# AdvOSS Interconnect Billing

*PRODUCT DATA SHEET*

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[www.advoss.com/resources/datasheet/advoss-interconnectbilling-product-datasheet.pdf](http://www.advoss.com/resources/datasheet/advoss-interconnectbilling-product-datasheet.pdf)

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# 1   AdvOSS Interconnect Billing

AdvOSS Interconnect Billing, manages all relations of a service provider with its vendors or suppliers. It integrates with the rating engine to rate each instance of service usage as per rates provided by vendors in their rate sheets. It supports multiple currencies and allows to send and receive invoices and do payment settlements. Also provides reconciliation tools for matching usage records with vendors. Includes a self-serve portal for vendors.

**ADVOSS** offers **AdvOSSInterConnect Billing**, an ideal Billing Product for the telecom operators who need to Interconnect with other incumbent telecom operators. InterConnect Billing can provide different ways of charging, clear settlement of accounts and reconciliation. It provides full billing features needed for Origination, Termination and Transit traffic. AdvossInterConnect Billing provides full management of Interconnect settlements between operators. It is a Business to Business product. This adaptive and flexible architecture makes it suitable for NGN accounting and billing requirements.

AdvOSS Interconnect Billing has been developed to provide great level of robustness, scalability and various add-on features. It accurately bills all type of calls like outgoing, incoming, lease line, VPN, private and indirect access, intelligent network and transit accurately. In a Carrier grade network it does accurate billing for call originations, call terminations and call transits. InterConnect Billing targets several operators like:
  i.   CLEC and ILEC Operators
  ii.  LL/WLL Operators for their interconnection with LDI's
  iii. Cellular Mobile/GSM operators for their InterConnect partners
  iv.  VoIP Operators for Wholesale Origination and Termination

AdvOSS InterConnect Billing 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 InterConnectBilling comes pre-integrated as part of AdvOSS Solutions.
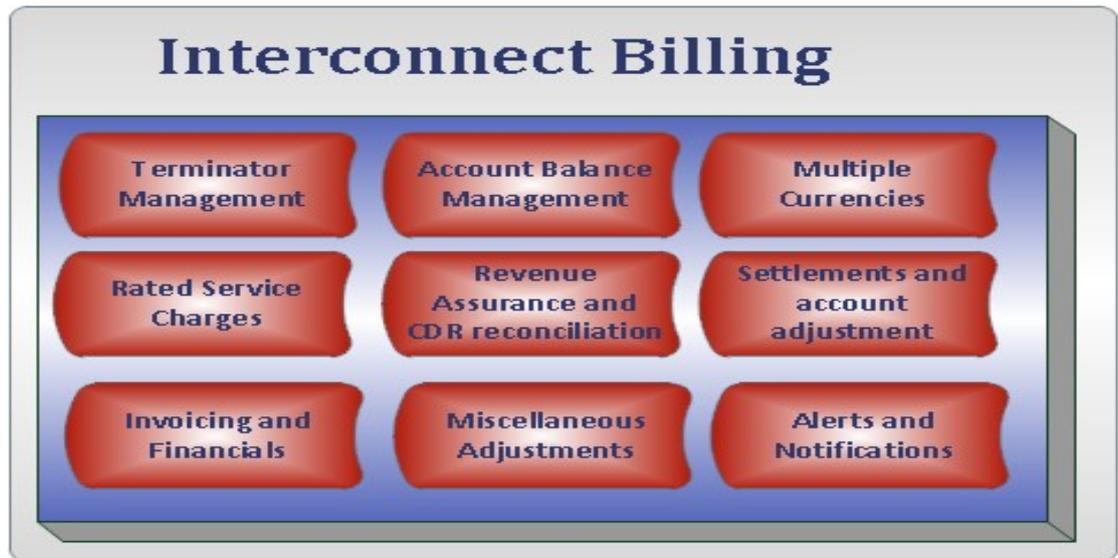
## 2 Business Use Cases

- Vendor Management
  - Contract Management
  - Contact Management

- Trunk Group and Connectivity management

- Rate Sheets Management

- Charging and Rating
  - Re-Rating

- Invoicing, Payments and Netting

- Reconciliation

- Dispute Management and Adjustments

# 3 Modules

AdvOSS CRM is composed of the following modules:

- Carrier Management: For Originating Customers
- Vendor Management: For Terminators
- Account Balance Management
- Rated Service Charges
- Payments Processing
- Revenue Assurance and **CDR reconciliation**
- **Settlements and account adjustment**
- Invoicing and Financials
- Miscellaneous Adjustments
- Alerts and Notifications

AdvOSS InterConnectBilling incorporates following main modules described below.

