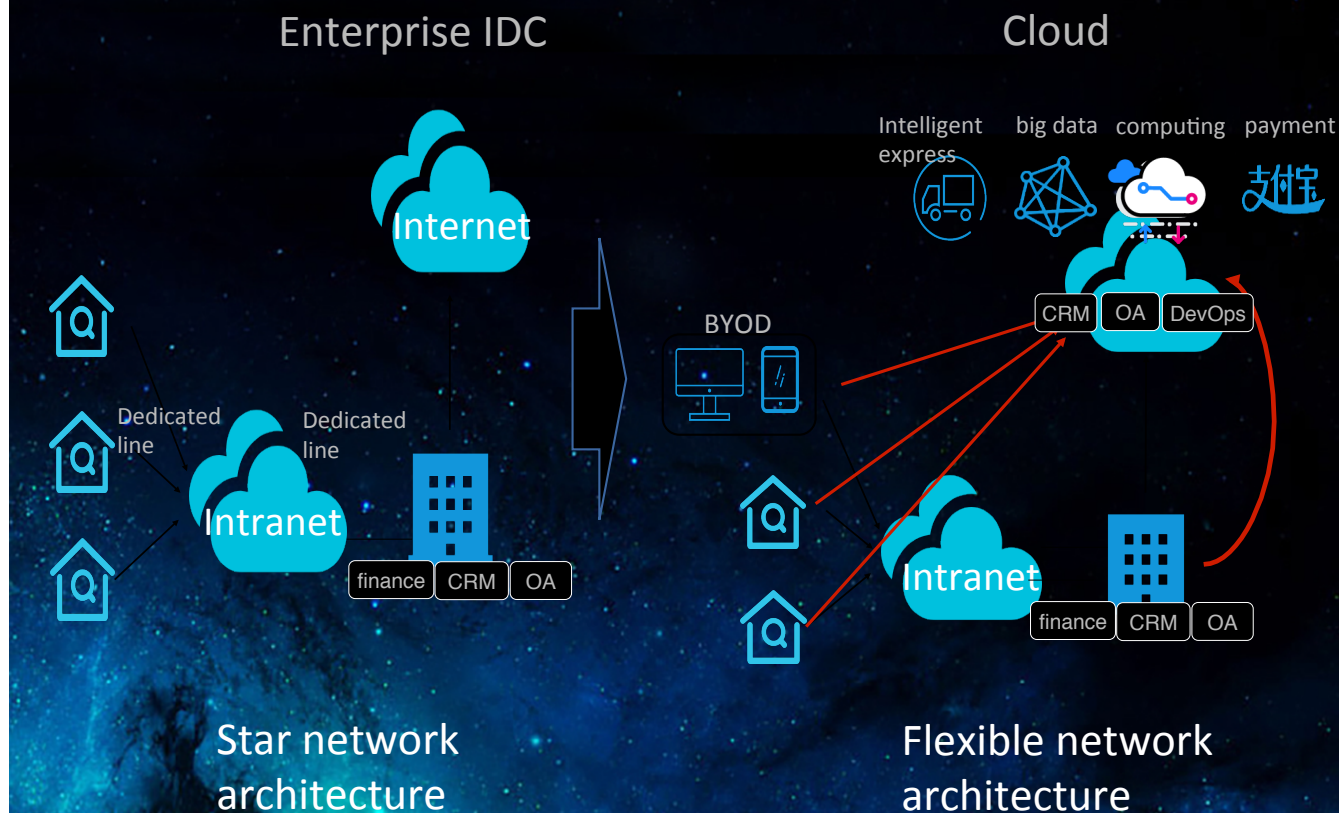# Open hybrid cloud network architecture based on SDWAN

