Tonias	CA Himmel Design
Topics	CA Hierarchy Design
Windows OS & Apps Hardening	DAC – Upgrade Servers & Clients First 505.5–141
1) Sec Templates & Group Policy 505.1–15-74	Debug Program Privilege
2) Anti-Malware Strategies505.1–75-118	Delegation Of Authority 505.2–117-118
3) Hardening Vulnerable Apps 505.1–119-170	Deny NTFS Exec Permission on Paths $\dots 505.1-94$
	Desktop Management505.1–114
HVT & Restricting Admin Compromise	Disable NetBIOS And LLMNR 505.4–97-103
1) Securing HVT	DNS Security
2) AD Permissions & Auditing 505.2–98-139	EMET Configuration
3) Patch Management 505.2–141-176	Get AppLocker Warning Messages 505.1–96 Good-to-have Security Features 505.1–79-80
PKI, BitLocker, and Secure Boot	GPO Scripts
1) What Is A Public Key Infra? 505.3–8-47	Import/Change DNS Records505.4–108
2) Installing Certificate Services505.3–49-85	Java Security Recommendations 505.1–165
3) Securing Private Keys505.3–87-105	Load Balancing
4) Managing PKI and Smart Cards 505.3–107-152	Local Accounts And Passwords 505.2–92-95
5) BitLocker and Secure Boot505.3–154-181	Local Administrators Group 505.2–47
	Logon Restrictions
IPSec, Firewall, DNS, and Wireless	Password Managers
1) Windows Firewall	Patch Management Update Cycle 505.2–142-143
2) IPSec Encryption and Port Control 505.4–36-833) Enterprise Testing and Deployment 505.4–85-95	Permieter Firewall Policies
4) DNS Security	Principle of Least Privileges505.2–62-42
5) Wireless/Wired Network Access .505.4–141-203	Private Keys Protection
3),	Privileges List
Server Hardening & Dynamic Access Ctl	RDP 505.5–112-113
1) Windows Server Hardening505.5–9-137	Scheduled Tasks
2) Dynamic Access Control 505.5–139-237	Service Account Identities505.4–36
	SMB 3.0
Windows Powershell Scripting	Software Inventory
 Overview, Installation & Security505.6-8-31 Getting Around Inside The Shell505.6-33-57 	Token Abuse/Pass-the-hash
3) Running Cmdlets, Func & Scripts 505.6–59-115	User Rights List
4) Ex: AD, Event Logs & Nmap 505.6–117-139	Virtual Desktop Infrastructure505.1–114
5) writing Own Functions & Scripts 505.6–141-185	Wireless Security
6) Windows Mgt Instrumentation505.6–187-201	WPAD Hardening
	Group Policy Configurables
${f Categories}$	801.X Configuration 505.4–193
	Account Policies
Appendix	AppLocker
802.11 Wireless Concepts Refresher 505.4–205	Audit Policies
Accounting = Logging	Advanced Configuration
Becoming A Domain Controller 505.1–172	Auto-Enrollment Settings
Editing Security Templates By Hand505.1–186	BitLocker Drive Encryption505.1–106
Network Unlock	
NTLMv2 Authentication505.5–239	AD Backup505.3–175
RADIUS Account Lockout505.4–215	Data Recovery Agent (Add)505.3–176
Restricting Anonymous Access505.5–249	Passphrase (Enable) 505.3–165
Social Engineering	PIN/USB Option (Show)
Post Prostices & Ting	Unique Identifiers505.3–176
Best Practices & Tips Anti-Malware Training	Certificate Path Validation Settings 505.3–121
Application Whitelisting	Console Logon Authentication
AppLocker Default Rules Creation 505.1–94	Credentials Caching
Auditing	505.2–39
BitLocker, TPM, Secure Boot505.3–177-181	1

Credentials Delegation	DNSCMD.EXE505.2-
Credentials Storage	DS*.EXE
	DSACLS.EXE
CredSSP Credentials Sharing	DSREVOKE.EXE
Custom Tech Support Link	ENUMPROP.EXE
DCHP Audit Logging (Enable) 505.4–113	LDIFDE.EXE
EMET	MOVETREE.EXE
Event Log Settings	NETDIAG.EXE
Global Groups	NETDOM.EXE
Google Chrome	NLTEST.EXE
IE Browing History	NTDSUTIL.EXE
Integrity Checking (Re-Enable) 505.3–162, 164	REPADMIN.EXE
Internet Connection Sharing (Limit) 505.4–182	SDCHECK. EXE
Internet Explorer Hardening505.1–130, 136, 137	ADMT
IPSec Policies	CLONEPRINCIPAL (VBS) 505.2-
Java APPLET Element Support 505.1–161	FastLane ActiveRoles
Java Configuration Files	JoeWare Tools
LLMNR (Disable)	NetIQ Directory Security Admin505.2-
Local Accounts	Quest Software
Local Groups	MSI Package Editors
Local Passwords	Advanced Installer
Make Desktops Like Appliances 505.1–85-88	CapaInstaller
Name Resolution Policy505.4–126	EMCO MSI Package Builder
Name Resolution Folicy	Flexera InstallShield & AdminStudio 505.2—
Network Bridging (Disable)	
Network Profiles	ITNinja
	ScriptLogic/Quest MSI Studio505.2- WinINSTALL505.2-
NTLM Restriction	Network
NTP Settings	
Password Complexity Filtering505.2–70	DIG.EXE
Prevent Ignoring Certificate Errors 505.5–103	DNSCMD.EXE
Privileges	DNSDIAG.EXE
Proxy Settings	DNSLINT.EXE
RDP Restricted Admin Mode505.2–37	Dot11WLogoTests.exe
Removable Devices Control	IASPARSE.EXE
Require Smart Card Authentication 505.2–21	IPCONFIG.EXE
Scheduled Jobs	IPSECCMD.EXE
Scheduled Tasks	IPSECPOL.EXE
Scripts 505.1–70, 72-73	NBTSTAT.EXE
Server Manager Default Source Path 505.5–17	NETDIAG.EXE
Services Settings	NETSH.EXE 505.4–16, 39, 65, 92-95, 127, 1
SMB Signing505.5–97	185, 194
System Restore Setting	NSLOOKUP.EXE
Turn Off Root CA Updates505.3–119	RASUSERS.EXE
User Account Control	EMCO MAC Address Scanner 505.4–
User Rights Assignment	McAfee ePolicy Orchestrator505.4–
Windows Firewall505.4–89-90	Vanilla DH
Windows Updates	Password Filters
Wireless Network Policy	Dictionary Password Filter505.2-
	DictionaryFilter 505.2-
ls 🧗	Hitachi ID505.2-
Active Directory	NFront Password Filter
ACLDIAG.EXE	PASSFILT505.2-
ADPREP.EXE	Password Policy Enforcer 505.2-
F. F. C. 10	PasswordFilter
$\dots \dots $	
	Specops Password Policy505.2-

