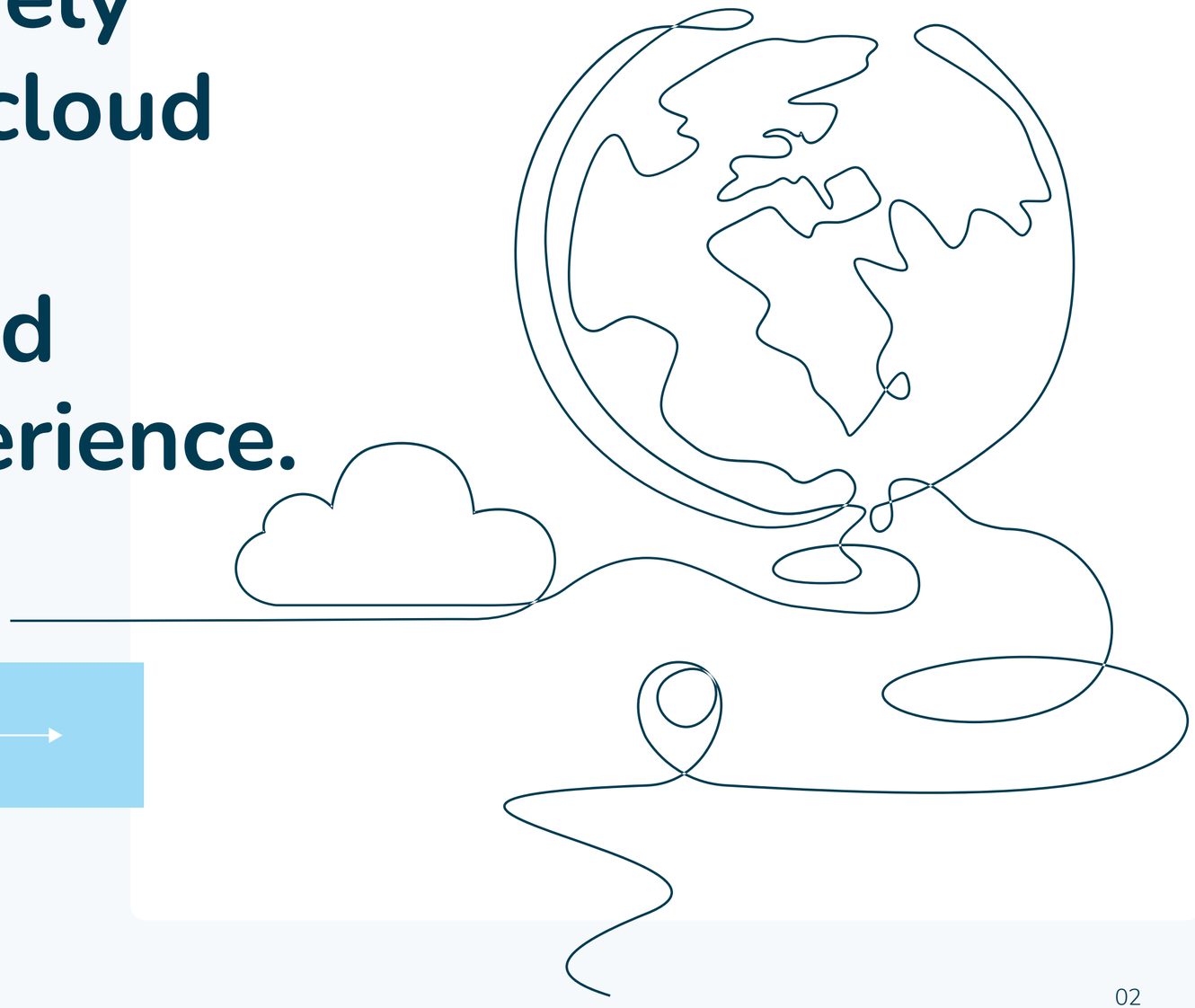
zenlayer

Zenlayer Global Accelerator

Updated 2025

Zenlayer’s massively distributed edge cloud services help you reduce latency and improveuser experience.



Anywhere. Instantly.

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Massively distributed edge PoPs reduce physical distance to your users

