
Understanding... Phone Systems

Communicate for success



Understanding... Phone Systems

Contents

- 03 Understanding Phone Systems
- 04 Features that can transform the way you do business
- 08 Examining the business benefits
- 10 Bring it all together: the elements of a converged phone system
- 12 Choosing a supplier – how to get it right
- 13 Maintenance
- 14 What next?
- 14 Glossary of technical terms

Being small doesn't mean you can't act big

There's never been a more exciting time to be a small or medium-sized company. Thanks to advances in technology – chief among them, broadband and the growth of the internet – the playing field is being levelled. Technology that used to be restricted to the giants of your industry is now available to you too.

Nowhere is this truer than when it comes to phone systems. Modern phone systems – often known as 'switches' or 'private branch exchanges' (PBXs) – are no longer just about one individual speaking to another. Today they are the lifeblood of the business, helping you to transform customer service, boost productivity, and reduce costs.

'Understanding Phone Systems', one of our series of advisory publications designed to help businesses get the most from their IT and communications systems, will:

- Explain the main features, business benefits, and technical make-up of modern phone systems.
- Provide some real-life examples of companies that have benefited from adopting modern phone systems.
- Offer some handy tips on how to decide on the best phone system for your business.



For further advice, and to find out more about how BT can help your business, visit our website at www.bt.com/bigplans

Features that can transform the way you do business

The best of today's phone systems run on what are called converged IP-ready networks. The term 'converged' relates to the coming together of two separate systems: phone systems (or 'voice') and traditional computer systems (or 'data').

Whereas previously one set of cabling had been dedicated to carrying voice traffic, and another to data traffic, today it is possible for a single set of cabling, and a single network,

to carry both. This has been made possible by something known as Internet Protocol, or IP. IP breaks voice calls, music, pictures, and graphics into digital packages that are sent across a single network, and reassembles them at their destination.

Converged IP-ready phone systems let your business do so much more than simply make and receive calls. Here we give a flavour of these exciting features.

Why converge?

Recent research shows that more than one third of small and medium-sized enterprises (SMEs) have already migrated to a converged voice and data network and that almost a further quarter of SMEs are planning to. Even at an early stage, they identify a range of benefits:

- Reduced infrastructure costs (56% of respondents)
- Improved productivity (52%)
- Increased organisational flexibility (39%)
- Easier deployment of new applications (33%)
- Increased competitive advantage (27%).

For more details, see the BT Convergence report, available online at www.bigplans.bt.com/converged.html

Direct Dial and voicemail – portraying a professional image

In today's 24/7 world, it's important that customers can get hold of the most appropriate employee to deal with their query. The direct dial feature – sometimes referred to as DDI – allows you to have more than one number per telephone line. This means employees can have their own direct line number, without the cost of additional lines.

When members of staff aren't available, do callers have to leave a message with your receptionist? This can leave customers feeling frustrated, and lead to delays in messages reaching the recipient. Using direct dialling and voicemail allows companies to portray a far more professional image and means callers can directly contact the person they need to. Remote access to voicemail means employees can collect, and respond to messages even when not in the office.

Hunt groups – never let a customer call go unanswered

With competitors ready to welcome your customers with open arms, calls cannot afford to go unanswered. Setting up 'hunt groups' means that when a customer calls a number for your business, if the first extension in a group is busy, the next is automatically 'hunted' until a free extension is found.

Failing to answer a customer's call can mean losing that customer. Hunt groups mean calls are almost always answered. This, in turn, can improve customer retention rates.

IP Telephony – using your phone system to cut costs and improve productivity

Calls made over a converged IP-ready network are referred to as IP Telephony. Calling between IP phones on the same network is free of charge – even if that network connects sites in different parts of the world. For companies that are not quite ready to make the step to full IP Telephony, it is possible to use one of the numerous voice-over-broadband services. These services only require a broadband connection. A piece of software called a softphone is downloaded onto a user's PC which, when used in conjunction with a headset, allows the PC to have the same features and functions as a phone.

Phone calls made between employees in the same company – whether based at the same site or at different sites – represent a significant cost to most small and medium-sized businesses. With IP Telephony those costs can be dramatically cut. IP Telephony also means that employees can access the company network remotely – for example, from home, be assigned a company phone number and operate as effectively as if they were in the office.



