Partner Seminar 2019

Dominic Norton
Sales Director

SPITFIRE®
PARTNER SERVICES

Seminar Agenda

Time	
9:45am	Session 1 – IP Connectivity
11:15am	Break
11:45am	Session 2 – SIP and Telephony
12.45pm	Spitfire Partner Awards
12.55pm	Conclusion and Actions
1.05pm	Lunch
1.50pm	Break Out Sessions/ Demonstration Booths
3.00pm	Competition and Raffle

2018 In Review

Big year for:

- Connectivity

- New government commitments

- Continued rise of Cloud based services

2018 In Review

Future Telecoms Infrastructure Review:

- 'Full fibre'

- '5G future for all'

5G – The Future Network

- Ultra-high speeds

- Low latency

- Internet of Things (IoT)

Fibre

- Gigabit Voucher Scheme (GBVS) – March 2018

- Funding per SME business of **£3000**

- Reduced to **£2500** in November 2018

Fibre Ethernet Strategy

- Availability, price and lead time

- New suppliers to:

  — Expand on-net coverage

  — Innovate new products

- Fibre broadband upgrade incentives in 2019

Software Defined Networks

SD-WAN

Cheaper and more flexible than MPLS?

SIP & Telephony

Spitfire launch new hosted solution:

Hosted PBX 2.1

Hosted PBX 2.1 vs. 3CX Cloud

SIP & Telephony

MiFID II – 3rd January 2018

GDPR – 25th May 2018

Openreach to close PSTN network by 2025

Shift all customers to IP telephony

![Spitfire Partner Services logo]

Session 1…

Start Time	Topic	Presenter
10.10 am	5G	Gavin Jones (Guest Presenter)
10.30 am	MPLS VS SD-WAN	Andy Duncan
10.45 am	Fibre Ethernet & Fibre Broadband updates	Edward Bamforth
11.00 am	Multi Tenanted Building Offering	Peter Goddard
11.10 am	Q&A Session 1	Spitfire Team

Partner Service In 2018

Training & Development

IP Engineering

Engineering Account Managers

CCENT

CCNA

Partner Training

New partner introductory training

Hosted PBX 2.1 & 3CX training sign-up today

Key Successes & Growth Areas

MPLS – 75% growth

Fibre Ethernet – 18% growth

Hosted Telephony – 10% growth

2018 Awards

Comms National Awards

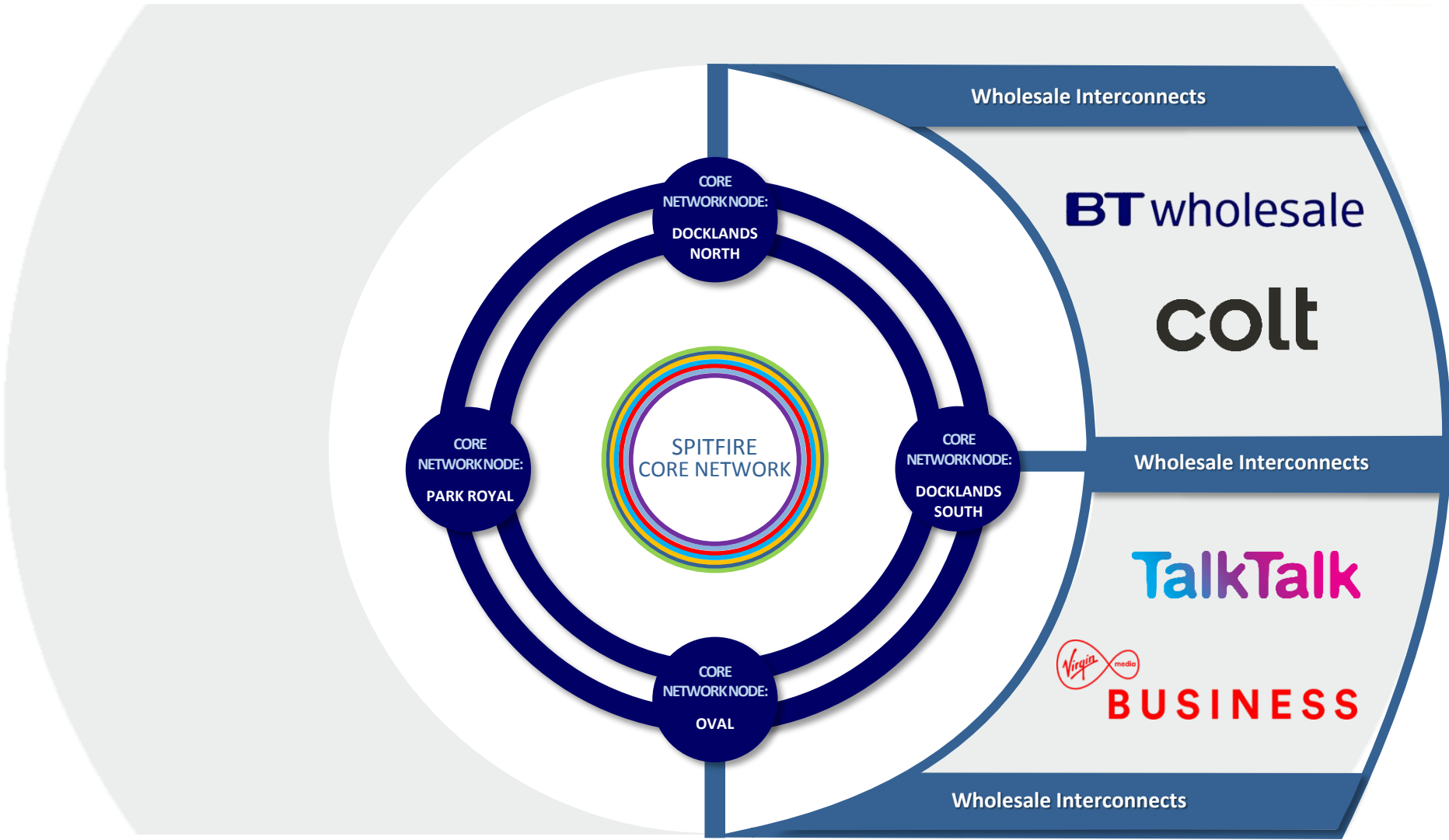- Best Network
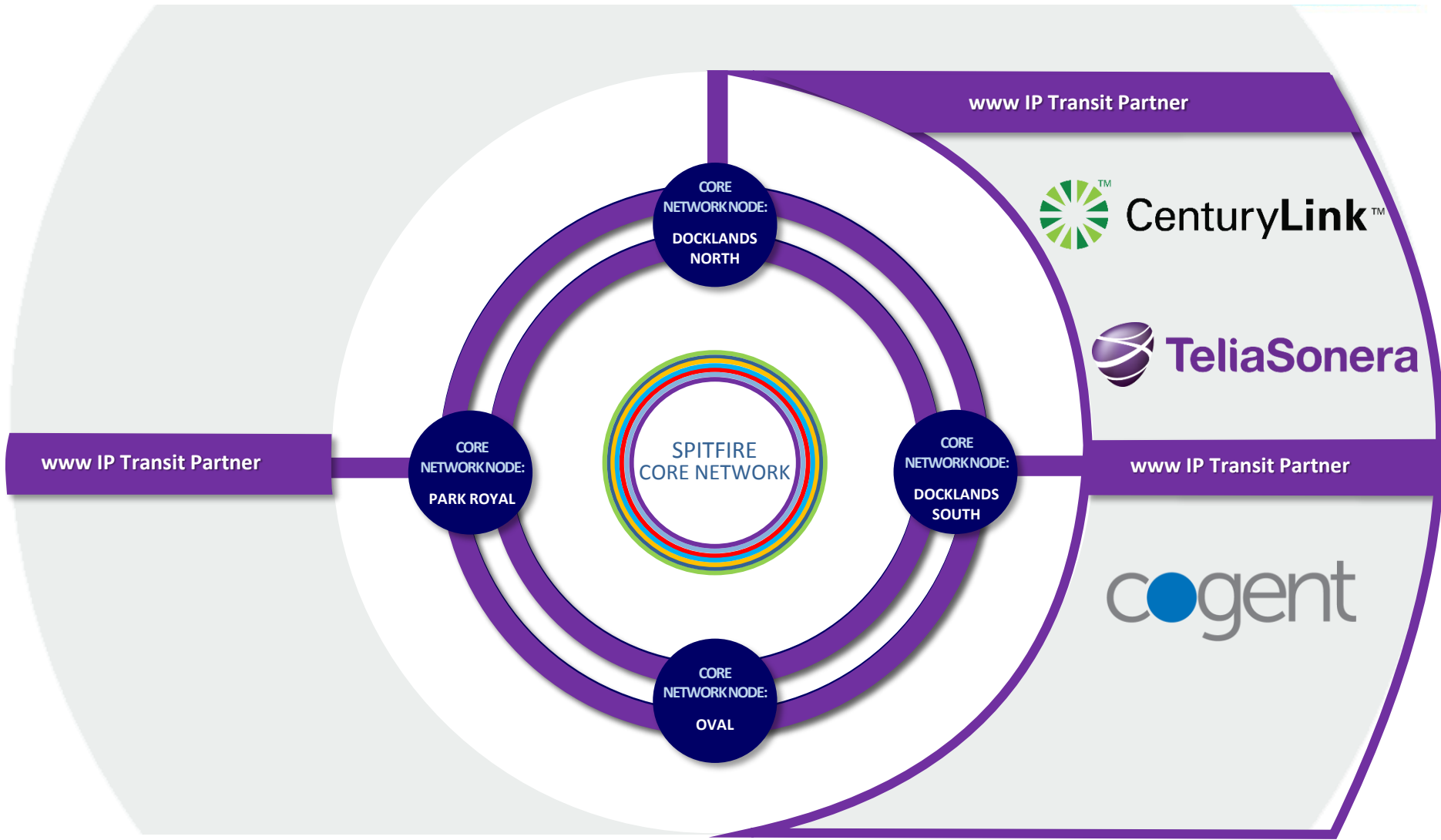
- Best Wholesale Provider

Core Network Updates

TDM network upgrade
completed

Core Network Updates

Core Network Updates

Software Developments

Integrate with supplier Software Defined portals

Fibre Ethernet added to web-ordering

Support

Updated ticketing system

- Improved ongoing support case management
- Automatic internal escalation

Live support timing available on portal

- Provide further clarity on status of logged tickets

Marketing and PR

Spitfire Website

Key Commuter Train Stations

IT Publications

Google Remarketing

Radio Adverts

Social Media

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

@spitfirepartners

https://www.linkedin.com/showcase/spitfire-partner-service/
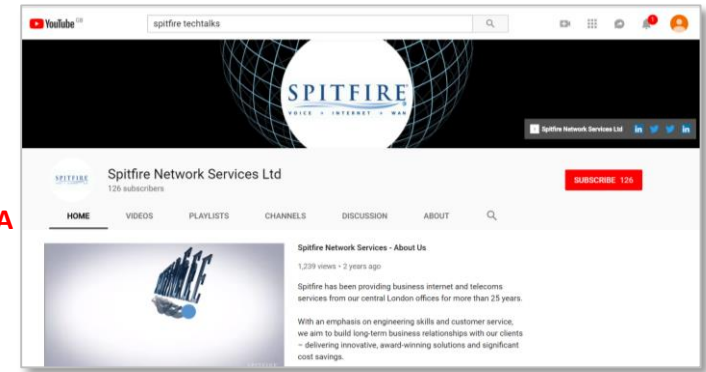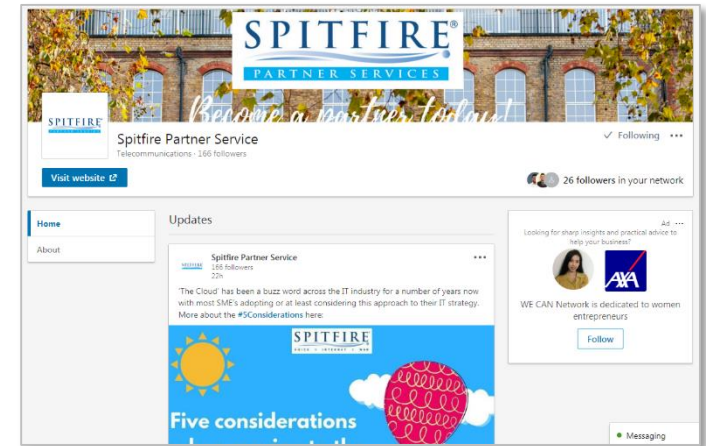
People

The London Team

The Midlands Team

The new Birmingham office
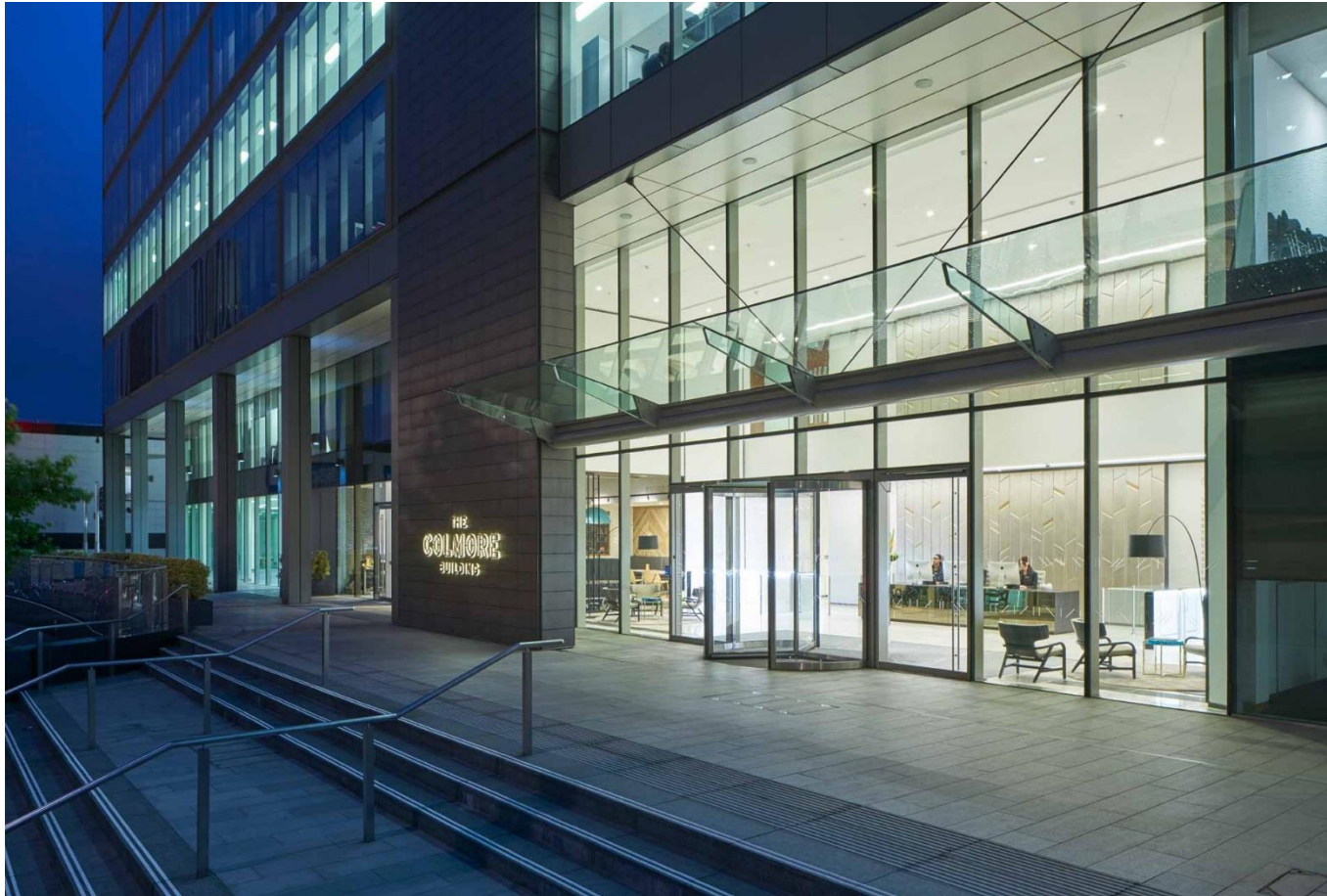
Summary

Best specified and engineered solutions

- Highly trained sales and support staff

Multiple suppliers for all key products

- Right long-term solution for your customers

Summary

Embrace new technological change

- Bring you exciting new products

Enhance our online portals

- Easier access to content

Questions & follow up

Time	Topic
10.10am	Session 1
11.10am	O&A
11.15am	Break
11.45am	Session 2
12.35am	Q&A

BT wholesale

Towards the network of the future

Gavin Jones
BT Wholesale

Agenda

Towards the network of the future:
- 5G status update
- 5G in action

Building the network of the future:
- Future of 5G
- Internet of Things (IoT)
- Securing the network of the future.