Cyber-Ark	Microsoft AppLocker 505.1–82
IronKey 505.2–88	SignaCert Entreprise Trust 505.1–82
Kapersky Password Manager505.2–88	Sophos SafeGuard
KeePass	Symantec Endpoint Protection 505.1–107
LastPass Pocket	VMWare Workstation
Lieberman Software	Proxy Servers
•	v
ManageEngine	Blue Coat ProxySG505.4–10
NetWrix Privileged Account Manager $.505.2–96$	Squid
Password Safe	Websense Gateway
PasswordCourier	System
RoboForm	ADDIAG.EXE
SplashID	AUDITPOL.EXE505.2-137-139
Thycotic Secret Server505.2–96	
Patch Managers	AUTO2EXE.EXE
MBSACLI.EXE	
	AUTOIT.EXE
Altiris	CMD.EXE
Citrix GoToManage	505.2-60-62
Ecora	CMDKEY.EXE
FileHippo Update Checker505.2–168	CONSENT.EXE
Gravity Storm	CONTROL.EXE
IBM Endpoint Manager 505.2–171	CPAU.EXE
Lumension Patch	CSCRIPT.EXE
Ninite	DCGPOFIX.EXE
Secunia PSI/OSI	DCPROMO.EXE
Shavlik Technologies	DISKPART.EXE
SolarWinds Patch Manager505.2–162	DISM.EXE
System Center Config Manager 505.2–172	${\tt DNSCMD.EXE} \hspace{1.5cm} \dots \hspace{1.5cm} 505.1 - 147$
TechTracker	DSAC.EXE
Public Key Infrastructure	EPAL.EXE
CERTREQ.EXE	EXPLORER.EXE
CERTSRV.EXE505.3-13, 18	$\dots \dots $
CERTUTIL. EXE 505.3–17-18, 67, 71, 74, 107, ?	FC.EXE
113, 124	FINDSTR.EXE
· · · · · · · · · · · · · · · · · · ·	
CMGETCER.DLL	FSUTIL EXE
DSSTORE.EXE	GPOTOOL.EXE
MSCEP.DLL505.3-20	GPRESULT.EXE
WINHTTPCERTCFG.EXE $$	GPUPDATE.EXE
ADSI505.3–19	
CA/Cert/Templates MMC Snap-ins 505.3–13	$\texttt{GREP.EXE} \dots \dots \dots \dots \dots \dots \dots \dots \dots $
Certificate Services Websites505.3–15-16	ICACLS.EXE
Enterprise PKI MMC Snap-in 505.3–14-15	IEXPLORE.EXE
Forefront Identity Manager 505.3–140	KLIST.EXE
Group Policy Settings For PKI 505.3–13	LDIFDE.EXE
Key Recovery Tool	LDP.EXE
MSDN CryptoAPI Tools	LSASS.EXE
Powershell Certificates Provider505.3–15	505.3–90
Quest Software's Powershell Cmdlets505.3–19	MMC.EXE
Versatile Security	
Products •	MSTSC.EXE505.2-36
Bit9 Security Platform505.1–82, 107	
CoreTrace Bouncer	NET.EXE
CoSoSys Endpoint Protector505.1–107	NOTEPAD.EXE
DeviceLock	POWERSHELL.EXE
Kapersky Device Control 505.1–107	PSEXEC.EXE
Lumension Application Control 505.1–82	505.5–53
Lumension Device Control505.1–107	RECIMG.EXE
McAfee Application Control 505.1–82	$\texttt{REG.EXE} \hspace{1.5cm} \dots \hspace{1.5cm} 505.5 – 176$
McAfee Device Control $\dots 505.1-107$	REGEDIT.EXE

${\bf SANS~SEC505-Securing~Windows~and~Resisting~Malware}$

	Airpwn
505.3–71, 95, 118	Cain & Abel
REGSVR32.EXE505.2-100	505.5–109
RUNAS.EXE 505.2-30, 32, 49, 50, 54, 57	CloudCracker
RUNDLL32.EXE	CoWPAtty 505.4–143
SC.EXE505.5-29, 32-36, 39	Elcomsoft Wireless Security Auditor . 505.4–143
SCHTASKS.EXE 505.2-35, 505.5-53, 57	Fluke AirMagnet
SCW.EXE	Metageek Chanalyzer505.4–184
SCWCMD.EXE	Metageek inSSIDer
SECEDIT.EXE505.1-27, 29-30, 36	Metageek Wi-Spy
$\dots \dots $	NirSoft's Wireless Key View505.4–144
SETSPN.EXE505.3-17	Pyrit
SYSKEY.EXE505.3-91, 95, 99-102	
${\tt SYSPREP.EXE} \hspace{0.1in} \dots \hspace{0.1in} 505.1 – 118$	PowerShell Cmdlets
$\texttt{TPMVSCMGR.EXE} \ \dots $	Account Policy
${\tt TQCRUNAS.EXE} \hspace{0.5cm} \dots \hspace{0.5cm} \dots \hspace{0.5cm} 505.2 – 50$	get-addefaultdomainpasswordpolicy $\dots 505.2 - 75$
$\verb VAULTCMD.EXE $	${\tt get-addomain} \dots \dots \dots \dots \dots \dots \dots \dots \dots $
$\texttt{W32TM.EXE} \dots \dots$	get-adfinegrainedpasswordpolicy $\dots 505.2-76$
$\dots \dots $	new-adfinegrainedpasswordpolicy $\dots 505.2 - 76$
WHOAMI.EXE	set-addefaultdomainpasswordpolicy $\dots 505.2 - 75$
$\dots \dots $	set-adfinegrainedpasswordpolicy $\dots 505.2 - 76$
$\texttt{WMIC.EXE} \qquad \dots \qquad $	add-adfinegrainedpasswordpolicysubject $505.2 ext{}76$
WSCRIPT.EXE505.1-70, 96	Active Directory
$\texttt{WSUSUTIL.EXE} \qquad $	${\tt Get-ADClaimType} \dots \dots \dots 505.5-165$
WUAUCLT.EXE505.2-160	${\tt Get-ADComputer} \dots \dots \dots \dots \dots \dots \dots \dots \dots $
ADMX Migrator	Get-ADResourcePropertyList 505.5-181-182
Performance Monitor 505.4–106, 135	Get-ADResourceProperty505.5-179
Sysinternals	Get-ADUser
Tool	Set-ADObject
CEPSETUP.EXE	AppLocker
CHML.EXE	get-applockerfileinformation 505.1-96
CSDIFF.EXE	get-applockerpolicy
KERBTRAY.EXE	new-applockerpolicy
LSADUMP2.EXE	set-applockerpolicy
REGIL.EXE	test-applockerpolicy
SHA256DEEP.EXE	Update-FSRMClassificationpropertyDefinition
STREAMS.EXE	505.5-176
WINDIFF.EXE	Installation & Configuration
gpprefdecrypt.py	Get-WindowsImage
Cain	Install-WindowsFeature .505.5-16-17, 46, 146
	Remove-WindowsFeature505.5-45
EMET	Set-ItemProperty 505.5-96
Incognito	Uninstall-WindowsFeature505.5-17
Manage-BDE . 505.3–142, 155, 158-159, 175-177	Inventory
Metasploit	get-wmiobject505.1-120
$\cdots \cdots 505.2 - 32$	
Network Password Recovery505.2–86	Network
Nir Soft's LSA Secrets View $\dots \dots 505.5 – 35$	${\tt Add-DnsServerTrustAnchor} \ \dots \dots 505.4-121$
OllyDbg505.2–31	${\tt Get-DnsClientNrptPolicy} \ \dots \dots 505.4-127$
Process Explorer	${\tt Get-DnsServerDnsSecZoneSetting}~.~505.4-123$
Process Hacker	${\tt Get-DnsServerTrustAnchor} \ \dots \dots \dots 505.4-124$
$\dots \dots $	${\tt Get-SmbConnection} \ \dots $
Process Monitor	${\tt Get-SmbShare} \dots \dots \dots \dots \dots \dots \dots \dots \dots $
Runhash	${\tt Resolve-DnsName} \ \dots $
Windows Credentials Editor 505.2–32	Set-DnsServerGlobalNameZone 505.4-103
Wireless Network	Set-SmbServerConfiguration505.5-94, 96
Aircrack-ng505.4–143	Set-SmbShare

