Rural Communications Strategies

Rural communications has become increasingly essential to a rural municipality’s economic growth. Every rural municipality that seeks to take advantage of communication technologies must first articulate a vision of what they want their community to be like in five, ten or twenty years. This vision must describe, simply, and clearly what residents and businesses plan to do with communications to make the municipality a better place to live and work. A rural municipality has a choice of three rural communication strategies. The strategy selected by the municipality is dependent on three factors:

a. Type of communications coverage: broadband, mobility, public safety does the municipality want to ensure there is adequate coverage.
b. Available capital funds to invest in the communications network.
c. The federal and provincial funding mandatory requirements.

1. **Status Quo**
   The municipality allows market forces to provide broadband coverage. Multiple Wireless Internet Service Providers (WISPs) competing for market share in each township.

   **Advantages:**
   - No additional municipal resources are required.
   - No capital investment required by the municipality.

   **Disadvantages:**
   - Wireless providers will typically provide broadband coverage in townships that are economically feasible.
   - Does not support either mobility or public safety coverage.

2. **Preferred Partner**
   The municipality issues a Request-For-Proposal (RFP) to select a Wireless Internet Service Provider (WISP) partner to provide broadband access in the unserved townships. The partner would be responsible for designing, building, and operating the communications network. The municipality would be responsible for the initial capital investment and would apply for capital funding from either the provincial or federal governments.

   **Advantages:**
   - Reduces the WISP capital investment improving their overall cash flow.
   - Provides broadband coverage to unserved townships.

   **Disadvantages:**
   - Reduces market forces in all townships which may ultimately increase costs and reduce services.
   - WISP’s operating costs may have to be subsidized on an ongoing basis.
   - Ownership of the network infrastructure transfers to the WISP which does not provide the municipality a long term asset.
3. Utility Communications

The Utility Communications Model is similar to constructing a roadway system. The model recognizes that rural connectivity is a “Utility”, a critical component of municipal infrastructure, not unlike roads. The municipality builds the infrastructure, contracts out its operation, and leases tower space to wireless service providers that deliver the “Final Mile” service to the customer.

This strategy supports the full range of rural communications services, including: broadband, mobility, and public safety communications. This business model is sustained by collecting collocation revenue from multiple providers.

Advantages:
- Supports all rural communications including broadband, mobility, and public safety.
- Enhances market forces and will ultimately improve services and reduce costs.
- Collocation revenue will subsidize the network monthly operating costs.
- Municipality will be able to control which unserved townships get a higher priority.
- The network is open access and technology neutral, which allows the municipality to take advantage of any emerging technologies that may ultimately reduce costs and improve coverage and capacity.

Disadvantages:
- More complex implementation than the other strategies.
- Requires ongoing municipal resources to manage towers.

The utility communications strategy leverages the investment in the Alberta SuperNet and extends low cost backhaul bandwidth in the rural areas. A utility communication network is comprised of four (4) different tiers of towers.

Tier 1 and 2 towers are owned and operated by the municipal district. Wireless Internet Service Providers (WISPs), mobility providers, and public safety agencies can collocate on either a tier 1 or 2 tower.

Existing Wireless Internet Service Providers (WISPs) may use the utility network as a backhaul network to the nearest SuperNet PoP improving their overall coverage and increasing the capacity of their networks.