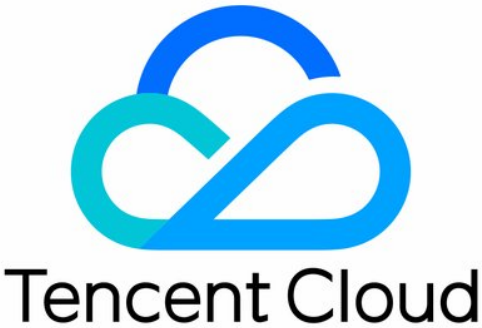
Global Application Acceleration Platform

Product Introduction

Product Documentation



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Product Introduction
Overview

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Overview

Tencent Cloud Global Application Acceleration Platform (GAAP) uses high-speed connections, cluster forwarding, and intelligent routing among global nodes to allow users in different regions to access the closest nodes so their requests can directly reach the origin server through high-speed connections, reducing access lag and latency. GAAP provides a graphical configuration interface. Within a few minutes, you can create a high-speed connection, use it to access business origin servers, and view the status of the connection in the console.

Benefits

Global deployment

GAAP has more than 60 global nodes deployed across Asia, Europe, South America, North America, and Oceania. It provides stable and efficient high-speed connections for businesses around the globe that require cross-region access or server sharing, reducing access lag and latency.

High stability and efficiency

GAAP has five central nodes covering major regions around the world with an SLA of 99.95%. The network latency is below 60ms for intra-region communications and below 180ms for cross-continent or cross-region communications. A single GAAP connection can sustain 1 Gbps bandwidth and accelerate one million concurrent requests.

Flexible access

GAAP provides graphical user interface for easy creation and use of high-speed connections. It supports both IP and domain name, nearby access through one domain name, TCP and UDP protocols, and rules based URL forwarding for HTTP and HTTPS

Operational support

GAAP supports the origin server to get users' real IP. It supports on-demand capacity expansion and service change imperceptible to your business; statistical analysis in multiple dimensions such as bandwidth, concurrence, packet loss, latency, and packet forwarding; cloud monitoring alarms for connections and origin servers.

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Product Features

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Key features of GAAP include acceleration proxy configuration, origin server management, acceleration statistics collection, connection monitoring, and acquisition of users' real IP.

Acceleration Proxy

- GAAP supports configuring an acceleration connection by target user region and origin server region. It will automatically select the most appropriate connection based on the target user region and origin server region to achieve the shortest and optimal path from user to origin server, delivering a smoother access experience. For more information on configuration, see Access Management.
- TCP and UDP forwarding are supported.
- Rules based URL forwarding is supported for HTTP and HTTPS.
- One listener can be bound with multiple origin servers, and one connection can have multiple listeners created.
- Configuration and modification of forwarding rules are supported, which take effect in real time and do not affect online business.
- Flexible configuration of acceleration forwarding rules satisfies the need of internal testing and dark launch. For more information on configuration, see Listener Management.

Origin Server Management

- GAAP can manage massive amount of origin servers whose types are IP and domain name, and add them in batches.

Statistics Collection

- GAAP can collect statistics of an acceleration connection such as its bandwidth, concurrency, packet loss, delay, and packet forwarding volume. Based on the statistics, you can flexibly adjust the upper limit of an acceleration connection as needed. For more information, see Statistics.

Connection Monitoring

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- GAAP supports monitoring connection and origin server status. It alerts you promptly to connection or origin server problems for easier and quicker troubleshooting. For more information, see Access Cloud Monitoring.

Obtaining users' real IP

- GAAP supports TOA module to obtain users' real IP, ensuring effective IP passthrough for data analysis purpose. For more information, please see Obtaining the Real IPs of Access Users.

