

CTA Cloud Exchange

Product Introduction & Updates

EXPLORING
SUCCESS
TOGETHER





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Product Introduction



- CTA Cloud Exchange relies on China Telecom's high-quality cloud network resource capabilities to provide flexible, secure, and reliable elastic interconnection services based on customer needs for DCI networking, cloud entry, multi-cloud and other WAN scenarios.
- By calling the public cloud service provider's API interface and using the software-defined network (SDN) transmission backbone network, we provide customers with one-stop self-service monitoring, configuration and management services, and help customers build exclusive cloud channels.



Advantage & Feature



Platform Management

CT provides real-time tunnel management, traffic graphs, and additional tools to simplify customers' IT operation and maintenance tasks, reducing complexity.



Security and Stability

Ensures the logical isolation of the network between different users. The network is free of congestion and delayed packet loss 24x7 hours a day. It also provides a variety of redundancy models to achieve millisecond-level switching of network failures.



Cloud Network integration

Industry-leading cloud network resources support SD-WAN one-click access to the cloud through Cloud Exchange. Supports agile on-demand service provisioning and delivery, and dynamic resource management/scheduling optimization.



One Point Access Network

By connecting to any node of cloud connection, you can obtain connection conditions with multiple network providers and cloud service providers. Enterprises can meet incremental business needs by expanding bandwidth and avoid building multiple links.



Fast Delivery

Cloud connections can achieve rapid project delivery by calling public cloud service provider API interfaces and SDN automation tools.



Flexibility

Provide flexible bandwidth strategies to meet customers' temporary traffic burst needs.



Global Coverage

Provide dedicated backbone network resources globally, catering to users' business access needs in diverse regions.



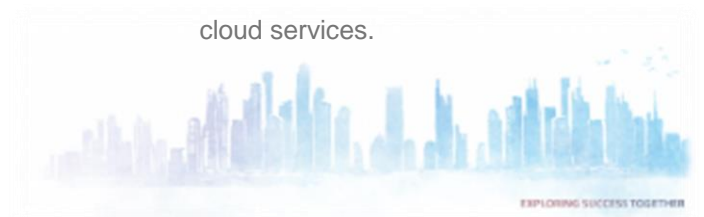
Low Latency

Utilize premium dedicated network resources to guarantee reduced latency, ensuring a secure and stable environment.



24x7 Technical Support

With a complete and mature network operation and maintenance system of operators, we provide professional cloud services.



Cloud Exchange Node Coverage



- There are 153 POP nodes worldwide, including 107 Asia-Pacific nodes, 16 Americas nodes, 20 European nodes, and 10 Middle East and Africa nodes.

Americas

Los Angeles
San Jose
Chicago
Dallas
Miami
New York
Ashburn
Seattle
Sao Paulo

Americas

Africa & Middle East

Fujairah
Johannesburg
Nairobi
Lagos
Dubai
Fujairah
Islamabad

Africa & Middle East

Europe

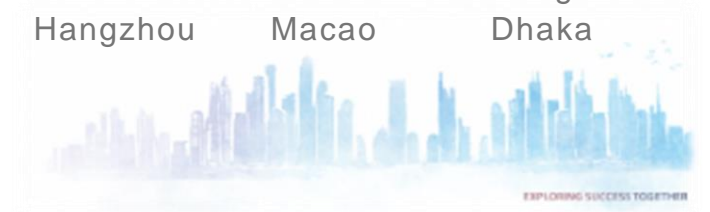
Europe

Paris	Milan
Amsterdam	Moscow
London	Dublin
Prague	Istanbul
Stockholm	Marseille
Frankfurt	

Asia Pacific

Asia Pacific

Beijing	Wuhan	Hanoi
Shanghai	Hongkong	Kuala Lumpur
Guangzhou	Tokyo	Seoul
Shenzhen	Singapore	Bangkok
Chongqing	Mumbai	Manila
Foshan	Phnom	Ho Chi Minh
Ningxia	Penh	New Delhi
Suzhou	Jakarta	Bangalore
Hangzhou	Macao	Dhaka



Global Cloud Connection Regions



- Beijing
- Shanghai
- Chongqing
- Shenzhen
- Foshan
- Hongkong
- Macao
- Singapore
- Frankfurt
- Dubai
- Saint Paul



