

Business Item 2020-271: ICS/SCADA Check Point Firewall Upgrade, Contract 20P044

Roger Knuteson, Process Computer Manager

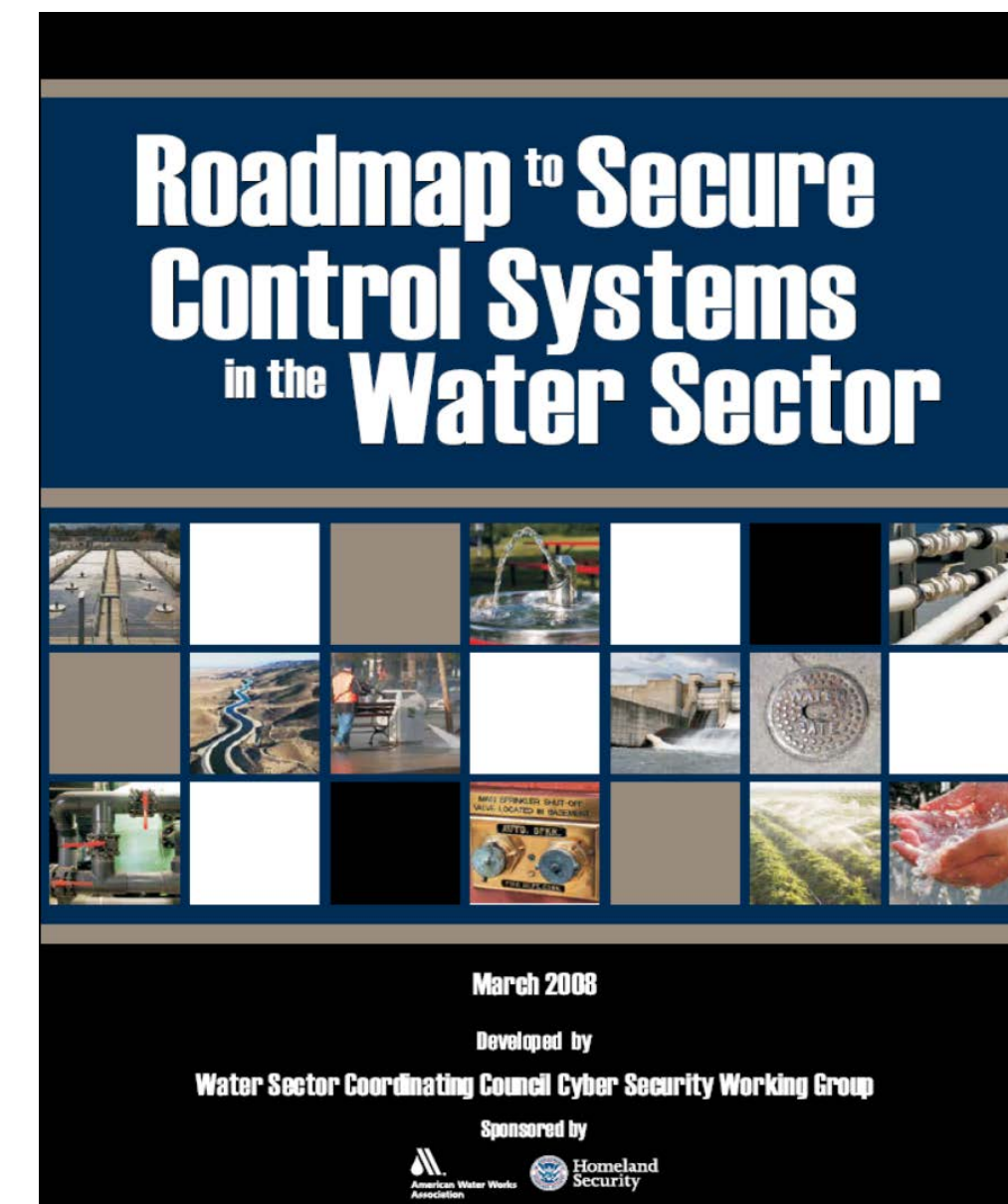
Sara Smith, Operations Support Services Business Unit Manager

Environment Committee: October 13, 2020



Background

- 2008: Republican National Convention, St Paul
- The St Paul Police Event Commander brought in the U.S. Department of Homeland Security (DHS) and Secret Service for a Metro plant Industrial Control System (ICS) security review
 - Recommendation: separate Business and ICS networks.
- Met Council Action:
 - ES and IS physically separated Business and ICS networks at the Metro plant prior to RNC.
 - ES adopted the DHS Roadmap to Secure Control Systems in the Water Sector 10-year plan.



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Background

- 2012: Cyber Security Evaluation Tool (CSET) was completed
 - Recommendation: Network Firewalls to address potential access vulnerability for the nine MCES wastewater treatment plants and Interceptor system.
- 2015 and 2017 (for 2018 Super Bowl), MCES conducted additional Cyber Security Evaluations.
 - Both confirmed the importance of maintaining properly managed and configured firewalls on all networks.



What is a Network Firewall?

