

# CIRT Playbook Battle Card: GSPBC-1028 - Persistence - Office Application Startup

(P) Preparation	(I) Identification	(C) Containment
<ol style="list-style-type: none"> <li>1. Patch asset vulnerabilities</li> <li>2. Perform routine inspections of controls/weapons</li> <li>3. Ensure antivirus/endpoint protection software is installed on workstations and laptops</li> <li>4. Conduct employee security awareness training</li> <li>5. Disable add-ins and prevent Office VBA macros from executing               <ol style="list-style-type: none"> <li>a. If add-ins are necessary, follow best practices for securing them, such as requiring them to be signed</li> <li>b. NOTE: disabling add-ins in the Office Trust Center does not disable WLL nor does it prevent VBA code</li> </ol> </li> <li>6. Ensure that servers and workstations are logging to a central location</li> <li>7. Create the registry key for the Office Test<sup>[2]</sup> method and set the permissions to "Read Control"</li> </ol>	<ol style="list-style-type: none"> <li>1. Monitor for:               <ol style="list-style-type: none"> <li>a. Abnormal chains of activity resulting from Office processes</li> <li>b. Events related to Registry key creation and modification</li> <li>c. Office processes performing anomalous DLL loads</li> <li>d. Changes to Office macro security settings or base templates</li> </ol> </li> <li>2. Check for the creation of the Office Test key               <ol style="list-style-type: none"> <li>a. TIP: Sysinternals Autoruns<sup>[3]</sup> can detect tasks set up using the Office Test Registry key</li> </ol> </li> <li>3. Audit Registry entries that are relevant to enabling add-ins</li> <li>4. Validate Office trusted locations</li> <li>5. Investigate and clear ALL alerts</li> </ol>	<ol style="list-style-type: none"> <li>1. Inventory (enumerate &amp; assess)</li> <li>2. Detect   Deny   Disrupt   Degrade   Deceive   Destroy</li> <li>3. Observe -&gt; Orient -&gt; Decide -&gt; Act</li> <li>4. Utilize EDR hunter/killer agents to terminate offending processes</li> <li>5. Remove the affected system from the network</li> <li>6. Determine the source and pathway of the attack</li> <li>7. Issue a perimeter enforcement for known threat actor locations</li> </ol>
(E) Eradication	(R) Recovery	(L) Lessons/Opportunities
<ol style="list-style-type: none"> <li>1. Close the attack vector</li> <li>2. Create forensic backups of affected systems</li> <li>3. Perform endpoint/AV scans on affected systems</li> <li>4. Reset any compromised passwords</li> <li>5. Inspect ALL assets and user activity for IOC consistent with the attack profile</li> <li>6. Inspect backups for IOC consistent with the attack profile PRIOR to system recovery</li> <li>7. Patch asset vulnerabilities</li> </ol>	<ol style="list-style-type: none"> <li>1. Restore to the RPO within the RTO</li> <li>2. Assess and address collateral damage</li> <li>3. Resolve any related security incidents</li> <li>4. Restore affected systems to their last clean backup</li> </ol>	<ol style="list-style-type: none"> <li>1. Perform routine cyber hygiene due diligence</li> <li>2. Engage external cybersecurity-as-a-service providers and response professionals</li> <li>3. Implement policy changes to reduce future risk</li> <li>4. Utilize newly obtained threat signatures</li> </ol> <div data-bbox="1398 987 2045 1271"> <p>References:</p> <ol style="list-style-type: none"> <li>1. MITRE ATT&amp;CK Technique T1137: <a href="https://attack.mitre.org/techniques/T1137/">https://attack.mitre.org/techniques/T1137/</a></li> <li>2. Office Test Sub-technique T1137.002: <a href="https://attack.mitre.org/techniques/T1137/002/">https://attack.mitre.org/techniques/T1137/002/</a></li> <li>3. Sysinternals Autoruns: <a href="https://docs.microsoft.com/en-us/sysinternals/downloads/autoruns">https://docs.microsoft.com/en-us/sysinternals/downloads/autoruns</a></li> </ol> </div>

## Resources:

- IT Disaster Recovery Planning: <https://www.ready.gov/it-disaster-recovery-plan>
- Report Cybercrime: <https://www.ic3.gov/Home/FAQ>