



McAfee MVISION Mobile

SIEM Integration Guide

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Introduction

Organizational security solutions provide a wealth of forensic security information. Disparate systems funnel this information into a centralized security repository that IT Security departments use to dissect security events coming in from across your enterprise. This information is then used to combat the external and internal security threats your organization sees on a day to day basis.

This centralized security information repository is referred to as a Security Information and Event Management (SIEM) system. It provides a real-time view into the alerts generated by network hardware (Firewalls, IDS/IPS, Web Filters, Email Filters, etc) and applications across your enterprise, and with the use of McAfee's solution, your end user mobile devices as well.

Implementation

When a security event is generated from one of your devices, the event information including relevant forensics are uploaded into your McAfee MVISION Mobile Console. This data can be pulled down to your environment and placed in a directory that your SIEM system polls for data import. The data is presented in JSON format, which provides an easy way for any SIEM to be able to digest the event and associated forensics.

To pull these events down to your environment so that they can be imported in to your SIEM server, McAfee Support needs to perform a one-time configuration and provide you with security parameters required. At some point this configuration is available in the McAfee MVISION Mobile Console user interface.

These security events can now be retrieved by the customer using HTTPS and a secure access token:

- 1) Make a connection to the McAfee MVISION Mobile Console Authentication server to provide security information and retrieve an access security token.
- 2) Use this security token when requesting logs from the McAfee MVISION Mobile Console. Only logs not yet retrieved are returned.
- 3) Store the logs in a directory that the SIEM has access to.
- 4) The SIEM periodically scans this directory for new logs and imports the data contained in them.
- 5) Repeat every X minutes to ensure new events coming in are imported as well.

Syslog Pull Module

McAfee has provided a sample script (Appendix A) to retrieve security events. It is a starting point and can be modified by your company as needed. The Syslog Pull Module (SPM) is a bash script which runs CURL commands to access your McAfee MVISION Mobile Console securely. The output of the CURL command (which are your security events in JSON format) is stored directly into a file.

This folder for the written files is monitored by a standard SIEM such as Splunk forwarder (this is decided by the customer's system). This makes sure that the contents of the file are imported by the SIEM.

The SPM should be run in crontab to pull events. It is important to note the following:

- The SPM automatically generates a new file for each request to the McAfee server.
- The SPM cleans up old files (configured currently to clean up files older than a week).
- Requests are made over HTTPS.

Hardware/Software Requirements

- It is preferable that the system run on a Linux machine. The SPM is a bash script but can be converted by the customer to whatever language is needed.
- CURL is required to be installed on the machine.
- The SPM bash script must have permissions to call CURL.
- CURL must have permissions to write a file to the destination folder.
- In this example, a Splunk Monitor must be configured to monitor the destination.
- At least 5GB free space on the hard drive.

Event Selection

Event records are coded with the Severity Type according to the selection in the Threat Response Policy:

Severity Type	Code
Normal	0
Low	1
Elevated	2
Critical	3

By default all Severity Types are returned in the response to the Syslog Pull. If it is required to only see certain severity types, that can be controlled by using the 'severity' parameter in the request URL. Only events for the severity type matching the code above are returned. If more than one severity type is required, reference the 'severity' parameter for each code.

Forensic Data Elements

McAfee provides two options for the number of forensic elements that are contained within each syslog event. The syslog feature can be configured return all forensics (Verbose) or just the event metadata (Concise) depending on the amount of log information required by teams consuming the information. Verbose mode provides the most extensive log information currently available. To select which mode is used in your collection, the request URL can be modified to select either mode, Verbose is the default if the 'level' parameter is not supplied:

SYSLOG Samples

The sample script in Appendix A details how to request events to be imported. The following sections detail the fields in syslog output for each mode:

Note: Every field in the table below shows whether the field is “available” for all threat types or some threat types. The following describes the availability:

- **All Threats** - This field is available for All Threat Types
- **Multiple Threats** - This field is available for more than 1 Threat Type
- **Specific Threat** - This field is available for only 1 Threat Type

Concise Mode

Name	Description
device_info <small>Availability: All Threats</small>	Device Information
device_info.app <small>Availability: All Threats</small>	App name reporting the Threat Events
device_info.app_version <small>Availability: All Threats</small>	App version reporting the Threat Events
device_info.device_time <small>Availability: All Threats</small>	Timestamp on the device at the time of event
device_info.imei <small>Availability: All Threats</small>	Unique Device ID
device_info.jailbroken <small>Availability: All Threats</small>	Jailbroken Status
device_info.model <small>Availability: All Threats</small>	Device Model
device_info.operator <small>Availability: All Threats</small>	Mobile Network Operator

device_info.os <small>Availability: All Threats</small>	Operating System
device_info.os_version <small>Availability: All Threats</small>	Operating System Version
device_info.tag1 <small>Availability: All Threats</small>	Unique Tag from SDK
device_info.tag2 <small>Availability: All Threats</small>	Unique Tag from SDK
device_info.type <small>Availability: All Threats</small>	Device Name/Model
event_id <small>Availability: All Threats</small>	Threat Event Identifier
eventtimestamp <small>Availability: All Threats</small>	Timestamp at the time of event
location <small>Availability: All Threats</small>	User Device location
location.accuracy <small>Availability: All Threats</small>	Accuracy
location.country_name <small>Availability: All Threats</small>	Country Name
location.exact <small>Availability: All Threats</small>	Is this a GPS Location ?
location.p <small>Availability: All Threats</small>	Current User Device GPS location
location.p.[n] <small>Availability: All Threats</small>	Current User Device GPS location
location.previous_sample <small>Availability: All Threats</small>	Previous User Device GPS location
location.previous_sample.p <small>Availability: All Threats</small>	Previous User Device GPS location
location.previous_sample.p.[n]	Previous User Device GPS location

Availability: All Threats	
location.previous_sample.time Availability: All Threats	Previous Location Sampling Timestamp
location.previous_sample.time.\$date Availability: All Threats	Previous Location Sampling Timestamp
location.sampled_time Availability: All Threats	Location Sampling Timestamp
location.sampled_time.\$date Availability: All Threats	Location Sampling Timestamp
location.source Availability: All Threats	GPS or Geo IP Address
location.state_name Availability: All Threats	State
mitigated Availability: All Threats	End user action taken
severity Availability: All Threats	Threat Severity
threat Availability: All Threats	Threat Information
threat.general Availability: All Threats	Threat General Information
threat.general.action_triggered Availability: All Threats	Action Triggered on the User Device
threat.general.attacker_bssid Availability: Multiple Threats	Attacker MAC Address of the Wireless Access Point
threat.general.attacker_ip Availability: Multiple Threats	Attacker Device IP Address
threat.general.attacker_mac Availability: Multiple Threats	Attacker Device MAC Address
threat.general.attacker_ssid Availability: Multiple Threats	Attacker Network Name of the Wireless Access Point

threat.general.basestation	Cellular Basestation Information
Availability: All Threats	
threat.general.basestation.mnc	Mobile Network Code
Availability: All Threats	
threat.general.basestation.psc	Primary Scrambling Code
Availability: All Threats	
threat.general.basestation.type	Basestation Type
Availability: All Threats	
threat.general.basestation.cid	Cell ID
Availability: All Threats	
threat.general.basestation.mcc	Mobile Country Code
Availability: All Threats	
threat.general.basestation.lac	Location Area Code
Availability: All Threats	
threat.general.certificate	SSL Certificate collected
Availability: Multiple Threats	
threat.general.change_type	Change Type
Availability: Multiple Threats	
threat.general.device_ip	User Device IP
Availability: All Threats	
threat.general.device_mac	User Device MAC Address
Availability: All Threats	
threat.general.device_time	User Device Timestamp
Availability: All Threats	
threat.general.dns_after_change	DNS IP After Change
Availability: Threat Specific	
threat.general.dns_before_change	DNS IP Before Change
Availability: Threat Specific	
threat.general.event	Reason for the detection
Availability: Threat Specific	
threat.general.external_ip	User Device External IP Address

