

Arithmetic-based DGA Generation

Explanation: This DGA generates domains by performing arithmetic operations on a base value and a random number.

Usefulness: This type of DGA can be useful for malware authors to create a unique set of domains for C&C communication or data exfiltration, based on a shared base value.

Strengths: The generated domains are unpredictable without knowledge of the base value and the arithmetic operation used.

Weaknesses: If the base value or the arithmetic operation is compromised, the generated domains can be predicted.

Deception: This DGA can be deciphered by analyzing the pattern of generated domains and attempting to reverse-engineer the base value and the arithmetic operation.

www.0012595.info

www.0012634.org

www.0000012962.com

www.0000013254.info

www.00012631.net

www.000012472.org

www.0000012625.net

www.00012627.info

www.0000012970.org

www.0012568.info

Regex for Arithmetic-based Generated DGAs: `[r|w|o|e|i|g|n|f|t]+|[9|4|0|2|3|5|7|6|1]+|[^8c.m]{0,2}{1,3}`

Yara rule:

```
rule dga_domain_detection {
  meta:
    description = "Detects DGA-generated domain names"
  strings:
    $dga_regex = /[r|w|o|e|i|g|n|f|t]+|[9|4|0|2|3|5|7|6|1]+|[^8c.m]{0,2}{1,3}/ nocase
  condition:
    $dga_regex
}
```

Note: Can use <https://riskmitigation.ch/yara-scan/> or MalwareBazaar <https://bazaar.abuse.ch/> but will need API Key