

Telephone wiring upgrade

Admin & Finance Committee
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Agenda

- History (how did we get here)
- Current state (where are we now)
- Why we need to act
- Our approach
- Recommendation
- What we need from you

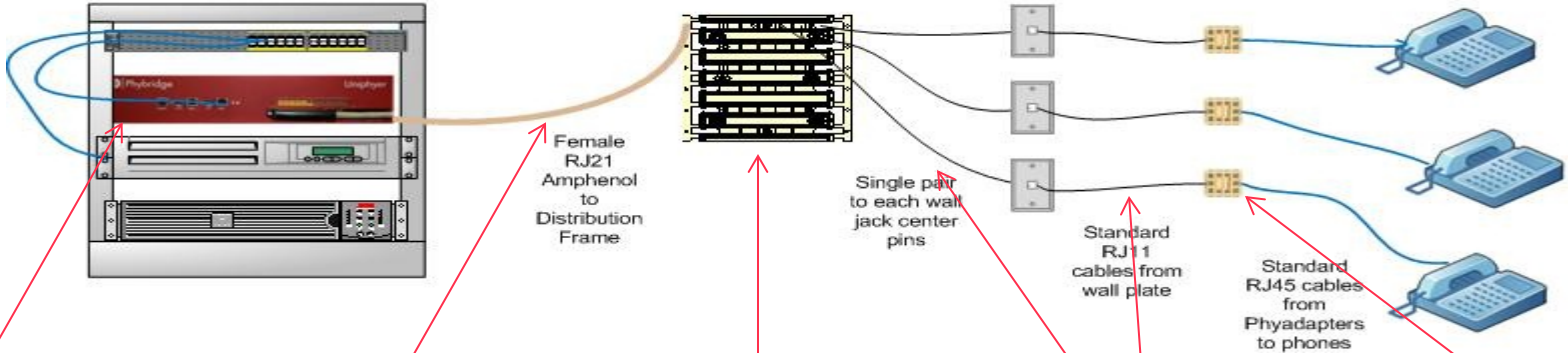
History

- 2012 - Last time we invested in our phone system
 - New phones for all city workers (Mitel 5312 IP Phone)
 - ***Decided to NOT upgrade the wiring system behind the phones***
 - Only one vendor (TIG) thought this was a viable approach
 - Brought forward a design that converted our IP based phones to run on our older copper based wiring system
 - Special hardware needed to pull this off: Phyadapters and Phybridge switching units
 - Lots of problems early on getting this design to work



Current state – What the legacy system looks like

Phybridge Components and Topology



Phybridge switch converts back to PoE

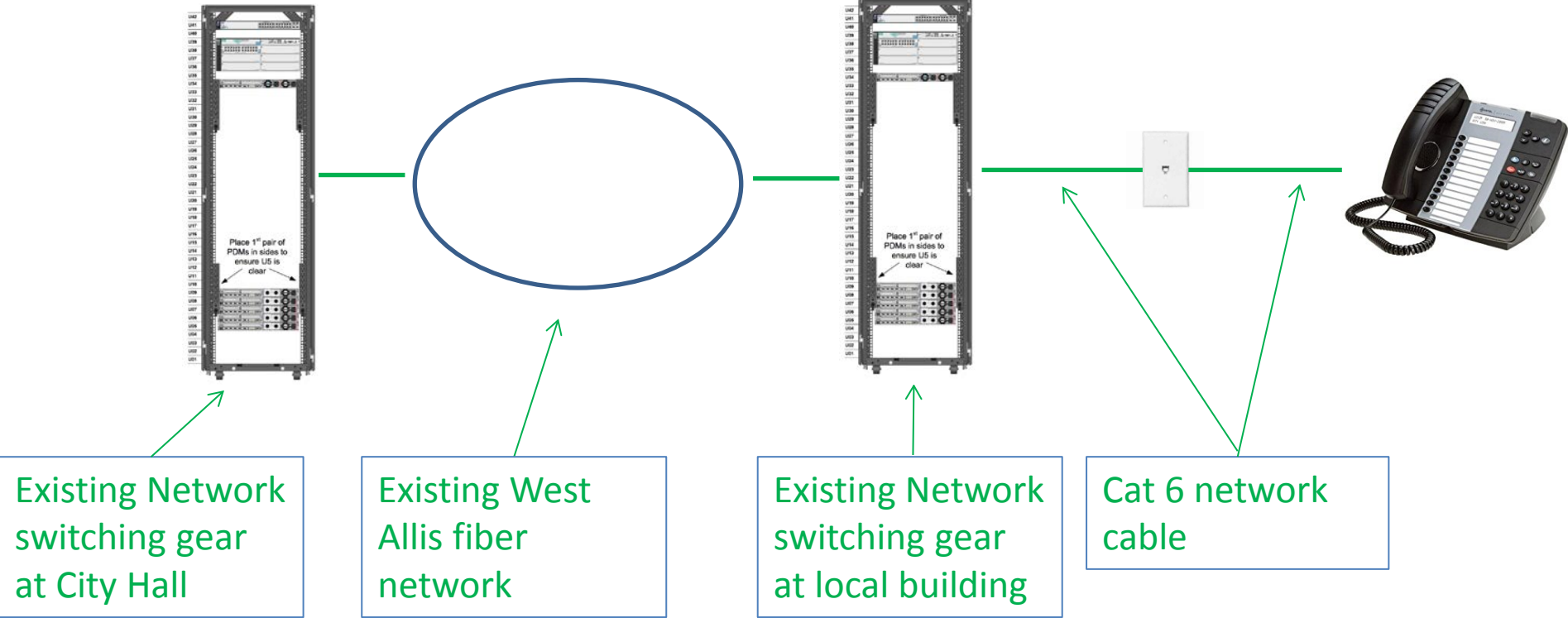
Old copper wiring running through city back to City Hall