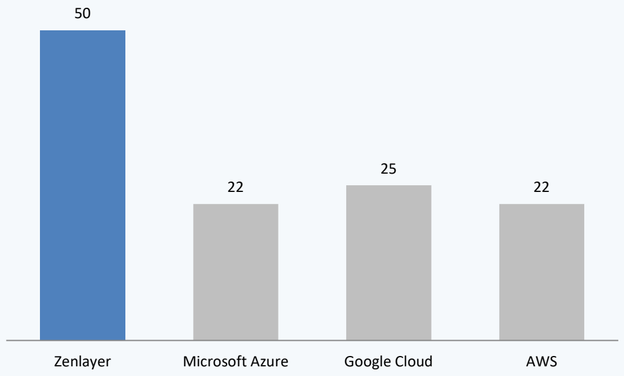
300+

PoPs

110+

Cities

# of available countries (as of April 2023)



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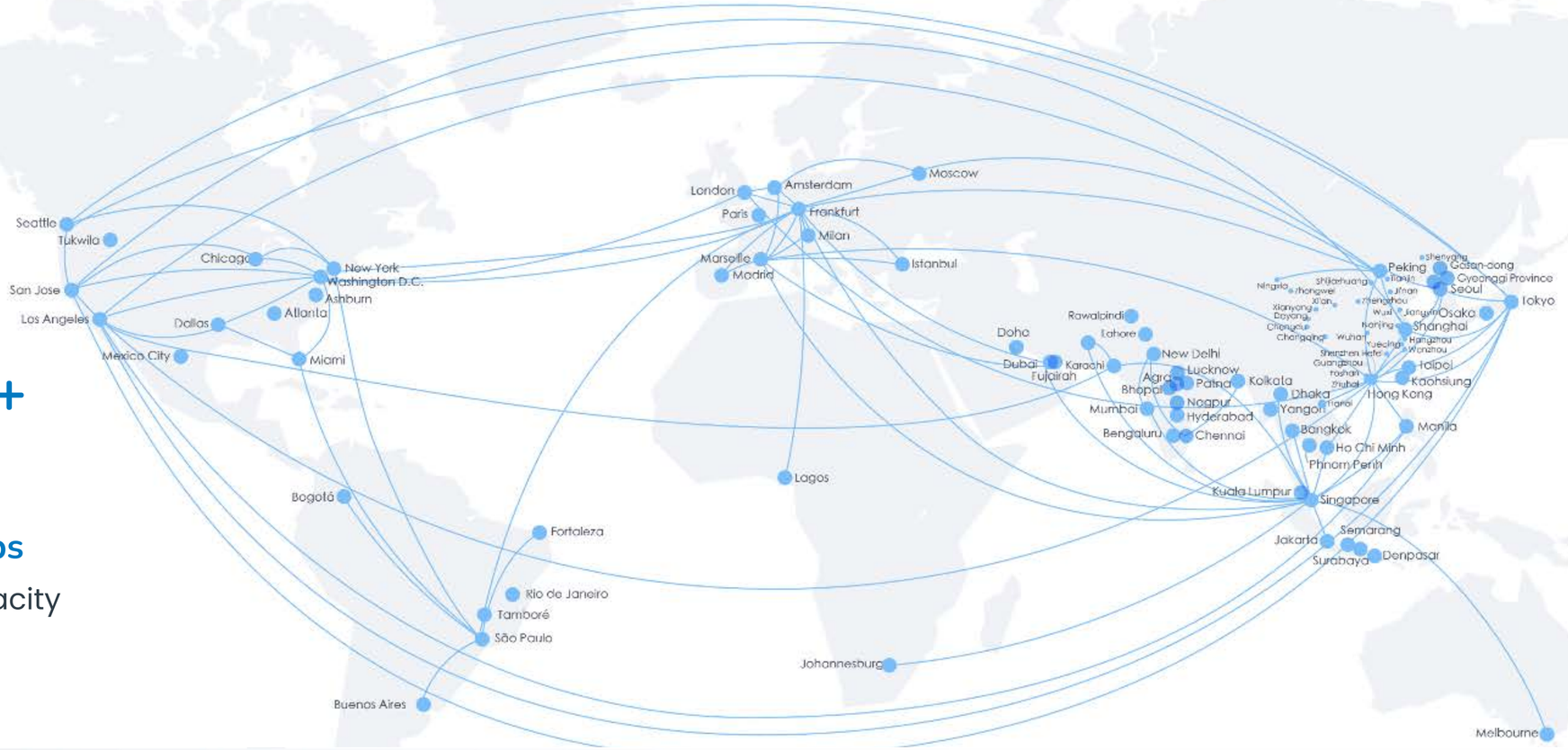
Hyperconnected network and proprietary routing algorithms accelerate your applications



10,000+

Global Peers

130+Tbps

Network Capacity

Infrastructure

- Data Center

Services

- Cloud Networking
- Bare Metal Cloud

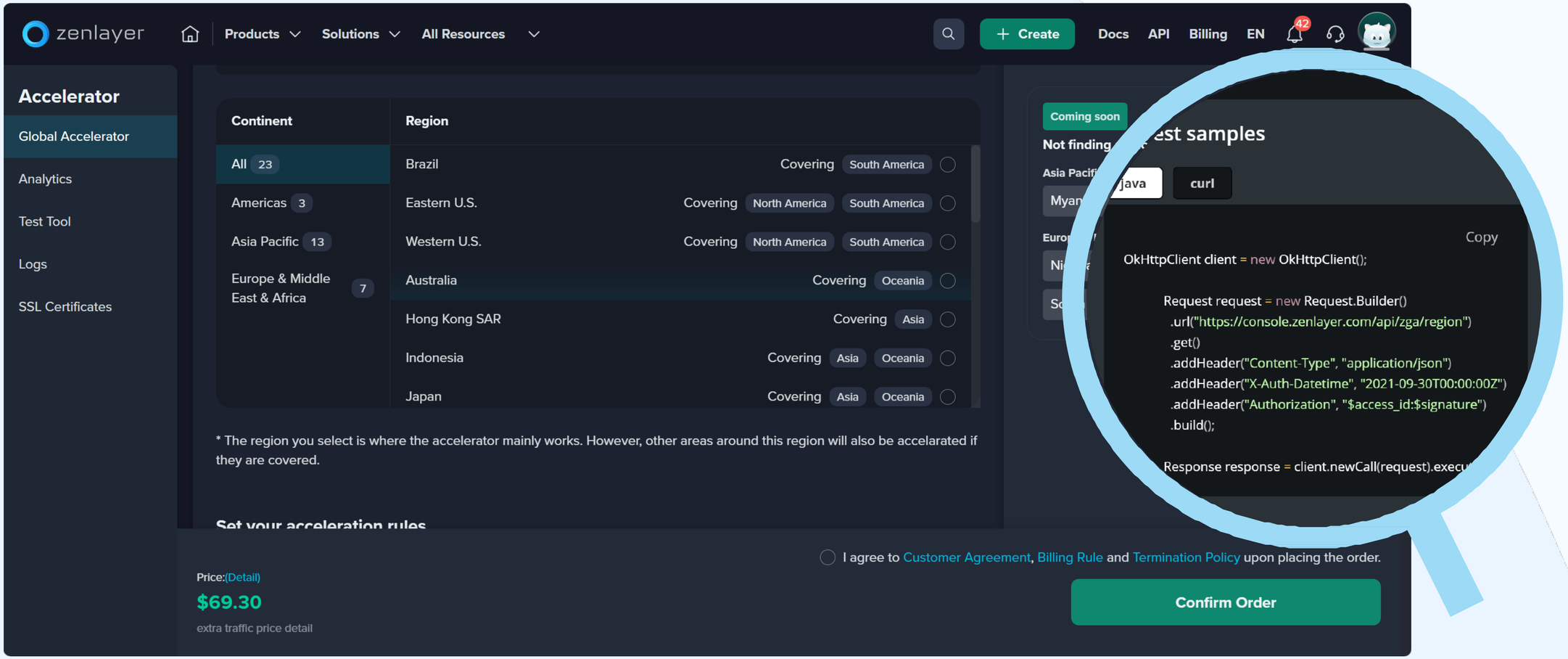
Public Clouds

- AWS
- Microsoft Azure
- Alibaba Cloud
- Tencent Cloud
- UCloud
- Equinix Cloud Exchange
- Coresite Open Cloud Exchange
- Megaport
- IBM
- Huawei Cloud

SaaS

- Salesforce
- Office365
- Github
- Zoom

On-demand deployment via online console or APIs



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Consistent level of service worldwide that exceeds expectations

Easy contact

24/7 technical support
via phone and email
24/7 proactive network and
device monitoring

Fast responses

< 15-minute response time
On-site technicians at core PoPs

Reliable resolution

95%+ TRR < 4 hours
(time to resolution)
99.99% SLA
(built-in redundancy for both circuits
& hardware)

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Zenlayer Global Accelerator

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Zenlayer Global Accelerator

Reduce application latency and accelerate dynamic content worldwide

Speed

- < 10 ms latency in major cities
- < 30 ms latency elsewhere around the world
- Intelligent routing with high network redundancy
- Multi-carrier transmission connectivity

