T1027 Obfuscated PowerShell Execution

Incident Report: [HIGH] - T1027 Obfuscated PowerShell Execution

Analyst: Shewag Bhattarai

Date: February 13, 2026

Status: True Positive / Resolved

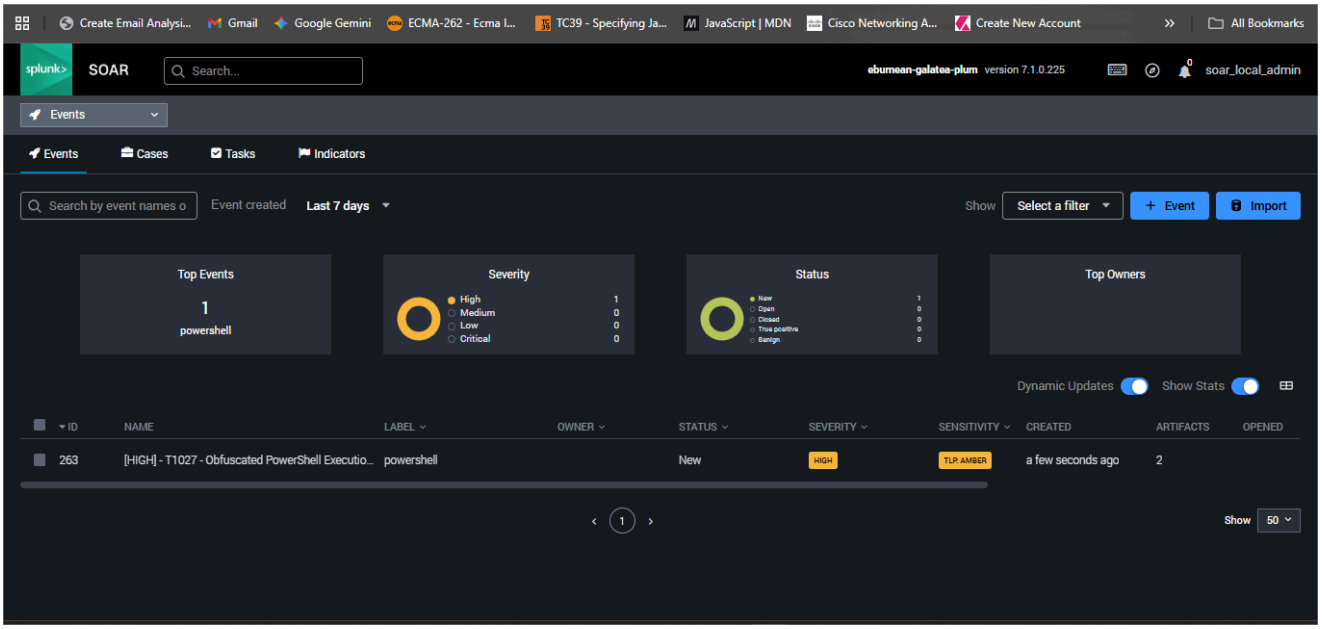
1. Executive Summary

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.

