



**BHARAT SANCHAR NIGAM LIMITED**  
**(A Government of India Enterprises)**  
**O/o Chief General Manager,**  
**IT Project Circle, Pune**

**WORK ORDER FOR LEASED CIRCUIT IMPLEMENTATION IN CDR PROJECT -II FOR  
USE ON PAN INDIA BASIS**

To:

**M/s Tata Consultancy Services Ltd.**

PTI Building, 4 Parliament Street,

New Delhi - 110 001

**No: ITPC/CDR Project/LEASED CIRCUIT/2013-14/26**

**Dated 21.10.2014**

**Subject:** Placement of **Work Order** for implementation of **LEASED CIRCUIT Billing and Order Management solution** in CDR Based Customer Care & Convergent Billing System (CDR Project -II Production at North CDR DC and DR at West CDR DC) for use on PAN India basis.

**Ref:**

- I. MH Circle office Tender No MM-II/Procurement/CDR/06-07 dated 09.08.2006.
- II. Clarifications dated 12.09.2006 & 19.9.2006 to the Tender Document.
- III. Amendments & Addendum dated 12.09.2006 to the Tender document.
- IV. MH Circle office APO No - MM - II / Procurement / CDR / 06-07/98 dated 05.06.2007.
- V. Minutes of MC of Board meeting BSNL/SECTT/EXTRACT/216/MCB/07 dated 26.09.2014.
- VI. BSNL CO Letter no. 64-322/2014-BB/Leased line dated 30.09.2014
- VII . Your Final Proposal dated 27.08.2014

On behalf of Bharat Sanchar Nigam Limited, Work Order is hereby placed on you for Implementation of LEASED CIRCUIT Billing and Order Management in CDR Based Customer Care & Convergent Billing System (Project 2) for use on PAN India basis.

**1. Scope of the Purchase Order:**

- 1.1 The scope of the work is as per Annexure- A . This is in conjunction with your proposal referred at Annexure B.

**2. Implementation & Supply Schedule :**

- 2.1. The work of Implementation of LEASED CIRCUIT in CDR Based Customer Care & Convergent Billing System (CDR Project-II ) including AT and go-live should be completed within **34 weeks** from the date of SRS sign off.
- 2.2. SI shall ensure to complete the SRS work within one month time from the award of work.

**3. Acceptance testing :**

- 3.1. Acceptance Testing would be done for the entire solution. The Equipment/Software shall be subjected to Acceptance Testing as per technical specifications given in the solution document, technical proposal and SRS document.
- 3.2. There shall be an Acceptance process to validate the SSA specific changes, data migration, configuration and customization, if any.
- 3.3. All the development and testing shall be done in the respective environment (development, testing, etc). Only on acceptance of the system, the replication would be done on the production environment.
- 3.4. The team for AT will be decided by BSNL.
- 3.5. System Integrator will provide the list of tests for testing the conformance of the Equipment/Software to the technical specification, and the test schedule with reference to the SRS related items.
- 3.6. The System Integrator shall finalize an Acceptance Test schedule at least 15 days in advance of offer for Commissioning in consultation with purchasing authority. The test schedule and procedures for AT will be finalized by the BSNL team in consultation with SI.
- 3.7. The System Integrator shall provide, at his own cost all the testing Equipment/Software/instruments as required for all the tests to be conducted for AT.
- 3.8. Any deficiency found during AT in performance of the system as per the requirement shall be rectified by the System Integrator immediately at all the locations free of cost.
- 3.9. After the entire development cycle is over, all the components have to be tested end to end; system integrated Testing (SIT) would be done. Here the SI has to demonstrate