Trend and Challenges

Enterprise IDC

Cloud

Internet

Intelligent express big data computing payment

支付宝

BYOD

CRM OA DevOps

Dedicated line Dedicated line

Intranet

finance CRM OA

Intranet

finance CRM OA

Star network architecture

Flexible network architecture
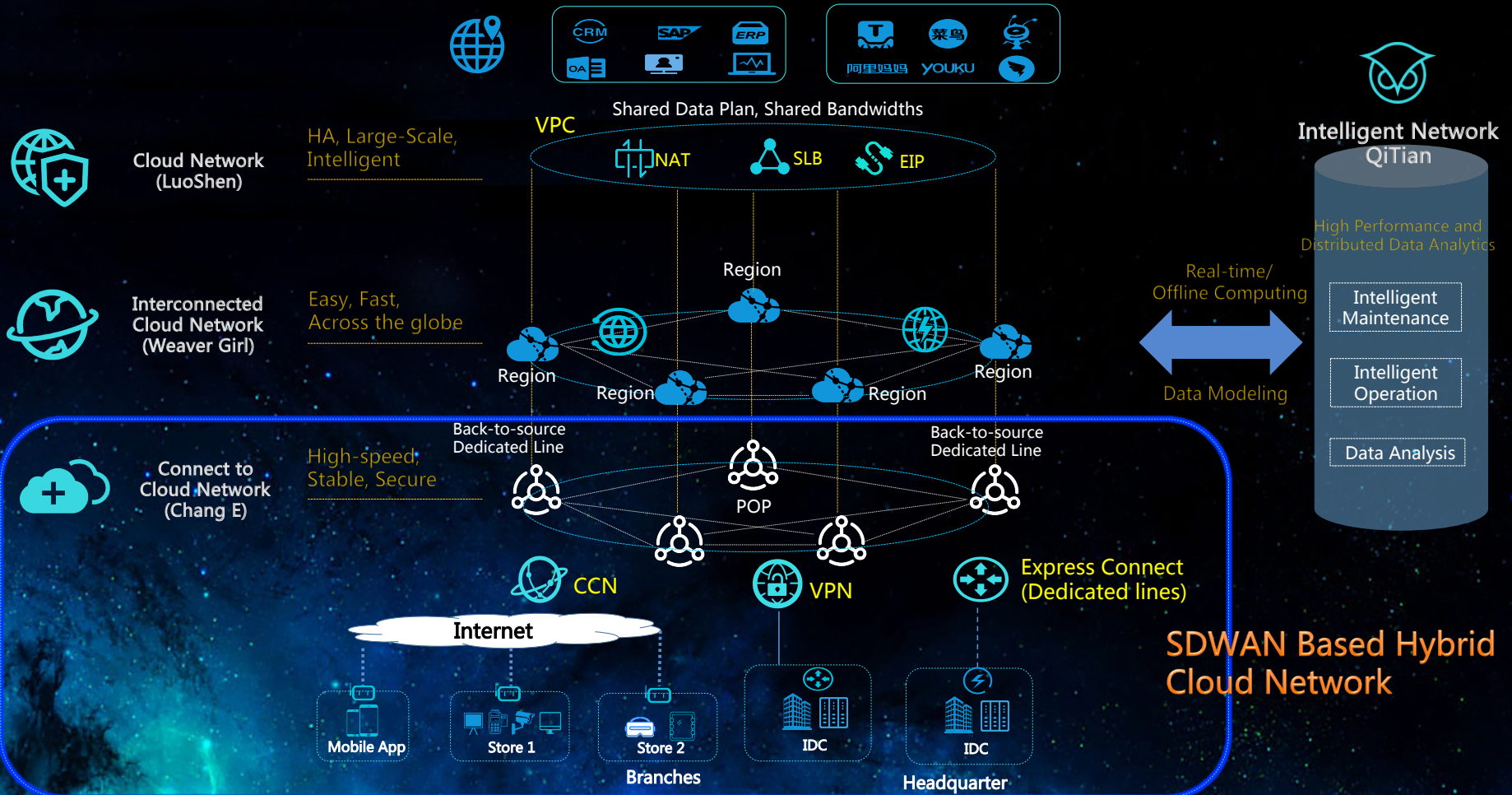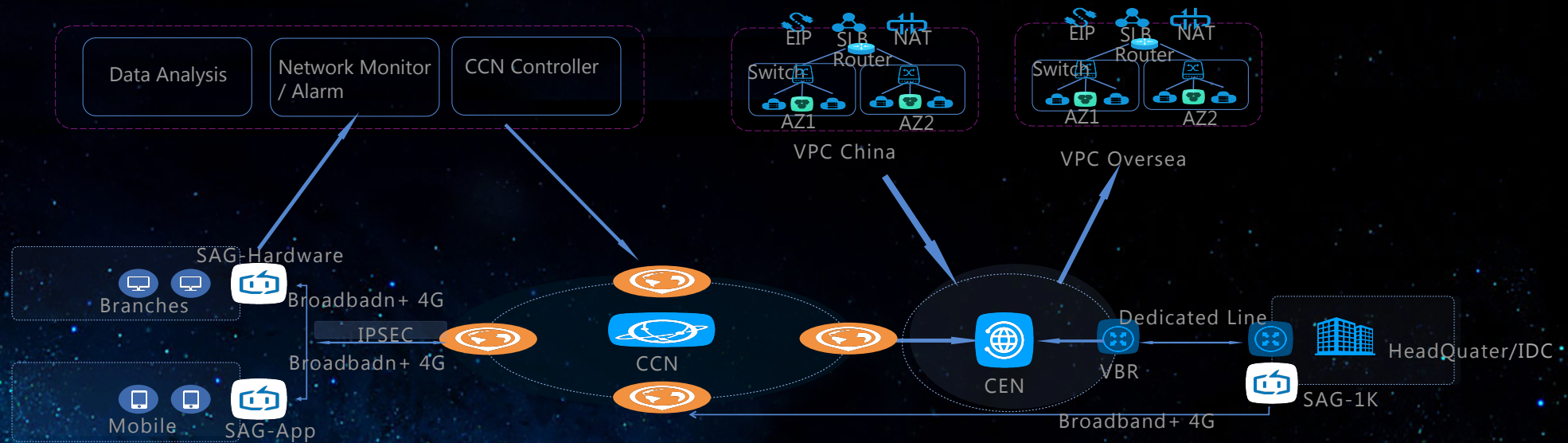
Network Challenges:

