CIRT Playbook Battle Card: **GSPBC-1080 - Impact - Network Denial of Service**

(P) Preparation

1. Patch asset vulnerabilities
2. Perform routine inspections of controls/weapons
3. Maintain Antivirus/EDR application updates
4. Create network segmentation
5. Log traffic between network segments
6. Incorporate threat intelligence
7. Perform routine inspections of asset backups
8. Conduct user security awareness training
9. Conduct response training (this PBC)
10. Develop a disaster recovery plan/business continuity plan, focusing on critical assets, and how they would be affected by a Network DoS attack [4]

(I) Identification

1. Monitor for:
    a. Uncommon data flows on the network. This includes processes utilizing the network that do not normally have network communication, or are communicating on the network for the first time. [2]
    b. Logs, messages and other indicators of system health of the host sensors. [3]
    c. Other indications of a DoS attack, such as poor resource consumption, or poor network/resource performance
    d. Inability to access a particular web service
    e. Sudden connectivity issues across devices on the same network
2. Investigate and clear ALL alerts associated with the impacted assets or accounts
3. Routinely check firewall, IDS, IPS, and SIEM logs for any unusual activity

(C) Containment

1. Inventory (enumerate & assess)
2. Detect | Deny | Disrupt | Degrade | Deceive | Destroy
3. Observe -> Orient -> Decide -> Act
4. Issue perimeter enforcement for known threat actor locations
5. Archive scanning related artifacts such as IP addresses, user agents, and requests
6. Determine the source and pathway of the attack
7. Fortify non-impacted critical assets
8. Block ports and protocols that the attack is using to cause the attack, if possible [4]

(E) Eradication

1. Close the attack vector by applying the Preparation steps listed above
2. Perform endpoint/AV scans on targeted systems
3. Reset any compromised passwords
4. Inspect ALL assets and user activity for IOC consistent with the attack profile
5. Inspect backups for IOC consistent with the attack profile PRIOR to system recovery
6. Patch asset vulnerabilities

(R) Recovery

1. Restore to the RPO (Recovery Point Objective) within the RTO (Recovery Time Objective)
2. Address any collateral damage by assessing exposed technologies
3. Resolve any related security incidents
4. Restore affected systems to their last clean backup

(L) Lessons/Opportunities

1. Perform routine cyber hygiene due diligence
2. Engage external cybersecurity-as-a-service providers and response professionals
3. Implement policy changes to reduce future risk
4. Utilize newly obtained threat signatures
5. Remember that data and events should not be viewed in isolation but as part of a chain of behavior that could lead to other activities

References:

1. https://attack.mitre.org/techniques/T1498/
2. https://attack.mitre.org/mitigations/DS0029/
3. https://attack.mitre.org/mitigations/DS0013/
4. https://attack.mitre.org/M1037/