

Aspera On Demand for Microsoft Azure

High speed transfers to, from, and across the cloud

Cloud computing has become a viable, mainstream solution for data processing, storage and distribution, but moving large amounts of data in and out of the cloud has presented an insurmountable challenge for companies with huge stores of digital files.

As a pioneer and leading provider of high speed data transfer solutions, Aspera has made significant investments to natively integrate its software technology into cloud storage. IBM’s Aspera on Demand solutions are used by many organizations to unlock the value of the cloud for big data. This technology allows companies to reliably and securely move large files and datasets to, from and across the cloud at maximum speed.

The Aspera Solution

To offer a viable option for big data management, processing and distribution, the Microsoft Azure cloud service needed a high-speed transport solution to address the two main bottlenecks:

- The degradation in wide area network (WAN) transfer speeds that occurs over distance using traditional transfer protocols.
- The “last foot” bottleneck inside the cloud datacenter caused by the HTTP interfaces to the underlying cloud object storage.

With Aspera’s patented Fast, Adaptive and Secure Protocol (FASP®) transport technology at its core, the suite of Aspera On Demand (AOD) transfer products solves both the technical problems of the WAN as well as the cloud I/O

bottleneck. With AOD, Aspera delivers unrivaled scale-out transfer capacity to enable efficient, large-scale workflows with enterprise-grade security, a variety of client options (desktop, web, mobile, embedded), and applications for transport/ingest, sharing, collaboration and exchange of big data, all available on demand as a subscription service.

AOD is the clear answer to one of the most significant challenges of hosting big data applications in the cloud. Our leading data transfer solutions are a critical part of infrastructure for our customers who need to deliver big data to, from and across cloud storage. Netflix, Zencoder, GenoSpace, BGI and many others rely heavily on AOD to help maximize the performance and utilization of their cloud infrastructure.

What is Aspera On Demand?

Aspera On Demand for Azure is Aspera’s transfer software available as a service (SaaS) for use in Azure with a pay-per-use subscription model. Built on top of Aspera’s FASP protocol, AOD allows customers to quickly move data of any size to any cloud environment over any network at line speed. The solution provides high-speed, robust, secure and resume-able file transfers directly to cloud storage environments.

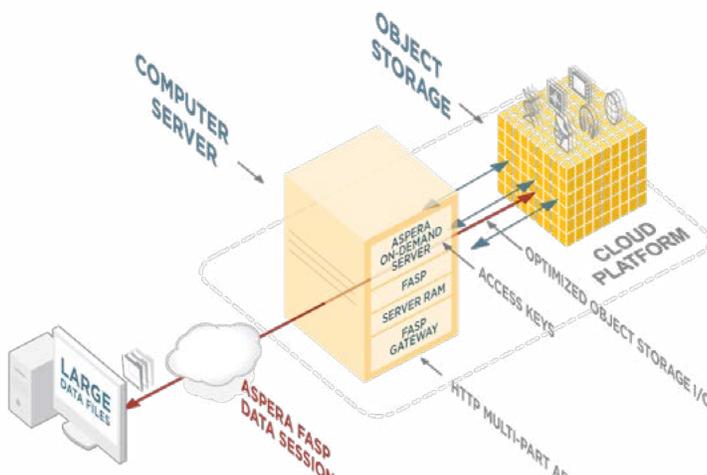


Figure 1: Aspera Direct to Cloud transport, a fundamental solution for large file and dataset transfers with cloud object storage, provides native FASP transport capability that is deeply integrated with Azure BLOB object storage

Our Bundled On Demand Solutions

Aspera has two SaaS offerings on Azure. The Aspera Platform On Demand / Server On Demand and the Faspex On Demand bundles are available with various add-on options to provide customers with simple, robust solutions to their complex problems. These bundles address the needs of the most common deployments and use patterns for our software. Server On Demand is comprised of Enterprise Server, a service management console and a dedicated Aspera client. Faspex On Demand is available as a web-based collaboration and delivery platform. It comes with a web interface, and has various add-on client options.