- China North(Beijing)
- China Northwest(Ningxia)
- Asia Pacific (Hong Kong)
- Asia Pacific (Singapore)
- Asia Pacific (Tokyo)
- Asia Pacific (Osaka)
- EU (London)
- EU (Ireland)
- EU (Frankfurt)
- EU (Paris)
- US East (Ohio)
- US East (N.Virginia)
- US West (N.California)
- US West (Oregon)
- Canada (Central)



- China East
- China North
- Australia East
- Australia South East
- East Asia
- Southeast Asia
- Japan East
- Japan West
- UK South
- Germany North
- West Europe (Amsterdam)
- North Europe (Ireland)
- North Central US
- South Central US
- West Central US



- Asia East(Hongkong)
- Asia Northeast1 (Japan)
- Asia Northeast2 (Osaka)
- Asia Southeast1 (Singapore)
- Australia South East1 (Sydney)
- Australia West East2 (Perth)
- Asia East1 (Taiwan)
- Europe West1 (Belgium)
- Europe West2 (UK)
- Europe West3 (Germany)
- North America-Northeast1 (Montréal)



- Beijing
- Shanghai
- Hangzhou
- Shenzhen
- Hongkong
- Asia Pacific SE1 (Singapore)
- Asia Pacific SE2 (Sydney)
- Asia Pacific NE1 (Tokyo)



- Shanghai
- Beijing
- Guangzhou
- Hongkong
- Moscow
- Asia Pacific SE2 (Sydney)
- Asia Pacific NE1 (Tokyo)



- Beijing
- Shenzhen
- Hongkong



- Beijing
- Shenzhen
- Guangzhou
- Hongkong





Availability

- Backbone unprotected: 99.5%, or approximately no more than 219 minutes downtime in one calendar month.
- Backbone protected: Access unprotected, 99.9%, or approximately no more than 44 minutes downtime in one calendar month. (default)
- Backbone protected: Access protected, 99.95%, or approximately no more than 22 minutes downtime in one calendar month.

Latency

- Refer to the latency table, based on customer solution requirement.
- Write in SLA.





Scenarios

Scenario 1: End to End Cloud/DC Connection



Description:

- Provide point-to-point elastic connections for clients, data centers, and public cloud nodes.



Deployment Method

- For data centers where customer servers are deployed in CTA cloud connection nodes, the interconnection between the node rack and the client rack will be realized through fiber jumpers in the building.
- For data centers where the customer server is deployed in a non-CTA cloud connection node, it will be connected to the cloud connection POP node nearby through a local dedicated line.
- For customer cloud access, CTA will provide customers with exclusive cloud channels through NNI ports with various public cloud service providers.
- The cloud connection solution in this scenario provides Layer 2 connections by default, Layer 3 connection is required.