Availability: All Threats	
threat.general.file_hash Availability: Threat Specific	File Hash of the Download or Installed App
threat.general.file_name Availability: Threat Specific	File Path of the Downloaded or Installed App
threat.general.file_path Availability: Threat Specific	File Path of the File System changed
threat.general.gateway_after_change Availability: Threat Specific	Gateway IP After Change
threat.general.gateway_before_change Availability: Threat Specific	Gateway IP Before Change
threat.general.gateway_ip Availability: All Threats	User Device Gateway IP
threat.general.gateway_mac Availability: All Threats	User Device Gateway MAC Address
threat.general.imei Availability: All Threats	Unique Device ID
threat.general.jailbreak_reasons Availability: Multiple Threats	Reasons for the Jailbreak detection
threat.general.malware_list Availability: All Threats	Malware Threat Family Name, Score
threat.general.network Availability: All Threats	Network Name where the User Device was connected at the time of event
threat.general.network_bssid Availability: All Threats	Network BSSID where the User Device was connected at the time of event
threat.general.process Availability: Multiple Threats	Process Name
threat.general.proxy_after_change Availability: Threat Specific	Proxy IP After Change
threat.general.sideloaded_app_developer Availability: Multiple Threats	Developer of the Sideloaded App

threat.general.sideloaded_app_name <small>Availability: Threat Specific</small>	App Name of the Sideloaded App
threat.general.sideloaded_app_package <small>Availability: Threat Specific</small>	Package Name of the Sideloaded App
threat.general.stagefright_vulnerability_report <small>Availability: Threat Specific</small>	Stagefright CVE List
threat.general.suspected_url <small>Availability: Multiple Threats</small>	Suspicious URL
threat.general.suspicious_profile_info <small>Availability: Multiple Threats</small>	Suspicious Profile Information
threat.general.suspicious_profile_name <small>Availability: Multiple Threats</small>	Suspicious Profile Name
threat.general.suspicious_profile_type <small>Availability: Multiple Threats</small>	Suspicious Profile Type
threat.general.threat_type <small>Availability: All Threats</small>	Threat Name
threat.general.time_interval <small>Availability: All Threats</small>	Time that passed since connecting to the network (in seconds)
threat.name <small>Availability: All Threats</small>	Threat Name
threat.story <small>Availability: All Threats</small>	Threat Summary
user_info <small>Availability: All Threats</small>	User Information
user_info.employee_name <small>Availability: All Threats</small>	End User Name on McAfee MVISION Mobile Console
user_info.user_email <small>Availability: All Threats</small>	End User Email on McAfee MVISION Mobile Console
user_info.user_group <small>Availability: All Threats</small>	End User Group on McAfee MVISION Mobile Console
user_info.user_role	End User Role on McAfee MVISION Mobile

Availability: All Threats	Console
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Verbose Mode

Items in Verbose mode are added to the items already collected in Concise mode.

Name	Description
forensics Availability: All Threats	Forensics Information
forensics.BSSID Availability: All Threats	MAC Address of the Wireless Access Point (BSSID)
forensics.SSID Availability: All Threats	Network Name
forensics._id Availability: All Threats	McAfee Internal Field
forensics._id.\$oid Availability: All Threats	McAfee Internal Field
forensics.android_compatibility_check_response Availability: Multiple Threats	Android Compatibility Check Response collected for the threats "Android Device Compatibility Not Test By Google" and "Android Device Possible Tampering"
forensics.app_tampering_reasons Availability: Threat Specific	Reasons to detect App Tampering Event
forensics.attack_time Availability: All Threats	Unix Timestamp at the time of event
forensics.attack_time.\$date Availability: All Threats	Unix Timestamp at the time of event
forensics.baseline_traceroute Availability: Threat Specific	McAfee Internal Field
forensics.captive_portal_after Availability: Multiple Threats	HTML Response collected for the McAfee URL after the attack

forensics.captive_portal_before Availability: Multiple Threats	HTML Response collected for the McAfee URL before the attack
forensics.close_networks Availability: All Threats	Android shows the Nearby Networks and iOS shows the current connected Network
forensics.close_networks.[n] Availability: All Threats	Android shows the Nearby Networks and iOS shows the current connected Network
forensics.close_networks.[n].BSSID Availability: All Threats	Android shows the BSSID of the Nearby Networks and iOS shows the BSSID of the current connected Network
forensics.close_networks.[n].SSID Availability: All Threats	Android shows the Network Name (SSID) of the Nearby Networks and iOS shows the Network Name (SSID) of the current connected Network
forensics.close_networks.[n].capabilities Availability: All Threats	Wireless Security Protocols supported by the Nearby Networks e.g. WEP, WPA, WPA2
forensics.close_networks.[n].frequency Availability: All Threats	Frequency of the Nearby Networks e.g. 2.4 Ghz, 5 Ghz
forensics.close_networks.[n].level Availability: All Threats	Signal Strength (-35 to -95)
forensics.dangerzone_nearby_wifi Availability: Multiple Threats	Suspicious Nearby Network
forensics.directory_entries Availability: All Threats	Files listed in the /usr/lib/ folder of an iOS device
forensics.directory_entries.[n] Availability: All Threats	Files listed in the /usr/lib/ folder of an iOS device
forensics.directory_entries.[n].file_name Availability: All Threats	File Name of the files in the /usr/lib/ folder of an iOS device
forensics.directory_entries.[n].file_size Availability: All Threats	File Size of the files in the /usr/lib/ folder of an iOS device
forensics.directory_entries.[n].hash Availability: All Threats	File Hash of the files in the /usr/lib/ folder of an iOS device

forensics.directory_entries.[n].is_symlink Availability: All Threats	Files listed is a symlink or not in the /usr/lib/ folder of an iOS device
forensics.directory_entries.[n].nlink Availability: All Threats	Number of hard links of the files listed in the /usr/lib/ folder of an iOS device
forensics.directory_entries.[n].permission Availability: All Threats	Permission of the files listed in the /usr/lib/ folder of an iOS device
forensics.file_system_change Availability: Threat Specific	File System Change event
forensics.file_system_change.change_type Availability: Threat Specific	Type of File System Change
forensics.file_system_change.event Availability: Threat Specific	Reason for the File System Change
forensics.file_system_change.full_path Availability: Threat Specific	Path of the File System Change
forensics.general Availability: All Threats	General Information of the Event
forensics.general.[n] Availability: All Threats	General Information of the Event
forensics.general.[n].name Availability: All Threats	Multiple fields
forensics.general.[n].type Availability: All Threats	Multiple fields
forensics.general.[n].val Availability: All Threats	Multiple fields
forensics.host_attack Availability: All Threats	Device Attack - Event Information
forensics.host_attack.application Availability: Threat Specific	App Name of the Suspicious Android App
forensics.host_attack.daemon_minflt Availability: Threat Specific	McAfee Internal Field

forensics.host_attack.daemon_minflt.[n] Availability: Threat Specific	McAfee Internal Field
forensics.host_attack.daemon_rss Availability: Threat Specific	McAfee Internal Field
forensics.host_attack.daemon_rss.[n] Availability: Threat Specific	McAfee Internal Field
forensics.host_attack.detected_locally Availability: Threat Specific	Detection source: zDB or Cogito
forensics.host_attack.file_hash Availability: Threat Specific	Hash of the File Download or Installed
forensics.host_attack.filename Availability: Threat Specific	Name of the File Download or Installed
forensics.host_attack.info_after Availability: Multiple Threats	McAfee Internal Field
forensics.host_attack.info_after.selinux_context Availability: Multiple Threats	McAfee Internal Field
forensics.host_attack.info_after.user_id Availability: Multiple Threats	McAfee Internal Field
forensics.host_attack.info_before Availability: Multiple Threats	McAfee Internal Field
forensics.host_attack.info_before.selinux_context Availability: Multiple Threats	McAfee Internal Field
forensics.host_attack.info_before.user_id Availability: Multiple Threats	McAfee Internal Field
forensics.host_attack.is_blacklisted Availability: Threat Specific	If the iOS App is Blacklisted by the Admin
forensics.host_attack.is_malicious Availability: Threat Specific	If the iOS App is already listed as Malicious in the database
forensics.host_attack.malware_detection_source Availability: Multiple Threats	Detection Source 0 means Local and 1 means Remote

forensics.host_attack.malware_matches Availability: Multiple Threats	Malware Information
forensics.host_attack.malware_matches.[n] Availability: Multiple Threats	Malware Information
forensics.host_attack.malware_matches.[n].name Availability: Multiple Threats	Malware Threat Family Name
forensics.host_attack.malware_matches.[n].score Availability: Multiple Threats	McAfee Internal Field
forensics.host_attack.malware_matches.[n].signatures Availability: Threat Specific	McAfee Internal Field
forensics.host_attack.malware_matches.[n].signatures .[n] Availability: Multiple Threats	McAfee Internal Field
forensics.host_attack.malware_matches.[n].signatures .[n].hash Availability: Multiple Threats	McAfee Internal Field
forensics.host_attack.malware_matches.[n].signatures .[n].size Availability: Multiple Threats	McAfee Internal Field
forensics.host_attack.malware_matches.[n].signatures .[n].type Availability: Multiple Threats	McAfee Internal Field
forensics.host_attack.malware_scan_category Availability: Multiple Threats	0 means App downloaded and 1 means App Installed
forensics.host_attack.malware_threat_name Availability: Threat Specific	Malware Threat Family Name
forensics.host_attack.process Availability: Multiple Threats	Process Name
forensics.host_attack.process_pid Availability: Multiple Threats	Process ID
forensics.host_attack.suspected_url Availability: Multiple Threats	Suspicious URL

