



**Blueface Guide: Training
Common Questions and Answers**
V1.0



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General Blueface Service questions for customers

What is VoIP? (Voice over Internet Protocol)

VoIP allows you to use your broadband connection to make and receive calls, in exactly the same way you use your current phones. Blueface converts the voice traffic on the customer's site to "Voice over Internet Protocol" (VoIP) and then prioritises this traffic over the broadband link; we also size the broadband link to make sure your normal Internet traffic isn't impacted. The VoIP data is then converted back to normal voice on our core voice switches and depending on the destination is passed to the relevant service provider to connect the call.

How does it work?

It works by connecting your existing Handset, PBX or IP phones to your broadband connection

Does Blueface provide broadband? **Yes if required Blueface can provide both fixed and wireless Broadband.**

Why should I use Blueface for my business?

Blueface provides very competitive rates providing you with reduced calls cost, along with the option of reducing your line rental bill by providing multiple numbers over one broadband connection. It also provides much more flexibility – like online call divert (divert to your mobile for example), fax to email services, not to mention real time billing, online call records in real time and a whole lot more. You can even receive your calls in more than one place or office – even overseas.

What is included in the Business Plan?

The Blueface business plan provides customers with unlimited* calls to the UK and Ireland along with two Geographic number, two 076 (Irish VoIP) numbers and a fax number. We also provide a number of free services as part of this plan for more details visit our www.blueface.ie/business

What is included in the Enterprise Plan?

The Blueface business plan provides customers with 50 geographic numbers, calls are charged on a Pay As You Go basis. We also provide a number of free services, for more details visit our www.blueface.ie/business

What extras does Blueface provide?

Blueface provides an online service to its customers with a variety of additional features including:

- Real time call records
- SMS Gateway for sending texts
- Fax to email service
- 3 way calling
- Online call management
- Manage your own call diverts, call blocking.

How much are calls to mobiles?

Our rates are probably the most competitive on the market full details on our website www.blueface.ie

Can Blueface reduce my mobile phone costs to International mobiles?

Yes, Blueface rates to international mobiles are very competitive. Not only can we reduce calls made from your Blueface account but we can also reduce the cost of international calls made from company mobiles using our goMOBILE service.

Is there a big investment to use VoIP?

No, definitely not. In most cases it's simply a matter of connecting an ATA (€90 approx) with your existing phone system. For full integration the services of a phone supplier may be needed, but we can get you started for very little.

How do I pay my Blueface account?

Your Blueface account is paid online with credit or laser card. Customers also have the facility to set the account to take payment automatically from your card so you don't have to remember to pay your account each month.

We want to choose Blueface, what do we need to use it?

Along with the Business or Enterprise Plan which you can order from our website www.blueface.ie you may need some hardware to connect with your broadband connection. With Blueface you have a choice, you can connect your existing phones/PBX to your broadband connection using an Analogue Terminal Adaptor (ATA) or gateway and you can choose to use IP phones that connect directly to your broadband.

Does Blueface provide ATA or IP Phones?

Yes, Blueface does provide hardware which is normally already configured with your account details so all you need to do is plug it in. It is also possible to source your own hardware, ask us for more details. Alternatively Blueface can suggest that one of our authorised partners make contact with you and deal with your hardware requirements.

We have more than one office, can we use Blueface?

Yes, Blueface is perfect for a business based in more than one location enabling calls to be directed to each office as required using our online interface. You can even call inter-office for free.

We have some staff that work from home, can they also use Blueface?

Yes, once the home office has a broadband connection they too benefit from VoIP. In fact many of our staff work remotely as its so easy to do.

Call Quality

Will our call quality be as good as our traditional phone?

Yes, and VoIP to VoIP may even be better. It's important to note that your Call Quality is reliant on your individual broadband connection.

How much bandwidth do we need per call?

Each call need 85kbps upload and download speed.

Is the upload and download speed the only variable that affects my call?

No, while these are important, other considerations include dropped packets and jitter (packets not arriving at a constant rate) and contention.

How many calls can we make simultaneously?

The number of simultaneous calls will depend on your broadband connection. On a DSL connection, usually 2 or 3 calls can be made simultaneously.