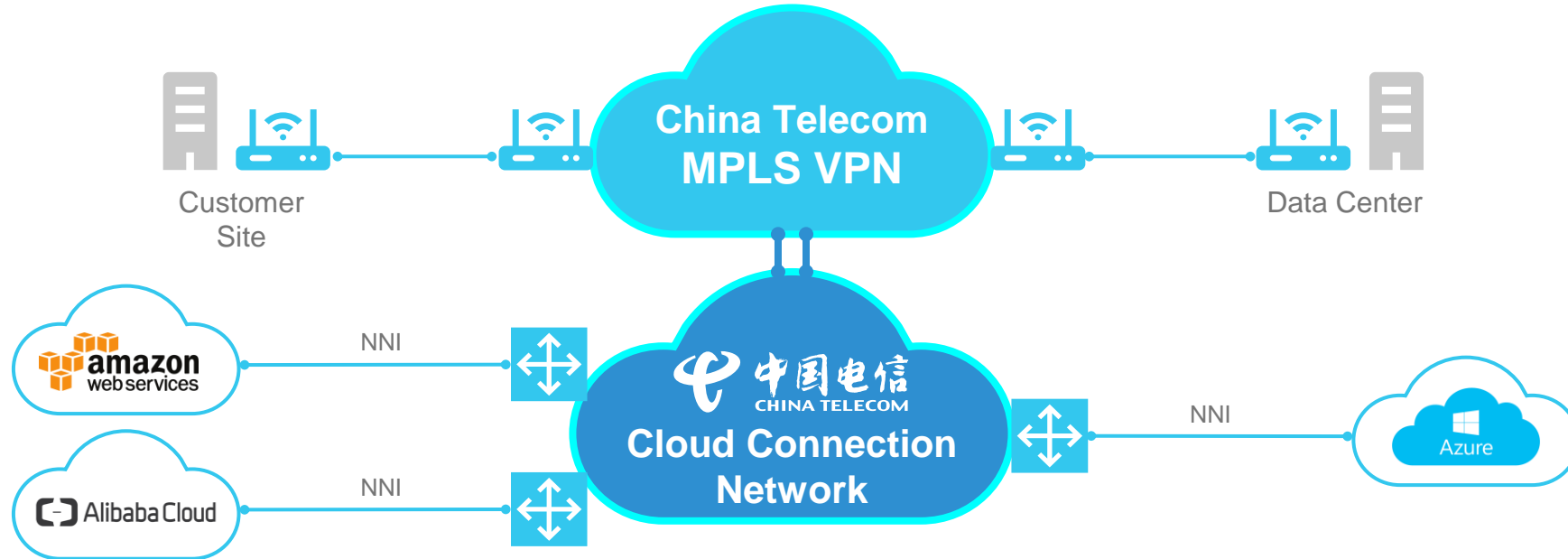


Scenario 2: Multi-Cloud Hybrid Access



Description:

Multiple interconnection requirements: multi-cloud, multi-cloud to multi-IDC, multi-customer sites to multi-cloud, etc.



Deployment Method

- Each site is connected to CTA's cloud connection node nearby through local dedicated lines/fiber jumpers in the building, etc. Customers can easily achieve on-demand interconnection between multiple sites
- For existing network customers of China Telecom MPLS VPN (AS: 4809), dedicated trunk ports will be allocated on the backbone PE nodes for interconnection communication between the customer VPN network and the public cloud.
- This scenario will provide Layer 3 connection



Scenario 3: Cloud/DC Connection Lite Access



Description:

Customer already has Internet access conditions and hopes to achieve low-cost and rapid cloud interconnection.



