ambiFOX network GmbH, a German Managed Service Provider, uses 128 Technology solutions to provide mainland China connectivity services to European-based business customers. The 128 Technology solution eliminates inherent inefficiencies and cost constraints of traditional networking solutions, helping the MSP accelerate service delivery, improve margins, and extend market reach.

The Challenge: Provide Agile And Cost-Effective Cross-Border Connectivity
Hundreds of European companies have offices and manufacturing facilities in China. ambiFOX planned to capitalize on this massive market opportunity by offering fast and dependable cross-border WAN connectivity services to mainland China.

Traditional routing solutions and legacy SD-WAN products are notoriously inefficient, expensive, and inflexible. Most rely on antiquated VPN tunneling schemes that squander bandwidth, impair application performance, and inhibit QoS management.

ambiFOX sought a versatile and cost-effective software-defined networking platform to power its SLA-backed WAN connectivity service.

The Solution: 128T Session Smart™ Networking Provides Unmatched Efficiency And Economics
ambiFOX selected the 128T Session Smart Networking solution as the foundation for its ambiWAN China network connectivity service. The 128T Session Smart Networking solution is an advanced, service-centric networking solution that provides agile, secure connectivity with unmatched economics, efficiency, and simplicity.

ambiFOX was already using the 128 Technology solution to support a variety of managed services and was well versed in the product's advantages. “The 128 Technology solution eliminates the limitations of traditional SD-WAN solutions,” explains Daniel Gebing, CEO and Founder of ambiFOX. “With 128 Technology we can deliver value-added services that are unthinkable with conventional MPLS networks.”

The fully software-based 128T Session Smart Networking solution is China CyberSecurity Law (CSL) compliant, operates on a variety of hypervisors and CSL-compliant servers, and supports zero-touch installation and provisioning for fast setup and administration—with no site visits.

“Our initial customer deployments were so successful that we created a separate business unit centered on the 128 Technology solution.”
Daniel Gebing, CEO and Founder, ambiFOX

Challenge
Offer cost-effective and agile network connectivity services to mainland China

Solution
128T Session Smart Networking eliminates cost and complexity, enables adaptable, efficient, multi-tenant backbone

Results
• Faster service velocity – customers deployed in days, not weeks or months
• Higher margins – simplified operations and lower cloud connectivity and transit costs
• Improved performance and service quality – application-aware routing reduces intercontinental latency by >150 ms on certain routes
• Greater customer satisfaction – granular visibility and SLA-backed offerings improve end-user experiences
ambiFOX deployed the 128T Session Smart Networking solution in several Alibaba Cloud data centers to create an adaptable, high-performance multitenant backbone with direct connectivity to mainland China. The MSP also deployed 128 Technology solutions in various Microsoft Azure data centers to balance intercontinental performance and transport expenses in other regions across the globe.

ambiWAN China network connectivity services let businesses quickly extend their private enterprise networks to their mainland China sites to improve collaboration and productivity. Employees in China can seamlessly access corporate directory services, unified communications and collaboration platforms, file shares, office productivity suites, and any other company-sanctioned applications and services, whether hosted in a corporate data center or in the cloud.

The Results: 128 Technology Solution Eliminates Cost And Complexity, Improves Business Performance

The 128T Session Smart Networking solution helps ambiFOX extend service reach, move up the value stack, and expand revenue opportunities. The solution eliminates expense and complexity, helping the MSP accelerate time-to-market, increase business agility, and improve margins. The 128 Technology solution gives ambiFOX a distinct competitive advantage, helping the MSP attract and retain customers.

Key benefits of the 128T Session Smart Networking solution include:

- **Rapid service agility** – in stark contrast to competitors, ambiFOX can turn up new customers in days, instead of weeks or even months with traditional MPLS-based VPN services. In addition, ambiFOX can re-provision services and adjust bandwidth in real-time to satisfy evolving customer requirements and fluctuating business demands.

- **Low operating expenses** – the 128 Technology solution helps ambiFOX contain WAN transport expenses and improve the bottom line by minimizing protocol overhead and bandwidth consumption, and by securely consolidating multiple customers onto common Alibaba Cloud Enterprise Network (CEN) inter-region connections.

- **Optimal routing** – unlike alternative solutions, the 128T Session Smart Networking solution lets ambiFOX manage and control traffic at the edge, helping the MSP limit backhauling, minimize latency, and enforce compliance. In the customer example below, ambiFOX breaks out mainland-China-destined traffic locally, routes Asia Pacific traffic via Hong Kong, and backhauls corporate traffic to the customer’s Germany headquarters, optimizing network performance and transport costs.

Figure 1. Example ambiWAN Customer Powered by 128 Technology

Figure 2. The 128 Technology Solution Manages and Controls Traffic at the Edge
• **Multi-cloud economics and resiliency** – the 128 Technology solution lets ambiFOX leverage multiple cloud providers to improve global performance and contain intercontinental transit expenses. The solution intelligently routes traffic based on policies and real-time network conditions, automatically selecting the right path, for the right application, at the right time, optimizing economics, availability, and service quality.

![Graph showing bandwidth utilization](image)

Figure 3. Intercontinental Performance Characteristics Vary Widely from Provider

• **Granular visibility** – unlike conventional solutions that encapsulate all dataflows into a single overlay tunnel, the 128T Session Smart Networking solution gives ambiFOX network administrators end-to-end visibility into individual traffic flows helping streamline performance monitoring and troubleshooting, and improve customer satisfaction and retention. 128 Technology helped ambiFOX penetrate the massive China network connectivity market, quickly and cost-effectively. After several successful customer deployments, ambiFOX spun up a separate business unit to take full advantage of the financial and functional benefits of the 128 Technology solution.