Customer PROFILE

True Stays Ahead of the Pack with Bandwidth to Spare

Customer
True
Amsterdam, The Netherlands

Industry
Internet Service Provider

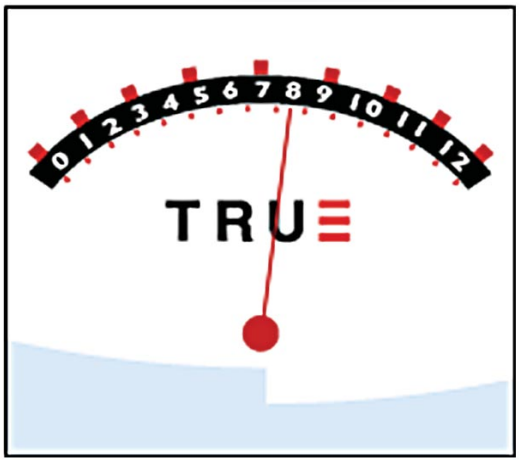
Applications
10 GbE Core Infrastructure

Highlights
By moving to a resilient, single-tier 10 GbE network powered by Force10 E-Series switch/routers, True has secured its leadership position in the competitive Dutch Internet market.

As the Netherlands' leading service provider, True has seen customer traffic explode over the past few years and its customer base continually expand. Founded in 2000 as a hosting and colocation service provider, True's business has grown to include Internet and inter-exchange offerings ranging from connectivity services, such as DSL and wireless broadband, to bandwidth services for IP transit and IP peering, as well as streaming services for both live and on-demand broadcasting of audio and video.

Enormous growth in traffic put a strain on True's Gigabit Ethernet (GbE)-based infrastructure and threatened to make the company a victim of its own success. Network utilization spiked 500 percent in a nine-month period, fueled in part by new services such as Internet radio. The existing network, a mix of 15 switches and routers, became unstable under the increasing loads. True's GbE connections to the Amsterdam Internet Exchange were nearly maxed out. And more and more hosting and colocation customers were asking for high-speed server connections.

True's IT team realized that scaling the legacy GbE infrastructure would mean doubling or tripling the number of network devices, driving management costs and the complexity of the network way up. In addition, they would need to rely even more heavily on trunked GbE links to interconnect equipment – an expensive proposition on routers and not very scalable. Another consideration was that competitors were moving to GbE infrastructures, putting pressure on True to maintain its leadership position.



It was time to make the leap to a 10 GbE core. True's IT team began looking for a high-density network platform that would allow it to build a scalable, reliable yet simplified 10 GbE infrastructure. They found the Force10 Networks TeraScale E-Series.

Boosting Capacity While Collapsing Layers

The Force10 E-Series switch/routers combine carrier-class switching and routing in a single high density chassis. The fully distributed, multiprocessor architecture features independent processors for switching, routing and management, including robust implementations of BGP, IS-IS, OSPF and RIP routing protocols and Rapid Spanning Tree for optimal switching. The E-Series line cards, switch fabric, backplane, central processor and operating system have all been optimized to process Terabits of traffic at line rate in a reliable, predictable fashion.

As a result of the high-performance, hybrid design of the E-Series, True has been able to replace its mix of switches and routers with four E-Series

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"True has created a redundant, high-capacity core network, with 3.6 Terabits of backplane capacity and 60 Gigabits of network capacity, by interconnecting the E600s in a double-crossed 10 GbE ring."

E600s, which are deployed in pairs at two of its Amsterdam colocation and Internet point-of-presence sites. Each E600 can be configured with a mix of up to 630 GbE ports or 112 10 GbE ports.

True has created a redundant, high-capacity core network by interconnecting the E600s in a double-crossed 10 GbE ring. With 3.6 Terabits of backplane capacity and 60 Gigabits of network capacity, True's new network can accommodate wide fluctuations in customer traffic and has the headroom to handle steadily rising loads.

The E600 has also enabled True to boost the capacity of its Internet connections. Each E600 has several 10 GbE connections to the Amsterdam Internet Exchange, guaranteeing customers maximum speed and availability.

