



**Clarification No. 1**  
**(17<sup>th</sup> September 2012)**

**(Tender No. NDCL/02/069-70 for Supply, Delivery, Installation and Commissioning of RF Optimization Tools and Accessories)**

**NOTE: Bidder shall include the compliance statement on all the clarifications. Bidder shall submit the Clarifications along with their bid document and shall be considered for the evaluation.**

Section No.	Clause No.	Particular's of Nepal Telecom Requirement	Bidder's Queries	Nepal Telecom's Clarification	Bidder's Compliance Statement: FC/PC/NC
Section VIII, Chapter-2	1.4.0*	GSM Report shall include.....	<p>We understand as an operator, NDCL will have Frequency spectrum (which is a precious resource) divided into non-overlapping spectrum bands which are assigned to different cells.</p> <p>However, after certain geographical distance, frequency bands are re-used, i.e. the same spectrum bands are re-assigned to other distant cells.</p> <p>The co-channel interference arises in the cellular mobile networks owing to this phenomenon of Frequency reuse.</p> <p>Thus, besides the intended signal from within the cell, signals at same frequencies (co-channel signals) arrive at the receiver from the un-desired transmitters located (far away) in some other cells and lead to deterioration in receiver performance. Thus leading to poor user experience.</p> <p><u>We understand the RF Optimization tool which to be supplied needs to measure &amp; test Carrier Level Interference per time slot for finding out Co-Channel Interference and its effect on end customer.</u></p> <p><b><u>Please confirm.</u></b></p>	As per Clause No. 1.4.0* of Section VIII, Chapter-2	
Section VIII, Chapter-2	1.4.0*	GSM Report shall include.....	<p>We understand any operator would reduce the size of the cluster, with respect to the 4x3 one to increase capacity. This is typically done in high traffic areas, such as big cities.</p> <p>Due to this in a system, the Carrier to Interference ratio may vary a lot among calls: The carrier level (C) changes with the mobile station position relative to the base station, with the amount of obstacles between them, etc.; the interference level (I) changes depending on whether the frequency is being used by another call in some nearby cell (thus, it also depends on the time during the day –busy hour, non busy hours -), and also varies according the distance with the interference source, its level, etc.</p> <p><u>Thus it is necessary for the offered RF optimization tool to measure &amp; test the Interference on Hopping to provide optimum call quality.</u></p>	As per Clause No. 1.4.0* of Section VIII, Chapter-2	

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			<b><u>Please confirm</u></b>		
Section VIII, Chapter-2	1.3.0*	RF Optimization Software with (but not limited to) the following Specifications.....	<p>We understand that there are various speech codec like FR, HR, EFR, AMR, etc.</p> <p>Today's network has the ability to allot the required codec to any UE as per the RF conditions, where AMR is widely used in modern GSM networks.</p> <p>The usage of AMR requires optimized link adaptation that selects the best codec mode to meet the local radio channel and capacity requirements.</p> <p>If the radio conditions are bad, source coding is reduced and channel coding is increased. This improves the quality and robustness of the network connection while sacrificing some voice clarity. In the particular case of AMR this improvement is somewhere around S/N = 4-6 dB for usable communication.</p> <p><u>Thus it is necessary to test and verify performance of different speech codecs without affecting end users. Removing the possibility to use certain speech codecs will affect the end users in that cluster.</u></p> <p><b><u>Please confirm</u></b></p>	As per Clause No. 1.3.0* of Section VIII, Chapter-2	
Section VIII, Chapter-2	1.4.0*	GSM Report shall include.....	<p>We understand GSM EDGE capability (enable/disable) EDGE functionality, i.e., force data traffic to GPRS is a best-effort service, implying variable throughput and latency that depend on the number of other users sharing the service concurrently, as opposed to circuit switching, where a certain quality of service (QoS) is guaranteed during the connection.</p> <p>Thus it is necessary to test and verify GPRS (R99) performance without affecting end users.</p> <p>While performing the optimization, removing the possibility to use EDGE (HSPA) will affect the end users in that cluster. Thus we have to force data on GPRS to test the data network.</p> <p><b><u>Please confirm if this is required to be performed by the offered RF Optimization tool.</u></b></p>	As per Clause No. 1.4.0* of Section VIII, Chapter-2	
Section VIII, Chapter-2	1.3.0*	RF Optimization Software with (but not limited to) the following Specifications.....	<p>We understand we needs to test the time slot utilization and working condition of the time slots per TRX/Traffic channel so that there will not be many intra cell handovers which will cause degradation in the quality.</p> <p>Sometimes the TSS on any TRX will go into sleepy mode which causes this problem.</p>	As per Clause No. 1.3.0* of Section VIII, Chapter-2	