Call routing – make sure customers get the right help, every time

Call routing software means that callers can be connected with the member of staff best equipped to deal with their specific requirement. A caller will respond to a pre-recorded prompt – either verbally or by pressing the relevant number on their phone. This feature is one of many modern phone features that allows smaller business to ‘act’ like big businesses.

Getting passed from one department to another, in search of the person with the relevant expertise, results in irritated customers. With call routing, they get put through to the right person, every time.

Business intelligence – tools to help you analyse and improve performance

IP-ready phone systems allow businesses to use software that captures a whole range of data. For example, it is possible to determine how quickly calls to specific teams are answered, or how many are abandoned by callers before being picked up. This kind of information – whether gathered from a call centre, or from other customer-facing teams – can prove valuable in ensuring teams are correctly resourced to meet customer demand. So analysis might reveal that customers are abandoning their calls because staff are not answering quickly enough. Having discovered this, a business is then able to solve the problem and improve performance.

Unified messaging – never miss a message, no matter where you are

Unified messaging technology integrates different types of messages – which can include landline, mobile, email, fax, video – into a single email in-box. So faxes and voicemails can be automatically converted to emails, or emails can be converted into voice messages. The benefit for employees and businesses is increased productivity, as well as quicker response times to customer enquiries. Sales staff can spend a lot of time on the road. But in today’s 24/7 business environment they can’t afford to be out of touch. Unified messaging allows them to pick up every kind of message from one place.

Screen pops – deal with customer queries quicker than ever

In a converged network, voice and data both run over the same cabling. This integration allows businesses to take advantage of some useful features. For example, callers can be automatically identified, so that when an agent takes the call, a customer’s details and buying history automatically pop up on the screen. This feature allows businesses to improve productivity and customer service, and is made possible because converged networks allow voice and data to work together.

Few things annoy a customer more than having to provide information that they’ve already given in previous calls. Screen-pops can help eradicate this problem, and mean calls are dealt with quickly and effectively.

Remote working – be as productive at home or on the road as you are in the office

The era of the 9-5 office day is over. More and more staff work away from the office, while customers expect to be able to communicate with you 24/7. Converged networks allow remote workers – whether that means staff working from home, sales staff at company sites or on the road, or teams based at your company’s smaller sites – to maintain high levels of productivity. Home workers can be assigned a company phone number, while all remote workers can access the applications available at their company site – as we show in the diagram on the page five, remote workers access the network by using virtual private network software, and their phone calls are made over the converged network, using IP Telephony.

Traditionally, home or remote workers have had to make do with limited access to the information and resources available to office-based teams. Converged networks mean that this has changed, and full access is available to staff, wherever they are working. So staff are more productive, and customers are happier.



Examining the business benefits

1. Cost savings

Cost savings are often the benefit that first attracts businesses to converged IP-ready phone systems. And while the cost case remains compelling, below we show that the benefits go far beyond financial considerations.

- **Call costs.** Having an IP-ready phone system and converged network means that voice is carried as data packets over the data network. So calls between any staff, sites and locations on the same network are free of charge. The more sites you have, the greater these savings will typically be.
- **Network management costs.** One network and set of cabling for voice and data means less up-front costs and less ongoing maintenance. Similarly, a single network makes it quicker and easier to set up people who are new to the company, or who are moving desks.

2. Widening the capabilities of the network

A converged phone system 'future-proofs' your business. This means that even if you are not ready to embrace all the features available, your business is in a position to add new capabilities quickly and easily. In a world where business needs can change almost overnight, this level of flexibility is a clear competitive advantage.

3. Punching above your weight

Until recently, converged phone systems were out of the financial reach of small organisations. Today however, whether buying a system outright, taking advantage of a finance agreement, or using a supplier to host or manage your system, the benefits are within the reach of a wide range of companies. You may be a small company, but with converged IP-ready phone systems you can act like a big one.

4. Productivity and customer service

Converged phone networks can allow remote and home workers to be as productive as office-based workers. Similarly, the integration of voice and data enables features that improve customer service, such as call routing and customer information popping up on screen when a customer calls.

What the experts say:

Analyst house Butler Group believes that convergence can result in an immediate cut in communications costs of 10-15%.

Trigger points

There are a range of scenarios that can act as triggers for you to consider investing in a new phone system. If you recognise any of these, it may be time to consider a new, or upgraded, phone system:

- Moving into new premises or expanding into a new location.
- After a merger or acquisition.
- Existing telephone system is out of warranty.
- Business is facing new market conditions: increasingly demanding customers; need to improve productivity; pressure to cut costs; desire to deliver multi-channel customer service.
- Changes to working practices: more and more employees are eager to work from home. Converged networks mean home workers can easily access the same resources as people based in the office.

