

Solution Brief for Campus Connectivity



SKYFIBER™

Optical Wireless Broadband To Connect The World

Campus Area Networks (CAN) serve organizations whose operations are distributed among a group of separate buildings clustered within close physical proximity to each other. These campus environments are often the result of differing physical facility needs within the divisions of an organization, but may be the result of organic growth, financial considerations, or may simply be due to aesthetic preferences. The CAN, also sometimes referred to as a corporate area network, differs from the more familiar local area network (LAN) in that its users are not located within the traditional single-structure office environment. And, unlike most wide area networks (WAN), the interconnected buildings in a CAN belong to a common organization or enterprise.

*"Campus" environments are as varied as the types of organizations inhabiting them – hospitals, corporate enterprises, military bases, and universities with facilities ranging from dormitories and classrooms to sports complexes and research labs. Regardless of the campus layout, the need for broadband connectivity throughout the environment is imperative. Leveraging patented Optical Wireless Broadband technology, the SKYFIBER™ solution is the **lowest cost, highest capacity offering** in the industry. SKYFIBER enables campus area environments to easily deploy high-performance networks that are cost-effective and flexible, and that seamlessly deliver mission-critical reliability across geographically distributed facilities.*

Though the need for broadband connectivity is common to many organizations, campus environments have distinctive characteristics that are not easily addressed by traditional broadband technologies, such as fiber or microwave. SKYFIBER is uniquely qualified to meet these diverse needs.

Varied Physical Configurations

High-rise, low-rise; old construction, new construction; across a sidewalk or across a parkway; densely populated or low-occupancy facility – campus environments require a network solution that has the flexibility to address the individual requirements of their configuration. Robust, compact, and lightweight in design, optical wireless broadband networks from SKYFIBER can be deployed on rooftops, towers, and even behind windows. Additionally, SKYFIBER:

- Offers a combination of *patented mesh network* architecture and the ability to interoperate with existing infrastructure, providing ultimate economy and flexibility for campus-wide coverage
- Eliminates the need for and expense of fiber builds and right of way permitting, *ideal for campuses with existing structures* where construction (trenching) is not an option
- Provides an industry-first "On Demand" model enabling organizations to *license varying levels of bandwidth support*
- Relies simply on line-of-sight access that, combined with the industry's smallest physical product footprint, *provides maximum flexibility* and reduces the complexities of installation, zoning, site access, and lease costs associated with other rooftop communication devices

Flexibility to Support Growth and Change

The very nature of a campus area environment requires a dynamic network solution with the flexibility and adaptability to support growth and change. As buildings are added or repurposed, or as capacity requirements increase, the ease and speed with which changes can be accommodated becomes critical. SKYFIBER offers:

- Highly portable, flexible and *rapidly deployable* networks that are operational in days, versus months required for fiber or microwave
- Ability to interoperate with and *augment existing infrastructure*, enabling affordable bandwidth extension
- Tremendous *installation density* allowing multiple devices to be deployed in a single location without loss of security or risk of interference
- *Component products* and *upgradeable capacity* (100Mb to 1Gb) to ensure scalability and the ability to increase capacity on either a permanent or on-demand basis
- *Time to Market (accelerated service readiness)* advantages through elimination or reduction of project delays due to spectrum licensing, right-of-way, engineering or zoning issues

