Carbon Black
App Control

Events Guide

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Contents

Introduction

This document describes the events generated, tracked, and stored by VMware Carbon Black App Control, and the ways you can access these events.

Section 1, Event Specification, describes the content, structure and purpose of these events for the benefit of integrators interested in using them outside of the Carbon Black App Control environment. This section includes a comprehensive list of event subtypes and their descriptions.

Section 2, Access to App Control Event Data, describes the ways you can access App Control event data outside of the App Control Console user interface. For supported syslog formats, this section shows how event data is mapped.

App Control events provide a critical set of audit data required by many organizations for compliance, legal, and reporting purposes. Among other things, they can show you:

- who is using App Control
- what App Control Server configuration changes have been made
- conditions requiring action (e.g., low disk space or database issues)

For computers running the App Control Agent, events provide information such as:

- file executions that have been blocked due to security rules
- malicious files found by App Control or connected third-party security devices
- new devices found

The App Control API allows programmers who want to write code to interact with App Control using custom scripts or from other applications. As with actions performed through the App Control Console, App Control API activity creates an audit trail. The API user taking the action is identified in the event.

Depending on your role and use case, how you use these events will vary. For example:

- A Help Desk responding to an end user request might be interested in all *block* events for a given computer.
- An IT security specialist responding to an incident might be interested in *new file executions* and events related to *file installation groups.*
- An App Control administrator establishing corporate policies might be interested in classes of events specific to a particular policy interest, such as discovery of new devices or execution of unapproved files (i.e., files neither approved nor banned).

The descriptions in this document will help you locate the specific events you need and filter out those not of interest. If you need more information about App Control features associated with these events, see the *VMware Carbon Black App Control User Guide* for this release, which is available as a PDF file on the Carbon Black User eXchange and in online help on the App Control Console.

Note: The main table of event types and subtypes in Table 3 describes events as they appear in current versions of App Control v8.6.

Section 1: Event Specification

There are two key elements in the App Control event specification:

- the **event fields**, that is, the different types of information available in a single event
- the list of unique **event type/subtype** combinations, shown in Table 3 beginning on page 11.

Event Fields

This section describes the fields that can be in an App Control event. Those shown as “required” can be expected to be present in each App Control event. Other fields are present only for certain events or under certain conditions.

Timestamp (required)

All event timestamps are stored in UTC in the App Control database. The timestamp is the date/time at which the event occurs; that is, it is the time as seen from the source of the event. For example, for server-generated events, it is the UTC time of the server; for agent-generated events, it is the UTC time on the agent computer reporting the event. In the App Control Console, timestamps are displayed according to the time zone setting selected on the General tab of the System Configuration page.

The timestamp for an event corresponds to the date/time when the *App Control Agent or Server* records the event. This means, for example, that a new file discovery during initialization of all files on a new agent computer will show the time the file is first seen by the agent, not when it first arrived on the computer. If the time on the agent computer is not the same as the time on the server, an agent could report a skewed time, including reporting events as happening at a future time.

Note: Although not part of the basic and enhanced Syslog output, a *received* timestamp may appear in other event output from App Control, showing the time the App Control Server received an event.

Severity (required)

Each App Control event has one of five different severity values. **Error! Reference source not found.** s hows the severity values listed in order of ascending importance.

Table 1. App Control Event Severities

Severity	Description
6 - Info	Informational message
5 - Notice	Normal, but significant, condition
4 - Warning	Warning condition; worth investigation
3 - Error	Error condition, usually something that requires contact with VMware Carbon Black Support
2 - Critical	Critical condition that requires immediate investigation or action

Type (required)

This is the top-level, general classification for an event. Each event also has a subtype, which specifically classifies the kind of event it is. Table 2 shows the public event types.

Table 2. App Control Event Types

Event Type	Description
Computer Management	Events related to changes to Computer assets managed by the App Control Server or specific to an App Control Agent. For example: - Console management operations like “Computer deleted” and “Computer modified” - Computer/Agent specific diagnostic actions like “Cache check complete” and “Agent synchronization finished” - Template and clone computer management operations - Agent status operations like “Agent restart” and “Agent upgraded” - “Carbon Black EDR sensor status”
Discovery	Events related to the discovery or existence of new assets or new actions. For example: - Device-related events like “New device found” and “Device attached” - File-related events like “First execution on network” and “New unapproved file to computer” - Events directly related to the metadata retrieved from the Carbon Black File Reputation, Carbon Black’s database of file information. For example, “Malicious file detected” and “Potential risk file detected” - Events related to notification of malicious or potentially risky files from external sources.
General Management	Events related to the management of non-user, non-computer and non-policy assets. This includes events related to Meters, Alerts, Baseline Drift reports, Snapshots, and Event Rules. For example, “Alert triggered”, “Baseline Drift Report generated”
Policy Enforcement	Events related to the enforcement of any policy or rule on the App Control Agent. For example: - File events like “File approved (Updater)”, “Execution block (banned file)”, and “Report write (Custom Rule)” - Device Rule events like “Read block (removable media)” and “Report execution (removable media)” - Registry Rule events like “Write block (Registry Rule)” and “Report write (Registry Rule)” - Memory Rule events like “Access prompt (Memory Rule)” and “Access block (Memory Rule)” **Note:** This does *not* include the creation or management of policies. Those events are included under the Policy *Management* type.

Event Type	Description
Policy Management	Events related to the management (creation, modification, deletion) of any policy or rule. For example: - Policy events like "Policy created" and "Policy deleted" - Software rule events like "Publisher approval created", "File ban created", "Trusted User added" and "Custom Rule created" - Device Rule events like "Device approval removed" - Registry Rule events like "Registry Rule created" - Memory Rule events like "Memory Rule modified"
Server Management	Events related to the configuration and administration of the App Control Server and database. For example: - "Server shutdown", "License added", "Server backup stopped", "Database error" and "Carbon Black File Reputation connection lost"
Session Management	Events related to the login activity and management of App Control Console users. For example: - Management events like "Console user created" - Login activity like "Console user login" and "Console user logout" **Note:** App Control Console is the web-based user interface to the App Control Server through which all standard App Control administration takes place.

Subtype (required)

The subtype corresponds to one (and only one) event type. Subtypes generally map closely to real world use cases and/or App Control product functionality. Table 3 shows the full list of subtypes.

Source (required)

There are two possible values for Source: "System" (the App Control Server or a server component) or a computer name (indicating the event came from an App Control Agent on the named computer).

Unified Server Source

This release includes the ability to manage certain functions on multiple App Control servers from one server. If an event was initiated by a remote server connected via Unified Management, the Unified Server Source field shows the name of that server.

Note: On the console Events page, this field (if available) is displayed only if the logged in user has Unified Management permissions.

Description (required)

The description field is a natural language description of the event. Often, the description will contain information also provided in other fields in the event. This redundancy is intentional; it allows the description to be fully descriptive of the event without the other fields.

Table 3 includes examples (or formats) of descriptions for each unique event subtype, but it does not enumerate all possible event descriptions. Where descriptions contain error messages and other unrestricted content, an exhaustive list is impractical.

Note: Because it can contain sensitive information, including passwords, command line information is included in the Description field for Syslog output from the App Control Server only if command line export is enabled on the System Configuration/Events page in the App Control Console.

IP Address

The IP Address field denotes the IP address of the source of the event. Most, but not all, events have an IP address. For most events, the IP address corresponds to the "Source" field, which is the IP address of the client computer for App Control Agent generated events. This is the IP address of the agent *at the time of the event*, not necessarily the current IP address of the agent.

Events generated by App Control Console activities report the IP address of the machine on which the user is accessing the console. For example, "Console user login" and some "File approval created" events contain the IP address of the computer on which a console user performed those actions.

Most events generated by the App Control Server, Reporter and the database itself (whose source is "System") do not have an IP address. This includes, for example, events such as "Alert triggered" and "Server errors". In those cases, the IP address is unnecessary, since it is always the same. Exceptions to this rule are Server and Reporter start and stop events, which contain IP address of the Server and Reporter for diagnostics purposes.

User

The User field contains either the user that was active on the agent computer (Source) at the time of the event, or the Console User in the case of events generated by console activities. There are cases in which an event cannot be attributed to either a console or a logged in user on an agent system:

- In some cases, the user name will be "System".
- The User field might be empty when there is no user account to attribute to the event. This occurs for agent-generated Computer Management events like "Agent restart" and "Agent Policy updated". Those events are initiated by the App Control Agent itself and therefore have no associated user.
- In some cases, the User field will be "<unknown>" because a user cannot be determined. For example, it would be <unknown> for the Discovery events "Device attached" and "Device detached". When devices are attached or detached from a computer, App Control tries to determine which user is currently "active" at that time. If an active user cannot be determined – for example, if there is no one currently logged in – App Control will use the special string "<unknown>" for User.

If you are using Unified Management of multiple servers, the "user" identified for actions performed on client servers through the management server is not necessarily the user currently logged into the console. The account used to *authenticate* the connection between the management server and the client server appears as the user.

File Events

The following events relate to a specific file:

- **File Extension**
- **File First Execution Date**
- **File Hash**
- **File Name**
- **File Path**
- **File Prevalence**
- **File Publisher**
- **File State**
- **File State Reason**
- **File Threat**
- **File Trust**

When the event relates to a specific file (e.g., “Execution blocked”, “New unapproved file”), the File Hash, File Name, and File Path fields will be completed with the file-specific information that is available. Not all file events will have these fields completed. For example, an “Execution blocked (still analyzing)” event, will not have a file hash. Policy Management events, like creating approvals and bans, also contain File Hash or File Name data when available and applicable.

When the File Hash is available, it is a SHA-256 hash. The File Path does *not* end with a trailing slash.

File State provides the state of the file associated with the event (Approved/Unapproved/Banned) and File State Reason provides additional details behind the state of the file associated with the event. File Prevalence lists the number of computers on which the file associated with an event appears.

If Carbon Black File Reputation data is enabled when the file event is generated, File Trust and File Threat information is included in the event if it is available.

Process Events

The following events relate to a specific process:

- **Process**
- **Process Hash**
- **Process Key**
- **Process Name**
- **Process Path**
- **Process Prevalence**
- **Process Threat**
- **Process Trust**

Process Name, Process Path, Process Key, Process Trust, and Process Threat

Several Process fields are used within events generated by the App Control Agent. Most of them are similar to the File fields, except that they describe the running process that caused an event to be generated rather than the file that is the target of an action. For example, when a file execution is blocked and the “Execution block” event is generated, the event will include the Process Name field with the file name of the program that tried to launch the blocked file.

The Process field provides the full path and name of the process associated with the event and Process Prevalence lists the number of computers that have the process associated with an event.

Typically, the process fields appears in Discovery events or Policy Enforcement events but also can be part of certain subtypes of other event types.

If Carbon Black File Reputation data is enabled when the file event is generated, Process Trust and Process Threat information is included in the event if it is available.

Process Key is a unique, proprietary key identifying the instance of the process on a specific computer.

Note: A “Process” field (without any additional term) is also in events exported to Syslog and archives. This field contains the name and full path, and is used for compatibility with pre-7.2.0 agents and events. Another field, Process Hash, is exported only in archived events (see Archive Files on page 50).

Installer, Root Hash

Installer and Root Hash are used within some events generated by the App Control Agent.

The Installer field contains the name (*not* the path) of the file that *created* the file referenced by a File Name and/or File Hash – in other words, the root parent or “installer” of that file.

In many cases, the Installer is the same as the Process Name, but not always. For example, for file approval events, the process running is often (by definition) the same as the installer that is approving the file being written. In the case of execution block events, the process running may or may not be the same as the process that wrote the file in the first place.

For example, consider what happens when the installer *setup123.exe* writes the file *myapp.exe.* When *myapp.exe* is first written on a computer running an App Control Agent, a “New file on network” event is generated, and both its *Process Name* field and its *Installer* field reference *setup123.exe*. If *myapp.exe* is later launched from a command prompt and is blocked, the Process Name field may be *cmd.exe* while the Installer field is still s*etup123.exe*.

The Root Hash field is the SHA-256 hash value of the Installer file.

Policy

The Policy field is used within events generated by the App Control Agent. It contains the name of the App Control security policy in effect on the agent at the time of the event.

Additional Fields

The following additional fields are not mandatory but may appear in events:

- **Ban Name** – For block events, name of the ban that blocked the file.
- **Computer ID** – A numeric ID for the computer associated with the event (0 for system). Increments by one for each computer registered with the server.
- **Computer Tag**– An optional text string you can add to identify groups of computers that you might want to get reports about or treat in a particular way. A tag offers an alternative to policies as a way to identify groups of computers. Tags may be set on the Computer Details page for one computer or on the Computers page Action menu for multiple computers.
- **Config List Version** – Version number of the Config List associated with an event. The Config List is the set of rules delivered to agents.
- **Date Received** – Timestamp when the event was received by the App Control Server (in UTC).
- **Indicator Name** – Name of the threat indicator associated with the event, if present. Same as rule name when present.
- **Indicator Set** – Name of the threat indicator set for the indicator associated with the event, if present.
- **Operating System Details** –Full OS name, the build, and service pack level.
- **Platform** – Platform of the computer associated with the event (Windows, Mac, Linux).
- **Rapid Config** – The name of the Rapid Config associated with the event, if any.
- **Rule Name** – The name (as it appears in the console) of the rule associated with the event. This includes both user-created rules and built-in rules, such as *Prompt on unapproved executables.*
- **Unified Source** – The name of the unified server associated with the event, if any.
- **Updater** – The name of the updater associated with the event, if any.

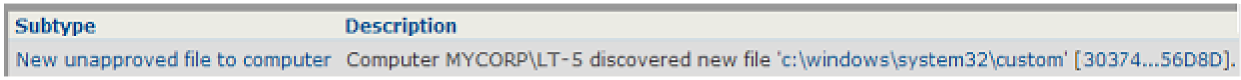
Events Table

Table 3 lists all events types and their unique subtypes in App Control v8.6. New or changed events are shown with the following legend:

π	Changed for v8.6.0 (e.g., type, subtype, severity, description, triggering condition); type and subtype shown in bold
⚐	Changed for v8.5.0 (e.g., CB Protection changed to Carbon Black App Control)
◉	New for v8.1.8; type and subtype shown in bold
■	New for v8.1.6; type and subtype shown in bold
□	Changed for v8.1.6 (e.g., type, subtype, severity, description, triggering condition); type and subtype shown in bold
●	New for v8.1.4; type and subtype shown in bold
○	Changed for v8.1.4 (e.g., type, subtype, severity, description, triggering condition); type and subtype shown in bold
▲	New for v8.1.0; type and subtype shown in bold
Δ	Changed for v8.1.0 (e.g., type, subtype, severity, description, triggering condition); type and subtype shown in bold
✦	New for v8.0.0
✧	Changed for v8.0.0

For information about event changes prior to v8.0.0, see the Bit9 Security Platform v7.2.3 Events Integration Guide on the Carbon Black User eXchange.

In the Example Descriptions/Comments column, the descriptions show the text and/or format of the descriptions for each event. Variable information is shown with the convention "$variabledata$". So for example, where the actual Description field for an event would show the name of a computer (e.g., "Laptop-5"), the Description column in this table shows "$computer$". Variables that use parameters from App Control, where these parameters are not commonly known objects outside of the App Control context, are shown in the format "$param1$", "$param2$", etc. You can view the actual event output from App Control or view the Events page through the App Control Console to see real-world examples of these parameters. For example, an event shown in this guide as *"Computer $computer$ discovered new file '$filePathAndName$' [$hash$]."* might look like this in the console:



Subtype	Description
New unapproved file to computer	Computer MYCORP\LT-5 discovered new file 'c:\windows\system32\custom' [30374...56D8D].

