

2022 KHNOG 4 Conference

Sharing for better community !





- 1: Introduction of China Telecom**
- 2: Progress of CTGNet POP**
- 3: Develop Cloud Security Strategy**
- 4: Our Solutions**
- 5: Q&A**



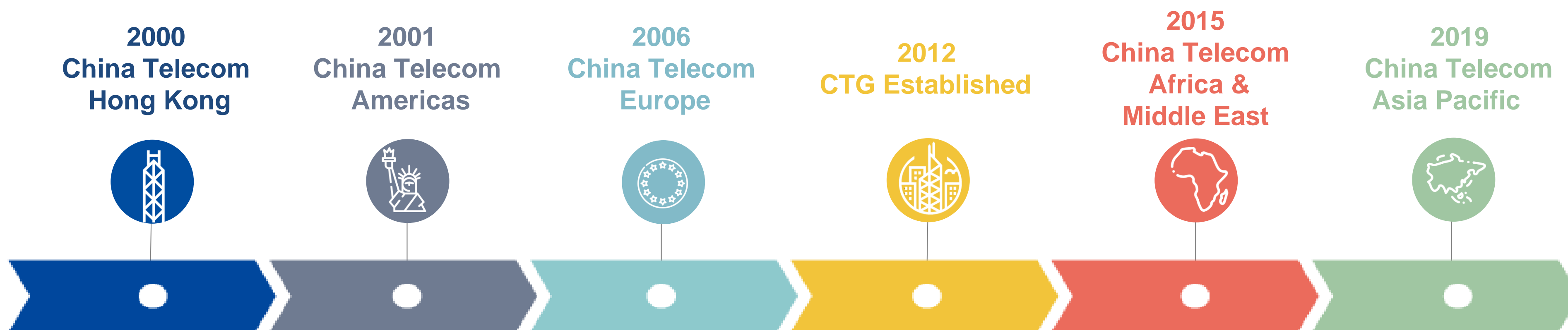
About Us

WE are world-class integrated telecommunication services provider with an agile and forward-looking spirit, innovative products and business models, and industry-leading technologies.

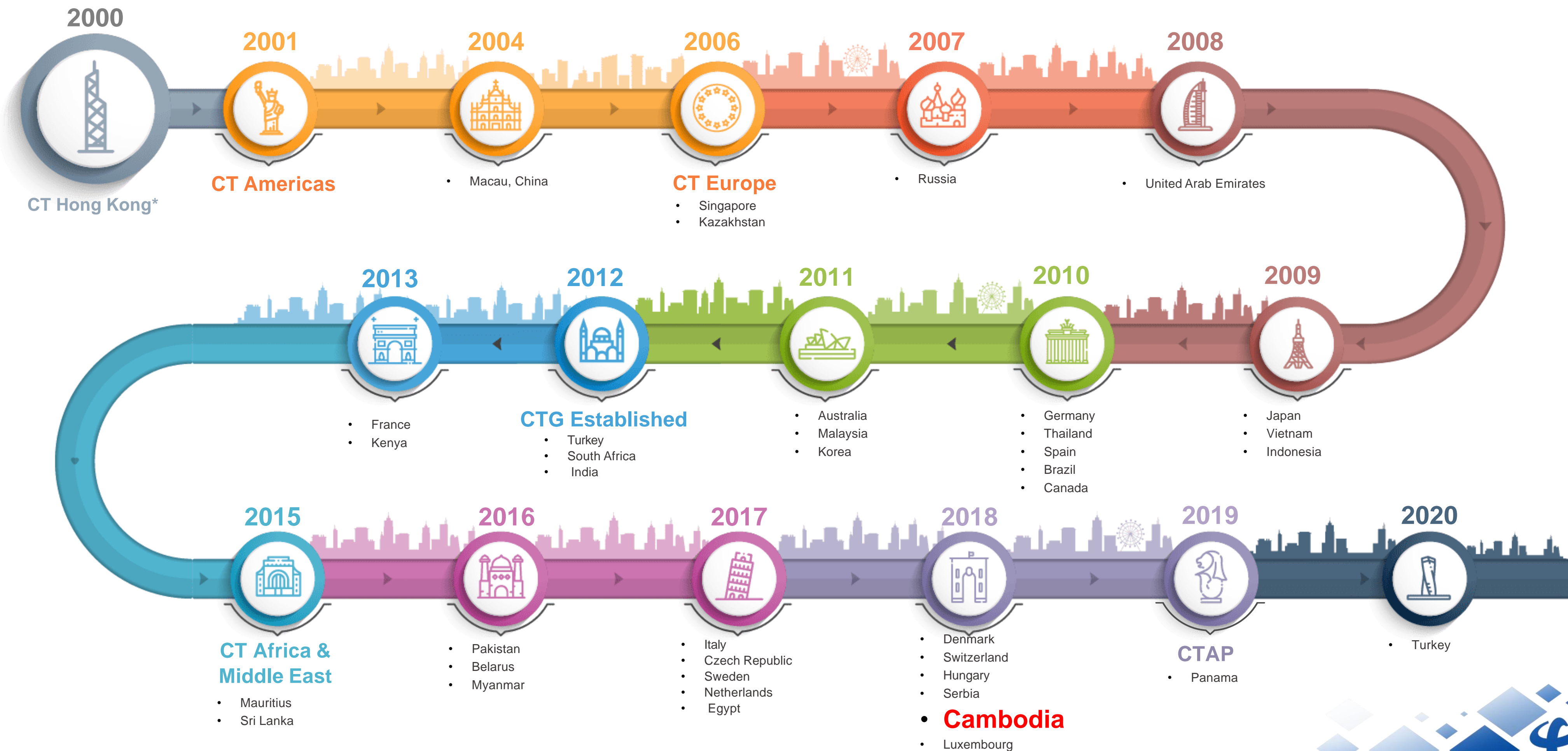
WE set up our first overseas office in 2000, and established China Telecom Global Limited (CTG) in 2012, to further enhance our global service quality.

WE deliver a wide portfolio of high-quality and integrated communications solutions to international carriers, multinational enterprises and overseas Chinese customers.

WE are dedicated to create value for our customers in their business transformation, enabling them to achieve business growth, enhance global footprints and maintain competitive edges by digitalisation.



CTG Cambodia founded in 2018



Our Products Portfolio

A full suite of industry-specific solutions is readily available to cater the digital needs of every industry.



Connectivity

- Global Wavelength
- IPLC
- Low-Latency Service
- IEPL
- MPLS VPN
- EoMPLS




Internet

- ChinaNet Paid-peer
- China Access
- Global Transit
- Global Internet Access
- Anti-DDoS



Cloud

- SD-WAN
- Cloud Storage
- Cloud Server
- Cloud Migration
- Cloud Exchange
- Virtual Private Cloud




Data Centre

- Colocation
- Disaster Recovery
- DC Connect
- Remote Hand
- Cross Connect
- Managed Service




