

# e-volution

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exponential-e  
Applied Innovation

# IT security isn't just good practice, it's good business

It's hard to imagine modern business without the Internet but in the last few years it has become fraught with danger. Internet crooks are the dotcom entrepreneurs of crime, using the power of computers and the interconnections of the network against innocent businesses to make money.



**Viruses, spam and spyware** are the products of a global "business" that is worth as much as \$105bn a year according to a MessageLabs white paper "The Online Shadow Economy". Online crime is bigger than the global drugs trade. With so much money at stake, it's not surprising that the problem is getting worse.

IT systems and information security are more important to UK companies than ever before. BERR's recent Information Security Breaches Survey reported that nearly 50% of UK firms reported one or more security incidents in the last year. The average security incident can set you back between £10,000 and £20,000.

According to MessageLabs Intelligence, one email in every 143 is malicious. One in 245 is a fraudulent phishing email. Eight in every ten is spam. Over one thousand new malware websites are discovered each day. Put simply, unless you protect yourself properly, email and web access is always going

to give you problems. If 80 percent of email is unwanted spam, it means that 80% of your email server's capacity and 80% of the bandwidth used for email is wasted.

Phishing emails are more dangerous. They are used to trick people into giving away private information on fake (but highly realistic) websites. A common example is to persuade people that they need to log into their online bank account and sort out a bogus transaction.

Criminals use these sites to get bank account numbers, passwords, credit card information and passwords.

Another common trick is to get employees to log into a fake company website so that criminals can get user names and passwords to log into your network.

So what about the threat from malware? Call them viruses, worms, Trojans, spyware – they all spell bad news. Malware is an unwanted

program written by criminals running on a computer in your business – and that's never a good idea!

Viruses can give hackers remote access to your data and remote control of your systems. They can also be used to launch criminal attacks on other computers. They can send out thousands of spam email messages. They can infect other computers. Worst of all, they can do all of this without any outward sign that something is wrong. Other kinds of viruses display intrusive adverts for pornography and gambling and even disable security software.

Then there are pressing legal, productivity and reputation issues. Do you want your

employees downloading pornography or other inappropriate content on work computers? It could happen – the majority of visits to pornographic sites occur during office hours. What if an employee inadvertently defames someone or binds the company to a damaging contract by email? Email can be used as evidence in court. How much productivity can you afford to lose due to "cyber slacking" – employees browsing non work-related websites on company time? What would happen if an employee sent sensitive information to a competitor or disclosed confidential information to an unauthorised person by email? Would you be able to enforce company policies or even track the breach?

# Exponential-e launches new approach to managed security

The launch comes amidst a dramatic increase in the frequency and scale of malicious attacks on corporate ICT systems and recognises that existing security mitigation techniques often struggle in the face of constantly evolving threats. The new managed security solution will be attractive to SMEs wanting to outsource the management of security risk, restructure and reduce the associated cost and free up ICT resource for core business activities.

Exponential-e's new managed security service is available in a "Standard" and "Enhanced" version to suit all business needs. Firewall services are available across both packages with the enhanced variety also including Deep Packet Inspection and MessageLabs email and web security services from Symantec. The MessageLabs services include MessageLabs Email Anti-Virus, MessageLabs Anti-Spam and MessageLabs Web Security services protecting businesses from unsolicited email, viruses, phishing, Trojans, worms and web-based malware.

Support for remote locations and remote users is provided via VPN features in both packages allowing remote users to gain secure access into their organisation's private network via the Internet. Online web portals and the

ability to download reports provide a comprehensive view of network utilisation, together with traffic statistics and security status.

Gary McCullough, Product & Services Manager, Exponential-e said "Protecting the business against attack is critical for senior ICT staff but...

"...many organisations just don't have the time, resource, skill-set or finance to deploy and maintain security policies with confidence".

He went on to say "We live in a climate where the

## MessageLabs

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range of threats is becoming broader and increasingly unpredictable, exposing not only a business' confidential data, but also threatening their brand and corporate reputation. The dangers can't be underestimated. Our blended approach of software, hardware, core network and CPE services takes the headache away for our customers and the resulting multi-layered, multi-functional security service gives peace of mind".

We employ a cyclic four stage security methodology – Detect, Mitigate, Report and Review. The approach proactively monitors and analyses network activity for potential attack and applies a range of leading applications to create a secure domain. Professional services provided by Exponential-e's team of security experts complement the portfolio. Exponential-e security consultants are ITIL accredited and work within the ISO and PRINCE2 standards.