If you have upgraded from a previous version of this product, note the following changes that affect multiple events:

- Several product name changes in version 8.5.0 have affected certain event subtypes and descriptions:
    - CB Protection is now Carbon Black App Control.
    - CB Response is now Carbon Black EDR.
    - Carbon Black Collective Defense Cloud is now Carbon Black File Reputation.
- Several product name changes in version 8 have affected certain event subtypes and descriptions:
    - Parity Server/Bit9 Server is now CB Protection Server.
    - Parity Agent/Bit9 Agent is now CB Protection Agent.
    - Parity Console/Bit9 Console is now CB Protection Console.
    - Parity Knowledge Service/Bit9 Software Reputation Service is now Carbon Black Collective Defense Cloud.
- Numerous other changes, including some user interface names, have been made since the 7.x product cycles.
- Beginning with v7.2.1, what was labeled “Priority” was changed to “Severity”.
- In v8.1.0, capitalization of many subtype names was changed for consistency.

Table 3. App Control 8.6 Event Types and Subtypes

	Type	Subtype	ID No.	Severity	Example Descriptions/Comments
	Computer Management	Agent bulk state change finished	412	Info	Computer '$computer$' completed the state transition of all files from '$param1$' to '$param2$'. ***Note:*** *Parameters 1 and 2 can be ‘Unapproved’ or ‘Locally Approved’.*
	Computer Management	Agent bulk state change requested	413	Info	'$userName$' requested state transition of all files on computer '$computer$' from '$param1$' to '$param2$'. *Parameters 1 and 2 can be ‘Unapproved’ or ‘Locally Approved’.*
	Computer Management	Agent config modified	435	Notice	Agent configuration property '$param1$' was created as '$param2$' ($param3$) by '$username$'. Agent configuration property '$param1$' was modified to '$param2$' ($param3$) by '$username$'. Agent configuration property '$param1$', value '$param2$' ($param3$) was deleted by '$username$'." ***Examples:*** Computer retrieved Notifier Logo: Source[$param1$] Attempts[$param2$]. Agent configuration property 'KernelWriteExcludePattern' was modified to '/opt/apps/*' (Enabled) by 'bjones@mycorp.local'. Agent configuration property 'protocol_message_versions (Linux)' was modified to 'protocol_message_versions=1:4,2:1,3:1,5:4,6:7,7:5,8:3,9:4,10:1,11:1,12:2,13:1,14:1,15:2,16:1,18:1' (Disabled) by 'rgomez@mycorp.local'.
⚐	Computer Management	Agent database error	432	Error	Carbon Black App Control Agent had to restore its primary database cache. Carbon Black App Control Agent had to rebuild its primary database cache and now has to re-initialize. Carbon Black App Control Agent detected a cache integrity problem. Unknown error initializing database pool. Carbon Black App Control Agent had to restore its primary database cache. Carbon Black App Control Agent had to rebuild its primary database cache and now has to re-initialize.

	Type	Subtype	ID No.	Severity	Example Descriptions/Comments
					Carbon Black App Control Agent failed to upgrade its database. Carbon Black App Control Agent failed to connect to its cache database. Carbon Black App Control Agent failed to read config list from file. Carbon Black App Control Agent failed cache verification. ***Change Note****: CB Protection replaced with Carbon Black App Control in v8.5.0.*
	Computer Management	Agent deleted events	414	Notice	Computer '$computer$' deleted $param1$ events. ***Note:*** *Param1 is a numeric value.*
	Computer Management	Agent Enforcement Level changed	407	Notice	Computer '$computer$' changed Enforcement Level from '$param1$' to '$param2$'. ***Note:*** *Parameters 1 and 2 are one of the Enforcement Levels or "Local Approval".*
⚐	Computer Management	Agent error	431	Error	Unsupported kernel [$kernelversion$] running. Agent will not track files. Carbon Black App Control Agent was unable to communicate with the kernel. Agent may be unprotected Unable to connect to the Kernel. Agent will not track files. Computer failed to receive Notifier Logo: $logoFilePath$. Free space on Carbon Black App Control Agent drive is low: Drive[$letter$:] Available[$param1$] Total[$param2$] Free[$param3$] Threshold[$param4$] Upload failed: Retry limit exceeded. File upload canceled for file '$filePath$'. Attempts[$param$] ***Change Note****: CB Protection replaced with Carbon Black App Control in v8.5.0.*
▲	Computer Management	Agent FIPS status changed	851	Info	FIPS status has changed on computer '$computer$' from '$param1$' to $param2$'.
⚐	Computer Management	Agent health check	447	Info/ Error/ Warning	Carbon Black App Control Agent is healthy. Options[$param1$]. Carbon Black App Control Agent failed a health check. ErrorsFound[$param2$] Options[$param1$] Carbon Black App Control Agent detected a problem: $param1$. $param2$ Timestamp of events from computer $computer$ are $param1$ day(s) in the $param2$ Timestamp of events from computer $computer$ are within expected range ***Change Note****: CB Protection replaced with Carbon Black App Control in v8.5.0.*
	Computer Management	Agent health check request	457	Info	User '$userName$' requested health check for computer '$computer$'.
Δ ✦	Computer Management	Agent notification (other)	1019	Info	Service control notification on '$computer$': $param1$. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ ✦	Computer Management	Agent notification (session change)	1018	Info	Session change on '$computer$': $param1$. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ ✦	Computer Management	Agent notification (time change)	1017	Info	System time change on '$computer$': $param1$. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
○ Δ	Computer Management	Agent Policy changed	406	Notice	Policy change was scheduled for computer '$computer$' from '$param1$' to '$param2$'. ***Change Note:*** *Subtype capitalization was changed in v8.1.0. Description was changed in v8.1.4.*
Δ	Computer Management	Agent Policy updated	408	Info	Computer '$computer$' updated Policy from version '$param1$' to '$param2$'. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
	Computer Management	Agent requires upgrade	415	Notice	Agent polled from '$ipaddress$'. Agent Version($param1$). Agent needs to upgrade to latest version.
⚐	Computer Management	Agent restart	405	Info	Carbon Black App Control Agent has started, version $param1$. ***Change Note****: CB Protection replaced with Carbon Black App Control in v8.5.0.*

	Type	Subtype	ID No.	Severity	Example Descriptions/Comments
⚐	Computer Management	Agent shutdown	404	Info	Carbon Black App Control Agent was stopped because of a system shutdown. ***Change Note**: CB Protection replaced with Carbon Black App Control in v8.5.0.*
⚐	Computer Management	Agent synchronization finished	411	Info	Computer '$computer$' finished resynchronizing its local state with the Carbon Black App Control Server. (Reason: '$param2$'). ***Note:** Param2 is one of the following: 'Agent queue size grew too large', 'Server request during agent initialization was deferred', 'Server request during agent cache consistency scan was deferred', 'Server request', 'Agent did not have enough history', 'Protocol error', 'Agent CLI Request'* ***Change Note**: CB Protection replaced with Carbon Black App Control in v8.5.0.*
O	Computer Management	Agent synchronization requested	418	Info	User '$username$' has requested resynchronization of computer '$computer$' with the Carbon Black App Control Server. ***Change Note**: CB Protection replaced with Carbon Black App Control in v8.5.0.*
⚐	Computer Management	Agent synchronization started	410	Info	Computer '$computer$' started resynchronizing its local state with the Carbon Black App Control Server (Reason: $param2$). ***Change Note**: CB Protection replaced with Carbon Black App Control in v8.5.0.*
	Computer Management	Agent uninstalled	421	Notice	Agent has been uninstalled from computer '$computer$'
	Computer Management	Agent upgraded	409	Info	Computer '$computer$' changed agent version from '$param1$' to '$param2$'.
⚐	Computer Management	Automatic resynchronization	425	Info	Carbon Black App Control Server scheduled an auto resync on '$computer$' because agent appears to have gone back in time ($param1$/$param2$). ***Note:** Param1 is the server's expected sequence number of an action. Param2 is the sequence number sent by the agent, which can be used for diagnostic purposes with Carbon Black Support.* ***Change Note**: CB Protection replaced with Carbon Black App Control in v8.5.0.*
	Computer Management	Cache check complete	416	Info	Cache consistency check stopped Level [$param1$] $param2$ Cache consistency check complete: $param1$ optimizations made, $param2$ corrections. ***Note:** Param1 is cache consistency level. Param2 is a series of values for diagnosis of what was done during the check, and also indicates whether the check ran to completion ("Successful[1]") or stopped before completion ("Successful[0]").*
	Computer Management	Cache check error	417	Warning	Cache consistency error number '$param1$', file '$param2$'.
	Computer Management	Cache check start	426	Info	Cache consistency check at level '$param1$', flags '$param2$' started.
	Computer Management	Cache consistency check request	453	Info	User '$userName$' requested a cache consistency check Level[$param1$] Options[$param2$] for computer '$computer$'] ***Note:** Param1 is the consistency check level chosen by the user and param2 indicates any option checkboxes chosen, such as "Full scan of new files".*
✧	Computer Management	Carbon Black EDR sensor status	458	Info	Carbon Black EDR Sensor Version '$param1' installed and '$param2'. Carbon Black EDR Sensor is not installed. ***Note:** param1 is the Carbon Black EDR sensor version; param2 is the sensor state (e.g., 'Running').* ***Change Note:** Prior to v8.0.0, the event subtype was "Carbon Black sensor status".*
	Computer Management	CLI executed	429	Notice	The CLI command "$commandname$" was executed.
	Computer Management	CLI password reset	403	Notice	The CLI password for computer '$computer$' was reset by '$username$'.
	Computer Management	Clone orphaned	446	Info	Clone computer '$computer$' was orphaned due to deletion of template '$param1$'.

	Type	Subtype	ID No.	Severity	Example Descriptions/Comments
	Computer Management	Clone registered	445	Info	Computer '$computer$' was registered as a clone of template '$param1$'.
	Computer Management	Computer added	400	Info	New computer '$computer$' with Policy '$policyName$' registered from '$ipAddress$'. Agent Version ($param1$).
	Computer Management	Computer deleted	401	Info	Computer '$computer$' was deleted by '$username$'.
	Computer Management	Computer modified	402	Info	Computer '$computer$' was modified by '$username$'. Computer '$computer$' was moved into the Policy '$policyName$' by '$username$'. Computer '$computer$' was modified by '$username$' to use automatic Policy assignment. Computer '$computer$' was restored to its previous Policy by '$username$'. Computer '$computer$' was scheduled for re-registration by '$username$'. Duplicate computer '$computer$' with address '$param1$' was re-registered. Computer from '$param1$' changed its name from '$param2$' to '$param3$'. Agent upgrade for computer '$computer$' was requested by '$username$'.
	Computer Management	Computer reboot request	441	Info	User '$username$' requested reboot of computer '$computer$'.
✦	Computer Management	Computer registered	459	Info	Computer '$computer$' registered with the server. $param1$ users are currently logged in to the computer.
	Computer Management	Configuration changed	434	Info	Disk configuration change detected: $param1$ volumes added; $param2$ volumes removed.
	Computer Management	Configure agent dumps	452	Info	User '$userName$' changed agent dump configuration from $param1$ to $param2$ for computer '$computer$'.
	Computer Management	Debug level set	451	Info	User '$userName$' set debug level for computer '$computer$' from '$param1$' to '$param2$' for $param3$ minutes.
D	Computer Management	Diagnostic file deletion request	454	Info	User '$userName$' requested deletion of diagnostic files from computer '$computer$. ***Change Note:*** *Prior to v8.1.0 this subtype was "File deletion request".*
	Computer Management	Duplicate computer registration	433	Warning	Error registering computer '$computer$' from $ipaddress$ [$param1$]: unique agent id duplicates that of computer $param2$ from $param3$.
▲	Computer Management	File deleted	460	Info	File 'test123.bat' [FBAD9...34F00] was successfully deleted from MYCORP\LAPTOP3
▲	Computer Management	File deletion failed	461	Error	***If the deletion failed because it was a file from a protected publisher:*** File deletion failure of 'emet_gui.exe' [2024F...41CCD] from MYCORP\LAPTOP3. Error: Microsoft File ***If the deletion failed because the agent version doesn't support server-based deletion:*** File deletion failure of 'emet_gui.exe' [2024F...41CCD] from MYCORP\LAPTOP3 because this Agent version doesn't support it. ***If the deletion failed because the file is no longer present on the computer and not in its inventory:*** File deletion failure of 'tryme.bat' [76C7F...BD915] from MYCORP\DESKTOP8. Error: Delete Error[C0000034]
▲	Computer Management	File deletion processed (file not found)	466	Info	***If a file is exists in a computer's inventory but is not on disk:*** File deletion processed with file not found for [EDBD7...12F06] from MYCORP\DESKTOP9
▲	Computer Management	File deletion requested	464	Info	***If the request was to delete a file from one computer:*** User 'admin' requested file deletion of all instances of [2488C...558F1] from MYCORP\DESKTOP6. ***If the request was to delete a file from all computers:*** User 'admin' requested file deletion of all instances of [FBAD9...34F00] from 100 computer(s).

	Type	Subtype	ID No.	Severity	Example Descriptions/Comments
					If the request was to delete a file came from an Event Rule: User 'System' requested file deletion of all instances of [81027...576DA] from MYCORP\DESKTOP6.
⚐	Computer Management	File process error	423	Error	Agent on computer '$computer$' is unable to process required update '$param1$' from Carbon Black App Control Server. ***Change Note**: CB Protection replaced with Carbon Black App Control in v8.5.0.*
⚐	Computer Management	File receive error	422	Warning	Agent on computer '$computer$' is unable to download required update '$param1$' from Carbon Black App Control Server. ***Change Note**: CB Protection replaced with Carbon Black App Control in v8.5.0.*
	Computer Management	File upload canceled	438	Info	User '$username$' canceled upload of file [$hash$] from computer '$computer$'. User '$username$' canceled upload of file '$filepath $' from computer '$computer$'.
	Computer Management	File upload completed	439	Info	Upload of file [$hash$] from computer '$computer$' completed. Upload of file '$filePathAndName$' from computer '$computer$' completed.
	Computer Management	File upload deleted	449	Info	User '$username$' deleted uploaded file [$hash$]. User '$username$' deleted uploaded file '$filePathAndName$'.
	Computer Management	File upload error	440	Error	Upload of file [$hash$] from computer '$computer$' failed because of error $description$. Upload of file '$filePathAndName$' from computer '$computer$' failed because of error $description$.
	Computer Management	File upload requested	437	Info	User '$username$' requested upload of file [$hash$] from computer '$computer$'. User '$username$' requested upload of file '$filePathAndName$' from computer '$computer$'. Upload of file [$hash$] from computer '$computer$' was requested by Event Rule '$ruleName$'.
	Computer Management	Installer rescan requested	424	Info	User '$username$' has requested rescan of installers on computer '$computer$'.
	Computer Management	Local agent cache copy request	455	Info	User '$userName$' requested local copy of agent cache for computer '$computer$'.
	Computer Management	Lockdown all computers	427	Warning	Lockdown All button pressed by '$username$': $param1$ computer(s) have been moved to High Enforcement level.
	Computer Management	Prioritize updates request	450	Info	Updates prioritized for computer '$computer$' by user '$userName$'. Prioritization of updates removed for computer '$computer$' by user '$username$'.
D	Computer Management	Resend all Policy rules request	456	Info	User '$userName$' requested all Policy rules be resent to computer '$computer$'. User '$userName$' requested all Policy rules be resent to computer '$computer$' using shared file. ***Change Note:** Capitalization of the subtype was changed in v8.1.0.*
Δ ⚐	Computer Management	Security Alert	448	Warning	Unauthorized connection attempt: Pid[$processId$] Address[$IPaddress$] to the Notifier client interface The $fileState$ file '$filePathAndName$' [$hash$] is set to run automatically: $param2$." ***Notes:** fileState is the state of the file in Carbon Black App Control (e.g., Unapproved or Banned). Param2 is a description of the file source (e.g., Service [Microsoft Network Inspection]). The case referred to in the second description does not occur for agents in Low enforcement, and only once per file unless there is a reboot.* ***Change Note:** Capitalization of the subtype was changed in v8.1.0.* ***Change Note**: CB Protection replaced with Carbon Black App Control in v8.5.0.*
Δ	Computer Management	Tamper Protection changed	428	Warning	User '$username$' has disabled Tamper Protection on computer '$computer$'. ***Change Note:** Capitalization of the subtype was changed in v8.1.0.*
	Computer Management	Template created	442	Info	User '$username$' has converted computer '$param1$' to template '$computer$'.

