

D/O TELECOMMUNICATION
Statement of Outlays and Outcomes/Targets: Annual Plan 2005-06

I. Bharat Sanchar Nigam Ltd. (BSNL)

(Rs. in crore)

S.No.	Name of Scheme / Programme	Objective / Outcome	Outlay 2005-06	# Quantifiable Deliverables	Processes / Timelines	Remarks / Risks /constraints
1	DELs (Direct Exchange Lines)	Provision of DELs on Demand	Outlay for provision of 75 Lakh DELs	Total 75 Lakh 1st Qtr - 7.5 Lakh 2nd Qtr - 11.25 Lakh 3rd Qtr - 18.75 Lakh 4th Qtr - 37.5 lakh	DELs target includes (i) 65 lakh mobile connections and (ii) 10 lakh fixed connections (iii) The Process involves preparing of tenders and their finalizations, installations of equipment and their testing and finally based on the demand, telephones are provided to the customers. (iv) Agreements have been signed with operators for VPTs and RCPs	(1) Availability of Demand (2) Non Availability of Power in rural / remote areas (3) Buffer Zone (4) Subject to reimbursement of Rs.5385 crore from other sources - Rs.3685 crore for licence fee and spectrum charges and Rs.1700 crore from USO fund. (Rs.1200 crore from USO Fund at BE).
2	Rural DELs	Help Raising the Rural Teledensity		Annual 8516.00* (13901.00)**	Total 8 Lakh DELs 1st Qtr - 1.0 Lakh 2nd Qtr - 1.6 Lakh	
				1st Quarter 1420.00	3rd Qtr - 3.2 Lakh 4th Qtr - 2.2 Lakh	
3	VPTs (Village Public Telephones)	Provision of VPTs as per USO agreement		Total 12500 VPTs		(5) Non vacation of allotted GSM frequencies by Defence
				1st Qtr - 2650		(6) Allocation of GSM frequencies
				2nd Quarter	2nd Qtr - 3305	

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			2356.00	3rd Qtr - 3555		in 1800 MHz Band instead of 900 MHz Band
				4th Qtr - 2990		
4	MARR Replacement	Replacement of all VPTs on MARR with WLL / LL		Total 76734		(7) Delay in spectrum allocation in 15 GHz band and for WCDMA
				1st Qtr - 11520		
			3rd Quarter	2nd Qtr - 15377		
			4252.00	3rd Qtr - 26877		(8) Scarcity of steel for infrastructure roll out
				4th Qtr - 22960		
5	RCPs (Rural Community Phones)	Provision of Second Public Telephone in villages with population more than 2000		Total 5992		(8) Scarcity of steel for infrastructure roll out
			4 th Quarter	1st Qtr - 964		
			5873.00	2nd Qtr - 1288		(9) Delay in SACFA clearance
				3rd Qtr - 1755		
				4th Qtr - 1985		
6	Internet Connections		Outlay for Broadband / Internet	Total 8 Lakh connections		(10) Tower Tax imposition and delay in clearance for tower erection by State Govts.
				1st Qtr - 1.2 Lakh		
				2nd Qtr - 2.0 Lakh		
			Annual	3rd Qtr - 2.4 Lakh		
			1180.00*	4th Qtr - 2.4 Lakh		
7	Broadband Connections			Total 4.5 Lakh connections		(11) Delay in availability of commercial power
			1st Qtr. 87.40	1st Qtr - 33400		
			2nd Qtr. 307.50	2nd Qtr - 117250		
			3rd Qtr. 530.40	3rd Qtr - 202250		
			4th Qtr. 254.50	4th Qtr - 97100		
8	Total Outlay		9696 .00* (15081.00)**			

* : Outlay is as per the approved Annual Plan for 2005-06.

** : The total resources include Rs.5385 crore anticipated to be provided to BSNL - Rs.1700 crore from USO fund and Rs.3685 crore from reimbursement of licence fee and spectrum charges under the non-Plan budget which is included in the quarterly break-up of available resources and deliverables.

: (i) Physical target for DELs, Rural DELs, Internet connections and Broadband connections as per total resources available i.e. Rs.15081 crore.
(ii) Physical targets for VPTs are as per USO agreement

II. Mahanagar Telephone Nigam Ltd. (MTNL)

(Rs. in crore)

