Spam Firewall for Email Redundancy Whitepaper

This whitepaper describes how to use a SpamVault Spam Firewall to obtain a level of redundancy and high reliability for your email system without the complexity of setting up redundant email servers.

So much business is accomplished via email that it is a serious issue when an organization's email server goes down. It is crucial that you do not lose any of the incoming email from your customers and clients.

Having a redundant system for your mission critical email makes good sense, but setting it up and making it work can be challenging. Setting up redundant email servers is a difficult task, especially if you want the email servers to be at different locations for maximum reliability. The three most common ways organizations set up email servers are:

1. No redundancy. This is the most common method.
2. Redundant email servers at the same location with the same network connection(s).
3. Redundant email servers at two different locations with different network connections.

However, with a SpamVault Spam Firewall there is a fourth way that is much simpler and more cost-effective. It can be set up in less than twenty minutes and gives some of the most important benefits of a redundant email system, without the complexity. Let's now take a look at the different ways to use the SpamVault Spam Firewall for email redundancy.

Level 1 Redundancy: SpamVault, Email Server

A typical SpamVault Spam Firewall system is shown below in Figure 1.

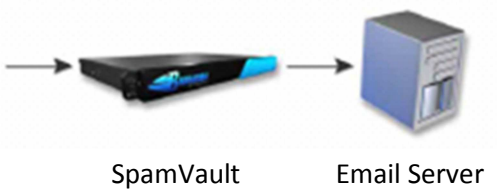

Figure 1: Typical SpamVault Firewall System

The SpamVault Spam Firewall operates in front of the email server. If the email server crashes or is down for temporary maintenance, the SpamVault Spam Firewall would store the email and then send it to the email server when the email server starts operation again. This gives some higher reliability since email servers typically have more issues than a SpamVault Spam Firewall. However, if the SpamVault Spam Firewall were to fail, the overall email system would be unable to accept email.

Level 2 Redundancy: Two SpamVaults, Email Server

The next level of redundancy would be to add a second SpamVault Spam Firewall as shown below in Figure 2.

Figure 2: Level 2 Redundancy Setup

For this system, you would create two MX records, one for each SpamVault Spam Firewall. Each MX record contains the IP address of one of the SpamVault Spam Firewalls. This provides for a reliable system such that if either of the SpamVault Spam Firewalls failed, email would still be accepted without any problems. You may also cluster the SpamVault Spam Firewalls, making them appear as a single unit for configuration. This makes maintenance and management extremely convenient and simple.

Level 3 Redundancy: Two SpamVaults, Two Email Servers

If you are truly concerned about being able to also provide access to email at all times in addition to not losing any incoming email, you would need to provide a truly redundant system as shown in Figure 3. This has dual email servers, but clustering the email servers can be challenging.

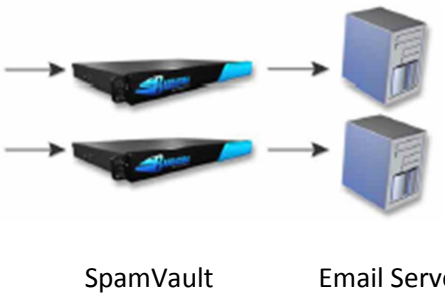

Figure 3: Level 3 Redundancy Setup

Recommended Redundancy Setup: Network Connection Redundancy

A great modification of the setup shown in Figure 2 is to place the second SpamVault Spam Firewall at a second location, as shown below in Figure 4.

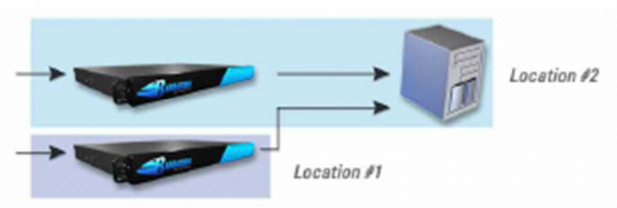

Figure 4: Recommended Redundancy Setup

This provides for network connection redundancy as well as SpamVault Spam Firewall redundancy.

If the power or network connection goes down at the primary location (location #1), the SpamVault Spam Firewall at the secondary location (location #2) would store incoming email and send it on when the primary location is restored.

If the email server goes down, the primary SpamVault Spam Firewall would store email until the email server is restored.

If the secondary SpamVault Spam Firewall goes down, there would be no impact. If the primary SpamVault Spam Firewall goes down, the secondary one would take over.

This architecture ensures that you do not lose any incoming email. It provides an extremely reliable environment, yet it does not have the complexity and issues associated with trying to duplicate and make redundant email servers.

Conclusion

It's critical that organizations not lose any of their incoming email. However, building redundancy into email systems has typically been very complex and costly. By incorporating the SpamVault Spam Firewall into your organization's redundancy plans, you can gain some of the important benefits of a redundant email system without the costs and complexity.