	Type	Subtype	ID No.	Severity	Example Descriptions/Comments
	Computer Management	Template deleted	444	Info	User '$username$' has deleted template '$computer$'.
	Computer Management	Template modified	443	Info	User '$username$' has modified template '$computer$'.
	Computer Management	Temporary Enforcement Level override	419	Warning	A temporary override to place computer '$computer$' in Enforcement Level $param1$ for $param2$ minute(s) has been accepted.
	Computer Management	Temporary Enforcement Level restore	420	Notice	Computer '$computer$' has been restored to Enforcement Level '$param1$'.
Δ	Computer Management	Temporary Policy override generated	436	Info	User '$username$' has generated temporary Policy override code for computer '$computer$' with Enforcement Level '$param1', valid for $param2$ minutes. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
	Computer Management	Unauthorized computer registration	430	Warning	An unauthorized computer registration attempt was made from $ipaddress$ ($param1$).
	Discovery	Banned file written to computer	1004	Warning	Computer $computer$ discovered new banned file '$filePathAndName$' [$hash$].
	Discovery	Certificate added	1013	Info	Certificate '$param1$' was added by user '$username$'.
	Discovery	Certificate checked	1014	Info	Computer $computer$ reported that certificate used to sign file '$filePathAndName$' is invalid. Error: 0x$param1$ Computer $computer$ reported that certificate used to counter-sign file '$filePathAndName$' is invalid. Error: 0x$param1$ Server detected that certificate '$param2$' is invalid. Error: 0x$param1$ Agent detected that certificate '$param2$' is valid. Agent detected that certificate '$param2$' is invalid. Error: 0x$param1$ Server checked certificate '$param2$' for errors. Error flags: 0x$param1$ Agent has not been able to verify if certificate '$param2$' is valid. **Note:** *"Invalid" for this event means that it has an error according to the Microsoft CryptoAPI.*
	Discovery	Certificate revocation	1011	Warning	Computer $computer$ detected revocation of certificate '$param2$' on file '$filePathAndName$ Error: $param1$ **Note:** *This event is for file-signing certificates.*
	Discovery	Device attached	1009	Info	Device '$param1$' was attached as drive '$param2$'. Interactive user at the time: '$username$'.
	Discovery	Device detached	1010	Info	Device '$param1$' was detached as drive '$param2$'. Interactive user at the time: '$username$'.
	Discovery	External notification	1099	Info	$Provider$ reported $notificationType$ with name $malwareName$ for file $filename$ from $sourceName$[$source_ipaddress$] to $destName$[$dest_ipaddress$]. Found on $num_endpoints$ endpoints. $Provider$ reported no threat for file '$filename$'. Found on $num_endpoints$ endpoints.
✦	Discovery	File discovered (browser download)	1020	Info	The file '$filePathAndName$' [$hash$] was downloaded by the browser $process$. $param1$
✦	Discovery	File discovered (email attachment)	1021	Info	The file '$filePathAndName$' [$hash$] was created by the email client $process$. $param1$
	Discovery	File group created	1001	Info	Installation group was created for the file '$filePathAndName$' [$hash$].
	Discovery	First execution on network	1007	Info	File '$filePathAndName$' with hash [$hash$] was executed for the first time.

	Type	Subtype	ID No.	Severity	Example Descriptions/Comments
	Discovery	Malicious file detected	1201	Critical	Unknown file '$fileName$' [$hash$] was identified by $provider$ as malicious. File '$fileName$' [$hash$] was identified by $provider$ as malicious. File '$fileName$ [$hash$] was identified by Carbon Black File Reputation as a malicious file. ***Note:*** *Standard external providers are Check Point, Palo Alto Networks, or Microsoft. Other providers might be added through the App Control API.*
	Discovery	New certificate on network	1012	Info	Server discovered new certificate $SubjectName$. ***Note:*** *This event is for file-signing certificates.*
	Discovery	New device found	1008	Notice	A new device '$deviceName$' was mounted as drive '$drive$'. Interactive user at the time: '$username$'.
	Discovery	New file on network	1005	Info	Server discovered new file '$filePathAndName$' with hash [$hash$].
	Discovery	New publisher found	1000	Notice	New publisher ‘$publisherName$’ was added.
	Discovery	New unapproved file to computer	1003	Notice	Computer $computer$ discovered new file '$filePathAndName$' [$hash$].
	Discovery	Potential risk file detected	1200	Warning	Unknown file '$filename$' [$hash$] was identified by $provider$ as a potential risk File '$filename$' [$hash$] was identified by $provider$ as a potential risk. File '$filename$’ [$hash$] was identified by Cb Reputation as a potential risk. ***Note:*** *Standard external providers are Check Point, FireEye, Palo Alto Networks or Microsoft. Other providers might be added through the Carbon Black App Control API.*
	Discovery	Service created	1015	Info	'$computer$' detected the creation of a new service: $servicename$.
	Discovery	Service deleted	1016	Info	'$computer$' detected the deletion of a service: $servicename$.
■	**Discovery**	**Suspicious file found**	1022	Info	Computer $computer$ detected a suspicious file '$filePathAndName$' [$hash$]: $param1$ **Note:** This event subtype appears when App Control detects an MSI file that has data appended after the signature.
	General Management	Agent diagnostics available	1117	Info	Host '$computer$' generated automatic diagnostics '$param1$'. ***Note:*** *Param1 is the name of the zip file for the diagnostic package, with timestamp in the name.*
	General Management	Alert created	1101	Info	Alert '$alertname$' was created by '$username$'.
	General Management	Alert deleted	1102	Info	Alert '$alertname$' was deleted by '$username$'.
	General Management	Alert modified	1103	Info	Alert '$alertname$' was modified by '$username$'.
	General Management	Alert reset	1105	Info	Alert '$alertname$' was cleared by '$username$'.
	General Management	Alert triggered	1104	Critical /Error/ Warning	$alertname$: $alertmessage$ ***Examples:*** Revoked Certificate Alert: Certificate with subject 'New App Corp Digital ID-1' was revoked for publisher 'New App Corp' Backup Missed Alert: Scheduled database backup was not performed. ***Note:*** *Previously,* ***Notice*** *was the severity for all alerts. Now it is:* ***Critical*** *for High priority alerts;* ***Error*** *for Medium priority alerts;* ***Warning*** *for Low priority alerts.*
Δ	General Management	Baseline Drift Report created	1106	Info	Baseline Drift Report '$reportname$' has been created by '$userName$'. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ	General Management	Baseline Drift Report deleted	1108	Info	Baseline Drift Report '$reportname$' has been deleted by '$userName$'.

	Type	Subtype	ID No.	Severity	Example Descriptions/Comments
					Change Note: *Capitalization of the subtype was changed in v8.1.0.*
Δ	General Management	Baseline Drift Report generated	1109	Info	Baseline Drift Report '$reportname$' has been generated. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ	General Management	Baseline Drift Report generation is slow	1113	Warning	Drift report $reportlink$ is taking a long time to generate. You may want to consider modifying your target or setting the report size to summary only. ***Note:*** *Report name is a link in this description.* ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ	General Management	Baseline Drift Report modified	1107	Info	Baseline Drift Report '$reportname$' has been modified by '$userName$'. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ	General Management	Event Rule created	1114	Info	Event Rule '$ruleName$' has been created by '$userName$'. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ	General Management	Event Rule deleted	1116	Info	Event Rule '$ruleName$' has been deleted by '$userName$'. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ	General Management	Event Rule modified	1115	Info	Event Rule '$ruleName$' has been modified by '$userName$'. Event Rule '$ruleName$' was disabled because analysis target is no longer valid. Event Rule 'ruleName$' was disabled because file uploads are no longer allowed. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
	General Management	Meter created	632	Info	Meter '$param1$' for ‘$fileName$’ was created by '$username$'. ***Note:*** *Type was incorrectly identified as Policy Management in previous editions of this document.*
	General Management	Meter deleted	633	Info	Meter '$param1$' for ‘$fileName$’ was deleted by '$username$'.
	General Management	Meter modified	634	Info	Meter '$param1$' for ‘$fileName$’ was modified by '$username$'.
■	**General Management**	**Saved view cached**	1118	Info	Saved view '$param1$'[id='$param2$'] selected for caching by user '$username$'. **Note:** This event occurs when a user requests that the current Events page view be cached.
■	**General Management**	**Saved view cache removed**	1119	Info	Saved view '$param1$'[id='$param2$'] removed from caching by user '$username$'. **Note:** This event occurs when a Cached Events view is removed from the Cached Events page, which also removes it from further nightly processing.
■	**General Management**	**Saved view cache generation started**	1120	Info	Cached view '$param1$' [id='$param2$'] generation started. **Note:** This event occurs when a Events page view that is queued for generation begins processing.
n	**General Management**	**Saved view cache generation complete**	1121	Info	Cached view '$param1$' [id='$param2$'] generation complete. **Note:** This event occurs when an Events page view queued for caching has been processed and is available on the Cached Events page in the console.
	General Management	Snapshot created	1110	Info	Snapshot '$snapshotName$' has been created by '$userName$'.
	General Management	Snapshot deleted	1112	Info	Snapshot '$ snapshotName $' has been deleted by '$userName$'.
	General Management	Snapshot modified	1111	Info	Snapshot '$ snapshotName $' has been modified by '$userName$'.
Δ	Policy Enforcement	Access block (Memory Rule)	830	Notice	Access to process '$filePathAndName$' was restricted - Requested[$param1$] Restricted[$param2$]. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*

	Type	Subtype	ID No.	Severity	Example Descriptions/Comments
Δ	Policy Enforcement	Access prompt (Memory Rule)	831	Info	Access to process '$filePathAndName$' was granted because of a Memory Rule user response. Access to process '$filePathAndName$' was restricted because of a Memory Rule user response. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ ⚐	Policy Enforcement	Banned process discovered	847	Warning	The Carbon Black App Control Agent discovered a banned process '$filePathAndName$' [$hash$] that ran during system startup. $param1$ ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.* ***Change Note****: CB Protection replaced with Carbon Black App Control in v8.5.0.*
✧ ⚐	Policy Enforcement	Carbon Black EDR Watchlist	842	Notice	***If Process watchlist and file are known to App Control:*** Carbon Black EDR process watchlist '$ruleName$' hit for process '$process$' [$hash$] on computer '$computer$'. Carbon Black EDR watchlist '$watchlist$' detected file '$filePathAndName$' [$hash$] on computer '$computer$'. ***If Process watchlist and file are unknown to App Control:*** Carbon Black EDR process watchlist '$ruleName$' hit for unknown process '$process$' [$processhash$] on computer '$computer$'. Carbon Black EDR watchlist '$watchlist$' detected unknown file '$filePathAndName$' [$hash$] on computer '$computer$'. ***(continued on next page)*** ***(continued from previous page)*** ***If Binary watchlist and file are known to App Control:*** Carbon Black EDR binary watchlist '$ruleName$' detected file '$filePathAndName$' [$hash$]. ***If Binary watchlist and file is unknown to App Control:*** Carbon Black EDR binary watchlist '$ruleName$' detected unknown file '$filePathAndName$' [$hash$]. ***Change Note:*** *Prior to v8.0.0, "Carbon Black EDR" in the subtype and descriptions was "Carbon Black". Capitalization of the subtype changed in v8.1.0.* ***Change Note****: CB Response replaced with Carbon Black EDR in v8.5.0.*
O	Policy Enforcement	Execution allowed (file loaded before kernel)	843	Warning	The $param1$ file '$filePathAndName$' [$hash$] executed before the Carbon Black App Control Agent was running. $param2$ ***Change Note****: CB Protection replaced with Carbon Black App Control in v8.5.0.*
⚐	Policy Enforcement	Execution allowed (file loaded before service)	844	Warning	The $param1$ file '$filePathAndName$' [$hash$] executed before the Carbon Black App Control Agent was enforcing. $param2$ ***Change Note****: CB Protection replaced with Carbon Black App Control in v8.5.0.*
⚐	Policy Enforcement	Execution allowed (inactive)	841	Warning	Execution of file '$filePathAndName$' [$hash$] would have blocked if Carbon Black App Control Agent was active. ***Change Note****: CB Protection replaced with Carbon Black App Control in v8.5.0.*
Δ	Policy Enforcement	Execution allowed (Trusted User)	815	Notice	Execution of unapproved file '$filePathAndName$' [$hash$] was allowed because of a Trusted User '$username$'. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
⚐	Policy Enforcement	Execution allowed (Unanalyzed file loaded before service)	846	Warning	The file '$filePathAndName$' executed before the Carbon Black App Control Agent started. The file was removed before the Carbon Black App Control Agent could analyze it. $param2$ ***Change Note****: CB Protection replaced with Carbon Black App Control in v8.5.0.*

	Type	Subtype	ID No.	Severity	Example Descriptions/Comments
	Policy Enforcement	Execution block (banned file)	802	Notice	File '$filePathAndName$' [$hash$] was blocked because it was banned.
Δ	Policy Enforcement	Execution block (Custom Rule)	806	Notice	File '$filePathAndName$' with hash [$hash$] was blocked because of a Custom Rule. Process '$process$' was terminated due to a Custom Rule. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
	Policy Enforcement	Execution block (network file)	805	Notice	The file '$filePathAndName$' [$hash$] was blocked because it was located on a remote drive.
	Policy Enforcement	Execution block (prompt timeout)	839	Info	File '$filePathAndName$' with hash [$hash$] was blocked because of a timeout waiting for user response.
	Policy Enforcement	Execution block (removable media)	819	Notice	File '$filePathAndName$' with hash [$hash$] was blocked from execution because it was on removable media.
⚐	Policy Enforcement	Execution block (still analyzing)	804	Info	File '$filePathAndName$' was blocked because Carbon Black App Control Agent did not have time to analyze it. ***Change Note****: CB Protection replaced with Carbon Black App Control in v8.5.0.*
	Policy Enforcement	Execution block (unapproved file)	801	Notice	File '$filePathAndName$' [$hash$] was blocked because it was unapproved.
Δ	Policy Enforcement	Execution prompt (Custom Rule)	818	Info	File '$filePathAndName$' [$hash$] was executed because of a Custom Rule user response. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
	Policy Enforcement	Execution prompt (unapproved file)	814	Info	File '$filePathAndName$' [$hash$] was approved because of a user response.
	Policy Enforcement	Execution prompt allowed (unapproved file)	838	Info	File '$filePathAndName$' [$hash$] was approved because of a user response.
	Policy Enforcement	Execution prompt block (unapproved file)	837	Info	File '$filePathAndName$' [$hash$] was blocked because of a user response.
	Policy Enforcement	File access error	825	Warning	Unable to access the file '$filePathAndName$'.
	Policy Enforcement	File approved (cache consistency)	835	Info	File '$filePathAndName$' [$hash$] was approved due to cache a consistency scan.
Δ	Policy Enforcement	File approved (Custom Rule)	833	Info	File '$filePathAndName$' [$hash$] was approved due to Custom Rule. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
	Policy Enforcement	File approved (local approval)	813	Info	File '$filePathAndName$' [$hash$] was locally approved.
	Policy Enforcement	File approved (publisher)	812	Info	File '$filePathAndName$' [$hash$] was approved by Publisher '$publisherName$'.
Δ	Policy Enforcement	File approved (Reputation)	840	Info	File '$filePathAndName$' [$hash$] was approved by reputation. ***Note:*** *This event occurs when an agent attempts to run an unapproved file, checks with the server, and is given a reputation approval from the server that was not previously sent to the agent.* ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
	Policy Enforcement	File approved (system update)	836	Info	File '$filePathAndName$' with hash [$hash$] was approved due to system update. ***Note****: For Windows, this applies to the package/root files from Windows Update, not files installed from them.*
Δ	Policy Enforcement	File approved (Trusted User)	810	Info	File '$filePathAndName$' [$hash$] was approved by Trusted User '$username$'. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
✦	Policy Enforcement	File approved (Unidesk)	850	Info	The file '$filePathAndName$' [$hash$] was approved due to Unidesk read-only provisioning. '$param1$' '$param2$'

