Cybersecurity Research Needs

Dennis Gammel

Schweitzer Engineering Laboratories

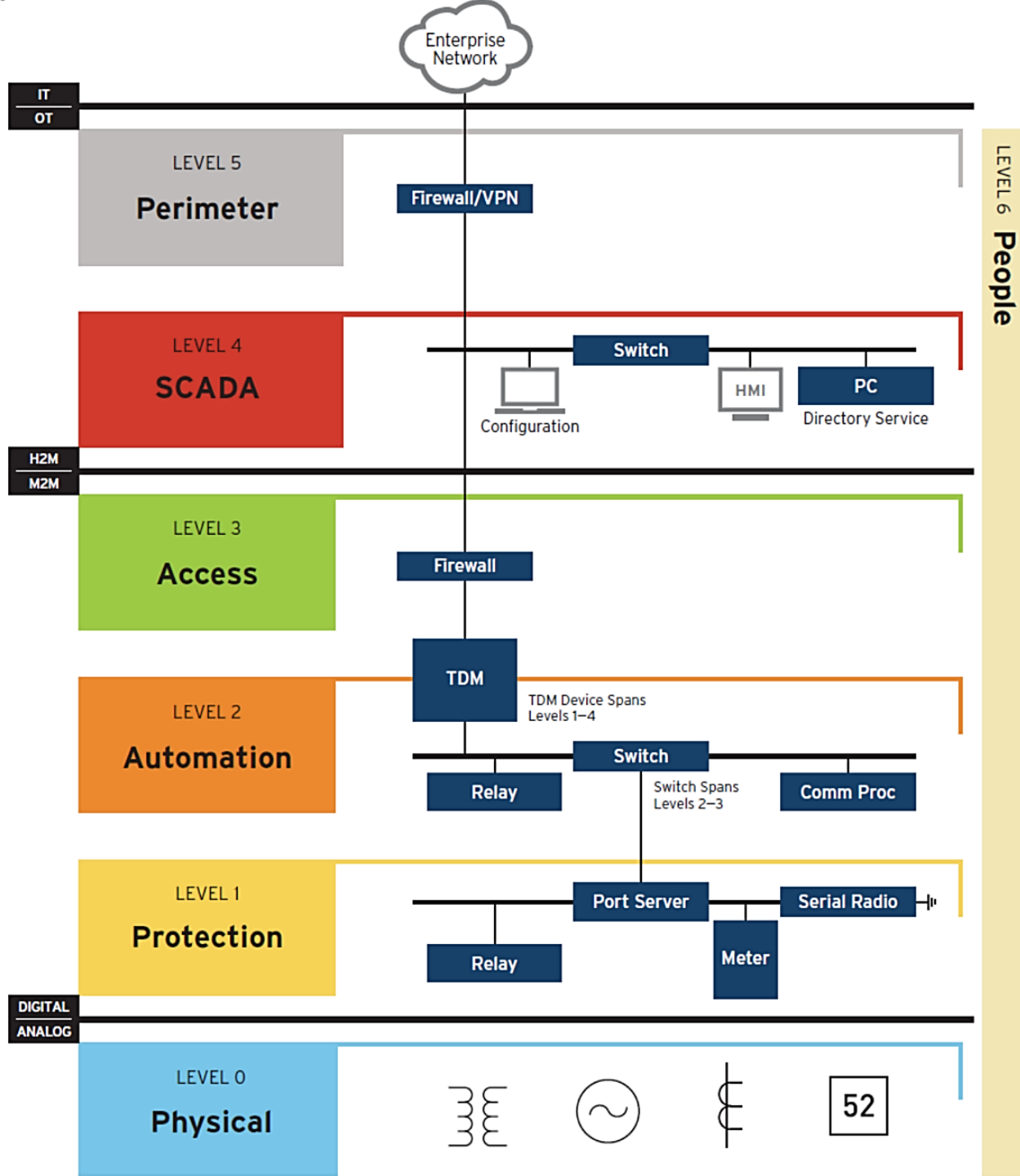# From Roots of Trust… to the Dangers of Today

1969 – ARPANET

1982 – Internet

2017 – **Unsafe at any speed**

Q: Which one of those cables goes to the Internet?
A: Ask the Bad Guys! They know!

Defense-in-Depth Infrastructure Approach

Defining Cybersecurity **Best Practices**

Research with Operational Technology Focus

- Reduce Cost

- Decrease Complexity

- Design for Distributed M2M Systems

- Monitor Systems Continuously

- Interoperate at boundaries *...Standards lag Innovation*

CYBER RESILIENT ENERGY DELIVERY CONSORTIUM

http://cred-c.org

@credcresearch

facebook.com/credcresearch/