

Riordan
manufacturing
integrative network
design project



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This will eliminate the need of wasted man hours checking the stock. The communication being upgraded with AVOWAL, which will give the employee the flexibility of taking calls while providing the services as needed for each customer. The other technological advances that will be introduced will provide real time network analysis and security monitoring. Once the new network is completed it will bring Ordain Manufacturing a new standard of service. Having a network that provides mobility is essential in today business world and why it will become a corner stone for Ordain for years to come.

The WALL will provide new ways of communication to take place, which will be by computer and by a new voice over wireless local area network. All sales counters will have brand new Dell Precision 50TH towers running windows 8 with wireless networking capability. These systems will all have Norton anti-virus installed which will prevent viruses, worms, and other known exploits at the system level. The new systems will allow for faster transactions and communication to the POS server. The new systems will be in constant communication with the hand held inventory system.

This will give all employees the ability to check on current prices, stock, and shipments in real-time whenever they need without waiting for management (Mitchell, 2014). The AVOWAL will give management cell phones that work within the Ordain WALL network. This will eliminate the headaches missed calls, busy signals, and not being able to contact a manger when needed. The new communication system will have the ability to call all sites whenever needed. The AVOWAL connection will be provided by the Cisco 1941 wireless router.

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One major issue with the old network is that it has no central action for any of the servers; this will be taken care of in the new network. There will be four servers, which will consist of, Windows server 2008 for the POS systems, real time inventory database, Surefire management console for security, and a backup file server for the entire enterprise network. Without these systems in place the WALL network will not be able backup any data or protect it. The POS server will be in constant communication with all sales counters.

The information that is collected from this system will provide critical data on each customer and will also be linked to the database server. The customer's information will be stored on the data base server for data mining purposes and will be used to provide information on what items are in demand.

Security Since the POS and inventory database servers will be providing important data to each store the security will be upgraded. The old infrastructure did not provide any security to any of the networks. This was something that was not needed at the time, but now will become a vital part to the new network.

The fact that the new servers will hold so much critical information, it is important to make sure that they are protected. This will be accomplished by implementing Cisco 1941, IOW, tripwire, internal and external PIPS/IDS systems, and Surefire management console. These will provide the security needed to protect the network for any and all threats. Threat Detection and Mitigation Systems Knowing what is in the network and how it is protected is half the battle. The other half of the battle is identifying what types of attacks the environment susceptible to.

If the security analysts are unable to identify the malicious traffic on the network, the new security systems that will be in place are useless. The new WALL network will be protected by multiple firewalls, IPS, IDS, and a file integrity system. The Firewall systems will be used to prevent scanning activity as well as blocking malicious traffic from entering the network. This is critical because being able to block this type of traffic can save a network and the people who watch it a lot of time on incident investigations. When hackers are scanning a network, they are looking for reply backs from any port(s) that will respond.

This can help them fingerprint a system and by knowing what is on a network, they can use this information for crafting attacks. Once this is identified by a security team, they can block the intruding IP at the firewall. This will prevent all traffic coming and going to the suspicious IP in question. The IPS and IDS systems will be another addition that will be used to protect the Ordain Manufacturing networks as well. There is a difference between these two systems, and it is important to know what each one does. The IPS stands for Intrusion Prevention System. This system is designed to prevent attacks from hitting the network.

For the new Ordain network, the IPS system that will be implemented is Snort because it uses a rule-based detection engine known as Snort.

Conclusion Once the new network is in place and the policies have been implemented, the new WALL network will be ready to go. The new network will be something that Ordain Manufacturing can look at for many years to come with pride and respect. Not only does the new network provide the

information that will grow the company, but the network will also provide a new way of taking care of their customers every time they visit the stores.