

Kron AAA Subscriber AAA & Provisioning System

Kron AAA is a authorization, authentication and accounting platform with advanced profiling features.

Kron AAA offers a comprehensive solution for the rising demand of subscriber authorization, authentication and accounting.

In addition to its cutting-edge features, Kron AAA is a proven, scalable AAA and provisioning system that meets the requirements of the most demanding fixed/mobile telco operators and enterprise network environments.



Kron AAA brings together all the required components for subscriber management and accounting. **The Kron AAA platform also provides complex profiling capabilities and supports campaign differentiation.**

Kron AAA is designed with both software and hardware high availability to ensure system reliability. Its fail-proof architecture prevents service interruption due to failure of any component within the system, and its geo-redundant design eliminates any single point of failure.

Diverse Use Cases for Enterprise Networks

Kron AAA is deployed for device authentication in different industries and various IoT solutions by SIM card authentication and authorization, such as:

- POS devices and ATM systems in the banking sector
- Vehicle tracking
- IoT devices
- Smart sensors

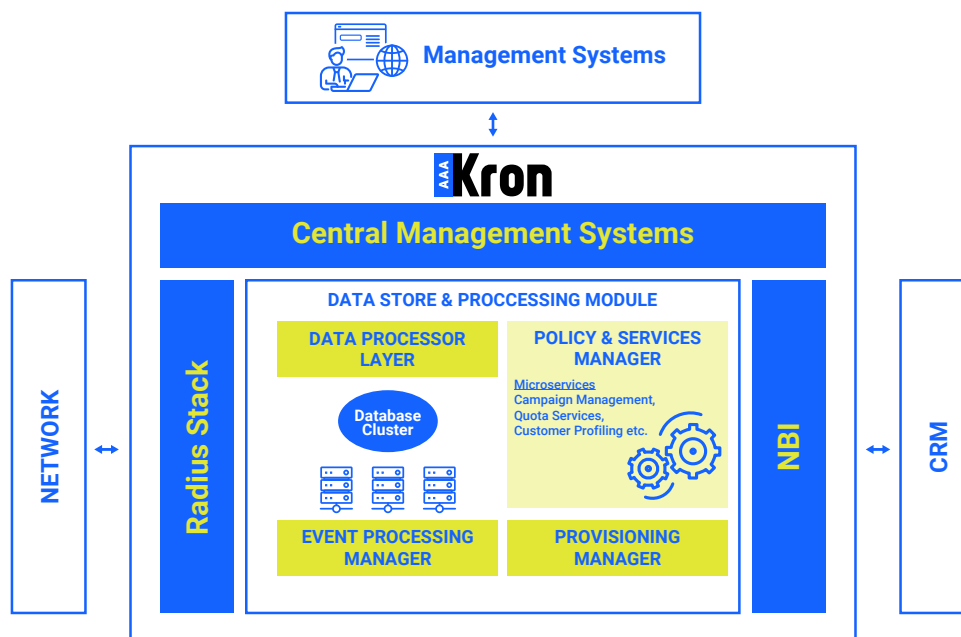
Top-Notch AAA Platform for Internet Service Providers

The Kron AAA platform is the perfect match for ISPs, telecom carriers, and wireless operators by supporting the authentication, authorization and accounting of their subscribers. Kron AAA is the ideal solution for ISPs of all sizes, offering flexibility in the changing business environment and growing user base. With its powerful and sustainable infrastructure, Kron AAA authenticates millions of users concurrently tracking accounting data for millions of xDSL, fiber, mobile and Wi-Fi connections every single day. The single instance deployment of Kron AAA serves more than 15 million subscribers at large scale ISPs.

How The Kron AAA Works?

Kron AAA offers an all-inclusive Authentication, Authorization and Accounting platform for Fixed and Mobile Operators' different needs in an integrated architecture. The Kron AAA platform consists of four main components:

- The Central Management System (CMS), which is responsible for the operational and maintenance tasks of the entire platform. CMS provides management functionality over system-wide components.
- The RADIUS module, which is responsible for processing incoming RADIUS requests and forwarding them to multiple Data Store and Processing layers upon authenticating the subscribers and systems. The Kron AAA RADIUS module is the interaction point with network elements. This module provides RADIUS stack to microservices to execute business and service logic in the DS&P layer, and is measured with RADIUS packets per second. The Kron AAA RADIUS module can be deployed as VNF or CNF, which means horizontal and vertical scaling are supported.



■ The Kron Data Store and Processing (DS&P) module with its microservices based architecture is mainly responsible for:

- Storing data of incoming and outgoing messages in multiple datastore & queue layers
- Providing business flow processing engines for service logic functions with customized designs
- Activating subscribers and services through integrations between the Provisioning Manager and customer OSS systems
- Managing policies & services, e.g., quota services, time-based offerings

■ The North Bound Interface NBI, which is responsible for providing interfaces to customer systems such as CRM, CMDB, etc.

Feature & Benefits

Flexible and Configurable - **Kron AAA** is compliant with various **flexible authentication**, authorization, and accounting methods. The adaptive structure of Kron AAA enables rolling out customizable AAA functions for specific requirements

Quota and campaign management - **download/upload** profiling.
REST and SOAP NBI Support - allows integration with external provisioning, **OSS/ BSS**, and portal systems.

Extensive Authentication Protocols - **authenticates** remote usernames and passwords against a wide range of authentication databases. Supported methods including but not limited to:

- PAP/CHAP, MSCHAP, and variations of EAP are supported for authentication against Enterprise directories via LDAP
- Databases (Oracle, MsSQL, PostgreSQL, MySQL, Firebird)
- User files

Redirection – forwarding the subscriber to web pages by HTTP redirection for

different scenarios like:

- Quota exceeding criteria
- Subscriber suspend
- Wrong credential at authentication

Detailed session logs - Every data necessary in analyzing active subscribers and historical data retrospectively. The data details include, but are not limited to: connection time, accounting updates, IP addresses, routes, downloaded and uploaded data, base station, and location identifiers.

Carrier Grade Reliability –allows you to meet your stringent uptime requirements with reliable state-of- the-art features.

Real Time Accounting - offers a real time accounting feature on a scalable **carrier-grade** level. With the cutting-edge infrastructure, thousands of **accounting** requests can be handled in seconds ensuring the delivery of all accounting data to your billing and charging systems.

Export CDRs - seamlessly integrates with accounting, billing, and charging systems,

and enables the export of RADIUS-based accounting log files in various file formats.

Alternative authentication methods – Several credential alternatives:

- CLID based authentication
- IMEI, MSISDN, IMSI based authentication
- 802.1x Port Authentication

NFVI support - **Telco cloud** compatible, microservices based architecture, containerized functions.

Attribute Customization - enables customization for vendor & **RADIUS** specific attributes and provides an opportunity to configure required fields in the accounting request packet and CSV files.

Platform features - LDAP/AD interoperability with IAM/RBAC functionalities, 2FA support, SIEM integrations, SNMP library, and compliance with security standards.

Bulk provisioning – Upload/export of device, subscriber, POS systems, and resources for **inventory management**.