forensics.json_jailbreak_reasons Availability: Multiple Threats	Reasons for the Jailbreak detection
forensics.mitm_traceroute Availability: Threat Specific	McAfee Internal Field
forensics.network_threat Availability: All Threats	Network Forensics
forensics.network_threat.arp_tables Availability: All Threats	ARP Tables
forensics.network_threat.arp_tables.after Availability: All Threats	ARP Tables collected seconds after detecting the attack
forensics.network_threat.arp_tables.after.table Availability: All Threats	ARP Tables collected seconds after detecting the attack
forensics.network_threat.arp_tables.after.table.[n] Availability: All Threats	ARP Tables collected seconds after detecting the attack
forensics.network_threat.arp_tables.after.table.[n].ip Availability: All Threats	IP Address in the ARP Tables collected seconds after detecting the attack
forensics.network_threat.arp_tables.after.table.[n].mac Availability: All Threats	MAC Address in the ARP Tables collected seconds after detecting the attack
forensics.network_threat.arp_tables.before Availability: All Threats	ARP Tables collected seconds before detecting the attack
forensics.network_threat.arp_tables.before.table Availability: All Threats	ARP Tables collected seconds before detecting the attack
forensics.network_threat.arp_tables.before.table.[n] Availability: All Threats	ARP Tables collected seconds before detecting the attack
forensics.network_threat.arp_tables.before.table.[n].ip Availability: All Threats	IP Address in the ARP Tables collected seconds before detecting the attack
forensics.network_threat.arp_tables.before.table.[n].mac Availability: All Threats	MAC Address in the ARP Tables collected seconds before detecting the attack
forensics.network_threat.arp_tables.initial Availability: All Threats	ARP Tables collected when the device was initially to the network

forensics.network_threat.arp_tables.initial.table Availability: All Threats	ARP Tables collected when the device was initially to the network
forensics.network_threat.arp_tables.initial.table.[n] Availability: All Threats	ARP Tables collected when the device was initially to the network
forensics.network_threat.arp_tables.initial.table.[n].ip Availability: All Threats	IP Address in the ARP Tables collected when the device was initially to the network
forensics.network_threat.arp_tables.initial.table.[n].mac Availability: All Threats	MAC Address in the ARP Tables collected when the device was initially to the network
forensics.network_threat.attacker_ip Availability: All Threats	IP Address of the Attacker's Device
forensics.network_threat.attacker_mac Availability: Multiple Threats	MAC Address of the Attacker's Device
forensics.network_threat.basestation Availability: All Threats	Cellular Basestation Information
forensics.network_threat.basestation Availability: All Threats	Mobile Network Code
forensics.network_threat.basestation Availability: All Threats	Primary Scrambling Code
forensics.network_threat.basestation Availability: All Threats	Basestation Type
forensics.network_threat.basestation Availability: All Threats	Cell ID
threat.general.basestation.mcc Availability: All Threats	Mobile Country Code
threat.general.basestation.lac Availability: All Threats	Location Area Code
forensics.network_threat.delta_route_cache Availability: Multiple Threats	McAfee Internal Field
forensics.network_threat.delta_route_cache.table Availability: Multiple Threats	McAfee Internal Field

forensics.network_threat.delta_route_cache.table.[n] <small>Availability: All Threats</small>	McAfee Internal Field
forensics.network_threat.delta_route_cache.table.[n].gateway <small>Availability: All Threats</small>	McAfee Internal Field
forensics.network_threat.delta_route_cache.table.[n].ip <small>Availability: All Threats</small>	McAfee Internal Field
forensics.network_threat.gw_ip <small>Availability: All Threats</small>	User Gateway IP Address
forensics.network_threat.gw_mac <small>Availability: All Threats</small>	User Gateway MAC Address
forensics.network_threat.interface <small>Availability: All Threats</small>	User Device Network Interface
forensics.network_threat.my_ip <small>Availability: All Threats</small>	User Device IP Address
forensics.network_threat.my_mac <small>Availability: All Threats</small>	User Device MAC
forensics.network_threat.net_stat <small>Availability: All Threats</small>	Device Network Status Information
forensics.network_threat.net_stat.[n] <small>Availability: All Threats</small>	Device Network Status Information
forensics.network_threat.net_stat.[n].Foreign Address <small>Availability: All Threats</small>	Foreign Host and Port with connection state
forensics.network_threat.net_stat.[n].Local Address <small>Availability: All Threats</small>	Local Host and Port with connection state
forensics.network_threat.net_stat.[n].Proto <small>Availability: All Threats</small>	Protocol
forensics.network_threat.net_stat.[n].Recv-Q <small>Availability: All Threats</small>	Represents data in queue for the socket waiting to read

forensics.network_threat.net_stat.[n].Send-Q Availability: All Threats	Represents data in queue for the socket waiting to be sent
forensics.network_threat.net_stat.[n].State Availability: All Threats	Socket State
forensics.network_threat.routing_table Availability: All Threats	Routing Table Information
forensics.network_threat.routing_table.[n] Availability: All Threats	Routing Table Information
forensics.network_threat.routing_table.[n].Destination Availability: All Threats	Destination Network IP
forensics.network_threat.routing_table.[n].Flags Availability: All Threats	-
forensics.network_threat.routing_table.[n].Gateway Availability: All Threats	Network Gateway IP
forensics.network_threat.routing_table.[n].Netif Availability: All Threats	Network Interface e.g. lo (local interface), wlan0 (wireless interface), rmnet (cellular network)
forensics.network_threat.routing_table.[n].Refs Availability: All Threats	-
forensics.network_threat.routing_table.[n].Use Availability: All Threats	-
forensics.os Availability: All Threats	Operating System
forensics.proBABILITIES Availability: All Threats	McAfee Internal Field
forensics.proBABILITIES.[n] Availability: All Threats	McAfee Internal Field
forensics.process_list Availability: All Threats	Device Process List
forensics.process_list.[n] Availability: All Threats	Device Process List collected at the time of the event

forensics.process_list.[n].Parent process(PPID) <small>Availability: All Threats</small>	Parent Process ID
forensics.process_list.[n].Process ID(PID) <small>Availability: All Threats</small>	Process ID
forensics.process_list.[n].Process Name <small>Availability: All Threats</small>	Process Name
forensics.process_list.[n].Service <small>Availability: All Threats</small>	Process Service
forensics.process_list.[n].User <small>Availability: All Threats</small>	Process Username
forensics.proxy_conf <small>Availability: Multiple Threats</small>	Proxy Configuration
forensics.proxy_conf.ip_after <small>Availability: Multiple Threats</small>	Proxy Configuration: IP Address After change
forensics.proxy_conf.ip_before <small>Availability: Multiple Threats</small>	Proxy Configuration: IP Address Before change
forensics.responses <small>Availability: All Threats</small>	Device Action Triggered
forensics.responses.[n] <small>Availability: All Threats</small>	Device Action Triggered
forensics.rogue_access_point <small>Availability: Multiple Threats</small>	Rogue Access Point information
forensics.rogue_access_point.BSSID <small>Availability: Multiple Threats</small>	MAC Address of the Wireless Access Point
forensics.rogue_access_point.SSID <small>Availability: Multiple Threats</small>	Network Name
forensics.rogue_access_point.frequency <small>Availability: Multiple Threats</small>	Frequency
forensics.routing_table <small>Availability: All Threats</small>	Routing Table Information

forensics.routing_table.[n] Availability: All Threats	Routing Table Information
forensics.routing_table.[n].destination Availability: All Threats	Destination Network IP
forensics.routing_table.[n].flags Availability: All Threats	-
forensics.routing_table.[n].gateway Availability: All Threats	Network Gateway IP
forensics.routing_table.[n].netif Availability: All Threats	-
forensics.routing_table.[n].refs Availability: All Threats	-
forensics.routing_table.[n].use Availability: All Threats	-
forensics.sample_data Availability: All Threats	McAfee Internal Field
forensics.severity Availability: All Threats	Threat Severity
forensics.sideloaded_app_developer Availability: Multiple Threats	Developer of the Sideloaded App
forensics.sideloaded_app_name Availability: Threat Specific	App Name of the Sideloaded App
forensics.sideloaded_app_package Availability: Threat Specific	Package Name of the Sideloaded App
forensics.ssl_downgrade_description Availability: Multiple Threats	McAfee Internal Field
forensics.ssl_mitm_certificate Availability: Multiple Threats	SSL Certificate collected
forensics.ssl_strip_reply Availability: Multiple Threats	HTML Response collected

forensics.stagefright_vulnerability_report Availability: Threat Specific	Stagefright CVE List
forensics.suspicious_profile Availability: Multiple Threats	Suspicious Profile Information
forensics.suspicious_profile.profile_information Availability: Multiple Threats	Suspicious Profile Information
forensics.suspicious_profile.profile_name Availability: Multiple Threats	Suspicious Profile Name
forensics.suspicious_profile.profile_type Availability: Multiple Threats	Suspicious Profile Type
forensics.system_tampering_reasons Availability: Threat Specific	Reasons for the System Tampering detection
forensics.threat_uuid Availability: All Threats	McAfee Internal Field
forensics.time_interval Availability: All Threats	Time that passed since connecting to the network (in seconds).
forensics.type Availability: All Threats	Internal Threat ID

