This is real world company where the lead engineer redesigned the corporate network to implement Payment Card Industry Data Security Standards (PCI-DSS). This is one of about a dozen diagrams created to show the scope of work for a corporate network that spanned about a 25-mile radius. Single mode fiber (SMF) and multimode fiber (MMF) were used extensively. Physical security, network segmentation, and Vlans were used extensively, as was multiple firewalls and multiple security systems. Security systems included but were not limited to IPS, SIEM, and encryption. Not all security systems are shown in this diagram. The PCI-DSS project had a budget of \$1.5 million. The fiber project was a different project with its own budget of \$2.5 million.

Proposed Network Changes for PCI Compliance Thursday, February 05, 2009 External Interface DMZ XXX.X - Netgear UnMng Switch PCs 10.20.1.12 Printers Data Center 2960 10.20.1.4 Firewall CAT 5 172.17.0.37 Cisco 2811 Cisco 2811 SPAM Filter DMZ FE Mail 192.168.1.10 10.20.1.1 172.16.1.2 WWW WEB Filter 192.168.1.2 192.168.1.12 -CAT 5-SMF Printers 172.17.0.5 Corp Firewall PCs 172.16 100.22 172.16 100.17 172.16 100.36 Backup Jonas 172.16.100.4 172.16.100.2 172.16 100.40 DataCenter Cisco 2960 XXX.X Data-Genie 172.17.68.6 2960 172.17.68,24 172.17.68. Notebooks PCs Storeroom 172.17.68.4 & 16 Phone Rm SMF Gen Office 2960 CARD 2960 172.68.17.5 & 13 **PROCESSING** 172.17.68.3 & 14 Notebooks CBV Phone Rr smF360 2960 sm 2960 172.17.68.11 172 17.68.19 Delphi DCs 172.16.100.6 172.16.100.15 172 16.100.16 NOTE: Switches with File Servers NOT physically secure 172.16.100.11 2960 172.17.68 Exchange AS-400 Avaya Cajon 3560

172.17.68.17

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172.16.100.23

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