

Leading Billing Solutions Provider Integrates RAD-Series RADIUS Server

When a global supplier of integrated billing and customer care services needed a flexible and scalable RADIUS AAA (Authentication, Authorization and Accounting) solution to integrate with their services platform, they turned to Interlink Networks. The billing company serves top companies in the telecommunications, Internet, financial services, and other industries worldwide. Their billing software produces more than 1 million individual invoices daily and supports more than 100 million service subscribers.

The billing company's Internet billing solution supports the needs of next-generation service providers delivering high-value services and applications. The solution requirements were to offer service providers *completely flexible and scalable billing platforms* providing either wholesale or retail billing and customer care services. Interlink Networks provided the necessary AAA infrastructure software, tools, and support services necessary to accomplish this goal.

Application Description

The requirements for the AAA component of the solution combined high performance with the need for customization. The billing solution delivered rating and billing functions in real-time, requiring high and reliable AAA transaction rates. The role of the RADIUS server was to authenticate access and track and evaluate usage of service provider users.

The requirements were to control and support 300,000 simultaneous sessions and use the reporting capabilities to generate detailed account activity reports for billing for IP services, including Internet access, VoIP, DSL and data services. The billing company required a RADIUS server that had a solid, robust platform capable of high transaction rates that could be configured to meet their complex billing system requirements.

Solution

The billing company purchased Interlink Networks' RAD-Series RADIUS Server, which features very high performance and scalability, and the optional Software Developer's Kit (SDK) to develop custom server plug-ins to meet their specific requirements. The RAD-Series authorizes and manages multiple methods of network access; authenticating users upon login, checking account balances, controlling simultaneous sessions, and collecting session log data for accounting and usage tracking.

Utilizing the SDK, the billing company developed custom plug-in modules that:

- Authenticate against multiple Oracle databases by mapping user attributes to internal variables.

- Track and analyze customer usage patterns to determine trends or high-risk scenarios. This was done by recording the session data and writing it to a database that is then analyzed for trends.
- Perform standard and ad-hoc reporting, such as routing accounting information to different client companies and databases.

Plug-in modules can be coded, configured, and compiled – without the need for access to the RAD-Series server source code. The result is a shared module which is loaded by the RADIUS server at runtime. Custom plug-ins can modify authentication and authorization processes, modify incoming and outgoing packets, call any external AAA services, and conduct specific account logging activities.

The most important benefits that RAD-Series Server provided in this application were customization and superior performance. Flexibility is designed into RAD-Series Server. The foundation of the server is based on open, modular, object-oriented architecture, which significantly reduces the costs of developing, maintaining, and upgrading the network access system. The SDK provided the billing company with all the tools they needed to add their specific functional requirements to this modular architecture.

High performance is also a key attribute of the RAD-Series Server, based on a decade of developing RADIUS solutions for carrier customers who require high and sustainable AAA transaction rates. The RAD-Series offers unprecedented flexibility and customization with the use of the SDK, and can scale from thousands to millions of transactions with ease.

Conclusion

Carrier class, highly customizable, and standards-based, those were the simple but demanding requirements met by the RAD-Series server. Interlink Networks' RAD-Series and SDK offered the billing company a complete AAA management solution that is unmatched by any competitor in the industry.

Your application might not be handling 100 million users a day, but the flexibility, reliability, and scalability of the RAD-Series are features every service provider cannot do without. The RAD-Series RADIUS Server is a smart investment for a mission critical application. As your needs change or grow, the RAD-Series can be handle the load and be configured with new functionality to meet your changing needs.



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Interlink Networks delivers the most powerful, robust, and scalable RADIUS server solutions on the market. Since 1991, our RAD-Series Servers have provided access management solutions to some of the largest Carrier and Service Providers around the world.

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