Checklist: Key Steps to Secure Your Domain Controllers for Ransomware Defense

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□ Modernize your domain controllers

Ransomware protection starts with modernizing your Active Directory environment. Old domain controllers running on outdated hardware & software are high-risk targets.

□ Back up your domain controllers

Ransomware actors specifically target virtual domain controllers & backups. The absolute best practice is to back up your domain controller, make sure backups are encrypted & that they're completely segregated.

- □ **Identify critical domain controllers:** Determine which domain controllers in your network are critical for your operations. Typically, all domain controllers play a vital role, but you may prioritize certain ones based on their roles and importance.
- □ **Choose backup methods:**
  - System-level backup: Use backup software to create system-level backups of the entire domain controller server. This method is useful for full server recovery.
  - Active Directory backup: Use Windows Server Backup or third-party tools to perform Active Directory-specific backups. This method allows you to back up the Active Directory database, which is crucial for AD recovery.
- □ **Schedule regular backups:** Set up a backup schedule that ensures regular & consistent backups of your domain controllers. Daily or weekly backups are common, but frequency may vary depending on your organization's needs.
- □ **Store backups securely:** Store backup files securely to prevent unauthorized access & ensure they're protected from the same threats that could affect your primary domain controllers. Consider off-site & offline backups to protect against ransomware attacks.
- □ **Test backup restorations:** Regularly test the restoration process from your backups to ensure they're valid & functional. This practice helps verify that you can recover your domain controllers & AD data when needed.
- □ **Document backup procedures:** Maintain detailed documentation of your backup procedures, including schedules, locations & recovery steps. This documentation will be invaluable during an emergency.
- □ **Implement redundancy:** Consider deploying multiple domain controllers in your network & distribute the roles to reduce the impact of losing a single DC. This way, even if one DC fails, others can continue to provide authentication & directory services.
- □ **Use Windows Server Backup (built-in tool):** Windows Server includes a built-in backup tool that can back up system state data, including Active Directory. You can use it to schedule regular backups of domain controllers.
- □ **Consider third-party backup solutions:** Many third-party backup solutions are designed specifically for Active Directory backup & recovery. These tools often offer more advanced features and flexibility.
- □ **Monitor Backup Status:** Implement monitoring & alerting to ensure that backups are completing successfully. This will help you catch & address issues early.
- □ **Review backup retention policies:** Define & adhere to backup retention policies to manage storage space effectively & ensure you can access backups when needed.
- □ **Train staff:** Ensure that your IT team is trained in backup & recovery procedures & that they understand the importance of maintaining up-to-date backups.
- □ **Update disaster recovery plan:** Integrate domain controller backup & recovery into your organization's broader disaster recovery plan, which should include procedures for responding to ransomware attacks, hardware failures & other disasters.

□ Secure administrative access

Monitor & secure administrative access rights to your domain controllers. Implement stringent policies to prevent unauthorized access to these critical components. By controlling privileged access & continuously auditing user account activities, you can limit the damage caused by compromised user credentials & reduce the risk of adversaries gaining initial access to your network.

□ Protect against physical threats

Don't overlook the importance of securing physical domain controllers. Even with state-of-the-art software defenses, unrestricted physical access to your servers can lead to devastating security breaches. Physical security measures such as locked server rooms & restricted internet access to sensitive network equipment are necessary precautions.

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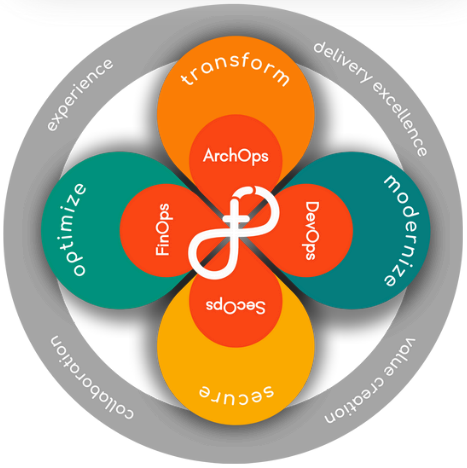

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