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Results-Framework Document

For

Centre for Development of Telematics

(2012-2013)

Results-Framework Document (RFD) for Centre for Development of Telematics (20

Section 1:

Vision, Mission, Objectives and Functions

Vision

C-DOT to become World Class Indian Telecom Technology Development Centre.

Mission

i. To indigenously design develop state of art telecom technologies, products and solution.ii. To meet the telecom needs of India, particularly of national importance in strategic sector and rural areas.

Objectives

1. Work on telecom technology products and services to provide solutions for current, future requirements and converged networks including those of national importance especially related to rural applications, strategic sector and security
2. Support Telcos and service providers in the introduction of new technologies, features and services by optimal utilization
3. Develop and progressively transfer technology from design to manufacture utilizing resources from within the country and
4. Provide market orientation to R&D activities and sustain C-DOT as a centre of excellence.

Function

- 1.Work in the frontiers of technology of Telematics & Information Technology taking into account futuristic trend and to conduct such basic research to meet the objectives.
- 2.Indigenous Telecom R&D to meet the telecom needs of the country.
- 3.Making country self reliant with appropriate telecom technologies by import substitution.
- 4.Build partnerships and joint alliances with Academia, Industry, Solution providers, Telcos and other R&D organizations to
- 5.To promote & assist ancillary industry in the production of high quality components, subassemblies and equipment to meet performance standards required by the telematic industry.

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Section 2:

Inter se Priorities among Key Objectives, Success indicators and Targets

| Objective | Weight | Action | Success Indicator | Unit | Weight | Target / Criteria Value | | | | | | | | | | |
|--|--------|---|---|------|--------|-------------------------|----------------|------------|------------|------------|--|--|--|--|--|--|
| | | | | | | Excellent(100 %) | Very Good(90%) | Good (80%) | fair (70%) | Poor (60%) | | | | | | |
| [1]Work on telecom technology products and services to provide solutions for current, future requirements and converged networks including those of national importance especially related to rural applications, strategic sector and security agencies, etc. | 55 | [1.1] Completion of R&D deliverables planned for the year | [1.1.1] LTE-A (Long Term Evolution-Advance): Design, Development & Prototype of Femto eNodeB system for LTE | Date | 8.0 | 20/02/2013 | 01/03/2013 | 15/03/2013 | 25/03/2013 | 31/03/2013 | | | | | | |
| | | | [1.2.1] Design & Development of IEEE 1588 (backhaul for both 2.5G & 10G) compliant CPE for OAAS (Optical Aggregation & Access System): 2.5G, OLT solution with optical interfaces adaptable to 10G GPON & demonstration of services over 10G GPON | Date | 9.0 | 31/01/2013 | 15/02/2013 | 28/02/2013 | 15/03/2013 | 31/03/2013 | | | | | | |
| | | | [1.3.1] CMS (Centralize Monitoring System) R&D : Software enhancement for RMC with Disaster Recovery (DR) , ISF Software Customization for LIS Interface, ISP Integration Basic Design, Software Release for Field Problems. | Date | 9.0 | 15/01/2013 | 15/02/2013 | 15/03/2013 | 25/03/2013 | 31/03/2013 | | | | | | |
| | | | [1.4.1] Commercial Grade Terabit Router: Design completion for fault tolerant multi Terabit Router | Date | 9.0 | 15/01/2013 | 15/02/2013 | 15/03/2013 | 25/03/2013 | 31/03/2013 | | | | | | |

