

Akamai IP Application Accelerator for Large File Transfers



Regardless of the industry — high-tech, media & entertainment, manufacturing, healthcare, or education, enterprises have a need to transfer large, mission-critical files among people, partners and locations. Want to know whether Akamai's Application Performance Solutions (APS) can help your enterprise transfer large mission-critical files quickly, securely and reliably across globally dispersed users?

Ask yourself the following questions:

- Are you currently supporting home grown FTP solutions that are accessed by employees and partners from various global locations? Are reliability, security and performance of large file transfers your primary concerns?
- As volumes, types and sizes of large critical files continue to increase and vary, are you considering investing in a centrally managed large file transfer solution that supports multiple protocols and multiple standards?
- Are your remote mobile users complaining of poor performance when they attempt to securely move or access files over VPNs? Is poor productivity hampering achievement of critical business goals?
- As compliance and regulatory requirements make data protection and secure file transfers mandatory, is performance taking a backseat — leading to an increase in help desk tickets?
- Is lack of insight into performance bottlenecks leading to poor user experience and escalating support costs, impacting the bottom line?

Can enterprises overcome these challenges with a fully managed, simple yet efficient managed solution without additional infrastructure?

Learn how Akamai can help.

Large File Transfer Examples with Akamai

While specific configuration and use conditions can vary greatly, the following examples are provided to show real examples of how Akamai can help businesses like yours improve performance and availability for your large file transfers. The tests reported within this document have been performed using real-world Internet conditions to characterize real business transactions, as opposed to an environment where conditions can be simplified to demonstrate artificial gains. In the following examples, the performance results cited are for these specific customers only, based on tests conducted, and may vary for other customers.

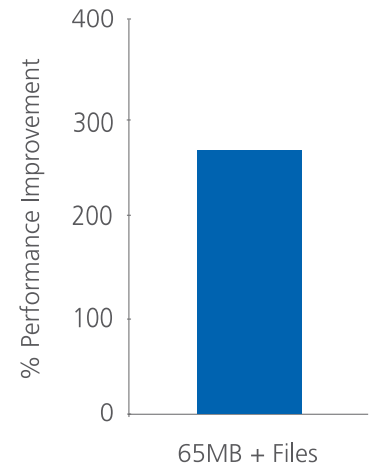


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Global Leader in Visual Computing Technologies – SFTP

Challenge – Ensure global performance of large file transfers, reduce escalating support costs and drive higher sales growth

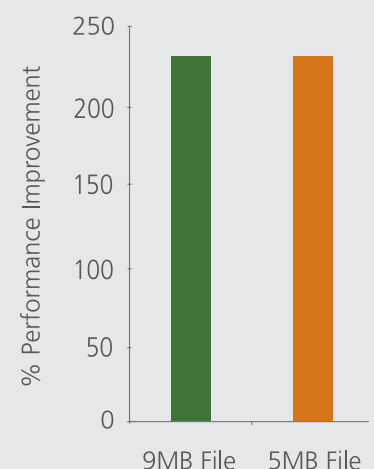
Arming strategic partners and resellers located worldwide with the latest and future releases of drivers for a variety of products, devices or a range of operating systems is important for Enterprises. Additionally, enabling large software downloads, making graphically rich marketing materials available online — whenever they need them — can be a critical differentiator in driving adoption and consequently galvanize sales. The primary challenge for IT teams is to ensure a consistent user experience regardless of geography by addressing latency and packet loss issues commonly associated with large file transfers. The task is even more daunting when you consider the need to support both fixed and mobile users using multiple devices; allowing them to download and transfer large files (65MB+) to centrally located servers from far flung locations securely using SFTP. Although the volume of traffic may be small, IT teams need to guarantee performance and ensure these high-value files are always available. Addressing these challenges often results in high support costs. Test results for transferring large files using SFTP from various global locations to centrally hosted servers in the United States with Akamai's fully managed IPA service showed a remarkable global average of **3x to 4x** improvement in performance when compared to traditional methods for this customer. This was achieved by employing TCP optimization techniques over Akamai's SureRoute IP Paths, thereby avoiding the Internet's problem spots for markedly improved delivery, driving higher sales growth and reducing support costs.



