

5 Cloud Networking Use Cases for China

EXPLORING
SUCCESS
TOGETHER





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Who Are We?

China Telecom Americas Corporation (CTA)

China Telecom (Americas) Corporation (CTA) provides customized, cost-effective and integrated network and communication solutions to its diverse base of customers. As a leading facility-resale carrier with unique access to providers in Asia and the Americas, we offer a wide range of services such as direct internet access, internet transit, data services, data center, ICT services, mobile voice, professional services and industry solutions.

CTA is headquartered in Herndon, Virginia, with offices in Chicago, Dallas, Los Angeles, New York, Panama City, San Jose, Sao Paulo and Toronto. Enterprises throughout the Americas trust CTA's one-stop, turnkey solutions to meet the challenges of today's complex business environment.

- Established in 2001
- Headquartered in Herndon, VA
- 250+ Employees in US, Canada & LATAM
- 8 Regional Sales & Support Offices
- 2 Network Operations Centers in LA & HK
- 22 Points of Presence (PoPs) in North America
- 12 Points of Presence (PoPs) in South America
- 100+ Customers in the Fortune 500
- 100+ Carrier Partnerships
- 15 Channel Master Agent Partners





Cloud Networking Solutions

China Telecom Americas' carrier-based interconnection service or **Elastic Connection Platform (ECP)** is an end-to-end, multi-cloud networking solution designed for globally distributed enterprise requirements of security, reliability and agility.

ECP supports branch-to-cloud, data center to cloud, and cloud-to-cloud connectivity via layer 2 or layer 3 private connections to leading global cloud service providers' (CSPs) availability zones inside and outside of China.

Leveraging SDN infrastructure spanning 80 public cloud locations and 140 data centers, ECP offers global network teams a single, on-net provider for rapid delivery of reliable first mile, middle mile and last mile cross-border cloud networks.

ECP POPs



*Mainland China Cities:
Guangzhou, Shenzhen, Tianjin, Langfang, Shijiazhuang, Jinan, Zhengzhou, Hefei, Wuhan, Changsha, Hangzhou, Jiaxing, Ningbo, Nanjing, Changzhou, Suzhou, Wuxi, Fuzhou, Xiamen, Chengdu, Ningxia, Stan





Elastic Connection Platform (ECP)

SDN-based Interconnection Service from China Telecom Americas

Global Access

- Private connectivity to leading Cloud Service Providers (CSPs) via China Telecom's global ECP cloud on-ramps and Tier-1 network backbone.