Customization

- Layer 4 + 7 protocol support
- Protocol optimization
- Self-developed Linux Kernel
- Dual-direction acceleration

Security

- Source hiding and load balancing
- SSL-encrypted transmissions
- Blocklist and Allowlist options

Connectivity

- Global network coverage
- Cloud direct connect to all major public clouds
- Middle-mile dedicated backbone transmission

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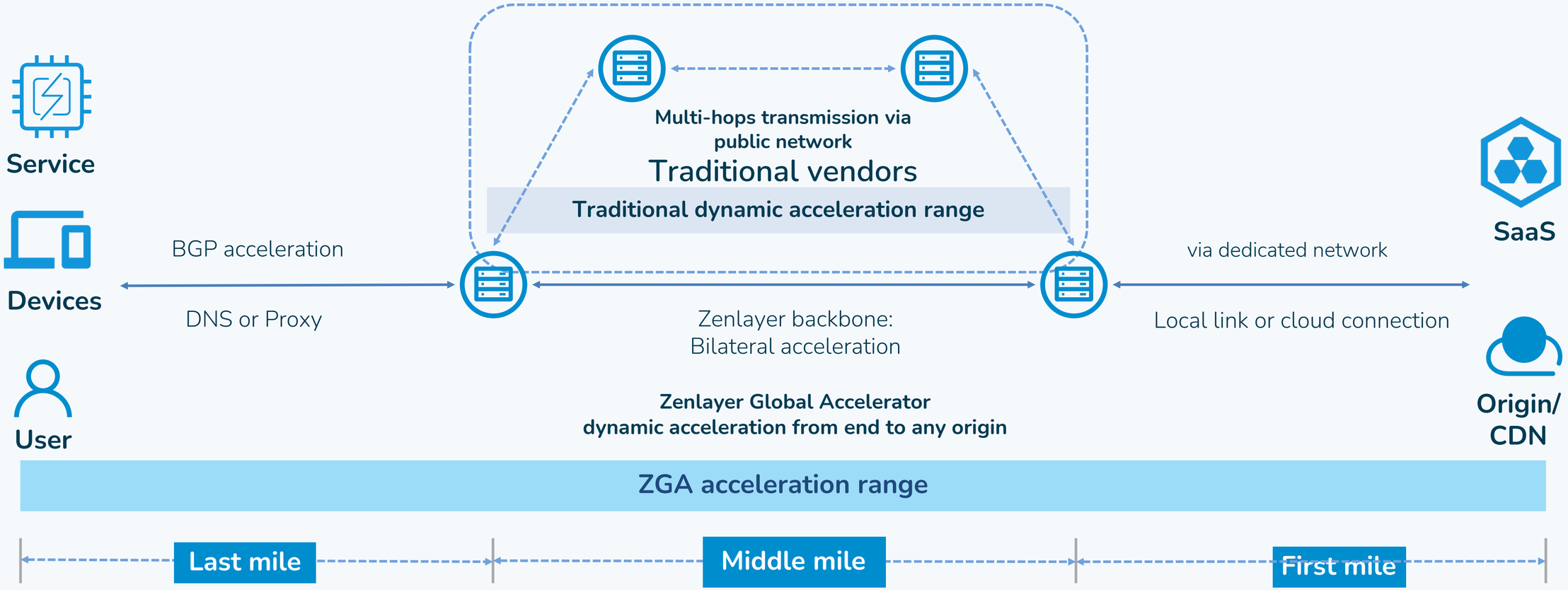
End to End Acceleration



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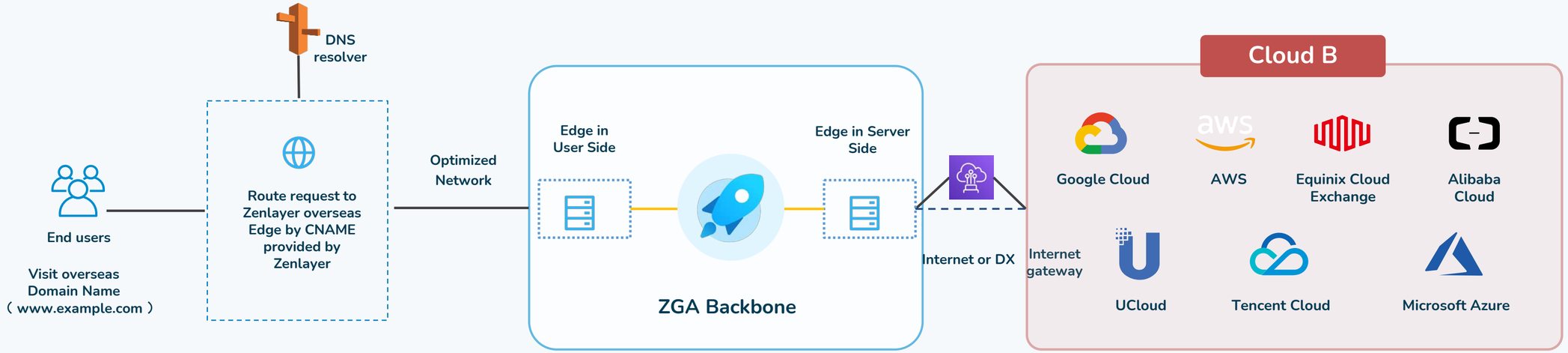
Origin / CDN Acceleration



Solution Overview

- Utilizes **ZGA reverse proxy** to accelerate traffic.
- Requires customers to **modify domestic DNS resolution** or access via **ZGA-assigned IPs**.
- Customers must have **domain DNS control** to configure routing.
- Supports **Layer 4 and Layer 7 acceleration**, optimizing both transport and application layers.

Key Benefits

✓ **High-performance acceleration** with optimized routing.
✓ **Flexible access** via DNS modification or direct IP configuration.
✓ **Full protocol support** for both Layer 4 and Layer 7.
✓ **Enhanced stability & security** with intelligent traffic management.

