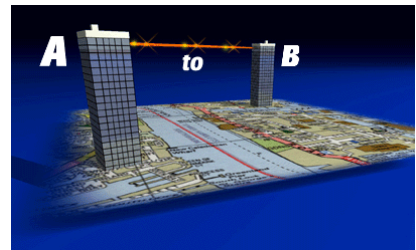


CableFree

W i r e l e s s E x c e l l e n c e

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Application Note: "Last Mile" Wireless Network Connectivity



Scenario

Telecommunication operators have made huge investment in fixed infrastructure, providing coverage of urban and industrial areas with voice, data and video services connected usually from a backbone SDH fibre network using copper, fibre or wireless technologies.

Cable digging is increasingly unpopular in cities, and regulated by local authorities who often restrict digging of roads to avoid disruption – costs are often prohibitive, especially if a river or railway is in the way. Using copper telephone lines only provides 2Mbps access per pair – too slow for power users requesting Ethernet at 10/100Mbps or ATM services at 155 or 622Mbps. Cable Modems and xDSL are often not reliable on all installations, depending on the age and condition of the copper cables. Point-to-point Microwave require licensing and often suffer from interference, multipath and signal reflections – and public health fears in urban areas make dishes unpopular with residents.

CableFree solves the problem with high-capacity, highly reliable wireless solutions with low cost of ownership. CableFree products offer up to hundreds of cameras with Gigabit capacity links which are installed in hours, not weeks.

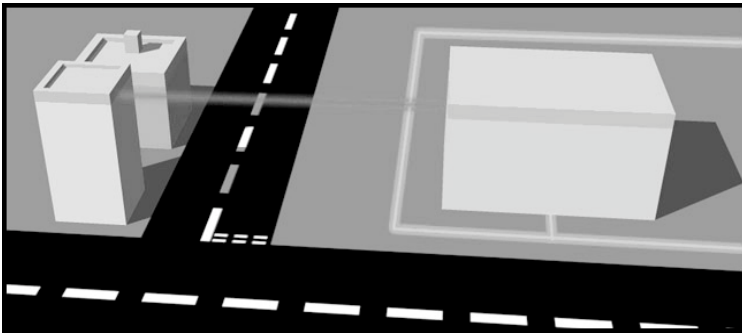
Solution

A CableFree solution offers the following features and benefits:

High performance:	Gigabit Ethernet FSO, 72Mbps radio
Rapid installation:	3 hours achievable; 15 minutes on tripods
Highly reliable:	99.999% availability achievable
License-free Operation:	No fees to pay
No monthly rental fee:	Low maintenance solution
Diverse technology options:	Free Space Optics & Broadband Radio
Fully manageable:	Advanced software tools
Resilient solutions:	1+1 FSO+radio dual link options
Low Total-Cost-of-Ownership (TCO):	Moveable asset
Safe & Environmentally friendly:	Low disruption during installation

CableFree products are field-proven, with thousands of deployments in over 50 countries since 1997. Excellence in performance and reliability are not sacrificed in providing highly competitive priced solutions together with a comprehensive range of support services.

Application Diagram



Two or more vehicles or buildings are connected by CableFree wireless products. Clear Line-of-Sight (LOS) for FSO or Near-Line-of-Sight (NLOS) for radio is required.

The customer data (video, data and/or voice) is connected to the wireless units which can be mounted on tripods, rooftops, towers, poles or behind windows.

For permanent installation a site survey is recommended before installation, to determine suitable mounting points, location of cable runs etc. Installation involves physically mounting the equipment, aligning it, connecting data and power circuits and commissioning.

Recommended Systems

CableFree Access	Connectivity up to 155Mbps, range up to 4km
CableFree 622	Connectivity up to 622Mbps, range up to 2km
CableFree Gigabit	Gigabit Ethernet and Fibre Channel up to 1.5km
LaserHop	E1, Fast and Gigabit Ethernet up to 1km
CableFree HPR	Radio links up to 72Mbps, range up to 40km
CableFree MPR	Radio links up to 30Mbps, range up to 40km

Data formats supported

E1/G703 2Mbps • E2 8Mbps • E3 34Mbps • T1 1.5Mbps • STM-1 & STM-4 •
Ethernet 10, 100 & 1000Mbps • ATM-155 & 622Mbps, Token Ring • FDDI •
Fibre Channel • Broadcast Video and CCTV •
Multiplexed voice and data 10+2 and 100+2 solutions available

For more information, please contact CableFree

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