Cost Effective

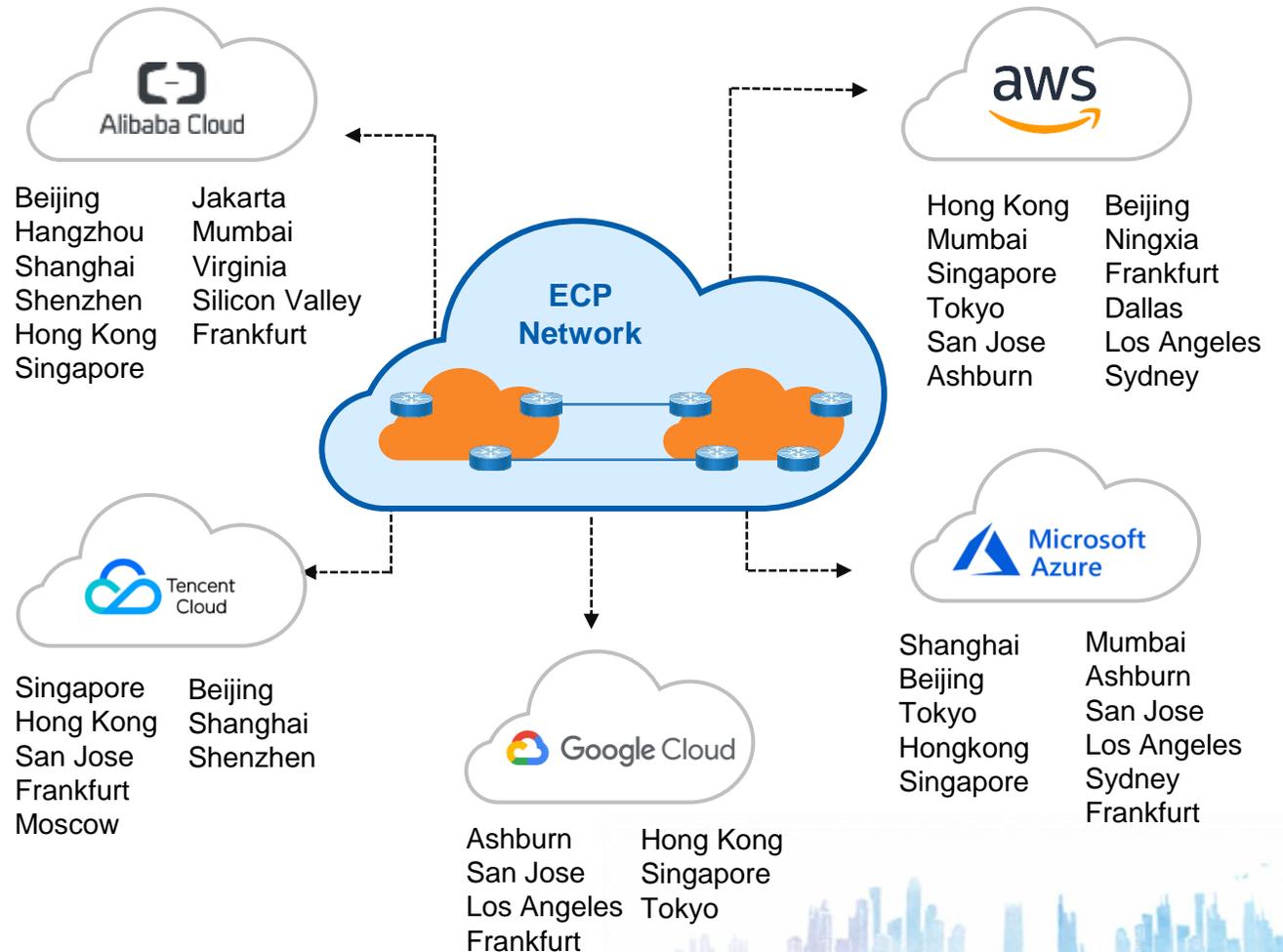
- Reduce CAPEX without additional hardware investments and lower OPEX with reliable performance, security, streamlined provisioning and flexible monthly billing.

Rapid Provisioning

- SDN-based ECP network allows integrations through cloud partners APIs for quick turn up of private connections between cloud nodes.

Reliable & Secure

- SDN-based private networks equipped with automated failover and redundant connections.





ECP Features & Benefits

Fast Delivery

- Standard delivery time is 2 weeks after order execution.

Secure and Stable Private Network

- ECP ensures the isolation of different user networks, based on SDN network architecture.

Flexible Bandwidth & Upgrades

- Customer can request rapid bandwidth adjustments, and easily add tunnels and nodes to the ECP network.

Multiple Network Layer Connection Options

- ECP supports end-to-end layer 2 network connections and full meshed layer 3 connections.
- ECP also integrates with MPLS networks or International Ethernet Private Lines (IEPL).

Single-Hop Access to Global Cloud

- ECP offers customers a single provider for direct access to Cloud Service Provider (CSP) regions and availability zones inside and outside of China.

Customer Portal with Data Monitor

- Customer portal where customers can monitor real-time traffic and analyze ECP network data and graphs.
- Portal GUI has Chinese and English language options
- Additional portal management functionality coming soon.

SLA Guarantee & Post-Sales Support

- Latency guarantee on single link availability SLA up to 99.50%.
- ECP also offers dual link availability SLA up to 99.95%.
- 24/7 Global NOC with Bilingual Support





Use Case 1

ECP + MPLS + Direct Connect from Shanghai DC to Beijing AWS

Challenges & Requirements

- Large US HQ retailer was seeking a stable private connection between their on-prem DC environment in Shanghai and Beijing AWS Cloud.
- The retail company's incumbent provider was a Chinese corporation that was reselling existing network services from local providers. The customer wanted to be on-net for this initiative and understood CTA's value proposition.

