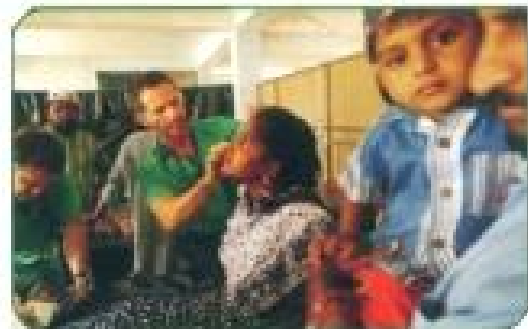




सी-डॉट
C-DOT



Rural areas are characterized by low population density, difficult topographical and climatic conditions and scarcity or absence of reliable electricity supply. This makes it difficult to provide telecommunication service of acceptable quality by traditional means at affordable prices. Low population density means poor commercial viability for the rural service provider. Coupled with these characteristics, the high costs of connectivity, spectrum and infrastructure, such as towers and masts, further restrict a fast and economically attractive roll-out of telecom networks in rural areas.

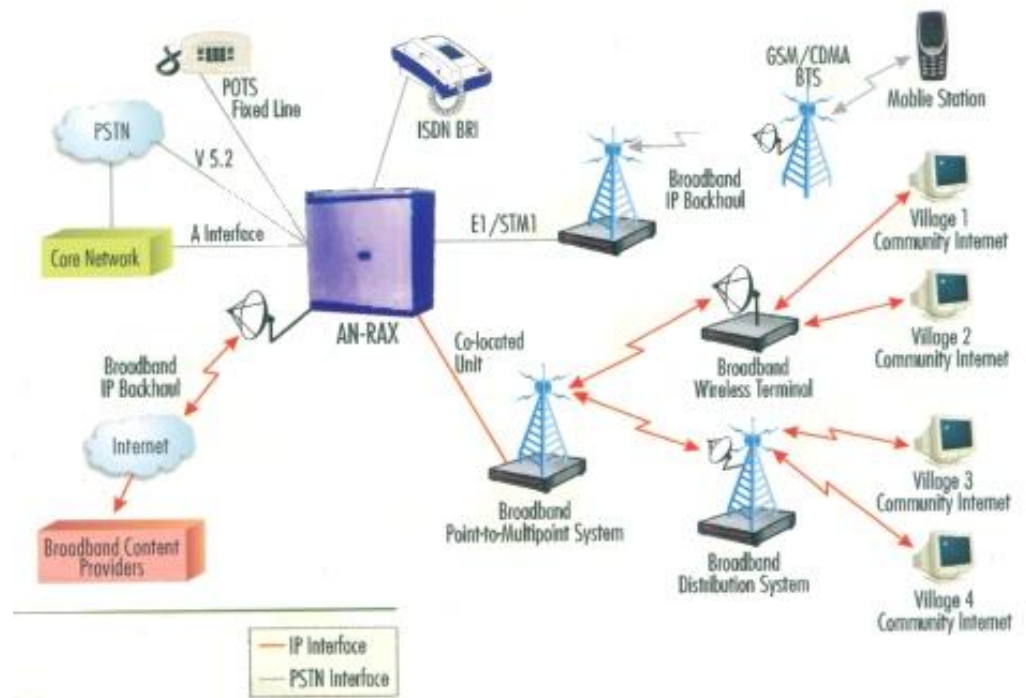


The C-DOT Rural Wireless Access and Broadband solution addresses these issues through C-DOT's decades of experience in design and engineering of Rural Communication Systems. Its rural Wireless Systems achieve the objectives of improving rural tele-density, providing broadband services and facilitating mobility services for the rural subscribers at affordable prices. It keeps the CAPEX and OPEX costs low, making rural operations commercially viable for the rural service providers.



The C-DOT Rural Wireless Access and Broadband Solution provides value-added features for support of integrated voice, multimedia and broadband services. It also enables faster rollout of services. The solution is based on a combination of cost-effective WiMAX and WiFi technologies for providing services in scattered, low population density areas.

In India, C-DOT AN RAXs are operational at block and village levels. These systems have proven their reliability in harsh and rugged climatic conditions. The C-DOT Rural Wireless Access and Broadband Solution ensures protection of investments by the incumbent operators by enabling reuse of connectivity provided by the AN RAX systems.



Salient Features

- ✎ Broadband service provisioning in rural areas
- ✎ Mobile service provisioning for rural subscribers
- ✎ Provision for limited mobility and full roaming
- ✎ Serves rural population beyond 5 kilometers of installed equipment
- ✎ Re-utilization of existing infrastructure where available
- ✎ All IP solution
- ✎ Radio resource sharing by multiple operators
- ✎ Efficient frequency re-use for better utilization of wireless resources
- ✎ Co-channel interference control
- ✎ Hub and subscriber terminals monitor channel occupancy and interference
- ✎ Frequency bands selected based on "uncontrollable" co-channel interference

Applications

Tele-medicine

- ✍ Remote monitoring of patient health through on-line health clinics in villages
- ✍ Remote veterinary services



Video Conferencing

Education and vocational training courses for the rural masses.

Disaster management

- ✍ Collection of data and analysis
- ✍ Proactive warning and relief measures management
- ✍ Helps control spread of epidemics



Village Enterprise Development

- ✍ Agricultural product marketing and consulting
- ✍ Direct integration of producers into the supply chain.
- ✍ Gathering of information relating to crops, seeds and weather.

Internet Kiosks

- ✍ Access to up-to date commercial and trading information
- ✍ Networking for community development programmes
- ✍ Access to socio-economic information databases such as demographics and literacy





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