



Situation

Founded in July 1999, Sichuan Mobile Communications is the largest mobile communications operator in western China with a total of over 8 million GSM subscribers. Sichuan Mobile Communications is one of 21 wholly-owned subsidiaries of China Mobile Communications Corporation. China Mobile is the country's largest mobile communications operator. Claiming a total of 177 million mobile phone subscribers in 2003, 120,800 employees, over 320 billion RMB yuan (approx. 40 billion US) in assets, and is listed on the Hong Kong and New York Stock Exchanges (NYSE: CHL).

Sichuan Mobile operates multiple mission and custom-critical servers and systems for sales, operations and daily maintenance tasks. These include BOSS (Business Operation Support System), OA (Office Automation), MIS (Management Information System), NMS (Network Management System) and more. Most of these systems come from different vendors including Motorola, Siemens, Ericsson and Nokia.

Sichuan Mobile had several challenges as follows:

- 1) Different systems have their own methods for user authentication, authorization and management. With numerous operational systems deployed, it is difficult to ensure network security across distributed user accounts. As such, a centralized and easy-to-manage AAAA (Account, Authentication, Authorization, and Auditing) platform was needed to improve overall network security and simplify the IT department's ability to keep user accounts valid and up-to-date.
- 2) Onsite vendor support engineers need network privileges that allow them to manage and debug their systems, without access into confidential internal resources. Thus, a management platform was needed with flexible user authorization features based on access to storage devices, group, time and other credentials.
- 3) Stronger authentication methods were needed to provide tighter control when users accessed the internal network. USB key, RSA tokens, 802.1X, EAP, two-factor and dynamic one time passwords (OTP) needed to be easily implemented using the management platform. And the capability to work with multiple vendors' network devices, ranging from core switch, router, firewall, wireless AP and VPN was required.

Sichuan Mobile also needed a management platform to provide internal audit features to satisfy Sarbanes-Oxley (SOX) requirements.

Solution

Sichuan Mobile deployed A10 Networks' IDsentrie identity management appliance to meet the user management needs for its Office Automation system. By using IDsentrie's authenticated DHCP feature, a quarantine IP address is assigned to wireless users first, separating them from the internal network until successful authentication. Leveraging IDsentrie's IP-to-ID technology, Sichuan Mobile records the user identity information for IP addresses - which is saved for any future forensic network tracking.

Situation

Sichuan Mobile needed a centralized, flexible, robust and secure management platform to meet its AAAA requirements, dealing with various types of network devices and internal user groups with different roles.

Solution

Sichuan Mobile implemented A10 Networks' IDsentrie identity management appliance, which includes high availability features for a robust and flexible solution.

Success

- Resolves IP and MAC addresses to user identity instantly with IP-to-ID technology
- Provides two-factor and dynamic user passwords with SMS, and can be used with 802.1X or EAP, etc.
- Reduces security risks by implementing authenticated DHCP
- Simplifies procedures to identify different roles for internal groups and assigns corresponding network privileges
- Centralizes AAAA services for devices ranging from core switches, routers, VPNs etc.



Sichuan Mobile Web Portal with Chinese Language Localization

Additionally, IDSentry's User Self Help Portal was integrated with a feature to support dynamic OTP passwords. PPPOE is used for all off-campus users and leverages a dynamic password feature - whereby with one click, a user can get his/her new password sent to his/her cell phone in text message format. Since Sichuan Mobile has its own SMS gateway, this greatly reduced operational costs while increasing the security level at the same time.

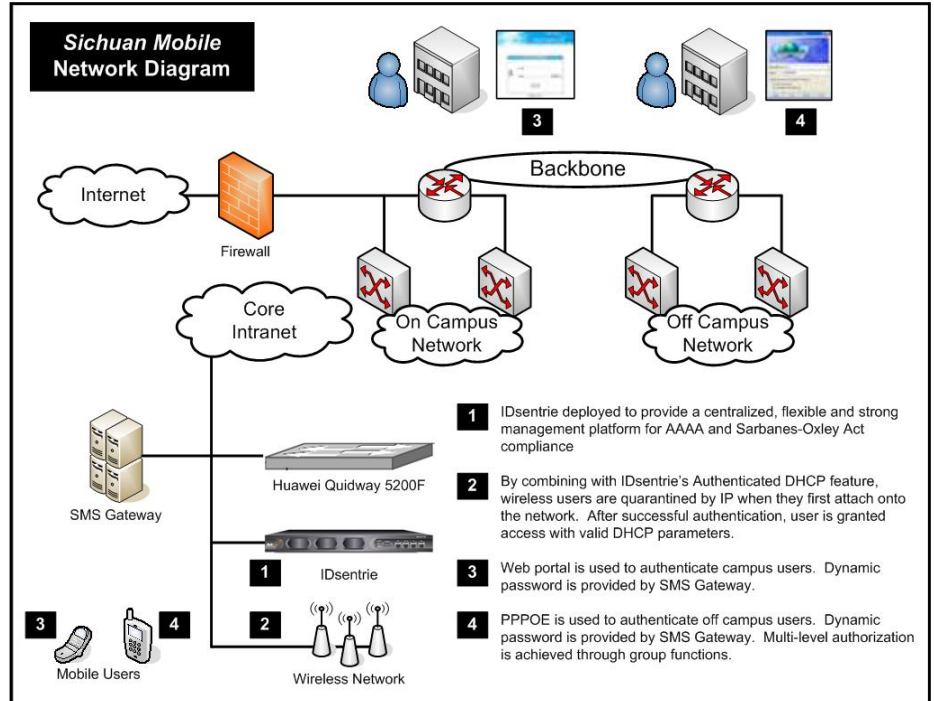
IDSentry also provides the flexibility to assign network privileges based on users or groups, making it easier to differentiate onsite vendor-support engineers, visitors and full-privileged internal user groups.

Success

Sichuan Mobile is now able to provide strong authentication and access control into the network from wireless environments to and from their Office Automation system. It has centralized access policies to provide complete access control for critical departments and increased security with dynamic and OTP passwords. The User Self Help portal has simplified end user support and is easy to use, while PPPOE support provides easy access for off-campus users.

IDSentry is now providing central authentication for up to 6 Huawei Quidway 5200F Broadband Access Servers with hundreds of user accounts. Dynamic passwords provided through integration with Sichuan Mobile's existing SMS gateway have greatly reduced operational costs.

Sichuan Mobile can now quickly identify users involved in a security attack or network alert so that immediate action can be taken before more damage is done. IDSentry has also made it much easier to deploy multi-leveled network privileges based on users or groups.



About A10 Networks

A10 Networks was founded in 2004 with a mission to provide innovative networking and security solutions. A10 Networks makes high-performance products that help organizations accelerate, optimize and secure their applications. A10 Networks is a venture-funded, privately-held, Silicon Valley-based technology company. For more information, visit <http://www.a10networks.com>.