Addressing the Top Five Connectivity Challenges for China and India

aryaka

SaaSCom
Software that Matters

Table of Contents

Introduction

Globalization has long been a core driver for digital transformation for enterprises. Connecting offices, factories, and supply chains needs a digital-first mindset and infrastructure. With its high economic growth over the past decades and the strategic importance of the Chinese market, China remains at the top of the list of companies to expand and invest in internationally.

At the same time, geopolitical changes and the high growth of India's economy, population growth, and investment in attracting foreign companies to expand into India are a challenge to China's dominant position in the global market and an opportunity for companies to diversify their footprint.

Developing or keeping business operations in each country has potential benefits. However, enterprise network connectivity in China and India presents local challenges, ranging from the availability and quality of Internet connectivity and access to cloud-based workloads and SaaS applications to providing proof of compliance with local regulations.

Poor or unstable Internet connectivity often leads to high latency and packet loss, unreliable access to the cloud and SaaS impedes productivity, while a lack of compliance risks overall business operations and the delivery of network and security services.

This document explores global enterprises' top five challenges in securely connecting applications and workloads with employees, sites, customers, and suppliers in China and India.

| Application Performance | UCaaS | IP-Based Applications | Remote Workers | Compliance |
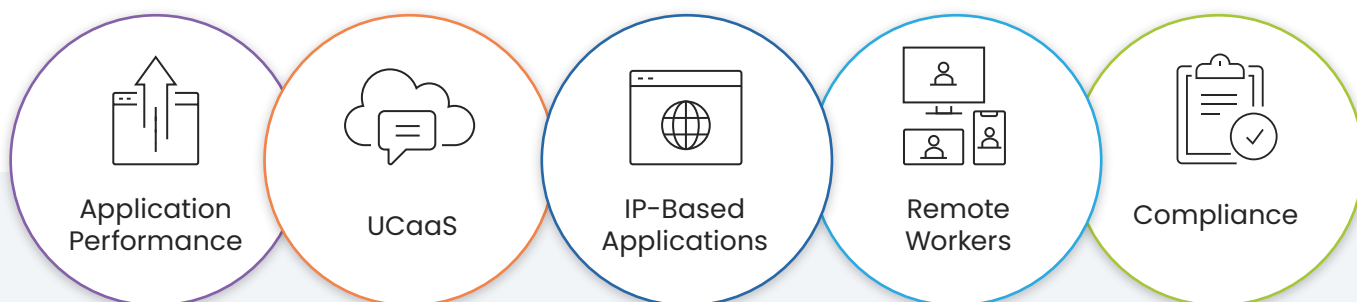
Challenge 1: Enterprise Application Performance into China and India

The combination of regular Internet performance issues and high regulatory compliance creates significant challenges for international businesses to connect their users and mission-critical applications. While MPLS networks can offer performance, albeit at a cost and lack the flexibility of a cloud-centric environment, the absence of a local presence by many MPLS providers in each country prohibits a global, end-to-end application SLA.

The Aryaka Solution

To ensure fast and reliable application performance and the network QoS required by demanding applications like real-time collaboration and productivity tools, any WAN offering deployed by a global enterprise must have a local footprint and dedicated in-country and international connectivity. In addition, the offer ideally must include local handoffs or reliable remote connectivity to cloud providers and SaaS applications. To meet local compliance requirements, a provider must understand the local regulatory environment and have established the necessary in-country partnerships and presence. Aryaka's global network is a mesh services fabric connected by HyperScale PoPs (Point of Presence) located across the globe. Several PoPs in key business metros in China and India provide low latency access and dedicated connectivity to deliver on this requirement.

Challenge 2: Collaboration / UCaaS Application Performance

Unified Communications and Collaboration tools have become indispensable. At the same time, enterprises' use of SaaS-based productivity tools continues to rise. One lasting impact of the pandemic is the hybrid workplace. While more enterprises ask employees to return to the office for a few days a week, the elimination of a strict work-in-office-only policy for five days has led to a permanent hybrid workplace. The need for communication and collaboration tools like Microsoft Teams, Webex, Zoom, and others continues to accelerate globally. Enabling employees to be their most productive and securely connecting them to the enterprise WAN, no matter where they are located, is of the utmost importance.

The Aryaka Solution

Building on the in-region footprint described earlier, the enterprise WAN must optimize connectivity to the different UCaaS/CCaaS gateways within China, India, and internationally. This requires optimization across the last mile, a reliable and congestion-free middle mile, and a direct connection first-mile handoff at the cloud edge to the selected UCaaS application. It also requires configurability and visibility into the mix of applications to prioritize QoS for real-time applications with a simple-to-use web-based portal. Aryaka's regional SaaS handoffs directly from co-location facilities and multi-segment optimized WAN deliver on this requirement.

