HOW FOREX COMPANIES USE THE CLOUD

⟨−⟩ Alibaba Cloud

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INTRODUCTION

Forex is a decentralized global market where the world's currencies trade. Leading Forex (or FX) companies need to provide traders with access to a global platform that allows them to buy and sell foreign currencies with ease and without delay.

Many Forex businesses are based in Europe, where FX trading is a highly regulated entity. Forex brokers operating in Europe often require high levels of regulatory clearance and, as a result, European FX brokers are considered to be among the most reliable and reputable companies in the entire world.

The cloud provides the necessary compliance, security, resilience and scalability to enable Forex traders to operate on a global scale.

In this ebook, we will address some of the benefits, challenges and future directions for Forex in the cloud, including a real-life case study to highlight the impact of the cloud on the Forex industry. We will also introduce some of Alibaba Cloud's products and services, which are perfectly suited to expedite secure, efficient and compliant trading on the worldwide stage of the Forex market.

THE FOREX INDUSTRY IN THE CLOUD

Forex traders are increasingly moving to the cloud to execute their trading strategies thanks to the convenience of cloud-based solutions.

With cloud computing, instead of building a dedicated data center to enable their online platforms, Forex businesses can rent an elastic cloud computing solution at minimal cost.

As a result, traders can leverage the cloud to check new trading strategies, execute trades and conduct time series analysis to make the right decision, at the right time.

GLOBALIZATION AND THE CLOUD

Forex is a global marketplace. Trading is not done at one central location but is conducted between traders over the phone and using electronic communication networks in various markets around the world.

The Forex market isn't dominated by a single market exchange but instead involves a global network of exchanges and brokers around the world.

Just as the Forex market is a global phenomenon, so is the cloud. As such, cloud-based solutions are perfectly placed to meet the global requirements of the Forex market as cloud providers offer an expanding network of nodes and deployment regions, allowing traders to seamlessly do business around the world.

At Alibaba Cloud, for example, we operate in 61 availability zones in 20 regions around the world – with more global regions set to follow.

CURRENT CHALLENGES

For Forex companies wanting to leverage the cloud, you must address a range of challenges to ensure the security and resilience of your cloud-based operations.

Network

MANY CLOUD COMPUTING ENVIRONMENTS NOW OFFER LOW LATENCY APPLICATIONS FOR HIGH-SPEED TRADING

The biggest issue many Forex traders face is latency – where trades need to take place on a global scale and, yet, even a five-millisecond delay can make or break a major deal.

How can you achieve seamless connectivity on a worldwide trading stage? You may assume that by utilizing a network environment like the cloud, your risk of network latency will increase, compared to an on-site data center solution. However, many cloud computing environments now offer low latency applications for high-speed trading, fast management and real-time threat prevention.
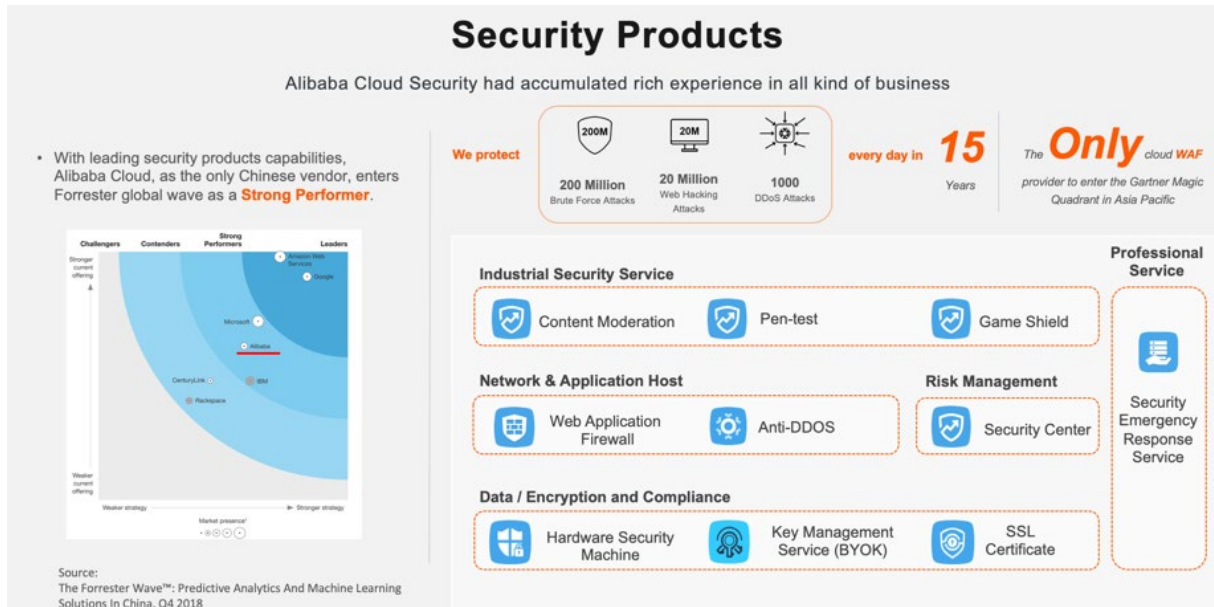
For example, our Cloud Enterprise Network (CEN) provides a distributed and hybrid global network that's ideal for FX businesses that require extensive network coverage, often under high demand. Any of the network instances attached to our CEN can communicate with each other at high speed, high redundancy and low latency, for example the network latency between Beijing DC to Frankfurt DC is around 120 ms with nearly 0 percent package loss via CEN.

