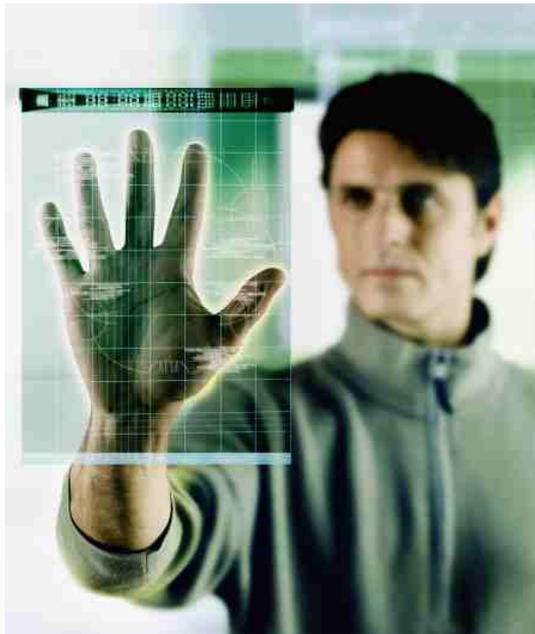


# Tejas Solutions for Government



## Broadband

**Background:** Across the developed and developing world, universal availability of broadband is now a strategic imperative and has elicited interest from both national and municipal level policy makers. Governments have embarked on pioneering programs to fiberize residential and business premises to facilitate state-of-the-art communication services to its citizens. High-speed broadband networks have a crucial role to play in the future economic competitiveness. As per a recent World Bank report, published in July 2009, for every 10 additional broadband subscribers out of 100 inhabitants, the GDP growth increases of ~1% can be realized. Various avenues of benefit have been noted such as telemedicine, distance learning, e-governance and e-commerce services with a wide range of social, political and economic ramifications.

**Tejas Solutions:** Fiber is the medium of choice for most greenfield broadband deployments due to its unmatched capacity, reliability and longer life spans compared to copper. Tejas offers a complete portfolio of fiber-based equipments for last mile access, metro transport and backbone networking products suitable for nation-wide FTTx rollouts. Our products include multi-service provisioning platforms (MSPP) based on SDH/SONET and a range of packet transport products using Carrier Ethernet technologies. Tejas platforms are competitively priced and are aligned with global telecom standards to eliminate technology risks.

**Value Proposition:** Tejas offers several value-added features on its Carrier Ethernet and MSPP platforms in order to combat some of the fundamental challenges of servicing rural customers and cost-effectively achieving universal broadband access.

**Illiteracy and Limited Skillsets-** The use of “plug-and-play” Carrier Ethernet eliminates the complexity associated with the design and configuration of IP routed networks. Rural areas typically lack trained telecom engineers and thus have unique challenges when it comes to installation and maintenance of networks. Also, provisioning and management of services is considerably simplified by using a multilayered and centralized NMS system for SDH/SONET, Carrier Ethernet and DWDM. Advanced features such as point-and-click provisioning of circuits, autodiscovery of nodes, remote software upgrades are made available to overcome the dearth of skilled manpower in the rural and outlying areas.

**Shared Infrastructure Services-** Most governments have favored the adoption of an “open access” model whereby they build the passive and active network infrastructure and subsequently serve as wholesale providers of Ethernet bandwidths to retail operators and ISPs. Tejas’ Carrier Ethernet fully enables this approach by borrowing the connection-oriented view from SDH/SONET that helps to define scalable, traffic-engineered and cost-effective Ethernet bitstream products in point-to-point, multipoint and multicast topologies. The wholesale network can be shared between multiple end-user providers with each ISP possessing virtual ownership of his sub-network. Network configuration, service provisioning, performance monitoring and fault management for a customer can be handled from a dedicated and secure web portal without impacting other service providers.

**Universal Aggregation Solutions:** Tejas provides metro transport solutions that are agnostic to the specific technology used in the last mile - whether shared PON, broadband wireless, point-to-point Ethernet over fiber, VDSL, T1/E1/DS3/E3 PDH circuits or SDH/SONET fiber rings. The availability of universal aggregation gateways simplifies the rollout of such large-scale, universal access networks would typically use a mix of these technologies in various parts of the network due to various geographical constraints.

### Customer Benefits:

- Proven technologies for accelerated network rollouts and service take-up
- Lower capex and opex by using ubiquitous and interoperable Ethernet
- Enable open access for retail differentiation and to facilitate competition
- Scalable and Flexible bandwidths to multiply revenue streams and lower cost of ownership
- Secure service demarcation for trouble-free monitoring and management of sub-networks