Network & Service Coverage

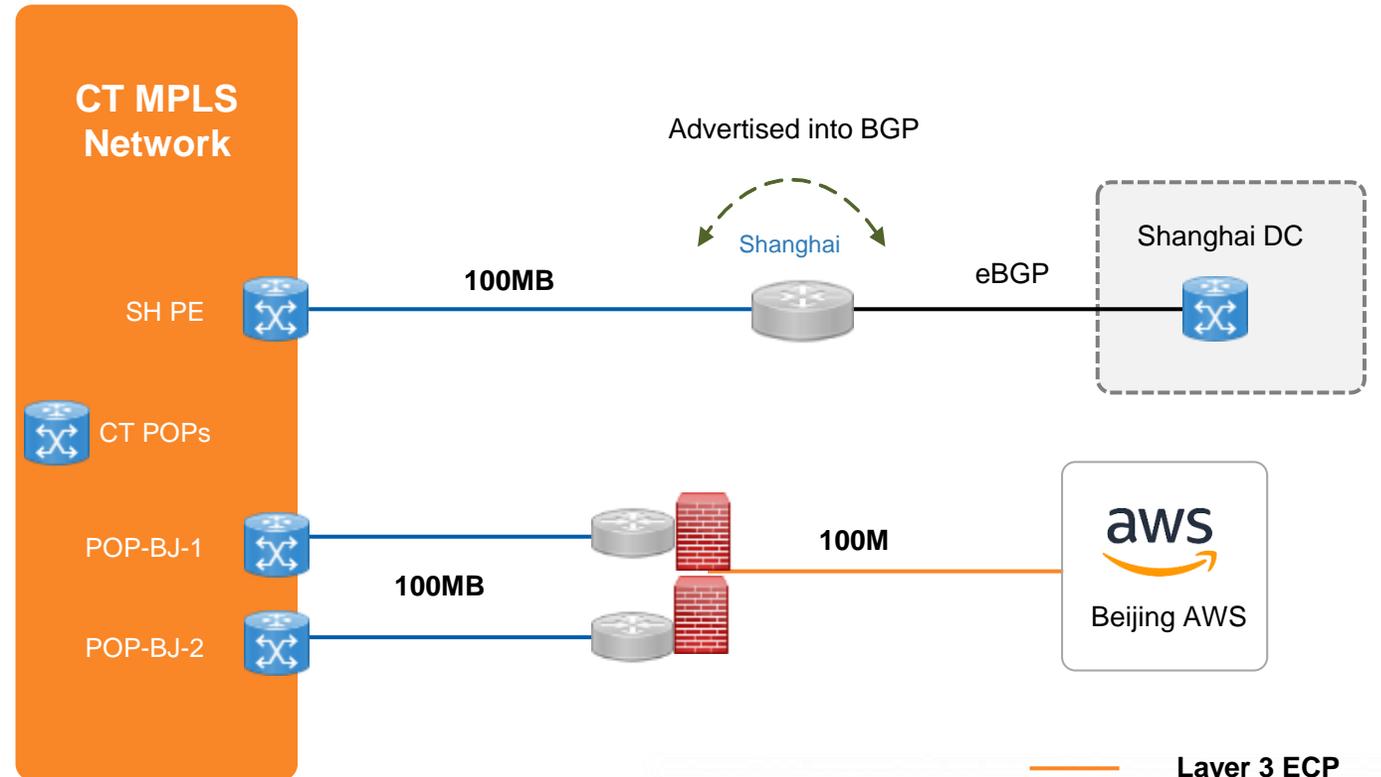
- Shanghai on-premise data center
- Beijing AWS customer platform

Solution Offered

- 100M MPLS circuit for Shanghai DC
- 100M MPLS + private layer 3 ECP connection to Beijing AWS
- Netcare Beijing / Shanghai
- CPE / Hardware Delivery in Shanghai

Values & Benefits

- Intimate knowledge of designed solution with the retail company from initial concept to final solution.
- Dedicated US-Based PM and account team assembled to deliver the circuit and circuit upgrade.





