



NEWS INSIDE

PAGE 1

Force10 C-Series Switch Brings Essential Reliability Characteristics to Midsize Data Centers & Wiring Closets

Force10 Helps Horatio Alger Scholars Get Connected

PAGE 2

Force10 Networks Partners with Aruba, Mitel, & Stillsecure to Deliver Reliable Business Networks

PAGE 3

Future-Proofing the Wiring Closet with Resilient and Scalable Modular Switch/Routers

PAGE 5

Building Reliable Networks: The Secret is in the Flexibility

PAGE 6

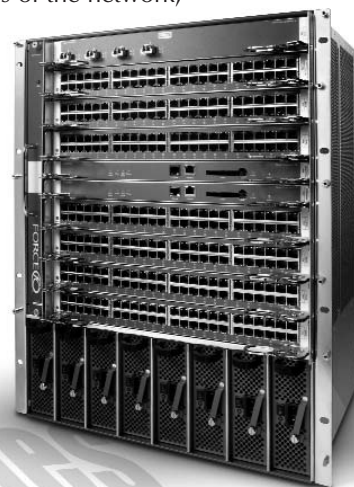
Upcoming Events
Force10 Networks Contact Information

Force10 C-Series Switch Brings Essential Reliability Characteristics to Midsize Data Centers & Wiring Closets

Force10 recently introduced the C300 resilient switch that delivers the reliability, network control, and scalability IT managers require to ensure their network is a strategic asset. Purpose built for demanding deployments ranging from midsize data centers to wiring closets, the C300 is the industry's first switch that combines the essential reliability characteristics necessary to support today's mission critical business applications.

"Our experience in large data centers has helped us understand that, increasingly most business does not exist without the network, and with the introduction of the C300, we have extended our industry leading performance characteristics to more layers of the network," said Stephen Garrison, vice president of marketing at Force10 Networks. "The C-Series for the first time combines industry leading reliability, network control, and scalable capacity characteristics in a chassis platform optimized for mid-sized environments."

With the continual evolution of applications and the emergence of new ones, it is crucial that the network is flexible to respond to changing business requirements. To do that, enterprises need to extend the reliability typically found in the high-end data center to the wiring closet, creating a unified network fabric that is application ready. In addition, today's switching platform must be future-ready to accommodate the next generation of business critical applications that will place new performance requirements and traffic patterns on tomorrow's network.



Continues on page 4, see C-Series Brings Reliability Characteristics to Midsize Data Centers & Wiring Closets

Force10 Helps Horatio Alger Scholars Get Connected

Force10 Networks recently donated new wireless-enabled laptop computers to the Horatio Alger Class of 2007 scholarship recipients to ensure that the incoming college freshmen will have access to the resources they need to succeed in their academic careers.



Horatio Alger scholarships are awarded each year to high school seniors who have overcome extraordinarily challenging circumstances and have demonstrated a commitment to use their experiences and college degrees in service to others.

"The Horatio Alger scholars have demonstrated a clear determination to achieve their full potential, and Force10 is proud to be playing a part in providing them with equal access to the online resources that are essential to academic accomplishment," Force10 Networks CEO Marc Randall said recently in announcing the donation at the 60th Annual Horatio Alger Awards luncheon.

Continues on page 6, see Horatio Scholars Get Connected



Force10 Networks Partners with Aruba, Mitel & Stillsecure to Deliver Reliable Business Networks

“Force10 and its partners provide a clear best-of-breed ecosystem that enables businesses to flexibly construct their networks based on the applications the network supports, both today and in the future.”

Stephen Garrison
Vice President of Marketing
Force10 Networks

Force10 Networks has partnered with Aruba Networks, Mitel, and StillSecure to deliver reliable network solutions that ensure the enterprise can flexibly adapt to emerging applications. The Force10 purpose-built enterprise ecosystem optimizes the interaction between the network and the critical enterprise services such as voice, mobility and security, based on unique customer evaluation criteria.



"Enterprises are increasingly depending on their networks as a strategic asset and require optimized networking solutions to support the higher performance value expected of the network," said Stephen Garrison, vice president of marketing at Force10 Networks. "With the purpose-built ecosystem, Force10 and its partners provide a clear best-of-breed ecosystem that enables businesses to flexibly construct their networks based on the applications the network supports, both today and in the future."

