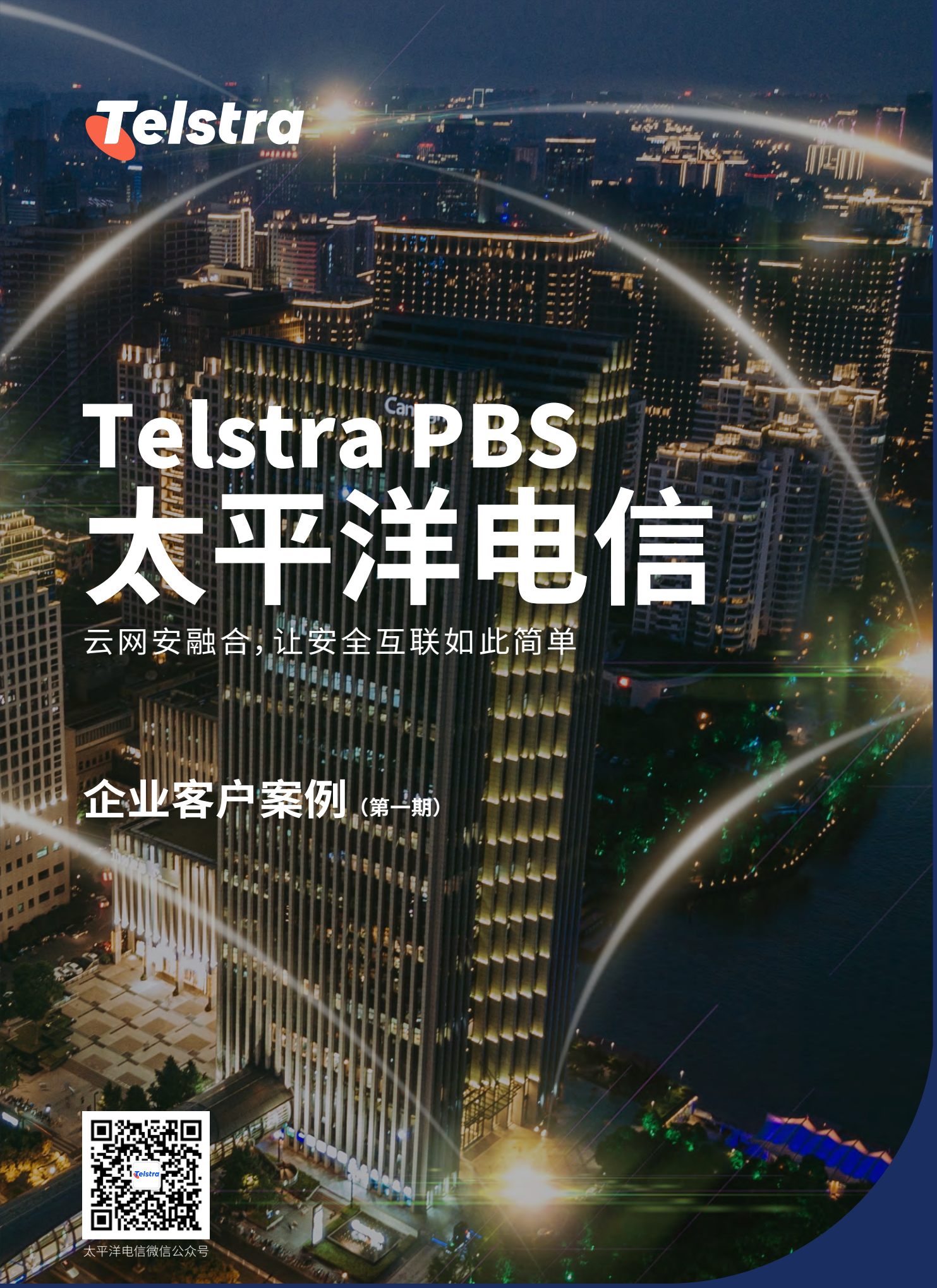


Telstra

Telstra PBS
太平洋电信

云网安融合，让安全互联如此简单

企业客户案例（第一期）

太平洋电信微信公众号

SD-WAN客户案例
某新能源车公司

某公司是某知名新能源汽车企业，致力于打造世界一流的智能电动汽车品牌。

案例背景

随着4S门店数量增加，传统的网络架构已经无法满足对于安全、可靠和高效连接的需求。这就需要一种新的网络架构来优化和管理门店之间和门店与总部之间的通信。为了改善汽车门店的服务效率、提高售后升级和响应速率、优化顾客服务质量，特别是提高研发总部对各门店服务需求的快速及时响应能力，该企业决定优化现有门店和总部联网的网络架构，选择多家网络服务商设计了一套全国门店联网方案，以达到建立全国门店之间的互联互通，实现门店资源共享和数据交换，从而提高门店的管理效率和顾客服务质量。经过新能源车厂对多个供应商网络进行测试和对比分析，最终太平洋电信以优质的性价比，卓越的网络质量，贴心的技术服务成为该企业门店联网解决方案的供应商。