Solutions for Common Use Cases

INGEST / MASS TRANSPORT

Aspera Server On Demand for Azure is an ideal solution for high speed, large volume, secure data ingest to the Cloud. Using an Aspera Desktop Client or Aspera Connect, users can transfer files at maximum speed directly to cloud storage where the data is accessible by other applications running in the cloud. This solution provides an easy, web-based configuration for user management. Server On Demand includes a server management console that provides the ability to create transfer users and monitor transfer usage.

Case Studies: UFC, UEFA Euro2012, Netflix

COLLABORATION / DELIVERY

Aspera Faspex On Demand for Azure is an ideal solution for high speed, large data collaboration and delivery in the cloud. Using Aspera Connect, users can upload and send packages of files via a simple intuitive email-like web interface. Faspex On Demand will send an email notification to the receivers for download at maximum speed directly from cloud storage. Faspex On Demand can also be used to create Workgroups to facilitate group-based collaboration and delivery. This solution comes bundled with Aspera Server On Demand for Azure.

Case Studies: Rovio

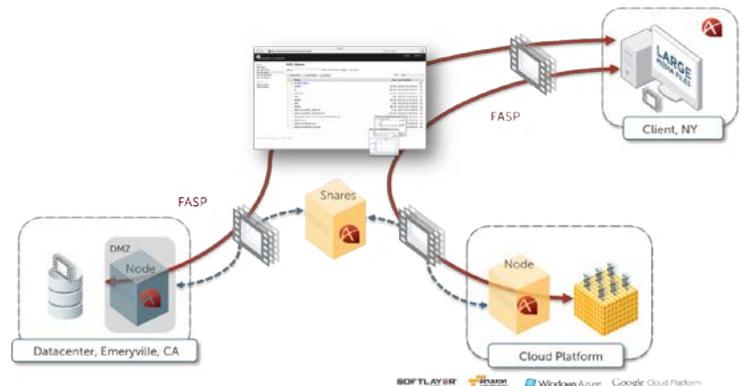


Figure 2: Diagram of the sharing and collaboration use case

INTEGRATION

Aspera Platform On Demand is the solution for any third party SaaS providers who would like to integrate the FASP high-speed transfer technology into their SaaS platform. This solution, when combined with Aspera's SDK, provides the required software and licensing to support integrations. The SDK developer subscription is licensed separately and is required to access the documentation, libraries, sample code and developer support.

Case Studies: Nefelus, Zencoder

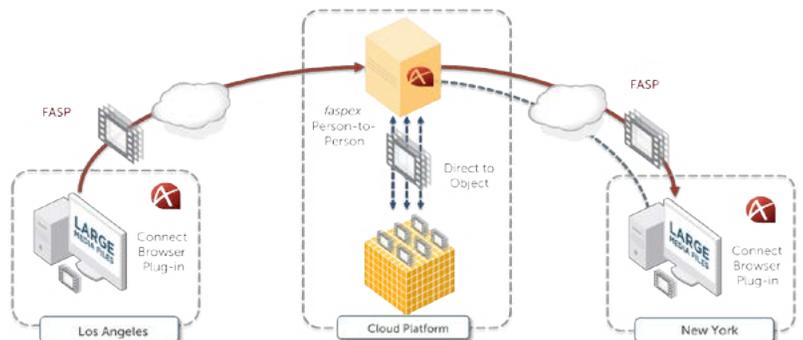


Figure 3: Diagram of the person-to-person delivery use case

On Demand Highlights

KEY ASPERA DIFFERENTIATORS

- AOD offers the most tightly integrated high-speed big data transport solutions in Azure.
- Rock solid reliability, pause/resume capability, and in-flight and at-rest encryption in the cloud.
- Automatic retry and checkpoint resume of any transfer (single files and directories) from point of interruption.
- Support for files and directories in a single transfer session up to the largest object size supported by the Azure platform.
- Support for directories containing any number of individual files, even for very large numbers of very small files.

