

Synergydot.com – Creating Intelligent Buildings With Avail Networks

Delivering High-Speed Broadband Services to
Tenants in Commercial Office Buildings



"Avail's Frontera™ solutions allow us to provide our customers with leading edge broadband services for their Internet needs. The compact platform fits into any wiring closet and significantly reduces our installation and provisioning time."

Norm Roe
President of Synergydot.com

The Opportunity

Synergydot.com is an independent Building Local Exchange Carrier (BLEC) committed to providing cutting edge solutions to businesses for their Internet needs. Synergy has evolved from web hosting, networking, and consulting to providing broadband high-speed service for businesses.

Synergy's goal is to attract and retain customers in their target market – metropolitan businesses located in multi-tenant office buildings (often referred to as multi-tenant units, or MTUs) – by enhancing their offerings with high-speed multi-service access at a competitive price.

The Challenge

Synergy's customers require Internet access and related content services. Ethernet media could provide Synergy with an economical solution, but it imposes a distance limitation of 300 feet and often requires building rewiring. Additionally, the broadcast nature of Ethernet networks means increased security concerns for tenants using shared WAN and in-building connections. Synergy began looking for an alternative broadband-capable technology that would be more secure yet easy to install and manage, and would allow them to deliver a variety of services to multiple customers in a single building.

Many of Synergy's MTU customers are also located in mini-campus environments, but in the past Synergy has struggled with how to cost-effectively deliver services to these dispersed tenants while sharing a common WAN connection across several buildings.



The Solution

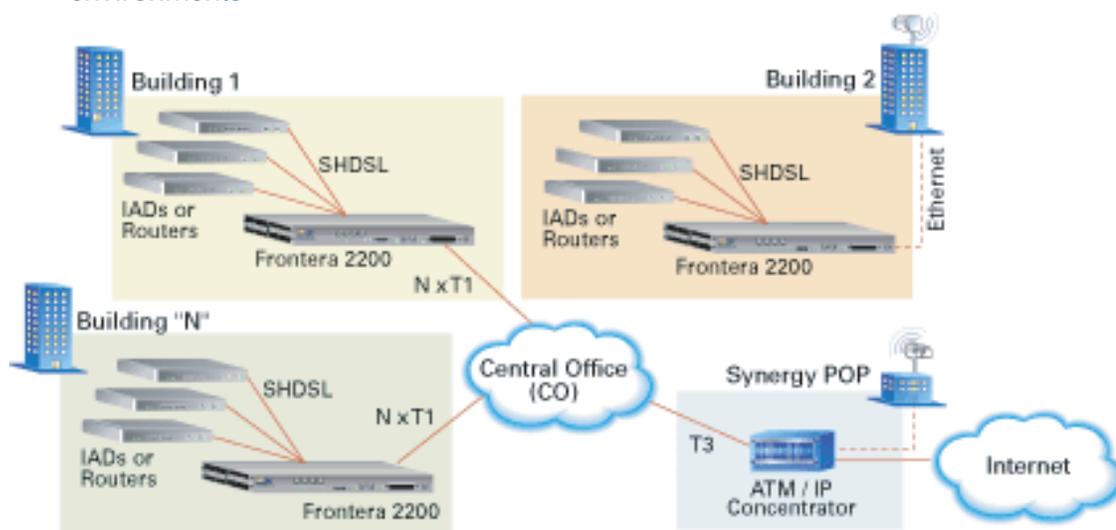
Avail's Frontera™ Intelligent Packet Access platforms provide a flexible, affordable multi-service solution to Synergy's MTU deployment challenge, allowing them to offer business-class data services to multiple subscribers over a single broadband connection. Frontera's multi-service architecture and comprehensive QoS controls allow Synergy to offer its customers multiple services with enforceable service level agreements (SLAs).

Frontera's DSL concentration feature allows Synergy to extend their network cost-effectively into smaller buildings by running DSL over the existing in-building copper infrastructure. This approach eliminates the need to rewire the building or worry about loop distances from the CO. DSL also eliminates the security concerns associated with Ethernet, since each subscriber gets a dedicated connection.

Frontera's flexible WAN options allow Synergy to backhaul traffic economically and with future expansion in mind. Leased point-to-point T1 circuits connect each building Frontera to the closest ILEC Central Office (CO), and a common T3 facility is used to backhaul this traffic to Synergy's POP. This approach minimizes access costs to each building and gives Synergy bandwidth headroom as they increase the number of buildings served.

As the diagram illustrates:

- SHDSL provides in-building connectivity to customer bridge/router and modem CPE
- Each customer CPE has a unique data PVC connecting their network to the Internet
- Each building Frontera uplinks to the nearest CO via T1 facilities
- An ATM concentrator in Synergy's POP aggregates data traffic from the COs via T3
- Synergy connects their network to the Internet via multiple T1 facilities
- Fixed wireless radios offer optional connectivity between buildings in campus environments



For More Information

To find out more about Synergydot.com, visit <http://www.synergydot.com>. For information about Avail Networks' products and solutions, visit <http://www.availnetworks.com>, or call +1.734.761.5005 or 1.800.553.4333.