Use Case 2

Layer 3 ECP Solution for Azure China, Azure Hong Kong & US HQ

Challenges & Requirements

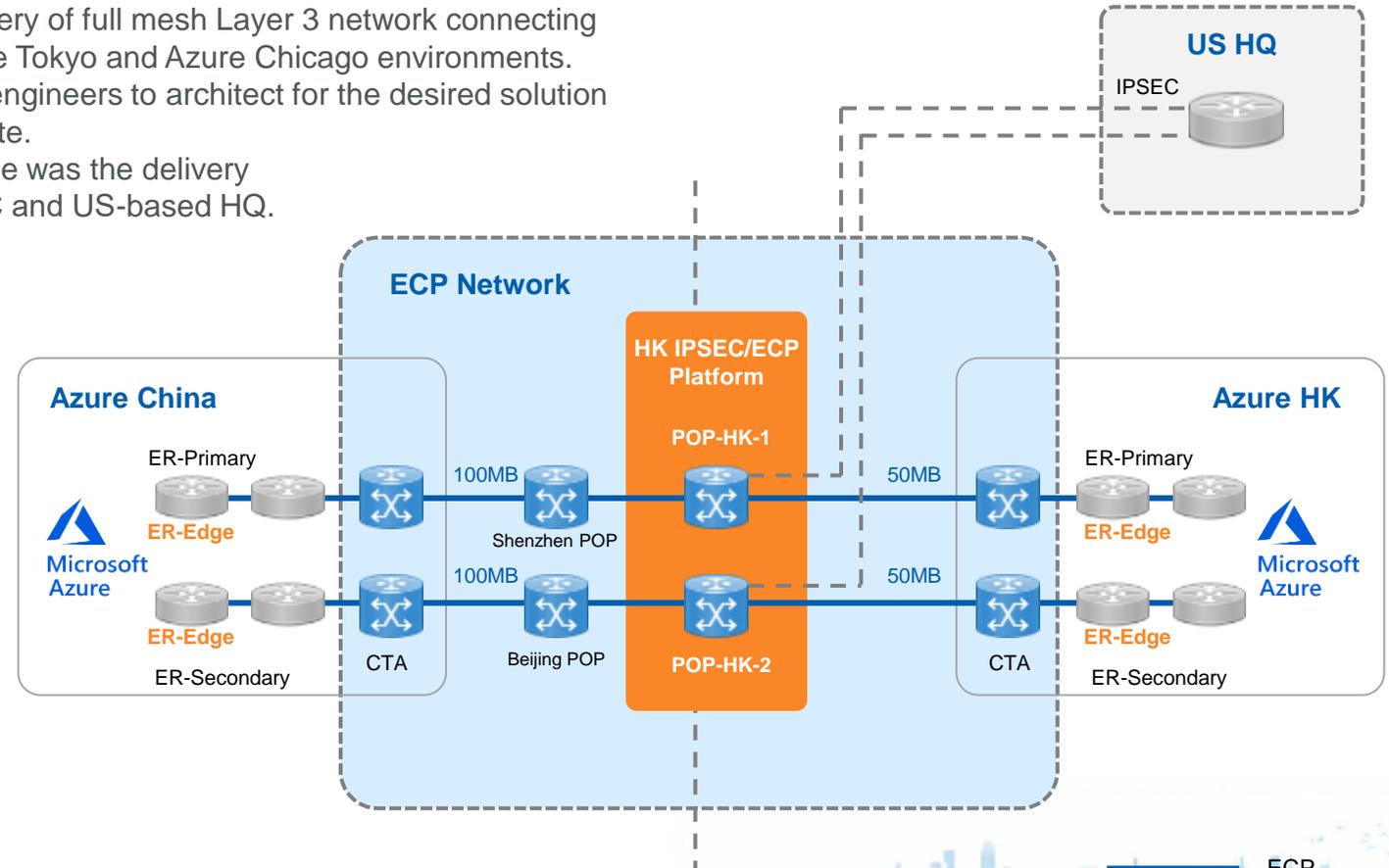
- Large global manufacturing customer requested expedited delivery of full mesh Layer 3 network connecting their US HQ with their Azure Shanghai, Azure Hong Kong, Azure Tokyo and Azure Chicago environments.
- CTA worked with multiple customer department managers and engineers to architect for the desired solution while meeting budget and customers target ready for service date.
- The customer agreed on a final design and the first project phase was the delivery of a ECP with IPsec connection between the customer's HK DC and US-based HQ.