Media & Content

- Content Delivery Network
- Media Exchange



UC&C

- Cloud Conference
- Intl 4008
- Call Centre
- SIP Trunk



Mobility

- CTExcel Mobile Services
- Enterprise Communication / Value-added Services

IoT

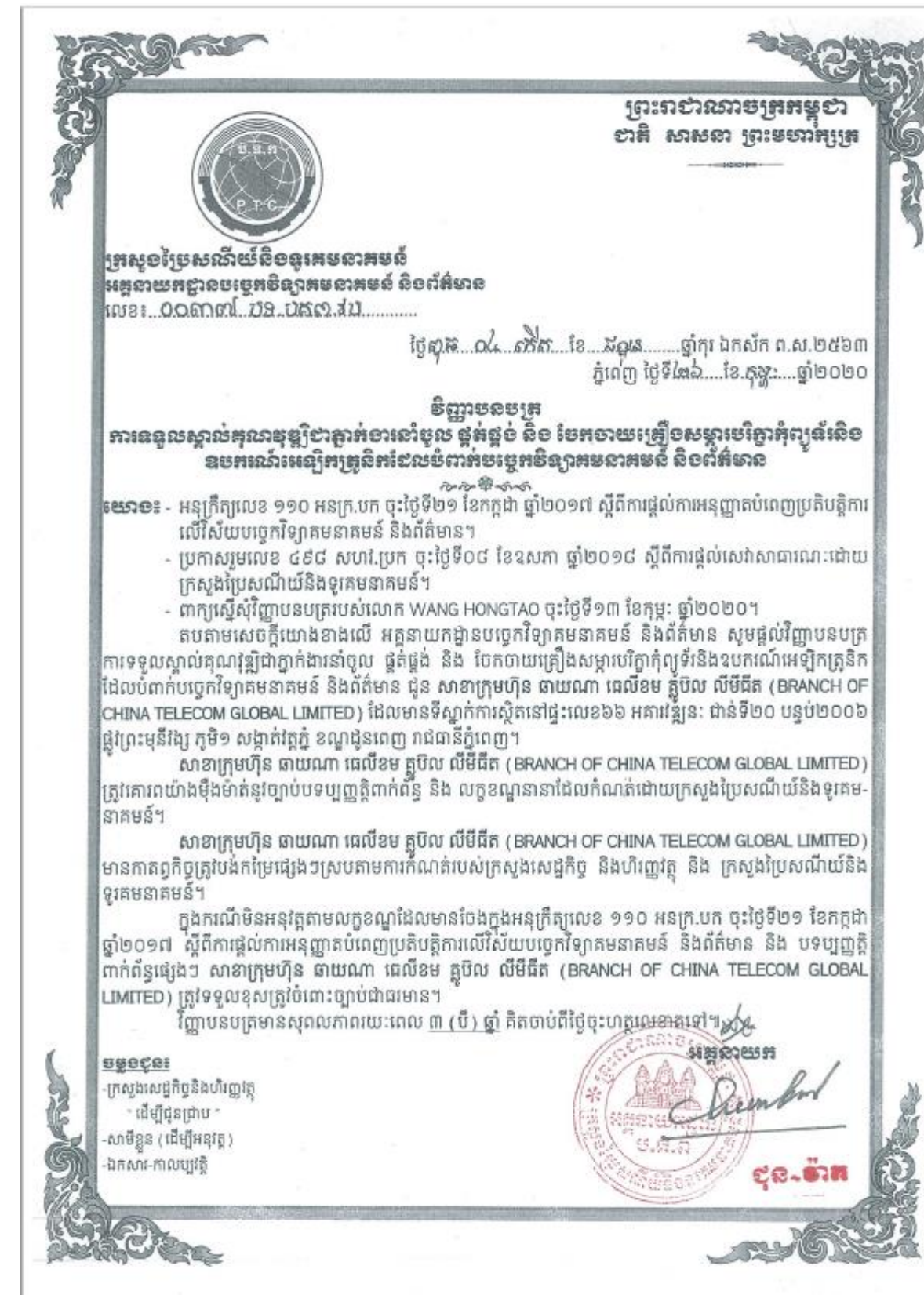
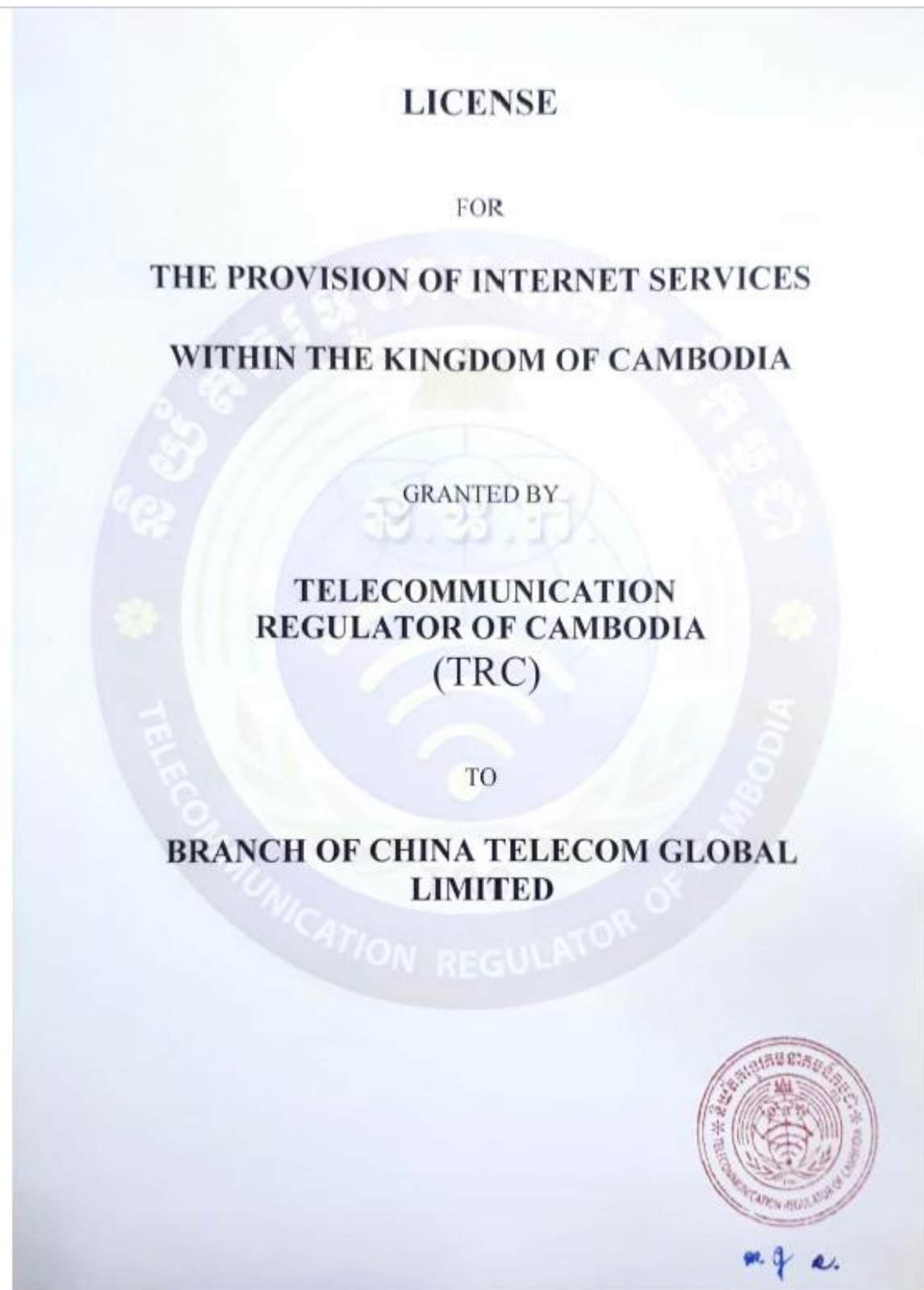
- Global Connectivity Services
- M2M / Consumer eSIM Services

Roaming Services

- IPX
- Sponsor Roaming



Our Qualification



Our Professional Team

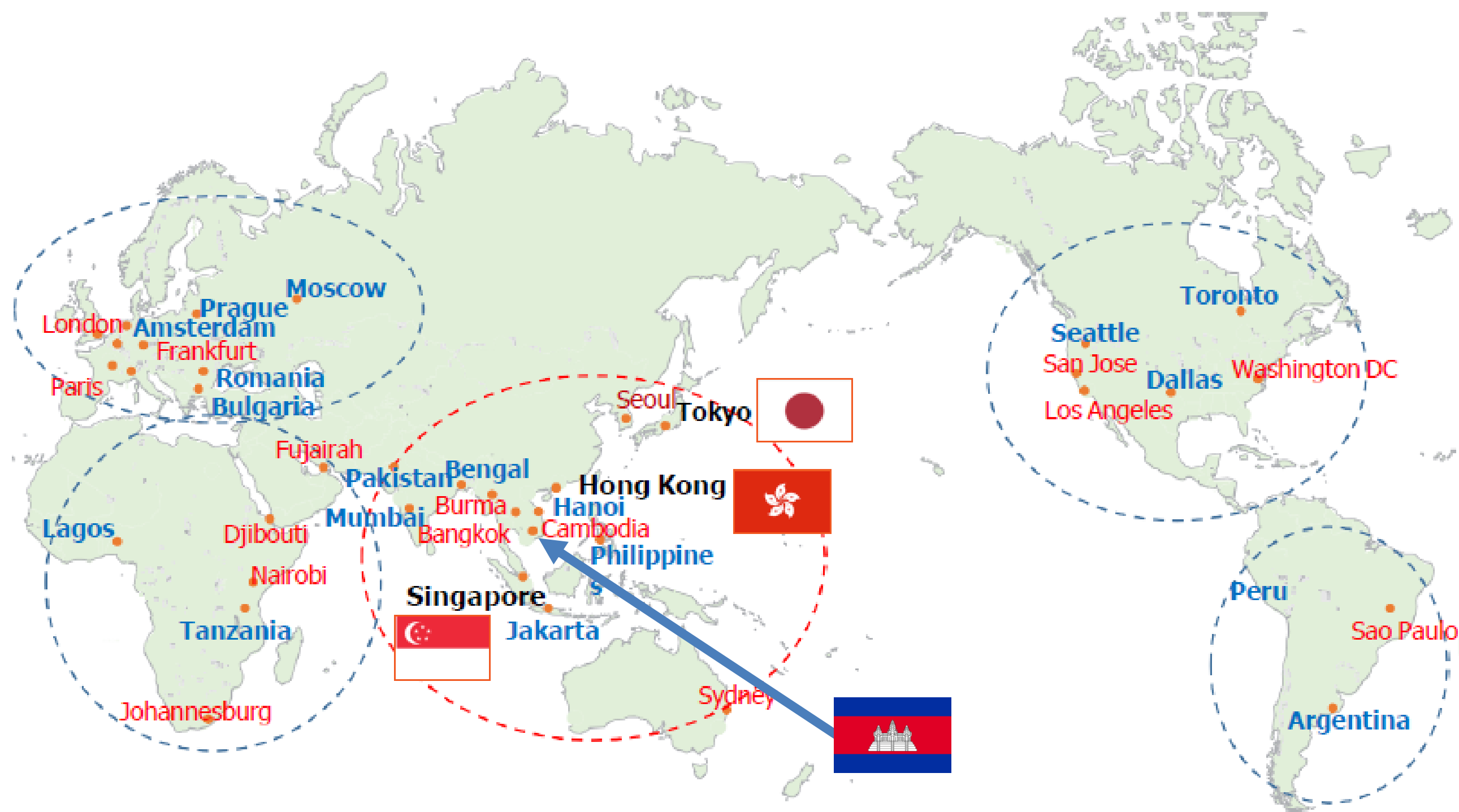




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CTGNet Roadmap & Service Coverage



CTGNet
(AS23764)

Global Transit

- IP transit service of access to world-wide internet resources for ISPs and ICPs

Global Internet Access

- Dedicated Internet Access service with premium china access for enterprises

Ready

Established 2020

Established 2021~2022



GIS Customer Portal

provides real-time monitoring and aggregated reporting of connectivity and network quality for GIS customers
 url: <http://ipms.chinatelecomglobal.com/> or <http://183.91.49.53/public/index.html>

Looking Glass

1 Command

IPv4:
 ping
 traceroute

Please select

APAC

- Beijing, Mainland China
- Guangzhou, Mainland China
- Hong Kong, Hong Kong
- Kuala Lumpur, Malaysia
- Perth, Australia
- Seoul, Korea
- Shanghai, Mainland China
- Singapore, Singapore
- Sydney, Australia
- Tokyo, Japan
- Urumqi, Mainland China

EMEA

- Frankfurt, Germany
- Johannesburg, South Africa
- London, UK
- Stockholm, Sweden

