

IBM Aspera Proxy Gateway

High-speed transfers in highly restrictive networks

Key benefits & capabilities

Aspera Proxy

- Provides secure communication channel for Aspera transfers to and from internal Aspera transfer servers and clients within highly restrictive networks
- Keeps corporate networks secure, using DNAT to hide internal IP addresses
- Allows only authorized internal client users to initiate Aspera transfers through proxy
- Preserves key characteristics of Aspera transfers such as maximum transfer speeds, data encryption and retry and resume of failed transfers

Aspera HTTP Gateway

- Allows for HTTPS-based transfers into and out of most environments, including those where Aspera software cannot be installed.
 - Can be integrated with custom web applications using the Aspera SDK.
 - Simple configuration user interface requires minimal information and can be easily set up by non-technical users.
-

IBM® Aspera® Proxy Gateway is a bundled solution that includes IBM Aspera Proxy and IBM Aspera HTTP Gateway to protect your organization's network and business-critical digital assets while enabling secure, high-speed transfers within highly restrictive network environments. Designed for Aspera-powered performance, Aspera Proxy allows transparent pass-through of Aspera transfer sessions across secure DMZs without impeding transfer speeds or compromising the security of your internal network. The IBM Aspera HTTP Gateway provides an HTTPS alternative to send and receive large files and data using Aspera, without requiring installation of Aspera software at transfer endpoints.

Able to function as a forward or a reverse proxy, Aspera Proxy consolidates Aspera transfers in and out of a corporate network and enables precise control over which users can initiate Aspera transfers with Aspera transfer servers. Aspera Proxy runs on select Linux versions and in the latest version supports load balancing and failover, as well as configurable security policies. With support for Aspera Proxy built into all Aspera desktop and browser-based transfer clients, it is simple to configure, making it easy to use by all users within an organization.

To support flexible or more restrictive client system environments, the HTTP Gateway functionality allows users to send and receive Aspera transfers without installing Aspera client software. Designed to work with Aspera Faspex or any custom web application leveraging its related Aspera SDK, Aspera HTTP Gateway adds even more options to your Aspera ecosystem..

As a bundled offering, Aspera Proxy Gateway comprises a robust security solution that also enables convenient, external access for all clients.



Aspera Proxy use cases

Supports Limited-use Internet access

Limited Internet access for internal users can affect the Aspera protocol even if used for legitimate business needs. Aspera Proxy Gateway provides secure access to the outside Aspera transfer servers without exposing users' IP addresses. It also enforces strict user authentication for Aspera applications that initiate connections to the outside servers.

Centrally control high-speed transfers

If you need to establish control and security for Aspera transfers in and out of your network, Aspera Proxy Gateway can fulfill your requirements without degrading end users' experience. It provides a single point through which all Aspera transfers flow, hiding internal IP addresses and enabling control over which users can initiate transfers.

Protect internal transfer servers

To provide security for business-critical assets, it is often not an option to expose an Aspera transfer server by deploying it in the DMZ. To prevent direct connections, Aspera Proxy Gateway can be deployed in the enterprise DMZ to hide the server's IP address, handle incoming connections and manage Aspera sessions between outside Aspera clients and the transfer server.