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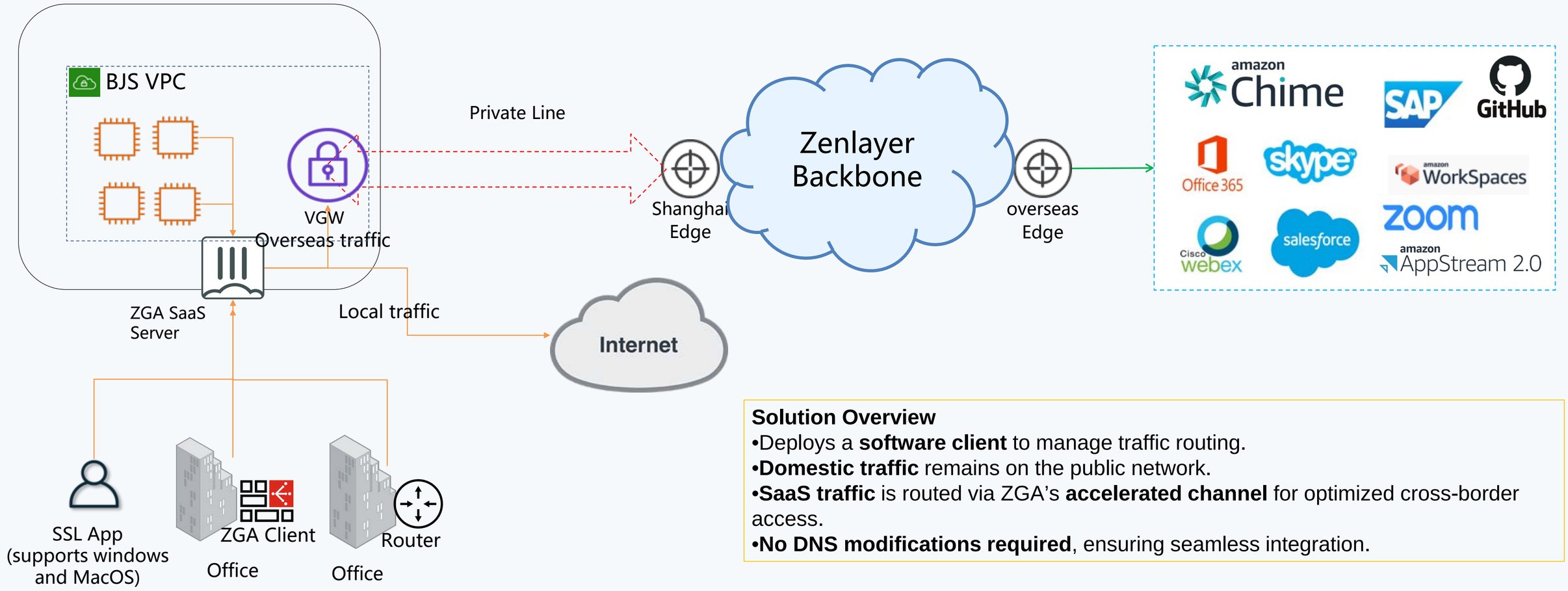
SaaS Acceleration



Solution Overview

- Deploys a **software client** to manage traffic routing.
- **Domestic traffic** remains on the public network.
- **SaaS traffic** is routed via ZGA's **accelerated channel** for optimized cross-border access.
- **No DNS modifications required**, ensuring seamless integration.

Key Benefits

✓ **Faster SaaS access** with reduced latency.
✓ **Seamless deployment** without DNS changes.
✓ **Intelligent traffic routing** for optimal performance.
✓ **Secure & stable connection** with encrypted tunnels.

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ZGA Acceleration for AWS S3 & Web Pages

1. ZGA Acceleration for AWS S3

•**Download Acceleration**:

- AWS S3’s domain resolution **cannot be directly controlled**.
- Customers need to use **their own domain** to access S3.
- **ZGA accelerates the customer’s domain**, not S3’s default domain.
- **S3 must enable public read access** for files to be downloadable.

•**Upload Acceleration**:

- Requires **ZGA SaaS acceleration** (client-based solution).
- Customers must **install ZGA software** to split traffic.

2. Web Page Acceleration Considerations

•If a webpage contains **third-party resources** (e.g., image hosts, public JS libraries), **ZGA cannot modify their DNS resolution**.

•To ensure full acceleration, customers should **move JS/CSS files and other assets to their own domain** before applying ZGA acceleration.

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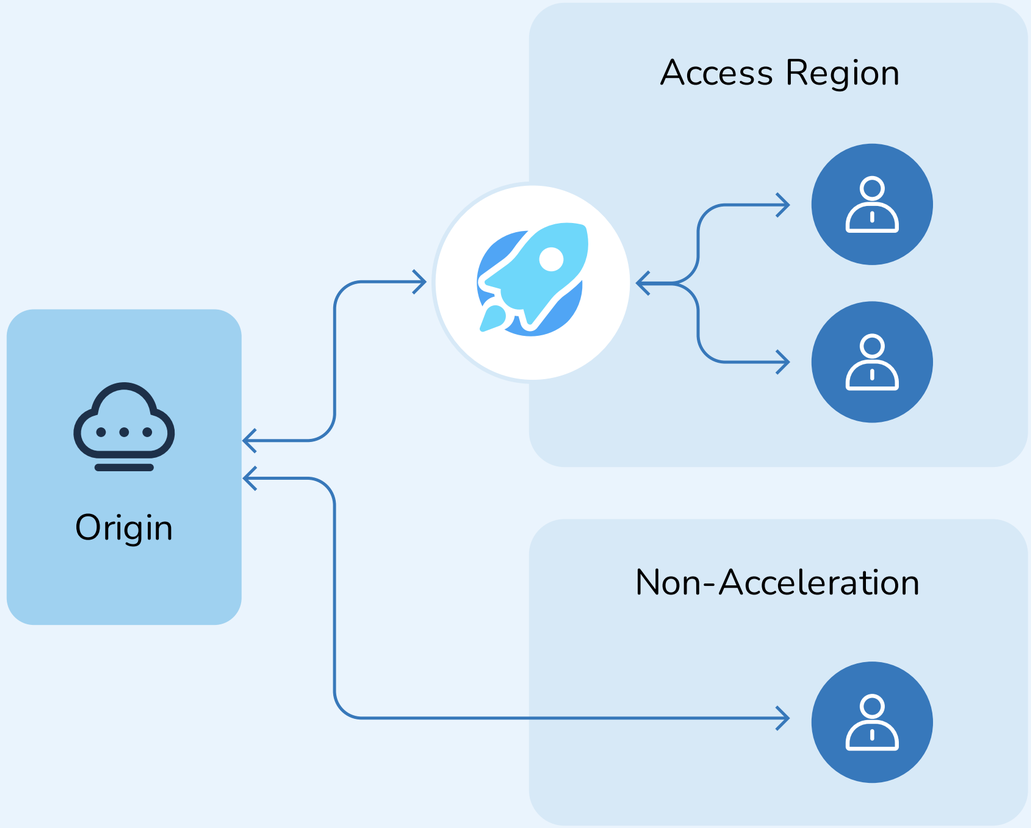
Smart DNS



Access

Integration on the customer side is accomplished with just one CNAME configuration.

On-demand

The acceleration region can be customized as needed, and high-performing source stations can be chosen not to accelerate.

Accurate

Accelerator strategy configured by region.

