Introduction and Capabilities HTTP-Gateway

PacGenesis

aspera
an IBM® company

Agenda

- *Aspera Review*
- *HTTP-Gateway*
- *Features*
- *Future*
- *Q & A*

Speakers

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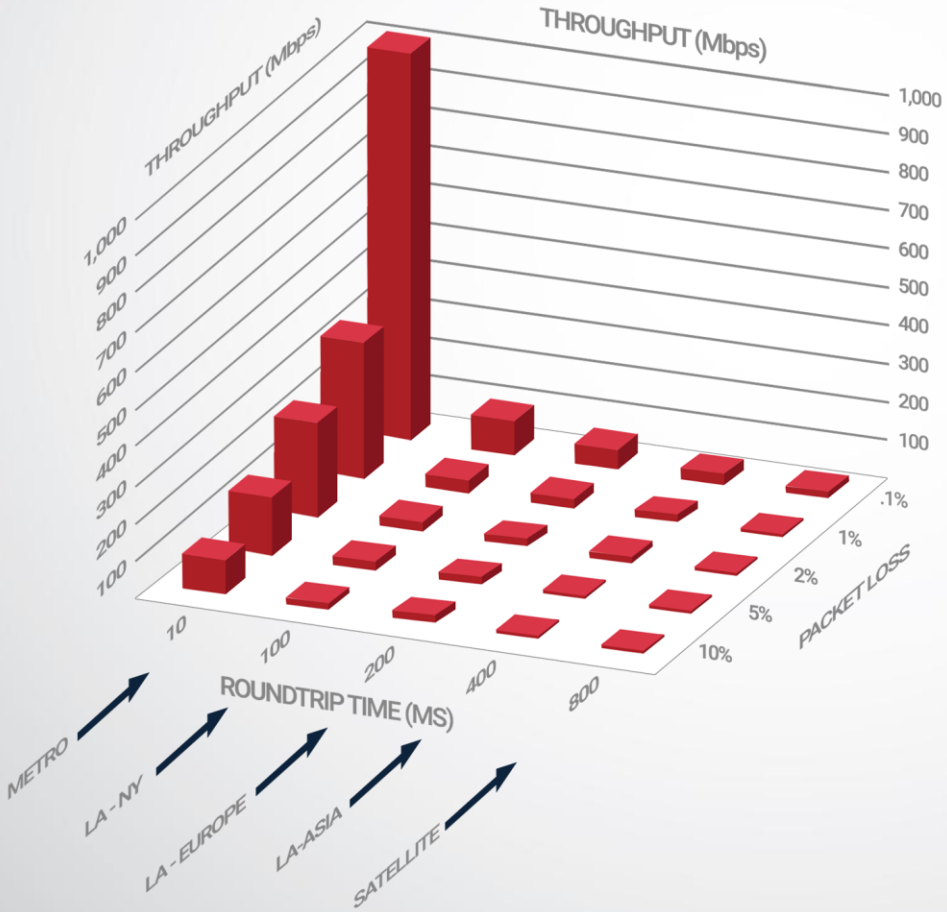
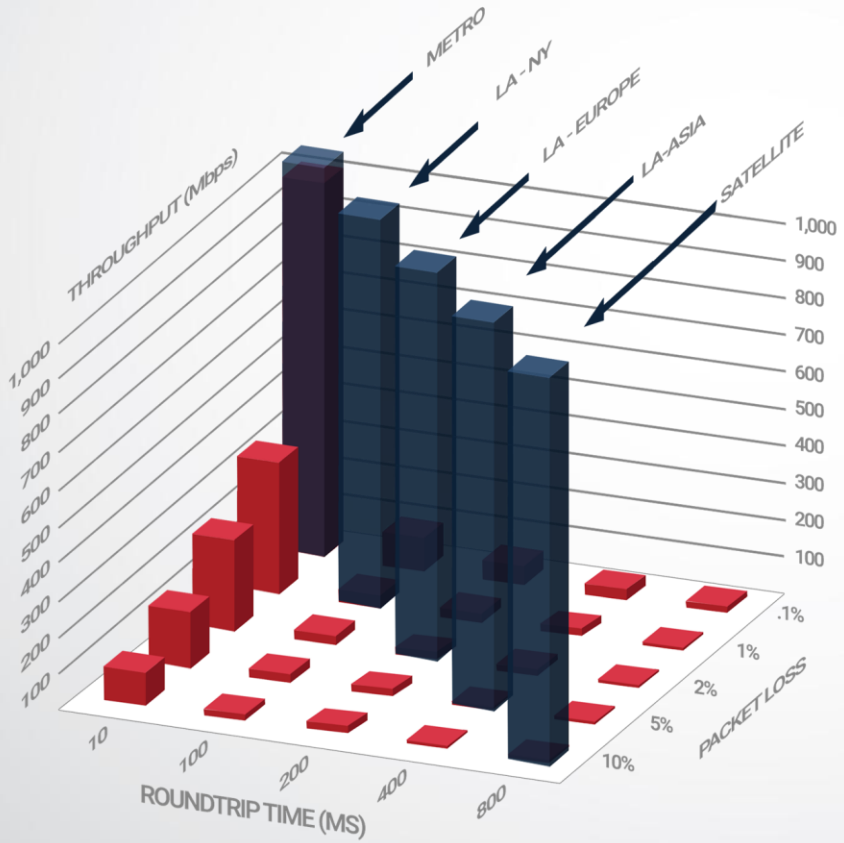
Challenges with TCP and Alternative Technologies