解决方案

软件定义广域网（SD-WAN）是一种利用软件控制和管理企业网络连接的技术。SD-WAN可供新能源汽车厂家用于连接工厂、办公室、研发中心以及门店等多个地点的网络，实现网络的统一管理和优化。

1、全网SDWAN设计，统一管理，集中控制

软件定义广域网（SD-WAN）是一种利用软件控制和管理企业网络连接的技术。SD-WAN可供新能源汽车厂家用于连接工厂、办公室、研发中心以及门店等多个地点的网络，实现网络的统一管理和优化。

2、核心节点多方式HA配置，可靠稳健，重点突出

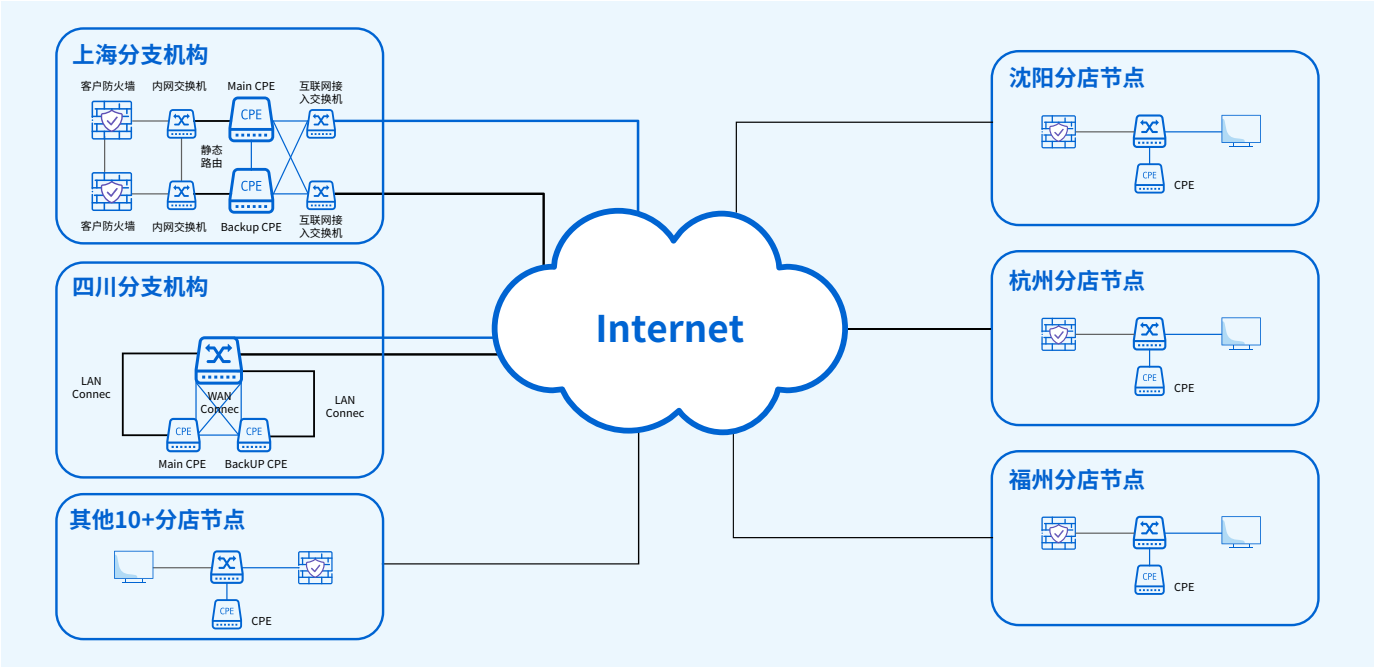
为增加鲁棒性系统生存能力和稳定性，均采用了国际顶级品牌的SD-WAN终端，在总部和核心门店均采用主备双活或者增强双活的HA配置，门店节点充分利旧。

3、全网采用云管理平台，集中管理，可视操作

太平洋电信集中云管平台和NOC可以实时监测企业网络连接状态、流量负载情况以及带宽利用率等指标，并提供实时报警和告警通知功能。

4、智能负载均衡，精准识别，各行其道

通过SD-WAN技术优化网络连接质量，提高网络连接速度和稳定性。同时基于应用程序、协议、服务等因素进行智能负载均衡，通过访问控制策略控制和DPI技术，区分公司经营业务和门店客户的互联网流量，做到精准区别和避免网络瓶颈和拥堵，保障网络数据和核心业务的安全性。



