

T1027 Obfuscated PowerShell Execution

Incident Report: [HIGH] - T1027 Obfuscated PowerShell Execution

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Status: True Positive / Resolved

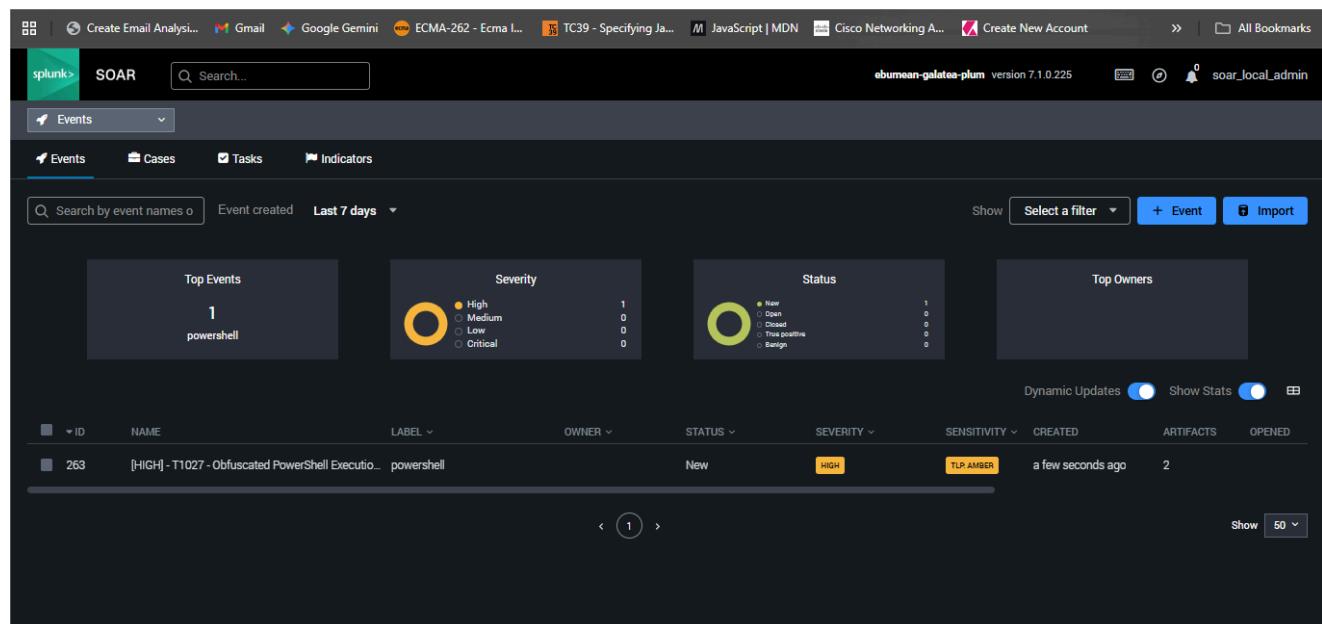
1. Executive Summary

On February 13, 2026, a high-severity alert was triggered via the Splunk SIEM identifying obfuscated PowerShell execution on a Windows endpoint. Investigation confirmed that an attacker (emulated via Atomic Red Team) utilized Base64 encoding to mask administrative reconnaissance commands. The incident was successfully triaged in Splunk SOAR, and the host was verified for containment.

2. Detection & Telemetry (The Identification Phase)

The attack was captured using **Sysmon Event ID 1 (Process Creation)**.

- Extraction:** The Wazuh agent forwarded the logs to Splunk.
- Detection Logic:** A scheduled Splunk search identified the `-EncodedCommand` flag.
- SOAR Ingestion:** Data was mapped to CEF fields and pushed to Splunk SOAR for triage.



3. Technical Analysis (The Investigation Phase)

The primary artifact was an encoded string:

```
bgBlAHQAIABsAG8AYwBhAGwAZwByAG8AdQBwACAAYQBkAG0AaQBuAGkAcwB0AHIAyQB0AG8AcgBzAA=
```

Analysis Steps:

- Field Extraction:** Extracted the Encoded string artifact in SOAR.
- Decoding:** Utilized CyberChef with a From Base64 and Decode text (UTF-16LE) recipe to strip null bytes.
- Findings:** The decoded command was net localgroup administrators .

The screenshot shows the SOAR platform interface. The top navigation bar includes 'splunk> SOAR' and a search bar. The main area is titled 'INVESTIGATION' with a sub-section '[HIGH] - T1027 - Obfuscated PowerShell Execution (Base64)'. The timeline shows an activity from 'soar_local_admin' at ID 263. The details pane shows the following information:

| ID | LABEL | NAME | SEVERITY | CREATED BY | TAGS |
|-----|------------|---|----------|------------------|------|
| 550 | powershell | [HIGH] - T1027 - Obfuscated PowerShell Execution (Base64) | HIGH | soar_local_admin | N/A |

Details:

- Encoded string: `bgBlAHQAIABsAG8AYwBhAGwAZwByAG8AdQBwACAAYQBkAG0AaQBuAGkAcwB0AHIAyQB0AG8AcgBzAA=`
- Executed Command: `C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe -ExecutionPolicy Bypass -WindowStyle Hidden -EncodedCommand bgBlAHQAIABsAG8AYwBhAGwAZwByAG8AdQBwACAAYQBkAG0AaQBuAGkAcwB0AHIAyQB0AG8AcgBzAA=`
- _originating_search: `http://soc-server:8000/app/search/search?q=%7Cload%pb%20scheduler_admin_search_RMD5c03378ee1e3aea8_at_1770977400_153%20%7C20head%201%20%7C20tail%201&earliest=0&latest=now`
- destinationUserName: `WINDOWS\shewgba169`
- rid: `0`
- sid: `scheduler_admin_search_RMD5c03378ee1e3aea8_at_1770977400_153`
- tag: `modaction`

Event history:

- soar_local_admin a minute ago: Event status updated to 'open' (id: 263)
- soar_local_admin a few seconds ago: Event reassigned to 'soar_local_admin' (id: 263)

Bottom panel: Enter comment or '/' to invoke command

The screenshot shows the CyberChef interface. The left panel is titled 'Recipe' and contains two sections: 'From Base64' and 'Decode text'. The 'From Base64' section has 'Alphabet' set to 'A-Za-zA-Z0-9+=', 'Remove non-alphabet chars' checked, and 'Strict mode' checked. The 'Decode text' section has 'Encoding' set to 'UTF-16LE (1200)'. The right panel is titled 'Input' and shows the encoded string: `bgBlAHQAIABsAG8AYwBhAGwAZwByAG8AdQBwACAAYQBkAG0AaQBuAGkAcwB0AHIAyQB0AG8AcgBzAA=`. The bottom panel is titled 'Output' and shows the decoded command: `net localgroup administrators`.

4. MITRE ATT&CK Mapping

- Execution:** T1059.001 (Command and Scripting Interpreter: PowerShell)
- Defense Evasion:** T1027 (Obfuscated Files or Information)
- Discovery:** The activity also maps to Local Group Discovery (T1087.002) based on the intent to identify administrators.

5. Timeline & Closure

- **15:40:** Alert triggered in Splunk and ingested into SOAR.
- **15:44:** Analyst assigned and moved ticket to `Open`.
- **15:52:** Payload decoded; confirmed malicious intent to discover admin groups.
- **15:56:** Incident closed as **True Positive**.