

## **Glossary:**

### **Private networks**

if your company has more than one office, with a lot of telephone or data traffic between them, then a private network link or leased line could save you money on call costs. Leased lines are rented from network providers: you choose the type of line and its capacity and then simply pay a flat fee per year - there are no call costs. Apart from cost savings, leased lines let you link your offices together so they behave as if they are one big system, for example letting staff in your Liverpool office dial colleagues in London as if they were in the same building.

### **Virtual private networks**

VPN's offer many of the advantages of leased lines, but use the fast call set-up of ISDN lines to give the illusion of private lines when the calls in fact use the public network. VPN services are available from major network providers for a fee, and are usually more cost-effective for linking offices with lower levels of calls.

### **VoIP**

Like most IT buzzwords today, Voice Over Internet Protocol (VoIP or Voice over IP) means different things to different people. What's more, the benefits and future implications for VoIP are different depending on which publication you read. However, it is certain that VoIP is a key up-and-coming technology, and we are committed to providing access to this emerging technology to enable a range of cost-saving communications functions for business users.

So what is VoIP? VoIP is synonymous with Voice over Internet, allowing international calls and advanced functions such as tele- and videoconferencing - all for the price of a local call.

However, current infrastructure is not able to handle such large masses of additional call traffic with the astronomic growth in Internet usage. There would be delays, call drop-outs and other reliability problems, not to mention security concerns.

VoIP instead means using the Internet Protocol for routing and delivering calls in the same way that data and video are sent now, utilising spare bandwidth over existing data links and leased lines to reduce the ongoing cost of call traffic between linked sites.

Shifting telephone traffic, as well as fax transmissions, to internal data lines saves business's money; and combining phone and data networks eliminates the need for separate information pipelines and separate staff to manage and maintain them

Put simply, VoIP redefines the next wave of data and phone integration, creating more effective applications and lowering communications costs.

### **Analogue vs. ISDN:**

Analogue lines are the ordinary phone lines that most of us have in our homes. ISDN is a digital telephone network, which gives you a number of additional features such as having different numbers for each handset; and enhanced access to the ever-increasing benefits of the internet and e-mail. ISDN also gives you higher-quality lines, faster transmission of large files and complex information. The choice between ISDN or analogue lines is now fairly easy to make for most businesses, if cost is the deciding criteria. Typically, if your office

needs fewer than 3 or 4 exchange lines and is unlikely to expand, then analogue is the best choice on a cost basis.

However, if you plan to expand, or need 5 or more lines, then ISDN is by far the most cost-effective and feature-rich choice. Even a company with only 5 - 10 employees is likely to need at least 5 lines, when you take into account inbound and outbound voice calls, fax machines and modems. Available as Basic Rate (2 lines) or Primary Rate (8-30 lines), ISDN is typically cheaper line for line in both rentals and call charges. What's more, ISDN-compatible phone systems are also far more affordable than ever before, bringing ISDN's benefits to any size of company.

### **Network operators / Least Cost Routing**

It is a common misnomer that BT in its entirety operate the telephone network/infrastructure. Since deregulation BT has been divided into 2 separate entities; BT Wholesale and BT Retail. BT Wholesale operates and maintains the infrastructure (including lines, exchanges and the technology behind both). BT Retail is responsible for billing customers for both calls and line rental.

It's amazing that just 15 years ago, the UK had just two phone network operators. There are now hundreds to choose from, all with different offerings but all with the same basic premise: saving money on calls. The number of operators has brought prices down, enabled more choice and improved the quality and range of services. Connecting to these operators is no problem either - most systems support multiple carriers and have intelligent least-cost routing software.

However, it's also become more difficult to find the operator that gives you the best package of savings for your individual needs. This is where a reputable dealer can help you sort through the maze of tariffs, so don't be afraid to ask!

### **Voicemail**

Voice mail varies in its degree of sophistication and in the facilities it offers end users. At its basic level it's similar to an answering machine as it allows callers to leave messages for staff in individual mailboxes. Members of staff are not interrupted to take messages for their colleagues, and they can retrieve them at the most convenient time, without interrupting more important tasks. More sophisticated systems give more advanced message management features, such as allowing users to retrieve messages remotely.

Voice mail and its associated applications including auto attendant and fax services are key tools in improving the image your business presents to callers. They help to overcome typical telephony problems encountered by callers such as waiting to be answered by an operator; having to go through the operator even though they know the extension of the person they need; having to call back because a party is engaged or away from his desk; or wanting to contact somebody outside normal office hours.

The key question to consider when purchasing a voice mail system is how many mailboxes will your company need? Other considerations include the number of hours of message storage required, the personal greeting length, message retention, extension numbering, forwarding to e-mail and whether security features are needed and included.

### **Automated attendant**

Automated attendant (also widely known as auto attendant) acts as an extra operator, so customers do not have to wait for their calls to be answered. Callers

are asked to dial the extension number they require or are provided with a number of options (e.g. '1' for sales, '2' for customer service). They can also, if necessary, still be passed through to a human operator. Voice mail and auto attendant also enable automated transaction processing, whereby callers place orders or request services via the voice processing system, which can be retrieved and actioned at a later date.

### **Computer and Telephony Integration - CTi**

With CTI, incoming calls can trigger a database search in your contact management software, and pop up on-screen any associated records or notes of previous calls, so you can start a call fore-armed with the information you need. Managing your own contacts is also easy. Using a contact management software application, you can simply dial contacts by highlighting the name of the person you want to call, click the telephone icon on-screen and the software does the rest. Calls can even be scheduled using the contact manager's calendar function. As companies begin to share more and more information and telephony is more frequently integrated with email and fax, users need various software tools to help them manage their workload and seamlessly join applications such as scheduling, contact and task-management. Microsoft's Outlook, Goldmine, ACT and other leading software packages fulfil these needs. The data contained in these software applications can then be linked to the telephone system, so you can dial contacts from your screen, or have incoming calls trigger records related to the caller. This powerful functionality is achieved using Microsoft's Telephony Application Programme Interface (TAPI), and a compliant telephone system.

### **Soft phones - your phone from home.....**

This is essentially a copy of your physical phone on a PC or even Pocket PC. Using VoIP technology you can connect to your office infrastructure via any internet or Wi-Fi connection in the world.

This means:

All calls are routed through your office phone system so internal calls (e.g. extension 201) are all free of charge

Calls to the UK are charged at normal rates

If you have CLI your office number shows up when calling out

If you have a direct extension number, it is routed to your Soft phone when active  
Voicemail messages show in the same way.

You are visible to other staff – the receptionist can see when you are at your 'desk' and route calls to you in the normal way

You can create a 'virtual office' where physical locations that could be hundreds of miles away appear to be next door to each other.