CYANCONNODE

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How would you describe the journey of your company since its inception?

Since 2012, CyanConnode has contributed significantly to India's smart metering sector, this ramped up even more since establishing the company in India in 2015. We hold a 22% market share, with over 1.3 million smart meters currently communicating on our communications infrastructure and exceeding the 99% SLAs that are now critical for smart prepaid metering. Our project in Indore demonstrates the benefits of our network, such as theft detection, reduced losses from improved billing and collection efficiency, and timely identification of defective meters, with a 95% reduction in bill correction cases. This has enabled the utility to recover its RoI within 2.5 years. Aligned with India's sustainability goals, our current orderbook has the potential to save over 1.25 lakh litres of fuel annually. As the market grows, we are prepared to maintain our leading position and further shape India's smart metering future.

CyanConnode is known for successfully deploying smart metering communications infrastructure in challenging terrains like Himachal Pradesh and Assam. Could you shed light on the unique challenges encountered in these areas and how CyanConnode managed to overcome them?

Our projects in Himachal Pradesh and Assam were laden with challenges and rich with learnings. Deploying Omnimesh RF infrastructure in hilly terrain, we faced issues including harsh weather, installation difficulties due to dangerous terrain and wildlife, extreme power surges, and lack of line of sight. Nevertheless, the tenacity of our team and on-field experts allowed us to overcome these hurdles and continually address ongoing issues through vigilant maintenance and monitoring. Despite these challenges, CyanConnode still delivers over 99% SLAs. We've achieved a range of 4.2 KMs with regular RF nodes and ~9.5 KM with our Long-range RF module, demonstrating that our Omnimesh solution is the best architecture for smart metering in India for urban, rural, dense, hilly, agricultural, and semi-urban areas while meeting SLA expectations.

In today's highly competitive digital landscape, how does your company differentiate itself from other players?

CyanConnode stands out in IoT communications through innovative technology and strict adherence to security and international standards.

Our Omnimesh solution leverages mesh network to optimize channel capacity by distributing traffic across multiple paths and improving the signal-to-noise ratio. This results in efficient bandwidth utilization, reduced signal degradation, and improved network performance.

Security is paramount in our RF communication solution for smart metering. We follow the "Swiss Cheese Model", providing multiple layers of defense with mechanisms such as end-to-end encryption, Datagram Transport Layer Security (DTLS), and Public Key Infrastructure (PKI). Additional measures include device, infrastructure, and identity security, ensuring a reliable and secure communication channel.

Our adoption of the open international standard Wi-SUN in our FG25 based products reinforces our position as a leader in long-range Sub-GHz wireless connectivity for smart metering. This enables scalability with expanding networks and increasing customer demand.

CyanConnode's RF-based systems provide cost-effectiveness and sustainability. They reduce annual power costs for utilities significantly compared to cellular systems and do not require frequent technology upgrades. Compliance with the recent regulations of the WPC wing of the Ministry of Communications ensures we stay within the permissible frequency bands, further emphasizing our commitment to stringent controls and standards.