Addressing the Top Five China Connectivity Challenges

Whitepaper | 2021

Table of Contents

## Introduction

Globalization is a core driver for digital transformation in the enterprise. With its high economic growth, and the strategic importance of the Chinese market, China is now top of the list of countries to expand to and to invest in internationally.

Developing business operations into China offers huge potential. However, enterprise network connectivity in China presents local challenges, ranging from the availability and quality of internet connectivity to providing proof of compliance with local regulations. The fist challenge routinely leads to high latency and packet loss, while the second impacts the availability and flexibility of delivered services.

In this document, we will explore the top 5 challenges faced by global enterprises when connecting employees, customers, partners and suppliers in the China region.

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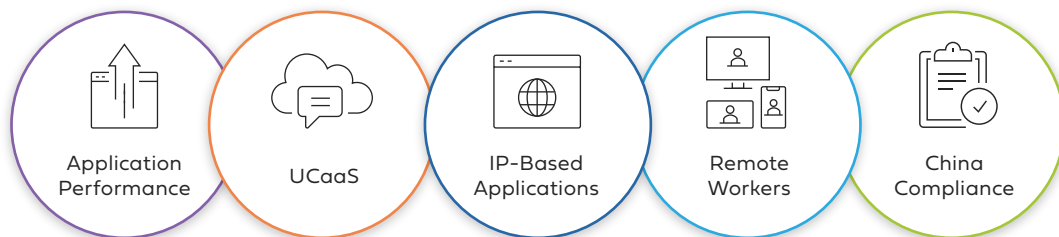
Challenge 1: Enterprise Application Performance into China

The combination of infrastructure performance issues and high regulatory compliance creates significant challenges for Western businesses to connect their users and mission-critical applications in China. In the absence of a local presence, the WAN provider is unable to offer anything approaching an end-to-end application SLA.

The Aryaka Solution

To ensure rock-solid application performance, the network QoS required by some of more demanding applications, any WAN offering must have a local footprint as well as dedicated in-country as well as international connectivity. In addition, where possible, the offer must include local handoffs to cloud providers and SaaS applications. This requires a provider that understands the local regulatory environment and that has established the necessary partnerships. Aryaka's seven in-country PoPs and dedicated connectivity delivers on this requirement.

Challenge 2: Communication / UCaaS Application Performance

Unified Communications has been growing steadily for a couple of decades. However, due to the recent Covid-19 pandemic and the resulting permanent hybrid workplace, the need for communication tools like Microsoft Teams, Webex, Zoom, Hangouts and others continues to accelerate globally. As evidence, Microsoft recently released statistics on the usage rise of Teams meetings, calling, and conferences, seeing a 500 percent increase in the China region.

The Aryaka Solution

Building on the in-region footprint described earlier, the WAN offer must optimize connectivity to the different UCaaS/CCaaS gateways, both within China and internationally. This requires optimization across the last-mile, a congestion-free middle-mile based on dedicated links, and a direct first-mile handoff at the cloud edge to the selected collaboration application. It also requires configurability and visibility into the mix of applications via a simple-to-use cloud-driven portal. Aryaka's regional SaaS handoffs directly from co-location facilities delivers on this requirement.

Challenge 3: IP-Based Applications

As companies seek to introduce their websites and applications to China it is imperative that IT Ops understands how to navigate China's unpredictable Internet. Enterprise IP applications require a reliable, stable connection to effectively deliver enterprise-class performance no matter how distant remote users are from where the applications are hosted. One solution proposed is to use a Content Delivery Network (CDN), but these have issues in supporting application performance expectations due to a reliance on the public internet or cloud and their peering relationships. A CDN is like a band-aid addressing the symptom vs the cause.

The Aryaka Solution

The WAN must offer the performance and flexibility to support any application IT deploys, vs optimizing for specific content and sources/destinations. A generalized architecture also delivers a superset of the more limited CDN capabilities and doesn't introduce complexity such as usage-based charging. Aryaka's scalable cloud-first architecture delivers on this requirement.

