

# TAR25 response on Leasd Line Access (LLA)

### **Background**

Ogi is a vertically integrated Network Operator based in South Wales. From day one we have been a provider of B2B services through our acquisition of Spectrum Internet and NetSupport UK,

## **Products**

We have three verticals that operate on top of our own Network Infrastructure:

- 1) Residential Services under the brand "Ogi"
- 2) Business to Business Services under the brand "Ogi Pro"
- 3) Wholesale Services under the brand "Ogi Wholesale"

Our B2B Services can be further categorised as:

- 1) Connectivity (on-net) via XGS-PON. All our business connections are symmetrical and we have productised a range of speed tiers: 200Mbps, 300Mbps, 500Mbps, 1Gig, 2Gig and 8Gbps
- 2) Connectivity (on-net) via 25GPON. In December 2022 we were the first UK operator to launch 25GPON and have the ability to offer symmetrical 25Gbps connection, but importantly this allows us to offer true 2 x 10Gbps symmetrical services as a direct competitor to 10G EAD). https://ogi.wales/news/25gb-boost-a-uk-first/
- 3) Connectivity (on-net) via P2P Ethernet
- 4) Connectivity (on-net) via DWDM Wavelengths (10Gbps and 100Gbps)
- 5) Connectivity (on-net) via Dark Fibre
- 6) Connectivity (off-net) via re-sale of Openreach and Virgin Media wholesale connections
- 7) Telephony via re-sale of Gamma Telecom telephony
- 8) Managed building WiFi as a re-seller of Ruckus WiFi
- 9) Managed corporate firewall services as a re-seller of Fortinet Firewalls
- 10) Managed Cloud Services as a Microsoft Azure Solutions Partner
- 11) Managed Office365 and Co-Pilot AI services as a Microsoft Modern Workplace Partner

Our Wholesale Services can be further categorised as:

- 1) Entire Sub-duct access rental or long term IRU
- 2) Dark Fibre pairs rental or long term IRU
- 3) Passive DWDM Wavelengths (n x 10Gbps)
- 4) Active DWDM Wavelengths (n x 100Gbps)



### **Multi-PON for B2B**

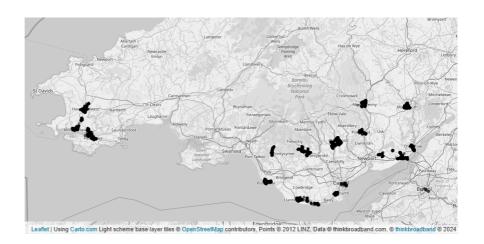
Our B2B P2P ethernet product is available on our legacy fibre networks in Cardiff and Bristol (where we have a concession agreement with Bristol City Council to use their BNET duct infrastructure).

Our B2B XGS-PON service is available in every single town that we have built with FTTP in the last 4 years. As standard, our Nokia OLT's are equipped with Multi-PON cards and optics that enables co-existence of GPON and XGS-PON. Therefore, every single premise that we have declared as RFS on our Connected Nations submission to Ofcom is XGS-PON capable.

We have added 25GPON cards in the Nokia OLT's in Cardiff. If there should be demand for 25Gbps in other towns, all of our other Nokia OLT's can also support this with the addition of a 25GPON card into the existing chassis – and this then enables co-existence of GPON, XGS-PON and 25GPON on the same PON network (operating on the same fibres but at different wavelengths)

Our Multi-PON enabled OLT's are located in the following towns (Map credit: ThinkBroadband):