## Lee Wade explains how

# Exponential-e is 'clouding your space'.

In previous issues we have discussed the major benefits delivered by the layer 2 networking technology, VPLS. In fact we have been banging on about the benefits it offers since January 2006 when we launched our VPLS network. Today, we are nearly four years down the track. The four VPLS seminars we have held this year have all been maxed-out as the technology tracks towards mainstream and companies investigate the transition to VPLS wide area networks.

The big question is: With the first decade of the new millennium closing out on us, where is Exponential-e moving to next?

In a nutshell, we're heading for the cloud. But not just any old cloud, like the fluffy one's that have been hijacked and commoditised by competitors seeking to exploit any latest buzzword - but the super-cloud where networking WAN and compute technologies co-exist interdependently in one technology space. The combined synergies and versatility of this holistic approach to network-centric compute platforms truly deliver the 'balance of advantage' whilst leveraging the huge cost-efficiencies. Put simply, the whole is greater than the sum of the parts - the super-cloud. But what differentiates this from other cloud offerings in the market place? Every man and his dog with some rack

space and a Citrix or VMWare-enabled server is offering 'cloud computing'. And for many small businesses, such a service is sufficient for their needs. However, for the larger companies looking to build smarter, more versatile corporate WANs, they are looking for solutions that embrace multiple network and compute technologies with the network fabric designed to support high-frequency, mission-critical, distributed networks.

There is no doubt that VPLS is the obvious platform for cloud-based computing given its ability to provide one simple, unified, interface on which services can be supported across multiple sites. The introduction of services

delivered from a central cloud works hand-in-hand with the any-to-any capability provided by VPLS. But we are now about to move things on again by deploying further next generation capabilities into the core of our network and in doing so lay the foundations for a business-class cloud computing and managed service capability. As a result Exponential-e will deliver another industry "first".

To be more precise, our experience has taught us that whilst VPLS is a wonderfully flexible tool, it misses some service and application-aware management tools which are required for business customers to be able to proactively manage their own networks. The means for customers to analyse the actual content of their network traffic does exist but these techniques rely on very expensive hardware devices which need installing at every end point of the WAN. That's a CAPEX expense which won't be tolerated in these difficult times in spite of the major benefits such packet inspection technology offers ICT staff in being able to manage and shape WAN traffic.

But what if this QoS facility could be provided from the cloud with the capability to inspect packets at the application layer enabled from a central point and without the requirement for expensive CPE?

Our customers and their IT teams could get a centralised view of the network rather than the location-dependent views they currently get - if they can afford any at all.

We've worked with our strategic vendor, Alcatel-Lucent and following our multi-million pound investment we're just a few weeks away from launching this capability which we believe is not only the next stage in business VPN services but is the vital ingredient in being able to empower the customer with cost-effective, QoS-enabled, managed services delivered from the cloud. As the first UK provider to bring this to market, Exponential-e is leading the evolution in business VPN services.

Our customers will be able to police, analyse and optimise each of their applications independently and via their own online portal conduct a detailed analysis of traffic flows, examine individual performance of each application and burst bandwidth accordingly themselves. The result: Cost effective, application-assurance from the cloud and the ability to guarantee

QoS for business-critical applications individually.

This new capability which we have yet to formally name combined with our low-latency network infrastructure of, in excess of, 70 points of presence with reach into 28 major UK, US and European data centres is an illustration of the hard work and hard cash investment underway to ensure Exponential-e is ready to meet demand for services delivered from the cloud.

We are complementing this investment in new networking capabilities with investment and additional resource in other areas. As Gary McCullough explains in more detail later in this edition we have introduced a new Product and Services Management Group to productise current services and introduce new solutions many of which will be delivered from the cloud. We have deepened our investment in quality systems with ITIL compliancy and have obtained ISO 9001 accreditation. We have also been approved to ISO 27001 standards to show that we have the necessary systems in place to protect our information systems and assets.

Finally I'd like to mention the major investment we have undertaken in opening up new financial trading routes to the financial hubs of Chicago, New York and Frankfurt. Exponential-e leads the UK for ultra-high performance trading networks and direct access to financial markets and this latest infrastructure

investment ensures we have the fastest trading latencies available on the market. More detail on this important new development is provided later in this issue.



# SIP Trunking trumpets its arrival



Why do so many articles about SIP Trunking include references to elephants? Our industry commentators give an elephant-free assessment of the SIP trunking market.

Market research firm, Infonetics Research, forecasts that SIP Trunking revenue will grow at 89% CAGR to 2013.

Analyst company, "illume Consulting", agree. They forecast the number of SIP Trunking channels deployed in the UK will grow by over 100% in 2009 and ten fold by the end of 2011. By then, "illume" predict that the SIP channel rental market will be worth in excess of £60 million per annum.

