Inferior Wiring, Ancient Network Designs, and an Outdated Phone System Spelled Disaster for this Non-Profit

wellspring

AT A GLANCE

- 100% end-to-end network protection for sensitive information and data via the Disaster Recovery Plan
- 99.99% uptime with modern network design, hardware upgrade, and fast internet setup
- 40% decrease in overall tickets from Wellspring
- 5 min remote setup anywhere in the world

INTRODUCTION

Wellspring is an educational institution that provides tutoring and rehabilitation services to children of various ages. With five buildings on their property, they are one of our larger-scale projects.

Wellspring first reached out to Protected Harbor over twelve years ago. They were experiencing issues with their network, suboptimal internet connectivity, and web filtering in need of modifications due to inferior wiring and ancient network design. Furthermore, Wellspring had a separate vendor for their phone system and dealt with service disruptions multiple times a week, affecting the daily operations between the main building and remote sites.

Ten years later, Wellspring needed a thorough technology upgrade—from network system and server updates to hardware and internet improvement. Additionally, because their system backups were not in our data centers, they risked losing any potentially essential data. They needed a solid Disaster Recovery Plan to keep the information secure from various catastrophes.

CHALLENGES

Initially, Wellspring got in touch with Protected Harbor for the virtual environment setup, but our team found many issues affecting the network system. We had to perform a network redesign to enhance durability and flexibility. Our team faced various challenges while working for Wellspring, including:

- Network issues due to inadequate wiring and switching
- Internet connection issues
- Ineffective web filtering
- No segmentation of the network
- High downtime of phone systems

Protected Harbor, continuously monitors clients' hardware and network health. Around ten years later, as the client's most trusted technology vendor and advisor, we recognized Wellspring's need for a technology upgrade, as well as a need for backups to be stored in our data centers. We proposed a technology upgrade program and a Disaster Recovery Plan.

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THE SOLUTIONS

1

Initial Network Design

Our first challenges were to resolve network, internet connectivity, and web filtering issues at Wellspring. They had two primary networks, one for school and the other for admin users, with several terminal servers. Inadequate wiring and switching were affecting the servers. We redesigned the network to resolve these issues and completed the process for all four buildings within two days. The new network improved the durability and flexibility of the system.

When Wellspring established a new building a few years ago, they used fiber wiring to connect the networks to the central property. We needed to modify the system to add users in the fifth building to the network; thanks to our previous setup design, we did so seamlessly.

2

Segmentation of the Network:

We set up the VLANs (Virtual Local Area Network) to segment the networks for students and staff. Network segmentation avoids the risk of affecting the servers if one of the systems runs into an issue. Protected Harbor's team successfully segmented the backup servers, users, and network to prevent damage from malicious data.

3

Optimization of Phone System:

Wellspring has another vendor for the phone system. They had two remote sites which connected via VoIP (Voice over Internet Protocol). This system would go down several times a week, as it required integration with the network. The client did contact the phone vendor, who, unfortunately, could not resolve the issue. Although it wasn't our equipment, to help the client, we tried to connect it to our network. The phones would go down again after a few weeks.

After a comprehensive analysis of the site, we found the real issue was the copper wiring connecting the phone system. Using the fiber we set up earlier, we created a brand new VLAN and integrated the phone system into it. The fiber wiring brought the connection back to the main router in the main building. Since then, the phones have been working fine.

4

Network and Server Upgradation:

Three years ago, Protected Harbor recognized that Wellspring needed to upgrade the system as the hardware and network were getting outdated. Therefore, we proposed a "full tech upgrade plan," to the client for updating the complete virtual setup and equipment.

Our team deployed a new domain and RDS (Relational Database Service) to update the servers. We did a complete server migration and transferred the users to the new network. We also created backups and content filters for security. Additionally, we installed new hardware at the property, so the overall system is up to date.

Moreover, they were using an out-of-date cable network which was insufficient for the students and staff. We helped them change their internet service provider to Spectrum with fast fiber internet.

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5

Disaster Recovery Plan for Strong Backups

After upgrading the network system and equipment, our next challenge was establishing a reliable backup mechanism. It was our most significant challenge, as Wellspring's backups were available on the site network only, not in our data centers. Our team proposed a Disaster Recovery Plan to save the client's valuable data and information.

Their servers and backups are still on-site, but a replica is sent to our data center. We create backups of that data, so we can recover their information if any critical incident occurs. If a computer affects the server, we can recover it via backups on-site. But if a more unfortunate disaster occurs, like a natural calamity that would obliterate their whole network, we will still be able to boot them up, thanks to the backup replicas we have in our data centers.

We have created an end-to-end backup plan divided into various levels based on the severity of an incident. Also, we get updates from Wellspring's network every 15 minutes from our PRTG Network Monitor (our network monitoring utility).

Wellspring does not have to worry about suffering huge data losses or setting up a network from scratch because Protected Harbor is always here to back them up.

THE RESULT

Wellspring considers Protected Harbor a technology partner for all its tech needs. Now, they have a solid internet connection, a reliable network system, and a dependable backup plan to keep them up and running. They don't have to waste their time and money fixing different IT issues, as we take care of everything for them.

Recently, Wellspring went for Cyber Liability Insurance and needed us to prepare an incident response plan. We created an incident response plan defining the different tiers of network protection. Though it was a long step-by-step process tackling all of the security and system issues at Wellspring, it helped the client to receive their Cyber Liability Insurance, exemplifying our commitment to resolving client issues and maximizing client satisfaction.

At Protected Harbor, we go the extra mile for our clients, and that's why Wellspring is still with us 12+ years later.