Long Open Cycle

(Dedicated line: months)

Operations

(thousands of network configurations)

Not Stable

(Delay, Jetter, Loss)

CCN - SDWAN Based Hybrid Network Architecture

Data Analysis

Network Monitor / Alarm

CCN Controller

EIP SLB NAT
Router
Switch
AZ1 AZ2
VPC China

EIP SLB NAT
Router
Switch
AZ1 AZ2
VPC Oversea

SAG-Hardware
Branches
Broadbadn+ 4G
IPSEC
Broadbadn+ 4G

Mobile
SAG-App

CCN

CEN

Dedicated Line
VBR
HeadQuater/IDC

SAG-1K

Broadband+ 4G

Kinds of terminals

Hardware – On Shelf box/Desktop

Software – Mobile App Client

Inter-connections Over Regions

Connect to local POP

Virtual dedicated line over regions

Interconnect with Cloud

Access to VPC worldwide

Cloud Service Acceleration

Cloud Network Integration

Backup for dedicated line

Full network monitor

Alibaba Cloud | MORE THAN JUST CLOUD

Characteristics

Simple

Zero Touch Provision

Cloud Network Integration

Easy configure on the cloud

SAG plugin and play

Open Ecosystem

Certified 3rd Party Box

Carrier Partners
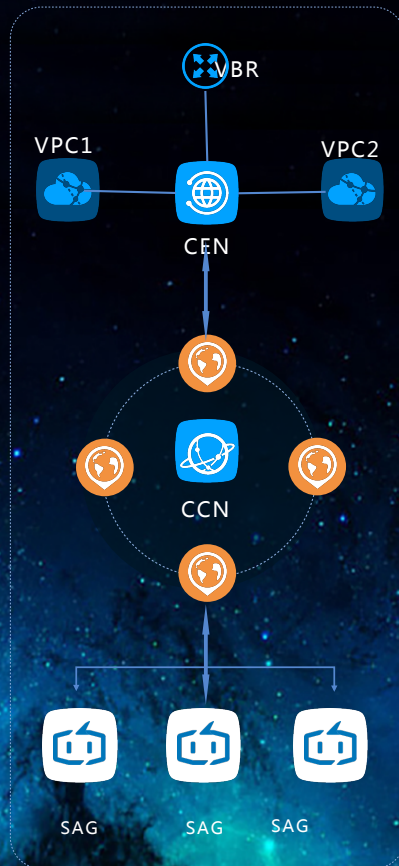
ISV/MSP Partners

Empower the network
operation abilities

Security

Tenant Isolation

Encrypted Data Trasnfer

Security Pop Site

Anti-Attack/Tamper
resistance

Quality

Dedicated Line
from POP to Region

Global Wide POP Site

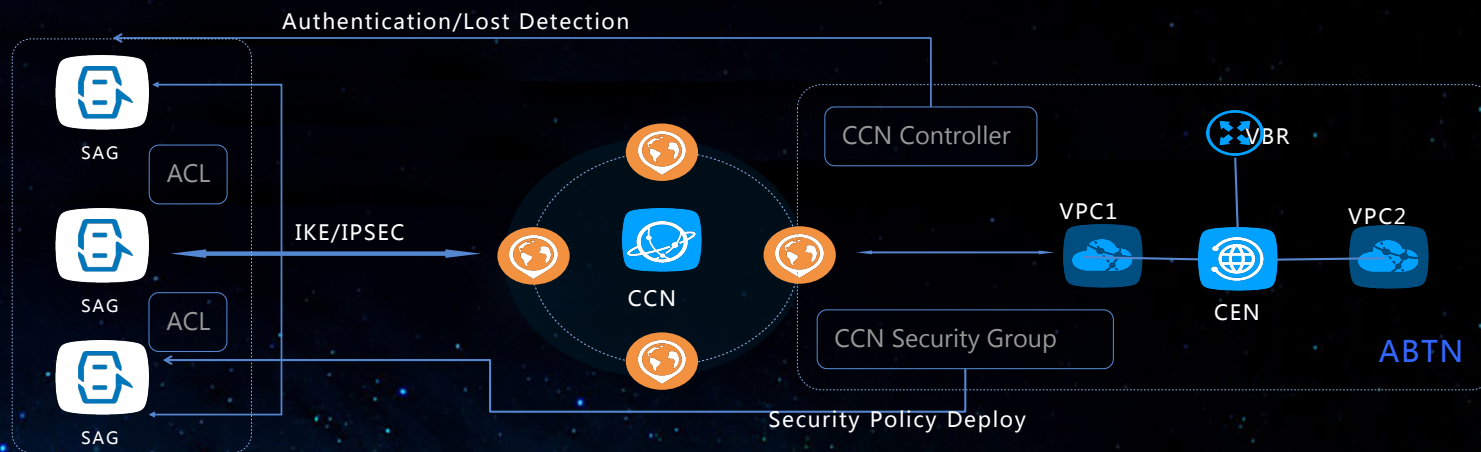Intelligent POP Selection

Best Route Selection

High Availability

Plugin and connect to the Cloud

VBR

VPC1   VPC2

CEN

CCN

SAG   SAG   SAG

CCN

- Automatic configuration
- Best pop site select automatically
- Link failure detection & alarm
- Traffic monitor
- Zero touch provison
- Free operation