Summary and close

Questions

British Telecommunications plc 2019

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The demand for 5G

BT wholesale
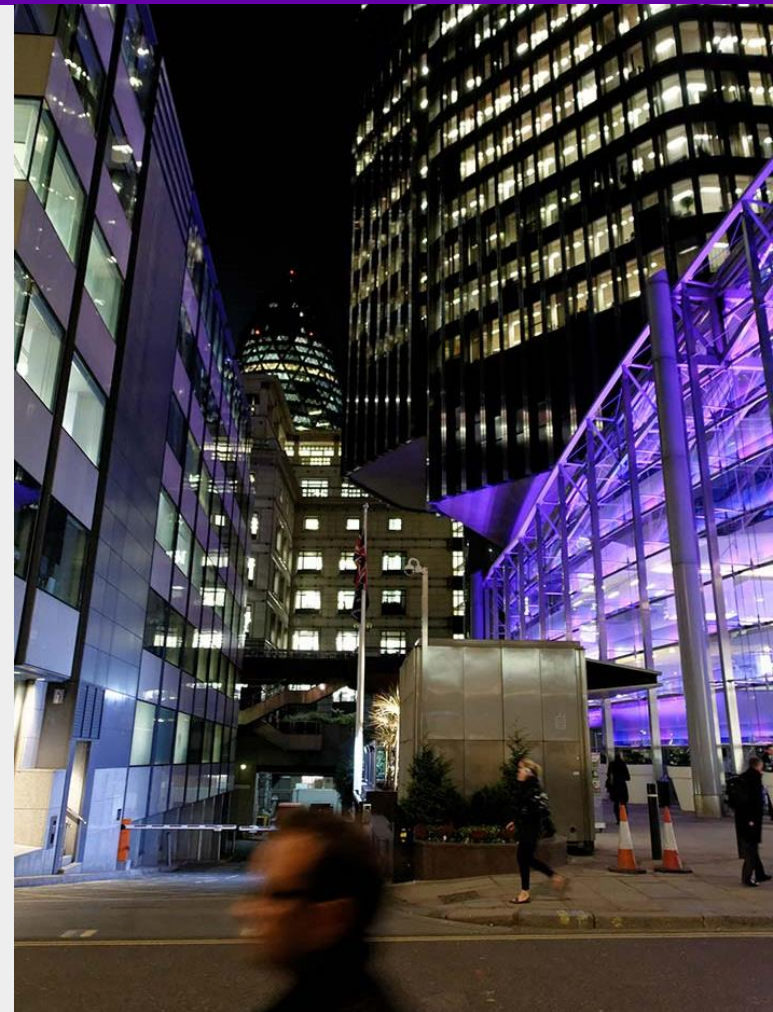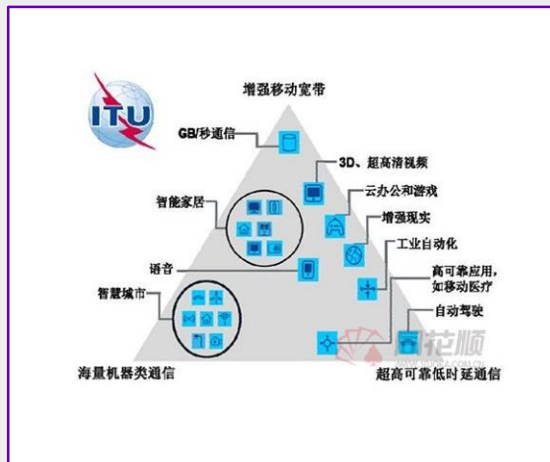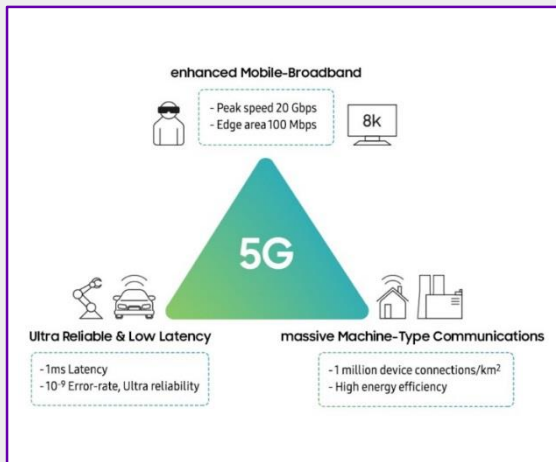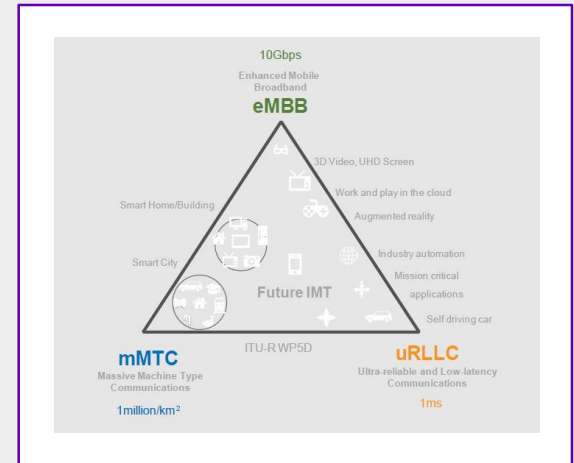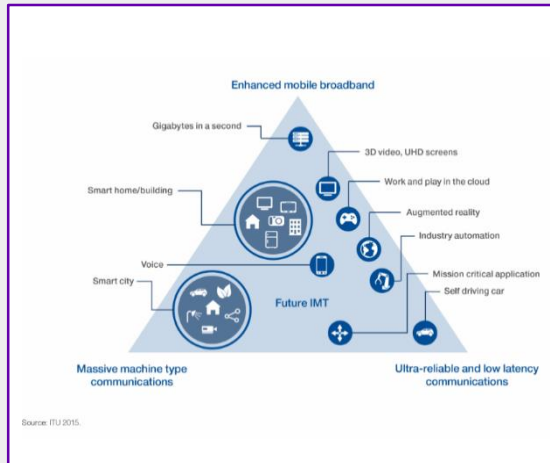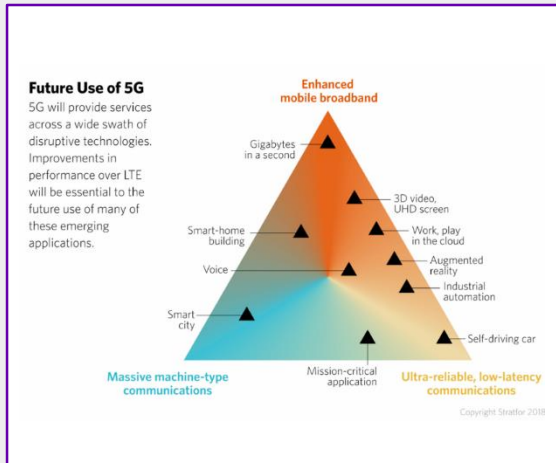
5G - A step change in the art of the possible

Enhanced mobile broadband

Gigabytes in a second

3D video, UHD screens

Smart home/building

Work and play in the cloud

Augmented reality

Voice

Future IMT

Smart city

Industry automation

Mission critical application

Self driving car

Massive machine type communications

Ultra reliable and low latency communications

BT wholesale
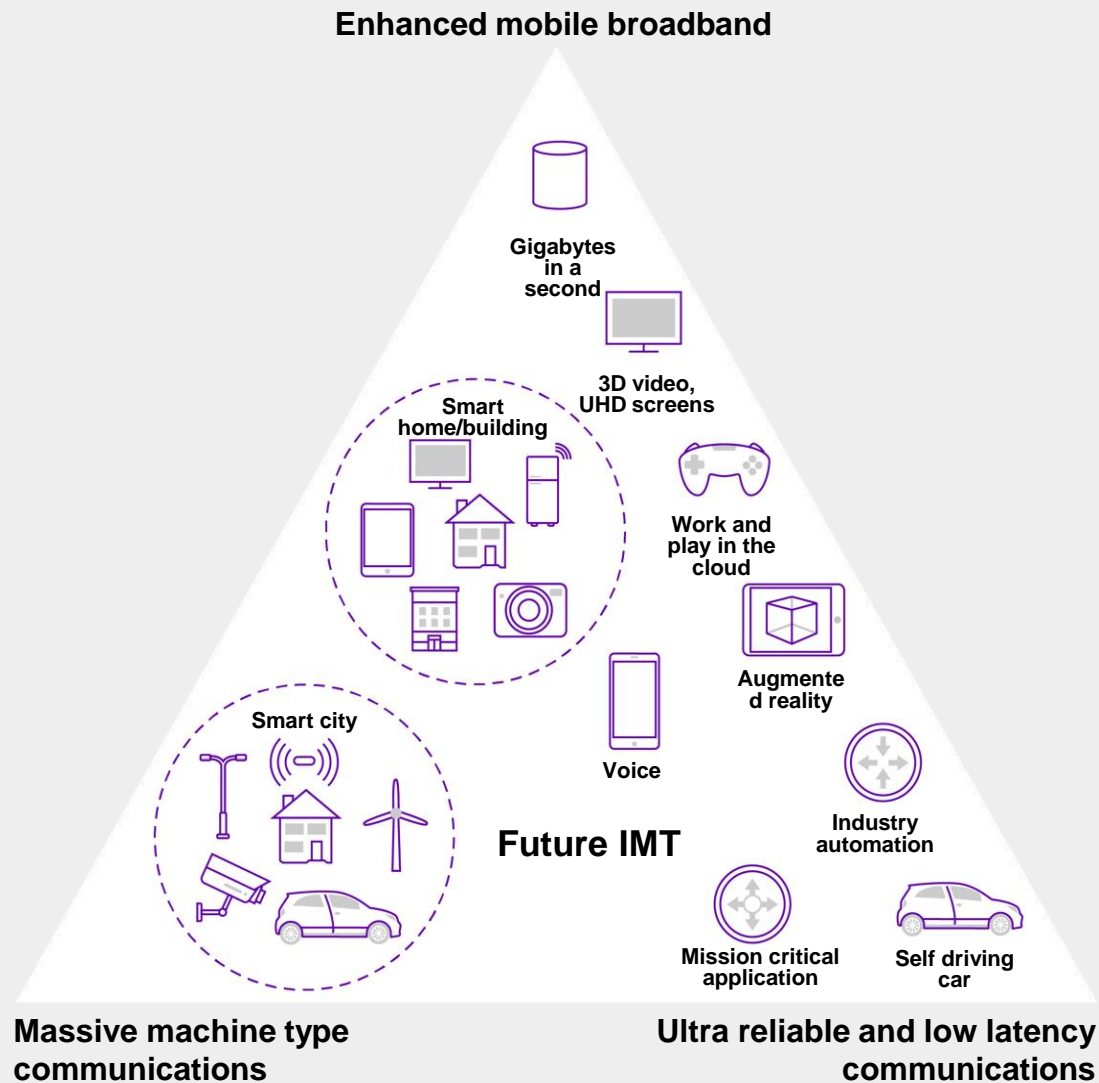
Our vision for 5G

A converged network that supports all services

Enhanced mobile broadband	Missions critical comms	Machine comms

IoT	Smart home	Agriculture	Logistics	Asset tracking

BT wholesale
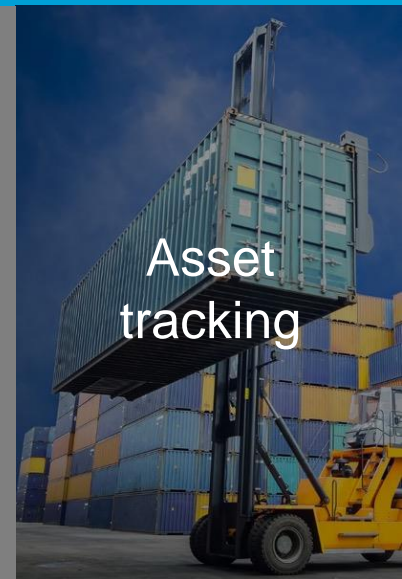
How 5G will revolutionise the media and entertainment industry

Remote production

Allows production staff to do multiple events in an evening

Dramatically reduces production costs

Better work / life balance for staff

Supports a small camera production

Work in conjunction with fibre at bigger grounds

Using 5G will overcome limitations of 4G

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One step closer to the future

Evolving beyond today's models with smart cell thinking

As customer demands for an 'always connected' experience grows, operators will need to improve both coverage and capacity of the networks beyond macro capabilities, requiring small cells for capacity and coverage, indoors and outdoors.