Solution Delivered

- Temporary single 100M IPsec connection from US HQ to Hong Kong ECP POP to meet target RFS date.
- Dual 100M ECP with ExpressRoute connection between Hong Kong ECP POP and Shanghai Azure.
- Dual 50M ECP with ExpressRoute connection between Hong Kong ECP POP and Shanghai Azure.

Values & Benefits

- Intimate knowledge of designed solution with manufacturing company retail team from initial concept to final solution.
- Ability to provide alternative solution using Hong Kong IPsec for US HQ connection to Hong Kong ECP to solve project delivery time challenge.
- ECP layer 3 full mesh elastic network for customer with Phase 2 and Phase 3 on the way.





Use Case 3

ECP + MPLS with Dual Link Protection to Beijing AWS

Challenges & Requirements

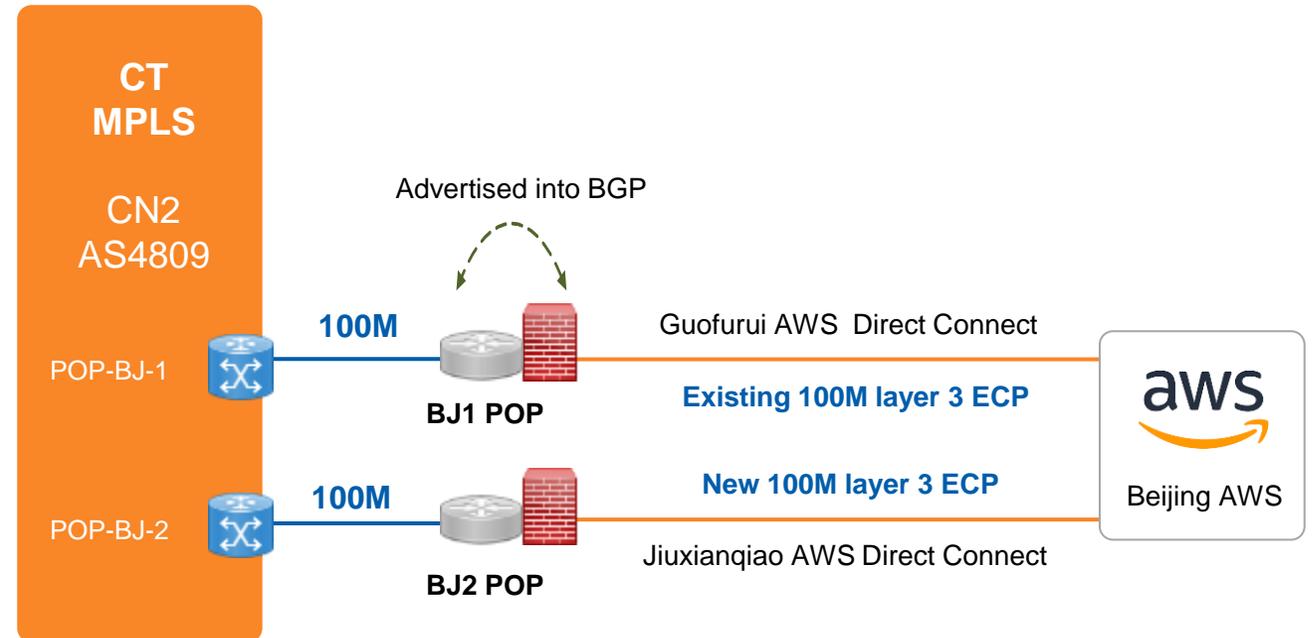
- Existing MPLS customer with 100M ECP connection to AWS Beijing wanted to add 2nd 100M tunnel.
- Two tunnels between MPLS network and AWS site needed to be fully diverse including AWS Direct Connect access.

