

Enterprise

Issue 8 - Spring 2014



Welcome

Welcome to another edition of Zen Internet's Enterprise Newsletter. It's an exciting time for UK businesses, with new options for connectivity, new applications in the cloud, and most of all new opportunities for growth. At Zen, we're committed to delivering products that help enterprises embrace these opportunities, work more effectively and focus on enhancing their core business, whatever that might be.

Zen believes that any company that provides enterprise-grade services should live up to the highest standards, so we're pleased to announce that we've now attained ISO 27001: 2005, the international standard for quality of information security. This means that all our processes and controls for managing information security have been externally audited, judged and measured against the toughest benchmarks, so that any data you entrust with us remains secure with us. This builds on our existing ISO 9001:2008 and ISO 140001: 2004 accreditations for quality management and environmental management systems.

The awards that matter most to us, however, are those we get from our customers. We've won PC Pro's Best ISP award for a record tenth time, with a rating of 95% for customer support and reliability and 91% overall. 97% of those who voted for Zen in the award would recommend us to a friend. In March, Which? readers also championed Zen, winning us Recommended Broadband Provider status for the seventeenth consecutive time. We're proud of the service we provide, and we hope that working with us, will help your business grow.



Zen HQ, Rochdale, Greater Manchester

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Look outside the M25

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The Past, Present and Future

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REIN & SIN349

Our mission is to provide the best ISP service in the UK.

Richard Tang,
Managing Director

That's Zen thinking

Are you Well Connected?

Scalable Connectivity Solutions for the Future

With growth in the economy and a surge of powerful web-based services, UK enterprises have great opportunities in front of them. On the one hand, Cloud based applications are enabling businesses to take advantage of cutting-edge technology at lower, short and long-term costs. On the other hand, there have never been so many options for high-bandwidth Connectivity at every price point. Put the two together and it doesn't matter whether you have 5 seats or 500; there are brilliant, business-changing applications within reach.

This means more of our customers can enjoy the clear business benefits of Ethernet Connectivity, including guaranteed symmetrical bandwidth and dedicated circuit and line capacity with no contention. We also offer them a comprehensive SLA with 24/7 UK support and guaranteed on-site response at lower costs than most existing Leased Line services which also come with reduced lead times. These products are ideal for running multiple services across a single access line, so that companies can, for instance, consolidate Data and Voice communications across one EFM line with multiple, SLA backed logical channels.

These products are also perfect for IP VPN solutions, enabling people to work together, effectively and securely, both with others in the same organisation and clients or partners outside it. IP VPN solutions can streamline the cost and complexity of managing business applications across the WAN,

converging Voice, Video and Data into one easy to manage, multi-service network. It's a great technology now and one that paves the way for new applications in the future.

Some enterprises have very reasonable concerns about trusting business-critical applications to Connectivity products at the lower end of the spectrum. That's why Zen now offers peace of mind through our new 3G Failsafe for IP VPN. This delivers Enterprise class resilience for broadband IP VPN circuits at a price small

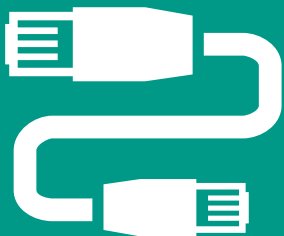
Next-generation access (NGA)

technologies are widening their reach and increasing penetration.

More than two-thirds of UK businesses should be within range of NGA connectivity by the summer. At Zen, we're driving things forward.

We've invested over £3.5 million in our network of local exchange Points of Presence (PoPs), connecting 200 exchanges across the UK to our core MPLS network, to put competitively priced Ethernet services in reach of more organisations. What's more, by using Ethernet in the First Mile (EFM) access technologies over multiple copper pairs and NGA Ethernet services that work with Fibre Broadband, we cover an additional 270 exchange locations.

More than two-thirds of UK businesses should be within range of NGA connectivity by the summer





businesses can afford, with a backup network path that uses a mobile data connection provided at a fixed monthly charge. It's fully managed with pro-active monitoring of signal strength and all the traffic remains on the private network, never crossing over into the public Internet.

This is an ideal solution for organisations with smaller branch offices where the expense of a traditional failsafe solution using high-bandwidth technologies can't be justified, plus it's priced in accordance with the number of sites being covered. Zen also takes account of your company's mobile data access options and locations, first surveying each sites of the signal strength, then taking steps to boost this if required.

We see Connectivity as the foundation that supports a new wave of Cloud based services to allow businesses to streamline, grow more agile and compete at the highest level. That's why we're committed to delivering enterprise grade Connectivity to the full range of UK businesses with a Connectivity proposition that covers everyone from small start-ups to the largest, multi-site corporations.

For more information, please telephone **01706 782188** or email enterprise@zen.co.uk



Need a Data Centre for Backup and Disaster Recovery?