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|--|----|---|---|--------|------|------------|------------|------------|------------|------------|--|--|--|--|--|--|--|--|
| | | | [1.5.1] UNMS (Unified Network Management System): Design & Development of Unified NMS - V1.0.0 for testing / validation | Date | 5.0 | 20/02/2013 | 01/03/2013 | 15/03/2013 | 25/03/2013 | 31/03/2013 | | | | | | | | |
| | | | [1.6.1] Broadband CPE (Customer Premises) with 3G wireless fallback – Field Trial commencement | Date | 3.0 | 30/11/2012 | 31/12/2012 | 31/01/2013 | 28/02/2013 | 31/03/2013 | | | | | | | | |
| | | | [1.7.1] CPRS (Customized Platform for Rural Services) : A generic application platform for DRAX (Data Rural Application Exchange) for Client system implementation with demonstration for advanced features e.g. Near Field Communication (NFC) & services like adhar authentication etc. | Date | 3.0 | 15/01/2013 | 15/02/2013 | 15/03/2013 | 25/03/2013 | 31/03/2013 | | | | | | | | |
| | | | [1.8.1] High efficiency RF Amplifier (HERA): Design implementation for card realization & PoC | Date | 5.0 | 30/11/2012 | 31/12/2012 | 31/01/2013 | 28/02/2013 | 31/03/2013 | | | | | | | | |
| | | | [1.9.1] EAIS (Enhanced Active Infrastructure Sharing) : GPRS (General Packet Radio Service) & EGPRS (Enhanced GPRS) functionality implementation over SGRAN (Shared GSM Radio Access Network) - R&D field trial. | Date | 4.01 | 31/12/2012 | 31/01/2013 | 28/02/2013 | 25/03/2013 | 31/03/2013 | | | | | | | | |
| [2]Support Telcos and service providers in the introduction of new technologies, features and services by optimal utilization of installed networks, pilots and studies. | 25 | [2.1] Enhancements/new features/upgradations/adaptations/technical support for developed technologies | [2.1.1] CMS roll-out in the field – □ •Main Data Centre build upto 40% capacity and IT infrastructure up to 20% capacity. •Upgradation of existing pilot CMC. | Number | 4.0 | 12 | 8 | 4 | 3 | 2 | | | | | | | | |

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|---|---|------------------------------|--|--------|-----|------------|------------|------------|------------|------------|--|--|--|--|--|--|--|--|
| | | | [2.2.1] WIPS - Design & development of secure mobile wireless network – Demonstration | Date | 3.0 | 31/01/2013 | 20/02/2013 | 01/03/2013 | 15/03/2013 | 31/03/2013 | | | | | | | | |
| | | | [2.3.1] SDCN network Expansion & setting-up of Network Operation Centre (NOC) for SDCN | Date | 3.0 | 31/01/2013 | 20/02/2013 | 01/03/2013 | 15/03/2013 | 31/03/2013 | | | | | | | | |
| | | | [2.4.1] MOES / GPON Technology piloting to address broadband requirements of telecom / non-telecom segments of urban / rural and North-East. | Date | 3.0 | 30/10/2012 | 30/11/2012 | 31/12/2012 | 31/01/2013 | 31/03/2013 | | | | | | | | |
| | | | [2.5.1] Multi-sectored BBWT system with active sharing : Pilot trial | Date | 3.0 | 31/01/2013 | 10/02/2013 | 20/02/2013 | 05/03/2013 | 15/03/2013 | | | | | | | | |
| | | | [2.6.1] Migration of Fixed Line (equipped capacity) to IP based technology - completion of acceptance testing & submission and approval of proposal for mass deployment. | Date | 3.0 | 30/06/2012 | 15/07/2012 | 31/07/2012 | 10/08/2012 | 20/08/2012 | | | | | | | | |
| | | | [2.7.1] Technology support in the field for fixed-line, ATM etc : Field issues' redressal by Bug fixes/New Release Enhancements etc. | % | 3.0 | 100 | 95 | 90 | 85 | 80 | | | | | | | | |
| | | | [2.8.1] Implementation of ISP Monitoring solution at all locations (ready with requisite Hardware) comprising Gateways / POPs (Point-of-Presence) | % | 3.0 | 100 | 80 | 60 | 40 | 30 | | | | | | | | |
| [3]Develop and progressively transfer technology from design to manufacture utilizing resources from within the country and abroad. | 4 | [3.1] Transfer of Technology | [3.1.1] Signing of Transfer of Technology agreements : No. of Technologies | Number | 4.0 | 5 | 4 | 3 | 2 | 1 | | | | | | | | |

