

Integrating WiFi and IN services at DST Telecom

Introduction

Formed in October 2000, DataStream Technology Sdn Bhd (DST) is one of the success stories that emerged after the government's call for the privatization of the communication services in Brunei Darussalam. DST is the first private licensed Internet Service Provider in Brunei Darussalam. DST Multimedia offers postpaid accounts (Pay As You Surf), prepaid cards (Surfkad), and leased line Internet access services. DST Multimedia is also responsible for web-based customer service management for the DST Group of companies.

Business Challenge

The need of the hour was to provide a solution for the deployment of Wi-Fi hotspot services integrated with DST's existing telecom infrastructure. This would enable DST to offer WiFi service to its existing mobile phone customers without having to go through the hassles of duplicate databases, and potentially increase the average revenue per user (ARPU) from the WiFi service offering at the same time. Pronto's public WLAN solution, i.e. the Pronto UniFi OSS offering served as a vital component to meet this challenge.

Pronto's technology is backed by years of experience in deploying and operating high-tech up-to-date wireless networks across the world - from small hotspots in cafes and hotels and enterprise campuses, to municipal hot-zones that covers entire cities. Pronto's UniFi OSS solution matched DST's existing telecom infrastructure to offer WiFi service to DST's existing and new customers.

The UniFi OSS is a carrier-grade software solution for deploying, provisioning and managing large scale, public WLAN networks. The wireless network solution provides the option to deploy Wi-Fi services for both, hotspot users as a new setup and for existing dial-up users on their existing accounts. The UniFi OSS solution offers Quality of Service (QoS) controls for prioritizing various classes of users.

The offering is integrated with DST's existing authentication (AAA) servers, billing systems, and DST's SMS Gateway to provide simultaneous WiFi access services on the DST network.