Will Blueface work with every broadband type?

Yes, it's possible for Blueface to work with all type of broadband.

Can I move all my phones to Blueface?

Yes, it's possible to use Blueface exclusively for your Business if you don't rely on your DSL connection for your Broadband. However, as with all systems it makes sense to have a back-up in case your broadband goes down.

Can I connect my existing alarm, fax or credit card machine?

No, sending fax or other modem signals using VoIP protocols is not reliable when using a typical internet connection. IP Credit card machines work perfectly with Blueface

Can I send and receive a fax?

Yes, Blueface operates a fax/email gateway that allows faxes to be sent and received via email

For more information visit our website www.blueface.ie/business

General Technical Questions

What type of equipment do my customers need?

Please complete our site survey form and submit to Blueface for analysis

Will my customer need Broadband?

The Blueface service is broadband independent, therefore the service can be delivered over all types of broadband. This includes Fixed Wireless, DSL, cable and fibre.

Type	Examples
DSL	Eircom DSL, Magnet DSL, Smart Telecom DSL,
Fixed Wireless	Irish Broadband, Permanent, Rapid Broadband
Cable	NTL UPC Broadband
Fibre/Other	Smart Telecom, BT, Planet 21

What is a Codec?

A codec (Coder/Decoder) converts analog signals into a digital bit stream, and another identical codec at the far end of the communication converts the digital bit stream back into an analog signal. Codec's are used to encode voice for transmission across IP networks. Codec's generally provide a compression capability to save network bandwidth. Blueface can force which codec is selected on an account by account basis.

Codec Type	Bandwidth Requirement	Notes
G.711	87 Kbps ↑/↓	Full Audio Quality, Fault tolerant
G.729	42 Kbps ↑/↓	GSM Like Audio, Good compromise

What download and upload Speed will be required for the Blueface service?

The broadband speed requirement is dependent on which codec is been used and the number of concurrent calls. The following table highlights the typical broadband speeds required when using a dedicated broadband connection for voice.

G711 Codec

Number of Concurrent Calls	Speed Required	Example
2	174 kbps ↑/↓	Eircom Business Lite Plus - €24.79
4	348 kbps ↑/↓	Eircom Business Starter - €40.00
8	696 kbps ↑/↓	Eircom Business Plus - €65
12	1044 kbps ↑/↓	Eircom Business Enhanced - €99

G729 Codec

Number of Concurrent Calls	Speed Required	Example
2	84 kbps ⬆/⬇	Eircom Business Lite Plus - €24.79
4	168 kbps ⬆/⬇	Eircom Business Lite Plus - €24.79
8	336 kbps ⬆/⬇	Eircom Business Starter - €40.00
12	504 kbps ⬆/⬇	Eircom Business Plus - €65

Caller ID

Blueface have the ability to set outbound caller ID for customer accounts. If a customer wants to use their existing Eircom lines for incoming traffic (temporarily or permanently) and Blueface for outgoing traffic, we are able to set the outbound caller ID so that the call appears to have come from the Eircom lines.

Porting

Blueface is fully authorised by Comreg which enables us to provide full number portability for all Irish Landline numbers. This enables an end customer to port their number range from BT / Eircom / Imagine to Blueface.

Blueface can provide numbers in any county/dial code in Ireland.