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			Hence the RF optimization tool should be able to identify this problem.  <b><u>Please confirm</u></b>		
Section VIII, Chapter-2	3.3.13*	Performs RX Qual (full/sub).....	We understand interference level (I) changes depending on whether frequency is being used by another call in some nearby cell (thus, it also depends on the time during the day –busy hour, non busy hours -), and also varies according the distance with the interference source, its level, etc.  <u>The post processing tool to be supplied needs to measure the Interference on Hopping to provide optimum call quality.</u>  <b><u>Please confirm.</u></b>	As per Clause No. 3.3.13* of Section VIII, Chapter-2	
Section VIII, Chapter-2	3.3	Post-Processing Tool specification.....	We understand NDCL will have time constraints to get the site or cluster optimized.  To save time, post processing tool is a very critical medium.  The effectiveness of a post processing tool is only know by the time saved by the tool to generate necessary reports, so as to help the optimizer to decide for the necessary optimization steps to be taken within a short period of time and thus saving the revenue loss.  The Co-channel and adjacent channel highlighter and WCDMA co and adj PSC locator features helps to analyze interference and adj PSC's by just clicking one button on the Map window of the tool.  <b><u>Please confirm if the RF Optimization post processing tool to be supplied shall have the interference/adj PSC locator.</u></b>	As per Clause No. 3.3 of Section VIII, Chapter-2	
Section VIII, Chapter-2	3.3.18*	Able to load multiple Drive Test data files.....	We understand you may be doing RF Optimization testing using various vendors drive test tool now or may be in future.  Support post processing of various drive test vendor log file like TEMS, Nemo, Agilent (JDSU) etc is required.  <b><u>Please confirm.</u></b>	As per Clause No. 3.3.18* of Section VIII, Chapter-2	
Section VIII, Chapter-2	3.3	Post-Processing Tool Specification.....	We understand while doing post processing of drive test data, antenna pattern and beam width pattern at the cell site needs to be observed.  <u>Hence post processing tool to be supplied shall have the Antenna pattern viewer.</u>  <b><u>Please confirm.</u></b>	As per Clause No. 3.3 of Section VIII, Chapter-2	

