



GIGABIT TO THE BASEMENT

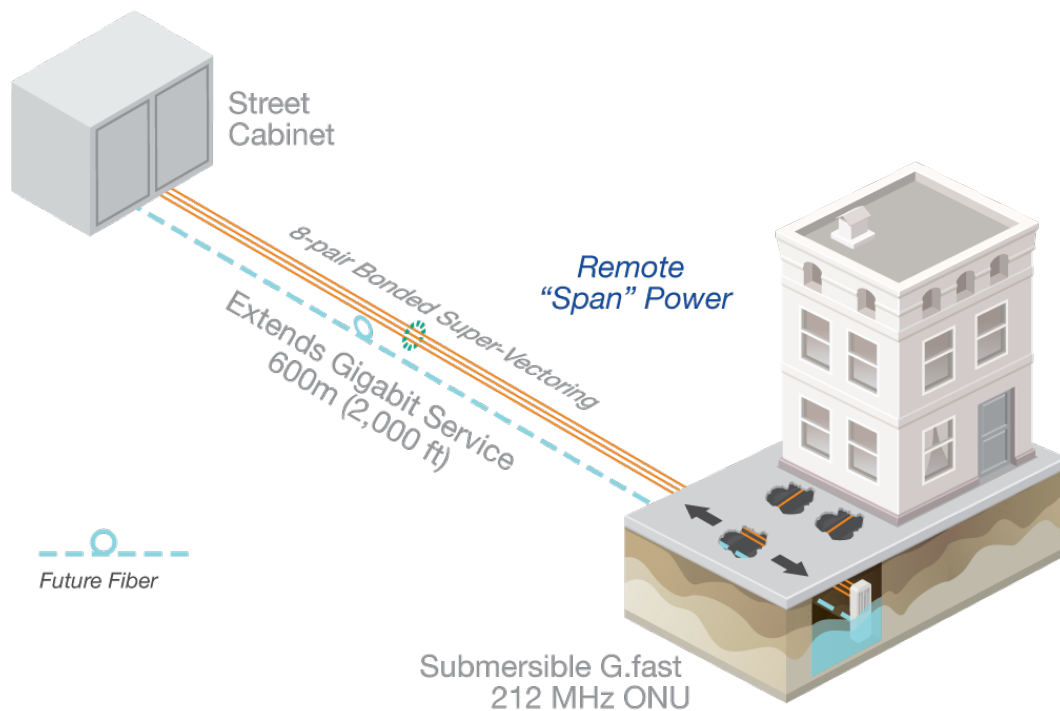
Deliver Gigabit 10x Farther, 5x Faster

Communications service providers (CSPs) in highly competitive dense urban or urban environments are challenged to deliver Gigabit services due to the time and expense associated with extending fiber to each living unit. Emerging deployment models like Fiber-to-the-Distribution Point (FTTdp) or Building (FTTB) solutions paired with Gfast technology alleviate the need to trench, bore or pull 'drop' fiber to each living unit, but do not spare the high cost of extending 'drop' fiber from the street cabinet or fiber node to within 100m (300 ft.) of the living unit.

ADTRAN's disruptive Gigabit-to-the-Basement (GTTB) solution enables Gigabit services to be delivered 10 times further from the fiber distribution point than typical Gfast FTTdp/FTTB deployment models. The ADTRAN GTTB solution overcomes the construction impediments that usually slow down new service introduction. By launching Gigabit services from the existing fiber-fed cabinet locations, operators are able to roll out Gigabit services to a considerable percentage of their customer base, two to five times faster and at a fraction of the cost of alternative deployment models.

KEY BENEFITS

- Supports expedited and ubiquitous delivery of Gigabit services
- Extends Gfast Gigabit capability 10x farther from the fiber termination point – 650m (2,100 ft) – than FTTdp/FTTB models
- Provides competitive response to next gen DOCSIS3.x allowing market share growth
- Accelerates European Commission Gigabit society goals
- Upgradeable to future FTTdp/FTTB deployments by supporting 10Gbps feeder fiber uplink



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GTTB utilizes ADTRAN's deep domain experience in sealed outside plant, reverse power and market- leading ultra-broadband technologies like Gfast and Super-Vectoring to enable customers to meet market demand and exceed their customers' expectations.

The GTTB solution combines second-generation 212MHz Gfast DPUs (the ADTRAN SDX 2220 Series, which support 10Gbps fiber uplinks) with ADTRAN bonded Super-Vectoring (VDSL2 35b) technology to support Gigabit rates over bonded copper uplinks sourced from existing fiber-fed cabinets/nodes. Using four to eight pairs of bonded Super-Vectoring enables Gigabit downstream rates at lengths of up to 600m to the Gfast DPU, and an additional 50-100m using Gfast up to the customer living unit. The Gfast DPUs can be powered remotely from the cabinet using span power.

Summary Specifications (SDX 2221-16)

Maximum Service Rate	2+ Gbps (aggregated downstream and upstream)
Subscriber Service Ports	16x 212Mhz Gfast
Uplink/Aggregation Ports	1x 10Gbps (XGS/NG-PON2/P2P Ethernet)
	8x Bonded VDSL2 (17a/35b)
Key Applications	FTTdp/FTTB/GTTB Gigabit Service Delivery
SDN Control and Management	Natively integrated into open SDN controllers
Power	Span (remote) Power - 1-2 pairs (+/- 190VDC) RFT-V
Outside Plant (OSP) Housing	Fully sealed and submersible