Permissions	
Get-Acl	505.5–145
Set-Acl	505.5–145
PowerShell	
Format-Table	$\dots 505.5 - 169$
Set-ExecutionPolicy	505.1-13
dir	505.3-15
export-csv	505.1–120
get-content	505.1–121
-	
get-executionpolicy	$\dots \dots 505.1 - 97$
get-help50	05.1–35, 98, 165
	505.2–100
	505.3–15, 156
50	05.4 - 16, 93, 127
	37-38, 145, 170
get-service	$\dots 505.5 - 34 - 36$
<pre>import-module</pre>	$\dots \dots 505.1-35$
	$\dots 505.2-100$
	$\dots 505.5-16$
select-object	$\dots 505.1 - 121$
	$\dots 505.5 - 182$
set-executionpolicy	$\dots \dots 97$
Locations 2	
$ exttt{C:} ackslash username \setminus exttt{Documents} ackslash$	
${\tt Security} \backslash {\tt Templates} \ \dots \dots \dots$	$\dots \dots 505.1-15$
$\verb %AllUsersAppData \verb %Microsoft \\$	
Crypto	$\dots 505.3-95$
${\tt MappData} \setminus {\tt Microsoft} \setminus$	
Crypto	
System Certificates	505.3–89
$ ext{ t PrgFiles} ext{ t $	
${\tt Gpmc}\backslash {\tt Scripts} \ \dots$	
Update Services\Tools	$\dots 505.2 - 160$
%SysRoot%\	
CAPOLICY.INF	
Inf	
PolicyDefinitions\en-US	
PolicyDefinitions	
SYSVOL	
ServiceProfiles	
System32\Certsrv\Certenroll	
System32\Drivers\Etc\hosts	
System32\dns	
System32	
System32\CertLog	
%UserProfile%\Application Data	,
Protect\CREDHIST	
\\controller\SYSVOL\domain\Po	
PolicyDefinitions\en-US	
PolicyDefinitions	
\\server\SYSVOL\domain\Polici	
PolicyDefinitions	
GPO-GUID\Adm	
http://server/certsrv/505.	5-21-20, 00, 01,
149	

${f A}$	Convert
TODA	Create
Access-Denied Assistance \rightarrow FSRM	Custom
Account Policies	Hardening
Accounts Inventory	Import
ACE	Migration
ACL505.2–26, 109	Administrative Templates
505.3–83	Control Panel
Discretionary (DACL) 505.2–106, 135	Desktop
$\dots \dots $	Network
System (SACL)505.2–106, 134-135	Start Menu
Tools	System
Acronis	Windows Components 505.1–85
$\dots \dots $	WSUS
ACT	Administrators 505.2–29, 31, 40, 41, 44, 92-93, 130-131
$\dots \dots $	AdminSDHolder
Active Directory	ADML File
	ADMT
Auditing505.2–134-139	
Central Access Rules & Policy \rightarrow CAR	Adobe Reader/Acrobat
Certificate Services	Alternatives
Best Practices Analyzer	ADS
· ·	ADSI
Install	
Policy Module	
Post-Install	Scripting Support
Pre-Install	AES
Website 505.3–27-28, 67, 124, 149-152	$\dots \dots $
Command-Line Tools	
Delegation Of Control505.1–48	AGPM505.1–35
	AH
$\dots \dots $	AIA505.3–45, 50, 71
DNS505.4–107-108	AIK505.2–148
${\tt DSSEC.DAT} \ \dots $	Amazon
Functional Level	Anonymous Access Restriction 505.5–249-253
Generic Auditing	Anti-Malware 505.1–114
Global Catalog	Antivirus
Groups	App-V
Cert Publishers	AppContainer Sandbox
DNSUpdateProxy	Application Control
Everyone 505.4–110	Application Whitelisting505.1–82-88
Protected Users 505.5–119	AppLocker
RAS And IAS Servers 505.4–148, 174-175	Conditional Expressions
Wireless Users	Default Rules
Inventory	Import/Export XML Files
Permissions	Rules Precedence
Fix Procedure	
Proposed	ARP Poisoning
PKI	ASLR
Properties Visibility	Audit Policies
Provided Scripts	Audit Policies \rightarrow Active Directory
	Audit Policy
Tools	Advanced Configuration 505.5–70-72
→ ACL Tools	DNS Logging
Active Directory \rightarrow Resource Properties	NTFS Last Access Timestamps 505.5–79
ActiveX505.1–130, 133, 136, 141-142, 167	Process Creation/Termination505.5–78
ADAC505.2–75, 98	Windows Firewall
	Authenticated Users
ADM/ADMX Templates505.1–21, 31, ? 57-61, 122, 125	Authentication
Central Store	001

AuthIP 505.4–54-55, 64, 71	Staging
AuthZ API	CAR 505.5–? 190, 192-195
Auto-Unlock	CCITSE
AutoIt	CDP
AutoPlay & AutoRun	CEnroll
· · · · · · · · · · · · · · · · · · ·	Centrify DirectControl
AutoRun.inf	v
Avecto Privilege Guard505.1–37	Certificate \rightarrow Cryptography, PKI
	CHAP
В	
Ъ	Choke Points
Dagladaan Ent 9 9t	Chrome Frame
Backdoor	CIS
	$Claims \rightarrow DAC \dots$
Backtrack	Class User/Machine
BAP	Classification Rules \rightarrow FSRM
BDC505.2–152	Classification Tags \rightarrow DAC
BeyondTrust PowerBroker Desktops 505.1–37	Cloud
Biba Model	
Bit9 Security Platform 505.1–82, 88, 99-100	CMGetCer
BitLocker505.1–106, 110, 124, 127	CNAME
	CNG
$\dots \dots $	Cold Boot Attack
Data Recovery Agent	Conditional Expressions
Emergency Recovery505.3-? 172-176	Strings505.5–151
On USB Drives	With Claims
Password Recovery Viewer 505.3-? 156	With Resource Tags
Tools	Without Claims 505.5–148-153
TPM Options505.3-? 163-166	Conficker
BitLocker To Go	
$\dots \dots $	
Enable	Confidentiality
BITS	Connection Sharing 505.4–182
BSOD crash	Control Points
$\dots \dots $	Core Impact
Bulletins	Credential Roaming
$\dots \dots $	Credentials Manager
BYOD 505.1–110, 115	CredSSP
Tethering	$\dots \dots $
	CRL 505.3–22, 44, 50, 52, 67-68, 71, ? 123-125
\boldsymbol{C}	$\dots \dots $
${f C}$	Cross-Forest Trusts
	CryptoAPI/CNG 505.3–9, 19-23, 89, 117, 133
CA	Definition
	Documentation
CAMONITOR.VBS	MSDN Tools
CAPICOM.DLL	Path Validation Procedure 505.3–46
CAPOLICY.INF	Cryptography
Enterprise 505.3-? 65-66, 83, 107, 124, 146, 151	Acronyms And Abbreviations 505.3–38-39
	Certification Authority 505.3–37, 41-47
Certificates (Template) \rightarrow PKI	Definitions
Monitoring Events	Security Benefits
Permissions	X.509v3 Certificate Structure 505.3–? 43-45
Roles	$\dots \dots $
Stand-Alone 505.3–65-66, 71, 84, 124, 146	CSE505.1–64
Trusted	505.2–45, 92
Cached Credentials	
Cain	CSP
CAP	CTL