Cost Effectiveness

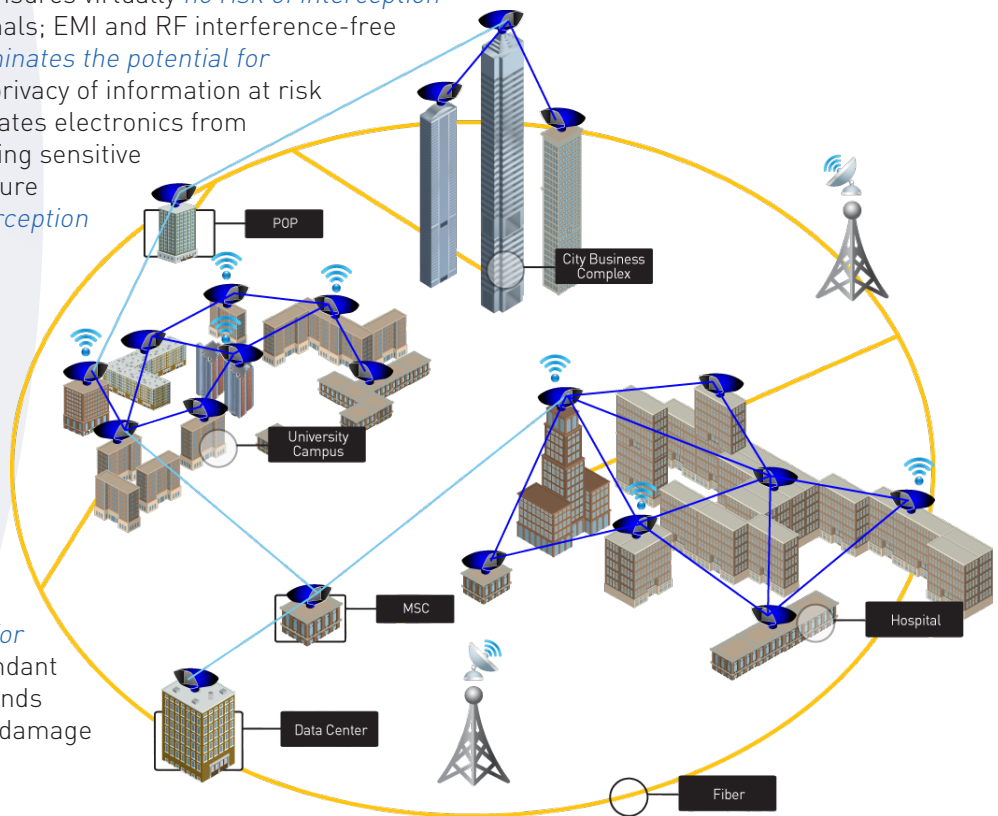
The time and expense required to provide high bandwidth services such as fiber, microwave or radio can often be prohibitive, and is particularly likely in a campus environment comprised of diverse structures, varied existing infrastructure, and random physical layouts. SKYFIBER provides seamless connectivity while saving time, money and improving overall operating costs.

- *Low cost of entry and no capital expenditure* with unique On Demand broadband licensing model
- Fully deployed in a fraction of the time, and at *up to 1/10th the cost* of fiber or microwave
- Adaptable *On Demand licensing* model supports changing needs
- *Cost-effective upgrade path*; start with 100mb today and upgrade to 1gb as capacity demand increases
- No on-going maintenance fees, *no risk of equipment obsolescence*
- *Lower total cost of ownership* (TCO) realized through reduced cost of entry, time to market, and minimal on-going maintenance and manageability
- *Significant time and money savings* through elimination of spectrum licensing, permitting requirements, and recurring costs of leased line services

Highly Secure and Reliable Dedicated Networks

The SKYFIBER optical wireless broadband network solution is ideal for campus-based enterprises that want to establish a self-contained, dedicated communication system serving their private network of users. SKYFIBER aids businesses in addressing organizational risk mitigation by complying with privacy and identity legislation. Further benefits include:

- Zero RF footprint provides the *most secure network transmission* available, even suitable for addressing HIPAA certification pressures
- Narrow beam of invisible light ensures virtually *no risk of interception or jamming* of transmission signals; EMI and RF interference-free
- Non-interference capability *eliminates the potential for "data bleed"* that could put the privacy of information at risk
- Modular hardware design separates electronics from the optical lens unit (OLU) allowing sensitive electronics to be placed in a secure location, *reducing points of interception or access*
- *Ability to shut down communications* in less than one millisecond from the moment any physical device is placed in the communication path
- Patented technology and implementation methodology offering up to *99.999% availability* even in adverse weather conditions
- A cost-effective *continuity plan for backup network access* or redundant point of connectivity that withstands unexpected outages or disaster damage



Contact Us

For further information on SKYFIBER™ products and solutions, please contact sales@skyfiber.com. Or, visit us on the web at www.skyfiber.com.