Sl. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2005-06	Quantifiable Deliverables	Processes/ Timelines	Remarks/Risk Factors
1	Switching (including TAX/Tandem) and Access lines (including CDMA/WLL Handsets, GSM) in existing and new areas	Increase in net switching capacity	1606.00 Q1-209.00 Q2-215.00 Q3-460.00 Q4-722.00	i) Additions of 10 lakh lines in net switching capacity including capacity for WLL & GSM ii) Addition of 0. 64 lakh lines of TAX/Tandem capacity iii) Additions of 18000 Optical Fibre Kms. iv) Addition of 8 lakh ports of DLC/DSLAM	a) 8 lakh CDMA capacity is under installation likely date of completion 30.9.2005. b) 4 lakh GSM expansion orders are already placed. Installation completion by 31.12.2005. c) Procurement for remaining quantity to be made after finalisation of tender and to be commissioned by 31.3.06.	Delay in supplies by supplier, A/T, problem in site acquisition and finalisation of tender/orders. Delay in permission for digging/laying of ducts for cables.
2	IT related services	i) Convergent billing ii) Dataware housing	151.00 Q1-9.00 Q2-6.00 Q3-7.00 Q4-129.00	i) Convergent billing ii) Data-ware housing	To be completed by 31.3.06 To be complied by 31.3.06 after procurement through tender.	Tender finalisation and negotiations may run into

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						unforeseen problems.
3	International Long Distance Operations	To start ILD operations	30.00	To start ILD operations	Applied for Licence.	Subject to issue of ILD license
4	Expansion in New Service Areas Abroad and National acquisitions	Service in Overseas operations	100.00	i) To start operations in Mauritius ii) To expand in other areas	Service in Mauritius to be commissioned by 31.12.05	Subject to new overseas suitable opportunities
	Total		1887.00			

III. – Centre for Development of Telematics (C-DOT)

(Rs. in crore)

S.no.	Scheme / Program Name	Objective / Outcome	Outlay 2005-06	Quantifiable Deliverable	Process / Timeline	Remarks/ Risk Factor **
1	Advanced Intelligent Network (IN)	To Demonstrate a Pilot IN Sys. for Converged Network	4.57	<ul style="list-style-type: none"> • IN for Converged Network <p>Q1: • Pre-Paid IN Implementation for existing platforms with operator</p> <p>Q2: Pilot trial Commencement for <ul style="list-style-type: none"> • Pre-Paid IN Sol. For existing platform • IN solution for small and cost effective platforms (SSIN) </p> <p>Q3: • Pilot trial commencements for Intelligent Peripheral (IP/SRP) initially for wireline and progressively towards converged networks</p> <p>Q4: • Pilot trial commencement for IN for converged networks</p>	-	The porting of pre-paid (PPW) services on the existing platform (Stratus 618 machine) shall be taken up if the operator confirms its requirement
2	Cell and Packet Tech for voice and data convergence	<ul style="list-style-type: none"> • To demonstrate C-DOT integrated NGN pilot system in the field with various VoIP subsystems e.g. IP/MPLS routers, VoIP gateways. • To customise ATM Network Interface Unit (NIU), for network reliability and optimization 	21.22	<ul style="list-style-type: none"> • Pilot trial commencement for C-DOT integrated NGN system in the field • Customisation for ATM NIU <p>Q1: • Stand-alone testing for IP/MPLS router <ul style="list-style-type: none"> • Class 4 VoIP network trial commencement with strategic partners </p> <p>Q2: • ATM NIU enhancements' customisation completion <ul style="list-style-type: none"> • Stand-alone software testing for C-DOT VoIP sub-systems </p>	-	

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				<p>Q3: • C-DOT IP/MPLS router pilot trial commencement; integration and testing for other VoIP subsystems</p> <p>Q4: • Pilot trial commencement for VoIP – C-DOT integrated NGN</p>		
3	Innovative Services for Business and Industry	<ul style="list-style-type: none"> • To develop and pilot trial a Call Interception & Intelligent system (CIIS) • To enhance the NMS & OSS systems and support for NMS deployment in the field for GSM & National TAX NMS 	19.15	<ul style="list-style-type: none"> • Pilot trial commencement for call interception system • NMS enhancements & deployment in the field Q1: • Testing of NMS mediation functions for CIIS <ul style="list-style-type: none"> • SMS-based value added services as part of OSS enhancements Q2: • Pilot trial commencement for TDM-based network interception application for C-DOT MAX Q3: • Pilot trial commencement for clearing house, CRS, CMS etc. applications Q4: • Pilot trial commencement for NMS enhancements and support for NMS deployment - subs mgmt, NMS for GSM subs, and National TAX NMS. <ul style="list-style-type: none"> • Pilot trial commencement of law enforcement monitoring and interception functionality for packet based network 	-	

