

# SECURITY LIFECYCLE REVIEW

ACME



#### PREPARED BY:

#### ACME Palo Alto Networks www.acmecorporation.com

The Security Lifecycle Review summarizes the threat exposure and security risks facing **ACME** and the customers connecting to their networks. The data used for this analysis was gathered by Palo Alto Networks during the report period shown below. The report provides actionable intelligence and risk assessment around the applications, URL traffic, and types of content that are traversing the **ACME** network as well as the volume and types of threats and vulnerabilities that are observed. Recommendations are provided that can be employed to reduce the overall risk exposure for both the network operator and their customers.



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### **EXECUTIVE SUMMARY FOR ACME**

The Security Lifecycle Review summarizes the business and security risks facing **ACME**. The data used for this analysis was gathered by Palo Alto Networks during the report time period. The report provides actionable intelligence around the applications, URL traffic, types of content, and threats traversing the network, including recommendations that can be employed to reduce the organization's overall risk exposure.

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**KEY FINDINGS** 

### **450**

#### **APPLICATIONS IN USE**

**450** total applications are in use, presenting potential business and security challenges. As critical functions move outside of an organization's control, employees use non-work-related applications, or cyberattackers use them to deliver threats and steal data.

# 81

#### **HIGH RISK APPLICATIONS**

**81** high-risk applications were observed, including those that can introduce or hide malicious activity, transfer files outside the network, or establish unauthorized communication.

### 181

#### SAAS APPLICATIONS

**181** SaaS applications were observed in your network. To maintain administrative control, adopt SaaS applications that will be managed by your IT team.

# 388,065

#### **VULNERABILITY EXPLOITS**

**388,065** total vulnerability exploits were observed in your organization, including **overflow, Other, and code-execution**.

### 388,066

#### TOTAL THREATS

**388,066** total threats were found on your network, including vulnerability exploits, malware, and outbound command and control activity.



### **Applications at a Glance**

Applications can introduce risk, such as delivering threats, potentially allowing data to leave the network, enabling unauthorized access, lowering productivity, or consuming corporate bandwidth. This section will provide visibility into the applications in use, allowing you to make an informed decision on potential risk versus business benefit.

#### KEY FINDINGS

- High-risk applications such as **email**, **file-sharing**, **and photo-video** were observed on the network, which should be investigated due to their potential for abuse.
- **450** total applications were seen on the network across **25** sub-categories, as opposed to an industry average of **0** total applications seen in other **High Technology** organizations.
- 7.31 TB was used by all applications, including media with 3.97 TB, compared to an industry average of 0 Bytes in similar organizations.

#### **HIGH-RISK APPLICATIONS**

The first step to managing security and business risk is identifying which applications can be abused to cause the most harm. We recommend closely evaluating applications in these categories to ensure they are not introducing unnecessary compliance, operational, or cyber security risk.



#### NUMBER OF APPLICATIONS ON NETWORK



#### **BANDWIDTH CONSUMED BY APPLICATIONS**

| ACME              |         | 7.31 TB |
|-------------------|---------|---------|
| INDUSTRY AVERAGE  | 0 Bytes |         |
| ALL ORGANIZATIONS | 0 Bytes |         |

#### CATEGORIES WITH THE MOST APPLICATIONS

The following categories have the most application variants, and should be reviewed for business relevance.



#### CATEGORIES CONSUMING THE MOST BANDWIDTH

Bandwidth consumption by application category shows where application usage is heaviest, and where you could reduce operational resources.



# **RISK LEVEL**

**Applications that Introduce Risk** 

The top applications (sorted by bandwidth consumed) for application subcategories that introduce risk are displayed below, including industry benchmarks on the number of variants across other High Technology organizations. This data can be used to more effectively prioritize your application enablement efforts.