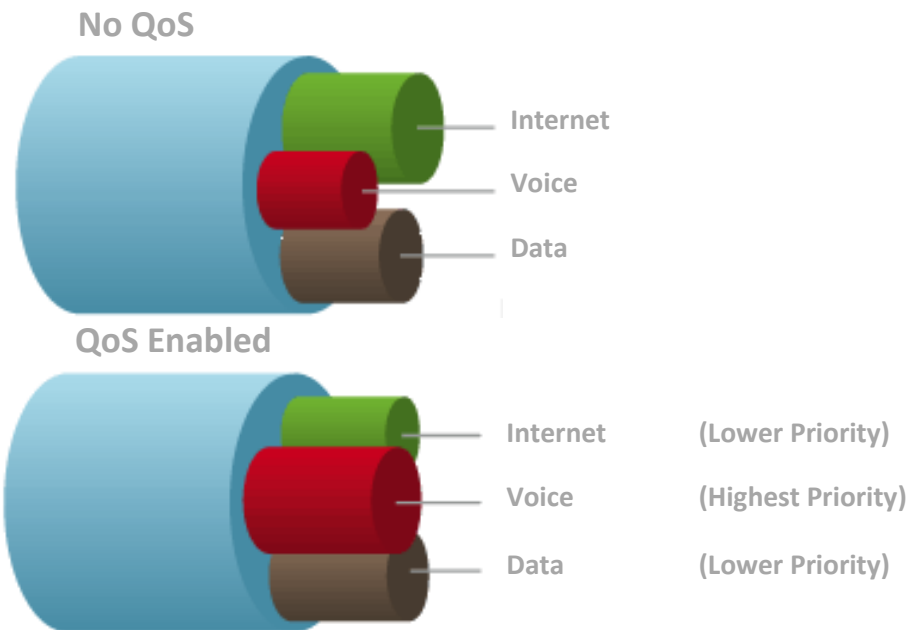
Number Range

Blueface can provide geographic numbers for most countries around the world. If your end customer needs a number in New York, London or even Buenos Aires. This allows your end customers to provide their international suppliers/customers/contacts with a local number, meaning no more long distance call charges.

What is QoS?

QoS stands for Quality of Service. QoS is a set of algorithms which prioritises certain types of traffic in order to guarantee quality. By enabling QoS on a customer's site you can ensure that voice calls are prioritised over other internet traffic.

QoS is not required when using a dedicated broadband connection for voice traffic.



How does Blueface handle Call forward / Diverts?

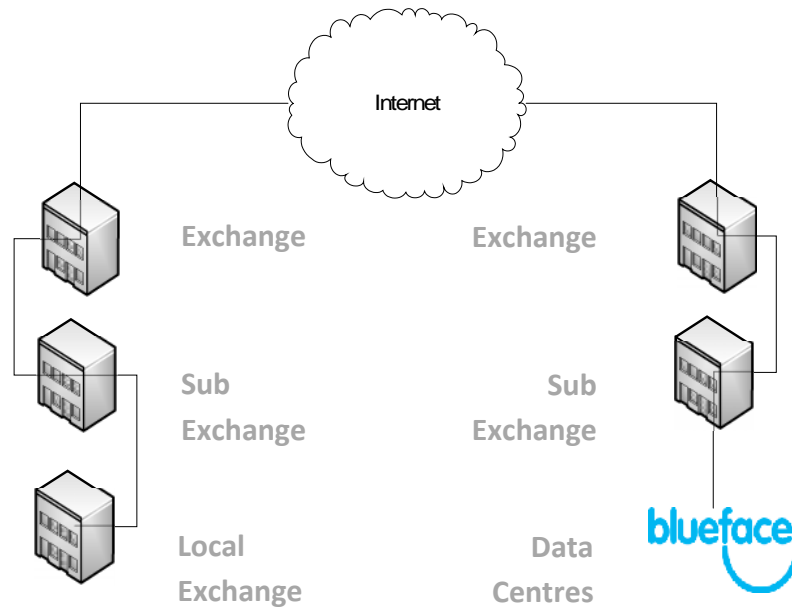
Blueface business allows your customer to avail of several divert types, always, busy and unavailable. Unavailable divert can be used in the event of a line/broadband failure all calls can be diverted to up to 3 other PSTN/mobiles numbers or sip account.

Divert	Notes
Always	Allows you to receive your phone calls on more than one phone. For example you may wish for you office phone, home phone and mobile phone to all ring at the same time.
Busy	If you are already on the phone your calls can be forwarded to another number/account
Unavailable	If there is a line/power/broadband failure all calls can be automatically diverted to up to 3 other PSTN/mobiles numbers or sip account

