ANNUAL REPORT
2020-21

ERNET India
Education & Research Network

An Autonomous Scientific Society
Under Ministry of Electronics and Information Technology
Government of India

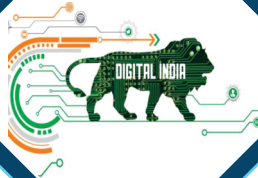# Annual Report
2020-21

ERNET INDIA

An autonomous Scientific Society under

Ministry of Electronics and Information Technology, Government of India

Contents

(Auditor's Report, Balance Sheet & Income-expenditure Statement)

PREFACE

Education and Research Network of India, or ERNET India, is an autonomous scientific society under the Ministry of Electronics and Information Technology. ERNET India made a significant contribution to the emergence of networking in the country, it brought internet to India and supported in building national capabilities in the area of networking. It is dedicated to facilitate ICT needs of the education and research community and stake holders ans also supported creation of pool of strongly trained manpower.

ERNET India is providing services in the area of terrestrial /VSAT network domain registration, web-hosting, setting up of smart virtual class room and high resolution e-class room for medical colleges, hospitals, eduroam, setting up of wi-fi campus in universities, internet connectivity to education and research institutes located in North-Eastern part of India, Union Territory of Andaman & Nicobar Islands and Lakshadweep. Further to keep pace with the developing technology and enhancing innovation, ERNET focuses in research and development in newer areas like Internet of Things, Virtual Reality, Augmented reality(AR) & Artificial Intelligence (AI)etc. ERNET India also provides consultancy services, project management, training and other value added services.

ERNET India operates a VSAT network in C-Band which provides reliable internet / Intranet access to education and research institutions located all over the country. The network is providing three types of VSAT Links viz. DVB-S2 ACM/ MF-TDMA based Broadband VSATs, Normal SCPC VSATs and High Capacity SCPC VSATs. Presently, the network has 111Mhz transponder bandwidth on GSAT-18 satellite from Deparment of Space (DoS) and this satellite bandwidth is used in providing connectivity services to remotely located Government educational institutes, mainly in North-Eastern states, Andaman & Nicobar Islands and Lakshadweep Islands. During the period, broadband VSAT connectivity has been provided mainly to 37 Jawahar Novodaya Vidyalayas (JNVs) located in the North Eastern states under MeitY funded project, 36 links in Govt. Schools of the U.T of Andaman & Nicobar islands and 29 links in Govt. Schools of the U.T of Lakshadweep Islands. Also, two high capacity VSAT links have been provided to NKN project (viz. one at Kavaratti @47 Mbps, the U.T of Lakshadweep and one at Port Blair @47 Mbps, the U.T of Andaman & Nicobar) and 09 high capacity links with total 78 Mbps at 09 Islands of Lakshadweep (viz. Agatti, Amini, Andrott, Chetlat, Kadmat, Kalpeni, Kavaratti, Kiltan and Minicoy) have been provided to Lakshadweep Information Technology Services Society (LITSS).

The Digital India Program is in full force, and for the same reason, Wi-Fi has become a growing need for the public globally, especially among students, staff and even visitors/ guests. MeitY, in consultation with MHRD identified 5 universities namely Allahabad, Pune, Osmania, NEHU and Utkal University, and directed ERNET to set up Wi-Fi enabled campus networks. ERNET India successfully implemented the project at these universities. Model WiFi enabled campus networks were setup with tier-3 architecture upgraded 10 Gigabit Fiber optic redundant backbone. The campus Networks have enabled access to Internet & Intranet resources to campus employees, staff, faculty, teachers, students, official visitors, guests on any time anywhere basis across the campus. This has enabled access to the cyber world through smart-phones, tablets, laptops and other Wi-Fi enabled devices. Approx. 14500 users are successfully using the Wi-fi facility.

ERNET India is working with MoHFW (Ministry of Health and Family Welfare) and successfully setup High resolution e - class room under (National Medical College Network) Project. This implementation by ERNET India has facilitated tele-education, tele-CME, sharing of surgical & interventional Skill, capacity building of HRH etc. The established E-Classroom Infrastructure is being used extensively and till date 18000+ sessions (initiated/attended) have been conducted in the fields of Radiology, Microbiology, Gastro Surgery, Pediatrics, Urology, Palliative Care, CGR, CPC etc. on NMCN by various Medical Colleges benefitting Medical students/staff of 50 Medical Colleges across the country .

Internet Protocol version 6 is the new protocol on which the Internet will expand since it offers nearly unlimited number of IP addresses to connect devices to the Internet. ERNET has been in the forefront of cutting edge technologies and had led the way in IPv6 deployment, mentoring and skill development with its online Internet based infrastructure. This had seen the IPv6 usage exponentially go up from less than 5% in 2014-15 to almost 60% today. ERNET hosted 3 root servers spread across its two experimental setups at Delhi and Bangalore out of the 25 IPv6 root servers created globally serving the IPv6 Internet community globally and collecting required statistics and recording the findings of the test in first Phase. ERNET is also involved in Development of a Distributed Architecture using DNSsec for enforcing security updates in IPv6 enabled IoT smart devices. ERNET India, the DoT empanelled consulting service provider and MeitY's nodal agency for IPv6 implementation has been handholding and providing consultancy and turnkey IPv6 implementation services to organizations across the country.

Everyone deserve the access to technology, regardless of their special abilities and ERNET took a huge step towards the digital advancement and making web content available to all citizens, Under Accessibility India Campaign, one of the target is to make Government websites and Digital contents accessible to all. For this, Department of Empowerment of Persons with Disabilities (DEPwD) has funded ERNET India to make State Govt. websites accessible as per GIGW and WCAG-2.0 (A, AA level) standards. Under the project, so far 600 websites have been developed and 443 websites made live. In an effort to change the narrative around accessibility, ERNET has actively collaborated with Microsoft India and NASSCOM Foundation, Department of Empowerment of Persons with Disabilities (DEPwD), & DST under Ministry of Science and Technology to create a program - Innovate for an Accessible India campaign. An MoU was signed by the five stakeholders and the program was launched on March 17, 2020.

ERNET India is an exclusive domain registrar for education and research domains; registering the domains under ac.in, edu.in and res.in from 2005. 5700 academic/ educational/research domains and total 15000 domains have been registered. *ERNET has also started registering domain names under* विद्या.भारत *under Internationalized domain names (IDN)*. 1152 domain have been registered in the FY 2020-21.

With global connections, the field of education and research should also be affected. Collaborating with international partner, eduroam- Global roaming services is successfully running in India. ERNET acts as the National eduroam operator for India and is the central point for connecting all the universities/institutes with access to the Indian eduroam national federation service. In India, approx. 290 Institutes have been added in the list of globally connected institutions and have been serving educators, students and researchers ever since. National and International users are availing seamless wi-fi roaming service free of cost. During the period of 2020-21 approx. 11,39,234 roaming sessions have been established through eduroam.

As we know, worldwide mode of Education is witnessing transcending transformation towards digitization and use of various technologies. Tele education is no more a luxury, but a way of education which utilizes all forms of digital contents and delivers best of breed lecturers to the far flung areas using internet. ERNET India, under the project funded by Ministry of Electronics and IT, established Smart Virtual Classroom facilities in 3204 Govt. owned/controlled schools plus 50 DIETs in Himachal Pradesh, Gujarat, Rajasthan, Tripura, Haryana, Andhra Pradesh and Tamil Nadu. Under the project, so far 20,016 sessions have been conducted which benefitted 70,77,600 students and also trained 65,092 teachers across 3204 schools and 50 DIETs.

Further, in smart education domain, ERNET India has been awarded a project by North Eastern Council to establish Smart Virtual Classrooms (SVC) in Sikkim and Assam. It includes Installation & Commissioning of SVC ICT Infra, VC infra, Dedicated Web Portal at 75 Schools & 4 DIETs in Sikkim and Assam and development and hosting of a dedicated Web Portal. Till 2020-21, this project was in implementation phase and the planned completion date for implementation of the project is August 2021. The project shall further run into the O&M phase for five years beyond the site implementation completion and acceptance. The 1st Milestone of the project, i.e. installation, completion and acceptance of 16 schools and 1 DIET at Sikkim is successfully completed. The project is now under the Operations and Maintenance phase where the teachers have begun to fully utilize this facility to deliver the sessions. The implementation for remaining 59 sites and 3 DIETS is currently under progress and shall be completed before the planned (implementation, completion) date.

In order to support the Smart Virtual classroom infrastructure with the latest technology augmentations, ERNET India plans to augment the student's learning with more advanced & latest technological tools / solutions advancements in education domain. This will aid student's learning, increase their knowledge retention, improve teacher student engagement and students will remain motivated during learning. ERNET India has planned to bring in e-content from Pre-primary to class 12th developed to run using Immersive technologies and AR (Augmented Realty). ERNET India has conducted a Need Assessment & Need Generation survey with 14 States and 2 UT (Odisha, Bihar, Uttar Pradesh, Jharkhand, Maharashtra, West Bengal, Chhattisgarh, Goa, Karnataka, Kerala, Punjab, Telangana, Uttarakhand, Jammu and Kashmir, Puducherry, Lakshadweep) and informed them about ERNET India's work on solutions in the areas of Digital E-Learning Content and Augmented Reality (AR).

Education and training needs are for all domains and hence ERNET India progressively identifies need of technology in various domains. ERNET India approached agriculture domain and scheduled various online interactive expert sessions with farmers by utilizing the established Smart virtual classroom infrastructure. The successful idea gave birth to the concept of Digital Krishi Schools. Digital Krishi Schools are scheduled, online, agricultural expert-led pedagogical intervention where experts are not present physically with farmers but instead experts interact through network in an online learning interactive live environment.

This is just like a real classroom, wherein a farmer and agricultural expert are logged into the interactive video conferencing sessions and experience the virtual classroom environment by making use of electronic interactive equipment's such as board,

projector and Professional Desktop. The farmers attend the concurrent live and interactive sessions taken via mentor location. The Mentor location is the location from where specialized agricultural experts take lectures and those lectures can be viewed &interacted live at remote IARI Centres. ERNET is planning to build such Digital Krishi Schools in the coming years and support the agriculture domain in the education and training objective.

ERNET India is implementing a project for Setting up of intelligent educational Infrastructure (smart) in 100 Eklavya Model Residential Schools (EMRSs) by creating echo system using latest tools and technologies , which helps to improve the learning outcome: and to provide the Internet connectivity in Eklavya Model Residential Schools (EMRSs)

ERNET India also implementing a project for setting up of advanced Digital ICT Infrastructure in 40 schools in 8 North-Easten States by creating ecosystem for personalized adaptive learning using tools and technologies. Under the project awareness workshops will be conducted towards enhanced, advanced digital learning for teachers and students across the 08 NE states; and also training of Virtual Reality contents using project equipment will be conducted.

ERNET India has always been in a sincere endeavor to find alternate means of connectivity solutions for the places where the connectivity has not been implemented or unsuccessful due to various challenges such as difficult terrain, River/ Railway tracks between the sites, frequent fiber cuts etc. In pursuit of exploring the alternative solutions, ERNET India has implemented a pilot R&D project using Free Space Optics Communication technology (FSOC Technology) to provide high speed network connectivity between Kohima Secretariat and Kohima Science College, Nagaland.

Every technology comes with its own challenges. The rapid pace at which technologies change are bringing different challenges. As soon as a technology begins to arrive, the associated learning, implementation of use cases and development of ecosystem starts. By the time it has reached a stage to get adapted, a newer technology gets introduced. Hence, it is utmost important for each of stakeholders including Administrators, Policy makers, Engineering Staff / Scientists from Technical Organizations, students & researchers etc. to be able to understand what each technology can they offer, how they are beneficial and how to use them judiciously. Hence there is a need of "A Learning & Skilling Centre" that shall help to reduce the technology learning period & helps in

adapting to this change. Emerging technologies change "future of work", and to adapt quickly to leverage this advantage, ERNET India is also aiming to provide specialized technical training by establishing a Future Tech Learning and Skilling Centre with a concept of Competency development and skilling of Manpower on future technologies starting with 5G, Li-Fi, Cyber Security, Data Science, IoT, PKI, etc. the concept will be an incessant and sustainable effort to cater to current and upcoming future technology skilling demand. ERNET India has implemented the program by organizing a series of 4 technical webinars on "5G and Emerging Technologies" which was attended by 200+ participants.

ERNET India had executed joint project with Indian Institute of Science (IISc), Bangalore on experimental LoRaWAN network integrated with smart streetlights. This project experience helped ERNET India in reaching out Tamil Nadu e-Governance Agency (TNeGA) for a pilot deployment of smart street lighting solution in rural villages for fault detection and on/off control. A proposal has been submitted to TNeGA jointly with IIT Madras that is currently under consideration.

Towards research and development mandate, ERNET India has been carrying out research experiments on Visible Light Communications / LiFi jointly with IIT Madras and IIIT Delhi. Further, it is proposed to set up an Indoor Hybrid LiFi-WiFi multi user testbed under the MeitY funded joint project with IIITD to demonstrate various mobility scenarios and perform link aggregation experiments. The seamless mobility between WiFi and LiFi will be demonstrated with this set up in a typical auditorium setting.

ERNET India is executing a joint project with IISc Bangalore on "Designing Reliable and Low-latency Networks for Tactile Cyber-Physical Systems" funded by MeitY. The objective of this project is to design and implement Tactile Cyber-Physical System that addresses the challenges of achieving real-time interaction between physical and virtual worlds in prominent applications like remote surgery and virtual reality that require ultra-reliable low latency communications (URLLC).

ERNET India as part of global project collaboration with APAN (Asia Pacific Advanced Network) Asi@Connect initiative, had actively participated in Cyber Performance Phase-I activity. Under this project, ERNET had participated in the tech-culture fusion platform including training programs and Cyber Performances with 6 beneficiary countries, namely India, Vietnam, Malaysia, Bangladesh, South Korea and Pakistan. ERNET will be participating in Cyber Performance Phase-II activities in production and broadcast of multinational cultural contents created by the beneficiary nations to

document/broadcast aspects of local culture, history, ethnography, agriculture, health, musical and theatrical performance jointly with 5 beneficiary nations namely India, Bangladesh, Malaysia, Pakistan and Nepal.

ERNET also worked with NASSCOM in Public Private Partnership (PPP) mode to set up a Center of Excellence in IoT to not just jumpstart innovation, but to also promote startup culture in India. ERNET India, under the fresh thinking initiative progressively identifies newer areas to enhance it's contribution to National missions. The identified new areas which are work in progress are Smart Village concept to utilize network established under BharatNet, establishing sustainable Future tech skilling and learning center, developing in-house software development competency.

Training

Information Security Education & Awareness (ISEA) Phase –II is a MeitY funded project with an objective for capacity building in the area of Information Security by training Govt. officials and organizing mass information awareness programs. Under this, ERNET India has organized 18 training programs (both direct and online mode) in which 561 Government officials have been trained from Tamilnadu, Karnataka, Kerala, Telangana, Andhra, Goa, Uttar Pradesh, West Bengal regions. During FY 2020-21, 262 Government officials were trained.

ERNET India has also organized IPv6 training programs.

Governing Council, ERNET India
01.04.2020 to 31.03.2021

1	**Shri Ravi Shankar Prasad** Hon'ble Minister for Law & Justice, Communications and Electronics & Information Technology New Delhi	**Chairperson** 01.04.2020 to 31.03.2021	
2	**Shri Dhotre Sanjay Shamrao** Hon'ble Minister of State for Education, Communications and Electronics & Information Technology, New Delhi	**Deputy Chairperson** 01.04.2020 to 31.03.2021	
3	**Shri Ajay Sawhney** Secretary Ministry of Electronics & Information Technology New Delhi	**Executive Vice Chairperson** 01.04.2020 to 31.03.2021	
4	**Shri Gopalakrishnan S.** Additional Secretary Ministry of Electronics & Information Technology New Delhi	**Member** 01.04.2020 to 31.03.2021	
5	**Ms. Jyoti Arora** Additional Secretary & Financial Advisor Ministry of Electronics & Information Technology New Delhi	**Member** 01.04.2020 to 31.03.2021	
6	**Shri Rajiv Kumar** Joint Secretary (ABC Division) Ministry of Electronics & Information Technology New Delhi	**Member** 01.04.2020 to 31.03.2021	
	Ms. Simmi Chaudhary Economic Advisor	19.12.2020 to 31.03.2021	

7	**Ms. Geeta Kathpalia** Group Coordinator (e-Infra) Ministry of Electronics & Information Technology New Delhi	**Member** 01.04.2020 to 31.03.2021
8	**Shri Amit Khare** Secretary (Higher Education)	**Member** 01.04.2020 to 31.03.2021
9	**Shri R S Sharma** Chairman Telecom Regulatory Authority of India New Delhi	**Member** 01.04.2020 to 31.3.2021
10	**Ms. Preeti Sudan** Secretary Ministry of Health & Family Welfare New Delhi	**Member** 01.04.2020 to 31.03.2021
11	**Ms T.K. Anuradha** Director Deptt. of Space Bengaluru	**Member** 01.04.2020 to 30.04.2020
12	**Shri Sanjay Bahl** Director General Indian Computer Emergency Response Team Ministry of Electronics & Information Technology New Delhi	**Member** 01.04.2020 to 31.3.2021
13	**Prof. V Ramagopal Rao** Director Indian Institute of Technology New Delhi	**Member** 01.04.2020 to 31.3.2021
14	**Ms Debjani Ghosh** President NASSCOM NOIDA	**Member** 01.04.2020 to 31.3.2021
15	**Ms. Geeta Kathpalia** Director General ERNET India	**Member Secretary** 1.04.2020 to 31.03.2021

General Body of ERNET India
01.04.2020 to 31.03.2021

1	**Shri Ravi Shankar Prasad** Hon'ble Minister for Law & Justice, Communications and Electronics & Information Technology New Delhi	**Chairperson** 01.04.2020 to 31.03.2021
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14	**Ms Debjani Ghosh** President NASSCOM NOIDA	**Member** 01.04.2020 to 31.3.2021
15	**Ms. Geeta Kathpalia** Director General ERNET India	**Member Secretary** 1.04.2020 to 31.03.2021

KEY HIGHLIGHTS

Financial Highlights for 2020-21

- Total Revenue of the society was 60.31 crores and surplus was Rs. 9.21 crores. Corpus of the Society has reached to Rs.146.42 crores as on 31.03.2021.

  Connecting India as part of Digital India Initiative & Research & Technology

- ERNET India has a VSAT network operating in C-band on GSAT satellite which provides Internet & Intranet access to education and research institutions located all over the country. The Master Earth Station (MES) is located at Bengaluru and is functioning as the Network Operations Centre (NOC). The network provides three types of VSAT links, viz., DVB-S2 ACM / MF-TDMA based Broadband VSATs; Normal SCPC VSATs and High Capacity SCPC VSATs. Presently the satellite bandwidth of the network is enhanced to 111MHz on GSAT and this bandwidth is successfully used in providing High Capacity VSAT links to two sites (in Kavaratti and Port Blair) for NKN; 09 sites in (different islands of) Lakshadweep for Lakshadweep Information Technology Services Society (LITSS) as well as for providing Broadband VSAT links to remotely located educational institutes in North East states, A & N Islands and Lakshadweep Islands.

