

Billing Solution / Mandatory Technical Requirements	Technical requirements included in implementation scope
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**SOFTWARE TO SUPPORT THE APPLICATION**

1	The proposed solution includes all the software to support the billing process. The vendor shall enumerate all the proposed (included in the quoted proposal) and all the optional (sub-) applications and features.	Yes
2	The vendor must describe all the proposed (included in the quoted proposal) and all the optional (sub-) applications and features.	Yes
3	The solution shall be able to support, and be configured with, the capability to hold the billing processes for more than one company (eg. Radiomóvel and Repart), having different behavior ranging from account numbering plan, invoice numbering sequence, product configuration to rendering and journaling, depending on the company. The vendor shall commit to this requirement, describe it and detail the licensing and implementation process impacts.	

**Architectural Requirements**

4	The server components should be compatible with Linux,Solaris and HPUX operating systems.	Yes
5	The application servers should support the addition of functional modules which can be custom modules for carrying out specialized business logic , that are plugged into the application servers as shared libraries.	Yes
6	The application servers should provide open API's which can be invoked by external applications via web services methods.	Yes
7	The software must provide an in memory database which can be used optionally for reducing the latency of AAA requests.	Yes
8	All information must be stored in the database as objects.An object is equivalent to a database record or a set of database records. Each type of object contains a set of related information. These objects should provide an abstraction layer between the database tables and external applications.	Yes
9	The software should provide a multi DB manager, which can be an optional component that can be used to add additional databases as the number of subscribers increase	
10	System should provide a high availability(99.99%)	
11	System should be easily scalable to handle higher loads	Yes
12	Proposed product should support multi-DB functionality	
13	Solution will have implemented an interface with an Operational management application	Yes
14	The proposed product should support web services	
15	Vendor must specify the restart time for the system, and downtimes required by specific actions.	Yes
16	System should minimise to the furthest extent possible the voice network downtime during integration.	Yes
17	The system architecture will be open, modular and suitable for easy integration with other systems. The proposal shall include the description of the system architecture, identifying and describing all the proposed and necessary components (hardware, software, interfaces and relevant configurations), and how does it meets the openness, modularity and easy of integration requirements.	Yes
18	The proposal must include a clear and complete functional diagram of the proposed solution, explicitly indicating the components within the scope of delivery and the components out of the scope of delivery.	Yes
19	The proposal must include a clear and complete physical diagram of the proposed solution, explicitly indicating the components within the scope of delivery and the components out of the scope of delivery.	Yes
20	The proposal must describe the proposed client interface options, namely indicating if are client side specific applications or if can be accessed using a web browser. In the last case, the effort and level of integration shall be quantified an indicated what is part of the proposal.	Yes
21	The proposed system must be scalable in terms of number of data sources, subscribers/traffic data volume and end users. The proposal shall describe how the proposed platform architecture is scalable, in order to allow the growth of any system usage parameter.	Yes
22	The proposal must describe the system characteristics that contribute to the fast response operation.	Yes

23	The proposed system must provide for a high level of security, intrusion prevention and detection and data integrity and confidentiality. The proposal shall describe the system characteristics that contribute to the high level of security, intrusion prevention and detection and data integrity and confidentiality.	Yes
24	Solution must support open SQL access to the databases from which ad hoc reports and data investigation can be done.	Yes

**Product Catalog and Rating**

25	The product catalog tool must provide the ability to create different pricing lists. The vendor shall describe the pricing configuration model and flexibility	Yes
26	The product catalog functionality must also provide the ability to bundle multiple prices and create an offering to the customers.. The vendor shall describe the bundle and promotion configuration model and flexibility	Yes
27	It must be possible to define various type of recurring charges and one time charges in the system.	Yes
28	Implemented products must support rating events based on multiple attributes.	Yes
29	Proposed product should support to introduce new services into the system. The vendor shall describe the product configuration model and flexibility and clarify which characteristics contribute to the sustainability to support the telecom business.	
30	It should provide the functionality to map services to multiple event types.	Yes
31	Resources such as free minutes, free bytes, currency etc, should be configurable via a GUI tool.	Yes
32	It must be possible to credit both monetary and non monetary resources using products.	Yes
33	The implemneted system must allow you to round resources based on the type of resource or currency, the type of event such as purchase, usage, and discount events, and the process that performs the rounding such as rating, discounting, and billing.For example, you can round up to a precision of six decimal places for rating usage events, round down for discounting those usage events, and round to the nearest two decimal places when billing the usage.	Yes
34	The implemneted system will allow the organization of rates in a product in a hierarchical structure.This structure allows you to create multiple components at each level; for example, you can rate multiple events in a single product and create multiple rates for each event.	Yes
35	For each product the implemneted system will allow the user to specify that a product is always valid, valid from a future date forward, valid until a future date, or valid for some definite period in the future.	Yes
36	The proposed product should allow for the creation of base deals and alternate deals.A base deal is the deal that is used to rate events as they occur. For each base deal, you can set up a set of alternate deals for a best pricing configuration.At billing time, the charges calculated using the base deal are compared with the charges of each alternate deal to arrive at the best price. An alternate deal is a deal that is used to rate the events at billing time for comparing the resulting charges with the charges calculated using the base deal.The system should perform a calc-only rerating operation using the alternate deals at billing time. You can also calculate the best price at any time during the billing cycle .	
37	The implemneted system will set the purchase, cycle, and usage periods to start: * Immediately — The effective period starts as soon as the customer purchases the product or discount. * On first usage — The effective period starts when the product or discount is first used. The product fees are not charged until the customer uses a service in the product for the first time.# # Relative to the product or discount purchase time — The purchase time is the time when a product or discount is added to the account. For flat rate services, the system should allow for the period to start BEFORE the date of account creation, from a date manually specified, and should bill the fraction between installment date and billing cycle date based on the monthly rate.	Yes

