



Malwarebytes Cloud Console Administrator Guide

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The Malwarebytes Protection Strategy

Malwarebytes' products incorporate several prevention features which utilize a layered defense strategy to protect you against malware threats which you face daily. Each layer is designed to disrupt the attack chain at a different stage. While all Malwarebytes products are highly effective in dealing with attacks that are becoming all too commonplace, our protection capabilities are most effective when you take advantage of the full product suite, allowing each prevention layer to do the job they are best suited for.

It's your data. Protect it wisely!

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What's New in Malwarebytes

This scheduled update to *Malwarebytes* contains new features and improvements. Following is a list of changes.

New Features

- Reporting has been improved to provide greater flexibility when configuring on-demand and scheduled reports. Users can now create individual reports, specify reporting periods, define schedules, and select time zones for UTC timestamp conversion and scheduling.
- Migrating from Malwarebytes Endpoint Security (on-premises management console) to Malwarebytes Endpoint Protection is now possible the Malwarebytes Discovery and Deployment Tool, allowing for easy migration of configuration settings and managed endpoints.

Improvements

- The Add Endpoints page now links to information on optimizing Malwarebytes in conjunction with other third-party antivirus solutions. Malwarebytes Discovery and Deployment Tool has been redesigned for improved usability
- Added the ability to reset search and filter settings when viewing the Endpoints page
- Added the ability to check for network connectivity during installation, optionally specified via command-line parameter
- When adding an exclusion, applicable protection layers are now displayed by default for easier understanding
- Fixed an issue where applied Protection Updates version field may not reflect on Endpoint Properties' tab
- Fixed an issue where disabling the "Scan within archives" option for Custom Scan schedules could not be disabled
- Fixed an issue where selecting an action for large numbers of endpoints may result in an error
- Fixed an issue where an additional spinner animation may temporarily appear when viewing the Endpoint Properties page
- Managed clients now correctly register with Windows Security Center on Windows 10, version 1903
- Improved detection and remediation techniques
- Real-Time Protection performance and stabilization improvements

Laying the Groundwork

The *Malwarebytes* platform is comprised of several components that enhance the security of your network, your endpoints, and your users. The purpose of this guide is to help you use the *Malwarebytes* platform. Please note that this guide is specifically for a Malwarebytes managed solution. Standalone product users should consult administrator guides for those products.

Introduction

The *Malwarebytes* platform consists of the following solutions which provide threat response against modern computing threats:

- **Malwarebytes console** – This web-based centralized management tool is in charge of discovery, deployment, management and administration of Malwarebytes agents on your company's endpoints. It eliminates the need to dedicate web servers and database servers for management of your endpoint data integrity, and provides scalability for organizations of all sizes.
- **Endpoint Agent** – This intermediary software component is in charge of direct communication between the Malwarebytes console and the endpoint. You may deploy the agent using the Malwarebytes platform, Malwarebytes Discovery and Deployment Tool, Active Directory Group Policies, Microsoft SCCM, or a comparable tool of your choice.
- **Endpoint Agent Plugins** – These modular components are installed on your endpoints via the *Endpoint Agent*, and configured using the *Malwarebytes* console. Plugins are deployed to your endpoints based on your policy settings. The specific subscription you have purchased from Malwarebytes determines which plugins you may use.

Before You Begin

Prior to installation of any endpoint agents, you should assure that endpoints meet minimum specifications. Network firewalls may also require attention, and requirements are listed here.

Basic Environment – Console

Following are system requirements for your Malwarebytes console.

- **Browser**
 - ◆ Google Chrome (Desktop)

Basic Environment – Endpoints

Following are hardware and operating system requirements for agent installation on endpoints. While most endpoints will exceed these specifications, this information is provided for special-purpose endpoints that still require protection.

- **Hardware (Windows)**
 - ◆ CPU: 1 GHz
 - ◆ RAM: 1 GB (client); 2 GB (server)
 - ◆ Disk space: 100 MB (program + logs)
 - ◆ Active Internet connection
- **Operating Systems**
 - ◆ **Windows Server**[†]: 2016, 2012, 2012 R2, SBS 2011, 2008 R2 SP1[‡], 2008 SP2 [‡], 2008[§]
 - ◆ **Windows Client**: 10, 8.1, 8, 7, Vista[§], XP SP3^{§*}
 - ◆ **Macintosh**: macOS 10.10 or later

[†] Excludes Server Core installation option

[‡] Microsoft patch KB4019276 must also be installed and enabled

[§] As of July 2018, development has halted for Endpoint Clients using this operating system

^{*} 32-bit only

.NET 4.5.2 or 4.6 must be installed and enabled on Windows systems

Please note:

- *Anti-Ransomware* features are supported only on endpoints using Windows 7 client operating systems and newer.
- *Endpoint Protection and Response* is supported only on endpoints using Windows 7 Service Pack 1 client operating systems and newer. Transport Layer Security (TLS) 1.1/1.2 must be enabled.
- *Endpoint Protection and Response* endpoints using Server 2008 R2, Server 2012 R2, and Server 2016 support Isolation only.

External Access Requirements

If your company's Internet access is controlled by a firewall or other access-limiting device, you must grant access for endpoint agents to reach Malwarebytes services. These are:

https://cloud.malwarebytes.com	Port 443	outbound
https://telemetry.malwarebytes.com	Port 443	outbound
https://detect-remediate.cloud.malwarebytes.com	Port 443	outbound
https://data-cdn-static.mbamupdates.com	Port 443	outbound
https://keystone.mwbsys.com	Port 443	outbound
https://keystone-akamai.mwbsys.com	Port 443	outbound
https://socket.cloud.malwarebytes.com	Port 443	outbound
https://sirius.mwbsys.com	Port 443	outbound
https://hubble.mb-cosmos.com	Port 443	outbound
https://blitz.mb-cosmos.com	Port 443	outbound
https://cdn.mwbsys.com	Port 443	outbound
https://ark.mwbsys.com	Port 443	outbound
https://storage.gra3.cloud.ovh.net	Port 443	outbound
https://nebula-agent-installers-mb-prod.s3.amazonaws.com/	Port 443	outbound

Antivirus and Firewall Exclusions

Interactions between *Malwarebytes* protection products and other security software are possible. Some antivirus and firewall applications require that you define file and folder exclusions to prevent conflicts with the program, and we recommend that you exclude the following *Malwarebytes* folders and files.

- **Windows Endpoints**

```
%ProgramFiles%\Malwarebytes Endpoint Agent
%ProgramData%\Malwarebytes Endpoint Agent
%ProgramFiles%\Malwarebytes\Anti-malware\
%ProgramData%\Malwarebytes\MBAMService
%ProgramFiles%\Malwarebytes Endpoint Agent\Plugins\Incident Response\Logs
%SystemRoot%\system32\drivers\ESProtectionDriver.sys
%SystemRoot%\system32\drivers\flightrecorder.sys
%SystemRoot%\system32\drivers\farflt.sys
%SystemRoot%\system32\drivers\mbae.sys (mbae64.sys on an x64 system)
%SystemRoot%\system32\drivers\mbam.sys
%SystemRoot%\system32\drivers\MBAMChameleon.sys
%SystemRoot%\system32\drivers\MBAMSwissArmy.sys
%SystemRoot%\system32\drivers\mwac.sys
```

- **Mac Endpoints**

```
/Library/Application Support/Malwarebytes/Malwarebytes Endpoint Agent
/Library/Application Support/Malwarebytes/Malwarebytes Endpoint Agent/UserAgent.app
/Library/LaunchDaemons/com.malwarebytes.EndpointAgent.plist
```

Additionally, we provide guidance on configuring Malwarebytes to run alongside specific third-party AV. View our third-party exclusion articles on the Malwarebytes Support portal:

<https://support.malwarebytes.com/community/cloud/content?filterID=contentstatus%5bpublished%5d~tag%5bthirdpartyexclusions%5d>

Auxiliary Documentation

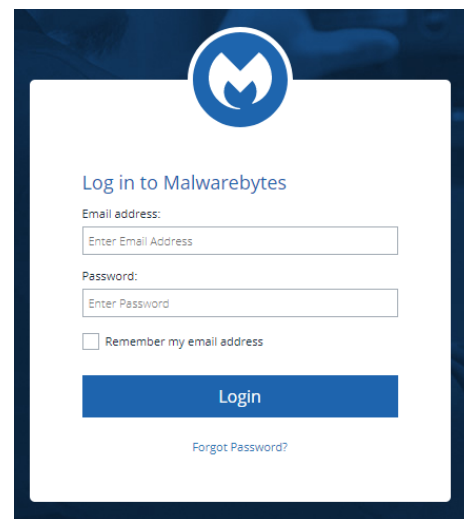
While many customers prefer to use existing applications to install software on endpoints, Malwarebytes provides the *Malwarebytes Discovery and Deployment Tool* to perform this same task. Full documentation to support this tool is available in the **Malwarebytes Discovery and Deployment Tool Administrators Guide**, available on the Malwarebytes Technical Support site and on the **Add Endpoints** screen of the *Malwarebytes Cloud Console*.