Challenge 4: Remote Worker Connectivity

It is estimated that around 200 million people were working from home in China by the end of February 2020. Going forward, the CIO mandate is to treat these 'anywhere' workers as first-class citizens in terms of access to corporate applications, and to ensure they have secure connectivity and highly predictable application performance in much the same way as a worker in the traditional office.

The Aryaka Solution

The offer must support the remote workforce in a scalable way, and with an architecture that distributes access and capacity. In order for the enterprise to maintain a consistent view across both on-premises workers and those remote, highly critical for both flexibility and security, both types of workers should have their traffic aggregated at a common services PoP vs a siloed architecture. Aryaka's Private Access, available from all PoPs in China, delivers on this requirement.

Challenge 5: China Compliance

For foreign businesses, addressing the compliance challenges of establishing a presence in China can be extremely complex. It requires a fine balance of legal and technical evaluation. Just relying on an existing, non-IP based IT infrastructure is non-optimal as described above, and a do-it-yourself approach without a keen understanding of the environment is fraught with risk.

The Aryaka Solution

The WAN provider must have deep experience in navigating the regulatory climate and must have established partnerships that remove the burden of implementation and compliance from the enterprise. This is expertise that can't be developed overnight. Aryaka's partnerships with Alibaba Cloud and others delivers on this promise.

Aryaka APAC Footprint
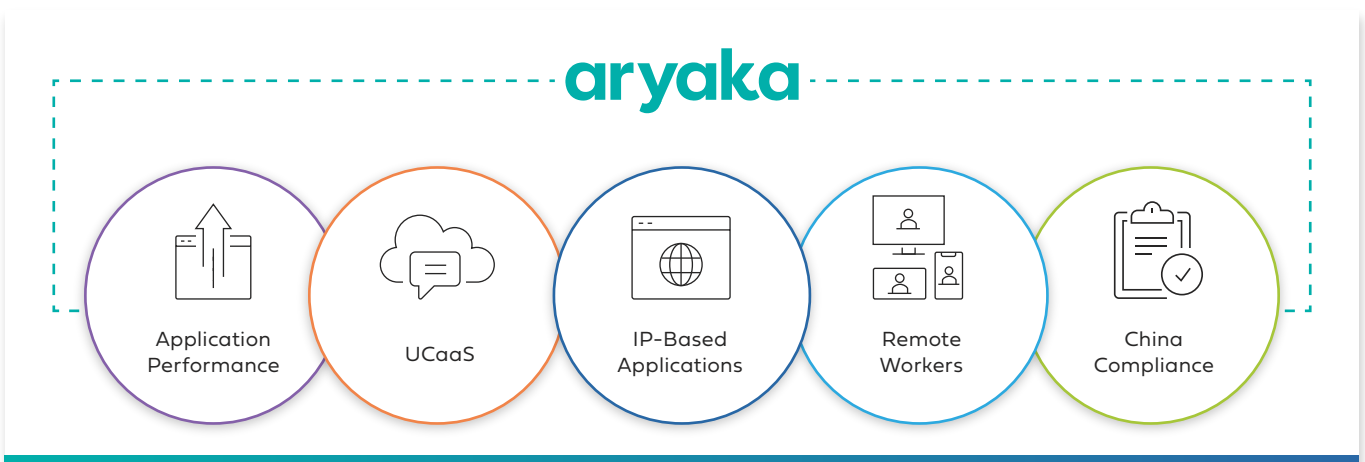
Aryaka Delivers on China Connectivity

IFCO, Global RPC Supplier,
Accelerates its Customer-Facing
Platform by 10x with Aryaka

The Challenge

As IFCO's customer base has expanded in recent years in China, so has use of the company's global customer-facing platform, MyIFCO. Because MyIFCO, an interface used by customers to order, manage and track packaging, is centrally hosted in Europe, platform performance for China-based users was sluggish compared to those in Europe and the Americas. Not only were connections in China 10x slower in terms of latency, throughput and response times, but more than 6% of the web requests from China were failing. Users weren't happy. IFCO needed a solution that would not just solve the issue, but solve it quickly.