效果改善

一、在公司营运管理方面

提高门店运营效率

通过门店信息管理系统和客户关系管理系统的建立，门店之间可以共享信息和资源，消除信息孤岛，减少重复劳动，提高门店运营效率。

提供更优质的服务

通过在线预约系统和客户关系管理系统的建立，门店可以更好地了解客户需求，提供个性化服务，快速解决用户问题反馈，从而提升顾客满意度。

降低库存成本

通过物流配送系统的建立，门店之间可以互相调拨和配送，避免库存积压，降低库存成本。综上所述，全国门店联网方案能够有效地改善汽车门店的服务效率和提升顾客服务质量。

二、在网络服务方面

通过采用太平洋电信的SD-WAN网络服务，帮助该企业在多个门店之间实现高速、安全和可靠的数据传输，并提高互联互通效率。在改善4S店互联互通效果主要体现在以下几个方面：

增加网络可靠性

SD-WAN可以将多个物理链接组合成一个虚拟网络，从而提供更高的冗余和容错能力。这意味着，如果一个链接发生故障，其他链接可以继续提供服务，从而保证了4S店的网络连通性，减少了停机时间和损失。

网络降本增效提速

SD-WAN可以替代传统的MPLS网络，选择更加经济实惠的internet链路，大幅度降低网络运营成本，可以通过智能路由和流量优化算法，将应用程序和数据传输优化到最佳路径。这可以保证网络的稳定性、可靠性和延迟等关键指标的提高，为4S店提供更好的用户体验。本次项目，基于太平洋电信和基础运营商丰富的合作经验，该企业委托太平洋电信申请全国互联网上网线路，一站式管理全国网络资源，在降低了接入互联网的成本的同时，更是大大降低了新能源车厂IT的管理和维护的难度。

集中管理和控制

SD-WAN通过中央控制器来管理所有分支机构的网络连接。这使得网络管理人员能够更轻松地配置、监视和管理分支机构的网络设备和应用程序，从而降低了管理成本和网络管理员的配备和工作量。

网络安全

SD-WAN技术提供了全面的网络安全保障，包括强大的加密、身份验证、入侵检测和入侵防范等功能。4S店通过SD-WAN技术可以实现网络安全的可靠保护，以保障客户的隐私和数据安全。

业务连通性

SD-WAN技术支持多种连接类型，包括MPLS、VPN、云等。这意味着4S店可以实现多种业务之间的连通性，包括车辆销售、售后服务、财务管理等，从而提生整个公司业务连通性。

三、整体效果

经过前期的试点，该企业已经决定在2023年Q2对全部门店进行升级改造，这也为公司未来云化部署生成系统奠定了良好的网络基础。SDWAN改造为公司现有业务和未来云业务提供了更高效、更灵活和更安全的网络连接，从而为企业数字化转型奠定了良好的网络基础。

SD-WAN Business Case

A New Energy Vehicle Company

This company is a well-known new energy vehicle enterprise dedicated to creating a world-class brand of intelligent electric vehicles.

Case Background

As the number of 4S stores increased, the traditional network architecture could no longer meet the demands for secure, reliable, and efficient connectivity between stores and between stores and headquarters. A new network architecture was needed to optimize and manage communication between stores and headquarters. To improve the service efficiency of automotive stores, enhance after-sales upgrades and response rates, optimize customer service quality, and improve the rapid and timely response to service demands from all stores, the enterprise decided to optimize the existing network architecture connecting stores and headquarters. The company selected multiple network service providers to design a nationwide store networking solution, aiming to establish interconnectivity between all stores nationwide, enabling resource sharing and data exchange, and ultimately enhancing store management efficiency and customer service quality. After testing and comparing multiple network suppliers, the new energy vehicle company selected Pacific Telecom as the supplier for their store networking solution due to their superior price-performance ratio, excellent network quality, and attentive technical service.

Solutions

Software-defined wide area network (SD-WAN) is a technology that uses software to control and manage enterprise network connections. SD-WAN can be used by the new energy vehicle manufacturer to connect networks across multiple locations, including factories, offices, research and development centers, and stores, to achieve unified management and optimization of the network.

1.SD-WAN Design for the Entire Network, Unified Management, and Centralized Control

SD-WAN is a technology that uses software to control and manage enterprise network connections. It can be used by the new energy vehicle manufacturer to connect networks across multiple locations, including factories, offices, research and development centers, and stores, to achieve unified management and optimization of the network.