Global Publisher - Proprietary Protocol

Challenge – Enable faster file sharing, improve productivity and gain a competitive advantage

Global publishers are increasingly relying on third party online publishing systems for their core publishing process by enabling efficient, real-time online collaboration between content providers, editors, offshore offices, media houses, graphic design agencies and all related service providers located worldwide. As a part of the workflow, publishers are not only encouraging aggregation of content from a variety of sources in different countries to a central repository, but also allowing editors to download, modify and upload these files from locations worldwide - helping to publish content more quickly, more efficiently and in an organized manner. The IT department needs to facilitate this requirement by not only providing support for proprietary protocols but also ensuring fast, uniform performance for a variety of devices used by remote mobile users. Tests conducted for users in India downloading and transferring files to a central server in the United States over the VPN showed it was distinctly faster when using the Akamai IPA solution as shown in the performance graph for this customer. An added benefit of using Akamai's IPA solution, was that a significant portion of the resource-intensive SSL encryption process could also be offloaded. Furthermore, the integration was seamless and not transparent to the user. This enabled this particular global publisher to create, format and publish content more quickly and stay ahead of competition.

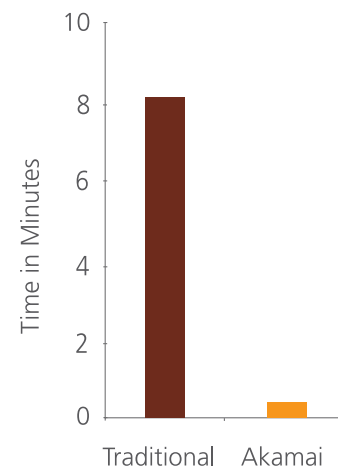


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A large data protection and storage company

Challenge – Overcome three-times slower performance for data back up and recovery for users outside the U.S.; increase customer satisfaction and retention

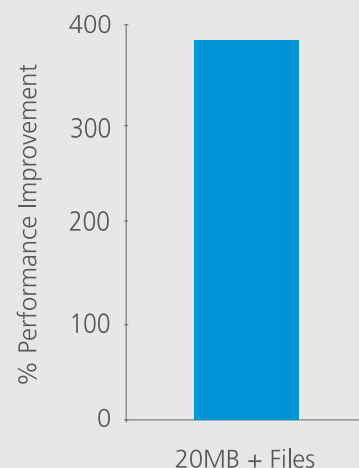
Data protection and storage companies are increasingly providing their customers with Internet based services to assist with the re-imaging of laptops from remote locations quickly and efficiently. When a large number of users in distant global locations attempt to back up and recover data from centrally hosted servers in the United States, they are often likely to encounter some performance problems due to network latency, distance and the size of the files. Customers complained that recovery was **3x** slower in locations outside the U.S., hampering productivity — particularly in Europe. Uploading initial image files alone took a considerable amount of time. Tests conducted using Akamai’s easy-to-deploy IPA solution showed phenomenal improvement with a nearly **5x** increase in transfer rates of large **2GB** files for users in Europe of this customer. With the Internet-based PC back up and recover solution, this company could now increase customer satisfaction many fold, drive higher customer retention and expand its service to cater to new regions without adding any additional infrastructure.



Global semiconductor company - SFTP

Challenge – Improve performance and reliability of large file transfers, increase efficiency in your supply chain and improve customer satisfaction

Global semiconductor companies look to manufacturing partners in Asia for cost-effective manufacturing of semiconductor chips. A common method of exchanging design information with manufacturing partners is by using Secure FTP to transfer large schematic design files. Often, test files and results from manufacturing locations are communicated back to the design locations via the same channel. In a highly competitive industry where quality of the product, quick turnaround and timely delivery are paramount, semiconductor companies need to ensure flawless, reliable delivery of these mission-critical files at all times. Test results for the transfer of large CAD/CAM files to supply chain partners in APAC from locations in the United States for this customer showed a significant **4x** to **5x** improvement in performance, resulting in an increase in supply chain efficiencies and ultimately leading to higher levels of customer satisfaction..