Compliant Cloud Network between China and Oversea Regions

CEN also gives traders access to multiple Virtual Private Clouds (VPCs) and regions, providing low latency communications between multiple regions such as China and the trading capitals of Frankfurt or London, for example.

Security

Security and resilience are paramount concerns for the Forex industry – and for good reason. All manner of cyber criminals now use a range of online attacks to penetrate servers in the financial services industry.

Security Products

Alibaba Cloud Security had accumulated rich experience in all kind of business

- With leading security products capabilities, Alibaba Cloud, as the only Chinese vendor, enters Forrester global wave as a **Strong Performer**.

We protect | 200 Million Brute Force Attacks | 20 Million Web Hacking Attacks | 1000 DDoS Attacks | every day in **15** Years | The **Only** cloud WAF provider to enter the Gartner Magic Quadrant in Asia Pacific

Industrial Security Service — Content Moderation, Pen-test, Game Shield

Network & Application Host — Web Application Firewall, Anti-DDOS

Risk Management — Security Center

Data / Encryption and Compliance — Hardware Security Machine, Key Management Service (BYOK), SSL Certificate

Professional Service — Security Emergency Response Service

Source:
The Forrester Wave™: Predictive Analytics And Machine Learning Solutions In China, Q4 2018

OUR COMPREHENSIVE SECURITY SERVICES DEFEND AGAINST 800 MILLION ATTACKS EVERY DAY AND ACROSS 194 COUNTRIES

Alibaba Cloud is committed to safeguarding the cloud security for every business. We offer a robust set of solutions at every security level, including your application, data and platform security layers.

Our comprehensive Security Services defend against 800 million attacks every day and across 194 countries.

To further protect your network, using CEN, your traffic goes through our highly secure backbone network and never passes through a public network, for example.

CEN also features high availability and network redundancy. Between any two access points, there are at least four redundant links. If a link fails, CEN maintains normal service without network jitter or interruptions.

Regulation

Global compliance is a necessity in the Forex industry where you need to adhere to domestic and international information security standards, as well as industry requirements.

At Alibaba Cloud, we engage with independent third parties to verify our compliance according to various requirements.

This includes in the Asia, where Alibaba Cloud has the most complete range of certifications in the region, certified by more than 10 global agencies."

More specifically, we have helped business obtain an ICP license in China thanks to our expertise of this country's market.

World Class Security, Global Compliance

ALIBABA CLOUD: VERTICAL SOLUTIONS

Now, let's look in more detail at some of the cloud-based solutions Alibaba Cloud provides to address the challenges faced by many modern-day Forex companies.

CROSS-REGION CONNECTION

Forex businesses operating on a global scale often need to access trading servers hosted inside and outside of their region.

Generally, access to trading servers across geographical borders occurs via the Internet and a proxy server. This usually results in a jittery connection, which is susceptible to high packet loss rates, latency issues and an inferior user experience.

Our CEN and Global Acceleration (GA) solutions address these challenges. CEN is more than one thousand times faster than the Internet. It provides a safe and reliable, private communication environment with multi-link redundancy to guarantee high-quality communication. Any network instances attached to the CEN are interlinked and can communicate with each other, across regions.

