



FractalBilling is a real-time, integrated call accounting, billing and customer care software solution that enables converged billing of voice products and services. It offers a comprehensive, highly customizable, reliable and scalable platform that can integrate into any voice network infrastructure. With FractalBilling, voice service providers can achieve consolidated billing and single-point customer care for multiple voice service types, using RADIUS and other middleware that allow data aggregation and call detail input from disparate voice gateways and switches.

Highlights

- ▶ **Unlimited, extensive and highly customizable products and account management**
- ▶ **Real-time authentication, authorization, accounting (AAA) and CDR generation**
- ▶ **Real-time charge accrual, billing, ratings and statistics**
- ▶ **Corporate accounts with group billing**
- ▶ **Highly customizable reseller management**
- ▶ **Web-based management, customer care and self-provisioning interface**
- ▶ **Online monitoring and statistics**
- ▶ **Call-to-call profit/loss analysis**
- ▶ **Highly customizable reports**
- ▶ **Hosted billing services**
- ▶ **Built-in data replication, redundancy and failover**
- ▶ **Open architecture and integration ready**

Unlimited, Extensive and Highly Customizable Products and Account Management

FractalBilling offers the flexibility and needed provision to support unlimited number of customized products and ratings, enabling service providers to tailor their services according to the market. Currently supported product types include:

- ▶ Prepaid
- ▶ Rechargeable Prepaid
- ▶ Post Paid
- ▶ Limited Credit Post Paid
- ▶ Corporate (Group)

Thanks to the open extensible architecture of FractalBilling, adding any new product type can be done swiftly. Customizations of products can be broadly applied in five areas. These are:

- ▶ Product Type
- ▶ Tariffs
- ▶ Rating Rules
- ▶ IVR Integration
- ▶ Invoicing
- ▶ Currency
- ▶ Surcharges & Taxes

Flexible tariff management includes the ability to define and instantly activate new tariffs or promotional offers. Tariff schemes allow the service provider to factor in product type, client location (originating node) time of day, day of week, holidays and promotional offers. New tariffs can be activated instantly or scheduled for a future date for a specific period or duration without affecting service. With support for multiple currencies and time zones, service providers can deploy customized products for any part of the world using one central system. New products can be created within minutes and offered online to customers. Service providers can even create customized products for individual customers.



Reseller Management

Real-time Authentication, Authorization, Accounting (AAA) and CDR Generation

FractalBilling includes a full-featured advanced RADIUS module that works with all RADIUS-compliant gateways such as Cisco and Quintum voice gateways. This high performance multi-threaded server fully supports the standard as well as Vendor Specific Attributes (VSAs). The power of this module lies in the fact that it is highly customizable to enable a multitude of rich product features such as flexible Interactive Voice Response (IVR) scripts.

Real-time Charge Accrual, Billing, Ratings and Statistics

FractalBilling performs high throughput charge application, billing, rating and statistical analysis in real-time. Billing is done for each billable CDR based on set product definitions and ratings. Real-time billing allows the service provider to modify and fine-tune various rating parameters and view the results instantaneously. FractalBilling tracks service usage and payments in real-time. When service usage reaches a pre-defined limit, the system automatically sends a low balance alert via SMS and email. A voice prompt can also be played to the customer through the IVR, if configured for the product. Once usage reaches the credit limit defined for an account, additional calls are not authorized and existing calls are dynamically disconnected.

Corporate Accounts with Group Billing

FractalBilling supports corporate customers with multiple end-user accounts under a single group account. This account can control and add end-user accounts under it while affording full and independent end-user account management through the online self-provisioning interface. A corporate account gets a pool of credit (prepaid deposit or postpaid credit limit) that can be distributed among its end-user accounts or shared between the accounts as a single pool. Individual as well as consolidated invoices are automatically generated and sent at predefined billing intervals.

Highly Flexible Reseller Management

Resellers are customers that market existing or customized products to other end users on a revenue sharing model. FractalBilling provides resellers the capability to independently manage all aspects of end-user accounts under them through the online self-provisioning interface. For the service provider, it provides real-time monitoring and management of resellers' activities and receivables. For the prepaid industry, when batches of accounts are provided to the reseller on credit, FractalBilling keeps track of the Failover utilization of accounts (first use and depletion) per batch and alerts when it crosses predefined limits for unpaid batches.