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Application Scenarios

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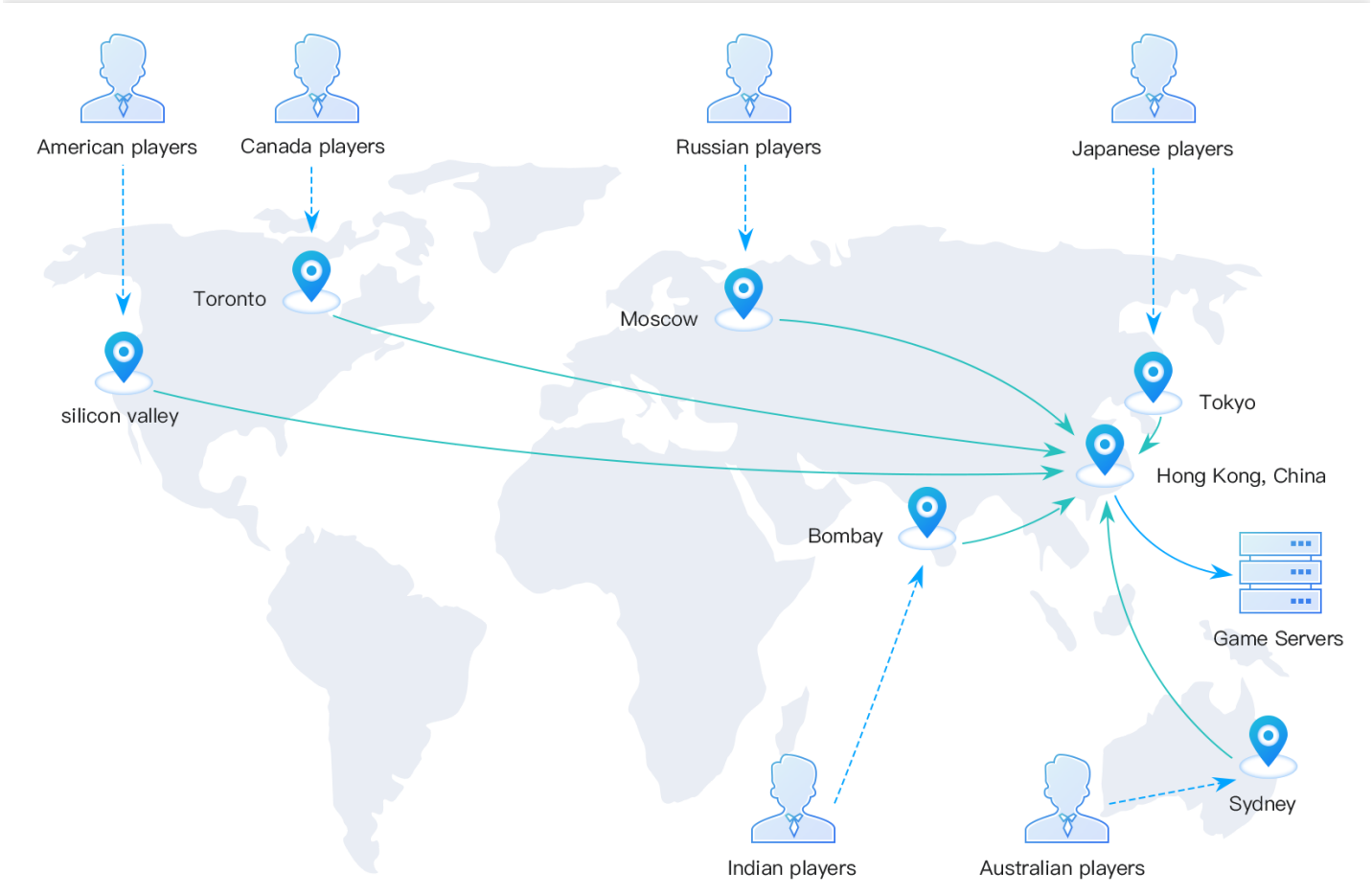
One Server Shared by Game Players across the Globe

Some of our games are provided for players across the world or in a certain region. When many players play a game at the same time, network differences in various regions can lead to bad user experience and unfairness in games. GAAP supports access with a unified domain name from multiple regions, enabling players in different regions to connect a high-speed connection closest to them. In this way, acceleration is implemented simultaneously for players across the world or in the same region, which improves user experience and ensures fairness in the game.



Cross-origin Access Acceleration

For businesses requiring cross-origin access, different network conditions of regions often result in increased delay and packet loss, and consequently affect user experience in accessing the business. GAAP can create high-speed