CEN IS MORE THAN ONE THOUSAND TIMES FASTER THAN THE INTERNET

For example, you could create a CEN instance to connect Virtual Private Clouds (VPCs) between the Beijing and Hangzhou regions of China. It's a very simple process, you just need to create a CEN instance and attach the VPC networks to be connected to the other region's CEN instance. Then, purchase a bandwidth package and set up cross-region bandwidth.

CEN bandwidth packages can be automatically scaled based on different metrics and timing events, using CEN-Scaler on GitHub. The project ships with Alibaba Cloud Function code and Terraform templates enabling users to quickly and easily set up all the necessary configurations and services.

CEN-Scaler could help you to dynamically up or downscale the region bandwidth between central Europe and Beijing for a certain length of time, whenever a certain threshold is reached. For example, it could be used to upscale the bandwidth by 1MB/second each time the utilization of the current bandwidth exceeds 90 percent for more than two minutes.

CEN-Scaler works by either changing the bandwidth specifications based on a specified timing event, or reacts to Cloud Monitor Service alarms defined on certain metric thresholds.
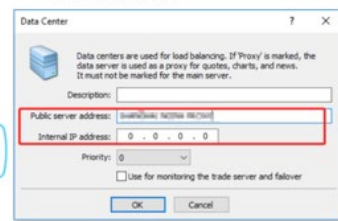
Three typical CEN reference architectures:
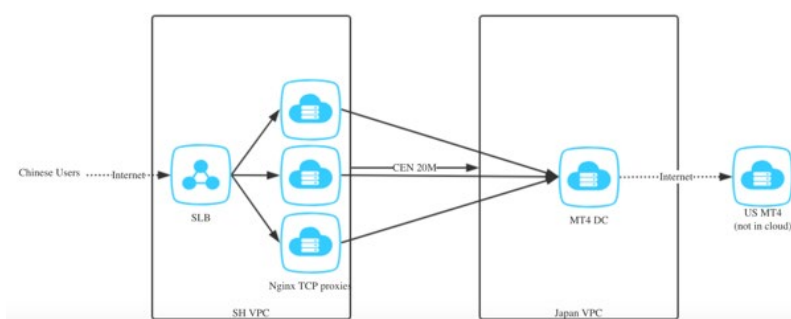

Reference Architecture – CEN
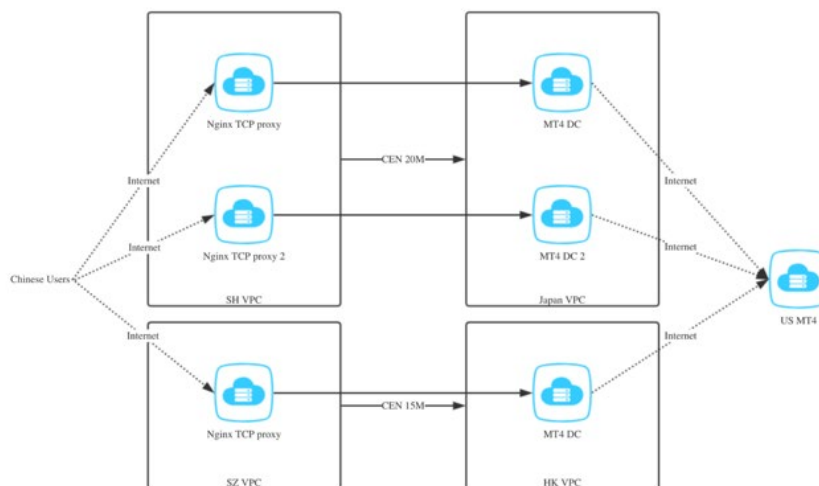
Advantages:
• Works with existing MT4 backend
• Solves the package loss for China
• Change is transparent to end users
• Cost-efficient
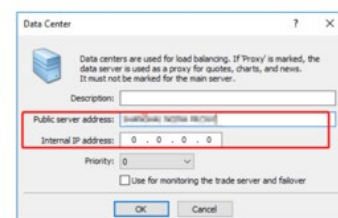
Above is the MT4 DC config.
• Public server address = Nginx EIP
• Internal IP address = MT4 DC EIP
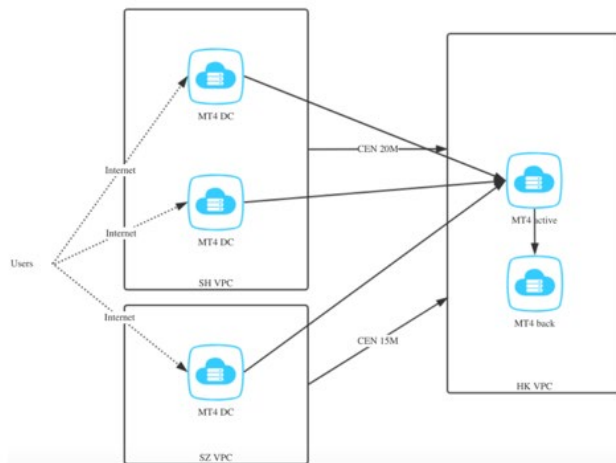