Master Sample JSON

The JSON Body below includes all threat fields of all the threats for both Android and iOS.

```
{
  "severity": 2,
  "event_id": "5acd2c89c6aac430bb6ab3d3",
  "forensics": {
    "time_interval": 944,
    "sideloaded_app_package": "com.McAfee.McAfee MVISION Mobile Application",
    "responses": [
      0
    ],
    "SSID": "Free Wi-Fi",
    "BSSID": "2e:19:8f:f4:42:b3",
    "probabilities": [
      0.4791315793991089,
      0.5208683609962463
    ],
    "os": 1,
    "process_list": [
      {
        "Process Name": "/init",
        "Process ID(PID)": "1",
        "User": "root",
        "Service": "u:r:init:s0",
        "Parent process(PPID)": "0"
      },
      {
        "Process Name": "kthreadd",
        "Process ID(PID)": "2",
        "User": "root",
        "Service": "u:r:kernel:s0",
        "Parent process(PPID)": "0"
      }
    ],
    "attack_time": {
      "$date": 1523395721249
    },
    "close_networks": [
      {
        "capabilities": "[WPA-PSK-CCMP+TKIP][WPA2-PSK-CCMP+TKIP][WPS][ESS]",
        "frequency": 2462.0,
        "SSID": "Free Wi-Fi",
        "BSSID": "2e:19:8f:f4:42:b3",
        "level": -47
      },
      {
        "capabilities": "[WPA2-PSK-CCMP][ESS]",
        "frequency": 2412.0,
        "SSID": "ZGuest",
        "BSSID": "c4:13:e2:2b:30:14",
        "level": -46
      }
    ],
    "json_jailbreak_reasons": "[ \"Found SU binary in /sbin/su\" ]",
    "baseline_traceroute": "192.168.12.1 38.96.200.161 154.24.26.113",
  }
}
```



```
"captive_portal_before": "<html>\n<head>\n<title>Continue to secure  
zone</title></head>\n<body>\n<a href=\"https://demo-device-api.McAfee.com/stest\"><b>Click here  
to continue</b></a>\n</body>\n</html>\n",  
  "rogue_access_point": {  
    "frequency": -1.0,  
    "SSID": "\"Planet\"",  
    "BSSID": "00:c0:ca:aa:bb:cc"  
  },  
  "general": [  
    {  
      "type": "interval",  
      "name": "Time Interval",  
      "val": "944"  
    },  
    {  
      "name": "Threat Type",  
      "val": "Abnormal Process Activity"  
    },  
    {  
      "name": "Device IP",  
      "val": "192.168.0.101"  
    },  
    {  
      "name": "Device MAC",  
      "val": "78:4b:87:e4:f1:3d"  
    },  
    {  
      "name": "Attacker IP",  
      "val": "192.168.0.101"  
    },  
    {  
      "name": "Attacker MAC",  
      "val": "78:4b:87:e4:f1:3d"  
    },  
    {  
      "name": "Attacker SSID",  
      "val": "192.168.0.101"  
    },  
    {  
      "name": "Attacker BSSID",  
      "val": "78:4b:87:e4:f1:3d"  
    },  
    {  
      "name": "Network",  
      "val": "Free Wi-Fi"  
    },  
    {  
      "name": "Network BSSID",  
      "val": "2e:19:8f:f4:42:b3"  
    },  
    {  
      "name": "Action Triggered",  
      "val": "Alert User"  
    },  
    {  
      "name": "Event",  
      "val": "File system mounted RW"  
    },  
    {  
      "name": "File Path",  
      "val": "/system/"  
    }  
  ]
```

```

    },
    {
        "name": "Change Type",
        "val": "system file"
    },
    {
        "name": "Sideloaded App Developer",
        "val": "O=McAfee"
    },
    {
        "name": "Sideloaded App Name",
        "val": "McAfee MVISION Mobile Application"
    },
    {
        "name": "Sideloaded App Package",
        "val": "com.McAfee.McAfee MVISION Mobile Application"
    },
    {
        "name": "Suspicious Profile Type",
        "val": "Configuration"
    },
    {
        "name": "Suspicious Profile Info",
        "val": "{\n    AuthenticationMethod = SharedSecret;\n    DisconnectOnIdle = 0;\nDisconnectOnIdleTimer = 0;\n    DisconnectOnSleep = 0;\n    DisconnectOnWake = 1;\nDisconnectOnWakeTimer = 0;\n    LocalIdentifier = \"IPSEC-zUsers\";\n    LocalIdentifierType = KeyID;\n    OnDemandEnabled = 0;\n    RemoteAddress = \"zpn-dal.McAfee.com\";\n    SharedSecret = \"B87C8237-A611-48E6-98BA-8E6E4749AC15.SS\";\n    SharedSecretEncryption = Keychain;\n    XAuthEnabled = 1;\n    XAuthName = \"ios-test\";\n    XAuthPassword = \"B87C8237-A611-48E6-98BA-8E6E4749AC15.XAUTH\";\n    XAuthPasswordEncryption = Keychain;\n}"
    },
    {
        "name": "Suspicious Profile Name",
        "val": "Setup:/Network/Service/B87C8237-A611-48E6-98BA-8E6E4749AC15/IPSec"
    },
    {
        "name": "External IP",
        "val": "38.96.200.164"
    },
    {
        "name": "Suspected URL",
        "val": "http://www.scbusinc.com/yahoo/d"
    },
    {
        "name": "Process",
        "val": "/init (1) -> /system/bin/debuggerd (289) -> dumpstate (2004) -> logcat (2111) -b radio -v threadtime -d *:v"
    },
    {
        "name": "Gateway MAC",
        "val": "6c:19:8f:f4:42:b2"
    },
    {
        "name": "Gateway IP",
        "val": "192.168.0.1"
    },
    {
        "name": "IMEI",
        "val": "990004803030133"
    },
    {