**Carrier Management:** AdvOSS Interconnect Billing system provides Carrier Account Creation, Configuration and Management features.It supports definition of agreements for terms & conditions, tariff, discounts, invoicing, payment schedule and forecast of the traffic expected in the agreed billing period.

Self carePortal for Originating Carriers is also available in the system and it offers Flexible Call Rating & tariff management for carriers.

**Vendor Management**
With AdvOSS Interconnect Billing terminator management has been easier with modules such as vendor registration, web access, rate and reports management.

Terminator Registration: Every VoIP provider who is originating traffic has to get a terminator for its traffic. Originator has to pay to terminator with the rates settled by originator and terminators. In AdvOSS Billing, terminators are registered along with their gateway IP, Trunk ID or technical prefix for identification of the calls sent to that terminator.

Import/Export of Terminator Rates: An originator has to pay the terminator with specific rates settled by both parties. These rates are imported into Billing system. By doing this, originator will have reports of CDRs with the charges which it has to pay the terminator. At end of day, the originator has a report showing profit over every call. Profit for an originator is calculated by amount which end user has to pay to originator and originator has to pay to terminator.

Terminator Web Access: Every Terminator can have web access of the billing system to see online CDR report. Vendor can only see CDR report, ASR/ACD report for its gateways and can change its billing password. He/she cannot perform any other task due to security reason.

Flexible Reports: AdvOSS has specific reports showing status and performance of the vendor like ACD and ASR report of its gateways.

**Rated Service Charges:**

Through its integration with the Charging Engine , the AdvOSS Converged Billing gets information about all Rated Service Charges deducted for a subscriber. This information is then utilized by the AdvOSS Converged Billing in relation to the following:

    i.   Potential service management through provisioning , as a result of the rated service charge e.g. if a network element needs to be provisioned for policy enforcement when usage reaches a certain threshold.

    ii.   Invoicing

    iii.   Payment Processing if required as a result of rated service charge

    iv.   Reporting

    v.   Alerting and Notification

**Payment Processing**

AdvOSS Interconnect Billing supports multiple payment methods through its Payment Processing module.

i.   Add offline payment:Payment can received offline for example cash received or wire transfer received through bank and posted into the system.

ii.   Personal Payment Preferences: Personal payment preferences can be set by customers

**Revenue Assurance& CDR Reconciliation**

Revenue Assurance is the process that ensures no loss of CDRs (Call Details Records) and enforces proper billing. It is an important process that makes sure no leakage of revenue from the system by any means, during CDRs' mediation or any other step.

AdvOSS Interconnect Billing provides basic revenue assurance capability in order to enable financial risk management by identifying and reducing revenue leakage.

The Basic Revenue Assurance feature available in the system is whereby Existence of a CDR in the AdvOSS Billing can be checked against a CallID to reconcile with a CDR coming from a network element ( soft switch , terminator , etc ) .

**CDR reconciliation**
Reconciliation facilitates to settle any disputed issue by identifying the disputed CDRs in billing (missing calls, over charging, different call duration etc.) according to contract terms and conditions.

**Settlements and account adjustment**
AdvOSS Interconnect Billing system provides facility of Adjustment or netting with accounts receivable and accounts payment. Accounts can easily be adjusted or settled down according to different policies incorporated in the billing system.

Efficient Dispute Handling:
AdvOSS Interconnect Billing solution proficiently tracks all the disputes in the system and adaptively handles them as soon they arise in the system.

**Invoice Management& Financials:**
Customized invoicing for individual carriers. AdvOSS Interconnect Billing provides complete invoice management system that generates invoices automatically and manually according to the billing period and can be e-mailed to users.. It maintains invoice history that is also available online. Each invoice has relevant rated CDRs optionally available to the carrier.

Invoicing Management & Financials modules comes with the following basic features:

Customer Bill/Invoice Generation: Billing administrator can generate bill for any customer for any period. All rated CDR are also kept in history and linked to the invoice/bill generated. It also supports bulk invoice generation, allowing CSP to generate invoices for all the customers simultaneously instead of generating one by one for each.

Finance Reports: Variety of finance reports for timely reporting on profit/loss, Payments received, Invoices sent, Aging, Voucher redemption, churn etc are currently available in system. Moreover any new reports can be quickly made available as per the CSP's requirement.

Auto Invoicing: Converged Billing System supports bulk invoice generation and Auto Invoicing features. System can send the invoices generated to the customers automatically through email at end of Billing Cycle or date as specified by the CSP.

