STARSOLUTIONS™

Rural Broadband: Keeping it Simple

Canadian Company Solving Canadian Problems

The federal government has recently outlined a digital strategy for Canadians. One key focus is to extend and enhance broadband internet service in rural and northern communities. Technically and economically challenging but one which Star Solutions has solved many times before.

Understanding the Challenges

Providing affordable and reliable broadband access to remote and rural communities in Canada is challenging.   Unlike urban areas where distribution of fibre or cable is readily available, population densities of less than 400 people per square kilometer in typical rural areas, coupled with rough terrain, makes distribution of service uneconomical. In addition, servicing, installing and maintaining a wired network to each home leads to significant costs and difficulties.

Rural communities often have difficulties in acquiring the necessary local expertise to run, maintain and diagnose issues within the network. Existing infrastructure, facilities and source of commercial power to operate the equipment may not be readily available.

So how does one establish a digital strategy that is innovative, economical and sustainable, and that meets the requirement of providing Canadians living in the rural communities with a minimum of 5 Mbps?

The Solution

Star Solutions International Inc. is a Canadian company based in Richmond, BC, and has been pioneering solutions for rural markets for over 15 years. One of the early inventors of all-IP mobile network, and has won many awards for its work in rural solutions including Mobile World Congress (MWC) Best Mobile Infrastructure award.

Building on its knowledge and experience in rural market, and using the latest technologies in wireless communications; Star Solutions meets these challenges with its 4G Sonata LTE family of wireless access network products. With just 10MHz of spectrum, Sonata LTE provides up to 70Mbps of download capacity and 35Mpbs of upload capacity (at 20MHz spectrum; 150Mbps DL/75Mbps UL). Regardless of whether the backhaul is fibre, microwave, or satellite based, Sonata LTE is easy to install and requires no