```

```
"type": "json_str",  
    "name": "BaseStation",  
    "val": "  
\"{\mnc\":260,\psc\":510,\"type\":\"WCDMA\", \"cid\":124989444,\"mcc\":310,\"lac\":45991}\""  
  
    {  
        "type": "json_str",  
        "name": "Malware List",  
        "val": "{\Cydia\": 1.0}"  
    },  
  
    {  
        "type": "json_str",  
        "name": "Jailbreak Reasons",  
        "val": "Codesign Disabled"  
    },  
  
    {  
        "name": "DNS before change",  
        "val": "8.8.8.8"  
    },  
  
    {  
        "name": "DNS after change",  
        "val": "192.168.0.1"  
    },  
  
    {  
        "name": "Gateway before change",  
        "val": "8.8.8.8"  
    },  
  
    {  
        "name": "Gateway after change",  
        "val": "192.168.0.1"  
    },  
  
    {  
        "name": "Proxy before change",  
        "val": "8.8.8.8"  
    },  
  
    {  
        "name": "Proxy after change",  
        "val": "192.168.0.1"  
    },  
  
    {  
        "name": "Device Time",  
        "val": "04 10 2018 21:16:53"  
    },  
  
    {  
        "name": "Certificate",  
        "val": "*.McAfee.com_CN=Go Daddy Secure Certificate Authority - G2,  
OU=http://certs.godaddy.com/repository/, O=\"GoDaddy.com, Inc.\", L=Scottsdale, ST=Arizona,  
C=US[0]-----BEGIN CERTIFICATE-----  
\nMIIFKDCBCBgAwIBAgIJAMEftAjQKr4lMA0GCSqGSIsB3DQEBCwUAMIG0MQswCQYDVQQGEwJVUZEQ\nmA4GA1UECBMHQXJpe  
m9uYTETMBEGA1UEBxMKMU2NvdHRzZGFsZTEAMBGA1UEChMRRR29EYWWRkeS5j\nbn20sIEluYy4xLTArBgNVBAS TJGH0dHA6Ly9:  
ZXJ0cy5nb2RhZGR5LmNvbS9yZXBvc210b3J5LzEZ\n\\nmDEGA1UEAxMGQR28gRGFkZHkgU2VjdXJlIENlc nRpZml j YXR l IEFldG  
vcm l o e S A t I E c y M B 4 X D T E l \\ n M D Q x N j E m D Y z O V o X D T E 4 M D c x N j E y M z I z O V o w P T E h M B 8 G A 1 U E C x M Y R G 9 t Y W l u I E N v b n R y b 2 w g V r F s \n a W R h d G V k M R g w F g Y D V Q Q D D A 8 q L n p p b X B l c m l l b S 5 j b 2 0 w g g E i M A 0 G C S q G S I b 3 D Q E B A Q U A A 4 I B D w A w \nggEK Ao IBAQDDjs:  
JM3y8xmPKEbegtFhOu fEkKEVN xm7ic+hha6mj HZNODqwW+8zo oj3aDP9jhZF2\n\\ntfXuKH a5bHtbJTlx D4PdLnEO kwa2oc CIC<  
d CDro bWGYZhzrezYQ8Mt Z376PxMyvO0AEfCw5dxDvQH\\nDTFBP1Md kQwdr3aTFxdDaQVNbkSM +LuHMFF zr5XFJe4wk FB U7ML4M  
C70sfAc s/gpz3q7ap J89A7X\\nzXd AgOKYqo I/+hSHzgPPg+ykh IEK2iv4ph3JdHX L07eGeCOXeYjk7QnwihOiCVPBYS GaorI  
nsEd\\nkMLV dxEvIdPt /lxxGtYZXi cNGbvY8kUVqpXZ7Qz6Qe PbL5XDAG MBAAggGxMi IBrt AMBG NV HRMB \\nAf8EA JAAMB0GI  
1 UdJ QQWM BGCCSGAQ UF BW MBBggrBg EF BQC DAJA OBGN VH Q8 BAf8EBAM CBa AwNgYd \\nVR0f BC8w LTARo CMgJ4Yla HR Oc DovL2Ny  
bc5 nb2 RhZ GR5 LM Nbvs9n ZGL nm MnXLtg3LM Nyb DBTB gnV \\nhSA ETDB KMEGGC2CGS AGG/WOB Bxc BM DkwNW yIK WyBBQU HA GEWK2I  
OdHA6 Ly9j ZXJ0awZpy2F0ZXMu \\nz29ky WRkes5jb20vcmvwb3NpdG9yeS8wdgy IKWy BBQUHA QE EAjBoMCQG CC SG AQUF Bz ABhl  
hodHRw\\noI8 vb2 Nz cc5 nb2 RhZ GR5 LM Nbvs8w QA YIKwy BBQU HM AK GN Gh0dHA6 Ly9j ZXJ0 awZPy2F0ZX MuZ29k \\nyWR kes5jb2
```

```

vcmVwb3NpdG9yeS9nZGlnMi5jcncQwHwYDVR0jBBgwFoAUQMK9J47MNIMwojPX+2yz\n8LQsgM4wkQYDVR0RBciwIIIPKi56aW
1wZXJpdW0uY29tgg16aWlwZXJpdW0uY29tMB0GA1UdDgQW\nBBQhY/GYtaS0zaaimpDHCWLxT1PB8jANBgkqhkiG9w0BAQsF?
AOCAQEAAnOkUf+CpStTA5sVRbcum\n+S0t7XqkKKDjI5A5DqVnHRHN+9o+5b/pgY2GBphilYsnzGGZ3rUdtCR1i4XFuZMska3I
+xAzP+mn\nziUrlgxXsZCZ2PUAPpb5KiTw0zLOuRZjWXqWT48/T94nQmKGAcYIata4v7dyag30+B8kSVbbuj9\nA19SdyuRl
VyH9X7k2Ot0+8r0Gtx9b2/GD5G/8NsNMfKPhgARp1bNuxrJfzDXg5fu5EsBiKVhWQLJ\n9xcdysKI4FkTTYfIv3IYVIZdcRl
v9vZZL/umo4EqclMly2DtC1valj6wqYWGDoJk5vHGOkkZjeh\nvom5cMXTSZUcGHCjjg==\n-----END CERTIFICATE-----
-,"
    }
  ],
  "captive_portal_after": "<html>\n<head>\n<title>Continue to secure
zone</title></head>\n<body>\n<a href=\"https://demo-device-api.McAfee.com/stest\"><b>Click here
to continue</b></a>\n</body>\n</html>\n",
  "ssl_downgrade_description":
"com.android.org.conscrypt.OpenSSLSocketImpl.startHandshake(OpenSSLSocketImpl.java:448)\ncom.McA:
ee.McAfee MVISION Mobile Application.mtdPClientConnection.checkSSLDowngrade(Unknown
Source)\ndalvik.system.NativeStart.run(Native Method)\n",
  "routing_table": [
    {
      "use": 0,
      "netif": "wlan0",
      "refs": 1,
      "destination": "108.177.112.188",
      "flags": "0",
      "gateway": "192.168.0.1"
    },
    {
      "use": 0,
      "netif": "wlan0",
      "refs": 0,
      "destination": "129.42.38.1",
      "flags": "0",
      "gateway": "192.168.0.1"
    }
  ],
  "directory_entries": [
    {
      "hash": "de706e0c44d65d3a9eca570030d9cb8e8ff253511e562052a52a352f680fc10f",
      "permission": "-rw-r--r--",
      "file_name": "/usr/lib/FDRSealingMap.plist",
      "nlink": 1,
      "is_symlink": false,
      "file_size": 6987
    },
    {
      "hash": "32642dc3cab1498af0e7cf9fcb527fb75dc6b6e9128466e4a6668fa9deb789e5",
      "permission": "-rw-r--r--",
      "file_name": "/usr/lib/StandardDMCFiles/N71_Audio.dmc",
      "nlink": 1,
      "is_symlink": false,
      "file_size": 53968
    }
  ],
  "proxy_conf": {
    "ip_after": "192.168.0.7",
    "ip_before": "192.168.0.1"
  },
  "file_system_change": {
    "change_type": 1,
    "event": "File system mounted RW",
    "full_path": "/system/"
  },

```

[illegible]

```

    }
  ],
  "interface": "wlan0",
  "attacker_mac": "00:c0:ca:8f:d6:31",
  "basestation":
  "{ \"mnc\": \"260\", \"psc\": \"251\", \"type\": \"WCDMA\", \"cid\": \"124989446\", \"mcc\": \"310\", \"lac\": \"45991\" },
  \"gw_mac\": \"6c:19:8f:f4:42:b2\",
  \"arp_tables\": {
    \"initial\": {
      \"table\": [
        {
          \"ip\": \"192.168.0.1\",
          \"mac\": \"6c:19:8f:f4:42:b2\"
        },
        {
          \"ip\": \"192.168.0.102\",
          \"mac\": \"00:c0:ca:8f:d6:31\"
        }
      ]
    },
    \"after\": {
      \"table\": [
        {
          \"ip\": \"192.168.0.1\",
          \"mac\": \"00:c0:ca:8f:d6:31\"
        },
        {
          \"ip\": \"192.168.0.102\",
          \"mac\": \"00:c0:ca:8f:d6:31\"
        }
      ]
    },
    \"before\": {
      \"table\": [
        {
          \"ip\": \"192.168.0.1\",
          \"mac\": \"6c:19:8f:f4:42:b2\"
        },
        {
          \"ip\": \"192.168.0.102\",
          \"mac\": \"00:c0:ca:8f:d6:31\"
        }
      ]
    }
  }
},
  \"ssl_mitm_certificate\": \"*.McAfee.com_CN=Go Daddy Secure Certificate Authority - G2,
OU=http://certs.godaddy.com/repository/, O=\"GoDaddy.com, Inc.\", L=Scottsdale, ST=Arizona,
C=US[0]=-----BEGIN CERTIFICATE-----
\\nMIIIFKDCBBBCgAwIBAgIJAMEfTAjQKr4lMA0GCSqGSIb3DQEBCwUAMIG0MQswCQYDVQQGEwJVUzEQ\\nMA4GA1UECBMHQXJpe
m9uYTETMBEGA1UEBxMKU2NvdHRzZGR5ZTEaMBGGA1UEChMRR299YWRkeS5j\\nb20sIEluYy4xLTArBgNVBASdTJGh0dHA6Ly9
ZXJ0cy5nb2RhZGR5ZS5LmNvbS9yZXBvc2l0b3J5LzEz\\nMDEGA1UEAxMQR28gRGFkZHZHkgU2VjdXJlIENlcnRpZmljYXRlIEF1dG8
vcml0eSAtIEcyMB4XDTEl\\nMDQxNjE1MDYzOVoXDTE4MDcxNjEyMzIzOVowPTEhMB8GA1UECxMYRG9tYWluIENvbnRyb2wgVr
Fs\\naWRhdGVkMRgwFgYDVQQDDA8qLnppbXB1cmllbS5jb20wggeiMA0GCSqGSIb3DQEBAQUAA4IBDwAw\\nggEKAoIBAQQDDjs:
JM3y8xmPKEbegtFhOuFEkKEVnxM7ic+hha6mjHZNODqWw+8z0oj3aDP9jhZF2\\nTfXuKHa5bHtbJTlxD4PdLnEOkwa2ocCIC
dCDrobWGYzhrezYQ8MtZ376PxMyv0OAEfCw5dXdVqH\\nDTFBP1MdkQwdr3aTFxdDaQVNbkSM+LuHMFZr5XfJe4wKfBU7ML4M
C70sfAcS/gpz3q7aPj89A7X\\nzXdAg0KYqoI/+hSHzgPPg+YkhiEK2iV4ph3JdHXL07eGeCOXeYjk7QnwihOiCVPBYysGaorl
nsEd\\nkMLVdXEvIdPt/1xkGtYZXicNGbvY8kUvQpXZ7Qz6QePbL5XDAGMBAAGjggGxMIIBrTAMBgNVHRMB\\nAf8EAjAAMB0G
1UdJQQWMBQGCSGAQUFBwMBBggrBgEFBQcDAjA0BgNVHQ8BAf8EBAMCBAAwNgYD\\nVR0fBC8wLTArOCmgJ4YlaHR0cDovL2N
bC5nb2RhZGR5ZS5LmNvbS9nZGlhMnMxLTg3LmNybDBTbGNNV\\nHSAETDBKMEGCGC2CGSAGG/W0BBxcBMDkwNwYIKwYBBQUHAgEWW2

