teridion
China

Fixing China Connectivity in 2024

A Teridion White Paper

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A Quick Guide for Network Professionals

Since the end of 2021, global enterprises with operations in China have been scrambling to find internet solutions that are fast, reliable, and secure. Some of the most popular solutions currently in use, including MPLS, SD-WAN, and VPN, fall far short of expectations — and business requirements.
Can AI-WAN finally get beyond the Great Firewall?

Why China Connectivity Matters

It's difficult to overstate the importance of China to the world economy. It is the world's second largest economy , and the latest available data shows it is the world's leading exporter and second largest importer . Its large consumer population and available workforce make it tempting for businesses to open China-based branch offices or work with Chinese companies.

However, China's existing internet regulations inhibit internet communication. Chinese internet service providers are overseen by the Ministry of Industry and Information Technology (MIIT). The control MIIT holds over business connectivity is tightening. In June 2020, they implemented new Cybersecurity Review Measures . Under these regulations, government agents review network equipment purchases and services that are being offered by service providers.

The government-controlled "Great Firewall' is heavily regulated. It provides the government the capability to cut off cross border information requests, limit access to content hosted outside the country, and restrict the use of SaaS applications.

These limitations interfere with business

communications and operations. They create latency issues that disrupt video calls and often prevent employees based in China from working on the same applications their colleagues in other regions of the world are using.

Remote work is even more difficult in China, as employees must rely on a slow and inconsistent service. Maintaining network security slows the connection down further, eroding productivity.

On a practical level, this adds significant challenges to enterprises operating within China or working with partners who are located there. Maintaining reliable, consistent connectivity that enables business to operate smoothly and cost effectively is paramount.

How did China connectivity get so complicated?
On October 26, 2021, cooling foreign relations led the U.S. Federal Communications Commission to adopt an order "ending China Telecom Corporation's ability to provide domestic interstate and international telecommunications services within the United States. The order was devastating for Chinese and US enterprises that relied on the China Telecoms America network to facilitate communication.

Most Existing China Connectivity Solutions Aren't Reliable

As one would expect, Chinese businesses have worked to find solutions that enable productivity and reliability. Many companies in China rely on the standard public internet. It ensures that companies are acting within the law and grants these companies the ability to connect with their global partners and customers.

There are two main challenges that these companies face. First, the Great Firewall involves deep packet inspection (DPI). Every packet is examined by the Great Firewall before it can go on to its final destination. This leads to poor performance, slow connectivity, and security concerns. The second challenge centers around the tools being used. Companies must use Chinese solutions, such as WeChat, and have limited to no access to popular SaaS solutions.

Virtual private networks (VPN) are another choice, but they are considered illegal in today's environment. There are VPNs that currently work, but they aren't a reliable, long-term solution for businesses that want to ensure communication.

Multi-protocol label switching (MPLS) is another option businesses rely on when working in China. It is reliable, ensuring a stable backbone connection for enterprises with multiple sites in different locations. Enterprises that deploy an MPLS system have international access to reliable communications.

Yet for all the promise of MPLS, there are some significant drawbacks. Deployment can take months, and it is a costly solution that not only requires equipment to run but also a team of specialized network administrators to manage. For those reasons **it's not a scalable solution, and once it is deployed adjusting it to evolving business needs is a complex task.**

Security is another challenge MPLS fails to adequately address. The solution is inflexible and can't be changed to protect against new security threats. For the same reason, the system lacks cloud-like flexibility. Adding new tunnels to reach high availability requires resources, takes time, and is expensive.

Finally, while some enterprises have tried to integrate SD-WANs to solve their China connectivity challenges, this solution is far from ideal. SD-WAN lacks a global backbone and is dependent on the best efforts of the internet, which is simply not a workable solution in China.

Our solution is built on the public cloud
Teridion customers can deploy and manage their locations in China in the same easy, flexible manner as other sites they have around the globe. It offers global coverage that can be configured in minutes and deployed in hours.

3 Keys to Unlocking Global China Connectivity

Clearly, there are a number of challenges facing businesses that rely on a strong communication network. International companies need to find a holistic approach that overcomes the major obstacles put in place by China's MIIT.

Any successful solution must meet three key characteristics to be successful:

- Compliant with Chinese Regulations
- Stable and capable of supporting business requirements
- Central management and monitoring tools

Regulatory Compliance

Any long-term solution must be flexible enough to withstand Chinese regulatory changes. The stakes are high, and COVID-19 has only increased the Chinese government's enforcement of its internet policies. The Great Firewall is normally closed, and only allows applications and websites to pass through that are known and approved. Blockages can be put in place without any notice.

Meet Today's Evolving Business Requirements

China's internet speeds rank below average in international speed tests. Cable.co.uk found that China's mean download speed in 2020 was just 2.09 Mbps, ranking it 200 out of 221 countries tested. Slow speeds mean latency issues and lags, poor video conferencing experiences, and dropped VoIP calls. Any worthwhile solution must overcome these slow speeds, to provide enterprises with a user experience that enhances communication and improves productivity.