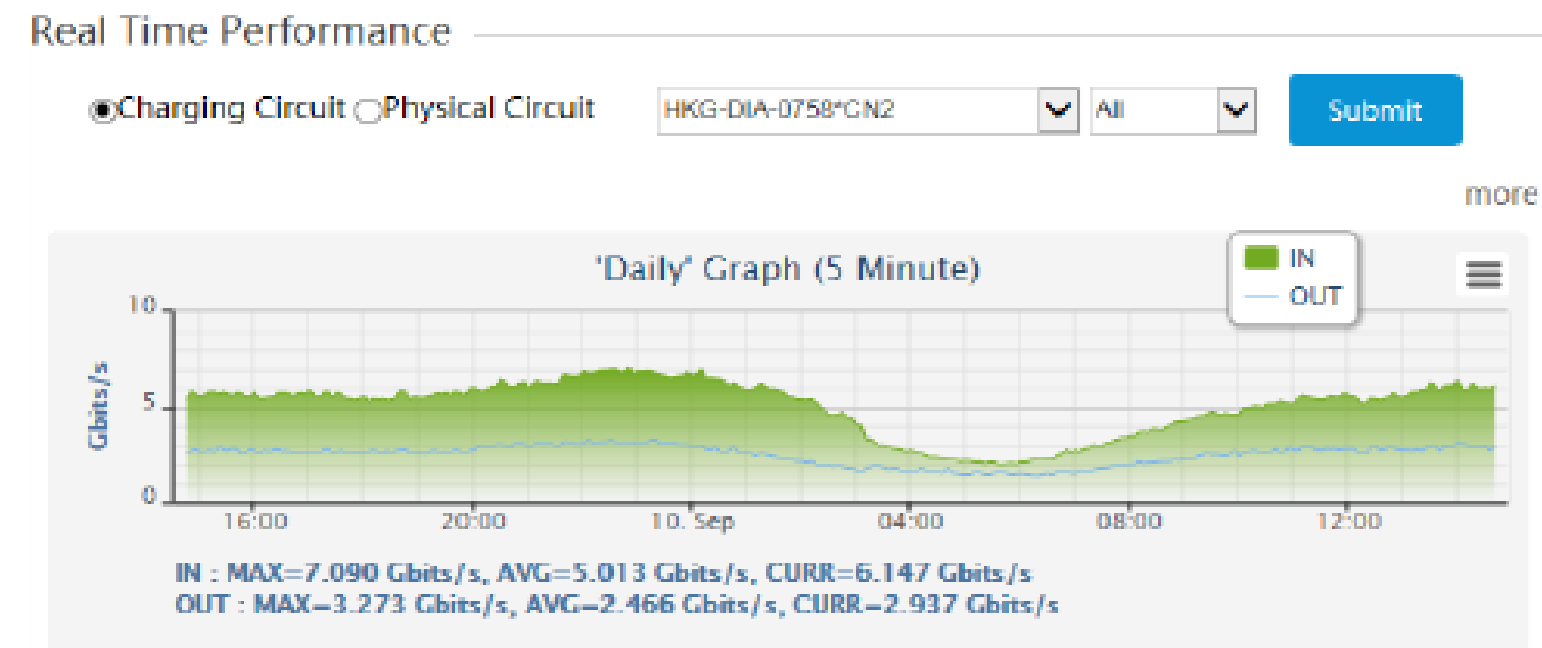
Americas

- Chicago, USA
- Dallas, USA
- Los Angeles, USA
- New York, USA
- San Jose, USA

3 Destination

Your IP 117.25.40.215
 Any IP
 CTG Site

- Service Management
 - Active Orders
 - Historic Orders
- Service Performance
 - Real Time Performance
 - Historic Performance
 - Monthly Traffic Reports
- Billing
- Customer Profile
- Customer Community



Basic Features

- Looking Glass
- Network Performance



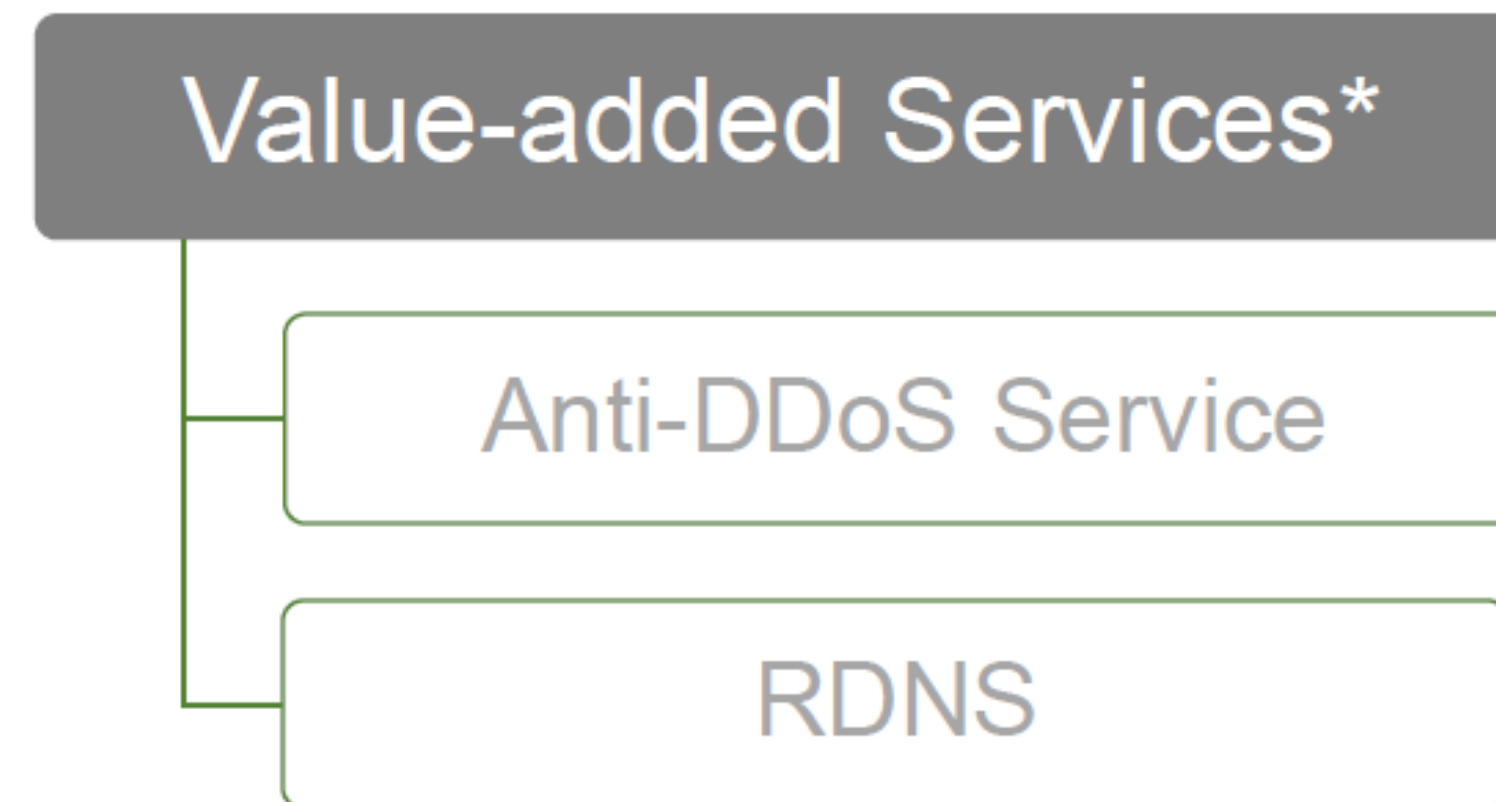
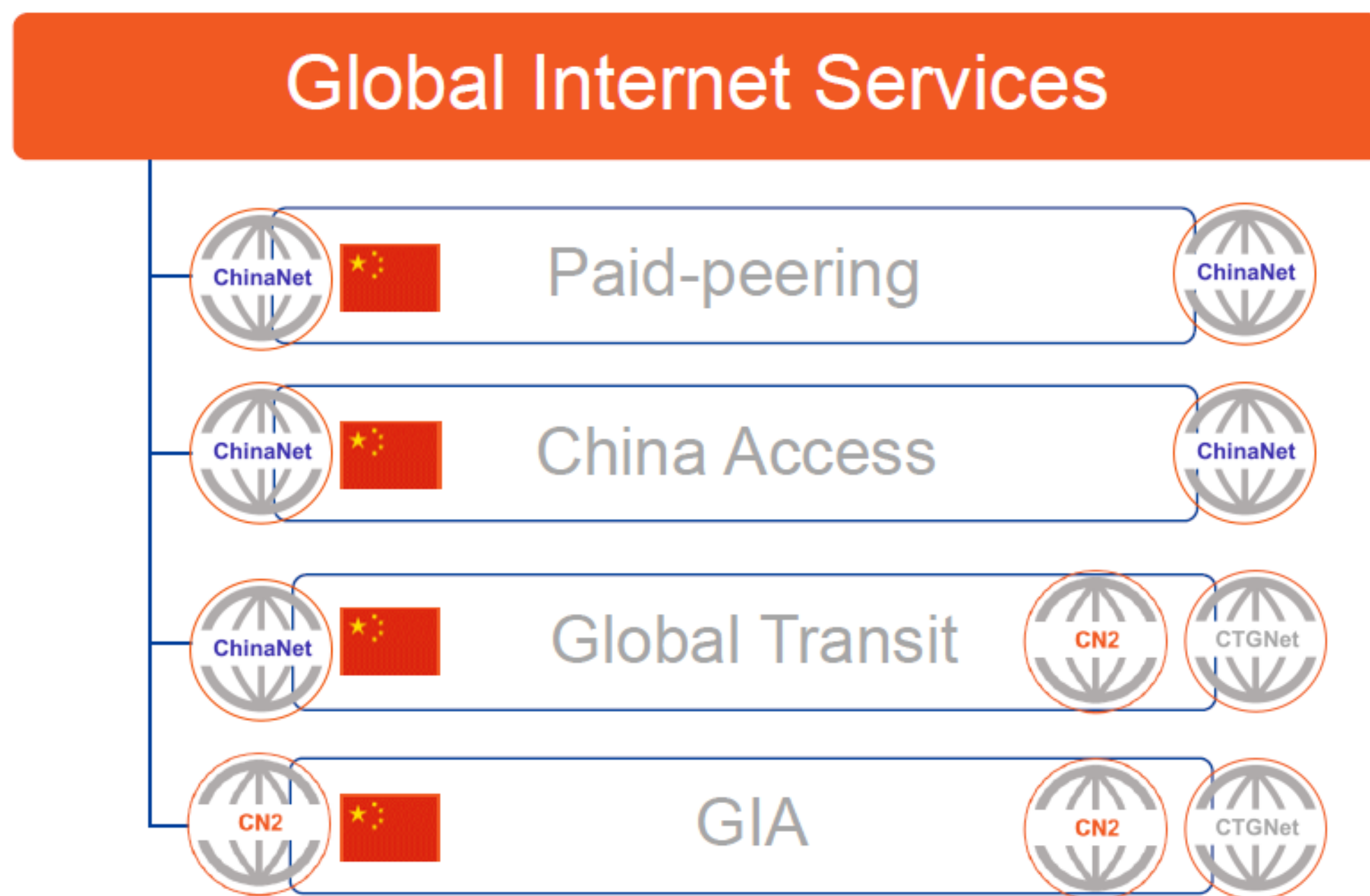
Advance Features

- Account Management
- Service Management
- Service Performance
- Business Statistics



Global Internet Service (GIS)

Including access to Internet resources (particularly in China) and IP transit provided by CTG



**Value-added Services are additional services which need to be bundled with the basic services and cannot be sold separately.*





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China Telecom & Alibaba Cloud Partnership



China Telecom is a global Elite Channel Partner with Alibaba Cloud and in Cambodia China Telecom also a distributor of Alibaba Cloud service as well with the partnership strategy to develop cloud business in Cambodia.



