



Empowering Networks for Business

Key Benefits

1. Ubiquitous AAA for Multiple Networks
 - 3G, WiMAX, GSM/CDMA, Wi-fi, Dialup/Broadband, and VoIP
2. Ease in Operations
 - Centralized management and security of all WLAN remote/VPN, and wired 802.1X users
 - Reports for troubleshooting
3. Multi Vendor & Platform support
 - No Single Vendor Lock In
 - Interoperable with other AAA servers
4. Reduces Revenue leakage
 - Failover Support
 - Multiple options for Forwarding Accounting Data

A robust AAA server is a preliminary requirement to propel the growth that comes with the launch of new services and an increasing subscriber base. EliteAAA is the answer to the aggressive and ever-growing access control, service delivery, and accounting requirements of carriers, service providers, and wireless operators. Be it wireless or Wireline Internet access, outsourced remote access, managed VPNs, broadband, NGN/VoIP or any combination of services, EliteAAA centrally manages the authentication of your subscribers, authorizes them for appropriate level of service, and ensures reliable accounting of their usage.

EliteAAA integrates with all aspects of your NOC, from your database of customer information to your back-office provisioning and billing systems. You'll be able to implement usage-based premium services, and bill your customers according to actual service usage.

EliteAAA competently manages the busiest of networks, easily scales to accommodate your growing business needs, and offers the most flexible data organization capabilities available.

Flexible Authentication Methods

EliteAAA authenticates remote usernames and passwords against a wide range of authentication databases to ensure compatibility with your network.

LDAP-based Authentication

Support for authentication against subscriber credentials stored in LDAP directories is provided. You may have multiple LDAP servers deployed to look into load balancing and failover scenarios.

RDBMS-based Authentication

- EliteAAA authenticates users based on the type of service.
- Authentication based on a group of customers too is supported.
- The subscribers can also be authenticated based on their access source.
- EliteAAA supports authentication against credentials stored in SQL databases from Oracle and any rich set of JDBC 2.0-compliant databases (Oracle, MySQL, and MS-SQL Server).
- Online accounting integration with OSA/ Parlay & CRESTEL.

PAP /CHAP , Digest and EAP Support

EliteAAA supports PAP / CHAP protocols for authentication through LDAP, database and users file. On enabling CHAP support, EliteAAA encrypts the plain text password stored in LDAP, the database or the users file. It compares it with the encrypted password received in the RADIUS packet. EliteAAA supports with Multi-extensible authentication protocol (EAP) and attribute definitions for mobile WiMAX.(EAP-TLS,EAP-TTLS,EAP-SIM)

Policy Management

Radius Policies can be defined at the driver level, system level, rate plan level, and the account level for authenticating and authorizing users. For this EliteAAA supports:

- **Check, Reject, and Reply Items for Authentication:** You can configure Radius Policies with check, reject and reply items for authenticating users based on RADIUS standard or vendor-specific attributes. Checks can be implemented on the origination of the authentication request, Called Station Id, Calling Station Id and type of service. Necessary responses can be given using reply items and requests can be turned down using reject items in the Radius Policy.

- **Multiple Checks, Reject, and Reply Items for Authentication:** EliteAAA can check for a single standard or vendor specific attribute multiple times. This facilitates a check on an attribute for a list of values. The check will be made for all the values for the specified check item. Befitting responses can be given based on reject and reply items in the Radius Policy.
- **Precedence Order and Logic:** Multiple Radius Policies can be configured for a single customer. There is a possibility here that there are multiple check items created on the same attribute. The same applies to reject and reply items. EliteAAA has an inbuilt precedence order and logic for handling such situations.
- **Time based Access Policy and Concurrent policy support**

Realtime Accounting

EliteAAA offers a scalable carrier-grade platform to handle thousands of accounting requests per second in realtime, on suitable hardware, and caters to the busiest of networks. It's highly reliable accounting capabilities, eliminates duplicate usage records ensures delivery of all accounting data to your billing systems.

Export CDRs

EliteAAA seamlessly integrates with your accounting and billing systems. RADIUS accounting log files can be exported in spreadsheets, xml, pdf and database formats using the Reports Tool.

Header Support in Accounting Request Packets and CSV File

EliteAAA provides an option of including the header packet with all standard attributes and required vendor-specific attributes in the Accounting Request packet and CSV files. It also provides a configurable option to choose specific attributes to be written in the CSV file and delimiter for the attributes.

Forward Accounting Data to Database, Detail.local and CSV file

EliteAAA provides support for multiple storage types such as database, detail.local and csv file. It stores all accounting requests in all configured storages. The accounting data stored in these can be pulled into a central billing system for charging customers based on their usage. File rolling facility in Accounting helps manageability of CDRs

RADIUS Policy Support for Accounting

Check, Reject and Reply items are supported for accounting of usage for certain services. It is also possible to configure multiple items for this purpose. Accounting too is based on the precedence order and logic in case of multiple checks on the same attribute.

Mediation

The mediation features of EliteAAA enables you to export CDRs stored in proxy and main AAA server's local database, CSV file and detail.local, from where it can be fetched by the rating engine. It provides configurable options for including header information in the CSV file. The CSV format allows you to store both standard and vendor-specific attributes. CSV and detail.local files can be classified based on the NAS-IP-Address. Both detail.local and CSV files are rotated on a daily basis.