### What is the value of SIP Trunking?

SIP-based platforms are designed to make it easier and cheaper to deploy unified communications. Session Initiation Protocol (SIP), the approved standard and protocol supporting voice on a converged network, has made this possible. Business customers are now able to replace their Public Switched Telephone Network (PSTN) trunk with a SIP Trunk to benefit from low tariff IP Telephony calls and to support innovative new services.

According to Alcatel-Lucent, the use of a SIP Trunk to connect the PBX directly to a Next Generation Network creates a consistent environment between the enterprise customer and the service provider's network. The PSTN trunk is replaced with a SIP connection that delivers voice services and which can smoothly evolve to a multimedia connection capable of supporting new IP-based services such as IVR, presence, intelligent call routing and fixed-mobile convergence.

Gary McCullough, Product and Services Manager at Exponential-e says "Exponential-e builds corporate networks using a single connection between the customer and its own network to support a host of services including voice, Internet, disaster recovery, virtualisation, tele-presence and multimedia

applications. He goes on to say "SIP Trunking is an important part of the mix in allowing us to offer toll-quality, high-performance business voice as part of a converged service".

### So what is SIP Trunking?

SIP Trunks are used to create, modify and terminate sessions such as calls delivered over IP. Lesley Hansen, Marketing Director at TeleWare argues that SIP Trunking is a way to lower both capital and operating expenses for business networks. She says "SIP Trunking is a pipeline for voice that is delivered as part of a multimedia network. Traditionally a company PBX is connected to the PSTN via ISDN using basic rate or primary rate circuits".

"SIP Trunking provides a cost-efficient, high-quality and reliable alternative to analogue or ISDN digital phone lines and provides direct cost savings straight to the bottom line".

Richard Bligh, Marketing Director, Gamma Telecom describes how SIP Trunks bring things to the party that can't be achieved with ISDN. He lists total number flexibility as one area and the fact that you can't have ISDN up and

running in 24 hours. He argues that whilst there are a large number of providers around, their offerings are different. The key differentiator is the ability of different providers to deliver QoS.

Alexander Betty, Product and Services Manager at Exponential-e says "Whilst the cost and limited scalability of ISDN lines is a real concern for customers, historically concerns about performance have put some organisations off SIP-enabled voice. That's why it's important for companies to check that their provider has private interconnections and is able to offer SIP-based voice breakout over a totally private network. We'd also advise that copper-based DSL technologies are not appropriate for supporting business IP telephony. We provide G711 codec performance over fibre".

Chris Croft, Partner and Alliance Manager for TeleWare, picks up the point; "A good SIP trunk provider must have advanced network capabilities and, in particular, the ability to interrogate the type of packet being transported across the network so as to fully support per-service SLAs. There are many best-effort providers around which may well be appropriate in a consumer environment but which just don't do the job for the demanding business world."

It is generally agreed that the immediate benefits of

SIP Trunking, in particular for small and medium enterprises, is their affordability and ability to reduce total cost of ownership. The economic downturn has caused an uptick in the number of enterprises looking to converge their services in this way. TeleWare claim that savings of as much as 60% are possible as a result of lower voice channel charges, lower call costs, free DDIs, free inter-office calling and the ability to scale using existing capacity.

It is clear, however, that the

commercials for SIP Trunking come into their own when the SIP trunk is used to support voice as part of a converged solution. If, for example, a business customer requires different services such as high-speed reliable connectivity to their data centre, a managed security service and centralised firewall, as well as Internet access and a voice service, then huge economies of scale are possible and the commercials really stack up. Powerful corporate wide-area networking with QoS and service level agreements

create the perfect environment from which SIP trunks can be added as just another service.

SIP Trunking is now mainstream. Recognised for its ability to reduce costs, consolidate, converge and simplify as well as give access to new feature-rich services, business-grade SIP trunking with QoS has arrived.

Which leaves us just enough room for a few words from Groucho Marx.

"Did I ever tell you I shot a wild elephant in my pyjamas? How it got into my pyjamas I'll never know!"



## SIP Trunking from Exponential-e

**Exponential-e delivers SIP trunks over its powerful 10Gigabit Ethernet core network meaning business-grade IP Telephony is provided within a QoS-driven, controlled and highly-secure environment where packets are known and managed. Voice traffic is connected to the PSTN over its private network and does not touch the public Internet.**

Attractive to all businesses who want to reduce their telephone bills and line rental charges without making sacrifices in quality or service, the solution will suit those organisations with TDM or IP PBX wanting a cheaper more scalable but highly reliable replacement for traditional TDM based voice circuits. Exponential-e's SIP Trunking solution is a premium, toll-quality voice solution. Voice and data may be converged onto one connection providing access to other value-adding applications from Exponential-e's cloud computing environment. The voice solution includes a unique DDI business continuity feature as well as enhanced network reporting and statistical analysis.