Cloud Security Challenges

How to meet the **compliance requirements** for your industry in your region?

How to manage your cloud **assets** and perform daily **operations** in a secure manner?

What actions should be taken before security **incident**, during incident and after incident?

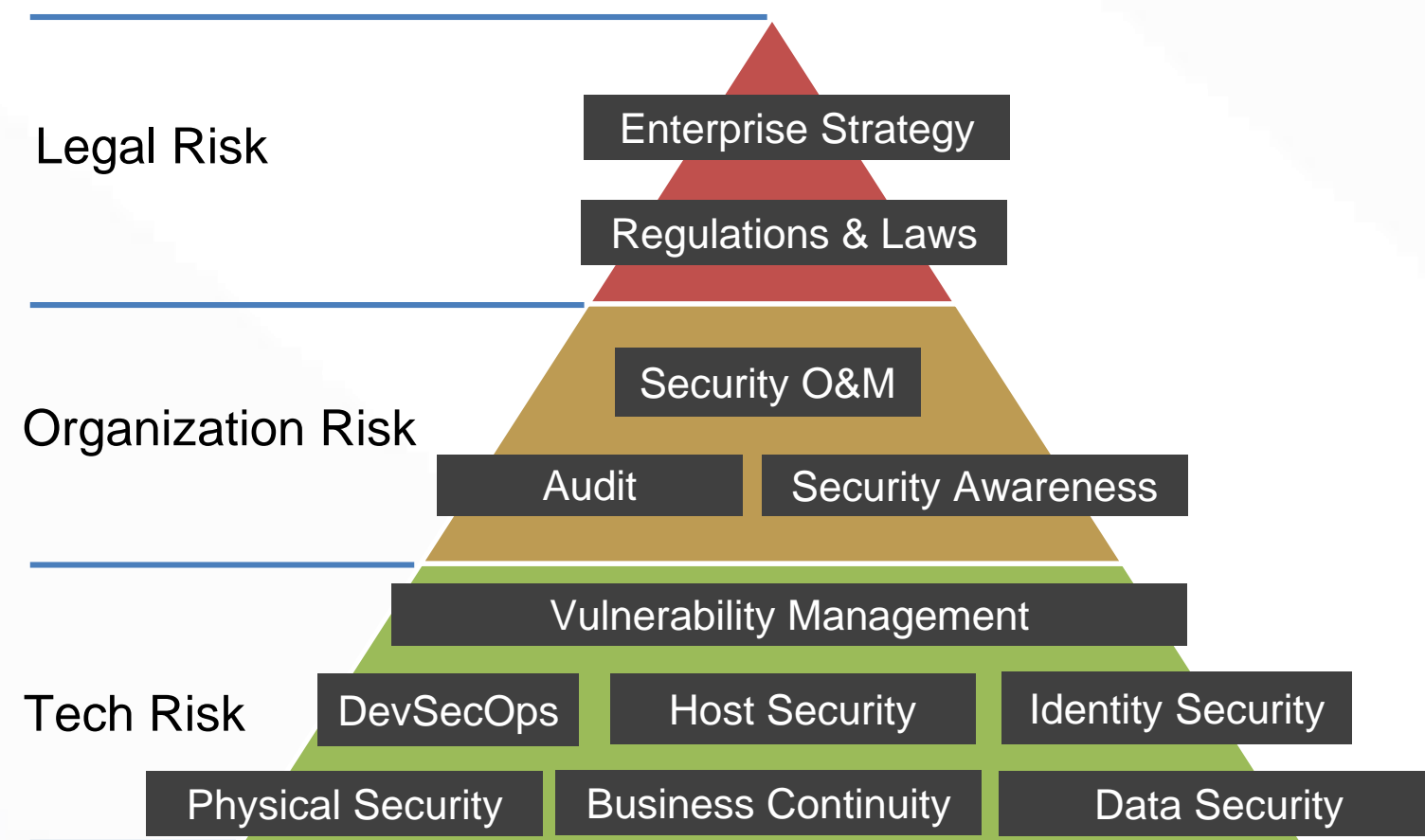
Design a Secure Cloud Environment for Your Business in Three Steps



Build Security Visibility with Risk Assessment

Security risk assessment is the foundation for building enterprise information systems. Systems without security assessment might contain vulnerabilities that could cause huge losses to your enterprise.

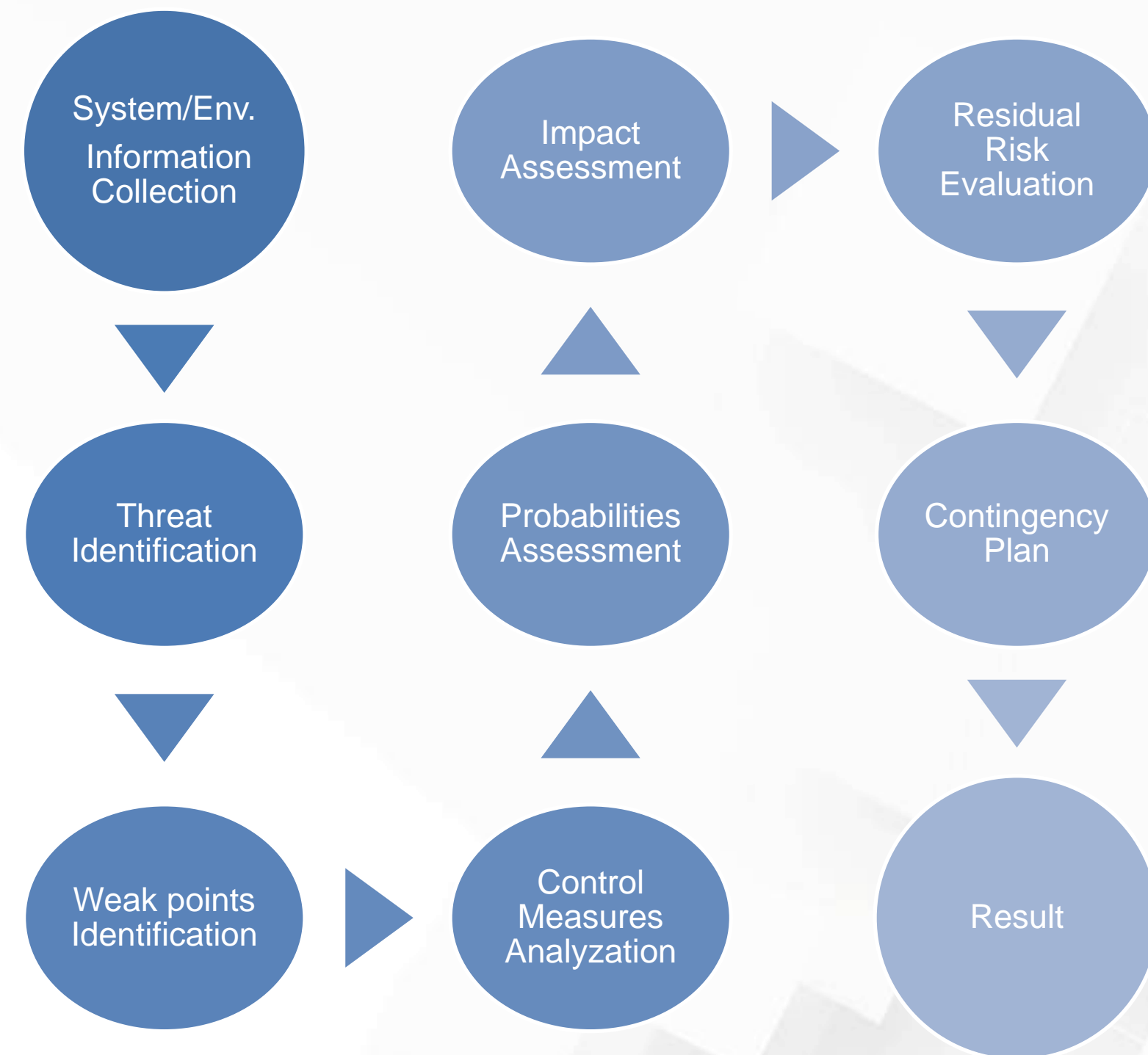
Risk Assessment:



Risk Assessment Tools:



The Process of Risk Assessment:

