

WINTER 2022/23

Spitfire launch new hosted telephony system – FireSwitch®

Dominic Norton, Sales Director

Can you believe that we have now been providing hosted telephony solutions for over 15 years! We launched the award winning SIP Communicator back in 2009 and more recently the highly commended Hosted PBX 2.1 in 2018, which provided core business telephony features and a user friendly web portal with a low per user monthly rental. Not one to rest on our laurels though, we have listened carefully to what additional functionality our customers were looking for from this particular system and are now pleased to add an integrated softphone and full system call recording.

This latest iteration of our cloud telephony platform, Hosted PBX 2.2, will be known as FireSwitch® and will bring these big system features at a competitive, market leading price.

With businesses continuing to operate hybrid working patterns it was essential that users were able to connect to FireSwitch® from anywhere and with as much flexibility as possible. Whether that be an IP telephone handset at a more permanent desk location or using a softphone on a laptop or smart phone whilst out and about. The softphone has been designed to be extremely easy to deploy and

will automatically configure and connect by simply scanning a QR code.

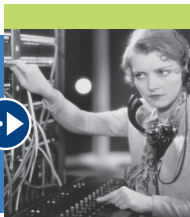
Whether used for training purposes or assisting with resolving customer service enquiries, recording the calls on your telephone system can provide a real cost and time saving benefit. FireSwitch® now comes with full system call recording, with all records displayed on our Customer Portal. Easy to use search filters then allow for a specific call to be quickly located and listened to. Long term storage with simple call retrieval is provided by our FTP as a Service solution and calls may also be exported to your own server.

We are very excited to announce the launch of FireSwitch® and offer this latest development of Hosted PBX to our customers.

Please do not hesitate to contact your account manager to book in a demo and find out more.

 **FireSwitch**™
HOSTED PBX 2.2

INSIDE



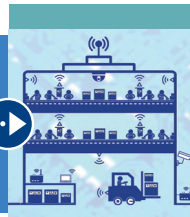
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Foreword – Harry Bowlby

It has been another two years since our last newsletter in Spring 2020 and what a different world it is.

Pestilence, war, rampant inflation, a forthcoming change of government and a forecast recession. All dramatic big picture stuff, but nearly matched by some other dramatic changes in the telecoms industry: a major shift to working at home, the greater adoption of video conferencing, the forthcoming 'WLR' shutdown, the proliferation of the Altnet, the widespread availability of affordable Gigabit bandwidth, the increasing use of mobile data and the future revolution of IoT.

I hope the fundamental tone of this Newsletter is that we have been working hard to more than rise to these challenges on your behalf. We have forged new relationships and ventures with suppliers, re-engineered our Core Network, developed new products, written better systems and procedures, and ceaselessly trained our staff to provide you with the best service available in the Telecoms industry.

We have worked hard to ensure that every customer receives an appropriate amount of communication with our account management team and this is a very

important part of the overall service that we provide. Please do make your account manager aware of any issues that we can help with.



I am also very proud that having led our last newsletter with the launch of Hosted PBX 2.1, we can lead this newsletter with the launch of Hosted PBX 2.2 otherwise known as 'FireSwitch'. We registered this as a trademark some years ago and I am delighted that we now have a fully developed mature system that is worthy of the name. This is an absolutely excellent product at a market leading price. Please do discuss with your account manager and spread the word.

Best wishes for the remainder of 2022. We will hopefully have another newsletter with you in early 2023.

Keeping in touch *Samantha Emmerson, Recruitment, Office & Marketing Manager*

Spitfire Network Services Ltd have been busy shouting about our new and existing products and services. We advertise on the radio, in the press, on buses in Birmingham and at some of the larger commuter railway stations. So you should be able to see and hear us on your morning commute to the office. Our press advertising is also still going strong – regularly appearing in 7 magazines covering the Telecoms business, local business communities and IT sector.

Our current campaign called "Can you hear me?" is definitely eye catching. It talks about the quality of the call when using VoIP on a broadband service that was never really designed to carry voice calls. Not experiencing a clear call can be very frustrating and unprofessional when trying to make business calls.

We would love to see where you have heard or seen our new adverts. If you hear it on the radio – make a note of

the station, date and time or if you see it at a station take a photo. Send the information through to info@spitfire.co.uk to be in with a chance of receiving a bottle of wine. We will contact and send a bottle to the first 5 we receive.

We also post lots of informative content on our social media and You Tube channels. We talk about new offers, new products and publish enlightening videos on different technologies, helping you to stay on top of what we are doing but also what is happening in the market. Do follow us on LinkedIn, Twitter and when you subscribe to our You Tube channel you will get alerts to see any new content so you need not miss a thing.

Follow us on:

 LinkedIn @SpitfireNetworkServices

 Twitter @SpitfireUpdates

 You Tube https://www.youtube.com/channel/UCcksaWWm-k6xSxetx3OU_rA

What's coming up?

Dominic Norton, Sales Director

The last two years have understandably seen unprecedented levels of business uncertainty and therefore hesitancy in making decisions on long-term working environments and practices. It is no wonder that many businesses have not acted on the direction of their core telecommunications and internet requirements.