Rural

Dense urban

Dedicated 'singleton' small cell

Dedicated cluster

Shared 'neutral host' solutions

Coverage and capacity outcome based models

Indoor

Stadiums and shopping centres

Deeper collaboration on indoor solutions; 'landlord pays'

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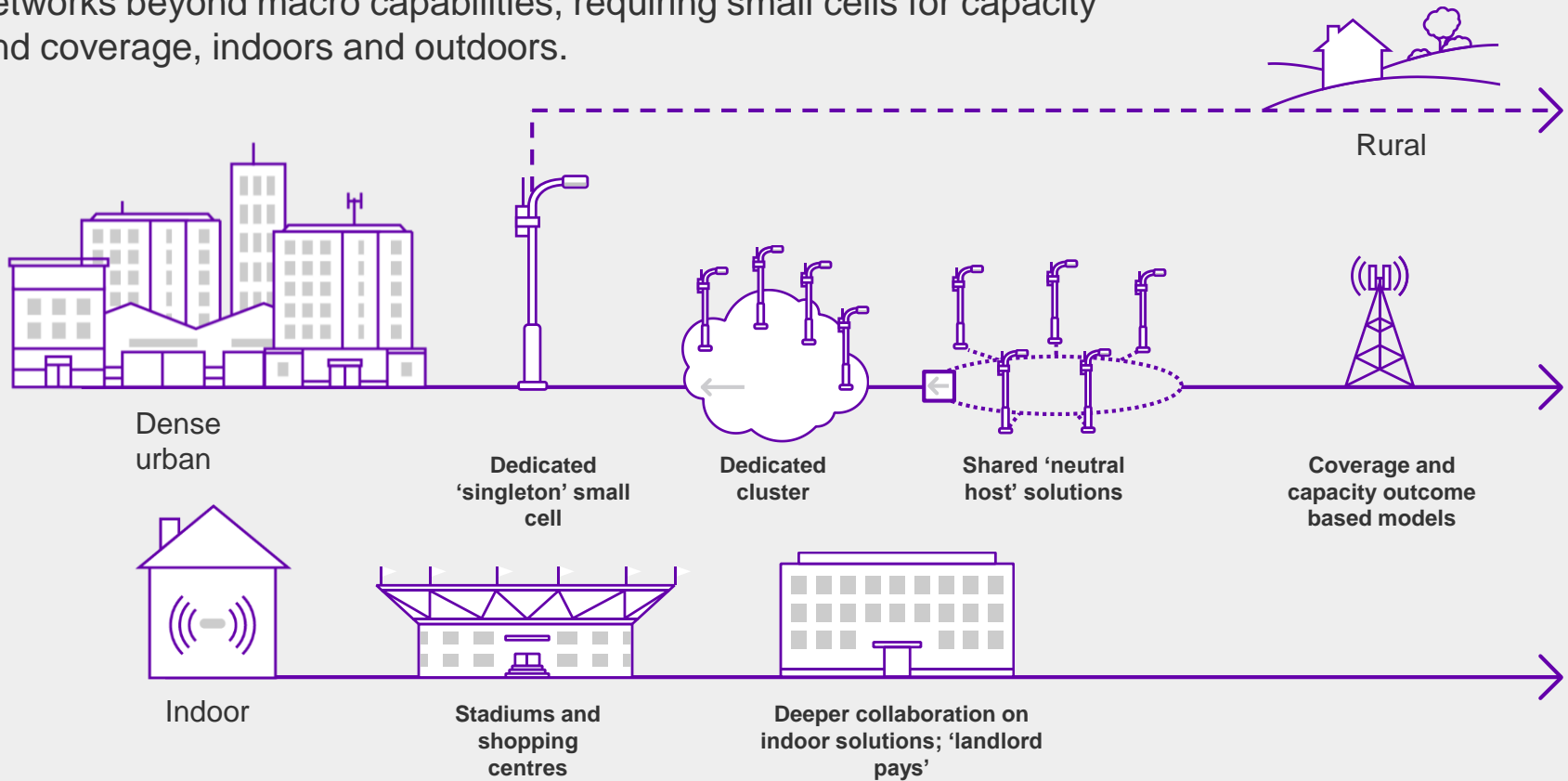
One step closer to the future - the Internet of Things
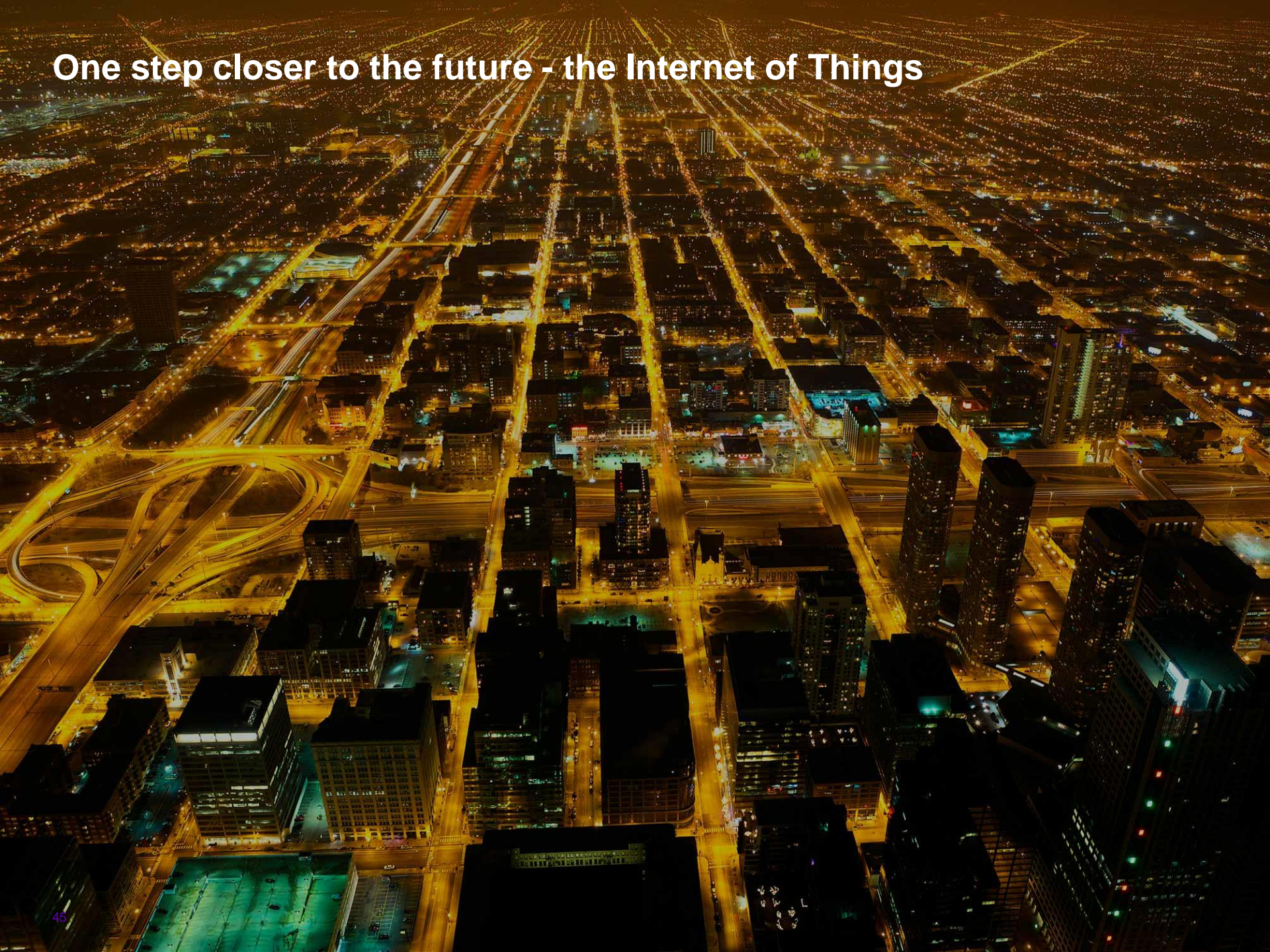
Focus industries for our IoT proposition

Intelligent retail

Connected transport
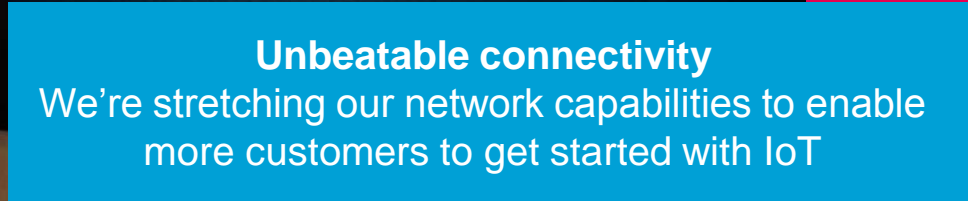
Unbeatable connectivity
We're stretching our network capabilities to enable more customers to get started with IoT

End-to-end security management and capability
We keep solving security problems so they don't affect our customers' take-up of IoT

Intelligent supply chain

Smarter cities

BT wholesale
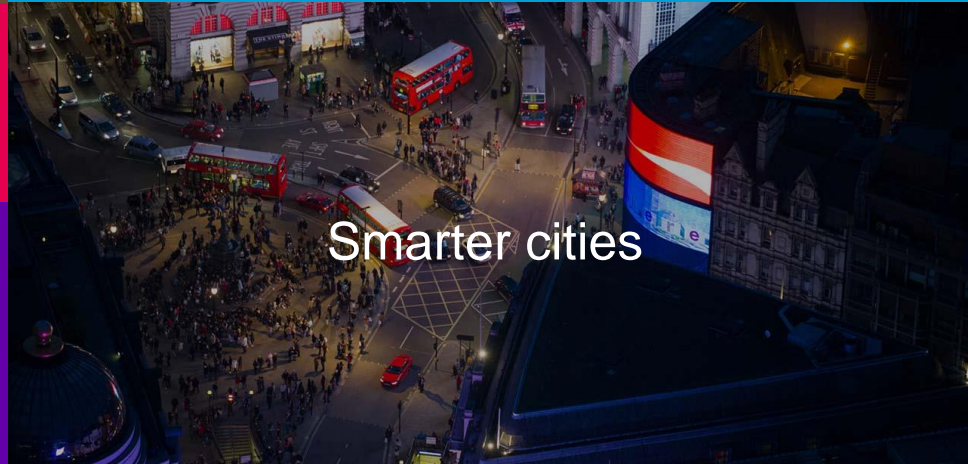
IoT - one step closer to the network of the future

- We've just connected the latest IoT device up to our EE network.

- It's called Narrowband IoT or NB1.

- Where 5G is about fast speeds and responsiveness, Narrowband IoT allows a whole new host of battery powered devices to be connected to the internet over the EE network but at lower speeds.

- The new IoT devices send very small amounts of data and are only activated when needed.

You can use the new network together with our devices and platform to support a wide range of new projects across a range of industries.

Transport and logistics - intelligent tracking of goods in transit including monitoring of stock and temperature for sensitive items such as vaccines.

Utilities - supporting the next generation of smart meters and smart utility networks helping solve issues with electricity demand and water leakage.

Tank level monitoring - from farmers grain stores to industrial gas tanks, IoT will allow proactive refilling of tanks before they run empty.

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Intelligent supply chain
Improving asset monitoring and driving down cost

- Helping customers track objects in regional, national and global locations is a complicated business.
- Our platform and mobile tracking devices make the job cheaper and easier for everyone.

2015
Royal Mail

- Automatically measures the speed and reliability of mail deliveries.
- RFID solution in 430 UK sites.
- Over 4,000 reader points collect data to monitor Quality of Service.

2016
Domiberia

- Asset tracking for the 1.3 billion tins the company produces each year.
- Helped them meet the European food traceability directive.

2016
Pelipod

- Manages the final mile in our field service supply chain by distributing spare parts in smart delivery boxes.
- Located at 500 of our sites.
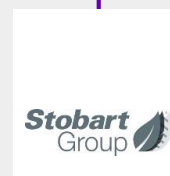
2018
Stobart Group

- Improves flood response times by better co-ordinating 1,500 stillages carrying emergency equipment.
- EE's 4G network enables data to flow seamlessly back to the IoT platform so the company can analyse it in real time.

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Smarter cities
Building better places to live

- We're using the latest digital technologies, data sharing, analytics and design to make smart cities a reality.
- Our solutions help cities to thrive economically, socially and become more sustainable.

2014
MK Smart

- Searching for innovative solutions to stimulate the economy in Milton Keynes.
- Exploring the practicalities of running an IoT ecosystem.
- Hosting the low power WAN that receives all the data from sensors.
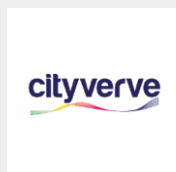
2016
City Verve

- A £15 million collaborative research project deploying a LoRa network in Greater Manchester.
- Our IoT data hub brings together hundreds of transport and environment data feeds.

2017
InLinkUK

- A state-of-the-art network bringing ultrafast free public wifi to the UK.
- Now collecting air quality data inside an InLink in London, to see how this could benefit local councils.

2016
Redcare surveillance

- CCTV video transmission and end-to-end managed security.
- Connecting 44,000 CCTV channels.
- Active in 80 per cent of public authority control rooms in the UK.
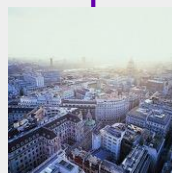
2016
Things connected

- With partners we have installed 25 of the 50 LoRa Gateways in London.
- They are testing the city's IoT readiness.

2018
Smart lighting

- Automating street light controls so they adjust to conditions in real time.
- Option to create smart lamp posts that do many things at once, like monitor the environment, run CCTV or act as wifi hotspots.

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In conclusion

BT is investing £6bn over three years to expand our high-speed network footprint

We all share a common goal - towards a full fibre and 5G future - it's both a challenge and an opportunity

We're taking the lead as the migration to full fibre and all IP continues to disrupt traditional models

BT is on a journey to realise our strategy to improve connectivity

As a BT Wholesale partner, Spitfire leverages BT's innovation and network investment

Being part of the Spitfire community makes it easier for you to develop better service offerings for your customers

Together we can all use the power of communications to make a better world

BT wholesale

Fibre Ethernet & Fibre Broadband

Ed Bamforth
Sales Manager

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Agenda

- Ethernet and connectivity strategy

- Recap on current Ethernet carriers

- New partnerships and product developments

- Fibre to the premises (FTTP) update

- Fibre to the cabinet (FTTC) update

Ethernet and Connectivity Strategy

- Spitfire's goal is to be the market leader for connectivity solutions for business – we aim to do this through excellence in the following four criteria:

- **Price**: we aim to be able to provide market leading pricing through a range of different infrastructure partners

- **Availability**: through our partnerships with different infrastructure partners we want to have the biggest reach to for our partners

- **Lead time**: our sales team will discuss with you or your clients to give clear advice as to which option is showing the shortest indicative lead time

- **Resilience and redundancy**: We can help to design solutions which maximise these factors through using a mix of infrastructure providers

Recap on current infrastructure options

Use an Openreach EAD to access a BT exchange

Operate an independent network and rely on being "on-net"

Spitfire's network

We can terminate different connections on different network nodes
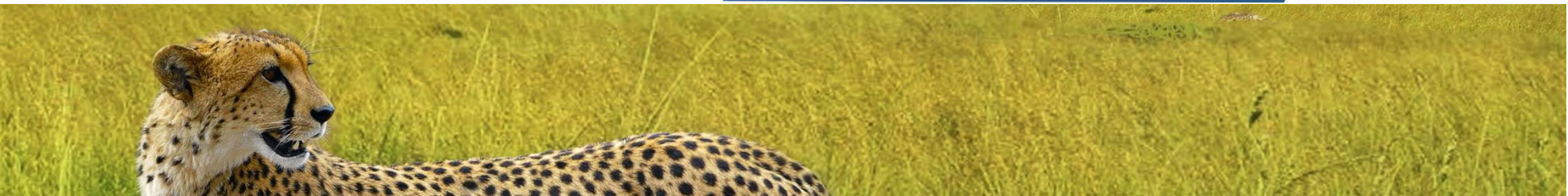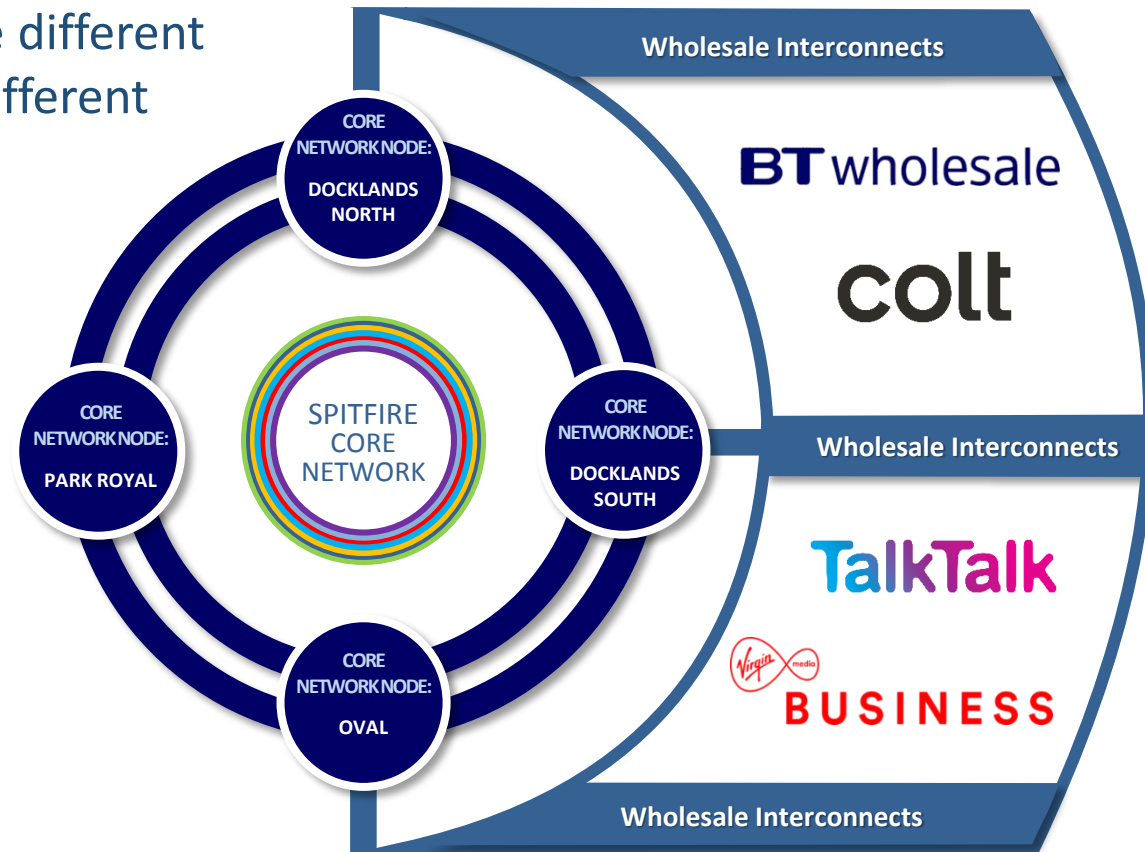
New partnerships – Partner A