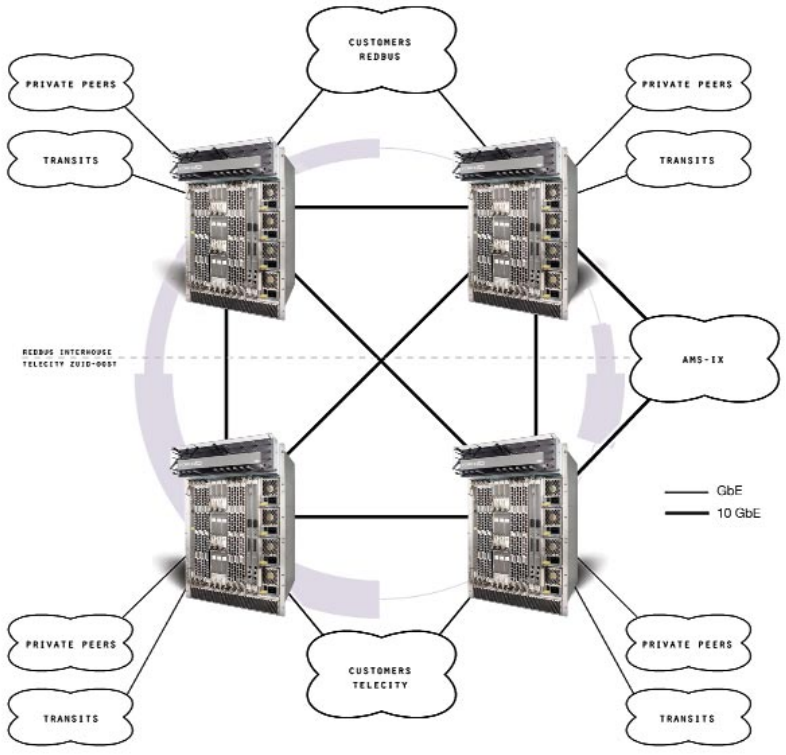
In addition to providing a highly scalable core, the E600 has enabled True to dramatically streamline its network topology. By taking advantage of Force10 90-port GbE cards, True can connect server racks directly to the core devices at Gigabit speeds, eliminating the need for distribution switches. Likewise, the E600's high port density has allowed True to connect the switch/routers directly to each other, thus eliminating the need for an aggregation layer. This streamlined design has resulted in a highly efficient, high capacity infrastructure.

For resiliency and maximum uptime, True has used various redundant configurations, from redundant E600s in its two sites to redundant rack connections for customers. E-Series users also have the option to configure each system with fully redundant components to ensure hitless failover in the event of a component failure.

Reaping the Benefits of Efficiency

Using Force10 E-Series switch/routers, True has been able to scale its network infrastructure to 10 GbE reliably and cost effectively. The E600's high port density meant the company needed

High-capacity Double-crossed 10 GbE Network



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fewer chassis, which it could deploy in a single-tier architecture. Where IT had estimated it would need 30 to 45 devices simply to scale its existing GbE infrastructure, True was able to upgrade to a 10 GbE network using only four Force10 chassis.

As a result, True cut its equipment costs as well as ongoing operations costs by lowering power, cooling, and maintenance expenses. In addition, the availability of long-range 10 GbE fiber interfaces has allowed True to deploy high-speed interconnections over low-cost dark fiber, a more cost-effective solution than traditional SONET/SDH network services.

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The E-Series delivers non-blocking, wire-speed data transport with the capacity to scale with ever rising traffic loads, enabling True to meet the needs of its growing customer base and increasing traffic with bandwidth to spare. By partnering with Force10, True is bringing more bandwidth per customer to market than any of its competitors. As a result, True has become the ideal partner for customers with demanding applications, including media initiatives and high-volume content and application hosting.

Maintaining a leadership position in the competitive service provider arena is an ongoing challenge. Customers demand high reliability and predictable performance at competitive prices. Through careful planning and innovative design, True has upgraded its network core to meet both current and future bandwidth requirements while streamlining its operations. The Force10 E-Series has helped True stay ahead of the competition and secure its leadership position in the Dutch Internet market.

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