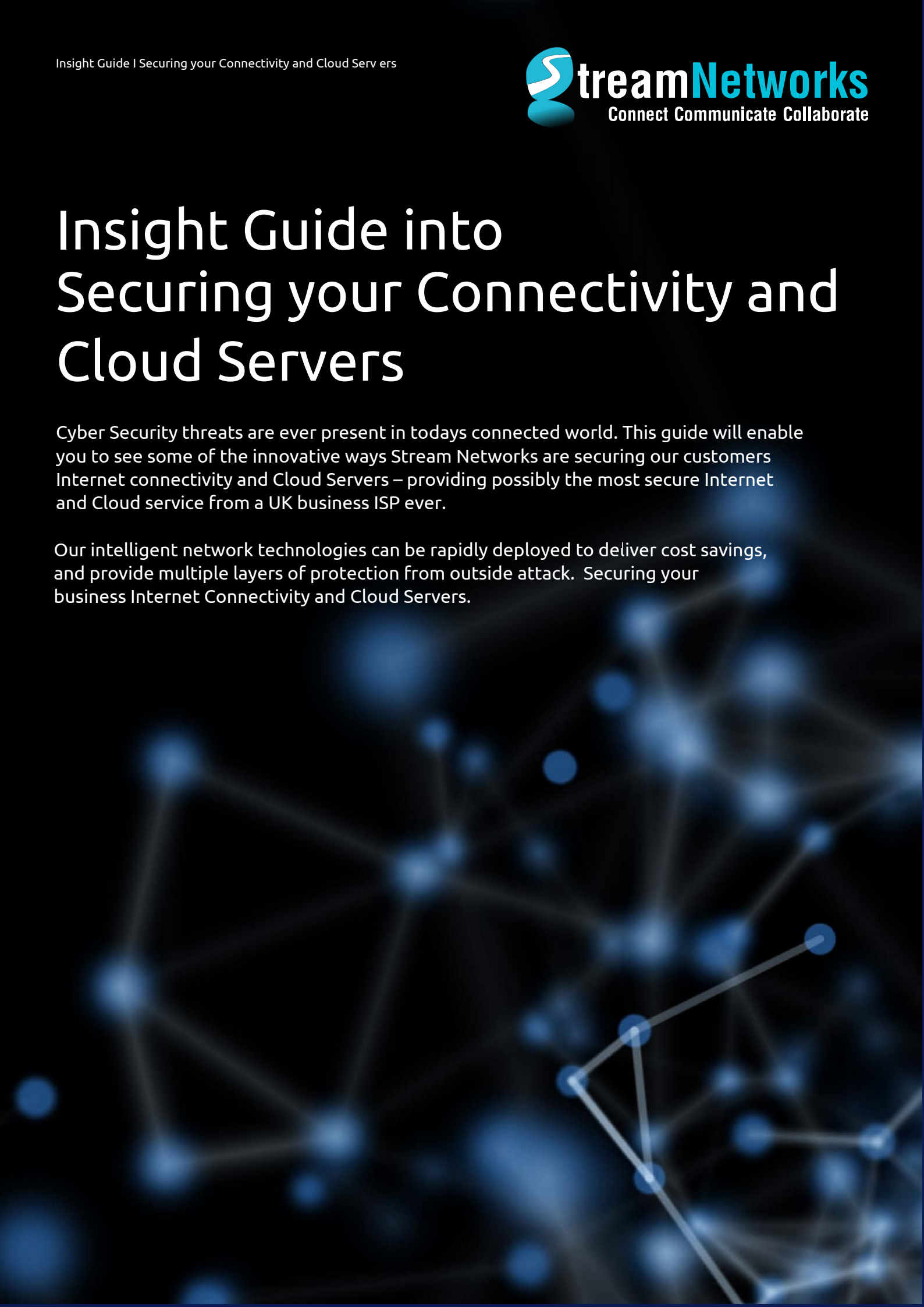
StreamNetworks
Connect Communicate Collaborate

Insight Guide into Securing your Connectivity and Cloud Servers

Cyber Security threats are ever present in todays connected world. This guide will enable you to see some of the innovative ways Stream Networks are securing our customers Internet connectivity and Cloud Servers – providing possibly the most secure Internet and Cloud service from a UK business ISP ever.

Our intelligent network technologies can be rapidly deployed to deliver cost savings, and provide multiple layers of protection from outside attack. Securing your business Internet Connectivity and Cloud Servers.



Don’t I just need a good firewall?