  To achieve the target of making available web content to every Indian including Persons with disability, under Accessibility India Campaign, Department of Empowerment of Persons with Disabilities (DEPwD) has funded ERNET India to make State Govt. websites accessible as per GIGW and WCAG-2.0 (A, AA level) standards. Under the project, so far 600 websites have been developed and 443 websites made live.

- As a part of Digital India Initiative, ERNET India successfully envisaged, implemented and operated Smart Virtual Classroom facilities in 3204 Govt. owned/controlled schools plus 50 DIETs in Himachal Pradesh, Gujarat, Rajasthan, Tripura, Haryana, Andhra Pradesh and Tamil Nadu. The implemented Smart Virtual Classroom successfully improved the quality of education,

addressed the need of specialized teaching staff at remote/rural location and provided a single cross-state ICT enabled knowledge sharing platform for training & skill development of educationist / teachers. Under the project, so far 20,016 sessions have been conducted which benefitted 70,77,600 students and also trained 65,092 teachers across 3204 schools and 50 DIETs. The project funding support from MeitY has ended on 31st December 2019 and the project is handed over to State Education Department. Currently the State of Himachal Pradesh is managing the operations &maintenance of installed infrastructure through ERNET India by utilizing State funds and remaining project States namely Tamil Nadu, Andhra Pradesh, Haryana, Rajasthan, Gujarat and Tripura are managing the operations & maintenance of installed infrastructure by their own resources. ERNET India is providing the central infrastructure support to all seven project states.

- ERNET India has been awarded a project by North Eastern Council to establish Smart Virtual Classrooms (SVC) in Sikkim and Assam. It includes Installation & Commissioning of SVC ICT Infra, VC infra, Dedicated Web Portal at 75 Schools & 4 DIETs in Sikkim and Assam and development and hosting of a dedicated Web Portal. Till 2020-21, this project was in implementation phase and the planned completion date for implementation of the project is August 2021. The project shall further run into the O&M phase for five years beyond the site implementation completion and acceptance. The 1st Milestone of the project, i.e. installation, completion and acceptance of 16 schools and 1 DIET at Sikkim is successfully completed. The project is now under the Operations and Maintenance phase where the teachers have begun to fully utilize this facility to deliver the sessions. The implementation for remaining 59 sites and 3 DIETS is currently under progress and shall be completed before the planned (implementation, completion) date.

- With the experience gained from implementation of Smart Virtual Classroom, ERNET India has started supporting the other ministries for establishment/expansion of Smart Virtual Classrooms. In line with the same, ERNET India has been bestowed a project from North Eastern Council (NEC) titled as "Tele-education project- Establishment of Smart Virtual Classrooms in Aspirational District of NER" for setting up of Tele-Education facilities by establishing

Smart Virtual Classroom in 75 Schools & 4 DIETs. This project has been successfully implemented at 75 Schools and 4 DIETs of Sikkim and Assam along with central infrastructure in NCR.

- In order to support the Smart Virtual classroom infrastructure with the latest technology augmentations, ERNET India plans to augment the student's learning with more advanced & latest technological tools / solutions advancements in education domain. This will aid student's learning, increase their knowledge retention, improve teacher student engagement and students will remain motivated during learning. We have planned to bring in e-content from Pre-primary to class 12th developed to run using Immersive technologies and AR (Augmented Realty). ERNET India has conducted a Need Assessment & Need Generation survey with 14 States and 2 UT (Odisha, Bihar, Uttar Pradesh, Jharkhand, Maharashtra, West Bengal, Chhattisgarh, Goa, Karnataka, Kerala, Punjab, Telangana, Uttarakhand, Jammu and Kashmir, Puducherry, Lakshadweep) and informed them about ERNET India's work on solutions in the areas of Digital E- Learning Content and Augmented Reality (AR).

- ERNET India has always been in a sincere endeavor to find alternate means of connectivity solutions for the places where the connectivity has not been implemented or unsuccessful due to various challenges such as difficult terrain, River/ Railway tracks between the sites, frequent fiber cuts etc. In pursuit of exploring the alternative solutions, ERNET India has implemented a pilot R&D project based on free space optical communication technology (FSOC Technology) to provide high speed network connectivity between Kohima Secretariat and Kohima Science College, Nagaland.

- In order to experiment newer technologies to be utilized in the era of Internet of things (IoT), ERNET India jointly worked with Indian Institute of Science (IISc), Bangalore and setup an experimental LoRaWAN network integrated with smart streetlights. Based on this experience and outcome, ERNET India is in discussion with TNeGA for implementation of 'Smart Streetlight Monitoring and Control for Tamil Nadu villages', with TNeGA funding support.

- Currently WiFi is being used to enable ubiquitous indoor connectivity to Internet. Experiments are being carried out to explore Light Fidelity (LiFi) to augment the limited WiFi spectrum and more research is necessary to study their co-existence model. ERNET India is currently working with IIIT Delhi on 'Optical Wireless Access Network for rural and urban communications', R&D project funded by MeitY. As part of this project, a Hybrid LiFi-WiFi testbed will be set up to study various channel characteristics and deployment issues in indoor environment like handover, latency, interferences, etc. Also, algorithms for AP selection and link aggregation experiments are being developed. In the rural communication scenario, a Visible Light Communication link will be created with the solar panels acting as the receivers.

- In order to lubricate the IoT eco-system and democratize innovation, ERNET worked with NASSCOM in Public Private Partnership (PPP) mode to set up a Center of Excellence for IoT at Bengaluru to not just jumpstart innovation, but to also promote startup culture in India. MeitY has taken further steps to add three more CoE's besides CoE-IoT Bengaluru in various states across the country viz.at Gurugram (Haryana), Gandhi Nagar (Gujarat) and Visakhapatnam (Andhra Pradesh). Operations of Gurugram CoE IoT started from June,2018 and the same were inaugurated on 5th October 2018. Gurugram CoE IoT is focusing on Industry4.0, Automotive/ Transportation, Healthcare and Agriculture sector.

- ERNET India has dedicated R&D offices in Chennai and Bangalore where innovative projects are being envisaged and collaboratively researched or developed. Recently, ERNET India has been carrying out research activities on LiFi, Rural Broadband, Tactile Internet, Power Line Communication, Internet of Things, Smart Village, Cyber Security, Smart Agriculture and Smart Street lighting.

- ERNET India has implemented the project for setting up of e-classroom Infrastructure in 50 Medical colleges including 6 Medical Colleges from NE Region. This implementation by ERNET India will facilitate tele-education, tele-CME, sharing of surgical & interventional Skill, capacity building of HRH etc. for medical and paramedical professionals by setting up modern ICT enabled

e-infrastructure. More than 18000+ sessions (including test sessions, CME & Live surgery sessions) from various medical colleges have been conducted on the infrastructure.

• Under Digital India program as Wi-Fi has become a universal expectation among Universities/institutions students, faculty & staff as well as visitors/guests. For achieving the goal, MeitY in consultation with MHRD identified following five universities and directed ERNET India for setting up Wi-Fi enabled Campus Networks at Allahabad, Pune, Osmania, NEHU & Utkal University. It will enable on campus students, faculty, teachers, staff, guests to have entry to cyber world having intelligent Wi-Fi devices such as Tablets, smartphone, Laptop Computer to access, retrieve and post information on any-time-any-where basis across Wi-Fi enabled Campuses.

   o Osmania University, Hyderabad - The Wi-Fi project has been set up, completed and commissioned. The Wi-Fi Network enable students, faculty, teachers, staff, guests to have entry to Cyber world having intelligent Wi-Fi devices like Tablets, Smartphone, Laptop Computers to access, retrieve and post information at any-time-any-where basis across the Wi-Fi coverage area.

   o NEHU, Shillong - The Wi-Fi project has been set up, completed and commissioned. The Wi-Fi Network enable students, faculty, teachers, staff, guests to have entry to Cyber world having intelligent Wi-Fi devices like Tablets, Smartphone, Laptop Computers to access, retrieve and post information at any-time-any-where basis across the Wi-Fi coverage area.

   o Utkal University, Bhubaneswar - The Wi-Fi project has been set up, completed and commissioned. The Wi-Fi Network enable students, faculty, teachers, staff, guests to have entry to Cyber world having intelligent Wi-Fi devices like Tablets, Smartphone, Laptop Computers to access, retrieve and post information at any-time-any-where basis across the Wi-Fi coverage area.

o   Allahabad University - ERNET India has set up Wi-Fi enabled campus network in University of Allahabad, Allahabad, U.P. The Wi-Fi project has been implemented & completed.

o   Savitribai Phule Pune University (SPPU), Pune - ERNET India has augmented the network and set up, completed and commissioned Wi-Fi enabled Network at SPPU, Pune to cover the dark zone in the Wi-Fi coverage and new buildings which were not connected or were not Wi-Fi enabled areas and integrated with the existing Campus Network. The Augmentation of Wi-Fi enabled campus network improved the Wi-Fi coverage in the campus and facilitate connecting the leftover building to the campus network.

•   ERNET added appx 290 Indian institutes in the list of globally connected institutes using 'eduroam'. This service realizes the objective of 'one world one connectivity' by providing a secure, seamless world-wide roaming access service over shared virtual Wi-Fi campuses to researchers and academicians.

•   ERNET is an exclusive Registrar for Domain Services for the education and research under .in registry – edu.in, res.in and ac.in. ERNET is also registering विद्या.भारत (vidya.bharat) domains. ERNET had registered/renewed 5700 academic domains and Total 15000 domains have been registered. Approx. 1152 domains have been registered during 2020-21.

•   ERNET is part of global initiative on setting up of an IPv6 Root Server Test bed with three servers deployed in India out of the total deployment of 25 worldwide. This is giving exposure and experience in managing, maintaining and identifying issues that arise as the world gradually moves to IPv6.

New Directions

•   ERNET is expanding the opportunistic reach in pedagogy techniques (personalized adaptive & collaborative learning) for educational Institutions by using emerging & futuristic technologies.

- Education and training needs are for all domains and hence ERNET India progressively identifies need of technology in various domains. ERNET India approached agriculture domain and scheduled various online interactive expert sessions with farmers by utilizing the established Smart virtual classroom infrastructure. The successful idea gave birth to the concept of Digital Krishi Schools. Digital Krishi Schools are scheduled, online, agricultural expert-led pedagogical intervention where experts are not present physically with farmers but instead experts interact through network in an online learning interactive live environment. This is just like a real classroom, wherein a farmer and agricultural expert are logged into the interactive video conferencing sessions and experience the virtual classroom environment by making use of electronic interactive equipments such as board, projector and Professional Desktop. The farmers attend the concurrent live and interactive sessions taken via mentor location. The Mentor location is the location from where specialized agricultural experts take lectures and those lectures can be viewed & interacted live at remote IARI Centres/Schools in remote areas which have the availability of relevant ICT Infra and Internet connectivity. ERNET is planning to build such Digital Krishi Schools in the coming years and support the agriculture domain keeping in mind the education & learning objective.

- In order to support the Smart Virtual classroom infrastructure with the latest technology augmentations, ERNET India plans to augment the student's learning with more advanced & latest technological tools / solutions advancements in education domain. This will aid student's learning, increase their knowledge retention, improve teacher student engagement and students will remain motivated during learning. We have planned to bring in e-content from Pre-primary to class 12th developed to run using Immersive technologies and AR (Augmented Realty).

- Every technology comes with its own challenges. The rapid pace at which technologies change are bringing different challenges. As soon as a technology begins to arrive, the associated learning, implementation of use cases and development of ecosystem starts. By the time it has reached a stage to get adapted, a newer technology gets introduced. Hence, it is utmost important for each of stakeholders

including Administrators, Policy makers, Engineering Staff / Scientists from Technical Organizations, students & researchers etc. to be able to understand what each technology can they offer, how they are beneficial and how to use them judiciously. Hence there is a need of "A Learning & Skilling Centre" that shall help to reduce the technology learning period & helps in adapting to this change. Emerging technologies change "future of work", we need to adapt quickly to leverage this advantage. ERNET India is also aiming to provide specialized technical training by establishing a Future Tech Learning and Skilling Centre with a concept of Competency development and skilling of Manpower on future technologies starting with 5G, Li-Fi, Cyber Security, Data Science, IoT, PKI, etc. the concept will be an incessant and sustainable effort to cater to current and upcoming future technology skilling demand. ERNET India has implemented the program by organizing a series of 4 technical webinars on "5G and Emerging Technologies" which was attended by 200+ participants. Under the same program, ERNET India is also planning to envisage a Talent Accelerator program under which the schools & colleges students (non-engineering students) will be skilled for the software development.

- Emerging Tactile Internet application fields are progressing towards precise human-to-machine and machine-to-machine interaction, with key examples found in industry, robotics and telepresence, virtual reality, augmented reality, healthcare, road traffic, serious gaming, education and culture, and smart grid. Accordingly, ERNET India has initiated a joint project with IISc Bangalore on "Designing Reliable and Low-latency Networks for Tactile Cyber-Physical Systems" funded by MeitY, with an objective to design and implement Tactile Cyber-Physical System that addresses the challenges of achieving real-time interaction between physical and virtual worlds in prominent applications like remote surgery and virtual reality that require ultra-reliable low latency communications (URLLC).

- ERNET India is reaching out Department of Empowerment and Person with Disabilities in different states to identify the challenges and requirements faced in disability schools and providing consultancy services for suitable solutions to address the gap.

- ERNET India as part of global project collaboration with APAN (Asia Pacific Advanced Network) Asi@Connect initiative, had actively participated in Cyber Performance Phase-I activity. Under this project, ERNET had participated in the tech-culture fusion platform including training programs and Cyber Performances with 6 beneficiary countries, namely India, Vietnam, Malaysia, Bangladesh, South Korea and Pakistan. ERNET will be participating in Cyber Performance Phase-II activities for focusing production and broadcast of multinational cultural contents created by the beneficiary nations to document/broadcast aspects of local culture, history, ethnography, agriculture, health, musical and theatrical performance jointly with beneficiary nations.

- To support ongoing flagship scheme of Government of India named as "BharatNet" for provision of broadband access to the citizens in rural and remote areas thereby bridging the digital divide, ERNET India is aiming to contribute towards leveraging the "BharatNet" by enabling Smart Elements in villages towards utilizing the "BharatNet" available at the Gram Panchayat. The concept "Smart Village" is envisaged to make the villages smarter through innovation in Information and Communication Technology (ICT)/ Internet of things (IoT) technology to improve the service delivery, safety, security, health care, education and internet connectivity, information dissemination at villages by implementing the respective smart elements infrastructure.

About ERNET

ERNET India, an autonomous scientific society under the administrative control of the Ministry of Electronics & Information Technology is functioning under the overall control and guidance of its Governing Council. The Hon'ble Minister for Electronics & Information Technology is the Chairperson of the Council and the members have been chosen from premier academic & research institutions, government organizations and professional bodies.

ERNET India is serving academic and research institutions in the country by innovatively connecting them on Intranet and Internet using appropriate state-of-the-art technologies. Institutions anywhere in the country can now be connected to ERNET network. ERNET India provides services through its following 03 Points of Presence (PoPs) located across the country, which help in rapidly responding to the needs of the institutions in the country:

- ERNET India HQs, New Delhi
- VSAT Hub located at Software Technology Parks Of India (STPI), Bengaluru
- Indian Institute of Technology Madras, Chennai

These PoPs provide technical support and hand-holding to user sites. The PoP at STPI Bengaluru provides Intranet and Internet access through Satellite.

In addition to 03 PoPs, ERNET India has setup regional centers at following 2 locations:-

- Bengaluru
- Chennai

ERNET Network Architecture
The ERNET network is a judicious mix of terrestrial and satellite based wide area network. The satellite Wide Area Network (WAN) uses Very Small Aperture Terminal (VSAT) technology which is easily deployable and facilitates reliable and quick access to remote areas.

IPv6 Enabled Network
ERNET network supports IPv4 and IPv6 Internet Protocol in native mode with dual stack, unicast and multicast. IPv6 routing protocol OSPFv3, end-to-end Ethernet services, QoS (DiffServ), video conferencing, authentication and authorization have also been implemented on ERNET Network.

eduroam- Golbal wi-fi users
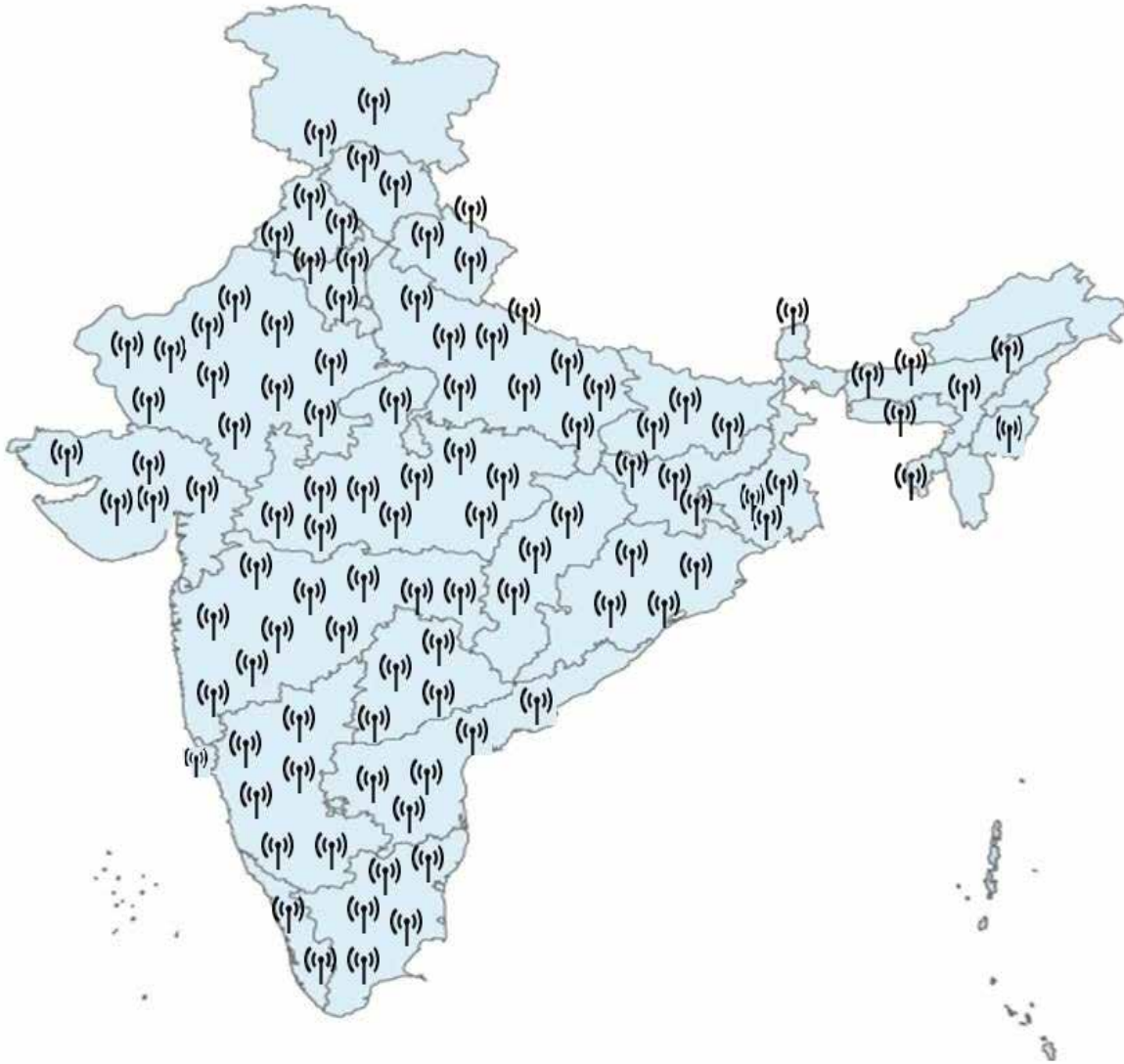
Fig. 1: eduroam Users

