

TO: Administration and Finance Committee

DATE: August 30, 2018

FROM: Jim Brown, Director of Information Technology

SUBJECT: Upgrade of Fixed Route On-board Cellular/WiFi Routers

BACKGROUND:

In 2012, Cellular/WiFi Routers were installed in County Connection's entire fixed-route fleet to accommodate the upgrade of Clever Devices with real-time CAD/AVL and BusTracker. These Routers connect the electronics on each coach to the Internet via Sprint 3G service allowing for constant monitoring of each vehicle. In 2015, on-board WiFi was enabled through these routers so that passengers could connect their phones/laptops for free Internet service.

Many services require these Routers to operate, both internal and passenger facing, which include:

- CAD/AVL (Computer Aided Dispatch, Automatic Vehicle Location)
- Dispatch Radio System
- BusTracker / Trip Planner / Transit App
- ETA signs at BART
- Free public WiFi on buses

The existing Routers have become outdated. In 2012, their 3G service was the newest available, however, Sprint will begin shutting down 3G services at the end of 2019. These routers will cease to function at that time, making this upgrade absolutely necessary before that happens. New LTE Routers will avoid this problem and should have a lifespan of approximately 6-8 years. The new Routers will be capable of upgrading to the forthcoming 5G service happening in 2020.

The new Routers will be approximately 10 times faster than the outgoing 3G Routers, giving a large speed boost to the passenger-facing public WiFi. Coverage will increase as well, as LTE is more focused-on by the carrier with more towers available. Due to the discounts that Sprint is offering to entice their customers to upgrade from 3G to LTE, our monthly data service costs will actually go

down. The current data cost of \$4,873 per month will go down to \$1,875 per month. A savings of nearly 60%.

County Connection is seeking approval from the Board of Directors to spend \$155k on new, upgraded LTE Routers for the entire fleet.

FINANCIAL IMPLICATIONS:

Capital purchase of Routers will be \$155k, which has been budgeted in the 5-year IT Plan and will be paid for through the TDA FY18 IT Capital Budget. Monthly Sprint Data costs will decrease by 60% (\$3k).

ACTION REQUESTED:

Staff respectfully requests that the Administration and Finance Committee forward this memo to the Board of Directors for approval of County Connection's purchase of new Cellular/WiFi Routers for the entire fixed-route fleet.