We are now though seeing businesses review their telecoms connectivity and infrastructure, whether that be a return to the office or most likely a robust, long term and more flexible hybrid working environment.

The analogue and ISDN network switch off, which is now well under way and scheduled to complete in 2025, will also be a major factor in these decisions. The old copper based telephony network is due to be decommissioned and we will move to an all-IP world for these services. This will also have a knock on effect on existing broadband and other services such as credit card machines and alarm systems.

There has been significant investment in the roll out of full fibre infrastructure over the last few years, with many more options and suppliers available to choose from. This is great news in this period of change, however businesses should tread carefully as there is likely to be a significant disparity between all of the different service offerings.

This is a considerable technology change and so more emphasis should be put on quality and reliability. It is essential that both Repair and Performance Service Level Agreements are considered to ensure that business applications and telephony services continue to work as expected and that users remain connected to the company network regardless of where they are located.



Security will continue to be at the forefront of matters, with more robust company private networks. Cloud hosted firewall services allow for the straightforward addition and ongoing management of different locations and user types.

Finally, mobile data technology is really becoming more prevalent in its use by business. Intelligent mobile solutions are now a serious consideration, providing genuine fixed line replacement services and always on solutions with much higher levels of flexibility in data connectivity. We also anticipate the use of IoT connected services to be more accessible and increase dramatically as businesses look to become more efficient and increase productivity.

Spitfire were once again highly commended for our network at the annual Comms Business Awards. We now connect directly with nine different wholesale provider's fibre networks, which we have optimised for our cloud hosted telephony and security solutions. We really are best placed to assist you in the journey to full-fibre, all-IP and mobile data and look forward to helping you further.

Read on and discover more about these and other exciting developments...



The Big Switch Off 2025

Peter Goddard, Birmingham Partner Manager

2025 is an important milestone for telecommunications in the UK. The year when we complete the transition from traditional telephony to Voice over IP (VoIP). When copper is (predominantly) replaced by fibre. When we move to an all-IP world.

What is actually happening ?

Openreach are shutting down the legacy telephone network. Services that were based on older technologies using analogue electrical signals as introduced in the 19th century e.g. analogue telephone lines or digital signals with Asynchronous Transfer Mode (ATM) as introduced in the 1980's and 1990's e.g.: ISDN and ADSL broadband will be discontinued. This means that all equipment in exchanges that supported services introduced prior to about 2008 (and some after that date) is being removed.

All telephony services in or out of an exchange will be based on fibre optic cables and Ethernet technology. Fibre Ethernet in the First Mile aka Dedicated Fibre Ethernet will remain. However Fibre to the Cabinet (FTTC), which depends on shared use from the street cabinet to the customer premises of a copper cable or Shared Metallic Path Facility (SMPF) that runs from the exchange to the customer premises (while also delivering an analogue telephone service), is being phased out. It is being replaced by an evolution called Single Order Generic Ethernet Access (SOGEA) which uses a dedicated copper line or MPF which runs solely from the street cabinet to the customer premises. You may see this advertised as a 'broadband only' service.

Fibre to the Premises or FTTP which is explained elsewhere in this Newsletter in 'Understanding Ethernet' is set to become the dominant fixed line technology for homes and smaller offices.

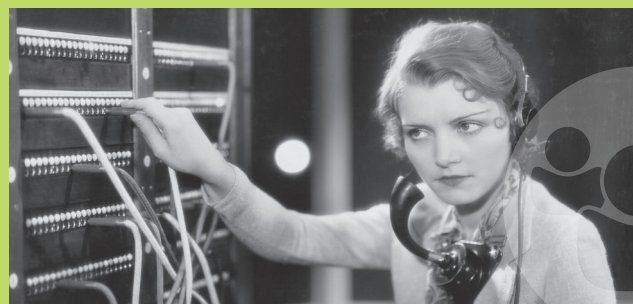
What services are affected?

The following services will be discontinued or no longer able to function:

- Analogue voice telephone lines and any service that use these including analogue handsets, analogue telephone systems (e.g.: Panasonic 'A' Series), modems, fax machines, alarm systems, building management systems, lift lines, PDQ machines etc.
- ISDN 2e and ISDN 30e lines which are mainly used by telephone PBX systems, but have also been used in the past as 'Private Circuits' or 'Leased lines' e.g.: BT Megastream and Kilostream.
- Broadband services that run over a copper cable used

as a Shared Metallic Path facility with an analogue telephone line service e.g. ADSL, SDSL FTTC fibre broadband.

- Ethernet services sold as 'Copper EFM' that are dependent on multiple copper cables using G.SHDSL.



What is happening and when?

Openreach will be switching off services at each local exchange in turn. The first stage is to announce a "stop sell" date, after which no new affected services can be ordered and changes to existing services, no matter how minor, cannot be made. As of September 2022, there are already 595 exchanges for which a stop sell date has been announced and a number for which this date has already passed, with more being added regularly. A list of the exchanges currently identified as stop sell can be found at: www.spitfire.co.uk/bigswitchoff.