Flexible

Supports two billing methods: bandwidth-based and traffic-based.

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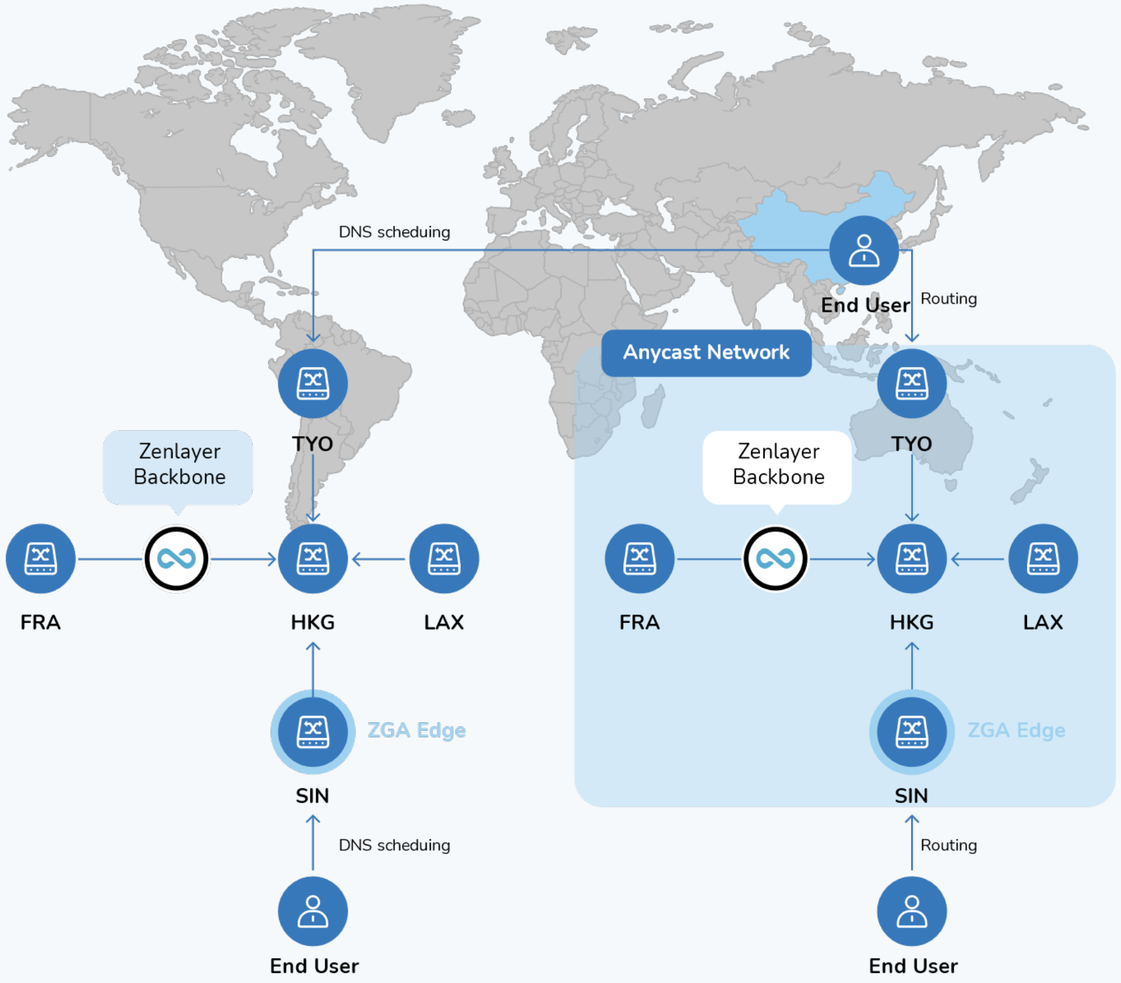
Anycast IP



Convenient

No need to specify acceleration regions.

Security

Minimization of DDoS attack impacts.

Global

One-click global acceleration.

Efficient

Significant reduction in SSL handshake time.

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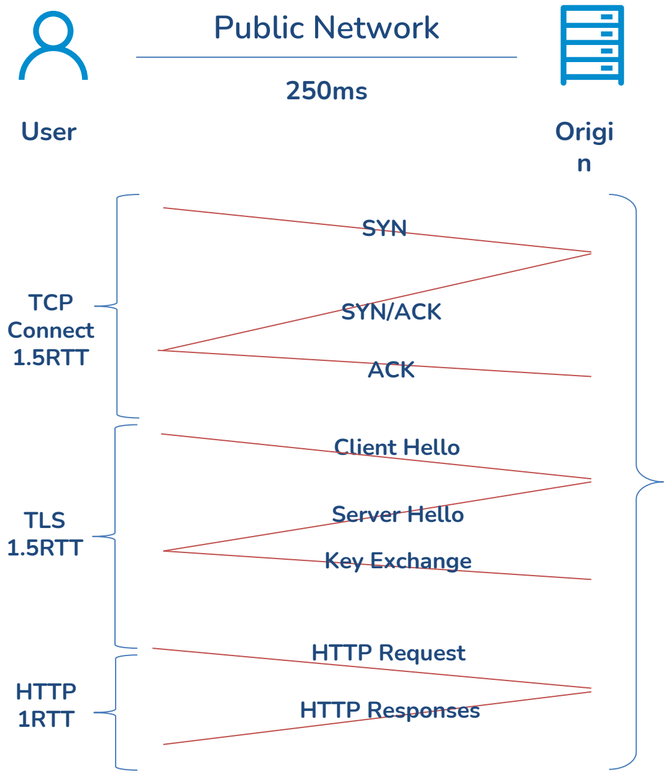
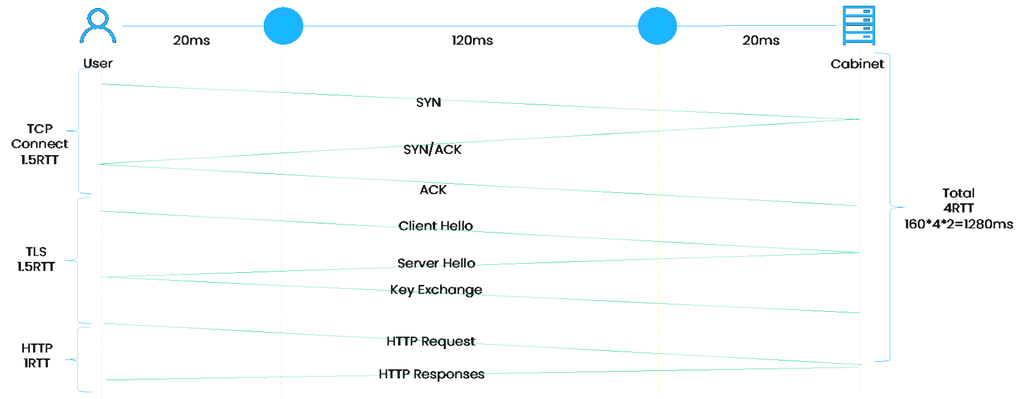
Optimal path selection + protocol optimization for extreme reduction in latency.

