Allot Helps China Unicom Create New Revenue Streams with Local Enterprises' IoT Services

About China Unicom

China Unicom, the country's third largest mobile carrier, boasts a total of 170 million subscribers, 28 million of whom are in the Guandong Province. Operating a 2G/3G/4G LTE network, China Unicom offers legacy services including voice, instant messaging, and mobile payments, as well as a separate OTT Internet service provided by Tencent for higher bandwidth applications such as WhatsApp and Skype.

Challenge

China Unicom was looking to harness the power of IoT to slash the huge expense being incurred by the Chinese Southern Power Grid Company as they sent employees to collect electricity consumption data across its 33 million homes in Gaundong Province. By integrating low-cost China Unicom SIM cards into customer electricity meters, the China Southern Power Grid Company could, in a matter of seconds, transmit electricity consumption data to their back-end server using minimal bandwidth. The Southern Power Grid Company would save significant OPEX while China Unicom could sell plenty of IoT SIMs. This solution worked until the Southern Power Grid Company found that it was possible to extract the SIMs from the meters and insert them into other devices, such as tablets, to enjoy high bandwidth applications. At great expense to China Unicom, the IoT SIMs that they would supply at around 5-6 Cents per month were vulnerable to being used to deliver the kind of mobile Internet connectivity for which they would normally charge $5-10 US per month. China Unicom needed a solution that did not require many man-hours of integrating the Southern Power Grid Company's control portal with other network resources.

Vertical | Service Provider

Industry | Mobile Network

Region | APAC (China)

Solution | IoT Security

Challenge

o   Capitalize on need for IoT security

o   Keep man-hours and integration costs low

o   Prevent IoT SIM abuse by customers

Solution

IoTSecure allowed China Unicom (CU) to monitor and control the use of SIM cards that were implemented to gather electricity consumption data to save man-hours. CU also used our Behavior Control technology to optimize gas meters and PoS machnes across Guandong province.

Benefits

o   Secure enterprise customer IoT deployments

o   Manage massive scale operations with IoT-aware visibility and AI driven analytics

o   Maintain granular control over every device on network

o   Protect CSP infrastructures from IoT-based attacks

Solution

Using Allot's IoTSecure solution, China Unicom could perform machine-to-machine (M2M) traffic Behavior Control by applying policies specifically to the IoT SIMs located in Power Grid's electricity meters. They could restrict the websites and applications with which each SIM could communicate to ensure that consumer SIMs operated in compliance with their original IoT mandate.

China Unicom also developed and integrated a customized portal for the Southern Power Grid Company to:

o   Monitor each SIM's behavior

o   Perform usage analytics

o   Send alerts about any usage anomalies

Thanks to Allot's IoTSecure solution, China Unicom is helping the Southern Power Grid Company to realize the full cost savings potential from its electricity meters across Guandong Province.

Benefits

For China Unicom, creating new revenue streams in a legacy market was just the beginning. Following its assistance to the Southern Power Grid Company, China Unicom has grown its business by applying Allot's Behavior Control technology to other IoT use cases including gas meters and Point-of-Sale (PoS) machines across Guandong province. By again applying Allot's Behavior Policies in an IoT environment, China Unicom could ensure store PoS machines would only send transaction data to designated servers, limit the amount of traffic used by each PoS, and identify misbehaving devices.

Resources

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About IoT Infrastructure Protection

Frost & Sullivan IoT Security Whitepaper

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