

AdvOSS Charging & Rating Engine

AdvOSS is an emerging Canadian vendor of technologically advanced solutions that enable any Service Provider to realize all of its needs in aspects of service delivery, management and charging in a fully integrated way. Tens of Tier-1 and Tier-2 Service Providers worldwide depend on AdvOSS for their critical business needs.

Overview:

AdvOSS Charging & Rating Engine architecture is based on open APIs and hence can be easily integrated with other B/OSS products to build larger solutions. AdvOSS has a range of B/OSS products in its portfolio with which AdvOSS Charging & Rating Engine comes pre-integrated as part of AdvOSS Solutions.

Modules:

Charging Engine Modules

The AdvOSS Charging Engine offers the following modules

- Account Balance Management
- Charging Application
 - Duration Based Charging
 - Event Based Charging
 - Usage Based Charging
 - Duplicate CDR removal
- Mediation Lite
- Basic Reconciliation
- Revenue Assurance Lite
- Quota Management
- **Credit Control Application**
 - Real time Authorization/Re-authorization via customizable workflows.

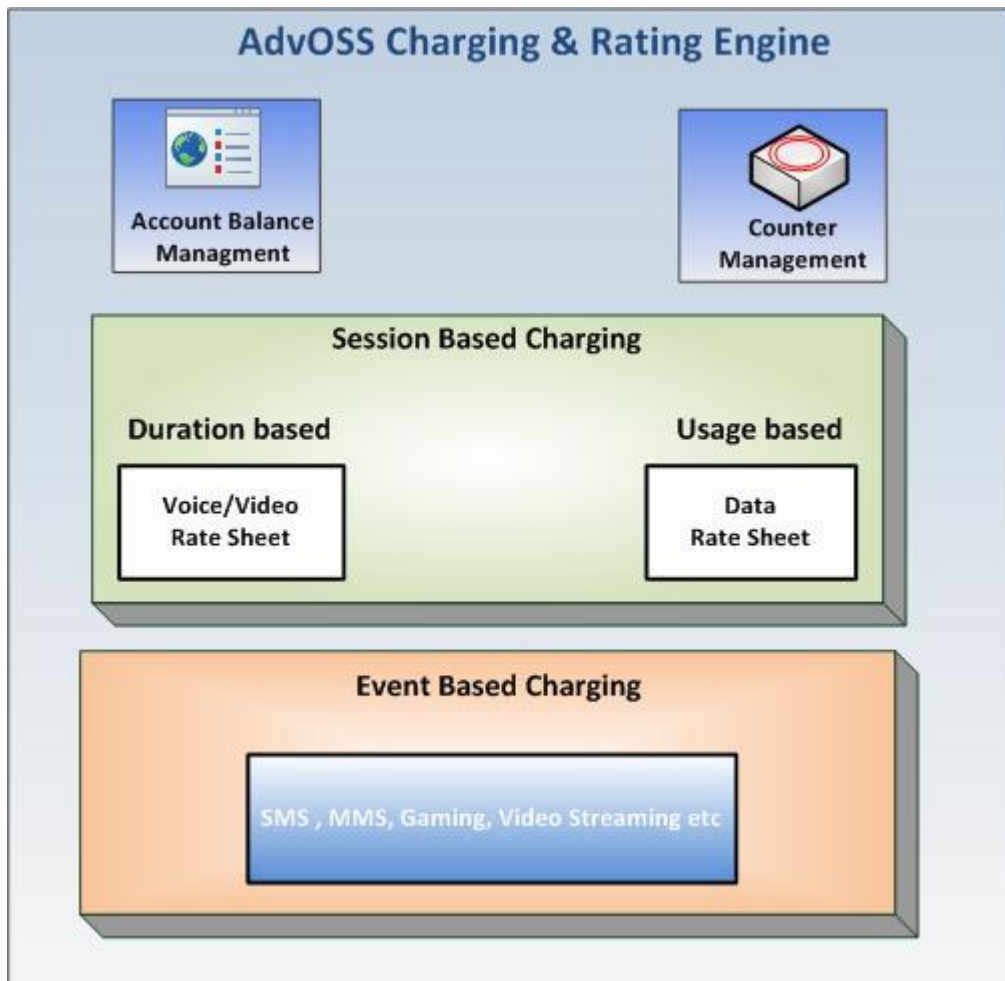
AdvOSS Rating Engine Modules

- Duration Based Rate Sheets
- Usage Based Rate Sheets
- Event Based Rate Sheets
- Multi-services Rating
- Rounding
- Time of the Day/Day of the week
- Holiday Discounts
- Progressive Rating
- Taxation Management
- Rate Activation Management

Integration Points:

- **Billing Systems:** AdvOSS Charging & Rating Engine can integrate with Billing Systems that are responsible for billing and revenue management. AdvOSS offers its own fully featured Converged Billing.
- **Voucher Management System (VOMS):** AdvOSS Charging & Rating Engine can integrate with Voucher Management Systems that are responsible for managing the voucher lifecycle..
- **Mediation Systems:** AdvOSS Charging & Rating Engine can integrate with Mediation Systems for rating of CDRs coming through Mediation.
- **AAA Servers:** AdvOSS Charging & Rating Engine can integrate with AAA Servers , over Radius or Diameter interfaces , for receiving AAA Data. Through the AAA Servers , it also supports integration with any third party credit control application.
- **Subscriber Self Care Applications:** AdvOSS Charging & Rating Engine can integrate with Subscriber Self Care Applications on the following three interfaces :
 - IVR
 - Web
 - SMS

Software Architecture



Business Use cases:

- **Charging**
 - Counter Charging
 - Counters for specific destinations
 - Counters for specific time slots
 - Fair-usage thresholds for counters
 - Higher frequency sub-units like daily or weekly limits within a monthly counter
 - Friend n Family and other user specific counters
 - Work flows for arbitrary business logic to allow setting such counters
 - Interface with subscriber self-serve
 - Monetary Charging
 - Connection Charges
 - Duration based charging
 - Usage based charging
 - Event based charging
 - Multiple rounding schemes for used units

- Re-Rating application
- **Rating**
 - Time varying rates for duration, usage and events
 - Progressive rates for duration, usage and events
 - Hooks for arbitrary rating schemes
 - Rating Classes
 - Hooks for arbitrary rules definition for rating classes
- **Prefix Matching for counters or rating**
 - Longest Prefix matching
 - Exact Prefix matching
 - Substring matching
 - Start string matching
 - Others definable through hooks
- **Authorization Application**
 - Counter Matching
 - Rate Matching
 - Balance verification
 - Return of total allowed units of Duration, Usage or Events to enforcement point
- **Unit Reservation or Online Charging (OCS) Application**
 - Multiple Charging Basis
 - Duration
 - Usage
 - Events
 - Multiple simultaneous charging for single session based on Duration and Usage
 - Reservation of Counter Units or monetary credit
 - Use of single customer balance for multiple concurrent sessions without credit risk
 - Change of tariff and change of counter support
 - Support for Radius or Diameter server
 - Service Denial based on time of day through rating engine
- **Interim Accounting Application**
 - Real-Time charging of session on every interim on multiple basis
 - Duration
 - Usage
 - Functioning with or without unit reservation
 - Detailed sub-records for each session for counter and rating changes
- **Stop Accounting Application**
 - Refund of unused counter and credit units
- **Revenue Assurance**
 - Reconciliation with secondary CDR sources
- **Credit Control**
 - Real-Time interface to account balance management
 - Real-Time interface to taxation
 - Comprehensive alerting