SAG-100wm   SAG-1000   App Client

Open Ecosystem

Alibaba Cloud | MORE THAN JUST CLOUD

ISV

MSP

Open API

POP

CCN Controller

Network Monitor/Alarm

Data Analysis

Carrier partner

POP

CCN

VPC1

VPC2

CEN

VBR

3rd Party Box

3rd Party NFV

SAG
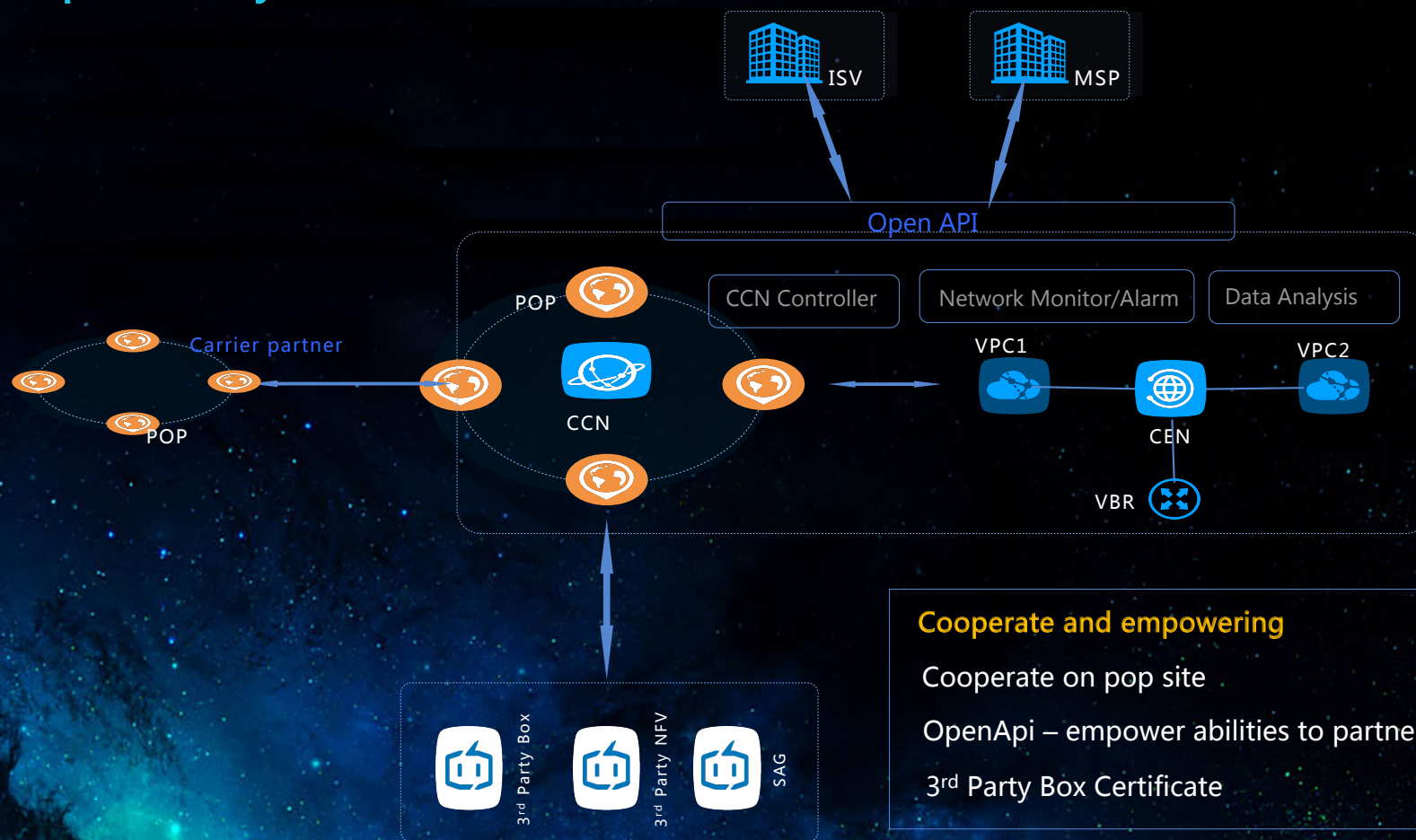
Cooperate and empowering

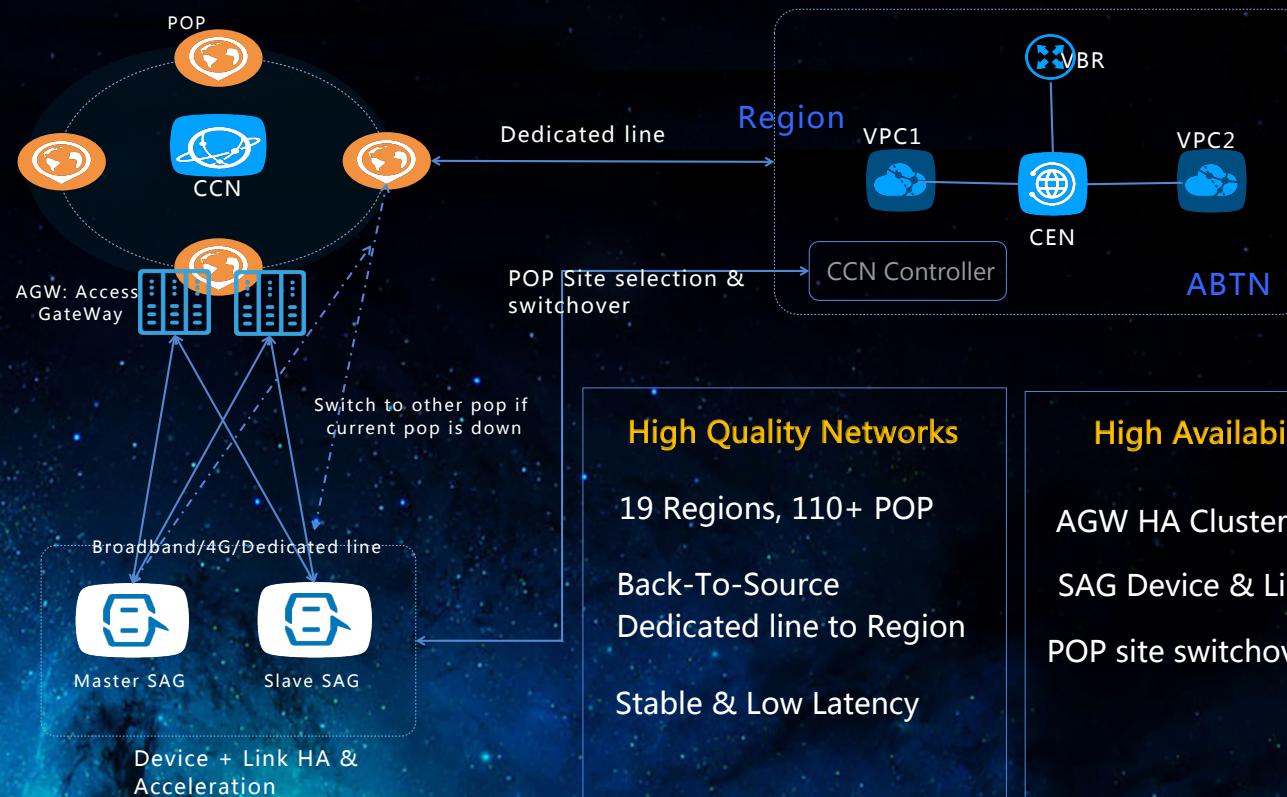Cooperate on pop site

OpenApi – empower abilities to partners

3rd Party Box Certificate

High Quality Network and Services