Web-based Management, Customer Care and Self-Provisioning Interface

FractalBilling includes an intuitive and comprehensive Self-Provisioning Interface that provides management features for all aspects of the system. All configurations, product creation and definitions, modifications or enhancements, reporting, security and customer service are carried out through this interface. Secure access is provided for all users including end-users, resellers, corporate customers, customer service operators and administrators based on predefined roles and access privileges. Customers can service themselves thereby lowering operational costs for the service provider. The interface easily integrates into the service provider's web site to instantly provide a storefront for online product purchases. For end-users, it includes easy to use features to reliably and securely:

- ▶ Purchase any number of products using the online storefront.
- ▶ View remaining credit and account balances
- ▶ Replenish accounts using secure connections
- ▶ Modify existing services that have been purchased
- ▶ View or download invoices and call detail records
- ▶ Dispute call charges (Call Dispute Management) depending on the service provider

Online Monitoring and Statistics

FractalBilling provides a host of real-time tools that monitor and graph critical performance indicators such as quality, utilization and profitability. Vital quality metrics such as ASR, ACD and PDD can be monitored on the basis of a destination, a breakout within the destination, a carrier, a product, carriers within a product, destinations within a product, and any other combination of the above.

Additionally, quality alarms can be configured using highly flexible rules to send an alert (email and/or SMS) when any combination of quality parameters degrade below a preset level for any product, carrier, destination, or combination of these three. Alternatively, the alarms can be fed into a trouble-ticketing application.

Similarly, utilization and profitability can be monitored on the basis of a destination, a breakout within the destination, a carrier, a product, carriers within a product, destinations within a product, as well as any other combination of the above. These tools enable quick response to quality degradation and losses. It allows monitoring of peak resource utilization, and thus assists in capacity planning. It also allows help desk operators to manage customer service operations effectively.

Call-to-Call Profit/Loss Analysis

FractalBilling provides profit/loss analysis on a call-to-call basis. The service provider can zoom in on the exact calls and destinations that are profitable. More importantly, unprofitable calls and destinations can be instantly revealed so that the service provider can take immediate corrective action. In real time, the effects of these changes can be viewed, and through fine-tuning, achieve optimal profits.

Highly Customizable Reports

FractalBilling provides service providers with comprehensive reports including:

- ▶ Billing and Accounting Reports
- ▶ Revenue & Expenses Reports
- ▶ Call reports for End-users, Resellers, Corporate accounts and carriers
- ▶ Quality and performance reports

No	Name	Description	Nature	Amount	Frequency	Type	Tax	Date	Assign	Edit	Delete
1	Recurring Charge	Recurring Charge	Charge	.05	Recurring	Percentage	0	12-09-2004	<input type="checkbox"/>		
2	Activation Fee	Activation Fee	Charge	5	Activation	Fixed	4	12-09-2004	<input type="checkbox"/>		
3	Setup Fee	Setup Fee	Charge	10	One Time	Fixed	4	12-09-2004	<input type="checkbox"/>		
4	Recurring Charge	Recurring Charge	Charge	1	Recurring	Percentage	0	12-09-2004	<input type="checkbox"/>		
5	Maintenance Fee	Maintenance Fee	Charge	5	Monthly	Fixed	0	12-09-2004	<input type="checkbox"/>		
6	Connection Fee	Connection Fee	Charge	.05	Recurring	Percentage	0	12-09-2004	<input type="checkbox"/>		
7	Connection Fee	Connection Fee	Charge	.05	Recurring	Fixed	0	12-09-2004	<input type="checkbox"/>		

Product Charges

ID	Country	Interval	Rate	Status	Edit	Delete
1	FRANCE	30	1	●		
2	FRANCE	60	.4	●		
3	FRANCE	360	2	●		