2.Multi-Mode HA Configuration for Core Nodes, Reliable and Robust with Emphasis on Key Points

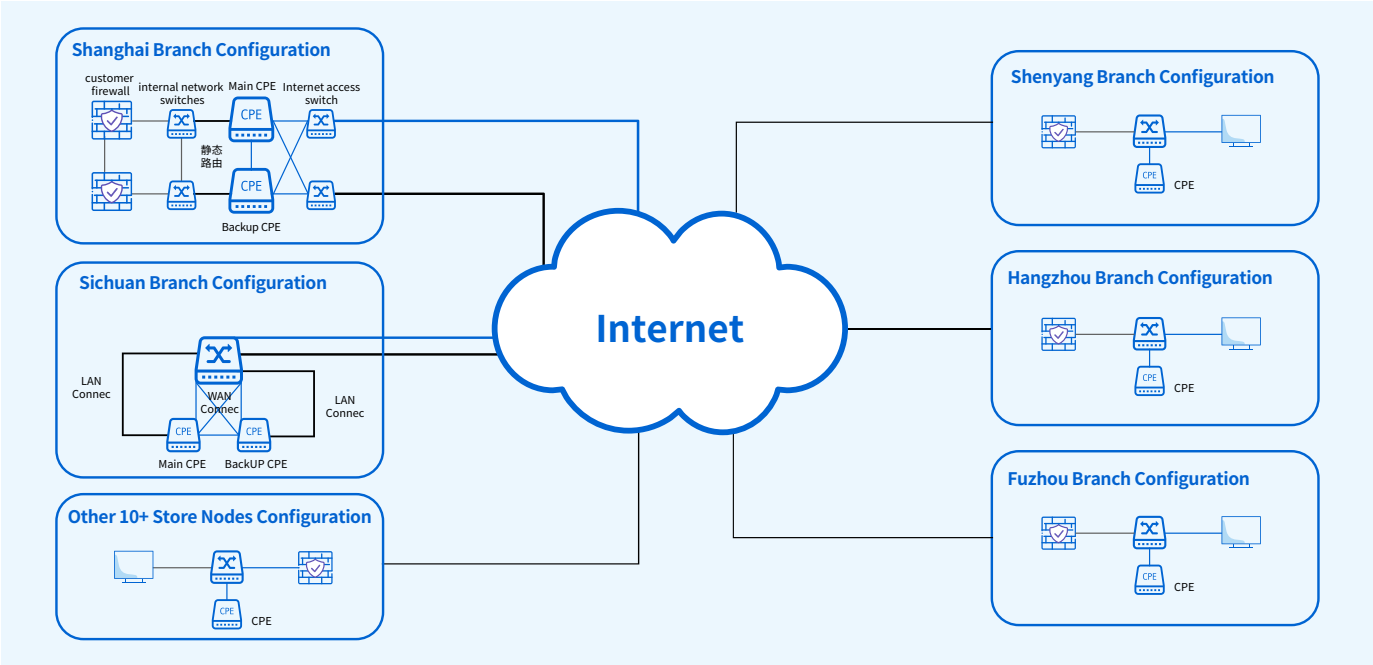
To increase the robustness and stability of the system, international top brands of SD-WAN terminals have been used for the new energy vehicle manufacturer. The main and backup active-active orenhanced active-active HA configuration is adopted at headquarters and core stores, while store nodes are fully utilized.

3.Cloud Management Platform for Network-wide Centralized Management and Visual Operations

The new energy vehicle manufacturer has adopted a cloud management platform for network-wide centralized management and visual operations. Pacific Telecom's central cloud management platform and NOC can monitor network connection status, traffic load, and bandwidth utilization in real-time while providing real-time alarm and notification functions.

4.Intelligent Load Balancing with Precise Identification for Efficient Traffic Management

SD-WAN technology has been used to optimize network connectivity quality, speed, and stability. Intelligent load balancing has also been implemented based on application programs, protocols, and services. Access control policies and DPI technology are used to distinguish between company operations and store customer internet traffic, ensuring precise identification and avoidance of network bottlenecks and congestion. This ensures the security of network data and core business operations.



Excellent result

1. Corporate Operations Management

mproved Store Operations Efficiency: The implementation of an information management system and customer relationship management system can facilitate the sharing of information and resources between stores, eliminate information silos, reduce repetitive work, and ultimately enhance the operational efficiency of the stores.

Provided better services: An online booking and customer relations management system are implemented to enhance customer understanding, deliver personalized services, and promptly address customer feedback, improving overall customer satisfaction.

Provided better services: An online booking and customer relations management system are implemented to enhance customer understanding, deliver personalized services, and promptly address customer feedback, improving overall customer satisfaction.

Reduced inventory costs: A logistics distribution system is implemented to allocate and distribute resources among stores, minimize inventory backlog, and reduce costs. In summary, the nationwide store network solution effectively enhances the customer service efficiency and quality of auto stores.