Look outside the M25

For many enterprises, external data centres are becoming a crucial component in their IT systems. Whether you're running private cloud deployments, colocating systems or implementing remote backup and disaster recovery, there's a growing need for facilities that can offer security, resilient power, high-speed connectivity and great service.

It's only natural that many enterprises choose a data centre in the Greater London area. It's a focal point for UK business, with the highest-speed fibre network in the country, and the UK terminus for many international cable links. Yet it could be a mistake not to look further afield, particularly for applications like backup and disaster recovery where latency isn't hyper-critical. If your enterprise is deploying a new disaster recovery solution then there may be advantages to looking elsewhere. After all, high-bandwidth connectivity, resilient power and security aren't only found within the M25.

Using a data centre outside of London helps enterprises comply with the requirements and guidelines at play in certain industries, where backup data needs to be stored beyond a certain distance from the main premises.

Zen's Data Centre, opened at our Greater Manchester headquarters in 2012, is a case in point. The result of a £4million investment, it was built with cutting-edge climate control and fire-detection and suppression systems, and uses an N+1 power management system with a Diesel Rotary Uninterruptible Power Supplies (DRUPS) to ensure clean, conditioned, constantly-available power with a low environmental impact – just as you'd expect from a provider with ISO14001 environmental accreditation. Zen has

recently been awarded Participant status in the EU Code of Conduct for data centre energy efficiency.

The Data Centre connects to our high-speed network through multiple redundant channels, ensuring that enterprises get the kind of low latency, high-bandwidth connectivity they need for real-time backup and disaster recovery applications. Even if your organisation is situated in the south-east rather than the north-west, latency shouldn't be a problem.

Neither will access. For many IT Managers, using a data centre within easy reach of head office seems a must. What happens when things go wrong? What do you do if you need to change a hard disk? Yet with the services provided by new data centres, there's rarely – if ever – any genuine need to physically access your equipment. Remote Hands support can put in-house technicians under your direct guidance, so that they do the work you need doing as you want it done. Today's remote management tools mean that servers and network infrastructure can be managed as effectively from two-hundred miles away as they can at 20 metres.

At our new Data Centre, we offer 24/7 monitoring, with an on-site technical support team that's available all day, every day. Colocation customers retain full control over their equipment, with administration and maintenance performed via remote KVM (Keyboard, Video and Mouse) control. We also provide a full remote hands service, with options for hardware installation and tape rotation, plus 24 hour site access should you need it. Our colocation SLA guarantees 99.99% network availability, 100% power

availability, and a 1 hour at the rack response in case of any trouble. And it's all backed up by Zen's award-winning service and the kind of expertise that only comes with over 17 years of experience in the industry. ISO9001 accreditation demonstrates the quality of our processes and procedures.

In short, we can offer some compelling reasons to look beyond London. To find out more visit www.zen.co.uk/data-centre

For more information, please telephone 01706 782188 or email enterprise@zen.co.uk



Data Centre Best Practices to minimise environmental impact



To download a copy of 'Data Centre Best Practices to minimise environmental impact' visit: www.zen.co.uk/data-centre or email thedatacentre@zeninternet.co.uk. Alternatively, phone us on 01706 782140.



Business Telephony:

The Past, Present and Future

Caught between legacy technologies and a brighter IP-based future, the business telephony market is in a confusing state. On the one hand, there has never been so much choice, so many ways to cut costs and make telephony work for you. On the other, there are so many options, players and so many variants of the core technologies that it's hard for businesses to make the right call. To understand why this situation is – and why it's changing – we need to look into telephony's past.

The Situation Then

From the 1880s to the 1900s, early UK telecommunications were run by small private companies and local city councils, but by the end of 1914 they were consolidated by the General Post Office. Things were simple. If you needed a phone line, the GPO provisioned it using simple copper cable – a state of affairs that continued as the telephony arm became Post Office Telecommunications, and then British Telecom in 1980.

The first revolution in business telephony was the introduction of PBX (Private Branch Exchange) in the 1960s, making it easier for employees of large corporations to make free internal calls or connect outside without operator assistance. During the 1980s, the telephony landscape went through several more upheavals. First BT was privatised, leaving it open to competition from a new wave of commercial telephony providers. Then packet switching protocols transformed the way voice and data comms worked. Developed between 1984 and 1988, ISDN allowed multiple digital channels to operate over existing PSTN phone lines, using packet switching to carry both voice and data. By the 1990s, PBX users and manufacturers

were looking at ways of integrating the PBX with data networks, to improve call-handling and reduce costs. This only accelerated with the development of Voice over IP products in the late 1990s.