local technician for its ongoing support and operation. Just three connections are required to bring the solution in to service – antenna, backhaul, and power.
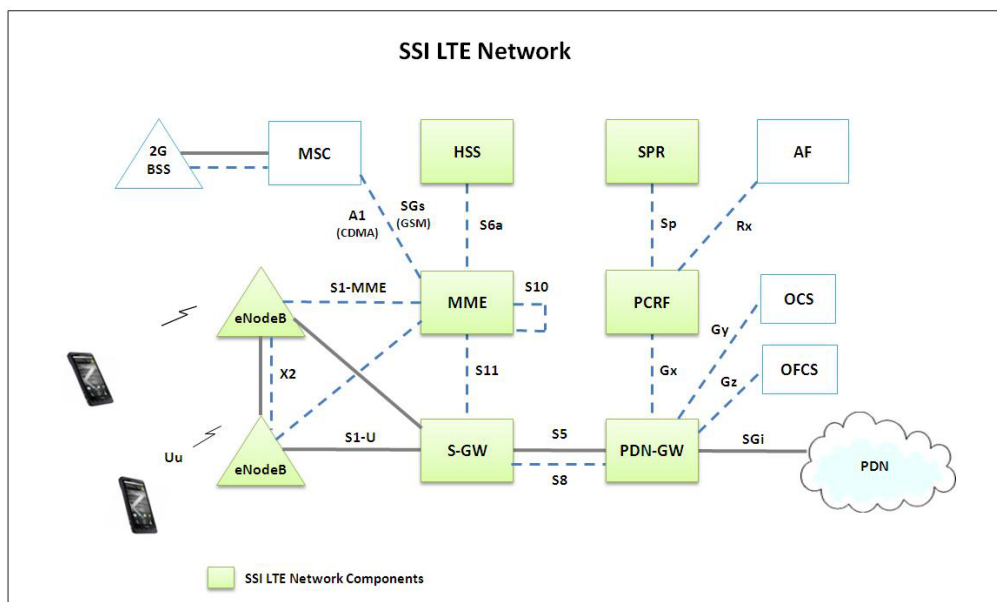
With its low power consumption, it is ideal for communities where grid power is unavailable or the power generation is limited. Sonata LTE can be deployed as an outdoor all-in-one solution, eliminating the need for specially conditioned weather-proof equipment shelters.   Sonata LTE can be mounted on ground level, outdoor wall, pole/tree or rooftop.
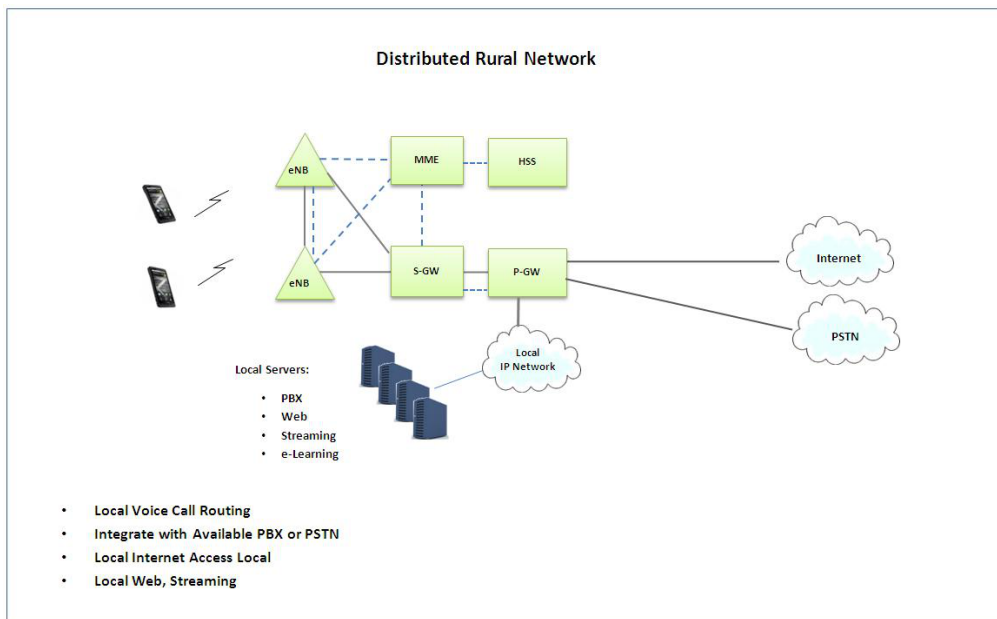
Sonata LTE supports both fixed and mobile wireless network access, providing connectivity to handheld and tablet devices as well as connectivity at the home. Sonata LTE also supports roaming between networks, allowing users to take their devices to receive service when traveling to other communities.

In order to give fair access to all users, and to allow critical services such as telemedicine to have priority, Sonata LTE's quality of service capabilities allow service levels to be defined on a per user basis. In addition, if backhaul to the Internet is ever lost, the access network continues to operate as a stand-alone network, providing uninterrupted communications between users and to content provided locally in the community. With its virtual networking capabilities, Sonata LTE can simultaneously serve Internet access to end users as well as support other uses such as video surveillance of commercial locations, monitoring of community resources, and M2M-based applications.

Leveraging the latest cellular standards ensures there will be always be plenty of choices for user devices available, that our technology will continue to be current, and field proven to help guarantee investment that will serve the community for many years.

Star Solutions offers flexible network options, including having the core network centrally located with the eNodeB deployed at the remote communities or take advantage of SSI inherent distributed network architecture where the EPC (LTE central core functions) can be available at each of the remote location enabling local routing of traffic and content to reduce overall backhaul over the transmission network.

As a Canadian company we continue to strive and look to partner with both the Government and private sector to ensure all Canadians have access to high speed internet.

About Star Solutions

Star Solutions is a leading supplier of mobile network infrastructure solutions with special focus on Rural/Remote, Enterprise and Rapid Deployment/Disaster Recovery applications. Star Solutions' experience includes rural deployments in over 30 countries; majority of the cruise ships world-wide; private Enterprise mobile network for Mines, Oil & Gas and Prisons; Rapid deployment systems for disaster relief, military and emergency public safety communications.

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