As applications evolve and new ones emerge, IT managers are constantly challenged to build a network that can flexibly respond to new and often unknown requirements. By building a unified network fabric that extends pervasive reliability, network control, and scalability from the data center to the wiring closet, IT managers can build the flexibility and application readiness into their network to ensure it is a strategic asset. This is the Reliable Business Network.

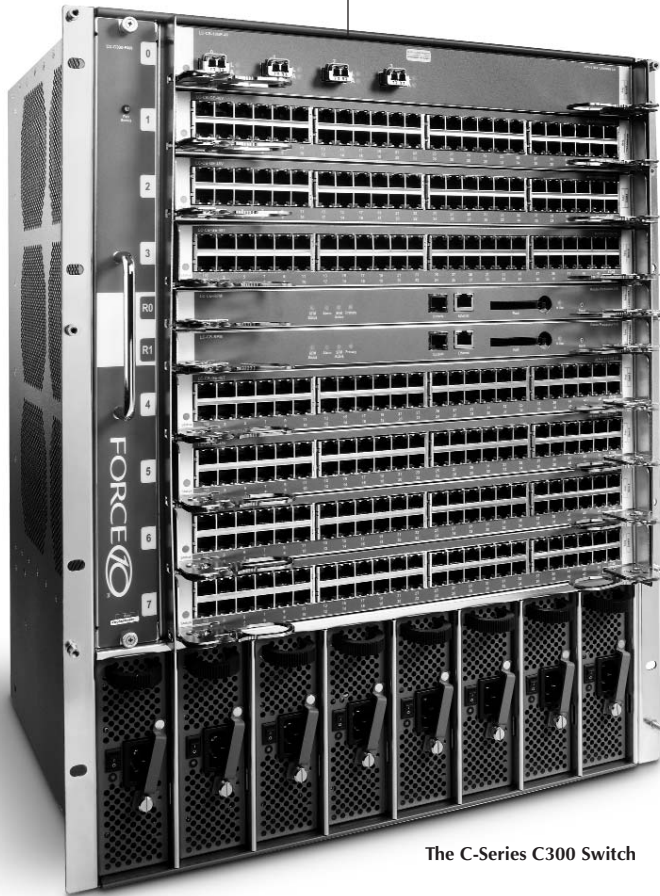
The purpose-built ecosystem is crucial to the Reliable Business Network, allowing customers to optimize their key services according to their unique evaluation criteria. With proven interoperability throughout the ecosystem, Force10 and its partners not only provide optimized solutions but also eliminate the uncertainty of deploying a best-of-breed solution. To build truly reliable business networks that are application ready and can provide long-term investment protection, it is essential to optimize the network for specific business requirements.

Force10 has joined with StillSecure to facilitate deep integration of network access control (NAC) at the switch level, the most secure method for enforcing 802.1x-based policies. StillSecure's Safe Access™ NAC solution tests endpoint devices as they attempt to log onto the network, and determines status based on their ability to comply with pre-assigned security policy. Once the device's status is determined, enforcement is conducted through the Force10 C-Series resilient switch.

Force10 is also partnering with Mitel to ensure the network has the reliability to support VoIP services. The Mitel 3300 IP Communications platform delivers a broad range of VoIP applications and can scale to support anywhere from 10 to 65,000 end users. Force10 delivers the network scalability that enables seamless and efficient congestion-free expansion as VoIP users increase.

By partnering to deliver a seamless, interoperable solution, Force10 and Aruba provide reliable and scalable access at the edge of the network. Aruba's user-centric approach to enterprise mobility allows IT managers to centrally control network access and prioritize application delivery based on policies that follow the user wherever they connect to the network. The inherent reliability of the Force10 C300 delivers the maximum network uptime required to consistently apply policies, ensuring that the network is a strategic asset for the enterprise.