#### – KEY FINDINGS

- 5 ]- High
- A total of 450 applications were seen in your organization, compared to an industry average of 0 in other High Technology organizations.
- The most common types of application subcategories are **photo-video**, file-sharing, and internet-utility. • • The application subcategories consuming the most bandwidth are photo-video, software-update, and internetutility.
- Number of Applications in the subcategory Industry Average









■ Number of Applications in the subcategory ■ Industry Average ■ Number of Applications in the subcategory ■ Industry Average



#### **TOP FILE-SHARING APPS**



5 0

### Encrypted-Tunnel 21.88 GB

#### **TOP ENCRYPTED-TUNNEL APPS**



■ Number of Applications in the subcategory ■ Industry Average





Number of Applications in the subcategory Industry Average



#### 16.68 MB

ACME | SECURITY LIFECYCLE REVIEW Report Period: 8 DAYS



#### ■ Number of Applications in the subcategory ■ Industry Average



Photo-Video 3.78 TB

#### TOP PHOTO-VIDEO APPS



3 0 Proxy 702.62 MB TOP PROXY APPS http-proxy 618.65 MB zscaler-internet-access 83.97 MB socks 0 Bytes

■ Number of Applications in the subcategory ■ Industry Average



# Applications that Introduce Risk — Detail

FILTERING

| RISK | APPLICATION             | CATEGORY         | SUB CATEGORY      | TECHNOLOGY    | BYTES     | SESSIONS |
|------|-------------------------|------------------|-------------------|---------------|-----------|----------|
| 2    | gmail-posting           | collaboration    | email             | browser-based | 22.38 GB  | 61305    |
| 4    | gmail-base              | collaboration    | email             | browser-based | 16.54 GB  | 102661   |
| 4    | hotmail                 | collaboration    | email             | browser-based | 7.83 GB   | 141057   |
| 3    | zimbra                  | collaboration    | email             | browser-based | 1.45 GB   | 13945    |
| 4    | outlook-web             | collaboration    | email             | browser-based | 1.17 GB   | 11816    |
| 3    | yahoo-mail-base         | collaboration    | email             | browser-based | 920.87 MB | 45710    |
| 3    | ms-outlook-downloading  | collaboration    | email             | browser-based | 774.49 MB | 255      |
| 2    | gmail-downloading       | collaboration    | email             | browser-based | 537.77 MB | 391      |
| 4    | ssl                     | networking       | encrypted-tunnel  | browser-based | 7.26 GB   | 271955   |
| 3    | open-vpn                | networking       | encrypted-tunnel  | client-server | 6.7 GB    | 199      |
| 2    | opentun                 | networking       | encrypted-tunnel  | client-server | 6.2 GB    | 5        |
| 4    | ssh                     | networking       | encrypted-tunnel  | client-server | 1.71 GB   | 570900   |
| 4    | hola-unblocker          | networking       | encrypted-tunnel  | client-server | 4.14 MB   | 4900     |
| 2    | sync                    | general-internet | file-sharing      | browser-based | 29.55 GB  | 24200    |
| 5    | ftp                     | general-internet | file-sharing      | client-server | 20.94 GB  | 248445   |
| 4    | dropbox-base            | general-internet | file-sharing      | client-server | 10.67 GB  | 51628    |
| 4    | ms-onedrive-downloading | general-internet | file-sharing      | client-server | 5.98 GB   | 1343     |
| 5    | google-drive-web        | general-internet | file-sharing      | browser-based | 1.85 GB   | 11791    |
| 3    | dropbox-uploading       | general-internet | file-sharing      | client-server | 1.57 GB   | 59       |
| 2    | dropbox-downloading     | general-internet | file-sharing      | client-server | 1.25 GB   | 2198     |
| 3    | hightail-uploading      | general-internet | file-sharing      | browser-based | 1.03 GB   | 30       |
| 2    | telegram                | collaboration    | instant-messaging | client-server | 798.93 MB | 2623     |
| 5    | jabber                  | collaboration    | instant-messaging | client-server | 450.35 MB | 61691    |
| 2    | slack-base              | collaboration    | instant-messaging | browser-based | 351.35 MB | 624      |
| 1    | whatsapp-base           | collaboration    | instant-messaging | client-server | 193.03 MB | 37329    |