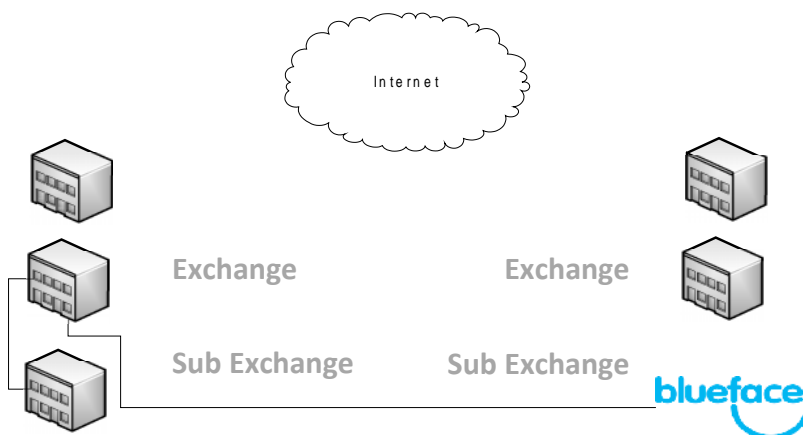
Private network

Blueface have developed a private IP/Broadband network. Blueface business network is a private broadband network designed to carry Blueface business voice traffic. The network is privately addressed and actively managed allowing Blueface Business engineers to dynamically adjust contention ratio in order to provide the best call quality.

Typical Connection



Private Connection



The Blueface business network is directly connected to the Eircom network, this ensures that voice traffic only travels within local sub exchanges and does not traverse the public internet. This eliminates the majority of bandwidth bottle necks that occur in DSL broadband networks.

Firewall

In order to ensure the customer SIP device registers successfully with the Blueface network SIP re-registration interval should be set down to 112 seconds. However, most firewalls by default come with a multiple UDP timeout interval of 60s. For incoming SIP invites to never be blocked by the firewall (the symptoms of this is dead air on incoming calls as our server sends and retries as it gets no response) the timeout for the UDP multiple packet needs to be raised from the default to something greater than the re-registration interval. This way the firewall will always have a state for the connection and will pass on the incoming sip invites to the PBX correctly.

Basic VoIP A-Z

ADSL : Asymmetric Digital Subscriber Line.

An Analogue Terminal Adaptor is a small device that enables your standard telephone to make and receive calls over your broadband Internet connection. It's simple to use and plugs directly in to your broadband router and your normal analogue phone. ATAs are often sold combined with routers.

Always-On

Dial-up Internet technologies require a phone call to connect you to the internet. When you finish your session the connection is terminated. An always-on service means the connection to the Internet remains open all day every day. This type of service is usually charged at a flat rate per month. You will also need a piece of equipment called a router to manage your connection.

Analogue/Analog:

In relation to VoIP analogue refers to pre-digital phones and systems. Virtually all new phones are digital, although many can also use analogue networks.

Area Code

Identifies and directs your phone number to a specific country or region.

ATA: Analogue Telephone Adaptor

This is a small device that enables your standard telephone to make and receive calls over your broadband Internet connection. It's simple to use and plugs directly in to your broadband router and your normal analogue phone. ATAs are often sold combined with routers.

Bandwidth and Speed

Bandwidth gives you an indication of the speed capabilities of your broadband connection. This speed is measured in kilobits per second (Kbps). To give you an idea: old dial-up modems have a maximum data rate of 56 Kbps. Broadband services begin with data speeds of 512 Kbps. So even at the lower end of the scale you can see how much faster broadband is. If you see a 2 Mbps connection advertised this means it is 2000 Kbps. These speeds

cannot be guaranteed as your connection will more than likely be shared with other people. You can learn more about this in the section called contention ratio.

Broadband

Broadband is high-speed Internet access that you access through a cable or DSL modem. It has a continuous connection to the Internet at much faster speeds than dial-up.

Call Forwarding

A phone service feature that allows the user to forward a phone call to another phone number. For example, you can forward your home phone number to your mobile number so you never miss a call.

Caller ID (or CLI: Calling Line Identification)

This transmits a caller's number during the ringing signal.

Call Logs

These are detailed call records. With Blueface you can view these on line by logging in to your account. They contain information on call: duration, destination, origination and price.

Call Waiting

Call waiting puts your first call on hold while you answer the second. While you are on the phone a beep tone alerts you to another incoming call. You can then put your first call on hold and take the second call. Any calls that you do not choose to take will go to your voice mail.