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|--|---|---|--|--------|------|------------|------------|------------|------------|------------|--|--|--|--|--|--|--|
| [4]Provide market orientation to R&D activities and sustain C-DOT as a centre of excellence. | 4 | [4.1] Technology Promotion | [4.1.1] Exhibitions / Technical Presentations to prospective customers / Demonstrations / Feasibility Studies and Pilots | Number | 4.0 | 25 | 20 | 15 | 10 | 5 | | | | | | | |
| * Efficient Functioning of the RFD System | 3 | Timely submission of RFD for 2012-13 | On-time submission | Date | 2.00 | 05/03/2012 | 08/03/2012 | 09/03/2012 | 10/03/2012 | 11/03/2012 | | | | | | | |
| | | Timely submission of Results for 2012-13 | On-time submission | Date | 1.00 | 01/05/2013 | 02/05/2013 | 03/05/2013 | 04/05/2013 | 05/05/2013 | | | | | | | |
| * Administrative Reforms | 5 | Implement ISO 9001 | Prepare ISO 9001 action plan | Date | 1.00 | 01/05/2013 | 02/05/2013 | 03/05/2013 | 04/05/2013 | 05/05/2013 | | | | | | | |
| | | Implement ISO 9001 | Implementation of ISO 9001 action plan. | Date | 2.00 | 25/03/2013 | 26/03/2013 | 27/03/2013 | 28/03/2013 | 29/03/2013 | | | | | | | |
| | | Implement mitigating strategies for reducing potential risk of corruption | % of implementation | % | 2.00 | 100 | 95 | 90 | 85 | 80 | | | | | | | |
| * Improving Internal Efficiency / responsiveness / service delivery of Ministry / Department | 4 | Implementation of Sevottam | Independent Audit of Implementation of Citizen's Charter | % | 2.00 | 100 | 95 | 90 | 85 | 80 | | | | | | | |
| | | Implementation of Sevottam | Independent Audit of implementation of public grievance redressal system | % | 2.00 | 100 | 95 | 90 | 85 | 80 | | | | | | | |

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|---|---|--|--------|--|--|------------|--|--|--|--|--|--|--|--|
| [4] Provide market orientation to R&D activities and sustain C-DOT as a centre of excellence. | [4.1] Technology Promotion | [4.1.1] Exhibitions / Technical Presentations to prospective customers / Demonstrations / Feasibility Studies and Pilots | Number | | | | | | | | | | | |
| *Efficient Functioning of the RFD System | Timely submission of RFD for 2012-13 | On-time submission | Date | | | 08/03/2012 | | | | | | | | |
| | Timely submission of Results for 2012-13 | On-time submission | Date | | | 02/05/2013 | | | | | | | | |
| *Administrative Reforms | Implement ISO 9001 | Prepare ISO 9001 action plan | Date | | | 02/05/2013 | | | | | | | | |
| | | Implementation of ISO 9001 action plan. | Date | | | 26/03/2013 | | | | | | | | |
| | Implement mitigating strategies for reducing potential risk of corruption | % of implementation | % | | | 95 | | | | | | | | |
| *Improving Internal Efficiency / responsiveness / service delivery of Ministry / Department | Implementation of Sevottam | Independent Audit of Implementation of Citizen's Charter | % | | | 95 | | | | | | | | |
| | | Independent Audit of implementation of public grievance redressal system | % | | | 95 | | | | | | | | |

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Section 4:

Description and Definition of Success Indicators

and Proposed Measurement Methodology

S. No. Actions Success Indicator Description and Definition of Success Indicators Proposed Measurement Methodology 1. Objective: Work on telecom technology products and services to provide solutions for current, future requirements and converged networks including those of national importance especially related to rural applications, strategic sector and security agencies, etc. Completion of RD deliverables planned for the year LTE-A[1]: Design, Development prototype of Femto eNodeB system for LTE. LTE-A (LTE Advanced) is a promising 4G-and-beyond next generation mobile technology. It enables migration of current GSM/UMTS-based networks to content-rich multimedia service networks for mobile subscribers . LTE-A infrastructure consists of several network nodes like eNodeB, RRH (Remote Radio Head), PDN (Packet Data Network) gateway, serving gateway, mobility management entity, etc. All these network nodes are required for providing 4G broadband services and for seamless integration to existing 3G technologies Design , development and prototype Femto

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Section 5:

Specific Performance Requirements from other Departments

Department/PSU/Authority Relevant Success Indicator What do you need? Why do you need it? How much do you need? What happens if you do not get it?

Department of Telecommunication (DOT) Allocation of RD funding funds for CMS- national roll-out program Timely release of allocated funding for RD programs /schemes roll-out To meet the cost of technology development roll-outs As approved in the budget for the financial year subject to utilization. National roll-out of projected RD outcome will be affected SDCN network expansion setting up of Network Operation Centre (NOC) for SDCN DOT to provide details of subscriber locations. MTNL to ensure availability of physical pair for network expansion within NCR. To implement decision of the Union Cabinet. 100% of specified support. SDCN network expansion will not be completed. For SDCN Pan India roll-out DOT to authorize assist in allocating sites availability of infrastructure at state capital premises. BSNL to make available site connectivity from NCR to all state capitals. Pan Indian SDCN will not exist. CMS Roll-out in the field. DOT to authorize assist in allocating TSP sites availability of infrastructure at TSPs premises. It is basic requirement to start field implementation. All TSPs allocation as per the target Implementation will be adversely effected. TSPs telecom exchanges should be ETSI [1]

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