[www.exponential-e.com/sip](http://www.exponential-e.com/sip)

### Features

- Free DDIs
- Lower call costs and channel rental
- Consolidation of voice and data services onto one connection
- Individual DDI/call diverts to pre-defined destinations
- Billing portal
- Enhanced reporting including utilisation and missed call stats
- Number portability

# Gary McCullough asks "Why the need for Managed Services?"

Managed Services have traditionally been the domain of the privileged few.



There has always been a significant gap between the privileged corporate and small and medium enterprises (SME). This is however changing.

There are a series of very powerful drivers which are moving the SME sector to embrace managed services. For example current economic conditions are forcing most companies to review their operations with a fine toothcomb and put all associated costs under the microscope. And speed to market is even more crucial as companies attempt to optimise their different revenue streams. Businesses are being forced to become smarter just to survive.

In this climate businesses want the predictability of a monthly OPEX cost model with minimal upfront capital expenditure. It is perhaps not surprising that they demonstrate an overwhelming urge to focus on core business issues using third party resource and expertise to address all other issues.

We find that our customers are continually looking for "sustainable competitive advantage" through the adoption of new technologies previously unobtainable due to expense or resource.

It is clear that communication services have become a commodity with the whole environment becoming a "buyers market" in more ways than one.

So there is a clear demand for Managed Services and it is exciting to note that, there are a number of enablers now in place which make it economically viable to deliver managed services to the SME sector and facilitate their access to large enterprise services at SME prices.

For example, developments in hosting technologies such as Hardware as a Service (HaaS), Software as a Service (SaaS), and Communications as a Service (CaaS) have made the delivery of "value add" services to a mass audience relatively easy. This market evolution has been matched by corresponding developments in networking technologies which now provide the necessary assurances around scalability, reliability and network integrity. With the advent of Next Generation Networking, multiple services can be delivered from the cloud as a converged solution and QOS can be applied to each service separately with service-specific quality guarantees. In such an environment, applications are no longer dependent on location but can be delivered centrally.

Rapidly maturing end-user device technology means that key services can be accessed from any device, increasing employee productivity and the levels of customer service which can be offered.

Also, working practices are changing. The adoption of new working practices such as home working and mobility are great ways for businesses to reduce estate overheads but they require secure access to value add applications.

These factors have created the perfect storm for the deployment of Managed Services, with the current economic period providing a breeding ground for innovation and creativity.

Cloud Computing is able to introduce all sorts of managed services to a wider audience. Instead of using the incumbent on-site technologies (which would vary dramatically from client-to-client), it looks to realize the economies of scale of delivering standard services from a centralized core on a "per unit" basis - all encompassed with stringent SLAs.

As our CEO outlines in this newsletter's opinion piece, there can be no questioning the innate quality and flexibility

of Exponential-e's layer 2 Next Generation Network. We only need to look at our recent industry awards and the variety of customers reaping the benefits of Ethernet networking across their WANs. However, we are now moving to the next stage in our development where we focus more on the "value" of the network and the advanced services it can deliver. We are ideally placed to complement our low-latency, high-availability Next Generation Network with an enhanced product portfolio and Managed Services offering. Our managed security, voice and storage propositions all remove the burden of support and maintenance, increase productivity and reduce the cost of ownership for our customers.

**Gary is Product and Services Manager at Exponential-e.**

## Over the last 6 months we have undertaken a number of key activities.

- The introduction of a new Product & Services Management group with the goal of productising current services and introducing new value-added services.
- The introduction of an industry recognised service delivery framework (ITIL) with complementary ISO and PRINCE accreditations assuring quality of deployment, service and management.
- Introduction of new products with associated service "packages" to provide focus and ease of purchase.
- Provision of a comprehensive Professional Services portfolio, offering clients access to our experience, expertise and knowledge as appropriate.
- Introduction of new systems to allow proactive management, reporting and measurement of client services against defined SLAs.
- A significant training and accreditation program for our new product and service portfolio.



# Super-fast financial trading routes now open

**Our six, brand-new, superfast routes between financial hubs in Europe and the United States are now live.**

The new international routes to, and between, the Capital Markets locations of Chicago, New York and Frankfurt follow significant network investment and herald the launch of our "Gold Standard" financial trading infrastructure - an international network specifically optimised to support FX, multi-venue, multi-asset class, high frequency (HF) and algo-trading platforms. Our end points terminate directly in the facilities where the exchange matching engines are co-located meaning that low-latency connectivity is made directly available.