To optimize solutions in the data center, Force10 has partnered with computing, storage, and Layer 4-7 vendors such as IBM, Dell, Isilon Systems, and LeftHand Networks. F10



The C-Series C300 Switch

Future-Proofing the Wiring Closet with Resilient and Scalable Modular Switch/Routers

Wiring closets in the enterprise LAN are undergoing a number of significant changes. Perhaps the most important transition stems from the emergence of the enterprise IP network and IP/Ethernet LAN as the converged infrastructure for both data networking applications and real-time communications applications. This convergence is driven not only by the cost reductions achievable through network consolidation, but also by the productivity gains that can be achieved through innovative linkages among communication and data applications, resulting in converged applications such as unified messaging. As application convergence gains further momentum, the LAN infrastructure must continue to evolve to support a widening range of real-time applications, including:

- IP Telephony
- IP Videoconferencing (bi-directional or multi-directional)
- IPTV (unidirectional)
- IP Multimedia conferencing
- Instant Messaging (IM) with presence determination

Given the significant changes expected in the LAN over the rest of this decade, it makes sense to try to maximize the lifetime of any investments that are being made in wiring closet infrastructure. Future-proof investments will be based on Ethernet switching platforms that have the functionality and flexibility to accommodate the application-rich environment. According to IDC, the three primary concerns of IT managers deploying VoIP are:

- 1) network availability to meet expectations for "always on" communications applications
- 2) latency/jitter
- 3) sufficient bandwidth to support the new application mix

Future Proofing the Wiring Closet

Investment protection is one of the most important factors in the selection of a wiring closet switch because the edge of the LAN represents a very large share of the overall LAN investment. While there are significant differences between individual networks and suites of applications, protecting the

wiring closet investment against rapid obsolescence and possible "forklift upgrades" will, in general, include consideration of the following factors:

- Resiliency/Reliability
- Performance
- Port Density/Scalability
- QoS/Bandwidth Management
- Comprehensive Layer 2/Layer 3
- Functionality Collapsed Distribution and Access Tiers
- Support for Industry Standards
- Power Provisioning and Management
- Link Level Discovery
- LAN Access Security
- Manageability and Serviceability
 - Ease of Integration
 - Broad Extensibility

Modular vs. Stackable Wiring Closet Switches

Any remaining debate regarding the relative merits of modular vs. stackable wiring closet switches is primarily driven by vendors who have a vested interest in one form factor vs. the other. In fact, the two form factors are quite complementary, as evidenced by the fact that most medium to large networks employ a mix of modular and stackable products in both wiring closets and data centers.

Relative Advantages

Stackable

- Better low end scalability (fewer desktops/closet)**
- Lower entry price**
- Lower price per port**
- Less rack space consumed per user port**

Modular

- Greater resiliency/redundancy**
- Better high end scalability**
- Better control of subscription ratio**
- More bandwidth for local switching**
- Better power efficiency (Gbps/Watt)**
- Greater flexibility and upgrade ability**
- Better ability to assimilate new technologies**
- Longer service life**

Table 1: Relative advantages of modular vs. stackable switch/routers

As shown in Table 1, stackable switches offer advantages for smaller wiring closets, where the growth rate in the number of user ports required is fairly low, and where there may be a considerable degree of sensitivity to the capital equipment component of TCO. Because of these advantages, fixed configuration and stackable switches have tended to be preferred by the majority of small- to medium-sized enterprises.

On the other hand, modular switches are generally preferred for larger wiring closets where the emphasis is on future-proofing the wiring closet investment as described in the previous section of this document. Modular devices have the advantage of superior flexibility to accommodate rapid growth, assimilate new technologies or industry standards, and minimize TCO measured over a longer service lifetime. The service lifetime of the modular switch can often be extended a number of times through a series of backward-compatible upgrades to the various subsystems, including the switch fabric, route processors, line cards, and power/cooling systems.

Force10 C-Series — A Foundation for the Resilient Wiring Closet

Since its introduction in 2002, the Force10 E-Series switch/router has consistently demonstrated an unparalleled level of resiliency and scalability for the most demanding applications in the network data center and LAN core. Now, with the C-Series modular switch, Force10 Networks is introducing a similar level of resiliency and scalability for wiring closet applications that require carrier class reliability together with low TCO and future-proof investment protection in the face of continuing technology evolution. The E-Series heritage is clearly reflected in the design of the C-Series switch/ router. The C-Series makes extensive use of redundant subsystems, draws on the E-Series technology base for the switch fabric and passive backplane, performs all data path packet processing in line card hardware, and restricts all control functions to redundant route processor modules running the FTOS modular operating system, which uses the industry standard CLI.