Active Mediation

- EliteAAA supports Parlay, EJB and Radius Protocol. EliteAAA can integrate with 3rd Party Rating and PPS (Prepaid Server) for Real time Credit Control and Real time accounting through Rating API.

Carrier Grade Reliability

EliteAAA allows you to meet your stringent uptime requirements with reliable state-of-the-art features. These include but are not restricted to the following features:

Failover Support

EliteAAA provides failover support by allowing you to configure LDAP and proxy servers to keep your services up and running even in cases where a server fails or suffers a bottleneck. The requests are diverted to an alternate server which handles the requests until the failed server is up again. Timeout and number of attempts to be made to determine a failure are also configurable.

Connection Pooling

EliteAAA supports connection pooling to ensure that a connection is readily available when one is needed. Instead of keeping a request on hold until it creates a connection on demand, it fetches an unused connection from the pool, thus ensuring speedy processing.

Multi Network Support

- EliteAAA supports Multiple Networks such as Broadband, WiMAX, GSM/CDMA, Wi-fi, Dialup, and VoIP.

Proxy AAA

Proxy Forwarding based on Realm, ANI and DNIS Support

EliteAAA provides you an option to forward your request to another AAA server based on a RADIUS attribute. It supports forwarding based on Realm, ANI and DNIS. It also allows you to select the matching pattern for the attribute. You have the choice of removing the realm pattern from a username with EliteAAA. It also allows you to configure whether to forward the request to another AAA server or to authenticate locally after removing the username. Elite AAA supports broadcasting the Authentication and Accounting request to Multiple AAA Servers

Monitoring & Maintenance

You can supervise your resources using the monitoring tools provided by EliteAAA

- EliteAAA verifies the credentials of subscribers accessing services, manages service delivery, and integrates seamlessly with billing and provisioning systems.
- It provides Web Based Configuration and monitoring, Industry standard logging, Concurrent sessions, Request summary, CPU usage, Memory usage, load average, uptime, and thread statistics can be monitored through graphs.
- EliteAAA supports SNMP. It provides you with Real time logs & Reports and Real time Stats through SNMP.

Server Manager

EliteAAA's Server manager helps you

- Centrally Manage Multiple EliteAAA Server Instances and Multiple Authentication, Accounting and SNMP Service Instances through Server Manager GUI.
- Centrally manage Multiple Active Mediation Server Instances through Server Manager GUI.
- Export/Import all Server Instances configuration.
- Roll Log based on Time & Volume.
- Reload the Cache Configuration without Stopping the Server

Resource Manager

EliteAAA resource manager helps you

- Centrally Manage Multiple Resource Manager Server Instances and Multiple IP Pool and Concurrent Login Service Instances through Server Manager GUI
- View, Disconnect, Purge and Download Active Sessions Details through Resource Manager.
- Search Active Session based on several Parameters like Username, NAS IP Address, Group Name and Idle Time.

IP Pool Management

EliteAAA provides IP Pool Management to maintain a list of used and free IP addresses. An IP pool can be bound with a Network Access Server (NAS). IP addresses are allocated to the end-user from this pool. The status of the IP address changes as it is allocated and freed.

Broad Multi-vendor Support and Integration

EliteAAA ably fits into any network environment and works with the widest variety of network access equipment, including 3Com, Alcatel, Cisco, Ericsson, Lucent, Nokia, Huawei, Nortel, and Redback.

- This broad multi-vendor support it provides allows easy integration of legacy systems with new systems.
- It supports most of the back-end authentication databases, and is compatible with the latest authentication, provisioning, and billing systems.
- EliteAAA easily Interoperates with other AAA servers, ensuring smooth communication with other service providers and enterprise customers.

Secure Wired 802.1x Network Access

EliteAAA provides network access to authorized users authenticated against the designated database, when they are connecting via wired 802.1X. The authentication in this case is based on user identity rather than on the Ethernet port to which they're plugged. It passes the required information to the switch allowing it to dynamically configure the port's behavior based on the user's authorization information. The EAP-MD5 protocol it uses, beefs up credential security, ensuring that users' login credentials are not stolen; mutual authentication of client and server takes place, to prevent a user from being duped into connecting to a rogue network; and ensures data privacy.

Performance

EliteAAA can be deployed platform supporting JDK 1.5.2 version or above, it support 1000 TPS on dual CPU of 1.6 Ghz & 8GB RAM.

Corporate Overview - **Elitecore Technologies Ltd.**

Elitecore Technologies is the provider of EliteAAA & Policy Management solutions , It's another flagship product CRESTEL offers OSS/ BSS framework to Telco's across the globe. Elitecore is a dynamic player led by strong management team with domain expertise in IP based access technologies & services. Elitecore is a Carlyle investee company. The Carlyle Group is a global private equity firm with USD 58.5 billion under its management.

A spirit of innovation, speed and extreme reliability forms the very basis of our functioning translating into effective solutions. Customer needs define the boundaries of our solutions, making our solutions comprehensive, easy-to-use and in sync with current & future trends. Our Innovations through research & development and a skilled work force have enabled our products to be strong contenders in high growth regions expanding our presence to 55 countries.

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