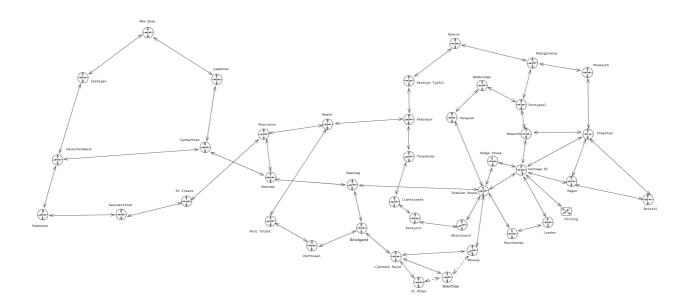
- Abergavenny
- Blackwood
- Caldicot
- Cardiff
- Chepstow
- Dinas Powys
- Hengoed
- Haverfordwest
- Langstone
- Llanvaches
- Llantwit Major
- Milford Haven
- Monmouth
- Maesteg
- Neyland
- Porthcawl
- Pembroke
- Pembroke Dock
- Pontypool
- Porth
- Rhoose
- Tonypandy





# **DWDM Backbone (Pan-South-Wales)**

We have built a backhaul network across South Wales on which we offer both B2B and Wholesale 10Gbps DWDM wavelengths from every optical point of presence shown in the following diagram:



# **DWDM Core (Cardiff to Vantage)**

Very specifically, between Cardiff (Stadium House), Cardiff (Hodge House) and Newport (Vantage Data Centre) we have upgraded the network to support B2B and Wholesale n x 100Gbps DWDM wavelengths. As we have diverse dark fibre routes from Cardiff to Vantage Data Centre we can additionally offer active protection switching.

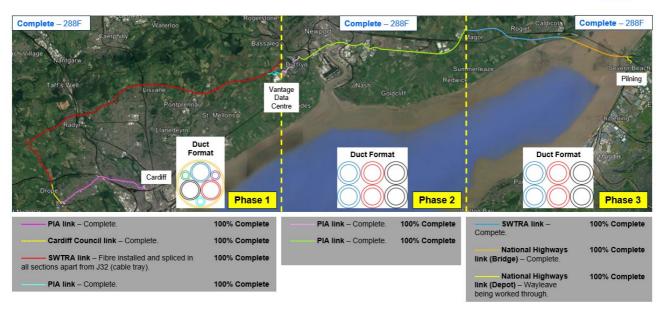


## **Trunk Road Concession**

Furthermore, on the route between Cardiff, Newport Vantage Data Centre and Pilning (Severn Beach) we have built a duct and fibre network as part of our Trunk Road Concession (TRC) agreement with Welsh Government. This gives Ogi access to the M4 hard shoulder and Dual Carriageway networks across South Wales. On this we offer both wholesale duct and dark fibre access products.

#### **Fibre and Duct Installation**







### **Future Opportunities**

Although not productised at this time it is worth adding that we have architected our metro networks in the towns such that:

- 1) Our spine cables are contained in 6-way multiduct (3x10/8mm and 3x5/3.5mm). Typically, we are using the first two 10/8 tubes for 144f cables for feeder and distribution. The other 4 tubes are usually empty for future use, should we need to expand our fibre density in the town e.g. for point-to-point services
- 2) We have deployed spare fibre pairs to every street cabinet and DP in our network in case we want to offer point-to-point or dark fibre metro services in the future where PON based services might not be deemed acceptable e.g. Mobile Operator Small Cell Backhaul

We have already been approached by mobile operators, exploring what capacity we might have available for cell densification.

Therefore, in a timeframe looking out to 2030-2031 there is a strong possibility that we will sell additional access products within these metro areas.

## **Volumes**

We currently (end April) have 23,492 Residential Customers and 808 B2B Customers of which 608 are on-net and 200 are off-net.

Our Wholesale products have recently launched, and we are in advanced discussions with a number of carriers and hyperscalers who wish to increase the capacity and resilience of their connectivity into Vantage Data Centre. Note that this stie is the largest Data Centre Campus in Europe and (amongst other clients) is the home of Microsoft Azure UK West.

Our future looking targets for our B2B and Wholesale verticals are commercially sensitive however what I can say is that both of these verticals are seen as significant future growth areas for Ogi given the richness of our business product portfolio. It is fair to say that our focus during the first 4 years of our operation has been on growing our Residential penetration and that B2B and Wholesale are now subject to much greater focus over the next 4 years.