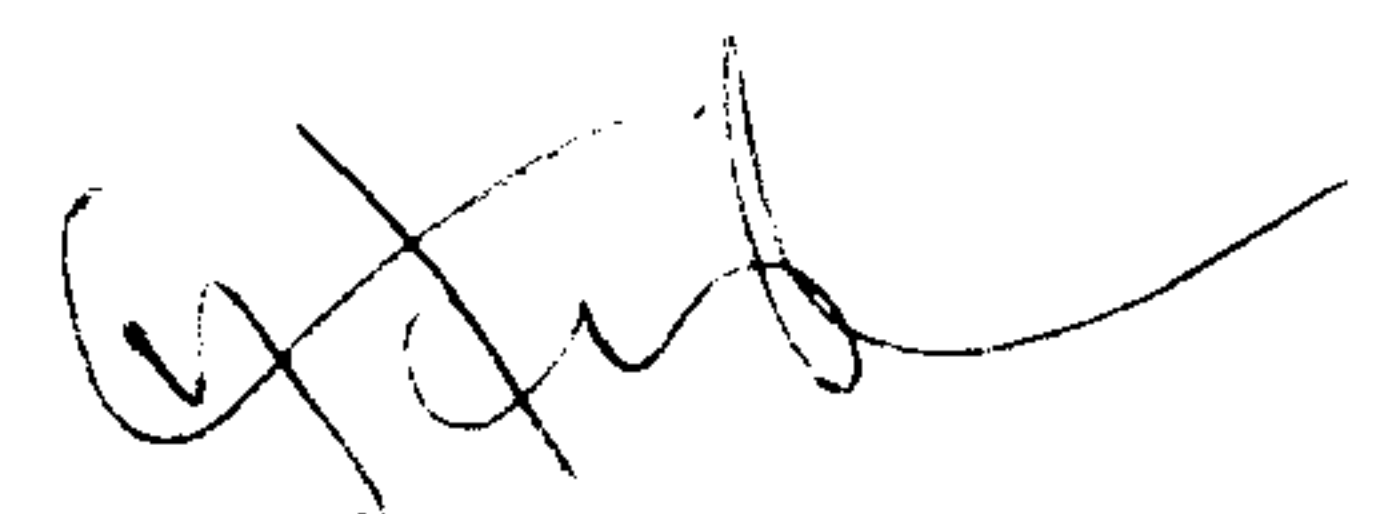


the system in a controlled production environment.

- 3.10. The System Integrator shall make available the software programs and testers required for carrying out the tests as per the schedule. The System Integrator shall indicate whether the software package includes programs for testing the Data Centers under full load conditions and overload conditions by creation of artificial load/traffic. Such test program shall be provided by the System Integrator for the limited purpose of testing free of cost. The System Integrator shall also indicate the technique used in the creation of such artificial load/traffic. Details of various items required for the above purpose may be specified.
- 3.11. Any components or modules failing during the acceptance tests shall be replaced at no extra cost to the Purchaser at site by the System Integrator. However no relaxation to the Completion period shall be granted in such cases.
- 3.12. If any Equipment/Software or any part thereof, before it is taken over as specified in the tender documents, is found defective or fails to fulfill the requirements of the contract, the purchaser or the designated BSNL authority shall give the System Integrator notice setting forth details of such defects or failure and the System Integrator shall make the defective Equipment/Software good, or alter the same to make it comply with the requirements of the contract forthwith and in any case within a period not exceeding 4 weeks of the initial report. These replacements shall be made by the System Integrator free of all charges at site. Should it fail to do so within this time, the purchaser reserves the discretion to reject and replace at the cost of the System Integrator the whole or any portion of Equipment/Software as the case may be, which is defective or fails to fulfill the requirements of the contract. The cost of any such replacement made by the purchaser shall be deducted from the amount payable to the System Integrator.

#### **4. Prices :**

- 4.1. The total provisional value of the Work Order shall be Rs. 6,90,00,000/- ( Rupees Six Crore and Ninety Lakhs Only) (plus applicable Service Tax ) and this includes broadly software's services, etc as detailed at Annexure-A,B for production at North zone and DR at West Zone. The price given in annexure are inclusive of all taxes except service tax. Service Tax shall be payable on submission of Service Tax registration details. The SI should show Service Tax component separately on the invoices. The SI shall submit proof of latest service Tax return filed (not later than the previous quarter ) at the time of raising invoice.