Two years after the stop sell date, all analogue or ISDN services cease at that exchange. Everything will then need to be IP for telephony services. Fibre broadband (SOGEA), Full Fibre to the Premises (FTTP) and Dedicated Fibre Ethernet will be used with cloud hosted telephony. Your choice of Internet circuit will need to be carefully considered to ensure that VoIP works correctly, resulting in clear business quality voice calls.

National 'stop sell' date

September 2023 has been announced as the national 'stop sell' date, the last point at which all exchanges will have reached their stop sell date. The project then completes in 2025 as the last exchanges reach their shutdown date. At the Big Switch Off it's all-IP or nothing.

How can Spitfire help with this transition?

Spitfire are a telephone operator, SIP and Internet Service Provider. Although there may be lots to consider, we are here to help make this transition extremely easy and can manage every aspect for you. We can provide each customer with a road map and guide you through

which services are affected and when, together with the recommended upgrade path. Now is a great time to review existing telephone and internet services. This may involve a move to full fibre, upgrading to a cloud hosted PBX, connecting MS Teams to a SIP service or taking an IP replacement phone service.

What are the alternatives that Spitfire can provide?

Upgrade and connect to our award winning network:

- **Fibre to the Premise (FTTP or 'Full Fibre')**: providing ultra-fast and reliable internet connectivity, with IP telephony capability when used with a Voice Assisted bolt-on.
- **Fibre to the Cabinet (SOGEA FTTC)**: all-in-one broadband

connectivity.

- **Dedicated Fibre Ethernet**: flexible connectivity, with performance service level agreements for the sole use of your business from 100Mbps to 10Gbps.
- **IP telephony**: from cloud telephone systems to single line replacements.
- **Mobile data**: 4G/5G with fixed IP addresses from EE, O2 and Vodafone.
- **FireSwitch/Hosted PBX 2.2**: A feature rich, cost effective and scalable cloud phone system. Enjoy business grade voice quality with an end-to-end solution from Spitfire.

For more information please visit:

www.spitfire.co.uk/bigswitchoff

Core Network Upgrade *Graham Lewis, Director IP Engineering*

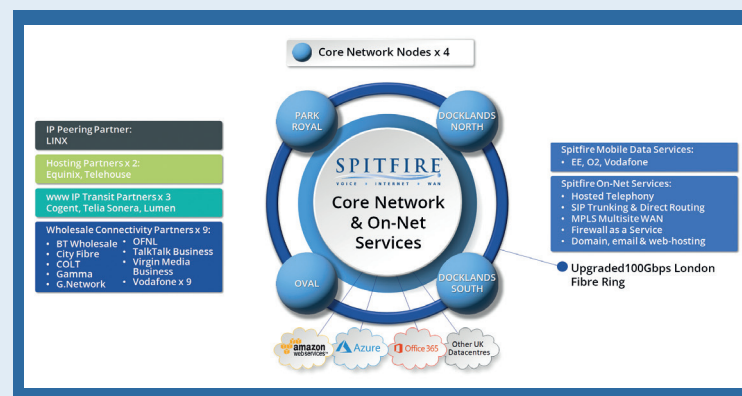
Increasing customer growth, an insatiable demand for more bandwidth and new fixed line and mobile services continue to drive expansion of our core network. When Covid struck the World in 2020 many of the customer networking projects that keep the IP Engineering team busy were put on a hiatus. We decided to make good use of this opportunity to bring forward a core network refresh, a project that we have only just completed given the many challenges that confronted us.

Our core MPLS ring had been based on dual 10Gbps links between our network nodes. The next logical step was to increase those links to 100Gbps between nodes with the ability to add further links as required.

We felt it was important that we retain our dual vendor strategy for networking equipment which meant assessing equipment from different vendors. Eventually we agreed to purchase new network routers and spares from Cisco Systems Inc and Juniper Networks. After having to wait for the equipment to arrive in the UK, due to shipping and customs delays caused by the pandemic, we slowly introduced it into our network starting in late 2020, with our team working overnight as usual to ensure minimal disruption.

The circuits between network nodes would need to be 100Gbps wavelength services. Within the docklands area there is a competitive market for such services, but outside of that we found finding fibre suppliers involved extended negotiations. We eventually signed agreements for wavelength services from three different providers – Lumen (formerly Level-3), Neos Networks (formerly SSE telecom) and Exa (formerly GTT). Selecting multiple vendors avoids us “having all our eggs in one basket” should one supplier fail.

By far the longest lead time was getting new fibre laid into our Printworks building from two different fibre suppliers with permissions needed from both TFL (Transport For London) and the local council to let civil works commence at a time agreeable to them both. Local councils don't like residents being disturbed and TFL don't like buses being disrupted. Works that required bus lanes to be closed had to work to tight deadlines by the civil engineering teams with the threat of penalties if works overran.



Eventually one by one all the new network ports were lit up and without ceremony the new core network was brought into service.

Along the way we also dramatically increased our IP transit and LINX peering capacity and added new Ethernet service providers such as G.Networks and CityFibre.

