

## Ransomware Prevention Checklist

### First Line of Defense: Software

- Ensure you have and are using a firewall.
- Implement antispam and/or antiphishing. This can be done with software or through dedicated hardware such as SonicWALL or Barracuda devices.
- Ensure everyone in your organization is using the very latest generation endpoint protection, and/or combined with endpoint protection measures like whitelisting and/or real-time executable blocking.
- Implement a highly disciplined patch procedure that updates any and all applications and operating system components that have vulnerabilities.
- Make sure that everyone who works remotely logs in through a VPN.

### Second Line of Defense: Backups

- Implement a backup solution: Software-based, hardware-based, or both.
- Ensure all possible data you need to access or save is backed up, including mobile/USB storage.
- Ensure your data is safe, redundant and easily accessible once backed up.
- Regularly test the recovery function of your backup/restore procedure. Test the data integrity of physical backups and ease-of-recovery for online/software based backups for at least 3 or 4 months in the past. Bad guys lurk in your networks for months and compromise your backups.

### Third Line of Defense: Data and Credential Theft Prevention

- Implement Data Leak Prevention (DLP) tools.
- Use least-permissive permissions to protect files, folders, and databases.
- Enable system logs to track data movements.
- Use network traffic analysis to note any unusual data movements across computers and networks.
- Encrypt data at rest to prevent easy unauthorized copying.

### Fourth and Last Line of Defense: Users

- Implement new-school security awareness training to educate users on what to look for to prevent criminal applications from being downloaded/executed.
- Your email filters miss between 5% and 10% of malicious emails, so conduct frequent simulated phishing attacks to inoculate your users against current threats, best practice is at least once a month.