TOPIC OF THE WEEK

JAN'18 (09 to 15)

Topic: Bharat-Net

BharatNet, also Bharat Broadband Network Limited, is a Telecom infrastructure provider, set up by the government of India under Telecom department for the establishment, management and operation of National Optical Fibre Network to provide a minimum of 100 Mbps broad band connectivity to each one of all 250,000 Gram panchayats in the country covering nearly 625,000 villages to transform to Digital India.

BharatNet Phase-I, across 13 states and UTs was completed in December 2017 with the Phase-I union government funding share of $110,000 million (US$1.7 billion or €1.4 billion). It connected 100,000 Gram panchayat, covering 300,000 villages by laying 300,000 km of optical fiber network. 13 states and UTs in this phase are: Andaman and Nicobar Islands, Chandigarh,
Delhi, Goa, Haryana, Karnataka, Kerala, Lakshadweep, Manipur, Meghalaya, Puducherry, Sikkim and West Bengal.

BharatNet Phase-II, to be completed by 31 March 2019, will connect the remaining nearly 150,000 gram panchayats covering 325,000 villages through additional 1 million km of optical fibre. Phase-II commenced with the union government funding share of $340,000 million, with the current 250 km per day pace of optical fiber network roll out which needs to be raised to 500 km per day to achieve the completion target of March 2019. Roll out will be expedited with November 2017 [memorandum of understanding] with seven more states, namely Andhra Pradesh, Chhatisgarh, Gujarat, Jharkand, Tamil Nadu, Maharashtra and Telangana. Phase-II will double the total optical fiber network of the nation and will generate 100,000,000 mandate employment for the rollout.

BharatNet is a project of national importance, established in 2017, a highly scalable network infrastructure accessible on a non-discriminatory basis, to provide on demand, affordable broadband connectivity of 2 Mbps to 20 Mbps for all households and on demand capacity to all institutions, to realize the vision of Digital India, in partnership with States and the private sector.

The entire project is being funded by Universal service Obligation Fund (USOF), which was set up for improving telecom services in rural and remote areas of the country forming the backbone of the government's ambitious Digital India programme. The objective is to facilitate the delivery of e-governance, e-health, e-education, e-banking, Internet and other services to the rural India. It proposes broadband connectivity to households under village panchayats and even to government institutions at district level. The project is being funded through the Universal Service Obligation Fund (USOF). It is headed by the USOF Administrator who reports to the Secretary, Department of Telecommunications (DoT).

The project is a Centre-State collaborative project, with the States contributing free Rights of Way for establishing the Optical Fibre Network. The three-phase implementation of the BharatNet project is as follows:

> ➤ The first phase envisages providing one lakh gram panchayats with broadband connectivity by laying underground optic fibre cable (OFC) lines by December 2017.

➢ The second phase will provide connectivity to all 2,50,500 gram panchayats in the country using an optimal mix of underground fiber, fiber over power lines, radio and satellite media. It is to be completed by March 2019. For success in phase-2, which will also involve laying of OFC over electricity poles, the participation of states will be important. This is a new element of the BharatNet strategy as the mode of connectivity by aerial OFC has several advantages, including lower cost, speedier implementation, easy maintenance and utilization of existing power line infrastructure. The last mile connectivity to citizens was proposed to be provided creating Wi-Fi hotspots in gram panchayats

➢ In the third phase from 2019 to 2023, state-of-the-art, future-proof network, including fiber between districts and blocks, with ring topology to provide redundancy would be created.

Government has achieved a significant milestone under the BharatNet by completing Phase-1 of the project by connecting over one lakh Gram Panchayats (GP) across

the country with high speed optical fibre network as per the declared deadline of 31 Dec 2017. BharatNet network built under Phase 1 envisages delivery of high-speed broadband services in over 2.5 lakh villages benefitting more than 200 million rural Indians.

The delay-marred project aims to bring high speed broadband to all 2.5 lakh gram panchayats (GPs) through optical fibre.

The project, earlier called the National Optical Fibre Network, had obtained Cabinet approval in 2011 and the deadline was fixed for the end of 2013. It was later deferred to September 2015 by the UPA government. The NDA government re-examined the project status and set a target to complete the roll-out by the end of 2016. This was later delayed to December 2018. Now, the deadline is set for March 2019.

National Optical Fibre Network (NOFN) is an ambitious initiative to trigger a broadband revolution in rural areas. NOFN was envisaged as an information super-highway through the creation of a robust middle-mile

infrastructure for reaching broadband connectivity to Gram Panchayats.

The National Optical Fibre Network (NOFN) aims to connect all the 2,50,000 Gram panchayats in the country and provide 100 Mbps connectivity to all gram panchayats (GPs). To achieve this, the existing fibres of PSUs (BSNL, Railtel and Power Grid) were utilised and incremental fibre was laid to connect to Gram Panchayats wherever necessary. Dark fibre network thus created was lit by appropriate technology thus creating sufficient bandwidth at the Gram Panchayats.

Stating that the tender process for the second phase has already started, she said state-owned Bharat Sanchar Nigam Ltd (BSNL) has floated its tenders. "...Wi-fi tenders whereby from 38,000 Wi-Fi hotspots, by the end of implementation that is planned for December 2018, India will go to half a million Wi-Fi hotspots. We believe that will be a game changer," she said.

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BharatNet will provide impetus to India's economy, more employment opportunities, improved service delivery (online e-gram panchayat services, e-governance, e-education, e-health, e-medicine, e-grievances, e-agriculture, e-citizen, etc), Make in India, Digital India and Startup India initiatives.

The government today expressed hope that the second phase of Bharat Net project to provide broadband connectivity to 1.5 lakh gram panchayats will be completed before time by December this year.

Telecom Minister Manoj Sinha said financial incentives and disincentives should be built into clauses for the second phase of the project to reward players for on time delivery. Under Phase-I, one lakh gram panchayats have been provided with hi-speed broadband connectivity.

Suggested Reading:

✓ http://www.bbnl.nic.in/index1.aspx?lsid=570&lev=2&lid=467&langid=1

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✓ http://pib.nic.in/newsite/PrintRelease.aspx?relid=175462

✓ http://www.thehindu.com/todays-paper/tp-business/bharatnet-covers-1-lakh-panchayats/article22400445.ece