London based Independent Fibre infrastructure company

- Ethernet product and an FTTP product

- 60k premises on-net in central London by the end of the year

- Short lead times and market leading pricing

New partnerships – Partner B

Independent Fibre infrastructure company

- Fibre Ethernet product

- Currently connect to 280k UK businesses

- Aim to have 20% of the UK connected by 2025

- Also work with an on-net /lit building model

New partnerships – Vodafone

Vodafone – purchased Cable and Wireless network

- 67,000 on-net buildings – 20% coverage of UK businesses

- Very competitive pricing

- Short lead times

Key benefits of new partnerships

- Price, availability and lead time advantages

- Products designed specifically for our user base – voice approved FTTP

- Future scope to define new products

- Shift from traditional product offerings – more options at different price points

Ethernet product updates

- Software Defined Networking – moves control to SP and/or customer

- BT Wholesale – "bandwidth on demand"

- Flexible bandwidth driven by customer requirements

- COLT – reduced lead times and flexible bandwidth

Ethernet product updates

- Cloud Connect – ease of provisioning with Equinix
- End goal – customer controlled bandwidth
- Use cases
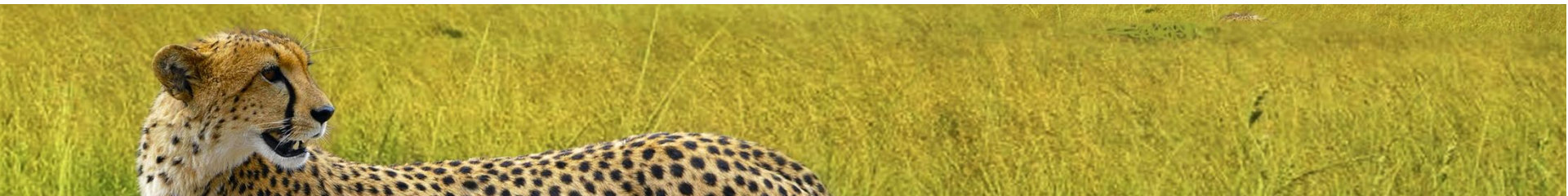
FTTP update

- New speeds available from February

  — 330/50Mb
  — 160/30Mb
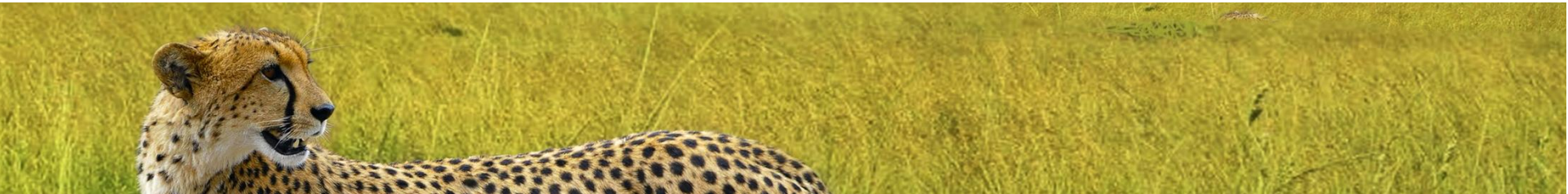
G.Fast

- Uses similar infrastructure to FTTC broadband – utilises copper PSTN line

- Delivers speeds up to 330Mb/30Mb

- Aims to cover 5.7 million UK homes and businesses by the end of 2020

- Limitation is copper line length – under 200m is optimal

- Launch in Spring

Fibre broadband – FTTC update

- Proactive price cut this year, 80/20 Premium circuit now costs:

  — £35pcm

- We will continue to review the market to ensure we have the most competitive pricing for a business offering

Summary

- Additional infrastructure partners enabling us to deliver on strategy

- SDN developments – faster lead times, faster upgrades

- Developments in products enabling greater flexibility and choice for end users

- Expansion of fibre broadband portfolio

MPLS vs SD-WAN

Andy Duncan
IT Interface Manager

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Software Defined Networking (SDN)

- Traditional networking appliances provide networking functions in a single appliance
- SDN separates these functions into different layers
- Network functions can then be provided by different appliances or applications

Software Defined Networking (SDN)

For example:
- An organisation has multiple routers, switches and wireless access points
- All devices are managed through a single controller (usually a web based application)
- The controller is:
  - Monitoring the network
  - Controlling network functions

Software Defined WAN (SD-WAN)

- Utilises SDN technology to create and manage a Wide Area Network, i.e. site to site connectivity

- SD-WAN "promises":
  - Lower operational costs
  - Improved WAN management
  - End-to-end network visibility
  - Improved WAN Security
  - Improved Agility

Scenario 1: Connecting two sites

IPsec VPN

Internet

IPsec VPN: Internet based "best endeavours"

200Mb Ethernet

200Mb Ethernet

Site A

Site B

100Mb Point to Point
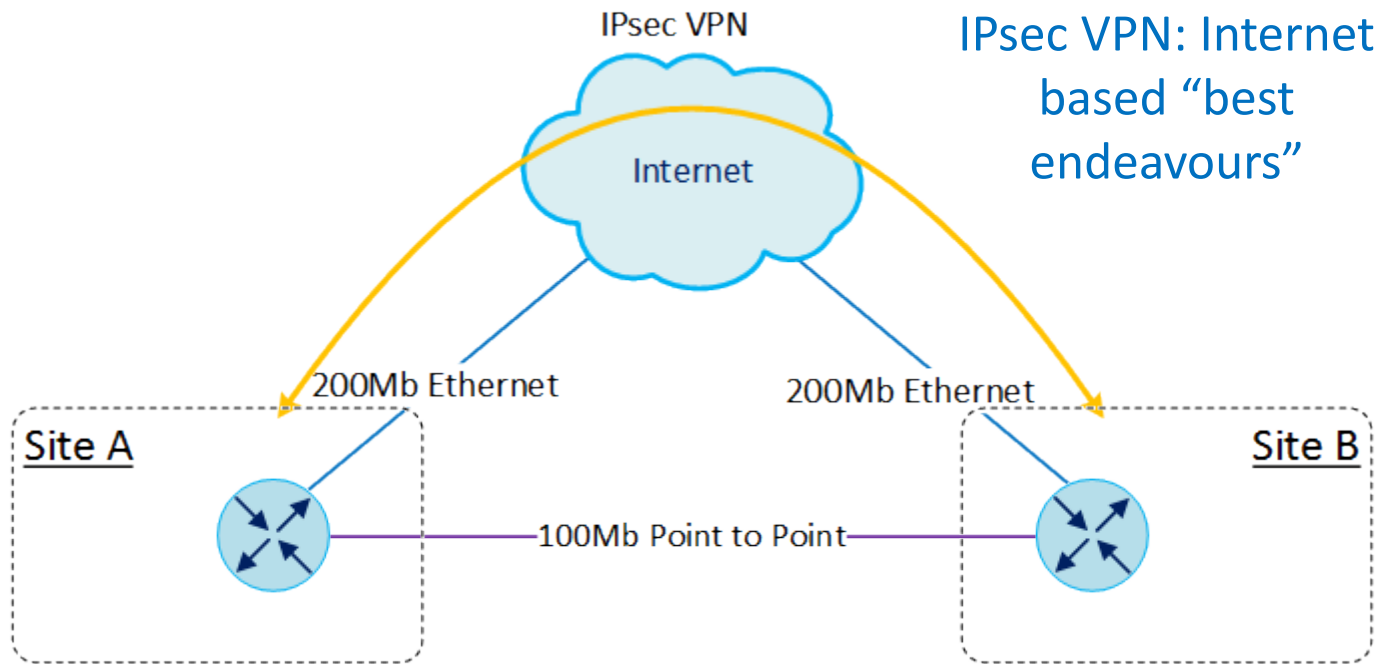
Point to point: SLA Backed consistent performance

Scenario 1: Connecting two sites

Cloud Controller centralises management of on-premise routers and can be used to optimise routing

SD-WAN Controller

Internet

Internet based "best endeavours"

200Mb Ethernet

200Mb Ethernet

Site A

Site B

100Mb Point to Point

SLA Backed consistent performance
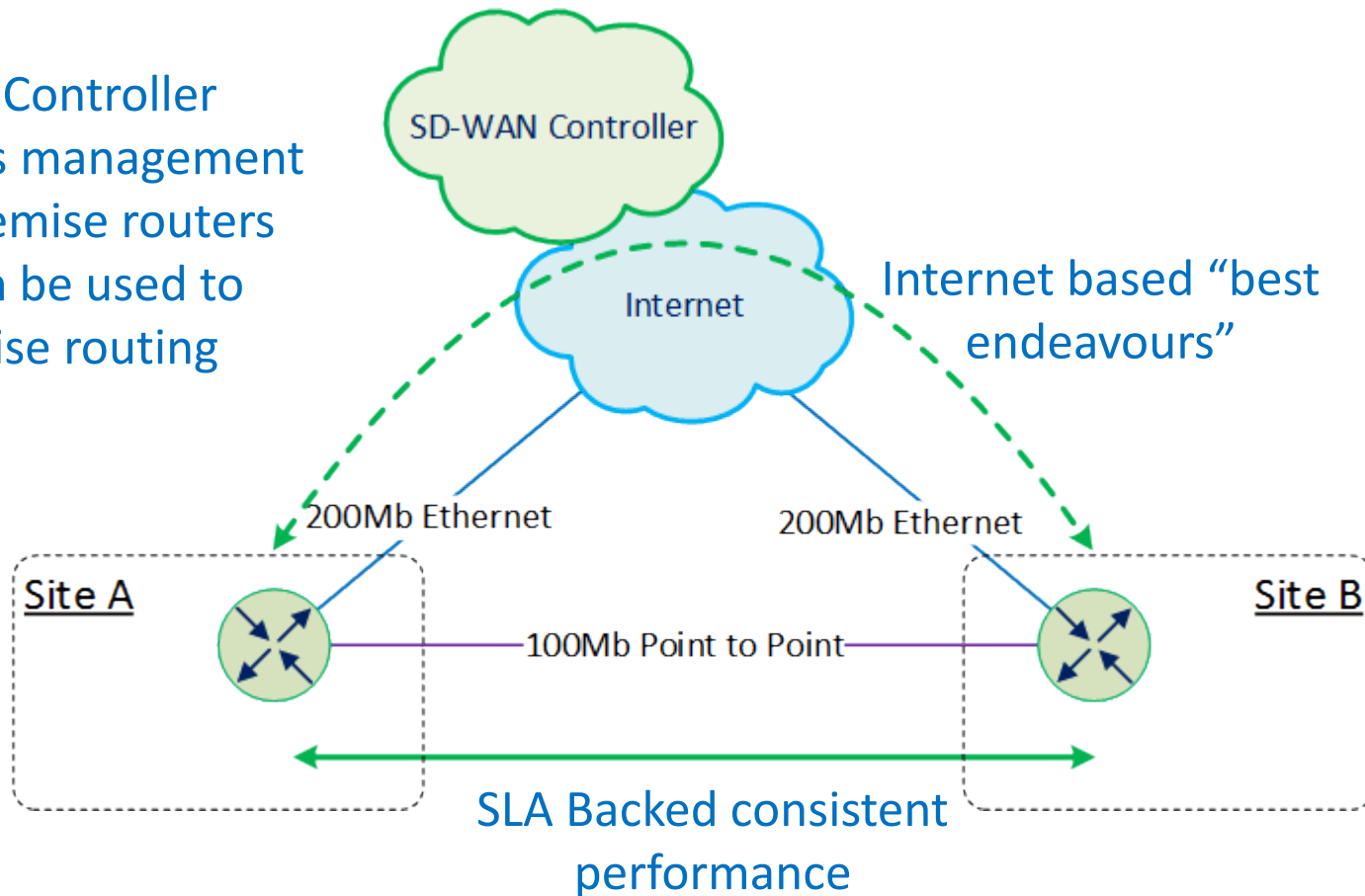
Scenario 2: Connecting 4 sites
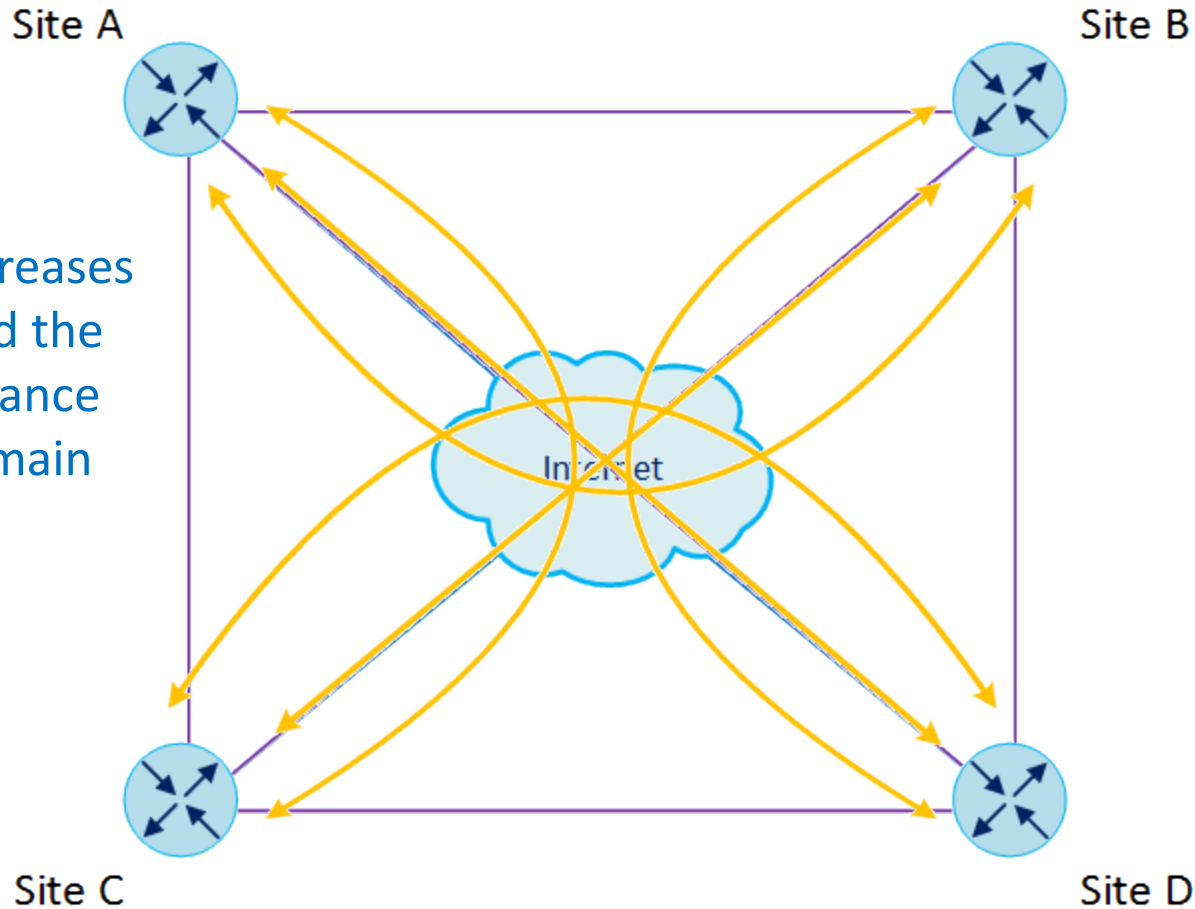
Adding sites increases complexity and the same performance challenges remain

