

# adodo's Guide To Connectivity



# 10 Points To Consider First



How does your service provider score on these points?

- Do you receive a service catered to individual needs?
- Is the customer service excellent and reliable?
- Do they tie you down with lengthy contracts?
- Can you manage costs easily and accurately with flexible billing?
- Can you reach national and international destinations across a wide variety of connection methods?
- Is it easy to transfer services?
- Do they have flexible and competitive tariff structures?
- When was the last time they did a review?
- Do they provide fraud controls?
- Is there an easy upgrade path on your broadband?

Well, marks out of 10?



# OUTBOUND

You never notice them until they are not there. Your lines are the lifeblood of your office system. Whether they be connected to your phone system, fax machine or data infrastructure the real cost is measured by reliability and customer service.

Simply put, if your systems are down you want them back up again as soon as possible because downtime is lost revenue.

Sitting on the end of a phone waiting for someone to talk to is unproductive and stressful which ultimately costs you money. So why do so many organisations commit to long term contracts when they don't need to?

Analogue  
ISDN2  
ISDN30  
SIP Trunks

Keep it Simple, Keep it Short

## SIP Trunks – What's the fuss

A SIP Trunk is a way of placing outbound calls and receiving inbound calls using an internet connection, rather than using an ISDN line. Calls to and from the public network are supported.

SIP Trunks are now becoming the standard technology that allows businesses to make and receive telephone calls without the need for an expensive ISDN circuit. The increase in Quality of Service over the last couple of years has contributed to its increasingly widespread adoption.

### The background

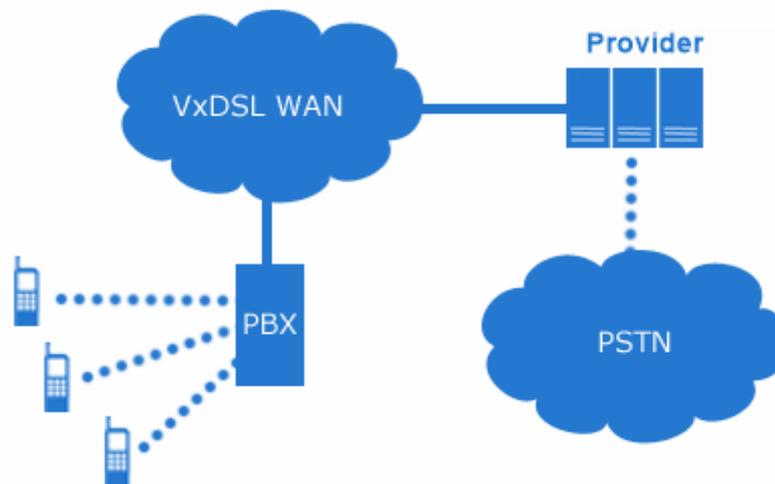
Session Initiation Protocol (SIP) is used to 'set-up' and 'close-down' telephone calls over IP networks, including the internet. It is this VoIP protocol that is most widely supported by modern devices, including IP-enabled PBXs.

If used with a PBX it is important to check that your provider has been tested with the manufacturer of your phone system, since not all SIP's are the same.



## Key Benefits of SIP Trunks

- Internet to landline telephone calls
- Very competitive call rates
- Free calls to other internet connected users
- Any Number Anywhere. Any geographic numbers to your phone
- Disaster Recovery Planning



## Failover

### Automatic Failover

This service monitors the connection between the provider and the telephony application. If no response (Data connection or telephony application has failed) the call is automatically redirect to a preprogramed telephone number. **If you have 100 DDI numbers each one of the DDI numbers can be redirected to a different telephone number.** Unlike ISDN if the connection fails you can call your provider and they will re-direct all 100 DDI numbers to one number. Automatic failover is a chargeable service.

### Manual Failover

This is included within the SIP Trunk price, in the event of the data connection or telephony application failing, the numbers can be redirected via a portal in the same way as above to alternate destinations. This is a manual operation and is not chargeable.