D	Management 505.4–121-130
DAC	GlobalNames Zone
	Internal/External
	Key Master
Overview	Logging
Access-Denied Assistance \rightarrow FSRM	Records Permissions
Big Picture	Secure Dynamic Updates 505.4–109-114
Central Access Rules & Policy 505.5–192-209 Claims	Single-Label Name Resolution505.4–103
Ciamis	Sinkhole
	Tools
Types	Zone
Valid	Signing
Classification Tags	Stub
Automatic Application 505.5–217-220	DoD Protocol Model
Products Using Tags	DOI
-	Domain Admin
Glossary	Domain Controller
Kerberos Compound Auth \rightarrow Kerberos	Domain Join
Requirements	DoS Attack
Test Permissions → Proposed Permissions	DPAPI
Third-Party Additions	
Tools	
Data Integrity	${f E}$
Data Segregation	12
Debug Programs Privilege	EAP 8
	ECDSA
Debugger	Effective Permissions
Deep Freeze	NTFS & CAP
Delegation Of Control Wizard 505.2-? 119-121	EMET
DELEGWIZ.INF	EMS
DEP505.1–125, 126, 153	505.2–92, 142
DES505.2–39, 65	Enclave
	Enterprise Trust
$\dots \dots $	Enterprise-Scale Registry Editor
Desktop IE	EPM505.1–132-134
Desktop Management	ESP 505.4–32, 47-48, 52, 56-61, 63, 66
Device Control	$\dots \dots $
DHCP	Ethernet Switches
Diffie-Hellman	Requirements
$\dots \dots $	Wired AutoConfig Service 505.4–191
Types & Groups	Event Viewer
Digest	
Digital Certificate	$\dots \dots $
DirectAccess	505.5–58, 68
	ID 1001, 1005 (SMB)
DICA 505.4—11-12	ID 4688, 4689 (Process)
DISA	ID 4817, 4818 (GOAA)505.5-? 214, 233
DLL Injection	
505.2–122	${f F}$
DNS	T.
Active Directory	FAST505.5–114
AD-Integrated 505.4–108-109, 115, 134-135	FCI
Authoritative Server	Third-Party Additions
Cache Poisoning Attack 505.4–102, 113, 138	FDCC
DNS Name Resolution Only505.5–83	File System Encryption505.3–11
DNSSEC505.4–115-120	Firefox

505.5–51	Н
Firewire Port Attack	
Flame	Hardening
Flamer	Base Principle
FSRM 505.5–140, 176, 191, 218, 221	Cross-Forest Trusts \rightarrow Cross-Forest Trusts \dots
Access-Denied Assistance 505.5–? 210-213	Dangerous Files
Automatic Classification Rules 505.5-? 221	Disable Unnecessary Services505.5–29-32
Installation	Extranet Forest For Exposed Servers 505.5–131-134
Full Control Delegation	Extranet Forest FW Design Issues . 505.5–135-137
FullArmor505.1–36	IPSec & Windows Firewall505.5–121-123
FVEK505.3–157-158, 175	$IPv6 \rightarrow IPv6$
	Kerberos Armoring \rightarrow Kerberos
	NTLM Auth Restriction \rightarrow NTLM
${f G}$	Pre-Forensics
	Logging & Audit
Generic.inf	Miscellaneous Settings505.5–77-81
Ghost	System Snapshots
Global Catalog	Provided Scripts
GMSA	$RDP \rightarrow RDP$
GOAA	Scheduled/Immediate Tasks
Compatibility Issues	
Google Chrome	Servers Exposure To Internal Forest 505.5–124-125 Service Account Identities
GPMC	$SMB \rightarrow SMB$
	$SSL/TLS \rightarrow SSL/TLS \dots$
Replacements	Start
GPO	Unnecessary Networking Components 505.5–82-88
Acces Control Lists	Hardware Identifier Strings505.1–105
Applicability (which, when)	Hash
Apply Changes	
Audit Policy	
Backup/Restore	Health Certificate
Configurations	Hibernation
Creation	High-Value Target 505.2–9, 132-133
Delegation of Control	
Enforced505.1–46	HIPS505.2–34
HTML/XML reports505.1–32	HSM505.3-49, 62, 99
Inheritance	Hyper-V
IPSec & Firewall Policies 505.4–89-91	
Links	I
Loopback Mode505.1–50-52	_
Options visibility	I8
Passwords	IAS
Precedence	ICA
	iDRAC
Preferences	IDS/IPS
	IETF
Refresh	IFilter
Scheduled Jobs	IIS
505.1-09-14	Services Not Required
	Services Required
Slow Link Detection	IKE
Tech Support Link	ILM
WMI Filtering	iLO
Group Policy	ILT505.1–67
Capabilities	Immunity Canvas
Enhancements	Incognito
Tools	INF
	,

$\dots \dots $	${f J}$
Initial Soft Target	J
Installation Disk Image	Java 505.1–158-166
Integrity Control Tools	Configuration Files
Integrity Labels	Control Panel
Interactive Logon	Deployment Rule Sets
Internet Explorer	Editions
	Security Levels
Certificates	Javascript
Enhanced Protected Mode505.1–132-134	JScript
Hardening	
Protected Mode	
SmartScreen Filter	T/
XSS Filter	\mathbf{K}
Zones	KB
IPSec505.1–31	
	List Article Numbers (PowerShell) 505.2–170 KeePass
$\dots \dots $	Kerberos
Definition	
Overview	
Advanced Options – Phase I & II 505.4–64-67	Armoring 505.5–114-116, 142, 158, 160
AH/ESP Differences	Compound Authentication 505.5–158-162, 172
Authentication Options	Enable
Benefits505.4–38-41	Restrictions
Channel 505.4–71	Hardening
Command-Line Tools	Ticket
Dynamic/Static Mode 505.4–93	Vs NTLM
Connection Security Rules 505.4–75-83	Kernel Mode
Precedence	Key
Default Settings	
DNSSEC	Master 505.3–91
Drawbacks	
Encapsulating Security Payload 505.4–56-59	Preshared
Flooding	Private505.3–33, 87-90, 94-95, 98, 111
Hardening	Protection
Internet Key Exchange	Recovery Procedure
Modes (AH/ESP)	Session
Modes (Phases)	System505.3–91, 100
Negociation	KVMoIP
Null Encapsulation	
Order Of Specificity	
Rules \rightarrow Connection Security Rules	${f L}$
Rules Priority 505.4–? 81	L
Scripting	LDAP
Port Permissions	$\dots \dots $
Protocols	
Requiring	$\dots \dots $
Scenarios And Uses	LDF505.2–77, 79
Tools	Provided File
Tunneling	LLMNR505.4–101-103, 130, 188
Windows Firewall	Local Policies
Wireless	Lockout Policies
IPv6	505.3-67, 138
IronKey	Screensaver Password
ISAKMP505.4-50-53	Logon/Logoff Scripts
IT Authority Delegation	Low Integrity Level 505.1–133, 150, 153, 168
	LSA
	Secrets

505.3-95, 104 $505.5-34$	Multilink
${f M}$	${f N}$
Malware Analysis Lab	NAC
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Vs Kerberos 505.5–110-111 NTP 505.3–51 505.5–77 Nuke From Orbit .505.1–115 Null Session 505.5–58, 249
MPPE	O
MSDE	OAKLEY 505.4–53 OCSP 505.3–50, 60, 127-132 OllyDbg 505.2–31