38	<p>The proposed product should allow the user to define dependencies between deals in the product catalog tool that set up the following relationships:</p> <ul style="list-style-type: none"> <li>* Prerequisites. Specifies that an account must own a particular deal to be able to purchase an additional deal.</li> </ul> <p>Plan requirements. Specifies whether deals are optional or required for plans. Required deals must be purchased when a plan is purchased, whereas optional deals can be added at any time.#</p> <p># Mutual exclusivity. Sets up a mutually exclusive relationship between two deals so if an account owns one deal, it cannot own the other.</p> <p># Allowed transitions. Specifies which deals or plans can serve as replacements for others.</p>	
39	<p>The implemented system will have setting credit thresholds and credit floors. The credit threshold is a percentage of the credit limit. For example, if the credit limit is \$100, and the threshold is 90%, the threshold amount is reached when the customer has a balance of \$90; that is, when the customer has used 90% of the resource.</p> <p>The credit floor is a numeric value that sets the starting point for the credit thresholds. It is the amount of the resource that represents the lowest number that the resource value can be; that is, the number that represents no use of the resource. For currency resources, the credit floor is 0. This allows you to set the credit threshold at a percentage based on the ratio of the credit limit to 0.</p>	Yes
40	The implemented system will allow the creation of CSR plans so as to be able to control access to customer management, and record customer management events.	Yes
41	The implemented product catalog tool will allow for export and import of price lists via XML .	Yes
42	Proposed Product should support restriction of certain users from editing the price lists.	
43	The implemented product catalog tool must provide the ability to create different pricing lists using an intuitive GUI application.	Yes
44	The implemented product catalog functionality must provide the ability to bundle multiple products/service and price them as a bundle offering to the customers.	Yes
45	Must be possible to define various type of recurring charges and one time charges in the system.	Yes
46	The implemented system must support multi-dimensional rating (quantitative) based on more than one parameter such as duration, volume, number etc also rate events based on qualitative attributes such as QoS, Time of the day, type of game etc.	Yes
47	Must support stepped and tiered rating	Yes
48	Must rate the event based on any parameter value of the event.	Yes
49	It should be possible to introduce new services into the proposed product easily.	
50	Resources such as free minutes, free bytes, currency etc, must be configurable via a GUI tool in the implemented system.	Yes
51	The implemented system must specify the order in which resource sub-balances are consumed. For example, if a customer has several groups of free minutes with different validity periods, you use consumption rules to indicate which minutes to use first, based on the validity start time and end time.	Yes
52	In the implemented solution must be possible to rollover the free minutes or other resources to next billing cycle. It should be possible to specify the amount of balances that can be rolled over to next cycle.	Yes
53	In the implemented system for each product the system must allow the user to specify that a product is always valid, valid from a future date forward, valid until a future date, or valid for some definite period in the future.	Yes
54	<p>The implemented system must allow to set the purchase, recurring, and usage charges periods to start:</p> <ul style="list-style-type: none"> <li>* Immediately — The effective period starts as soon as the customer purchases the product or discount.</li> <li>* On first usage — The effective period starts when the product or discount is first used.</li> </ul> <p>The product fees are not charged until the customer uses a service in the product for the first time.</p> <ul style="list-style-type: none"> <li>* Relative to the product or discount purchase time — The purchase time is the time when a product or discount is added to the account.</li> </ul>	Yes
55	Implemented system allows for customizing /tailor made plans/offers to specific customers at the time of purchasing the offers. CSR should be able to override the price configured in the product catalogue for specific customers. For the rest of the customers the product catalogue price would be valid.	Yes
56	It should be possible to set the credit limits for different services. On reaching credit limit threshold the system should be able to inform the customers .	
57	It should be possible to allow the customers to monitor the balances for to have a control on their spending. For example, a family with multiple accounts can create a balance monitor that tracks the entire family's balance and that alerts them when the balance total exceeds \$100. This will help customers monitor their credit.	
58	It should be possible to restrict certain users from editing the price lists.	
59	Please describe your capability of configuration of next generation of services with emphasis on less time to market.	Yes