	Type	Subtype	ID No.	Severity	Example Descriptions/Comments
	Policy Enforcement	File approved (updater)	811	Info	File '$filePathAndName$' [$hash$] was approved by an Updater.
	Policy Enforcement	File approved (version resource)	834	Info	File '$filePathAndName$' [$hash$] was approved due to version resource.
■	**Policy Enforcement**	**File approved (Yara)**	852	Info	The file '$filePathAndName$' [$hash$] was approved due to yara rule(s). '$param1$' '$param2$'
	Policy Enforcement	Metered execution	816	Notice	Metered file '$filePathAndName$' [$hash$] was executed by the user '$username$'.
✧ ⚐	Policy Enforcement	New file discovered on startup	845	Warning	The newly discovered file '$filePathAndName$' [$hash$] was executing when the Carbon Black App Control Agent started. $param1$ ***Change Note:*** *Prior to v8.0.0, the subtype was "Execution allowed (New file discovered on startup)".* ***Change Note****: CB Protection replaced with Carbon Black App Control in v8.5.0.*
	Policy Enforcement	Prompt canceled	849	Warning	Prompt '$filePathAndName$' [$hash$] prompt is canceled ($param1$). ***Note:*** *Param1 shows the reason a notifier prompt was cancelled. It can be one of the following:* • *EnforcementChange – Agent changed enforcement levels and the prompt no longer applies (e.g., moved from Medium to High, so the file will now just block).* • *SubsequentBlock – Agent blocked the file and is no longer waiting for response (typically means timeout or file was banned or had a rule change the blocked it).* • *AgentShutdown – System or daemon shutdown while the prompt was still outstanding. File will be blocked in this case.* • *PingTimeout – Agent was unable to communicate with notifier and canceled the prompt. This is an error case and should be rare.* ***Platform Note:*** *This event only occurs for Mac OS X and Linux agents.*
π	**Policy Enforcement**	**Read block (Custom Rule)**	854	Notice	Read of file '$pathname$$pathSeparator$$filename$' was blocked because of a Custom Rule.
	Policy Enforcement	Read block (removable media)	821	Notice	Read access to file '$filePathAndName$' with hash [$hash$] was blocked because it was on removable media.
Δ	Policy Enforcement	Report access (Memory Rule)	829	Info	Access to process '$filePathAndName$' was granted – Requested[$param1$] ***Note:*** *Param1 is a hex number indicating the Windows code of the permissions requested.* ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ	Policy Enforcement	Report execution (Custom Rule)	807	Notice	File '$filePathAndName$' [$hash$] was executed. Process '$process$' failed to be terminated: $param3$. Banned image: '$filePathAndName$' [$hash$]. Process '$process$' would have been terminated due to the banned file '$filePathAndName$' [$hash$] if Policy were not in Visibility Only Process '$process$' would have been terminated due to the banned image '$filePathAndName$' [$hash$]: $param3$.". ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
	Policy Enforcement	Report execution (removable media)	822	Info	File '$filePathAndName$' with hash [$hash$] was executed on removable media.
	Policy Enforcement	Report execution block	803	Notice	File '$filePathAndName$' [$hash$] would have blocked if a ban were not in Report Only mode.
	Policy Enforcement	**Report read (Custom Rule)**	855	Info	File '$pathname$$pathSeparator$$filename$' was read.
	Policy Enforcement	Report read (removable media)	824	Info	File '$filePathAndName$' was read on removable media.

	Type	Subtype	ID No.	Severity	Example Descriptions/Comments
Δ	Policy Enforcement	Report write (Custom Rule)	809	Info	File '$filePathAndName$' was modified or deleted. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ ✧	Policy Enforcement	Report write (Registry Rule)	826	Info	Modification of registry '$filePathAndName$' was allowed. ***Change Note:*** *The wording of the Description was modified slightly in v8.0.0. Subtype capitalization changed in v8.1.0.*
	Policy Enforcement	Report write (removable media)	823	Info	File '$filePathAndName$' was modified or deleted on removable media.
D	Policy Enforcement	Tamper Protection	832	Warning	Execution of '$filePathAndName$' by '$username$' was blocked because tamper protection was enabled. Modification of '$filePathAndName$' by '$username$' was blocked because tamper protection was enabled. Execution of '$filePathAndName$' by '$username$' would have been blocked if tamper protection were enabled. Modification of '$filePathAndName$' by '$username$' would have been blocked if tamper protection were enabled. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ ⚐	Policy Enforcement	Unapproved process discovered	848	Warning	The Carbon Black App Control Agent discovered an unapproved process '$filePathandName$' [$hash$] that ran during system startup. $param1$ ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.* ***Change Note****: CB Protection replaced with Carbon Black App Control in v8.5.0.*
◎	Policy Enforcement	User Login denied	853	Warning	User '$param1$' prohibited from logging in on computer $computer$.
Δ	Policy Enforcement	Write block (Custom Rule)	808	Notice	Modification of file '$filePathAndName$' [$hash$] was blocked because of a Custom Rule. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ	Policy Enforcement	Write block (Registry Rule)	827	Notice	Modification of registry '$filePathAndName$' was blocked. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
	Policy Enforcement	Write block (removable media)	820	Notice	Modification of file '$filePathAndName$' with hash [$hash$] was blocked because it was on removable media.
Δ	Policy Enforcement	Write prompt (Custom Rule)	817	Info	File '$filePathAndName$' was modified or deleted because of a Custom Rule user response. Modification of file '$filePathAndName$' [$hash$] was blocked because of a Custom Rule user response. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ	Policy Enforcement	Write prompt (Registry Rule)	828	Info	Registry '$filePathAndName$' was modified or deleted because of a Registry Rule user response. Modification of registry '$filePathAndName$' was blocked because of a Registry Rule user response. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
	Policy Management	AD rules loaded	605	Info	Active Directory rules script with version $param1$ was loaded successfully.
Δ ✧	Policy Management	Approval Request closed	646	Info	Approval Request Id $requestID$ was closed by user '$username$' as ‘$resolvedState$’ with ‘$comment$’. ***Change Note:*** *The request ID was added to the Description field in v8.0.0. Subtype capitalization changed in v8.1.0.*

	Type	Subtype	ID No.	Severity	Example Descriptions/Comments
Δ ✧	Policy Management	Approval Request created	644	Info	Approval Request Id $requestID$ was created by user '$username$'. ***Change Note:*** *The request ID was added to the Description field in v8.0.0. Subtype capitalization changed in v8.1.0.*
Δ ✦	Policy Management	Approval Request duplicate created	661	Info	Duplicate of Approval Request Id $requestID$ was created by user '$username$'. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ ✦	Policy Management	Approval Request escalated	663	Info	Approval Request Id $requestID$ was escalated by user '$username$'. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ ✦	Policy Management	Approval Request modified	662	Info	Approval Request Id $requestID$ was modified by user '$username$'. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ ✧	Policy Management	Approval Request opened	645	Info	Approval Request Id $requestID$ was opened by user '$username$'. ***Change Note:*** *The request ID was added to the Description field in v8.0.0. Subtype capitalization changed in v8.1.0.*
	Policy Management	Certificate approval created	651	Info	Certificate $SubjectName$ was approved by ‘$username$’ for publisher $publisher$.
	Policy Management	Certificate approval deleted	653	Info	Approval of certificate $SubjectName$ was deleted by '$username$' for publisher $publisher$.
	Policy Management	Certificate approval modified	652	Info	Approval of certificate '$param1$' was modified by '$username$' for publisher '$param3$'.
	Policy Management	Certificate ban created	654	Info	Certificate $SubjectName$ was banned by $username$ for publisher $publisher$.
	Policy Management	Certificate ban deleted	656	Info	Ban of certificate $SubjectName$ was deleted by '$username$' for publisher $publisher$.
	Policy Management	Certificate ban modified	655	Info	Ban of certificate '$subjectName$' was modified by '$username$' for publisher '$param3$'.
Δ ✧	Policy Management	Custom Rule created	638	Info	Custom Rule '$ruleName$' was created by '$username$'. Custom Rule '$ruleName$ (Unified)' was created by '$username$'. ‘$ruleName$’ was imported by ‘$username’. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ ✧	Policy Management	Custom Rule deleted	640	Info	Custom Rule '$ruleName$' was deleted by '$username$'. Custom Rule '$ruleName$ (Unified)' was deleted by '$username$'. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ ✧	Policy Management	Custom Rule modified	639	Info	Custom Rule '$ruleName$' was modified by '$username$'. Custom Rule '$ruleName$ (Unified)' was modified by '$username$'. ‘$ruleName$’ was imported by ‘$username’. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ	Policy Management	Device Rule created	641	Info	Device Rule for ‘$ruleName$’ with id ‘$ruleID$’ was created by '$username$'. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ	Policy Management	Device Rule deleted	642	Info	Rule for device '$deviceName$' with id ‘$ruleID$’ was removed by '$username$'. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ	Policy Management	Device Rule modified	643	Info	Device Rule ‘$ruleName$’ with id ‘$ruleID$’ was modified by '$username$'. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
✧	Policy Management	File approval created	627	Info	Approval '$ruleName$' for hash [$hash$] was created by '$username$'. Approval ‘$ruleName (Unified)’ for hash [$hash$] was created by '$username$'.

	Type	Subtype	ID No.	Severity	Example Descriptions/Comments
					File '$filepath$ ' with hash [$hash$] was approved based on Reputation. $param1$ files were approved based on Reputation. ***Notes:*** *This event occurs when the rule is created on the server, not when a file instance is approved. In the last example, '$param1$ files' links to a list of files approved by reputation in this event.*
✧	Policy Management	File approval deleted	629	Info	Approval '$ruleName$' for hash [$hash$] was deleted by '$username$'. Approval '$ruleName (Unified)' for hash [$hash$] was deleted by '$username$'. Approval of file '$filePathAndName$' with hash [$hash$] was removed based on Reputation. Approval of $param1$ files were removed based on Reputation. ***Notes:*** *This event occurs when the approval rule is deleted on the server, not when approval of a file instance is removed.* *For the last example, '$param1$ files' is a link to the Files on Computers page where the files whose approvals were removed will be listed if they still exist in their respective locations.*
	Policy Management	File approval modified	628	Info	Approval '$ruleName$' for hash [$hash$] was modified by '$username$'. Approval '$ruleName (Unified)' for hash [$hash$] was modified by '$username$'.
	Policy Management	File approved (certificate)	660	Info	File '$filePathAndName$' was approved by certificate '$param1$'.
✧	Policy Management	File ban created	635	Info	Ban '$name$' for [$hash$] was created by '$username$'. Ban '$name$ (Unified)' for [$hash$] was created by '$username$'. ***Note:*** *$name$ is either the name of the banned file or a user-created name (usually for multi-file bans).*
✧	Policy Management	File ban deleted	637	Info	Ban '$name$' for [$hash$] was deleted by '$username$'. Ban '$name$ (Unified)' for [$hash$] was deleted by '$username$'. ***Note:*** *$name$ is the name of the banned file or a user-created name (usually for multi-file bans).*
✧	Policy Management	File ban modified	636	Info	Ban '$name$' for [$hash$] was modified by '$username$'. Ban '$name$ (Unified)' for [$hash$] was modified by '$username$'. ***Note:*** *$name$ is the name of the banned file or a user-created name (usually for multi-file bans).*
	Policy Management	File local approval	623	Info	File '$filePathAndName$' [$hash$] was locally approved on computer $computer$ by '$userName$'.
	Policy Management	File properties modified	611	Info	There are multiple possible descriptions for this subtype. Examples: File [$hash$] was approved by '$username$'. File [$hash$] was marked as an installer by '$username$'. Reputation was disabled for file [$hash$] by '$username$'.
	Policy Management	File remove local approval	625	Info	File '$filePathAndName$' [$hash$] was changed to unapproved on computer $computer$ by '$userName$'.
○	Policy Management	Install package creation scheduled	603	Notice	An $param1$ install package $policyName$.msi was scheduled for creation by '$username$'. ***Note:*** *Param1 is either empty or "automatic" for packages that allow automatic AD Policy assignment.* ***Change Note****: The subtype and description were changed in v8.1.4 to indicate that the installation is scheduled, not completed.*
Δ	Policy Management	Justification created	650	Info	Justification Id $param2$ was created by user '$username$'. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*

	Type	Subtype	ID No.	Severity	Example Descriptions/Comments
✦	Policy Management	Justification duplicate created	664	Info	Duplicate of Justification Id $param2$ was created by user '$username$'.
Δ ✧	Policy Management	Memory Rule created	129	Info	Memory Rule '$ruleName$' created by '$username$'. Memory Rule '$ruleName$ (Unified)' created by '$username$'. '$ruleName$' was imported by '$username'. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
D ✧	Policy Management	Memory Rule deleted	131	Info	Memory Rule '$ruleName$' deleted by '$username$'. Memory Rule '$ruleName$ (Unified)' deleted by '$username$'. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ ✧	Policy Management	Memory Rule modified	130	Info	Memory Rule '$ruleName$' modified by '$username$'. Memory Rule '$ruleName$ (Unified)' modified by '$username$'. '$ruleName$' was imported by '$username'. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
	Policy Management	Notifier created	153	Info	Notifier '$notifierName$' was created by '$username$'
	Policy Management	Notifier deleted	154	Info	Notifier '$notifierName$' was deleted by '$username$'
	Policy Management	Notifier modified	155	Info	Notifier '$notifierName$' was modified by '$username$'
✧	Policy Management	Policy AD rules changed	604	Notice	'$username$' created an AD rule for mapping $param1$ to the Policy $policyName$. ***Change Note:*** *Prior to v8.0.0, the event subtype was "AD Rules changed". The type was changed because there are now mapping rules for user login accounts.*
	Policy Management	Policy created	600	Info	Policy '$policyName$' was created by '$username$'.
	Policy Management	Policy deleted	601	Info	Policy '$policyName$' was deleted by '$username$'.
	Policy Management	Policy file tracking disabled	606	Notice	File tracking has been disabled for Policy '$policyName$' by '$userName$'.
	Policy Management	Policy file tracking enabled	607	Notice	File tracking has been enabled for Policy '$policyName$' by '$userName$'.
	Policy Management	Policy modified	602	Info	Policy '$policyName$' was modified by '$username$'.
	Policy Management	Process demoted	1006	Notice	Process $filePathAndName$ was demoted on the computer '$computer$'. New files written by this process will be unapproved.
	Policy Management	Publisher approval created	618	Info	Publisher '$publisherName$' was approved by '$username$'.
	Policy Management	Publisher approval removed	619	Info	Publisher '$publisherName$' approval was removed by '$username$'.
	Policy Management	Publisher ban created	657	Info	Publisher $publisherName$ was banned by $username$.
	Policy Management	Publisher ban deleted	659	Info	Publisher $publisherName$ ban was removed by '$username$'.
	Policy Management	Publisher modified	630	Info	Publisher '$publisherName$' was edited by '$username$'.
Δ ✧	Policy Management	Registry Rule created	132	Info	Registry Rule '$ruleName$' created by '$username$'. Registry Rule '$ruleName$ (Unified)' created by '$username$'. '$ruleName$' was imported by '$username'. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*