As we finally see some light at the end of the tunnel that has changed the world so much in the last couple of years Spitfire has an extended and enhanced core network ready to deliver.

What next for telephony? *Peter Goddard, Birmingham Partner Manager*

With the change in working practices experienced over the last two years, many businesses are now carefully evaluating their existing telephony requirements. Communicating effectively with staff internally and externally with customers has never been more critical for the successful running of a company.

With the Big Switch Off happening in 2025 there has never been a better time to replace traditional telephone systems and join the many businesses moving their telephony to the cloud to benefit from the greater flexibility provided. Staff can connect from anywhere and are no longer reliant on having to be at the office to make and receive calls.

In the past some businesses have been hesitant to make the move due to the perceived difference in call quality experienced with Voice over IP (VoIP) when compared to trusted BT analogue and ISDN digital telephone lines. Internet data circuits have come a long way though and when the right type of connection is chosen and configured correctly then the call quality will be no different.

Spitfire have been providing cloud hosted telephone systems for 15 years and so know a thing or two about how to deliver IP telephony. We assess each customer's network using our CLEAR call methodology and configure Voice Approved data connections to ensure business grade call quality all the way from the handset to the telephony network. We always provide assurances on a fully supported end-to-end solution.

Our latest platform is FireSwitch®. Located in our own core network it uses Spitfire's resilient SIP Trunk network to connect to the public telephone networks. Full geographic inbound and outbound call redundancy is provided as standard, ensuring that you always stay

connected and in touch.

Probably the most cost-effective cloud business telephone system available and at the same time not sacrificing any of the key features required by small and medium sized companies. It can be managed effectively from an online portal, where changes to extensions, voicemails and diverts can be made with ease. Make calls using a feature rich IP telephone handset or alternatively a softphone from a laptop or smart phone. It really allows for workers to connect and communicate easily, wherever they may be.

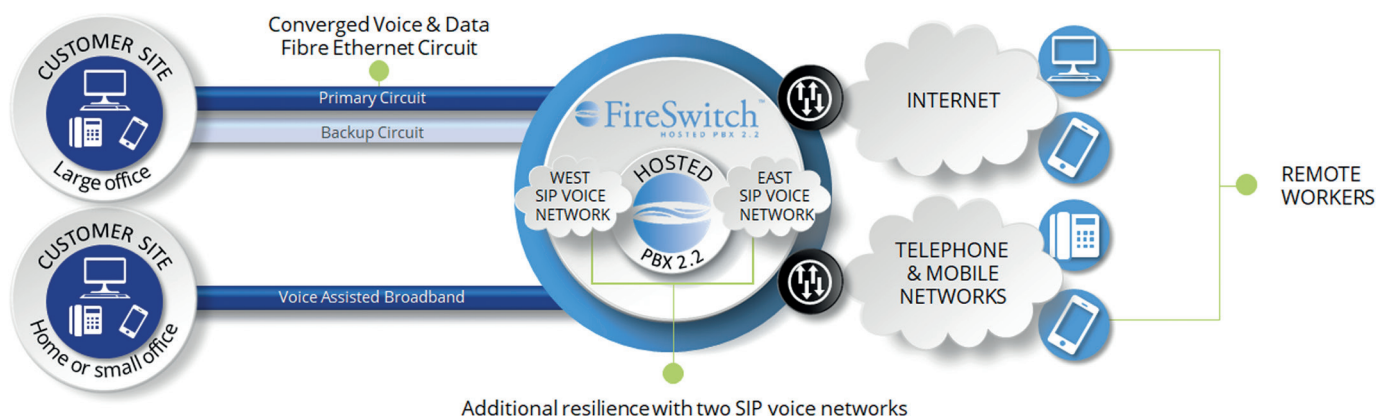
We are currently offering FireSwitch® with no upfront or set up charges and a limited launch pricing of just £8 per user per month rental. When compared to the total running costs of an on premises telephone system, the decision to move to cloud telephony has never been easier.

Some of the included features:

- Softphone.
- Call recording.
- Auto attendant and receptionist console to route calls quickly to where they need to be.
- Call queueing ensures that calls never receive the engaged tone.
- Inbound number presentation.
- Auto provisioning of telephone handsets for easy low touch provisioning and support.
- Completely future proof as system upgrades are included.
- Scalability – the system grows with your business so you can add extensions as and when you need to.
- Free calls between extensions and other connected offices or sites.

For more information visit:

www.spitfire.co.uk/voice/fireswitch-hosted-pbx-2-2



The Internet Connectivity Landscape

Andy Duncan, IT Interface Manager

The internet connectivity market is perhaps undergoing the most radical period of change since the advent of ADSL over 20 years ago. Promises of Ultrafast connectivity, Gigabit speeds and a Full-Fibre future fill the banner ads. But what are we all actually going to get and when and more importantly how do you cut through the branding to differentiate the multitude of products available?