60	Please describe how the time zones (periods) are setup in your system. Billing system should support rating based on time of the day, day of the week	Yes
61	How does the system handle duplicate CDR's?	Yes
62	Can the system support call assembly of Partial CDR's coming from switches/mediation?	Yes
63	Can the operator configure the rating engine to skip or discard special call types?	Yes
64	Proposed product should be able to support rerating of EDRs.	
65	What are the different Zoning methods that the system supports?	Yes
66	Describe CDR/EDR Error Management features.	Yes
67	Please describe the various AAA functions performed during the online (realtime) charging/rating.	Yes
68	Proposed product should allow for multiple currency rates to be configured, and applied within the same bundle.	
69	The vendor shall describe the application(s) used for products, pricing and promotions configuration, indicating the characteristics allowing to be used by Business Area users, without technical knowledge (SQL, scripting, ...)	Yes
70	The vendor shall describe the system flexibility and process to implement new products, pricing and promotions, based on scripting, without GUI interfaces. This is important for fast deployment of new services, based on existing ones.	Yes
71	The vendor shall describe the new products deployment lifecycle and how does the proposed applications contribute to a low risk and fast deployment process.	Yes
72	The proposed product should be capable to support, as an option, modeling and simulation functionality, to preview incoming impacts on new products and products changes.	

#### Account Maintenance

73	The vendor shall describe the customer account datamodel, describing the different entities, and clarifying which characteristics contribute to the suitability to support the telecommunication business.	Yes
74	The implemented system must include the capability of creating and maintaining the account information on per account basis. The vendor shall describe the proposed applications for such purpose.	Yes
75	The implemented system must include the capability of creating and maintaining the account information on massive operations basis. The vendor shall describe the proposed applications for such purpose.	Yes
76	The Account Maintenance interface shall allow customization of the input fields validation rules, setting as mandatory, optional, syntax rules (for zip code, identity card rules, fiscal number algorithms, ...) and other. The vendor shall state if the proposed product support input fields validation rules and describe its flexibility.	

#### Mediation

77	Radiocomi CDR (Call Detail Record) sources are: Vocaltec, Topex, Cisco. The vendor shall clearly state if the proposal includes all the integration effort to properly collect, format, translate and distribute the CDRs for billing purposes.	Yes
78	The vendor shall describe the Mediation architecture.	Yes
79	The vendor shall describe how does the Mediation system support different upstream clients that shall coexist with billing system (interaccounting systems, datawarehouse; ...).	Yes
80	The vendor shall describe how the Mediation functionality support easy and fast configuration of new network elements in the CDR stream.	Yes
81	The vendor shall describe the Mediation operational interfaces for configuration, maintenance and troubleshooting.	Yes

#### Discounting

82	Implemented solution has support for sponsorship	Yes
83	The implemented discount module must support definition of formulae for discounting, including basic mathematical expressions.	Yes
84	The implemented System must support complex discounting such as discount sharing, pool sharing etc.	Yes
85	The implemented billing system must support for charge sharing scenarios. For example, Charge sharing allows a customer to sponsor the charges of other accounts or services in the system. For example, it allows a company to pay for all of its employees' Broadband Internet services, or a parent to pay for his child's IPTV service. It should be possible to sponsor partial charges in terms of a percentage or a full charge.	Yes
86	It will be implemented configurable discounting metrics	Yes
87	Implemented System must be able to discount based on any field in the incoming CDR.	Yes
88	The implemented discount module must support definition of formulae for discounting, including basic mathematical expressions.	Yes
89	The implemented system must support cross product discounts where discount can be given to one service based on the usage of another service.	Yes
90	Implemented system will support: - Volume based discounts - Validity based discounts - Percentage discounts	Yes

91	Implemented system must support Discounts as loyalty points	Yes
92	Implemented system must support Discounts based on time of the day, day of the week, holiday	Yes
93	Implemented System must support Discounts based on tiers and steps	Yes
94	implemented System must support System wide discounts that would apply to all subscribers.	Yes
95	The implemented system must be able to determine the order of application of discounts when one than one discount is available in the account (e.g., cascading and sequential discounting.)	Yes
96	In the implemented solution it should be possible to configure friends and family numbers for an account and should charge differently when dialed to those numbers	Yes
97	Implemented solution will give discounts based on the number of connections in the account	Yes
98	Implemented solution provides discounts based on the number of contract days of the customer I.e a discount for completing 180 days since the account was created.	Yes

