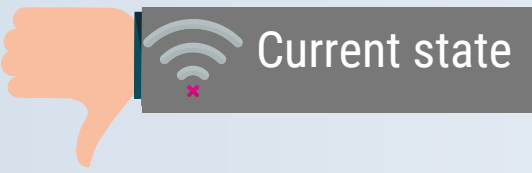# Enhancing Wi-Fi at HPL

Hamilton Public Library

only **61%** of library users feel comfortable with using free WIFI services. ( 2017 City Survey Report)

## Current state

The main aim of the project is to improve the wi-fi connectivity, signal, strength, and user experience in all the 22 branches of Hamilton Public Library. The project focuses on providing a quality wi-fi experience to the guests as well as its users. The key challenges identified are:
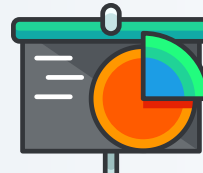
- Agreeing to T&C
- Insufficient coverage
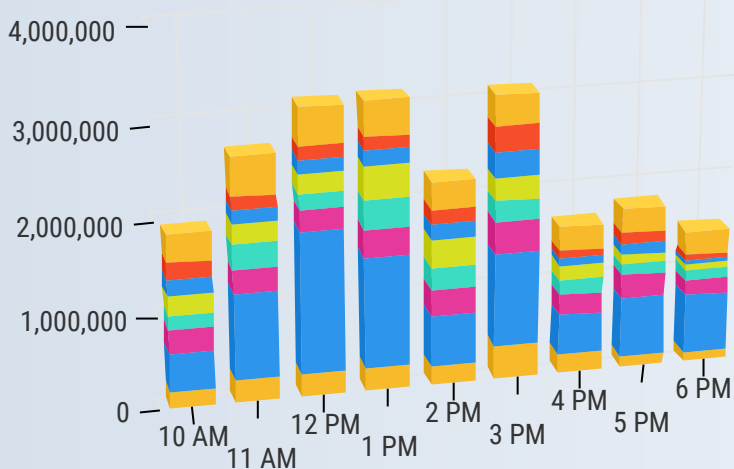- Session timeout
- Lack of tools for analyzing data and creating reports
- Inflexible configuration

## Key Findings

### Data usage in kbps

Legend: Central, Ancaster, Binbrook, Dundas, RedHill, Terryberry, Waterdown, Westdale

(Chart: stacked bar chart with y-axis 0 to 4,000,000; x-axis 10 AM, 11 AM, 12 PM, 1 PM, 2 PM, 3 PM, 4 PM, 5 PM, 6 PM)

The peak hours of wi-fi usage in the busiest branches is 11am to 3pm. The bandwidth ranges between 2,000,000-3,500,000 kbps.
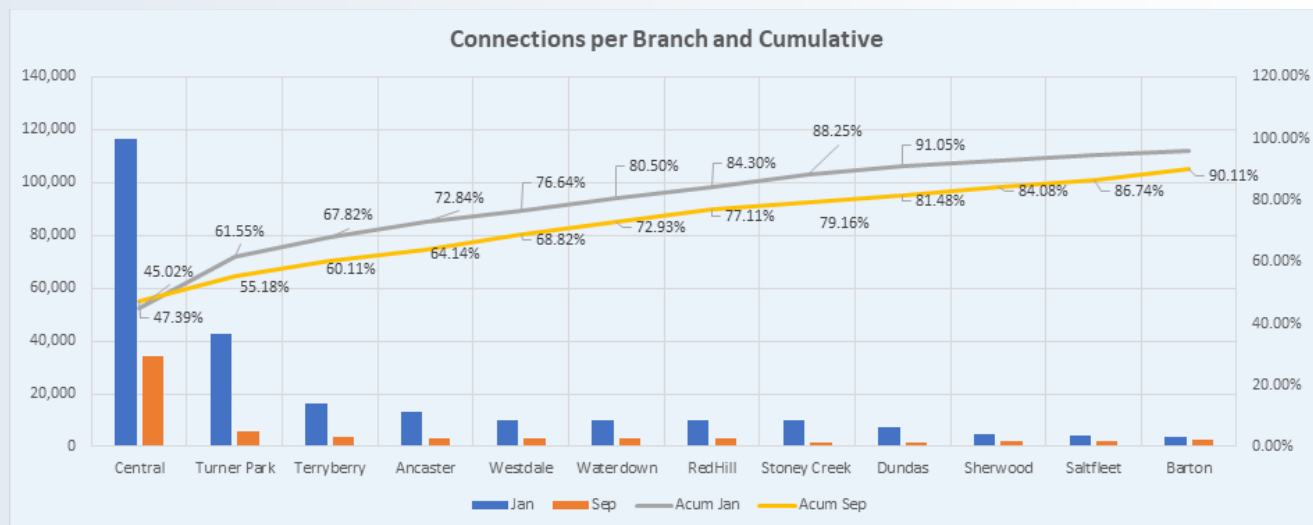
### Constraints
in change implementation