Scenario 2: Connecting 4 sites

SD-WAN simplifies management but doesn't address performance

Internet based "best endeavours"
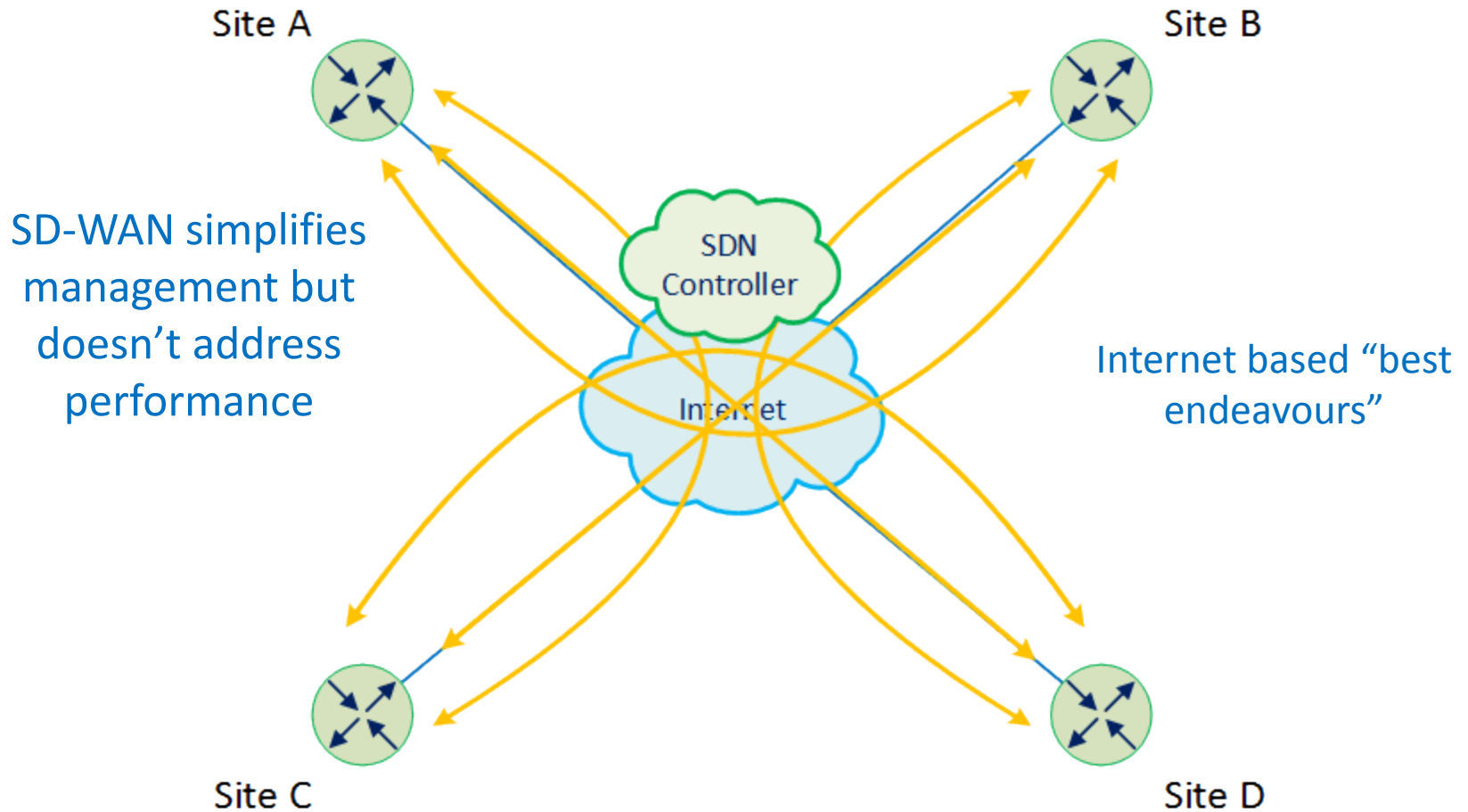
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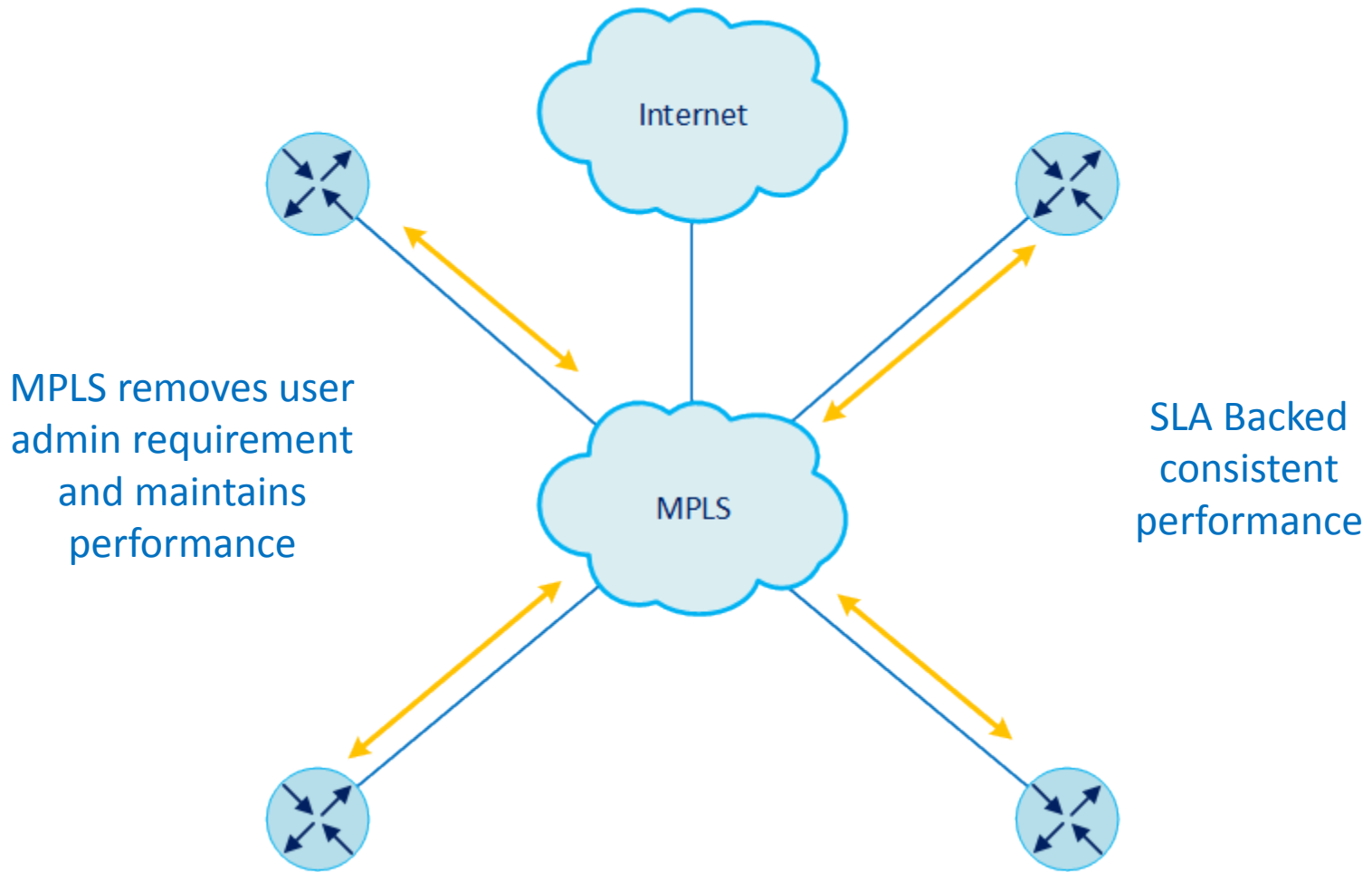
Comparison

MPLS	SD-WAN
Service provider managed, "fixed" configuration	Customer managed through centralised controller
Network Monitoring	Network Monitoring
Operates over broadband and Ethernet access circuits	Operates over broadband and Ethernet access circuits
Single ISP	ISP agnostic
On-premise hardware agnostic	Single Hardware provider
Secure private network	Secured internet traffic
Inherent SLAs	Optimised public network

MPLS vs SD-WAN – Which is best?

- SD-WAN
  - Better for interconnecting multiple sites using circuits from multiple suppliers
  - Better for temporary sites or serviced offices
  - Better for centralised management
  - Cheaper for connecting international sites

MPLS vs SD-WAN – Which is best?

- MPLS
  - Better for hands off customer management
  - Better for consistent, SLA backed performance
  - Better for supporting applications with high performance requirements
  - Lower cost (usually)

MPLS vs SD-WAN – Which is best?

- Hybrid
  - SD-WAN over MPLS connectivity
    - Best of both worlds

  - SD-WAN over internet and MPLS
    - Realistic best balance of
      - Performance
      - Cost
      - Manageability
      - Flexibility

MPLS vs SD-WAN – Final thoughts

- SD-WAN solutions need connectivity, they do not provide connectivity themselves
- Price comparison should look at the TCO including all circuits, hardware, subscriptions and support
- What features or services are actually required?

- The final solution may be SD-WAN, MPLS or both.

Hybrid of SD-WAN, P2P, MPLS
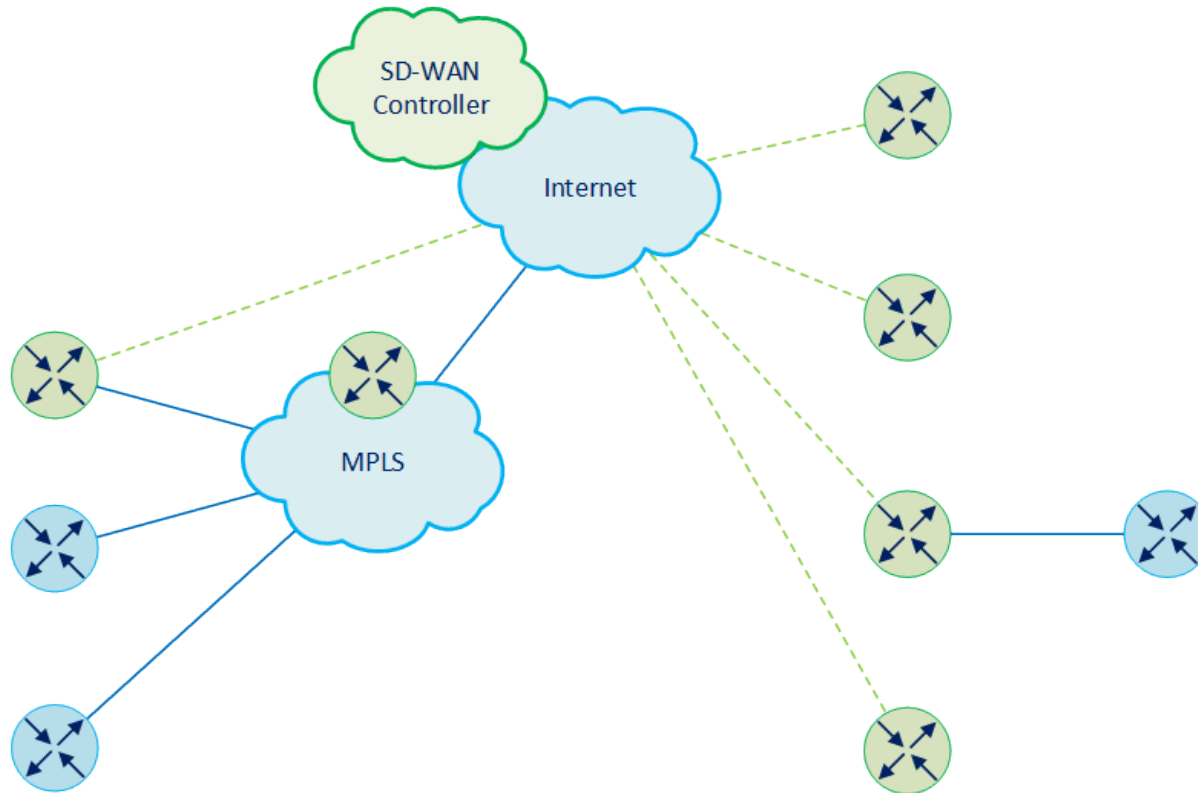
Sinefa

Why?

What is Sinefa?

Sinefa

Spitfire is one of the first service providers
using this system

Uses

- Monitoring

- Usage

- Complex Requirements

Application

Utilization by Application

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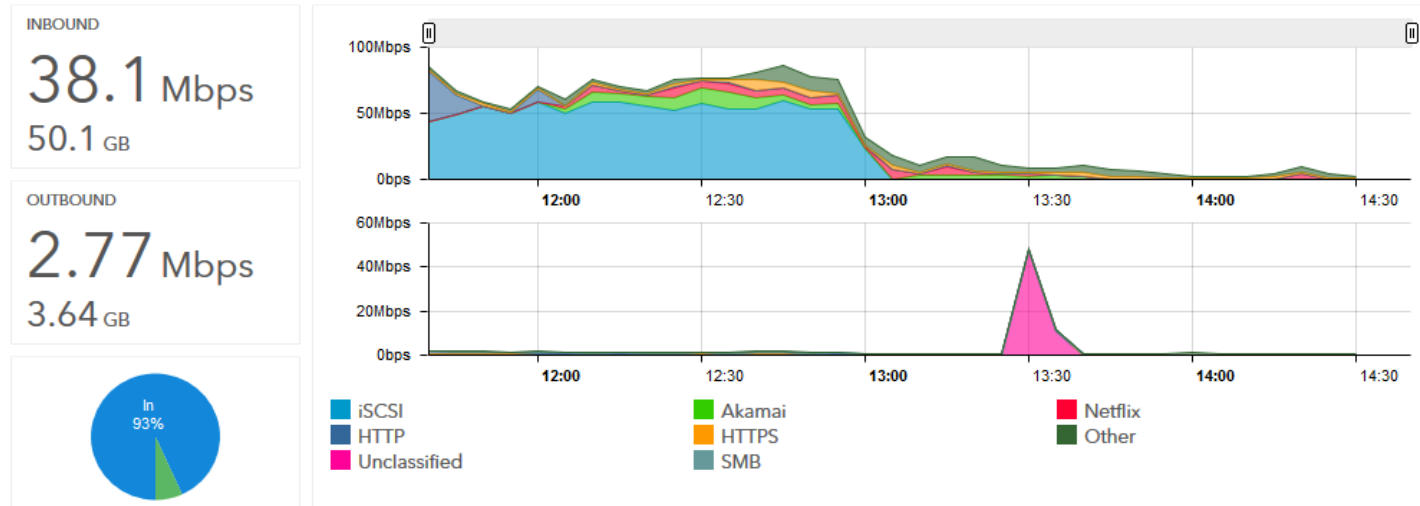
Application	Utilization	Data In	Data Out	Data Total ▼	Total %	RTT	TCP Health ⊕
iSCSI		33.1 GB	372 MB	33.5 GB	62.3%	0.0ms	99.5%
Akamai		3.74 GB	37.5 MB	3.78 GB	7.0%	1.4ms	99.7%
Netflix		2.89 GB	46.9 MB	2.93 GB	5.5%	26.6ms	99.0%
HTTP		2.58 GB	169 MB	2.75 GB	5.1%	18.5ms	99.5%
HTTPS		2.28 GB	200 MB	2.48 GB	4.6%	28.2ms	98.5%
Unclassified		33.7 MB	2.25 GB	2.28 GB	4.3%	5.6ms	99.9%
YouTube		1.89 GB	36.1 MB	1.93 GB	3.6%	2.9ms	99.4%
Limelight CDN		1.18 GB	14.2 MB	1.19 GB	2.2%	1.5ms	99.9%
Google		377 MB	29.1 MB	406 MB	0.8%	9.1ms	97.4%
Fastly		237 MB	6.06 MB	243 MB	0.5%	3.6ms	98.3%
LinkedIn		217 MB	6.72 MB	224 MB	0.4%	17.2ms	98.2%
Amazon		179 MB	10.6 MB	190 MB	0.4%	24.0ms	97.4%
MS Exchange		133 MB	8.4 MB	142 MB	0.3%	1.7ms	99.4%
SMB		44.1 MB	88.5 MB	132 MB	0.2%	6.7ms	97.8%
Twitter		124 MB	4.31 MB	129 MB	0.2%	2.9ms	97.9%

