 billion in 2010, it is expected to increase at a compound annual growth rate of 23.7 percent between 2010 and 2015, when it will be worth \$16.6 billion. Research conducted in September 2012 by BT also suggests 84% of executives believe unified communications tools that combine voice services with other solutions can help their business be more successful.

# 7 The benefits of hosted communications

**61%** of firms say they have improved collaboration between dispersed teams attributed to presence, using unified communications



With the use of unified communication services including voice and video set to take up more of an organisation's data traffic than ever before, it makes sense to investigate hosted solutions. By outsourcing these technologies to an external provider, businesses will be able to enjoy all the benefits of the latest developments without the need for significant upfront investment.

As the only expenses involved in these services will be ongoing operational costs rather than large initial capital expenses, the solutions are ideal for companies looking to save money. This will undoubtedly be a key priority for firms at the current time, as many enterprises may struggle to secure finances for large-scale hardware upgrades.

Hosted solutions can also offer a comprehensive service-level agreement (SLA) that guarantees high reliability, scalability and transparency. As businesses can meet all their needs from a single supplier, this simplifies management and reduces costs, while also offering the ability to make changes and add-ons quickly and simply.

These can be arranged on a pay-as-you-go basis to ensure firms only pay for what they use, while all maintenance and support is also included in the SLA. This gives businesses peace of mind that the built-in protections and resilience of the solutions will dramatically cut the risk of costly downtime.

All companies that take calls from customers will be able to benefit from these solutions, whatever their size. However, cloud-based hosting solutions are especially advantageous to companies with large numbers of remote and mobile workers who may need to hotdesk, as it makes it easier for these personnel to remain in contact.

Another key benefit of hosted communications service is their flexibility and scalability, which can be tailored to the specific needs of a company. They are able to deal effectively with the changing needs of businesses that are growing rapidly, as well as those that are taking on temporary staff who will need to be connected to the rest of the firm.

# 8 Why hosted contact centres can improve services

**This ability to scale up as required will be especially useful for contact centres in growing businesses, as it makes the task of upgrading systems much more hassle-free. Subscription charges available for these services help take much of the complexity out of these notoriously hard to manage systems.**

The wide range of features included with hosted contact centre solutions can also improve the efficiency and customer service that an organisation is able to deliver. For example, one of the key elements within this that businesses can take advantage of is advanced call routing and handling.

This is able to give organisations a much greater degree of control over their incoming communications. As a result of this, calls can be easily directed to the most appropriate personnel, such as those closest geographically to the caller or those with the most relevant technical expertise.

**"Intelligent call routing ultimately increases efficiency in call handling, caller experience, being able to wrap up calls quicker, being able to bring experts into calls and extend opening hours with routing plans."**

**Jon Nowell**, Head of Communication Services Product Management, TalkTalk Business

This ensures that an organisation is able to make the best use of their resources and should also offer a better service to customers. By improving the way businesses handle calls, they are able to reduce pick-up times and ensure customers spend less time waiting on hold while they are transferred to the correct person. This will leave individuals with a better impression of a company, leading to improved customer retention and a boost to the word of mouth reputation of a firm.

# 9 What should the next steps for businesses be?

Because of the many benefits to be achieved from investing in advanced voice communications solutions, it is obviously an area firms of all sizes that are still on legacy systems should be looking into. But as developments in next generation voice technologies are continuing to evolve, companies need to be sure they make the right choice. Therefore, there are several key considerations that businesses need to look at when considering an upgrade to their voice communications.

## Will it be future-proofed?

One of the key considerations these companies need to think about is how the various options available will serve them both now and in the future. It will be essential that the systems a company selects today are able to grow for years to come, so firms can focus on their core priorities rather than having to worry about patching or replacing systems that were not designed with long-term goals in mind.

## Can a solution be scaled up?

Businesses need to be looking at least two to five years down the line when they make their decisions on communications equipment, so should consider how their company is likely to grow over that time. Projects such as switching from traditional TDM telephony to IP-based services will be a major step, so companies need to be sure it is something they will be able to build on and add to moving forward. The ability to switch easily to advanced solutions such as SIP will be vital to growing businesses.

## Does a provider offer quality service?

The quality of the service providers are able to offer should also be a key factor. Finding a company that can offer an end-to-end service that covers all aspects of an enterprise's voice and data connections must be a priority for businesses.

Questions businesses should be asking of a provider include ensuring the firm has the reach to meet all of their needs, can offer robust protections and resiliencies and delivers a high-quality level of service.

## Can you benefit from converged solutions?

Converged solutions that can combine voice and data will offer a good solution to many firms. Companies that can deliver these services as part of a single package can help businesses achieve better value, less complexity and improved reliability thanks to the next generation networks they are delivered through.

By keeping these questions in mind when they are looking to upgrade from legacy TDM voice solutions, businesses can invest with confidence they will be getting the right solution for their needs, both now and in the years to come with a great value, futureproofed service.

**"The convergence of voice, video and data communications around a shared IP-based infrastructure is bringing benefits to businesses of every size, industry, and geography."**

**Minhaj Zia**, Director of collaboration sales, Cisco India

# 10 References

Financial Times: Unified communication moves a step closer, (04/09/12)

Ofcom: Communications Market Report 2012 (07/12)

Cisco: Cisco Study: IT Saying Yes To BYOD

Asia Pacific Fastest Growing Region for Contact Center Services (06/12)

Internet Telephony Service Providers' Association: Interview with Trefor Davis, council member (05/12)

IDC: IP PBX and IP Phone Markets Exceed 35% Growth in Central and Eastern Europe, Says IDC (08/12)

Sonus Networks: Sonus Introduces New SIP Trunking For Dummies(R) and Session Management For Dummies(R) Reference Books (10/12)

IDC: Videoconferencing Equipment Revenues in EMEA to Grow 18.5% this year, says IDC (07/12)

TalkTalk Business: What is the future vision for SIP/IP communications?

IDC: EMEA Unified Communications Market to Reach \$16.6 Billion by 2015, Says IDC (09/11)

BT: Cloud services to simplify global collaboration (09/12)

Frost & Sullivan: Frost & Sullivan Anticipates Mobility, Cloud, and Social Media to be Key Trends Driving Adoption of Unified Communications (09/12)