Aspera Proxy overview

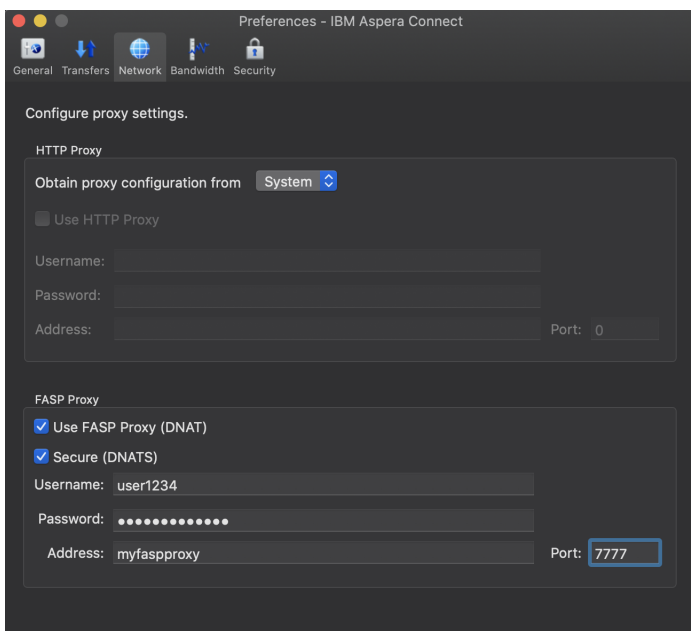


Figure 1: Configuration settings for Aspera Proxy

Aspera Proxy example deployment

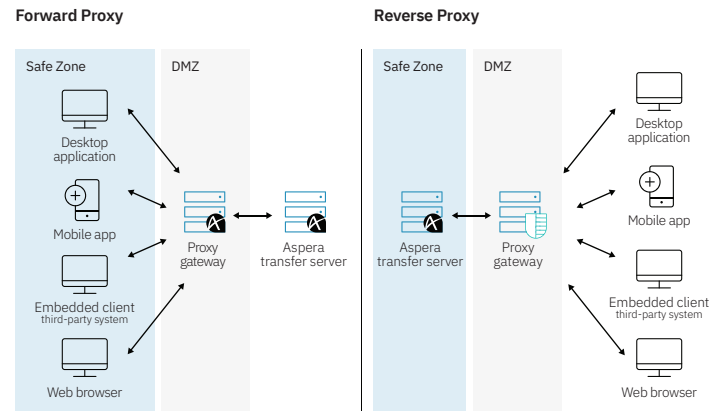


Figure 2: Aspera Proxy Gateway environment

Aspera Proxy key benefits

Built for Aspera performance

By using kernel-level packet forwarding to deliver high-speed transfer performance, Aspera Proxy preserves the speed, security, and 100 percent reliability of Aspera transfers.

Easy-to-use client interface

With native support for Aspera Proxy built into all Aspera software, there are no add-ons to install or scripts to run.

Scalable protection for internal resources

Functioning as a reverse proxy within a corporate DMZ, Aspera Proxy protects the security of Aspera transfer servers deployed within the internal network. Using Dynamic Network Address Translation (DNAT), it enables Aspera software to access the servers from outside without sharing the servers' IP addresses to outside users.

Aspera Proxy key features

- Support for forward and reverse proxy deployments helps protect private instances of Aspera transfer clients and servers.
- Dynamic Network Address Translation (DNAT) helps secure Aspera transfer servers and clients located behind corporate DMZ.
- Support for high-availability deployments.
- Forwarding rules enable load balancing.
- Allows client user authentication, enabling control over which internal users can perform Aspera transfers.
- APIs enable secure, transparent proxying of Aspera transfer sessions.
- Built-in support in all Aspera desktop and browser clients makes it easy to deploy across the enterprise.
- Simple configuration user interface requires minimal information and can be easily set up by non-technical users.

Aspera Proxy supported platforms

- Linux

Aspera server software

- IBM® Aspera® High Speed Transfer Server (v3.0+).
- Proxy-enabled and node-enabled server license.

Aspera client software

- IBM® Aspera® Desktop or Point-to-Point Clients (v3.0+).
- IBM® Aspera® Connect (v3.0+).
- IBM® Aspera® Embedded Client (v3.0+)

Aspera HTTP Gateway Use cases

Eliminate the need for Aspera client software

In circumstances where a user is unable to (or desires not to) install and use an Aspera client, the Aspera HTTP Gateway allows users to upload to and download from an Aspera server. The gateway opens a "last mile" connection using HTTP, which maintains traditional Aspera transfer security and does not affect the Aspera transfer server environment. Note that performance over the last mile will depend on standard HTTP transfer limitations, including latency and packet loss.