## Number Porting

You can port your geo and non-geo numbers on to our platform and deliver to any IP address in the world. Moving from London to Manchester and want to retain your London number(s)? No problem. Number porting is a standard process regulated by OFCOM. Ports can take up to 30 working days from start to completion. There are a number of reasons why customers port numbers such as moving premises out of the local telephone exchange area, therefore unable to keep the number(s) with the incumbent telephony provider.

- Customers with regional offices wishing to centralise their telecommunications
- Customers closing offices wanting to retain localised telephone numbers
- Customers not moving but replacing ISDN service for flexibility or cost saving



# Porting and Provisioning

You are also able to do;

- SIP Pointing

Take your existing numbers and point them to SIP trunks.

- Number Translation

Do you need an international? You can have telephone numbers throughout the UK, Europe and the USA. A company based in Manchester can be provided with a London telephone number and vice versa; providing you with local presence. SIP trunking is routed over the internet, therefore your telephone number is pointed to your IP address which can be anywhere in the world.

- Provisioning for a wide variety of numbers

We're able to provide numbers for a large number of sectors, including

UK Geographic numbers (01,02) - over 650 exchanges, the length and breadth of the country.

UK Non-Geographic numbers (08) - 0844 and 0871 range's revenue share tends to be high when using SIP trunks as no ingress is payable. 0800 free-phone numbers can be provided.

UK-Wide (03)

Premium-rate (09)

International Numbers available on request

Cost of numbers varies based on Standard, Silver and Gold ranges. One off payment to purchase the number and no monthly rental charges with the exception of 03 number ranges.

- Immediate Provisioning

Ordering and provision takes a matter of mouse-clicks. Contact our support department for fast-track number provisioning on 0800 849 3333.

- Call Recording

Via the platform all in and outbound calls are recorded, saving the expense of on-site call recording equipment. Once your lines have been added to the recording, you will be provided with a portal account to access all recordings and download when and if required. Simple and easy to administer and use.

- Fax to E-mail

Supporting T.38 fax protocol to end user devices. If you need to use T.38 please let us know and we will enable the configuration for you at no extra charge. If your PBX does not support T.38 you may experience problems sending and receiving faxes over VOIP lines. We are able to offer a Fax2Email service which will allow you to receive faxes direct to your email inbox.



# Fraud Management

Vital for any business with call traffic due to the risk of fraudulent activity within the industry which is not just limited to SIP. Fraud is not new to the telecoms industry but the approach to managing the risk of fraud varies considerably. Included in the price of a SIP Trunk are two of the best methods in operation in the market today. Should you be the target of a fraud attack you have peace of mind that you will be notified and your account automatically suspended temporarily since most attacks happen at night or over the weekend.

The two methods used are:

## Fraud Alerting

The portal enables users to set a daily limit for their company or end-user so that when the set limit for the call spend is exceeded an e-mail notification is automatically generated and sent to the email address(s) listed on the portal.

## Fraud Suspension

In addition to fraud alerting we also provide an additional level of security to protect our customers.

On top of the level set by fraud alerting, should the fraud suspension limit be breached then the account will be suspended.

Enough of SIP Trunks – what else?

# BUSINESS BROADBAND

What about free and easy migration

Great value high speed and consistently reliable business broadband with a range of packages designed to give your business the flexibility to grow, whether you are a sole trader, a small to medium business or a large organisation.

The Business Broadband range is ideal for small businesses and anyone wanting high speed and low cost internet access. If you're a homemaker or running a business with up to 10 employees, you probably just need a basic Broadband solution. For businesses who need a little bit more from their internet connection, there are unlimited packages, simply subject to fair use.

Reliable, fast business broadband connection at a price that's competitive.

If your business has grown to the point where you need more then quickly upgrade without any disruption to your service.



# ENHANCED BROADBAND

Get up to **£3,000**  
towards improving  
your connectivity



## Fibre

- **Get priority over other users** – Make sure you use a ‘business only’ network ensuring performance is maintained during peak usage times.
- **Enhanced Functionality** - Greatly increased speeds mean you can take full advantage of the latest business applications such as VoIP telephony, cloud computing and video conferencing.
- **Staying Connected** - 8 hour fix SLA and 24/7 customer support, backed up by a fleet of BT Openreach engineers, minimises any risks to your connectivity.
- **Amplify Your Connectivity** - With a variety of upgrade options, there’s no need to worry about your download limit.