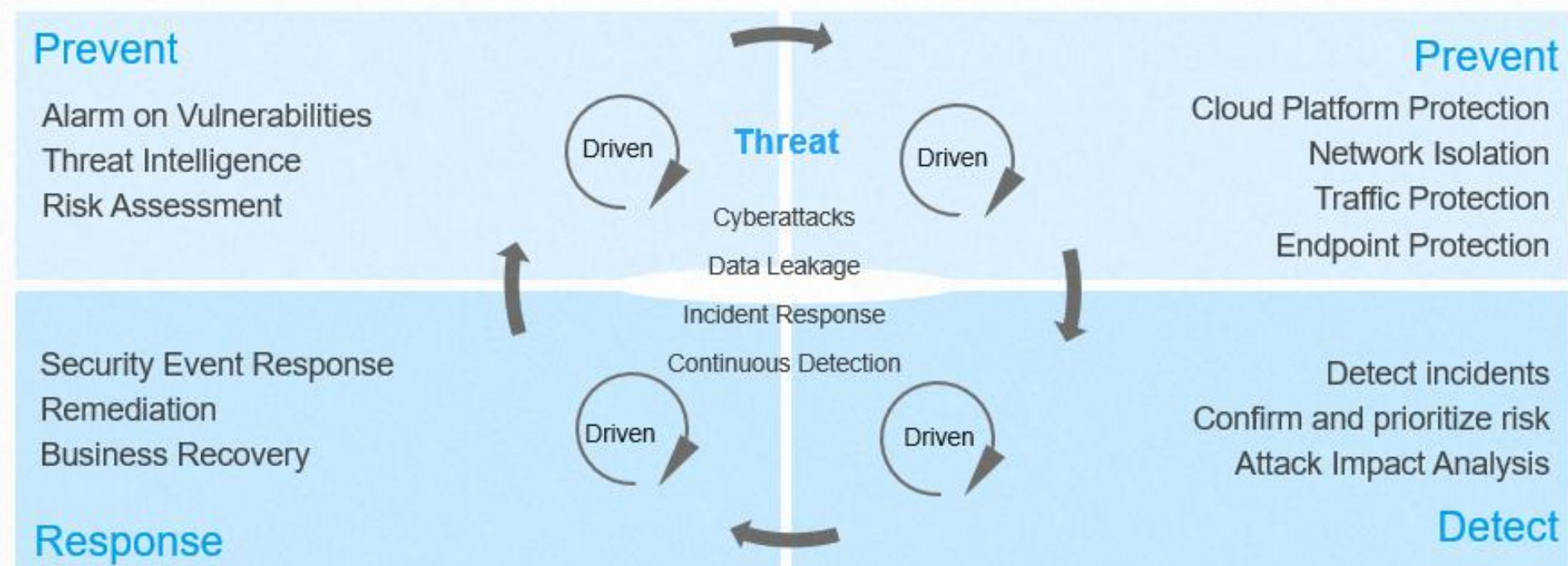


Build Controllability with Security Capabilities

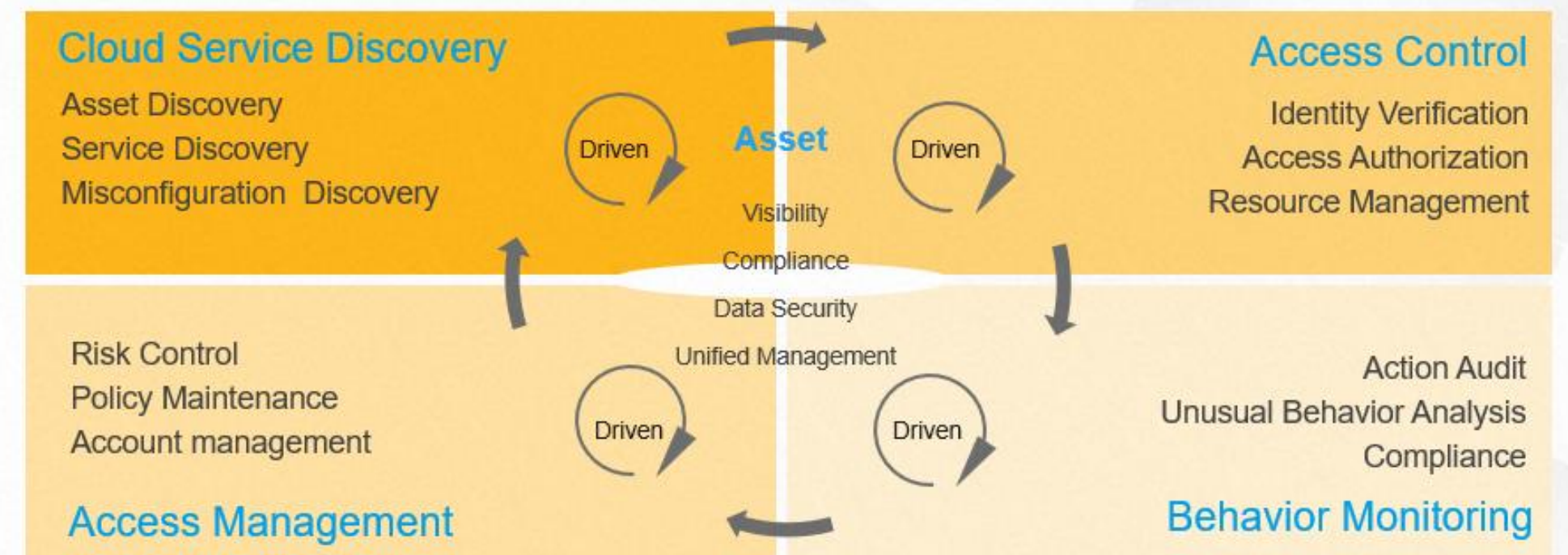
Adaptive Security Architecture for both external and internal threats

The cloud security protection framework should be established considering both the external and internal threats. Traditionally, many enterprise mainly focus on preventing a cyber attack, rather than a continuous response. Also in cloud environment, threats are not only coming from the “outside”. With zero-trust concept, the access management and protection is also crucial to prevent internal attacks.

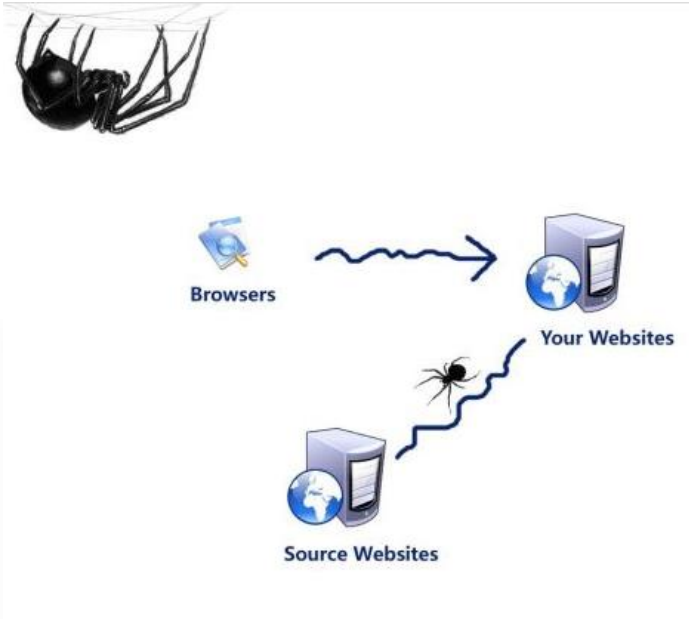
Gartner Attack Protection



Gartner Access Protection



Manage Business Risks for Great Value



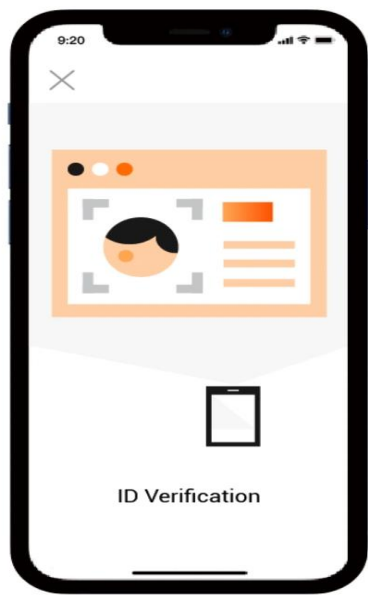
- Client identity & traffic characteristics & message decoding & signature verification
- Message/fingerprint/identity mapping & behavior analysis & machine learning
- Block & JS verification/Captcha & rate limiting & traffic marking + data spoofing...
- Large traffic DDoS mitigation

Guarantee the continuity of business



- Multiple service centers
- Live stream moderation
- Video & audio moderation
- Image & text moderation

Satisfy the requirements of compliance, establish enterprise image



Verify the ID authenticity and extract the information via OCR

- ID Verification and Anti-Counterfeiting
- OCR Verification Performance
- Face Match
- Risk Control — Prevent reuse of face and ID attack

Reduce Identity Fraud



- Atomic capabilities of risk control: Identify security risks in devices, mobile phones, and IP addresses.
- Risk management in all scenarios
- Various feature variables: supports custom variables, cumulative variables, and lists to analyze risk features from multi-dimensions

Detecting fraudulent behavior/attacks which may cause their losses in online businesses.



A Secure Cloud Environment for Your Business with Alibaba Cloud



Assess Security Risks

- Simulates full-scale, in-depth attacks to test your system security and **proactively identify risks** in your business processes;
- Provides security **consulting service** with asset surveys, security baseline scanning, vulnerability scanning, personnel interviews, etc., to **evaluate the current status of business system security**;
- Detects ransomware, various viruses, and web tampering to protect cloud and on-premises servers, and performs **compliance assessment** to meet regulatory compliance requirements;

Build Controllability with Security Capabilities

- Identifies, analyzes, and notifies you of security **threats in real time** using a unified security management system;
- Centrally manages the policies that **control the traffic** from the Internet to your business with visualized information;
- Provides a real-time **defense** to ensure the security and availability of **your websites and applications**;
- Manages asset O&M permissions in a centralized manner, monitors all O&M operations, and **audits your O&M operations** in real time;

Manage Business Risks for Great Value

- Intelligently defends against sophisticated DDoS attacks and guarantee the **continuity** of business;
- Accurate monitoring of pictures, video, text and other multimedia content to **reduce illegal or inappropriate content** to satisfy the requirements of compliance, establish enterprise image;
- Verify customer accounts with a world-leading anti-spoofing algorithm for **identity authentication** to reduce Identity Fraud;
- Identifies frauds** in core services, such as user registrations, operations, transactions, and credit audits;

Alibaba Cloud Security Products	Penetration Test	Security Center WAF	Anti-DDoS ZOLOZ Real ID
	Managed Security Service	Cloud Firewall Bastion Host	Fraud Detection WAF
	Security Center	Certificates Management Service Key Management Services	Content Moderation
	Visible	Controllable	Valuable

