Mobile Backhaul Business Class Ethernet Wave Division Multiplexing Aggregation Switching



## SERVICE PROVIDER











### CARRIER GRADE SOLUTIONS FOR SERVICE PROVIDERS

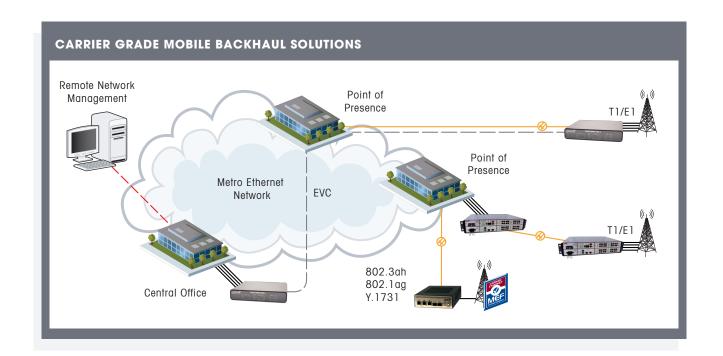
Transition Networks' suite of carrier grade products are built to support the most stringent service level agreements (SLAs), while providing easy methods of provisioning and managing customer connections. The depth of the portfolio solves carrier needs for 3G and LTE Mobile Backhaul, Legacy Mobile Backhaul, Fiber Based Ethernet Services, Reclaiming Fiber Count, Maximizing Fiber Usage, and Aggregation of Metro Ethernet and Backhaul Services. Transition's product portfolio will reduce OpEx & CapEx, enhance network capacity, and reduce time to provision all while providing high availability uptime.

#### **Mobile-Backhaul Equipment Benefits**

- Reduce OpEx and CapEx
- Equipment interfaces from 10Mbps to 10Gbps
- Quality of Service settings
- Remote management capabilities
- Ethernet OAM 802.1ag Service OAM and Y.1731 Performance Monitoring
- Extended operating temperature models
- MEF 9, 14, and 21 compliant
- AC and DC power options
- Highly accurate recovered clocks can Exceed G.823 Sync mask

#### **MOBILE BACKHAUL**

As wireless networks evolve from voice-only services to include broadband data services, the increasing need for additional bandwidth to mobile backhaul sites has become evident. Transition Networks understands that the need for bandwidth is not one dimensional for mobile backhaul operators. It is still business critical for providers to continue to support the embedded base of cellular services using TDM while equipping themselves to support next generation Ethernet deployments for 3G and LTE sites. Transition's multi-protocol product portfolio provides an economical way of deploying and managing Carrier Ethernet, TDM networks and hybrid applications like TDM over IP in cellular backhaul applications – ensuring superior mobile service performance through increased uptime and reliability.



#### **BUSINESS CLASS SERVICE DELIVERY**

#### **Ethernet**

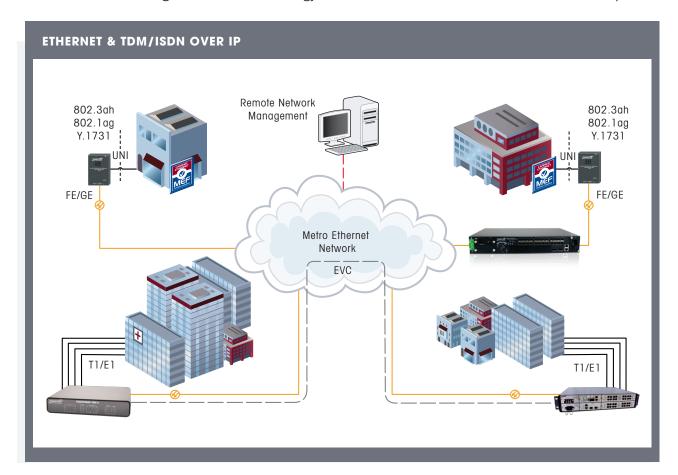
Ethernet services continue to be a major revenue driver for Service Providers. Often there are multiple operators involved in delivering an Ethernet User Network Interface (UNI) to a customer. Because of this, service providers are turning to 802.1ag enabled devices to deliver the standard specific protocols and procedures to support transport fault management. Since bridges are increasingly used in networks operated by multiple independent organizations, each with restricted management access to the other's equipment - 802.1ag and Y.1731 provide capabilities for detecting, verifying and isolating connectivity failures in multiple operator networks.