2. Network Services

Telstra PBS's SD-WAN network service is adopted for high-speed, secure, and reliable data transmission among stores, improving interconnection efficiency. The improvement in the interconnection between 4S stores is mainly embodied in the following aspects:

Increased Network Reliability: SD-WAN technology can combine multiple physical links into a virtual network, providing higher redundancy and fault tolerance. If a link fails, other links can continue to provide service, ensuring network connectivity for the 4S stores and reducing downtime and losses.

Network Cost Reduction and Increased Efficiency: SD-WAN can replace traditional MPLS networks by selecting more affordable internet links, significantly reducing network operating costs. By utilizing intelligent routing and traffic optimization algorithms, it can optimize application programs and data transmission to the best path.

This ensures the improvement of key indicators such as network stability, reliability, and latency, providing a better user experience for 4S stores.For this project, the enterprise has relied on PBS's extensive cooperation experience with basic telecom operators to apply for national Internet access lines. This one-stop management of national network resources not only reduces the cost of internet access but also simplifies the management and maintenance of IT in new energy vehicle factories.

Centralized management and control: SD-WAN uses a central control hub to manage network connections for all branch offices. This allows network administrators to easily configure, monitor, and manage network devices and applications at branch offices, ultimately reducing management costs and the workload of network administrators.

Network Security: SD-WAN technology provides comprehensive network security, including powerful encryption, identity authentication, intrusion detection and prevention, and other functions. 4S stores can achieve reliable protection of network security through SD-WAN technology, ensuring customer privacy and data security.

Business Connectivity: SD-WAN technology supports multiple connection types, including MPLS, VPN, and cloud. This means that 4S stores can achieve connectivity between various businesses, including vehicle sales, after-sales service, and financial management, thereby improving the overall business connectivity of the company.

3.Overall Results

After the pilot phase, the enterprise has decided to upgrade and renovate all stores in Q2 of 2023, which will establish a solid network foundation for the company's future cloud deployment. The SD-WAN transformation provides a more efficient, flexible, and secure network connection for the company's existing and future cloud businesses, laying a solid network foundation for the enterprise's digital transformation.

一中心多节点混合云组网客户案例
某生命科学领域公司

客户的业务场景

生命科学领域自21世纪初以来迅猛发展，该公司的多种高科技核心服务，需要大量的核心数据处理平台、敏捷的网络传输、业务不可间断。

客户痛点

1.高存储需求：

生物技术高速发展的同时，数据的存储、分析成为生命科学研究的关键需求。一个完整的基因测序样本会产生千万量级的文件，据了解，目前一台先进的测序仪、分析仪等设备每天捕捉的测序数据平均水平已达到4TB，加之基因信息分析过程一般会产生原始数据量5倍左右的中间文件及结果，因此PB级别存储空间已经成为存储设备的基本要求。