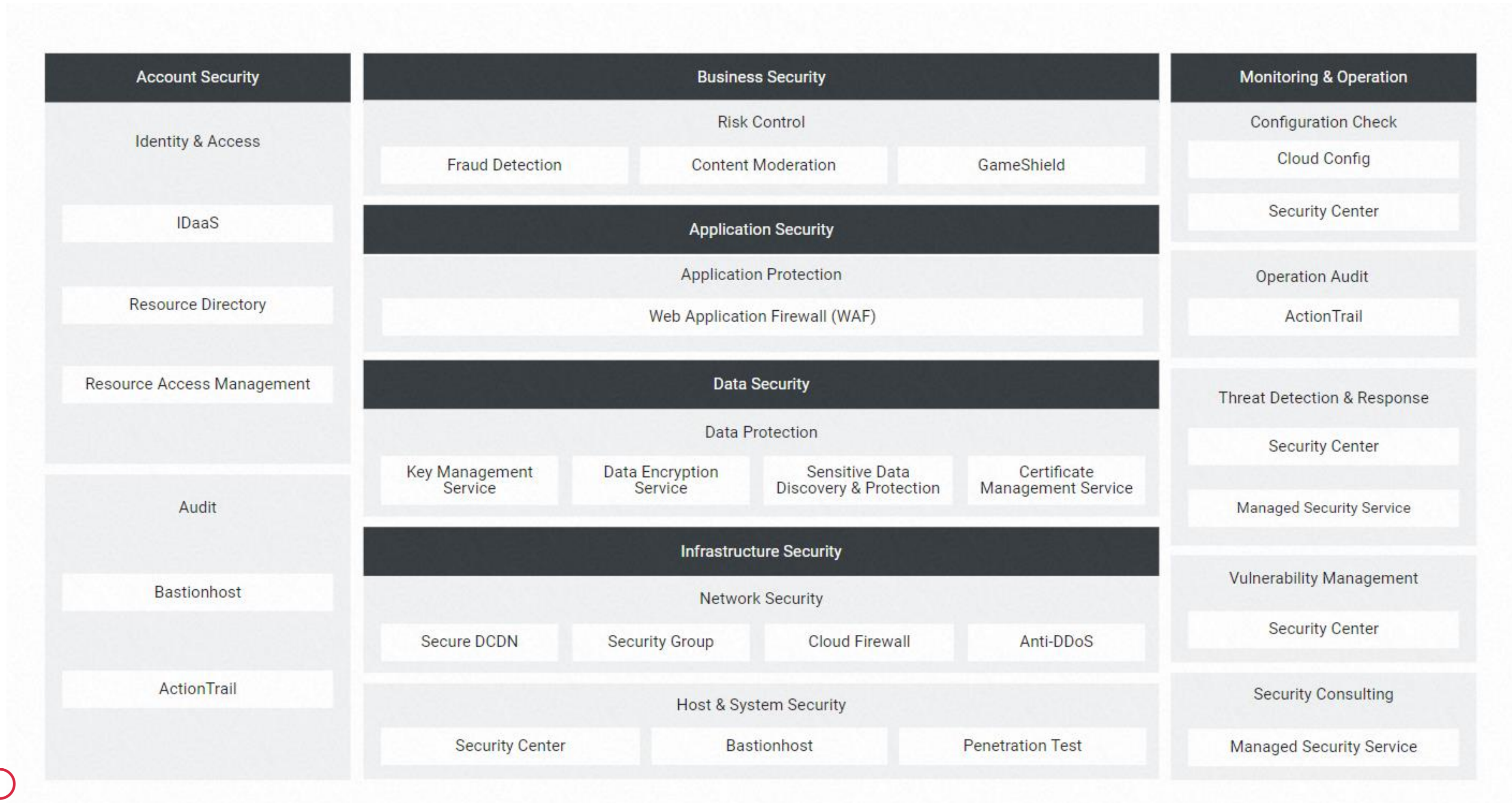




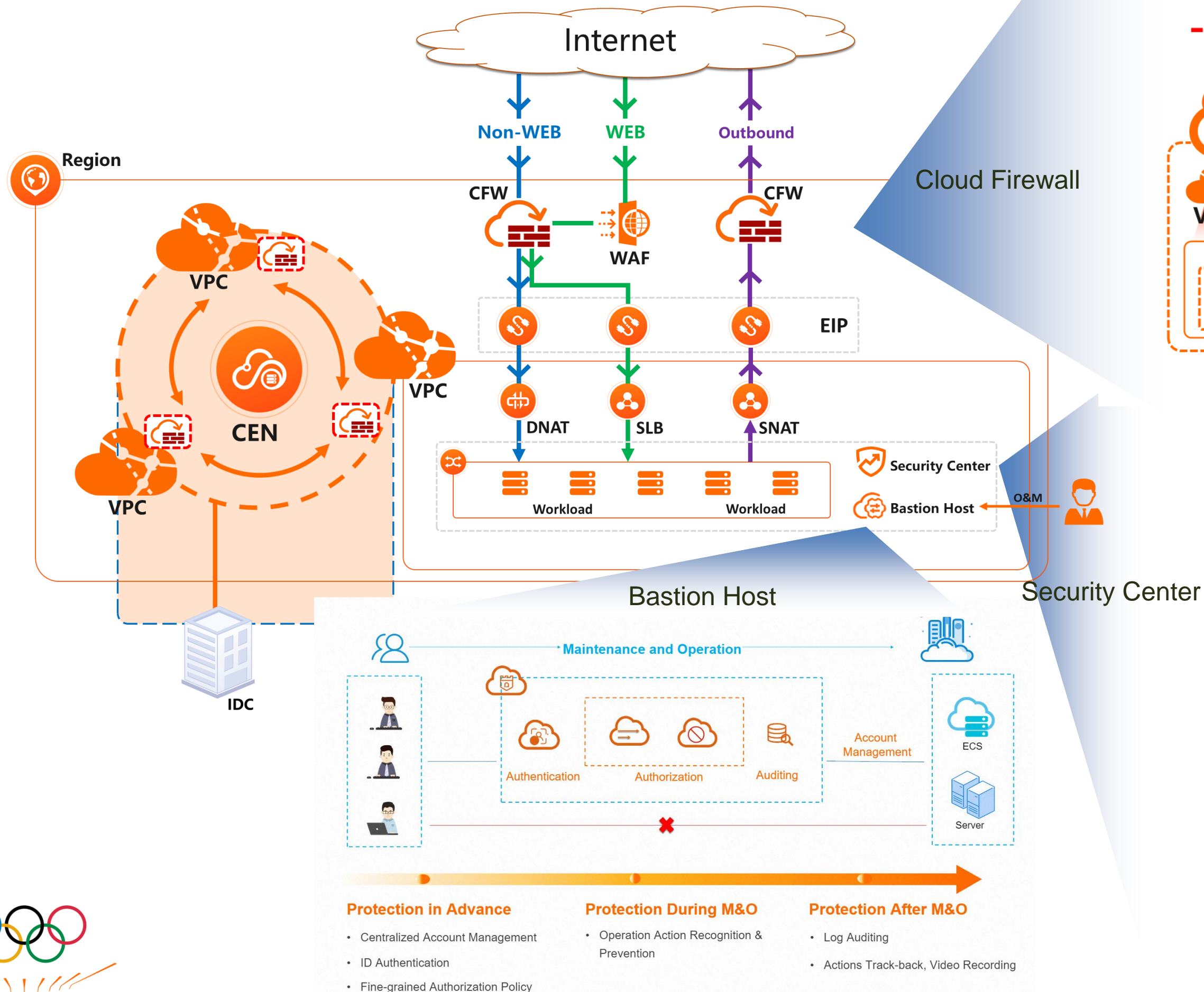
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Security Portfolio Overview



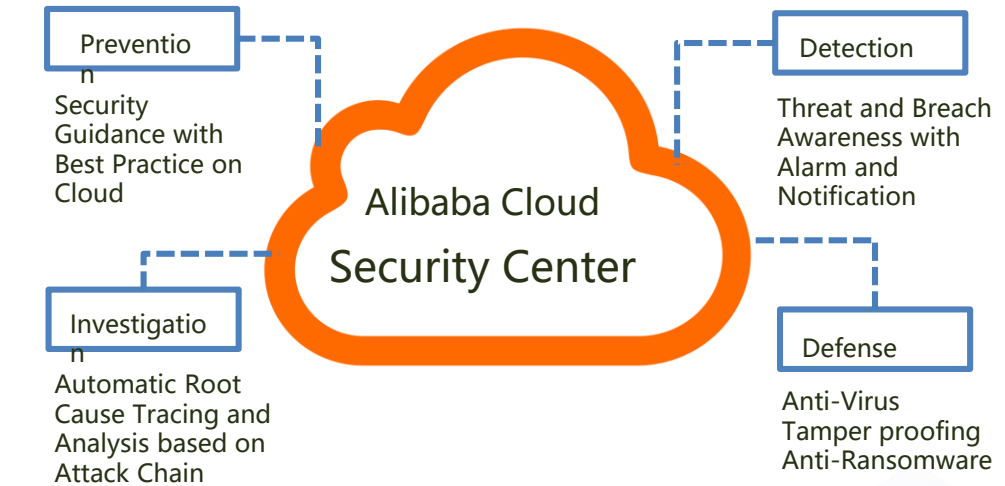
Protect your Infrastructure on Cloud



	Prevention	Defense	Visualization & Traceability
Internet Boarder 10 Key Capabilities	<ul style="list-style-type: none"> Exposed Assets Mgt. Malicious Domain Name Blocking Access Control on North-West Traffic Secure Forward Proxy (outbound access control based on internal IP) 	<ul style="list-style-type: none"> Internet Intrusion Prevention Malicious Outbound Traffic Prevention Vulnerability Protection Virtual Patches Integrated Threat Intelligence Database 	<ul style="list-style-type: none"> Traffic Virtualization Package Capture Network Audit Logs
VPC Boarder 5 Key Capabilities	<ul style="list-style-type: none"> Access Control on East-West Traffic 	<ul style="list-style-type: none"> Intrusion Prevention for Dedicated connection to on-premises Vulnerability Protection Virtual Patches 	<ul style="list-style-type: none"> Traffic Virtualization Network Audit Logs
Server Boarder 3 Key Capabilities	<ul style="list-style-type: none"> Unified Management of Security Groups 	<ul style="list-style-type: none"> Workload Breach Awareness & Defense (Virtual patch) 	<ul style="list-style-type: none"> Traffic Virtualization (Security Groups)
	Access Control	Real-time Intrusion Prevention	Traffic Monitoring Behavior Analysis & Tracking

Alibaba Cloud Security Center

- A CWPP (Cloud Workload Protection Platform) and CSPM (Cloud Security Posture Management) product
- SOAR capability on Prevention, Detection, Defense and Investigation
- Support unified security management for multi-cloud and hybrid cloud



Protection in Advance

- Centralized Account Management
- ID Authentication
- Fine-grained Authorization Policy

