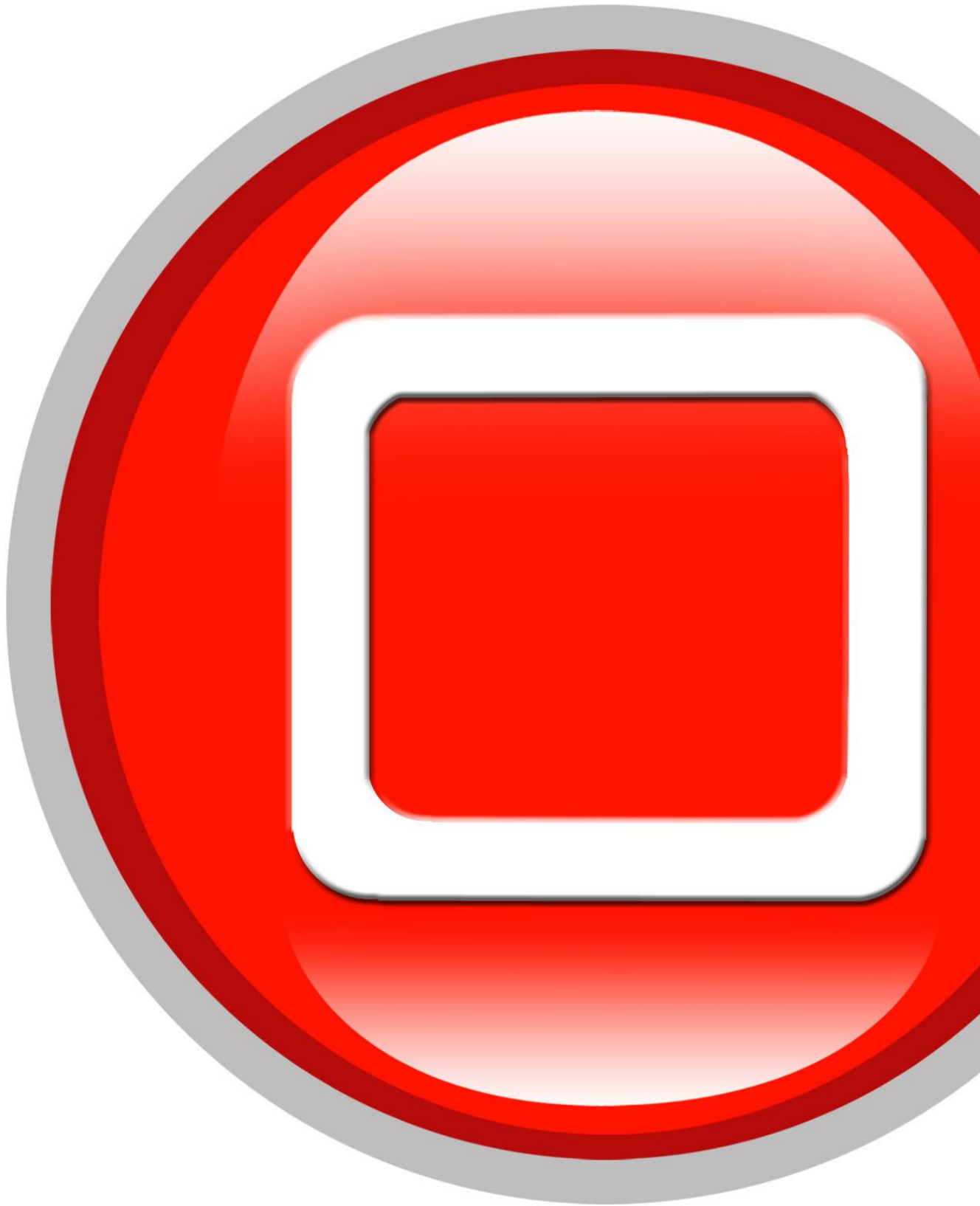


LOOPCONNECT
REALLY RESILIENT RING



CONFIGURABLE CORE ETHERNET RING

LOOPCONNECT

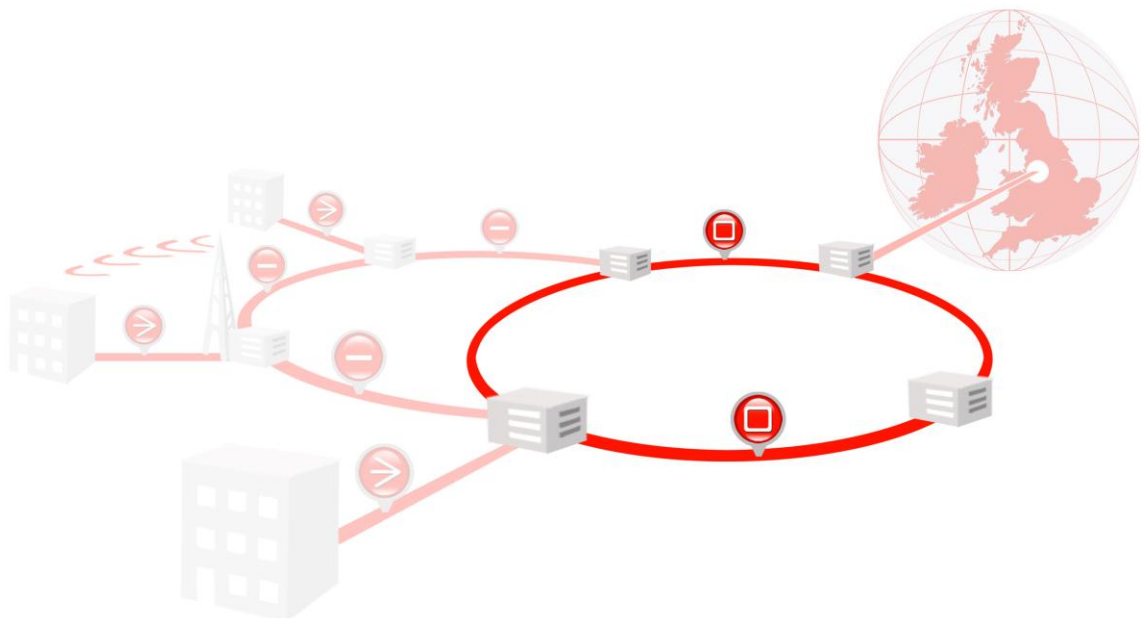
REALLY RESILIENT RING

FIBRESPEED provides a unique opportunity for service partners with complex networking requirements to build bespoke, highly configurable, ring based networks, tailor made to suit their own particular needs. Supporting this is a range of complementary products that can be flexibly combined to provide a custom built, pan-regional service delivery platform.

The ring architecture is underpinned by Loop Connect, a high availability Ethernet ring product that allows FIBRESPEED's core PoPs across North Wales to be interconnected and linked to the Network Gateway in Manchester. Loop Connect is hugely adaptable to allow service partners to create personalised networks:

- **Multiple locations at which to add and drop traffic; choose all or just a few,**
- **Wide range of bandwidth options from 300Mbit/s to 10Gbit/s.**

Dedicated, symmetrical bandwidth possessing the self-healing properties of the ring architecture coupled with stringent SLAs presents service partners with a really solid foundation from which to build outstanding managed service propositions.

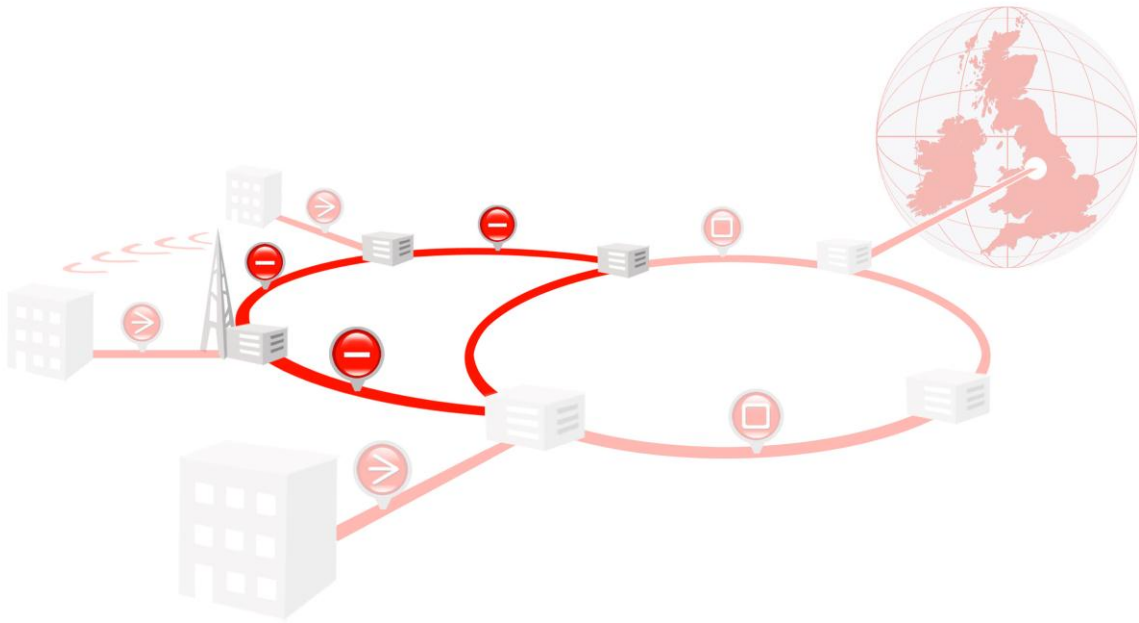


In addition to the core PoPs, FIBRESPEED operates an additional layer of smaller subsidiary PoPs which do not form part of the core ring. Connectivity to these PoPs is provided by Line Connect, a

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non-resilient point-to-point Ethernet service from 100Mbit/s to 1Gbit/s; that allows the subsidiary PoPs to be interlinked with each other or with the core PoPs.