Solution Offered

- 100M MPLS PE port in Beijing POP for Beijing AWS Direct Connect
- ECP tunnel between Beijing MPLS PE and AWS Jiuxianqiao Data Center
- Netcare network management service

Values & Benefits

- US-based dedicated account team provided close support to meet customer's project requirements
- Upgraded solution with no effect on customer's existing service
- Flexible product, easy to integrate and scale
- Fast deployment and configuration





Use Case 4

Full-mesh Layer 3 ECP Connections to AliCloud China and AWS

Challenges & Requirements

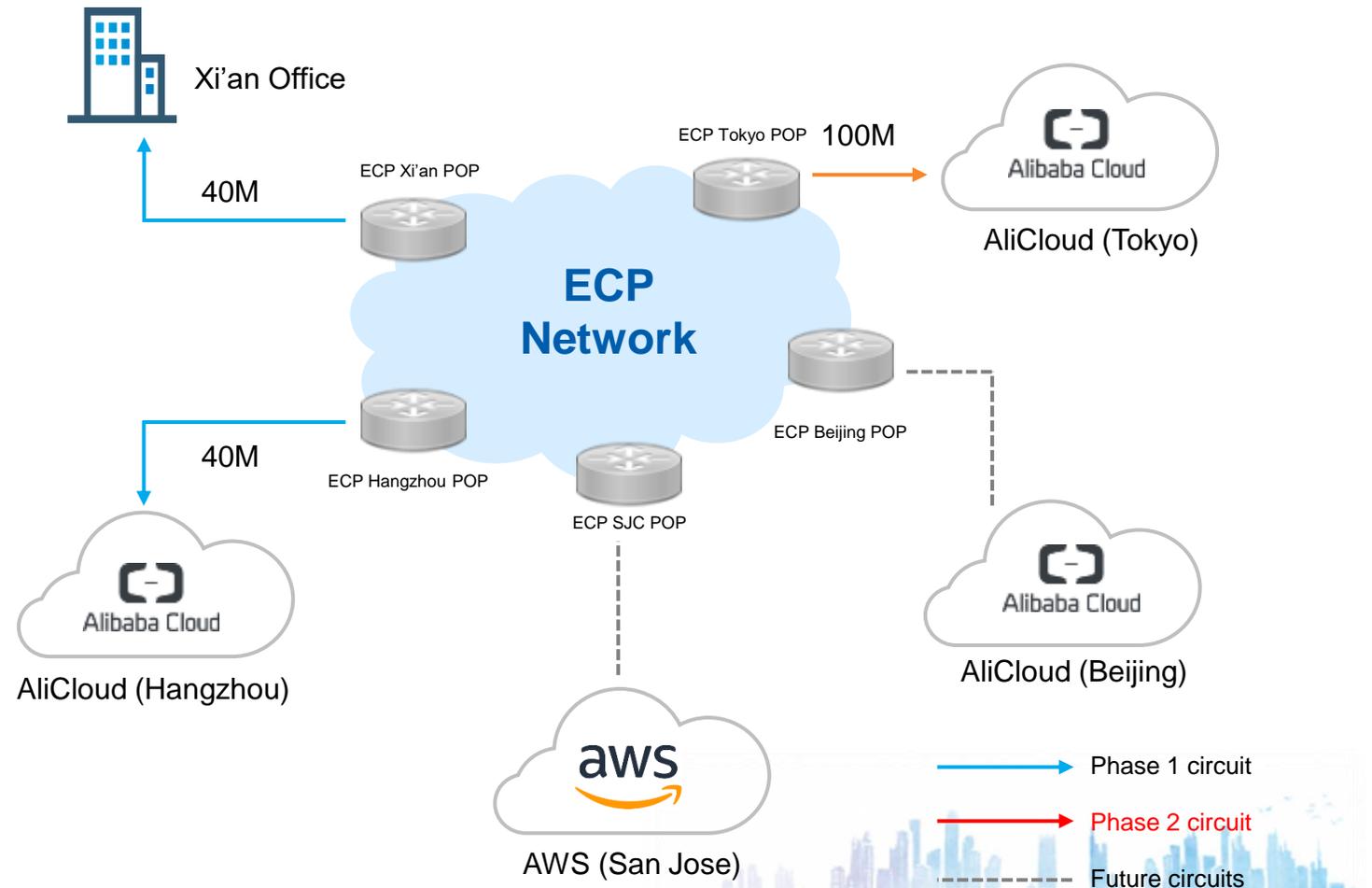
- China-based video conference SaaS customer looking to connect HQ Xi'an office to a different cloud platform to increase performance.