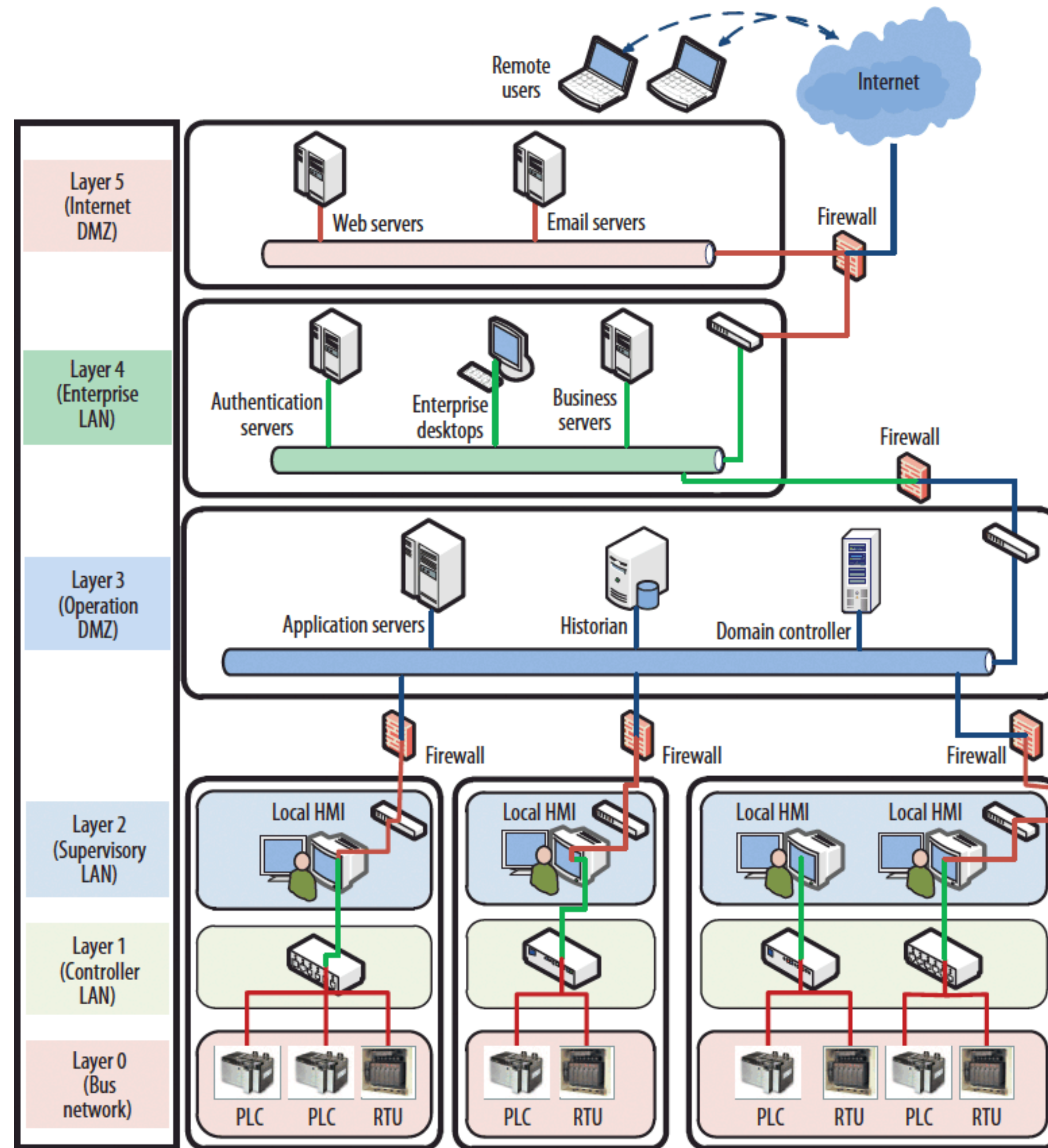
- A system of hardware and software that monitors and controls incoming and outgoing network traffic based on predetermined security rules.
- A firewall establishes a barrier between a trusted network and an untrusted network, such as the Internet. This allows for the implementation of a Defense in Depth network security strategy.

Metro Wastewater Treatment Plant existing Firewall pair.



How is a Network Firewall used?

- Subdivides networks into logical segments. (Defense in Depth strategy)
- Level 4 and 5 is where corporate IT network infrastructure systems and applications.
- Level exist 0,1,2 and 3 is where ICS/SCADA network infrastructure systems and applications exist.



IEEE Computer Society

Procurement Methodology

- **July 20, 2020:** Request for Proposals (RFP) advertised to the Council and QuestCDN websites
 - A pre-proposal meeting held on July 27, 2020 with 10 plan holders
- **August 19, 2020:** 2 plan holders submitted proposals that were evaluated by a four-member panel using the following criteria: proposal quality, proposer's qualifications and professional competence in areas directly related to this RFP, experience and proposal price.
 - Office of Equal Opportunity (OEO) reviewed the project for subcontracting opportunities and did not establish an MCUB goal
- Based upon the evaluation, the panel selected Paragon Development Systems, Inc as the lowest responsive, responsible bidder.

Proposed Action

- That the Metropolitan Council authorize the Regional Administrator to negotiate and execute Contract 20P044 with Paragon Development Systems, Inc., to provide the Council with equipment and services for the ICS and SCADA network Check Point Firewalls in an amount not to exceed a total of \$750,876.48 for a period of five years.

Questions

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