```

0dHA6Ly9jZXJ0aWZpY2F0ZXMu\nZ29kYWRkeS5jb20vcMvVb3NpdG9yeS8wdgYIKwYBBQUHAQEaJBoMCQGCGCCsGAQUFBzABhI
hodHRw\n\0i8vb2NzcC5nb2RhZGR5LmNvbS8wQAYIKwYBBQUHMAKGNh0dHA6Ly9jZXJ0aWZpY2F0ZXMuZ29k\n\0YWRkeS5jb20vcMvVb3NpdG9yeS9nZGlNmi5jcnQwHwYDVR0jBBGwFoAUQMk9J47MMIMwojPX+2yz\n\n8LQsgM4wKQYDVR0RBCIwIIIPKi56aW1wZXJpdW0uY29tggl6aW1wZXJpdW0uY29tMB0GA1UdDgQW\n\nBBQhY/GYtaS0zaaimpDHCWLxT1PB8jANBgkqhkiG9w0BAQsF
AOCAQEAAnOkUf+CpStTA5sVRbcum\n\n+S0t7XqkKKDjI5A5DqVnHRHN+9o+5b/pgY2GBphi1YsNZGGZ3rUdtCR1i4XFuZMska3I
+xAzP+mn\n\nziUrlgxSzcZ2PUAPpb5KiTww0zLOuRzjWXqWT48/T94nQmKGAcYIata4v7dyag30+B8kSVbbuj9\n\na19SdyuRlVyH9X7k2Ot0+8r0Gtx9b2/GD5G/8NsNmFKPhgArPlbNuxrJfzDXg5fu5EsBiKVhWQLJ\n\n9xcdysKI4FkTTTTYfIv3IYVIZdcRlv9vZzL/umo4EqclMly2DtClvalj6wqYWGDoJk5vHG0kkZjeh\n\n\nvom5cMXTSZUCGHCjjg=\n\n-----END CERTIFICATE-----
-,"

"android_compatibility_check_response":