The C-Series supports an extensive list of future-proof features and functions that will maximize its service lifetime while minimizing life cycle TCO:

Continues on next column

- Resiliency/Reliability/Stability
- Performance/Port Density/Scalability
- QoS Support for Real-time Traffic
- Comprehensive Layer 2/Layer 3 Functionality for Configuration Flexibility
- Support for Industry Standards
- Power Control and Efficiency

LAN Core to Wiring Closet Solutions with C-Series and E-Series Switches/Routers

With the introduction of the C-Series modular wiring closet switch/router, it is now possible to build very large scale end-to-end campus LANs that feature the same resiliency, scalability, stability, and future-proof investment protection that the Force10 Networks E-Series switch/routers have brought to the data center and network core.

End-to-end campus LAN switched networks based on the E-Series and C-Series provide a number of unique benefits:

- Ultra high, carrier-class availability achieved through end-to-end resiliency features and extensive device-level redundancy resulting in extremely high MTBF and availability at both the device and the network levels
- Enhanced stability and manageability through end-to-end consistency of the network control plane. End-to-end support for the FTOS modular switch/router operating system span feature sets, protocol implementations, the CLI, and FTOS diagnostics to help reduce MTTR
- End-to-end network consolidation leveraging resiliency and scalability to reduce switch-count throughout the LAN core and aggregation tiers, and to minimize the complexity of the network

Summary/Conclusion

Networks are evolving quite rapidly to support both converged applications as well as new styles of data applications such as cluster computing, peer-to-peer, and SOA. In the face of these changes and the resulting increase in application complexity, the challenge will be to make future-proof investments in the LAN infrastructure that will improve its availability and stability while also simplifying the task of administering and managing a network that supports a wider range of traffic types and edge devices. The C-Series wiring closet switch/routers have been designed from the ground up in the E-Series tradition of providing the ultimate in resiliency, scalability, and flexibility to support the highest levels of availability, network consolidation, and management simplification. F10

C-Series Brings Reliability Characteristics to Mid-size Data Centers & Wiring Closets [Cont'd from p. 1]

The Force10 C-Series is designed to bring reliability to the mid-size data center and enterprise local area network. The modular Force10 Operating System (FTOS) software provides inherent stability and eliminates unplanned network downtime. In addition to software reliability, the C-Series delivers full hardware resiliency with redundant components and hot insertion technologies that ensure maximum network uptime. The passive backplane of the C300 also means that it doesn't act as a single point of failure, further ensuring always-on networking.

To provide IT managers with more effective control over their network, the Force10 C300 delivers a suite of tools and features that increase manageability, serviceability, and visibility. The modular FTOS includes an industry standard command line interface (CLI) that simplifies management and leverages the installed base of networking knowledge. Additionally, the C300 features HP OpenView-ready plug-ins with XML and SNMP MIB hooks for rapid integration into existing data center and wiring closet environments.

Beyond manageability, Force10 has integrated the advanced serviceability and visibility features developed for the TeraScale E-Series into the C300. In-service tracing and troubleshooting command line interfaces provide advanced serviceability tools that allow IT managers to quickly resolve issues without bringing down the network. Runtime hardware and data plane status monitoring provide visibility into the network, enabling IT managers to better understand and control the traffic on their network. Further providing IT managers with visibility into their network is the intelligent power management of the C300 that provides granular PoE control and tracks power in use as well as available power on a per port basis.

To deliver long-term investment protection, the Force10 C300 features enhanced scalability. The C300 has a switching capacity of 1.5 Terabits per second (Tbps) or 96 Gigabits per second per slot, providing the scalable capacity that will allow enterprises to expand their networks to support new applications without the cost of a system upgrade. Today, the C300 supports 384 line-rate Gigabit and 32 line-rate 10 Gigabit Ethernet ports in a single chassis. With the scalable capacity of the backplane, however, the C-Series



The new C-Series C300 offers 4-port 10 GbE and 48-port GbE line cards, and redundant RPM modules (top to bottom)

can support multiple density increases in the future, providing long-term investment protection.

With full line-rate, non-blocking throughput across the backplane, the Force10 C300 can support new applications and features without impacting performance. Additionally, the C300 delivers full performance regardless of traffic conditions. And with full 15.4W Class 3 PoE support, the C300 can deliver full power to all 384 Gigabit Ethernet ports simultaneously.

Reliable Networking by Force10 delivers the reliability, control, and scalability required to ensure the network is ready for emerging applications and services and can flexibly respond to those changing requirements. F10

Building Reliable Networks: The Secret is in the Flexibility

Most IT managers will tell you that the most important attribute they seek in every layer of the network is simple reliability. Most managers value reliability above port density, scalability, and even price. And it's no wonder; for most environments today, the network is the business and without it, the business doesn't exist.