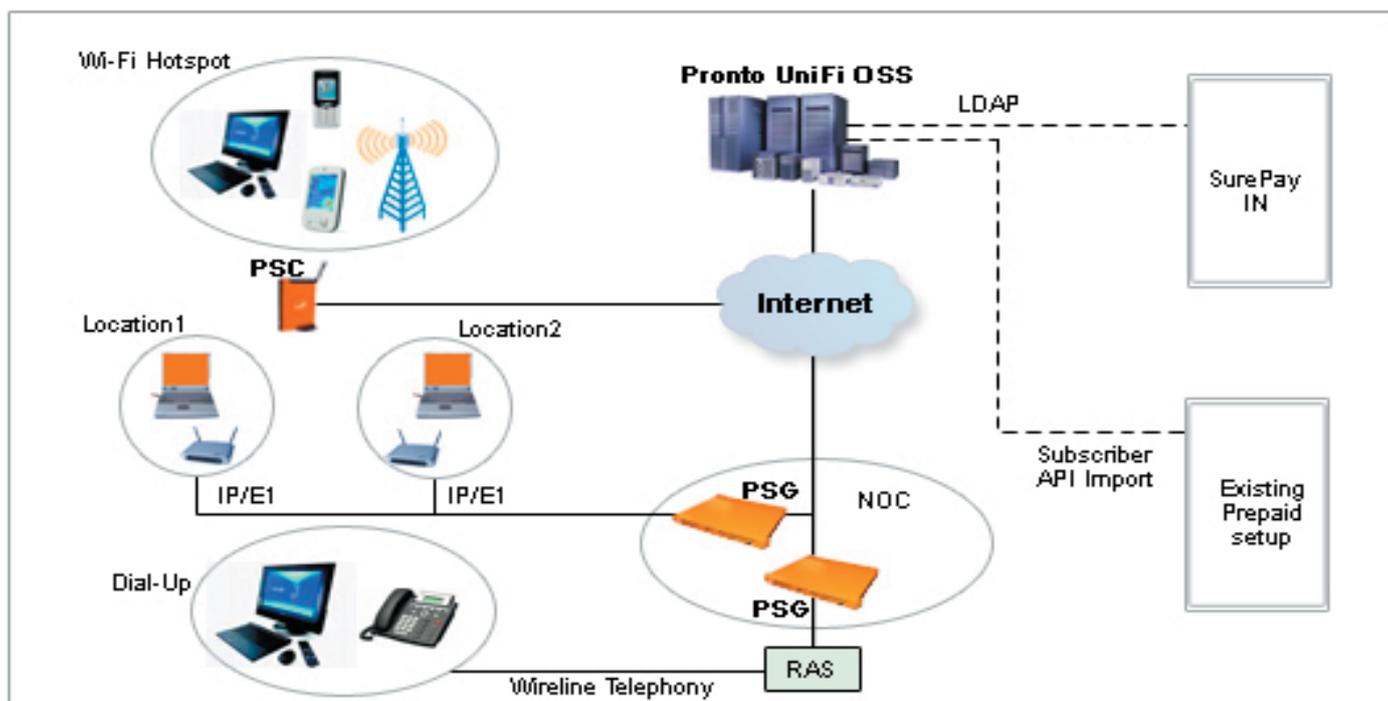
Business Solution

End - User Scenario

DST's users purchase prepaid cards for the mobile network usage, and the mobile service provider generates a secret PIN number for that mobile user. When the customer tries to access Internet, he registers at the Pronto registration portal by entering the mobile number and PIN number. An SMS is sent on the users mobile phone with an authentication confirmation code.

The user then enters this confirmation code in the registration portal to complete registration process. Once registered, the user can use the credit in the mobile phone to browse using the Wi-Fi and Dialup based access methods.

DST deploys multiple hotspots in many locations across Brunei. Each of these hotspot locations are served by a Pronto Service Controller (PSC) installed at these locations. The PSC routes all the traffic from the hotspot to the Inter-



net. The UniFi OSS is installed at a central location. Traffic from Internet sites is routed directly to the hotspot users, and is not routed through the Pronto OSS. The Pronto OSS only sees the authentication, accounting, and network management traffic from the hotspots.



The OSS sends all the AAA traffic from the users to Lucent's Surepay server (which is a part of the DST's existing IN setup) to authenticate the DST users connecting from any location.

Important Tasks Performed by Pronto in this scenario

- i. Registration portal for mobile number registration
- ii. Integration of registration module with SMS gateway
- iii. Integration with Lucent's SurePay Payment Gateway
- iv. Implementation of authentication module that will use credit reserve and debit facility
- v. Renewal of credit without user disconnection when in session

Solution Highlights

- Full-featured OSS/BSS for AAA, billing and network management
- Plug-n-play access device for easy deployment
- Ability to tier billing and customer service offerings for wholesale and retail customers

- Customizable splash screens per hotspot location
- Quality of Service (QoS) controls for prioritizing various classes of users
- Roaming agreements with major aggregators and settlement and reconciliation functions
- Ability to integrate with 3rd party access points
- Advanced WLAN security features
- 24X7 Customer Support

Solution Benefits/ Main Features

- **Registration Portal Integration with SMS Gateway of DST:** Pronto integrates DST's SMS gateway with the UniFi OSS to send an SMS authentication code to the end-user on registration.
- **GUI Development for DST to Import Files Containing Numbers that are barred from this Service:** Pronto Networks has developed a GUI for DST in order to allow them to import the files containing the numbers that are not presently allowed for access to Wi-Fi services.
- **Integration with Surepay Payment Gateway:** Pronto UniFi OSS is integrated with the existing Surepay system of DST. This ensures billing the existing prepaid card users for WiFi access.
- **Import of Prepaid Cards:** The UniFi OSS allows import of existing prepaid cards being used by DST in the network.

Summary

By utilizing the sophisticated back office functionality of the Pronto OSS and integration in tandem with Lucent's SurePay payment gateway, DST is able to provide secure Wi-Fi access to its existing and new customers, eliminating the cost of additional physical infrastructure.



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