

Riverbed Solutions for Government

Key Components of COOP and Agency Readiness

A continuity of operations plan (COOP) outlines the steps that a government agency must take in the event of a disaster. Recent disasters have highlighted the importance of COOP, which enables an organization to continue performing critical functions during an emergency.

Safeguarding IT assets and information is an important part of COOP. Organizations need to back up data and information at a second location, in the event that their primary data center is no longer operational. They are also required to test the capabilities of this back-up infrastructure to ensure that it can support the required workload.

In addition, telework – the ability for employees to work remotely - is an important component of COOP. The General Services Administration (GSA) has set a goal to have 50 percent of employees able to telework by 2010 – although only about 20 percent of employees do so today.¹

Despite the stated importance of COOP, a significant number of Federal agencies report that they are not properly prepared. According to one study, 40% of employees believe that their federal agency is not prepared to continue operating in the wake of a disaster.²

Overview of Riverbed Steelhead Products

Riverbed® Steelhead® products enable LAN-like performance of applications across a wide area network (WAN), and they deliver the best performance improvements across the broadest range of applications. The Riverbed approach accelerates all TCP-based applications across a range of environments, including high latency satellite networks.

Riverbed Steelhead products use a three pronged approach to accelerate applications: 1) data streamlining, which removes 65 - 95% of redundant data from the WAN; 2) transport streamlining, which addresses TCP chattiness and latency; and 3) application streamlining, which addresses chattiness and latency in the applications themselves. The combined effect of this technology is that WAN bandwidth use is reduced 65 - 95%, and applications are accelerated over the WAN from five to 50x, even up to 100x in some cases.

A Joint Solution by Riverbed and



Riverbed Enables COOP for Federal Customers

Riverbed Technology works with many government organizations, from one of the world's largest navies to major civilian agencies. These customers have deployments of Riverbed Steelhead products that range from a just a few sites to large deployments with hundreds of locations.

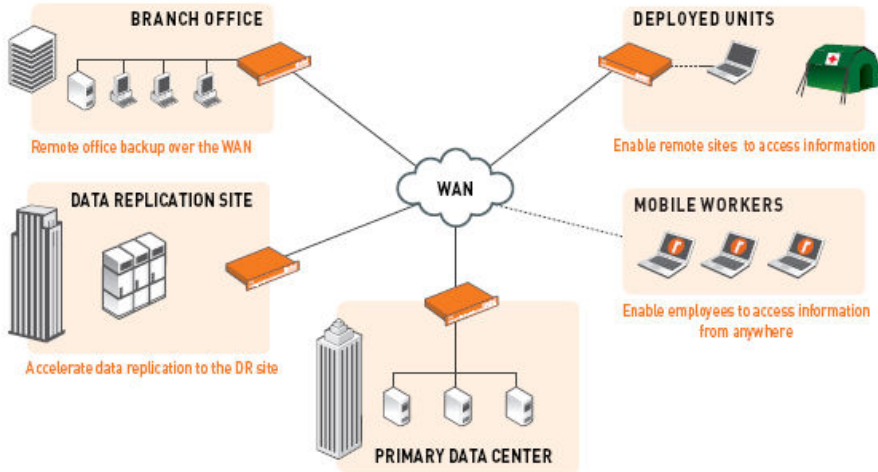
- With Riverbed products, government customers can improve their COOP strategy and disaster preparedness by:
- Improving the security and speed of data back-up processes – without having to add bandwidth
- Accelerating the replication of information from the data center to a secondary location by up to 45x
- Improving access to information for mobile field units and mobile workers, enabling them to work from anywhere



¹ "Continuity of Operations," by Gautham Nagesh, 6/23/08. From NextGov, "The Basics: A Glossary of Federal Technology." http://www.nextgov.com/the_basics/tb_20080623_2687.php

² Telework Exchange "COOP: A Wake Up Call," 12/5/05

Typical Steelhead Deployment Diagram



How Do Riverbed Steelhead Products Enable COOP?

Enable back-up over the WAN

Riverbed Steelhead products can help an agency with COOP in a few ways. First, Riverbed products make the back up of information over the WAN a reality. For many agencies, critical data is not hosted in one location, which magnifies the challenge of backing up and securing it. Traditional approaches involve tape backup equipment in each location and local resources to manage this infrastructure. This can be a tenuous proposition at best, while for some organizations it is completely unrealistic. The alternative is backup over the WAN, but application and network latency make this highly-desirable approach untenable for many organizations.

Because Riverbed products remove redundant data from the WAN and accelerate the transfer of information, network-based backup becomes feasible – in many cases without additional bandwidth. Network-based backup allows for consolidation of data into the data center, where it can be placed onto tape or other secondary storage media. Backup data is then more secure and easily accessible for restore.

Accelerate data replication to a disaster recovery site

Second, Riverbed Steelhead products can accelerate the replication of information from the data center to a secondary site. An effective COOP strategy requires that all data be stored redundantly at multiple locations, often separated by long distances for geographical diversity. If a disaster destroys data in one location, employees will have access to a second, redundant copy at a different location to continue operations.

Riverbed Steelhead products speed data replication solutions to transfer significant amounts of data over the WAN to a disaster recovery site. For example, the New Zealand Department of Conservation was able to reduce the traffic travelling from their data center to a disaster recovery site by 85%, speeding their replication times. With these types of improvements, a federal agency can more easily meet their recovery point objectives (RPO) and recovery time objectives (RTO), and thus improve their overall COOP strategy.

Improved mobile access to data

Finally, Riverbed Steelhead products enable improved mobile access to information, both for mobile field units and mobile workers. For example, the Navy Marine Corps Intranet (NMCI) – the largest computer network in the world – is using Riverbed Steelhead products in their “NMCI in a box” package. This solution enables Navy and Marine Corps forces to access NMCI resources over high latency satellite links while deployed in remote locations.³ As mobile access is an important component of COOP, Steelhead Products extend this capability to mobile units.

In addition, Steelhead Mobile software can dramatically improve the productivity of mobile workers, enabling the telework component of COOP for a federal agency. Steelhead Mobile is a software-only version of Riverbed acceleration technology that sits on the laptops of mobile workers and enables them to access applications as if they were in the office. Steelhead Mobile helps eliminate performance problems caused by bandwidth constraints, latency, or application protocol inefficiencies. With Steelhead Mobile, workers can access information from anywhere – which can help an agency to continue operating in the event of a disaster.

³ Washington Technology, "Pack it up and go anywhere: NMCI's 'network in a box' allows troops to set up offices in the field," 6/16/08.
www.riverbed.com/lg/resource/washington_technology_nmci.pdf

About Riverbed

Riverbed is the IT performance company. WAN optimization solutions from Riverbed liberate businesses from common IT constraints by increasing application performance, enabling consolidation, and providing enterprise-wide network and application visibility – all while eliminating the need to increase bandwidth, storage or servers.



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