

Python Security Multi-Tool Project

Reconnaissance and Resource Development

| Offensive Operations | Defensive Countermeasures |
|---|---------------------------|
| PortScan.py – Active Scanning | HoneyScan.py |
| DNSExploration.py – Passive Scanning | HoneyResolver.py |
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Initial Access

| Offensive Operations | Defensive Countermeasures |
|---|---------------------------------|
| TestDefaultCredentials.py – Valid Accounts | ValidAccountDetection.py |
| AutorunSetup.py - Autoruns | AutorunDetection.py |
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Code Execution

| Offensive Operations | Defensive Countermeasures |
|---|---------------------------|
| WMIExecution.py – Windows Management Interface | WMIDetection.py |
| TaskScheduler.py – Scheduled Task | ScheduleTracker.py |
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Persistence

| Offensive Operations | Defensive Countermeasures |
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| RegAutorun.py – Autostart and Autoruns | DetectRegistryAutorun.py |
| ChangePath.py – Hijack Execution | DetectPathModificationRegistry.py |
| | DetectPathModificationEvent.py |

Privilege Escalation

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|---------------------------------------|---------------------------------|
| LogonScript.py – Logon Scripts | DetectLogonScript.py |
| | PythonLibraryMismatch.py |
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Defense Evasion

| Offensive Operations | Defensive Countermeasures |
|---|---------------------------|
| DetectAntivirus.py – Impair Defenses | DecoyProcess.py |
| TerminateAntivirus.py | |
| AlternateDataStream.py - Hide Artifacts | DetectADS.py |

Credential Access

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|---------------------------------|---------------------------|
| ChromeDump.py – Impair Defenses | DetectLocalStateAccess.py |
| NetworkCredentialSniffing.py | DecoyCredentials.py |
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Discovery

| Offensive Operations | Defensive Countermeasures |
|-----------------------------------|---------------------------|
| UserDiscovery.py – Accounts | LastLogin.py |
| | DetectAdminLogin.py |
| FileDiscovery.py – File Discovery | MonitorDecoyContent.py |
| | CreateDecoyContent.py |

Lateral Movement

| Offensive Operations | Defensive Countermeasures |
|--|---------------------------|
| RemoteServices.py – Remote Services | DetectSMB.py |
| WebSessionCookieHijack.py - HTTP Cookies | CreateFakeCookies.py |
| | DetectDecoyCookies.py |

Collect Intelligence

| Offensive Operations | Defensive Countermeasures |
|-------------------------------------|---------------------------|
| ModifyClipboard.py – Clipboard Data | MonitorClipboard.py |
| LocalEmailFiles.py - Email | FindEmailArchives.py |
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Command and Control

| Offensive Operations | Defensive Countermeasures |
|---|---------------------------|
| EncryptedChannelClient.py – Encrypted Channel | DetectEncryptedTraffic.py |
| EncryptedChannelServer.py | |

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| ProtocolTunnelingClient.py – Protocol Tunneling | ProtocolDecoder.py |
| ProtocolTunnelingServer.py | |

Data Exfiltration

| Offensive Operations | Defensive Countermeasures |
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| DNSEXfiltrationClient.py – over DNS | DetectAlternativeProtocol.py |
| DNSEXfiltrationServer.py | |
| NonApplicationClient.py – Non-Application Layer Protocols | DetectNonApplicationProtocol.py |
| NonApplicationServer.py | |

Impact – Achieving Impact

| Offensive Operations | Defensive Countermeasures |
|--|--------------------------------|
| DataEncryption.py – Data Encryption | CheckFileEntropies.py |
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| AccountAccessRemoval.py – Account Removal | DetectPasswordChange.py |
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