ID	Country	Start Date	End Date	Start Time	End Time	Day	Calling Number	DNIS	Deny Call	Status	Edit	Delete
1	FRANCE	01-JAN-04	31-DEC-05	19:00:00	23:59:00	All				●		
2	FRANCE	01-JAN-04	31-JAN-05	00:00:00	05:00:00	Sa				●		
3	FRANCE MOBILE	01-JAN-04	31-JAN-05	18:00:00	23:59:00	All				●		
4	FRANCE PARIS	12-SEP-04	12-SEP-04	00:00:00	05:00:00	All				●		
5	FRANCE MOBILE	01-JAN-04	31-DEC-04	00:00:00	05:00:00	Sa				●		
6	FRANCE PARIS	01-JAN-04	31-DEC-04	18:00:00	23:59:00	All				●		
7	FRANCE	01-JAN-04	31-DEC-05	00:00:00	05:00:00	All	33672296474		✓	●		
8	FRANCE	01-JAN-04	31-DEC-06	01:00:00	08:00:00	All		33142225457	✓	●		

Adjusted Product Rates

These reports are easily exported into a variety of formats including PDF, Microsoft Excel, Microsoft Word, HTML or CSV. Leveraging the power of FractalBilling’s relational database, service providers can generate almost any report in real-time with up-to-date information using third party reporting tools such as Crystal Reports and Oracle Reports.

Hosted Billing Services

FractalBilling can be used to offer call billing services to third parties on an application service provider (ASP) model. These third parties, known as hosted service providers, can independently manage their voice products and services, carriers and customers. This partitioning is made possible by FractalBilling’s four-tier billing model.

Built-in Data Replication, Redundancy and

FractalBilling exists as a server-side application running on Oracle. The tight integration with Oracle using native Oracle functions makes FractalBilling extremely fast and robust with powerful capabilities. FractalBilling features a multi-server architecture with built in redundancy at multiple levels. Real-time database replication with disparate servers for billing and administration ensures

high processing speed and complete data integrity. Seamless and real-time failover with automatic recovery on proven industrial strength Oracle RDBMS guarantees telco-grade reliability. A full-featured version of FractalBilling is also available for open source database, PostgreSQL.

Open Architecture and Integration Ready

FractalBilling has been integrated with voice gateways from Cisco and Quintum through open standards based RADIUS. It can seamlessly integrate with any other voice gateway or switch through customized middleware available through Fractalcom.

ID	Country	Interval	Rate	Status	Edit	Delete
1	FRANCE	30	1	●		
2	FRANCE	60	.4	●		
3	FRANCE	360	2	●		

Product Rates

System Architecture



System Components

Hardware

- ▶ Two Linux Servers. Recommended configuration: Intel Pentium Xeon 2.8 GHz, 1 GB RAM, 100 GB of RAID storage
- ▶ Any RADIUS-Compliant Voice Gateway (Cisco, Quintum) or Switch

System Software

- ▶ FractalBilling
- ▶ Apache Web Server with modules
- ▶ Oracle SE or PostgreSQL Database Server

Client Software

- ▶ Browser: Internet Explorer 5.5 or higher, Netscape 6.2 or higher, Mozilla 1.1 or higher

Key Features

Products & Services

- ▶ Corporate and regular product/service type
- ▶ Comprehensive product/service types
- ▶ Unlimited number of products/services
- ▶ Fine-grained customization of products/services
- ▶ Integration of IVR
- ▶ Cross product/service discount

Multiple Authentication Options

- ▶ Account Number/Card Number
- ▶ ANI
- ▶ PIN
- ▶ Tech-Prefix
- ▶ DNIS

Dial Options

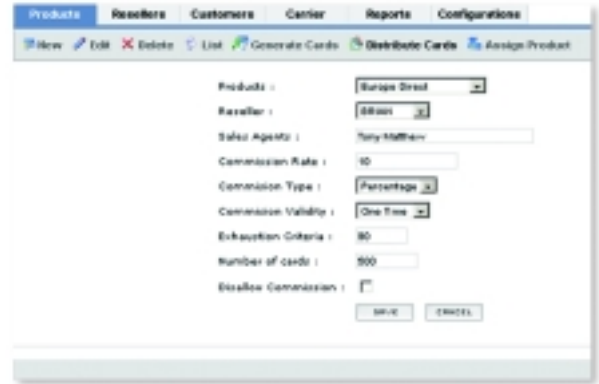
- ▶ ANI Authorization
- ▶ Local Access Number
- ▶ Toll Free Dialing
- ▶ Abbreviated Dial (10-10)
- ▶ Speed Dial

IVR

- ▶ Credit Time or Balance Announcement Customizable through Product Configuration
- ▶ Multi-language IVR Support
- ▶ Customizable IVR Scripts
- ▶ Seamless integration of new IVRs

