

When trying to increase transparency, reduce human error and eliminate rogue certificates, it pays to have a checklist.

1. IDENTIFY

- Get a baseline of all certificates issued
- Locate where all certificates are installed
- Name owners of all certificates and domains
- Identify web server O/S and application versions
- Pinpoint web server cipher suites and SSL versions

2. REMEDIATE

- Remove weak keys, cipher suites and hashes
- Control wildcard certificate issuance and distribution
- Deploy appropriate certificate types
- Control all default vendor certificates
- Ensure all web services have latest patches installed

3. PROTECT

- Standardize and automate issuance and renewal process
- Install and renew all certificates in a timely manner
- Ensure that private keys are not reused when certificates are renewed
- Install certificates and private keys in a secure manner
- Address certificate removal/revocation during decommissioning process

4. MONITOR

- Scan networks for new systems and changes
- Check Certificate Transparency (CT) logs for rogue certificates
- Use CAA to prevent unauthorized certificate requests