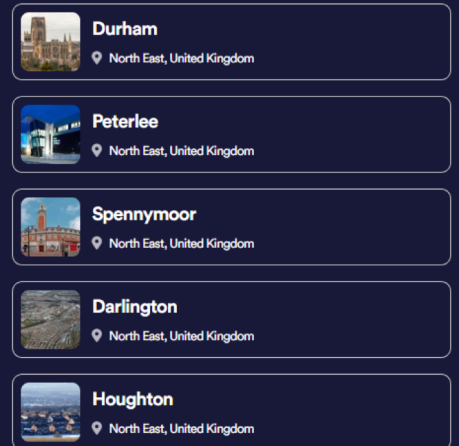# YouFibre

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ISP Update

Brandon Spendlove

Who is YouFibre and what do we do?

- FTTP Broadband ISP
- 2,500 connected customers in October 2021 and 10,000 in June 2022, now in the tens of thousands
- Presence in every country/region of the UK other than London
- Deploy our network over multiple access networks
- Netomnia is our sister company

Durham
North East, United Kingdom

Peterlee
North East, United Kingdom

Spennymoor
North East, United Kingdom

Darlington
North East, United Kingdom

Houghton
North East, United Kingdom

YouFibre Network

- DCs located in London, Wales, Manchester and Edinburgh
- Compute resources at each DC for CGNAT
- Dark Fibre between exchanges and ZR4+ optics for high throughput
- NNI with Netomnia in every exchange they build in
- Cisco and OcNOS/Edgecore

Existing IPv6 Deployment

- All server infrastructure and core is already IPv6

- Deploy a /38 to each exchange with /56 Prefix Delegation

- DHCPv6 Proxy with persistent "database"

- Currently, IP infusion OcNOS (running on our whiteboxes) does not support IPv6 Prefix Delegation in our current network design

- Around 60% of exchanges are OcNOS so only 40% are IPv6 capable as of today

Plans on improving IPv6 deployment and experience for our customers

- Static /56 PD allocation to every customer (therefore state is never maintained on a device but in high available database) to avoid end user device issues when they hold onto their IPv6 address

- Serve all customers via BNGs and decide to either run dual-stack (v4 and v6 subscriber sessions) or create separate sessions for both address families

- Advertise regional blocks for IPv6 in attempt to help influence inbound traffic return to the "nearest" DC

- Currently deploying over CityFibre network with centralized BNG deployment (fixed chassis, Cisco) but looking at other vendors (eg. Benu) to go more towards a distributed CUPs design

Thank you

Brandon Spendlove