Protection During M&O

- Operation Action Recognition & Prevention

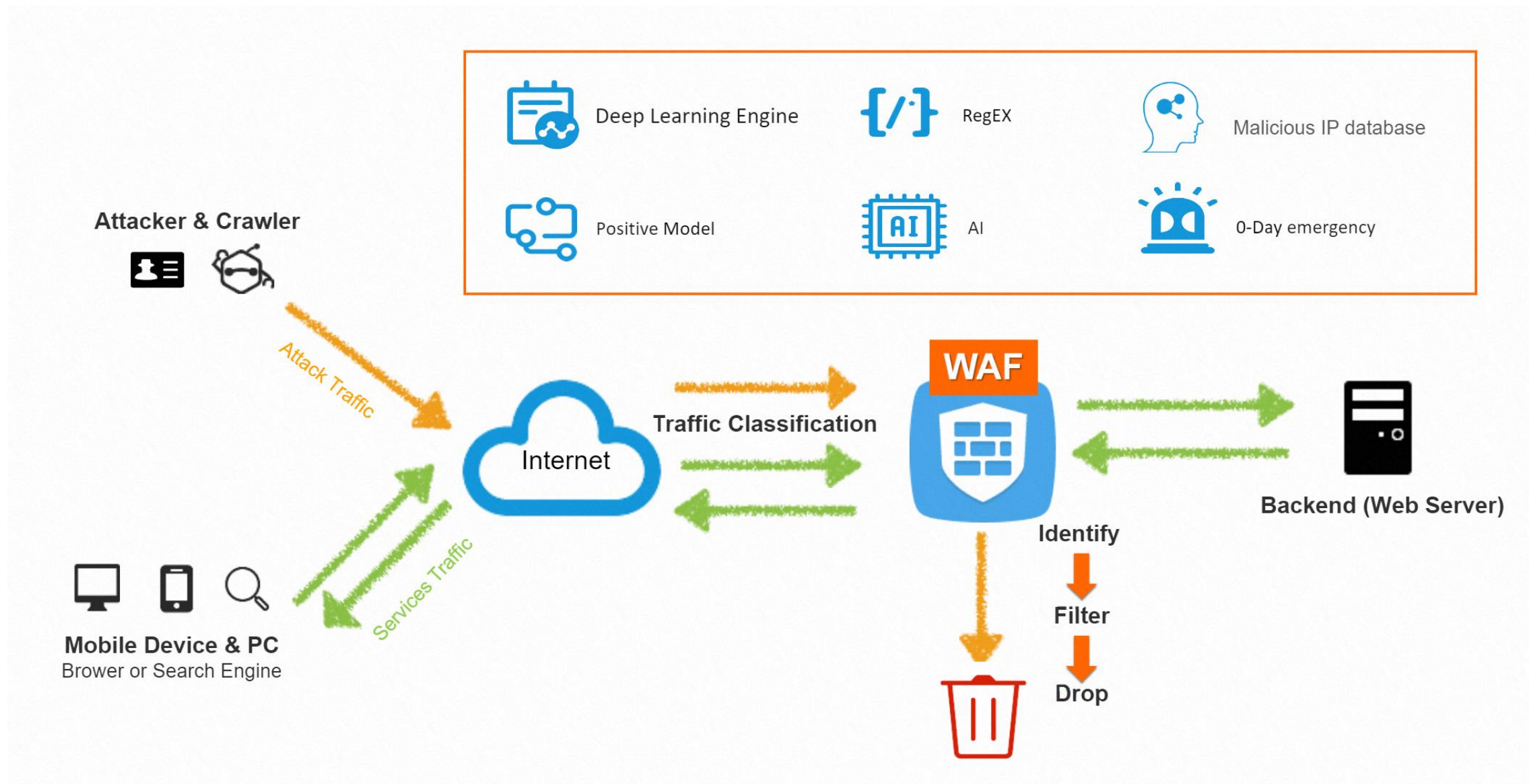
Protection After M&O

- Log Auditing
- Actions Track-back, Video Recording



Protect your Application

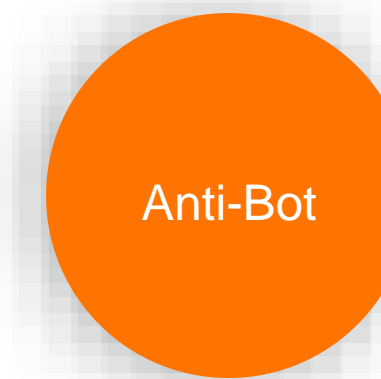
- ✓ Alibaba Cloud WAF (Web Application Firewall) filter and monitor HTTP /HTTPS/ HTTP2 traffic between web applications and the Internet to defend against known OWASP vulnerabilities and constantly fixes disclosed vulnerabilities.
- ✓ Built on more than 10 years of web security experience of Alibaba Group and provides the same security experience as Tmall, Taobao, Alipay, and other well-known applications.



- <1% false positive
- No disruption to business



- High redundancy
- Near-source processing
- Automatic switching



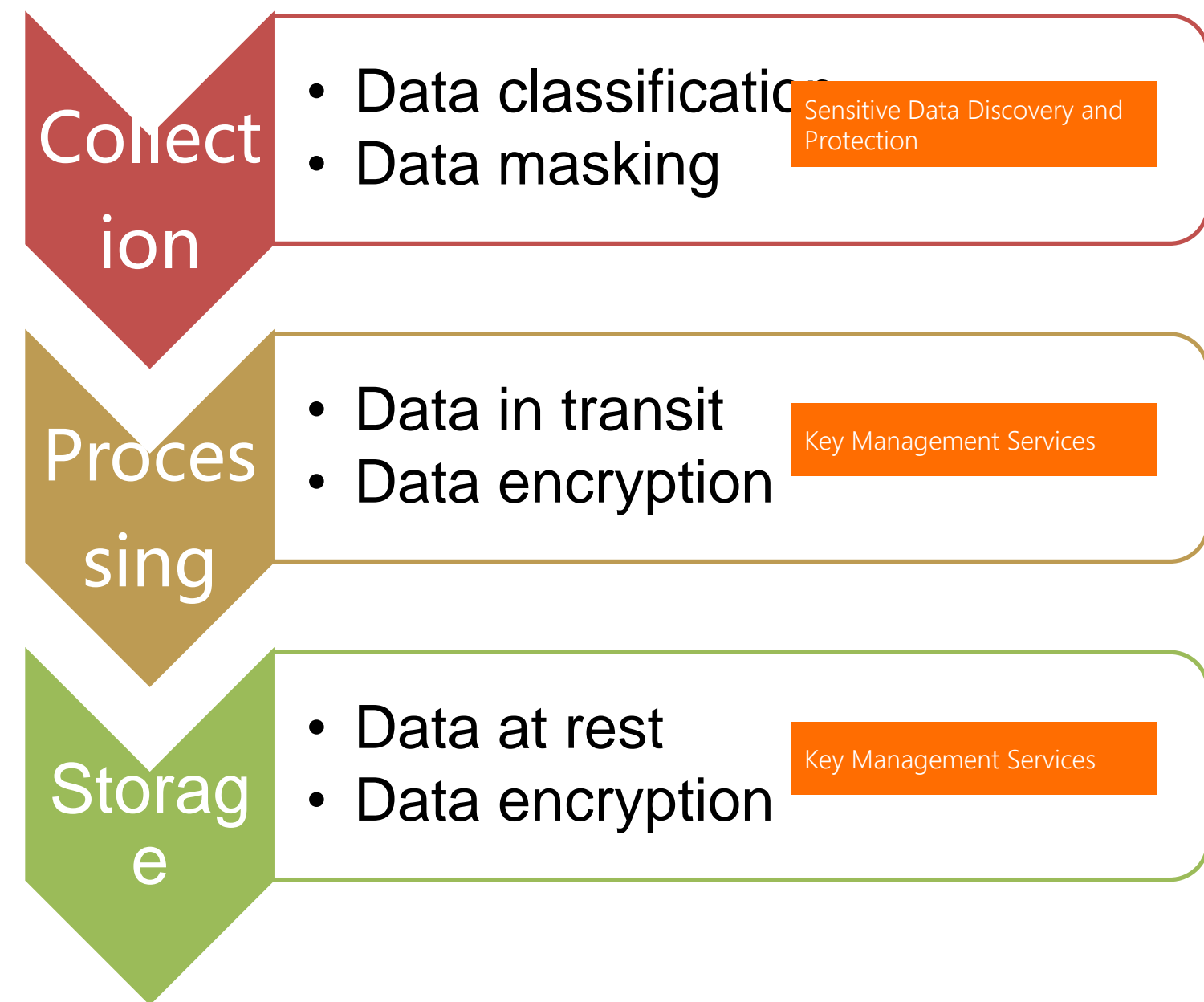
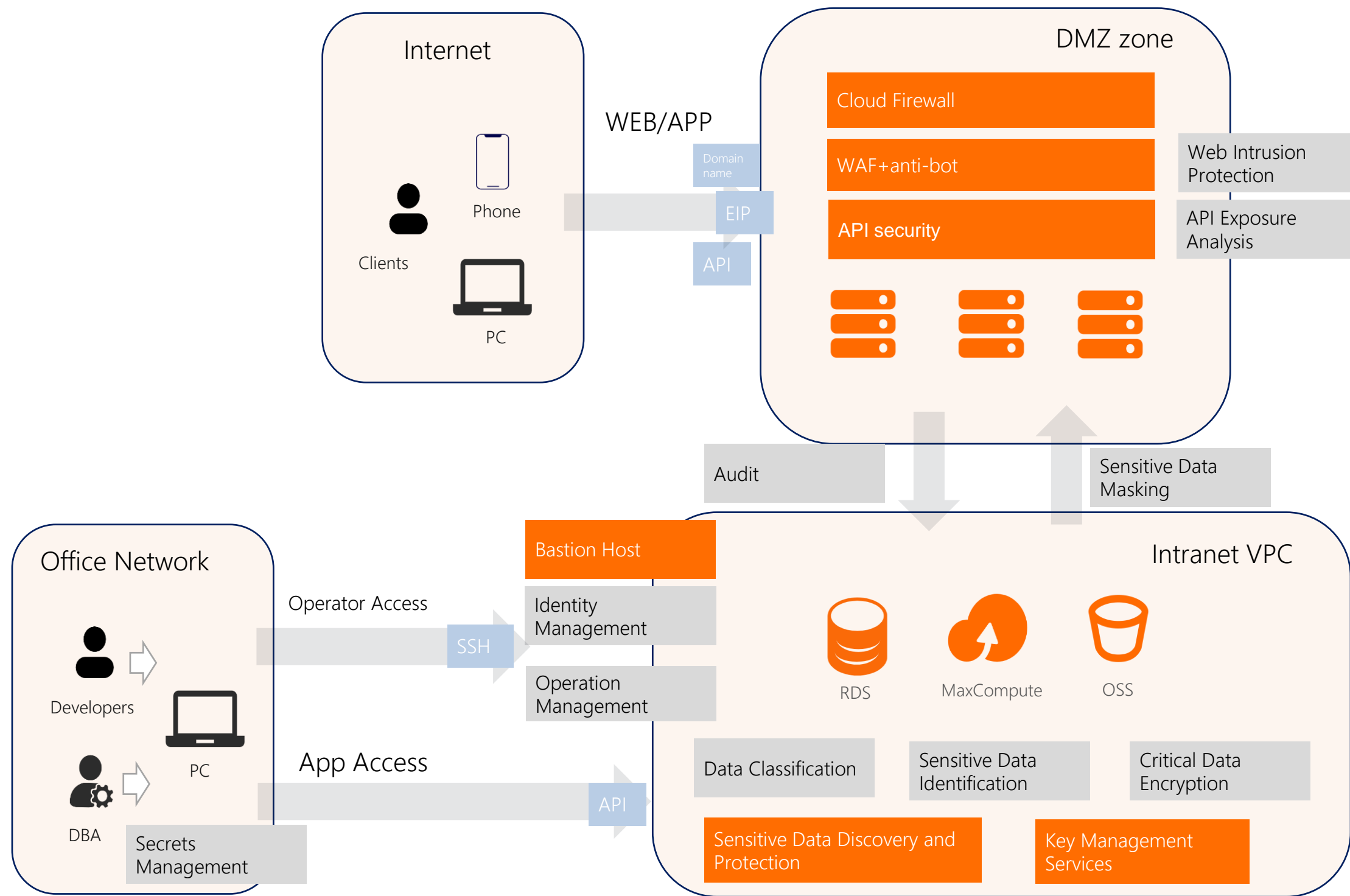
- AI and big data intelligence
- ACL + Frequency threshold
- Multi-reaction choices