Businesses and organisations of all sizes are being challenged to extend their networks to more people, places and things than ever before. The rise of cloud, SaaS, mobile devices, and Internet of Things (IoT) technologies are forcing more network traffic over the public Internet.

As a result, the threats posed to an organistations IT Security are increasing exponentially and with the Implementation of GDPR failure to protect your Organisation from Cyber attack is also costly.

This shift is being felt in IT across virtually every industry.

What’s becoming increasingly clear is that Securing your Internet Connectivity and Cloud Services By an on premise Firewall alone no longer provides Complete peace of mind.

Stream Networks have developed a unique network Proposition that incorporates DDoS protection within Our Core, an additional highly resillient Cloud Firewall Service that sits between the edge of our Core Network and the Customers network connection(s), and in conjunction with CyberHive a patented whitelisting Cloud Server solution protecting Cloud Servers against malicious hacking attacks.

DDoS Protection

A Distributed Denial of Service (DDoS) attack is when An overwhelming level of traffic is purposely channelled To an online service resulting in a negative performance. They are becoming more and more commonplace, And worryling more and more sophisticated. This Means there has never been a more relevant time Time to protect your networks.

DDoS attacks use a network of botnets, which are infected Computers to launch attacks against any target. Once infected, These botnets will try to overwhelm targets by sending high Volumes of connection requests or random data.

A DDoS attack that can take down an SME for a week can Be purchased for just $150!

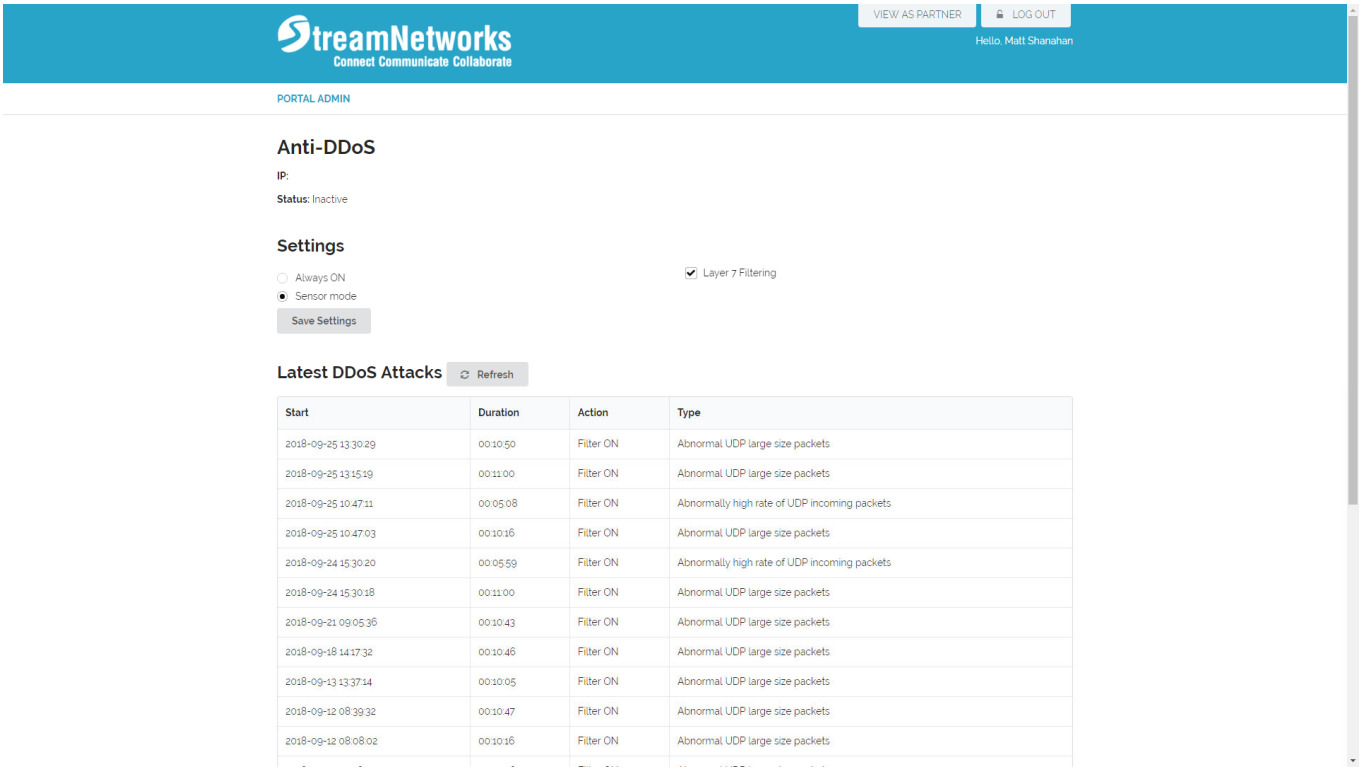
How the Stream network mitigates against DDoS