### Business Class Services Equipment Benefits

- Remote management utilizing 802.1ag or IP
- Provision and turn-up EVCs traversing multiple operators
- Perform SLA verification with Y.1731 performance monitoring
- Bandwidth allocation, 802.1q VLANs and 802.1p QOS
- Highly accurate recovered clocks can exceed G.823 Sync mask
- Intelligent demarcation device

#### TDM/ISDN over IP

Customers world-wide continue to use TDM & ISDN networks for specific applications including the Public Switched Telephone Networks for voice traffic but are aggressively looking to reduce operational and management costs by merging all traffic (voice, data, video) to an all IP Ethernet transport infrastructure. Transition Networks provides an economical path for TDM & ISDN networks to cost effectively migrate all TDM & ISDN traffic to IP/ Ethernet using carrier-class technology offered in our PacketBand TDM & ISDN over IP products.



## WAVE DIVISION MULTIPLEXING (WDM): COST-EFFECTIVE OPTIMIZATION OF EXISTING FIBER INFRASTRUCTURE

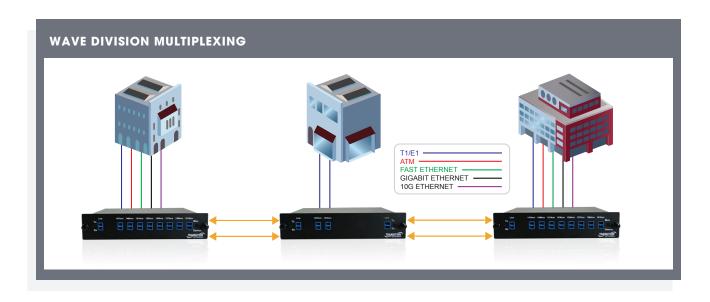
Users of today's voice, video, and data networks are becoming more complex – requiring more bandwidth and faster data transmission rates over increasing distances. In order to meet these demands, Service Providers and Enterprise Corporations are relying more and more on fiber optic infrastructures. But what happens when all available fiber lines are exhausted?

To counteract the expense and time associated with trenching more fiber, many network managers are using Coarse Wavelength Division Multiplexing (WDM) technologies to increase capacity on existing fiber optic infrastructure. By multiplexing multiple optical signals on a single strand of fiber, users are able to reclaim and maximize existing fiber strands with next to no down time. This layer-one, plug and play solution for increasing fiber capacity eliminates the cost and time constraints associated with deploying more fiber, while allowing for up to 16x the capacity on existing fiber strands.

#### **Wave Division Multiplexing Benefits**

- Instantly increased bandwidth/capacity on existing fiber
- Attractive cost versus new fiber deployments
- Ability to mix multiple protocols and network speeds over the same fiber
- Completely passive solution
- Layer-One connectivity and plug and play provisioning
- Modular design allows for pay-as-you-grow expansion.

# 'reduce CAPEX and OPEX...'

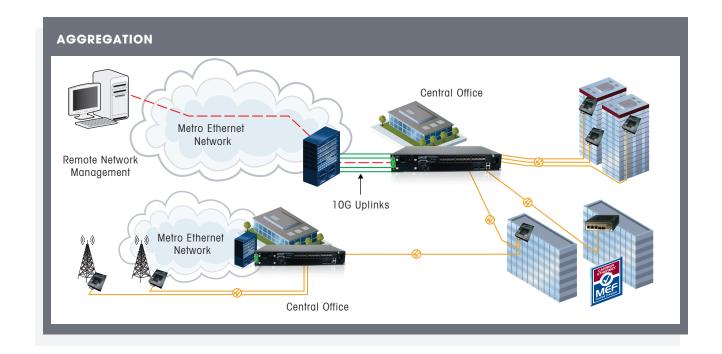


#### AGGREGATION SWITCHING

Transition Networks' fiber optic aggregation switches are specifically designed and built to maximize Metro Ethernet service delivery capabilities especially when paired with a remote manageable Transition Networks Network Interface Device (NID). These aggregation switches include IEEE 802.3ah and 802.1ag capabilities as well as offer full VLAN, QoS, and traffic shaping mechanisms. By leveraging our aggregation products, a service provider can effectively deliver Ethernet services without needing to access higher layer protocols. Operating at layer 2 allows a provider to conserve capital expenses while lowering operation expenditures, due to the simplicity of service delivery design.

#### **Aggregation Equipment Benefits**

- Maximize Metro Ethernet service delivery
- Remote Monitoring features like 802.3ah and 802.1ag
- QoS, VLAN and bandwidth allocation capabilities
- Extended operating temperature models
- AC and DC power options



### "...offer tiered services."

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Mobile Backhaul



**Ethernet Services** 



WDM



Aggregation



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