**Rating**

99	Billing system must support tier and stepped based rating	Yes
100	Billing system must support rating based on time of the day, day of the week	Yes
101	Billing system must rate usage based on various metrics like Bytes, kilobytes, megabytes etc., that have to be configurable in the system.	Yes
102	Billing system must allow to define rates based on the event attributes	Yes
103	Billing system must support a validity based rate plan	Yes
104	Billing system must support special day rating	Yes
105	Must be possible to change the rateplan and the rateplan change should be effected immediately after the change	Yes
106	The proposed product should allow for the comparing of different rates. Eg: a customer has selected a rate plan, he should be able to see what the cost would be if he had one of other 2-3 rate plans.	
107	Implemented System must allow rating of calls as: - local calls (calls made to numbers within the same prefix area) and - national calls (calls made to other prefixes, within the country). Reporting should be allowed by the same criteria.	Yes

**Billing**

108	It should be possible to generate trial invoices	
109	Implemented system must support more than one billing cycle in a month(different customer accounts should be rated on a different day)	Yes
110	Implemented system must allow CSR to assignate their accounts to a certain billing cycle.	Yes
111	Implementation must support billing time discounts	Yes
112	The invoice format and layout should be configurable by the billing staff whenever needed	Yes
113	System should generate invoice in multiple formats like PDF, DOC, HTML, . The vendor shall explicitly list the supported output format options and describe how the system supports such formats.	Yes
114	The vendor should provide documentation on how to change the fields displayed in the invoice by the billing staff	Yes
115	Explain the system support for billing based on occurrence of certain events. I.e. Billing triggered on · Purchasing a product · Changing account status · Canceling a product · Rating a usage event	Yes
116	Explain product capability for the bills to be generated on demand?	
117	Explain the product support for trial billing I.e to run trial billing on set of accounts before actual billing for verification/Revenue assurance purposes.	
118	Explain the product possibility to generate separate bills for different services. I.e. Different bills for different services being offered by Bright House.	
119	Does the implemented system supports configuration of due dates. Can the due date in the system be configured so as to support the following scenarios: · 21 days after the billing cycle end date · 15 business days after the billing cycle end date	Yes
120	The proposed product should allow for the due date to me modified on a "per account" basis.	
121	Explain the system support for configuration of flexible bill cycles including monthly, bimonthly, quarterly, semi-annual, and annual bill cycles.	Yes
122	Explain the proposed product support for configuration of taxes. Please mention if there is a pre-integrated support for Vertex tax software.	
123	Implemented System will support more than one billing cycle in a month(different customer accounts should be billed on a different day).	Yes

124	Explain the implemented system support for billing time discounts. I.e. Granting a discount to the subscriber in the next billing cycle based on the subscriber usage in the previous month or a discount based on the number of months the customer has availed a service.	Yes
125	Can the proposed product allow suppressing of bills for example customers who will not be using their account for an extended period of time can retain all their services and connection IDs without accumulating any of the charges usually associated with their account.	
126	Can the proposed product charge late payment fees?	
127	Does you implemented system support open item accounting and balance forward accounting	Yes
128	Does the implemneted system support closed billing? Eg. The previous bill is closed, and it's amount added to the total of the new invoice, for outstanding invoices.	Yes
129	Proposed product should be able to support email delivery for invoice, dunning notes, reports and other files generated by the system	
130	Implemented system will support fractional invoicing for a customer activated BEFORE the billing cycle date, in accordance with the number of days he used the service for.	Yes
131	Currently, Radiocom offers to its subscriber's different levels of details, ranging from the detailed invoice with identification and description of each single call to a summary invoice. The vendor shall indicate the capability of offering different levels of detail for the invoice and how the system supports it.	Yes
132	The implemented system will support rendering privacy options, such as masking the last N digits of the called party number, in case the subscriber chooses that option. The vendor shall clearly state of the system supports this functionality and describe how.	Yes
133	Independently of what the invoice detail, format and delivery option the subscriber chooses, Radiocom needs to produce the same invoices in other different formats to make them available on internal systems and customer portal area. The vendor shall clarify how the proposed product supports multiple rendering processes of the same invoice.	
134	The vendor shall describe the customer care interfaces to consult customer invoices.	Yes

### Accounts Receivable

135	Explain the implemented system support for adjustments including credit/ debit adjustments with/ without tax.	Yes
136	Explain the implemented system support for adjustment of currency/ non currency resources. I.e. Adjustments of non currency resources like free minutes/ free SMS.	Yes
137	Explain the implemented system support for raising disputes and settlements at the bill level, item level and the event level.	Yes
138	Explain the implemented system support for write offs. Does the system support reversals of write offs in case payments are received against written off amount.	Yes
139	Explain the implemented system support for payment reversals in the case of check bounce.	Yes
140	Explain the refund process in your implemented system	Yes