Congestion

Congestion occurs when there is too much traffic on the Internet or a specific site. This slows all webpage requests down and causes delays in downloading files and viewing information.

Contention Ratio

When you have a broadband connection there is a connection path between you and the Internet Service Provider. This connection path that carries data is referred to as contention. Many users will be using the same connection so when service providers quote a contention ratio of say 50:1 this means 50 other users will be using the same connection as you. This could affect you at peak usage times as the connection could become congested. Normally however you can expect this not to have a significant impact on your connection and broadband speed.

Download

Downloading information is usually used to describe transferring information/data from the Internet. When you download a file like an email or web page it copies from a remote computer to your computer.

DTMF

DTMF (dual tone multi frequency) is the signal or noise the phone keypad makes when you press the touch keys. When you press a key it generates two specific frequencies so a voice cannot imitate the tones. These tones are used for signalling the telephone exchange.

Ethernet

A method of networking computers in a local area network (LAN).

Ethernet Cable

This is a cable used in networking computers it can carry data like basic voice services and connect your computer to a router to access the Internet.

GUI - Graphical User Interface

Blueface uses GUIs for its Toolbox and Conferencing. It is a computer interface that uses icons or pictures to help users navigate and control both services.

HTML - Hypertext Mark-up Language

HTML is the programming language used to create documents for display on the World Wide Web.

HTTP - Hypertext Transfer Protocol

Is the set of rules and standards that govern how information is transmitted on the World Wide Web.

ISP Internet Service Provider

A provider of internet access. This can be for broadband or dial-up.

LAN - Local Area Network

A local area network is a computer network covering a local area, like a home, office or small group of buildings such as a college or hospital.

Modem

A modem is a device for sending computer data over a voice phone line.

MB - Megabyte

Is a unit of measurement used to describe data. 1MB is 1,000KB (Kilobytes).

1MB is 1,048,576 bytes to be exact but is often rounded off to 1,000,000 bytes.

An average length MP3 music file would be about 4MB. A standard photo taken with a 7 Mega Pixel camera would be 1-1.5MB. A standard 3 page text only Word document would be about .08MB or 80KB.

Mbps - Megabits per second

A measurement of data transmission speed in a communication system: the number of megabits transmitted or received each second.

Network

Two or more computers that are connected so users can share files and devices (for example, printers, servers, and storage devices).

POP - Post Office Protocol

Mail programs usually require you to enter this information when you are setting up an email account. POP is the set of rules and standards that govern the retrieval of email messages from a mail server.

Power-cycle

Power-cycle is a euphemism for asking you to switch off a device and switch it back on again.

QOS: Quality of Service

QOS ensures the quality of your voice calls even when your broadband connection is being used for other items like downloading music or surfing the web. QOS always retains a specific amount of your bandwidth for voice calls so you can talk without any interruption or interference.

Rebooting

Is a term used to describe restarting your computer and operating system.

Router

Is a piece of hardware that directs information to your computer this is what connects you to an Internet service provider for Internet access.

SoftPhone

Is software installed on your computer that enables the use of VoIP without any hardware. You will need a headset or microphone and headphones to make phone calls. It allows you to make and receive phone calls without having a traditional home phone.

Upload

Uploading information is used to describe transferring data form your computer to the Internet or another remote computer.

Voicemail

Your phone calls are diverted to voicemail when you're unavailable. You can use Blueface's ToolBox to manage your voicemail.

VoIP: Voice over Internet Protocol

In basic terms VoIP enables people to use the Internet as a transmission medium for telephone calls. It is sometimes referred to as IP Telephony or Internet telephony, which is the same thing as broadband phone. Both involve sending voice calls over a digital computer network.

WAN - Wide Area Network

A wide area network is a variety of computer networks connected together and covering a very large geographic area.

Wi-Fi - Wireless Fidelity

Refers to products that can connect to each other without wires. These can include routers, laptops and PDAs.

WWW : World Wide Web

Also referred to as The Web, it is a branch of the Internet which uses text, images, video and other elements to provide information on any topic you can imagine.