Note: Table displays throughput degradation of TCP transfers on a 1Gbps network as estimated round trip time and packet loss increases with distance.

- Distance degrades conditions on all networks
- TCP performance degrades severely with distance
- TCP does not scale with bandwidth
- Alternative technologies

FASP® - High-performance Data Transport



Note: The relative bandwidth utilization for FASP transfers over a 1 Gbps network are immune to latency (distance) with very little effect from packet loss.

- Maximum transfer speed
- Congestion avoidance and policy control
- Uncompromising security and reliability
- Scalable management, monitoring and control

Aspera Software Portfolio

Access & APIs

Web, Desktop, Email, Mobile, CLI, Custom App SDKs, REST,Java & more,

Delivery

Collaboration

Synchronization

Automation & Integration

Real-time visibility & control

Secure high-speed transfer clusters connecting public, private & hybrid clouds

IBM Cloud

aws

Microsoft Azure

Google Cloud

Any Data Size, Distance, Network

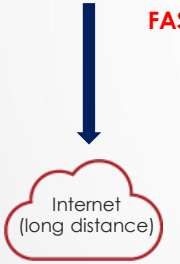
FASP Patented High-Speed Transport

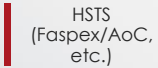
Any Storage: Block, Object, On Premises, Cloud

Any Data: Files Streams

Aspera Transfer

FASP





Storage

Typical Aspera transfer - user leverages "Connect" application to initiate and complete transfer (Client/Server relationship)

If Aspera Connect cannot be leveraged by user - no Aspera transfer possible

No Transfer Possible

Storage

Introducing HTTP Gateway

A Web Service that “bridges” an HTTPS transfer and a FASP transfer

Allows HTTPS uploads and downloads, from a Web Browser **without** Connect

Acts “transparently” between a modern Web Browser and Aspera HSTS or AoC (SaaS)

Leverages FASP under the hood - secure and accelerated transfers

What does it Enable?

FASP usual use case

Browser w/ Connect → **FASP** → Internet (long distance) → **FASP** → HSTS (Faspex, AOC, etc.) → Storage