Multiple Surcharges

- ▶ Flat or Percentage Based
- ▶ Activation
- ▶ Periodic
- ▶ Recurring
- ▶ One-time



Product Distribution

Multiple Billing Cycles

- ▶ Weekly
- ▶ Fortnightly
- ▶ Monthly
- ▶ Customizable by service provider

Flexible and Extensive Rating Rules

- ▶ Time of Day, Day of Week and/or Month of Year
- ▶ Vacation Rate
- ▶ Peak Time
- ▶ Flag fall
- ▶ Deny Call
- ▶ Based on ANI, DNIS
- ▶ Progressive
- ▶ Minute Fraction (Dual Credit Time)
- ▶ Adjusted Incremental/Declining Rates

FractalBilling is not tied to any single billing model. Instead, the most flexible approach possible has been taken, allowing complete flexibility to implement the business rules required to support virtually any billing model. This provides the service provider the ability to launch new products and services quickly in full support of market demands and regulatory requirements.

No	Name	User Name	Used Date	Limit	Balance	Call Duration	Cost	Last Recharged
1	Jerry Cage (JERRY)	090284013091	12-SEP-2004	100	42	58	58	
2	Jonathan Edward (JONATHAN)	090913642723	12-SEP-2004	100	-57	104	157	
3	Joshua Pilo (MILO)	098777840345	12-SEP-2004	100	10	93	90	
4	Maggie Smith (MUMTH)	097605000676	12-SEP-2004	100	30	57	50	
5	Manoj Patel (MAHOJ)	092629692118	12-SEP-2004	100	-4	52	104	
6	Tony Passwater (TOHY)	094753148813	12-SEP-2004	100	96	11	4	

Product wise list of Customers

Fraud Management

- ▶ Simultaneous calls are not allowed for end-user accounts, unless configured for post-paid customers.
- ▶ Attempts to authorize PINs belonging to batches that have not been sold indicate PIN leaks.
- ▶ Within a predefined interval, if more than a predefined number of different PIN authorization attempts are made from a single ANI, all further calls from that ANI are blocked.

Call Matching, Reconciliation, Settlements & Dispute Management

- ▶ Reconcile bills of interconnecting partners by matching billing records
- ▶ Generate and send statements to carriers and interconnecting partners
- ▶ Settle accounts of interconnecting partners through reconciliation and settlement adjustments for disputed items

Rate Plans Analysis, Reports & Audits

- ▶ Ability to model new rate plans and analyze the impact on costs and revenues
- ▶ Carry out mass rate updates
- ▶ User customizable and predefined traffic and management reports
- ▶ User definable roles and access privileges the system access and restriction
- ▶ Audit history of user activities & transactions

Carrier Account Management and Billing

- ▶ Create and manage multiple carrier accounts
- ▶ Create and manage destination codes
- ▶ Define buying and selling rates per destination code per carrier
- ▶ Define multiple billing cycles
- ▶ Rates for time of day, day of week, holidays and exceptions
- ▶ Define usage-based, fixed and recurring charges

Name	Type	Generated	Remaining	Scratched	Exhausted	Card Value	No. Cards	Expiry Period	Status
CALL FRANCE	RPA	100	74	26	22	250	1	180	●
Call Home	RPA	900	409	169	137	50	1	365	●
Call Italy	RPA	400	209	109	77	90	1	90	●
Europe Direct	RPA	100	74	25	25	100	1	90	●
First Connection	PRE	400	199	171	156	100	1	180	●
Hello France	PRE	500	409	109	36	20	1	90	●
Hello Italy	POST ANI		0	0	NA	20	1	90	●
Hello United Kingdom	PRE	1000	209	171	102	50	1	90	●
Instant Connection	RPA	100	95	5	5	250	5	365	●
Jupiter	POST One-Shot	4	0	0	NA	0	1	365	●
Talk United Kingdom	PRE	300	109	171	102	20	1	90	●
World Connection	POST ANI		0	0	NA	100	1	90	●

Product List

Product Types

- ▶ Regular – 1 Card (also called PINS) per Product when purchased online through credit-card; Any number of cards when distributed through a Reseller
- ▶ Corporate – Always more than 1 Card per Product