Challenge 3: IP-Based Applications

Reliable access to websites and web applications is foundational for any enterprise, so IT Ops must know how to navigate China's or India's unpredictable Internet. Enterprise IP applications require a reliable, stable connection to deliver enterprise-class performance no matter how far users are from where the applications are hosted. One frequently proposed solution is a Content Delivery Network (CDN). Still, CDNs have issues supporting business application performance and user expectations due to a reliance on the public Internet or cloud and their peering relationships. In addition, enterprise IP applications are dynamic, not static, and a CDN is more like a band-aid that addresses the symptoms rather than the cause.

The Aryaka Solution

The WAN must offer reliable performance and flexibility to support any application IT deploys, including dynamic IP-based applications, versus optimizing for specific content and sources/destinations. A general, software-defined architecture also delivers a superset of limited CDN capabilities and doesn't introduce complexity such as usage-based charging. Aryaka's global, scalable, single-pass architecture delivers on this requirement.

Challenge 4: Remote Worker Connectivity

Hundreds of millions of employees in China and India, anywhere really, work now, at least partially, remotely. The hybrid workplace is here to stay. The mandate for the CIO and IT is to enable these 'anywhere' workers with secure and reliable access to the web and corporate applications and workloads wherever they reside. IT must ensure secure connectivity and highly predictable application performance for remote workers, just as they do for traditional office workers.

The Aryaka Solution

The WAN must support remote workers in a scalable way and with a flexible and adaptable architecture. Enterprises must maintain consistent views and network and security policies across both on-premises and remote workers. The aggregation of traffic and delivery of common services with consistent network and security policies at scalable PoPs versus a siloed architecture and point solutions are critical success factors for such flexibility and security. Aryaka's secure remote access solution, Private Access, deployed in all Hyperscale PoPs, including China and India-based PoPs, delivers on this requirement.

Challenge 5: Compliance in China and India

Foreign businesses can face complex compliance rules and requirements in India and China. Establishing a local presence, especially in China, can be difficult. Companies must balance legal and technical needs. Relying on the Internet for connectivity, or a legacy WAN architecture from a managed service provider that is not cloud-ready, is not ideal and sub-optimal, just as a do-it-yourself approach without a keen understanding of the regulatory environment is fraught with risk.

The Aryaka Solution

The WAN provider must have deep experience and understanding of the regulatory landscape to comply with local rules and laws. Partnerships with leading in-country Chinese and Indian datacenter and co-location providers, such as Alibaba in China, remove the enterprise's implementation and compliance burden. A long-term relationship is required to develop this expertise and ensure full compliance with applicable laws and regulations. Aryaka's strategic partners and affiliates comply with all applicable laws and regulations and maintain the necessary permits, licenses, and approvals to deliver on this requirement.
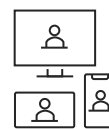
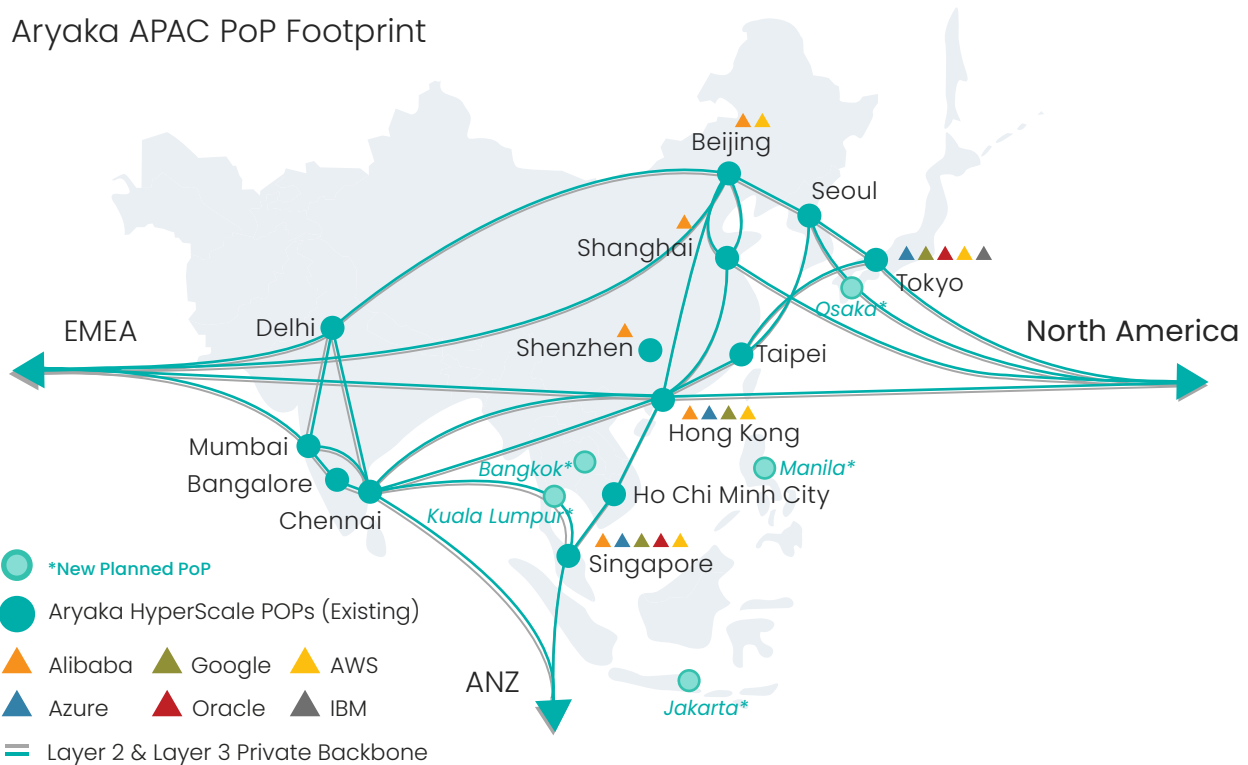**aryaka**