Reliability is more important than ever because the applications that the network must support are constantly shifting and evolving. Peer to peer applications, business collaboration tools, and the explosion in voice and video traffic are all demanding new performance requirements across the network.

As applications continue to evolve and new ones emerge, IT managers are being challenged to build a network that can flexibly respond to new performance requirements. By designing a unified network fabric that extends pervasive reliability, network control, and scalable capacity characteristics from the data center to the wiring closet, IT managers can build the flexibility and application readiness into the network to ensure it continues to perform as a strategic asset.

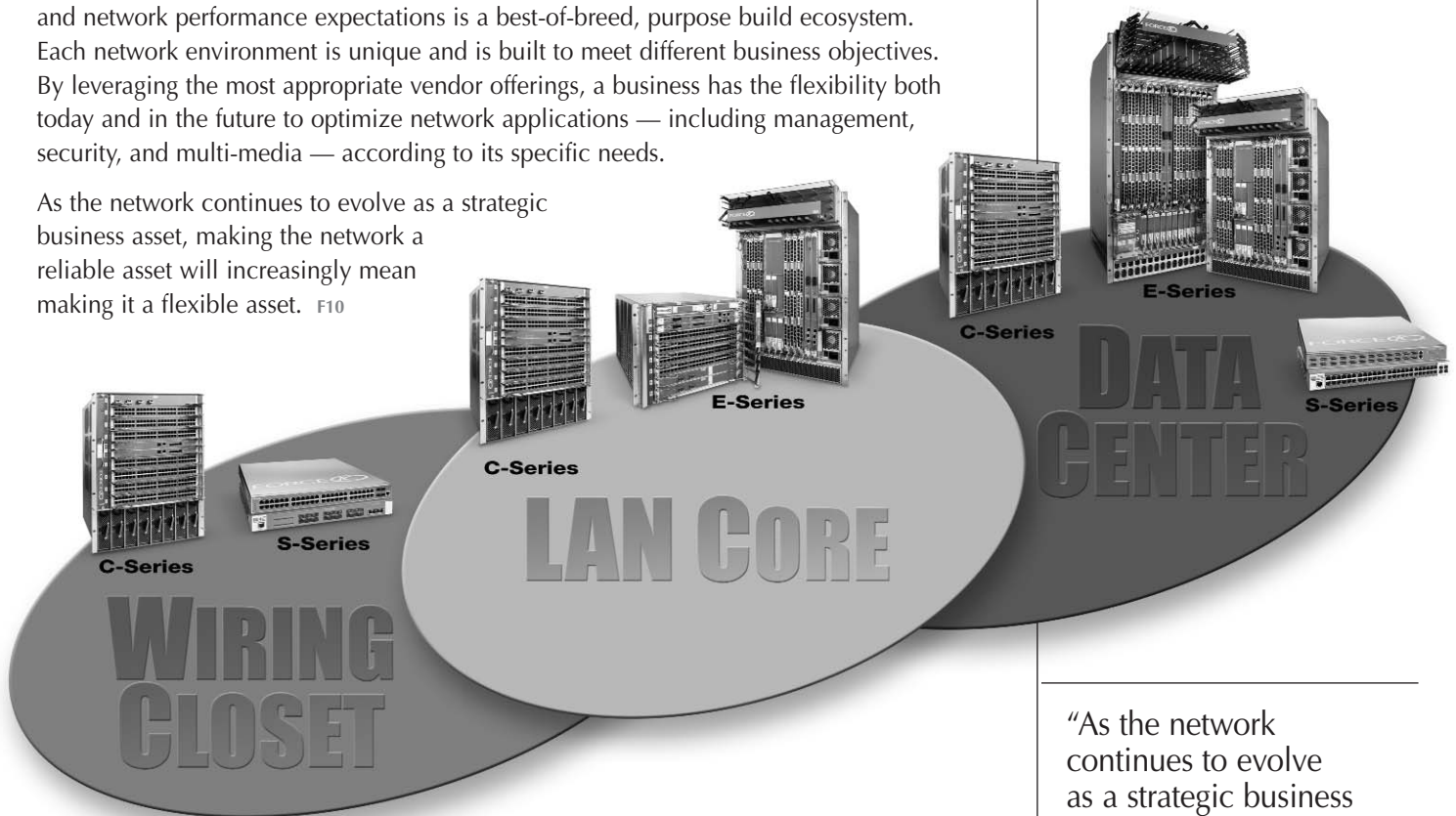
At Force10, we call it the **Reliable Business Network**.