2.高可靠性需求：

检测数据通常需要长期保存多年，通过合理的生命周期管理系统进行归档保留，数据的自动化迁移归档、数据的安全性、存储的易扩展性是数据归档存储考虑的重要因素。

3.高实时性传输需求：

基因测序访问实时性要求高。基因测序过程是一个超高并发的文件转换过程，整个生产过程有非常密集的文件读取和写入，必须在有限的时间内完成海量小文件的导入。

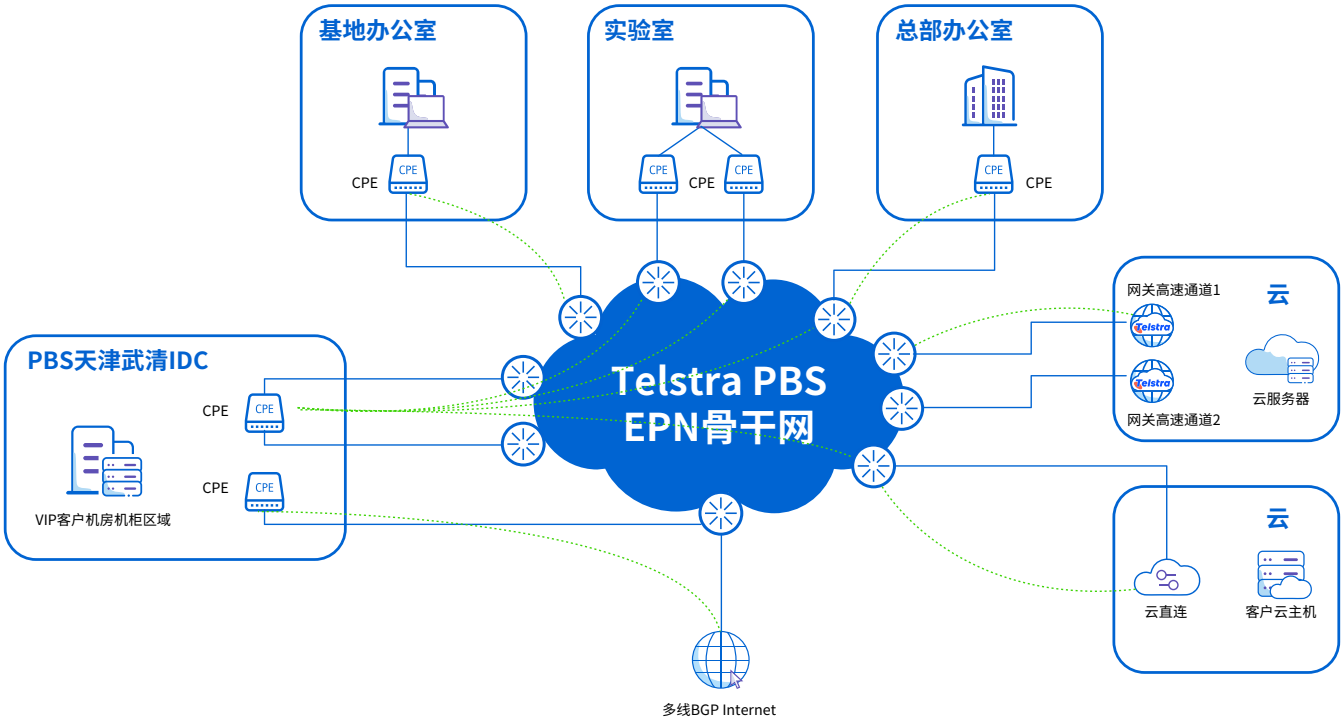
基于业务需求，客户需要：

1.多地的核心实验业务大数据中心，以及大数据中心的高品质互联网出口需求，需要高品质和满足资源不断扩容的专业数据中心，不断增加的机柜空间需求也要求有很好的成本控制，需要专业的数据中心维护服务；

2.数据中心和云平台的混合组网的互联互通；

3.国内外多个办公节点的数据传输。

客户网络示意图：



为客户提供的综合、高品质解决方案和服务

包括以下内容：

1.多区域距离客户最近的专业、高品质数据中心，不可中断的数据中心服务；

2.高品质连接云平台的云直连专线，不暴露在公网的安全的、不中断的连接；

3.运营商级别的低延时、高带宽的BGP多出口互联网服务，实现智能和高速连接；

4.不同运营商的多线接入实现主备方案，实现99.99%不间断服务；

5.多种资源、多种产品、以及云资源的一站可视化平台；

6.一站式7*24小时的网络服务保障，无需对接复杂的网络架构服务人员。

和客户一起实现：

1.太平洋电信自有高品质T3+天津数据中心作为大数据基地，100%保障了客户核心业务数据生产平台的运营，高品质硬件和优质服务体系保障客户业务不间断；专业的数据服务能力为客户统一提供多地数据中心服务和统一运维管理；

2.太平洋电信的BGP智能互联网出口将生产平台，满足对多运营商互联网资源的需求，无需复杂的多运营带宽资源应用和管理；

3.太平洋电信数据节点到云的超10G的直连专线接入能力；

4.太平洋电信EPN（SDN技术）的核心骨干支持客户的大容量带宽需求，利用SDN实现客户对带宽的灵活调度；

5.太平洋电信的网络服务可视化平台，让客户不可见的网络可视化，轻松通过平台总览网络整体情况、使用流量、设备性能等指标化管理；

6.太平洋电信的VIP客户经理的一对一服务，大大提升了服务品质和服务沟通效率；VIP客户经理对网络情况给予报告、建议的主动服务，提高了网络管理效率，实现了网络不断优化的要求。

Hybrid Cloud Network Business Case
A life sciences company

Customer business scenario:

The life sciences field has been rapidly developing since the early 21st century, and the customer's various high-tech core services require a large amount of core data processing platforms, agile network transmission, and uninterrupted business operations.

Customer Challenges

1.High storage demand:
With the rapid development of biotechnology, data storage and analysis have become critical requirements for life science research. A complete genetic sequencing sample can produce millions of files, and it is currently estimated that an advanced sequencer or analyzer captures an average of 4TB of sequencing data per day. In addition, the gene information analysis process usually produces intermediate files and results that are about five times the size of the original data, so PB-level storage space has become a basic requirement for storage devices.

2.High-reliability demand:
Detection data usually needs to be stored for many years and archived through a reasonable lifecycle management system. The automation of data migration and archiving, data security, and the scalability of storage are important factors to consider for data archiving and storage.