Top 10 Applications

TOP 10 APPLICATIONS

Application	Value
iSCSI	85.8GB
HTTPS	3.9GB
Akamai	3.9GB
HTTP	3.2GB
Netflix	2.9GB
Unclassified	2.9GB
YouTube	2GB
MS Exchange	1.7GB
Limelight CDN	1.2GB
Google	905MB

79.1%

TOP 10 INTERNAL HOSTS

Host	Value
192.168.128.228	85.8GB
192.168.128.66	2.7GB
192.168.128.59	2.2GB
192.168.128.126	2.2GB
2a02:b90:d...02:3008::5	2.1GB
192.168.128.160	1.7GB
192.168.128.36	1.6GB
192.168.128.106	1.1GB
192.168.128.162	1.1GB
192.168.128.43	920.5MB

84.7%

UNHEALTHIEST APPS

App	Value
Oracle	69.2 %
Firebase C...Messaginge	73.7 %
WebEx	84.5 %
Google Play Store	90.1 %
Salesforce	90.9 %
Amazon Video	91 %
Adobe	91.9 %
Crashlytics	92.6 %

APPLICATION HEALTH

98.5 %

WORST RTT APPS

App	Value
SIP	234.3 ms
Alibaba	205 ms
PlayStation	163.5 ms
WebEx	141.7 ms
DocuSign	119.8 ms
Crashlytics	91 ms
Apple	86.8 ms
Dropbox	86.5 ms
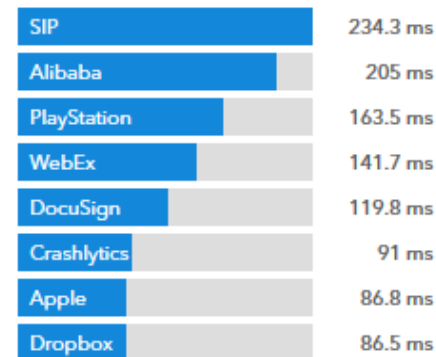
APPLICATION RTT

51.6 ms

Internal Host

Utilization by Internal Host

INBOUND

4.27 Mbps

1.76 GB

OUTBOUND

737 kbps

304 MB

In 85%

- 192.168.128.106
- 192.168.128.156
- 192.168.128.66
- 192.168.128.85
- 192.168.128.45
- 192.168.128.112
- 192.168.128.111
- 192.168.128.39
- 10.0.0.42
- Other
- 192.168.128.193
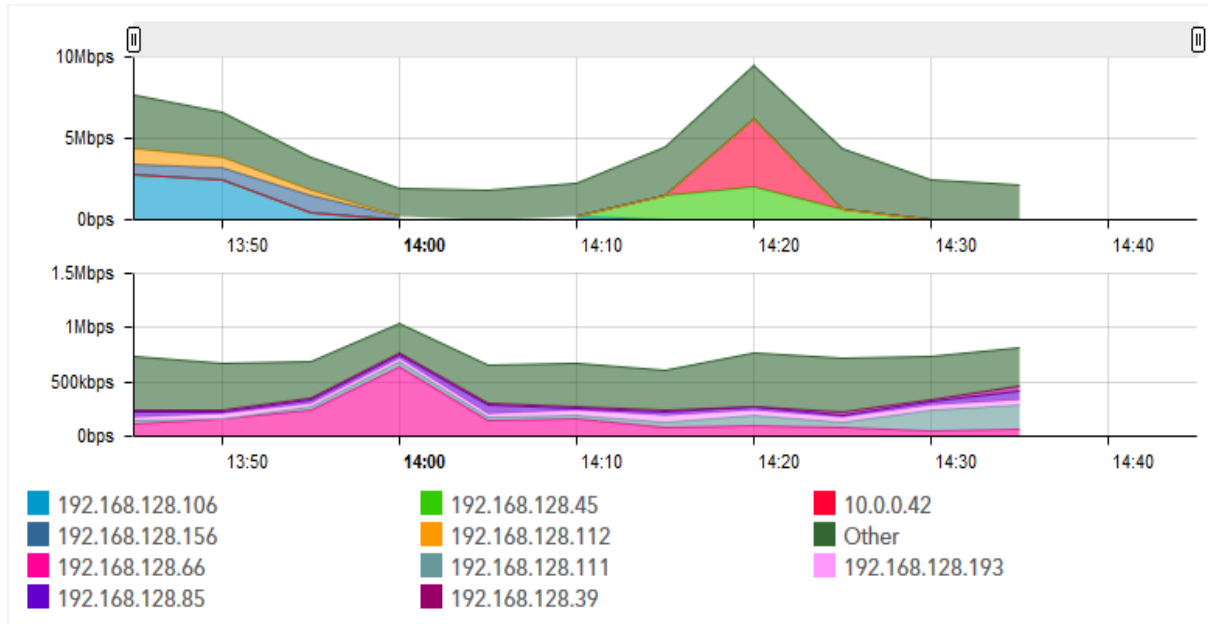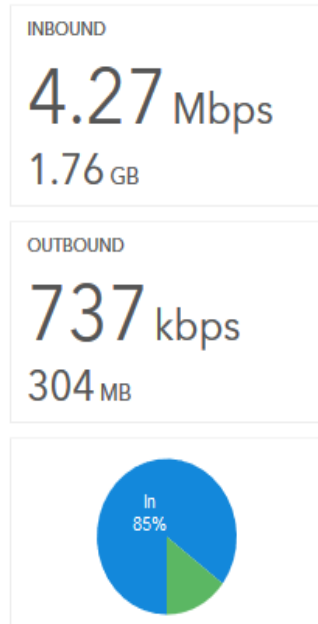
Internal Host	Utilization	Data In	Data Out	Data Total ▼	Total %	RTT	TCP Health
192.168.128.106		222 MB	3.37 MB	225 MB	10.9%	4.1ms	99.6%
192.168.128.45		157 MB	3.63 MB	160 MB	7.8%	11.3ms	98.7%
10.0.0.42		157 MB	3.41 MB	160 MB	7.8%	45.1ms	98.4%
192.168.128.66		54.7 MB	69.3 MB	124 MB	6.0%	1.4ms	99.4%
192.168.128.156		96.7 MB	1.66 MB	98.3 MB	4.8%	1.5ms	99.4%
192.168.128.112		71.7 MB	1.4 MB	73.1 MB	3.5%	3.5ms	98.4%
192.168.128.221		41.2 MB	4.9 MB	46.1 MB	2.2%	17.4ms	95.8%
192.168.128.193		27 MB	18.2 MB	45.3 MB	2.2%	5.4ms	98.7%
192.168.128.204		41.2 MB	3.04 MB	44.2 MB	2.1%	5.2ms	96.0%
192.168.128.41		39.8 MB	3.68 MB	43.5 MB	2.1%	1.6ms	99.7%

Quality
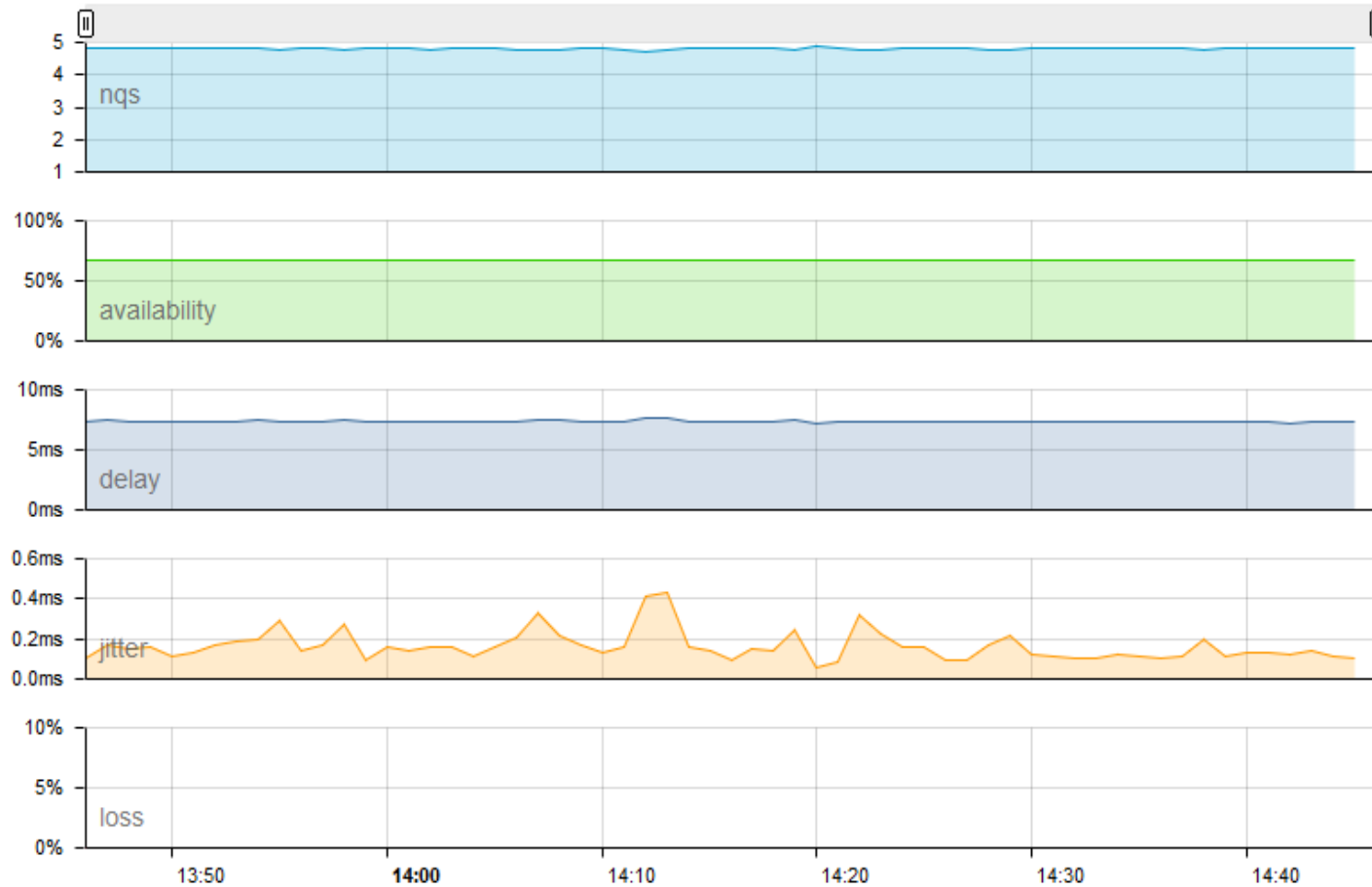
Multi Tenant Office Solutions

Peter Goddard
Birmingham Partner Service Manager

SPITFIRE®
PARTNER SERVICES

Context

- Similarities
- Differences
- Uses

Description

- Fibre Ethernet (VMB) Multi Tenant consists of a single VMB Fibre Ethernet Bearer circuit and one EVC (so identical to a standard Fibre Ethernet Circuit)

However

- In the Multi Tenant Scenario the following differences apply:-

Differences

- A choice of NTE's

- Additional EVC's can be provided

- Cost is significantly lower

- Lead times for individual EVC's shorter

- Spitfire will (optionally) provide a managed router for each tenant

Technical Specifications

The Multi Tenant Solution consists of:

- A VMB supplied 1Gb Fibre Ethernet Access Circuit Bearer

- A choice of NTE's

- An EVC presented on a dedicated NTE Port for each Tenant

- An optional Spitfire managed router for each Tenant

Provisioning

- The host circuit is ordered as a normal Fibre Ethernet

- Any Tenant service can be ordered at the same time and will be provisioned at the same time

- Any subsequent Tenant will be subject to the standard lead time for EVC's (currently 30 days)

Provisioning

- Host Service must be provisioned into a comms room under the Landlords control

- A max of 3u of rack space is required for the NTE

- No Internal cabling?

Commercials

- 36 Month Contract (1st Access Circuit & EVC)

- 12 Months for all additional EVC's

- Free Connection

- NTE Costs: £ TBC depending on Type

- Each tenant will require a dedicated router (or wires only)

- Costs:

Cost Example

1st Access Circuit and EVC

1Gb Access Circuit and 1st EVC with 100Mb

£ 395.63pm or £ 4,747.56pa

All additional 100Mb EVC £ 200.31pm or £ 2,403.72 pa

Partner Web Portal

Tom Bailey
Partner Team Leader

SPITFIRE®
PARTNER SERVICES

Contents

- Why use the Web Portal?
- How to access the Online Resources
- Available Resources
- Examples
- Summary

Why use the Web Portal?

- The portal provides partners with quick, round the clock access to essential documents

- This includes support, sales and technical resources

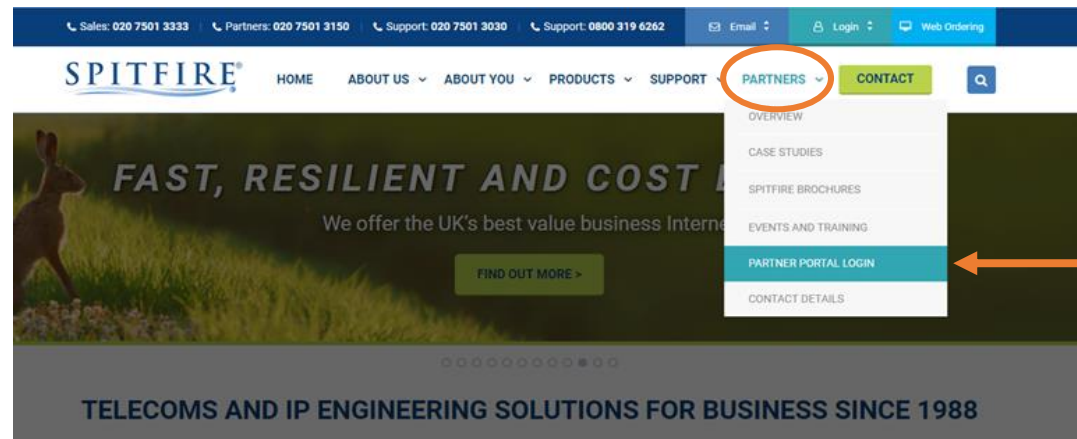- The portal allows partners to continue building on their own technical knowledge

Accessing the Partner Portal

1.

2.

Accessing the Partner Portal

3.