Extensive research and investment in network and co-location facilities by Exponential-e has resulted in significantly reducing the distance and latency to financial matching engines, MTFs and exchanges. As a result, our latency matrix, with respect to these new routes, is as follows:-

	Chicago	New York	London	Frankfurt
Chicago	<1ms	17.4ms	85.4ms	95.8ms
New York	17.4ms	<1ms	68ms	78.4ms
Frankfurt	95.8ms	78.4ms	10.4ms	<1ms

To address the fact that traditional trading strategies are in a state of flux as they transition to technology-driven, high-frequency, algorithmic models and because traditional service providers have been slow to respond to the new paradigm, we have established what we call a "new gold standard" in financial trading. We have built a trusted and resilient sovereign Next Generation Network standard that can be relied upon for trading across multi-asset classes and venues via multi-vendors.

Our research led us to deploy a Next Generation Network specifically optimised for financial trading. On-net financial venues include CME, Eurex, ICE, ICAP EBS/BrokerTec, Hotspot, Lava, Currenex, FX-ALL, SFTI and all the London Multilateral Trading Facilities (MTFs) as well as multiple brokers, market data providers and trading platforms. As a result, the world's major

financial cities are now on-net, we penetrate throughout the City of London via a plethora of 28 network nodes and 21 data centres and we offer guaranteed service-levels thanks to our single-hop 10GigE core network.

A series of announcements over the last year have detailed the new-style financial exchanges (MTFs) which have set up and which are now on-net for us. We are delighted to announce that joining Chi-X; Turquoise; BATS Trading; NASDAQ OMX are Quote MTF, a new pan-European, multi-lateral trading facility launched in the last few months as a "no frills" trading venue. We have integrated Quote MTF's real-time financial data feeds from 14 European markets into our liquidity-in-a-pipe solution which is a low-cost, hosted solution combining multiple financial data feeds with sub-millisecond connectivity direct to the matching engines of a host of financial data providers.

Quote MTF's mission is to bring new efficiency to the securities trading markets. Their London-based proprietary matching engine, low-cost Hungarian operations and lean organisation means they can provide a streamlined service to professional securities traders.

Liquidity fragmentation is now commonplace and increasing adoption of high-frequency trading has determined the need to trade and execute efficiently across borders, asset classes and venue type. Our native layer 2 multicast support has no need for latency-inducing GRE tunnels and keeps things simple. Matched with the fact that our financial customers are never more than an internal cross-connect away we now believe we have a highly-compelling proposition for the financial trading community.

[finance.exponential-e.com](http://finance.exponential-e.com)

## CASE STUDY

## Input Media

Exponential-e supplies Input Media with broadcast quality video

**TANDBERG Television is the global technology provider for the world's leading broadcasters and an Exponential-e partner. Together we have deployed a converged network solution incorporating a broadcast quality, live video link between Input Media's London office and their new Manchester office. Input Media, one of Europe's premier sports production companies, needed a solution in order to contribute live programming between their sites. Exponential-e's fully-managed solution offered the lowest-latency and lowest packet-loss, making it perfectly suited to Input Media's uncompromising needs.**

Input Media produces and host broadcasts for several live national and international events, including top football, tennis and boxing matches for heavyweight favourites such as ITV Sport, BBC Sport and ESPN. Recently listed as the top independent sports producer in the UK, Input Media decided to open a regional office in Manchester (Input Media North), to provide an autonomous base for regional production opportunities. In light of the professional calibre of the events they cover and their broad international appeal, finding a broadcast-quality video transmission solution of the absolute highest quality and reliability for Input Media North was vital.

**Mike Norris, Head of Technology, Input Media commented:**

"Contribution of live sports programming requires a resilient solution that ensures error free transmission of the video content. This means

our service is particularly sensitive to packet loss and latency. We must be completely confident that the service won't fail by suffering errors during transmission. For this reason we sought out a provider who could ensure these performance credentials. Exponential-e's solution, in partnership with TANDBERG Television, fitted the bill."

Delivered over a single converged 100 Mbps MPLS Ethernet connection, Exponential-e's solution for Input Media comprises a 10 Mbps WAN data link between their Manchester and London office, 35 Mbps business-grade Internet access and 55 Mbps for the video service, all over a single pipe. The video solution encompasses TANDBERG Television's broadcast standard video compression solutions. An encoder and decoder were placed on opposite edges of the network to compress the video signal

from one office before it traverses the network, and then decompress it when it leaves the network and travels to the other office. Exponential-e's SLA gave Input Media complete peace of mind that, should a fault occur on any of the hardware, engineers would be on-site with a replacement within 24 hours.