	Type	Subtype	ID No.	Severity	Example Descriptions/Comments
Δ ✧	Policy Management	Registry Rule deleted	134	Info	Registry Rule '$ruleName$' deleted by '$username$'. Registry Rule '$ruleName$ (Unified)' deleted by '$username$'. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ ✧	Policy Management	Registry Rule modified	133	Info	Registry Rule '$ruleName$' modified by '$username$'. Registry Rule '$ruleName$ (Unified)' modified by '$username$'. ‘$ruleName$’ was imported by ‘$username’. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
	Policy Management	Reputation settings modified	144	Info	Reputation was enabled by '$username$'. Reputation was disabled by '$username$'. Reputation settings were modified by '$username$'.
	Policy Management	Rules exported	200	Info	Custom Rules were exported by '$username$'. Memory Rules were exported by '$username$'. Registry Rules were exported by '$username$'.
Δ	Policy Management	Script Rule created	647	Info	Script Rule '$ruleName$' was created by '$username$'. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ	Policy Management	Script Rule deleted	648	Info	Script Rule '$ruleName$' was deleted by '$username$'. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ	Policy Management	Script Rule modified	649	Info	Script Rule '$ruleName$' was modified by '$username$'. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ	Policy Management	Trusted Directory check	608	Info	Trusted Directory '$pathName$' on computer '$computer$' is '$param2$'. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ	Policy Management	Trusted Directory created	613	Info	Trusted directory '$pathname$' added by '$username$'. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ	Policy Management	Trusted Directory deleted	615	Info	Trusted directory '$pathname$' deleted by '$username$'. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ	Policy Management	Trusted Directory import	626	Info, Warning, Error	Trusted package '$param1$' from '$source$' has been processed. ***Notes:*** *Source may be a computer name or a manifest name. Severity is* ***Info*** *for status imports;* ***Warning*** *for improperly signed or misidentified manifests;* ***Error*** *for all other cases.* ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ	Policy Management	Trusted Directory modified	614	Info	Trusted directory '$filePathAndName$' modified by '$username$'. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ	Policy Management	Trusted Directory scan	609	Info	Pre-approval scan started for '$filePathAndName$'. Approval ID: $param1$. Job ID: $param2$. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
	Policy Management	Trusted User added	616	Info	Trusted User '$name$' was added by '$username$'.
	Policy Management	Trusted User deleted	617	Info	Trusted User '$name$' was deleted by '$username$'.
✦	Policy Management	Unified rule overridden	665	Info	Unified rule '$param1$' was overridden by '$username$' ***Note:*** *In the initial release of v8.0.0, “overridden” was misspelled in the subtype and description.*
	Policy Management	Updater disabled	621	Info	Updater '$updaterName$' was disabled by '$username$'.
	Policy Management	Updater enabled	620	Info	Updater '$updaterName$' was enabled by '$username$'.

	Type	Subtype	ID No.	Severity	Example Descriptions/Comments
■	**Policy Management**	**Yara rule created**	220	Info	Yara Rule '$param1$' created by '$username$'.
■	**Policy Management**	**Yara rule deleted**	222	Info	Yara Rule '$param1$' deleted by '$username$'.
■	**Policy Management**	**Yara rule modified**	221	Info	Yara Rule '$param1$' modified by '$username$'.
	Server Management	AD lookups are slow	114	Warning	Active Directory Lookups are slow. Average lookup took $param1$ ms. Please review your AD configuration.
●	Server Management	Agent install package generation disabled	214	Error	Agent install package generation is disabled for all operating systems. To enable agent generation, please download rules and host packages from the Carbon Black User eXchange at https://community.carbonblack.com/.
❙	Server Management	Agent install package generation failed	231	Error	$platform$ agent install packages failed to generate for policy '$policy$'
●	Server Management	Agent install package generation succeeded	213	Info	$platform$ agent install packages have been successfully generated.
	Server Management	Agent SSL error	126	Warning	SSL certificate error was detected when talking with host at IP '$ipAddress$'. This event can be falsely triggered by unreliable network connections. ***Change Notes:*** *Subtype was "Agent certificate expired" in some previous versions.*
✧	Server Management	Carbon Black File Reputation connection lost	138	Warning	Carbon Black File Reputation connection lost: $reason$ ***Change Note:*** *In pre-8.0.0 releases, the subtype referred to "Parity Knowledge Service" or "Bit9 Software Reputation Service."*
✧	Server Management	Carbon Black File Reputation connection restored	139	Notice	Carbon Black File Reputation connection restored ***Change Note:*** *In pre-8.0.0 releases, the subtype referred to "Parity Knowledge Service" or "Bit9 Software Reputation Service.".*
✧	Server Management	Carbon Black File Reputation proxy cleared	141	Info	Proxy disabled. Using direct connection to Carbon Black File Reputation. ***Change Note:*** *In pre-8.0.0 releases, the subtype referred to "Parity Knowledge Service" or "Bit9 Software Reputation Service."*
✧	Server Management	Carbon Black File Reputation proxy set	140	Info	Using proxy '$param1$' for connection to Carbon Black File Reputation. ***Change Note:*** *In pre-8.0.0 releases, the subtype referred to "Parity Knowledge Service" or "Bit9 Software Reputation Service.".*
	Server Management	Communication error	136	Error	SOAP error on computer $computer$ ($ipaddress$) in $param1$.
	Server Management	Connector restart	178	Warning	Connector started, build information: $param1$
	Server Management	Connector shutdown	179	Notice	Connector shutdown cleanly.
	Server Management	Database error	135	Error	Unknown error initializing database pool.
	Server Management	Database server reached specified limit	106	Critical	Database data file size limit reached. Total data file size is $param1$ MB.
⚐	Server Management	Database verification error	108	Error	Carbon Black App Control Server database is corrupt: $param1$. ***Change Note****: CB Protection replaced with Carbon Black App Control in v8.5.0.*
●	Server Management	Default rules not found	230	Error	Failed to generate agent install packages because the default rules do not exist. To enable agent generation, please download rules from the Carbon Black User eXchange at https://community.carbonblack.com/.

	Type	Subtype	ID No.	Severity	Example Descriptions/Comments
	Server Management	Enabled Indicator Set deleted	169	Info	Indicator Set $setName$ was deleted by '$username$' ***Note:*** *Occurs only when the Indicator Set was enabled at the time of deletion. There is a different Indicator Set deleted event for the general case.*
	Server Management	Enabled updater deleted	148	Info	Enabled Updater $updaterName$ was deleted by '$username$' ***Note:*** *Occurs only when the Updater was enabled at the time of deletion.*
	Server Management	File analysis canceled	158	Info	User '$username$' canceled analysis of file '$filename$' [$hash$] with '$provider$'.
	Server Management	File analysis completed	161	Info Warning	File '$filename$' [$hash$] was successfully analyzed with '$provider$'. Nothing suspicious was found. File '$filename$' [$hash$] was successfully analyzed with '$provider$'. It was reported as malicious.
	Server Management	File analysis error	160	Error	Analysis of file '$filename$' [$hash$] with '$provider$' failed because of error '$param1$'.
	Server Management	File analysis modified	176	Info	'User ''$username$'' modified priority of analysis of file [$hash$].
	Server Management	File analysis requested	157	Info	User '$username$' requested analysis of file [$hash$] with '$provider$'. Analysis of file [$hash$] with '$provider$' was requested by Event Rule '$ruleName$'.
✦	Server Management	File downloaded	196	Info	File '$filename$' [$hash$] downloaded by '$username$' from server
	Server Management	File inventory deleted	187	Notice	Deleted $param1 inventory files that were excluded per configuration ***Note:*** *Param1 is the number of files deleted.*
	Server Management	File tracking disabled	109	Warning	File tracking has been automatically disabled because database data file size limit has been reached.
	Server Management	File upload modified	177	Info	User ‘$username$' modified priority of upload of file [$hash$] from computer '$computer$'
Δ	Server Management	Health Indicator changed	183	Info	The System has changed Health Indicator ‘$Param1$’ on tab ‘$Param2$’ on the System Health page. ***Notes:*** *Param1 is the name of the Health Indicator. Param2 is the tab on which it appears.* ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ	Server Management	Health Indicator created	182	Info	A new Health Indicator ‘$Param1$’ was created by $username$ on the ‘$Param2$’ tab of the System Health page. ***Note***: *Param1 is the name of the Health Indicator. Param2 is the tab on which it appears.* ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ	Server Management	Health Indicator deleted	184	Info	The system has removed Health Indicator ‘$Param1$’ from tab ‘$Param2$’ on the System Health Page. ***Note:*** *Param1 is the name of the Health Indicator. Param2 is the tab where it previously appeared.* ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ	Server Management	Health Indicator severity change	181	Warning /Info	***For existing Health Indicators:*** Health Indicator $Param1$ has changed from severity $Param2$ to severity $Param3$. Health Indicator $Param1$ has gone to severity Param3$ Check the Health Indicator for more details. (Appears when indicator stops showing healthy state) Health Indicator $Param1$ has increased in severity from $Param2$ to $Param3$. Check the Health Indicator for more details. (Appears when indicator moves from borderline to critical) Health Indicator $Param1$ has decreased in severity from Param2$ to Param3$. (Appears when indicator moves from critical to borderline) Health Indicator $Param1$ is now healthy. (Appears when indicator moves to healthy state) ***For newly created Health Indicators:***

	Type	Subtype	ID No.	Severity	Example Descriptions/Comments
					Newly created Health Indicator $Param1$ is healthy. Newly created Health Indicator $Param1$ has severity $Param3$. Check the Health Indicator for more details. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
●	Server Managment	Host package not found (Linux)	217	Error	Failed to generate agent install packages for Linux because the host package does not exist. To enable agent generation, please download host packages from the Carbon Black User eXchange at https://community.carbonblack.com/.
●	Server Management	Host package not found (Mac)	216	Error	Failed to generate agent install packages for Mac because the host package does not exist. To enable agent generation, please download host packages from the Carbon Black User eXchange at https://community.carbonblack.com/.
●	Server Management	Host package not found (Windows)	215	Error	Failed to generate agent install packages for Windows because the host package does not exist. To enable agent generation, please download host packages from the Carbon Black User eXchange at https://community.carbonblack.com/.
	Server Management	Indicator Set created	163	Info	Indicator Set '$setName$' was created by '$username$'.
	Server Management	Indicator Set deleted	164	Info	Indicator Set '$setName$' was deleted by '$username$' ***Note:*** *There is a separate Enabled Indicator Set deleted event for Updaters deleted while enabled.*
	Server Management	Indicator Set disabled	167	Info	Indicator Set '$setName$' was disabled by '$username$'
	Server Management	Indicator Set enabled	166	Info	Indicator Set '$setName$' was enabled by '$username$'
	Server Management	Indicator Set exception created	172	Info	Indicator Set Exception '$setName$' created by '$username$'
	Server Management	Indicator Set exception deleted	174	Info	Indicator Set Exception '$param1$' deleted by '$username$'
	Server Management	Indicator Set exception modified	173	Info	Indicator Set Exception '$param1$' modified by '$username$'
	Server Management	Indicator Set modified	168	Info	Indicator Set '$param1$' was modified by '$username$'
	Server Management	Indicator Set updated	165	Info	Indicator Set '$param1$' was updated by '$username$'
●	Server Management	Install failed	212	Error	"$param1$ install failed. $param2$" ***Note:*** *$param1$ is the installation file for the agent host package or default rules file and $param2$ is the reason for the failure, such as failed signature verification.*
●	Server Management	Install succeeded	211	Info	$param1$ install successful ***Note:*** *$param1$ specifies a host package platform and version or a default rules version.*
⚐	Server Management	License added	115	Notice	User '$username$' has successfully added new Carbon Black App Control license. ***Change Note****: CB Protection replaced with Carbon Black App Control in v8.5.0.*
O	Server Management	License error	116	Error	User '$username$' attempted to add Carbon Black App Control license. ($param1$) ***Change Note****: CB Protection replaced with Carbon Black App Control in v8.5.0.*
⚐	Server Management	License warning	117	Warning	Your Carbon Black App Control Suite license will expire in $param1$ day(s) on $date$. ***Change Note****: CB Protection replaced with Carbon Black App Control in v8.5.0.*
	Server Management	Network Connector	162	Info	New network connector '$product$', version '$param2$' was registered. Network connector ‘$product$’, version ‘$param2$’ was removed. Network connector ‘$product$’, version ‘$param2$’ was removed and its data was deleted. User ‘$username$’ has modified configuration of network connector '$product$'.

