

Performance Brief: Autodesk AutoCAD 2008

Riverbed Steelhead Mobile Accelerate Autodesk AutoCAD® 2008

AutoCAD provides state-of-the-art software used by leading architecture, engineering, and manufacturing firms across a wide range of industries. Firms use AutoCAD to design drawings and products and then visually to clients and collaborating parties. While the application provides an outstanding tool for organizations to standardize on for design purposes, the size of the drawing files often exceed hundreds of megabytes on larger projects and can impact employees' ability to collaborate effectively.

For firms with distributed offices or a global presence, sharing and collaborating on large CAD documents can often lead to significant delays in accessing drawings during normal file open and save operations. Many firms estimate that design engineers can spend one-quarter to one full hour a day on remote file operations, dramatically reducing the available working time per person. These delays impact productivity and overall time-to-market for customers, and ultimately, delivery to the client.

Steelhead Mobile Enhanced AutoCAD 2008 - Local Performance Anywhere

Deploying Riverbed® Steelhead® Mobile along with AutoCAD 2008 software can greatly reduce the amount of time required to open, save and transfer CAD documents across the wide area network (WAN). As a result, organizations can achieve LAN-like access speeds of centralized design documents and improve the collaboration and productivity of their design specialists wherever they are. This gives firms the opportunity to source people on projects regardless of their location and enables near real-time collaboration on designs across distributed teams.

The Riverbed Optimization System (RiOS®) that powers Steelhead Mobile utilizes industry leading data streamlining, transport streamlining, and application streamlining to provide data de-duplication, compression, transport layer and application protocol optimization. These optimizations can cut AutoCAD traffic on the WAN by as much as 98% and accelerate access times by up to 13x.

Performance Improvements

Riverbed Steelhead Mobile accelerate AutoCAD 2008 in performing common operations such as opening and saving files (see sidebar) by up to 13x. Simultaneously, between 2 - 62x less data was traversing the WAN, a significant savings made possible by Riverbed's scalable data referencing techniques.

TEST RESULTS

- Bandwidth utilization is reduced by 98%
- Over 13x performance improvement

TESTING PARAMETERS

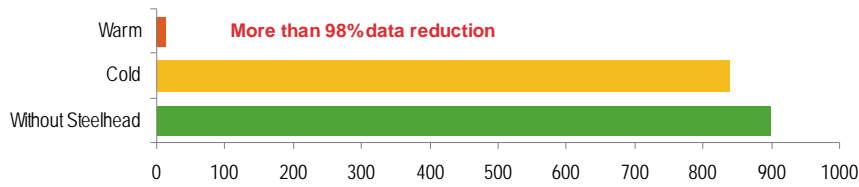
The test environment to obtain the results described in this brief consisted of a WAN with a T1 connection, and a 100ms delay between locations. This scenario would be typical of a WAN link between Los Angeles and New York.

For the open operation, AutoCAD 2008 was launched and then a simple file open was performed. For the save operation, the ISAVEPERCENT was set to zero and the file was saved back to the server under a different name using the 2007 DWG format.

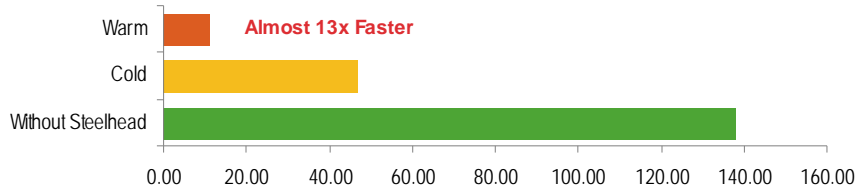
This test was performed using Steelhead Mobile 1.0.5 and a Steelhead appliance running RiOS 5.5. The Client OS was Windows XP Professional running AutoCAD 2008 w/ SP1 and hotfix. The Server OS was Windows 2003 Server R2 Enterprise Edition

NOTE: The 2007 DWG format used by more recent versions of AutoCAD and Civil3D scrambles the file data during save operations even if no changes have been made to a drawing. As a result, Riverbed and AutoCAD collaborated to develop a WAN hotfix to address this problem. More information on this issue and links to download the hotfix can be found at the Autodesk support site under ID: TS1089748