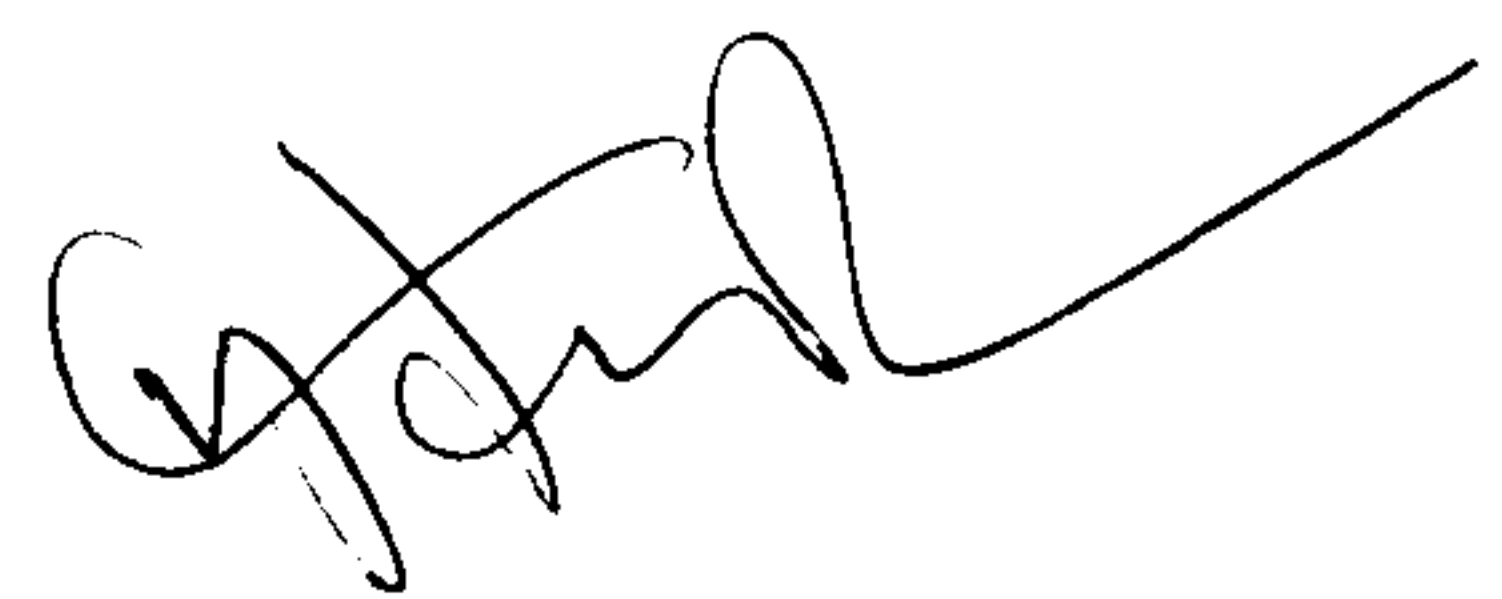
- 4.2. The System Integrator shall submit the proof of actual taxes/duties paid along with the detailed breakup of basic rate, ED, CVD, Sales Tax and other statutory duties/levies etc. excluding Octroi / Entry Tax for the individual rates quoted in BOM at the time of raising Invoice to enable the purchaser to claim benefits under relevant provisions of CENVAT Rules.
- 4.3. Form C and also a certificate stating that the tendered item (stores) are meant for the use of BSNL shall be provided by the purchaser on request of the System Integrator as and when asked for.
- 4.4. Any increase in taxes and other statutory duties/levies after the expiry of the delivery date shall be to the System Integrator's account. However benefit of any decrease in these taxes/duties shall be passed on to the Purchaser by the System Integrator.
- 4.5. In case of reduction of taxes and statutory duties during the schedule delivery period, purchaser shall take the benefit for decrease in these taxes/duties for the supplies made from the date of enactment of revised duties / taxes.
- 4.6. In case of increase in taxes/duties during the scheduled delivery period, purchaser shall revise the prices as per new taxes/duties for the supplies to be made during the remaining delivery period as per terms and conditions of the purchase order.

**5. AMC (Operations Support) :**

- 5.1. Operations Support shall be charged at Rs 35,00,000/- plus applicable service tax per year. This shall be chargeable from date of commissioning.
- 5.2. The duration of this operation support shall co-terminate along with the operational (AMC) order of the CDR system.
- 5.3. Separate AMC order or AMC order along with the existing DC AMC order shall be placed upon successful commissioning of leased circuit solution in CDR system.

**6. Consignee details :**

- i. Sr GM DC , CDR Data Center North Chandigarh.