## Ethernet

Unlike broadband, which is a shared resource, Ethernet connectivity is a dedicated connection that is delivered to you via Ethernet over Fibre to the Cabinet (also known as General Ethernet Access), Ethernet First Mile (EFM) or Fibre Ethernet. Each delivery method will give the security, reliability and bandwidth that your business needs, and with guaranteed speeds and service levels, Ethernet connectivity is an ideal solution.

### Put simply...

The extra reliability, security and symmetrical download and upload speeds makes Ethernet ideal for smooth and seamless VoIP and video conferencing, large data transfers and access to cloud based services.

### Consider this option if...

Your data demands are growing and you need the extra speed, security and reliability that Ethernet connectivity offers, or you need a point-to-point leased line, managed internet access or wide area network solution.



# GLOSSARY OF TERMS

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## **ADSL – Asymmetric Digital Subscriber Line**

A broadband technology that delivers very high data transfer speeds over existing telephone lines within the traditional copper wire telephone network. It downloads faster than you can upload them due to there being more bandwidth available on the downstream. It is up to nine times faster than a 56k modem connection. Ideal for residential connections or for businesses not running a server.

## **Analogue Lines**

The original telephone lines. They are still a common option for smaller businesses. However, technology is shifting rapidly towards SIP trunking which prove to be more flexible and cost effective.

## **Auto Attendant**

An automated answering system that directs the caller to their destination using prompts. For example, “For the Accounts Department, please press 1”.

## **Bandwidth**

A measurement that gives us the capacity to know how much data can be sent through a connection. It is measured either in frequency range eg) 3 kHz, or transmission rate (in bits per second) eg) 63 Kps.

## **Bluetooth**

A technology designed to be embedded in electronic devices in order to provide wireless and seamless connections over short distances of up to 10 metres. Named after a Danish king.

## **Broadband**

Any permanent connection to another network (usually the internet) that has the ability to send and receive large amounts of information in a short period of time.

## **Call Forwarding**

This feature allows incoming calls to be redirected to another destination, such as a mobile phone or a home number.



## **Centrex**

A PBX-like service providing switching at the central office instead of at the customer's premises. Typically, the telephone company owns and manages all the communications equipment and software necessary to implement the Centrex service.

## **Channel**

Is another word used to describe a telephone line, usually used in the context of digital lines or SIP Trunks.

## **CLI – Calling Line Identification**

Technology that provides the identity information of the incoming call on the receiver's phone display.

## **CoS - Class of Service**

A means of managing traffic over a network by identifying types of traffic and prioritising certain groups.

## **DDI – Direct Dialling Inward or Direct Dial In**

Gives the ability to route a call to the desired destination within an organisation directly through the switchboard bypassing the receptionist. The telephone company can allocate a range of numbers associated with the PBX and assign each seven digit number to individuals, faxes or computers.

## **DECT – Digital Enhanced Cordless Telephony**

Are cordless handsets that provide wireless communications within an office, building or site, and they can be fully integrated into the company telephone system.

## **DSL – Digital Subscriber Line**

Once called digital subscriber loop, this is a family of technologies that provide digital data transmission over telephone lines. It can carry both data and voice signals.

## **Ethernet**

One of the oldest Local Area Networks technologies which has been highly successful and is still popular.

## **Fixed Line**

Is a telephone line which travels through a solid medium, either metal wire or optical fibre.



## **GPRS - General Packet Radio Services**

A technology that allows customers to remain connected to the network between calls for the receipt and transmission of data.

## **IP – Internet Protocol**

A standard set of rules that dictate how data is structured and controlled to ensure an accurate transfer of information.

## **IP PBX – Internet Protocol, Private Branch Exchange**

Is a business telephone system designed to deliver voice over a data network.