POP

VBR

Region

VPC1

VPC2

CCN

CEN

AGW: Access GateWay

CCN Controller

ABTN

Dedicated line

POP Site selection & switchover

Switch to other pop if current pop is down

Broadband/4G/Dedicated line

Master SAG

Slave SAG

Device + Link HA & Acceleration

High Quality Networks

19 Regions, 110+ POP

Back-To-Source Dedicated line to Region

Stable & Low Latency

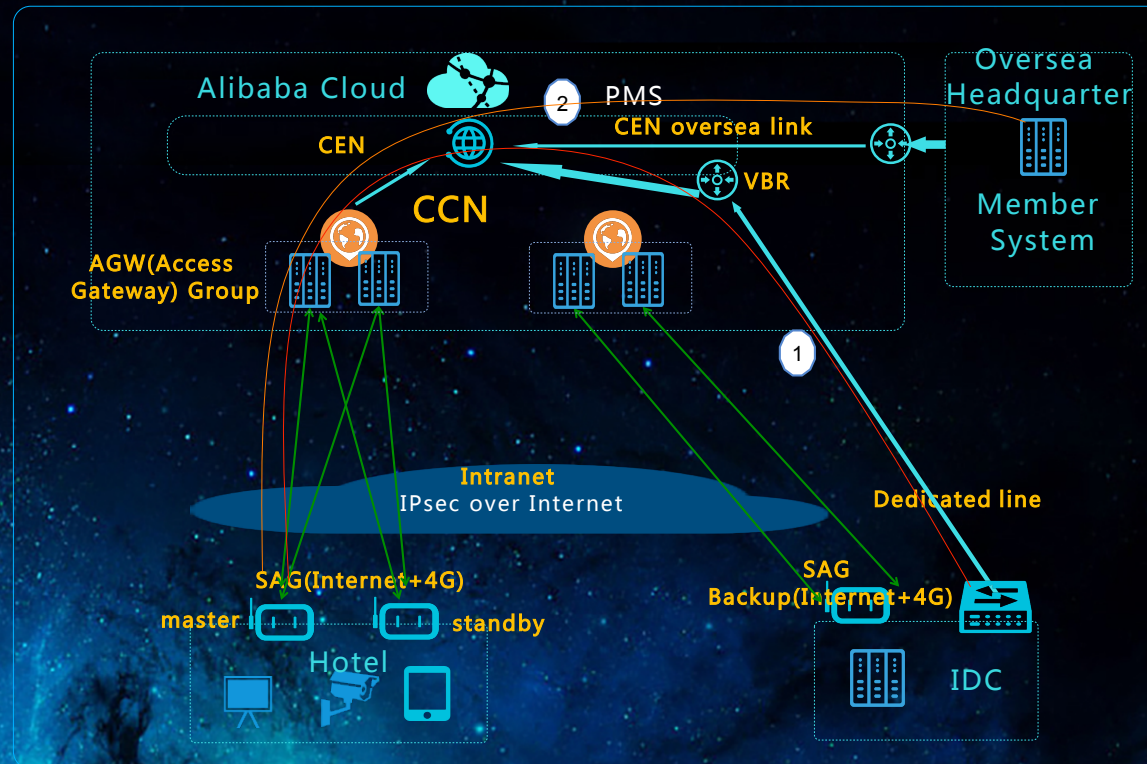## High Availability Services

AGW HA Clusters on POP

