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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

						Target / Criteria Value												
Objective	Weight	Action	Success Indicator	Unit	Weight	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								

			[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 genericapplication platform for DRAX (Data Rural Application Exchange) for Client sytem 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							

			[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								

[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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Section 3:

Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value for FY 09/10	Actual Value for FY 10/11	Target Value for FY 11/12	Projected Value for FY 12/13	Projected Value for FY 13/14					
[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.	[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										
		[1.1.2] 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										
		[1.1.3] 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										
		[1.1.4] Commercial Grade Terabit Router: Design completion for fault tolerant multi Terabit Router	Date										

		[1.1.5] UNMS (Unified Network Management System): Design & Development of Unified NMS - V1.0.0 for testing / validation	Date										
		[1.1.6] Broadband CPE (Customer Premises) with 3G wireless fallback – Field Trial commencement	Date										
		[1.1.7] CPRS (Customized Platform for Rural Services) : A genericapplication platform for DRAX (Data Rural Application Exchange) for Client sytem implementation with demonstration for advanced features e.g. Near Field Communication (NFC) & services like adhar authentication etc.	Date										
		[1.1.8] High efficiency RF Amplifier (HERA): Design implementation for card realization & PoC	Date										
		[1.1.9] 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										
[2] Support Telcos and service providers in the introduction of new technologies, features and services by optimal utilization of installed networks, pilots and studies.	[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										

		[2.1.2] WIPS - Design & development of secure mobile wireless network – Demonstration	Date										
		[2.1.3] SDCN network Expansion & setting-up of Network Operation Centre (NOC) for SDCN	Date										
		[2.1.4] MOES / GPON Technology piloting to address broadband requirements of telecom / non-telecom segments of urban / rural and North-East.	Date										
		[2.1.5] Multi-sectored BBWT system with active sharing : Pilot trial	Date										
		[2.1.6] Migration of Fixed Line (equipped capacity) to IP based technology - completion of acceptance testing & submission and approval of proposal for mass deployment.	Date										
		[2.1.7] Technology support in the field for fixed-line, ATM etc : Field issues' redressal by Bug fixes/New Release Enhancements etc.	%										
		[2.1.8] Implementation of ISP Monitoring solution at all locations (ready with requisite Hardware) comprising Gateways / POPs (Point-of-Presence)	%										
[3] Develop and progressively transfer technology from design to manufacture utilizing resources from within the country and abroad.	[3.1] Transfer of Technology	[3.1.1] Signing of Transfer of Technology agreements : No. of Technologies	Number										

[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 IndicatorDescription and Definition of Success IndicatorsProposed 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 yearLTE-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/AuthorityRelevant Success IndicatorWhat do you need?Why do you need it?How much you need?What happens if you do not get it?Department of Telecommunication (DOT)Allocation of RD funding funds for CMS- national roll-programTimely release of allocated funding for RD programs /schemes roll-outTo meet the cost of technology development roll-outsAs approved in the budget for the financial year subject to utilization. National roll-out of projected RD outcome will be affectedSDCN 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 allocatingsites availability of infrastructure at state capitalpremises. 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 targetImplementation will be adversely effected.TSPs telecom exchanges should be ETSI[1]

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Section 6:

OutCome/Impact of Department/Ministry

OutCome/Impact of Department/Ministry	Jointly responsible for influencing this outcome /impact with the following	Success Indicator	unit	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14									
1. Indigenous technology for the strategic sectors like Law Enforcement Agencies, Defense and the technologies for bridging the digital divide between the urban and rural, remote, NE Region of the country for the socio-economic development of the region as well as giving impetus to the manufacturing base in the country.	• Ministry of Communication & IT • Telecom service providers – BSNL, MTNL • Law Enforcement Agencies, Defense • Indian telecom manufacturers • Department of IT • NIC • Scientific Analysis Group (SAG), DRDO • Intelligence Bureau (IB)	[11. 01]New technologies' Field trials, implementation /pilot deployment in the network	Number	6	5	7	7	7									
		[21. 01]Technology commercialization – Readiness of technologies for Transfer to manufacturers	Number	4	6	8	4	3									