Akamai IP Application Accelerator Solution (IPA) for Large File Transfers

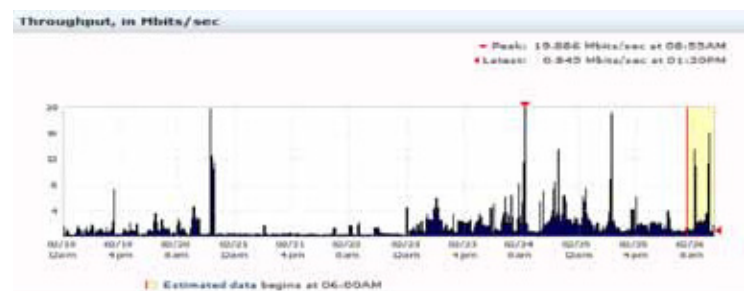
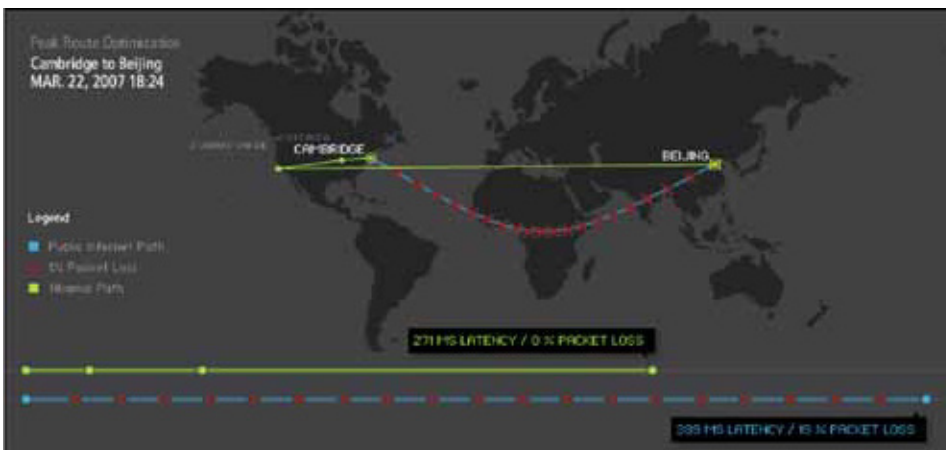
Akamai’s IPA Solution is a fully managed service that helps enterprises with employees, partners and other stakeholders in globally distributed, remote locations efficiently and effectively collaborate, exchange and move large files in a reliable, fast and secure manner. The solution is designed to solve distance problems, network inadequacies and provide the ability to centrally manage large file transfers with the cost benefits of a managed service.

The IPA solution leverages Akamai’s network of 40,000+ servers located in more than 900 networks in 70 countries. This network is controlled by an intelligent system that routes requests based on real-time Internet conditions. Performance improvements are gained through several techniques such as dynamic mapping, route optimization, packet replication and protocol optimizations.

Akamai’s easy-to-deploy IPA solution requires no additional hardware or client-side software. The solution seamlessly integrates with a company’s current environment, supporting multiple protocols and standards within your workflow.

The IPA solution dynamically maps user requests to access or move large files to an optimal server close to them. The data is then replicated and routed through alternate optimized “SureRoute IP” paths to overcome the “middle mile” reliability and performance bottlenecks caused by Internet congestion and service provider peering issues. Having identified a superior path, Akamai’s IPA uses TCP optimization techniques to significantly reduce retransmits of data, minimize round trips and increase throughput, thereby enabling a high-quality experience and allowing users to collaborate efficiently from anywhere, anytime. Furthermore, the IPA solution allows users to upload and store files in redundant storage locations in multiple geographies, ensuring greater availability for your large mission-critical files.

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Akamai's IPA service is backed by a service level agreement (SLA) for network availability along with **24/7/365** technical support.

Akamai's EdgeControl Management Center provides a convenient web-based portal interface with advanced reporting capabilities for customers to monitor performance of their large file transfers. These reports provide insight into performance incidents that can help customers proactively troubleshoot errors.

Want to learn more about Akamai's IPA Solution?

Product specifications, customer case studies, white papers and more can be found at: <http://www.akamai.com/ipa>



As the global leader in Content Delivery Network (CDN) services, Akamai makes the Internet fast, reliable and secure for its customers. The company's advanced web performance, mobile performance, cloud security and media delivery solutions are revolutionizing how businesses optimize consumer, enterprise and entertainment experiences for any device, anywhere. To learn how Akamai solutions and its team of Internet experts are helping businesses move faster forward, please visit www.akamai.com or blogs.akamai.com, and follow @Akamai on Twitter.

Akamai is headquartered in Cambridge, Massachusetts in the United States with operations in more than 40 offices around the world. Our services and renowned customer care enable businesses to provide an unparalleled Internet experience for their customers worldwide. Addresses, phone numbers and contact information for all locations are listed on www.akamai.com/locations.