Opera	Policy Module \rightarrow Active Directory
OU Admins	Private Key Archival505.3–78, 111-113
Outlook	Protected Stores
	Standards
P	Tools
1	Web Enrollment Support
	PolicyPak
PAC	Pooled VM
Pass-the-hash	Port Numbers
Mitigation 505.2–33-39	
Password Managers	IPSec
Password Safe	LDAP
Password/Passphrase Policy 505.2–63, 65, 74, 81, 83	LLMNR
	NetBIOS
Filters 505.2–72-73	
Length VS Complexity	Querying Group Memberships On DC505.4–74
	RADIUS
Passwords Management505.1–65	RDP505.5–105, 107-108
Patch Management	SMB505.5–93
Tools	Power 505.2–13, 133
Patch Manager	PowerShell 505.1–13, 35, 69, 88, 95, 97, 120, 164
PCoIP	
	$\dots \dots $
PCR	$\dots \dots $
PDC Emulator	$\dots \dots $
$\dots \dots $	Provided Scripts 505.2–35, 94-95
PE505.2–54	
PE Header	•
PEAP	PPTP
Perfect Forward Secrecy \rightarrow PFS	Privileges
Performance Monitor 505.4–106, 135	Maleficent Seven
Perl	Process Explorer
$\dots \dots $	
	Process Hacker
PFS	505.2–22, 57
PFS	
PFS	505.2–22, 57
PFS	505.2–22, 57 Process Monitor 505.2–48 Proposed Permissions 505.5–? 214-216
PFS	505.2–22, 57 Process Monitor 505.2–48 Proposed Permissions 505.5–? 214-216 Protected Users 505.2–39
PFS	505.2–22, 57 Process Monitor 505.2–48 Proposed Permissions 505.5–? 214-216 Protected Users 505.2–39 Protected View 505.1–155, 167
PFS	505.2–22, 57 Process Monitor 505.2–48 Proposed Permissions 505.5–? 214-216 Protected Users 505.2–39 Protected View 505.1–155, 167 Protocol Transition 505.5–142, 160
PFS .505.4-? 65 .505.5-? 102 PFX .505.3-18 PGP .505.3-43, 54 .505.4-? 36-37 Picture Password .505.2-80-84 PIN .505.2-80-84	505.2–22, 57 Process Monitor 505.2–48 Proposed Permissions 505.5–? 214-216 Protected Users 505.2–39 Protected View 505.1–155, 167 Protocol Transition 505.5–142, 160 PSK 505.4–143
PFS .505.4-? 65 .505.5-? 102 PFX .505.3-18 PGP .505.3-43, 54 .505.4-? 36-37 Picture Password .505.2-80-84 PIN .505.3-10	505.2–22, 57 Process Monitor 505.2–48 Proposed Permissions 505.5–? 214-216 Protected Users 505.2–39 Protected View 505.1–155, 167 Protocol Transition 505.5–142, 160
PFS .505.4-? 65 .505.5-? 102 PFX .505.3-18 PGP .505.3-43, 54 .505.4-? 36-37 Picture Password .505.2-80-84 PIN .505.2-80-84	505.2–22, 57 Process Monitor 505.2–48 Proposed Permissions 505.5–? 214-216 Protected Users 505.2–39 Protected View 505.1–155, 167 Protocol Transition 505.5–142, 160 PSK 505.4–143
PFS .505.4-? 65 .505.5-? 102 PFX .505.3-18 PGP .505.3-43, 54 .505.4-? 36-37 Picture Password .505.2-80-84 PIN .505.3-10 PK .505.3-157-158	505.2–22, 57 Process Monitor 505.2–48 Proposed Permissions 505.5–? 214-216 Protected Users 505.2–39 Protected View 505.1–155, 167 Protocol Transition 505.5–142, 160 PSK 505.4–143
PFS	505.2–22, 57 Process Monitor 505.2–48 Proposed Permissions 505.5–? 214-216 Protected Users 505.2–39 Protected View 505.1–155, 167 Protocol Transition 505.5–142, 160 PSK 505.4–143 Python 505.1–96
PFS	505.2–22, 57 Process Monitor 505.2–48 Proposed Permissions 505.5–? 214-216 Protected Users 505.2–39 Protected View 505.1–155, 167 Protocol Transition 505.5–142, 160 PSK 505.4–143
PFS	505.2-22, 57 Process Monitor 505.2-48 Proposed Permissions 505.5-? 214-216 Protected Users 505.2-39 Protected View 505.1-155, 167 Protocol Transition 505.5-142, 160 PSK 505.4-143 Python 505.1-96
PFS	505.2-22, 57 Process Monitor 505.2-48 Proposed Permissions 505.5-? 214-216 Protected Users 505.2-39 Protected View 505.1-155, 167 Protocol Transition 505.5-142, 160 PSK 505.4-143 Python 505.1-96 R RADIUS 505.2-13, 19, 65-66
PFS	505.2-22, 57 Process Monitor 505.2-48 Proposed Permissions 505.5-? 214-216 Protected Users 505.2-39 Protected View 505.1-155, 167 Protocol Transition 505.5-142, 160 PSK 505.4-143 Python 505.1-96 R RADIUS 505.2-13, 19, 65-66 505.4-145, 505.4-173
PFS	505.2-22, 57 Process Monitor 505.2-48 Proposed Permissions 505.5-? 214-216 Protected Users 505.2-39 Protected View 505.1-155, 167 Protocol Transition 505.5-142, 160 PSK 505.4-143 Python 505.1-96 R RADIUS 505.2-13, 19, 65-66
PFS	505.2-22, 57 Process Monitor 505.2-48 Proposed Permissions 505.5-? 214-216 Protected Users 505.2-39 Protected View 505.1-155, 167 Protocol Transition 505.5-142, 160 PSK 505.4-143 Python 505.1-96 R RADIUS 505.2-13, 19, 65-66 505.4-145, 505.4-173
PFS	505.2–22, 57 Process Monitor 505.2–48 Proposed Permissions 505.5–? 214-216 Protected Users 505.2–39 Protected View 505.1–155, 167 Protocol Transition 505.5–142, 160 PSK 505.4–143 Python 505.1–96 RADIUS 505.2–13, 19, 65-66
PFS	505.2–22, 57 Process Monitor 505.2–48 Proposed Permissions 505.5–? 214-216 Protected Users 505.2–39 Protected View 505.1–155, 167 Protocol Transition 505.5–142, 160 PSK 505.4–143 Python 505.1–96 R RADIUS Account Lockout 505.4–145, 505.4–173 Account Lockout 505.4–215 Benefits 505.4–145-146 Clients 505.4–196
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	505.2–22, 57 Process Monitor 505.2–48 Proposed Permissions 505.5–? 214-216 Protected Users 505.2–39 Protected View 505.1–155, 167 Protocol Transition 505.5–142, 160 PSK 505.4–143 Python 505.1–96 RADIUS 505.2–13, 19, 65-66 505.4–145, 505.4–173 Account Lockout 505.4–215 Benefits 505.4–145-146 Clients 505.4–196 NPS 505.4–147-150
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	505.2-22, 57 Process Monitor 505.2-48 Proposed Permissions 505.5-? 214-216 Protected Users 505.2-39 Protected View 505.1-155, 167 Protocol Transition 505.5-142, 160 PSK 505.4-143 Python 505.1-96 RADIUS 505.2-13, 19, 65-66 505.4-145, 505.4-173 Account Lockout 505.4-215 Benefits 505.4-145-146 Clients 505.4-196 NPS 505.4-147-150 Policies 505.4-151-156
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	505.2-22, 57 Process Monitor 505.2-48 Proposed Permissions 505.5-? 214-216 Protected Users 505.2-39 Protected View 505.1-155, 167 Protocol Transition 505.5-142, 160 PSK 505.4-143 Python 505.1-96 RADIUS 505.2-13, 19, 65-66 505.4-145, 505.4-173 Account Lockout 505.4-215 Benefits 505.4-145-146 Clients 505.4-196 NPS 505.4-147-150 Policies 505.4-151-156 RDP 505.1-109, 110, 117
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Sobstacles Sob
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	505.2-22, 57 Process Monitor 505.2-48 Proposed Permissions 505.5-? 214-216 Protected Users 505.2-39 Protected View 505.1-155, 167 Protocol Transition 505.5-142, 160 PSK 505.4-143 Python 505.1-96 RADIUS 505.2-13, 19, 65-66 505.4-145, 505.4-173 Account Lockout 505.4-215 Benefits 505.4-145-146 Clients 505.4-196 NPS 505.4-147-150 Policies 505.4-151-156 RDP 505.1-109, 110, 117
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	505.2–22, 57 Process Monitor 505.2–48 Proposed Permissions 505.5–? 214-216 Protected Users 505.2–39 Protected View 505.1–155, 167 Protocol Transition 505.5–142, 160 PSK 505.4–143 Python 505.1–96 RADIUS 505.4–145, 505.4–173 Account Lockout 505.4–215 Benefits 505.4–145-146 Clients 505.4–147-150 Policies 505.4–151-156 RDP 505.1–109, 110, 117 505.2–20, 26, 30, 32, 33, 35, 51 Description 505.5–105-113
PFS	505.2–22, 57 Process Monitor 505.2–48 Proposed Permissions 505.5–? 214-216 Protected Users 505.2–39 Protected View 505.1–155, 167 Protocol Transition 505.5–142, 160 PSK 505.4–143 Python 505.1–96 RADIUS 505.2–13, 19, 65-66
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	505.2-22, 57 Process Monitor 505.2-48 Proposed Permissions 505.5-? 214-216 Protected Users 505.2-39 Protected View 505.1-155, 167 Protocol Transition 505.5-142, 160 PSK 505.4-143 Python 505.1-96 RADIUS 505.2-13, 19, 65-66 505.4-145, 505.4-173 505.4-145, 505.4-173 Account Lockout 505.4-215 Benefits 505.4-145-146 Clients 505.4-196 NPS 505.4-196 NPS 505.4-151-156 RDP 505.1-109, 110, 117 505.2-20, 26, 30, 32, 33, 35, 51 505.5-105-113 Description 505.5-105-113 Hardening 505.5-105-113 Thin Client 505.5-111
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Sobs.2-22, 57
PFS	Sobs.2-22, 57
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Sobs.2-22, 57
PFS	Sobs.2-22, 57