**7. Payment :**

- 7.1. Payment shall be made in Indian Rupees only.
- 7.2. For claiming this payment the following documents are to be submitted to the paying authority:
- i. Invoice
  - ii. Certificate of work completion from DC Incharge.
  - iii. AT completion certificate.
  - iv. Proof of payment of Octroi/entry tax etc., if any
- 7.3. The payment terms and conditions for different items are elaborated below:

**Services at Data Centre:**

- a. 20% payment on sign off of the SRS document.
- b. 70% on completion of completion of commissioning of Leased Circuit solution in CDR system.
- c. 10% after 6 months of completion of commissioning of Leased Circuit solution in CDR system.

**8. Paying Authority :**

Paying authority shall be as indicated below:

S. No.	PROJECT	Zone (Complete)	Paying Authority
1	CDR Project II	North	CGM, ITPC, Pune

**9. Liquidated damages :**

- 9.1. The implementation schedule as specified vide Clause 2 above should be deemed to be the essence of the contract and the same must be completed not later than the schedule specified therein. Extension will not be given except in exceptional circumstances. Should, however, deliveries be made after expiry of the contracted delivery period, without prior concurrence of the purchaser and be accepted by the consignee, such delivery will not deprive the purchaser of his right to recover liquidated damage as below.



- 9.2. Should the bidder fail to complete the work within the period prescribed in the clause 2 above, the purchaser shall be entitled to recover damages as per details given below:

**Delay in Delivery:**

- i. LD shall be INR 3.5 Lakh per week.
- ii. Upper Ceiling of LD is INR 84 Lakh.

- 9.3. Quantum of liquidated damages assessed and levied by the purchaser shall be final and not challengeable by the System Integrator.

**10. Performance Security :**

- 10.1. An amount equivalent to 5% of the work order amount i.e. INR 6.9 Crore shall be with held by ITPC Pune against first payment due to M/s TCS Ltd. Performance security will be released after the successful completion of the work.

**11. Training :**

Training for LEASED CIRCUIT module to be imparted to CDR data center staff so as to equip them for handling LEASED CIRCUIT services and allied O&M activities at their own. The details of training to be worked out by M/s TCS in consultation with ITPC.

**12. Technical Specification :**

- 12.1. The solution provided shall be in accordance to the technical specification as laid down in the solution document/SRS document.
- 12.2. The Existing Hardware /Software of the CDR system is proposed to be used with some additional licenses/right to use for leased circuit line of business. The additional requirement of licenses/right to use will be directly dealt by BSNL with OEMs during the course of implementation.

**13. Special instructions :**

13.1. As per APO

13.2 All other terms and conditions of CDR Based Customer Care & Convergent Billing



tender referred at SI No. I along with clarifications/amendments etc. shall remain applicable.

13.3 This has the concurrence of IFA and approval of the Chief General Manager, IT Project Circle, Pune.

**You are requested to confirm you acceptance of this purchase order within seven days period.**



**(ATUL KARELIYA)**

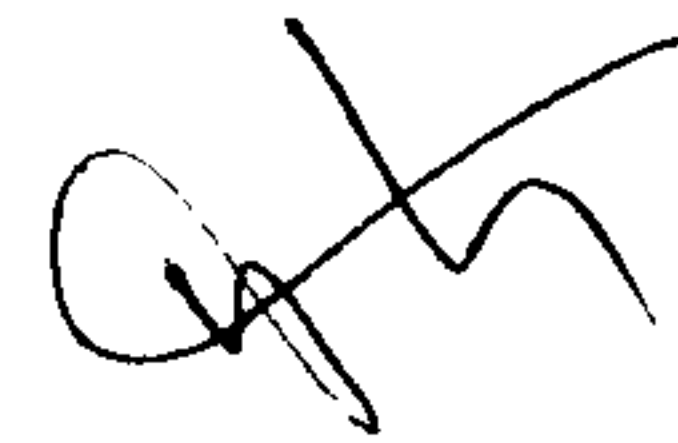
**Addl. General Manager (IT-III)  
O/o CGM, IT Project Circle, Pune**

Encl:

1. Annexure - A Scope of work for LEASED CIRCUIT implementation
2. Annexure - B Proposal of M/s TCS Ltd. for LEASED CIRCUIT Implementation in North & West Zone CDR Datacenters.
3. Annexure -C Price sheet

**Copy forwarded to:**

1. The Sr. GM(IT) BSNL, New Delhi for information please .
2. The Sr. GM DC, Pune for information and necessary action please.
3. The Sr.GM DC Chandigarh for information and necessary action please
4. The Sr.GM DC Kolkata for information and necessary action please
5. The Sr.GM DC Hyderabad for information and necessary action please
6. The CAO o/o CGM ITPC for information and necessary action please (also requested to avail Cenvat Credit ).