### Payments and Collections

141	Mention the various payment modes supported by the implemented system. Please indicate whether the system supports the following modes of payment: 1)Cash, check, and postal order payment methods 2) Credit card payment method 3) Direct debit payment method 4) Invoice payment method 5) Prepaid payment method 6) Voucher payment method 7) Wire transfer payment method	Yes
142	Mention the implemented system support for allocation of payments. Does the system support allocation of payments at the account/ bill/ item level.	Yes
143	Mention the implemented system support for handling under payments and over payments.	Yes
144	Mention the implemented system support for incentives to subscribers who make payments on time. Can the payment incentives be in the form on free resource bonuses to the subscriber. I.e. Free minutes/ Free SMS.	Yes
145	Explain the implemented system support for monitoring balances at the account level and the service level.	Yes
146	Does the implemented system support application of late payment charges on non payment of subscriber bills on time. Does the system support definition of late payment charges as a fixed amount/ percentage of the overdue amount.	Yes

147	<p>Explain the proposed product support for dunning (Actions taken by system on Non payment of bills). Can the system support the definiton of a dunning scenario as follows:</p> <ul style="list-style-type: none"> <li>· A bill unit enters collections with a minimum overdue balance of \$100 that is at least 30 days late.</li> <li>· A bill unit leaves collections when the overdue balance falls below \$25.</li> <li>· An invoice reminder is prepared immediately after the bill unit enters collections, and system has to allow it to be sent by email to the customer and CSR.</li> <li>· The customer receives a courtesy phone call after 10 days in collections.</li> <li>· A late fee is assessed and a dunning letter is sent after 30 days in collections, and should contain a list of outstanding invoices and, OPTIONAL, at the CSR's choice, the late fee amount calculation, and it should be: printable and sent by email, as selected by the CSR.</li> <li>· A second dunning letter is sent after 45 days.</li> <li>· The bill unit is closed and the debt written off after 120 days.</li> <li>· The bill unit is inactivated after 180 days.</li> </ul>	
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148	<p>Explain the proposed product support for defining different dunning scenarios for different categories of subscribers. Can the system support different dunning actions for same category of subscriber based on the overdue amount. I.e. one scenario for relatively small overdue balances and another for larger balances.</p>	
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150 **Integration architecture**

151	<p>Explain the implemented system support for integrating with external applications using open and standards based enterprise framework/middleware.</p>	Yes
152	<p>Explain the implemented system support for pre-integration with Siebel CRM.</p>	Yes
153	<p>Implemented system will support integration with external applications based on a flexible SOA (Service Oriented architecture).</p>	Yes
154	<p>Implemented billing system will support any packaged integrations with other systems for rapid implementation of best practise business processes.</p>	Yes
155	<p>Please explain if the implemented system offers open API's for integration with any third party applications.</p>	Yes

**Convergence**

156	<p>Implemented system will support convergent customer(A single customer account having postpaid and prepaid services)</p>	Yes
157	<p>Implemented system will support convergent rating, where service X is a prepaid service and service Y is a postpaid service</p>	Yes
158	<p>Implemented system will support sponsorship. The parent account could be a postpaid account and the child a prepaid. It should be possible to charge the parent account for a topup performed on the child account</p>	Yes
159	<p>Implemented system will support topups(standard / sponsored)</p>	Yes
160	<p>Implemented system will support hierarchy between postpaid and prepaid accounts</p>	Yes
161	<p>Implemented system will support convergent charging with pre-paid and post-paid charging methods in a single offereing solution? Briefly describe how your charging solution supports each of the convergence dimensions.</p>	Yes
162	<p>Rating of both pre-paid and post-paid will be done in a single system. The implemented system will support rating of convergent services such as voice, data, content for wireline and wireless markets.System should support convergent customer(A single customer account having postpaid and prepaid services)</p>	Yes
163	<p>Implemented system must support flexible customer hierarchy offering pre and postpaid convergence and service convergence thereby helping in defining multiple different services bundles within the same account. Customers should be allowed to select a different payment method (pre or post) for each service bundle and share resources (for e.g Free minutes) across various service bundles, independent of whether the services bundles are pre- or post-paid type</p>	Yes
164	<p>In the implemented System it will be possible to split the charge of the member of an account group in a hierarchy and distribute it to the accounts/member at higher level based on the percentage of the sponsorship of charges. This should be user configurable and across post and pre-paid customer types</p>	Yes