| Application Performance | UCaaS | IP-Based Applications | Remote Workers | Compliance |

Aryaka APAC PoP Footprint

Legend:
- 🔵 *New Planned PoP
- 🟢 Aryaka HyperScale POPs (Existing)
- 🔺 Alibaba 🔺 Google 🔺 AWS
- 🔺 Azure 🔺 Oracle 🔺 IBM
- ▬ Layer 2 & Layer 3 Private Backbone

Map labels: Beijing, Seoul, Shanghai, Tokyo, Osaka*, Shenzhen, Taipei, Delhi, EMEA, North America, Hong Kong, Mumbai, Bangkok*, Manila*, Bangalore, Kuala Lumpur*, Ho Chi Minh City, Chennai, Singapore, ANZ, Jakarta*

Aryaka Delivers on China and India Connectivity

Transitex Solves China Connectivity Issues with Aryaka to Save an Estimated 13,000 Euros Per Month in Lost Productivity

The Challenge

Transitex frequently works with many exporters in China. For every export process, their Shanghai-based team opens a new order in LogiQstar, the company's ERP system located in a data center in Portugal, to be sent to one of Transitex's many destination offices across the globe. For each of these orders, the Shanghai team often needs to attach 20-30 pieces of critical documentation.

Because of poor internet performance, however, Transitex's Shanghai team would often lose connectivity. During downtime, which totaled around 100 days per year, they wouldn't be able to access critical applications including their ERP system, Microsoft Exchange, Microsoft SharePoint and Microsoft Dynamics 365. This would hold up business to the tune of an estimated 13,000 Euros per month in lost productivity.
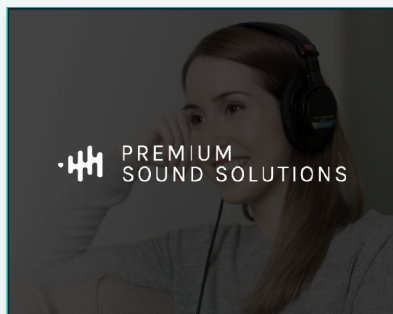
These connectivity issues were compounded by the challenge of having a lean IT team of three based in headquarters in a very different time zone.

The Solution

After deploying Aryaka SmartSecure Remote Access through their key IT business partner Cloud365 (cloud365.pt), Transitex's China connectivity issues were resolved immediately. The Shanghai office now experiences 100% availability. No downtime means no missed revenue opportunities.

Additionally, Transitex's IT team is able to leverage the 24/7 support team as part of Aryaka's managed services to solve any potential challenges before they become networking issues.

The Challenge

Premium Sound Solutions (PSS) first came to Aryaka in search of a way to increase bandwidth to improve redundancy and network performance, while decreasing costs. While on their previous MPLS network, PSS was not protected against outages that disrupted production. In one incident, the company was down for a full eight hours. In such a demanding industry, PSS could not afford long outages, yet could also not afford the high costs of maintaining redundancy on an MPLS network. Additionally, production at PSS is heavily reliant upon their cloud-hosted ERP, PLM and CAT systems. For optimal performance, the company needs a reliable connection. Lastly, employees based in China were having issues working with large metadata in Microsoft SharePoint. China-based users resorted to working locally with the data and buy-in of the platform was non-existent in China. As a result, the company struggled to achieve global collaboration on the tool.

Automotive & Consumer Sound Manufacturer Premium Sound Solutions Improves Disaster Recovery and Network Performance with Aryaka SmartServices

The Solution

After deploying Aryaka SmartServices, Premium Sound Solutions was able to increase bandwidth at every site, improving redundancy and performance. Within their own sites, they are now able to replicate servers between manufacturing plants – a feat that was previously "unthinkable," with MPLS, according to Jan De Beule, Infrastructure Manager at Premium Sound Solutions.

