

# SteelConnect

The Future of Networking is here.  
It's Application-Defined for the  
Cloud Era.

SD-WAN | Cloud Networks | Branch  
LAN/WLAN

## The Business Challenge

Like most businesses today, the retail business changes fast—seasons, fashions, personnel, and customers. It's hard to keep up. What's required to seize the business opportunity is business agility in the face of constant change. To be competitive and make a profit, you also need to control your costs—for example, just-in-time inventory and a small IT footprint in each store or branch. There's nothing more costly for the business than supporting branches or stores 24x7 in far-flung places.

*What's true of retail is true of many businesses with global sites and clouds. They need an application-defined IT networking infrastructure where the network adapts to the application requirements, so that the business can respond to constant change, ensure end-to-end security, and deliver services cost-effectively.*

To operate globally, businesses today have hundreds, even thousands of branch locations with myriad devices and a host of applications from supply chain to point of sale where you can't have network or app problems, or the customer goes to another vendor.

And increasingly, businesses are looking to cloud services to create more cost-effective global operations. To support the business, IT must be able to guarantee high availability and service level agreements—whether on premises or in the cloud, as well as the ability to configure and reconfigure the IT infrastructure and edge devices in a hybrid environment in a rapid-fire manner to avoid downtime and serve the customers.

## What's Holding IT Back

For IT, the challenges around networking—local area and wide area networks—include infrastructure complexity, inflexible enterprise edges, poor bandwidth utilization, slow delivery of applications across WANs and from clouds, and delayed application access for users from branches, remote sites, hotels, airports, and stores plus restricted budgets.

### Complex IT that is costly to manage

IT environments are complex and operationally costly when managed with traditional approaches. Hybrid networks offer a way to mix high cost, SLA-guaranteed MPLS for business-critical apps with lower cost, public Internet for less critical apps to achieve new efficiencies, cost savings, and accelerated app delivery.

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### **Inflexible and fragile enterprise edges**

Changes in configuration for edge devices using CLI are hard to get right and can break an increasingly complex network. Defining which network path (MPLS, Internet, or Internet VPN) that each application should take based on traditional CLI-based routing is an administrative nightmare. Experienced, expert IT staff, who are in short supply, then must travel for weeks from site to site to take devices offline, reconfigure, test, and validate them.

### **Increased demand for bandwidth**

Bandwidth-intensive video, real-time collaboration, and Internet services are driving demand for more WAN capacity. Yet applications traveling long distances across MPLS, Internet, and Internet VPN are still susceptible to slow performance, particularly in cloud deployments. And since business is increasingly conducted at the enterprise edge, no one can live with failed or slow apps or device downtime.

### **Harder to secure**

Now with the cloud, direct Internet access at multiple remote sites bypasses data center-grade security services, making end-to-end security harder to realize and putting users and the business at risk.

### **Poor visibility**

Applications are more diverse in type and growing in volume. Modern applications are encrypted, and application configuration also is increasing in complexity. Encrypted applications (SSL, TLS, HTTPS) are difficult to classify and segment, so app traffic is all treated equally, usually with high priority over MPLS networks. Encrypted apps and SaaS vendors, whom IT does not control, can make it hard to manage service level agreements and gain control.

### **Poor/Unpredictable app performance**

Application performance directly impacts business performance. Today MPLS is often at capacity within organizations. As more enterprises turn to the cost-effective Internet, they also experience a downside: no SLAs for Internet broadband and little or no visibility and control over performance.

## **What's Needed?**

### **Riverbed Application-Defined Networking for the Cloud Era**

To solve these challenges, you need a centrally managed, application-defined networking solution for the Cloud era. With Riverbed's Application-Defined Networking, the network environment adapts to the application requirements.

IT then can manage network segments that are part of SD-WAN's unified networking fabric (WANS/LANS/Cloud), optimize and accelerate apps, and see into and troubleshoot application and network performance based on that application intelligence. As a result, Riverbed can deliver enterprise-level Visibility, Optimization, and Control over any network to any cloud or users no matter where they work.

Riverbed uniquely delivers these capabilities.

- SD-WAN
- Cloud Connectivity
- Cloud Managed LAN
- WAN Optimization
- Cloud Visibility

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Riverbed® SteelConnect™ is the cornerstone of Riverbed's strategy for next-generation, application-defined enterprise networking. SteelConnect is a complete SD-WAN system for securely connecting users and the business to the applications they need, wherever they reside—on a remote LAN, in a data center, or in the cloud.

SteelConnect offers several differentiators—ubiquitous and unified *connectivity* across LAN, WAN and the Cloud; business aligned *orchestration* for fast, agile, and secure application delivery; and unique cloud-centric workflow, *easy menu-driven network design* of sites, zones, uplinks, and rules, and *centralized, business intent-based policy management*—all within a simple graphical user interface—for ease of use and greater business agility.

## How Riverbed SteelConnect Can Help the Business

Most business requests start fairly simply with “I want to do...but...”

