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Network Reconnaissance; DNS Rebinding Attack; Reflector Style Attacks; Data Exfiltration; Advanced Persistent Threats; Summary; 5 DNS Trust Sectors; Introduction; Cybersecurity Framework Items; Identify; Protect; Detect; DNS Trust Sectors; External DNS Trust Sector; Basic Server Configuration; DNS Hosting of External Zones; External DNS Diversity; Extranet DNS Trust Sector; Recursive DNS Trust Sector; Tiered Caching Servers; Basic Server Configuration; Internal Authoritative DNS Servers; Basic Server Configuration; Additional DNS Deployment Variants; Internal Delegation DNS Master/Slave Servers; Multi-Tiered Authoritative Configurations; Hybrid Authoritative/Caching DNS Servers; Stealth Slave DNS Servers; Internal Root Servers; Deploying DNS Servers with Anycast Addresses; Other Deployment Considerations; High Availability; Multiple Vendors; Sizing and Scalability; Load Balancers; Lab Deployment; Putting It All Together; 6 Security Foundation; Introduction; Hardware/Asset Related Framework Items; Identify: Asset Management; Identify: Business Environment; Identify: Risk Assessment; Protect: Access Control; Protect: Data Security; Protect: Information Protection; Protect: Maintenance; Detect: Anomalies and Events; Detect: Security Continuous Monitoring; Respond: Analysis; Respond: Mitigation; Recover: Recovery Planning; Recover: Improvements; DNS Server Hardware Controls; DNS Server Hardening; Additional DNS Server Controls; Summary; 7 Service Denial Attacks; Introduction; Denial of Service Attacks; Pseudorandom Subdomain Attacks; Reflector Style Attacks; Detecting Service Denial Attacks; Denial of Service Protection; DoS/DDoS Mitigation; Bogus Queries Mitigation; PRSD Attack Mitigation; Reflector Mitigation; Summary; 8 Cache Poisoning Defenses; Introduction; Attack Forms

Sommario/riassunto

This work is an advanced Domain Name System (DNS) security resource that explores the operation of DNS, its vulnerabilities, basic security approaches, and mitigation strategies.