Notes:



| RISK | APPLICATION               | CATEGORY      |                   | TECHNOLOGY       | BYTES     | SESSIONS |
|------|---------------------------|---------------|-------------------|------------------|-----------|----------|
| 2    | kakaotalk-base            | collaboration | instant-messaging | client-server    | 82.53 MB  | 160      |
| 2    | wechat-base               | collaboration | instant-messaging | client-server    | 16.49 MB  | 8268     |
| 3    | facebook-chat             | collaboration | instant-messaging | browser-based    | 5.6 MB    | 11       |
| 3    | google-messages           | collaboration | instant-messaging | browser-based    | 4.73 MB   | 82       |
| 4    | youtube-streaming         | media         | photo-video       | browser-based    | 1.8 TB    | 198436   |
| 4    | http-video                | media         | photo-video       | browser-based    | 778.63 GB | 46783    |
| 3    | netflix-streaming         | media         | photo-video       | browser-based    | 657.34 GB | 94056    |
| 3    | disneyplus                | media         | photo-video       | browser-based    | 212.42 GB | 23074    |
| 4    | youtube-base              | media         | photo-video       | browser-based    | 122.13 GB | 411471   |
| 3    | netflix-base              | media         | photo-video       | browser-based    | 64.99 GB  | 86888    |
| 4    | rtmp                      | media         | photo-video       | browser-based    | 35.62 GB  | 2        |
| 3    | google-photos             | media         | photo-video       | browser-based    | 30.17 GB  | 1392     |
| 5    | http-proxy                | networking    | proxy             | browser-based    | 618.65 MB | 40266    |
| 1    | zscaler-internet-access   | networking    | proxy             | browser-based    | 83.97 MB  | 67557    |
| 5    | socks                     | networking    | proxy             | network-protocol | o Bytes   | 0        |
| 3    | teamviewer-base           | networking    | remote-access     | client-server    | 57.33 GB  | 780334   |
| 4    | ms-rdp                    | networking    | remote-access     | client-server    | 1.38 GB   | 64       |
| 2    | teamviewer-remote-control | networking    | remote-access     | client-server    | 617.1 MB  | 116      |
| 3    | citrix                    | networking    | remote-access     | client-server    | 247.74 MB | 208951   |
| 4    | screenconnect             | networking    | remote-access     | client-server    | 88.94 MB  | 107      |
| 1    | apache-guacamole          | networking    | remote-access     | client-server    | 81.33 MB  | 5        |
| 4    | logmein                   | networking    | remote-access     | client-server    | 799.18 KB | 97       |
| 2    | teamviewer-web            | networking    | remote-access     | browser-based    | 488.29 KB | 7        |
| 3    | facebook-downloading      | collaboration | social-networking | browser-based    | 1.34 GB   | 906      |
| 2    | tumblr-base               | collaboration | social-networking | browser-based    | 676.38 MB | 651      |
|      |                           |               |                   |                  |           |          |

Notes:

|      |                |               | FILTERING         |               |           |          |
|------|----------------|---------------|-------------------|---------------|-----------|----------|
| RISK | APPLICATION    | CATEGORY      | SUB CATEGORY A    | TECHNOLOGY    | BYTES     | SESSIONS |
| 3    | linkedin-base  | collaboration | social-networking | browser-based | 290.98 MB | 2387     |
| 1    | whisper        | collaboration | social-networking | browser-based | 124.67 MB | 175      |
| 4    | facebook-base  | collaboration | social-networking | browser-based | 113.23 MB | 7469     |
| 2    | pinterest-base | collaboration | social-networking | browser-based | 66.8 MB   | 457      |
| 3    | yammer-base    | collaboration | social-networking | client-server | 24.52 MB  | 365      |
| 1    | quora-base     | collaboration | social-networking | browser-based | 16.68 MB  | 134      |

EXECUTIVE SUMMARY APPLICATIONS SAAS APPLICATIONS ADV. URL THREATS SUMMARY

Notes:



### **SaaS Applications**

SaaS-based application services continue to redefine the network perimeter. Often labeled "shadow IT," most of these services are adopted directly by individual users, business teams, or even entire departments. To minimize data security risks, you need control over SaaS applications used your network.

#### KEY FINDINGS

- File-Sharing subcategory has the most unique SaaS applications.
- In terms of data movement, youtube-streaming is the most used SaaS application in your organization.

