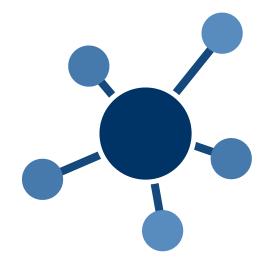
# SIGNIANT'S UNIQUE ACCELERATION TECHNOLOGY

Why it's necessary, especially with high-bandwidth connections

## 1 We just upgraded our network - do we still need Signiant?

Even if you've recently increased your bandwidth, you may not achieve faster transfer speeds, especially over long distances. Why? Network bandwidth and network throughput are not the same. Available network bandwidth determines the maximum speed data can move, whereas throughput (or more specifically goodput) is the actual speed data moves.

Over long distances or congested networks, throughput is typically dramatically lower than bandwidth as a result of the standard single



stream "TCP transport mechanism" that is employed to ensure reliable delivery of data and to manage congestion on the network. In order to take full advantage of available bandwidth, Signiant replaces TCP with our proprietary UDP-based acceleration protocol.





### 2. Signiant's Patent-Pending Intelligent Transport

Signiant also has a new patent-pending intelligent transport mechanism (currently in Jet and Flight), which determines the fastest way to get data through the network utilizing machine learning to make decisions on the fly. Depending on network conditions, the mechanism automatically uses either our proprietary UDP-based acceleration protocol or multiple TCP connections in parallel to achieve the fastest possible transport.

This machine learning algorithm examines past history and optimally configures application and transport-level transfer parameters for both file-based and live media transfers. Not only does this ensure the best result without expensive and error prone manual tuning and tooling, but results improve over time as the system learns.

#### 3. How is Signiant technology different from opensource UDP acceleration?

Signiant has over 15 years of experience working with most of the world's top media companies, moving petabytes of data every day. In that time, Signiant has worked with almost every type of network and hundreds of unique network configurations. Our acceleration technology reflects those years of innovation and learnings. Unlike open-source UDP solutions, Signiant's patented acceleration is a specialized, high-performance mechanism that plays nicely with other network traffic.

In general, open source solutions require extensive tuning and are difficult to deploy. That almost always leads to hidden costs, associated with the time required by expensive tech resources.

With Signiant, everyone benefits from that 15+ years of learning, which is incorporated into our software. Signiant storage servers are auto-updating, so our software is always up to date with the latest Signiant innovations. With open source, the cost of updates is on you. Signiant technology also includes diagnostic capabilities making it easy for our award-winning technical support team to help when unique situations arise.

In addition to Signiant's patent-pending intelligent transport, Signiant's core UDP-acceleration protocol offers distinct advantages. Signiant isolates different sources of congestion by looking at latency and packet loss, and also by constantly examining the rate of change in these observations. As such we can differentiate between edge and core network congestion and react accordingly.



## 4. How does Signiant help with transfers to and from the cloud or between clouds and regions?

Signiant products (Flight and Media Shuttle) accelerate data to and from cloud services such as AWS and Microsoft Azure. Even though AWS and Microsoft have high-performance networks, cloud connectivity congestion varies greatly over a 24-hour period. Signiant has observed this across vendors and regions through extensive, ongoing testing. Our acceleration technology provides reliable and consistently fast data movement for cloud I/O.





There is also an emerging demand for cloud-to-cloud data transfers, both between cloud providers and across regions. Similar challenges arise in moving data between clouds, and most media companies are not using one single cloud provider, one single region or one single storage type.

Signiant solutions are storage independent, abstracting the complexity of working with multiple storage types. When it comes to moving data between clouds or regions, Signiant is working to make the process easy by dramatically reducing the expertise and number of steps required to setup up and manage transfers, while improving speed, reliability and visibility.

#### **ABOUT SIGNIANT**



Signiant is changing the way businesses move large, high-value digital assets around the world and into the cloud. Their on-premises software products were originally adopted by Media & Entertainment enterprises, pioneers in the electronic transport of large files. Over the last decade, Signiant has embraced cloud technology to create next-generation SaaS file transfer and cloud upload solutions with scalable, reliable, cost effective, and easy to deploy capabilities.

Today, Media & Entertainment are no longer alone in the need to move massive files, and Signiant's rapidly growing customer base includes companies with digital assets ranging from satellite imagery and big data analytics to genome sequences and biotech research. Signiant's technologies work for every size company to provide: accelerated file delivery up to 200 times faster than standard internet transfers; enterprise-class security along with full visibility and control of transfers and storage; and simple user-friendly tools. **Find out more at www.signiant.com**.