## Annexure -A

### Scope of work:

1. The scope of work & changes required to be done in CRM , Billing , clarity, EAI, billing formatter IVRS applications to facilitate leased Circuit Implementation in CDR system are summarized as below:-
  - 1.1 CRM and Self Care : the current CDR CRM and self Care systems will be enhanced to handle Leased Circuit Implementation. The following business requirements are considered:
    - i. Sales Requirements
    - ii. Order Managements Requirements
    - iii. Quote generation requirements
    - iv. Trouble Tickets Requirements.
    - v. Product Configuration Requirements
    - vi. Account and Contract Management Requirements
    - vii. Self Care Requirements.
    - viii. Dunning and Restorations
  - 1.2 As per the scope, Leased Circuits is to be implemented on the existing CRM applications deployed in North zone. The technical architecture of CRM application deployed for CDR implementation will be used for Leased Circuit implementation. The integration architecture designed for CDR implementation will be extended to implement the integration requirements of Leased Circuit requirements.
  - 1.3 EAI : The current Implementation of Oracle Fusion middle ware will be extended to handle Leased Circuits order processing . The EAI functionalities that will be impacted are:
    - i. **Order Handling** includes developing necessary BPEL process which will be able to process a Leased Circuit order.
    - ii. **Order orchestration** includes implementing the sequence in which each participating system should be invoked with necessary data for the accomplishment of each business process.
    - iii. **Order Fallout managements** includes different methods to be followed to refire the orders which could not be processed in individual systems during the normal flow.
    - iv. The order flow **in EAI** typically contains the following steps:
      - a. Receive the order from the CRM system
      - b. Hit the provisioning system and create order(s) accordingly
      - c. Update the milestones back to the source system
      - d. Once the provisioning is complete, hit the CRM system for service creation and the billing system and create services to enable billing for the above services.
  - 1.4 Provisioning : The current provisioning application from M/s Clarity deployed for CDR implementation will be enhanced to handle Leased Line implementation. Order management module of Clarity in specific will be used for the workflows of Leased circuits. There would be no automated tasks. All tasks would be mapped to nodal officers.





**1.11 Type of wire will be:-**

- a. 2 Wire
- b. 4 wire

**1.12 Category of the circuit will be:-**

- a. Data
- b. Point to point Leased Circuits
- c. MPLS VPN Circuits
- d. Internet Leased circuits
- e. Others

**1.13 Scenarios on Leased Circuits to be implemented:-**

**1.13.1** Quote Generation for Prospect customers

**1.13.2** Quote to order conversion( New Provisioning )

**1.13.3** New Provisioning with different categorization of Circuits like.

- a. Point to Point LC
- b. MPLS VPN LC
- c. Internet LC
- d. CDMA and 3G Backup LC
- e. VPN over BB LC

**1.13.4 Modify**

- i. Change of Bandwidth
- ii. Time based Bandwidth
- iii. Media Change ( Copper to OF, Copper to RF, Copper to VSAT)
- iv. Conversion orders (MLLN to Non MLLN etc)
- v. Change of number of Modems
- vi. Change of type of interface
- vii. Change of class of service
- viii. Additional circuits to existing BULK P-P/MPLS VPN Ids.

**1.13.5 Service Requests**

- a. Name change
- b. BCA ( Billing Authority Change) change
- c. Change of Bill criteria ( to either Monthly , Half Yearly or Yearly)
- d. Change of billing address

**1.14 Shift within SDCA orders :** Shift is to be allowed with in SDCA STD code area only.

**1.15 Tariff changes**

**1.16 Disconnection of Leased Circuits**

**1.17 Technical and Billing complaints**



**1.5 Billing :** The Leased circuits billing requirements have been analysed thoroughly and it is necessary to enhance the following billing modules of CDR billing stack for Leased circuit implementation.