#### SAAS APPLICATIONS BY NUMBERS

Review the applications being used in your organization. To maintain administrative control, adopt SaaS applications that will be managed by your IT team.



#### SAAS APPLICATION BANDWIDTH

Monitor the volume of data movement to and from SaaS applications. Understand the nature of the applications and how they are being used.





#### TOP SAAS APPLICATION SUBCATEGORIES

The following displays the number of applications in each application subcategory. This allows you to assess the most used applications organization.





#### ■ Number of Applications in the subcategory ■ Industry Average



#### Email 43.45 GB

#### TOP EMAIL APPS

| gmail-posting                       |          |          |
|-------------------------------------|----------|----------|
|                                     |          | 22.38 GB |
| gmail-base                          |          |          |
|                                     | 16.54 GB |          |
| zimbra<br>1.45 GB                   |          |          |
| yahoo-mail-base<br>920.87 MB        |          |          |
| ms-outlook-downloading<br>774.49 MB |          |          |
| gmail-downloading<br>537.77 MB      |          |          |
| outlook-web-online<br>282.72 MB     |          |          |
| gmail-uploading<br>149.84 MB        |          |          |

#### ■ Number of Applications in the subcategory ■ Industry Average

0



General-Business 15.39 GB

#### TOP GENERAL-BUSINESS APPS

| computrace                    |          |
|-------------------------------|----------|
|                               | 14.25 GB |
| arcgis-base<br>492.89 MB      |          |
| windows-azure-base            |          |
| 417.90 MB                     |          |
| constant-contact<br>231.26 MB |          |
| yelp-base                     |          |
| 1.86 MB                       |          |
| qlikview                      |          |
| 510.72 KB                     |          |
| 344.85 KB                     |          |
| liveperson<br>269.19 KB       |          |



#### TOP SAAS APPLICATIONS

The following displays the top 10 SaaS applications used in your organization and the application usage compared against your industry peers and all other Palo Alto Networks customers.

#### TOP SAAS APPLICATIONS BY DATA MOVEMENT



🔳 ACME 🔳 Industry Average



#### SAAS APPLICATIONS BY HOSTING RISK

Based on your SaaS usage, it is imperative to regularly review SaaS applications being accessed, who is accessing them, and how they are being used. The following chart displays the number of applications by each hosting risk characteristic.

| Poor Terms of Service    | 36 |     |
|--------------------------|----|-----|
| Data Breaches            | 9  |     |
| No Certifications        |    | 116 |
| Poor Financial Viability | 6  |     |

The following charts display the top applications by bandwidth for each hosting risk characteristic.

| 60.75 GB<br>Apps with Poor Terms of Service | 1.34 GB<br>Apps with Data Breaches  |           |  |
|---|-------------------------------------|-----------|--|
| teamviewer-base 57.33 GR                    | yahoo-mail-base                     | 020.87 MB |  |
| yahoo-mail-base<br>920.87 MB                | mailchimp<br>285.95 MB              | 720.07 HB |  |
| teamviewer-remote-control<br>617.10 MB      | yahoo-mail-downloading<br>125.69 MB |           |  |
| new-relic<br>602.75 MB                      | yahoo-mail-uploading<br>2.15 MB     |           |  |
| backblaze-backup<br>463.49 MB               | mega-base<br>1.17 MB                |           |  |
| mailchimp<br>285.95 MB                      | yahoo-mail-posting<br>647.01 KB     |           |  |
| constant-contact<br>231.26 MB               | yandex-disk<br>74.68 KB             |           |  |
| yahoo-mail-downloading<br>125.69 MB         | microsoft-dynamics-crm<br>74.65 KB  |           |  |

#### 1.87 TB

| Apps with No Certifications | Apps with Poor Financial Viability |
|-----------------------------|------------------------------------|
| youtube-streaming           | backblaze-backup                   |
| 1.80 TB                     | 463.49 MB                          |
| gmail-posting               | gmx-mail                           |
| 22.38 GB                    | 1.04 MB                            |
| computrace                  | onehub-base                        |
| 14.25 GB                    | 469.70 KB                          |
| ms-onedrive-downloading     | classin                            |
| 5.98 GB                     | 95.67 KB                           |
| vimeo-base                  | rezgo                              |
| 5.51 GB                     | 10.73 KB                           |
| google-analytics            | daum-mail                          |
| 4.18 GB                     | 2.05 KB                            |
| "youtube-uploading          |                                    |
| 1.94 GB                     |                                    |
| google-drive-web            |                                    |