Legacy switching gear, in closets

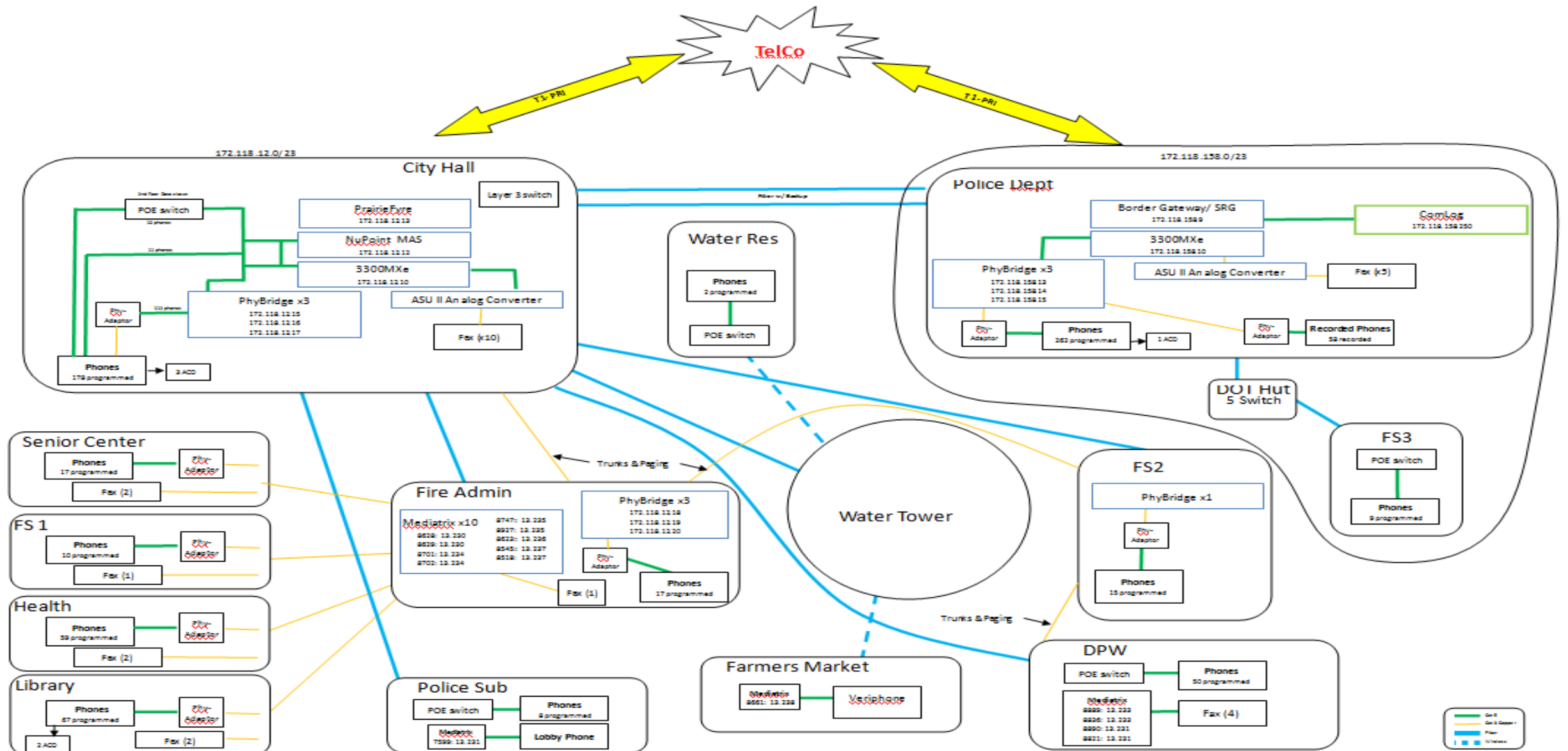
Old 'cat 3' twisted pair copper wiring

Phyadapter – converts PoE to run on twisted pair copper

Current state (DPW) – What works a lot better

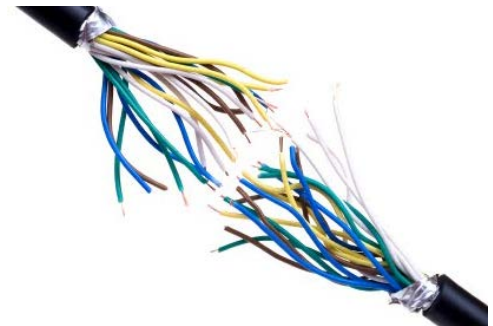


Current state – Phone system Layout



Why we need to act now:

- Support costs for the legacy system are increasing
 - PhyAdaptors fail often. Replacement parts getting harder to find. Cost of a new PhyAdapter is \$100 each
 - PhyBridges have errors, cost up to \$5,000 to replace
 - Copper pairs within buildings are failing.
 - Senior Center has been 50% upgraded as we keep losing copper pairs.
 - Customers without service for 1 hour to 1 week depending on issue.
- National Ave construction
 - Poses a **significant** risk to the under ground copper wiring



Our approach

- Staffing constraints at DPW made it difficult to consider them for this effort
- Worked with Purchasing to conduct an RFP
 - Scope of work included the 6 buildings where the risk was greatest due to the National Ave construction
 - Excluded the Police Department and City Hall; will address in 2019
 - 5 contractors included
 - Kelly Communications, a West Allis based firm, was the only one to respond
 - **Senior Center= \$2,361.60**
 - **Health Dept= \$10,782.64**
 - **Library= \$7,921.52**
 - **Fire Admin= \$4,364.58**
 - **Fire Station 1= \$2,691.11**
 - **Fire Station 2= \$4,271.86**
 - Our own Electricians confirmed this was very attractive pricing



Options/recommendation

- Do nothing:
 - Service disruptions will continue to increase; fixes will be done in a reactive mode (increasing costs); significant risk exposure to Senior Center, Health and Library to due underground copper cable continues
- Do some of the work:
 - Mitigates the highest risk areas (Senior Center, Health, Library); but spreads out the work over a longer period
- ✓ Recommendation: Accept the quote in the RFP
 - May never get better pricing, vendor really wants to work with us

Where we need your help - Budget

- Since 2012, plan was to spend \$10k annually to convert buildings to the new wiring infrastructure
 - Never got off the ground due to changing priorities and staffing
- Thought we had \$10k in 2017 general IT budget, but upon further review, it is not there as a specific line item
- We do have funds available in an IT Joint venture account:
 - Where we receive hosting fees from other municipalities
 - Current balance: ~\$85,000

Where we need your help - Budget

- We'd like to:
 - Communicate to Kelley Communications that they've won the bid
 - They've been waiting patiently for over a month
 - Since this is a capital type expense, transfer \$33,196.66 from the IT Joint Venture fund to the General Government Capital Improvement fund
- Do we have your support to move forward with this recommendation?