	Type	Subtype	ID No.	Severity	Example Descriptions/Comments
					User '$user$' has modified UI configuration of network connector '$param1$'. User '$username$' has enabled network connector '$product$'. User '$username$' has disabled network connector '$product$'. User '$username$' has enabled file analysis for network connector '$product$'. User '$username$' has disabled file analysis for network connector '$product$'. User '$username$' has set param '$param2$' to '$param3$' for network connector '$product$'. User '$username$' has enabled file analysis mode '$param1$' for network connector '$product$'.
	Server Management	Network Connector added	185	Notice	User '$user$' has registered new network connector '$param1$', version '$param2$'
	Server Management	Network Connector removed	186	Notice	User '$user$' has removed network connector '$param1$', version '$param2$'
	Server Management	Notifier install failed	156	Error	Upgrade Error: Notifier for Policy '$policyName$', Setting '$policySetting$' was reset to default during upgrade.
	Server Management	Old events were deleted	107	Notice	Deleting $param1$ events older than $param2$.
✦	Server Management	Rapid Config created	188	Info	Rapid Config '$param1$' was created by '$username$'.
✦	Server Management	Rapid Config deleted	189	Info	Rapid Config '$param1$' was deleted by '$username$'.
✦	Server Management	Rapid Config disabled	193	Info	Rapid Config '$param1$' was disabled by '$username$'.
✦	Server Management	Rapid Config enabled	192	Info	Rapid Config '$param1$' was enabled by '$username$'.
✦	Server Management	Rapid Config modified	190	Info	Rapid Config '$param1$' was modified by '$username$'.
✦	Server Management	Rapid Config updated	191	Info	Rapid Config '$param1$' was updated by '$username$'.
	Server Management	Reporter restart	151	Warning	Reporter started, build information: $param1$.
	Server Management	Reporter shutdown	152	Notice	Reporter shutdown cleanly.
	Server Management	Server backup failed	104	Warning	Database backup has failed.
	Server Management	Server backup missed	105	Warning	Scheduled database backup was not performed.
	Server Management	Server backup started	103	Info	Database backup has been enabled, starting backup service.
	Server Management	Server backup stopped	110	Notice	Backup has been disabled, stopping backup service.
Δ	Server Management	Server Config List error	113	Error	Data is bad for config list entry. Id[$param1$], Version[$param2$], Data[$param3$]. ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
	Server Management	Server config modified	102	Notice	Configuration property '$param1$' was changed from '$param3$' to '$param2$' by '$username$'. Tracking of locally approved support files signed by Microsoft was disabled/enabled by '$username$'
O	Server Management	Server error	142	Error/ Warning	*There are too many descriptions to list for this subtype since it handles many different types of errors. Examples include:* Carbon Black File Reputation - error logged and service resuming operation. The remote server returned an unexpected response: (413) Request Entity Too Large. ***Change Note****: CB Collective Cloud Defense replaced with Carbon Black File Reputation in v8.5.0.*

	Type	Subtype	ID No.	Severity	Example Descriptions/Comments
	Server Management	Server performance	175	Warning	Event filter for alert '$alertName$' is not performing well. Execution took $param2$ ms while processing $param3$ events. Please review associated alert filter. Event Rule '$ruleName1$' is not performing well. Execution took $param2$ ms while processing $param3$ events. Please review associated Event Rule filter.
⚐	Server Management	Server restart	101	Notice	Carbon Black App Control Server started, build information: $param1$. ***Change Note***: *CB Protection replaced with Carbon Black App Control in v8.5.0.*
⚐	Server Management	Server shutdown	100	Warning	Carbon Black App Control Server shutdown cleanly. ***Change Note***: *CB Protection replaced with Carbon Black App Control in v8.5.0.*
✧ ⚐	Server Management	Server upgrade failed	112	Error	Failed to upgrade Carbon Black App Control Server to $param1$. ***Change Note:*** *The event description referred to "Parity Server" or "Bit9 Server" in pre-8.0.0 releases. Not currently used in v8.0.0.* ***Change Note***: *CB Protection replaced with Carbon Black App Control in v8.5.0.*
✦ ⚐	Server Management	Server upgrade info	195	Info	Upgrade Information for server Carbon Black App Control Server : Default Rules order was modified by customer. ***Change Note***: *CB Protection replaced with Carbon Black App Control in v8.5.0.*
✧ ⚐	Server Management	Server upgrade succeeded	111	Info	Successfully upgraded Carbon Black App Control Server to version $param1$. ***Change Note:*** *The event description referred to "Parity Server" or "Bit9 Server" in pre-8.0.0 releases.* ***Change Note***: *CB Protection replaced with Carbon Black App Control in v8.5.0.*
	Server Management	SSL certificate CN mismatch	128	Critical	Common Name mismatch between SSL certificate ($param1$) and RPC Server Name ($param2$).
	Server Management	SSL certificate error	127	Critical	Server was not able to use default SSL certificate. Communication with agents is disabled.
	Server Management	SSL certificate expired	125	Critical	Server SSL certificate has expired on $param1$. Agents will not be able to connect if SSL protocol is enabled.
	Server Management	SSL certificate expiring	124	Critical	Server SSL certificate will expire on $param1$.
⚐	Server Management	SSL certificate generated	118	Notice	User '$username$' has successfully generated a new SSL certificate for Carbon Black App Control Server: $param1$ ***Change Note***: *CB Protection replaced with Carbon Black App Control in v8.5.0.*
⚐	Server Management	SSL certificate generation failed	119	Warning	User '$username$' has failed to generate a new SSL certificate for Carbon Black App Control Server. Error: $param1$ ***Change Note***: *CB Protection replaced with Carbon Black App Control in v8.5.0.*
⚐	Server Management	SSL certificate import failed	121	Warning	User '$username$' has failed to import new SSL certificate for Carbon Black App Control Server. Error: $param1$ ***Change Note***: *CB Protection replaced with Carbon Black App Control in v8.5.0.*
⚐	Server Management	SSL certificate imported	120	Notice	User '$username$' has successfully imported a new SSL certificate for Carbon Black App Control Server: $param1$ ***Change Note***: *CB Protection replaced with Carbon Black App Control in v8.5.0.*
	Server Management	Strong SSL communications disabled	123	Warning	User '$username$' has disabled strong SSL communications. Agents using strong SSL will not be able to talk to server anymore. Contact Carbon Black Support for remediation.
	Server Management	Strong SSL communications enabled	122	Notice	User '$username$' has enabled strong SSL communications. Server cannot be spoofed.
	Server Management	System error	137	Error	Reports a variety of descriptions for command line usage errors in rarely used debugging activities.

	Type	Subtype	ID No.	Severity	Example Descriptions/Comments
✦	Server Management	Unified server added	280	Info	Unified server '$param1$' added to local configuration by '$username$'.
✦	Server Management	Unified server error	283	Critical	Unified server '$param1$' inaccessible. Unified server '$param1$' inaccessible due to an issue with the SSL certificate. Unified server '$param1$' inaccessible due to an authentication issue.
✦	Server Management	Unified server modified	282	Info	Unified server '$param1$' modified by '$username$'. Unified Management disabled on local server by '$username$'. Unified Management configured to be managed only from this server by '$username$'. Unified Management configured to be managed from all servers by '$username$'. This server was added to remote unified management configuration by '$username$'.
✦	Server Management	Unified server removed	281	Info	Unified server '$param1$' removed from local configuration by '$username$'.
	Server Management	Updater created	145	Info	Updater '$updaterName$' was created by '$username$'
	Server Management	Updater deleted	146	Info	Updater '$updaterName$' was deleted by '$username$' ***Note:*** *There is a separate Enabled Updater deleted event for Updaters deleted while enabled.*
	Server Management	Updater modified	147	Info	Updater '$updaterName$' was modified by '$username$'. Enabled Updater '$updaterName$' was deleted by '$username$'.
	Server Management	Updaters Indicator Set disabled	171	Info	'$username$' disabled automatic update of Indicator Sets from Carbon Black File Reputation
	Server Management	Updaters Indicator Set enabled	170	Info	'$username$' enabled automatic update of Indicator Sets from Carbon Black File Reputation
Δ	**Server Management**	**Updaters update disabled**	150	Info	'$username$' disabled automatic update of Application Updaters from Carbon Black File Reputation ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
Δ	Server Management	Updaters update enabled	149	Info	'$username$' enabled automatic update of Application Updaters from Carbon Black File Reputation ***Change Note:*** *Capitalization of the subtype was changed in v8.1.0.*
✦	Server Management	Yara Rules Added	197	Info	A new set of Yara Rules were added: $param1$ Version: $param2$.
✦	Server Management	Yara Rules Modified	198	Info	Yara Rules were modified: $param1$ OldVersion: $param2$.
	Session Management	Console user created	302	Info	'$userName1$' created new username '$userName2$'.
	Session Management	Console user deleted	303	Info	'$userName1$' deleted the user '$userName2$'.
Δ ✧	Session Management	Console user login	300	Info	User '$username$' logged in from $ipaddress$. User '$username$' logged in from $ipaddress$ via SAML. User '$username$' redirected to unified server $serverName$. ***Change Note:*** *In v8.0.0, a new description option for Unified Management was added. In v8.1.0, a new description option was added for SAML logins.*
	Session Management	Console user logout	301	Info	User '$username$' logged out.
✧	Session Management	Console user modified	304	Info	'$userName1$' changed the User Roles for $userName2$'. '$userName1$' changed the password for '$userName2$'. '$userName1$' modified the user '$userName2$'. '$userName1$' changed the password for '$userName2$'. '$userName1$' created the API token for '$userName2$'. Unified server modified the unified user $userName2$.

	Type	Subtype	ID No.	Severity	Example Descriptions/Comments
					Change Note: *In pre-8.0.0 releases, the first description referred to "access level" instead of user roles, and listed the user group the user was moved from and to. User groups were changed to user roles in v8.0.0, and users can have more than one role. Also, unified servers are new for v8.0.0; the "Unified server modified" message indicates that a user has been authenticated on a client server.*
	Session Management	Multiple failed logins	305	Warning	User '$username$' has failed to log in $param1$ times in a row. Current IP Address $ipaddress$.
✦	Session Management	User Role AD rules changed	309	Notice	'$username$' modified an AD rule for mapping $param1$ to the User Role $param2$.
✧	Session Management	User Role created	306	Info	User Role '$param1$' created by '$username$'. ***Change Note:*** *Prior to v8.0.0, the event subtype and description referred to "User group".*
✧	Session Management	User Role deleted	307	Info	User Role '$param1$' deleted by '$username$'. ***Change Note:*** *Prior to v8.0.0, the event subtype and description referred to "User group".*
✧	Session Management	User Role modified	308	Info	User Role '$param1$' modified by '$username$'. ***Change Note:*** *Prior to v8.0.0, the event subtype and description referred to "User group".*

Section 2: Access to Event Data

In addition to the App Control Console user interface, event data is available in the following ways:

- as Syslog output, in one of four formats
- as App Control “external event logging” output
- as SQL views through the App Control “Live Inventory SDK”
- as JSON output to external analytics services
- in event archive files

Syslog Formats

App Control supports integration of its event information with Syslog servers using several formats. You configure Syslog integration on the Events tab of the System Configuration page, described in the “System Configuration” chapter of the *App Control User Guide* or in online Help in the App Control Console. Upgrades from previous releases retain the format setting they had.

The supported formats are:

- **Basic (RFC3164**) – the default for upgrades from some previous releases
- **Enhanced (RFC5424)** – a newer standard; the default for new installations
- **CEF (HP ArcSight)** – the format to use to integrate App Control event logs with HP ArcSight ESM or HP ArcSight Logger
- **LEEF (IBM Q1 Labs)** – the format to user to integrate App Control event logs with IBM Security QRadar Log Manager or IBM Security QRadar SIEM

Note: Manually enabled, custom Syslog formatting will be overwritten on upgrade to this version of App Control. See “Setting Up External Event Logging” in the *App Control User Guide* for instructions on configuring the App Control Server for CEF syslog formatting.

Basic and Enhanced Standard Syslog Formats

The fields available in Basic and Enhanced Standard Syslog formats are the same, except for three optional fields – App-Name, ProcID, and MsgID. Table 4 shows the Basic and Enhanced Syslog format fields supported by App Control. Examples of messages in these formats are shown below the table.

Table 4. App Control Event Mapping to Basic and Enhanced Syslog Formats

Syslog field	Data Type	Note
Facility[1]	INTEGER	Syslog facility, always “user-level” **Note:** Facility and Severity are coded into one number per Syslog specification.
Severity[1]	INTEGER	Severity mapped from event severity (seeTable2) **Note:** Facility and Severity are coded into one number per Syslog specification.
Version	INTEGER	(Enhanced Syslog only) Syslog version, by default “1”
Timestamp	DATETIME	Timestamp when the Syslog event was sent (with the year and UTC time zone according to RFC 5424)
Hostname	NVARCHAR(256)	App Control Server hostname, appended by domain as per RFC 5424
App-Name	NVARCHAR(256)	(Enhanced Syslog only) Configurable value in ParityReporter.log.xml, by default “-“

Syslog field		Data Type	Note
ProcID		NVARCHAR(256)	(Enhanced Syslog only) Configurable value in ParityReporter.log.xml, by default “-“
MsgID		NVARCHAR(256)	(Enhanced Syslog only) Configurable value in ParityReporter.log.xml, by default “-“.
Message	**Message field**		Message is a long text string beginning with *event:”* and including all the “All messages” fields below inline; the message also can include some combination of the conditional fields. ***Carbon Black App Control Server event:text=”…” type=”…” …***
	Text	NVARCHAR(2048)	Event message (All messages)
	Type	NVARCHAR(256)	Event type name (All messages)
	subtype	NVARCHAR(256)	Event subtype name (All messages)
	hostname	NVARCHAR(256)	Event source – computer name or 'System' for App Control Server (All messages)
	username	NVARCHAR(256)	Name of user associated with the event (All messages)
	date	DATETIME	Event timestamp in UTC (All messages)
	ip_address	VARCHAR	IP address (IPv4 or IPv6) of the agent reporting the event (Conditional)
	process	NVARCHAR(512)	Process associated with the event (Conditional)
	file_path	NVARCHAR(450)	File path of the file associated with the event (Conditional)
	file_name	NVARCHAR(450)	Name of the file associated with the event (Conditional)
	file_hash	CHAR(64)	Hash of the file associated with the event (Conditional)
	installer_name	NVARCHAR(450)	Name of the Installer associated with the event (e.g., the installer that installed a newly discovered file) (Conditional)
	policy	NVARCHAR(128)	Name of the App Control policy for the agent associated with the event (Conditional)
	ban_name	NVARCHAR(128)	For files blocked due to bans, name of the ban (Conditional)
	Rapid_config_name	NVARCHAR(256)	Name of the Rapid Config associated with the event (Conditional)
	rule_name	NVARCHAR(256)	Name of the rule associated with the event (Conditional)
	updater_name	NVARCHAR(256)	Name of the Updater associated with the event (Conditional)
	indicator_name	NVARCHAR(256)	Name of the threat indicator associated with the event; if present, same as rule_name (Conditional)
	server_version	NVARCHAR(MAX)	Version of the App Control Server associated with the event (All messages)
	file_trust	-2 pending -1 unknown 0-10 Trust value	File trust from the Carbon Black File Reputation of the file associated with the event. Pending implies that FILE lookup was not yet performed but will be. (Conditional)
	file_threat	-2 pending -1 unknown 0 No threat	File threat from Carbon Black File Reputation of the file associated with the event. Pending implies that Carbon Black File Reputation lookup was not yet performed but will be. (Conditional)

Syslog field		Data Type	Note
		1 Potential risk 2 Malicious	
	Message fields (continued)		
	process_key	UID	
	process_trust	-2 pending -1 unknown 0-10 Trust value	Unique proprietary key identifying the instance of the process on a specific computer
	process_threat	-2 pending -1 unknown 0 No threat 1 Potential risk 2 Malicious	Parent process trust from Carbon Black File Reputation of the file associated with the event. Pending implies that Carbon Black File Reputation lookup was not yet performed but will be. (Conditional)
	unified_source	NVARCHAR(256)	Unified server that is the source of and event, if unified management is enabled and the source of an event. (Conditional)
	prevalence	INTEGER	Prevalence of file related to the event
	global_state	NVARCHAR(128)	Global state of the file associated with the event (Approved/Unapproved/Banned)

Basic Syslog Format Message

The following is an example of Basic Syslog format:

```
16/06/16 13:42:48
Info message from: 123.45.67.8
Hostname: desktop8.mycorp.local
Carbon Black App Control event: text="File 'c:\apps\alexainstaller.exe'
[07693beb9aaebdd8b3223a5becc25b44c70afd73cec9e4984ffc4e89624c5e17] was
executed for the first time." type="Discovery" subtype="First execution on
network" hostname="WORKGROUP\LAPTOP6" username="LAPTOP6\Administrator"
date="6/16/2016 1:42:48 PM" ip_address="fd70::a98b:d49b:e45f:cd30"
process="c:\windows\explorer.exe" file_path="c:\apps\alexainstaller.exe"
file_name="alexainstaller.exe"
file_hash="07693beb9aaebdd8b3223a5becc25b44c70afd73cec9e4984ffc4e89624c5e17"
policy="Test" process_key="00000000-0000-0574-01cf-86e9e504f7e6"
server_version="8.1.0.899" file_trust="0" file_threat="2" process_trust="10"
process_threat="0" prevalence="1" global_state="approved"
```

Enhanced Syslog Format Message

The following is an example of Enhanced Syslog format:

```
16/06/16 14:38:37
Notice message from 123.45.67.8
Hostname: desktop8.mycorp.local
1 2016-06-16T14:38:37Z laptop6 - - - - Carbon Black App Control event:
text="Computer WORKGROUP\LAPTOP6 discovered new file
'c:\windows\temp\jvyyqbe4.dll'
[eeb0ada676b1f8e5e94015b5e48ed4bcf23959b0d0837bbd51c1870f5d641d2a]."
type="Discovery" subtype="New unapproved file to computer"
hostname="WORKGROUP\LAPTOP6" username="NT AUTHORITY\SYSTEM" date="6/16/2016
2:38:35 PM" ip_address="fd70::a98b:d49b:e45f:cd30"
process="c:\windows\microsoft.net\framework64\v2.0.50727\csc.exe"
file_path="c:\windows\temp\jvyyqbe4.dll" file_name="jvyyqbe4.dll"
file_hash="eeb0ada676b1f8e5e94015b5e48ed4bcf23959b0d0837bbd51c1870f5d641d2a"
installer_name="csc.exe" policy="Test" process_key="00000000-0000-0bc4-01cf-
8970a7aca018" server_version="8.1.0.992" file_trust="-1" file_threat="-1"
prevalence="-1" global_state="approved"
```

Mapping App Control Events to ArcSight CEF

App Control supports integration of its event information with Syslog servers using several formats. One of the Syslog formats supported is ArcSight CEF (Common Event Format), which you can use to integrate App Control event logs with ArcSight ESM or ArcSight Logger. You configure Syslog integration on the System Configuration/Events page, described in the “System Configuration” chapter of *Using App Control*.