There's no doubt that the fixed line future is indeed fibre. Openreach are already in the process of retiring copper lines as they roll out fibre but this is going to be a long task. The majority of properties will be connected by the end of 2026 but the rollout tail may be long. Clearly copper lines still have some life left but with analogue telephony services being phased out by 2025 the copper lines become purely for data connectivity. The default type of VDSL copper based connection, formerly a 'Fibre to the Cabinet (FTTC)' circuit ordered to work over an analogue line as a 'Shared Metallic Path' facility, has evolved to SOGEA (Single Order Generic Ethernet Access) placed as one order for Fibre to the Cabinet and a copper 'Metallic Path Facility' to the premises. With broadband services up to 330Mbps downstream available, VDSL technology still has some life to come.

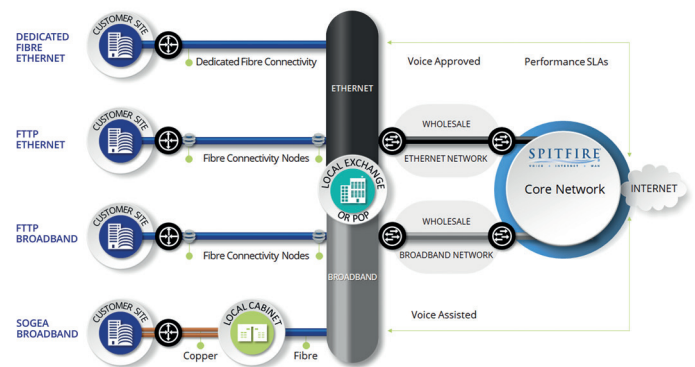
It's worth noting that copper lines have a fundamental weakness that isn't a challenge for fibre. Distance. The rate of signal degradation on a copper line is hugely significant. This is why when FTTC replaced the copper between cabinet and exchange with fibre we saw significant improvements over ADSL. Clearly replacing the remaining copper to each premise with fibre, enabling 'Fibre to the Premise (FTTP)' will eliminate the issue once and for all. Achievable bandwidth on a given circuit is no longer estimated based on distance from the cabinet. "Up to" is an indication of the provider's network capacity rather than the length of a copper wire.

While Openreach has a head start on the ability to deliver fibre all the way to the premise they are by no means the only player. Government funding has actively encouraged diversification and allowed the rise of alternative network providers, Alt-Nets. These providers have focussed on specific geographical regions to provide Fibre to the Premise (FTTP) services in areas where Openreach are likely to be behind the curve, capturing the local markets. So with so many operators in the market how do you know what you're buying?

Let's start with what FTTP is actually made of; GPON, Gigabit

Passive Optical Networks. Such networks provide a fibre network that resembles an organisation chart – multiple sites converging at a single "PON" that consolidates the traffic up the network to the next node. It's clear when you understand this that you have shared infrastructure so when it gets busy performance will drop. While FTTP services can reach up to 1Gbps downstream, without a deep understanding of the architecture of the GPON network offered by your provider or a performance SLA you're likely to have a connection that varies in not just bandwidth but other metrics such as latency and packet loss.

Next Generation Connectivity



The good news is that FTTP doesn't just support the variable broadband services. FTTP Ethernet is also available. Whilst it still delivers over shared infrastructure FTTP Ethernet operates well within the limits of the network and is backed by performance SLAs. With profiles up to 1Gbps available this is a real contender where cost effective quality and performance are paramount. Possibly the biggest distraction is the term "full-fibre". As we can see with GPON it's not a guarantee of quality or indeed bandwidth. This is why at Spitfire we talk about Dedicated Fibre when referring to Fibre Ethernet. Only with Dedicated Fibre Ethernet do you have a dedicated strand of optical fibre between your premise and the network node. This naturally removes all contention on the access circuit and provides predictable, SLA backed performance all the way up to the 1Gbps circuit capacity – or even 10Gbps if required.

Clearly FTTP, whether broadband or Ethernet will be the solution for many where available. As ever Spitfire continues to aim to provide our customers and partners with the best connectivity options at any location. To this

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end we have further expanded our access connectivity providers to extend our reach and options for both Dedicated Fibre Ethernet and FTTP connectivity. Vodafone has become our most recent national Dedicated Fibre Ethernet provider while the addition of Alt Nets CityFibre and G.Network add FTTP Ethernet and Fibre Ethernet services in 63 towns and cities and counting. CityFibre alone aim to serve over one third of UK properties by 2025 while G.Network offers high quality connectivity across London. Spitfire are the first and currently the only wholesale interconnect partner for G.Network.

The connectivity journey over the next few years is indeed

going to force decisions for many whether driven by fibre availability or demand of additional bandwidth. By utilising no fewer than 9 connectivity partners and offering a portfolio of broadband, FTTP Ethernet and Dedicated Fibre Ethernet products to connect you to our award winning network Spitfire will continue to be your first choice for connectivity. To assist you on that journey we will continue to keep you informed of developments in both technology and service availability. Not forgetting of course keeping you up to date on the impact of Openreach's roadmap towards 2025.