Thus, a manager in charge of transactions and payments across many locations and geos might say: “I want debit transactions that are critical and confidential to be restricted to authorized devices and servers globally.”

Here's how IT easily translates that manager's request—with SteelConnect.

### A single business intent-based policy and universal policy automation

Each request can be directly translated into a single global policy using a menu-driven, GUI-based dashboard. No CLI coding. Everything else is automated based on that intent-based policy and deployed instantly and globally—to all designated locations and online. Change management is easy. Just change the policy rule and deploy automatically.

### Unique! Intent-based workflow and virtual network design with automated zero touch provisioning

Uniquely provides a simple workflow and menu-driven virtual network design based on sites, zones that can go across sites, uplinks and rules, and using a “shadow” appliance that stands in for the physical application—without ever touching a physical device in remote location. Automatic provisioning reduces or eliminates need for on-site IT in remote facilities.

### Application intelligence for policy rules, path selection, and reporting

Identifies and classifies over 1300 applications for optimization and acceleration with Riverbed's deep packet inspection. Provides pre-defined Application Groups (for example, business critical) for convenient traffic path rule and security policy creation, as well as scalability with fewer policy rules. Add custom applications and leverage a constantly updated Application Catalog of public applications available on the internet for an efficient and accurate way to identify applications for advanced classification. The database is used for policy rules, the steering of applications (path selection), and metrics-based reporting.

### Centralized management

Provides a single unified view enabling integrated visibility. Here you can set up the policy rules, app priority (QoS) and the networks to be used (path selection) so apps containing financial data can be restricted to the highly secure MPLS, while other non-confidential apps can traverse the low-cost Internet, for example. Enables automated zero touch deployment and provisioning in seconds, as well as holistic change management across store or branch locations with a simple change to the single policy—including traffic, security, and port policy. No downtime in the branch or local store. No one waiting for the systems to come back online.

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## Security

Creates security zones with policy-driven, dynamic segmentation of LAN and WiFi users across all locations and geos. With this ability to securely segment users, the business can offer secure WiFi access in remote locations—with easy self-registration of any digital device the customers or visitors are using. In turn, they can bring any device and securely connect with ease to the WiFi— without complex sign-ons and passwords. Businesses can communicate with customers and offer follow-on services and purchases aligned to customer needs and interests through social media, email, and text.

## Fast application delivery with optimization and acceleration

Includes Riverbed's industry-leading WAN optimization for application acceleration, SaaS/cloud acceleration, and web proxy for direct-to-the-cloud access. SteelConnect also provides SD-WAN services and hybrid networking, such as path selection, QoS and next-gen firewall, so applications perform and are secure no matter where your end users are working or accessing content.

## Large-scale deployments

Offers enterprise-class SD-WAN for large-scale deployments with Azure integration, Amazon Web Services (AWS) high availability and AWS SteelHead for Virtual provisioning. The new SteelConnect SDI-5030 Gateway also provides higher throughput (up to 10 Gbps) support for complex networks (for example, split datacenters and split campuses) and high availability. The new SteelConnect SDI-1030 Gateway delivers up to 1 Gbps throughput at edge locations.

## Branch high availability

Creates highly available branches with paired branch gateways—with one gateway reserved for redundancy. High availability is also ensured through data center high availability via clustering of SteelConnect SDI-5030 Gateways, load balancing of links, and path selection to failed links. Branches will no longer fear the effects of downtime on productivity and the bottom line.

## Enterprise scalability and data protection

Allows easy scalability to accommodate a growing business and redundancy to ensure business data and application recovery. It combines Riverbed Interceptor's load balancing and SteelConnect's traffic re-direction functionality. Interceptors facilitate complex network integration for SD-WAN and keep the in-path devices fast, simple, and robust. Interceptor offers the same well-known graceful failover and recovery options as before (dual, quad, octal with both fail-to-wire and fail-to-block options).

## Single click cloud deployment

Automates cloud networking and accelerates cloud performance. SteelConnect offers elegant AWS Virtual Private Cloud (VPC) management and interconnects physical networks to VPCs in seconds. Now you can add Cloud Optimization (app acceleration) with click of a button. Single click deployment works with AWS Cloud, Microsoft Azure and other clouds. The capability enables cloud flexibility with cloud-to-cloud optimization and enterprise datacenter/branch to cloud optimization.

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### **Application and network visibility for reporting and troubleshooting**

Provides unified view of users, devices, and groups of either. Now you also can leverage the power of SteelCentral's NetProfiler with SteelConnect and NetProfiler integration so IT can see, understand and fix issues before they impact the end user. With SteelCentral NetProfiler, IT has a centralized, dynamic view and understanding of an enterprise's application and SD-WAN performance environments—for example, see minute-by-minute consumption of applications; report application-specific performance by network, site, and user; and make path and quality of service decisions quickly.