Getting Started

Access to the *Malwarebytes* platform comes to the administrator in the form of an “invitation” email sent by Malwarebytes following purchase. Accepting that invitation created your account, using your email address as the login name. Enter your name, and create a password for your account. Your login name is your email address, and was registered to you when you accepted the invitation sent to you in email.

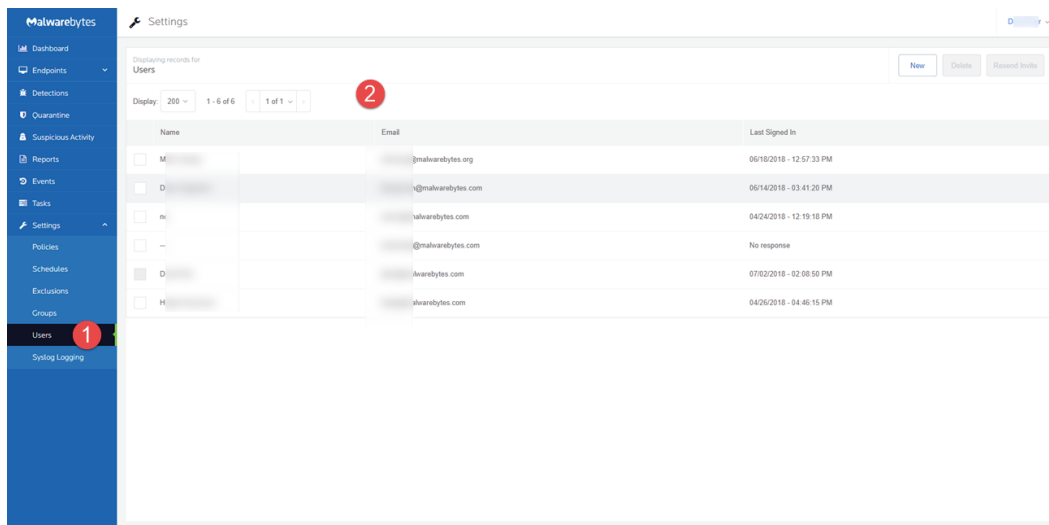
Confirm your password, accept the terms of the End User License Agreement (EULA) and click **Submit** to get started.

You may now login to the *Malwarebytes* platform (<https://cloud.malwarebytes.com>). You may wish to create a bookmark for this URL to simplify access. The *Malwarebytes* platform is not currently available on mobile browsers.



Screen Layout

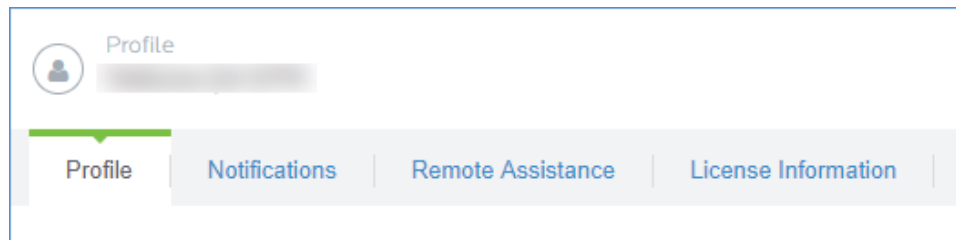
A typical view of the platform screen is shown below. Depending on the product that you purchased, your view may be different.



The *Options Menu* **1** is shown at the left side of the screen. Platform options and product options are both accessible on this menu. In this screenshot, *Settings* is selected. Specific settings corresponding to that option are shown indented underneath the Settings label. Selections shown here are all specific to the selected platform option (*Settings*), and may include selections related to both platform and product options. The majority of the screen is assigned to the selected option **2** itself.

Profile

Account settings can be found by use of a pulldown in the upper right corner of the browser screen. When **Profile** is selected, the *Profile Options* menu will be displayed, as shown here.

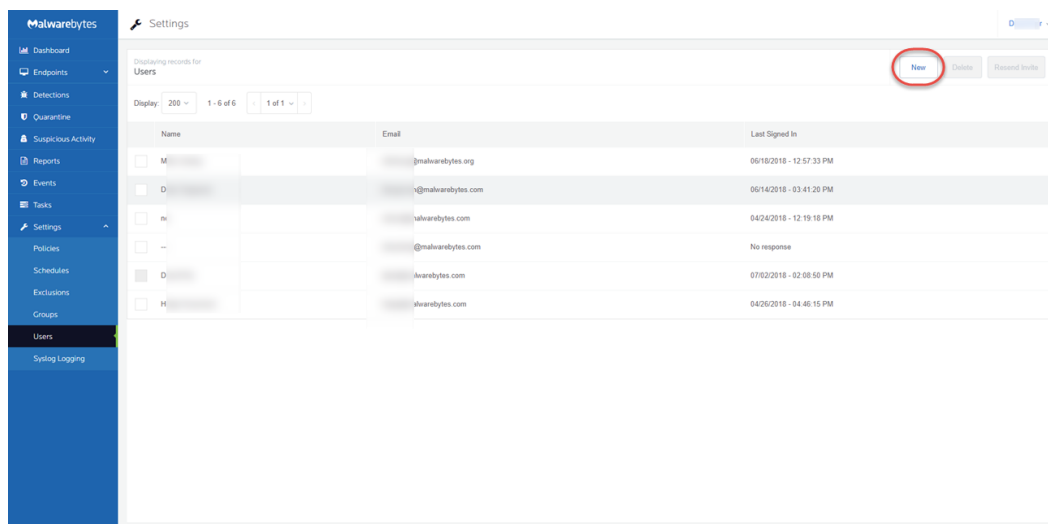


These options cover the following topics:

- **Profile:** Change your display name and password
- **Notifications:** Specify what type of events you wish to receive email notifications for.
- **Remote Assistance:** Enables a setting that allows Malwarebytes Customer Support to access your account (Customer Support will reset this once reason for access is resolved.).
- **License Information:** Provides information about your product license, including seats in use and your license key.

Adding a New User

Once the administrator has access to the *Malwarebytes* platform, he may extend invitations to others via email. That invitation is valid only for fourteen (14) days, but may be renewed. The process of accepting the invitation and creating an account are identical.



To add a new user, go to the **Settings** tab and select **Users**. A list of users will be displayed (to the right of the checkboxes that are the left border in this screenshot).

A **New** button (at the upper right of the screen) allows you to create a new user account. Enter the email address for the prospective user. Next, select the **User Role**. The three roles are:

- **Super Admin** – The user will have unrestricted access to the *Malwarebytes* console.

- **Administrator** – The user will have full read/edit access to any groups they are assigned. They cannot edit global settings.
- **Read Only** – The user will have read access to any groups they are assigned. They can create and generate reports, receive notifications, but cannot make any system changes otherwise

The bottom menu shows a list of Groups that are available in your *Malwarebytes* console. By default, new users have access to All Groups. If you want to restrict access to specific groups for a new user, scroll through the list and un-check the box to the left of any group to remove the user's access. Removing access to a group prevents a user from seeing any information from endpoints in those groups; they will not appear in the console, nor will they appear in reports that the user generates.

When you have configured the user's access, click **Invite** to send them an email to create an account.

If they do not respond within 14 days, select the user and press **Resend Invite**.












The administrator's account is flagged as the account owner in the console; it cannot be deleted by any user. If you need to change

Endpoints

This screen is the focal point for endpoint management as well as addition and/or deletion of Malwarebytes agents on endpoints. To access this screen from the [Platform Menu](#), click **Endpoints**. The menu option will expand to show two options – Manage Endpoints and Add Endpoints. Click **Manage Endpoints**. A display will appear that is similar to the screenshot shown here.