**Nick Symes, Head of Broadcast IT at Input Media commented:**

"We were looking for a turn-key solution for our inter-site communications. Unlike other providers, Exponential-e didn't just supply us with the connectivity and leave us to source and manage the associated hardware, their close relationship with TANDBERG Television meant they could offer us the solution as a complete package and they took responsibility for managing the solution as a whole. This was ideal for us as it meant

a single point of contact for the solution. It also minimised the likelihood of errors during rollout."

Running over a Layer 2, switched network, Exponential-e's video solution is geared towards organisations such as Input Media who broadcast live events and rely on faultless service performance. Exponential-e's network topology means it is zero-hop which completely minimises latency and packet-loss. As testament to this superior performance, MPEG Forward Error Correction (FEC) is not required. FEC adds extra data to the MPEG video stream in order to correct errors at the receiving end. Such practice is common where retransmission is impossible, as with live satellite links, but comes at the cost of a higher bandwidth requirement. The quality of Exponential-e's Next Generation Network meant that Input Media didn't need to enable FEC, thus saving

them wasted bandwidth and improving the efficiency and performance of their network. Such low error rates would be near-impossible to achieve using Layer 3, routed infrastructure.

**John Griffith, Sales Director, TANDBERG Television commented:**

"Exponential-e with their ultra-low latency Next Generation Network, provides a viable and cost effective option to the broadcasting industry. Their high-performing network, teamed with our market-leading hardware means our solutions should be a serious contender for companies looking at reassessing their video broadcasting needs, for example, for the 2012 Olympics".

Along with the performance of the solution, the fact that Exponential-e could provide a range of services across a single converged connection was a big driver for Input Media. This enabled them

to consolidate the separate contracts they had with their Internet provider, their WAN provider and their video connectivity provider into a single, more easily-managed contract. It also put them in the perfect position to experience the control and flexibility of Exponential-e's Next Generation Network.

**David Edo, Account Manager, Exponential-e explains:**

"In receiving multiple services over our converged connection, Input Media have the ability to re-distribute the bandwidth allocated to different services on an ad-hoc basis. So, for example, at night when no video is being broadcast, they could reappropriate the 55Mbps of bandwidth allocated to video onto their data connection of 35Mbps, bumping the bandwidth for data up to 90Mbps and promoting speedier data replication between offices for DR."

**Nick Symes, Head of Broadcast IT at Input Media said:**

"The fact that Exponential-e could bundle Internet and WAN connectivity in with our video connection saved us a substantial amount on infrastructure costs and enabled us to optimise network usage and maximise efficiency through the flexible allocation of bandwidth across all our services."

"On top of the excellent features of the solution, the level of service we received from Exponential-e was second to none. They went out of their way to ensure we were 100% happy with the solution. This really stands out from larger suppliers where such personal service is rarely experienced."

**Nick Symes, Head of Broadcast IT at Input Media**

# Chapman Freeborn support business-continuity with VPLS

Chapman Freeborn Airchartering is the largest air charter broker in the world and was voted Air Cargo Charter Broker of the Year for the last three years. They provide charters to a client base which includes VIPs, travel agents, relief organisations, governments, tour operators and NGOs.

We built a robust, scalable and simple-to-manage corporate network for the aviation company supporting Chapman Freeborn's headquarters in London Gatwick, and their site at Frankfurt Airport. The new corporate infrastructure enables the aviation company's business data to be replicated across these international sites and has been designed with their disaster-recovery policies in mind.

The new international solution supports Chapman Freeborn's sites from a high-speed, high-bandwidth platform which mimics a local area network. Despite the two sites being in different countries, Exponential-e's pioneering use of Virtual Private LAN Service (VPLS) technology means they are linked by a single broadcast domain or logical subnet which simplifies their management and allows the two sites to behave as one. Services are received at each

site wrapped up as a simple-to-use Ethernet handoff and require no specialist WAN engineering resource.

Chapman Freeborn can now replicate their corporate data, including critical information contained in their customer relationship management systems, across the two sites for disaster-recovery purposes. The sub-millisecond connection speeds between the two sites means that replication can be done as quickly and as simply as if the servers were hosted from the same site. With each site engineered so as not to be a potential point of failure, Chapman Freeborn's new connectivity plays an important role in business-continuity.

The aviation company has also selected our business Internet service as part of the solution. Non-contended Internet with symmetrical 10Mbps upload and download speeds is provided over fibre at both



locations. Whilst the Internet service is provided as part of a converged package alongside the private WAN traffic, both services are securely separated from each other and can be given their own quality of service characteristics should the customer wish.

Dr Biniam Bekit, Head of ICT, Chapman Freeborn Group of Companies said, "2008 was the most successful year in our Group's history. This latest investment means we can continue to deliver excellent customer service to all our clients and grow the business

in the coming years."