When South American users access a European origin site via HTTPS (TLS 1.2).

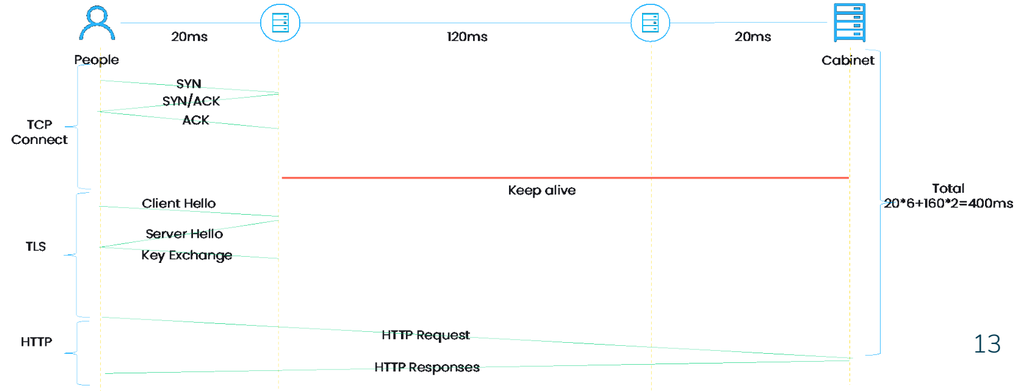


Total 4RTT 250*4*2=2000ms

Layer 4 Acceleration（36% up）



Layer 7 Acceleration(78% up)



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ZGA Global Resources

Region	Zone	Region	Zone	Region	Zone
Turkey	Europe	Tokyo	Aisa	Fortaleza	South America
Sao Paulo		Taiwan		Buenos Aires	
Moscow		Singapore		Bogota	
Marseille		Seoul		Lagos	Africa
London		Pakistan		Johannesburg	
Frankfurt		Mumbai		Melbourne	Oceania
Cairo		Manila		Tokyo CN2	China
Amsterdam		Malaysia		Hong Kong CN2	
Washington	North America	Jakarta		Shanghai	
Seattle		Hongkong		Guangzhou	
San Jose		Hongkong		Beijing	
New York		Ho Chi Minh City			
Miami		Dubai			
Mexico		Bangkok			
Los Angeles					
Dallas					
Chicago					

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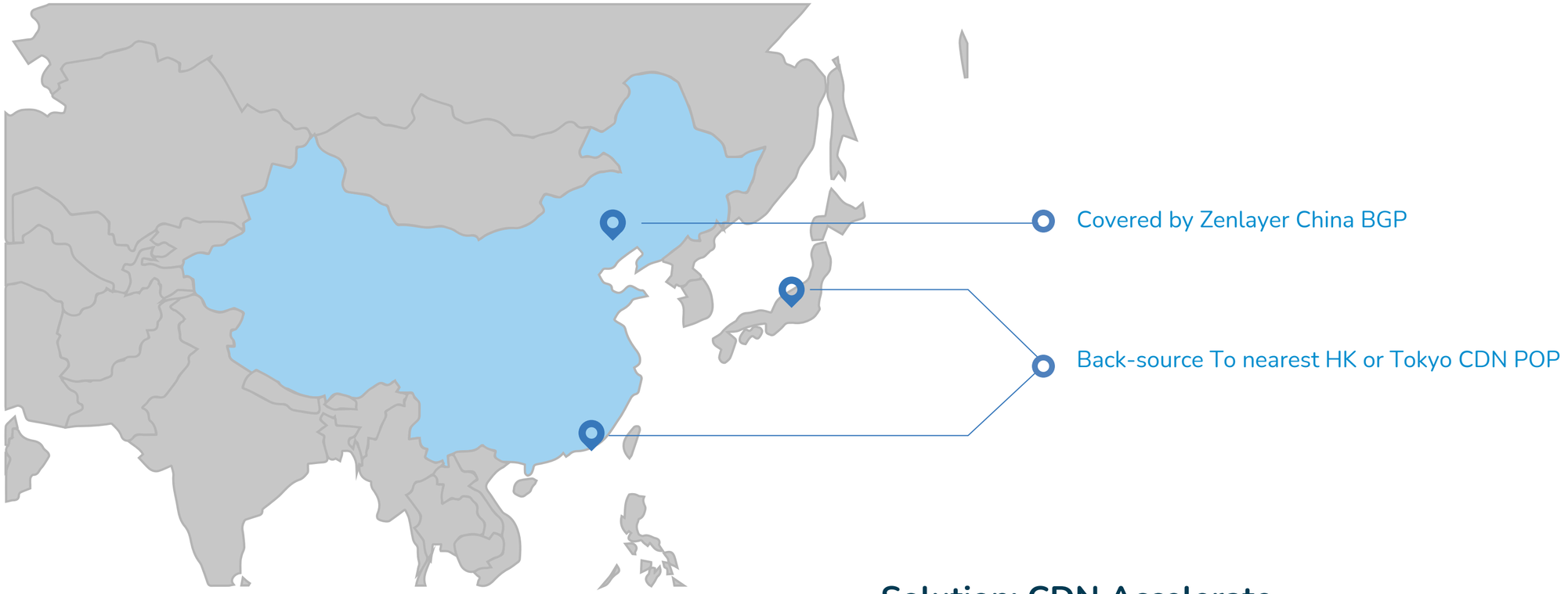
Cross China Border



Customers have used CDN around the world with good coverage, but the quality is not good in some parts of China, and end users sometimes cannot get the content cached in CDN.