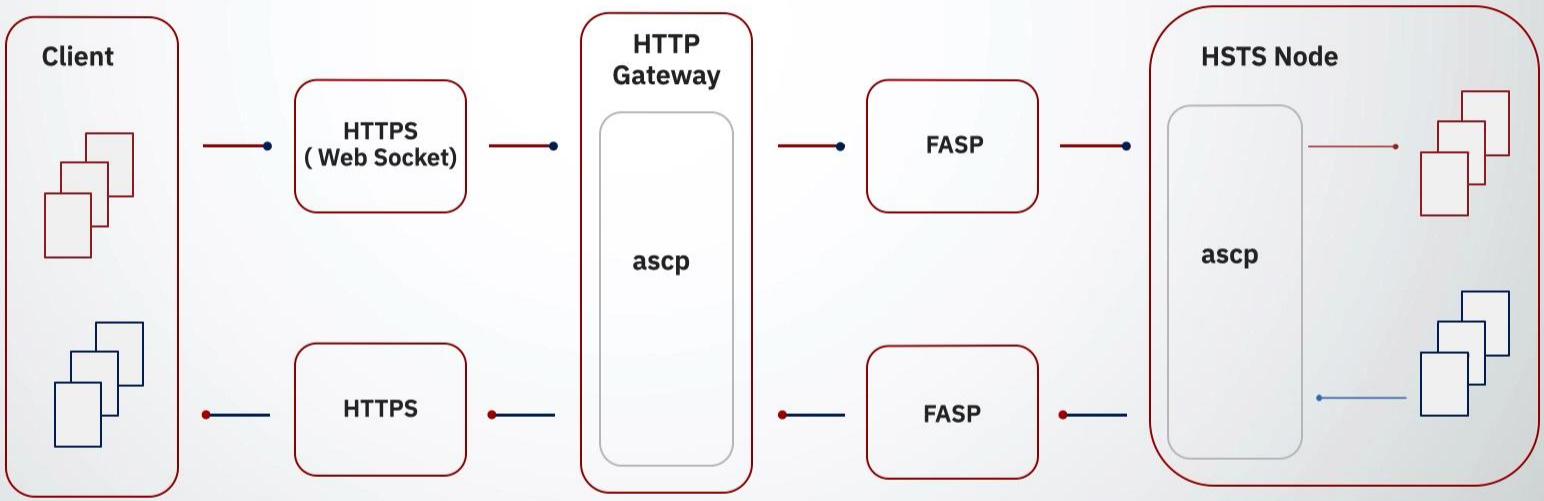
Problem

Browser w/o Connect →  **No Transfer Possibile**

Enables and Performs

Browser w/o Connect → **HTTPS** → HTTP - Gateway → **FASP** → Internet (long distance) → **FASP** → HSTS (Faspex, AoC, etc.) → Storage

How Does It Work?



- *No Data storage required at Gateway location. Conversion of protocols occurs in memory.*
- *HTTPS for user - FASP from Gateway to HSTS*