- Virtual patching
- Professional team, 9000+ white hat
- Discover 200+ Oday/Nday vulnerabilities in a year

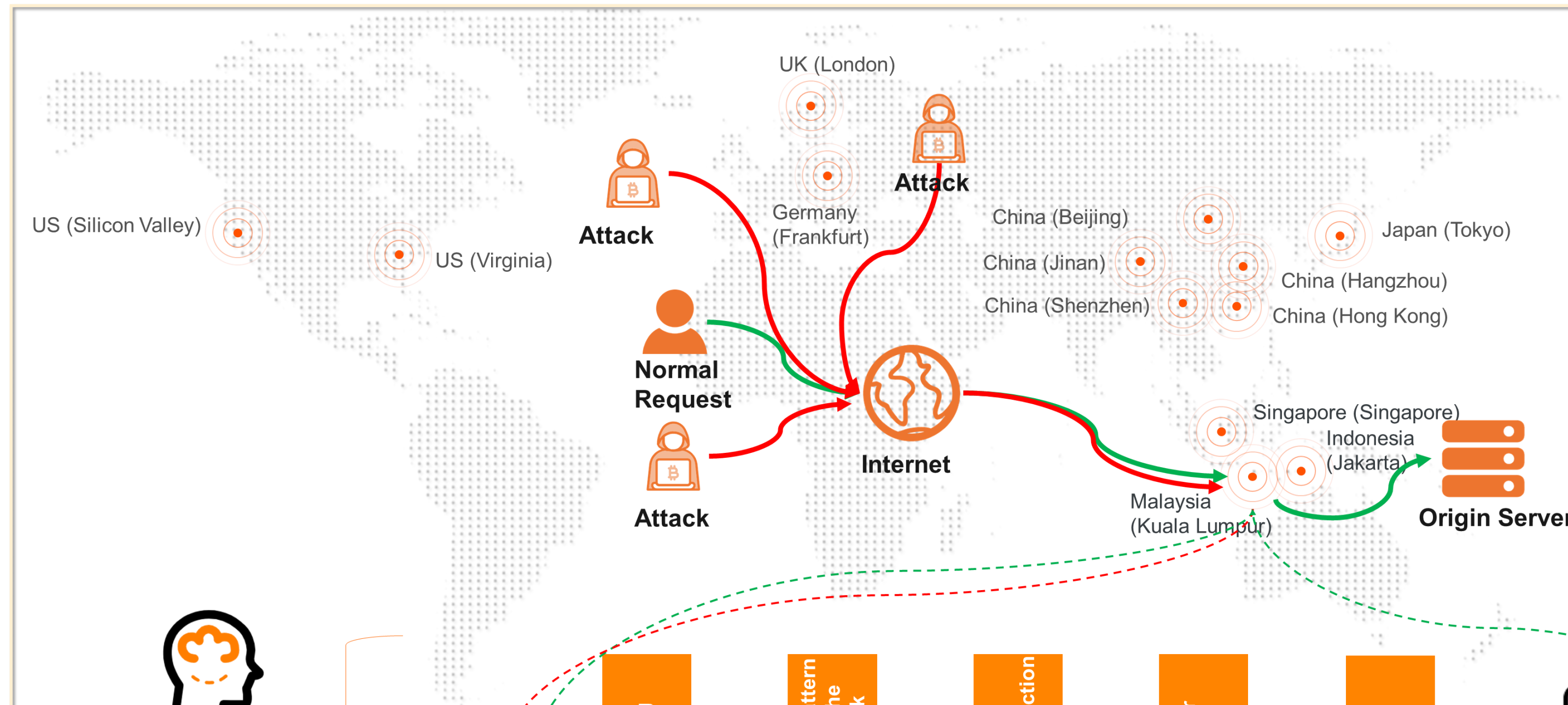


Protect your Sensitive Data on Cloud



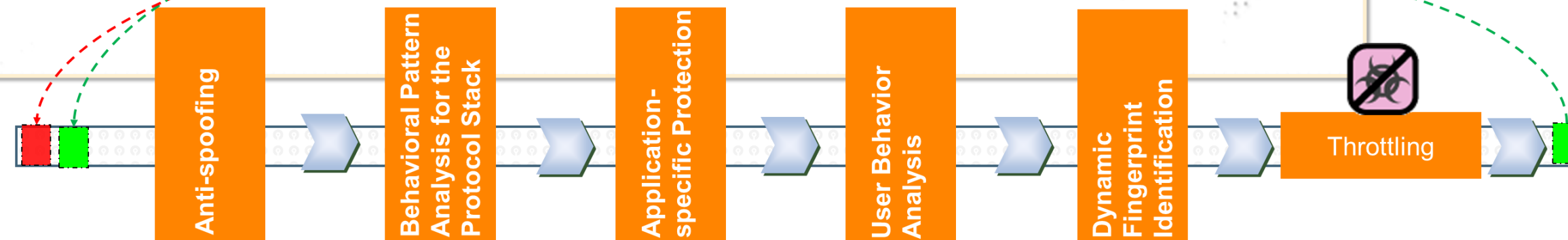
Protect your Business Continuity on Cloud

- Alibaba Cloud Anti-DDoS can protect services against Tbit/s-level DDoS attacks.
- Alibaba Cloud Anti-DDoS works together with MCA to improve the quality of cross-border networks.



- Deployment in **13** global regions
- Mitigation of attack traffic of more than **10 Tbit/s**
- Anti-DDoS Pro to protect services in mainland China
- Anti-DDoS Premium (Anycast) to protect services outside mainland China
- On-demand protection provided by Anti-DDoS Origin
- Security solutions of **unlimited** protection provided

 Intelligent Protection
 Threat Intelligence



IP Validation Check Check or verify the source and destination IP addresses.	Behavioral Pattern Analysis for the Protocol Stack Check the protocol validation.	Application-specific Protection Protect Layer 4 to Layer 7 applications.	User Behavior Analysis Check and manage abnormal user behavior.	Dynamic Fingerprint Identification Check and generate attack fingerprints and match attack data.	Throttling Throttle unknown and malicious traffic.
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Security Services Catalog

Managed Security Service Solution

1. Security Consulting Service : Provide Online security advisory by security professionals at Dingtalk group (5x8)
2. Security Assessment Service : Identify assets and perform security risk assessment
3. Vulnerability Scan : Conduct a comprehensive security vulnerability scan every quarter and provide remediation guidelines
4. Security Hardening Guidelines
5. Security Events Monitoring
6. Security Incidents Emergency Response (7x24)
7. Configuration Guidance: Provide experts guidance to help customer configure and use security products

Penetration Test

Penetration Test is a service that simulates full-scale, in-depth attacks to test customer's system security. The service we provide will identify risks in customer's business process in advance, such as security defects and vulnerabilities. It also helps customers to improve defense capabilities and to protect against complex attacks.

PCI DSS, MLPS and ISO/IEC 270001 Compliance Services

Provide services including scoping review, gap analysis, implementation preparation, certification preparations and certification application assessment to help customer with compliance requirements.



Leading the Cloud Security Market in China



Bringing Alibaba-level Security Capabilities to Our Customers

Global Customer Base

10 Years' Safeguarding Experience



11.11.2018

Attacks from 194 countries

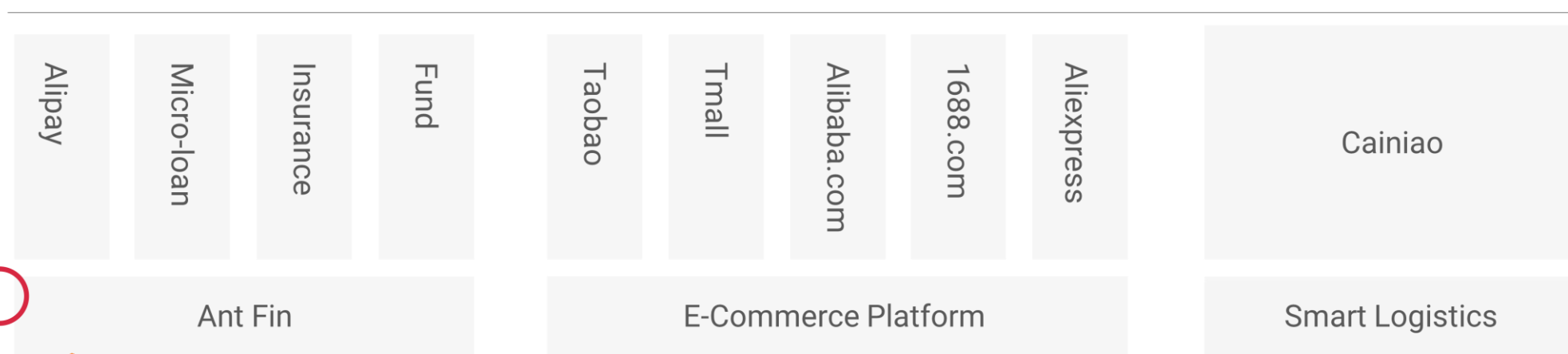
Well Protected Taobao & Tmall

Over 5,000 DDoS attacks

Over 2 billion Web attacks



Alibaba Group and its subsidiaries protected by Alibaba Cloud Security





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Q & A





THANK YOU

