
Riverbed SteelFusion

The first hyper-converged infrastructure solution purpose-built for zero branch IT

Riverbed® SteelFusion™ is the first and only hyper-converged infrastructure that delivers local performance while enabling data centralization, instant recovery, and lower TCO. SteelFusion converges server, storage, and network infrastructure into a single branch appliance minimizing the footprint needed to run branch applications while centralizing data. SteelFusion eliminates the headache of branch office IT, consolidating servers and storage into the datacenter without sacrificing any of the benefits of having servers at the edge close to users.

SteelFusion features an industry-first storage delivery architecture that allows organizations to eliminate servers, storage and inefficient backup processes from branch offices. Unlike traditional hyper-converged infrastructures, SteelFusion enables “stateless” branch services. Users access applications running locally in the branch while primary data is stored in the datacenter, eliminating the risk of data loss.

Decoupling compute from storage, SteelFusion hyper-converged infrastructure delivers local performance and capacity without requiring a storage-intensive architecture in the branch. This significantly reduces required branch infrastructure and centralizes management of branch services.

SteelFusion delivers IT agility with instant provisioning, backup, and instant recovery for branch offices, and ensures continuous operations when disasters occur such as inclement weather, fire, and human-induced outages. Integrated into SteelFusion is the industry-leading SteelHead technology for WAN Optimization, which enables unrivaled performance and applications that simply work for employees and customers at the branch, who are the growth engine to any business. With SteelFusion, businesses can instantly provision new services and restore operations in a matter of minutes vs. days, centrally protect and secure data, deliver the kind of performance expected from locally-run applications, and significantly lower the TCO of branch and remote offices.



SteelFusion Consists of Two Components:

SteelFusion Edge

A hyper-converged appliance that integrates server, storage, network, and virtualization to run local branch applications, eliminating the need for additional branch infrastructure.

SteelFusion Core

A storage delivery controller in the datacenter that interfaces with a storage area network (SAN) to project centralized data out to branches.

SteelFusion serves as the infrastructure for your branch, significantly lowering capital and operational costs, mitigating the risk of branch disasters, and improving IT's responsiveness to the business.

Business Challenge

Enterprises pull from a global talent pool and establish branch offices to remain close to customers, partners, and key components of their supply chain. As the number of branches grows, organizations deploy more and more infrastructure to deliver applications and data efficiently and reliably and maintain an acceptable level of productivity. As business grows, important company data in branch offices multiplies exponentially, and is left unprotected.

This proliferation results in islands of distributed branch infrastructure that are necessary to meet local performance and reliability needs, but that are costly, risky, and inefficient to manage. Companies rarely have the expertise in branches to maintain such distributed infrastructure. This increases business risk due to outages, obsolescence, and data loss. When branch offices go down because of natural or manmade disasters or human error the costs are huge. It can take days to fully recover.



Key Benefits

Security and Data Protection

Mitigate risks associated with data in remote locations.

Control

- Control data in the datacenter, removing sensitive information from high-risk locations
- Render data on stolen appliances or drives inaccessible without admin authentication

Encryption

- Ensure data at rest is safe using AES 256-bit encryption, compliant with HIPAA and Top Secret standards
- Protect data in-flight with industry-standard SSL or IPSEC encryption
- Reduce risk by maintaining only a limited set of active data blocks at remote locations

Productivity

Deliver superior application performance for branch and remote office productivity

Optimization, Visibility, Control

- Increases application and data transfer performance up to 100x
- Improves visibility with application, network, and end user monitoring
- Dynamically selects the best application path based on business intent and network availability

Business Continuity

Improve disaster recovery readiness and reduce downtime .

Disaster Recovery and Avoidance

- Reduce data loss with near real-time synchronization of data to the datacenter
- Rapidly recover from disasters by projecting VMs from the datacenter to the branch
- Start VMs in the datacenter when remote locations experience or expect interruption

Data Protection

- Centralize data protection to benefit from mature enterprise-class practices
- Eliminate the need to purchase, install, and manage dedicated branch backup solutions

Disconnected Operations

- Enable work to continue uninterrupted by maintaining local access to VMs and data even if the WAN link is down

Agility

Reduce capital and operational costs, simplify IT practices, and deliver new services with velocity and ease.

Consolidation and Centralization

- Centralize branch servers and storage while maintaining local performance
- Slash branch IT costs by eliminating the need to purchase and maintain branch servers and storage
- Drive greater utilization of datacenter storage investments

Simplified Management

- Reduce branch administration costs by leveraging standardized datacenter policies and procedures
- Centralize control to eliminate the need for remote IT personnel or “fly and fix” missions
- Quickly provision remote and branch offices from the datacenter
- Deploy new services to branches, stores and remote sites in minutes.

Key Features

Out of the box, SteelFusion features three technologies that work together deliver local performance from the datacenter to the branch:

Integrated storage delivery: BlockStream™

BlockStream is a Riverbed-patented technology that centralizes data in the datacenter and projects a working set out to the branch. It combines three capabilities: 1) an authoritative block cache built into the SteelFusion Edge hyper-converged appliance; 2) a pre-fetch algorithm that predicts and delivers required data to branch locations; and 3) data deduplication technology that reduces the amount of data transferred between Edge and Core.

Built-in WAN optimization: SteelHead™

SteelFusion contains an integrated instance of the industry's #1 WAN optimization solution – Riverbed SteelHead. WAN optimization helps further streamline branch infrastructure by accelerating all branch user application and data traffic at the fastest speeds across the optimal networks at the lowest cost.

Branch-optimized virtualization: Virtual Services Platform (VSP)

The SteelFusion Edge hyper-converged appliance contains a fully integrated instance of the VMware® vSphere® hypervisor, optimized to run remotely on a hardened branch appliance. Customers benefit from having the industry-standard virtualization platform, which can be managed with existing tools and capabilities. SteelFusion simply and seamlessly appears as a standard host in existing VMware vSphere and vCenter Server™ management tools.

Data Center to Data Center Replication: Introducing FusionSync™

FusionSync synchronizes branch-office data to a secondary private or hybrid cloud location, ensuring all branches VM data is up to date across environments. During data center outages, the secondary environment becomes primary and all branch traffic is seamlessly directed to and from the alternate location. FusionSync eliminates the need to deploy and maintain a separate replication solution to protect branch office data across data centers, dramatically simplifying DR practices.



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 26,000+ customers include 97% of the *Fortune* 100 and 98% of the *Forbes* Global 100. Learn more at riverbed.com/steelfusion

riverbed