Demo

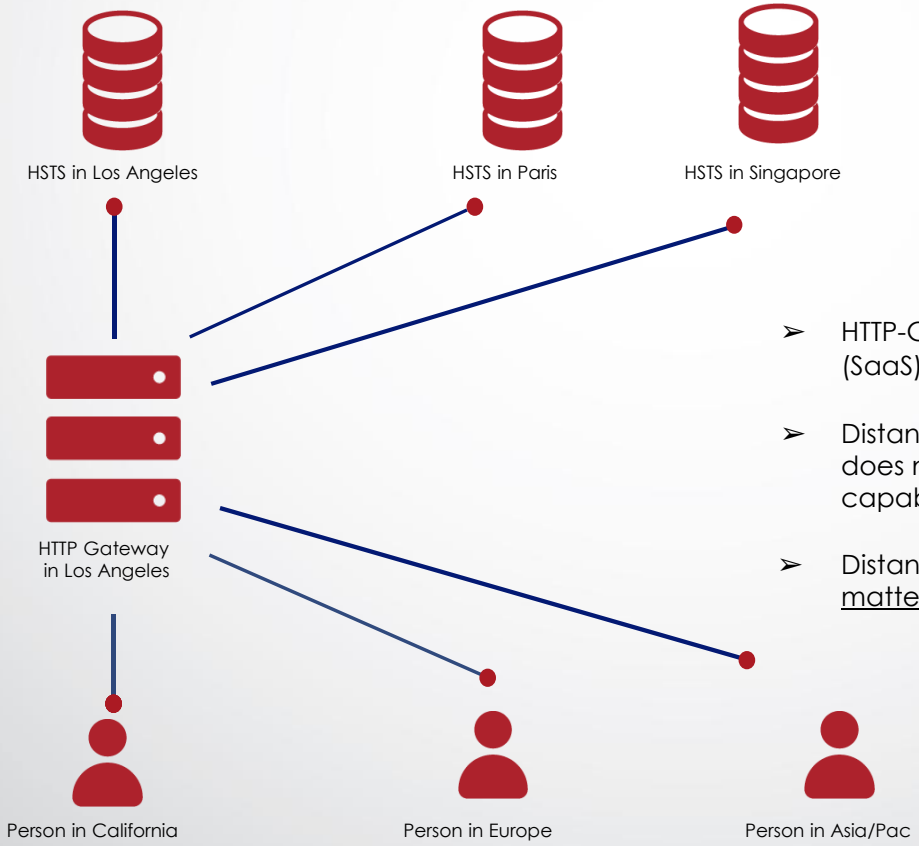
HTTP-Gateway with Faspex 4 and AoC

Aspera Console Progress and bandwidth reporting & Control

Features

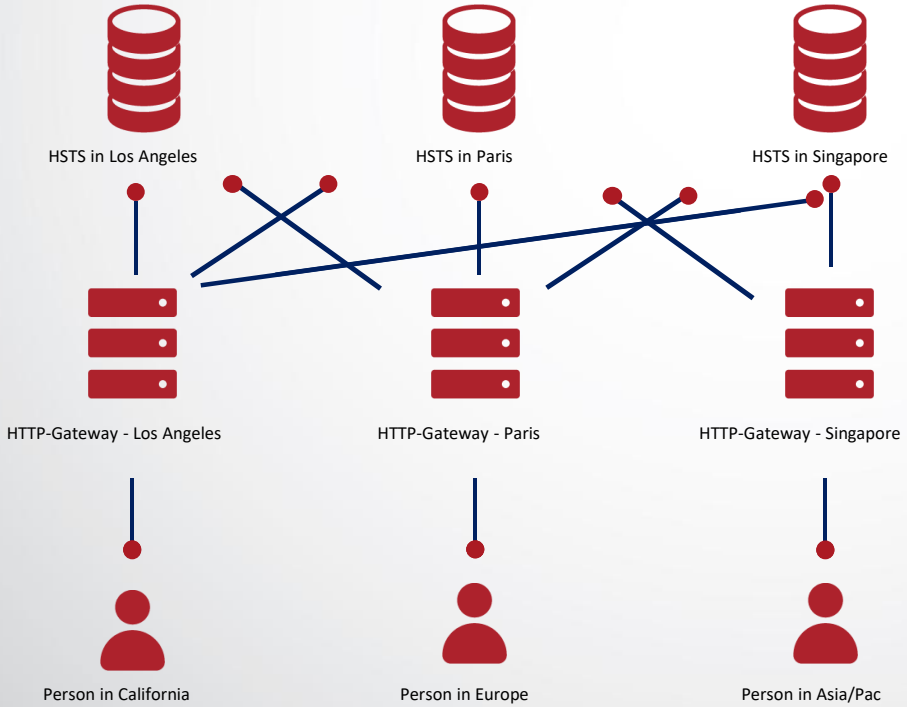
- **Download a single file** (uses Web Browser Download Manager)
- **Download a package with one or multiple files as a single ZIP file** (uses the Download Manager and preserves the directory structure)
- Upload one or multiple files and show progress in the Web UI
- Monitor & Manage HTTP-Gateway based transfers using Console
- Supports Filename Obfuscation and **Supports Encryption-At-Rest**

Basic Deployment Model



- HTTP-Gateway can work with any accessible AoC (SaaS)/HSTS nodes
- Distance between HTTP-Gateway and AoC (SaaS)/HSTS does not matter (using FASP) - long haul transfer capabilities
- Distance between Clients and HTTP-Gateway DOES matter (using HTTPS)

Ideal Deployment Model



- Clients/Users would connect to closest HTTP-Gateway to enable transfer workflows.
- Any HTTP-Gateway can work with any accessible HSTS/HSTE node
- Geographically dispersed HTTP-Gateway is not an issue from Aspera Licensing due to the *Aspera Enterprise Licensing Model*

Looking Forward

- Ability to leverage with Aspera on Cloud
- Overall Performance Upgrades
- Upload Folders with some browsers
- Ability to leverage with Faspex.next

One more thing….

Q&A

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