Smart Virtual Classroom users

Sikkim
(43 Schools & 1 DIET)

Himachal Pradesh
(280 Schools & 4 DIETs)

Assam
(32 Schools & 3 DIETs)

Haryana
(287 Schools & 7 DIETs)

Rajasthan
(770 Schools & 11 DIETs)

Gujarat
(699 Schools & 11 DIETs)

Tripura
(140 Schools & 2 DIETs)

Andhra Pradesh
(258 Schools & 4 DIETs)

Tamil Nadu
(770 Schools & 11 DIETs)

Created with mapchart.net
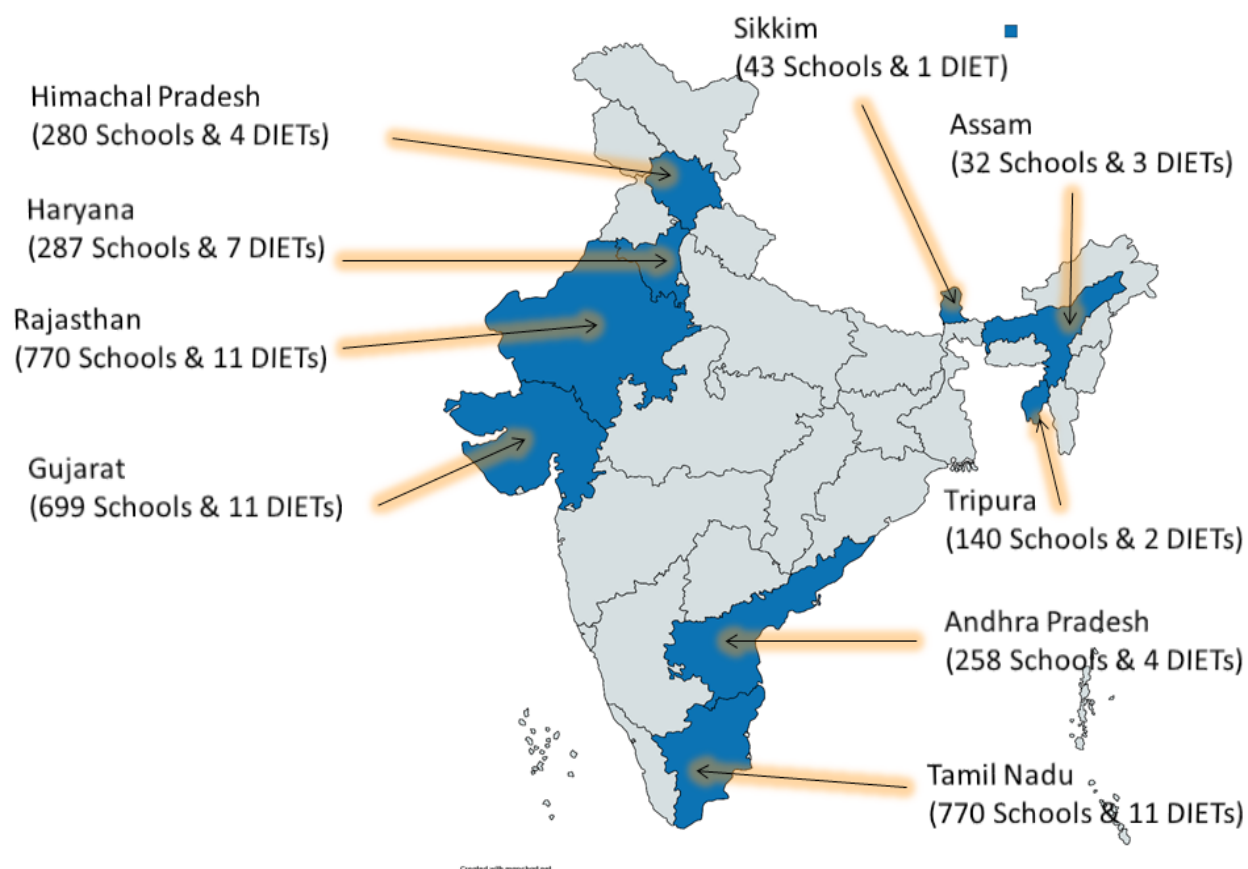
Fig. 2: Smart Virtual Classroom users

e-classroom users in NMCN Network
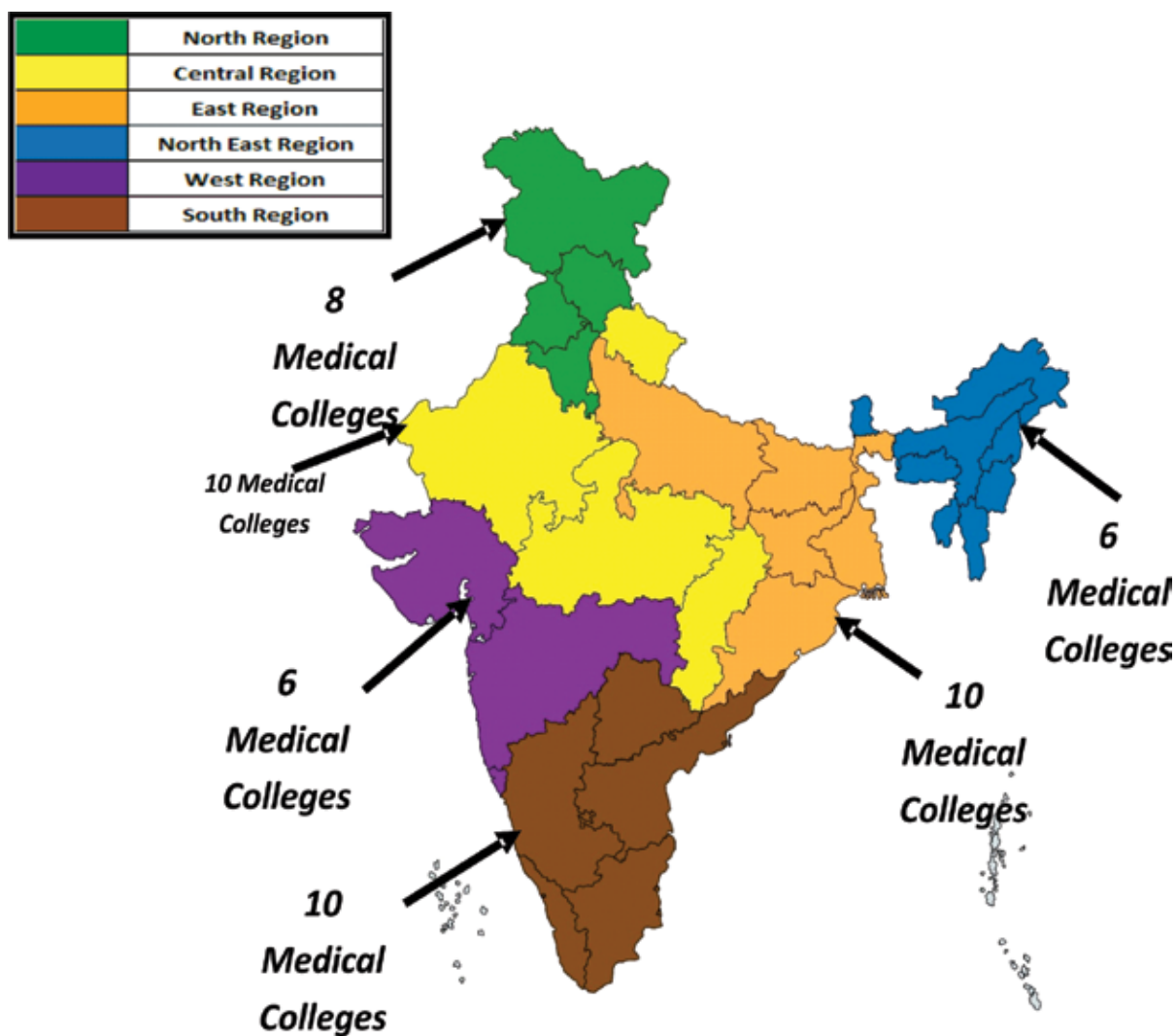
Fig. 3: e-classroom users in NMCN Network

VSAT Network   ERNET India operates a VSAT network in C-Band using GSAT satellite for providing Internet & Intranet access to education and research institutions located all over the country. The Master Earth Station (MES) which is also functioning as the Network Operations Centre (NOC) is located at Bengaluru. The MES is equipped with 9.2 meter antenna.

Fig. 4 : The Master earth station (MES) at ERNET India, Bengaluru

Distinguishing features of VSAT links provided by ERNET India: ERNET VSAT Network operates in C-band of satellite transponder space segment, therefore VSAT links provided by ERNET India are least affected by rain and other weather conditions. These VSAT links provide a high degree of reliability and continuous operation all over the country. They work efficiently even in difficult and far-flung areas of Andaman and Nicobar Islands, Lakshadweep Islands and North-Eastern states of the country in all weather conditions.

ERNET services

ERNET PoPs provide four types of services, namely, Access Services, Application Services, Hosting Services and Operations Support Services.
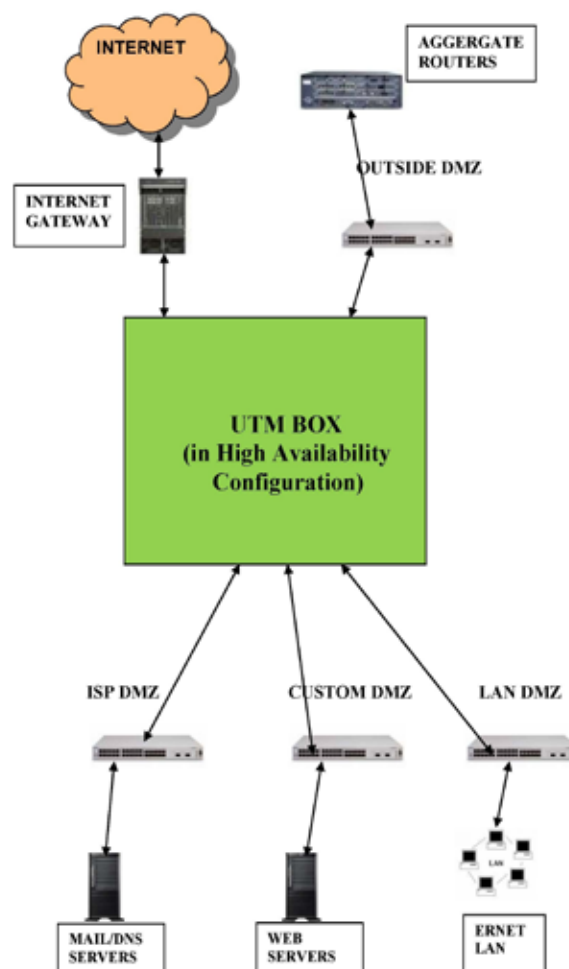
Fig. 2: INDICATIVE POP ARCHITECTURE AT MEDIUM POP

Fig. 5 : POP Infrastructure

Access Services

Access Services at the ERNET PoP comprise of services that provide access to the ERNET network. Subscribers use radio links and VSATs with satellite bandwidth for data rate up to 50 Mbps.

Radio Link and 802.11

This kind of connectivity requires line of sight clearance from the network node to the concerned user site. Such types of networks have distance limitation of 30 to 40 Kms

DVB-S2 ACM/ MF-TDMA based Broadband VSAT

ERNET's DVB-S2 ACM /MF-TDMA based Broadband VSAT network has a two-way star topology architecture. The Broadband VSAT links have common outbound capable of reaching up to 110 Msps. It supports all standard IP applications such as Internet/Intranet, VoIP, video conferencing, etc. These VSATs are cost effective and capable to provide data rate up to 4Mbps.

Normal SCPC VSAT

ERNET's Single Channel Per Carrier (SCPC) VSAT provides Point-to-Point connectivity in star topology configuration using SCPC modems. Both Outbound and Inbound carriers are dedicated in SCPC VSAT to provide assigned bandwidth to the institute. The normal SCPC VSAT is capable of providing data rate up to 8 Mbps which is suitable for institutions having large LAN and running critical applications requiring high uptime.

High Capacity SCPC VSAT

ERNET's high capacity SCPC VSAT provides Point-to-Point connectivity in star topology. These high capacity SCPC VSATs are suitable for delivering high data rates in the range of around 50Mbps with uptime of more than 99%. These are suitable for institutions having large LAN setup and running critical applications requiring high uptime.

Applications Services

Network Application Services comprise of applications provided for ERNET subscribers. eduroam –Global wi-fi roaming services, Domain name service and hosting services are the basic and most required services provided for ERNET customers.

eduroam services in India

eduroam stands for education roaming. It is the secure, world-wide roaming access service developed for the research and education community. It allows students, researchers and staff from participating institutions to obtain Internet connectivity across campus and when visiting other participating institutions by simply opening their laptop and working on local Wi-Fi network. 'eduroam has rapidly expanded throughout the research and education community and is now available in 106 territories worldwide and emerging pilot locations.
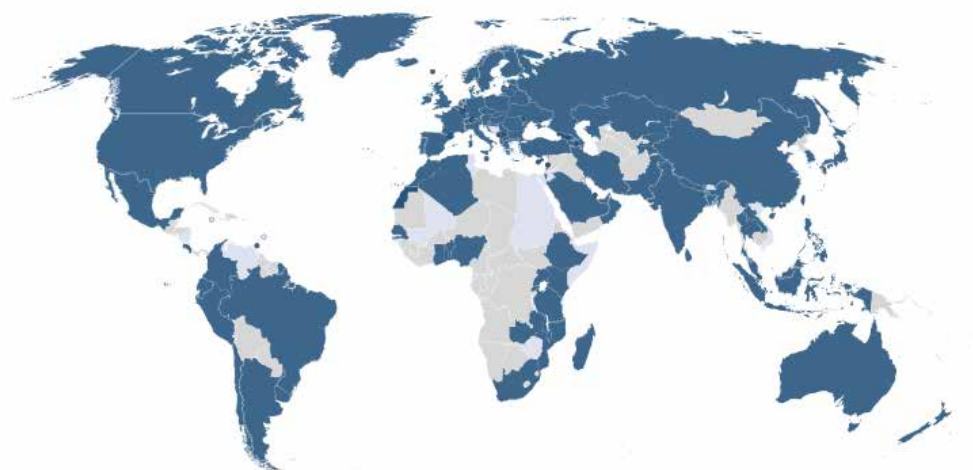
Fig 6 : eduroam worldwide presence

ERNET acts as the National eduroam operator for India and is the central point for connecting all the universities/institutes with access to the Indian eduroam national federation service. In India, appx. 290 Universities/Institutions have joined eduroam Network. eduroam facility has been successfully availed by Indian and foreign participants in the universities/institutions and also in international

conferences. Participated in International meeting (Virtual) and provided the eduroam update w.r.t India.

Web Domain Name Registration under ac.in, edu.in, res.in and vidya.bharat

ERNET India is an exclusive domain registrar for education and research domains; registering the domains under **ac.in, edu.in & res.in** from 2005.The domain registration, renewal & modification process is fully automated with online payment facility for registering and renewing domain names on just a click. The automated website is GIGW compliant. In automated system, customer can modify online their DNS entries and other permissible information related to their institution. ERNET registers domain names under *विद्या.भारत* under Internationalized domain names (IDN).

Since the users had challenges to manage their domains registered with ERNET, DNS Authoritative Name server Service for Educational & Research institutions was started on a commercial basis by ERNET. This has facilitated users apart from also bringing about revenue for ERNET. For this DNS server has been setup.

Also to enhance credentials for restricting Private and non recogonised institute to register domain name under academic and educational domain new SoP was framed and implemented during the year.

During the financial year April 20 - March 2021, ERNET had registered/ renewed approx. 5700 academic/educational/research domains and Total 15000 domains have been registered.

Hosting Services

ERNET India is providing web hosting services to the various Educational/Academic & Research Institutes, Departments / Organisations. ERNET INDIA has setup a web hosting infrastructure on Cloud. Currently ERNET India is providing web hosting services to Educational institutes. Name of few institutes are:-

1. National Bureau of Animal Genetic Resources
2. National Institute of Agricultural Economics and Policy Research
3. Directorate of Weed Science Research
4. Central Council for Research in Unani Medicine
5. Hemvati Nandan Bahuguna University
6. National Book Trust (NBT)
7. G B Pant Engineering College,Pauri Garhwal
8. National Institute of Research on Jut & Allied Technology, Kolkata
9. Indian Institute of Farming Systems Research
10. Sant Longowal Institute of Engineering & Tech., Sangrur
11. Central University of Punjab
12. National Institute of Fashion Technology
13. Indian Maritime University

PROJECTS AT ERNET INDIA

Development/renovation of Government / State Govt. websites to make them accessible for Persons with Disabilities (PwD) as per GIGW /WCAG. 2.0 (A, AA level)

Under Accessibility India Campaign, one of the target is to make Government websites and Digital contents accessible to all. For this, Department of Empowerment of Persons with Disabilities (DEPwD) has funded ERNET India to make State Govt. websites accessible as per GIGW and WCAG-2.0 (A, AA level) standards.

917 websites across 23 states and UTs of the country are being redeveloped to make them accessible to all specially to Persons with Disabilities (PwD) and responsive irrespective of type of device or browser. So far, Approx. 600 websites have been developed and made accessible out of which 443 websites made live under the project till the year 2020-21

ERNET has setup a captive lab for GIGW Compliance testing, Website Security testing and WCAG testing of the developed websites so as to maintain the quality and functionality of the websites developed under the project apart from getting the websites independently Tested and Audited by CERT-In Auditors and STQC certified labs.

NASSCOM – MeitY – ERNET Center of Excellence (CoE) for Internet of Things (IoT)

NASSCOM-MeitY- ERNET CoE for IoT was setup in June 2015 with the overall objective of enabling India as technology hub for emerging technologies. The CoE is funded 50:50 on Public Private Partnership (PPP) model between MeitY and NASSCOM through its industry partners. The CoE – IoT program at Bengaluru started out as IoT ecosystem to help start-ups by having an incubation center with fully equipped hardware lab and other program to help out the start-ups developing innovative products. The program has done well since its inception and its objectives and scope have grown. Program has created strong start-ups ecosystem and connected to large number of start-ups throughout the country which are benefited in different ways in development and showcasing of their products. CoE IoT Bangalore center has become the most vibrant center and well recognized start-ups ecosystem in the country by not just innovators but also industry players, both the technical players and user industries. The following are the major highlights of CoE- IoT, Bengaluru:

• 101 Start-ups enrolled in house, connected with 1497 start-ups pan India

- 118 IoT researchers incubated

- 84 Prototypes showcased

- 23 Papers presented in global conferences

- IP's applied (post incubation start) -19, Received- 9

- 34 Societal projects executed

- Funds raised by startups - Rs. 143 Cr.

- Revenue raised by start-ups - Rs. 95 Cr.