Solution: CDN Accelerate

Using Zenlayer's ZGA CDN acceleration, you only need to resolve the domain name to the CNAME provided by Zenlayer according to the GEO location. Use Zenlayer's China BGP capabilities to expand the CDN coverage

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Challenges in China’s Internet Routing

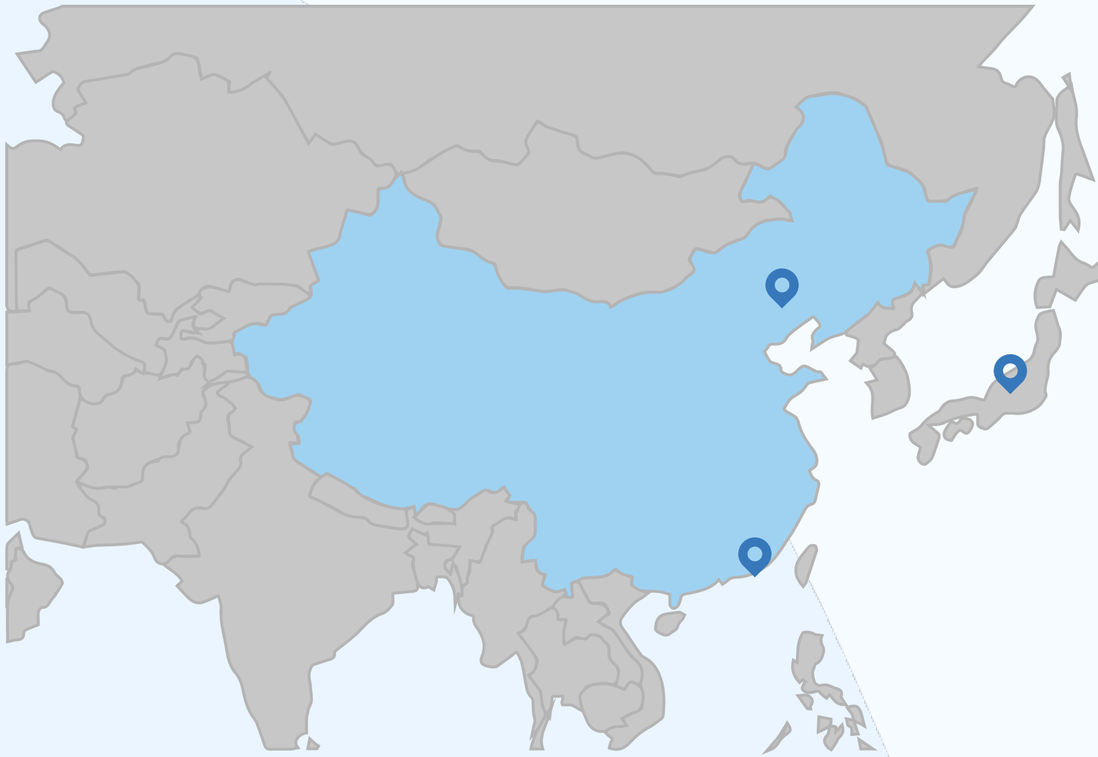
China’s internet routing faces significant constraints, particularly in cross-border bandwidth and network congestion during peak hours. These challenges impact the stability and performance of applications that rely on international connectivity.

•**Limited Cross-Border Bandwidth**: China has relatively small cross-border bandwidth, causing congestion during peak hours.

•**Public Internet Routing via the U.S.**: When overseas IPs access China-based services, the routing system often prioritizes directing traffic through public internet exits in the U.S., leading to increased latency, network instability, and service disruptions.

•**Domain Name Control Policies**:

- The **Great Firewall (GFW)** maintains an evolving blacklist of domain names, blocking access to restricted websites.
- **Provincial ISPs** enforce domain filtering based on user complaints. If a foreign IP’s domain is reported as problematic, the respective provincial ISP may impose a block, further restricting access.
- These control mechanisms vary across provinces and can lead to inconsistencies in network accessibility.



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How ZGA Optimizes Routing

ZGA addresses cross-border routing inefficiencies by leveraging **China Telecom’s CN2 network**, providing optimized routes for international traffic:

•**Optimized Exit Routing**: Instead of routing traffic through congested U.S. pathways, ZGA directs traffic through the nearest optimized exits, such as **Hong Kong or Tokyo**, significantly reducing latency and improving stability.

•**Intelligent Traffic Backhaul**: ZGA ensures that traffic is efficiently routed:

- Directing requests to the **nearest CDN edge node** for faster content delivery.
- Utilizing ZGA’s **dedicated backbone network** to relay traffic back to the customer’s origin server with minimal packet loss.

Limitations: Domain Name Blocking

While ZGA enhances network routing and performance, **it does not circumvent domain name blocking** policies imposed by the Great Firewall or provincial ISPs. Customers must proactively monitor and ensure that their domain names comply with local regulations to avoid access restrictions.

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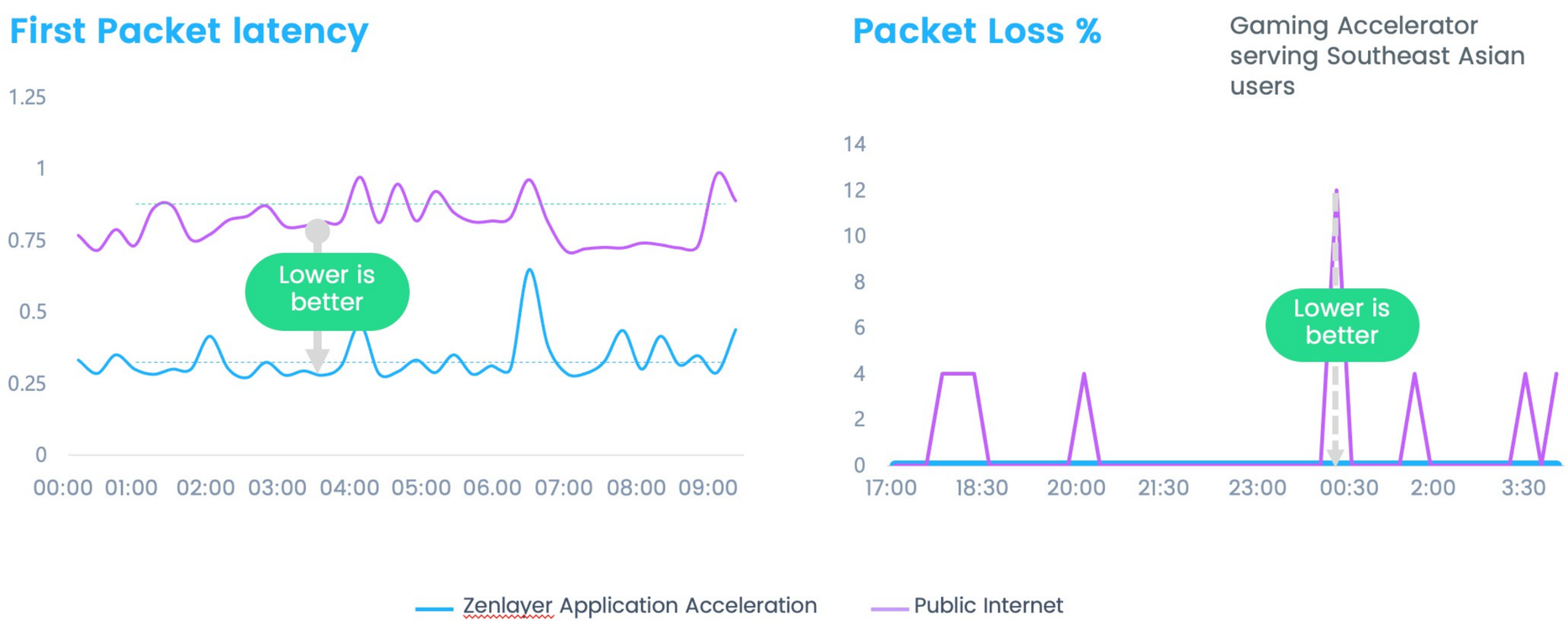
We reduce latency and packet loss by 40% or more