## **IP Telephony**

Also known as Internet Telephony or Voice over IP (VoIP). Use of Internet Protocol to carry and route two-way voice communications. IP Telephony can support telephone to telephone links through suitable adapters but also voice communications from telephone to IP terminal (such as a PC with sound card) or from IP terminal to IP terminal.

## **IP/VoIP Gateway**

A gateway for existing telephone systems that converts traditional traffic into IP so that it can be transmitted over a data network. Using an IP gateway can be considered 'migration path' towards IP Telephony. This means that you can gradually transfer to IP Technology thus adding longevity to your existing system.

## **ISDN – Integrated Services Digital Network**

A Digital public network for voice and data communications. The key feature of the ISDN is that it integrates speech and data on the same lines, adding features that were not available in the classic telephone system. It is available as ISDN2e, where the lines come in pairs, or as ISDN30e which comes in groups of up to 30 lines, the minimum order being 30.

## **ISP - Internet Service Provider**

Point of access to the Internet for small business and individual users.

## **LAN – Local Area Network**

A computer network covering a small physical area such as a school, a group of offices or a home.

## **Leased Line**

Also known as a 'private circuit'. It is ideal for larger business that have mission critical applications to run across the circuit. They may require large bandwidth and high reliability, this option also includes a service level agreement. The leased line provides a direct connection between your premises and another site of choice.



## **LLU - Local Loop Unbundling**

Is where a carrier provides their own broadband service from a local telephone exchange. They are buying the right to run their services over the copper cables and install their equipment in the exchange.

## **Network**

A network is a collection of two or more computers all linked together to share data and resources.

## **OFCOM - Office of Communications**

The UK regulator for the Communications industry.

## **PBX – Private Branch Exchange**

Is a telephone exchange that serves a particular business or office, as opposed to one that a common carrier or telephone company operates for many businesses or for the general public. Sometimes referred to as PABX private automatic branch exchange or EPABX electronic private automatic branch exchange.

## **PSTN - Public Switched Telephone Network**

The public switched telephone network which was traditionally analogue, but now is almost entirely digital. On a PSTN line two way conversations travel down a telephone line in a straight line, rather like traffic flowing up and down a motorway in opposite directions.

## **Portal**

A gateway or entry point to the Internet incorporating significant function.

## **QoS – Quality of Service**

This is used to provide acceptable voice quality across IP networks.

## **SDSL – Symmetric Digital Subscriber Line**

Broadband technology that delivers very high data transfer speeds over existing telephone lines. The main difference between ADSL and SDSL is that SDSL has the same upstream data rate as downstream (symmetrical), whereas ADSL always has smaller upstream bandwidth (asymmetrical). However, unlike ADSL, it can't co-exist with a conventional voice service on the same pair as it takes over the entire bandwidth.

## **SIP Trunking**

These lines allow a pure IP connection to be formed between enterprises and telephone carriers and make it possible for businesses to make and receive calls over broadband circuits or other data connections.



## **Smartphone**

A mobile phone offering advanced capabilities beyond a typical mobile phone, often with PC-like functionality.

## **Soft PBX – Soft Phone**

A software application providing server-based telephony, for example, a soft phone on your laptop allows you to make calls from it.

## **Trunk**

Another way of saying 'line' or 'channel'.

## **Unified Messaging**

Provides a centralised mailbox for all email, fax and voice messages. Through this system, messages can be viewed, replied to, saved and deleted in this one inbox.

## **Voicemail**

Callers are enabled to leave messages on personalised mailboxes. Messages can also be retrieved remotely.

## **VoIP – Voice over Internet Protocol**

A protocol that is optimised for the transmission of voice through the Internet or other packet switched networks, and is now considered part of the backbone of every day telecommunications.

## **VPN – Virtual Private Network**

A Virtual Private Network is a private network built on Internet Protocol (IP) that helps extend the reach of your company's network either nationally or globally to connect remote sites or users together.

## **WAN – Wide Area Network**

A computer network that covers a larger area rather than being limited to one building or site.



Reach

Reputation



Resell

Referral