Requested Execution Level	Security Association \rightarrow SA
Resource Kit	Security Awareness
$\dots \dots $	Security Guide
$\dots \dots $	Security Templates
Resource Properties	Available
Lists	By Hand
Reference	Incremental
Suggested Values	Permissions
RMS	Security Websites
Roaming	Security Zone
	IP Addressing Scheme
505.3-9, ? 87, 93, 100, 111, 114	SEHOP 505.1–125, 128-129, 153
	Server Installation
Rogue Computer	Core
Rootkit	Full
	Minimal
RPC	Server Manager
RRAS	Roles & Features
RSA505.3–32-33, 62, 158	$\dots \dots $
$\dots \dots $	
RSAT505.1–32, 63	Scripting505.5–16-17
	Services
Runhash 505.2–32	Service 💆
Running As 505.2–53	Account
	Global505.5–34
C	Step-By-Step Guide
${f S}$	Compromission
CAMPAGE FOR 9 10	Identity Preference List
S/MIME	Recovery
S4U2Self	SharePoint
S4U2Self	SharePoint 505.5–236 Shatter Attack 505.2–59
S4U2Self 505.5–160 SA 505.4–? 49-52 SAM 505.2–32	SharePoint 505.5–236 Shatter Attack 505.2–59 SID 505.2–18, 27, 53, 57, 81
S4U2Self 505.5–160 SA 505.4–? 49-52 SAM 505.2–32 505.4–173	SharePoint 505.5–236 Shatter Attack 505.2–59 SID 505.2–18, 27, 53, 57, 81 505.3–88
S4U2Self 505.5–160 SA 505.4–? 49-52 SAM 505.2–32	SharePoint 505.5–236 Shatter Attack 505.2–59 SID 505.2–18, 27, 53, 57, 81 . 505.3–88 Well-Known 505.1–190-191
S4U2Self 505.5–160 SA 505.4–? 49-52 SAM 505.2–32	SharePoint 505.5–236 Shatter Attack 505.2–59 SID 505.2–18, 27, 53, 57, 81 . 505.3–88 Well-Known 505.1–190-191 SIEM 505.5–76
S4U2Self 505.5–160 SA 505.4–? 49-52 SAM 505.2–32 505.4–173 Sandbox 505.1–112, 150 SAT 505.1–150, 153, 168 505.2–15, 16, 22, 53, 57, 63, 136	SharePoint 505.5–236 Shatter Attack 505.2–59 SID 505.2–18, 27, 53, 57, 81 . 505.3–88 Well-Known 505.1–190-191 SIEM 505.5–76 SKEME 505.4–53
S4U2Self 505.5–160 SA 505.4–? 49-52 SAM 505.2–32	SharePoint 505.5–236 Shatter Attack 505.2–59 SID 505.2–18, 27, 53, 57, 81 . 505.3–88 Well-Known 505.1–190-191 SIEM 505.5–76 SKEME 505.4–53 Smart Card/Token 505.2–51
S4U2Self 505.5–160 SA 505.4–? 49-52 SAM 505.2–32	SharePoint 505.5–236 Shatter Attack 505.2–59 SID 505.2–18, 27, 53, 57, 81 505.3–88 Well-Known 505.1–190-191 SIEM 505.5–76 SKEME 505.4–53 Smart Card/Token 505.2–51 505.3–87, 133-137
S4U2Self 505.5–160 SA 505.4–? 49-52 SAM 505.2–32	SharePoint 505.5–236 Shatter Attack 505.2–59 SID 505.2–18, 27, 53, 57, 81 505.3–88 Well-Known 505.1–190-191 SIEM 505.5–76 SKEME 505.4–53 Smart Card/Token 505.2–51 505.3–87, 133-137 Overview 505.2–21
S4U2Self 505.5–160 SA 505.4–? 49-52 SAM 505.2–32 505.4–173 505.1–112, 150 SAT 505.1–150, 153, 168 505.2–15, 16, 22, 53, 57, 63, 136 505.5–204 Definition 505.2–27-28 Delegation 505.2–28, 34 Exposure 505.2–25-26, 34, 94	SharePoint 505.5–236 Shatter Attack 505.2–59 SID 505.2–18, 27, 53, 57, 81 505.3–88 Well-Known 505.1–190-191 SIEM 505.5–76 SKEME 505.4–53 Smart Card/Token 505.2–51 505.3–87, 133-137 Overview 505.2–21 Certificate Templates 505.3–2 146
S4U2Self 505.5–160 SA 505.4–? 49-52 SAM 505.2–32	SharePoint 505.5–236 Shatter Attack 505.2–59 SID 505.2–18, 27, 53, 57, 81 . 505.3–88 Well-Known 505.1–190-191 SIEM 505.5–76 SKEME 505.4–53 Smart Card/Token 505.2–51 . 505.3–87, 133-137 Overview 505.2–21 Certificate Templates 505.3–? 146 Kerberos Combined 505.3–? 136-137
S4U2Self 505.5–160 SA 505.4–? 49-52 SAM 505.2–32 . 505.4–173 Sandbox 505.1–112, 150 SAT 505.1–150, 153, 168 . 505.2–15, 16, 22, 53, 57, 63, 136 . 505.5–204 Definition 505.2–27-28 Delegation 505.2–28, 34 Exposure 505.2–25-26, 34, 94 Impersonation 505.2–28 Labels 505.2–57	SharePoint 505.5–236 Shatter Attack 505.2–59 SID .505.2–18, 27, 53, 57, 81 .505.3–88 Well-Known .505.1–190-191 SIEM .505.5–76 SKEME .505.4–53 Smart Card/Token .505.2–51 .505.3–87, 133-137 Overview .505.2–21 Certificate Templates .505.3–? 146 Kerberos Combined .505.3–? 136-137 PIN Management & Crypto HW .505.3–138-140
S4U2Self 505.5–160 SA 505.4–? 49-52 SAM 505.2–32	SharePoint 505.5–236 Shatter Attack 505.2–59 SID .505.2–18, 27, 53, 57, 81 .505.3–88 Well-Known .505.1–190-191 SIEM .505.5–76 SKEME .505.4–53 Smart Card/Token .505.2–51 .505.3–87, 133-137 Overview .505.2–21 Certificate Templates .505.3–? 146 Kerberos Combined .505.3–? 136-137 PIN Management & Crypto HW .505.3–138-140 Removal .505.3–? 147
S4U2Self 505.5–160 SA 505.4–? 49-52 SAM 505.2–32	SharePoint 505.5–236 Shatter Attack 505.2–59 SID .505.2–18, 27, 53, 57, 81 .505.3–88 Well-Known .505.1–190-191 SIEM .505.5–76 SKEME .505.4–53 Smart Card/Token .505.2–51 .505.3–87, 133-137 Overview .505.2–21 Certificate Templates .505.3–? 146 Kerberos Combined .505.3–? 136-137 PIN Management & Crypto HW .505.3–138-140 Removal .505.3–? 147 Smart Cards Deployment .505.3–146-152