Mukesh Bavisi, Engineering Director, Exponential-e added "This is a real example of how servers, which are thousands of kilometres away from each other, can be used to support business continuity. Data replication is taking place across international boundaries but, with such a fast network, it's imperceptible to end users".

# Legal and charity sectors recognise the power of our non-contended business Internet

**Over the last few months we have made significant inroads into the legal sector with a number of high-profile legal organisations choosing our next generation networking capabilities. One of these was 1 King's Bench Walk (1kbw) - a pre-eminent set of London barristers dealing in both family and criminal law. 1kbw were particularly attracted to the service because we were able to offer them service availability expressed as monthly guarantees.**

Engineered for use by businesses, our industrial-strength Internet service provides 1kbw with guaranteed and symmetrical 25Mbps

upload and downloads in the form of a private and non-contended service. Importantly, as the service is built using fibre, the service does not suffer from the performance and degradation problems faced by copper-based broadband technologies.

1 Kings Bench Walk employs state-of-the-art technology at its chambers in the heart of London's traditional legal district. The legal set were looking to upgrade their existing copper DSL Internet to significantly and cost-effectively improve on reliability and speed.

Sue Gray, Chambers Director, 1kbw said "Exponential-e were knowledgeable and profes-

sional, I cannot praise them highly enough. Exponential-e kept us informed throughout the project. Their professionalism and commitment were evident from our initial contact with sales right through implementation and service delivery".

She went on to say "Exponential-e offer excellent Service Levels with guarantees measured on a monthly basis. Not only that, but PowerNGN is available at a really great price".

PowerNGN is our celebrated Internet service capable of meeting the needs of our business and corporate customers. The heavy-duty solution packages 25Mbps;

50Mbps or 100Mbps of Internet over a simple-to-manage Ethernet connection. Having made an investment in next generation Ethernet, PowerNGN customers might choose to converge other services alongside Internet on the same connection for an incremental fee.

The service employs a proprietary "Route 1™" routing technology which makes it the fastest Internet available in the UK. More sophisticated than more traditional routing, such as BGP, Route 1 screens our Tier 1 Internet transit providers for the best route across the Internet according to metrics based on packet loss, latency and jitter.

## Medical relief charity, Merlin also select PowerNGN

Merlin provide healthcare for people at times when they are most in need. The charity's medical teams act fast to help people during emergencies and often these teams work in the world's most difficult and dangerous situations. High performance business communications are essential to the charity with Internet connectivity critical in being able to stay abreast of developing situations in

countries throughout the world.

Mark Hawkins, Technology Manager, Merlin said "Over the past three years, we have been using a 2MB leased line. An increase in staff numbers, more people working from home in the UK and a need to allow our overseas sites to access centralised systems, meant we urgently needed more bandwidth. After

reviewing the market over a few months, we decided to switch to Exponential-e due to their reliability and speed. This new service runs at 100MB and comes in at a cheaper price than some competitors charge for 10Mb."

Merlin decided to dedicate their entire 100Mbps Ethernet connection to their Internet service given its importance to their organisation. Being fibre-based the solution overcomes the performance issues of internet delivered using copper based xDSL technology. However should Merlin wish, they could support other services from the same connection in the future using the next-generation convergence characteristics

built into the service. The Internet solution is provided using Exponential-e's Route 1™ sampling algorithm which constantly monitors multiple tier 1 Internet providers for the best route across the Internet detecting route congestion, packet loss, latency and jitter over a plethora of available routes. This is more sophisticated than the cruder based metrics used by BGP, such as number of network hops, currently utilised across the industry for route selection.

Merlin decided to manage the service themselves. 1kbw in contrast asked us to manage the service on their behalf and provide a single point of contact to manage 1kbw's interaction with the Internet.

# Convergence Summit South



Date: 13th- 14th October 2009

Venue: Sandown Park Esher

Subject: This summit brings together voice, mobile & data resellers with the major convergence suppliers. It is one of the Channel's premier events.

Detail: Exponential-e will be showcasing their award-winning VPLS-based channel offering and explaining how its unique flexibility can be leveraged to generate sustainable competitive advantage for their channel partners.

Weblink: [convergencesummit.co.uk/index\\_south.cfm](http://convergencesummit.co.uk/index_south.cfm)

# Pushing the boundaries with VPLS



Date: 20th October 2009

Venue: Charing Cross Hotel

Detail: Our latest VPLS conference carries on where previous VPLS events left off.

Once again we introduce VPLS technology but now delegates will hear from industry leaders about how VPLS can enable:-

- Wide-Area Unified Communications
- VPLS Managed Services
- Storage and server virtualisation from the VPLS cloud
- Next Generation Networking for Software as a Service

Delegates will also hear from senior industry analyst, Phil Sayer, from Forrester Research about how he sees the future of VPLS for Enterprise Communications.