Endpoints	Status	Operating System	Group	Policy	Last Seen
EPR-DEMO1	🟢	Windows	RSA Group	RSA Test Policy	1 year ago
EPR-DEMO2	🟢	Windows	RSA Group	RSA Test Policy	1 year ago
EPR-DEMO3	🟢	Windows	RSA Group	RSA Test Policy	1 year ago
EPR-DEMO4	🟢	Windows	RSA Group	RSA Test Policy	1 year ago
MB-WIN10-01	🟢	Windows	RSA Group	RSA Test Policy	1 year ago
MB-WIN10-02	🟢	Windows	RSA Group	RSA Test Policy	1 year ago
MB-WIN7PRO-01	🔴	Windows	RSA Group	RSA Test Policy	1 year ago
MB-WIN7PRO-02	🔴	Windows	RSA Group	RSA Test Policy	1 year ago
MB-WIN8-01	🟢	Windows	RSA Group	RSA Test Policy	1 year ago
MB-WIN8-02	🟢	Windows	RSA Group	RSA Test Policy	1 year ago
MIKE-DEMO-01	🟢	Windows	RSA Group	RSA Test Policy	1 year ago
MININT-16Tplee	🔴	Windows	RSA Group	RSA Test Policy	1 year ago

In this screenshot, one group has been added. The Status column shows icons to help quickly identify endpoints that need attention. The table below shows the different status icons that you may see while using the console, along with a brief description. In this example, some endpoints have unresolved suspicious activity, and some endpoints have been isolated. You may read more about these statuses in the [Endpoint Protection and Response](#) section of this guide.

ICON	STATUS
	The endpoint has not run a <i>Malwarebytes</i> scan for a long period of time. A scan should be run to check for threats.
	A scan is pending on the endpoint.
	A scan is currently running on the endpoint.
	The endpoint has threats that were detected during a scan that need to be remediated.
	Remediation of threats is pending on the endpoint.
	The endpoint is actively undergoing remediation.
	The endpoint should be restarted to completely quarantine items found during a scan.
	A restart command was issued to the endpoint and is currently pending.
	The endpoint is restarting and the console is waiting for it to reconnect.
	Suspicious activity was detected on the endpoint. This is only available to <i>Endpoint Protection and Response</i> customers.
	The endpoint is currently isolated. This is only available to <i>Endpoint Protection and Response</i> customers.

You can click any icon to see additional details, or to take action on the endpoint.

Selecting Endpoints

Many customers have large numbers of endpoints under their control. The *Malwarebytes Cloud Console* employs filters to help simplify management tasks. These filters are directly above the Endpoints list. Let's look at each available filter.

Endpoints

Endpoint ^	Search by Endpoint	
Endpoint	Group	Pt
Domain Name		
IP Address/CIDR	RSA Group	R
MAC Address	RSA Group	R
OS Type	RSA Group	R
OS Platform		
Policy Name	RSA Group	R

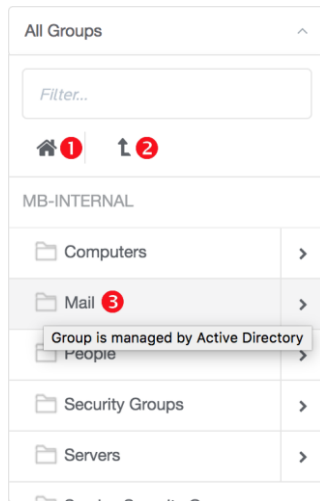
The **Endpoint** pulldown allows a search on criteria specified by the user. For all fields *except* **OS Type** and **OS Platform**, this may be combined with a substring search to narrow the list of endpoints displayed.

When a substring is used, it can represent text anywhere in the selected field, and the display will immediately reflect the search criteria.

Valid choices for **OS Type** are: All, Server or Workstation.

Valid choices for **OS Platform** are All, Windows or MacOS.

Groups



An excerpt of the **Groups** pulldown is shown here. Five groups are visible. All are nested groups, shown by the right arrow.

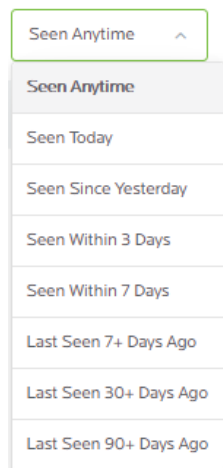
The **Home** button – shown by ❶ – returns visibility to the *All Groups* level, regardless of your depth in the group tree.

The **Back** button – shown by ❷ – returns visibility one level higher in the group tree.

Group Name – shown by ❸ – is an example of three different features for a group named “Mail.”

1. The right arrow indicates **Mail** is a parent to embedded subgroups. Click on the arrow to view those subgroups.
2. The folder icon to the left of the Group name indicates it was imported from Active Directory.

Last Seen



This filter allows selection of endpoints based upon their last contact with the *Malwarebytes Cloud Console*.

All settings here are calendar-based, beginning at midnight of the day specified in the setting.

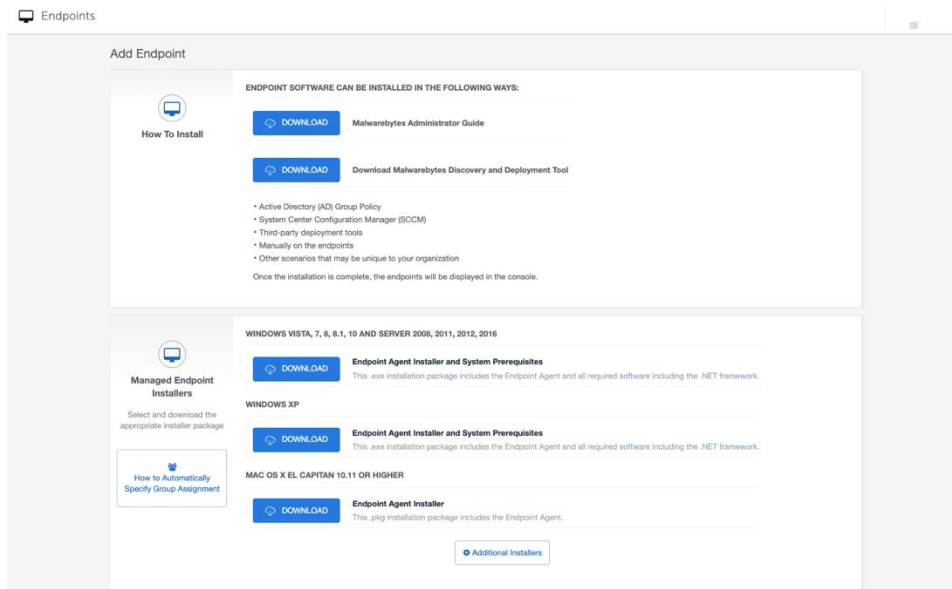
Please note: All times shown are based upon the time zone in the browser being used to access the *Malwarebytes Cloud Console*.

Endpoint Operations

There are several functions which you may perform that are related to endpoints. Access to all functions are available via buttons in the upper right corner of the **Manage Endpoints** screen. Let's look at each function.

Add Endpoints

When this option is selected, a new screen opens with several options. You can also reach this screen by clicking **Add Endpoints** from the **Platform Menu**. Here, you may choose the most appropriate agent installer for your needs, the standalone *Breach Remediation* dissolvable client, or the *Malwarebytes Discovery and Deployment Tool*. By providing installers in this manner, we enable you to use the installation method which you prefer. Please note that endpoints added in this manner are assigned to the Default Group and associated with the Default Policy unless you specify a group. More information on that shortly. A screenshot of the **Add Endpoint** screen is shown here.



If you elect to silently install the *Malwarebytes* agent on a Windows endpoint, that can be performed using one of the following commands shown below. **Please note** that the MSI command is shown on multiple lines due to the length of the command.

```

EXE:    Setup.Full.MBEndpointAgent.exe /quiet
MSI:    msixec /quiet /i Setup.MBEndpointAgent.msi
           NEBULA_PROXY_SERVER=http://<IP>
           NEBULA_PROXY_PORT=<port>
           GROUP=<group_ID>

```

Six variables may be used in conjunction with this command. They are:

```

GROUP
NEBULA_PROXY_SERVER
NEBULA_PROXY_PORT
NEBULA_PROXY_USER
NEBULA_PROXY_PWD
VERIFY_NETWORK

```

Group variable

If you would like to install endpoints via command line and have them join a specific Group, you must use the GROUP variable and provide the Group ID. To locate the Group ID, click the link titled **How to Automatically Specify Group Assignment** on the Add Endpoints screen. A new window will open, showing you all of the groups available in your console. Next to each group is a string of characters, the Group ID. Click the button to the right to copy it to your clipboard. If the Group ID given in the command does not match any groups, the installer will add the endpoint to the Default Group and Default Policy.

Proxy variables

There are four variables for the installer are for you to specify information for a proxy server. If the proxy username or password contains embedded spaces, the username/password should be enclosed in double quotes.

Network variable

The optional "VERIFY_NETWORK" parameter checks connectivity during Endpoint Agent installation.