Using our peering partners, our connectivity and Cloud solutions come with default DDoS protection As standard. Our network advertises your public Facing Internet addresses via our DDoS Scrubbing Centres. DDoS Scrubbing means that your service Stays online during an attack. Your incoming and Outgoing traffic is analysed with malicious traffic Being removed and filtered, clean traffic is then Passed on for delivery to your network.

The Stream Scrubbing centres are located in 9 Datacentres in 8 cities within the EU and US and have The ability to filter attacks up to 1Tbs in size Meaning that it its virtualy impossible to flood A Stream Networks DDoS protected Internet connection Or Cloud Server.

DDoS Features and Benefits

+ Attacks against your network are filtered up to 1Tbps in size
+ Analyse your DDoS protected traffic in real time via our innovative portal



- +Solution works in real time, 24x7x365

+ Keeps your business and key Internet services on at all times – we won't black hole your service

- Your connectivity, hardware and cyber security protection hosted on the same network and supported by us 24x7x365

Types of DDoS attacks that are filtered

- IP non-existing protocol attacks
- ICMP & IGMP attacks; ICMP Flood, SMark, Smurf Attack, ICMP Flood
- Layer 7, HTTP attacks; Slowloris, RUDY, HTTP Object Request Flood
- TCP attacks/floods; SYN, SYN-ACK, ACK, FIN, RST, TCP, EXE, TCT NULL, Fake session
- UDP attacks; Fraggle, DNS query, DNS Amplification, SNMPv2, NetBIOS, SDP, CharGEN, BitTorrent, Stream protocol
- Fragment attacks such as mangled IP fragments with overlapping and oversized payloads to target machines

How a Cloud Firewall provides additional security

Stream Networks operate and own two high availability cloud platforms(OpenStack and VMware) within two UK datacentres. Our primary site is located within a nuclear proof ex MOD bunker and all sites are protected by CCTV etc (need the bits from the Bunker here).

Our Cloud Firewall service sits at the edge of our Core Network providing an additional level of Firewalling between our core and your edge connectivity. Based on trusted OpenSource firewalling technology (PFSense) customers also have the choice of deploying a cloud firewall from the Vendor of their choice be it Fortinet, Palo Alto, Sophos, SonicWall any Firewall vendor that provides their platform as a Virtual appliance.

All customer Internet traffic incoming and outgoing passes through the Cloud Firewall ensuring that traffic is filtered within the Core network before arriving at end point, where if required traffic can be firewalled and filtered a second time via an on premise firewall.

In addition to providing firewall protection within the Core, our Cloud Firewall Service allows for any Stream Networks connection to terminate as a LAN connection on the Cloud Firewall allowing customers to build a hybrid MPLS/SD-WAN adding additional into the network with ease, whilst managing the IP addressing schemes and Firewalling rules from a single interface.

Cloud Firewall Features and Benefits

+ Attacks against your network are filtered within our core network before reaching the endpoint firewall
+ Attacks against your network are filtered up to 1Tbps in size
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+ **Bond Connectivity -** Combine connectivity mediums such as 4G and DSL for resilience or if you are in a location where it's difficult/expensive to deploy Ethernet or fibre connectivity.

Next steps

To fast-track a conversation, simply click on the link below to send us an email and one of the team will call you back straight away.

Please call me to discuss SD-WAN

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About Stream

Stream Networks has been built for business use, enabling our customers to leverage the power of our 10Gb network capacity and benefit from our peering agreements by lowering costs and increasing bandwidth.

Our core is built using Cisco and Juniper to provide a fully meshed network between four key UK datacentres, at which point we extend our footprint with our peering agreements and connections into the major carriers. Our network is managed and monitored 24x7x365 to ensure your business stays connected.

With a significant capital investment in our high availability cloud infrastructure (which continues to grow each year), businesses are able to realise the benefits of moving computing to the cloud whilst knowing their data is secure, UK-based, and available 24x7x365. Based in our core UK datacentres, each cluster is designed to provide 100% uptime, and comprises the latest in replicated storage arrays, network capacity, and processing power, all built using vMWare's HA hypervisor.