Card Types

- ▶ Prepaid
- ▶ Rechargeable Prepaid
- ▶ ANI based rechargeable prepaid
- ▶ ANI based rechargeable prepaid with Abbreviated Dial
- ▶ Post Paid
- ▶ ANI based postpaid
- ▶ ANI based postpaid with Abbreviated Dial
- ▶ Limited credit postpaid
- ▶ ANI based limited credit postpaid
- ▶ ANI based limited credit postpaid with Abbreviated Dial



Product Property

Product Attributes

- ▶ Product Name
- ▶ Product Code
- ▶ Detailed Product Description
- ▶ Product Nick-Name
- ▶ Product Card Type (Prepaid, Postpaid, ANI, Rechargeable, etc.)
- ▶ Card length – number of digits in each card
- ▶ Initial Credit Amount for Prepaid card types
- ▶ Credit Limit for Postpaid Limited card types
- ▶ Product type – Regular or Corporate
- ▶ Default Product – Product that defines Rates for all Country Codes
- ▶ Product Activation date
- ▶ Billing Method – Prepaid or Postpaid
- ▶ Expiration date – The date card expires
- ▶ Expiration offset – Number of days, months after which the card expires after first use
- ▶ Number of card(s) per Product
- ▶ Billing frequency – Intervals of time at which to generate invoice for the card
- ▶ Product currency
- ▶ Low credit warning
- ▶ Grace Period for invoice receipt in days
- ▶ IVR announcement of remaining balance
- ▶ IVR announcement of remaining time
- ▶ Ignore Duration – Calls with duration less than this are not billed
- ▶ Minimum Duration – Calls less than this duration are billed for this duration
- ▶ Restrict calls for Product(s) only through a particular PSTN Access Number
- ▶ Maximum call duration for postpaid accounts
- ▶ Rounding Schemes for call duration
- ▶ PIN authentication

Charges

Charges can be defined to be either Fixed or Percentage and applied to Products. The following charges are supported.

- ▶ Activation - When the card is first activated
- ▶ Periodic – Daily, Weekly, Fortnightly, Monthly, Bi-Monthly, Quarterly, Semi-Annual, Annual
- ▶ Recurring - Each time the card is used
- ▶ One-time - When the card is used for the first time or when the card is activated

Tax

Tax is defined in terms of Percentage and can be applied to card(s) under product.

Product Country Rates

Rate is defined for each Country Code under the Product. Rate is based on increments. For example, for call up to 1 minute a defined rate can be applied, for call duration more than 1 minute but less than 3 minutes, a new rate can be applied, and so on. There is no restriction to the number of intervals that can be defined. A default Product should have Rates defined for all Country Codes.

Rating Rules

Rating Rules is perhaps the most effective mechanism to maximize profit. A Rating Rule can be defined to select the desired Country Rate for a given call when the call originates. Moreover, a Rating Rule can be defined to pick an apt Country Rate for a given call when it terminates, at the time of real-time billing. These adjusted Rates override the Product Country Rates for the Country Code in contention. There is no limit to the number of Rules that can be defined. When a Rule qualifies for a call, if the Deny Call flag is set then the call will not be authorized. The following criteria determine whether a call qualifies for a Rule or not –

- ▶ Start Date/Time, End Date/Time
- ▶ Day of Month, Date of Month, Every Day
- ▶ Day of Week
- ▶ Time of Day
- ▶ Calling Number
- ▶ Called Number

The following components comprise Rating Rules.

Minute Fraction can be used to adjust number of seconds per minute for talk-time determination as well as for call duration.

Adjusted Incremental Rates are the Rates that override the Product Country Rates. For example, a rate of \$0.30 can be defined for the first 30 seconds, then a different rate of \$0.35 for calls between 30 and 60 seconds, and a different rate for different interval and so on. There is no limitation as to the number of intervals that can be defined.