### **Dynamic native routing**

Makes IT more cost-efficient and agile with no CLI coding and helps eliminate network complexity in every location. Coexist with or replace routers that require CLI with SteelConnect's dynamic native routing.

### **Path quality monitoring and quality-based path selection**

Steer your apps down the best and most available paths so your users don't have to wait. SteelConnect's monitoring of the path quality provides visibility into the quality of each path in the overlay network including virtual paths, like QoS traffic classes, and reports on exceptions, as long there are existing SLAs governing service expectations.

With Quality-based Path Selection, SteelConnect can define the application's path based on any of the following: global or site; sources such as zones, users, groups and tags; destination; and guaranteed return path. Utilizing VPN maintenance packets with enhanced headers, SteelConnect can make path decisions based on maximizing application service needs, including link status, packet loss, latency and jitter.

Path selection identifies applications using DPI-based application awareness to distinguish between business-critical and recreational traffic. Using a single global policy, you can map applications to the appropriate paths available across SD-WAN and hybrid networks and, in the case of performance issues, dynamically reroute applications to ensure no impact to users. It is simple to deploy based on a single, easy-to-use global policy—without doing complex and tightly coupled router configurations.

## Try Riverbed SteelConnect

Design first. Deploy when ready. Change with ease.

SD-WAN | Cloud Networks | Branch LAN/WLAN

SteelConnect is the first and only SD-WAN solution to:

- Enable a workflow and virtual design of networks based on plain-language business requirements
- Enable seamless connectivity between infrastructure on-premises and in the cloud with the same global policy engine
- Enforce the performance SLAs and security requirements for each application regardless of source or destination
- Integrates with the Riverbed Application Performance Platform for optimization, accelerated application delivery, and visibility

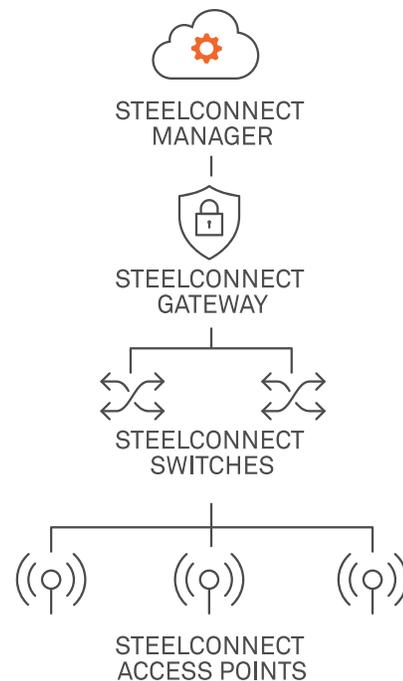
## SteelConnect

SteelConnect dramatically simplifies and streamlines the process of designing, deploying and managing distributed networks, enabling organizations to modernize their network architecture to realize the full potential of digital transformation. SteelConnect 2.0 includes:

- **SteelConnect Manager:** A cloud-based, multi-tenant management portal hosted as a service within popular clouds—Amazon Web Services, Azure and others, as well as self-hosted, that is, a physical or virtual appliance on the customer's premises or in the customer's private cloud, such as VMware. It provides a simplified workflow for designing and deploying networks and features Rest APIs for northbound traffic.

- **SteelConnect Gateway:** A line of physical and virtual secure WAN gateways that provide basic network services to zones, as well as policy enforcement, extended reporting, and automated VPN with state-of-the-art security
- **SteelConnect Switches:** A line of remote switches that automate LAN deployment, automate network trunking, eliminate manual configuration errors, enhance security with reduced attack surfaces, drive traffic prioritization for network availability with QoS, and enable cloud stacking through port management across the entire network as if working with a single switch
- **SteelConnect Access Points:** A line of access points that enable enterprise-class, multi-site Wi-Fi for visitors, employees, and the Internet of Things

SteelConnect 2.0 will be available starting October 2016, with feature enhancements released throughout the remainder of the year.



SteelConnect Components

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## Doing More With Riverbed SteelConnect – Use Cases

SteelConnect can deliver solutions for every business from building hybrid WAN to automating cloud connectivity across every industry. To learn more about applying SteelConnect in business and vertical industries, please visit:

[www.riverbed.com/steelconnect/use cases](http://www.riverbed.com/steelconnect/use cases).

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### About Riverbed

Riverbed, at more than \$1 billion in annual revenue, is the leader in application performance infrastructure, delivering the most complete platform for the hybrid enterprise to ensure applications perform as expected, data is always available when needed, and performance issues can be proactively detected and resolved before impacting business performance. Riverbed enables hybrid enterprises to transform application performance into a competitive advantage by maximizing employee productivity and leveraging IT to create new forms of operational agility. Riverbed's 27,000+ customers include 97% of the *Fortune* 100 and 98% of the *Forbes* Global 100. Learn more at [riverbed.com](http://riverbed.com).

The Riverbed logo consists of the word "riverbed" in a lowercase, bold, orange sans-serif font.