

# Network Closet Documentation and Interconnected Automation

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# Network Closet Documentation and Interconnected Automation

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## BACKGROUND / INTRODUCTION

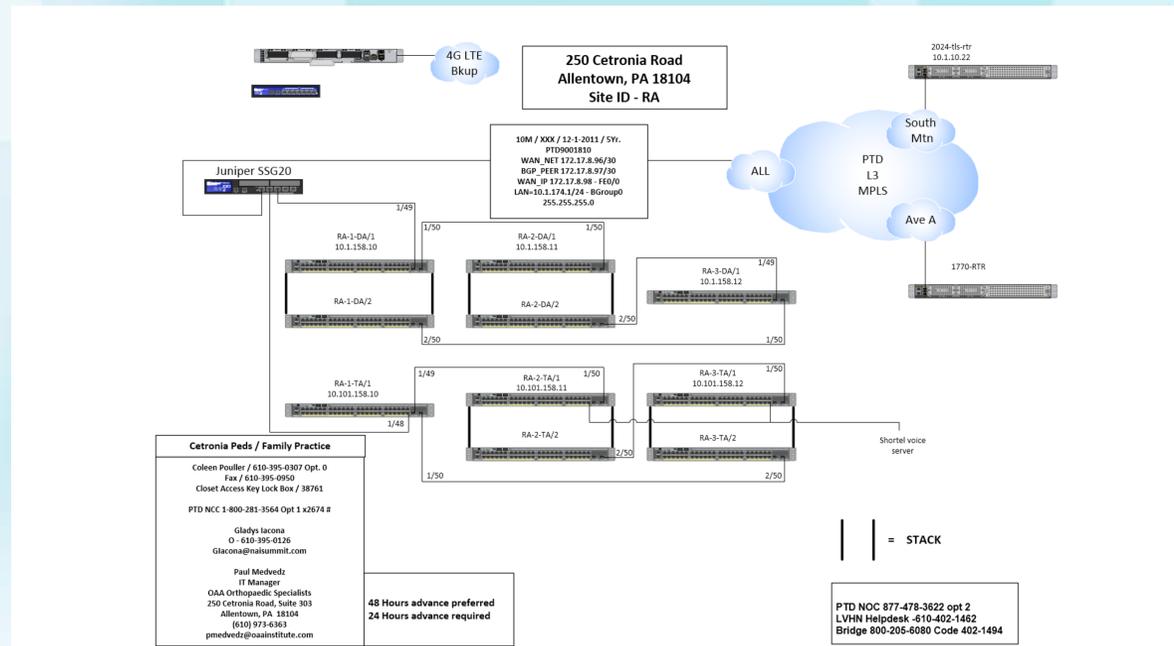
- As of the beginning of this project there was no way of documenting what the layout of a network closet was at each of the now expanding practices.
- The Information Systems Infrastructure Department (IS) performs maintenance on all network closets within the Lehigh Valley Health Network (LVHN) in order to replace/upgrade components, make cross connections, and conduct usual troubleshooting methods.
- As of now there are approximately 60 locations that are listed as LVHN practices outside of the main hospital campuses and this is projected to grow to 100.
- This project has successfully enabled a database for IS to document their remote site network closets as well as increase efficiency.

## METHODS

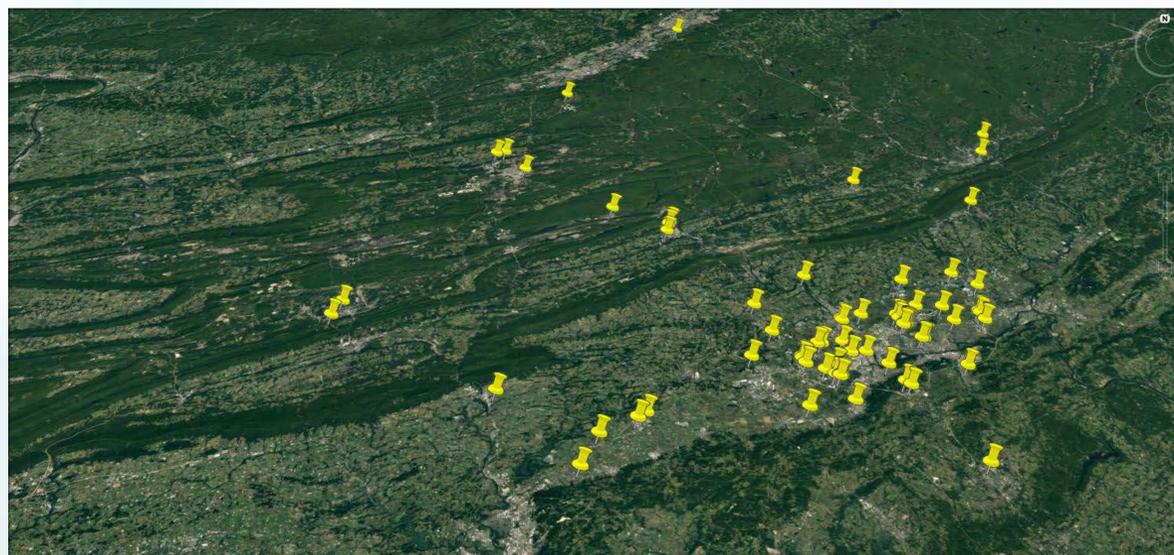
- Travel to a practice and record the following information.
  - Number of switches and the configuration
  - Which ports on the router go to which service (Ex: PTD, Voice, Uplink, Quarantine)
  - Which ports on the switches go to which voice server
  - Any other information that is unique to the closet
- Create the diagram of the network closet using Microsoft Visio based on the information collected.
  - Site address and contacts
  - Department name
  - PTD circuit information
  - Switch IP addresses
  - Depiction of the network cloud
- Open the main Excel spreadsheet and import/link the appropriate information to the data graphics in the diagram.
- Continue this process to populate the database with all of the visited sites.
- Create an instructional document that accurately describes the process so that continual progress can be made as the network expands.

## OUTCOMES

Example of a network closet diagram



Google map of the medical practices listed as LVHN



## RESULTS

- The new collection of network closet diagrams is now fully assembled and interconnected with the data spreadsheet.
- The IS team now has the capability to make changes to the specific information for each site diagram by simply opening the main data sheet and saving the changes there.
- The next time said diagram is opened, it will automatically refresh and reflect the changes made in the data sheet.
- With the instructional document in hand, the team can continue to add new locations to the database and create the interconnectivity for these new sites even after the Research Scholar Program ends.

## CONCLUSIONS

- In conclusion, the implementation of this documentation system will make routine trips to network closets much less frustrating now that the IS team can take a look at any site they wish without having to travel there in person.
  - This will make the trips more efficient as they will not take as much time as one would take if the diagram had not been seen beforehand.
  - The IS department has a much more accurate representation of the network they reside over and will be that much more in control of it during the expansions in the future.
- ❖ Due to the fact that all images are hand-made there are no references

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