FLEXIBLE AZURE DEPLOYMENT

- AOD on Azure supports virtually any storage type or location (object, on-premises, cloud or hybrid).
- Adaptable to many use scenarios: one to one, hub and spoke, cloud to datacenter and cloud to cloud.
- Fully interoperable transfer support with all core Aspera products acting as transfer peers with the cloud storage and for all modes of transfer (e.g., command line, interactive GUI point-and-click, browser, hot folder automation and SDK automation).
- Available as a Software as a Service (SaaS) offering with custom and hybrid deployments across any infrastructure type/ combination.

BUILT ON FASP

- Maximum transfer speed over the WAN independent of latency and packet loss.
- Support for extreme file and data set sizes over global distances.
- Direct high-speed transfer to object storage up to the I/O limits of the platform.

ADAPTIVE BANDWIDTH CONTROL

- Full use of available bandwidth capacity.
- Fair to other TCP traffic.
- Transfer priority can be preset or changed on the fly.

ENTERPRISE GRADE SECURITY

- Secure end-to-end authentication.
- User management based on application, directory service or identity provider accounts.
- Data encryption in transit & at rest on cloud storage.
- Data integrity verification.
- Transfers to/from cloud environments support Aspera proxy on the client side in forward mode.
- Account management, transfer logging, activity monitoring and reporting.

Subscription Overview

AOD for Microsoft Azure has a Software as a Service subscription model where pricing is based on monthly data transfer volumes.

Purchases are made from the Azure Marketplace by paying for a required data transfer volume. Pricing per GB is lower as customers opt into a higher monthly data usage tier. Higher annual volume tiers are available directly from Aspera.

Subscription data usage starts as low as 500 GB per month for each bundled offering with tiered usage pricing up to 10 TB per month or more. Overages are billed at the end of the term at the original per GB subscription rate. There are no bandwidth caps, no user counts, no limit on number of “servers” (or “instances”) customers can run.

How to Purchase and Deploy

Customers can purchase the transfer service through the Azure Marketplace. Annual plans are available directly from Aspera. Upon purchase of the service, customers will have access to a service management portal that can be used to create users and monitor usage. Aspera software that has been purchased for on premise deployments cannot be installed on virtual machines running on the Azure platform.

A high level overview of the deployment process is illustrated below.

PURCHASE OF ASPERA ON DEMAND FOR MICROSOFT AZURE

- 1) Log into Microsoft Azure with your Windows Live ID.
- 2) Click on the Add-ons tab and then the Store icon.
- 3) Select Aspera Server on Demand or faspex On Demand, choose the subscription level and pay.
- 4) Navigate to the Aspera on Azure management portal to create a new user account for transfers.
- 5) Set up a container within the Azure storage manager (prior to using the Aspera Desktop Client to connect to the BLOB storage).
- 6) Navigate to the Aspera on Azure management portal and download the Aspera client and license. Follow the instructions for client configuration.

*See Aspera quick start guide [here](#) for details

Access to the Aspera client software, documentation and license keys will be made available via the Aspera on Azure management portal upon purchase of the service.

Additional deployment options will be available in the future, so please check with Aspera for other options.

Questions?

Please contact Aspera Sales at sales@asperasoft.com for detailed pricing, availability and evaluation of our Aspera On Demand product bundles. Additional information on the deployment and advanced configurations can be found on the Aspera Support portal under the “On Demand” forum located at <https://support.asperasoft.com/forums/20790238>

ABOUT ASPERA

The creator of next-generation transport technologies that move the world’s data at maximum speed regardless of file size, transfer distance and network conditions. Based on its patented FASP® protocol, Aspera software fully utilizes existing infrastructures to deliver the fastest, most predictable file-transfer experience. Aspera’s core technology delivers unprecedented control over bandwidth, complete security and uncompromising reliability. Organizations across a variety of industries on six continents rely on Aspera software for the business-critical transport of their digital assets.

Learn more at asperasoft.com

ABOUT MICROSOFT AZURE

Microsoft Azure is an open and flexible cloud platform that enables users to quickly build, deploy and manage applications and services. It can be used to build, host and scale applications in Microsoft datacenters with no up-front expenses and no long-term commitment.

Learn more at azure.microsoft.com/en-us/