Available Resources

Partner Resources

Portals

CUSTOMER PORTAL	WEB ORDERING

Ordering

ADSL	VDSL	ANALOGUE LINE
EFM	FIBRE ETHERNET	FTTC ETHERNET

Price list and Commissions

PRICE LIST	HARDWARE RENTAL	ETHERNET PRICING COMPARISON

SIP Documents

SIP DOCUMENTS

Partner Phone System Support

PHONE SYSTEM USER MANUALS	HANDSET MANUALS

Partner Internet Connectivity Support

FIBRE ETHERNET ROUTER FAILOVER GUIDE	BROADBAND PARTNER SUPPORT CHECKS

Information Bulletins

Keep up to date with industry and Spitfire news with the bulletins below:

IP V6 READINESS

Events Presentations

SEMINAR PRESENTATION 2018	SEMINAR HANDOUT 2018	EVENTS AND TRAINING

Partner Case Studies

PEBBLE IT	PENSTONE COMMUNICATIONS	KAMAZOY VIRTUAL IT DEPARTMENT	EASY COMPUTER CONSULTANTS
FUTURE OFFICE SOLUTIONS	NETVECTOR	EVOLVE COMPUTERS	123 TECHNOLOGIES
HANDS FREE IT	BLUE DIAMOND IT	RIVEN ASSOCIATES	EBS
DSM	ADM COMPUTING	HEATH COMPUTERS	INTERACTIVE DATA TECHNOLOGY

White Papers

THE TRUTH ABOUT VDSL AND VOIP	WHY YOUR COMPANY NEEDS SIP TRUNKS	MAKING THE RIGHT CONNECTIVITY DECISION	CHOOSING SIP TRUNK PROVIDER	MOVING OFFICE AND MITIGATHING IT RISKS
SPITFIRE IPV6 BRIEFING	UK NUMBERS EXPLAINED	MPLS PROVIDES MULTI-SITE SOLUTION	PBX SECURITY IN THE VOIP ENVIRONMENT	MEETING THE CHALLENGE OF VOICE SERVICES

Supporting Sales Document

Product Brochures

SPITFIRE OVERVIEW BROCHURE	ETHERNET BROCHURE	FTTC ETHERNET BROCHURE	3CX CLOUD BROCHURE
MPLS & CLOUD CONNECT BROCHURE	SIP COMMUNICATOR BROCHURE	SIP TRUNK BROCHURE	SIP HOSTED PBX 2.1

5 Considerations when:

MOVING OFFICE	MOVING TO THE CLOUD	UPGRADING TO IP PBX
UPGRADING CONNECTIVITY	MiFID II	CHOOSING AN ETHERNET PROVIDER

Examples

Partner Resources

Portals

- CUSTOMER PORTAL
- WEB ORDERING

Ordering

- ADSL
- VDSL
- ANALOGUE LINE
- EFM
- FIBRE ETHERNET
- FTTC ETHERNET

Price list and Commissions

- PRICE LIST
- HARDWARE RENTAL
- ETHERNET PRICING COMPARISON

SIP Documents

- SIP DOCUMENTS

Partner Phone System Support

- PHONE SYSTEM USER MANUALS
- HANDSET MANUALS

Partner Internet Connectivity Support

- FIBRE ETHERNET ROUTER FAILOVER GUIDE
- BROADBAND PARTNER SUPPORT CHECKS

SIP Documents

SIP Communicator™ versus Traditional Telephone System

SIP Trunk versus PSTN costs

SIP Communicator™ – simple guide to configuring

SIP Communicator™ Call Commissions Structure

SIP Communicator™ vs Spitfire 3CX Cloud

3CX V15 SIP Trunk Provisioning Guide

Examples

Partner Phone System Support

PHONE SYSTEM USER MANUALS	HANDSET MANUALS

Partner Internet Connectivity Support

FIBRE ETHERNET ROUTER FAILOVER GUIDE	BROADBAND PARTNER SUPPORT CHECKS

User Manuals

SIP Communicator™ Quick Start Guides
Snom 710 | Snom 720 | Snom 760 | Yealink T42G | Yealink T46G | Yealink T48G | Spitfire S300 (Standard) | Spitfire S310 (Executive)

3CX Handset/Softphone Quick Start Guides
Snom 710 | Snom 720 | Snom 760 | Yealink T19 | Yealink T23 | Yealink T26 | Yealink T27 | Yealink T29 | Yealink T42 | Yealink T46 | Yealink T48 | Yealink W52 | Softphone

Spitfire Hosted PBX 2.1 User Guides
Spitfire Hosted PBX 2.1 User Guide | Yealink T23G | Yealink T26 | Yealink T27G | Yealink T29G | Yealink T42G | Yealink T42S | Yealink T46

SIP Communicator™ Programming Form
Programming Form

SIP Communicator™ Features & Technical Tips
Technical Tips
Web User Guide
Administrator Guide

Polycom 5000/6000/7000 Conference phone
Polycom IP 331 Firmware Upgrade

Examples

5 Considerations when:

MOVING OFFICE

MOVING TO THE CLOUD

UPGRADING TO IP PBX

UPGRADING CONNECTIVITY

MiFID II

CHOOSING AN ETHERNET PROVIDER

5 Considerations when moving office

Moving office is one of the most stressful things a business can do. Whether you're relocating or expanding there are many things to consider and plan for in advance. As both an Internet Service Provider and Telephone Voice Operator, Spitfire has been managing business office moves for many years, and has the knowledge and experience to make sure your move is as seamless and hassle-free as possible.

We spoke to Sandy Sinclair, a Project Manager at Spitfire since 2001 and asked what his 5 key considerations are when a business is moving office:

1. **What internet services are available at your new site and what is the lead time?**

You need to establish what internet connection is best suited to your business needs and then review which wholesale providers can offer that service in the new location. Understanding who can provide your connection can not only speed up the installation process but also help improve resiliency and reduce costs.

Spitfire work with 6 different wholesale providers and can help you identify which providers are available (On-Net) at your new site helping speed up the install process and ensure you receive the most competitive cost with a resilient backup solution. We would also recommend you speak with the building manager/landlord to confirm which wholesale providers are already in the building.

2. **Does your new office have the right cabling?**

Summary

- The portal provides you with quicker access to essential resources, including sales supporting documentation

- Some of they key sections to visit include:

  - Comprehensive price list
  - Ordering guides
  - Handset user manuals

- Your feedback is vital to the continual improvement of this resource (or service)

Spitfire New Hosted PBX 2.1

Tom Bailey

Partner Team Leader

Agenda

- What is Hosted PBX 2.1?
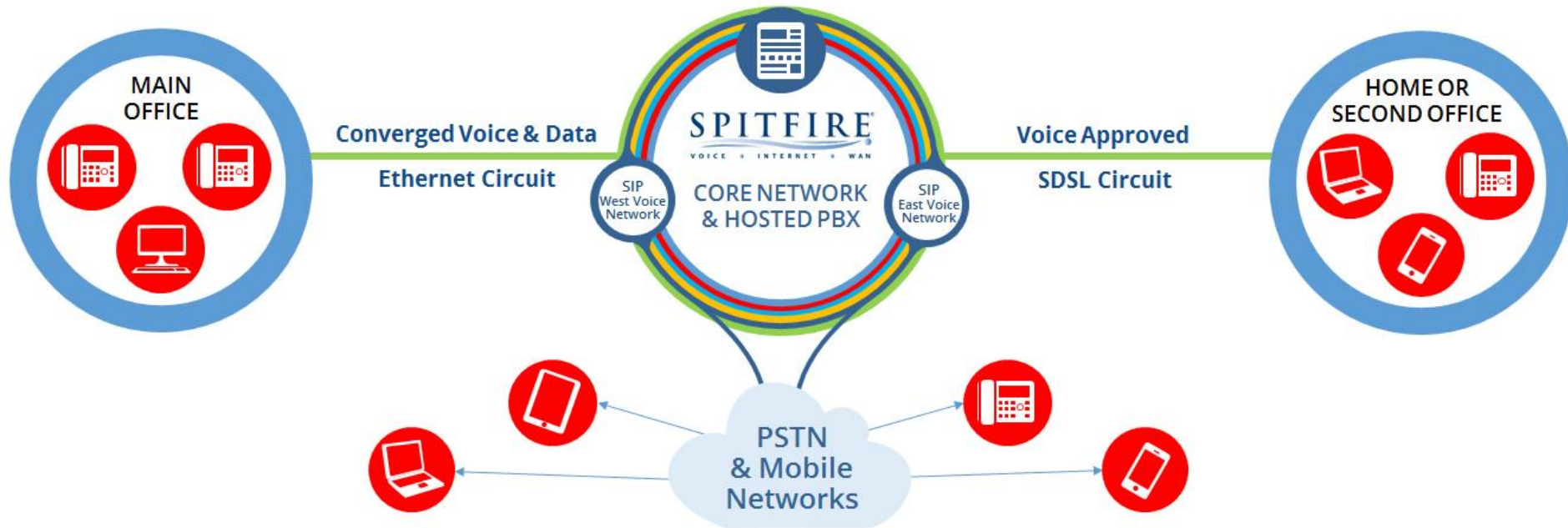- Advantages over SIP Communicator
- Portal
- Feature set
- Pricing
- Conclusion

What is Hosted PBX 2.1?

- Spitfire's latest fully featured hosted telephony solution simple, easy to manage system – using a new portal

- Developed in-house by Spitfire with the aim to develop more features

- Long term replacement for SIP Communicator

Hosted PBX 2.1
– how does it work?

Advantages over SIP Communicator

- Spitfire are in control of the development roadmap – should lead to greater developments

- Portal easier to navigate through a simple web interface- even names on phones can now be changed via the portal

- Cheaper price point – FOC connection & £6 per extension

Don't Panic!

SIP Communicator will continue to be available and supported for all customers who have or need it.

Portal – Interface Overview

Portal – Call Routing

Call Routing

Directs incoming calls for extension: 3159.

Call Forward	⦿ Disabled ○ Enabled [Destination]
On Busy	⦿ Disabled ○ Enabled [Destination] If enabled, it overrides the value of voicemail enabling in extension..
No Answer	⦿ Disabled ○ Enabled [Destination] If enabled, it overrides the value of voicemail enabling in extension..
Not Registered	⦿ Disabled ○ Enabled [Destination] If endpoint is not reachable, forward to this destination before going to voicemail..
Follow Me	⦿ Disabled ○ Enabled
Do Not Disturb	⦿ Disabled ○ Enabled

Portal – Operator Panel

Portal – User Dashboard

Dashboard

Quickly access information and tools related to your account.

Voicemail

0

New Messages

Voicemail	New	Total
3159	0	10

Missed Calls

3

Last 24 Hours

Number	Missed
02088301000	1/7 14:40
07788663877	1/7 12:41
02088301000	1/7 10:00
View All	

Recent Calls

14

Last 24 Hours

Number	Date/Time
01923233299	1/7 16:42
01923233299	1/7 16:41
0041223188640	1/7 15:51
3157	1/7 15:51
02074995164	1/7 15:47
View All	

Portal – Extensions

Feature Set

- Web-based management console

- Call Management (transfers/forward/hold/park/pick-up)

- Auto-attendant

- Call twinning

- Soft Phone (3rd party either through Bria or Zoiper)

- Conference Bridge

- Voicemail to email

Pricing - Overview

- £6 per extension

- FOC connection on contacts of 12 Months or longer

- Hardware rental options available (subject to credit check)

- Project management and configuration all included

- 3 hour on-site installation by Spitfire (if needed) within M25.

- Yealink phones only currently

Price Comparison –
SIP Communicator v Hosted PBX 2.1

Requirement:

- 10 seat office

- New hardware needed

- Porting of 1 main number, 10 DDIs

- Voice approved DSL

- Installation either by IT Company or Spitfire

Price Comparison – Hardware Purchase (12 month contract)

Product	Connection	Monthly Rental	Total Cost over 3 years
SIP Communicator™	£1,257.55	£151.49 + calls	£6,661.19 + calls
Hosted PBX 2.1	£1,122.23	£111.49 + calls	£5,135.87 + calls

Price Comparison – Hardware Rental (36 month contract)

Product	Connection	Monthly Rental	Total Cost over 3 years
SIP Communicator™	£135.00	£182.02 + calls	£6,689.88 + calls
Hosted PBX	£0.00	£142.02 + calls	£5,112.72 + calls

Pricing – What does this tell us?

- 1 x Hosted PBX 2.1 (Extension + Handset rental + Handset support together) on a 36 month contract is cheaper than 1 x SIP Communicator™ (Extension only) in most circumstances

- Even where handset rental is not an option – customers can still take advantage of the FOC set-up to limit upfront capital spending

Pricing – Things to note

- Analogue lines and Spitfire Voice SDSLM services come with FOC connection on 24 month contracts

- Call bundles are available for an additional £4 per extension charge

- Call bundles are not designed to be the default option – pence per minute billing still represents significantly better value for money

Conclusion – Part 1

- Hosted PBX is designed to be a simple system- easy for customers and partners to make changes to

- Lower rental combined with FOC connection offers, means there is now a simple and attractive price model

Conclusion – Part 2

- Future feature developments (such as call recording) will be guided in part by demand from Partners

- Demo station in the Main Room for you to see the system in full during/after lunch

Hosted PBX 2.1 Vs 3CX Cloud

Peter Oosthuizen
London Partner Service Manager

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Contents

- 3CX Overview

- System Builds

- Features

- Pricing

- Marketplace

3CX Cloud Overview

- Software based, unified communications, VoIP phone system

- Installed on Linux or Windows

- Offers a wide range of features / integration

System Build

3CX Cloud

- Spitfire partner with 3CX

- 3CX is a license driven PBX

- 3CX license sits in VM environment – separate operating system

- Development and road map of the PBX driven by 3CX
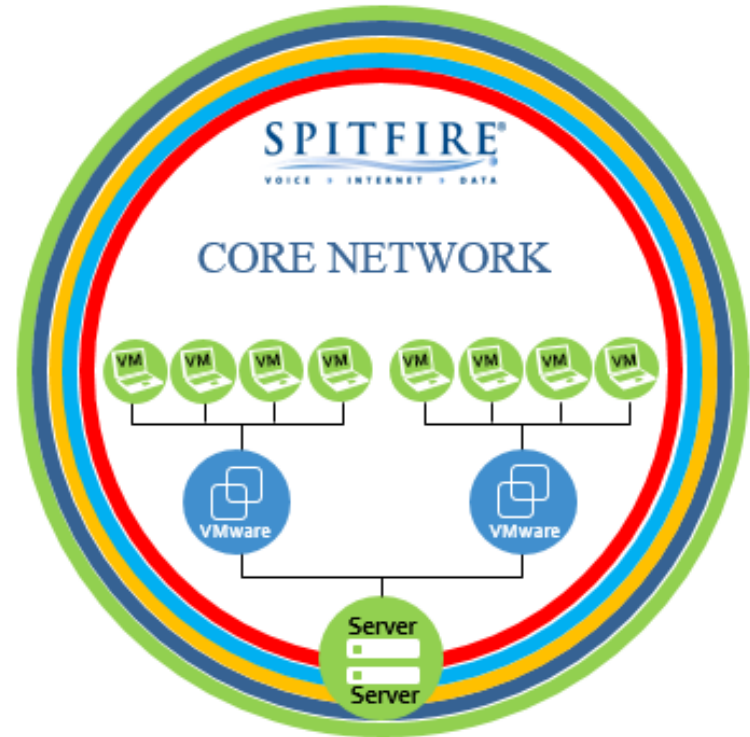
System Build