Solution Offered

- Elastic Connection Platform (ECP) was proposed in two phases with the first phase connecting customer's Xi'an HQ office using 40M Layer 3 ECP link to Hangzhou AliCloud and the second, the delivery of 100M Layer 3 ECP link to Tokyo AliCloud and 40M last mile connectivity to customer's Xi'an HQ.
- Future phases will add Beijing AliCloud and SJC AWS

Values & Benefits

- Access to multiple cloud platforms including cloud in China and internationally.
- Platform services offers ability to scale up or down bandwidth quickly and easily, and rapidly deploy additional cloud nodes as needed.
- Helped customer solve last minute problem to access building property.





Use Case 5

Layer 2 “ECP Lite” helps US customer get to Shenzhen AliCloud

Challenges & Requirements

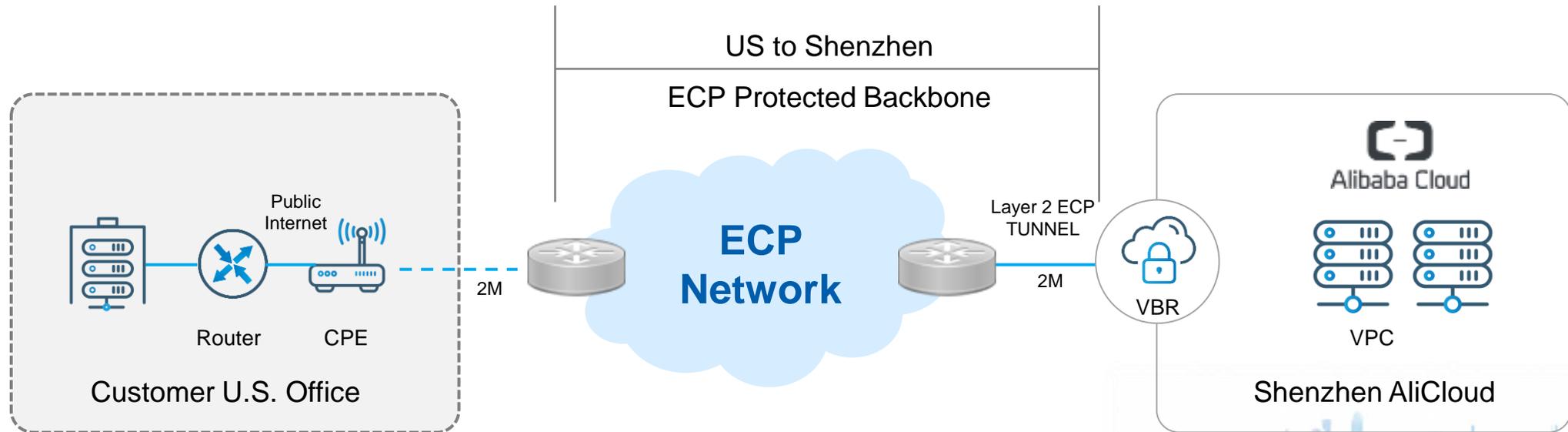
- Customer US branch employee wanted to visit AliCloud in Shenzhen.
- Customer has budget limitation.

Solution Offered

- 2M ECP tunnel between Shenzhen AliCloud and US ECP POP.
- IPsec over internet between ECP POP and customer CPE.
- Customer configures and maintains CPE Fortigate-40F equipment by themselves.

Values & Benefits

- Dedicated end-to-end tunnel between US ECP POP and Shenzhen AliCloud.
- ECP Lite solution solved customer budget concern.
- Customized IPsec solution for US office CPE and ECP POP access.





To learn more about CTA's Elastic Connection Platform (ECP)
& request a product demo visit ctamericas.com/ecp



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