Keep informed about 2025: spitfire.co.uk/bigswitchoff

Support *Michael Jones, General Manager Support & Customer Engineering*

It's hard to believe it's already two years ago that we, in Support, were suddenly inundated with requests from customers and partners to help get their phone services up and running from home. It was busy and undoubtedly put the team under some strain at the time, but considering the circumstances, we delivered pretty well in line with our Service Level Agreement (SLA) targets. Then following that surge, and as many businesses will also have found, with the first national lockdown there was then a period where things were on the quieter side, only progressively picking up as we progressed into that summer.

Within our Support and Customer Engineering (SCE) department's management team we quickly saw an opportunity and got the ball rolling with improvements that have translated into permanent benefit to the customer experience.

The entire team, irrespective of length of service, attended the newly revamped internal training programme, brushing up on their knowledge of our products and services, ready to support the customer. We also set up

internal CCNA refresher course for those that weren't already on a route of study. We are proud to be able to genuinely say we have a department that is either fully Cisco CCNA qualified or working towards that certification.

We had already trialled the re-deployment of one senior Support Technician per day on rotation dedicated to overall support case management, helping drive technical progression, pushing for resolution, and invaluable providing a second pair of eyes in the case of complex customer problems. This was further extended with additional support by the SCE management team taking an increasingly more active role in driving support case resolution within our SLA targets. As of today, and every single workday, up to eight hours of senior Support Technician time and at least three hours of SCE management time is spent actively reviewing and pushing along support cases as best we can, for the benefit of the customer.

Resourcing this increasingly more aggressive support case management by senior Support Technicians and SCE Management alike, and by heavily investing in training, we have been able to see a slow and steady uptick in our primary key performance indicator, the Clearance Target as defined in our SLA, particularly over the last two years.

We are thrilled to have begun to see the fruits of our labour but we won't stop there. This is a fast-moving industry, things are constantly changing, and we know we need to continue that investment that we started all those months ago and have pushed even further since, and we rise to the challenge to improve what we do further still, and maintain our position which we do believe is to offer the best customer support in the industry.



Adding Value to the Broadband Connectivity Market

Gary Cooper, Head of Direct Sales

Dedicated Fibre Ethernet is often seen as the Gold Standard Internet connection in the UK. The Service Level Agreements (SLAs) on performance and fix time these circuits provide do however come at a cost, meaning they may not be the most suitable choice for every business. At the other end of the scale, FTTC or FTTP broadband may not be sufficient to support the applications a lot of customers are trying to use over their Internet connection, such as voice and video.

At Spitfire, we want to always ensure we have a circuit option to meet the demands of any customer so we are continually trying to add value to the broadband connectivity market with the range of circuit options we can offer.

Voice quality has always been at the top of Spitfire's priority list, so it has been important for us to offer a middle ground between broadband and Dedicated Fibre Ethernet – one that maximises voice quality and offers fast fix times but importantly, doesn't break the bank.

By simply adding 'Voice Assist' to a regular fibre broadband circuit, we have been able to make a huge difference to the quality of the telephone calls our customers are experiencing. For a small additional monthly premium, the network these calls traverse can be configured to give priority to the required VoIP traffic, ensuring clear quality calls.

We've even taken this one step further and enhanced fibre broadband by using the same backhaul network from the Local Telephone Exchange as that used by Dedicated Fibre Ethernet. FTTC and FTTP Ethernet provide Ethernet quality performance and fix times without the investment of a dedicated circuit. These circuits support data packet marking and minimal delays, allowing us to identify and prioritise application data that needs precedence across the entire network, such as VoIP, video conferencing and Unified Comms traffic. What's more, these circuits come with a 7 hour fix SLA as standard, all at a price which is not that much more than regular fibre broadband.

With the recent huge increase in remote working and the associated increase in use of these real time applications, the ability for us to ensure consistent performance for these demanding applications has revolutionised the connectivity options for a lot of our SME and remote working customers.



A French Bulldog from our latest 'Can you hear me?' campaign

To further support these enhanced broadband connectivity options, we have also invested a great deal in developing our mobile data solutions, utilising a number of different mobile network operators. We are now able to offer unlimited data Mobile Broadband using the faster supported speeds of 4G+ and 5G where available - a great option for pop up, temporary or remote locations. Our Mobile Ethernet solution provides a fixed public IP address and is an ideal backup solution to a fixed line circuit, using auto-failover to a mobile network.

You can expect even further development on this front in the near future – follow us on social media to keep up to speed with the exciting updates!

**Unlimited 4G/5G
Mobile Broadband
from £22 per month**

**Spitfire
achieves the top
tier Titanium
partner status
for 3CX**

**Futureproof your
business for 2025
with SOGEA fibre
broadband from
£33 per month**

Telecoms for a Remote and Agile Workforce

Gary Cooper, Head of Direct Sales

With the unprecedented challenges almost every company has had to manage since the onset of the Covid-19 pandemic, the importance of being able to properly support a remote and agile workforce has never been greater.



The majority of businesses had to enable their staff to work remotely with very little notice, meaning there was limited time for companies to prepare for such a big change in the day to day running of a business.

This was also true for ourselves, and it didn't take long for some employees to run in to problems with the performance of their telecom solutions when initially setting up to work from home.