SAG Device & Link HA

POP site switchover

Acceleration

SAG-AGW link Acceleration

Optimized route in ABTN
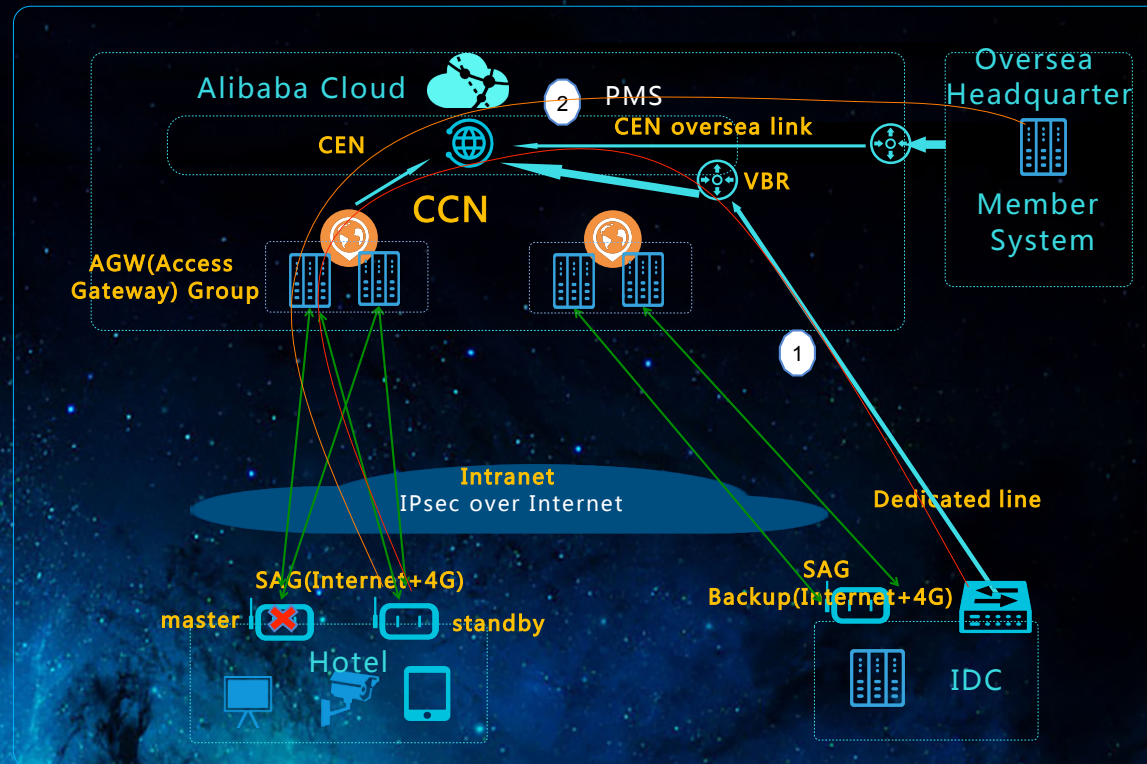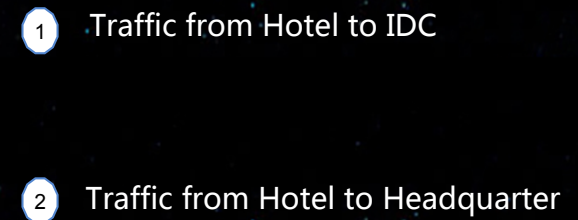
HA Scenario – International Hotel
Normal traffic

Alibaba Cloud

PMS

CEN

CEN oversea link

Oversea Headquarter

Member System

CCN

VBR

AGW(Access Gateway) Group

Intranet
IPsec over Internet

Dedicated line

SAG(Internet+4G)

master   standby

Hotel

SAG Backup(Internet+4G)