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Section VIII, Chapter-2	3.3.18*	Able to load multiple Drive Test data files.....	<p>We understand the whole idea of having a post processing tool is to automate the process of post processing RF Drive test collected data</p> <p>Hence automatic post processing of RF drive test collected data is key to save your RF engineers valuable time and efforts.</p> <p><b><u>Please confirm if Automation feature like capability to perform automatic data processing, automatic batch printing, data sharing across organization, data filtering, data organization and management is required as part of offered Post Processing tool.</u></b></p>	As per Clause No. 3.3.18* of Section VIII, Chapter-2	
Section VI: (SOR)	1.1.3	Test UE's	<p>We understand the whole idea of doing RF drive test is to understand your end user experience on a real time basis.</p> <p>Most important role is played by the Test UE (User Equipment) which helps understand the RF network issue from an end user perspective.</p> <p><b><u>Hence support of widely used Sony Ericsson (On ST Ericsson Chipset), Nokia ( On Nokia Chipset), Samsung phone (On Qual Chipset) etc as UE for testing is required on the proposed RF optimization tool.</u></b></p> <p><b><u>Please confirm</u></b></p>	As per Item No. 1.1.3 of Section VI, SOR	
Section VI: (SOR)	1.2.4	External Scanner.....	<p>We understand External scanners are coming with a wide range of specification for GSM/WCDMA.</p> <p>Scanner should have capability to measure the following measurements</p> <ol style="list-style-type: none"> <li>1. CPICH Ec/Io</li> <li>2. Agg. Ec/Io</li> <li>3. PSCH Ec/Io</li> <li>4. SSCH Ec/Io</li> <li>5. Io</li> <li>6. SIR</li> <li>7. Rake Finger Diversity</li> <li>8. Time offset</li> <li>9. Multipath delay spread</li> <li>10. RSSI – WCDMA</li> <li>11. RSSI – GSM</li> <li>12. Spectrum analysis – WCDMA</li> <li>13. Spectrum analysis – GSM</li> <li>14. BSIC</li> </ol>	<p>Offered External Scanner shall support GSM, WCDMA, HSPA, HSPA+ &amp; LTE and have at least (but not limited to) the following features:</p> <p><b><u>GSM Features:</u></b></p> <ul style="list-style-type: none"> <li>• BCCH Decoding Option</li> <li>• BSIC Decoding Option</li> <li>• C/I (Co-Channel Interference) Measurements</li> <li>• RSSI Channel Scan</li> <li>• RSSI Frequency Scan</li> <li>• Built-in GPS Option</li> </ul> <p><b><u>WCDMA Features:</u></b></p> <ul style="list-style-type: none"> <li>• Time Slot Scan</li> </ul>	



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			15. C/I 16. Top N-PSC/S-SCH SC 17. Top N BCH Decoding 18. BSIC/BCCH Decoding <b><u>Please confirm if the scanner to be supplied should have the above measurement capabilities</u></b>	<ul style="list-style-type: none"> <li>• Pilot Scan</li> <li>• PSCH &amp; SSCH Scans</li> <li>• Top N Scan</li> <li>• RSSI Channel Scan</li> <li>• RSSI Frequency Scan</li> <li>• SIR Measurements</li> <li>• Multiple Concurrent Frequency Scans</li> <li>• Spectrum Analyzer Scan</li> <li>• Rake Finger</li> </ul>	
Section VIII, Chapter-2	2.3.1	A certificate of accreditation as per GSM standards for Test Mobile Set .....	We understand detailed technical data sheet is a reflection of compliance of various industry standards. <b>Please confirm if we can submit details technical data sheet for the offered test UE as part of certificate of accreditation.</b>	As per Clause No. 2.3.1 of Section VIII, Chapter-2	
Section VIII, Chapter-1	10.1	The Bidder shall maintain in its local stock at least 1 spare unit for each module...	Though the tender mentions that we need to provide a set of spares as mentioned in Clause No. 10.1 and the list of spares have been provided in Annex V, there is no mentioning regarding the same in "Schedule of Price – Section VII". <b>Kindly clarify if the Schedule of Price includes the spare parts as mentioned in Annex V or do we have to quote it separately.</b>	As mentioned in Clause No. 7.5 of Section VIII, Chapter 1, the cost of all the spares required for warranty period including the spares mentioned in Annex-V shall be included in the cost of warranty.	
Section IV	5.4	The Supplier shall arrange for Pre-shipment Inspection by the internationally recognized surveyor...	As per Clause No. 5.4 of Section IV: Conditions of Contract that the Supplier shall arrange for Pre-shipment Inspection by the internationally recognized surveyor, certifying/ confirming the goods, their quantity and weight, prior to the packaging and loading in the container in case of containerized cargo or at the port of loading in case of break bulk cargo as per the shipping document (or commercial invoice) in accordance to the Nepal Telecom contract document. The cost of Pre-shipment Inspection shall be included in the cost of Goods. The Supplier shall provide the detailed information related to the proposed Surveyor at the time of signing of Contract. <b>Since Proof of Concept and Factory Inspection are done by Nepal Telecom, please confirm still Nepal Telecom required pre-shipment inspection conducted by Surveyor.</b>	Pre-shipment Inspection by the internationally recognized surveyor as per Clause No. 5.4 of Section IV: Conditions of Contract.	