With the arrival of VoIP switches, the SIP protocol and mainstream VoIP hardware and software – including Skype – IP-based telephony hit the mainstream. Nearly all PBX units now sold support IP, and many businesses are now looking to replace their ISDN lines and link their telephony systems to the outside world using IP, whether that means working with a SIP Trunk or a hosted IP-based PBX.

The Situation Now

That's great, but the growth of UK operators and of a large but disparate industry makes the current situation hard to read. This confusion hasn't stifled uptake. There are now over a million SIP trunk lines in the UK, representing a growth of over 25% year on year, and the market continues to accelerate. It's not difficult to understand why. SIP trunking offers

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companies more affordable connection, rental and call charges than ISDN services, plus scalability and geographic flexibility. When spread across multiple sites using a network such as IP VPN, you get free site to site calls.

All the same, lack of standards is a problem. Providers use different variants of the core technology, support different hardware, and offer widely different qualities of service. Something as simple as porting numbers from one provider to another can be a nightmare, and businesses wishing to do so may find themselves forced to hire in outside consultants to help.

The Future

That's a situation Zen feels is unacceptable, and one we're working to change. We're pushing to see greater

standardisation between SIP trunk providers, so that SIP trunking can realise its potential as a business telephony solution.

Things are working in our favour. As members of the Internet Telephony Services Providers' Association (ITSPA), we're working with other, like-minded companies to promote standards. We're also being helped by an industry-wide drift away from traditional PSTN voice infrastructure towards a fully IP-based future. There copper line connections to the exchange will still exist, but the traffic that runs across them will be entirely IP-based, running voice calls as just another service. The functionality businesses currently get from a hardware PBX may go the same way, delivered over IP by the data/telephony provider.

This will have a big impact on traditional telephony providers, who have historically relied on call charges

for their income, but it's good news for customers. Calls over IP and basic PBX functions will be free, or certainly cheap, and the shift will pave the way for a new era of unified communications. Companies who have already embraced technologies like Microsoft Lync internally will naturally expand them externally, so they can communicate more effectively with clients and partners.

This is a vision we're committed to, and one we're perfectly positioned to support. Our own Business Talk, Business Talk Plus and Business Talk SIP products are based on eighteen years of experience with IP networks, and on a highly resilient MPLS core network that's amongst the best in the UK. We also believe that Zen's focus on reliability, customer service and support will make our products the right business choice.

For more information, please telephone 01706 782188 or email enterprise@zen.co.uk

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Troubleshooting DSL Faults - Reducing the Pain:

REIN & SIN349

We would like to introduce to you two terms you may never have heard of that can potentially have a significant impact on the quality and speed of your Broadband connection – whether it is copper or Fibre Optic Broadband. They are also, unfortunately, issues that all ISPs have very little control over – leaving both us and our customers frustrated.

Firstly, Repetitive Electric Impulse Noise (REIN). This can cause not only a frequent loss of signal but also mean that an Internet connection can perform at speeds below what can be reasonably be expected from the line.

Typically, REIN issues start with a faulty electrical device in your area, something as seemingly unrelated as a lift mechanism in a block of flats, for example. With this as the cause, your ISP is unable to help you in any way.

Secondly, SIN349. This refers to the name of a somewhat out-dated document that defines the minimum standard for how well your phone calls will work on your land line. However, for the last 20 years, it has also been the only documentation concerned with how fast and stable your Broadband connection is.

Your Internet connection relies on some quite amazing technology to turn sounds into digital information. However these sounds are at an exceptionally high frequency and are easily and often drowned out by background noise.

The standard outlined in the SIN349 document allows us to determine how severe the noise on your line is. However, as it is an out-dated standard, it cannot detect the type of noise that would adversely impact on your Broadband connection.

So what do we need to do?

We believe our role as an ISP, although unable to directly 'fix'

these two issues, is to suggest ways in which these untenable situations can be rectified. We can see two huge changes that our Government and Regulatory bodies could, and indeed should, make.

Currently no one polices or looks after the frequency range that is used to make your Broadband work. In the last government reshuffle, this important issue that has the potential to affect every broadband circuit in the country, was essentially parcelled off and responsibility handed over to the BBC who unfortunately have no mandate to sort out Broadband, or reason to do so, quite understandably.

If the government gave regulatory powers to one of its agencies to identify and compel people to fix their broken electrical devices, REIN faults could then be fixed and we would have a solution. Currently people who have these types of faults affecting them and who have exhausted all avenues with their ISP have little option but to complain to their MP and hope their involvement gets the 3rd party causing the problem to kindly resolve it.

The second major improvement that we think could be made is adding an industry standard called the Access Network Frequency Plan (ANFP) to the SIN349. This would allow all ISPs to measure a line's capabilities for broadband services and help the national operator, Openreach, fix broken lines in a much more effective and efficient way.

So we intend to tackle this head on with other ISPs by asking our Government to look into these issues; working with us to find a solution to these longstanding problems.

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