Deployment Method

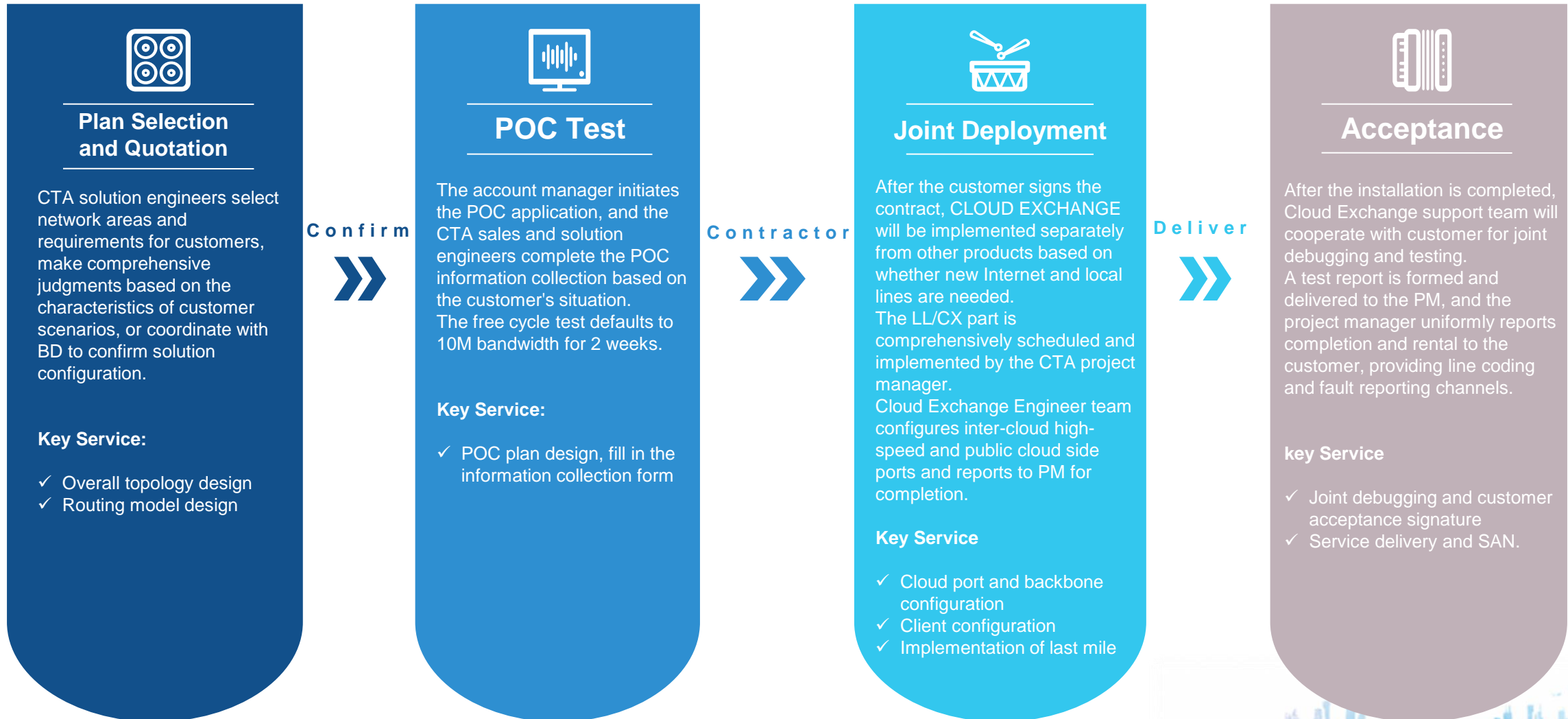
- Deploy CTA-SD-WAN CPE at the customer node and access the CTA cloud to connect the backbone network nearby through the existing Internet.
- After the customer accesses the cloud and connects to the backbone network node, CTA will allocate the shared Layer 2 channel bandwidth to the user to realize the connection from the access point to the public cloud.





Process Support Service

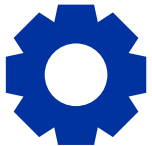
Support Process



Post-Sales: Customer First, Attentive Service



24x7 customer service hotline supported by a professional customer service team responsible for handling customer inquiries and fault reports



24x7 CT portal management, real-time fault detection and troubleshooting

Global Customer Service Hotline

+86 400-885-2310

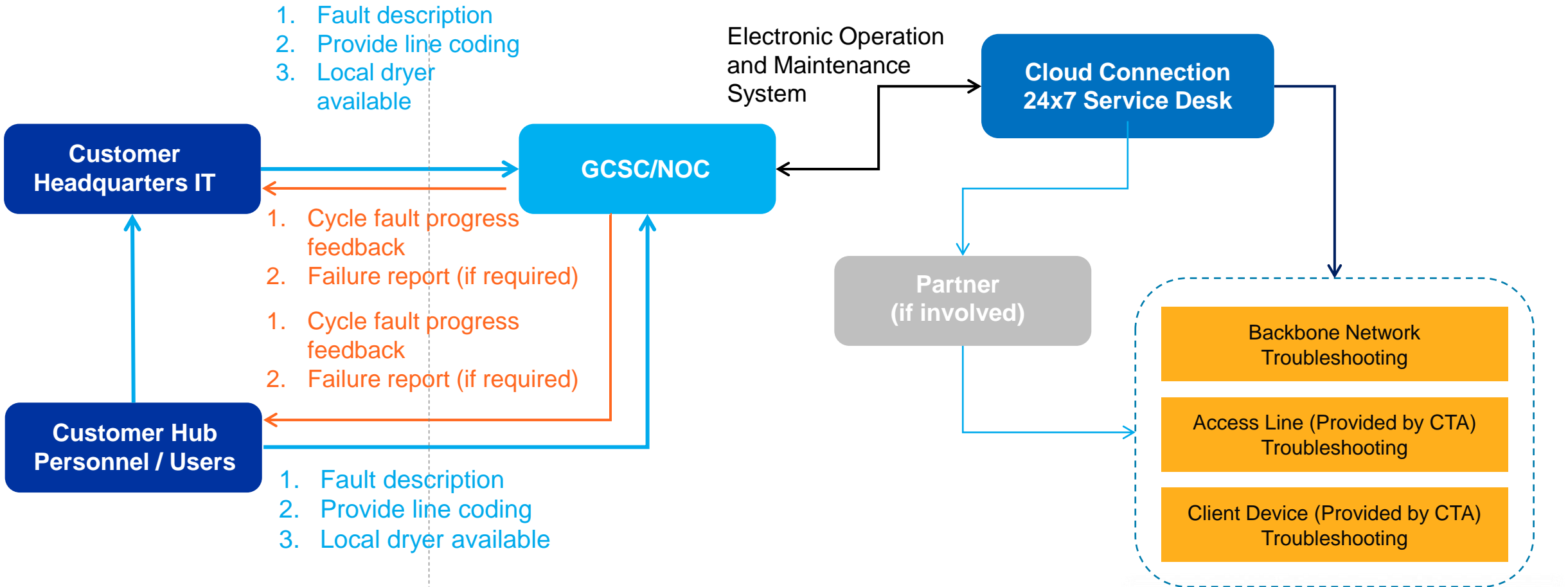
Service hotline supports four languages: Cantonese, Mandarin, English, Japanese