Invoice

Invoicing is done automatically as defined for the Product. The following invoicing schemes are supported for postpaid and credit limited postpaid Products -

- ▶ Weekly
- ▶ Fortnightly
- ▶ Monthly

Product Management

- ▶ Create Products
- ▶ Customize Product Attributes
- ▶ Create Product type (Regular or Corporate)
- ▶ Create Charges
- ▶ Associate Charges with Products
- ▶ Create Taxes
- ▶ Associate Taxes with Products
- ▶ Define Default Product Country Rates
- ▶ Define Country Rates
- ▶ Define Rating Rules
- ▶ Define Incremental Rates
- ▶ Define Minute Fraction
- ▶ Generate Cards

- ▶ Distribute Batch of Cards to a Reseller or Distributor
- ▶ Define Sales Agents
- ▶ Disallow Commission for the Reseller
- ▶ Define Commission Rate for the Reseller
- ▶ Define Commission Type for the Reseller – Percentage or Flat
- ▶ Define Commission Validity – Adhoc or Life-long
- ▶ Define Exhaustion Criteria for Products distributed to a Reseller to better facilitate the invoice collection process
- ▶ Define Number of Cards assigned to the Reseller

Customer Attributes

- ▶ Customer First, Middle, Last Names
- ▶ Description
- ▶ Nick-Name
- ▶ Customer Type – Regular, Corporate, Trivial, End-User
- ▶ Login Code – E-mail Address is used as the login name
- ▶ Password to Login
- ▶ Creation Date
- ▶ Disabled Date
- ▶ Secondary E-mail Address
- ▶ Phone Number
- ▶ Mobile Number
- ▶ Fax Number
- ▶ Long Address
- ▶ PO Box
- ▶ State, Zip Address
- ▶ Corporate Customer Company Name
- ▶ Corporate Customer URL
- ▶ Customer Billing Frequency
- ▶ Speak Amount – Corporate Customers can use this flag to configure whether to announce Remaining Balance to Cards under the Customer
- ▶ Speak Time – Corporate Customers can use this flag to configure whether to announce Remaining Time to Cards under the Customer
- ▶ Credit Card Number
- ▶ Credit Card Expiry Date
- ▶ Credit Card Verification Code
- ▶ Credit Card Type



Product User Status

Customer Management

- ▶ Create Corporate Customers
- ▶ Create Trivial Customers
- ▶ Create Corporate End Users – Account holders under a Corporate Customer

Customer Self-Care

- ▶ Edit Profile
- ▶ Purchase new Products
- ▶ Register new ANIs for ANI-Based Products
- ▶ View Call Detail Information
- ▶ View Historical Call Details

Reseller Attributes

- ▶ First, Middle, Last Names
- ▶ Description
- ▶ Nick-Name
- ▶ Login Code – E-mail Address is used as the login name

- ▶ Password to Login
- ▶ Commission Rate
- ▶ Sales Agent
- ▶ Creation Date
- ▶ Disabled Date
- ▶ Secondary E-mail Address
- ▶ Phone Number
- ▶ Reseller Mobile Number
- ▶ Reseller Fax Number
- ▶ Reseller Long Address
- ▶ Reseller PO Box
- ▶ Reseller State, Zip Address
- ▶ Reseller Company Name
- ▶ Reseller URL
- ▶ Customer Billing Frequency

No	Product Name	Card Type	Card Value	Total Cards	Scratched	Exhausted
1	Call Italy	MIN	50	400	100	10
2	Europe Coast	MIN	100	20	20	10
3	Hello France	PRE	30	200	100	140
4	Hello Italy	POST PRE	30	200	0	0
5	Hello United Kingdom	PRE	50	100	100	40
6	Talk United Kingdom	PRE	30	100	100	10
7	World Connection	POST PRE	100	200	0	0

Reseller wise list of Products

Reseller Management

- ▶ Create Resellers
- ▶ Distribute Cards to Resellers
- ▶ Assign Commission Rate
- ▶ Assign Commission Type

Reseller Self-Care

- ▶ Edit Profile
- ▶ Purchase new Products
- ▶ Register new ANIs for ANI-Based Products
- ▶ View Call Detail Information
- ▶ View Historical Call Details

Reports

- ▶ Call Detail Information per Card (or PIN) – Card, Timestamp, DNIS, Call Duration, Duration Cost, Charges, Taxes
- ▶ Scratched Cards
- ▶ Percentage Scratched
- ▶ Exhausted Cards
- ▶ Percentage Exhausted
- ▶ Card used per Product
- ▶ Calls Completed
- ▶ Calls Failed
- ▶ Calls not Answered
- ▶ Fraudulent Uses
- ▶ Call Success Rate (CSR)
- ▶ Average Call Duration (ACD)
- ▶ Maximum Call Duration
- ▶ Minimum Call Duration
- ▶ Total Call Traffic in minutes, hours, week, month
- ▶ Analysis of terminated calls
- ▶ Real-time Remaining Balance for Prepaid and Rechargeable Prepaid Cards
- ▶ Real-time Remaining Credit for Credit Limited Postpaid Cards
- ▶ Reseller vs. Reseller Performance Analysis
- ▶ Country Code Analysis

