Examining A Sodinokibi Attack

trendmicro.com/en_us/research/21/a/sodinokibi-ransomware.html

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Sodinokibi was behind several notable attacks last year. In this entry, we describe its attack process using some of the examples we encountered.

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Sodinokibi was first detected in April 2019 and linked to the retired GandCrab. From that point on, Sodinokibi launched several high-profile attacks that continued throughout 2020, thus making a name for itself as one of the ransomware families that should be watched out for. Here we describe Sodinokibi's typical attack process.

Technical analysis

The threat actors behind Sodinokibi typically hire a variety of affiliates for their initial access. Their attacks often begin with familiar techniques like malspam emails with spearphishing links or attachments, RDP access that uses valid accounts, compromised websites, and exploits. They also use techniques that indicate their targeted approach.

Initial access

We observed the use of several of these initial access techniques. For example, as with campaigns, we saw the use of the CVE-2019-2725 vulnerability and observed an instance where Sodinokibi was loaded in the memory of PowerShell through reflective-load instead of binary execution. We also saw malspam that led to the use of a macro to download and execute the malware.

CVE-2018-13379 and CVE-2019-11510 are also used by the malware, as well as compromised valid accounts. This allows the threat actors to drop and execute other components like the anti-antivirus, exfiltration tools, and finally Sodinokibi itself.

Lateral movement and evasion tactics

Sodinokibi, like many ransomware families known today, have a targeted approach with regard to their campaigns. In line with this, we observed the use of RDP and PsExec for lateral movement — a sign of targeted attacks — to drop and execute other components and the ransomware itself.

We also observed that PC Hunter and Process Hacker are used to terminate services or processes, especially those services and processes that are related to antivirus software.

Once the system is infected, Sodinokibi sends a report and system information to its command-and-control (C&C) server. It generates a pseudorandom URL based on a fixed format and generation to add to a list of domains in its configuration.

Security recommendations

Indicators of Compromise (IOCs)

SHA256

Sodinokibi has been known to target high-profile entities and uses notable evasive tactics. Organizations should, therefore, be wary of its techniques. For now, here are some best practices to prevent similar ransomware attacks:

- Avoid opening unverified emails or clicking on their embedded links, as these can start the ransomware installation process.
- Back up your important files using the 3-2-1 rule: Create three backup copies on two different file formats, with one of the backups in a separate location.
- Regularly update software, programs, and applications, to ensure that your apps are current, with the latest protections from new vulnerabilities.

If you believe that your organization has been affected by this campaign, visit this page for the available Trend Micro solutions that can help detect and mitigate any risks from this

campaign.			

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Detection name

04ae146176632509ab5239d0ec8f2447d7223090	Ransom.Win32.SODINOKIBI.MRA
10682d08a18715a79ee23b58fdb6ee44c4e28c61	Ransom.Win32.SODINOKIB.SMTH
169abe89f4eab84275c88890460a655d647e5966	Ransom.Win32.SODINOKIB.SMTH
20d90f04dcc07e1faa09aa1550f343c9472f7ec6	Ransom.Win32.SODINOKIB.SMTH
2a75db73888c77e48b77b72d3efb33ab53ccb754	Ransom.Win32.SODINOKIBI.AUWUJDES
58d835c3d204d012ee5a4e3c05a06e60b4 316d0e	Ransom.Win32.SODINOKIB.SMTH
Ce0c8814d7630f8636ffd73f8408a36dc0e1ca4d	Ransom.Win32.SODINOKIB.SMTH