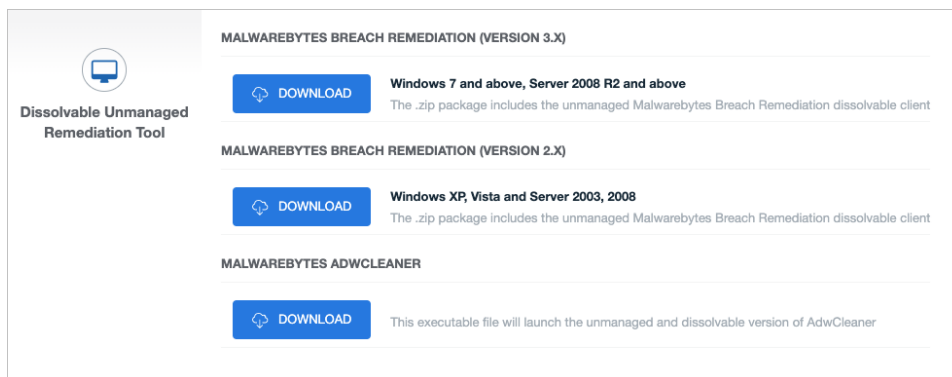
When this parameter is set to “VERIFY_NETWORK=1”, the Endpoint Agent installer checks for network connectivity and successful DNS resolution against the following hosts

- cloud.malwarebytes.com
- sirius.mwbsys.com

Any network failures appear both on-screen and in the installer log, indicating which URL(s) did not pass the check.

Dissolvable Unmanaged Remediation Tools

At the bottom of the Add Endpoint screen is the Dissolvable Unmanaged Remediation Tool section.



Malwarebytes Breach Remediation is our highly effective, dissolvable remediation program for Windows and Mac endpoints. There may be instances when its usage is more appropriate for your needs. You can download the application for your endpoint OS from this screen by clicking **Download**. Documentation is included in the ZIP file.

We have also made our *Malwarebytes AdwCleaner* utility available to you on the same screen. You can click **Download** to obtain the dissolvable executable. Documentation is available from the Malwarebytes website.

- System Administrators typically build machine images to use for rapid deployment. The SysAdmin may wish to load the Malwarebytes agent to the image. Because each Malwarebytes endpoint has a unique identity, this method can result in multiple endpoints sharing the same identity. Microsoft offers a system utility named Sysprep that can strip off the identity of the Malwarebytes agent so that it will become uniquely identified once the deployed image is put into service on a new endpoint. Sysprep is built into all modern Windows operating systems. Full instructions for Sysprep usage can be found on Microsoft’s Technet blog, at:

<https://goo.gl/SwUQKs>

Please note: This shortened URL was used because Microsoft’s Technet URL is extremely long.

Delete

This option removes endpoints from console control, and uninstalls Malwarebytes software from the endpoint itself. This includes the endpoint applications as well as the agent which controls communications between the console and applications. To delete one or more endpoints, select those endpoints and click **Delete**. All deletions in a single group should be performed at the same time before acting on a different group, unless you are performing deletions from the **All Groups** list. Finally, groups whose entire endpoint population have been removed from console management will remain intact.

Please note: When deleting endpoints which are offline, they will be removed from console control immediately, but uninstallation of agents cannot occur until the endpoint returns to online status. If the endpoint comes back online within 90 days of the delete request, uninstallation will occur at that time. If the endpoint comes back online more than 90 days after the delete request was issued, the endpoint will again be shown as an active device in the console.

Move

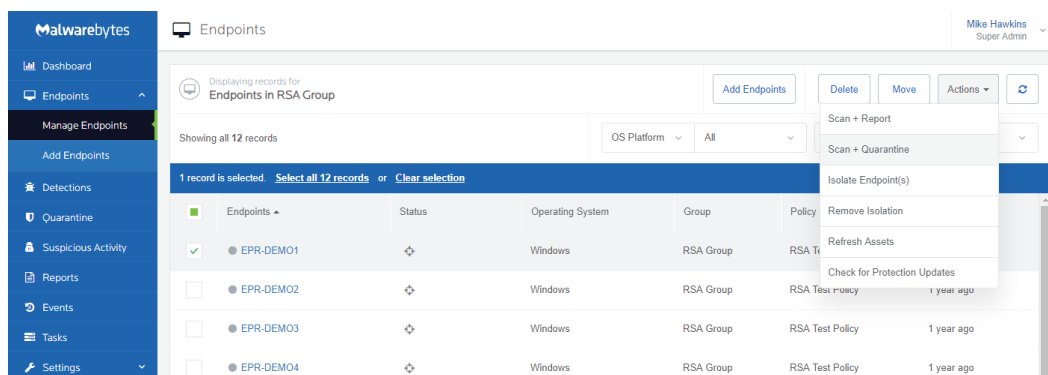
By selecting one or more endpoints, you can move them from one group to another. The value of this will become apparent after we discuss the relationship between endpoints, policies and groups.

Actions

After selecting one or more endpoints, you may perform one of the following actions:

- **Scan + Report** – Check for protection updates, run a threat scan and report the results. This scan method does not remove any threats which were detected during the scan.
- **Scan + Quarantine** – Check for protection updates, run a threat scan, quarantine any threats which were detected, and report scan results.
- **Isolate Endpoint(s)** – Isolate the endpoint(s) from your network environment to prevent an active threat from spreading. The Malwarebytes Console will continue to communicate with the endpoint. This action is described further in the *Endpoint Protection and Response* section of this guide.
- **Remove Isolation** – Restores access to the currently isolated endpoint(s). This action is described further in the *Endpoint Protection and Response* section of this guide.
- **Refresh Assets** – Update hardware/software assets for the endpoint. Unless the administrator has created scheduled scans for this purpose, this may be the only method by which assets are checked.
- **Check for Protection Updates** – Perform an immediate check for protection updates. While scans also perform this task, this assures that real-time protection uses the most recent updates.

To show how this works, an excerpt from the *Endpoints* screen is shown below. One endpoint has been selected. This enabled the buttons in the gray bar (Delete, Move, Actions). From the Actions submenu, we have chosen to use the **Scan + Quarantine** option.



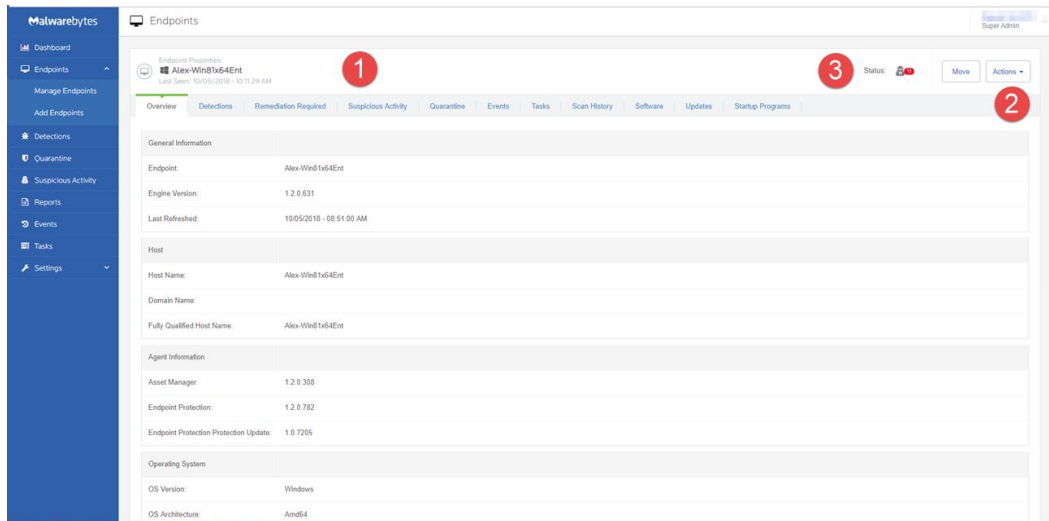
This results in execution of a scan on the selected endpoint. The amount of time required is dependent on the number of files to be scanned on the endpoint. If default policies are used, a Threat Scan will be executed. If malware is detected, it will be quarantined automatically, and a reboot may be required to assure no malware residue remains. There are several policy-related variables which may change this behavior, and they will be discussed later in this guide.

Reload

The last button (which looks like a spinner) allows you to reload the endpoints list. It is only functional after the screen has been fully loaded, and will be grayed out during the loading process.

Endpoint Properties

Additional details for each endpoint can be viewed by clicking the name of an endpoint in the list. This will take you to a screen where you can view detailed information for the endpoint selected, shown below:



You may click items shown in the list to see further information pertaining to the item. The tabs along the top of the screen can be used to view additional reports **1**. You can move the selected endpoint to a new group or run an on-demand scan from the upper right corner **2**. Available actions for you to take are shown as icons along the top **3**. You may return to the list of endpoints at any time using your browser's **Back** button.