S4U2Self 505.5–160 SA 505.4–? 49-52 SAM 505.2–32	SharePoint 505.5–236 Shatter Attack 505.2–59 SID .505.2–18, 27, 53, 57, 81 .505.3–88 Well-Known .505.1–190-191 SIEM .505.5–76 SKEME .505.4–53 Smart Card/Token .505.2–51 .505.3–87, 133-137 Overview .505.2–21 Certificate Templates .505.3–? 146 Kerberos Combined .505.3–? 136-137 PIN Management & Crypto HW .505.3–138-140 Removal .505.3–146-152 Support .505.3–10
S4U2Self 505.5–160 SA 505.4–? 49-52 SAM 505.2–32	SharePoint 505.5–236 Shatter Attack 505.2–59 SID 505.2–18, 27, 53, 57, 81 . 505.3–88 Well-Known 505.1–190-191 SIEM 505.5–76 SKEME 505.4–53 Smart Card/Token 505.2–51 . 505.3–87, 133-137 Overview 505.2–21 Certificate Templates 505.3–? 146 Kerberos Combined 505.3–? 136-137 PIN Management & Crypto HW 505.3–138-140 Removal 505.3–? 147 Smart Cards Deployment 505.3–146-152 Support 505.3–10 TPM Virtual Smart Card 505.3–141-145
S4U2Self 505.5–160 SA 505.4–? 49-52 SAM 505.2–32	SharePoint 505.5–236 Shatter Attack 505.2–59 SID 505.2–18, 27, 53, 57, 81 . 505.3–88 Well-Known 505.1–190-191 SIEM 505.5–76 SKEME 505.4–53 Smart Card/Token 505.2–51 . 505.3–87, 133-137 Overview 505.2–21 Certificate Templates 505.3–? 136-137 PIN Management & Crypto HW 505.3–138-140 Removal 505.3–147 Smart Cards Deployment 505.3–146-152 Support 505.3–10 TPM Virtual Smart Card 505.3–141-145 SMB 505.2–16, 27, 90, 95
S4U2Self 505.5–160 SA 505.4–? 49-52 SAM 505.2–32	SharePoint 505.5–236 Shatter Attack 505.2–59 SID 505.2–18, 27, 53, 57, 81 . 505.3–88 Well-Known 505.1–190-191 SIEM 505.5–76 SKEME 505.4–53 Smart Card/Token 505.2–51 . 505.3–87, 133-137 Overview 505.2–21 Certificate Templates 505.3–? 146 Kerberos Combined 505.3–? 136-137 PIN Management & Crypto HW 505.3–138-140 Removal 505.3–? 147 Smart Cards Deployment 505.3–146-152 Support 505.3–10 TPM Virtual Smart Card 505.3–141-145 SMB 505.2–16, 27, 90, 95 505.4–? 97-98, 100
S4U2Self 505.5–160 SA 505.4–? 49-52 SAM 505.2–32	SharePoint 505.5–236 Shatter Attack 505.2–59 SID .505.2–18, 27, 53, 57, 81 .505.3–88 Well-Known .505.1–190-191 SIEM .505.5–76 SKEME .505.4–53 Smart Card/Token .505.2–51 .505.3–87, 133-137 Overview .505.3–21 Certificate Templates .505.3–2146-137 PIN Management & Crypto HW .505.3–138-140 Removal .505.3–147 Smart Cards Deployment .505.3–146-152 Support .505.3–10 TPM Virtual Smart Card .505.3–141-145 SMB .505.2–16, 27, 90, 95 .505.4–297-98, 100 Description .505.5–93
S4U2Self 505.5–160 SA 505.4–? 49-52 SAM 505.2–32	SharePoint 505.5–236 Shatter Attack 505.2–59 SID .505.2–18, 27, 53, 57, 81 .505.3–88 Well-Known .505.1–190-191 SIEM .505.5–76 SKEME .505.4–53 Smart Card/Token .505.3–87, 133-137 Overview .505.3–21 Certificate Templates .505.3–? 146 Kerberos Combined .505.3–? 136-137 PIN Management & Crypto HW .505.3–138-140 Removal .505.3–147 Smart Cards Deployment .505.3–146-152 Support .505.3–10 TPM Virtual Smart Card .505.3–141-145 SMB .505.2–16, 27, 90, 95 .505.4–? 97-98, 100 Description .505.5–93 Encryption .505.5–94, 96
S4U2Self 505.5–160 SA 505.4–? 49-52 SAM 505.2–32 505.4–173 505.1–112, 150 SAT 505.1–150, 153, 168 505.2–15, 16, 22, 53, 57, 63, 136 505.5–204 Definition 505.2–27-28 Delegation 505.2–28, 34 Exposure 505.2–25-26, 34, 94 Impersonation 505.2–27 SCA databases 505.1–? 24 SCADA 505.2–10 SCCM 505.1–152 505.2–149, 171 SCEP SCM 505.1–21 Script Center 505.2–160 505.3–75 SCW SCW 505.5–18-19, 23	SharePoint 505.5–236 Shatter Attack 505.2–59 SID .505.2–18, 27, 53, 57, 81 .505.3–88 Well-Known .505.1–190-191 SIEM .505.5–76 SKEME .505.4–53 Smart Card/Token .505.3–87, 133-137 Overview .505.3–21 Certificate Templates .505.3–? 146 Kerberos Combined .505.3–? 136-137 PIN Management & Crypto HW .505.3–138-140 Removal .505.3–147 Smart Cards Deployment .505.3–146-152 Support .505.3–10 TPM Virtual Smart Card .505.3–141-145 SMB .505.2–16, 27, 90, 95 .505.4–? 97-98, 100 Description .505.5–93 Encryption .505.5–94, 96 Hardening .505.5–93-98
S4U2Self 505.5–160 SA 505.4–? 49-52 SAM 505.2–32 505.4–173 505.1–112, 150 SAT 505.1–150, 153, 168 505.2–15, 16, 22, 53, 57, 63, 136 505.5–204 Definition 505.2–27-28 Delegation 505.2–28, 34 Exposure 505.2–25-26, 34, 94 Impersonation 505.2–28 Labels 505.2–57 SCA databases 505.1–? 24 SCADA 505.2–10 SCCM 505.1–152 505.2–149, 171 SCEP SCEP 505.3–20, 60 SCM 505.1–21 Script Center 505.2–160 505.3–75 SCW SDK 505.5–51	SharePoint 505.5–236 Shatter Attack 505.2–59 SID 505.2–18, 27, 53, 57, 81 . 505.3–88 Well-Known 505.1–190-191 SIEM 505.5–76 SKEME 505.4–53 Smart Card/Token 505.2–51 . 505.3–87, 133-137 Overview 505.2–21 Certificate Templates 505.3–? 136-137 PIN Management & Crypto HW 505.3–138-140 Removal 505.3–? 147 Smart Cards Deployment 505.3–146-152 Support 505.3–146-152 Support 505.3–141-145 SMB 505.2–16, 27, 90, 95 . 505.4–? 97-98, 100 Description 505.5–93 Encryption 505.5–93-98 Message Signing 505.5–97