- Academia Connected- 23

- Govt. Delegations & International delegations hosted at CoE-136

- Partners Signed up: Strategic-18, Co-create-2, Innovation-8, Infrastructure-6, Technology-3

MeitY has taken further steps to add three more CoE's besides CoE-IoT Bengaluru in various states across the country viz. at Gurugram (Haryana), Gandhi Nagar (Gujarat) and Visakhapatnam (Andhra Pradesh).

Internet of Things (IoT) management framework for Smart Cities

ERNET India's joint work with Indian Institute of Science (IISc), Bangalore on experimental LoRaWAN network integrated with smart streetlights for real-time experimentation has resulted in Book Chapter publication. As part of the project, the LoRaWAN smart streetlights deployed in IISc campus were considered for experimentation to understand LoRaWAN performance and scalability aspects in real time.
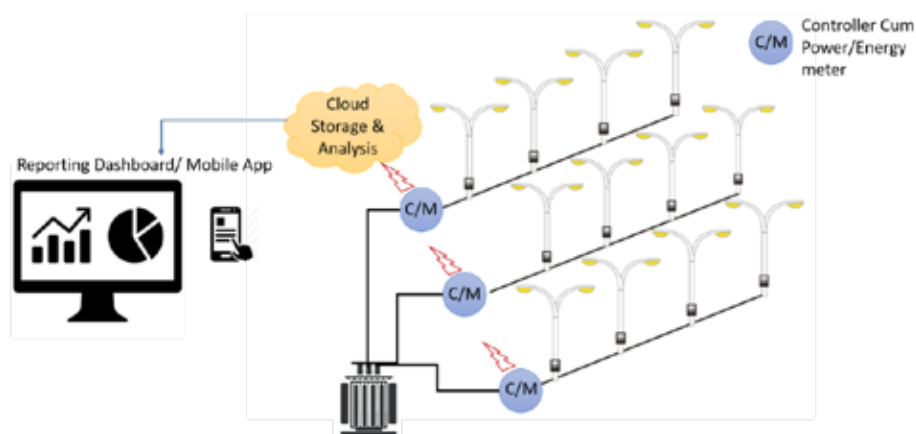
Fig 7. Proposed architecture for Smart Street Light Monitoring and Control

Based on the outcome and experience with LoRa enabled Smart Streetlights developed under this project, ERNET plans to implement Smart Streetlight Monitoring and Control mechanism in Tamil Nadu jointly with TNeGA. Further utilizing all Smart elements experienced till date like Smart Soil Quality Monitoring, Smart grid, Smart Streelight, etc., ERNET is in the process of preparing Smart Village concept and may seek relevant funds for the POC.

Publication: The outcome of the project has resulted in a book chapter titled "LoRaWAN for smart cities: experimental study in a campus deployment" in the book titled "LPWAN Technologies for IoT and M2M Applications" and it was published in March 2020 by Elsevier.

Information Security Education & Awareness (ISEA)-Phase II

ERNET India is one of the implementing agencies for Government officials training under the project Information Security Education & Awareness (ISEA) Phase II, funded by MeitY for the duration of 2015-2021. Under this project, ERNET India has organized 18 training programs (both direct and online mode) in which 561 Government officials have been trained from Tamilnadu, Karnataka, Kerala, Telengana, Andhra, Goa, Uttar Pradesh, West Bengal regions. Due to the prevailing Covid-19 situation, ERNET India has been conducting training programs through online mode and so far 262 government officials have been trained over online mode during the year 2020-21.

The training programs covered topics on Information and Network Security, Smart Grid Security and IoT Security with relevant hands on sessions. The participants were from various Government organizations like National Institute of Ocean Technology (NIOT), National Institute of Wind Energy (NIWE), CSIR – National Institute of Oceanography (NIO), CIFNET, Kerala State IT Mission, Shipping Corporation of India,Digital Media Wing Telangana, Commissionerate of Municipal Administration (CMA), Tamilnadu Electricity Board (TANGEDCO),CSIR - Centre for Cellular and Molecular Biology, CSIR-Central Drug Research Institute,ICAR-Indian Agricultural Statistics Research Institute (IASRI), ICAR-Central Island Agricultural Research Institute (CIARI), Andaman and India Meteorological Department (IMD).
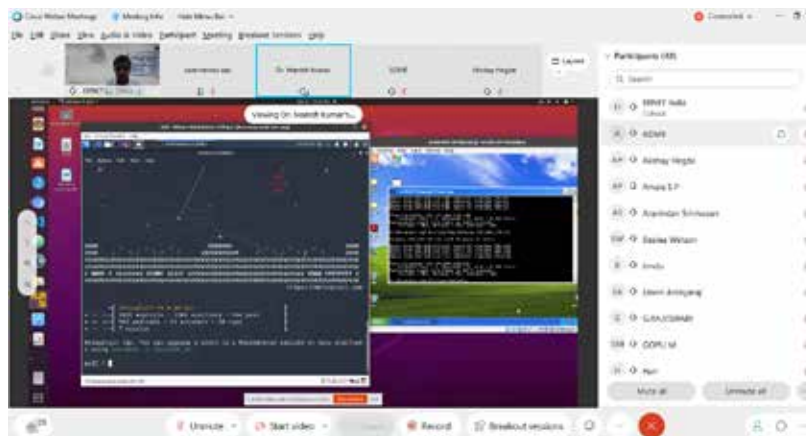
Fig. 8-day ISEA online Training Session during22nd-23rd March 2021

Optical Wireless Access Network for Rural and Urban Communication

ERNET India is executing a joint project with IIIT Delhi on Optical Wireless Access network for rural and urban communications funded by MeitY with a duration of 2019-2022. The objective of this project is to provide optical wireless (OW) connectivity: (i) OW connectivity for rural by designing a relay broadcast unit and rooftop receiver unit for end-to-end bidirectional last mile communication. (ii) OW connectivity for urban by developing a Hybrid LiFi-WiFi testbed, AP selection and resource allocation algorithm and performing link aggregation experiments. The outcome will be demonstrated in real-field with the use case scenarios like auditorium/ hospital environment.
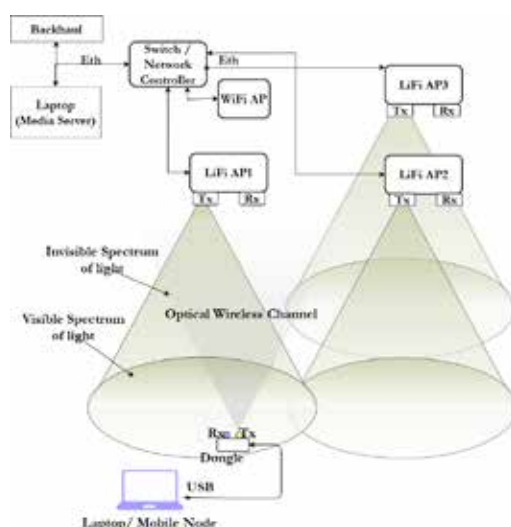
Fig 9. Proposed hybrid LiFi-WiFi Testbed architecture

The Hybrid LiFi-WiFi testbed will be utilized to study various channel characteristics and deployment issues in indoor environment like handover, latency, interferences, varying position and angle etc.

ERNET is jointly working with IIIT Delhi in developing the handover algorithm in a simulated environment for increased coverage and better performance towards a Hybrid LiFi-WiFi network. Further, the developed algorithm will be integrated into the Hybrid LiFi-WiFi testbed for experimentation and evaluation.

Publication: S. Pooja, Dr. A. Paventhan, et al., "Indoor VLC Channel Characterization for User Mobility: A Use-Case Study", International Conference on Visible Light Communication and Positioning, Stockholm, Sweden, July 2020

Designing Reliable and Low-latency Networks for Tactile Cyber-Physical Systems

ERNET India is executing a joint project with IISc Bangalore on "Designing Reliable and Low-latency Networks for Tactile Cyber-Physical Systems" that was approved by MeitY on March 2021. The objective of this project is to design and implement Tactile Cyber-Physical System that addresses the challenges of achieving real-time interaction between physical and virtual worlds in prominent applications like remote surgery and virtual reality that require ultra-reliable low latency communications(URLLC).The scope of work includes setting up IEEE 802.1 TSN testbed to study latency/jitter etc., combining TSN and DetNet technologies to design end-to-end network architecture, developing edge-intelligence modules, and development of efficient Operations, Administration and Maintenance (OAM) methods for real-time network performance monitoring. Further, evaluate the developed Tactile CPS strategies in a physical testbed over ERNET WAN and demonstrate over typical tactile applications like distance education by virtual reality or remote surgery.
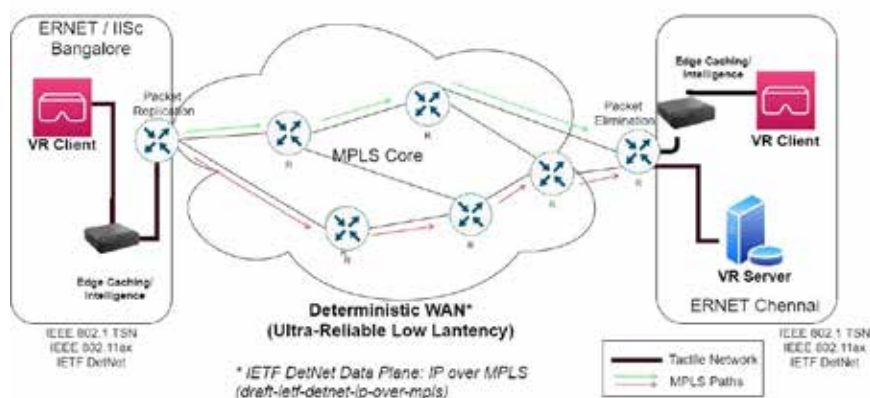
Fig 10. Proposed Tactile CPS testbed architecture

Internet of Things (IoT) enabled Smart Street lighting solution:

ERNET India had earlier executed a joint project with Indian Institute of Science (IISc), Bangalore on experimental LoRaWAN network with smart streetlights. The project experience helped ERNET India in reaching out to Tamil Nadu e-Governance Agency (TNeGA) for a pilot deployment of smart street lighting solution in rural villages for fault detection and on/off control. A proposal has been submitted to TNeGA jointly with IIT Madras that is under consideration. Further, ERNET India jointly with IIT Madras is developing a prototype with a laboratory setup of LoRa enabled Smart Street lighting towards pilot deployment for experimentation, end-to-end monitoring and controlling of streetlights.
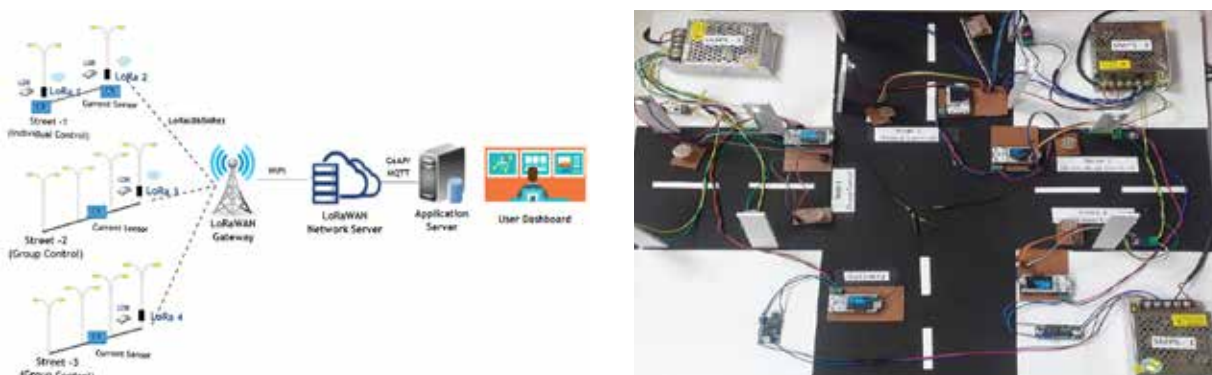
Fig 11 . Smart Street Lighting Pilot Architecture & ERNET Chennai lab setup

Cyber Performance, Collaborative Production, Streaming and Archive under APAN Asi@ Connect initiative

ERNET India as part of the project collaboration with APAN Asi@Connect, had actively participated in Cyber Performance Phase-I initiative. Under this project, ERNET had participated in the tech-culture fusion platform including training programs and Cyber Performances with 6 beneficiary countries, namely India, Vietnam, Malaysia, Bangladesh, South Korea and Pakistan. During the Live Cyber performances, artists/musicians from India, Vietnam, Pakistan, Malaysia, Korea and Bangladesh have performed together over the TEIN and National Research Education Network (NREN) of each country exchanging high quality video/audio.

ERNET will be participating in Cyber Performance Phase-II activities for focusing production and broadcast of multinational cultural contents created by the beneficiary nations to document/ broadcast aspects of local culture, history, ethnography, agriculture, health, musical and theatrical performance jointly with 5 beneficiary nations namely India, Bangladesh, Malaysia, Nepal and Pakistan.

Piot R&D project Using Free Space Optics Technology

The "Free Space Optics Technology (FSOC) for providing the connectivity to Kohima Science College from Kohima Secretariat, Nagaland" is MeitY funded R&D pilot project with the overall aim of providing the high speed network connectivity and measuring the performance of the established FSO link.

Free Space Optics is a line-of-sight technology that uses invisible beams of light to provide optical bandwidth connections that can send and receive voice, video, and data information. The technology propagates the light in free space means air, outer space, vacuum, or something similar to wirelessly transmit data for telecommunication and computer networking. It operates between the 780 – 1600 nm wavelengths bands and use O/E and E/O converters. This optical connectivity doesn't require expensive fiber-optic cable or securing spectrum licenses for radio frequency (RF) solutions. With this project implementation, ERNET sees a great opportunity to deploy FSOC technology in places where other connectivity solutions cannot be used due to various factors such as difficult terrain.

ERNET India has successfully implemented Free Space Optical link between Kohima Science College and Kohima Secretariat, Nagaland. The existing Kohima Secretariat office NKN / SWAN connectivity is used by Free Space Optics Link (FSOL). This extension of network will benefit the students of Science College of Kohima. The project R&D will result in understanding the impact of Kohima's weather conditions on FSO technology by measuring the FSO link performance during the Pilot which will help in preparing the guidelines for selecting the other locations which can be connected via FSO. The project will explore another promising means of High Speed infrastructure connectivity provisioning.
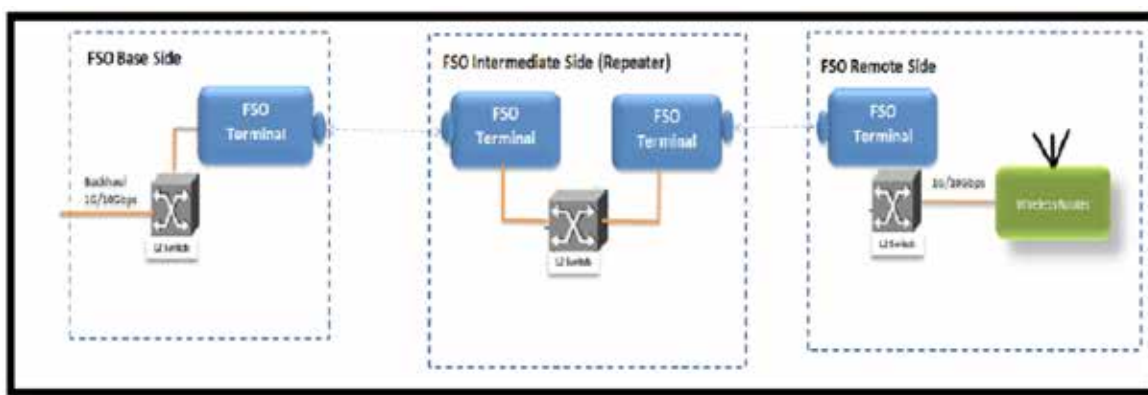
Fig 12

Enabling Schools with Smart Virtual Class Room Facility

Smart Virtual Classroom (SVC) is a pre-scheduled, online, teacher-led pedagogical intervention where, unlike conventional classrooms, teachers are not present with learners physically but instead interact through public network in an online learning environment.

ERNET India "Smart Virtual Classroom" solution has established an ICT based virtual classroom facilities in 3204 Govt. owned / controlled schools plus 50 DIETs in seven pilot States - Himachal Pradesh, Gujarat, Rajasthan, Tripura, Haryana, Andhra Pradesh and Tamil Nadu. Project aimed to improve the 'quality of education' to students in remote/ rural parts of the country. A Centralized control system was established in Delhi at ERNET's data centre which hosted the Multipoint control unit(MCU), Streaming/ Recording server and other associated components for multiparty audio/ video interaction and offline access of classroom sessions round the clock for learning / collaboration between all the stakeholders.

The SVC project created technology enhanced classrooms to foster opportunities for teaching and learning by integrating learning technology, such as computers, electronic white boards, projectors, specialized software, interactive audio-video systems, etc. The operational training of SVC infrastructure was provided to the School and DIETs teachers under the project.
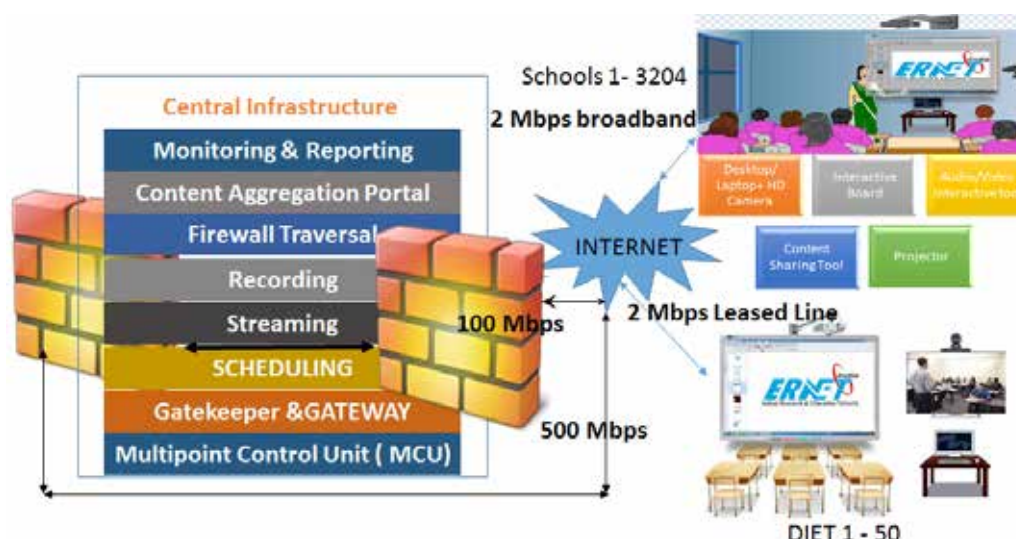
Fig 13

Smart Virtual Classroom project achievements:

- Established01 Central Location for Hosting MCU, scheduling s/w, Recording/ Streaming Solution for enabling storage of live sessions, offline access and multiparty conferencing.

- Established50 high-end smart virtual classrooms in each of the identified 50 DIETs, equipped with hardware based Video Conferencing & electronic teaching aid equipments.

- Established3204 smart virtual classrooms in 07 States, equipped with Software based Video Conferencing & electronic teaching aid equipments. (Andhra Pradesh, Tamil Nadu, Gujarat, Rajasthan, Haryana, Himachal Pradesh, Tripura).