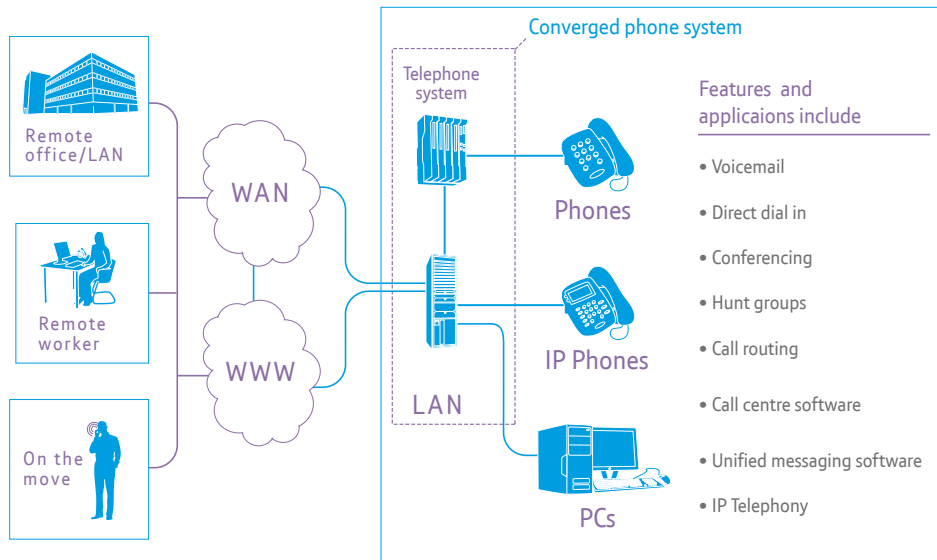
Real-life example

SA Brain – a phone system for today, tomorrow, the future...

Founded in 1882 SA Brain & Company is the leading drinks and hospitality company in Wales. By 2005, various acquisitions meant that the company had inherited a diverse array of communications systems. SA Brain decided to look for a new voice and data platform for 80 of its premises, and selected BT as its supplier.

BT's solution was to deploy a Nortel phone system that could meet the current needs of SA Brain, while also putting it in a position to use more and more converged applications, as and when they were ready. So the company will be able to adopt features such as IP Telephony, unified messaging, the integration of voice and data, and call centre functionality, without the need to upgrade to a new system.

Bringing it all together: the elements of a converged phone system



Key

LAN – Local Area Network: The LAN can connect the computers and IP-phones together, allowing them to use shared devices and data. In a converged network, voice and data can run over the same set of cabling.

WAN – Wide Area Network: A WAN links LANs in different physical locations, meaning the whole business can take advantage of the benefits of a converged phone system. By using a virtual private network (VPN), home and remote workers could also access the company network.

Real-life example

Morecrofts – IP Telephony cuts costs and improves customer service and productivity

Based in Merseyside, Morecrofts Solicitors employ 72 people across three offices. When the company moved to a new HQ, it decided to take the opportunity to enhance its communications infrastructure. It already used a wide area network to connect each of its offices to the company network, now it asked BT to add an IP Telephony capability. The benefits have been significant:

- When away from the office, solicitors can call their own telephone extension and listen to phone messages and, thanks to unified messaging, they can also listen to emails.
- Calls between offices are now free, because they travel over the converged voice and data network.
- Morecrofts can now carry out its own extension changes and moves because with the IP telephony system, adding a new handset simply means plugging it into the local area network. This saves calling out a telephone engineer which can take two days and costs around £100 each time.
- Prior to installing the solution, Morecrofts had four reception staff, in different offices. The IP telephony system has enabled the company to create one reception serving all offices, which has freed up the reception staff to concentrate on fee-earning work and helping customers.

Choosing a supplier – how to get it right

A phone system should provide a major positive benefit to your business. At the same time however, without the right advice and products, navigating your way to success can be hugely complex. Here are some top tips on how to select a supplier.