S4U2Self 505.5–160 SA 505.4–? 49-52 SAM 505.2–32 505.4–173 Sandbox 505.1–112, 150 SAT 505.1–150, 153, 168 505.2–15, 16, 22, 53, 57, 63, 136 505.5–204 505.5–204 Definition 505.2–28, 34 Exposure 505.2–25, 34, 94 Impersonation 505.2–28 Labels 505.2–27 SCA databases 505.1–? 24 SCADA 505.1–152 SCCM 505.1–152 SCEP 505.3–20, 60 SCM 505.1–21 Script Center 505.2–160 505.3–75 SCW SDK 505.5–18-19, 23 SDK 505.5–51 SDN 505.4–8	SharePoint 505.5–236 Shatter Attack 505.2–59 SID 505.2–18, 27, 53, 57, 81 . 505.3–88 Well-Known 505.1–190-191 SIEM 505.5–76 SKEME 505.4–53 Smart Card/Token 505.2–51 . 505.3–87, 133-137 Overview 505.2–21 Certificate Templates 505.3–? 136-137 PIN Management & Crypto HW 505.3–138-140 Removal 505.3–? 147 Smart Cards Deployment 505.3–146-152 Support 505.3–141-145 SMB 505.2–16, 27, 90, 95 . 505.4–? 97-98, 100 Description 505.5–93 Encryption 505.5–93-98 Message Signing 505.5–97 Social Engineering 505.1–180-185
S4U2Self 505.5–160 SA 505.4–? 49-52 SAM 505.2–32 505.4–173 Sandbox 505.1–112, 150 SAT 505.1–150, 153, 168	SharePoint 505.5–236 Shatter Attack 505.2–59 SID 505.2–18, 27, 53, 57, 81 505.3–88 Well-Known 505.1–190-191 SIEM 505.5–76 SKEME 505.4–53 Smart Card/Token 505.2–51 505.3–87, 133-137 Overview 505.2–21 Certificate Templates 505.3–? 146 Kerberos Combined 505.3–? 136-137 PIN Management & Crypto HW 505.3–138-140 Removal 505.3–147 Smart Cards Deployment 505.3–146-152 Support 505.3–146-152 Support 505.3–141-145 SMB 505.2–16, 27, 90, 95 505.4–? 97-98, 100 Description 505.5–93 Encryption 505.5–93-98 Message Signing 505.5–97 Social Engineering 505.1–180-185 505.2–11, 68
S4U2Self 505.5–160 SA 505.4–? 49-52 SAM 505.2–32	SharePoint 505.5–236 Shatter Attack 505.2–59 SID 505.2–18, 27, 53, 57, 81 505.3–88 Well-Known 505.1–190-191 SIEM 505.5–76 SKEME 505.4–53 Smart Card/Token 505.2–51 505.3–87, 133-137 Overview 505.2–21 Certificate Templates 505.3–? 146 Kerberos Combined 505.3–? 136-137 PIN Management & Crypto HW 505.3–138-140 Removal 505.3–147 Smart Cards Deployment 505.3–146-152 Support 505.3–10 TPM Virtual Smart Card 505.3–141-145 SMB 505.2–16, 27, 90, 95 505.4–? 97-98, 100 Description 505.5–93 Encryption 505.5–93-98 Message Signing 505.5–97 Social Engineering 505.1–180-185 505.2–11, 68 SoftGrid 505.1–112
S4U2Self 505.5–160 SA 505.4–? 49-52 SAM 505.2–32 505.4–173 Sandbox 505.1–112, 150 SAT 505.1–150, 153, 168 . 505.2–15, 16, 22, 53, 57, 63, 136 . 505.2–204 Definition 505.2–27-28 Delegation 505.2–28, 34 Exposure 505.2–25-26, 34, 94 Impersonation 505.2–28 Labels 505.2–57 SCA databases 505.1–? 24 SCADA 505.1–? 24 SCADA 505.1–152 . 505.2–10 SCCM 505.1–152 . 505.2–149, 171 SCEP 505.3–20, 60 SCM 505.1–21 Script Center 505.2–160 . 505.3–75 SCW 505.5–18-19, 23 SDK 505.5–51 SDN 505.4–8 Secunia PSI 505.2–165, 505.2–167-168 Secure Boot 505.3–94, 82 . 505.3–98, 505.3–160	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
S4U2Self 505.5–160 SA 505.4–? 49-52 SAM 505.2–32	SharePoint 505.5–236 Shatter Attack 505.2–59 SID 505.2–18, 27, 53, 57, 81 505.3–88 Well-Known 505.1–190-191 SIEM 505.5–76 SKEME 505.4–53 Smart Card/Token 505.2–51 505.3–87, 133-137 Overview 505.2–21 Certificate Templates 505.3–? 146 Kerberos Combined 505.3–? 136-137 PIN Management & Crypto HW 505.3–138-140 Removal 505.3–147 Smart Cards Deployment 505.3–146-152 Support 505.3–10 TPM Virtual Smart Card 505.3–141-145 SMB 505.2–16, 27, 90, 95 505.4–? 97-98, 100 Description 505.5–93 Encryption 505.5–93-98 Message Signing 505.5–97 Social Engineering 505.1–180-185 505.2–11, 68 SoftGrid 505.1–112

11D	Policy Scripting
Trust Anchor 505.4–117 Trust Level 505.2–54 Trusted Signing Certificate 505.1–165 TTL 505.3–64	Default Settings .505.4-? 27-29 Hardening .505.5-121-123 Logging .505.5-78 Network Profiles .505.4-23-26 Policy Scripting .505.4-92-95
TDSS Rootkit	WEP
Task Manager	WDS
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	VDI
SplashID 505.2–88 SSH 505.4–37	VBScript

EAP-TLS & Smart Card Support505.4–162-164 Infrastructure/Ad Hoc Mode	Client Administration 505.2-? 159-161 Console 505.2-157-158 Disappointments 505.2-162-164 Requirements 505.2-157 Tools 505.2-160 WUAU.ADM 505.2-159
WPA/WPA2 505.4-106 WPAD 505.4-11, 505.1-143 Attack 505.1-145 Hardening 505.1-146-148 WQL 505.1-53 WSUS 505.2-151-156 API 505.2-160	XML