- Established Knowledge aggregation portal acting as a single platform for scheduling of sessions, data analytics, accessing off-line repository of sessions through a unique user name password.

- Imparted operational hands-on training to the DIETs/ school staff with a training manual.

Project usage statistics:

- A total of 3443 such sessions have been conducted during April, 2020 to March, 2021 which have been attended by more than 1 lakh students during this duration.

- After the funding support from MeitY ended on 31st Dec, 2019, ERNET India is managing the operations & maintenance of Smart Virtual Classroom infrastructure installed at 280 Schools & 4 DIETs of Himachal Pradesh and 699 Schools & 11 DIETs of Gujarat through State funds for the duration of 1st Jan, 2020 to 31st Dec, 2020

- Currently, ERNET India is managing the operations & maintenance of Smart Virtual Classroom infrastructure installed at 280 Schools & 4 DIETs of Himachal Pradesh through State fund for the duration 1st Jan, 2021 to 31st Dec, 2021.

- More than 20,016 sessions conducted through Smart Virtual Classroom since the inception of this concept.

- More than 65092 teachers have been trained till date under the project for operational skill set.

- More than 70,77,600 students attended the live sessions till date and increasing on daily basis.

Fig 14

- Contribution during lockdown period:

- The central infrastructure established under the project has been maintained and kept operational with funds from Himachal Pradesh and Gujarat.

- Considering the pandemic, ERNET India is also facilitating other project States (Haryana, Rajasthan and Tamil Nadu) in conducting the Smart Virtual classroom sessions/classes by supporting School teachers in taking lectures from their home.

- During the lockdown period ERNET India has ensured that using software based solution, classes were running in the State of Himachal Pradesh, Gujarat, Rajasthan, Haryana, and Tamil Nadu.

- Teachers are conducting the Smart Virtual Classroom sessions/lectures from their home by utilizing the software based Smart Virtual Classroom video conferencing solution through a generated webcast link. Students are clicking on the webcast link and attending the lectures/sessions live on mobile phone/ laptop by sitting at their home.

- During lockdown period since April 14th, 2900+ sessions have been conducted benefitting more than 1 Lakh students.

- Promotion of Aarogya Setu Application were conducted during this pandemic.

- The state of Himachal Pradesh and Haryana acknowledged, appreciated and also published ERNET India's contribution during the pandemic in their local newspapers.

Fig 15

Social Initiatives Undertaken by ERNET through Smart Virtual Classroom (SVC):

1) **Social Focus**

   Various sessions/lectures have been conducted regularly towards social awareness andVocational focus. Social focus includes Environmental Education, Human Right Education, E-waste Management, Dengue Awareness, Disaster Management, Personal Hygiene, Swachhta Awareness, Aarogya Setu Awareness, etc.

2) **Promotion of "Aarogya Setu" App: -**

   During covid-19 pandemic, Aarogya Setu application's awareness session were conducted.

S . No.	Details	Overall Numbers w.r.t Promotion (starting from 1st May, 2020 to 17 Sept 2020)
1	No. of sessions conducted	1869 Sessions
2	No. of Students attended the sessions	1,07,711 Students

Fig: 16

Supporting other ministries/departments for establishment/expansion of SVC

With the experience gained from implementation of Smart Virtual Classroom, ERNET India has started supporting the other ministries for establishment/expansion of Smart Virtual Classrooms.

- ◆ ERNET India has been bestowed a project from North Eastern Council (NEC) titled as "Tele-education project- Establishment of Smart Virtual Classrooms in Aspirational District of NER" for setting up of Tele-Education facilities by establishing Smart Virtual Classroom in 75 Schools & 4 DIETs: In phase-1, it includes:

  o 3 aspirational districts of Assam (i.e. 12 Schools in Barpeta, 11 Schools in Dhubri and 9 Schools in Goalpara).

  o 1 aspirational district of Sikkim (i.e. 43 Schools in West Sikkim).

Under this project, Smart Virtual Classroom has been implemented at 75 Schools and 4 DIETs of Sikkim and Assam. A central location has also been established where multi-

point control unit, recording & streaming solutions and servers have been established to facilitate Schools and DIETs with 2 way online interactive audio-video sessions.

Brief Description of Activities performed in the project: -

◆ Implementation of Smart Virtual Classroom at 75 Schools and 4 DIETs of Sikkim and Assam.

◆ Installation, Commissioning of Video Conferencing equipments at Central Location with Integration Testing sites of Sikkim and Assam has been completed.

◆ Operational hands-on training at Sikkim on SVC Infrastructure usage to 88 teachers of Schools and DIET of Sikkim(2 teachers per site) has been completed.

◆ Project portal has been developed for project information and analytics.

◆ Successfully conducted District Level Science, Mathematics and Environment Exhibitions for Children 2020 -21 via Smart Virtual Classroom(SVC) Infrastructure provided @ DIET Gyalshing & schools of West Sikkim District.

◆ Successfully started the mock sessions through the installed Smart Virtual Classroom infrastructure.

Fig17 : District Level Science, Mathematics and Environment Exhibitions for Children 2020 -21

Fig18 : Training of Teachers

Fig 19: Mock Session

Fig 20 : Mock Session

Organizational Matters

I. Organizational Structure

ERNET India is functioning under the overall control and guidance of the Governing Council. Minister of Electronics & Information Technology is the Chairperson of the Council. Members of the Council are from various organizations such as IIT Delhi, Ministry of Health & Family Welfare, Ministry of Human Resources Development, Department of Space, Ministry of Electronics & Information Technology, TRAI, I-CERT, NASSCOM etc.

II. Human Resources of the Society

There are 42 sanctioned posts in various categories. Out of which 33 are filled and 9 are vacant.   To meet the additional requirement of manpower for various ongoing projects, ERNET India has engaged 36 technical and non technical employees on ERNET's contractual roll. In addition, 28 persons have also been engaged in various categories through outsourcing agencies.

III. Right to Information Act

In order to promote transparency and accountability in the working of the society, mandatory provisions under the Right to Information Act have been implemented in the society. A Central Public Information Officer, First Appellate Authority and Transparency Officer have been functioning in the society. The mandatory updated information including suo-moto disclosure under the Act has been provided on the website of the society.

IV. Vigilance Activities

The vigilance activity in ERNET India is supervised by a part time Chief Vigilance Officer. The vigilance activities of ERNET India are the preventive measures to create and provide transparent system at every level of working and also to create a healthy working environment.

V. Status of Sexual Harassment Cases

No complaint of sexual harassment has been received during the financial year 2020-21 by Internal Complaint Committee (ICC) of ERNET India.

VI. Official Language Implementation

Official Language Implementation Committee has been set up to implement and monitor the progress of usage of Hindi in the society. The Committee under the Chairmanship of Director General monitored the implementation of the official language from time to time.

Hindi Pakhwada was organized during 14.09.2020 to 28.09.2020 in ERNET India, New Delhi. Competitions on Hindi D ebate, Poem and Singing recitation were held and employees were given awards.

VII. Certificate of Appreciation by Central Board of Indirect Taxes, Ministry of Finance

ERNET was awarded certificate of Appreciation for prompt filing of returns and payment of Goods and Service Tax (GST) upto the year ending 31st March'2021 from Central Board of Indirect Taxes, Ministry of Finance.

Fig. 21 Shri Bhuvnesh Kumar, DG, Shri Vipin Aggarwal, Director Finance, Shri Arun Kumar Singh, Registrar & Director and Leena Rajpoot, Section Officer with Certificate of appreciation

VIII. Swachhta Pakhwada

Swachhta Pakhwada at ERNET India was organized during 1st February to 15th February, 2021. The main objective was to sensitize employees and other stake holders about the benefit of maintaining cleanliness, encouraging e-office for paperless and healthy environment, digitization of records. A session on "Solid Liquid waste Management and Importance and Necessity of General Cleanliness" was presented by the expert from Sri Venkateswara College through VC to all employees of ERNET India. Slogan / Poster Competition on E-waste were also organised. A Joint Session on E-waste Management and Hygiene and Sanitation" was conducted by Shri Ranjan Kumar, Senior Manager with one Doctor using NMCN network for Hospital staff and ERNET Employees. In addition, a campaign was conducted on replacing of Plastic Bags with Cloth bags in which bags were prepared by NGO and were distributed among CISF personnel located at residential colony of DMRC IT Park, Shastri Park.

Fig 22:Distribution of cotton bags to CISF officials

Fig 23: Safai abhiyan during the swachhta Pakhwada

Fig 24: Lecture on Solid and Liquid waste management through VC

Fig 25 : Slogan on Swachh Bharat

PoP Coordinators	Node	Address
	ERNET, Delhi	Shri Dilip Barman Director ERNET India 5th Floor, Block-I, A Wing Delhi IT Park , Shastri Park Delhi 110053
	VSAT Hub at STPI, Bangalore	Shri Avanindra Singh Director ERNET India 5th Floor, Block-I, A Wing Delhi IT Park , Shastri Park Delhi 110053
	ERNET PoP at IIT Madras ,Chennai	Dr. A. Paventhan, Director Regional Center ,Chennai, ERNET India 3rd Floor, IIT Madras Research Park, Kanagam Road, Taramani, Chennai, Tamil Nadu - 600 113

V. K. Dhingra & Co.
Chartered Accountants

INDEPENDENT AUDITOR'S REPORT

To
The Governing Council,
ERNET India,

Report on the Audit of the Financial Statements

Qualified Opinion

We have audited the accompanying financial statements of **ERNET India**, Block-I, A Wing, 5th Floor, DMRC IT Park, New Delhi-110053, which comprise the Balance sheet as at March 31, 2021, and the Income & Expenditure Account for the year ended on that date, and a summary of significant accounting policies and other explanatory information.

In our opinion and to the best of our information and according to the explanations given to us, the financial statements give a true and fair view in conformity with the accounting principles generally accepted in India.

Basis for Qualified Opinion

Note No. 11 (vi) of Schedule 20 of the financial statements regarding unconfirmed balances of sundry debtors, sundry creditors, loans & advances and other personal accounts and the consequential impact, if any, of the same on the financial statements of the Society for the year.

We conducted our audit in accordance with Standards on Auditing (SAs) issued by Institute of Chartered Accountants of India. Our responsibilities under those Standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of the entity in accordance with the ethical requirements that are relevant to our audit of the financial statements, and we have fulfilled our other responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion on the financial statements.

Emphasis of Matter

We draw attention to the following:

Note No. 3 of Schedule 20 which explains Physical verification of fixed assets and reconciliation thereof was reportedly not done during the year hence we are unable to comment thereon and on any financial effect that may be required to be recognized in the financial statements;

Contd..2/*

1-E/15, Jhandewalan Extn., New Delhi-110055, India. E-mail : info@vkdco.com
Phones : (91-11) - 23528511, 23638325, 23536857, 23550475, 43539669

V. K. DHINGRA & CO.   Continuation Sheet............................

: 2 :

Management's Responsibility for the Financial Statements

Management is responsible for the preparation of these financial statements that gives a true and fair view of financial position and financial performance of the Institute in accordance with the Accounting Standards issued by The Institute of Chartered Accountants of India and in accordance with the accounting principles generally accepted in India. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation and presentations of financial statements that gives a true and fair view and are free from material misstatement, whether due to fraud or error.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with SAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is included in Annexure – A of this Auditor's Report.

Report on Other Matters

1. We have sought and obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of our audit.

2. In our opinion proper books of account as required by law have been kept by the Institute so far as it appears from our examination of those books.

3. The Balance Sheet, the Income & Expenditure Account dealt with by this Report are in agreement with the books of account.

4. In our opinion the aforesaid financial statements comply with the applicable Accounting Standards issued by the Institute of Chartered Accountants of India.

For V. K. DHINGRA & CO.
CHARTERED ACCOUNTANTS
Firm Registration No.: 000250N

(VIPUL GIROTRA)
PARTNER
M. No.: 084312
UDIN: 21084312AAAAAS5063

PLACE: NEW DELHI
DATE: AUGUST 02, 2021

V. K. DHINGRA & CO.

Continuation Sheet..........................

Annexure-'A' to the Independent Auditor's Report

Auditor's Responsibilities

As part of an audit in accordance with SAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

For V. K. DHINGRA & CO.,
CHARTERED ACCOUNTANTS
Firm Registration No. 000250N

PLACE: NEW DELHI
DATE: AUGUST 02, 2021

(VIPUL GIROTRA)
PARTNER
M. No. : 084312
UDIN:21084312AAAAAS5063

**REPLIES TO POINTS RAISED IN STATUTORY AUDITORS' REPORT FOR THE FINANCIAL YEAR
2020-21**

S.No.	AUDITORS' COMMENTS	REPLIES
1.	**Balance confirmation** In view of non-receipt of confirmation from debtors and creditors; auditors' have commented that they are unable to quantify the consequential impact of this on Financial Statements; if any.	At the end of financial year 2020-21, communication through email for balance confirmation was sent to all the debtors and creditors. However, we have not received confirmations from most of them and the same was reported to auditor. Reason for non-receipt of confirmation may be due to the lockdown condition arising from Covid-19 pandemic situation.
2.	**Fixed Assets** Physical verification of fixed assets and reconciliation thereof was reportedly not done.	In view of Covid-19 pandemic situation, physical verification of assets could not be carried out for FY 2020-21 and that the same shall be carried out during current financial year.

ERNET INDIA
BALANCE SHEET AS AT 31.03.2021

Figures in Rupees in 000

CORPUS/CAPITAL FUND AND LIABILITIES	Schedule	Current Year	Previous Year
Corpus/Capital Fund	1	15,62,326	14,82,572
Balances under Ongoing Projects (GIA)	2	2,36,625	1,62,802
Current Liabilities and Provisions :-			
Other Current Liabilitites	3	1,72,878	9,87,915
Provisions	4	4,90,464	6,17,111
TOTAL		**24,62,293**	**32,50,400**
ASSETS			
Fixed Assets	5	1,66,343	1,80,228
Current Assets, Loans, Advances etc.:-			
Inventories	6	524	460
Sundry Debtors	7	23,485	49,784
Receivables under Sponsored Projects	8	1,09,601	1,22,524
Balances with Scheduled Banks	9	18,49,108	25,56,538
Loan and Advances	10	3,13,232	3,40,866
TOTAL		**24,62,293**	**32,50,400**
Significant Accounting Policies	19		
Notes on Accounts	20		

In terms of our report of even date attached   For and on behalf of ERNET India
M/s V.K. Dhingra & Co.
Chartered Accountants
FIRM Reg. No. 000250N

Vipul Girotra   (Vipin Aggarwal)   (Arun Kumar Singh)   (Geeta Kathpalia)
Partner   Director (Finance)   Registrar & Director   Director General
M.No. 084312

Place : New Delhi   Place : New Delhi
Date : 02.08.2021   Date : 30.07.2021

ERNET INDIA
INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31.03.2021

Figures in Rupees in 000

INCOME	Schedule	Current Year	Previous Year
1. Revenue from Subscribers	11	3,09,078	2,95,449
2. Revenue from Projects	12	62,121	74,002
3. Revenue from Projects (GIA)	2A	80,673	86,848
4. Net Interest Earned	13	99,565	1,29,778
5. Other Revenue	14	51,579	35,881
6. Increase/(Decrease) in Inventories	15	54	(154)
TOTAL (A)		**6,03,070**	**6,21,805**
EXPENDITURE			
1. Operating Expenses	16	2,93,092	3,34,373
2. Expenditure under Projects (GIA)	2A	80,673	86,848
3. Establishment Expenses	17	87,188	80,277
4. Administrative Expenses	18	46,365	53,752
5. Depreciation	5A & 5D	3,623	5,510
TOTAL (B)		**5,10,941**	**5,60,759**
Balance being excess of Income over Expenditure (A-B)		92,129	61,046
Excess of Income over Expenditure		92,129	61,046
Provision For Tax		-	-
Net Excess of Income over Expenditure after Tax		92,129	61,046
Significant Accounting Policies	19		
Notes on Accounts	20		

In terms of our report of even date attached   For and on behalf of ERNET India
M/s V.K. Dhingra & Co.
Chartered Accountants
FIRM Reg. No. 000250N

Vipul Girotra   (Vipin Aggarwal)   (Arun Kumar Singh)   (Geeta Kathpalia)
Partner   Director (Finance)   Registrar & Director   Director General
M.No. 084312

Place : New Delhi
Date : 02.08.2021

ERNET INDIA
SCHEDULES FORMING PART OF BALANCE SHEET
AS AT 31.03.2021

Figures in Rupees in 000

SCHEDULE 1 - CORPUS/CAPITAL FUND		Current Year	Previous Year
Balance as at the beginning of the year		13,72,142	13,11,097
Add : Excess of Income over Expenditure		92,129	61,046
Balance of Corpus Capital Fund	**(A)**	**14,64,271**	**13,72,142**
CAPITAL GRANT-IN-AID (MietY)			
Balance as at the beginning of the year		95,586	1,03,616
Less : Depreciation		6,084	7,862
Less : Sale of Grant-In-Aid Assets		4,064	168
	(B)	**85,437**	**95,586**
Capital Fund (GIA) Fire Incident		14,844	17,474
Less : Depreciation		2,226	2,630
	(C)	**12,618**	**14,844**
TOTAL BALANCE TRANSFERRED TO BALANCE SHEET (A+B+C)		**15,62,326**	**14,82,572**

ERNET INDIA
SCHEDULE FORMING PART OF BALANCE SHEET AS ON 31.03.2021

Figures in Rupees in 000

SCHEDULE 2 - EARMARKED FUNDS FOR PROJECTS (In Progress)	GIA-VSAT at North Eastern States of the country	GIA- Pilot R&D Free Space Optics Technology	GIA-NASSCOM-ERNET Centre of Excellenece for IOT	GIA-NER Region Setting up ICT Infrastructure in Govt. Schools	GIA- Establishment of Smart Virtual Classrooms in aspirational district of NER	Sub-Total (A)
A) Opening balance of the projects	36,766	3,886	7,473	54,224	-	1,02,350
B) Additions during the year:						
(i) Grant in Aid Received		5,777	-	-	55,000	60,777
(ii) Amount paid back / Other adjustments	(84)	(1,004)	(1,494)	-	-	(2,582)
(iii) Interest credited	545	94	123	1,468	979	3,209
(iv) LD recovered credited to the project	-	772	-	-	-	772
Total (A+B)	37,227	9,526	6,103	55,692	55,979	1,64,527
C) Expenditure Incurred	27,853	9,167	21,247	116	4,764	63,148
Net Balance as at the Year end (A+B-C)	9,374	359	(15,144)	55,576	51,215	1,01,379

