

Overview

Customer Name

US Internet

Customer Industry

Internet and hosting services

Challenge

Offer fiber-speed Internet services

Solution

US Internet deployed Active Ethernet Fiber technology using end- to-end ZyXEL equipment to offer different tiers of super fast broadband Internet service

Benefits of ZyXEL Solution

- One-Stop-Shop for all networking equipment
- Outstanding product reliability for better customer satisfaction and reduced support costs
- Uniform user interface & management capability
- Remote management and set-up
- Tiered service provisioning capability

Success Story

US Internet Deploys Super Fast Internet over Active Fiber using End-to-End ZyXEL Gear

Challenge

US Internet, with presence in over 4,000 cities, is top international provider of high speed Internet and hosting services. Headquartered in Minnetonka, MN, US Internet has colocation presence in Minneapolis, MN, Milwaukee, WI, London, UK, and Sydney, AU.

US Internet wanted to answer the growing demand for super fast broadband Internet service in the markets they served. Having exhausted the potential offered by copper-based technologies, US Internet was evaluating a high speed fiber option for this service.

Solution

US Internet evaluated GPON fiber technology but quickly realized that the cost of hardware at \$900 per customer was so high that it was not feasible to offer service at a price that the market could support. So they went on to test Active Ethernet based fiber technology.

Right Partner

US Internet was using ZyXEL DSL technology for high speed Internet service in high rise buildings and they were very impressed with the performance and reliability of the equipment and support from ZyXEL. So they consulted ZyXEL for an Active Ethernet solution.

Active Ethernet – A Winning Solution

Based on US Internet's evaluation, Active Ethernet had all the characteristics including performance and reliability, and ZyXEL was able to deliver a complete end-to-end solution at the right price point for the fiber-speed broadband services they wanted to offer their customers. The solution included DC powered fiber SFP switches for the central office and Active Fiber gateways and wireless routers for customer premises.

Service Deployment

US Internet's network architecture consists of a Central Office that is capable of serving a city area spanning 18 blocks by 36 blocks and approximately 20,000 subscribers. Servicing this set-up would require about 900 of ZyXEL's ES3124F switches in the central office. The ES3124F switches have 24 ports, each of which is connected via fiber to subscriber premises and terminated into an Active Ethernet gateway – the FSG1100. The FSG1100 is then connected to a wireless router – ZyXEL's NBG4615 which is configured to provide high speed wireless Internet service to the establishment. US Internet is offering customers a choice of three different services options at 15Mbps, 30Mbps and 100Mbps.



"The key to me in this whole technology game is, if you can put it out and it just works, and you don't have to babysit it, that is success. ZyXEL products just run. They just work." Travis Carter, Vice President Technology, US Internet.

Solution Highlights

• One-Stop Shop

By sourcing end-to-end equipment from a single vendor, US Internet is able to maintain uniform product quality resulting in better service to their subscribers. ZyXEL was able to customize product for US Internet, simplifying and accelerating deployment, and smoothing logistics and technical support.

• Outstanding Equipment Reliability

US Internet has been impressed with ZyXEL products' dependability, which has not only reduced costs associated with support - improving profitability - but produced satisfied and loyal customers

• Uniform Management & User Interface

Since the entire solution is sourced from ZyXEL, all the equipment shares the same user and management interface making it easy to train US Internet personal. The uniform management capabilities of all the equipment also simplify integrating them into US Internet's proprietary management software called Muniverse.

• Remote Configuration & Management

Using Muniverse, a proprietary management software, US Internet is able to remotely configure both the FSG1100 Active Ethernet gateway and the NBG4615 wireless router so that a service technician can install and start service in under 20 minutes saving both time and money. And most issues can be resolved by trouble shooting remotely without the need for a costly truck roll to the customer premise.

