



Softswitch & Asterisk Billing System

IP Telephony Process and architecture is known as Softswitch. Softswitch is used to bridge traditional PSTN and VoIP by linking PSTN to IP networks and managing traffic consisted of an amalgamation of voice, fax, data and video. Softswitch's help in processing the signal for every type of packet protocol. Softswitch is based on the Session Initiation Protocol (SIP), which enables ITSP's to offer PC to Phone, PC to PC, IP Phone to Phone and IP Device to Phone, Calling Card services with error free communication. All types of end points (SIP user agent) like Phone Adapters, Softphone's and IP phones can be registered in the Softswitch & make the voice/video communication.

Softswitch with modular and sophisticated architecture, which are designed in the most customized way to keep abreast with the changing needs of telecom industry. And while the feature looks good in telecom industry with other Softswitch, it looks even brighter for companies with more sophisticated and modular Softswitch.

Following features make Softswitch most sought after in the market...

- SIP/IAX Protocol Support
- Multiple SIP/IAX Trunk Supports
- Multiple Codec Support
- Prepaid/Postpaid Billing
- Monitoring call detail in real time
- Accounting management
- IVR support
- Voicemail
- Call forwarding
- Real Time AAA (Authorization, Authentication, Accounting)
- Admin Web management Portal
- Reseller Web management Portal
- Customer Web management Portal
- Callshop Web management Portal

Our softswitch is SER {www.iptel.org}, Mediaproxy or RTP proxy and Asterisk based billing. Calling Card Billing (A2Billing), PC to Phone Billing, IPPhone to Phone Billing with Admin Module, Reseller Module, and Customer Module & Account (PIN)-CLI including reseller authentication &

authorization. Billing is support AAA concept. SER & Billing can integrate with following VoIP services.



- **PC2Phone Services** - SER & Asterisk Billing can be configured to provide standard PC to Phone services via traditional dial with Account (PIN) or authentication.
- **Calling Card services** - Asterisk Billing can be configured to provide standard calling card services via traditional dial with Account (PIN) or callerid (CID) or IVR authentication.
- **Callback services**- ANI, CLI, DID, E-Mail, SMS and web based call-back's billing are supported by Asterisk billing system.
- **VoIP residential services**- You can use a softphone or hard phone and billed for calls made via Voice over IP using softswitch.
- **VoIP wholesale termination** - Billing System can be used for softswitch and bill large numbers of VoIP minutes from a number of sources such as resellers and distributors of your services.
- **VoIP termination**- With the growth of IP based PBX systems, as well as the asterisk based systems, Softswitch can be used to provide services and billing to IP PBX resellers and Asterisk system integrators.
- **DID termination and redirection** DID can be redirected to any SIP or PSTN destination with monthly charges and duration based charges.



It is fair to say that softswitch {SER, Asterisk Billing} is now a full featured telecom platform providing converged services, with self contained billing (pre or post-paid), reporting and statistics for IP and TDM based voice networks and can be configured to supply a wide range of services, rate calls, prepare and send out invoices, as well as accept payments via a number of payment service providers.

The Softswitch {SER & Asterisk VoIP Billing} solution comprises of the following components: -

- Servers: The computer to run the system.
- Linux: The base operating system
- Line Interface Cards: The Digium hardware (optional)to connect to the TDM network (PRI, BRI, Analogue)
- Apache: The web server
- MySQL: The back end database
- Asterisk Billing Engine: The Billing engine handling Authentication, Authorization and Accounting.

The platform can be fitted with a TDM cards to interconnect with the PSTN, and can support in excess of 120 concurrent calls given the right hardware. If more capacity is required, then more Asterisk servers can be added as necessary.

The Asterisk Billing Platform has been deployed in a number of commercial environments by both traditional TDM based telecoms companies wishing to move into the VoIP market, and calling card and call-shop businesses. Additionally, there has been a lot of interest from IT and networking companies who are beginning to deploy VoIP PBX's in addition to their traditional business, and wish to enjoy an ongoing income by terminating their customer's calls using Asterisk Billing as their Wholesale Billing Platform.



The features lists are split into four sections for clarity: IVR, Web management interface, multilevel reseller interface & Customer interface:

IVR FEATURES:

- Caller ID & Card Number and SIP/IAX2 Friend authentication
 - Multi-Language support - force specific language, give a menu for language choices
 - Customize the IVR rapidly, chose to play Balance, Time to call, Intro prompt, etc...
 - Recording of all calls
 - Speed-dial
 - Play balance with multi currency support
 - Free VoIP calls between application users
 - Support simultaneous or single access on same card
 - Support call at Zero-Cost & Negative cost
 - Auto creation card option for new callerID
 - Web based, DID & CID based Call Back
 - Top-up account via IVR menu.
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Admin Management Interface-