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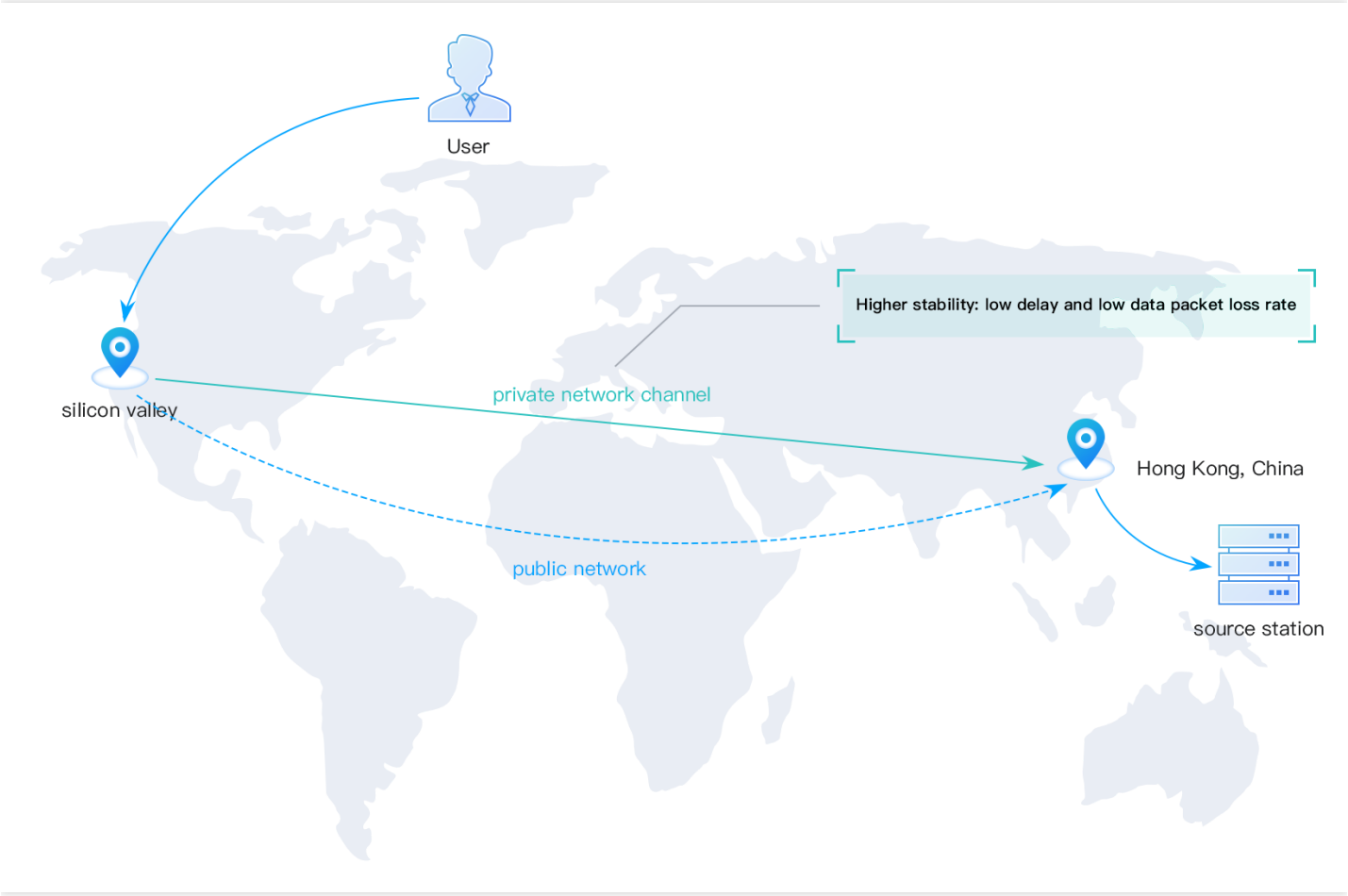
connections between the acceleration region (region where the user is located) and the origin server region (region where the server is located), which can effectively reduce network latency and packet loss and ensure fast and stable network, and thus deliver better user experience.

Such business scenarios include transnational websites, cross-border e-commerce, Apps launched globally, global LVB, video, and global finance.



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Product Specification Limit

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Concurrent Connection

Concurrent Connection	PPS	HTTP-QPS	HTTPS-QPS
20,000	80,000	14,000	900
50,000	120,000	21,000	1,350
100,000	200,000	35,000	2,250
200,000	400,000	70,000	4,500
300,000	600,000	105,000	6,750
400,000	800,000	140,000	9,000
500,000	1,000,000	175,000	11,250
600,000	1,200,000	210,000	13,500
700,000	1,400,000	245,000	15,750
800,000	1,600,000	280,000	18,000
900,000	1,800,000	315,000	20,250
1,000,000	2,000,000	350,000	22,500

Listener Count

- For acceleration regions with Tencent Cloud nodes deployed, a maximum of 200 listeners can be added. To increase the upper limit, you can submit a ticket to contact us.
- For acceleration regions with partner nodes deployed, a maximum of 20 listeners can be added. To increase the upper limit, you can submit a ticket to contact us.
- A maximum of 20 TCP/UDP listeners can be created each time.
- Only one HTTP/HTTPS listener can be created each time.

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Listener Port Range

The valid port range is 1–64999 (port 21 is unavailable currently).

Connection Count

Up to 20 connections can be created in a connection group.

TCP/UDP Listener

A maximum of 100 origin servers can be bound to a listener.

HTTP/HTTPS Listener

- Up to 100 domain names can be added to a listener.
- Up to 20 rules can be added to a domain name.
- Up to 100 origin servers can be bound to a rule.

Unified Domain Name Count

Up to 5 unified domain names can be created by default. To increase the upper limit, you can submit a ticket to contact us.

Security Rule Count

Up to 100 security rules can be created by default. To increase the upper limit, you can submit a ticket to contact us.

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