Central Management and Monitoring Tools

Organizations that manage operations from multiple sites and locations require visibility and control over their entire network from a central hub. This enables cost savings in terms of IT support staff, as well as improved control and security across the organization.

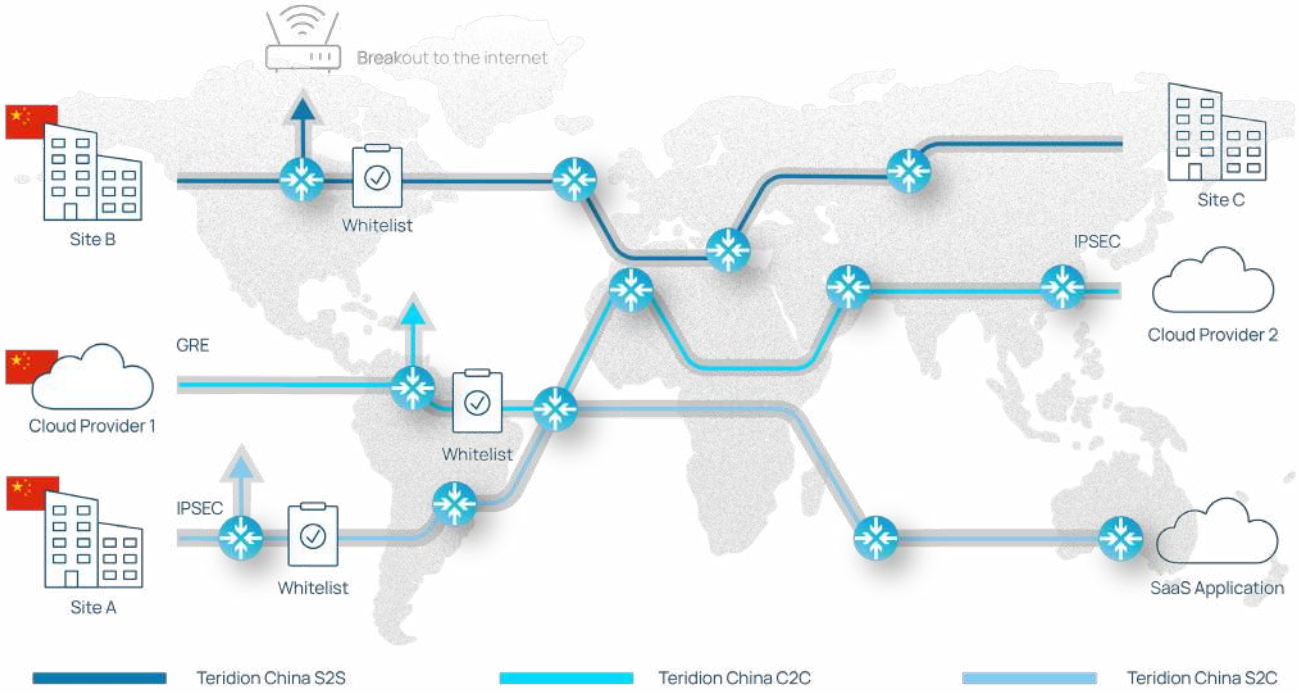
What Makes Teridion the #1 China Connectivity Solution in 2023

Teridion's WAN-as-a-Service eliminates all the major challenges of connectivity in China, while delivering MPLS quality connectivity and carrier-grade SLAs to its customers. We leverage relationships with Chinese cloud providers to deliver a connectivity solution capable of meeting the needs of today's China-based business.

Our solution is built on the public cloud. It offers fast setup and global coverage. Powered by our proprietary Teridion Dynamic Routing, we fuse proven WAN acceleration techniques with real-time, metric-driven route optimization to improve internet routing performance.

As a result, Teridion customers can deploy and manage their locations in China in the same easy, flexible manner as other sites they have around the globe. The service can be configured in minutes and deployed in hours with a simple connection from the site to our PoPs in China.

The network is designed to work with any edge device. It connects Chinese-based companies to a global network on the public cloud with over 500 PoPs. This enables our customers to leverage a private routing infrastructure at the cloud edge within China to establish the fastest path between two end points in China and beyond.



About Teridion

In a world where network resilience is increasingly complex, Teridion's AI-powered Network as a Service makes end-to-end connectivity unbelievably simple. Telcos and technology partners like Deutsche Telekom, Zscaler, and Barracuda trust Teridion to easily bypass ANY connectivity challenge, from latency to full-blown outage. That's because it is the only WAN with a global backbone that spans 25 public cloud providers in over 500 global PoPs to always find the optimal path between any two points on the internet. And it deploys in less than 24 hours. Just switch on Teridion to get a high-performance network with zero downtime, headaches, or middle-of-the-night phone calls to your IT team

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1. https://www.imf.org/external/datamapper/NGDPD@WEO/OEMDC/ADVEC/WEOWORLD
2. https://databank.worldbank.org/World-Exports-World-GDP-(Current-US$-Billions)/id/d1c0bbdb
3. https://freedomhouse.org/country/china/freedom-net/2021#footnote2_y8lwnaa

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GET STARTED

Ready to connect enterprise sites at the highest performance?
Contact us for any further questions.

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