Information pertaining to the endpoint is detailed on the following tabs:

- **Overview** – High level configuration information about the endpoint
- **Detections** – Selectable by type and what actions were taken upon their detection
- **Remediation Required** – Detections that still require remediation
- **Suspicious Activity** – Suspicious Activity noted on the detection (only relevant for Endpoint Protection and Response subscribers)
- **Quarantine** – Files that have been quarantined for your protection. Quarantined files cannot negatively affect operation of an endpoint.
- **Events** – Log entries pertaining to activities on the endpoint, selectable by severity
- **Tasks** – Operations requested or completed on the endpoint, selectable by status
- **Scan History** – A record of scans that have occurred up to 30 days ago, and selectable according to results
- **Software** – Licensed software present on the endpoint
- **Updates** – A record of operating system updates that have been installed on the endpoint
- **Startup Programs** – Programs that execute upon startup of the endpoint

On all but the last three tabs, you can select individual items and get further detail on all information contained there. Of particular interest is new functionality on the **Quarantine** tab which allows quarantined files older than thirty (30) days to be restored or deleted. Many users prefer to not delete quarantined files until they can determine that performance of their endpoint will not be negatively affected by the absence of those files. Please note that all dates and times shown here are relative to browser settings of the Malwarebytes Cloud Console user.

Groups

A **group** is a collection of endpoints. Initially there is a single group, called the **Default Group**. You cannot delete the **Default Group**. You may add a new group at any time. When adding a new group, you may choose to create it as a subset of an existing group. You can rename a group by first selecting the group, then overwriting its existing **Group Name**. Here, you will associate a group with a policy. This defines protection characteristics for endpoints that are members of that group. You may create several groups which are similar in nature. It is your best interest to use an easily discernable naming convention.

You can find this in **Settings ► Groups**.

You may also delete a group if no endpoints are associated with that group. If a group has subgroups associated with it, deleting the top-level group will also delete the subgroups.

Adding Endpoints to Groups

The last piece of the puzzle is to specify members of the newly-added group. The group has been tied to a policy, and the endpoint will now be tied to the same policy for as long as it is a member of that group. Referring back to the screenshot in *Endpoints* (page 11), select one or more endpoints and click the **Move** button, which appears directly above the list of endpoints. A pulldown menu will appear which displays the names of available groups. Select the desired group to make the endpoint a member of that group.

Until you have performed the above action, newly added endpoints are associated with the Default Group.

Policies

A policy defines *Malwarebytes* behavior when running a scheduled scan, using Real-Time Protection, or monitoring Suspicious Activity. You can access policies by clicking **Settings ► Policies**. Initially there is a single policy, called the Default Policy. You cannot delete the Default Policy.

To create a new policy, click **New** in the upper right. A window will open. The top section of this window contains policy settings that apply to both Windows and Mac operating systems. The bottom half contains settings that are specific to the operating system selected at the time. We will begin by discussing the features shared by both operating systems.

Policy Information

Each policy must have a unique name. You can rename a policy at any time by editing the Policy Name field.

Endpoint Interface Options allow you to customize how your endpoint users see and interact with the *Malwarebytes* interface.

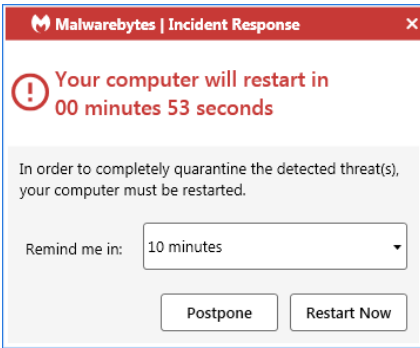
- **Show Malwarebytes icon in notification area** – Allows the endpoint user to see a Malwarebytes icon in the taskbar. Hovering over the icon also displays a very brief program status message.
- **User Threat Scan** – Allow endpoint users to run Threat Scans. No other scan types are available to the end user, and all threats detected during the scan will be quarantined automatically. Endpoint users may cancel scans which they have initiated, but have no control over scheduled scans or on-demand scans initiated by the administrator. User-initiated scans will appear as “On demand” scans on the Console Events screen.
- **Threat Scan Shortcuts** – Creates Start Menu and desktop shortcuts for end-users on Windows endpoints. User Threat Scan must be enabled to enable this setting.
- **Show Malwarebytes option in context menus (Windows only)** – Allow endpoint users to scan individual files by right clicking them. Context menu scans share the same behavior as Threat Scans run by endpoint users.
- **Display real-time protection notifications** – Shows real-time notifications in the corner of your screen. These are only available if you have enabled Real-Time Protection.

Both Windows and Mac endpoints can use one policy. You can configure both General options and specific Settings for each Operating System independently.

General

These options are available to all endpoints. They will not change what threats *Malwarebytes* detects, but can improve your experience using the application.

Reboot Options control how *Malwarebytes* will handle requests to restart your endpoints. Remediation does not end with quarantine of the visible threat. Malware may leave behind remnants that can activate later, as well as copies of itself in memory. For this reason, a reboot is sometimes required to complete removal. When needed, you can choose whether the endpoint restarts, and when. Not restarting the endpoint may leave the user in jeopardy. The following screen allows you to provide information to the user about the restart.



When you elect to allow a reboot, you may set a delay before this reboot occurs, as well as a user-definable text message that displays to the endpoint user. Users will receive a notification of the pending reboot. You may also allow endpoint users to postpone the reboot by 10, 20 or 60 minutes. They will receive a final notice one minute before the reboot occurs. If the postponement is greater than 10 minutes, they will also receive a warning at the 10-minute point. They can make that postponement indefinitely. All postponements generate an [Audit](#) event that appears on the [Events](#) screen.

The screen shown here is from a Windows endpoint. The Mac version

In addition to remediation-related reboots, reboots may trigger due to installations, uninstallation and updates. Your choice for this setting applies to all of these processes.

Startup Options control how services on your Windows endpoints behave. If enabled, all services on Windows endpoints will increase the amount of time until they timeout during startup. You can further customize how much longer you want the services to wait. This setting is useful in situations where you have many services running at startup that are competing for resources, or when you have other antivirus software installed – allowing additional time can prevent these services from failing to start.

Asset Management allows *Malwarebytes* to collect information regarding hardware and software from your endpoints. You can choose to collect all, some, or none of this data. This will not affect your use of *Malwarebytes*, but is available to you as a convenient way to help administrate your environment. Choosing to collect asset data from Windows endpoints does not influence data collected for Mac endpoints and vice versa.

Protection Updates determines how often *Malwarebytes* will poll our infrastructure servers for updates (both protection updates and program updates). The default check-in is set for one hour. Endpoints will check for updates prior to running a scan as well.

Policy Settings

Here you can choose how to handle threats detected during scans to best suit your needs. You may also change specific behaviors for [Real-Time Protection](#) if you are a *Malwarebytes Endpoint Protection* subscriber. Some features are not available for Mac endpoints.

FEATURE	WINDOWS	MAC
Scheduled Scans	●	●
Manual Scans	●	●
Real-time Filesystem Protection	●	●
Malicious Website Blocking	●	■
Payload Analysis	●	■
Application Hardening	●	■
Application Behavior Protection	●	■
Exploit Mitigation	●	■
Anomaly Detection Machine Learning	●	■
Ransomware Mitigation	●	■
Suspicious Activity Monitoring	●	■
Endpoint Isolation	●	■
Rollback	●	■

KEY TO SYMBOLS	
●	Supported feature
■	Unsupported feature

Scan Options

There are a number of settings here which may be defined. These are a function of the scan method selected, as well as the endpoint family being scanned. These settings apply to Threat scans only:

- **Scan Rootkits:** Scans will search for rootkits. This may increase scan duration. The default setting is off.
- **Scan within Archives:** Scans will examine the contents of compressed folders. The default setting is on.
- **Anomalous File Detection:** Scans will utilize a signature-less detection method to check for file anomalies. The default setting is on.

These settings apply to Threat Scans, Hyper Scans, and Real-Time Protection events:

- **Potentially Unwanted Programs (PUPs):** Specifies whether PUPs will be treated as malware, or ignored.
- **Potentially Unwanted Modifications (PUMs):** Specifies whether PUMs will be treated as malware, or ignored. This is not applicable to Mac endpoints.