4	Wireless and Mobile Communication	Feasibility trial of rural wireless system for GSM and broadband services	13.38	<p>Pilot trial commencement of rural wireless system supporting GSM and broadband access</p> <p>Q1: • System integration completion for GSM voice services; sub-systems standalone testing for broadband services etc.</p> <p>Q2: • Pilot trial commencement of rural wireless system for GSM voice services</p> <p>Q3: • Pilot trial commencement for integrated rural wireless system</p> <p>Q4: • Pilot trial for integrated broadband services, contd</p>	-	
5	High Bit Rate Network Backbone on Fibre and Sat.	<ul style="list-style-type: none"> • To commence the pilot/field trial for C-DOT DWDM technology, broadband satellite in Ku band, CWDM development and pilot trial for broad band satellite in Ku band • To pilot try a GPON tech in the field initially with outsourced components & initiating sub-system development 	15.31	<ul style="list-style-type: none"> • Commencement of field trial for DWDM system and pilot trial for broadband satellite in Ku band • System integration completion for CWDM • Pilot trial of GPON system with outsourced components <p>Q1: • Pilot trial commencement in the field with outsourced components of GPON</p> <p>Q2: • Field / Pilot trial commencement for DWDM system and broadband satellite system in ku band</p> <p>Q3: • Continuation of trials for optical and broad band satellite system</p>	-	

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				Q4: • Completion of trials for optical and broad band satellite system • System integration & testing completion of CWDM system • Pilot testing of in-house developed GPON subsystems		
6	Campus	Commencement of housing complex and part completion	10.44	Award of contract and commencement of housing complex, construction activities	-	Targets depends on the clearance of statutory bodies
				Q1: •Commissioning of Building mgmt. system, external lighting completion, land scaping and murals		
				Q2: •Housing complex:construction contd.		
				Q3: •Housing complex:construction contd.		
				Q4: •Housing complex:construction and part completion		
7	Product Support Enhancement / Field Support	Technology upgradation to take care of obscelence	47.33	Feature enhancement / upgradation for technology deployed in the field	-	
	Total		131.40			

Abbreviations:

ATM : Asynchronous Transfer Mode; IN : Intelligent Network; IP/MPLS : Internet Protocol / Multi Protocol Lable Switching; TDM : Time Division Multiplexing; CRS : Customer Registration System; CMS : Complaint Management System; DWDM : Dense Wavelength Division Multiplexing; CWDM : Coarse WDM; GPON : Gigabit Passive Optical Network

** Remarks / Risk Factors : Some of the risk factors anticipated in the above R&D activities are as follows:

1. Research work results may not conform fully with specifications in the first instance may require some iteration
2. The major changes in the specifications by the international standard bodies may also affect the development schedule
3. Various sub components of the research activities may have problems during overall system integration
4. The completion targets may get shifted in case R&D efforts on priority basis are devoted to fulfill the operators' commitments w.r.t. field requirement

Note : Quarterly targets (Q1 to Q4) are based on FY 2005-06 and indicate the physical targets to be achieved by the end of quarter

IV. Telecom Engineering Centre (TEC)

(Rs. in crore)

S. No.	Name of Scheme / Programme	Objective / Outcome	Outlay 2005-06	Quantifiable Deliverables	Process / Timelines	Remarks / Risk Factors
1.	Telecom standardization and preparation of generic requirements, Interface requirements, service requirements.	1) Technical support to DOT and other Operators	1.13 Qtr.1 – 0	1) New GRs/IRs-42 Qtr.1 – 11 Qtr.2 – 9 Qtr.3 – 10	Q1 – Preparation of specifications for TEC Intranet - Preparation of document for procurement for R & D	
2.	New technology study, trials and induction	2) Telecom standardization, preparation of generic requirements	Qtr.3 – 0.11	Qtr.4 - 12	Q2 – Preparation of tender document for TEC Intranet	
	Preparation of fundamental Telecom Plans (e.g. Numbering Plan)		Qtr.4 – 1.02	2) Review of GRs/ IRs –80 Qtr.1 – 16 Qtr.2 – 23		
3.	Technical support to DOT			Qtr.3 – 23	- Inviting quotations for purchase for R & D work	
	Technical support to BSNL/MTNL			Qtr.4 - 18		
	Approving inter-operator Network-Network Interfaces (NNI)			3) Test Schedules- 122 Qtr.1 – 27 Qtr.2 – 33	Q3 – Deciding tender for TEC Intranet	
4.	Issue of service test certificates to licenced			Qtr.3 – 33	- Procurement of R & D equipment	
5.	Service Providers			Qtr.4 - 29	Q4 – Project imple-mentation for TEC Intranet	
6.	Interface approvals of customer equipment			4) Study Items- 30 Qtr.1 – 3	- Installation of R & D System	
7.	Participation in APT, ITU and other standards organizations			Qtr.2 – 7 Qtr.3 – 7 Qtr.4 - 13 5) Validation-9 Qtr.1 – 1 Qtr.2 – 3 Qtr.3 – 2 Qtr.4 - 3		
	Total		1.13			

V. Wireless Planning & Coordination (WPC)

(Rs. in crore)