- a. Integration
- b. Configurations
- c. Billing
- d. Payments
- e. Dunning /collections
- f. Deposit/Refunds
- g. Account settlement
- h. Journals/ account receivables/SLR

**1.6 PMS:** Payment Management system will accept the payment against leased circuit customers and same will have to be sent to the respective billing system (north billing) where circuit is getting billed.

**1.7 Bill formatter:**

- a. Source of input data will be billing system and will be available after bill runs.
- b. Input data will be transformed into the format which is readable by the formatter Layout Designer application.
- c. Layout will be designed on the Formatter/Designer application according to the Business requirements.
- d. Transformed data will be mapped on to the layout designed.
- e. Batch process of formatter application will use the transformed input feed file and designed layout to generate the final output.
- f. Multiple output formats like PDF and PS files are generated after processing the Layout and Input Feed file.
- g. PDF file is used to send invoices to customers through emails and to access through Web Service.
- h. PS file will be provided for printing and dispatch.

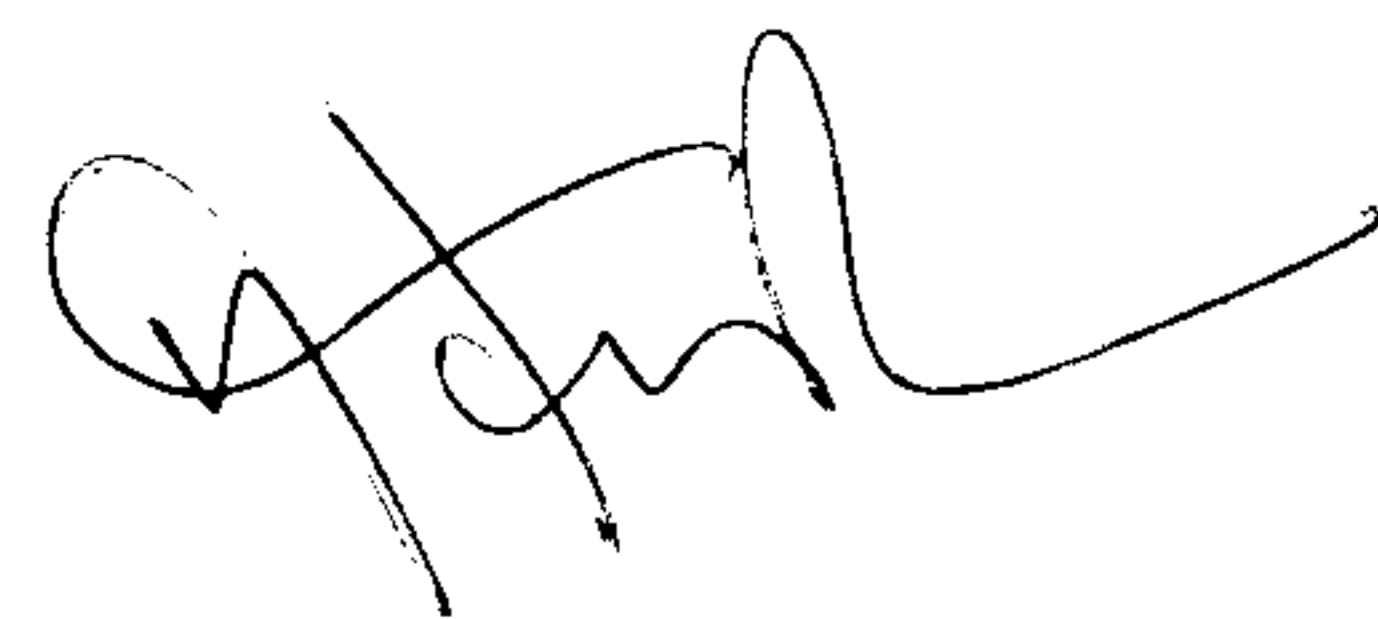
**1.8 IVRS :**

- a. New option has to be created to take the complaint against Leased circuits.
- b. Average 5 CSR Locations/SSA will have to be connected to Leased circuit migrating Zonal Data center for which all config changes will be done.
- c. Leased circuit IVR services to be enabled at lease circuit migrated data centre .
- d. BSNL Circles will route Lease circuit calls to be migrated zone data centre IVR systems and after landing at IVR system IVR will provide the designed call flow treatment and route calls to respective Circle Skill sets.