IDC

1 Traffic from Hotel to IDC

2 Traffic from Hotel to Headquarter

Symmetric flow path

HA Scenario – International Hotel AGW switchover

Alibaba Cloud | MORE THAN JUST CLOUD

1 Traffic from Hotel to IDC

2 Traffic from Hotel to Headquarter

Symmetric flow path

HA Scenario – International Hotel POP site switchover
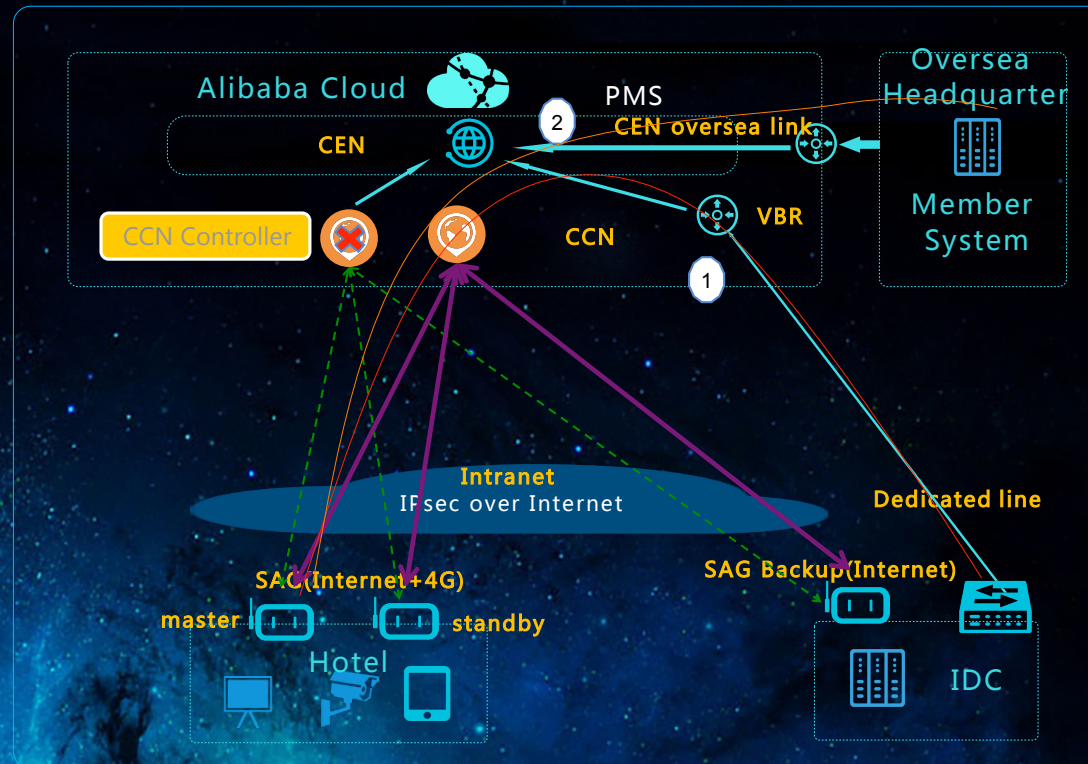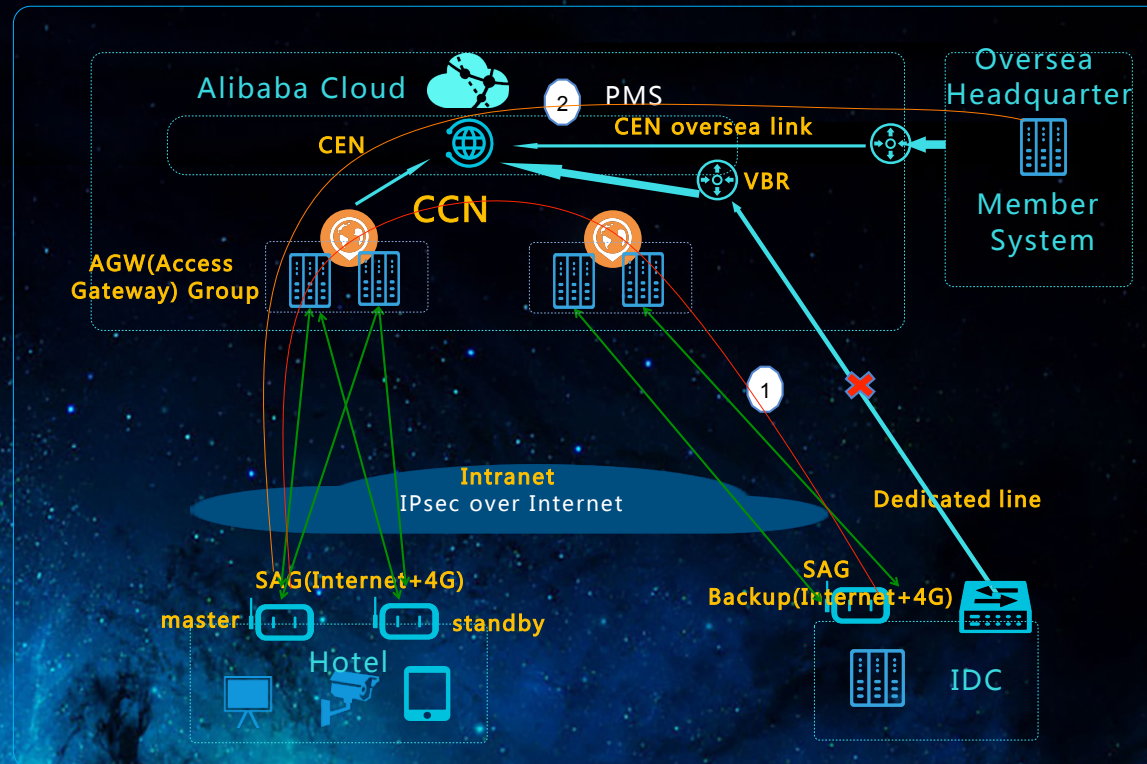
HA Scenario – International Hotel Dedicated line switchover

Alibaba Cloud | MORE THAN JUST CLOUD

Alibaba Cloud

CEN

② PMS

CEN oversea link

Oversea Headquarter

Member System

CCN

VBR

AGW(Access Gateway) Group

Intranet
IPsec over Internet

Dedicated line

SAG(Internet+4G)

master   standby

Hotel

SAG Backup(Internet+4G)

IDC

① Traffic from Hotel to IDC

② Traffic from Hotel to Headquarter

Symmetric flow path

Our Mission

Simplify the Network!