Pete Oosthuizen, our Partner Service Manager, spends most of his day on voice or video calls with his team, our Partners and our customers. With his wife also working from home and a young family needing to be kept entertained by Netflix's back catalogue of "Peppa Pig and Friends", their residential broadband connection struggled to meet the new demands that were being placed upon it very quickly.

This increased competition for bandwidth and the higher performance requirements of the voice and video applications now being used over the circuit quickly resulted in numerous issues for Pete. With audio quality becoming very poor and voice and video calls frequently dropping out, the impact of this insufficient connectivity was far reaching for Pete and Spitfire.

A Voice Assisted FTTC broadband circuit would have been a great choice, providing a great value service with data priority for business quality telephone calls. As he was due to move house though, he really needed something with more short term flexibility.

Fortunately for Pete, he has excellent 4G coverage where he lives so we were able to quickly provide him with a Spitfire Mobile Broadband solution which now allows him to have a separate, dedicated connection for his work activity, providing access to the increased bandwidth and performance he needs to work efficiently and effectively from home.

This has been a common customer scenario in recent times as we have helped endless companies facilitate the change from office based communication to managing a remote and agile workforce. Along with our mobile data offerings, our ability to add 'Voice Assist' to a regular fibre broadband circuit has helped countless customers maintain voice and video quality while working from home. Alongside these connectivity options, our Hosted PBX 2.1 and 3CX Cloud phone solutions, and our private MPLS networks, have been at the forefront of the solutions our customers have required to meet the new communication demands of their workforce.

With agile, remote and hybrid working here for the long haul, do not put off reviewing the telecoms for your employees to ensure they are able to maximise their potential when not in the office. Reach out to us today for any advice or assistance you may need!

**Up to 1Gbps
FTTP Premium from
£45 per month**

**Mobile IoT SIMs from just
£0.55 per month. Per SIM and
pooled data bundles available
on Vodafone and EE**

**Cloud Hosted
PBX 2.2/FireSwitch
from just £8 per user
per month**



CityFibre



Spitfire signs contracts with G.Network, City Fibre and Vodafone providing full access to their fibre networks. We can now provide fibre access from nine different suppliers back to our award winning network.

Unsung Heroes *Andy Duncan, IT Interface Manager*

While our internet connectivity and phone systems are familiar to most we'd like you to take a moment to learn about some of the lesser known products and services we provide.

Lesser known to some they may be but when applied to the right circumstances these can be true game changers.

High performing cloud connectivity

As more and more of you replace on-premise servers with virtual environments hosted in the likes of Amazon AWS or Microsoft Azure the demand for high quality connectivity to these platforms becomes paramount. This is where **CloudConnect** comes in to play. Instead of creating IPsec VPNs over the public internet CloudConnect utilises Microsoft ExpressRoute and AWS Direct Routing to give you a truly private connection from your Spitfire circuit to your Azure or AWS network. These connections are low latency and assured bandwidth so will outperform any VPN connection and they'll even reduce your data transfer charges!

Microsoft Teams with Spitfire SIP – experience the call quality benefits

While we're on the subject of connecting to Microsoft platforms, Spitfire SIP trunks can also be used in conjunction with Microsoft Teams. Our Direct Routing service enables our SIP Trunks to connect to Microsoft Teams Phone System avoiding the need for a Microsoft Calling Plan or Microsoft phone numbers. So if you like the functionality of Teams but want your telephony from your trusted specialist provider this could well be the option for you. Not to mention the call quality benefits when calling over a Spitfire circuit.

A securely connected agile workforce

The move towards more agile working practices has turned many single office businesses into complex multi-site networks. Ensuring the efficiency and security of the workforce while working from home is now an everyday consideration for every IT department. One simple (and

tax efficient!) solution is to provide business broadband, FTTC/P Ethernet or mobile data connections at your staff's homes. But you still need to connect them to the office.



Well one surprisingly cost effective way is to connect all of these connections into a Private Wide Area Network. At Spitfire we use **MPLS** technology to create these networks – inter-site connectivity with no expensive routers and no internet traversal. With MPLS all your sites, whether office or home, connect to the internet via a single point which we secure with our cloud hosted Firewall as a Service (FWaaS). High Availability Fortigate firewalls use Unified Threat Protection to protect your office AND home workers from a range of internet threats, from viruses to inappropriate web content. To cap it all, the big surprise is that our customers often reduce their connectivity and support costs with these solutions. We're happy to accept the challenge to show you that MPLS networking isn't the expensive beast that many portray.

Get in touch with your account manager if you'd like to know more about any of our unsung heroes or even take the MPLS challenge!

Mobile Data & IoT *James Davis, Sales Manager*

In the past two to three years mobile data has significantly improved in coverage, bandwidth and price. Before even considering 5G, a strong 4G connection with a suitable router can deliver bandwidth that is better than an FTTC broadband circuit. We are now past the tipping point where 4G based mobile data services offer a viable solution in many connectivity scenarios. One such scenario is IoT.



What is IoT?