This section describes the mapping of App Control event fields to ArcSight CEF fields. See your ArcSight documentation for full information about ArcSight CEF and its capabilities.

Top-Level Syslog Format

Table 5. App Control Event Mapping to Syslog ArcSight Common Event Format (RFC 3164 and ArcSight CEF)

Syslog field	Data Type	Note
Facility	INTEGER	Syslog facility; always “user-level” **Note:** Facility and Severity are coded into one number per Syslog specification.
Severity	INTEGER	Severity mapped from event severity (see Table 2) **Note:** Facility and Severity are coded into one number per Syslog specification.
Timestamp	DATETIME	Timestamp when the Syslog event was sent (without the year, according to RFC 3164)
Hostname	NVARCHAR(256)	App Control Server hostname
Message		Message encoded according to ArcSight CEF specification

Message Format

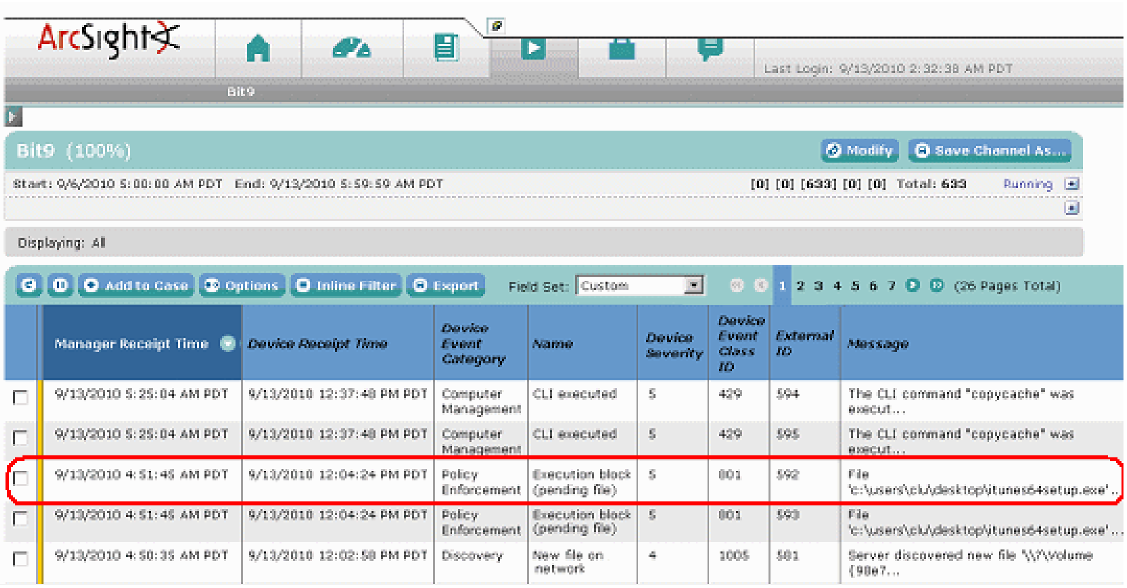
ArcSight CEF format uses the Syslog message protocol as a transport mechanism. The format of the message is:

```
Date-Time host CEF:Version|Device Vendor|Device Product|Device Version|
SignatureID|Name|Severity|Extension
```

Each message includes a common prefix consisting of the message date and time, the hostname of the server from which it was sent, and "CEF:" plus the version of CEF format. The remainder of the message is formatted into event-specific fields delimited by a bar ("|") character.

The following example illustrates a CEF-formatted message using Syslog output from App Control:

```
Sep 19 08:26:10 server3.mycorp.local CEF:0|Carbon Black|Protection
|8.1.0.899|801|Execution block (unapproved file)|5| dst=10.0.0.1
duser=NTAUTHORITY\SYSTEM msg=File 'itunessetup64.exe' has been blocked
because it was unapproved.
```



Start: 9/6/2010 5:00:00 AM PDT End: 9/13/2010 5:59:59 AM PDT [0] [0] [633] [0] [0] Total: 633

Displaying: All

	Manager Receipt Time	Device Receipt Time	Device Event Category	Name	Device Severity	Device Event Class ID	External ID	Message
□	9/13/2010 5:25:04 AM PDT	9/13/2010 12:37:48 PM PDT	Computer Management	CLI executed	5	429	594	The CLI command "copycache" was execut...
□	9/13/2010 5:25:04 AM PDT	9/13/2010 12:37:48 PM PDT	Computer Management	CLI executed	5	429	595	The CLI command "copycache" was execut...
□	9/13/2010 4:51:45 AM PDT	9/13/2010 12:04:24 PM PDT	Policy Enforcement	Execution block (pending file)	5	801	592	File 'c:\users\clu\desktop\itunes64setup.exe'...
□	9/13/2010 4:51:45 AM PDT	9/13/2010 12:04:24 PM PDT	Policy Enforcement	Execution block (pending file)	5	801	593	File 'c:\users\clu\desktop\itunes64setup.exe'...
□	9/13/2010 4:50:35 AM PDT	9/13/2010 12:02:58 PM PDT	Discovery	New file on network	4	1005	581	Server discovered new file '\\?\Volume {98e7...

CEF-App Control Mapping Tables

The tables below provide the following CEF-App Control mapping information:

- Table 6 shows the mapping of App Control data to CEF Header fields
- Table 7 shows the mapping of App Control data to CEF Extension field data
- Table 8 shows App Control-specific custom extensions

Table 6. Mapping of App Control Event Data to CEF Header Fields

CEF Prefix Field	App Control Value	Description
Host	Hostname	Hostname of the App Control Server providing the Syslog output.
Version	0	CEF format version. By default this is 0.
Device Vendor	Carbon Black	The company name of the syslog output provider.

Device Version	8.5.0.*xxx*	The version of product generating syslog output. The current App Control version is 8.5.0 and *xxx* represents the build number appended to the version.
Device Product	Protection	The product name of the syslog output provider.
SignatureID	Event subtype ID	Unique number for the event subtype as classified by App Control.
Name	Event subtype name	Unique name for the event subtype as classified by App Control.
Severity	Event severity ID	Numeric value indicating the severity of the event. App Control event severity ranges from 7 (least severe) to 0 (most severe). These are mapped to CEF severity levels, which range from 0 (least severe) to 10 (most severe). The CEF severity is calculated by subtracting the App Control severity from 9. This means that the most severe App Control event has a CEF severity of 9. The least severe App Control event has a CEF severity of 2.
Extension	*(varies)*	Additional event information. See Table 7.

Table 7. Mapping of App Control Event Data to CEF Extensions

CEF Extension Name	App Control Event Field	Description
externalId	Event ID	Unique auto-incremented ID of each generated App Control event.
DeviceEventCategory	Event Type	App Control event type
startTime	Event Timestamp	Timestamp when the event was created on the endpoint (in UTC).
ReceiptTime	Event Received Timestamp	Timestamp when the event was received by the App Control Server (in UTC).
Message	Event Description	Full text message of the App Control event
deviceHostName	Server Hostname	App Control Server host name. Note that this could be an IP address if that is what was entered during server installation.
destinationAddress *	IP Address	IPv4 address of the machine generating the event (if available).
deviceCustomIPv6Address3 *	IP Address	Ipv6 address of the machine generating the event (if available).
destinationHostName *	Hostname	Host name of the machine generating the event.
destinationUserName *	Username	User name of the user generating the event.
FileId *	Antibody ID	Unique (auto-incremented) ID of the file generating the event.
filePath *	File Path	Full pathname of the file generating the event.

CEF Extension Name	App Control Event Field	Description
fileName *	File Name	Filename of the file generating the event.
fileHash *	File Hash	SHA-256 file hash of the file generating the event.
deviceProcessName *	Process	Process name of the process generating the event.
sourceProcessName	Process Key	Unique proprietary key identifying the instance of the process on a specific computer
reason	Indicator Name	Name of the threat indicator associated with the event; if present, same as rule name (Conditional)
deviceExternalID	Unified Source	Name of the unified management server that is the source of an event (Conditional)
* CEF Extensions with asterisks are context-dependent and not available on all events.		

Table 8. Mapping to Custom CEF Extensions

CEF Custom Extension & Label	App Control Event Field	Description
deviceCustomString1 * deviceCustomString1Label = “rootHash”	Root Hash	Root hash of the file generating the event.
deviceCustomString2 * deviceCustomString2Label = “installerFilename”	Installer Filename	Installer Filename of the file generating the event.
deviceCustomString3 * deviceCustomString3Label = “policy”	Policy	App Control policy of the machine generating the event.
deviceCustomString 4* deviceCustomString4Label = “banName”	Ban Name	For a block event, the name of the ban (if any) that blocked the file; some bans are unnamed
deviceCustomString 5* deviceCustomString5Label = “ruleName”	Rule Name	The name of the rule associated with the event (if any)
deviceCustomString 6* deviceCustomString6Label = “updaterName”	Updater Name	The name of the Updater associated with the event (if any)

CEF Custom Extension & Label	App Control Event Field	Description
deviceCustomFloatingPoint1 * deviceCustomFloatingPoint1Label = “fileTrust”	File Trust	File trust from Carbon Black File Reputation of the file associated with the event. Pending means that Carbon Black File Reputation lookup was not yet performed but will be. (Conditional) -2 pending -1 unknown 0-10 Trust value
deviceCustomFlexString1 * deviceCustomFlexString1Label = “fileThreat”	File Threat	File threat from Carbon Black File Reputation of the file associated with the event. Pending means that Carbon Black File Reputation lookup was not yet performed but will be. (Conditional)“pending” “unknown” “0 - No threat” “1 - Potential risk” “2 – Malicious”
deviceCustomFloatingPoint2 * deviceCustomFloatingPoint2Label = “processTrust”	Process Trust	Parent process trust from Carbon Black File Reputation of the file associated with the event. Pending means that Carbon Black File Reputation lookup was not yet performed but will be. (Conditional) -2 pending -1 unknown 0-10 Trust value
deviceCustomFlexString2* deviceCustomFlexString2Label = “processThreat”	Process Threat	Parent process threat from Carbon Black File Reputation of the file associated with the event. Pending implies that Carbon Black File Reputation lookup was not yet performed but will be. (Conditional) “pending” “unknown” “0 - No threat” “1 - Potential risk” “2 – Malicious”
* All CEF Custom Extensions are context-dependent and not available on all events.		

Mapping App Control Events to Q1Labs LEEF Format

One of the Syslog formats supported by App Control is Q1Labs LEEF (Log Event Extended Format), which you can use to integrate App Control event logs with QRadar SIEM or QRadar Log Manager. You configure Syslog integration on the System Configuration page Events tab in the App Control Console.

This section describes setup of QRadar Log Manager to accept App Control events, and the mapping of App Control event fields to Q1Labs LEEF fields. See your QRadar documentation for full information about QRadar and LEEF capabilities.

Important: If you are running **App Control version 8.1.0 or later**, you must update the **QRadar DSM** module for App Control to at least the **July 2017** version released by QRadar. This will enable QRadar to properly parse App Control 8.0- and 8.1-specific events. The previous DSM module for Bit9 Security Platform can still be used to integrate older versions of the Bit9 product with the QRadar.

Configuring QRadar Log Manager

When an App Control Server begins to send events to the QRadar Log Manager, approximately the first 10 events will appear as "Unknown events". After that, QRadar Log Manager will auto-discover events as being from Carbon Black App Control, and will add a Log source definition for that App Control Server called "CarbonBlackAppControl @ <CarbonBlackServerComputerName>" with the default QRadar Log Manager parameters.

To be certain you capture all events, set up Carbon Black App Control as a log source in QRadar Log Manager *before* integrating with the Carbon Black App Control Server.

Manual Setup of App Control as Event Source

You can manually configure App Control as the source of events sent to the QRadar Log Manager.

To configure Carbon Black App Control as an event source for QRadar Log Manager:

1. In the QRadar Log Manager Console, click on the **Admin** tab.
2. On the console Admin settings, under Data Sources/Events, click **Log Sources**. The Log Sources window opens.
3. In the Log Source window menu bar, click **Add**. The Add a Log Source window opens.
4. In the new window, for Log Source Name, enter **Carbon Black App Control**.
5. For Log Source Description, enter **Carbon Black App Control Server**.
6. Choose **Carbon Black App Control** on the Log Source menu.
7. For Log Source Identifier, enter the fully qualified domain name of the Carbon Black App Control Server sending the events.
8. Set Credibility to **10**.
9. Click the **Save** button.
10. On the QRadar Log Manager Admin console, click **Deploy Changes** in the Admin menu bar.

Top-Level Syslog Format

Table 9. App Control Event Mapping to Q1Labs Log Event Enhanced Format (RFC 3164 and Q1Labs LEEF)

Syslog field	Data Type	Note
Facility	INTEGER	Syslog facility; always “user-level” **Note:** Facility and Severity are coded into one number per Syslog specification.
Severity	INTEGER	Severity mapped from App Control event severity (seeTable2) **Note:** Facility and Severity are coded into one number per Syslog specification
Timestamp	DATETIME	Timestamp when the Syslog event was sent (without the year, according to RFC 3164)
Hostname	NVARCHAR(256)	App Control Server hostname
Message		Message encoded according to Q1Labs LEEF specification

LEEF Format

Q1Labs LEEF format uses the Syslog message protocol as a transport mechanism. The format of the message is:

```
Date-Time hostname LEEF:Version|Vendor|Product|Version|EventID|
Key1=Value1<tab>Key2=Value2<tab>...<tab>KeyN=ValueN
```

Each message includes a common prefix consisting of the message date and time, the hostname of the server from which it was sent, and "LEEF:" plus the version of LEEF format. Following the prefix, the message includes fields describing the product sending the message and an event identifier. The remainder of the message is formatted into an event-specific series of key value pairs delimited by a tab character. Characters in the message are UTF-8 encoded.