- **Experience.** Is the supplier experienced in different types of phone systems, in security, in the network requirements of moving to a converged network?
- **Breadth and depth.** Does the supplier have quality products, relationships with a range of leading third parties and the ability to knit all the elements of the infrastructure together? Can your supplier install, configure, maintain, even finance the system? If you require your phone system to be hosted, or completely managed, is the supplier able to provide this?
- **Service support.** Does the potential supplier have professional service packages for assessment, design, implementation and cost-benefit analysis? Does the supplier provide comprehensive maintenance packages with appropriate service level agreements?
- **Global or local?** Can the supplier deal with a global company with local branch offices providing support on-site?
- **Roadmap.** Can the supplier support a step-by-step roadmap to full convergence to help those customers that want a phased introduction to convergence and IP Phone.



Maintenance

Your supplier should also be able to provide comprehensive support and maintenance packages. If your phone system breaks down in any way, it is vital that you have service level agreements in place that guarantee

that it will be fixed in a set period of time, no matter when the problem occurs. After all, if customers and potential customers are not able to get through to you, the result is likely to be lost business.

Do it yourself or a managed service?

Many smaller businesses choose to go it alone and run all their IT and communications systems in-house. For others, especially those that don't have dedicated IT staff internally, having an expert third party host or manage these systems, makes more sense.

Benefits of a managed service:

- Takes away the headache of day-to-day management.
- Reduces the total cost of ownership: hardware and software is not bought outright, instead a single monthly fee is paid.
- Remote monitoring by experts allows for speedy identification and resolution of problems.
- BT's managed services are underpinned by guaranteed service levels to give you peace of mind.

What next?

Today's phone systems can play a key role in helping your business stay ahead of the competition, and compete on a level footing with the big hitters in your industry. They are an important tool in increasing customer satisfaction, productivity and staff motivation.

Glossary of technical terms

As you learn more about phone systems and converged networks you're likely to come across the following terms.

Convergence. The integration of a telephone system with an IP-based data network.

DDI. Direct Dialling In; facility enabling callers to dial telephone numbers that connect them direct to extensions without going through an operator.

Extensions. Additional telephone sets connected to the same telephone 'line' (see 'Telephone line', right).

IP. Internet Protocol; the standards, rules and processes that allow voice and data to be transmitted over networks. IP breaks voice calls, music, pictures, and graphics into digital packages that are sent across a network and reassembles them at their destination.

IP Telephony. Voice calls carried over a converged IP-ready network.

LAN. Local Area Network; the wired connections and equipment that make up a site or office communications system.

PSTN. Public Switched Telephone Network; the world's collection of interconnected public telephone networks.

PBX. Private Branch Exchange; a telephone system that switches (directs) voice calls to the person being called.

PABX. Private Automatic Branch Exchange; an automatic telephone switching system. Originally such systems – called PBXs – required the use of a live operator. Since almost all private branch exchanges in enterprises today are automatic, the abbreviation PBX usually implies a PABX. In smaller businesses however, this may not be the case.

Structured cabling. The cabling used in a converged network, capable of carrying both voice and data traffic.

Switch. An alternate term for a PBX (see 'PBX', above).

Switchboard. Equipment that allows an operator – in many small businesses this will be the receptionist – to 'switch', or direct calls to the appropriate person's telephone.

Telephone line. The physical wire or other signaling medium connecting the user's telephone apparatus to the telecommunications network. An individual 'line' can support multiple 'extensions' (see 'Extensions' left).

VPN. Virtual Private Network; a private network that uses a public network (usually the Internet) to connect remote sites or users together. VPNs provide remote or home workers with secure access to company applications and networks, allowing, for example, a call centre worker to be as effective working from home as working from the call centre.

WAN. Wide Area Network; the wired connections and equipment that link a number of sites, offices or LANs together.

WLAN. Wireless Local Area Network; an extension to a LAN to enable wireless connection to LAN-based systems and services. For example, a WLAN allows staff to log on to the network using their laptops without the need to plug in to a phone point.

Contact us today

If you'd like to learn more about what converged IP-ready phone systems can do to help your business, visit us at www.bt.com/business/phonesystems

Offices worldwide

The services described in this publication are subject to availability and may be modified from time to time. Services and equipment are provided subject to British Telecommunications plc's respective standard conditions of contract. Nothing in this publication forms any part of any contract.

© British Telecommunications plc 2007
Registered office: 81 Newgate Street, London. EC1A 7AJ
Registered in England No. 1800000.

Designed by Unigraph Limited 22836/01/07.
Printed in England.

PHME XXXXX