No	Date	Time	Card Number	Country Code	Country	Called Number	Duration	Cost	
1	01-08-2004	17:00:00	0000000000000000	000	FRANCE (PARIS)	0033010000000000	00:07	00	
2	01-08-2004	18:00:00	0000000000000000	000	FRANCE (PARIS)	0033010000000000	00:07	00	
3	01-08-2004	19:00:00	0000000000000000	000	FRANCE (PARIS)	0033010000000000	00:07	00	
4	01-08-2004	20:00:00	0000000000000000	000	FRANCE (PARIS)	0033010000000000	00:07	00	
5	01-08-2004	21:00:00	0000000000000000	000	FRANCE (PARIS)	0033010000000000	00:07	00	
6	01-08-2004	22:00:00	0000000000000000	000	FRANCE (PARIS)	0033010000000000	00:07	00	
7	01-08-2004	23:00:00	0000000000000000	000	FRANCE (PARIS)	0033010000000000	00:07	00	
8	01-08-2004	00:00:00	0000000000000000	000	FRANCE (PARIS)	0033010000000000	00:07	00	
9	01-08-2004	01:00:00	0000000000000000	000	FRANCE (PARIS)	0033010000000000	00:07	00	
10	01-08-2004	02:00:00	0000000000000000	000	FRANCE (PARIS)	0033010000000000	00:07	00	
							TOTAL	10	00:07

Call Records

Customer Service Operators

Depending upon the privileges, a Customer Service Operator can assist the Customer or Reseller in the following manner.

- ▶ Search for Customers by card number (PIN), card distribution number, serial number, card type, product type, product, etc.
- ▶ Search for Resellers by card number (PIN), card distribution number, serial number, card type, product type, product, distribution date, sales agent, commission type, commission validity, etc.
- ▶ View or Edit Customer Account Information
- ▶ View or Edit Reseller Account Information
- ▶ View Call Detail Information for a Customer
- ▶ View Customer Account Transactions
- ▶ Credit Card Transaction
- ▶ Add disputed balance
- ▶ Log complaints

Customers

Customers are classified into – (i) Corporate Customers that own at least one Corporate Product (ii) Trivial Customers that own Regular Product(s) (iii) Corporate End Users are Customers under a Corporate Customer

A Corporate Customer can –

- ▶ Purchase any number of Products using the online web-shop
- ▶ View Remaining Balances of Cards under Products
- ▶ View Credit Remaining in case of Credit Limited Products
- ▶ View Current Balance of Postpaid Products
- ▶ Recharge Cards
- ▶ View Call Detail Information
- ▶ View Historical Call Details
- ▶ View or Download Invoices
- ▶ Transfer Balance from the Credit Pool to Cards or vice-versa
- ▶ Set Credit Limits on individual cards
- ▶ Opt for a secret PIN number authentication for a Card and set PIN number
- ▶ Add new ANIs for ANI-Based Products
- ▶ Override Product flag to not speak Remaining Balance
- ▶ Override Product flag to not speak Remaining Time
- ▶ Edit Personal Profile and Contact Information
- ▶ Trivial Customers and Corporate End Users have the privileges to –
- ▶ Purchase any number of Products using the online web-shop
- ▶ View Remaining Balances of Cards under Products
- ▶ View Credit Remaining in case of Credit Limited Products
- ▶ View Current Balance of Postpaid Products
- ▶ Recharge Cards
- ▶ View Call Detail Information
- ▶ View Historical Call Details
- ▶ View or Download Invoices
- ▶ Opt for a secret PIN number authentication for a Card and set PIN number
- ▶ Edit Personal Profile and Contact Information

Web Storefront

Service providers can integrate their own merchant gateway services. All transactions are secured through Secure Socket Layer Protocol. The storefront is tightly integrated with billing and reflects real-time balances.

A Customer can:

- ▶ View product details like rates and charges
- ▶ Add purchased product into own account
- ▶ Provide payment via credit card