- Service Disruption during or after change implementation
- Compliance with strict public Health measures
- Service Degradation can impact user experience
- Network security

**Connections per Branch and Cumulative**

(Chart: bar chart with branches Central, Turner Park, Terryberry, Ancaster, Westdale, Waterdown, RedHill, Stoney Creek, Dundas, Sherwood, Saltfleet, Barton)

Acum Jan %: 45.02%, 61.55%, 67.82%, 72.84%, 76.64%, 80.50%, 84.30%, 88.25%, 91.05%, —, —, 90.11%
Acum Sep %: 47.39%, 55.18%, 60.11%, 64.14%, 68.82%, 72.93%, 77.11%, 79.16%, 81.48%, 84.08%, 86.74%

Legend: Jan, Sep, Acum Jan, Acum Sep

Out of the 22 locations of HPL, only 10 branches have wi-fi connections ranging between 45,000 to 100,000.

## Desired state

# Recommendations

**1** Conduct a site survey to determine technical fixes to boost the signal
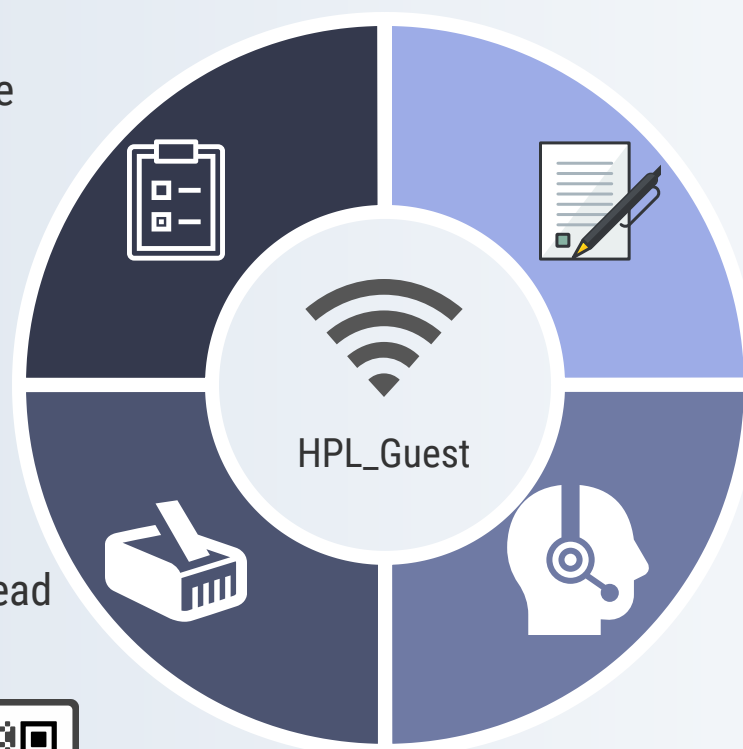
**2** Library card owners can agree to the T&C and it can be recorded to avoid multiple signs in

**3** Provide LAN cables to designated areas for guests to connect their laptops for using the internet instead of WIFI

**4** Train the HPL CSRs to assist guest users in logging on the WIFI

HPL_Guest

**For further information**

SCAN ME

CityLAB HAMILTON

MOHAWK COLLEGE

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