ERNET INDIA

ERNET INDIA
SCHEDULE FORMING PART OF BALANCE SHEET AS ON 31.03.2021

Figures in Rupees in 000

SCHEDULE 2 - EARMARKED FUNDS FOR PROJECTS (In Progress)	GIA-Designing Reliable & Low -Latency Networks for tactile Cyber-Physical Systems	GIA-Establishment of Intelligence of Intelligence Educational Infrastructure (Smart) in Eklavya Model Residential Schools (EMRSs)	GIA-Setting up Wifi at Patna University	GIA-Optical Wireless Access Network for R & U Comm	GIA-Information security Education & Awarness-Ph-II	Sub Total (B)	CURRENT YEAR (A+B)	PREVIOUS YEAR
A) Opening balance of the projects	-	-	-	1,757	(179)	1,578	1,03,928	1,09,294
B) Additions during the year:								
(i) Grant in Aid Received	3,220	99,720	17,000	-	517	1,20,457	1,81,234	1,48,875
(ii) Amount paid back / Other adjustments	-	-	-	-	(14)	(14)	(2,596)	(11,829)
(iii) Interest credited	-	-	-	33	-	33	3,242	3,036
(iv) LD recovered credited to the project	-	-	-	-	-	-	772	5,754
Total (A+B)	3,220	99,720	17,000	1,790	324	1,22,054	2,86,581	2,55,130
C) Expenditure Incurred	-	-	-	1,774	178	1,952	65,099	92,506
Net Balance as at the Year end (A+B-C)	3,220	99,720	17,000	17	146	1,20,102	2,21,481	1,62,624
ADD: Excess Amount -Spent under ongoing projects (Transferred to Schedule 8)							15,144	179
Balances under Ongoing Projects (GIA) (Transferred to Balance Sheet)							2,36,625	1,62,802

ERNET INDIA
SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31.03.2021

Figures in Rupees in 000

SCHEDULE 2 A - EARMARKED FUNDS FOR PROJECTS COMPLETED		GIA-Setting up of WIFI Campus Network in 4 Universities	CURRENT YEAR	PREVIOUS YEAR
a)	Opening balance of the schemes	58,694	58,694	(73,244)
b)	Additions to the schemes:			
(i)	Grant-in-aid Received		-	1,19,400
(ii)	LD recovered credited to the project		-	37,005
(iii)	Other Credits Under the Project		-	643
(iv)	Interest	1,342	1,342	978
(v)	Amount paid back / Adjustments	(19,517)	(19,517)	(200)
(vi)	Balances outstanding under Closed Projects (GIA) (Refer Schedule 3)		-	(42,003)
			-	
	Total (a+b)	**40,519**	**40,519**	**42,580**
c) Expenditure towards projects (Sum total of Schedule 2 & 2A)		40,519	1,05,618	1,35,086
	Total (c)	**40,519**	**1,05,618**	**1,35,086**
Revenue from Projects			1,05,618	1,35,086
Less: Amount charged from the Project towards income of ERNET India pertaining to ERNET professional charges and Connectivity being shown Separately In Income & Expenditure account			(24,945)	(48,238)
			80,673	86,848

ERNET INDIA
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2021

Figures in Rupees 000

SCHEDULE 3 - Other Current Liabilitites		Current Year	Previous Year
1	Sundry Creditors for Goods and Services	62,353	1,77,576
2	Advances Received for Projects and Other Operating Activities	20,149	6,99,380
3	EMD and Other payables	426	454
4	Amount Payable to Transit Nodes	-	2,356
5	TDS Payable	3,995	26,676
6	Taxes Payable	4,964	3,889
7	Expenses Payable	5,032	4,579
8	ERNET India CPF Trust	335	606
9	NPS Contribution	778	697
10	Retention Money	37,921	34,198
11	Ministry of Electronics and IT (Meity)	62	87
12	VSAT Equipments Liability	0.18	0.18
13	Balances outstanding under Closed Projects (GIA)	14,306	37,417
14	Ministry of Social Justice	22,556	-
	Total	**1,72,878**	**9,87,915**

ANNEXURE TO SCHEDULE 3

Figures in Rupees 000

Sundry Creditors for Goods and Services

S.No.	Sundry Creditors for Goods	Current year	Previous Year
1	Echo Industries	-	143
2	HCIL Comtel Pvt Ltd	596	667
3	HCL Comnet Ltd	11,196	22,373
4	HCL Infosystems Ltd	-	1,718
5	Hewlett Packard India Sales Pvt. Ltd	-	3,955
6	Vayam Technologies Ltd	-	16
7	O A Compserve Pvt. Ltd.	1	-
8	Wipro Ltd.	-	5,229
9	Yash Technologies Private Limited	33,003	41,855
10	Minosha India Ltd.	-	17,677
	Sub Total (a)	**44,796**	**93,634**

ERNET INDIA
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2021

Figures in Rupees in ₹000

S.No.	Sundry Creditors for Services	Current year	Previous Year
1	Antrix Corporation Ltd	787	23,227
2	Balmer Lawrie & Co Ltd	-	233
3	Bharat Sanchar Nigam Ltd	-	11,869
4	Mahanagar Telephone Nigam Ltd,New Delhi	-	1,798
5	Om Sales Corporation	1	1
6	Presto Info Solution Pvt Ltd	-	11,649
7	Reliance Communication Infrastructure Ltd	-	4,610
8	Sify Limited	-	1,676
9	Sterlite Technologies Limited	2,467	-
10	BSNL, Faridabad	123	-
11	Tata Communications Ltd.	-	127
12	Wi-Fi communications Pvt. Ltd.	-	80
13	DOT, New Delhi	-	1,186
14	NASSCOM	13,832	22,018
15	Project- ICAR E-Linkage to 200 KVKS	347	-
16	Woodfun Interior Decorators	-	5,270
	Sub Total (b)	**17,557**	**83,743**
S.No.	**MTNL/BSNL CHARGES PAYABLE FOR LEASED LINE USERS**	Current year	Previous Year
1	Mahanagr Telephone Nigam Ltd 2015-16	-	199
	Sub Total (c)	**-**	**199**
	Grand Total (a+b+c)	**62,353**	**177,576**

ERNET INDIA
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2021

ANNEXURE TO SCHEDULE 3 Figures in Rupees in '000

S.No.	ADVANCE RECEIVED	Current year	Previous Year
1	Dial Up Users	1	1
2	Email Hosting Users	4	4
3	Group Connectivity Users	177	177
4	ICAR- New Delhi	1,152	785
5	Krishi Vigyan Kendra	-	46
6	Leased Line Users	4,106	3,901
7	MPLS Users	1,448	1,448
8	Radio Link Users	2	2
9	SCPC VSAT Users	5	37
10	BB VSAT Users	2,363	1,976
11	Web Hosting Users	206	206
12	DANTE (APAN)	13	13
13	Z.P. Madhyamika Shalla (Girls) Ambajogai (685)	3	3
14	CIC- Govt. Sr. Sec. School	29	29
15	PDFMD Nainital	4,220	4,220
16	NIXI for Setting up of Internet Connectivity	-	5,71,949
17	Video Confrence Income Tax	3,268	3,268
18	Web Email Hosting Users	-	2
19	Union Territory of Lakshadweep	-	1,10,580
20	GCERT, Gandhi Nagar, Gujarat	-	732
21	AMC for North Eastern Hill University- NEHU	3,144	-
22	Domain Users	6	-
	Total	**20,149**	**6,99,380**
S.No.	**OTHER CURRENT LIABILITIES**	**Current year**	**Previous Year**
1	Ernest Money Deposit against Tenders	85	300
2	Performance Security Deposit	341	154
	Total	**426**	**454**
S.No.	**AMOUNT PAYABLE TO TRANSIT NODES**	**Current year**	**Previous Year**
1	C-DAC Mumbai	-	2,356
	Total	**-**	**2,356**

ERNET INDIA
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2021

Figures in Rupees in '000

S.No.	TDS Payable	Current year	Previous Year
1	TDS - Contractors	546	113
2	TDS - Professional charges	2,627	21,997
3	TDS - Salaries	756	633
4	TDS - Rent	66	247
5	TDS - Interest	-	3,686
	Total	**3,995**	**26,676**
S.No.	TAXES PAYABLE	Current year	Previous Year
1	CGST Payable	850	29
2	SGST Payable	850	29
3	Service Tax Payable old	2,471	2,471
4	GST TDS Payable	794	619
5	Interest Payable on GST	-	742
	Total	**4,964**	**3,889**
S.No.	EXPENSES PAYABLE	Current year	Previous Year
1	Children Education Allowance	333	266
2	Conveyance Charges	12	22
3	Miscellaneous Expense	13	22
4	Medical Expenses	301	326
5	Salary	4,374	3,905
6	Telephone Expenses	-	39
	Total	**5,032**	**4,579**

ERNET INDIA
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2021

ANNEXURE TO SCHEDULE 3   Figures in Rupees in '000

S.No.	RETENTION MONEY	Current year	Previous Year
1	Nikom Infrasolutions Pvt. Ltd	-	95
2	Akal Information Systems Ltd.	1,560	2,516
3	IAP Company Pvt. Ltd.	1,250	2,996
4	ICN (India) Pvt. Ltd.	33	33
5	Midas Electricals Pvt. Ltd.	-	60
6	Wipro Ltd	3,682	3,682
7	Presto Infosolution (P) Ltd	-	4,969
8	Minosha India Ltd.	3,070	4,049
9	RV Solutions Pvt. Ltd.	-	2,338
10	Silica Infotech P Ltd.	209	614
11	Sunfest Infratech & Power Ltd.	76	76
12	Tulip IT Services Ltd.	-	4,884
13	Terasoft Technologies	1,198	518
14	Vayam Technologies ltd.	6,905	7,367
15	LITSS (towards BG given to Antrix)	19,938	-
	Total	**37,921**	**34,198**

SCHEDULE 4 - PROVISIONS   Figures in Rupees in '000

		Current Year	Previous Year
1	Gratuity	24,969	22,050
2	Accumulated Leave Encashment	35,324	30,453
3	Provision for Tax	3,56,000	3,56,000
4	Provision for Expenses	59,591	1,94,028
5	Misc. Liabilities	14,580	14,580
	Total	**4,90,464**	**6,17,111**

SCHEDULE 5 - FIXED ASSETS   Figures in Rupees in '000

ASSETS	Schedule	Current Year	Previous Year
Fixed Assets Acquired From Capital Fund	5A	68,091	69,535
Fixed Assets Acquired From Grant-in-aid	5B	85,437	95,586
Fixed Assets Acquired to rebuild the infrastruture destroyed in fire	5C	12,618	14,844
Fixed Assets - Intangibles	5D	197	263
Total (5A+5B+5C+5D)		**166,343**	**180,228**

ERNET INDIA
FIXED ASSETS (CAPITAL FUND)
(As per Income Tax Act ,1961)

(Schedule 5A)   Figures in Rupees in '000

S. No.	Particulars	Rate	Opening WDV as at 01.04.2020	Addition During the Year		Deletion	Total	Depreciation During the Year	Closing WDV as at 31.03.2021
				Before 03.10.2020	After 03.10.2020				
I	**Computer & Accessories**								
	Additional PC Accessories	40%	2	-	-	-	2	1	1
	Computer & Servers	40%	871	184	150	-	1,205	452	753
	Printers	40%	196	16	110	-	323	107	216
	Total Computer & Accessories		1,069	200	260	-	1,530	560	970
II	**Electronic Equipments**								
	Cables & Connectors(Sub. Fund)	15%	8	-	-	-	8	1	7
	CISCO Routers(Sub. Funds)	15%	352	-	303	-	655	76	579
	Hubs(Sub Fund)	15%	213	-	-	-	213	32	181
	Modems/ Radio Modems	15%	83	-	-	-	83	12	70
	Multimeters	15%	0	-	-	-	0	0	0
	Multiplexer	15%	4	-	-	-	4	1	3
	Radio Antenna (Sub. Fund)	15%	2	-	-	-	2	0	2
	Testing Instruments	15%	12	-	-	-	12	2	10
	VSAT Antenna (Subs. Fund)	15%	5	-	-	-	5	1	4
	Networking Equipment (Sub)	15%	269	-	-	-	269	40	229
	Air Conditioning System (DMRC)	15%	2,552	-	-	-	2,552	383	2,169
	Misc. electronic equipments(sub)	15%	123	38	227	-	388	41	347
	Equipments under LiFi Projects	15%	473	-	-	-	473	71	402
	VSAT Equipments - Non depreciable	0%	0	-	-	-	0	-	0
	Total Electronic Equipments		4,097	38	530	-	4,665	660	4,005
III	**Furniture & Fixture**								
	Fittings, Flooring & Partitioning	10%	1,676	-	-	-	1,676	168	1,508
	Misc. Furniture Items	10%	647	-	58	-	706	68	638
	Furniture & Fixture	10%	9,689	-	-	-	9,689	969	8,720
	Furniture & Fixture (Sub)	10%	-	-	49	-	49	2	46
	Total Furniture & Fixture		12,012	-	107	-	12,120	1,207	10,913

S. No.	Particulars	Rate	Opening WDV as at 01.04.2020	Addition During the Year		Deletion	Total	Depreciation During the Year	Closing WDV as at 31.03.2021
				Before 03.10.2020	After 03.10.2020				
IV	**Office Equipments**								
	Air Conditioners	15%	312	-	111.848	-	424	55	368
	D.G. Sets/Generator	15%	17	-	-	-	17	3	14
	Misc. Office Equipment	15%	750	59.984	28.158	-	838	124	715
	Projector (OHP)(Sub Fund)	15%	40	-	-	-	40	6	34
	UPS & Batteries	15%	1,115	-	-	-	1,115	167	948
	Telephone & EPABX System (Sub)	15%	198	16.800	-	-	215	32	182
	Electrical equipments (DMRC)	15%	2,960	-	-	-	2,960	444	2,516
	Total Office Equipment		**5,391**	**77**	**140**	**-**	**5,608**	**831**	**4,777**
V	**Building**								
	Building	10%	236	-	-	-	236	24	212
	Civil work at DMRC*	10%	1,245	-	-	-	1,245	125	1,121
	Total Building		**1,481**	**-**	**-**	**-**	**1,481**	**148**	**1,333**
VI	**Land at Bangalore on lease**								
	Capital Advance for Land	0%	45,485	-	-	-	45,485	-	45,485
	Total Land		**45,485**	**-**	**-**	**-**	**45,485**	**-**	**45,485**
VII	**Software (Sub)**								
	Software (Sub)	40%	-	-	760	-	760	152	608
	Grand Total		**69,535**	**316**	**1,797**	**-**	**71,648**	**3,557**	**68,091**
	*Civil work is done at third party premises without ownership								

ERNET INDIA
FIXED ASSETS (GRANT-IN-AID)
(As per Income Tax Act ,1961)

(Schedule 5B)   Figures in Rupees in '000

S. No.	Particulars	Rate	Opening WDV as at 01.04.2020	Addition During the Year		Deletion	Total	Depreciation during the year	Closing WDV as at 31.03.2021
				Before 03.10.2020	After 03.10.2020				
I	**Computer & Accessories (GIA)**								
	Addl. PC Accessories(GIA)	40%	1	-	-	-	1	0	1
	Computer Pheripherals (Cards)	40%	0	-	-	-	0	0	0
	Computer & Servers(GIA)	40%	22	-	-	-	22	9	13
	Printers & Printing Devices	40%	2	-	-	1	0	0	0
	Softwares(GIA)	40%	6	-	-	-	6	3	4
II	**Electronic Equipment (GIA)**								
	Access Control System (GIA)	15%	34	-	-	-	34	5	29
	Active & Passive Components A/c	15%	18	-	-	-	18	3	16
	Air Pro Gold Router	15%	22	-	-	-	22	3	19
	Attenuator	15%	1	-	-	0	0	0	0
	Auto Sensing Switch	15%	6	-	-	-	6	1	5
	Base Band Hub	15%	3,651	-	-	3,012	640	96	544
	Beacon Receiver	15%	27	-	-	-	27	4	23
	C Band ODU/LNA/LNB	15%	127	-	-	-	127	19	108
	CISCO Router	15%	15,472	-	-	59	15,413	2,312	13,101
	CISCO Switch	15%	484	-	-	-	484	73	411
	EMS Hardware & Software	15%	295	-	-	236	59	9	50
	High Power Amplifier	15%	913	-	-	-	913	137	776
	Hubs A/c	15%	122	-	-	-	122	18	104
	Interface Convertors	15%	85	-	-	27	58	9	49
	Intrusion Prevention System (IPS) (GIA)	15%	161	-	-	-	161	24	136
	ISDN Modem	15%	1	-	-	-	1	0	1

S. No.	Particulars	Rate	Opening WDV as at 01.04.2020	Addition During the Year		Deletion	Total	Depreciation during the year	Closing WDV as at 31.03.2021
				Before 03.10.2020	After 03.10.2020				
	ISDN Simulator	15%	55	-	-	-	55	8	47
	Modems/Radio Modem (GIA)	15%	562	-	-	2	560	84	476
	Networking Equipments (GIA)	15%	3	-	-	-	3	0	2
	NMS Hardware	15%	507	-	-	431	76	11	65
	NMS IT Software	15%	482	-	-	0	482	72	410
	Protocol Analyser	15%	119	-	-	-	119	18	102
	Radio Anttenna	15%	59	-	-	-	59	9	50
	Radio Link Installation (FA-GIA)	15%	70	-	-	-	70	10	59
	Raid Array3000 With Controller	15%	79	-	-	-	79	12	67
	Redundant Power Systems (RPS)	15%	25	-	-	-	25	4	21
	SMPS Power Plant	15%	11	-	-	-	11	2	9
	Splilter	15%	7	-	-	-	7	1	6
	Video Encoder	15%	107	-	-	85	23	3	19
	VSAT Anttena	15%	167	-	-	-	167	25	142
	VSAT (SCPC)	15%	675	-	-	-	675	101	574
	Misc. Electronic Equipment (GIA)	15%	14,653	-	-	78	14,575	2,186	12,389
III	**Office Equipment (GIA)**								
	Air Conditioner(GIA)	15%	490	-	-	-	490	73	416
	DG Set	15%	162	-	-	-	162	24	138
	Misc. Office Equipments(GIA)	15%	819	-	-	41	778	117	661
	Projectors (OHP)	15%	36	-	-	-	36	5	30
	Telephone & EPABX System	15%	289	-	-	92	197	30	168
	UPS & Batteries (GIA)	15%	1,346	-	-	-	1,346	202	1,144
	Video Conferencing Equipment (GIA)	15%	291	-	-	-	291	44	247
	Misc Items (GIA)	15%	79	-	-	-	79	12	67
	Misc. Office Equipments (GIA- Fixed Assets)	15%	15	-	-	-	15	2	13

S. No.	Particulars	Rate	Opening WDV as at 01.04.2020	Addition During the Year		Deletion	Total	Depreciation during the year	Closing WDV as at 31.03.2021
				Before 03.10.2020	After 03.10.2020				
IV	**Office Furniture & Fixtures (GIA)**								
	Fitings,Flooring & Partitioning	10%	5	-	-	-	5	1	5
	Furniture & Fixture	10%	258	-	-	-	258	26	233
	Misc. Furniture & Fixture(GIA)	10%	159	-	-	-	159	16	143
	Fittings, Floorings & Partioning - IITM R P Chennai	10%	2,045	-	-	-	2,045	204	1,840
	Office Furniture & Fixture (Grant in Aid)	10%	272	-	-	-	272	27	245
	Racks	10%	276	-	-	-	276	28	248
V	**Misc. Assets (GIA)**	10%	2	-	-	-	2	0	2
VI	**Building A/c (GIA)**	10%	10	-	-	-	10	1	9
VII	**Land on Lease at Bangalore**		50,000	-	-	-	50,000	-	50,000
	Total		**95,586**	**-**	**-**	**4,064**	**91,521**	**6,084**	**85,437**

ERNET INDIA
Fixed Assets (Grant In Aid Fire
(As per Income Tax Act ,1961)

