

## Case Study



**SpiriTel** – listed on the London Stock Exchange, with 30 years of experience, supplier of traditional and IP-based DSL (WLR) and WiFi services delivering efficient and cost-effective communication products to approx. 4.000 businesses.

[www.spiritelplc.com](http://www.spiritelplc.com)

### General benefits from using Verax AAA Manager:

**Easy and unified management** of multiple AAA servers from various vendors via a uniform, intuitive, rich graphical user interface.

**Real-time monitoring of user activity on AAA servers** via rich visual reports such as server statistics, concurrent sessions, NAS usage and others.

**Simplified and streamlined** management of AAA services, minimizing errors and fallout, reducing customer churn.

**Increased operational efficiency** of user and service activation on AAA servers.

**Open for SOA integration** with third party systems and/or EAI bus.

**Carrier-grade** solution with 99.999% reliability rating.



**The implementation of Verax AAA Manager led to increased efficiency and reduced errors of the user provisioning process. It also enabled accurate network usage reporting and AAA server activity monitoring.**

## Improving provisioning and network usage reporting at SpiriTel with the Verax AAA Manager

### INTRODUCTION

Verax Systems is a global provider of telecommunications software allowing communication service providers (CSPs) to retain ARPU, prevent churn and generate additional revenue streams with rapid development of new telco services.

Verax AAA Manager is an application providing an intuitive, graphical user interface and SOA-enabled provisioning services for the management of AAA (Authorization, Authentication and Accounting) servers such as Radius, Diameter and others.

### BUSINESS RATIONALE

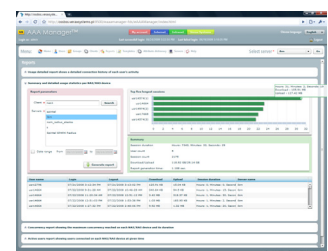
SpiriTel lease lines from a tier-1 operator and are charged for a combination of bandwidth (fixed fee) and generated traffic (variable fee). Therefore, the first business objective was to verify if the bills from the provider match the actual usage.

The actual usage statistics are also important for network planning (who are the most demanding users, what is the bandwidth usage, where to increase network capacity) and can provide rudimentary input for network policy enforcement.

### REQUIREMENTS

The following requirements were identified by SpiriTel:

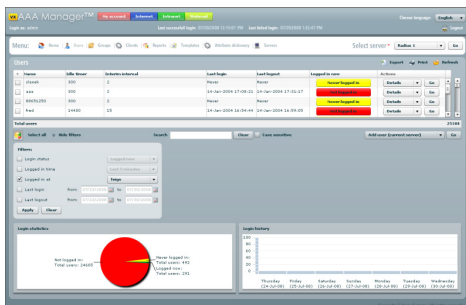
- Provide *business intelligence* information related to data transfers and sessions on particular NAS devices in order to provide input for business decisions.
- Provide a graphical tool to view and modify the content of AAA servers database in an easy way.
- Enable transactional provisioning on multiple AAA servers (e.g. primary and secondary ones).
- Enable template-based provisioning in order to ensure that the AAA user accounts created have proper attributes and values.
- Decrease time and reduce number of errors in the provisioning process.
- An open interface between AAA services and external applications, such as CRM for easy integration in the future.



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## DEPLOYMENT

The installation of the software was performed by Verax Systems using a VPN connection. The VPN is also being used for support services. The operating environment to run the AAA Manager comprised CentOS Linux, Apache Tomcat and MySQL, with a migration path option to Oracle in the future.



## CONFIGURATION

Once the installation was completed, the following elements were configured by Verax Systems:

- User accounts and privileges.
- Managed AAA server list.
- The attribute dictionary was populated by importing relevant data such as Nomadix Radius attributes (most of the attributes were simply imported as Radius RB files).
- Creation of attribute templates containing hierarchical attribute sets for provisioning DSL, WiFi or CISCO PIX and other types of users.

## ENHANCEMENTS

Minor enhancements were made to the product in the area of bandwidth report generation in order to fully meet SpiriTel requirements. All of the enhancements were rolled into the standard product in order to avoid additional costs of support of custom software

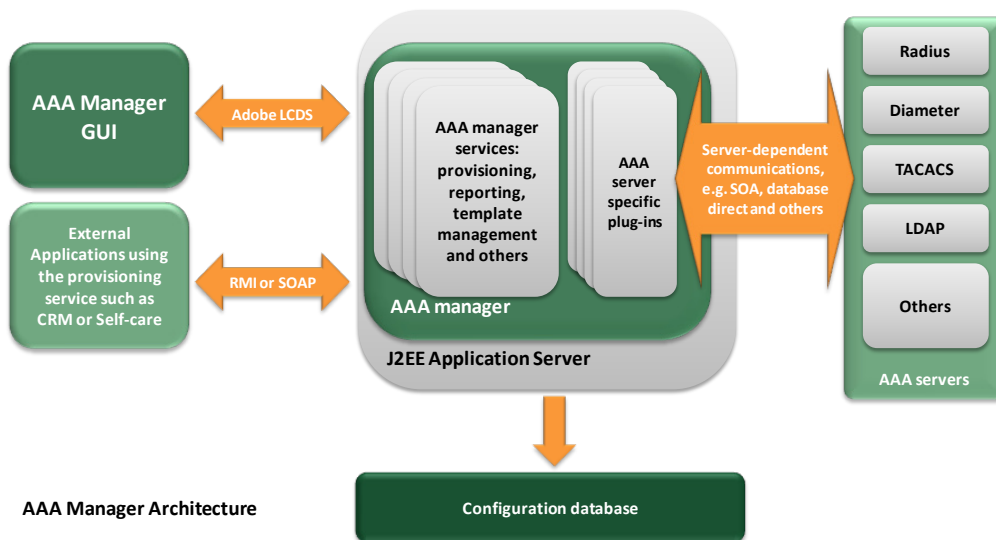
## RESULTS

The implementation of Verax AAA Manager resulted in:

- Reduction of device and subscriber provisioning errors.
- Fewer problems detected meaning reduction of resolution costs and increasing customer satisfaction.
- Providing of business intelligence required for network dimensioning settlements with other operators.
- Easy-to-use GUI to manage all the AAA servers.

## SUMMARY

The implementation of Verax AAA Manager fully met all SpiriTel requirements. The reports generated by the AAA manager ensure accurate verification of bills. Automated provisioning significantly reduced the number of errors in the process.



Verax Systems is a software house and a consultancy & solution provider specializing in advanced and innovative IT solutions for the telecommunications, banking and enterprise markets. Since its incorporation, Verax Systems has successfully provided services and delivered numerous projects on five continents.

### Worldwide offices

- Plano, TX (U.S.A.)
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