465.1 MB

1.85 GB

FILTERING

17

### **Advanced URL Filtering Analysis**

Fri, Jun 11, 2021 - Fri, Jun 18, 2021

As applications move to the cloud and people work from anywhere, it's becoming more important—and more difficult—to secure web traffic. Webbased attacks like phishing, command-and-control and other fileless attacks are coming at higher volume, greater speed, and increased sophistication. The Palo Alto Networks Advanced URL Filtering service gives you deep insight into your web traffic, empowers you to control web access through granular policies and enables you to prevent web-based threats in real-time.



# 706,300

#### **URL ANALYZED IN REAL-TIME**

**706,300** URL requests have been analyzed in real-time. Analyzing URLs in real-time protects users within milliseconds from brand new or never seen before malicious attacks.

# 45

#### MALICIOUS URLS REQUEST DETECTED IN REAL-TIME

Advanced URL Filtering has identified **45** malicious URL requests in real-time. These malicious requests include malware, phishing, command and control and grayware.

# 10

MALICIOUS IP ADDRESSES DETECTED IN REAL-TIME

Advanced URL Filtering has identified **10** malicious IP addresses behind these malicious URLs/domains in real-time. These IP addresses can be used as C2 infrastructure to exfiltrate data, deliver malware or send remote commands to a system in your network.



#### TRAFFIC DISTRIBUTION

Uncontrolled Web surfing exposes organizations to security and business risks, including exposure to potential cyber-threats, data loss, credential theft or compliance violations. This section will provide visibility into the URL requests in your network, allowing you to make informed decisions regarding potential risk versus business benefit. Malicious URLs and domains in your network should be reviewed to understand who is accessing them, and the potential risk associated with them.



- Users visited a total of 1,014,052 URLs during the report time period across 63 categories.
- 12,444 requests out of that total were to known malicious websites.
- 22,667 high risk and 243,847 medium risk sites were visited.
- **45** malicious requests were analyzed in real-time.

#### URL REQUEST DISTRIBUTION

#### MALICIOUS URL REQUEST CATEGORIES



Malware 100.00%

Low 72.35%



#### TOP CATEGORIES AND DOMAINS DISTRIBUTION

The following charts list the top visited categories and domains.

#### CATEGORIES INTRODUCING POTENTIAL RISK

The Web is a primary attack channel for malicious actors. High risk categories like unknown, insufficient-content, questionable, high-risk, parked, dynamic-dns, web hosting & newly-registered-domain should either be blocked or set for SSL decryption with strict threat control policies to have better visibility and control.



ACME 🔳 Industry Average

#### **TOP 5 VISITED CATEGORIES**

The top 5 most visited URL categories, along with industry benchmarks across your peer group, are shown below. Understanding your web traffic mix over time will help you identify anomalies that may indicate malicious activity.

#### NEXT MOST HIGHLY VISITED CATEGORIES

The next top 20 most visited URL categories are shown below. Understanding your web traffic mix over time will help you identify anomalies that may indicate malicious activity.

|                            |         |         | web-hosting                           |        | 22,363 |
|----------------------------|---------|---------|---------------------------------------|--------|--------|
|                            |         | 466 720 | content-delivery-networks             | 15,051 |        |
| insufficient-content       | 5.872   | 400,755 | online-storage-and-backup             | 9,621  |        |
|                            |         |         | malware                               | 8,796  |        |
| unknown                    | 240,444 |         | shopping                              | 8,250  |        |
|                            | 25,504  |         | games 🗾                               | 7,471  |        |
|                            | 73 435  |         | streaming-media                       | 7,393  |        |
| computer-and-internet-info | 59,439  |         | financial-services                    | 6,854  |        |
|                            |         |         | entertainment-and-arts                | 6,779  |        |
| shareware-and-freeware     | 37,806  |         | search-engines                        | 6,410  |        |
|                            | 890     |         | internet-portals                      | 5,381  |        |
|                            | 37.007  |         | internet-communications-and-telephony | 4,942  |        |
| business-and-economy       | 27,199  |         | personal-sites-and-blogs              | 4,803  |        |
|                            | <b></b> |         | news                                  | 3,751  |        |
|                            |         |         | travel                                | 3,272  |        |
| ACME Industry A            | werage  |         | grayware                              | 3,235  |        |
|                            |         |         | reference-and-research                | 2,893  |        |
|                            |         |         | web-advertisements                    | 2,842  |        |
|                            |         |         | stock-advice-and-tools                | 2,542  |        |