Scan Priority

Most users schedule scans to occur during times when their computer is typically idle. Execution of a manual scan may be performed as a matter of convenience, or while other tasks are being executed. Scans may impact the performance of lower-powered computers. This setting you to determine the priority of the scan on the system. Lower priority scans will require more time to execute while affecting other operations to a lesser degree. High priority allows the scan to be executed at the maximum speed which the computer allows, but may affect other tasks. **This option applies only to Windows endpoints.**

Endpoint Protection

The following is a description of the types of real-time protection offered by *Malwarebytes Endpoint Protection*. You should keep in mind that not all Real-Time Protection features are available for Mac, as described earlier on page 14. A *Malwarebytes Incident Response* subscription does not include these features. To use Real-Time Protection, you must enable it in a policy under the Policy Settings menu. When you enable a Real-Time Protection layer, the Endpoint Agent will install the Real-Time Protection Plugin for you. You do not need to redeploy or reinstall any software on your endpoints.

Policy Settings

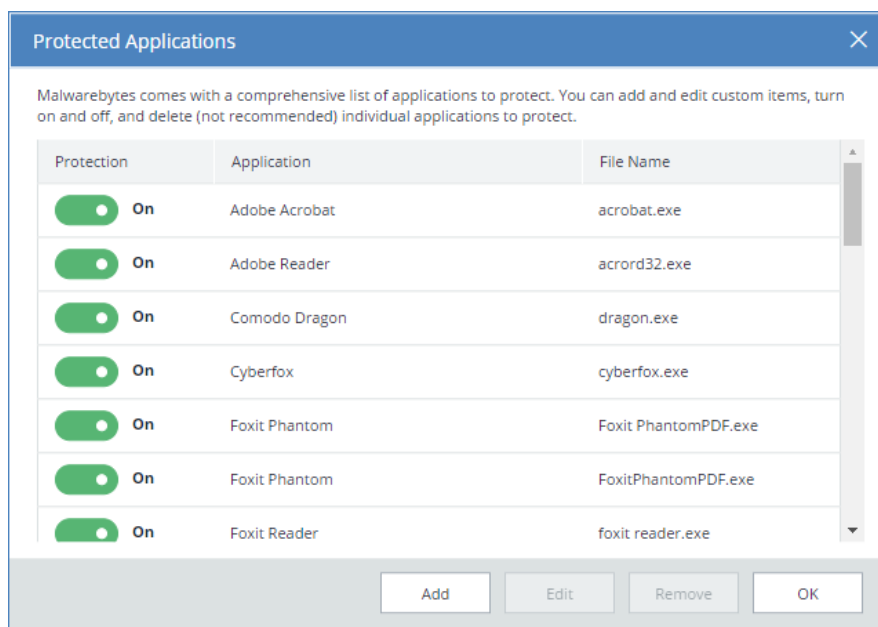
You can choose to enable some or all of the protection layers in your policy. We advise using each layer to help protect your endpoints from threats at multiple points. However, your needs may vary and it is up to you to determine which layers are best for your environment. A description of each layer, along with any additional settings that apply to that layer, follows.

Web Protection

This layer protects users by blocking access to/from Internet addresses which are known or suspected of engaging in malicious activity. This feature does not treat different protocols differently. It does not distinguish between your favorite game being served on one port and a potential malware source being served on another. Should you choose to disable this feature, you could inadvertently compromise your computer's safety.

Exploit Protection

This layer uses multiple protection layers to guard against attempted exploits of vulnerabilities in legitimate applications. When applications are launched by the user, exploit protection is also launched as a shield. This protection will often detect and neutralize attacks that go undetected by other security applications. It is on by default.



Many popular applications have been pre-configured for shielding. A screenshot is shown above. You can change which applications are protected by clicking **Manage Protected Applications**. To change the status of any

application, either use the Protection slider, or double click either the Application or File Name. You may add protection for other applications, and edit specifications for any defined shield. The Edit screen is shown here.

The Application Name can be the same as the Application File, or a more easily recognizable name. The Application File is the executable file you wish to protect. Select a Program Type which most closely resembles the purpose of the application. If you are unsure, select **Other**.

The same screen is used to edit existing entries.

Advanced Settings allows configuration or fine-tuning of some exploit mitigations. Please note that not all exploit mitigations can be modified here. The pre-defined defaults strike the best possible balance between performance and protection. Those exploit mitigations available for configuration have been deemed to be relevant to be tuned by users in scenarios where certain non-standard or heavily customized computing environments result in unexpected behavior (e.g. false positives).

WARNING: Improper changes to these settings may result in improper performance and protection. Make changes only when required to do so by a Malwarebytes Customer Success specialist.

Settings on the Application Hardening tab refer to exploit mitigation techniques whose objective is to make protected applications more resilient against vulnerability exploit attacks, even if those applications have not been patched to the latest available fixes by their respective vendors. A screenshot shows the organization of the tab.

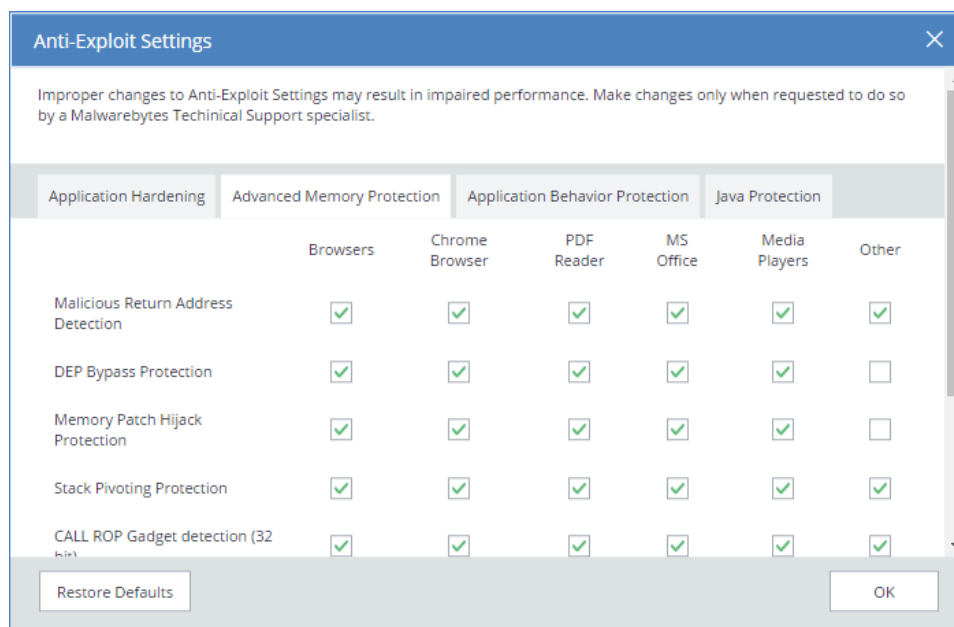
	Browsers	Chrome Browser	PDF Reader	MS Office	Media Players	Other
DEP Enforcement	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Anti-HeapSpraying Enforcement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dynamic Anti-HeapSpraying Enforcement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BottomUp ASLR Enforcement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Disable Internet Explorer VB Scripting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

At the bottom of the dialog are 'Restore Defaults' and 'OK' buttons.

- **DEP Enforcement** is tasked with activation of permanent Data Execution Prevention (DEP) in those applications that do not do this by default.

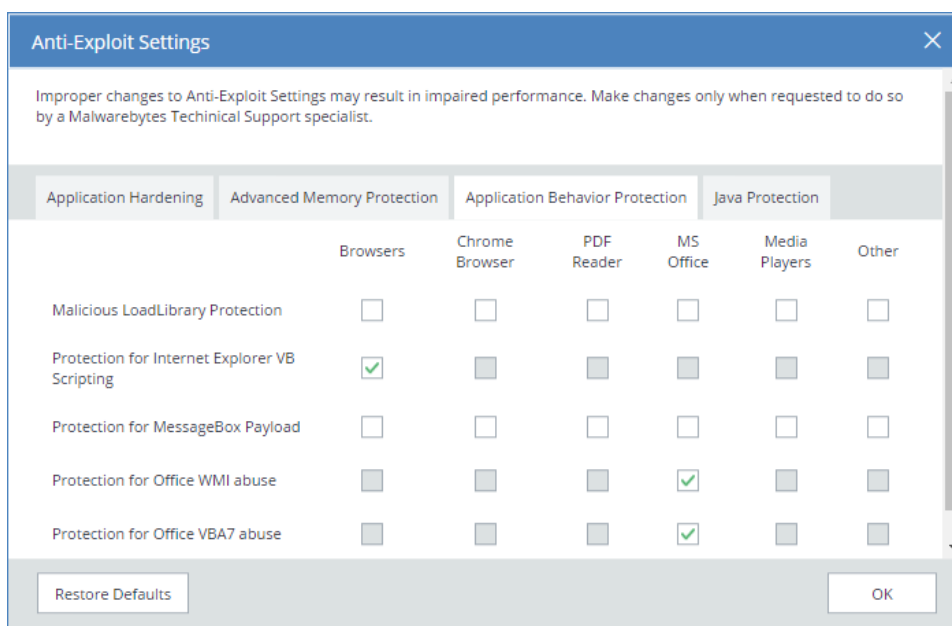
- **Anti-HeapSpraying Enforcement** is designed to reserve certain memory ranges, to prevent them from being abused by Heap-Spraying attack techniques.
- **Dynamic Anti-HeapSpraying Enforcement** analyzes the memory heap of a protected process in order to find evidence of malicious shellcode on the heap using heap spraying techniques.
- **Bottom-Up ASLR Enforcement** is tasked with addition of randomization to the memory heap when the process starts.
- **Disable Internet Explorer VB Scripting** is tasked with preventing the deprecated Visual Basic scripting engine from loading. The scripting engine is frequently abused by exploits. This setting applies only to the browser family.
- **Detection of Anti-Exploit fingerprinting attempts** is a technique which detects attempts by popular exploit kits (e.g. Angler) of fingerprinting the victim machine to determine if it should be attacked by its exploit arsenal.