CTA Customer Interface:

- GCSC: Customer Interface (global.noc@chinatelecomglobal.com)
- CSC: Request for Outage (csc@ctamericas.com)



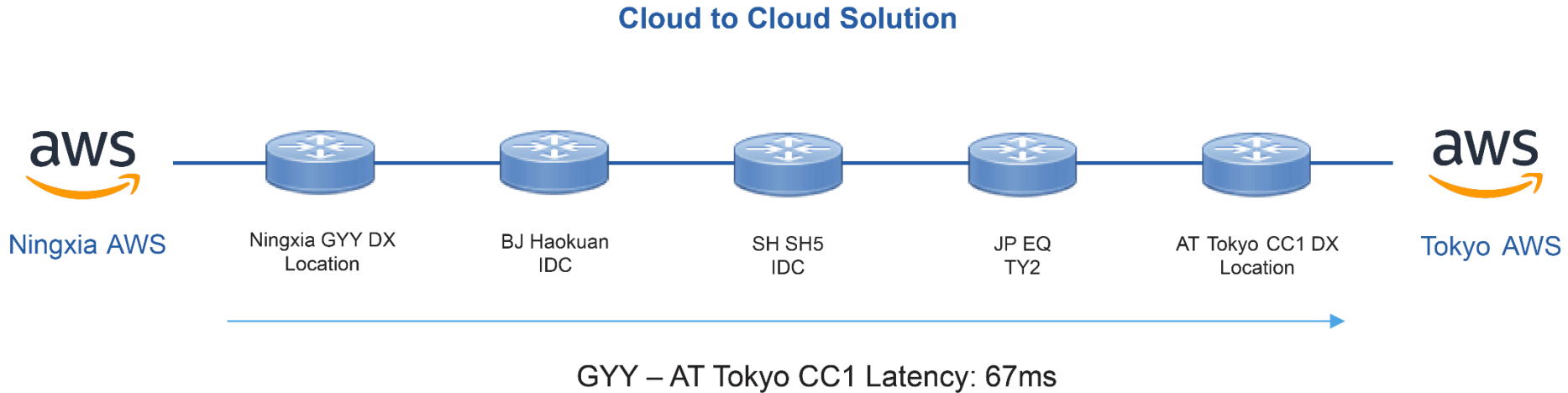
Post-Sales : Troubleshooting





Use Cases

USE CASE 1: AWS China to AWS Tokyo



Customer Requirement:

- 10M AWS TKO to AWS Ningxia
- Term: 3 years

Keywords:

- Existing Customer since 2019: AWS TKO to AWS Beijing, MPLS to AWS
- Following new request: 50M AWS Osaka to AWS Beijing

Challenge:

- China AWS DX approval material preparation and process processing

Value & Benefits:

- Connection and Synchronize AWS China and AWS Global Service
- Private tunnel among clouds and stable connection