AutoCAD 2008 Data Reduction – Data Transferred (bytes in millions)



AutoCAD 2008 Open – Time to Complete (in seconds)

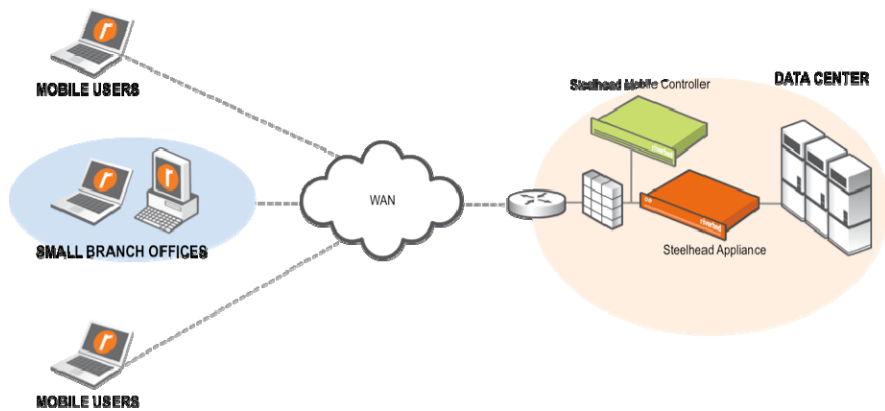


DEPLOYMENT BENEFITS

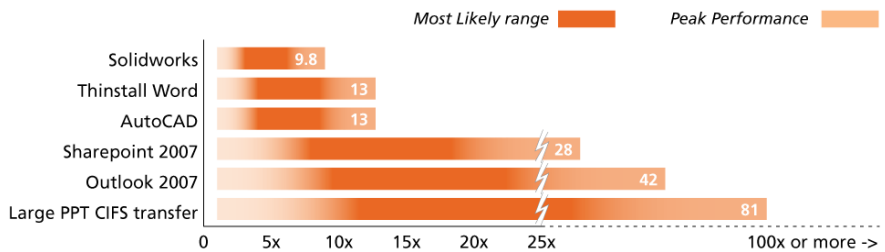
Deploying Riverbed in conjunction with AutoCAD 2008 provides multiple benefits, including:

- **Productivity gains.** By dramatically reducing the amount of time needed to complete basic CAD file operations, engineers can save an hour per day or more.
- **Maximize bandwidth.** Steelhead Mobile can maximize available bandwidth for AutoCAD operations when variable links, latency and locations often conspire to limit mobile worker connectivity and performance.
- **Better, faster collaboration.** By reducing the time to transfer AutoCAD files by an order or magnitude or more, Steelhead Mobile enable users to work collaboratively on large design documents wherever they are. Work can be shifted so that employees can work on a task regardless of their location.

Typical Steelhead Mobile Software Deployment Architecture



Steelhead Mobile Software Accelerates a Broad Range of Applications



About Riverbed

Riverbed Technology is the IT infrastructure performance company. The Riverbed family of wide area network (WAN) optimization solutions liberates 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. Thousands of companies with distributed operations use Riverbed to make their IT infrastructure faster, less expensive and more responsive. Additional information about Riverbed (NASDAQ: RVBD) is available at www.riverbed.com



Riverbed Technology, Inc.
199 Fremont Street
San Francisco, CA 94105
Tel: (415) 247-8800
www.riverbed.com

Riverbed Technology Ltd.
Farley Hall, London Rd., Level 2
Binfield
Bracknell, Berks RG42 4EU
Tel: +44 1344 354910

Riverbed Technology Pte. Ltd.
391A Orchard Road #22-06/10
Ngee Ann City Tower A
Singapore 238873
Tel: +65 6508-7400

Riverbed Technology K.K.
Shiba-Koen Plaza, Bldg. 9F
3-6-9, Shiba, Minato-ku
Tokyo, Japan 105-0014
Tel: +81 3 5419 1990