Build a global network of Aspera access points

For businesses that require both performance and accessibility, the Aspera HTTP Gateway can be deployed in strategic locations nearest to those concentrated areas of highest use to increase transfer performance as much as possible. A global network of Aspera HTTP Gateways will allow organizations to preserve typical Aspera transfer performance to and from Aspera transfer servers, while minimizing the last mile issues caused by limitations of HTTP transfers. As a business expands its global footprint, more HTTP Gateways can be easily deployed where needed.

Aspera HTTP Gateway example deployment

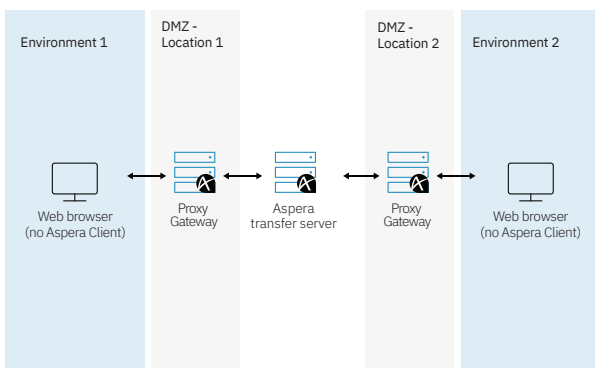


Figure 3: Aspera Proxy Gateway environment

Aspera HTTP Gateway key benefits

Accessibility with security

The Aspera HTTP Gateway technology allows users in any environment to upload and download to an Aspera server, without the need to install Aspera Connect, or other Aspera client software. Administrators can optimize transfer speeds by creating a global network of Aspera HTTP Gateways to minimize the issues associated with HTTP over long distances.

Scalable configurations

Aspera HTTP Gateway can be configured in a high-availability deployment for improved resiliency, and deployed across the globe to maximize performance

Aspera HTTP Gateway key features

- Allows for HTTPS-based transfers into and out of most environments, including those where Aspera software cannot be installed.
- Support for high-availability deployments.
- Runs as a server accessible via REST API.
- Can be integrated with custom web applications using the Aspera SDK.
- Simple configuration user interface requires minimal information and can be easily set up by non-technical users.

Aspera HTTP Gateway supported platforms

- Linux

Aspera server software

- IBM® Aspera® Faspex (v4.4+).

Browsers

- Edge, Internet Explorer, Firefox, Safari, Chrome

About IBM Aspera

IBM Aspera next-generation transport technologies move the world's data at maximum speed regardless of file size, transfer distance and network conditions. Based on its patented, Emmy® award-winning 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.

For more information

On IBM Aspera solutions, please visit us at <https://www.ibm.com/products/aspera> or contact aspera-sales@ibm.com.



© Copyright IBM Corporation 2020

IBM Corporation
Route 100
Somers, NY 10589

Produced in the United States of America
July 2020

IBM, the IBM logo, ibm.com and Aspera are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both. If these and other IBM trademarked terms are marked on their first occurrence in this information with a trademark symbol (® or ™), these symbols indicate U.S. registered or common law trademarks owned by IBM at the time this information was published. Such trademarks may also be registered or common law trademarks in other countries. A current list of IBM trademarks is available on the Web at "Copyright and trademark information" at: ibm.com/legal/us/en/copytrade.shtml

Linux is a registered trademark of Linus Torvalds in the United States, other countries, or both.

Microsoft, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

Other product, company or service names may be trademarks or service marks of others.

This document is current as of the initial date of publication and may be changed by IBM at any time. Not all offerings are available in every country in which IBM operates.

The performance data and client examples cited are presented for illustrative purposes only. Actual performance results may vary depending on the specific configurations and operating conditions. It is the user's responsibility to evaluate and verify the operation of any other products or programs with IBM product and programs. THE INFORMATION IN THIS DOCUMENT IS PROVIDED "AS IS" WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING WITHOUT ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND ANY WARRANTY OR CONDITION OF NON-INFRINGEMENT. IBM products are warranted according to the terms and conditions of the agreements under which they are provided.



Please Recycle