The Solution

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Aryaka's managed services solution, recommended by IFCO's trusted IT partner and MPLS provider Deutsche Telekom, fit this strategy while solving the company's application performance issues for their increasing volume of China-based users.

After deploying Aryaka SmartCDN, Aryaka's dynamic IP application acceleration as-a-service solution, IFCO's users in China experienced 10X faster performance of MyIFCO. In delivering an improved end-user experience, IFCO saw a boost in usage of the customer platform in the region.

Lastly, IFCO was able to deploy the solution and see results quickly.

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

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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.

World Textile Leader Deploys Aryaka to Initiate Network Transformation in China

The Challenge

Headquartered in the UK and with 19,000 employees across 50 countries, Coats had already achieved a 300% improvement in employee user experience since deploying Aryaka networking services. The company wanted to address the challenges of connecting its locations in China to its European offices by replacing its legacy, underperforming, MPLS solution with Aryaka's global managed connectivity delivered as a service.

At a time when existing Multiprotocol Label Switching (MPLS) contracts came up for renewal, IT teams and executives at Coats agreed its existing MPLS solution was incapable of fully and reliably supporting new global applications such as Office 365, which is used by Coats across all of its worldwide sites.

The Solution

Learn More

User collaboration tools are very important for Coats, as is their suite of business tools hosted online, and China was a critical region where they needed a solution that could guarantee user satisfaction when accessing these online tools. Aryaka was the only provider that was able to optimize and compress the traffic to critical applications both in the cloud and in their data centers, providing a simple design and fully managed service.

The project was completed in partnership with Aryaka's local German partner and official Microsoft Cloud Solution Partner, GAB Enterprise IT Solutions, which introduced Aryaka's Solution to Coats and managed the communication between the two companies during implementation.

Global Content Services Company Dumps MPLS in Favor of Aryaka SmartServices to Save 50K Euros Annually and Accelerate Applications Up to 5X

The Challenge

When opening new offices, Amplexor's IT team would typically spend three or more months, depending on the location, adding the branch to their existing MPLS network. Not only would this impact their business timeline, but it also became a major time suck for Amplexor's lean IT team who had to invest countless hours with their telecom provider. Additionally, application performance across their global offices was inconsistent – particularly in China, where critical business applications would often time out and file sharing was slow.

The Solution

After deploying Aryaka SmartServices Amplexor saw benefits immediately. First, there was the process. Transitioning away from MPLS to Aryaka was quick and easy. In China, for example, it took just four days from the time of order for the office to be connected to Aryaka's private Layer-2 network.

Aryaka SmartServices also solved Amplexor's connectivity challenges in China. No longer was file sharing or high latency an issue. With Aryaka, applications were accelerated by 3X in China and up to 5X in other geographies. Amplexor also realized major cost savings in moving away from MPLS. By the end of Amplexor's transition to Aryaka's SD-WAN, the company had saved an estimated 50,000 Euros annually. While performance and cost savings were the main drivers behind the move to Aryaka's SD-WAN, some benefits have been less tangible.

Alibaba Cloud Solution Overview

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About Aryaka Networks

Aryaka, the Cloud-First WAN company, brings agility, simplicity and a great experience to consuming the WAN-as-a-service. An optimized global network and innovative technology stack delivers the industry's #1 managed SD-WAN and SASE service and setting the gold standard for application performance. Aryaka's SmartServices platform offers connectivity, application acceleration, security, cloud networking and insights leveraging global orchestration and provisioning. The company's customers include hundreds of global enterprises including several in the Fortune 100.