Advanced Memory Protection refers to exploit mitigation techniques whose objective is to prevent exploit shellcode from executing its payload code in memory.



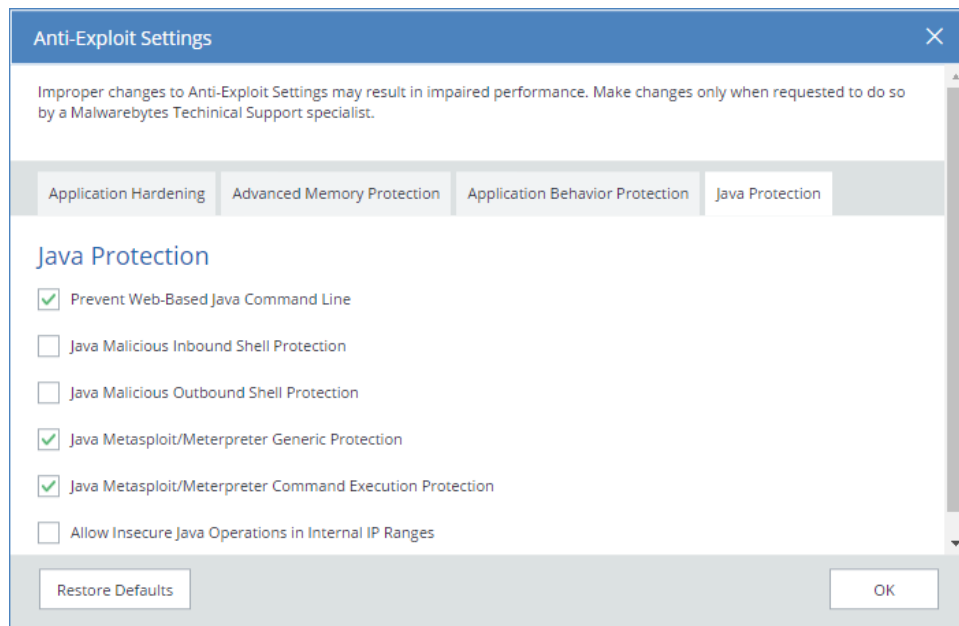
- **Malicious Return Address Detection** – also called “Caller” mitigation – detects if the code is executed outside of any loaded module.
- **DEP Bypass Protection** is tasked with detecting attempts to turn off Data Execution Prevention (DEP).
- **Memory Patch Hijack Protection** is designed to detect and prevent against attempts to use WriteProcessMemory to bypass Data Execution Prevention (DEP).
- **Stack Pivoting Protection** is used to detect and prevent exploit code from creating and utilizing a fake memory stack.
- **ROP Gadget detection** is tasked with detection and prevention of Return Oriented Programming (ROP) gadgets when a Windows API is called. Provisions are made for individualized protection of CALL and RETN instructions.

Application Behavior Protection settings provide mitigation techniques designed to prevent the exploit payload from executing and infecting the system. This represents the last line of defense if memory corruption exploit mitigations from previous layers are bypassed. This layer is also tasked with detecting exploits that do not rely on memory corruption (e.g. Java sandbox escapes, application design abuse exploits, etc.) and blocking their malicious actions.



- **Malicious LoadLibrary Protection** prevents delivery of a payload library from a UNC network path.
- **Protection for Internet Explorer VB Scripting** is designed to detect and prevent exploits related to an application design vulnerability known as CVE-2014-6332. For further information on this exploit, please refer to <https://web.nvd.nist.gov/view/vuln/detail?vulnId=CVE-2014-6332>.
- **Protection for MessageBox Payload** prevents exploits from delivering a messagebox as its payload. It is turned off by default as these payloads are normally only used in proof of concepts and do not cause any harm.
- **Protection for Office WMI abuse** protects against macro exploits in Microsoft Office using Windows Management Instrumentation (WMI).
- **Protection for Office VBA7 abuse** protects against macro exploits in Microsoft Office using Visual Basic for Applications.

Java Protection refers to mitigation techniques which are unique to exploits commonly used in Java programs.



- **Prevent Web-Based Java Command Line** protects against web-based Java programs issuing system commands.
- **Java Malicious Inbound Shell Protection** guards against remote shell exploits whose payloads rely on inbound sockets.
- **Java Malicious Outbound Shell Protection** guards against remote shell exploits whose payloads rely on outbound sockets.
- **Java Metasploit/Meterpreter Generic Protection** is designed to generically detect and prevent attempts to use the Metasploit Java/Meterpreter payload.
- **Java Metasploit/Meterpreter Command Execution Protection** is tasked with detecting and blocking commands in an established Java/Meterpreter session.
- **Allow Insecure Java Operations in Internal IP Ranges** is primarily used to allow insecure internal tools and applications used within a corporate network without compromising on protection from external Java threats.

Malware Protection

This feature protects against infected code/files that try to execute on your computer. These files may have been downloaded, imported from a USB drive, or received as an email attachment. Malware Protection is on by default. While we do not recommend disabling this protection mechanism, there may be times when it needs to be done to troubleshoot compatibility issues that arise with anti-virus updates or computer startup problems. If either situation does occur, start your computer in Safe Mode, disable Malware Protection, isolate and correct the issue, then turn Malware Protection back on. Malware Protection is always enabled on Macs with Real-Time Protection enabled.

Behavior Protection

This layer provides protection against both known and unknown ransomware threats. This protection is not available for users of Windows XP or Windows Vista. While all other protection features may provide some degree of protection against ransomware, well-crafted ransomware may go undetected until it attempts to initiate its attack. As many computer users have found, there is little or no remedy available after the fact. We strongly recommend that ransomware protection be turned on at all times. It is on by default.

Startup Options

These settings define Real-Time Protection behavior when *Malwarebytes* starts.

- **Delay Real-Time Protection when *Malwarebytes* starts:** There may be times when Real-Time Protection services conflict with services required by other applications. When this is the case, turn this setting on. You may also adjust delay timing. You will need to experiment with the specific delay necessary to compensate for any conflicts that are noted. This must be done on a case-by-case basis. The delay setting is adjustable from 15-180 seconds, in increments of 15 seconds.
- **Enable Self-Protection Module:** This setting controls whether *Malwarebytes* creates a *safe zone* to prevent malicious manipulation of the program and its components. Checking this box introduces a one-time delay as the self-protection module is enabled. While not a negative, the delay may be considered undesirable by some users. When unchecked, the "early start" option which follows is disabled.
- **Enable Self-Protection Module Early Start:** When self-protection is enabled, you may choose to enable or disable this option. When enabled, the self-protection module will become enabled earlier in the computer's boot process – essentially changing the order of services and drivers associated with your computer's startup. This setting is disabled unless [Enable Self-Protection Module](#) is turned on.

Windows Action Center

You may have noticed an icon in your system tray with a red X superimposed over a white flag. That is a status indicator for the Windows Action Center, which tells you when your computer has a security issue that needs your attention. *Malwarebytes* can now be registered as the security solution on your computer. Windows Action Center integration is not supported for endpoints using a Server operating system. There are three settings available, which will be abbreviated here for easier reading. Brief descriptions for the meaning of each setting are also provided.

