

RailTel Corporation, a “Mini Ratna” public sector undertaking (PSU), is one of the country’s largest telecom infrastructure providers with a pan-Indian optic fibre network. The company has exclusive right-of-way (RoW) access along the 67,368 km of railway track passing through 7,349 stations across the country. It was established in September 2000 with a mandate to modernise the railway communications network. As part of its services to railways, RailTel provides station-to-station connectivity, long-haul connectivity, broadband services, and connectivity through next-generation network technology at all major telephone exchanges of Indian Railways. It has built an extensive 48,956 km wide optic fibre cable (OFC) network using its exclusive RoW access. At present, the company’s OFC network reaches over 4,500 towns and cities of the country, including several rural areas. The company’s vast OFC network is its biggest asset, which it has leveraged to contribute to government initiatives such as BharatNet and RailWire Wi-Fi, as well as for improving connectivity in difficult-to-reach rural and remote areas. In addition, RailTel provides telecom and information and communications technology (ICT) services to banks, institutions, PSUs, enterprises, etc.

The PSU owns massive tower infrastructure sites, which it leases out for colocation purposes to various mobile operators. The tower colocation business, in fact, provides a good revenue generation opportunity for RailTel. As of March 2018, the company generated Rs 1.47 billion in revenue from this segment. RailTel’s vast infrastructure assets have helped it to not only ensure sustainability for the company but also make reasonable profits for the government. Interestingly, RailTel is the only consistently profitable and dividend-paying telecom PSU under the central government.

tele.net takes a look at some of the key projects and initiatives undertaken by RailTel and its future growth strategies...

Key projects and initiatives

RailWire Wi-Fi

In an effort to provide access to high speed network to all rail users, Indian Railways (IR), in 2016, mandated RailTel to offer free Wi-Fi facilities at 709 A1, A and B category stations in the country. The project, which started in January 2016 with the commissioning of free Wi-Fi facilities at the Mumbai Central station, has progressed well, reaching around 8 million people

who regularly access the free Wi-Fi services. At present, RailTel, with Google as its technology partner, is offering free high speed Wi-Fi at around 700 stations. RailTel had set target of rolling out free Wi-Fi at 400 stations under the A and A1 categories across the country by end-2018 and was able to achieve it in June 2018 itself, well ahead of schedule. As part of this collaboration, Google is providing radio access network along with technology support for radio network design, while RailTel is providing the power and infrastructure for setting up free Wi-Fi facilities at railway stations. Further, RailTel has upgraded its backbone infrastructure to backhaul, providing high speed connectivity of around

1 Gbps at every station. Given the scale and reach of the RailWire Wi-Fi project, it is believed to be the world's largest public Wi-Fi network. According to RailTel, around 7.5 million unique users connect to the network per month, of which nearly 25,000 per day are first-time internet users.

In addition to the provision of free Wi-Fi services across various key railway stations in urban areas, RailTel has been working on Wi-Fi projects for stations in rural areas. As part of this, it is providing high-speed RailWire Wi-Fi services by setting up Wi-Fi facilities at designated rural railway stations that are close to inhabited villages. So far, RailTel has completed the commissioning of 331 stations across these rural areas in 18 states. This has been done with the aim to bridge the digital divide between rural and urban populations.

Boosting fibre connectivity

RailTel has been contributing significantly to the government's ambitious BharatNet project. Given the company's vast OFC network, it is well-positioned to provide optic fibre network connectivity to 250,000 gram panchayats (GPs) across the country. Under Phase I, RailTel was mandated to cover 10,782 GPs, spanning 44 districts and 317 blocks in the Northeast states, Puducherry in south and Gujarat (including Daman & Diu and Dadra & Nagra Haveli) in west. As of March 2018, 22,299 km of duct had been laid, covering nearly 87.69 per cent of the GPs, and 19,862 km of optic fibre had been laid to cover nearly 77.92 per cent of the GPs.

Further, RailTel signed a seven-year contract with the Department of Telecommunications in 2012 for providing fibre connectivity in the north-eastern states of Mizoram, Tripura, Meghalaya, Arunachal Pradesh, Manipur and Nagaland. The project seeks to connect each of the district headquarters in these states to their respective sub-divisional headquarters (block/tehsil). According to the terms of the agreement, RailTel will provide minimum 2.5 Gbps bandwidth

capacity, upgradable up to 10 Gbps. As of March 2018, 71.5 per cent of the nodes were connected through optic fibre in Mizoram, Tripura and Meghalaya, and about 50.9 per cent of the nodes were connected to optic fibre in Arunachal Pradesh, Manipur and Nagaland.

National Knowledge Network

The National Knowledge Network (NKN) was established in March 2010 with the aim to create a connected ecosystem for all higher centres of learning and research. The initiative involved bringing all the stakeholders from sectors such as science, technology, higher education, healthcare, agriculture and governance on to a common platform. RailTel has contributed significantly to this mission by connecting over 1,500 organisations.

Future plans

RailTel plans to increase its offerings to cover the entire gamut of enterprise services. This will help the company to diversify its revenue streams and focus on growth. RailTel intends to enhance its focus on the provision of services such as MPLS VPN, internet bandwidth, telepresence and retail broadband (RailWire), as these have high market attractiveness. The data centre business is another area where RailTel can grow tremendously and it is now focusing on developing extended capabilities in data centre-based services such as managed services and cloud, content delivery network and project execution. To this end, RailTel is exploring partnership models, which will help it to effectively mitigate risks while delivering such services. At present, the company has two Tier III data centres at Secunderabad and Gurugram, and has received several orders from central government ministries, state government departments and PSUs for data centre-related services during the year. In its efforts to become a preferred telecom solutions and services provider for enterprises, RailTel is considering adopting a three-pronged strategy of concentrating on optimising its products and services bouquet, expanding its network and upgrading to a high capacity network, and modifying the organisation design.

In terms of upcoming projects, following the successful completion of the RailWire Wi-Fi project, IR is now gearing up to set up high speed free Wi-Fi facilities at over 4,000 stations across India. For this, the Indian Railways' board has brought in the Tata Group, which will take forward this initiative as part of its corporate social responsibility. Tata Trusts has been allotted eight railway stations between Bengaluru and Mysuru to carry out proof of concept of the Wi-Fi project. Further, the government has proposed to provide internet facility in moving trains. To

this end, IR is planning to build a high speed mobile broadband corridor along its track.

Financial year 2019-20 is expected to be a promising one for RailTel, with the finance ministry announcing that the company is one of the 10 central public sector enterprises to have been lined up for an initial public offerings (IPOs) in the coming year. The funds raised through the IPO will go a long way in strengthening RailTel's ongoing initiatives and expanding its service portfolio.

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