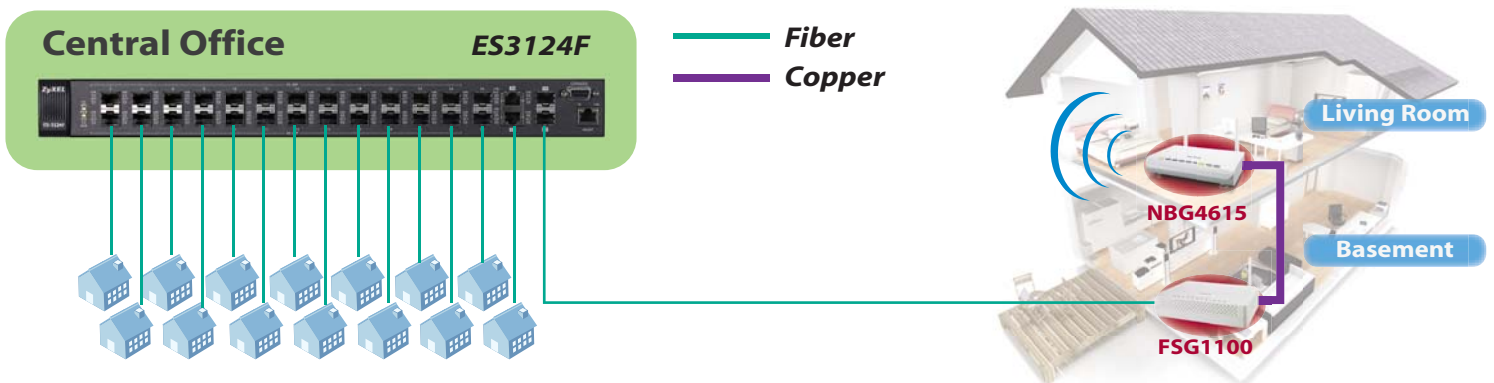
• Tiered Service Provisioning

ZyXEL's ES3124F switches come with a built-in rate limiting feature that US Internet uses to control both the ingress and egress data rate. This enabled US Internet to offer different tiered services without using expensive packet shaper equipment.

Conclusion

By partnering with ZyXEL, US Internet has been able to affordably provide its subscribers with non-stop, and economical high-speed Internet that operates seamlessly and is designed for simple upgrading to gigabit Internet in the future.

Application Diagram



About ZyXEL Communications

ZyXEL offers a high-performance, carrier-grade suite of access and security solutions. Through its partner alliances, ZyXEL provides businesses with complete solutions and seamless support. With expertise in diverse technologies such as wireless, security, Powerline, Ethernet, and xDSL, ZyXEL offers integrated, secure, network solution to SMBs, SOHO, residential and service provider markets. Located in Anaheim, CA, ZyXEL's North American Channel program offers industry-leading incentives with its full line of products. Please visit <http://www.us.zyxel.com> for more information.

About US Internet

Founded in 1995, US Internet is a global provider of Internet, hosting, application, and digital phone services for government, institutions, business and consumers worldwide. US Internet follows the simple principal of utilizing the newest advancements in technology to provide cutting edge services to organization both big and small. Product lines range from dial-up and email to international consulting and corporate IP networking services. In addition, US Internet encompasses an immensely deep talent pool of Support Technicians, Network Engineers, Application Developers and Product Specialists. US Internet is highly focused on providing the highest level of service possible to ensure its clients get their nets worth.

Product Highlights

ES3124F

24 Port Active Fiber Access Switch

- 24 100Mbps SFP Ports
- 4 Gigabit Ports for Uplink
- Built-in rate limiting on every port for tiered services
- Policy based QoS for maximum flexibility in service provisioning
- Back-up Power System (BPS) support for greater reliability
- Sophisticated management features



FSG1100

Active Fiber Gateway

- 100Mbps WAN fiber port
- 4-Port switch
- QoS optimized for voice, video and data services
- Remote management capabilities



NBG4615

Wireless-N Router

- 300Mbps speeds
- 4-port switch
- USB port for storage and printing devices
- Traffic prioritization for optimal app performance