IoT quite literally means the Internet of Things and is something of an umbrella term to describe the connection of devices outside the traditional space of a business network, usually comprising of PC, laptop, tablet, smartphone and server devices. A myriad of technology is used to achieve this type of solution, including Wi-Fi, Bluetooth, fixed line connectivity, cabling and mobile connectivity. Other important considerations to design an effective solution are power, location, size of data transmissions and the location of devices/sensors.

Sounds familiar, have I seen this before?

Many of us will already be using devices which fall into the internet of things category in the home. Smart meters which connect over your home Wi-Fi network will take live readings from your heating and electrical systems, smart thermostats will regulate temperature within the home and change the temperature up and down by sending messages to the central heating system when required. You might even use smart speakers to set rules or make changes. This process involves machine to machine (M2M)

interaction to achieve its goal. Changes to the system can also be made remotely which demonstrates that the devices used must be able to send and receive messages to and from the cloud which are then accessed by apps on smartphones and browsers on PCs.

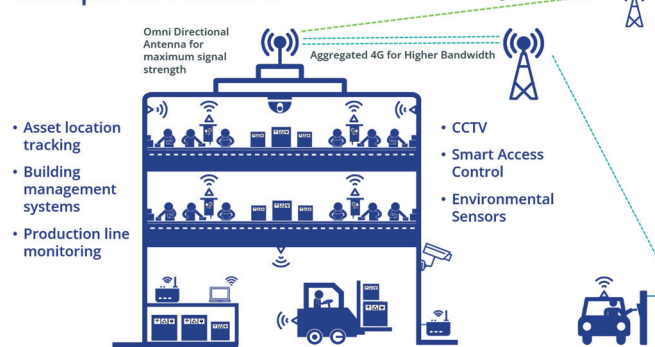
Why do we choose to use IoT devices?

One obvious benefit is to increase efficiency. If we can connect devices to better understand what is going on in our business in real time or even make updates and changes, then this is clearly going to save both time and money. In a commercial car wash for instance, imagine logging on to a web portal and being able to see how many cars have been serviced that day, whether you were running low on cleaning solution or even perhaps the machine has a fault or requires a service. Frequent site visits are no longer required and you now have access to predictive maintenance over a number of locations at the touch of a button!

How does IoT benefit business?

In the above example a stream of data information is accessible by the car wash company allowing them to predict when maintenance may be required and track trends in usage to drive business decisions. These fantastically granular levels of information will benefit these businesses and their profitability. For any business problem that would benefit from access to either real-time or historical analysis of data for decision-making enhancements, it's not difficult to see the potential, be that productivity improvements, cost savings, efficiency gains etc. This information can then also be used to trigger alarms, send automated messages or set in motion any other machine-based action. For example, to help automate and manage supply and stock levels, warn of fire or flood, update on soil humidity levels or even alert on cow fertility cycles!

Example IoT Network



The application of this technology can present benefit to practically any market. IoT is already widely used in industries such as logistics, manufacturing, agriculture, retail & healthcare.

How does Spitfire fit in?

So where does a company like Spitfire fit in? Our expertise lies in understanding each customer's unique IoT application needs and then offering a telecommunication and networking solution to support it. Everything is carefully considered including the geographic location of devices and their accessibility, the frequency and volume of data transmission and the availability of suitable mobile and fixed line network connectivity. Our range of IoT solutions is both flexible and extensive. Whether the requirement is for high data volume remote devices in locations where fixed line connectivity is scarce or difficult to achieve (e.g. CCTV, Portacabins, digital signage), to sensors or devices transmitting small amounts of data (e.g. retail, fridges, dustbins or traffic lights!). Fixed or mobile, we even have solutions where conditions may be more extreme, such as high temperature or humidity.

Our Account Managers are trained to understand the business requirement and its associated technical network needs, to deliver intelligent proposals with true business benefits.



Tell me more, what solutions do Spitfire offer?

We have developed a range of mobile data and IoT solutions. These are built upon combining multi-network or multi-SIM connectivity using EE, Vodafone and O2. Using advanced capability routers with our core network, we can provide a range of intelligent solutions for multiple business scenarios, including:

- Remote CCTV & body cameras
- Asset and vehicle tracking
- Smart building management systems
- Access control
- Real-time monitoring of production lines
- Efficient warehouse & stock management

There are very few industries where enhanced visibility of data in a real-time format won't benefit decision-making to help better productivity, shorten fulfilment times or help control cost and energy use.

We have lots of flexibility so don't compromise, with data packages and pricing to suit every requirement. Pay per SIM from just £0.50 per month or go with a pooled data bundle across a much larger SIM estate.



Unlimited 4G Mobile Ethernet including a fixed IP address from just £28 per month

Auto failover solutions to Mobile Ethernet from just £5 per month

2025 Roadmaps available to all customers – speak to your Account Manager today!

Pets at Home

We are a nation of animal lovers and Spitfire employees are no different. As we all know they are great for people's wellbeing – a lunchtime walk or the company of a pet whilst working from home does everything to help our staff's mental health.

Here are some of the team's favourite companions – big, small, fluffy or not!