Reference Architecture – CEN 2

Advantages:
• Support large number of connections
• Solves the package loss for China
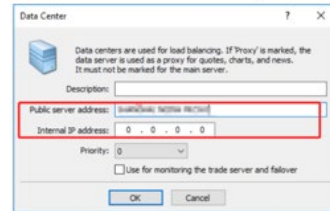• Auto-scaling

Above is the MT4 DC config.
• Public server address = SLB EIP
• Internal IP address = MT4 DC EIP

Reference Architecture – CEN 3

Advantages:
- Most cost effective solution
- Solves the package loss for China
- All internal traffic is on CEN
- Cloud service advantages
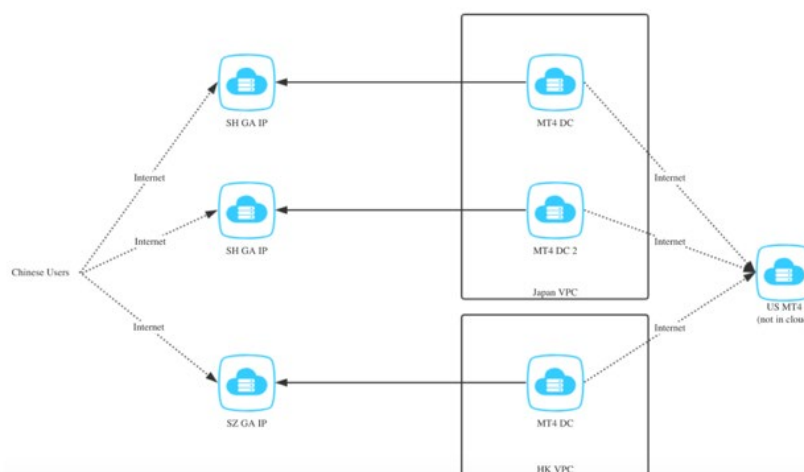
Above is the MT4 DC config.
- Public server address = MT4 DC EIP
- Internal IP address = MT4 DC internal IP

Our Global Acceleration solution is a network acceleration solution. It can help you further extend your network, without any of the issues often associated with global communications.

For example, if you subscribe to GA within China, you could deploy a proxy server in a nearby country, like Japan (for access to US Servers) or Hong Kong (to access European Servers).
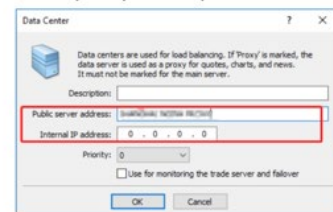
GA is a new solution where, previously, you would have to access our Express Connect services and a set of reverse proxy servers hosted in China.

Reference Architecture - GA

Advantages:
- Works with existing MT4 backend
- Solves the package loss for China
- Change is transparent to end users
- Cost-efficient
- Very easy to setup

Above is the MT4 DC config.
- Public server address = SH GA IP
- Internal IP address = MT4 DC EIP

However, by using GA, any traffic from China is directly delivered to an internal Elastic Compute Service (ECS) or Server Load Balancer (SLB) to provide a stable connection.

GLOBAL SECURITY PROTECTION

Alibaba Cloud provides an extensive range of security solutions to protect its customers.

In the Forex market, our Security Center, Anti-DDoS, Web Application Firewall (WAF) and Cloud Firewall are popular solutions, providing the DDoS mitigation, web endpoint protections, centralized security operations and application data protection to protect your financial≈data.

Our Anti-DDoS Premium service mitigates Distributed Denial of Service (DDoS) attacks, which make websites and other online services unavailable by flooding or crashing the network with too much traffic.