"eyJhbGciOiJSUzI1NiIsIngIYyI6WyJNSU1FaWpDQ0EzS2dBd0lCQWdJSVlrWW81RjBnODZrd0RRWUpLb1pJaHJzJTkFRRUxUUF3V3kRfTElBa0dBmVVFQmhnNQ12WtXhIakFjQmdOVkKjBb1RGVWR2YjJkc1ptQlVjb1Z6ZENCVFpYsJhV05sY3pFbElDTudBNVVFQXhNY1IyOXZaMnhSUSVsdWRHVnl1bVYwSUVGMWRHAHtjbWwwZVNCSE16QWVGdzB4TnpFeU1EUxhNekU0TkR0YUZ3MHhPRIV5TURNd0lEQXdNREJhTud3eEN6QUpcZ05WQkFZVEFsVlRNUk13RVFZRFRUUEQXBEWVd4cFptOXlibWxoTVJZd0ZBWURWUVIREExTmIzVnVkr0ZwYmlCV2FXVjNNUk13RVFZRFRZRUUEQXBIYjI5bmJHVWdTVzVqTVJzd0dRURURUUVFEREJKAGRIUmxjM1FjWVc1a2NtOXBaQzVqYjIwd2dnRWLNQTBHQ1Nxr1NjYjNEUUVQCVFZQUE0SUJEd0F3Z2dFS0FvSUJBUNVajh3WW9QaXhLYmJWCHNnWWD2TVrmWCtkSXNGVE9rZ0tPbGhUMGkwYmNERlPmLnJPeEpaMnVTTFNWaf12aXBaTkUzSEPrWXV1WXdGam15K31rZmF0QldTalJ6RjFiMzF1NDMvN29HNWpNaDNTMzdHbHdqVWI4Q1dpVHhvaXBWt1l3S0t6dVV5a3FFQ3RqbGhKNEFrV2FEUytaeEtFcU!hZT10bkNnZUhsbFpFL09SZ2VNYXgyWE5Db0g2c3JURVJja3NgelpackFxEtZGZ2VnJYtNpDUj1EeFZBU3VJNkx6d2g4RFN:MkVPb2tic2FuWislR0pxTWVBQkZmUHDqeXdyYjBwcKVVeTBwYWWc3VkkZBwZWV4Sy8lK0U2a3BZR0s0WksybmvtvVkk1Z0U1cGFickFqODNRK1BPYmJ2T3pXY0ZrcG5WS3lqbzZLUUFTWDZXSXkFntUJBQUdQz2dGR01JSUJRakFUQmdOVkhTUVEREFLQmdncJnRUZCUWNEQVRBZEJnTlZiUkVFRmpBVWdoSmhksFSJsYzNRdVlXNwtjbt1wWkM1amIyMHdhQVlJS3dZQkJRvUhbUUVFwERCIYUjDMEddQ3NHQdVFRkQ6QUoNaUzVzEhSd09pOHZjR3RwTG1kdmIyY3ZaM055TWk5SFZGTkhTVUZIITXk1amNuUXdLUVlJS3dZQkJFVUHNQdHSHFQdMGRIQTZMET12WTNod0xuQnJhUzVuYjI5bkWwZFFVVMGRKUVVjek1CME4BMVVRGdRv0JCUUc4SXJRdeZSNkNVl2tpa2IzYwltc20yNmNCVEFNQmdOVkhSTUJBZjhFQWpBQU1COEdBMVVKsXDRWU1CYUFGSGZDdUZDYVozWjJzUzNDaHRDRG9INr1mcnBMTUNFR0ExVWRJQVfhTUJnd0RBWUtLd1lCQkFIV2VRSUZBekFJQmdabmdRd0JBZ013TVFZRFRZSMGZCQ293S0RBbW9DU2cJb1lnYUhsMGNEb3ZMMk55YkM1d2Eya3VaMj12Wnk5SFZGTkhTVUZIITXk1amNtd3dEUVlKS29aSWH2Y05BUUVMQlFBRGdnRUJFRi9Sek5uQzVEekJVQnRuaDJudEpMV0VRaDl6RWVGWmZQTDr1Rb2tybEFvFWGdqV2dOOHBTU1UxbFZHSXB0ek14R2h5My9PU1Ja\GE2RDJEeThodkNEckZJMytsQ1kwMu1MNVE2WE5FNVJzMMQxUmlacElzekQ0S1FaTkczafowQkZOUS9janJDbUxCT0dLa0VVMvRtQVhzRkpySmlPcjJDTlRCT1RlOUViTFdoUWZkQ0YxYnd6eXUrVzZiUVN2OFFEBjVPZE1TL1BxRTfkrWldc082RUlSQjc2MUtmWlErL0RFENkxwM1RyWlRwT0ZERGDYaCtMZ0dPc3doRWXqQWdJr0puaGpWdDhya2Jpci8yduXhZnhsU1o0Szf4NURStjBqVUxkox1QU21qZythaErdEh3STFTUW1aVlK3cXZPNURnaE94aEPnR2x6NmXMaVptem9nPSIsIk1JSUVYRENDQBTZ0F3SUJBZ0lOQWVPcElCejhjZ1k0UDVvVEhUQU5CZ2txaGtpRzl3MEJBUXNGQURCTU1TQXdIZ1lEVlFRTEV4ZEhiRzlpwVvd4VGFXZHVJRlp2YjNRZ1EwRwDMU0JTTWpFVE1CRUdBMVVFQ2hNS1IyeHZZbUzZVTJsbmJqRVRNQQkVHQTFVRUF4TUtSMnh2WW1Gc1UybG5iakl1RncweE56QTJNVFV3TURBd05ESmFGdzB5TVRFEU1UVXdnREF3TtkRKYU1GUXhDekFFKQmdOVkKJBWVRBbFZTUVTi0d0hBWURWUVFI RXhWSGIyOW5iR1VnVkhKMWMzUWdVMlZ5ZG1sa1pYTXhKVEFqQmdOVkKJBTVRIRWR2YjJkc1pTQkpiBlJ5sY201bGRDQkKJkFWJv\jNKCGRiA2dSek13Z2dFaU1BMEdDU3FHU01lM0RRRUJBUBVVBQTRJQkR3QXdnZ0VLQW9JQkFRREtVa3ZxSHYvT0pHdW8ybk1ZYt5WV1hrNULXaTAXq1haYXo2VVe1ITEdwL2xPSis2MDAvNGhibjd2bjZBQUiZRFZ6ZFFpDM3RzVwSDBYSm5uT0ZVQU3MUc0bnqLTWZIQOdva3NXL21vbmErWTJlbUpRMk4rYwLjd0pLZXRSQ1JTSWdbdBVBQjZBYWhoOEhiMlhpM2g5U1VrMlQwSE5vdUIyVnp4b01YbGt5VzdyVVI1bXc2SmtMSG5BNTJYRFZvU1RXa050eTvvQ010THZHbW5Sc0oxem91QXFZR1ZRTWMvN3N5Ky9FWWHBTHJWskVBOEtidHlYK3I4c253VTVDMWhVcndhVzZNV09BUmE4cUJwT1FjV1RrYU1lb1l2es9zR0lKRW1qUjB2RkV3SGRwMWNtYVdJcYvNgC3Mm43T3FYd2Zpbnu3W1lXOTdfZm9PU1FKZUF6QWdnQkFBR2pnZ0V6TULJQkx6QU9CZ05WSFE4QkFmOEVCQU1DQVlZd0lRWURWUjBsQkZJd0ZBWU1Ld1lCQlFVSEF3RudDQ3NHQVFRKJ3TUNNQk1HQTFVZEV3RU1vd1FJTUFZQkFmOENBUUF3SFFZRFZSME9CQ1lFRkhmQ3VGQ2FaM1oyclMzQ2h0Q0RvSDztZnJwTe1COEdBMVVKsXDRWU1CYUFGSgnZpQjFkbkbcN0FhZ2JlV2JTYUxkI2NHWV1lTURVR0NDc0dBUVVGQndFQkJDa3dKekFsQmdncKJnRUZCUWN3QVlZWmFIUjBjRG92TDI5amMzQXVJR3RwTG1kdmIyYzZaM055TWpBeUJnTlZiUjhfS3pBcElDZWdKYUFqaGlG6b2RIUndPaTh2WTNKC0xuQnJhUzVuYjI5bkWwZHpjakl2WjN0eU1pNWfjbXdx3UHdZRFZSMGdCRGd3TmPBMEJnWm5nUXdCQWdJd0tqQW9CZ2dyQmdFRkKJRY0NBUI1jYUhsMGNTTtZJrdVoyOXZet15WlhCdmMybDBiM0o1ThpBTkJna3Foa2lHOXcwQkFRc0ZBQU9DQVFFQUhMZUpsdVJUN2J2czI2Z3lBWjhzbzgxgdHJVSvNkl080NXNrfRVtQWdlMWNueGhHMVAyY05tU3hiV3NvaUN0MmVleDlMU0QrUEFqMkxJWVJGSFczMS82eG9PyZFrNHRiV1hrRENqaIzN3hUVE5xUkFNUFV5RlJXU2R2dCtubFBxd25iOE9hMkkvbWFTSnVrY3hEak5TznBEaC9CZDFsWk5nZGQvOGNMZHNfMyt3eXi1Zko5dVhPMW1RcG5oOXpdiUZJd3NJT05HbDFwM0E4Q2d4a3FJL1VBaWgzSmFHT3FjcGNkYUNJemtCYVI5dv1RMVg0azJWZzVlUFJMb3V6VnK3YThJVms2d3V5NnBtK1Q3SFQ0TFk4aJWJTNUZFwmxQUZMU1c4TndzVno5U0JLM1ZxbjFOMFBjTW41eEE2TlpWzdvODM1RExBRnNorVdmQzdUSWUzZz09I119.eyJub25jZSI6ImFfJbzZQa3BzdHVVd3daYitTtk9HT3F5ZGJmbjYyeXNmeDFQkbtWcZd2RUU9IiwiidG1tZXN0Yw1wTXMiOjElMjM0MDI5NTg1NjYsImFwa1BhY2t2thZ2VOYW1lIjoiy29tLnppbXB1cmllbS56aBzIiwiaXBrRGlNkXN0U2hhMjU2Ijoik2pZWdlvcnGSWtZn3hssGs3MDhmdmtRU09KNXM3S1Qwd1VpTUJtTcTzPTT0iLCJjdHlQcm9maWx1TWf0Y2giOmZhbnHN1LCJhcGtDZXJ0aWZpY2F0ZURpZ2VzdfNoYTI1NiI6WyJxNXRKN09TdGRNYUYwUGN3R3ZiYXMyeUd1U1ZaOEpyWVFlWHQ4MW1rdHg4PSJdLCJiYXNpY0ludGvncml0eSI6ZmFsc2UsImFkdmljZSI6I1JFU1RPUkVfVE9fRkRkFDE9SWV9ST00ifQ.kRgYAPflVp6Suo9ueOJTbkIzGxk62f5ozB--tdOelBmZuWtYn23zr-JJrZnh1xn6X3bC7cYuVT7vjg_Rj3dg4bn3W80imI6ZguXfdXZnlDI7ujbwWfAn4cdNHmbCP-wkWMnc0-Xa4m7XjZCGFAKGeThkew90LgkVYO-TAktw_5FcPymnIPyXHXQ39MDvUvwXB-mSiEnLoLnk27RGLG75jppqN5S001GV9j0b5dqykAuY-

nEUvWmjaYBl45HgdXRNRtABKNyX2d9asjCFLhp8BzsxpWuMQAAwmfDlAYMackrbTHKI5OZMxsQlKWCIMk24QluoXbbGtqJpHeD76lmw",

"sideloaded_app_name": "McAfee MVISION Mobile Application",

"suspicious_profile": {

"profile_information": "{\n AuthenticationMethod = SharedSecret;\n DisconnectOnIdle = 0;\n DisconnectOnIdleTimer = 0;\n DisconnectOnSleep = 0;\n DisconnectOnWake = 1;\n DisconnectOnWakeTimer = 0;\n LocalIdentifier = \"IPSEC-zUsers\";\n LocalIdentifierType = KeyID;\n OnDemandEnabled = 0;\n RemoteAddress = \"zpn-dal.McAfee.com\";\n SharedSecret = \"B87C8237-A611-48E6-98BA-8E6E4749AC15.SS\";\n SharedSecretEncryption = Keychain;\n XAuthEnabled = 1;\n XAuthName = \"ios-test\";\n XAuthPassword = \"B87C8237-A611-48E6-98BA-8E6E4749AC15.XAUTH\";\n XAuthPasswordEncryption = Keychain;\n}",

"profile_name": "Setup:/Network/Service/B87C8237-A611-48E6-98BA-8E6E4749AC15/IPSec",

"profile_type": 1

},

"system_tampering_reasons": "SELinux state change : 0",

"_id": {

"\$oid": "5acd2c8a70b7705a570dd76d"

},

"type": 10,

"sideloaded_app_developer": "iPhone Distribution: McAfee, Inc.",

"host_attack": {

"malware_matches": [

{

"signatures": [

{

"type": 0,

"hash": "45F86E5027495DC33D168F4F4704779C",

"size": 90311

},

{

"type": 2,

"hash": "B48B1E51097ADE6DB1EB15A7DFBC0B81",

"size": 33

},

{

"type": 2,

"hash": "4F5B0D6B9BCD31EDC7628DEEF9978560",

"size": 27

},

{

"type": 2,

"hash": "0BF2BC52BFCC27A2B24F1C3E97DE69BA",

"size": 31

},

{

"type": 2,

"hash": "15E39F90DA03CC20E525CE84FE0FC2BA",

"size": 31

},

{

"type": 2,

"hash": "03F3625328A7A76A5C330D99D57EE261",

"size": 24

}

],

"score": 6.0,

"name": "Trojan.Droidkungfu/2"