**1.9 Types of Leased circuits to covered:** a. National & b. International.

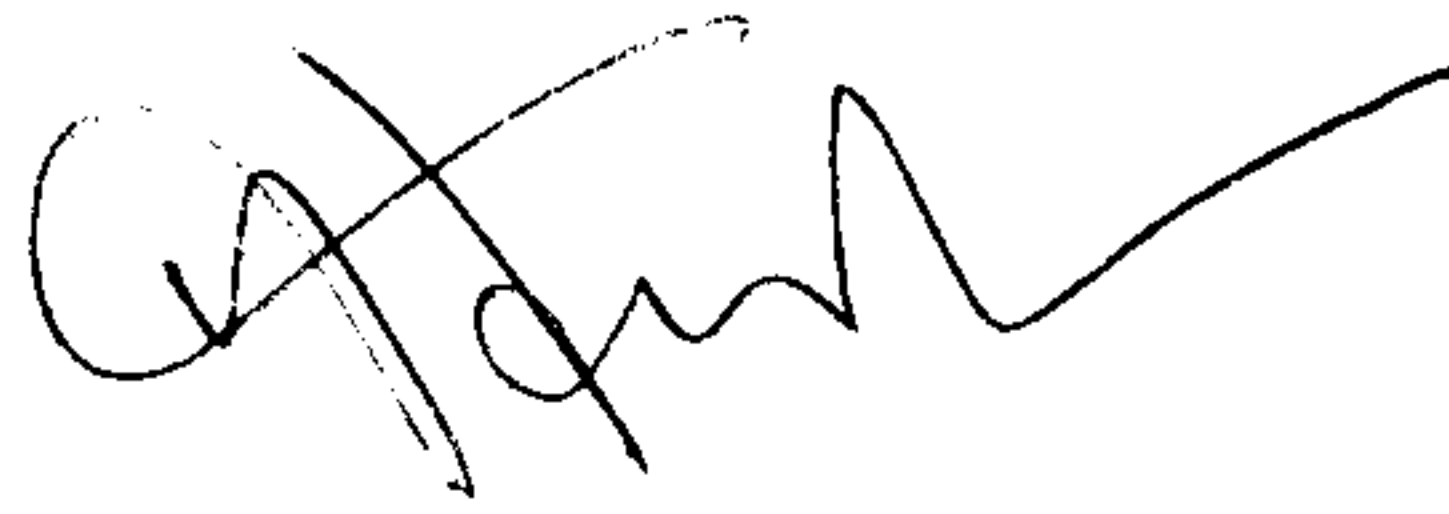
**1.10 Circuit sub type shall be:-**

- a. Local- within same exchange
- b. Intra SDCA – Within same SDCA, across Exchange
- c. Intra SDCA – Within Same LDCA , across SDCA
- d. Long distance – across LDCA



**1.18 Items not covered under the proposal submitted by SI(M/s TCS):-**

- a. Additional user licences for CRM application if any.
- b. Additional licences for software and hardware impacts if any.
- c. Leased Voice band circuits
- d. Facsimile like Fax.
- e. Equipment Inventory maintenance.
- f. Maintaining row (right of way) ( amount paid by BSNL to Sate Government like municipalities for digging the roads)
- g. ISP and POI charges.
- h. SLA calculation and automatic adjustment of SLA.
- i. Migration of services
- j. Integration with external 3<sup>rd</sup> party applications.
- k. Changes to any other systems not covered in proposal

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Annexure - C				
S.No.	Item	Quantity	Sales Tax/service tax	Price in INR (Incl All, excluding Service Tax)
	<b>North</b>			
1	Data Center Services for implementation of LEASED CIRCUIT solution in CDR system for use on PAN India Basis with production at North CDR DC and DR in West CDR DC.	1	12.36%	6,90,00000/-
	<b>Total cost</b>			6,90,00000/-

