

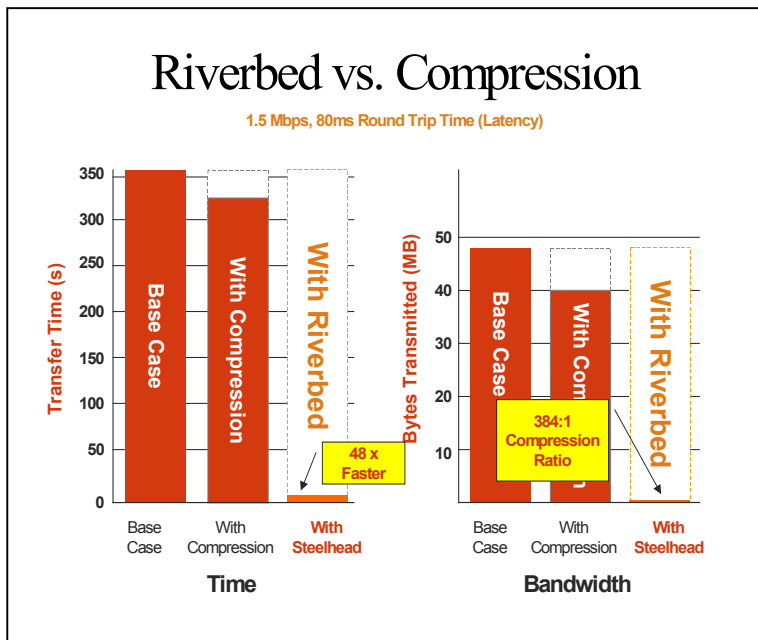
Riverbed Steelhead Appliance

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Title: Eliminating Remote IT

Abstract: Any corporation with more than one site has been plagued with the age-old problems of dealing with IT issues remotely. We patch together solutions and desperately try to get part-time, inexperienced IT folks to help out in the field, almost always unsuccessfully. Besides the obvious cost associated with having replicate gear and replicate people, the opportunity cost of when things go awry is almost incalculable. Riverbed aims to completely remove the “remote” from remote IT.

Riverbed

Founded in 2002, the company starting shipping its Steelhead appliances in 2004 – and quickly acquired over 100 customers. While this is impressive, even more so is the type of customers – all big name, big money, big IT guns.



Why the interest? Because the problem is universal – no one wants remote IT – there is nothing good about it, and plenty that can and will go wrong.

The Problem – Remote IT

Let’s face it, if you could keep all of your IT assets – infrastructure, data, and people – in one place, you would. The reason you don’t is because performance/cost. You simply could not get the application performance remotely that you do locally, and as such you killed remote productivity if you tried. So you invested in putting IT infrastructure close to the user, which meant you needed IT people there, and backup/recovery and protection, and on and on.

The performance problem is fairly easy to understand – you simply could not get a local application to respond to remote requests quick enough to enhance the remote persons productivity. CIFS, NFS, Web app’s, etc. are simply too slow

even over big, expensive communication lines. The cost issue is the same – you spend a fortune on those communication lines which tend to be idle 90% of the time, and you have all the added costs of replicate servers, backup/recovery, and personnel on the remote site – all of which invariably breakdown and drain the resources of corporate IT eventually.

The Solution – The Steelhead Appliance

The Steelhead appliance was designed to solve the problems of the remote IT user by eliminating remote IT. It lets corporate IT run the show, and speed delivery of the applications/data to the remote site to the point where remote users *don't know it's not local*. That is the critical ingredient for success. They accelerate any application running over TCP, including CIFS (windows shares), Exchange, Notes, FTP, Notes, Web applications and Backup/Recovery, enabling you to consolidate remote IT infrastructure such as file servers, email servers, and libraries. In essence, they do this by “widening” your existing bandwidth through advanced compression, the optimization of transport protocols (like TCP), and by optimizing specific application level protocols. Part of this involves “de-duplicating” transmissions – i.e. it recognizes the same byte, and only sends it once. But the other part involves predicting upcoming protocol behavior that would otherwise involve literally hundreds of round trips. The two optimizations combined can offer massive benefits – over 100 to 1 in certain cases. Removing redundant data alone isn't enough (although Riverbed will typically reduce bandwidth by 60% to 95%); to get the 100:1 application speed ups, you also have to address latency and “chattiness”.

While ESG Lab has yet to validate the performance claims, we have seen results that are staggering, representing orders of magnitude in performance gains. We have seen nothing to believe these results will not hold up in the most rigorous testing environment.

The product is installed as an in-band appliance at each remote site, and at the central site. It can also be configured out-of-band. Steelheads eliminate the need for caching products and many times, entire servers themselves. Steelhead works with whatever investments you've already made, making them work more efficiently.

The Bottom Line

It is difficult to think of a scenario where the Steelhead won't help you. You owe it to yourself, and to those poor part-time IT field people to take a long, hard look at the Steelhead. This could change the way you conduct business – for the better. This many customers with this many success stories simply can't be wrong. This could very well be the IT product of the year, in my book.

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