(Schedule 5C)   Figures in Rupees in '000

Particulars	Rate	Opening WDV as at 01.04.2020	Addition During the Year		Deletion	Total	Depreciation During the Year	Closing WDV as at 31.03.2021
			Before 03.10.2020	After 03.10.2020				
Electronics Equipments								
CISCO ASR1002 Chassis 4 Built in GE	15%	539	-	-	-	539	81	459
CISCO WS-C2960S-24TS -L/ catalyst 2960S	15%	181	-	-	-	181	27	153
CISCO WS- C3750X-24T-S/ Catalyst	15%	59	-	-	-	59	9	50
CISCO ES C26960S-24TD-L/ Catalyst Switch	15%	27	-	-	-	27	4	23
CISCO 1941 Security bundle	15%	179	-	-	-	179	27	152
VMWare Virtualization Software	40%	67	-	-	-	67	27	40
CISCO Switch	15%	10,417	-	-	-	10,417	1,563	8,855
CHECK POINT	15%	2,118	-	-	-	2,118	318	1,800
CISCO ASR1002 Router	15%	846	-	-	-	846	127	719
Office Equipments								
Air conditioner	15%	35	-	-	-	35	5	29
Misc Office Equipment	15%	37	-	-	-	37	6	32
Office Furniture & fixture								
Fitings,Flooring & Partitioning	10%	58	-	-	-	58	6	53
Furniture & Fixture (DMRC)	10%	280	-	-	-	280	28	252
Capital WIP			-	-	-			
TOTAL		**14,844**	**-**	**-**	**-**	**14,844**	**2,226**	**12,618**

(Schedule 5D)   Figures in Rupees in '000

Particulars	Rate	Opening WDV as at 01.04.2020	Addition During the Year		Deletion	Total	Depreciation During the Year	Closing WDV as at 31.03.2021
			Before 03.10.2020	After 03.10.2020				
Domain registrar application programme	25%	113				113	28	85
E-Office Implementation	25%	150	-	-	-	150	37	112
TOTAL		**263**	**-**	**-**	**-**	**263**	**66**	**197**

ERNET INDIA
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2021

Figures in Rupees in '000

SCHEDULE 6 - Inventories		Current Year	Previous Year
1	Stores and Spares	70	61
2	Stock of VSAT Equipments	454	399
	Total	524	460

SCHEDULE 7 - Sundry Debtors		Current Year	Previous Year
	Sundry Debtors (Subscription Charges Receivable From Users)	1,06,006	1,34,271
	Less Provision for Doubtful Debts	(82,520)	(84,487)
	Total	23,485	49,784

Annexure to Schedule -7

Figures in Rupees '000

S. No.	SUNDRY DEBTORS (SUBSCRIPTION CHARGES RECEIVABLE FROM USERS)	Current Year	Previous Year
1	AICTE Scheme	4,054	4,184
2	Dial-up Users	2,924	2,924
3	E-mail Hosting Users	140	301
4	Group Connectivity Users	15,820	22,634
5	ICAR Scheme	22,588	27,579
6	Leased Line Users	13,235	15,055
7	Leased Line (LAN) Users	207	207
8	MPLS Users	8,296	8,755
9	Other Users	158	158
10	Radio Link Users	3,277	3,741
11	SCPC VSAT Users	625	625
12	Web Email Hosting Users	13	13
13	BB VSAT Users	31,841	43,363
14	Web Hosting Users	2,828	4,732
	Total	1,06,006	1,34,271

ERNET INDIA
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2021

Figures in Rupees in '000

SCHEDULE 8 - Receivables under Sponsored Projects	Current Year	Previous Year
Receivables under Sponsored Projects		
a) Amount Receivable under projects (Non GIA)	94,457	122,345
b) Excess amount spent under ongoing Projects (Schedule 2)	15,144	179
Total	1,09,601	1,22,524

Annexure to Schedule -8

Figures in Rupees '000

S.No.	AMOUNT RECEIVABLE UNDER PROJECTS	Current Year	Previous Year
1	DGS & D NEW Delhi Video Conferencing	135	135
2	Trans Eurasia Information Network(TEIN3)	200	200
3	ICAR E-Linkage to 200 KVKs	-	20,989
4	SCPC VSAT link at Kavaratti (Lakshadweep)	7,162	16,025
5	Ministry of Health and Family Welfare (NMCN Project)	41,994	45,554
6	Ministry of Social Justice	-	22,662
7	Dadra Nagar Haveli	140	140
8	Daman & Diu	530	530
9	SCPC VSAT Link at Port Blair	7,599	16,109
10	SCPC VSAT Connectivity at UT Lakshadweep	36,696	-
	Total	94,457	122,345

ERNET INDIA
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2021

Figures in Rupees '000

SCHEDULE 9 -Balances with Scheduled Banks	Current Year	Previous Year
a) Fixed Deposit Accounts	17,32,995	24,33,116
b) Savings Account and Current Account	1,16,113	1,23,423
Total	**18,49,108**	**25,56,538**

Annexure to Schedule -9

Figures in Rupees in '000

S. No.	BANK BALANCES WITH SCHEDULED BANKS IN FIXED DEPOSIT ACCOUNTS	Current Year	Previous Year
1	FDR - Bank of India	388,291	308,774
2	FDR- State Bank of India Kashmere Gate (Incl FD's pledged against BG for Rs. 74,621.82 and Rs. 72,592.65 for FY 2020-21 and FY 2019-20 respectively)	13,44,704	1,33,741
3	FDR - Canara Bank	-	19,90,600
	Total	**17,32,995**	**24,33,116**
S. No.	BANK BALANCES WITH SCHEDULED BANKS IN SAVINGS ACCOUNTS	Current Year	Previous Year
1	Bank of India	3,747	4,433
2	State Bank of India	1,12,365	97,368
3	IDBI Bank	0.38	21,621
	Total	**1,16,113**	**1,23,423**

ERNET INDIA
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2021

Figures in Rupees in '000

SCHEDULE 10 - LOANS, ADVANCES AND OTHER ASSETS	Current Year	Previous Year
Advances and other amounts recoverable in cash or kind or for value to be received:		
a) Security Deposits	22,308	24,993
b) Prepaid Expenses	861	1,011
c) Misc. Advance	192	225
d) Income Tax Refund Due	52,449	41,983
e) Income Tax Deposited and Refund Adjusted Against Various Demands	2,07,335	2,07,335
f) Amount Receivable from Transit Nodes	-	118
g) Advances/Recoverables	3,419	10,938
h) Interest Receivable on IT refund	5,932	5,932
i) GST Credits	15,433	33,484
j) Accrued Income	5,303	14,848
Total	**3,13,232**	**3,40,866**

Annexure to Schedule -10

Figures in Rupees in '000

S.No.	SECURITY DEPOSIT	Current Year	Previous Year
1	BSNL Bangalore TD	10	10
2	DMRC Ltd.	20,029	20,029
3	IIT Madras	2,169	1,604
4	Mahahagar Telephone Nigam Ltd.	100	100
5	Antrix Corporation Ltd.	-	3,250
	Total	**22,308**	**24,993**

S.No.	PREPAID EXPENSES	Current Year	Previous Year
1	Repair and maintenance	7	3
2	Insurance	20	13
3	Membership Fee	579	-
4	WPC License Fees	178	160
5	Backbone Charges	-	698
6	Registration Charges	21	43
7	Office expenses	55	95
	Total	**861**	**1,011**
S.No.	MISC. ADVANCE	Current Year	Previous Year
1	Imprest Advance	13	42
2	TA Advance	98	28
3	LTC Advance	81	138
4	Postal Advance	-	2
5	Contigency Advance	-0	15
	Total	192	225
S.No.	TDS RECEIVABLE	Current Year	Previous Year
1	TDS on FDR A/c	1,977	4,139
2	TDS Subsctiption Charges A/c	9,294	15,721
3	TDS Recivable Prior Periods	40,972	22,118
4	CGST TDS Receivable	4	3
5	SGST TDS Receivable	4	3
6	IGST TDS Receivable	198	-
	Total	**52,449**	**41,983**

S.No.	GST Credits	Current Year	Previous Year
1	CGST Credit	2,671	1,092
2	CGST Credit on Reverse Charge	-	29
3	CGST Paid on Advance Receipts	2,036	2,036
4	IGST Credit	5,216	10,110
5	IGST Paid on Advance Receipts	670	17,061
6	SGST Credit	4,634	1,092
7	SGST Credit on Reverse Charge	-	29
8	SGST Paid on Advance Receipts	206	2,036
	Total	**15,433**	**33,484**
S.No.	**ADVANCE TO TRANSIT NODES**	**Current Year**	**Previous Year**
1	IIT Chennai	-	118
	Total	**-**	**118**
S.No.	**ADVANCES/RECOVERABLES**	**Current Year**	**Previous Year**
	Secured		
1	Advance to NASSCOM against BG for expenditure	-	8,278
	Unsecured		
2	Advance to National Internet Exchange of India	130	298
3	ERNET India CPF Trust	277	103
4	Karnataka Industrial Areas Development Board	691	691
5	National Informatics Centre Services Incorporated	1,632	1,554
6	DoT (WPC License Fees)	13	13
7	Silica Infotech Private Limited	0	-
8	Sodexo SVC India Private Limited	641	-
9	The Oriental Insurance Company Limited, Chennai	17	-
10	Max Life Insurance Company Limited	5	-
11	CyberQ Consulting Private Limited	12	
	Total	**3,419**	**10,938**

ERNET INDIA
SCHEDULE FORMING PART OF INCOME & EXPENDITURE
FOR THE YEAR ENDED 31.03.2021

Figures in Rupees '000

S.No.	SCHEDULE 11 - REVENUE FROM SUBSCRIBERS	Current Year	Previous Year
1	Services		
	a) VSAT/SCPC	2,79,664	2,65,105
	b) Other Services	13,016	12,138
	Total (1)	**2,92,680**	**2,77,243**
2	Domain Registration	12,381	9,700
3	Professional Charges on projects	4,017	8,506
	Total (1+2+3)	**3,09,078**	**2,95,449**

Annexure to Schedule 11   Figures in Rupees '000

S.No.	Particulars	Current Year	Previous Year
1	VSAT/SCPC		
	a) Subscription Charges - SCPC	2,27,111	1,91,406
	b) Subscription Charges - VSAT	52,553	73,699
		2,79,664	**2,65,105**
2	**OTHER SERVICES**		
	a) Radio Link	478	1,555
	b) E-Mail & Web Hosting	2,048	4,229
	c) Smart Virtual Classroom - Operation and Maintenance	10,489	3,471
	d) Leased Line	-	2,883
		13,016	**12,138**

ERNET INDIA
SCHEDULE FORMING PART OF INCOME & EXPENDITURE
FOR THE YEAR ENDED 31.03.2021

Figures in Rupees '000

SCHEDULE 12 - REVENUE FROM PROJECTS - OTHER THAN VSAT

S.No.	Particulars	Current Year	Previous Year
1	GIGW Project - Website Development	28,078	46,456
2	MOHFW (NMCN Project) - Opex, Installation, CAPEX	34,043	27,546
	TOTAL	**62,121**	**74,002**

ERNET INDIA
SCHEDULE FORMING PART OF INCOME & EXPENDITURE
FOR THE YEAR ENDED 31.03.2021

Figures in Rupees '000

S.No.	SCHEDULE 13 - NET INTEREST EARNED	Current Year	Previous Year
1	**On Term Deposits:**		
	a) Bank of India	12,365	330
	b) State bank of India	8,279	8,168
	c) Punjab & Sind Bank	-	352
	d) IDBI Bank	-	29,343
	e) Canara Bank : 80,688		
	Less: Interest Transferred to Projects : 4,590		
	Net Interest Amount	76,098	87,735
	Total (1)	**96,742**	**1,25,928**
2	**On Saving Accounts**		
	a) Saving Bank Account	2,859	1,982
	Less: Interest Transferred to Projects	2,821	1,403
	Net Interest Amount of Saving Bank Acocunt	38	579
	b) Bank of India Saving plus Account	2,785	3,271
	Total (2)	**2,823**	**3,850**
	Total (1+2)	**99,565**	**1,29,778**

ERNET INDIA
SCHEDULE FORMING PART OF INCOME & EXPENDITURE
FOR THE YEAR ENDED 31.03.2021

ANNEXURE TO SCHEDULE 13   Figures in Rupees '000

Sl. No.	Interest transferred to Projects	Current Year	Previous Year
	On Term deposits		
1	GIA-NASSCOM-ERNET Centre of Excellence for IOT	123	605
2	GIA - Setting Up Wi Fi Campus Network - 4 University	1,342	1,725
3	GIA -VSAT at North Eastern States of the Country	545	84
4	GIA- Ministry of Social Justics & Empowerment	6	-
5	GIA - Enabling all Schools with Smart Classroom	-	978
6	GIA- Optical Wireless access Network for R&U Comm	33	20
7	GIA- Pilot R&D Free Space Optics Technology	94	138
8	GIA- Setting Up ICT Infratructure in Govt. School	1,468	124
9	GIA- SVC in aspirational district of NER	979	
10	Project- NIXI Setting up of Internet Connectivity	-	35,455
	Total	**4,590**	**39,129**
	On Saving Accounts		
1	Project- NIXI Setting up of Internet Connectivity	2,821	1,403
	Total	**2,821**	**1,403**
	Grand Total	**7,411**	**40,532**

ERNET INDIA
SCHEDULE FORMING PART OF INCOME & EXPENDITURE
FOR THE YEAR ENDED 31.03.2021

Figures in Rupees 000

Sl.No.	SCHEDULE 14 - OTHER REVENUE	Current Year	Previous Year
1	Misc. Receipts	40,676	18,073
2	Misc. Recovery	222	12
3	Prior Period Income	906	16,477
4	Bad & doubtful debts (Provision reversed due to recoveries)	6,159	1,320
5	Sales of Equipments	836	-
6	GST Credit-Claim (Annual Ratio)	2,779	-
	Total	**51,579**	**35,881**

Annexure to Schedule - 14

Figures in Rupees 000

S.No.	Misc Receipts	Current Year	Previous Year
1	Excess Provisions of previous financial years reversed	4,595	1
2	Recruitment Income	-	9
3	LD Recovered	3,332	3,994
4	Interest on income tax refund	-	9,040
5	Other Misc. Reciepts	260	5,017
6	Profit on Sale of Fixed Assets	-	12
7	Miscellaneous Income (unclaimed liabilities written back)	32,489	-
	Total	**40,676**	**18,073**

Figures in Rupees 000

S.No.	SCHEDULE 15 - Increase/(Decrease) in Inventories	Current Year	Previous Year
1	Closing Inventories	454	399
2	Less: Opening Inventories	399	553
	Total	**54**	**(154)**

ERNET INDIA
SCHEDULE FORMING PART OF INCOME & EXPENDITURE
FOR THE YEAR ENDED 31.03.2021

Figures in Rupees 000

S.No.	SCHEDULE 16 - OPERATING EXPENSES	Current Year	Previous Year
1	International Gateway Access/Backbone Charges	2,496	3,375
2	O&M of Smart Virtual Classrom	8,864	2,706
3	Transponder Lease Charges	16,467	25,748
4	WPC Licence Fee	2,684	5,948
5	Hub Management & Repair & Maintenance charges	2,055	4,090
6	Registration charges - Domain	4,351	5,446
7	ERNET Project Expenses	2,15,210	1,96,705
8	ISP License Fee	-	300
9	Equiptment Costs - MOHFW (NMCN Project)	32,878	28,975
10	VSAT Equipment Cost	213	37,434
11	Prior Period Expenses - Operative	7,874	23,633
12	Freight Charges	-	10
13	License Amendment Charges	-	1
	Total	**2,93,092**	**3,34,373**

Annexure to Schedule - 16

Figures in Rupees ₹000

S.No.	Hub Management & Repair & Maintenance charges	Current Year	Previous Year
1	Repair & Maintenance charges	1,123	2,210
2	Infrastructure Facility- Rack at STPI Bangalore	325	947
3	NOCC Charges	607	933
	Total	**2,055**	**4,090**

S.No.	Project Expenses	Current Year	Previous Year
	Projects Sponsored from Ministries/ UTS/ Agencies (Other than those appearing in Schedule 2 and 2A)		
1	MoHFW (NMCN Project)	1,500	1,554
2	GIGW Project - Website Development	21,577	34,099
3	VSAT at NE States of Country	10,030	40,648
4	VSAT SCPC at Kavaratti	50,242	54,510
5	VSAT SCPC at Port Blair	49,349	47,962
6	VSAT Connectivity at UT Lakshdeep	80,272	392
7	High Capcity Links to LlTSS (Laksha)	1,838	17,266
	ERNET Self Sponsored Project Expenses		
8	Eduroam	402	273
	Total	**2,15,210**	**1,96,705**

ERNET INDIA
SCHEDULE FORMING PART OF INCOME & EXPENDITURE
FOR THE YEAR ENDED 31.03.2021

Figures in Rupees '000

S.No.	SCHEDULE 17 - ESTABLISHMENT EXPENSES	Current Year	Previous Year
1	Salaries and Allowances	76,219	71,204
2	Staff Welfare Charges	1,268	3,097
3	Expenses on Employees' Retirement & Terminal Benefits	8,115	4,373
4	Medical Reimbursement to employees	1,585	1,604
	Total	**87,188**	**80,277**

ANNEXURE TO SCHEDULE -17

SALARY AND ALLOWANCES

Figures in Rupees '000

S.No.	Pay and Allowances	Current Year	Previous Year
1	Pay & Allowance	69,079	62,467
2	Children Education Allowance	353	649
3	Leave Travel Concession	195	662
4	Outsourcing charges	5,817	6,546
5	Security Service Charges	775	881
	Total	**76,219**	**71,204**
S.No.	Expenses on Employees' Retirement and Terminal Benefits	Current Year	Previous Year
1	Leave Encashment	5,197	2,979
2	Gratuity	2,919	1,394
	Total	**8,115**	**4,373**

ERNET INDIA
SCHEDULE FORMING PART OF INCOME & EXPENDITURE
FOR THE YEAR ENDED 31.03.2021

Figures in Rupees '000

S. No.	SCHEDULE 18 - ADMINISTRATIVE EXPENSES	Current Year	Previous Year
1	Office Space charges	30,020	32,517
2	Advertisement and Publicity Charges	270	204
3	Audit Expenses	11	63
4	Auditors Remuneration	342	150
5	Bad & Doubtful Debts	4,193	6,209
6	Bank Charges	144	407
7	Books & Periodicals	75	113
8	Meeting Expenses	13	80
9	Membership & Subscription Fee	1,545	1,094
10	Postage & Courier Charges	77	82
11	Printing and Stationery	984	971
12	Misc. Expenses	1,529	723
13	Professional Charges	2,580	2,391
14	Repairs and Maintenance	684	724
15	Registration Charges	24	103
16	Telephone Charges	548	554
17	Training, Seminars, Workshops, Exhibition & Confrence Exp	36	309
18	Travelling, Conveyance & Taxi Hiring charges	1,982	3,942
19	Prior Period Expenses	1,058	622
20	Insurance Expenses	177	31
21	Interest Expense	-	443
22	ERNET India CPF Trust Expenses	76	63
23	Compensation under Arbitration	-	1,952
	Total	**46,365**	**53,752**

ERNET INDIA
SCHEDULE FORMING PART OF INCOME & EXPENDITURE
FOR THE YEAR ENDED 31.03.2021

Annexure to Schedule - 18
ADMINISTRATIVE EXPENSES

Figures in Rupees 000

S. No.	Travelling, Conveyance & Taxi Hiring Charges	Current Year	Previous Year
1	Conveyance Charges	99	151
2	TA Expenses (Staff & Others) Foreign Tour	-	716
3	TA Expenses (Staff & Others) Local	1	1,225
4	Taxi Hiring Charges	1,883	1,849
	Total	**1,982**	**3,942**
S.No.	Professional Charges	Current Year	Previous Year
1	Internal Audit Fee	139	128
2	Professional Charges	661	283
3	Professional charges (Consultant)	1,026	923
4	Professional charges (License Fees)	-	47
5	Security Audit Fee	-	30
6	CPF Audit Fee	15	14
7	GST Audit Fee	23	24
8	Professional Charges (Legal)	717	943
	Total	**2,580**	**2,391**

ERNET INDIA
SCHEDULE FORMING PART OF INCOME & EXPENDITURE
FOR THE YEAR ENDED 31.03.2020

Figures in Rupees 000

Annexure to Schedule - 18
ADMINISTRATIVE EXPENSES

S.No.	Office Space charges	Current Year	Previous Year
1	Electricity charges - DMRC	2,328	3,147
2	Lease for office accommodation - DMRC	20,101	21,653
3	Lease for office accommodation at IIT Madras	3,124	3,189
4	Office Accomodation, Bangalore	486	468
5	Water supply charges - DMRC	101	109
6	Repair & Maintenance -DMRC	3,341	3,423
7	Repair & Maintenance Charges -IITM Reserch Park	539	529
	Total	30,020	32,517
S.No.	Misc. Expenses	Current Year	Previous Year
1	Misc. Expenses	12	0
2	Office Expenses	470	646
3	Hindi Expenses	18	52
4	GST cost on Capital Goods	4	2
5	Prior Period Tax adjustment	1,005	-
6	Honorarium	21	23
	Total	1,529	723

SCHEDULE 19 :

SIGNIFICANT ACCOUNTING POLICIES FORMING PART OF FINANCIAL STATEMENTS FOR FY 2020-21

Figures in Rupees 000

1) **Accounting Convention**

The Financial statements are prepared on the basis of historical cost convention using accrual method of accounting in accordance with the Generally Accepted Accounting Principles. The accounting policies have been consistently applied by the Society and are consistent with those used in the previous year.