3.High real-time transmission demand:
Real-time access to genetic sequencing is critical. The genetic sequencing process is a highly concurrent file conversion process, with very intensive file reading and writing throughout the production process. It is necessary to import a massive number of small files within a limited time frame.

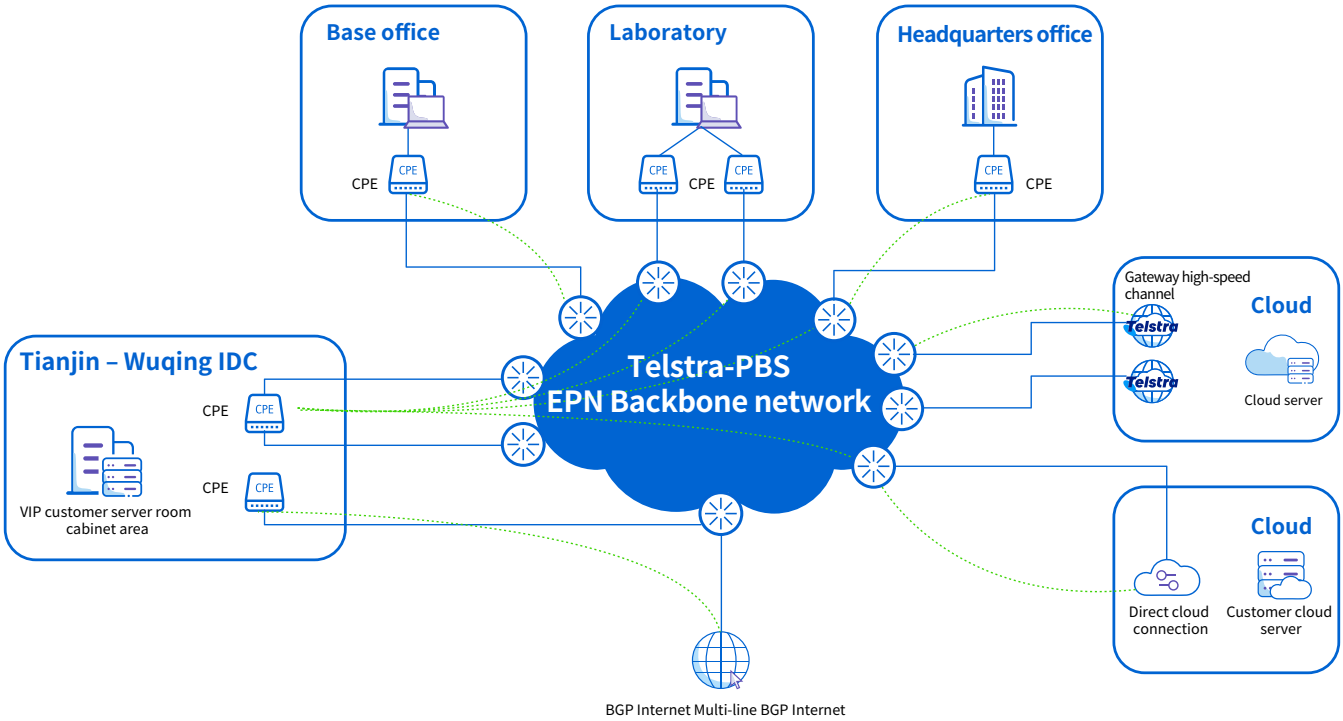
Based on their business needs, the customer requires:

1.Professional data centers with high-quality internet export and the ability to continuously expand resources to accommodate their core experimental big data centers in multiple locations. The increasing demand for rack space also requires good cost control and professional data center maintenance services.

2.Interconnectivity between their data center and cloud platform via a hybrid networking approach.

3.Data transmission between multiple office nodes both domestically and internationally.

Customer network diagram:



The comprehensive and high-quality solutions and services provided to customers include the following:

1.Professional and high-quality data centers located in multiple regions that are closest to the customers. These data centers provide uninterrupted services and ensure reliable access to customer data.

2.Secure and uninterrupted connectivity to cloud platforms through high-quality cloud direct connection lines that are not exposed to public networks.

3.Carrier-level, low-latency, and high-bandwidth BGP multi-exit internet services that enable intelligent and high-speed connectivity, ensuring efficient data transfer and access.

4.Multiple-line access from different carriers to implement primary and backup plans, providing 99.99% uninterrupted service, and ensuring business continuity.

5.A one-stop visualization platform for various resources, products, and cloud resources, streamlining operations and facilitating resource management.

6.comprehensive 24/7 network service guarantee that eliminates the need for complex network architecture service personnel to interface with, providing efficient and responsive support.