educational-institutions 2,511

THREATS SUMMARY



#### TOP VISITED DOMAINS

The following displays the top 20 visited domains in your network. It is important to regularly view the top visited domains in your network. Understanding your web traffic usage over time will help you identify anomalies that may indicate malicious activity.



The following displays the top 20 malicious domains visited in your network. Malicious domains should be reviewed to understand the volume of the domain requests, who is accessing those domains, and what malware families are associated with those domains. Frequent visits to malicious domains from the same machine may indicate an infected endpoint.



#### TOP VISITED MALICIOUS URLS IN REAL-TIME

The following displays the top 10 malicious URLs detected in real-time. These URLs were flagged for real-time analysis because they were deemed high risk and had never been seen before. These types of URLs may be the result of either a broad attack campaign or very targeted attack in nature to a specific industry or organization.

| HOSTNAME/IP    | URL HITS | EXAMPLE URL   |
|----------------|----------|---|
| epoint.com.cn  | 26       | yyfw.epoint.com.cn/FrontVoice/JavaScript/Voice.js?%5f=1623886800401   |
| znshuru.com    | 9        | down.znshuru.com/pdf/js/12a18bb2dd3ac973db8156d30a37f37c.bbe  |
| kkdownload.com | 4        | dl.kkdownload.com/2c8400d5e8e9ba74cc288c5d32c3b7ea.data   |
| kpzip.com      | 1        | i.kpzip.com/n/logo/v1.0.0.2/uc2.gif.md5   |
| 1wscqi.cn      | 1        | m.1wscqi.cn/5225678579755535967238265943229349472635724159.jsp  |
| mi-img.com     | 1        | f2.market.mi-img.com  |
| nearme.com.cn  | 1        | storedl1.nearme.com.cn  |
| wapx.cn        | 1        | app.wapx.cn   |
| 91speed.com.cn | 1        | downza.91speed.com.cn/2021/05/06/iTunes64.rar?ssig=d73b886151a16a5c0f878eeb5ac238296b0ec73<br>6%26time%5fstamp=1623724804%26fn=16461a32ac2d18825c6686295d340813 |



### Threats at a Glance

Understanding your risk exposure, and how to adjust your security posture to prevent attacks, requires intelligence on the type and volume of threats used against your organization. This section details the application vulnerabilities, known and unknown malware, and command and control activity observed on your network.

#### **KEY FINDINGS** –

- 388,065 total vulnerability exploits were observed in your organization, including overflow, Other, and code-execution.
- **0** malware events were observed, versus an industry average of **0** across your peer group.
- 1 total command and control requests were identified, indicating attempts by malware to communicate with attackers to download additional malware, receive instructions, or exfiltrate data.



#### FILES LEAVING THE NETWORK

Transferring files is a required and common part of doing business, but you must maintain visibility into what content is leaving the network via which applications, in order to limit your organization's exposure to data loss.





# **Application Vulnerabilities**

Application vulnerabilities allow attackers to exploit vulnerable, often unpatched, applications to infect systems, which often represent one of the first steps in a breach. This page details the top five application vulnerabilities attackers attempted to exploit within your organization, allowing you to determine which applications represent the largest attack surface.



- 25 total applications were observed delivering exploits to your environment.
- 388,065 total vulnerability exploits were observed across the following top three applications: unknown-tcp, web-browsing, and ms-update.
  28 unique vulnerability exploits were found, meaning attackers continued to attempt to exploit the same vulnerability multiple times.