Line Connect enables the subsidiary PoPs to be independently connected back to one or more core PoPs or daisy-chained together to form entire sub-loops off the main core ring. This provides the service partner with a wide array of resilience options. Again, the symmetrical, dedicated bandwidth supported by SLA promotes high quality, high availability service delivery.



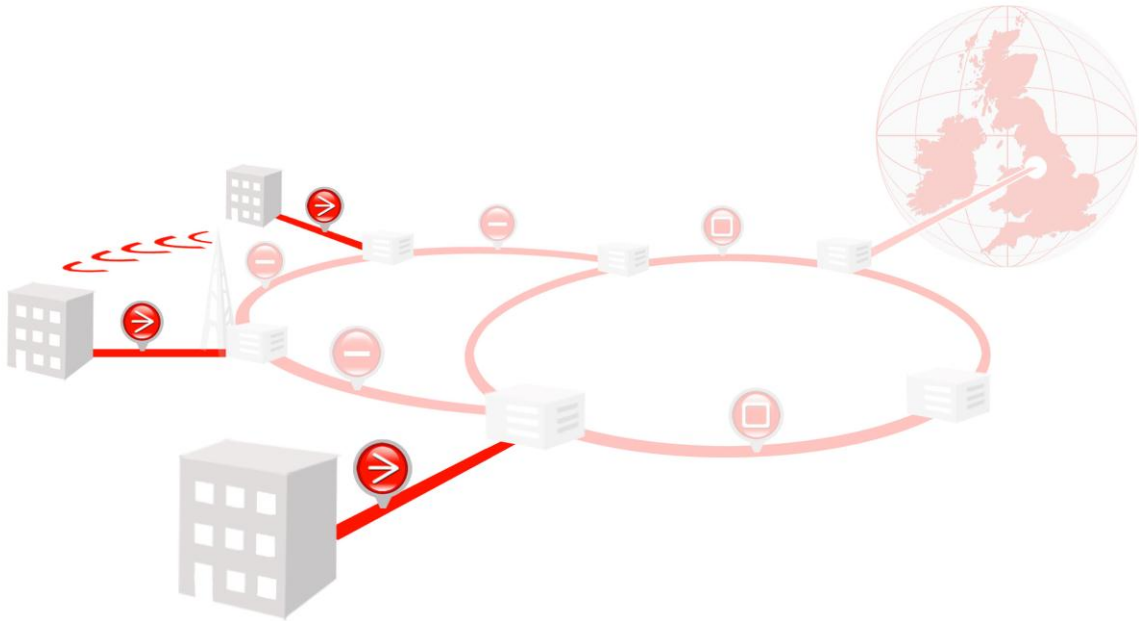
A vital component of any network is its ability to connect to end users. Most of FIBRESPEED's PoP sites are strategically located on business parks which have been equipped with fibre access rings. This enables businesses on those parks to be directly connected to fibre linked to the PoP and so to service partners' backhaul networks. FIBRESPEED also operates a flexible breakout policy, enabling businesses that lie close to the core fibre route between PoPs to be connected back to the nearest PoP thereby maximising the potential for platform development.

Links between end user sites and PoPs are provisioned via Access Connect, an innovative managed fibre tail product exclusively available for use with the ring based architecture. Access Connect offers service partners a managed, wide spectrum access capability. This removes many of the traditional restrictions associated with access tails and enables service partners to develop and seamlessly deliver flexible, advanced multi-rate services to their customers.

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Individual Access Connect services are non-resilient but can be combined to provide resilient solutions for end user sites that require such.



To take full advantage of the bespoke resilient ring proposition, service partners will require co-location within FIBRESPEED's PoPs. FIBRESPEED's co-location product is very flexible, offering equipping levels of anything from a single 1U slot in a shared rack to multiple racks reserved for sole use.

Equipped rack spaces can be AC or DC powered. To ensure integrity of supply under mains failure situations, AC power is backed-up by standby generators and DC power is battery-backed. Inverter feeds off the protected DC supply are also available if required.

The PoPs are also the perfect place to terminate 3rd party circuits should this be the preferred method of end user connectivity terms of the operational environment, all PoPs are furnished with secure access, environmental control and fire suppression systems.

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Many of the PoPs are equipped with wireless towers that range. Ranging from 15m to 25m in height, the towers provides springboards from which service partners can launch wireless services. This enables them to reach deep into rural Wales and dramatically extend their operational footprint. In many cases, the facility can also be used as a simple back-up solution for end users served by a fibre tail but who want an additional layer of operational security.



FIBRESPEED's ring based network solution provides an architecture that is ideal for any service partner that wants to exploit the relatively untapped regional market for genuinely high quality and innovative service delivery. The comprehensive service set provides a flexible tool kit which allows connectivity to be freely combined to create a network that absolutely bears the service partner's own hallmark.

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