Our Anti-DDoS Premium service deals with such attacks on servers deployed outside Mainland China. Using Alibaba Cloud's network of scrubbing centers, Anti-DDoS Premium automatically diverts DDoS attack traffic to the nearest center.

This service provides a dedicated IP for every user, which is isolated to minimize the impact of a DDoS attack against other users. We also provide customers with detailed traffic reports and attack protection reports in real time, so you have a clear overview on the security of your business.

Our Web Application Firewall (WAF) solution filters out massive numbers of malicious intrusions to ensure your application endpoint security. It detects and blocks malicious traffic directed to your websites and applications, including SQL injection attacks, cross site scripting attacks and web-shell uploading.

For those Forex businesses operating in China, Cloud Firewall is a comprehensive network security solution. It supports functions including centralized policy management, network-wide traffic identification and intrusion detection.

Simply put, it controls the access traffic running to and from the Internet to your ECS instances, and between your ECS instances. For example, you could use the solution's embedded Intrusion Prevention System (IPS) to protect your HTTP and other businesses exposed to the Internet.

You could also prevent abnormal external connection activities by analyzing access traffic on your network.

Security Center is a unified security management system that recognizes, analyzes, and alerts users to security threats in real-time. With security capabilities such as ransomware protection, anti-virus protection, web tamper protection, and compliance assessments,

FOR FOREX BUSINESSES OPERATING IN CHINA, CLOUD FIREWALL IS A COMPREHENSIVE NETWORK SECURITY SOLUTION.

users can automate security operations, responses, and threat tracing to secure cloud and local servers and meet regulatory compliance requirements.

DEDICATED HOSTING USING BAREMETAL

Forex companies often experience periods of high and low network demand and, during both the peaks and troughs, you also need to ensure the high-performance of your servers.

This is where our ECS Bare Metal Instances can help. Based on next-generation virtualization technology, these instances feature both the elasticity of a virtual server and the high-performance and user experience of a physical server, without any virtualization overheads.

In other words, this gives Forex companies the best of both worlds. Compared to peer services, an ECS Bare Metal Instance with eight vCPUs can provide a core frequency of 3.7 GHz to 4.1 GHz for better performance and a faster response.[1]

ECS Bare Metal Instances also use a chip-level trusted execution environment in addition to physical server isolation. As a result, your encrypted data can only be computed in a secure and trusted environment.

FACILITATE BUSINESS LANDING IN CHINA

As the number one cloud provider in China, Alibaba Cloud provides a range of solutions to help Forex businesses tap into and scale up in China.

China Gateway is one of our flagship solutions, which provides a full set of products and services to help Forex businesses tackle the most common issues when entering China.

This includes our ICP Registration service, which is one of the first steps most businesses take before entering China. Alibaba Cloud works with experienced local partners to navigate Forex companies through the complexities of ICP registration.

Our China Gateway Security solution also works in conjunction with our Information Compliance Solution to build water-tight cyber security, risk management and compliance strategies for Forex businesses operating in the China market.

What's more, our Information Security and Compliance consulting and support service also makes sure your business is on the right side of the law when operating in China.

CONCLUSION

For the Forex industry, it is vital that traders have the ability to make split-second international trades in an incredibly secure and low latency way. Happily, the cloud provides the necessary compliance, security, resilience and scalability to enable Forex traders to operate successfully on a global scale.

As the convenience of cloud-based solutions, including Cloud Enterprise Network and ECS Bare Metal Instances, become more prominent, Forex traders will increasingly move to the cloud to carry out secure, efficient and compliant trading.

If you would like to learn more about how you can use Alibaba Cloud to improve your business, please contact us at www.alibabacloud.com/contact-sales.

REFERENCES

1. https://www.alibabacloud.com/help/doc-detail/60576.htm?spm=a3c0i.11205860.989678.1.f6272c0fP0rIBn

ABOUT

Established in September 2009, Alibaba Cloud is the cloud computing arm of Alibaba Group and develops highly scalable platforms for cloud computing and data management.

It provides a comprehensive suite of cloud computing services available from www.alibabacloud.com to support participants of Alibaba Group's online and mobile commerce ecosystem, including sellers and other third-party customers and businesses.

Alibaba Cloud is a business within Alibaba Group which is listed on the New York Stock Exchange (NYSE) under the symbol BABA.

www.alibabacloud.com/contact-sales