2) **Use of estimates**

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent liabilities at the date of the financial statements and the results of operations during the reporting year end. Although these estimates are based upon management's best knowledge of current events and actions, actual results could differ from these estimates.

3) **Fixed Assets**

(i) Fixed Assets are stated at cost of acquisition inclusive of freight, duties & taxes (net of claimable taxes) and all expenditure attributable to the condition required for its intended use and making such assets ready to put to use.

(ii) Fixed assets are reported at cost less accumulated depreciation, if any.

4) **Depreciation**

(i) Depreciation is provided on Written Down Value Method, the rates of depreciation prescribed as per Income Tax Act, 1961 are considered as the rates for charging depreciation.

(ii) In respect of additions to fixed assets during the year depreciation is calculated @ 100% of the prescribed rates as listed in 4(v), if asset is used for 180 days or more and if asset is used for less than 180 days the same is calculated @ 50% of the prescribed rates. Depreciation on the assets sold during the year has been charged in the same manner.

(iii) The capital assets having the value of less than Rs.5,000/- is charged to the income and expenditure account in the year of purchase.

(iv) Depreciation on the fixed assets acquired through Grant-in-Aid(GIA) is charged to corresponding Capital fund account.

(v) Rates of depreciation (as per Income Tax Act, 1961)are tabulated below-

S. No.	Category of Asset	Rate of Depreciation
a.	Building	10%
b.	Computer & Accessories	40%
c.	Electronic Equipment	15%
d.	Cables and connectors	15%
e.	Testing Instrument	15%
f.	Office Equipment	15%
g.	Furniture & fixtures	10%
h.	Intangible Assets incl. Software	25%

5) Government Grants for Projects

Expenditure under Projects (GIA)out of Grant-in-Aid(GIA) received is accounted for on accrual basis but while issuing the utilisation certificate expenditure is shown on cash basis by reducing the total expenditure by the amount of provisions made which are yet to be paid. This treatment towards UC is in compliance with General Financial Rules, 2017, issued by Ministry of Finance, Govt. of India. Such use of cash basis for issue of UCs does not have any effect on financial statements whatsoever.

Expenditure incurred on such projects is titled as "Expenditure under Projects (GIA)" in the financial statements. Expenditure incurred during the year is shown as contra item in the Income and Expenditure Statement. The unspent amount of GIA pertaining to ongoing Projects is shown as "Balances under Ongoing Projects (GIA)" under current liabilities and the excess amount spent is shown as "Receivables under Sponsored Projects" under current assets in the Balance Sheet.

6) Revenue Recognition

S.No	Income Head	Recognition /Invoicing
(i)	VSAT/SCPC VSAT	Income is recognized as and when services are provided and the invoices are issued. Invoicing is done on half yearly basis as per the tariff rates.
(ii)	Radio Link	
(iii)	Web/mail/webmail hosting	
(iv)	Domain Registration	Receipts pertaining to domain services are booked as "Income from Domain" after receiving confirmation of users' details. Pending confirmation of user details, these receipts are credited to suspense account. Balances lying in suspense account at the end of the month are treated as Miscellaneous Receipts (inclusive of applicable taxes).
		Income is recognized fully in the year of receipt irrespective of number of years for which Domain is registered.
(v)	ERNET consultancy/ Professional Charges	ERNET Professional charges are billed in the projects as per the project terms and conditions.

Revenue is recognized when no significant uncertainty exists for the ultimate collection thereof.

7) Employee Benefits

(i) Retirement Benefits to employees like Gratuity, Leave Encashment etc are provided based on Actuarial Report for valuation at the end of FY in terms of Accounting Standard (AS) 15 issued by Institute of Chartered Accountants of India.

(ii) Provision for accumulated leave encashment and gratuity benefits to the employees is accrued and computed on the assumption that the employees are entitled to receive the benefit as at the end of each year.

8) Inventory

(i) Consumables stores are stated at cost.

(ii) Stock in trade is valued at lower of cost or net realizable value.

(iii) VSAT equipments are stated at cost.

9) Provisions

(i) Provision towards expenses on ERNET India's account (other than on projects A/c) is recognized when the organisation has a present obligation as a result of past event; it is probable that an outflow of resources will be required to settle the obligation, in respect of which a reliable estimate can be made. Provisions are not discounted to its present value and are determined based on best estimate required to settle the obligation at the balance sheet date. These are reviewed at each balance sheet date and adjusted to reflect the current best estimates.

(ii) Provision towards Bad and doubtful debts is made in respect of current users who have not paid their dues for more than three years and for the users who are not availing the services, provision is made, if dues are outstanding for more than one year.

10) Interest earned and refunded under the Projects

On the amounts received in advance interest is paid as per following policy:

(i) In case of projects funds received from Central Govt. Ministry/Department stipulating payment of interest earned on unspent funds, interest income so earned is derecognised and credited to project fund account at the rate of interest of saving bank account, unless the underlying GIA document specifies otherwise.

ii) In case of advance received from State Govt./UTs / Govt. Agencies or any other agency and also in case of Projects which are based on purchase/work order and for which no UC is required to be issued; interest is not paid unless the underlying contact document specifically provides for payment of interest. Interest if payable, is paid as per contract terms at the rate of interest earned on the saving bank account; unless contract document specifically provides otherwise.

(iii) The amount of interest after payment of interest as above is credited to the Income and Expenditure account as "Net Interest Earned" in schedule 13 of the financial statements.

11) Utilization of accumulated surplus for the purpose of compliance with provision of Section 11 of the Income Tax Act

The amount of surplus of "Income over Expenditure" is being accumulated over a period of time.

Last years' accumulated surplus shall be first utilized to meet the expenses of current year on FIFO basis, balance left out of accumulated surplus is being utilized against the expenses of subsequent years till the time it get fully exhausted up to the expiry of five years.

12) Goods and Services Tax (GST)

GST is charged on the services provided by ERNET India at the rates prescribed under GST Law. Similarly, Input tax credit under GST is also availed as prescribed under GST Law in the following manner:-

(i)   No credit is being availed on the expenditure incurred exclusively for effecting exempt supplies (As per Notification no. 32/2017 – Central Tax (Rate) & 35/2017 – Central Tax (Rate) w.e.f. 13.10.2017).

(ii) For other services, credit is being availed as per provisions of GST law.

In terms of our report of even date attached
M/s V.K. Dhingra & Co.
Chartered Accountants
FIRM Reg. No. 000250N

For and on behalf of ERNET India

Vipul Girotra	(Vipin Aggarwal)	(Arun Kumar Singh)	(Geeta Kathpalia)
Partner	Director (Finance)	Registrar & Director	Director General
M.No. 084312			

Place : New Delhi   Place : New Delhi
Date : 02.08.2021   Date : 31.07.2021

SCHEDULE 20 :

NOTES ON ACCOUNTS FORMING PART OF FINANCIAL STATEMENTS FOR FY 2020-21

Figures in Rupees in '000

1) Undertakings/Guarantees

As on 31.03.2021, four bank Guarantees were outstanding as under:

2020-21	2019-20
21,000.00	21,000.00
37,966.85	37,966.85
10,276.00	10,276.00

i) Two BGs issued in favour of DoT for performance/observance of various conditions of ISP license agreement. Even though ISP license was surrendered; BG's are yet to be released by DoT.

ii) One BG issued in favour of Ministry of Health and Family Welfare (MoHFW) for executing the Project titled "E-classroom Infrastructure in 50 medical colleges of MoHFW (NMCN)". For any liability arising on this BG we have a corresponding BG which has been received from M/s Yash Technologies Pvt. Ltd. as a consortium partner for this project.

iii) One BG issued in favour of M/s Antrix Corporation Ltd. for transponder of 22 MHZ C-band capacty in the GSAT-18 Satellite.

2) Contingent Liabilities (to the extent not provided for)

Claims against the Society not acknowledged as debts*

(i) Court case filed by Permanent Employee, Ms. Meenakshi Rai Bhatia is with Hon'ble Hight Court of Delhi is related to service matter and there is no financial implications as of today

(ii) Three court case filed by Santosh Kawari, Madhukar C Angur and S.K.Angur in District and Sessions Court for ownership of Domain registration. There is no financial implications as of today.

(iii) Contractual Employee related Case filed by Shri Devender Singh, Shri Nikhil Kumar and Shri Sunil Kumar before Hon'ble CGIT, New Delhi regarding position as permanent employee. There is no financial implication as of today.

(iv) Case filed by Shri T.C Jaffar and others before Hon'ble CGIT, New Delhi regarding regularizationof 22 CIC Operator and enhancing their remuneration, position as permanent employee. There is no financial implication as of today.

3) **Physical Verification of Assets**

Exercise towards physical verification of fixed assets was completed till F.Y. 2019-20 . In view of Prevailing Pandemic caused by Covid-19, physical verification for assets could not be carried out for FY 2020-21.

4) **Fixed Assets Acquired from the Grant In Aid**

As per the terms and conditions contained in the sanction and release of the Grant in Aid received by the society, assets acquired solely or mainly out of the MeitY grant shall be property of the MeitY and should not without prior sanction of MeitY, be disposed off or encumbered or utilized and MeitY will be free to sell or otherwise dispose off assets.

Accordingly, these assets acquired solely or mainly out of the Capital Grant in Aid (MeitY) along with the depreciation charged thereon have been shown as "Fixed Assets Acquired from Grant In Aid" in the financial Statement

WDV value as on 31.03.2021	WDV value as on 31.03.2020
85,437.22	95,586.63

of the society as shown in Schedule 5A of Balance Sheet. Further depreciation for the year on these assets have been charged from capital grant in Aid (MeitY) as shown in Schedule 1 of the Balance Sheet.

5) **Income Tax**

Income Tax Department had raised following demands by denying the claim of exemption of being a charitable institution registered u/s 12AA:

Figures in Rupees 000

AY	Assessment Order date	Income Tax Demands	Amount deposited against demand	Refund including interest claimed u/s 244A and additional interest	Refund Adjusted by Department against Demand	Total amount deposited and refund adjusted	Current Status
2009-10	21.12.2011	1,48,889.03	59,555.61	983.45	Rs. 8,486.09 (Refund Adjusted of Rs. 2,633.99 of AY 2011-12 and Rs. 5,852.11 of AY 2012-13)	68,041.70	Decision of CIT (A), ITAT and Hon'ble Delhi High Court is in the favour of ERNET India. Revenue has preferred SLP before the Hon'ble Supreme Court for the AY 2009-10, 2010-11 and 2011-12.
2010-11	28.03.2013	80,314.30	40,157.16	264.86	Rs. 31,260.80 (Refund Adjusted Rs. 31,260.80 of AY 2013-14)	71,417.96	
2011-12	24.03.2014	61,115.15	Nil	2,633.99		Refund Adjusted against the demand of AY 2009-10	
2012-13	10.03.2015	37,454.69	Nil	5,991.04			Decision of CIT (A) and ITAT is in the favour of ERNET India for AY 2012-13.
2013-14	30.03.2016	96,647.21	Nil	31,260.80		Refund Adjusted against the demand of AY 2010-11	Decision of CIT(A) is in favour of ERNET India. However, revenue has filed an appeal before ITAT for A.Y. 2013-14 and 2014-15.
2014-15	25.11.2016	1,37,906.43	Nil	8,878.96	Rs. 4,598.10 (Refund Adjusted Rs. 4,598.10 of AY 2015-16)	4,598.10	
2015-16	11.12.2017	2,38,388.43	Nil	5,149.87		27.59 and Refund Adjusted against the demand of AY 2014-15	Decision of CIT (A) and ITAT is in the favour of ERNET India for AY 2015-16.
2016-17	28.12.2018	2,26,382.67	Nil	23,578.03	Rs. 5,4352.04/- (Refund Adjusted of Rs. 15,800.17/- of AY 2017-18, interest of Rs. 1,809.74/ of AY 2017-18- and Rs. 21,631.22/- of AY 2016-17 and adjusted Rs. 15,110.90 /- of AY 2018-19)	54,352.04	Appeal has been filed with CIT(A) against the order of Assessing officer
2017-18	27.12.2019	1,44,362.31	Nil	17,696.19	Rs. 17,421.57/- (Refund adjusted of Rs.8,693.26/- of AY 2014-15 , Rs. 4,598.10/- of AY 2015-16 , Interest of Rs. 551.77 of AY 14-15 and total interest of Rs. 3,578.43/- of AY 2014-15 and 15-16)	17,421.57	
2018-19	-	-	-	15,110.90		Refund Adjusted against the demand of AY 2016-17	
Total		1,171,460.22	99,712.77	111,548.09		211,260.86	

i) The provision amounting to Rs. 3,56,000 thousand created in the FY 2012-13 towards tax liability for the AY 2009-10 to AY 2013-14 has not been reversed since revenue has preferred SLP before Apex Court against the orders of Hon'ble High Court of Delhi for AY 2009-10, AY 2010-11 and AY 2011-12. Further in view of current status of litigation no further provisions has been created for the demand raised by the department.

6) Revenue From Projects (GIA)

Figures in Rupees 000

		2019-20	2019-20
i)	Revenue from Projects (GIA) is towards GIA funded projects is shown in Schedule 2A of Balance Sheet alongwith the expenditure incurred on such projects as a contra figure under "Expenditure under Projects (GIA)" in the same Schedule. Amounts charged from these Projects towards ERNET professional charges and also towards Connectivity are being shown separately In Schedule 11 of the Income & Expenditure account.	80,672.90	86,485.79
ii)	Balance under ongoing projects at the end of financial year have been shown in **Schedule 2** in the Balance Sheet.		

7) Foreign Currency Transactions

i) Value of Imports	2020-21	2019-20
Capital goods	0.00	84,239.20

ii) Expenditure in Foreign Currency	2020-21	2019-20
Membership Fees	1,544.58	947.76
Foreign Travel	0.00	716.44

8) Remuneration to Auditors

ii) Expenditure in Foreign Currency	2020-21	2019-20
(i) Statutory Audit Fee	325.00	150.00
(ii) Certification Fees ((Pertaining of ISP License)	0.00	96.30

Note: The above fees are exclusive of out-of-pocket reimbursement and GST for which input credit has been taken.

9) Interest Income

Interest income appearing in Income & Expenditure account is on net basis after adjusting interest credited to the projects.

10) Balances outstanding under closed Projects (GIA)

Balances outstanding under closed Projects(GIA) account represent the amount receivable/ payable from the sponsoring Ministry/authority in respect of completed projects. ERNET India is neither providing any interest on payable nor booking any interest on receivable from the sponsoring Ministry/authority. The same are been shown on net basis.

11) Miscellaneous

i)   Direct expenditure and salary of regular staff pertaining to all such projects which are appearing in schedule 2, are directly booked under respective projects, upto a maximum ceiling as specified under respective expenditure head in the Project outlay. Other direct expenditure which are not part of projects outlay and are met out of ERNET overhead/ Professional Charges recovered under these projects; is shown under ERNET project expenditure.

ii) Revenue from VSAT projects which are based on fixed price agreement and in which GST compliant invoicing is done towards revenue booking have been shown under the head "Subscription Charges" in Income & Expenditure A/c.

iii) Projects (other than VSAT) which are based on fixed price agreement and in which GST compliant invoicing is done for booking the revenue, have not been shown in schedule 2 and have been shown as Revenue from Projects under Income & Expenditure A/c. All direct expenditure pertaining to these projects have been shown as ERNET Project Expenses under Income & Expenditure A/c.

iv) Operating expenses include Transponder lease charges, WPC License Fee, Backbone charges & Repair and maintenance charges etc. pertaining to VSAT as project and VSAT as services to regular users. Out of the total expenses pertaining to these items, those that are specifically attributable to VSAT as a project has been shown separately as ERNET Project Expenses under Schedule 16 of Income and Expenditure account.

v) During the current financial year, long pending old outstanding balances pertaining to sundry creditors and unsettled provisions totalling to Rs. 32,489/- thousands have been written back by booking them as miscellanous income. These are being shown separatley as Miscellaneous Income (unclaimed liabilities written back) in the head Misc. Receipts under Schedule 14 of the Income and Expenditure account.

vi) Balances of Sundry Debtors, Sundry Creditors and other parties are subject to confirmations/reconciliations.

12) The figures for the previous year have been re-grouped/re-arranged wherever necessary to make them comparable with the current period's figures.

13) These Financial Statements have been approved by Director General in the meeting held on 30.07.2021

In terms of our report of even date attached   For and on behalf of ERNET India
M/s V.K. Dhingra & Co.
Chartered Accountants
FIRM Reg. No. 000250N

Vipul Girotra   (Vipin Aggarwal)   (Arun Kumar Singh)   (Geeta Kathpalia)
Partner   Director (Finance)   Registrar & Director   Director General
M.No. 084312

Place : New Delhi   Place : New Delhi
Date : 02.08.2021   Date : 30.07.2021

Future Tech Learning & SkillingCenter

ERNET India

Education & Research Network

An Autonomous Scientific Society
under Ministry of Electronics and Information Technology
Government of India

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