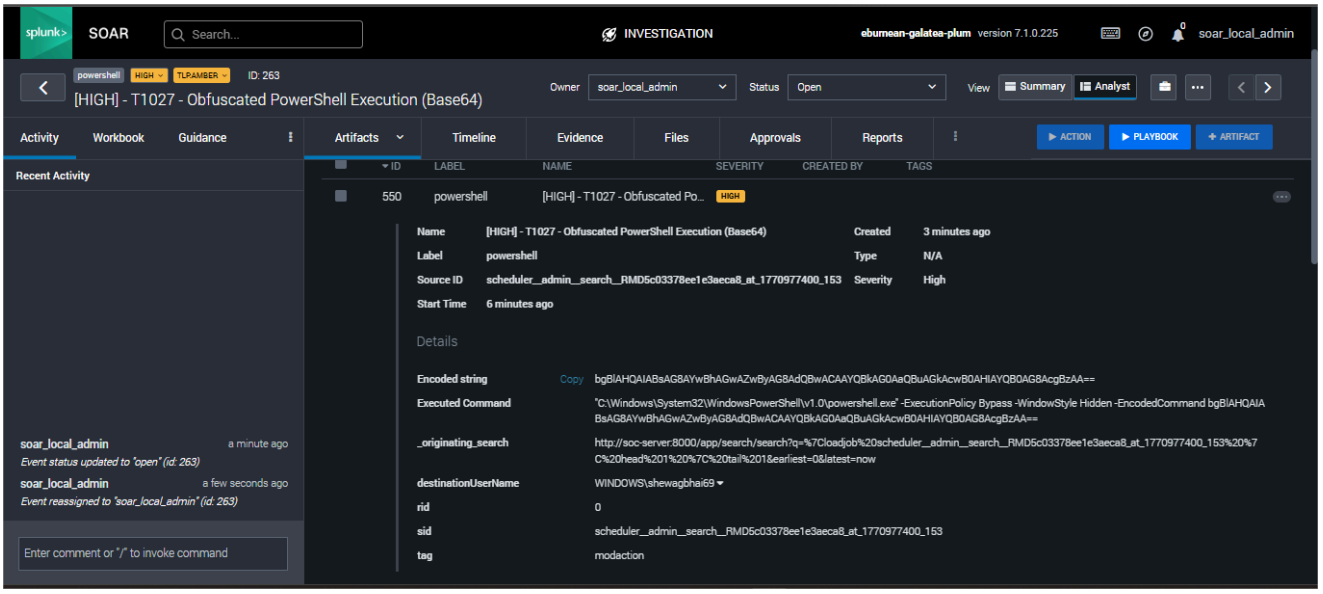


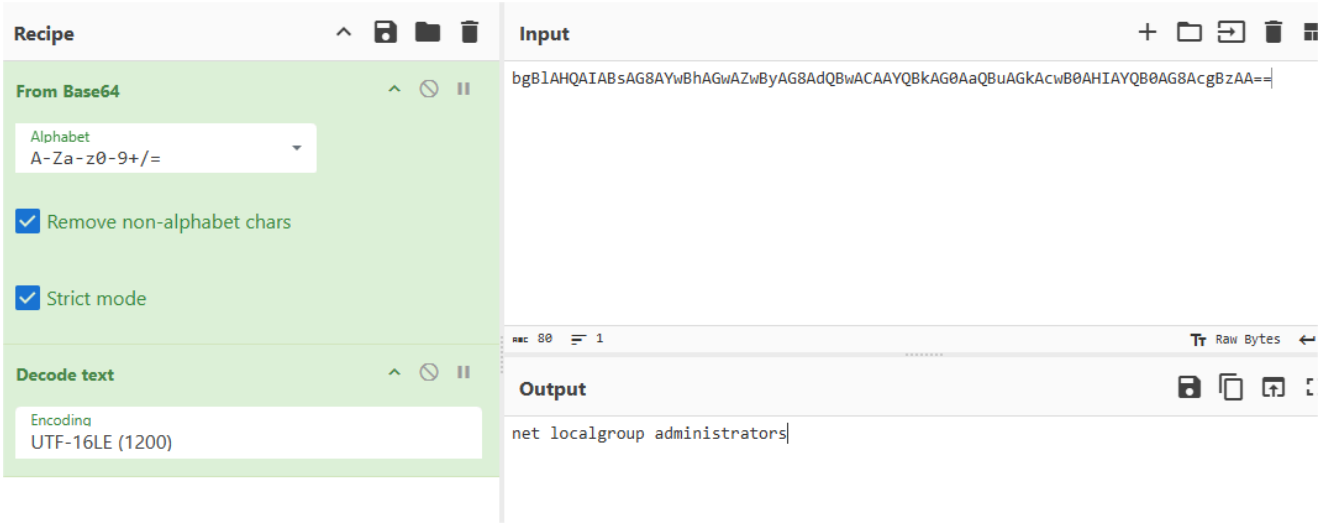
3. Technical Analysis (The Investigation Phase)

The primary artifact was an encoded string: `bgBlAHQAIABsAG8AYwBhAGwAZwByAG8AdQBwACAAYQBkAG0AaQBuAGkAcwB0AHIAYQB0AG8AcgBzAA==`.

Analysis Steps:

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