}

],

"detected_locally": true,

"process": "/init (1) -> /system/bin/debuggerd (289) -> dumpstate (2004) -> logcat (2111) .


```

b radio -v threadtime -d *:v",
    "malware_detection_source": 0,
    "filename": "/data/app/com.tebs3.cuttherope-1/base.apk",
    "file_hash": "45f86e5027495dc33d168f4f4704779c",
    "application": "com.tebs3.cuttherope",
    "malware_threat_name": "Trojan.Droidkungfu/2",
    "is_blacklisted": true,
    "is_malicious": false,
    "malware_scan_category": 1,
    "suspected_url": "http://www.scbusinc.com/yahoo/d",
    "daemon_minflt": [
        64530,
        64530,
        64530,
        65981,
        66711,
        66752,
        67231,
        68632,
        70771
    ],
    "process_pid": 2111,
    "daemon_rss": [
        1513,
        1507,
        1498,
        1931,
        1983,
        1986,
        2334,
        3720,
        5898
    ],
    "info_before": {
        "user_id": "2000",
        "selinux_context": "u:r:s_dumpstate:s0"
    },
    "info_after": {
        "user_id": "2000",
        "selinux_context": "u:r:s_dumpstate:s0"
    }
},
    "app_tampering_reasons": "MobileSubstrate code injection library detected",
    "stagefright_vulnerability_report": "{\"CVE-2015-3828\":false,\"CVE-2015-3827\":true,\"CVE-2015-3829\":true,\"CVE-2015-6575-2\":true,\"CVE-2015-6602\":true,\"CVE-2015-1538\":true,\"CVE-2015-6575-3\":true,\"CVE-2015-3876\":false,\"CVE-2015-6575-1\":true,\"CVE-2015-3824\":true,\"CVE-2015-3864\":true}",
    "severity": 2
},
    "mitigated": "True",
    "location": {
        "state_name": "Texas",
        "source": 4,
        "p": [
            -99.9018131,
            31.9685988
        ],
        "country_name": "United States",
        "previous_sample": {
            "p": [
                -96.84407620148978,

```

```

        32.92587490052974
    },
    "time": {
        "$date": 1523407557000
    }
},
"exact": false,
"sampld_time": {
    "$date": 1523393223000
},
"accuracy": 2
},
"eventtimestamp": "2018-04-10 21:28:44.201372+00:00",
"user_info": {
    "employee_name": "Jane Carem",
    "user_role": "End User",
    "user_email": "jane.carem@zmdemo.com",
    "user_group": "Default Group"
},
"device_info": {
    "device_time": "2018-04-10 21:28:44.201372+00:00",
    "tag1": "",
    "tag2": "",
    "app": "McAfee MVISION Mobile Application",
    "operator": "Sprint",
    "imei": "990004803030133",
    "os": "Android",
    "jailbroken": false,
    "os_version": "5.0",
    "model": "SM-G900V",
    "app_version": "4.3.3",
    "type": "kltevzw"
},
"threat": {
    "story": "Detected Abnormal Process Activity while connected to Free Wi-Fi. Responded with
Alert User.",
    "name": "Abnormal Process Activity",
    "general": {
        "time_interval": "944",
        "device_time": "04 10 2018 21:16:53",
        "threat_type": "Abnormal Process Activity",
        "device_ip": "192.168.0.101",
        "device_mac": "78:4b:87:e4:f1:3d",
        "gateway_ip": "192.168.0.1",
        "gateway_mac": "6c:19:8f:f4:42:b2",
        "network": "Free Wi-Fi",
        "network_bssid": "2e:19:8f:f4:42:b3",
        "external_ip": "38.96.200.164",
        "basestation":
        "{ \"mnc\":260, \"psc\":510, \"type\": \"WCDMA\", \"cid\":124989444, \"mcc\":310, \"lac\":45991 }",
        "action_triggered": "Alert User",
        "attacker_ip": "192.168.1.8",
        "attacker_mac": "6c:19:8f:f4:42:b2",
        "attacker_ssid": "\"Planet\"",
        "attacker_bssid": "00:c0:ca:aa:bb:cc",
        "process": "/init (1) -> /system/bin/debuggerd (289) -> dumpstate (2004) -> logcat (2111) .
b radio -v threaddtime -d *:v",
        "certificate": " *.McAfee.com_CN=Go Daddy Secure Certificate Authority - G2,
OU=http://certs.godaddy.com/repository/, O=\"GoDaddy.com, Inc.\", L=Scottsdale, ST=Arizona,
C=US[0]=-----BEGIN CERTIFICATE-----
\\nMIIFKDCBBCCgAwIBAgIJAMEfTAjQKr41MA0GCSqGSIb3DQEBCwUAMIG0MQswCQYDVQQGEwJVUzEQ\\nMA4GA1UECBMHQXJp

```


Appendix A – Sample Pull Script

```
#!/usr/bin/env bash
#: Title : Customer Splunk curl syslog retrieval
#: Date : 2016-03-30
#: Author : McAfee
#: Version : 2.1
#: Description : Activate syslog forwarder on files to customer receiver

#Add a chrone job to run this file once a minute, Example:
# 1 * * * * /home/ubuntu/syslog_curl.sh

#Security paramaters: Acquire these from McAfee Support: support@McAfee.com
client_id='UP9Vg7ugzUVQQBQs5DSib8zPC4dC4E48kRlaf3lB'
client_secret='laDFBanlG56yOZCC2hG6BQzOnzsUw07jLWaOYbRpI7WAplpIq6Gue87SGnQld65sAYSXZvzq7odcri9EqI2xGJom8vbl5xG5dJhWpeBStbIwMl1J2PjNJJu5hd2TvrXX2m'
system_token_encoded='YWlnLiLLYw=='

#Where to get the auth token and the McAfee MVISION Mobile Console logs
authhost='demo-token.McAfee.com'
McAfee MVISION Mobile ConsoleHost='demo-console.McAfee.com'

#Location where we want the data to reside and the start of the filename
destinationDir='/var/log/McAfee_spm'
output_file_prefix='json_'

function parse_json()
{
    echo $1 | \
    sed -e 's/[{}]/''/g' | \
    sed -e 's/", "/'\''"/g' | \
    sed -e 's/" , "/'\''"/g' | \
    sed -e 's/" , "/'\''"/g' | \
    sed -e 's/" , "/'\''---SEPERATOR---\"'/g' | \
    awk -F=':' -v RS='---SEPERATOR---' '\$1~/\"$2\"/{print}' | \
    sed -e "s/\\"$2\":://\" | \
    tr -d "\n\t" | \
    sed -e 's/\\\"/"/g' | \
    sed -e 's/\\\\/\\/g' | \
    sed -e 's/^[ \t]*//g' | \
    sed -e 's/^\"//\' -e 's/$//\'
}

if [ ! -d "$destinationDir" ]; then
    echo "Directory does not exist: " $destinationDir " please create this directory and restart."
    exit 1
fi

echo "getting security access token.."
json_with_access_token=$(curl -vv https://${authhost}/oauth2/token/ --data
"grant_type=client_credentials&client_id=$client_id&client_secret=$client_secret")
access_token=$(parse_json "${json_with_access_token}" access_token)

echo $json_with_access_token
echo ACCESS TOKEN
echo $access_token

if [ -z "$access_token" ]; then
    echo "ERROR!! could not get access token, response was probably invalid"
```

```

        rm -f $destinationDir/syslog_access_token
        exit -1
    fi

    echo $access_token > $destinationDir/syslog_access_token

    # severity: 0 = Normal, 1=Low, 2=Elevated, 3=Critical
    # Below example pulls data for Severity 2,3 ( Elevated, Critical only )
    # $system_token_encoded?severity=3&severity=2
    # Default level=verbose
    # $system_token_encoded?level=concise

    echo "getting syslogs.."

    prefilename="$destinationDir/$output_file_prefix`date +%m%d%y%H%M%S`-pre.log"
    status_code=$(curl -k -s -f -H 'Authorization: Bearer '$access_token'' https://{McAfee MVISION
    Mobile ConsoleHost}/seclog/$system_token_encoded?level=concise\&severity=3 -o $prefilename -w
    "%{http_code}")

    echo STATUS CODE
    echo $status_code

    if test -f "$prefilename"; then
        filename="$destinationDir/$output_file_prefix`date +%m%d%y%H%M%S`.log"
        touch $filename
        while read -r line; do
            test="$( cut -d '{' -f 2- <<< "$line" )"
            echo "${test} >> $filename"
        done <$prefilename
        rm -f $prefilename
    fi

    if [ "$status_code" = 200 ]
    then
        find ${destinationDir}/${output_file_prefix}*.log -mtime 7 | xargs rm
    else
        echo 'ERROR!! got status code: ' $status_code 'from the server..'
    fi

```