Delegates also get the chance to pre-book private break-out sessions with the presenters to discuss their own challenges.

This is a 'Must Attend' event for anyone wishing to boost their business capabilities - whilst making a significant reduction in ICT spend. Delegates from our previous VPLS primer events are also advised to attend.

Weblink: [exponential-e-vents.com](http://exponential-e-vents.com)

To keep up-to-date with all our latest events visit our media centre at [www.exponential-e.com](http://www.exponential-e.com)

# Managed Security Webinar



Date: 11th November Time: 10.00am

Subject: Six common pitfalls to look out for when choosing a Managed Security provider

Detail: All too frequently companies enter into a contract without a full understanding of the limitations of the offering for which they have signed up. This webinar will provide all the information needed to ensure a company doesn't fall foul of an inferior solution or provider that could leave its network open to compromise.

Weblink: [exponential-e.com/webinar](http://exponential-e.com/webinar)

# UK IT Industry Awards



Date: 12th November 2009

Venue: Battersea Park Events

Subject: The UK IT Industry Awards recognise best practices, innovation and excellence within the IT profession.

Detail: Exponential-e is delighted to announce they have been named as a finalist for the "IT Infrastructure product of the year" Award. They will be attending these awards in anticipation of their third industry award win of the year.

Weblink: [ukitindustryawards.co.uk](http://ukitindustryawards.co.uk)

# World Communications Awards



Date: 25th November 2009

Venue: Charing Cross Hotel, Central London

Subject: The World Communications Awards is a prestigious, global event, rewarding companies responsible for shaping the future of the telecommunications industry.

Detail: Exponential-e has been shortlisted for the "Best technology foresight" Award. This is a great achievement and fully reflects the ethos of the company as constantly innovating to provide its customers with the very best offerings on the market.

Weblink: [worldcommsawards.com](http://worldcommsawards.com)

## ISO accreditation

Rubber stamping our quality culture, we have gained accreditation to ISO9001:2008 and also to ISO 27001.

These globally-recognised independent standards appraised our quality management systems and also checked that we have adequate measures in place, to protect our information assets. ISO accreditation confirms that Exponential-e is taking an appropriate and systematic approach to managing our processes, data and information and is in full control of our core activities.

Mukesh Bavi, Engineering Director, Exponential-e said

"ISO accreditation is a vigorous process which allows us to provide objective evidence of the effectiveness of our processes and our quality management systems. Our certificate of conformity to this important standard has officially stamped our commitment to quality in everything that we do. We can now provide our customers with proof of independent assessment that we take a professional approach to quality management right across our business."

## New Academy Intake

We recently launched our second Exponential-e Academy – our unique initiative to recruit and train promising and aspiring individuals with no previous sales experience and without a background within the telecommunications industry.

From a total of around 750 applications, we selected 11 candidates to commence the 8 week intensive training programme.

We provided the trainees with the skills and knowledge required to become successful sales consultants in a highly competitive environment.

They also received training about our specific technology and solutions that has made Exponential-e the success story it is today.

Exponential-e is a firm believer of promoting from within and of training and developing its staff. The Academy programme is a unique development programme that allows us to meet these goals. The Academy also helps us to hire and develop our future sales stars.

We wish the graduates of the Exponential-e Sales Academy 2009 continued success within the organisation and a long and prosperous career.

## Industry Accolade

We've had a fabulous year in terms of industry recognition. Following our success in the summer as winner of the Comms Business "Most Innovative Channel Service" award, we are delighted to have made the shortlist for the British Computer Society and Computing magazine award for "IT Infrastructure Product of the Year".

This recent short-listing recognises the power of Ethernet layer 2 VPNs in building corporate WAN infrastructures for our customers. Customers get an agile and responsive wide area network on which to support their employees and wider ecosystem of suppliers and customers. They also get opportunities for cost-efficiencies in the form of consolidation, convergence, simpler management and cheaper CPE. Exponential-e

has also been singled out by the industry in other areas. Exponential-e now boasts an award-winning marketing team following industry recognition by the Metro Ethernet Forum for their VPLS campaigns and Lee Wade, the company's Founder and Managing Director has made the shortlist of Total Telecom's World Communication Awards Top Ten most inspiring business leaders.

## Tech Track 100 listing for third consecutive year



Exponential-e has just been ranked as the 58th fastest-growing private technology company in the UK based on sales growth over the last three years shown in its audited accounts. This is the third consecutive year that the company has made the Sunday Times Microsoft Tech Track 100 list.



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