

**Digital Downtown** - 4 Access Points are installed currently. The main unit is on the roof of City Hall and the other 3 are Mesh connected to the main unit. The 3 remote units are mounted on street light poles, one by the ACLD Library, the Hampton Inn and the Hippodrome.

- The equipment is OpenMesh OM2P 150Mb/s Access Point, supporting 802.11n wireless standard.
- Each unit can support approximately 75Mb/s of bandwidth from the client devices since they are set up in a Mesh configuration.
- We currently limit the per MAC (client device) address speed to around 256kb/s so that we can support many users. If we increase the bandwidth per MAC then all the clients will just fight for the bandwidth which may make the service appear degraded.
- This is not a MIMO (Multiple-In/Multiple-Out) device, so the single transmitter will adjust down to the lowest end device and that will be speed that all devices have to operate at.
- Improvements to the system would need to be well defined from a performance perspective so it can be designed, priced and potentially managed through a subscriber management system.

#### **8-11-17 Update**

*Currently the Digital Downtown system has a capacity of 75 Mbps. We have been logging bandwidth utilization for that service and average and maximum use is:*

*Daily (today):*

*Average: 70.44 Kbps*

*Maximum: 613.16 Kbps*

*Weekly (the last week):*

*Average: 91.32 Kbps*

*Maximum: 1.72 Mbps*

*Monthly (the last month):*

*Average: 98.34 Kbps*

*Maximum: 727.25 Kbps*

*Yearly (the last year):*

*Average: 105.73 Kbps*

*Maximum: 643.91 Kbps*

*These are averages. There are spikes in traffic (the maximum numbers) that get lost in the averaging process.*

*Service has been turned up to 5 Mbps per user as of 8-3 and we are monitoring bandwidth usage.*