The improved network performance accelerated critical applications, like the ERP, PLM and CAT systems, and provided much needed reliability. Replication times for large development drawings, for example, were reduced from 8-9 hours down to just one hour. In another example, ISO files that previously took one hour to download now took just 20 seconds. For end-users in China, the improved SharePoint performance led to wider adoption of the tool and increased collaboration and productivity. Finally, transitioning to Aryaka SmartServices also meant an improvement in customer support.

The Cloud Connectivity Cookbook

Most organizations on an average use approximately 1,935 cloud services. This cookbook explores the different ingredients of multi-cloud networking and how a fully managed Unified SASE architecture unlocks the fastest path to value in a cloud-first world.

In this paper you will learn:

- The best recipe for selecting the right cloud service provider to connect to your SASE deployment
- The limitations around current connectivity architectures
- The difference between L2 and L3 network underlays
- All the ingredients you need to connect to the top SaaS and IaaS platforms

Download Now

Aryaka Delivers High-Performance and Compliance For China

International companies with locations in China and Chinese companies with a global presence require a network that provides high-performance and compliance with Chinese laws and regulations for data security and privacy. Aryaka has excelled in both for over a decade thanks to our long-standing experience operating in China and innovative cloud-first architecture.

Download Now
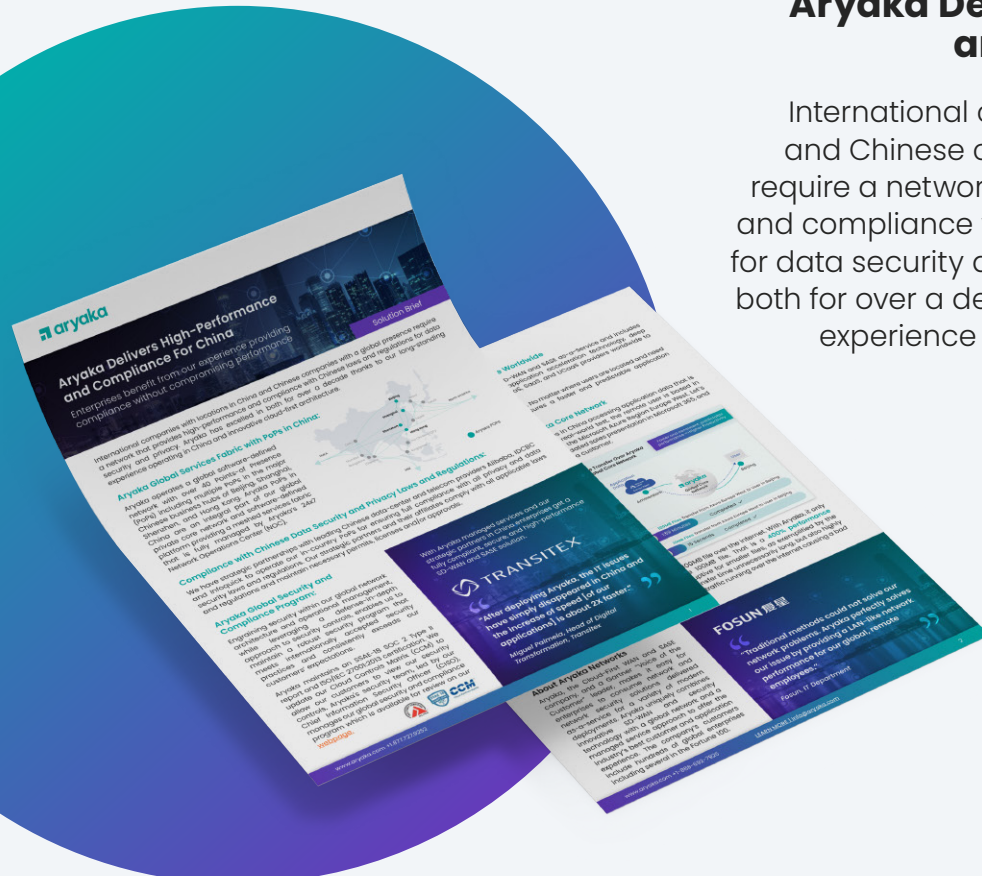
About Aryaka Networks

Aryaka, the Cloud-First WAN and SASE company, and a Gartner "Voice of the Customer" leader, makes it easy for enterprises to consume network and network security solutions delivered as-a-service for a variety of modern deployments. Aryaka uniquely combines innovative SD-WAN and security technology with a global network and a managed service approach to offer the industry's best customer and application experience. The company's customers include hundreds of global enterprises including several in the Fortune 100.