- Reseller, Advanced Card and Customer management: Creation, Edit, Search engine, batch update, CallerID handling, Refill Cards.
- Define: Post-Paid/Prepaid, Multi Currency Support, Expiry support, VAT, Recurring Service, User Data, etc...
- Speed dial
- BILLING MANAGEMENT & REPORTING
 - Check the Reseller & Customers balance; see Refills made, payment received, amount to pay
 - Online payments made by Paypal and Moneybooker
 - Voucher support : creation ; browsing ; batch creation
 - Multi-Currencies support : automatic update based currently base on Yahoo Financial
 - Reporting statistics: CDR , Maximum Concurrent calls, Graphing, Profit Margin analysis



- POWERFULL RATE-ENGINE
 - Billing on Reseller & Account Based
 - Billing LCR(Least cost routing) & LCD (Least Cost Dialing) management
 - Billing Increment: Progressively different rates through the call
 - Scheduled Rates (days/hours of the weeks - PEAK & OFF-PEAK)
 - Expiry of rates
 - Import Rate Cards
 - Rate-card Simulator
 - trunk/voip-provider management
 - Failover Trunks
 - Batch update for rates
 - Calling Packages - X number free minutes to specified destinations
 - Subscription services
 - Callback Rating

- DID SALES
 - Manage your DID's and sell them to your customer for monthly usage.
 - Customer can reserve DID's for themselves and configure a Follow-me to redirect the calls over the PSTN by VoIP.

- REPORTING
 - Reseller's Monthly & daily reporting
 - Customer's Monthly & daily reporting
 - Admin Earnings calculation and markup/margin on report
 - Reseller's Earnings calculation and markup/margin on report
 - Admin Monthly traffic reports (pie chart)
 - Reseller's Monthly traffic reports (pie chart)
 - Daily Call load
 - Compare call-load with previous days
 - Criteria definition for reporting
 - Export report to PDF & CSV
 - Generate invoices to PDF format
 - Email invoices to customers Automatically

- RECURRING SERVICE OVER THE CARD
 - Auto refill existing card with auto refill option
 - Periodically remove credit from customer balance

- OTHERS
 - E-Product : allows interaction with third party ecommerce platforms in order to create cards such as OS-commerce
 - Email activation to verify customer email address.



- Customize mail templates
- ACL (Access control) support for admin users
- DB backup/restore tool
- Export data into XML or CSV
- Customize look and feel of the interface
- API to display ratecard on own website

■ Reseller Management Interface-

- Advanced Card and Customer management: Creation, Edit, Search engine, batch update, CallerID handling, Refill Cards.
- Define: post-pay/prepay, Currency, Expiry, VAT, etc...
- Speed dial
- BILLING MANAGEMENT & REPORTING
 - Check the Customers balance, see Refills made, payment received, amount to pay
 - Multi-Currencies support : automatic update based currently base on Yahoo Financial
 - Reporting statistics: CDR, Maximum Concurrent calls, Graphing, Profit Margin analysis
- POWERFULL RATE-ENGINE
 - Billing Increment: Progressively different rates through the call
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- OTHERS
 - Email activation to verify customer email address.
 - Export data into XML or CSV
 - Customize look and feel of the interface



■ Customer Interface-

- Online signup, selection of tariff, language and currency with email verification.
- Account info, including update details
- Call history - CDR
- Voucher usage and voucher entry.
- Invoice Viewing
- DID selling support - features to sell to pre-configured DID. Customers can redirect DID to his phone-number and even deploy a Follow-Me
- Speed dial configuration
- Ratecard browsing & ratecard simulator
- Web based callback
- Caller id : list / add so that customer can authenticate to the service without needing to enter account and PIN
- Multi-Language support for the customer interface (Spanish, English, French, Chinese, Italian, Romanian, Turkish, Urdu)
- Forget password option

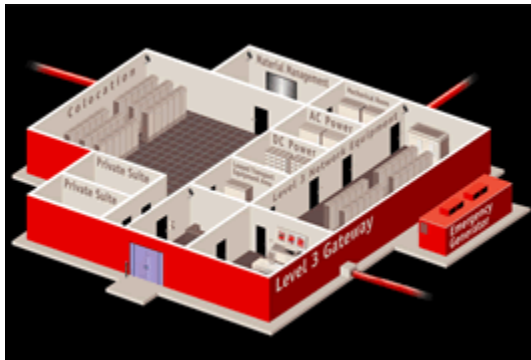
Softswitch Platforms



- SIP Proxy Server
- Mediaproxy server or RTP proxy



- 100 concurrent calls capacity
- 48 Analog Lines (optional for call termination)
- 96 ISDN PRI Lines (optional for call termination)



- SER, Mediaproxy + A2billing
- High End Servers
- Save Monthly Costs
- Required Global call termination network.