**Revenue Assurance**

165	In the proposed product, it should be possible to monitor/collect the statistics from various rating and billing processes and report when the thresholds are exceeded. It should be possible to configure the control points where the data needs to be collected during the rating and billing processes and the thresholds for the same to send the notification report. For example - define an alert to generate notifications when number of rejected EDR/CDRs exceeds 100,000 in one day - define an alert to generate notifications when number of duplicate Broadband Internet EDR/CDRs exceeds 100	

**Partner Management**

166	It should be possible to support the partner management and settlement using the same proposed product for end user billing	
167	How does the proposed product support for the following revenue sharing models with partners: - Revenue share calculated as a percentage of the amount the subscriber paid. - Revenue share based on the amount i.e Partner gets \$1 for each hour of Internet usage	
168	In order to assure revenue on the third-party products the revenue sharing should be conditional, it is needed to revenue share with a partner only after the partner service is billed to the customer or even after the payment has been made by the customer.	
169	It should be possible to use the same end user CDR/EDR for partner billing and settlement purposes	

**AAA**

170	Implemented system will support standard protocols like DIAMETER	Yes
171	Implemented system will support a high availability architecture	Yes
172	Implemented system will monitor the AAA component and its performance	Yes
173	Implemented system will support AA requests	Yes
174	Implemented system will support AC requests	Yes
175	Implemented system will support credit control requests	Yes
176	Implemented system will support session termination requests	Yes
177	Implemented system will support resource reservations	Yes
178	Implemented system will support online and offline processing of AAA messages	Yes
179	Implemented system will be able to determine the charge after calculating the discounts during a AAA operation	Yes
180	Implemented system will comply with the industry standards	Yes

**Radius Requirements**

181	The RADIUS protocol supported will be able to authorize access requests to: • Portal databases • Text-based user files • UNIX password files • iPass databases • Proxy databases • VPDN databases	Yes
182	The implemented Radius server will be able to support proxies to forward requests to external RADIUS servers.	Yes
183	Support for iPass Roaming	Yes
184	The implemented Radius module should include a data dictionary which can be customized to add vendor specific attributes.	Yes
185	The implemented Radius module should provide support for cascade authorization.	Yes
186	Implemented system will provide hooks for the inclusion of custom modules, which can plug into the main Radius server.	Yes
187	Support for dynamic reconfiguration of Radius server, without stopping of operations.	Yes
188	The addition of new services will be a seam-less activity and a service must be a configurable entity in the implemented system.	Yes
189	Third party remittances and settlement will be carried out in real time using the implemented billing system.	Yes
190	Remittances can be carried out after a) Rating b) Billing c) Payment	Yes
191	The implemented AAA gateway will be able to support other AAA protocols also, such as DIAMETER /PARLAY etc.	Yes
192	Implemented system will support customizing RADIUS based on Vocaltec legacy Radius version.	Yes



**Reporting**

193	The implemented system will support reporting functionality to be used by the business areas. It is required to have the ability to produce reports on accounts, on services, on features, on usage, on payments, on debts, and other business parameters. The vendor shall state if the system has reporting functionality to meet these requirements and describe it.	Yes
194	The vendor shall describe the GUI for generating such reports and clarify how does its simplicity allows that reports are done by business areas, without technology knowledge.	Yes
195	Implemented system will allow for reports based on ANY selection criteria from the database, and any aggregation rule (summary, detailed reports, total amounts, types of services, location of customer, etc.)	Yes
196	Implemented system will allow for reports based on the location of voice customers, based on ANI prefix, and calls made within the same area (local calls), vs. national calls, as defined in Rating section.	Yes
197	Report layout and content will be fully flexible and customizable by the billing staff, based on any of the informations defined on the accounts and services.	Yes
198	Report format should be flexible and allow for XML, PDF, XLS	Yes

**Functionality**

199	Implemented system will support the change in account status (suspended, active, closed, etc) by the CSRs and other people outside of the Billing Administrators	Yes
200	Implemented system will support the programming of account actions at a certain date (eg. automatic suspension, automatic reactivation after a certain period, or at a certain date, etc)	Yes
201	Proposed product should allow for the export of CDRs, EDRs to another system	
202	Proposed product should allow for the automatic import of the exchange rate from the National Bank of Romania website, and keeping a history of the exchange rate.	