Hosted PBX 2.1

- 2.1 is an open source software - Fusion PBX

- Dedicated Hosted PBX 2.1 servers in core network

- SIP East and SIP West utilisation for resiliency

- Development and road map of the PBX driven by Spitfire
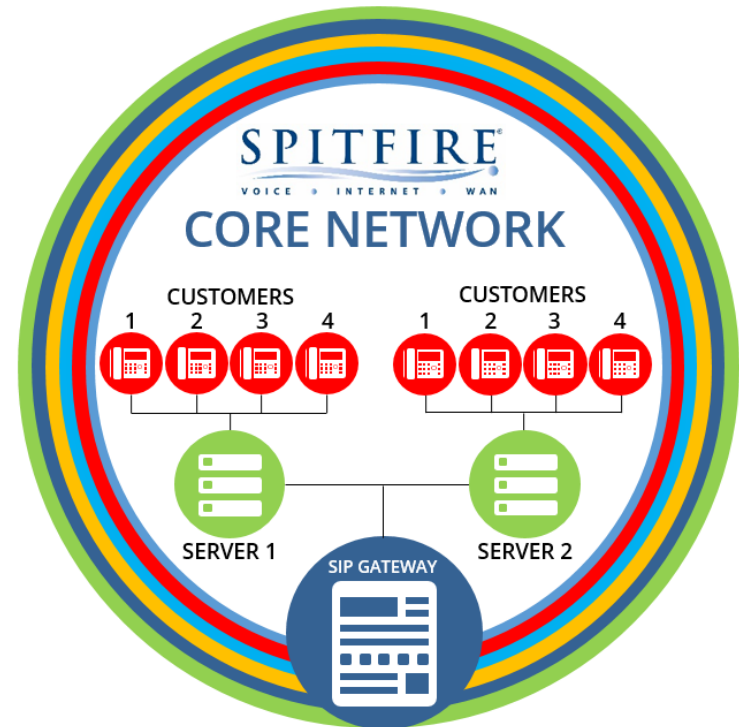
Feature Comparison

General Features

General Features	Hosted PBX 2.1	3CX Cloud
No Extensions limit	✔	✔
Call Forwarding on No Answer	✔	✔
Call Routing (Caller ID)	✔	✔
Audio Conference Calling	✔	✔
See the Presence of Your Colleagues	✔	✔
Automatic or manual night service	✔	✔

General Features	Hosted PBX 2.1	3CX Cloud
Send Email Notifications for Missed Calls	✔	✔
Central Phonebook	✔	✔
Custom Music on Hold	✔	✔
Call Queuing and Transfer	✔	✔
Incoming call ring groups	✔	✔
Call Parking/ Pick up	✔	✔
Voicemail/ Voicemail to Email	✔	✔

Feature Comparison

Management & Scalability

Management and Scalability	Hosted PBX 2.1	3CX Cloud
Web-based Management Console	✓	✓
Automated Provisioning of Devices	✓	✓
Manage IP Phones 'Network Wide' from Console	✓	✓
Scheduled Backup	✓	✓
Fail Over Functionality	✓	✓

Feature Comparison

Call Centre/ Contract Centre

Call Centre/ Contact Centre	Hosted PBX 2.1	3CX Cloud
Incoming Call Queues	✓	✓
Custom Call Queue Greeting	✓	✓
Listen In	✓	✓
Advanced Queue Reports/ Monitoring	✘	✓
Advanced Call Reporting	✘	✓
Wallboard	✘	✓
Call Recording	✘	✓
Compliant Call Recording	✘	✓

Feature Comparison

Mobility & Web Conferencing

Mobility	Hosted PBX 2.1	3CX Cloud
Integration with Bria and Zoiper Soft Client	✔	N/A
Manage the 3CXClient from within the Console	✘	✔
Android/iOS/Windows/Mac/Web Client	✘	✔
Web Conferencing	✘	✔

Feature Comparison

IP Management

IP Phone Management	Hosted PBX 2.1	3CX Cloud
Automatic Plug & Play Phone Provisioning	✔	✔
Restart Phones Remotely	✔	✔
Update & Manage Firmware Network Wide	✔	✔

Feature Comparison

Application Integration

Application Integration	Hosted PBX 2.1	3CX Cloud
Office 365	✖	✔
Microsoft Outlook	✖	✔
Google Contacts	✖	✔

Pricing Comparison

4 pricing components

1. Extensions

2. Numbers

3. Engineering

4. Hardware

Pricing Comparison

Monthly rental charges

	12 Month Contract		24/36 Month Contract	
	Hosted PBX 2.1	**3CX Cloud**	**Hosted PBX 2.1**	**3CX Cloud**
Extensions	£6.00	£14.00	£6.00	£14.00
Numbers Porting	From £1.00	From £1.00	From £1.00	From £1.00
Engineering	£0.00	£0.00	£0.00	£0.00

Pricing Comparison

Upfront charges

	12 Month Contract		24/36 Month Contract	
	Hosted PBX 2.1	**3CX Cloud**	**Hosted PBX 2.1**	**3CX Cloud**
Extensions	£0.00	£30.00	£0.00	£0.00
Numbers Porting	From £25.00	From £25.00	£0.00	£0.00
Engineering	£500 per day	£500 per day	£0.00*	£0.00*

*where commercially viable and following credit approval

Pricing Comparison

Hardware - Handsets

	12 Month Contract (purchase only)		24 Month Contract (Rental option)		36 Month Contract (Rental option)	
	Hosted PBX 2.1	3CX Cloud	Hosted PBX 2.1	3CX Cloud	Hosted PBX 2.1	3CX Cloud
Yealink T42	£80.00	£80.00	£4.30	£4.30	£3.18	£3.18
Yealink T46	£126.00	£126.00	£6.77	£6.77	£5.01	£5.01
Yealink CP920	£300.00	£300.00	£16.09	£16.09	£11.92	£11.92

*Credit approval required

Market Place

Price

Financial services

3CX Cloud

Recruitment

Retail/Restaurants

Hosted PBX 2.1

Education

0

Feature Complexity

High
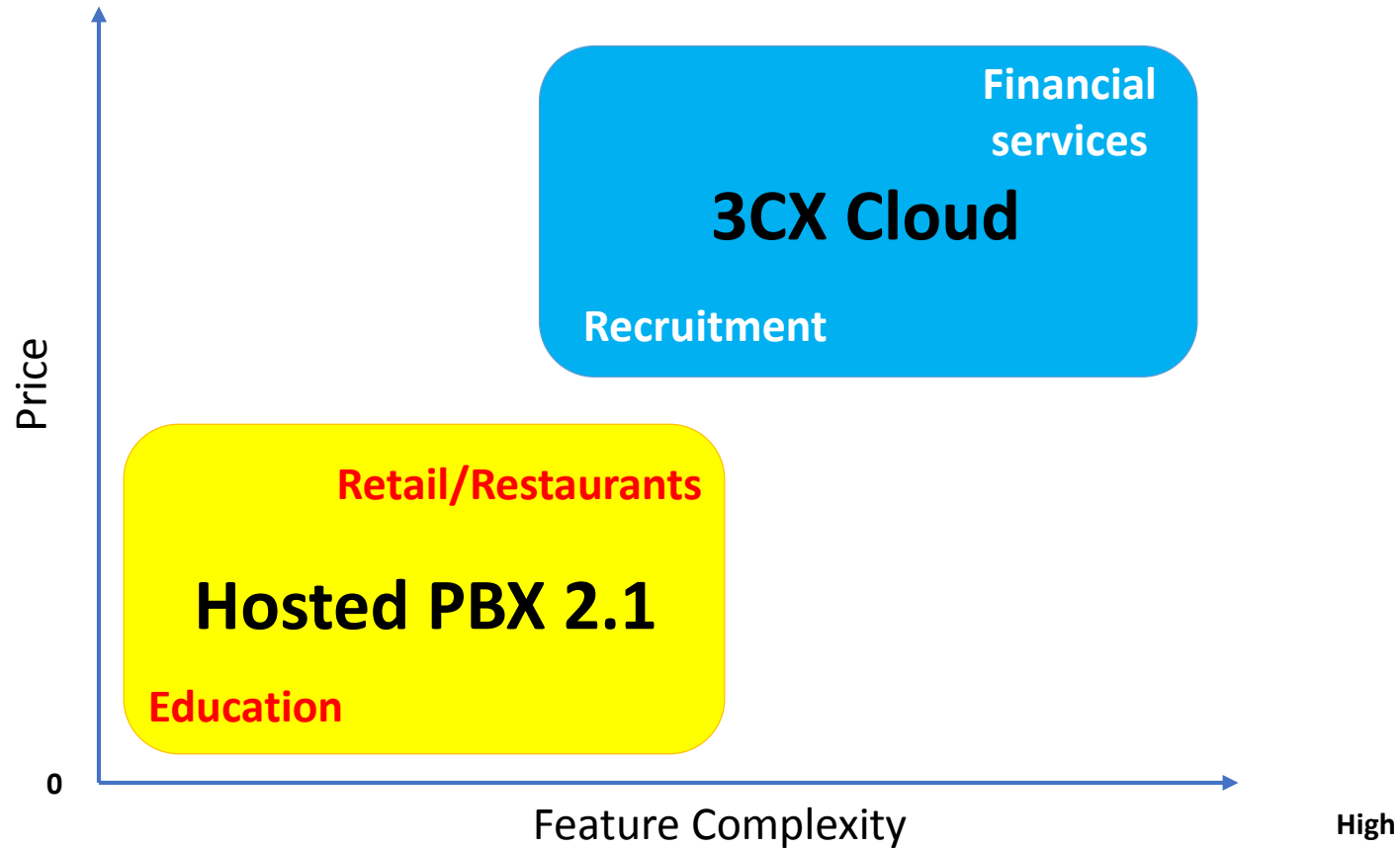
Market Place – Case Studies

Case study 1

- 30 users
- Architects
- Office based with DDIs
- Ring groups
- Contactable on mobiles

- Basic features
- Auto attendant
- Inbound call queues
- Custom hold music
- Basic management console

Hosted PBX 2.1

Market Place – Case Studies

Case study 2

- 50 users
- Financial advisors
- Voicemail/ call pick up & park

- Compliant call recording
- Trade on company mobiles
- No management console

3CX Cloud

Summary

Build

- Both sit within Spitfire's multi node core network for Spitfire control and maintenance
- 3CX Cloud is license driven and road map managed by 3CX whereas Hosted PBX 2.1 is built on open source software and road map driven by Spitfire and ultimately you, our partners!

Features

- Both feature rich systems offering all standard feature requirements
- 3CX offers advanced level of features for specific requirements. Detailed call reporting/ compliant call recording/ video conferencing

Summary

Pricing

- Very similar pricing structures - Extension/ Numbers/ Engineering/ Hardware
- Hosted PBX 2.1 offering lower cost solution due to the lack of advanced level features
- Flexible pricing structure - CAPEX and OPEX options available

Market Place

- Both systems aimed at SME market.
- Generally each system will suit specific industries and requirements. Financial services/retail etc
- Both suited to multi site businesses, it all comes down to the feature set required

Sign up to Spitfire's Partner Training!

SIP Trunks and the Decline of ISDN

James Davis
Birmingham Team Leader

SPITFIRE®
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Rapid Decline of ISDN

- Decline in new orders

- Inflexible ISDN

- ISDN network be switched off in 2025

- SIP offering a low cost alternative

The Rise & Rise of SIP

- Rise in substitute technologies such as SIP

- SIP offered by up to 100 UK companies

- Over 50% of network voice traffic is currently SIP traffic

- Expected to be almost 75% by 2020

Room for Growth

- Cost

- Broadband coverage

- Improvements in reliability, quality and security

- Go IP!

Room for Growth

- Several service providers have plans to complete the majority of PSTN migration by 2020, after which support for traditional single line and multi-line fixed voice is expected to fall off significantly

    – Spitfire has no such plans

Spitfire SIP Network

- Spitfire SIP Network (SIP East and West network)
- SIP Trunk compatibility with lots of PBX's
- 3CX titanium partner
- Customer controlled diverts (from customer portal/mobile device)

Is your customer CLEAR for take-off?

Customer LAN

Layer 3 Device

Exit

Arrival

Route

2019 Developments

- Customer controlled diverts (from customer portal/mobile device)

Cloud Storage & Other Developments

Peter Goddard

Birmingham Partner Service Manager

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Agenda

- FTPaaS

- PCI Compliant Call Recording

- 4G Ethernet still Available

FTPaaS

Providing the customer with a managed Cloud based FTP server and associated storage

Or

FTP as-a-Service

Why

Designed to provide cloud storage for customers with Spitfire Hosted or Cloud Telephony systems with call recording

However

The same service can be used as a general FTP server if required

Network Design

Specification

- Always on

- When use for Storing call recordings

- Review/Download the calls via browser or FTP client

- SSL encryption can be added on request (chargeable)

- Current products are:

FTPaaS   100GB

FTPaaS   250GB

FTPaaS   500GB

Commercials

- Package Including:

  100GB storage   £ 30.00pm

  250GB storage   £ 70.00pm

  500GB storage   £ 85.00pm

- Additional 100GB storage for 500GB and above £16.50pm

PCI Compliant Call Recording

- Retell

- Embedded into 3CX

- MiFID / FCA Compliment

- Automated start/stop to insure credit card info not recorded (Sense Pay Secure)

4G Ethernet

As per my presentation last year we are still able to offer 4G Ethernet as a back up

Please talk to your Account Manager

Partner Awards

**Congratulations to
all our winners**

Conclusion

Peter Oosthuizen
London Partner Service Manager

Summary of Seminar

Session 1 - Connectivity

- Innovation and investment
  - 5G - Game changer but be patient
  - Spitfire aim to capitalise on this development in the industry. We will monitor closely.

- MPLS vs SD-WAN
  - Continue to review the market for a viable and cost effect option for the SME market

Summary of Seminar

- ## Fibre developments

  - Spitfire continue to diversify – More wholesale providers, reduced pricing, reduced lead times, increase resiliency and increase availability

  - Expand our FTTP reach – more wholesale providers and more availability for Spitfire customers across the UK

Summary of Seminar

- ## Fibre developments

  - With greater choice comes greater responsibility – Spitfire continue to support training and development of Account managers to ensure they are best positioned to advise on what the best product is for your customers.

  - Bandwidth on demand – The market is changing. Lots of planning and investment in 2018 to ensure Spitfires network is ready to support SDN services.

- ## Network monitoring tools – Additional products to the portfolio

Summary of Seminar

Session 2 – SIP and Telephony

- Continued movement to the cloud. Lots of benefits to this.

- Cost efficiencies – Death of ISDN, replace with more cost effective, more flexible and more resilient SIP trunks.

- Innovation – Hosted PBX 2.1 allows Spitfire to control, quickly manoeuvre and also innovate when it comes to cloud telephony

This Afternoon

Demo booths covering:

- 3CX Cloud demonstration with Retell compliant call recording

- Spitfire Hosted PBX 2.1 demonstration

- Sinefa / Web Ordering demonstration booth

- Sinefa live demo on the main stage @ 2.00pm

Sign up for free training:

- Partner Introductory Training

- 3CX Cloud

- Spitfire Hosted PBX 2.1

- Avoiding Telephony Fraud

This Afternoon

Raffle at 3pm for Arsenal tickets:

- 2 x tickets to see Arsenal Vs Crystal Palace 20th April 2019 – 3pm kick off

Win some Champagne:

- Question will appear on our Partner Service Linkedin page (#SpitfireSeminar) at 2.45pm

- First to answer with the correct answer who is present at the time will win a bottle of Champagne

Thank you for joining us today and enjoy the afternoon!

Afternoon Itinerary

Demo booths covering:

- Customer portal & web-ordering demonstration @ 2pm

- 3CX Cloud demonstration

- Spitfire Hosted PBX 2.1 demonstration

Sign up for free training:

- Partner Introductory Training

- 3CX Cloud

- Spitfire Hosted PBX 2.1

- Avoiding telephony fraud

2.45pm

- Follow Spitfire Partner Service on Linkedin & answer questions to win Champagne

3pm

- Raffle for 2 x tickets to see Arsenal vs Crystal Palace

Feedback Forms:

- Please fill them out before you leave and hand them in our your way out