Working together and achieve the following:

1.Telstra PBS is a high-quality T3+ data center located in Tianjin, serving as a big data center, provides a 100% guarantee of uninterrupted operation for our customers' core business data production platforms. Our high-quality hardware and service system ensures the continuity of ourcustomer' s business operations. Our professional data service capabilities provide customers with unified multi-site data center services and unified operation and maintenance management.

2.Telstra PBS' s BGP intelligent internet export meets the demand for multi-carrier internet resources, eliminating the need for complex management and application of multiple carrier bandwidth resources.

3.Telstra PBS' s super 10G direct connection line capability from data nodes to the cloud.

4.Telstra PBS' s EPN (SDN technology) core backbone supports customers' high-capacity bandwidth requirements. SDN technology enables customers to flexibly schedule bandwidth.

5.Telstra PBS's network service visualization platform provides customers with a visible network, enabling customers to easily manage their network's overall situation, usage flow, device performance, and other index-based management.

6.Telstra PBS' s VIP customer manager provides one-on-one service to greatly enhance service quality and communication efficiency. VIP customer managers proactively report on network situations and provide suggestions, improving network management efficiency and achieving continuous optimization of the network.

HeadSpin 客户案例
某大型跨境时尚服装电商

HeadSpin (“HS”) 是专为手机APP提供领先的数字化体验 AI 平台，帮助客户优化用户体验和缩短产品的上市时间。HS 平台全球范围内提供云端真机设备以做到端对端的测试，而无需依赖任何软件开发工具套件(SDK)。HS平台算法会自动发现应用程序中存在的问题，还包括分析问题的根本所在并同时提出更好体验的建议，以帮助客户确保跨移动、网络、音频和视频交付最佳的用户体验。

客户痛点

1.网店在国外张速度快，无固定驻场IT，APP测试排障困难。
2.设备及人力资源投资大，一次性投入成本费用高。

解决方案

跨境电商可以利用HS在全球指定的国家或地区全方位监测APP性能，同时能够快速识别潜在问题并采取措施改进APP。事实证明，HS可以给跨境电商公司带来便利有效的测试环境、精准的数据分析，达至更好的用户体验、提高用家保留率，节省成本并增加收入。

1.在现实世界条件中进行发布前的测试

HS可安排人手及设备让开发者可透过网络浏览器远程控制遍布150多个地点连接高达22000的设备，测试APP的承载能力。同时可测试不同类型生物识别，如：指纹识别及面容ID (IOS及Android)，让客户有更住的体验。

2.测试和监测应用程序内交易的性能

APP内的购买流程性能可能会影响或破坏用户体验，从而对收入造成极大影响。HS允许开发者测试和监测应用程序内不同类型的购买形式(信用卡、礼品卡、Apple Pay、PayPal、电信网络账单等)。

3.了解广告活动的性能

可以让开发者看到APP内广告活动的性能，并了解这些广告对用户保留率和参与度的影响。

HeadSpin Business Case

A large cross-border fashion e-commerce company

HeadSpin ("HS") is a leading AI platform that provides digital experiences for mobile apps, helping customers optimize the user experience and shorten product launch times. The HS platform offers cloud-based real devices for end-to-end testing worldwide, without relying on any software development toolkits (SDKs). The HS platform algorithm automatically detects issues in the application and analyzes the root cause while providing recommendations for a better experience, helping customers ensure the best user experience across mobile, network, audio, and video delivery.

Customer Challenges

1.Difficulties in APP testing and troubleshooting due to the lack of fixed on-site IT support overseas.

2.Equipment and human resources are high which requires a large one-time capital investment.

Solutions

Cross-border e-commerce companies can leverage HS's global network of designated countries or regions to monitor their APP's performance comprehensively. At the same time, HS can quickly identify potential issues and take measures to improve the APP. HS has been proven to bring convenience and effective testing environments, accurate data analysis, better user experience, improved customer retention rates, cost savings, and increased revenue to cross-border e-commerce companies.

1.Pre-Release Testing in Real-World Conditions

HS provides a solution for pre-release testing under real-world conditions. HS can deploy personnel and devices, allowing developers to remotely control over 22,000 devices connected across more than 150 locations via a web browser to test the performance and load capacity of their APP. Additionally, HS can test different types of biometric authentication, such as fingerprint recognition and facial ID (iOS and Android), to ensure a better user experience for customers.

2.Testing and Monitoring Performance of In-App Transactions

The performance of the purchasing process within the APP can significantly impact user experience and revenue. HS enables developers to test and monitor different types of in-app purchases (credit cards, gift cards, Apple Pay, PayPal, telecom network bills, etc.) to ensure optimal performance.

3.Understanding the Performance of Advertising Campaigns

Developers can gain insights into the performance of in-app advertising campaigns and their impact on user retention and engagement through HS.

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