The following example illustrates a LEEF-formatted message using Syslog output from App Control, with "*<tab>*"substituted where actual tabs are used in the message:

```
Jan 18 11:07:53 198.76.5.4 LEEF:1.0|Carbon_Black|Protection|
8.1.0.978<tab>|NEW_PORT_DISCOVERD|src=172.5.6.67<tab>dst=172.50.123.1<tab>
sev=5<tab>cat=anomaly<tab>msg=there are spaces in this message
```

App Control-to-LEEF Mapping Tables

The tables below provide the following LEEF-App Control mapping information:

- Table 10 shows the mapping of App Control event data to LEEF Header fields
- Table 11 shows the mapping of App Control events to LEEF Attributes

Table 10. Mapping of App Control Event Data to LEEF Header Fields

LEEF Prefix Field	App Control Value	Description
Hostname	Hostname	Hostname of the App Control Server providing the Syslog output
LEEF Version	1.0	LEEF format version. By default this is 1.0.
Vendor	Carbon Black	The company name of the Syslog output provider.
Product*	Protection	The name of the product generating Syslog output.
Version	8.5.0.xxx	The version of the product generating Syslog output, including the build number (represented here by "xxx"). The current App Control version is 8.5.0.
EventID	Event subtype name	Unique name identifying the event subtype as classified by Carbon Black App Control.
Attributes	(varies)	See Table 11.

Table 11. Mapping of App Control Event Fields to LEEF Attributes

LEEF Attribute (name in RAW view)	LEEF Property (Visible name in Console)	Regular Expression (to Extract)	App Control Event Field	Description
cat	Category		Event Type	App Control event category name
sev	Severity		Severity	Severity of the App Control event. Mapped from App Control range 7-0 (0 is most important) into LEEF range 1-10 (10 = most important)
devTime	Device Time		Event Timestamp	Timestamp (UTC) when App Control event was generated; Converted to local time when displayed as *"Log Source Time"* in QRadar events view
receivedTime[1]	Received Time	receivedTime=([^\t]+)[\t]*	Received Time	Timestamp (UTC) when the event was received by the App Control Server
msg[1]	Message	msg=([^\t]+)[\t]*	Event Description	Full message describing the event
externalID[1]	External ID	externalId=([^\t]+)[\t]*	Event Id	Unique identifier of the event instance
src[2]	Source Address		Ip Address	IP (IPv4) address of the computer generating the event
srcHostName[1,2]	Source Hostname	srcHostName=([^\t]+)[\t]*	Hostname	Hostname of the computer generating the event
srcProcess[1,2]	Source Process	srcProcess=([^\t]+)[\t]*	Process	Name of the process generating the event
usrName[2]	Username		Username	Username of the user generating the event
filePath[1,2]	File Path	filePath=([^\t]+)[\t]*	File Path	Full path of the file generating the event
fileName[1,2]	Filename	fileName=([^\t]+)[\t]*	File Name	Filename of the file generating the event
fileHash[1,2]	File Hash	fileHash=([^\t]+)[\t]*	File Hash	SHA256 hash of file generating the event
fileId[1,2]	File ID	fileId=([^\t]+)[\t]*	Antibody Id	Unique identifier of file generating the event
rootHash[1,2]	Root Hash	rootHash= ([^\t]+)[\t]*	Root Hash	Root hash of the file generating the event

LEEF Attribute (name in RAW view)	LEEF Property (Visible name in Console)	Regular Expression (to Extract)	App Control Event Field	Description
installerFileName[1,2]	Installer Filename	installerFileName=([^\t]+)[\t]*	Installer Filename	Installer filename of the file generating the event
banName[1,2]	Ban Name	banName=([^\t]+)[\t]*	Ban Name	For block events, name of the ban that blocked the file. ***Change Notes:*** This was “ruleName” prior to 7.0.1 Patch 3.
ruleName[1,2]	Rule Name	ruleName=([^\t]+)[\t]*	Rule Name	Name of the rule associated with the event (if any)
updaterName[1,2]	Updater Name	updaterName=([^\t]+)[\t]*	Updater Name	Name of the Updater associated with the event (if any)
indicatorName	indicatorName	indicatorName=([^\t]+)[\t]*	Indicator Name	Name of the threat indicator associated with the event (if any)
policy[1,2]	Policy	policy=([^\t]+)[\t]*	Policy	App Control Policy of the computer generating the event
dstHostName[1]	Destination Hostname	dstHostName=([^\t]+)[\t]*	Hostname	App Control Server computer receiving the event
processKey	Process Key	processKey=([^\t]+)[\t]*	Process Key	Unique proprietary key identifying the instance of the process on a specific computer
fileTrust	File Trust	fileTrust=([^\t]+)[\t]*	File Trust	File trust from Carbon Black File Reputation of the file associated with the event. Pending implies that file lookup was not yet performed but will be. (Conditional) -2 pending -1 unknown 0-10 Trust value

LEEF Attribute (name in RAW view)	LEEF Property (Visible name in Console)	Regular Expression (to Extract)	App Control Event Field	Description
fileThreat	File Threat	fileThreat=([^\t]+)[\t]*	File Threat	File threat from Carbon Black File Reputation of the file associated with the event. Pending implies that file lookup was not yet performed but will be. (Conditional) -2 pending -1 unknown 0 No threat 1 Potential risk 2 Malicious
processTrust	Process Trust	processTrust=([^\t]+)[\t]*	Process Trust	Parent process trust from Carbon Black File Reputation of file associated with the event. Pending implies that file lookup was not yet performed but will be. (Conditional) -2 pending -1 unknown 0-10 Trust value
processThreat	Process Threat	processThreat=([^\t]+)[\t]*	Process Threat	Parent process threat from Carbon Black File Reputation of file associated with the event. Pending implies that file lookup was not yet performed but will be. (Conditional) -2 pending -1 unknown 0 No threat 1 Potential risk 2 Malicious
unifiedSource	Unified Source	unifiedSource=([^\t]+)[\t]*	Unified Server Source	Hostname of the Unified Server (if implemented) that is the source of an event

[1] These are custom LEEF attributes for App Control event fields with no predefined attribute name in LEEF. You must use the regular expressions next to each of these items to extract it as a custom attribute. See Manual Setup of App Control Custom Properties for instructions.

[2] These LEEF Extensions are context-dependent and not available on all events.

Manual Setup of App Control Custom Properties

For the current release of QRadar Log Manager, manual setup is required to parse certain App Control properties. Table 11 shows the regular expressions that must be used to parse each custom property.

To configure custom properties for QRadar Log Manager:

1. On the QRadar Log Manager, click the **Admin** tab and then click **Custom Event Properties** in the Data Sources/Events section. The Custom Event Properties window opens.
2. Click **Add** in the Custom Event Properties window menu bar. The Event Property Definition window opens.
3. In the Event Property Definition window, click the **New Property** radio button, and in the New Property text box, enter a LEEF Property name from Table 11 (such as “Message”).
4. Choose **App Control** on the Log Source Type menu.
5. Enter the regular expression from Table 11 corresponding to the property you chose (such as “*msg=([^\t]+)[\t]**”).
6. Make sure that the **Enabled** box is checked, and then click the **Save** button.
7. Repeat the steps above for each App Control custom property (those with regular expressions) listed in Table 11.
8. On the Admin console, click **Deploy Changes** in the Admin menu bar.

External Event Database

You can send events from the App Control Server to an external database. The following table describes the external events table columns.

Table 12. App Control External Event Database Columns

	External table column	Data Type	Note
	event_id	BIGINT	ID of the event
	time	DATETIME	Time when event occurred (in UTC)
	received_time	DATETIME	Time when server received the event (in UTC)
	severity	NVARCHAR(256)	Event severity
	priority	NVARCHAR(256)	Event severity; note that priority was used in pre-7.2.1 releases, and is deprecated for 7.2.1 and later. The preferred name is “severity”.
	type	NVARCHAR(256)	Event type name
	subtype	NVARCHAR(256)	Event subtype name
	text	NVARCHAR(1024)	Event description
	hostname	NVARCHAR(128)	Event source (computer name or 'system')
	host_id	INTEGER	ID of the event source (computer ID or 0 for ‘system’)
	ip_address	VARCHAR(40)	IP address associated with the event
	platform	NVARCHAR(64)	Platform of the computer associated with the event (Windows, Mac, Linux)
	hostgroup	NVARCHAR(512)	Name of the policy associated with the event
	hostgroup_id	INTEGER	ID of the policy associated with the event
	username	NVARCHAR(512)	Name of user associated with the event
	process	NVARCHAR(512)	Name of the process associated with the event
	filename	NVARCHAR(1024)	Full file path
	hash	CHAR(64)	File hash (sha256)
	tail_filename	NVARCHAR(256)	Truncated file name (max. 256 characters)
	roothash	CHAR(64)	Installer hash (sha256)
	rootname	NVARCHAR(1024)	Installer name associated with the event
	ieid	INTEGER	Installer ID associated with the event
	ban_name	NVARCHAR(128)	For blocked file events, the name of the ban that blocked the file action; some bans are unnamed
	rule_name	NVARCHAR(128)	Name of the rule associated with the event (if any)
	updater_name	NVARCHAR(256)	Name of the Updater associated with the event (if any)
	parent_id	INTEGER	Not used
	indicator_name	NVARCHAR(128)	Name of the threat indicator associated with the event (if any)
	process_key	NVARCHAR(128)	Unique proprietary key identifying the instance of the process on a specific computer
	file_trust	INTEGER	File trust from Carbon Black File Reputation of the file associated with the event. Pending means that file lookup was not yet performed but will be. (Conditional) **-2 pending** **-1 unknown**

	External table column	Data Type	Note
			0-10 Trust value
	file_threat	INTEGER	File threat from Carbon Black File Reputation of the file associated with the event. Pending means that file lookup was not yet performed but will be. (Conditional) **-2 pending** **-1 unknown** **0 No threat** **1 Potential risk** **2 Malicious**
	process_trust	INTEGER	Parent process trust from Carbon Black File Reputation of the file associated with the event. Pending means that file lookup was not yet performed but will be. (Conditional) **-2 pending** **-1 unknown** **0-10 Trust value**
	process_threat	INTEGER	Parent process threat from Carbon Black File Reputation of the file associated with the event. Pending means that file lookup was not yet performed but will be. (Conditional) **-2 pending** **-1 unknown** **0 No threat** **1 Potential risk** **2 Malicious**
✦	process_hash	CHAR (64)	Hash of the process associated with the event
✦	command_line	NVARCHAR (1024)	Command line in the event description. Command lines may include proprietary information (e.g., passwords), and so their inclusion in events is optional. (Conditional)
✦	unified_source	NVARCHAR (256)	In a Unified Management environment, the server that initiated an action. (Conditional)
✦ New or changed for v8.0.0.			

Live Inventory SDK

App Control includes public views into its "live inventory" database of files, assets and events. You can create your own reporting and data analysis solutions through the use of these public views. The schema for these public views is **bit9_public** and the view for events is **ExEvents**.

Please refer to "Appendix A. Live Inventory SDK: Database Views" in the *Carbon Black App Control User Guide* or online Help in the App Control Console for more details.

Event Output for External Analytics

An App Control Server can be configured to send data, including App Control event data, to external data analytics tools, such as Splunk. Data exported for external analytical tools is in JSON format. It includes the field name with each value, making it easier both to view the raw output and to parse it later without creating indexing dependencies.

Please refer to “Exporting Data for External Analysis” in the *Using App Control* guide or online Help in the App Control Console for more details.

Archive Files

You can choose to have the App Control Server export a daily archive of events to a GZIP-compressed CSV file named in the format *yyyy-mm-dd*.**csv**.**gz**. To enable this feature, go to the Events tab of the System Configuration page, click Edit, check the Archive Events Enabled box, and click Update. The location of these archive files is in a subfolder of the server installation directory, by default:

```
C:\Program Files (x86)\Bit9\Parity Server\archivelogs\
```

The following table describes the columns in these archive files.

Table 13. Event Archive CSV File Columns

	Archive CSV column	Note
	TIMESTAMP	Time event occurred on agent (in UTC)
	RECEIVEDTIMESTAMP	Time event was received on server (in UTC)
	EVENTTYPE	Event type name
	EVENTSUBTYPE	Event subtype name
	COMPUTER	Event source (computer name or 'System')
✦	**COMPUTER_ID**	Event source (Unique numeric ID, 0 for ‘system’)
	PLATFORM	Platform of the computer associated with the event
	IP_ADDRESS	IP address associated with the event
	MESSAGE	Event description
	POLICY	Name of the policy associated with the event
	FILENAME	Full file path
	PROCESSNAME	Name of the process associated with the event
	HASH	File hash
	HASH_TYPE	Type of the file hash (2 = SHA1, 3=MD5, 5=Sha256, 6=MSI)
	INSTALLER_HASH	Installer hash
	INSTALLER_HASH_TYPE	Type of the installer hash (2 = SHA1, 3=MD5, 5=Sha256, 6=MSI)
	RULE_NAME	Name of the rule associated with the event (if any)
	RULE_TYPE	Rule type of the rule associated with the event
	BAN_NAME	For blocked file events, the name of the ban that blocked the file action; some bans are unnamed
	UPDATER_NAME	Name of the Updater associated with the event (if any)
	SEVERITY	Event severity ***Change Notes:*** This column was labeled “priority” in pre-7.2.1 releases
	USERNAME	Name of user associated with the event
	PROCESS_HASH	Hash of the process associated with the event
	PROCESS_HASH_TYPE	Hash type of the process associated with the event
	ROOT_NAME	Installer name associated with the event
	GLOBAL_STATE	Global state of the file associated with the event (Approved/Unapproved/Banned)
	INDICATOR_NAME	Name of the threat indicator associated with the event (if any)

	Archive CSV column	Note
	FILE_TRUST	File trust from Carbon Black File Reputation of the file associated with the event. Pending means that file lookup was not yet performed but will be. (Conditional) **-2 pending** **-1 unknown** **0-10 Trust value**
	FILE_THREAT	File threat from Carbon Black File Reputation of the file associated with the event. Pending means that file lookup was not yet performed but will be. (Conditional) **-2 pending** **-1 unknown** **0 No threat** **1 Potential risk** **2 Malicious**
	PROCESS_TRUST	Parent process trust from Carbon Black File Reputation of the file associated with the event. Pending means that file lookup was not yet performed but will be. (Conditional) **-2 pending** **-1 unknown** **0-10 Trust value**
	PROCESS_THREAT	Parent process threat from Carbon Black File Reputation of the file associated with the event. Pending implies that file lookup was not yet performed but will be. (Conditional) **-2 pending** **-1 unknown** **0 No threat** **1 Potential risk** **2 Malicious**
	USAGE_COUNTER	Prevalence of file related to this event
	PROCESS_USAGE_COUNTER	Prevalence of parent process related to this event
✦	**PROCESS_KEY**	Unique proprietary key identifying the instance of the process on a specific computer
✦	**COMMAND_LINE**	Command line in the event description. Command lines may include proprietary information (e.g., passwords), and so their inclusion in events is optional.
✦	**UNIFIED_SOURCE**	In a Unified Management environment, the server that initiated an action.
✦ New or changed for v8.0.0.		

Contacting VMware Carbon Black Support

Please view our Customer Support Guide on the User Exchange for more information about Technical Support:

https://community.carbonblack.com/t5/Support-Zone/Guide-to-Carbon-Black-Customer-Support/ta-p/34324

For your convenience, support for App Control is available through several channels:

Technical Support Contact Options
Web: User Exchange
E-mail: support@carbonblack.com
Phone: 877.248.9098
Fax: 617.393.7499

Reporting Problems

When you call or e-mail technical support, please provide the following information to the support representative:

Required Information	Description
Contact	Your name, company name, telephone number, and e-mail address
Product version	Product name (for example, App Control Server or Agent) and version number
Hardware configuration	Hardware configuration of the server or endpoint having the issue (processor, memory, and RAM)
Document version	For documentation issues, specify the version of the manual you are using. The date and version of the document appear on the cover page of most documents and after the Copyrights and Notices section of longer manuals.
Problem	Action causing the problem, error message returned, and event log output (as appropriate)
Problem severity	Critical, serious, minor, or enhancement