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Customer Stories

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Simulation gaming (SLG) company improves gaming experience in 10 global regions

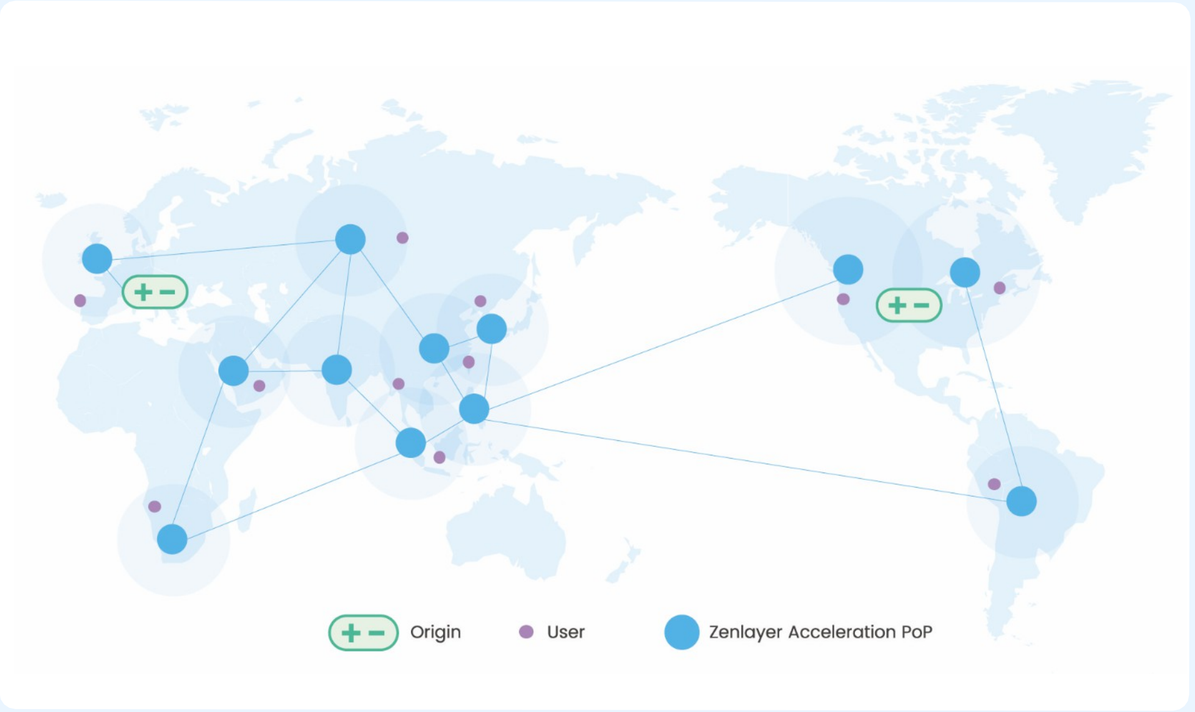
The client, a human-machine interactive game publisher, has global servers deployed in the US and France. The game is sensitive to packet loss and jitter, and users complained about the growing frequency of failed connections.

The Solution:

Zenlayer deployed Zenlayer Application Acceleration: a direct acceleration tunnel from the user to the origin server on demand.

The Results:

- Deployed 10 acceleration regions in- cluding Southeast Asia, Europe, the U.S., and South America
- 50% reduced latency
- < 150 ms end-to-end latency globally



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Blockchain company accelerates connections between mining pools

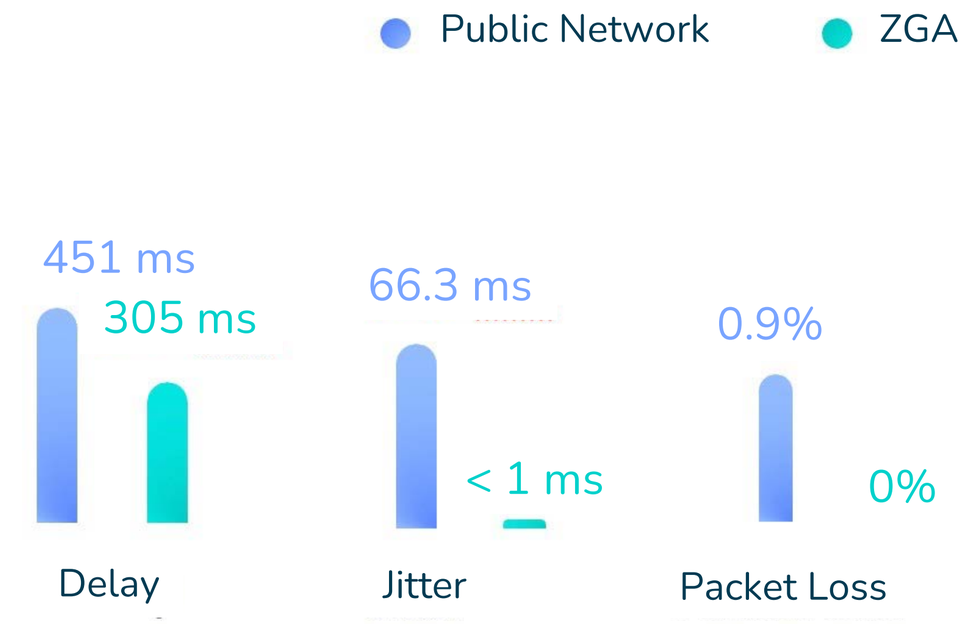
For digital blockchain-based trading, network speed can make or break a transaction. This explains why buyers and sellers are very picky when choosing an exchange. High-latency networks made it difficult for the clients' distributed users in global regions to successfully complete transactions.

The Solution: Acceleration through Zenlayer Global Accelerator (ZGA)

ZGA instantly connected mining pools with the nearest edge nodes through intelligent routing, and greatly improved the speed and quality of the connections by using optimized protocols.

The Results

Sao Paulo to Shanghai



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Powering a better-connected world

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Taipei (coming soon)

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