**MVNO**

203	The proposed product should provide functionalities for working as MVNO for other companies, or other companies working as MVNOs for Radiocom. Different models can arise. For the purpose of this RFP it is required that the vendor describes its own systems functionalities regarding a MVNO operation.	
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**Journaling**

204	The vendor shall describe product support for journaling process and how it is possible to integrate with the financials system.	
205	A history of the account will be maintained for: changing the account package	Yes
206	changing the account details	Yes
207	changing invoice layout	Yes
208	changing phone numbers	Yes
209	and such changes should not reflect in previously generated invoices.	Yes

**Portability**

210	System should allow for portability to be implemented in accordance with the current legal terms in Romania	Yes
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**IMPLEMENTATION SERVICES**

211	The vendor shall explicitly state if the proposal includes all installation services to support the proposed solution according to the requirements expressed.	Yes
212	The vendor shall describe the proposed installation process.	Yes
213	The vendor shall clearly state if the proposal include the integration with each usage record data sources: Vocaltec, Topex and optional Cisco.	Yes
214	The vendor shall describe the proposed integration process.	Yes
215	The vendor shall explicitly state if the proposal includes all migration services to support the proposed solution according to the requirements expressed.	Yes
216	The vendor shall describe the proposed migration process, indicating which measures will be taken to endure data integrity and reduce migration risks.	Yes
217	In case the proposal requires any integration service component not included in the proposal, the vendor shall detail the requirements in such a way that allows for clear cost estimation.	Yes
218	The vendor shall provide references of integration of the proposed system in similar environments, indicating the scope and level of integration.	Yes
219	The vendor shall explicitly state if the proposal includes all acceptance and full functional tests services to guarantee that the delivery meets the requirements expressed on the RFP.	Yes
220	System should support integration with Topex telephony systems on Radius	Yes
221	System should support integration with Topex telephony systems on Radius	Yes

**OPERATION AND MAINTENANCE**

222	Describe the proposed system support for operation and maintenance, with explicit references to the following components:	Yes
223	Billing Operations	Yes
224	System management	Yes
225	Fault management	Yes
226	Statistics, reports and logs	Yes

227	Backup and Restore	Yes
228	The proposed system shall allow for ease of operation and maintenance. The proposal shall describe the system characteristics that contribute to the ease of operation and maintenance.	Yes
229	The proposed system shall have low cost of operations using automated features. The proposal shall describe the system characteristics that contribute to the low cost of operations.	Yes
230	The proposed product should be able support user profiles with different Access levels. The vendor shall describe how the system supports such function and indicate the level of granularity of actions that can be allowed or restricted:	
231	Guiding and Rating	
232	Bill Review	
233	Bill Cycle	
234	Journaling	
235	Payments	
236	Collectables and treatment	
237	Auditing	
238	Reporting and AdHoc reporting	
239	Order Management troubleshooting mechanisms and tools	
240	Guiding and rating troubleshooting mechanisms and tools	
241	Statistics and performance	

#### STATISTICS, REPORTS AND LOGS

242	Describe the proposed system support for statistics, reports and logs of system behavior and usage.	Yes
243	Provide a list of documents describing the interfaces and protocols which the vendor will provide to Radiocom for internal use or under the development with a third party integrator, indicating all the applicable conditions.	Yes

#### APPLICATION DEPLOYMENT LIFECYCLE

244	Guarantee that all proposed products, applications and services will continue to be supported until the time when Radiocom formally gives notice that it is to be withdrawn or discontinued from the production environment. The vendor shall provide a proposal of how this requirement will be supported.	Yes
245	Guarantee that all future products, applications and services will be backwardly compatible with proposed versions and specifically that all applications, products and services can be operated unchanged following a software upgrade.	Yes
246	The vendor shall provide an overview of the software development process and software lifecycle model, describing the process for supporting existing products, applications and services as part of the upgrade and development process and how can the process support the rapid delivery of innovative new functionalities and applications.	Yes
247	The proposed system shall be flexibility, and adaptable to changing business requirements. The proposal shall describe the system characteristics that contribute to the flexibility of the solution.	Yes
248	Clearly indicate and describe the cases where the system experience any loss of service, even if temporary, during the deployment of new features, functionalities or corrections.	Yes

#### LICENSING

249	The vendor shall clearly define the licensing model applicable for each component and feature, indicating if the licenses are one time fee or periodically renewable, the basis of calculations (named users, simultaneous users, customers, database entries, ...), and the existing cap levels.	Yes
250	The warranty period is understood as the time period where without cost to customer, the vendor shall uses commercially reasonable efforts to correct promptly any failure of the Licensed Product to perform in accordance with the foregoing warranties if the failure is reported during the foregoing warranty period. The vendor shall commit to a warranty period with such characteristics and state the length of the proposed warranty period of time, commencing on the date of acceptance test of the system.	Yes
251	The vendor shall commit that neither the licensed products nor the tapes, diskettes, or other media on which they are delivered contain any back door, time bomb, trojan horse, worm, or drop dead device.	Yes
252	The vendor shall provide a proposal for the licensing terms and conditions.	Yes

#### Migration

253	Implemented system will include the migration of customer accounts, account details, rates, services, packages and other items that ensure business continuity from the previous system's DB	Yes
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Billing Solution / Mandatory Functional Requirements	Functional requirements included in implementation scope
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Describe how the following are supported:

**Customer Rating**

Type of Service	Yes
Payment history	Yes
Age category	Yes
Residence (ZIP code)	Yes

**Account hierarchies**

Accounts can be grouped into multiple-level hierarchies for billing purposes. The purpose of these hierarchies is to be able to redirect specific charges to parent accounts, create a reporting structure (where accounts can receive invoices and/or statements of account) as well as to create tariff plans where usage charges can be specifically rated according to the customer's specifications.	Yes
A typical hierarchy includes a parent account and several children accounts. Different options can be considered:	Yes
The parent account is an administrative entity whose purpose is solely to group a set of account in order to create a closed user group where intra-group usage charges can be rated specifically. Each of the children is responsible for its own charges, but usage is rated specifically.	Yes
The parent account is responsible for all charges of the hierarchy. The parent receives an invoice, and the children can receive a statement of account.	Yes
The charges are split in different levels of the hierarchy. Eg: the parent is responsible for Monthly Fees, and the Children are responsible for usage charges. All accounts receive an invoice, and the parent can receive a statement of accounts for all the children.	Yes
In a multiple level hierarchy, the charges can be split and redirected in multiple levels. For example, consider a structure such as this: Company ABC is charged for the monthly fees and receives a statement of account of the Marketing department charges – Marketing department is charged for the office hours usage – Employee X is charged for the other usage.	Yes
Hierarchies need to be dynamic, as accounts can be included or excluded from them according to need.	Yes
Recurring charges	Yes
Non Recurring charges	Yes
Discounts	Yes
Usage: by time-periods; by usage types	Yes

**Mass Actions - Billing**

Should be possible to perform massive adjustments' for already produced invoices.	
Should be possible to perform massive corrections (through Non Recurring Charges or other) not targeted to a specific invoice.	

**Mass Actions - Collections**

Should be possible to perform massive actions for suspension and/or deactivation (and correspondent reversals).	
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**Prepaid**

The system must support a prepaid products solution that allows control in real time (or minimum delay) of usage events.	Yes
For prepaid services specific marketing requirements shall be presented during implementation. Typical requirements will be:	Yes
different levels of prepayments, with different balances associated.	Yes
minimum recharge in a given time period.	Yes
rollover of balances.	Yes
bonus for recharges.	Yes
voucher management.	
compatible (or not) with happy hour periods (ability to define specific happy hour periods for the services).	Yes
automatic suspension of service on reaching a null balance or the time limit for the recharge.	Yes
automatic reactivation of service with a recharge and reset of the limit date for the next recharge.	Yes
Production of a statement of account including usage and payments.	Yes
Customers can have on the same account a prepaid and a postpaid package. Invoices will only reflect the postpaid packages, but may include a statement of usage of prepaid services.	Yes

**Execution of massive actions**

Any massive action should not be performed without a previous authorization.	
Should be possible to produce a sample before any massive action is produced, and only after analysis and approval of sample should the action be performed. The dimension of the sample should be flexible (input by manager).	
Should be possible to add/delete and edit letter templates.	
Should be possible to output the letters to files in a format that can be later used for finishing.	
Should be possible to output contact lists with messages to external applications that will deliver these messages (SMS/e-mail) at scheduled times.	
Should be possible to schedule follow up actions (e.g. suspensions of service) to be done automatically for a given set of conditions (e.g. in case customer does not pay).	
Should be possible for the system to remove suspensions automatically when customer meets the required criteria.	
All actions triggered by the Collections module should be interfaced with the affecting network elements.	
Should be possible to remove customers (either individually or by means of a group selection) from a massive action.	
Should be possible to associate specific costs for each action to be charged to the customer, and these are created automatically when customer incurs in that step (e.g.: reactivation tax).	
Should be possible put some messages in the collections window in the invoices.	

**Execution of single actions**

Actions like service suspension should be automatically done when the payment is allocated. (Reverse)	
Should be possible to remove a service suspension manually.	Yes
Should be possible to remove an invoice from a collection action, but keeping to the collections cycle for other due amounts.	
Should be possible to apply deferred payments interest.	Yes

**Access Levels**

The system must provide a customizable hierarchy of user permissions that restricts access to certain functionalities. On such a hierarchy, the following levels should be addressed:	Yes
CSR level	Yes
Supervisor level	Yes

Billing_Ops	Yes
Manager	Yes
Director	Yes
Full access	Yes
Others	Yes
The permission level should be set in a flexible way, so that access to previously inaccessible areas can be set quickly.	Yes
The permission levels include the hierarchy of credits/adjustments. Radiocom will set a hierarchy of approval for each of the levels.	Yes
When a credit exceeds the user-level's permission, a notification system should request the appropriate level user(s) to authorize the transaction.	Yes
The system will need to integrate the following information currently stored in the Mind databases:	Yes
Account information	Yes