USE CASE 2: Connection among Ali Cloud, AWS and Customer Site



Multi-Cloud Access Solution

Customer Requirement:

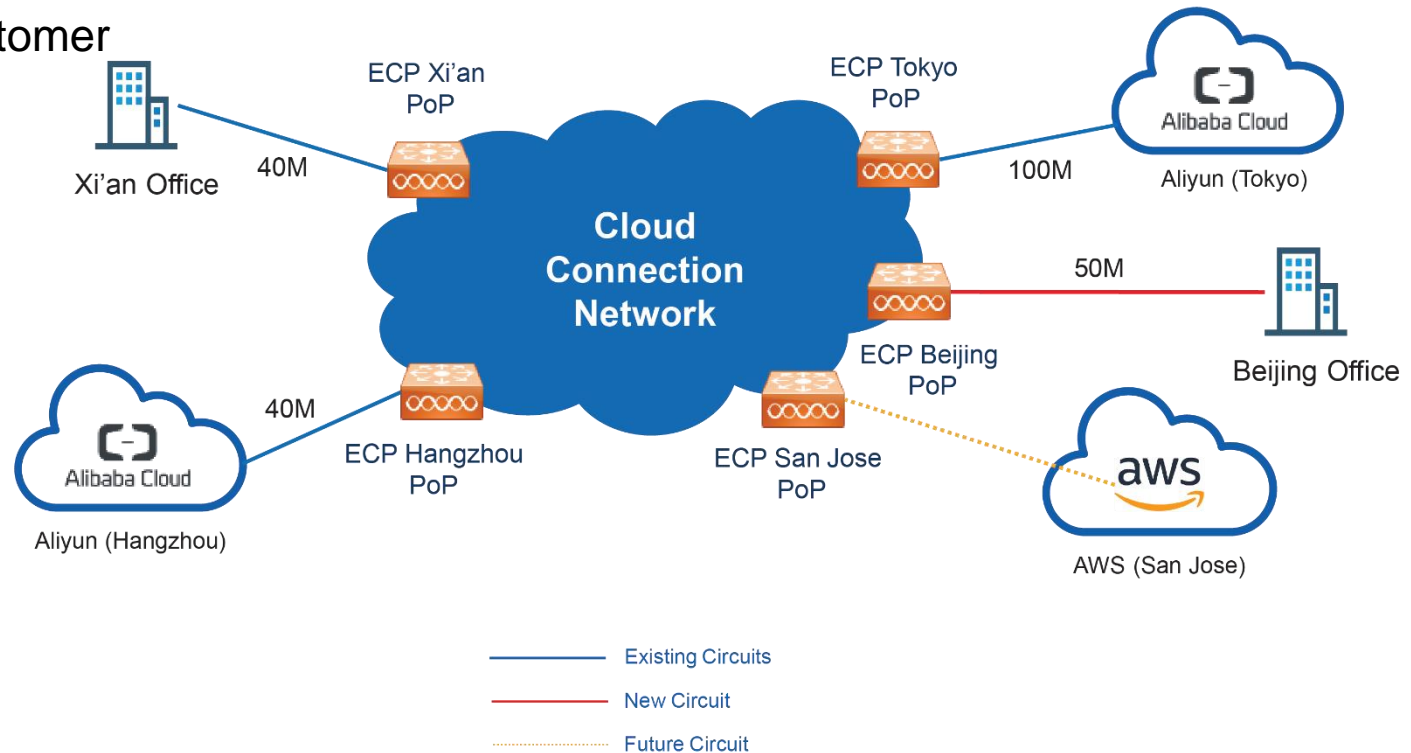
- Phase 1: Cloud acceleration from customer Xi'an office to Hangzhou Ali Cloud
- Phase 2: Add Tokyo Ali Cloud
- Phase 3: Add Beijing office
- Phase 4: Connect to San Jose AWS

Challenges:

- BGP routing change from customer edge device, firewall, VBR, etc.

Our Value:

- We offer reliable and secure global cloud connectivity solutions from China to Japan and the US. Our competitive edge lies in our flexible cloud POP sites worldwide and cost-effective pricing, outperforming Ali VPC solutions that are built on CT backbones.



Thank You.



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