Key to providing the flexibility necessary to prepare for future, unanticipated applications and network performance expectations is a best-of-breed, purpose build ecosystem. Each network environment is unique and is built to meet different business objectives. By leveraging the most appropriate vendor offerings, a business has the flexibility both today and in the future to optimize network applications — including management, security, and multi-media — according to its specific needs.

As the network continues to evolve as a strategic business asset, making the network a reliable asset will increasingly mean making it a flexible asset. F10



Marc Randall
President and CEO
Force10 Networks



“As the network continues to evolve as a strategic business asset, making the network a reliable asset will increasingly mean making it a flexible asset.”

UPCOMING EVENTS

MAY

Server Management Strategies: Vista, Virtualization & Consolidation, May 24, Rosemont, IL

GPN2007: Markers, Milestones, & New Directions
May 30–June 1, Kansas City, MO

JUNE

NANOG 40, June 3–6, Bellevue, WA

NLIT Summit 2007, June 10–13, Albuquerque, NM

Transformation Warfare 2007, June 19–21
Booth #900, Virginia Beach, VA

International Supercomputing Conference
June 26–29, Dresden, Germany

AUGUST

AFITC 2007, Aug. 13–15, Booth #136, Montgomery, AL

LandWarNet 2007, Aug. 21–23, Booth #809
Ft. Lauderdale, FL

OCTOBER

Data Center Decisions 2007, Oct. 23–24, Chicago, IL

For a complete list of events, see:
force10networks.com/news/events.asp

CONTACT INFO

FORCE10 NETWORKS

350 Holger Way, San Jose, CA 95134 USA
www.force10networks.com

408-571-3500 PHONE
866-600-5100 PHONE (U.S. ONLY)
408-571-3550 FACSIMILE

Sales:

sales.americas@force10networks.com	AMERICAS
sales.europe@force10networks.com	EUROPE
sales.china@force10networks.com	CHINA
sales.japan@force10networks.com	JAPAN
sales.korea@force10networks.com	KOREA

Strategic Alliances/Partnerships:

strategicalliances@force10networks.com

Customer Support: support@force10networks.com

Employment: jobs@force10networks.com

General Information: info@force10networks.com

Press Inquiries: pruzicka@force10networks.com



© 2007 Force10 Networks, Inc. All rights reserved. Force10 Networks and E-Series are registered trademarks, and Force10, the Force10 logo, C-Series, P-Series, S-Series, TeraScale and FTOS are trademarks of Force10 Networks, Inc. All other company names are trademarks of their respective holders. Information in this document is subject to change without notice. Certain features may not yet be generally available. Force10 Networks, Inc. assumes no responsibility for any errors that may appear in this document. Force10 News is published by Force10 Networks, Inc. Copying or rebroadcasting is prohibited without expressed written consent.

To be added or deleted from the F10 News mailing list please contact Andrew Fetter at afetter@force10networks.com.

FORCE10 NETWORKS

350 Holger Way
San Jose, CA 95134

PRESORTED FIRST CLASS
U.S. POSTAGE

PAID

SAN FRANCISCO, CA
PERMIT NO. 11882

Horatio Scholars Get Connected [Cont'd from p. 1]

The Horatio Alger Association provides the scholarship recipients with financial aid for college tuition and fees, on-campus housing, and text books. Without the scholarship, they would be unable to attend college. The laptop computers provided by Force10 will enable this year's class of 108 scholars to have full access to

the registration, class room education, and research material available on campus networks and the Internet.

"As the global economy increasingly becomes digital, unfettered access to information technology resources will only grow in importance to career success," said Terrence J. Giroux, executive director of the Horatio Alger Association of Distinguished Americans, Inc. "Force10's donation will ensure that each of the scholars has the same access to online education resources as the other students."

As one of the largest college financial aid programs in the country, the Horatio Alger Association works with secondary school students who have faced challenging environments, including crime, poverty and substance abuse, to demonstrate integrity, perseverance and an unwavering determination to succeed in life. F10