PSTN Voice Interfaces



- Two T1/E1/J1 Ports.
- TDM Voice hardware optimizations.
- Data IP hardware optimizations.
- Full compliant T1 and E1 framing and line decoding.
- PCI and PCI Express
- 2U Form Factor.
- RJ45 Connectors



- Four T1/E1/J1 Ports.
- TDM Voice hardware optimizations.
- Data IP hardware optimizations.
- Full compliant T1 and E1 framing and line decoding.
- PCI and PCI Express.
- 2U Form Factor.
- RJ45 Connectors



- Eight T1/E1/J1 Ports.
- TDM Voice hardware optimizations.
- Data IP hardware optimizations.
- Full compliant T1 and E1 framing and line decoding.
- PCI and PCI Express.
- 2U Form Factor.
- RJ45 Connectors

Screen Shots

Admin web interface

- CUSTOMERS**
- List Customers
- Create Customers
- Import Customers
- Generate Customers
- List SIP-FRIEND
- Create SIP-FRIEND
- List IAX-FRIEND
- Create IAX-FRIEND
- List CallerID
- List Speed Dial
- Create Speed Dial
- List Resellers
- Create Resellers
- BILLING**
- RATECARD**
- PACKAGE OFFER**
- OUTBOUND CID**
- TRUNK**
- DID**
- CALL REPORT**
- Reseller Version CALL REPORT
- INVOICES**
- RECURRING SERVICE**
- CALLBACK**
- MISC**
- ADMINISTRATOR**
- FILE MANAGER**
- LOGOUT

Customers are listed below by card number. Each row corresponds to one customer, along with information such as their call plan, credit remaining, etc. The SIP and IAX buttons create SIP and IAX entries to allow direct VoIP connections to the Asterisk server without further authentication.

[REFILL](#)
[SEARCH CARDS](#)
[BATCH UPDATE](#)

- CARD LIST - 9 Records

FILTER ON CARDNUMBER : [APPLY FILTER](#)

ID	CARD NUMBER	ALIAS	RESELLER	LASTNAME	BA	CALL PLAN	ACT	LG	USE	CUR	SIP	IAX	NT	ACTION
5	4567946103	414260	0	Patel	0.00000	gafachi	On	en	0	CAD	No	No	6	EDIT DELETE SIP IAX
8	7563737169	4168486304	2	Ajmeri	9.58820	ivoice	On	en	0	CAD	Yes	No	4	EDIT DELETE SIP IAX
9	3222248184	8351781	0		3.60490	ivoice	On	en	0	CAD	No	No	13	EDIT DELETE SIP IAX
11	265471790236	3942761	0	1230689875	2.50000	ivoice	On	en	0	CAD	No	No	0	EDIT DELETE SIP IAX
12	3193037288	6683652	0	Ratnasabhpathy	0.00000	gafachi	On	en	0	CAD	No	No	0	EDIT DELETE SIP IAX
13	0273444183	4168000456	0	Khalidi	-0.10080	ivoice	On	en	0	CAD	Yes	No	12	EDIT DELETE SIP IAX

Reseller web interface

Asterisk2Billing - Version 1.3.0 (Yellowjacket) - Release : July 20
Logged-in as: 4435

- RESELLER INFO
- CUSTOMERS
 - List Customers
 - Create Customers
 - Generate Customers
 - List SIP-FRIEND
 - List Resellers
 - Create Resellers
- RATECARD
- CALL REPORT
- BILLING
- LOGOUT

Customers are listed below by card number. Each row corresponds to one customer, along with information such as their call plan, credit remaining, etc.
The SIP and IAX buttons create SIP and IAX entries to allow direct VoIP connections to the Asterisk server without further authentication.

CARDNUMBER:

- CARD LIST - 1 Records


FILTER ON CARDNUMBER :

ID	CARD NUMBER	ALIAS	RESELLER	LASTNAME	BA	CALL PLAN	ACT	LG	USE	CUR	SIP	IAX	NT	ACTION
14	4071476910	00971559266627	1	Anand	89.79750	Anand	On	en	0	CAD	No	No	23	<input type="button" value="EDIT"/> <input type="button" value="SIP"/> <input type="button" value="IAX"/>


Customer web interface

Asterisk2Billing - Version 1.3.0 (Yellowjacket) - Release : July 20


- ACCOUNT INFO
- Refill Log
- SIP/IAX INFO
- CALL HISTORY
- VOUCHER
- SPEED DIAL
- RATECARD
- SIMULATOR
- CALLBACK
- WEB-PHONE
- ADD CALLER ID
- PASSWORD
- LOGOUT


LAST NAME : Anand
FIRST NAME : Dayal
EMAIL : kanand81@gmail.com
PHONE :
FAX :

ADDRESS :
ZIP CODE :
CITY :
STATE :
COUNTRY : AFG


CARD NUMBER : 4071476910

BALANCE REMAINING : 89.798 CAD



Authorize.Net

Click below to buy credit : 10 - 20 - 30 - 50 CAD



How to Contact US ?

Contact us for softswitch {SER, Mediaproxy or RTP proxy & Asterisk Billing (A2Billing)}, Calling Card, IP-PBX (FreePBX) customized setup and installation. Write a mail...

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