

Small Cell Presentation to the City of St. John's

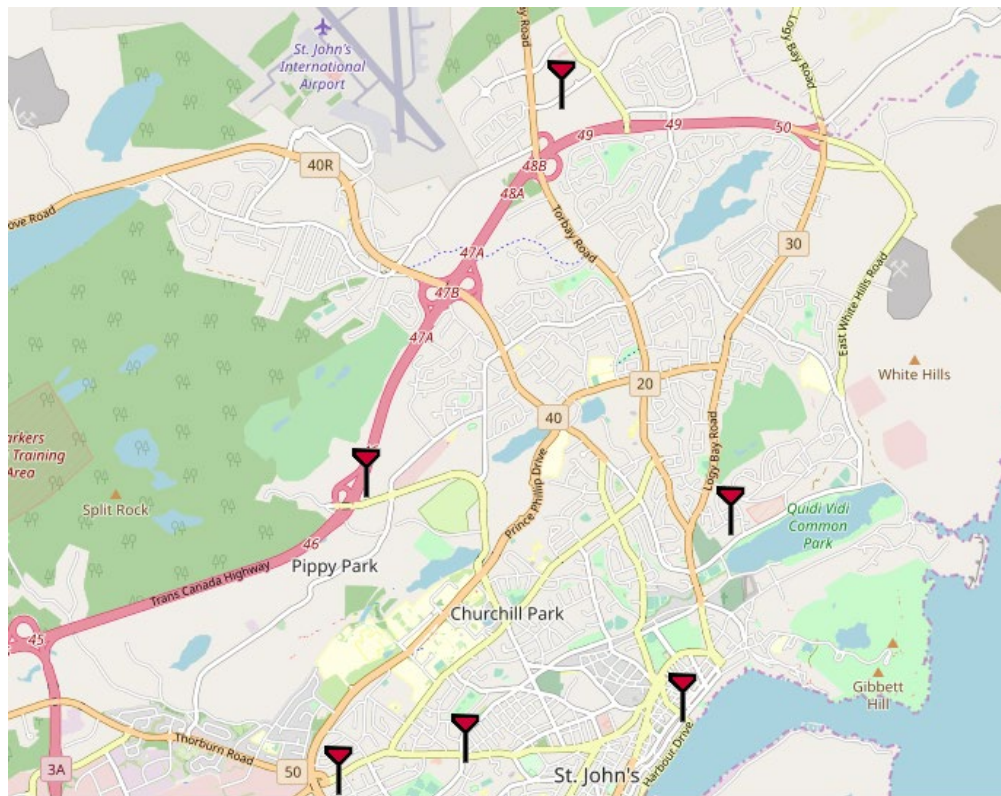


Introduction

- Smartphones play an important role in our everyday lives.
- Consumers use their smartphones to stay connected, to navigate, work, stream music, be entertained and so much more.
- Rogers believes in providing its customers with a network experience that empowers them to do more.
- To do so, Rogers provides worry-free, reliable wireless connections on a network built to consistently deliver unique experiences and we continuously invest to ensure a positive experience.
- We invest heavily in our existing infrastructure and new infrastructures.
 - Modernize: renewal of equipment to increase performance
 - New sites: addition of telecommunications sites /small cells



Current Rogers network in St. John's



Current situation and future outlook

- According to the Canadian Wireless and Telecommunications Association (CWTA):
 - 99% of the Canadian population has access to wireless services;
 - Approximately one third of Canadian households rely exclusively on wireless services.
 - In 2017, Canada's mobile data traffic grew 38%.
- Traditionally, telecommunication towers have been positioned:
 - Mountain peaks;
 - Industrial sectors;
 - Commercial sectors;
 - In proximity to residential neighborhoods
- To meet the growing demand for wireless services, certain key areas of the City of St. John's, require additional coverage or extra capacity.
- **Small Cell Solution:**
 - A wireless network base station with a low radio frequency power output, footprint and range;
 - Provides coverage and capacity in a similar but smaller way to a tower;
 - Effective inside or outside of buildings;
 - Does not replace existing telecommunications towers.



Small Cells – objective and advantages



Objective: Develop a plan with input from the City of St. John's to deploy Small Cells.

- Install small low-powered Small Cell antennas on municipal structures (buildings, street lights and traffic lights) to improve coverage and/or increase capacity in densely populated urban areas of the city.
- Use of existing structures.
- Esthetically pleasing, unobstructive: Small Cells can be painted.
- Quick and easy to install on walls, posts, ceilings, etc.
- Use of Hydro polls.
- Prepare the foundation for smart cities and “Internet of Things”



Photo simulation 1



Photo simulation 2



Photo simulation 3



Proposed locations to consider : decorative light poles in downtown area
(for discussion purposes only and subject to city approval)



Proposed locations to consider: public spaces and buildings (for discussion purposes only and subject to city approval)



Proposed locations to consider: public spaces and buildings *(for discussion purposes only and subject to city approval)*



Benefits to entering into a Master Agreement

- Requires less time for Planning and Council given there is one agreement in place.
- Benefits residents, businesses and tourists with improved service.
- New locations can be added as needed and approved by city.
- Revenue from each small cell installation



Next steps to consider

- Negotiate a Master Municipal Agreement, allowing for access to the city's infrastructure;
- Install Small Cell infrastructure to support the growing coverage and capacity requirements.



Thank you