Sl. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2005-06		Quantifiable Deliverables	Processes/ Timelines	Remarks/Risk Factors
1.	National Spectrum Management and Monitoring System (NRSMMS)	Automation of Making spectrum management and monitoring effective	Annual	62.71	1. Supply of 21 V/UHF MMS vehicles 2. Supply of 20 SHF MMS vehicles 3. Completion of 21 fixed monitoring sites 4. Completion of fixed SHF/Sat. monitoring facility (01 no.) 5. Completion of training under contract		
			Quarter-I	0.71	1. Payment towards ASMS training 2. Payments towards PMC services		
			Quarter-II	22.00	1. Completion of all fixed sites 2. Delivery of 15V/UHF MMS 3. Final payment towards PMC services		All fixed sites will be treated as completed only when these sites are tested with V/UHF MMS also.
			Quarter-III	14.00	1. Supply of 05 SHF MMS 2. Completion of fixed SHF MMS Facility 3. Import of items for SHF vehicles 4. Delivery of 6 V/UHF vehicles 5. Remaining payment for DTM to SOI		Supply of SHF MMS depends on approval of PDR/CDR, which is still under review

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			Quarter-IV	26.00	<p>1. Supply of remaining 15 SHF vehicles</p> <p>2. Payment towards training under contract</p> <p>3. Commissioning of NRSMMS and Payment of remaining 10% contract value</p>		<p>1. Supply of SHF MMS depends on approval of PDR/CDR, which is still under review.</p> <p>2. Payment of 10% of the contract value will be paid only when NRSMMS is operationally accepted.</p>
	Total			62.71			

VI. Wireless Monitoring Organisation (WMO)

(Rs. in crore)

Sr. No	Name of Schemes/ Programmes	Objective/ Outcome	Outlay 2005-06	Quantifiable Deliverables	Processes/Timelines	Remarks/ Risk Factors
1.	Augmentation of DF Systems	Strengthening of spectrum Analysis capabilities, Modernisation of WMO and Development of Management Information system	18.77 of which Qr.1 – 3..11 Qr.2 – 3 .30 Qr.3 – 4.11 Qr.4 – 8.25	Q1 60% Q2 20% Q3 10% Q4 10%	These are the activities of continuous nature and can not be quantified and hence given in percentage	
2.	Science & Technology			14% 28% 28% 30%		
3.	Strengthening of VHF/UHF Spectrum analysis capabilities			0 % 2% 2% 96%		
4.	Regional Maintenance Centre			0% 2.5% 2.5% 95%		
5.	Upgradation of Training Centre			10% 50% 10% 30%		
6.	Modernisation of WMO HQ at Pushpa Bhawan New Delhi-62			0% 0% 100% 0%		
7.	Management of Information System			0% 10% 80% 10%		
8.	Civil works(in two A/C Heads,1-MH 5275 (M.O.C.I.T.) 2. MH 4059/4216(by Min.U.Dev.)			24.5% 24.5% 24.5% 26.65%		
	Total		18.77			

VII. Telecom Regulatory Authority of India (TRAI)

(Rs. in crore)

Sl. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2005-06	Quantifiable Deliverables	Processes/Timelines	Remarks/Risk Factors
1.	Training & Consultancy	To train and obtain required inputs	3.00	1. Training of TRAI personnel 2. Get studies conducted	1. Identification of training needs 2. Select Institutions/ Organizations for studies 3. Assign studies after due process	TRAI is a Regulatory Body for telecom sector and these activities supplement their main work.
2.	Studies on regulatory matters					
	Total		3.00			

VIII. Telecom Disputes Settlement & Appellate Tribunal (TDSAT)

(Rs. in crore)

Sl. No.	Name of Scheme/ Programme	Objective/ Outcome	Outlay 2005-06	Quantifiable Deliverables	Processes/ Timelines	Remarks/Risk Factors
1.	Upgradation of library	Purchase of hardware and software, books and others accessories for the utilization in the library.	0.15	----	31.3.2006	Action to implement the programme has been initiated on the assumption of office by Hon'ble Chairperson on 27-6-05.
2.	Study tours of Chairperson and members of Telecom Disputes Settlement and Appellate Tribunal and training of staff.	The objective of the study tours of Chairperson and Members to various countries is to familiarize themselves with regulatory and disputes settlement mechanisms in the telecom sector.	0.50	----	31.3.2006	Action to implement the programme has been initiated on the assumption of office by Hon'ble Chairperson on 27.6.2005.
3.	Seminars and appointment of consultants	The objective of holding seminars in various places in the country is to generate awareness amongst various stakeholders about the disputes settlement mechanism in the telecom sector. The objective of appointment of Consultant is to facilitate the Chairperson and other Members in the adjudication of disputes and also to do research in legal matters relating to telecom sector.	0.35	-----	31.3.2006	Action to implement the programme has been initiated on the assumption of office by Hon'ble Chairperson on 27-06-2005.
Total			1.00			
	Grand Total of Telecom Sector (I+II+III+IV+V+VI+VII+VIII)		11801.01* (17186.01)**			

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