**Miscellaneous Adjustments**
AdvOSS Interconnect Billing provides the feature of doing Balance Adjustments against different charge heads when required. Typically this is done when a case of wrong charging is reported and subsequently subscriber balance needs to be adjusted. Charge Heads

against which Balance Adjustments can be adjusted are customizable as per the requirements of Carriers.

**Alerts/notifications:**

Different kind of alerts (low credit, account expiration, welcome) can be sent to end customer.

Bill shock prevention: Low credit alerts (email/SMS )  will be sent to users whenever their balance becomes less than the specified amount. Administrator can set the low credit alert  functionality against the plans, and it is in the control of administrator to send the low credit notifications to users of some selected plans only.

Welcome Notification:Welcome notification will be sent to a user at the time of new account creation. The email text (Subject, Body) is also editable. Also the email server settings options are provided. Welcome email will not be sent in the case of prepaid card users.

Payment Processing Notification:The subscriber can be notified if a payment is made to its account manually or through automatic deductions through credit card .

Customized alerts: Any other types of alerts can be defined as per CSP requirements, on demand.

# 4  Integration Points

AdvOSS InterConnectBilling offers points of integration with the following systems:

**Mediation Systems:**AdvOSS InterConnect Billing is integrated with the Mediation Systems that are responsible for processing of CDR files into InterConnect Billing Database. AdvOSS offers its own Mediation System which Supports CDR formats of variety of industry leading Gateways & Switches and AdvOSS InterConnect Billing comes pre-integrated with Mediation System.

**CRM Systems:** AdvOSS InterConnectBilling can integrate with CRM Systems that are responsible for customer centric operations and defining Service Offering and Product Catalog Management. AdvOSS offers its own fully featured CRM as well with which AdvOSS InterConnectBilling comes pre-integrated.

**Provisioning Systems:** AdvOSS InterConnect Billing can integrate with Provisioning Systems that are responsible for Provisioning various entities like network elements, Application Servers, etc. AdvOSS offers its own fully featured Provisioning System as well with which AdvOSS InterConnect Billing comes pre-integrated.

**Charging Engines**: AdvOSS InterConnectBilling can integrate with Charging Engines that are responsible for charging rated services. AdvOSS offers its own fully featured Charging & Rating Engine as well with which AdvOSS InterConnect Billingcomes pre-integrated.

**Accounting Systems**
AdvOSS InterConnect can be integrated with Accounting systems that are responsible for managing the accounting information for the CSP. The integration is done through reports generated by AdvOSS InterConnectand imported into the Accounting System.

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# 5 Key Benefits

AdvOSS Interconnect offers the following key benefits to the CSPs, in addition to its feature set:

**Workflow Hooks:** The System offers the advance feature of providing workflow hooks on all kinds of events and control flow points within the billing logic. Context specific information depending on the current state of workflow is made available in the hook as parameters. The CSP can alter the workflow by interfacing with any of the hooks present in the system.E.g. different kinds of complex promotions can be realized by using the workflow hooks.

## Scalability:

The System can scale linearly up to a few million subscribers offering substantial advantages in terms of cost reduction and ease of scalability. Scalability is achieved using various techniques like distributed database design.

## Reliability:

The system provides high reliability and ensure mechanism to avoid system downtime though fully redundant DB architecture.

## Robustness:

The system is very robust and keeps performing in the fact of errors.

## Customizability:

The system is designed to allow for easy and rapid customizations as per CSP requirements, on demand.

## Disaster Recovery:

The System can be deployed in two geographically distant data centers, for disaster recovery reasons. AdvOSS Database solutions provide real-time DB replication to remote slaves. This gives the

remote location an almost real-time image of the live database and the system can fall back to remote location in a disaster situation.

### Flexibility:

The system is service agnostic and has the architectural provision to support any business model. This allows for easy customizability to support specific requirements of a CSP.

### Resilience:

The system works at high loads within its thresholds and gracefully keeps working by handling the situations even beyond the guaranteed thresholds e.g. by rejecting requests.

### Speed:

The system guarantees high speed of operations and latency times associated with the operations.

### Data Integrity:

The system preserves the integrity and correct relationship of data in order to guarantee the correct behavior.

### High Availability:

The system uses various techniques to ensure high availability behavior.

### Redundancy:

The system achieves redundancy through multiple methods like having database servers in active/active configuration. The database servers as well as the servers hosting the GUIs are hosted in geographically distributed data centers.

### Security:

Powerful role based security is implemented in the AdvOSS CRM GUI. Detailed Audit Trail and logging is provided by the system, in order to cater for security requirements.