VULNERABILITY EXPLOITS PER APPLICATION

(TOP 5 APPLICATIONS WITH MOST DETECTIONS)

| DETECTIONS \$ | EXPLOIT ID 🗢   | SEVERITY 🗢 🕶 | THREAT TYPE 🖨 | CVE ID 🖨   |
|---------------|--|--------------|---------------|--|
| 385 515       | Unknown-Tcp  |              |               |  |
| 000,010       |  |              |               |  |
| 2             | HTTP Abnormal URI Path And Host Field in Header                                | HIGH         |               |  |
| 385,379       | HTTP GET Requests Long URI Anomaly   | LOW          | overflow      | CVE-2006-585<br>0, CVE-2007-0<br>774, CVE-2002<br>-1310, CVE-20<br>06-5850 |
| 58            | IBM WebSphere Faultactor Cross-Site Scripting Vulnerability                    | LOW          | info-leak     | CVE-2006-243<br>1  |
| 2             | FTP Protocol Evasion Application Detection                                     | LOW          |               |  |
| 2             | Application Identification Evasion Attempt Through Malformed FTP Traffic       | LOW          |               |  |
| 66            | HTTP Non RFC-Compliant Response Found  | INFO         | info-leak     | CVE-2010-256<br>1  |
| 6             | HTTP Non-RFC Compliant Request   | INFO         |               |  |
| 1,572         | Web-Browsing   |              |               |  |
| 323           | Microsoft MSXML Memory Corruption Vulnerability                                | HIGH         |               |  |
| 24            | Squid HTTP Header Parsing Assertion Failure Denial of Service<br>Vulnerability | HIGH         |               |  |
| 7             | HTTP: IIS Denial Of Service Attempt  | HIGH         |               |  |
| 3             | HTTP POST Request URI Path Too Long  | HIGH         | dos           | CVE-2006-354<br>6;CVE-2008-3<br>257;CVE-2017-<br>17099                     |
| 17            | HTTP SQL Injection Attempt   | MEDIUM       |               |  |
| 6             | HTTP Directory Traversal Request Attempt                                       | MEDIUM       | info-leak     | CVE-2018-189<br>90;CVE-2016-<br>8016;CVE-201<br>9-8903;CVE-2<br>021-3019   |





### **Command and Control Analysis**

Command-and-control (CnC) activity often indicates a host in the network has been infected by malware, and may be attempting to connect outside of the network to malicious actors, reconnaissance attempts from outside, or other command-and-control traffic. Understanding and preventing this activity is critical, as attackers use CnC to deliver additional malware, provide instruction, or exfiltrate data. Detection and response products may provide detail on the malicious network and host activity that has occurred as a result of the identified malware.

#### KEY FINDINGS -

- 1 total applications were used for command-and-control communication.
- 1 total command-and-control requests were seen on your network.
- 0 total suspicious DNS queries were observed.





### Summary: ACME

The analysis determined that a wide range of applications and cyber attacks were present on the network. This activity represents potential business and security risks to **ACME**. This is an ideal opportunity to implement safe application enablement policies that not only allow business to continue growing but reduce the overall risk exposure of the organization.

#### HIGHLIGHTS

- High-risk applications such as **email**, **file-sharing**, **and photo-video** were observed on the network, which should be investigated due to their potential for abuse.
- 450 applications were seen on the network across 25 sub-categories, as opposed to an industry average of 0 applications seen in other High Technology organizations.
- 388,065 vulnerability exploits were observed across the following top three applications: unknown-tcp, web-browsing, and ms-update.
- **0** malware events were observed, versus an industry average of **0** across your peer group.
- 1 applications were used for command and control communication.



#### – RECOMMENDATIONS –

- Implement safe application enablement polices by only allowing the applications needed for business and applying granular control to all others.
- Address high-risk applications with the potential for abuse, such as remote access, file sharing, and encrypted tunnels.
- Investigate command-and-control communication by examining the network or host source. Detection and response or logging solutions may
  provide an indication of what occurred.
- Deploy a security solution that can detect and prevent threats, both known and unknown, to mitigate the risk of attack.
- Use a solution that can automatically re-program itself and other security products, creating and coordinating new protections for emerging threats, sourced from a global community of other enterprise users.