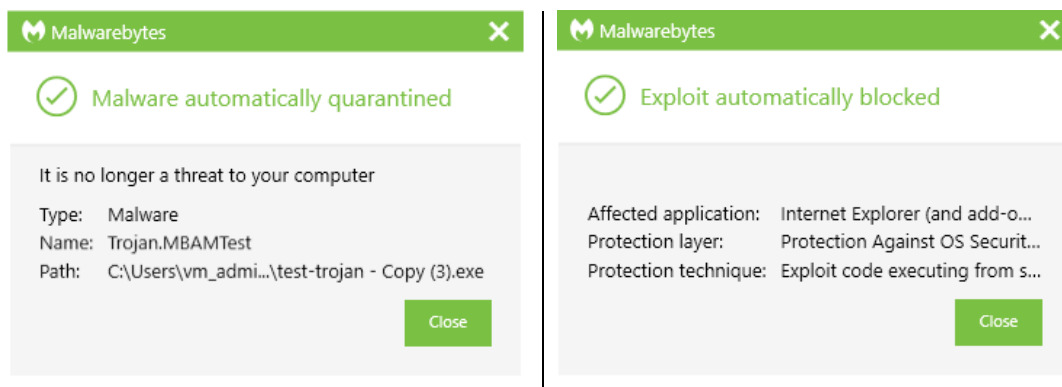
- **Let *Malwarebytes* choose whether to register:** *Malwarebytes* will determine whether it should be registered in Action Center. The program will not register when Microsoft Security Essentials is in use on a Windows 7 or older operating system. It will also not register when Windows Defender is used on a Windows 8 or newer OS.
- **Never register *Malwarebytes*:** *Malwarebytes* program status will never appear in Action Center.
- **Always register *Malwarebytes*:** *Malwarebytes* program status will always appear in Action Center.

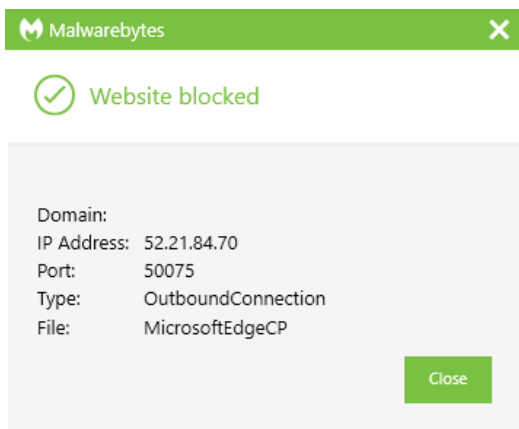
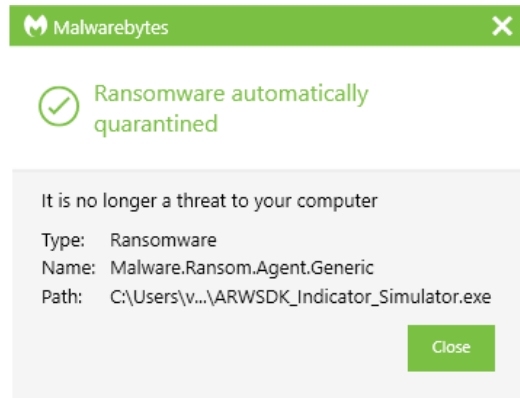
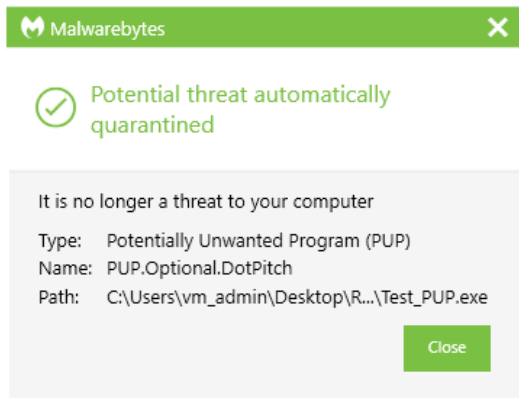
Suspicious Activity Monitoring

These features are available for subscribers to *Malwarebytes Endpoint Protection and Response*. We discuss them further on page 22.

Real-Time Protection Notifications

As a function of real-time protection, *Malwarebytes* has the capability to provide notifications on the endpoint in real-time when threats have been detected. This is dependent on notification settings you made in **Settings ► Policy Information**.





If real-time protection notifications are enabled in the policy, they will remain on-screen until closed by the user.

Endpoint Protection and Response

If you are a *Malwarebytes Endpoint Protection and Response* subscriber, you can enable the Suspicious Activity Monitoring and Endpoint Isolation features and associated plugin. These features are only available for endpoints running Windows 7 or higher. Suspicious Activity Monitoring is not available on Server operating systems, but you may enable Endpoint Isolation on servers using Server 2008 R2, Server 2012 R2, or Server 2016. If you enable this feature on your endpoints, *Malwarebytes* will monitor process, registry, file system, and network activity for behavior that may indicate a malware infection. Behavior is logged and sent to our servers to compare against an ever-growing list of malicious behaviors and patterns. If the activity matches a pattern we have marked as suspicious, we will generate an alert in your *Malwarebytes* console. We label alerts for these items as Suspicious Activity to help you distinguish them from known malware detected by scans or real-time protection. These alerts are usually, but not always, indicative of a malware infection. To begin, you must enable Suspicious Activity Monitoring via your Policy.

Please note. Only users with Super Admin roles will be able to view Suspicious Activity detections and associated actions.

Policy Settings

Suspicious Activity Monitoring is turned off by default. To use this feature, you must enable it in a Policy, as described on page 13. When you enable Suspicious Activity Monitoring, the Endpoint Agent will install the plugin for you. You do not need to redeploy or reinstall any software on your endpoints. If you turn this feature on, *Malwarebytes* will begin to analyze behavior from your endpoints to help detect potentially dangerous or anomalous files. You will have the option to roll back damage done by a threat, as well as to isolate endpoints from the rest of your network to help keep threats from spreading. Let's discuss these options now.

Please note. To facilitate this analysis, Malwarebytes will leverage machine learning models as well as analysis from cloud systems. We recommend that you reserve 1.1Mbps (Megabits per second) of network traffic for every 100 endpoints you enable Suspicious Activity Monitoring on. This will help ensure optimal performance of the feature.

Aggressive Mode

Malwarebytes uses an advanced machine learning model to detect anomalous files via Suspicious Activity Monitoring. As files and processes run on your endpoints, any suspicious activity they perform is compared to a threshold. When a process performs enough suspicious activity to cross the threshold, *Malwarebytes* will take action. If you enable Aggressive Mode, *Malwarebytes* will adjust the model to lower the threshold for when a process is flagged as suspicious. Enabling this can help protect your systems against additional unknown threats, but you may see an increase in False Positives with this mode enabled. We advise that you only enable this setting for your most sensitive assets.

Rollback

This setting is available once you enable Suspicious Activity Monitoring. The Rollback feature is dependent on activity monitoring – you **must** enable monitoring to allow for Rollback. Once Rollback is enabled, *Malwarebytes* will create a local cache on the endpoint to store changes to files on the system. The application uses this cache to help revert changes caused by a threat. Endpoints typically use 200MB – 500MB for the cache, depending on usage and how you configure Rollback. Two options exist to customize Rollback in your environment. They are:

- **Rolling time to store changes** – This setting determines how long *Malwarebytes* will store information in the cache. Increasing this time will increase the size of the cache on your endpoints, as they will store any changes to the endpoint in the time window you specify. The default value is 48 hours.
- **Maximum size for individual file backups** – This setting controls which files are saved in cache based on size. The default setting is 20MB – meaning that any file larger than 20MB will not be saved in cache. Increasing the maximum file size will increase the size of the cache.

ROLLBACK

Allow for Rollback of files modified by any suspicious activity

ON

Rollback (Rolling time to store changes)

24 Hours

48 Hours

Max 72 Hours

Maximum size for individual file backups

1 MB

20 MB

Max 100 MB

By enabling Rollback, you allow *Malwarebytes* additional options to help recover damage caused by threats on your endpoints. In conjunction with our existing Malware Removal Engine, the Rollback Cache allows the Endpoint Agent to restore files that malware removed or encrypted.

Please Note: The above settings are available to Super Admins only. All other users with access to policies are limited to view existing settings.

Endpoint Isolation

You can enable Endpoint Isolation independently from Suspicious Activity Monitoring and Rollback. Once enabled, Endpoint Isolation allows you to temporarily prevent threats from spreading between endpoints by restricting their communication or access. An isolated endpoint will always be able to communicate to the *Malwarebytes* server, and will always allow *Malwarebytes* processes to run. You can customize the message and a custom graphic to be displayed on an isolated endpoint, as shown here.

General

Settings

ENDPOINT ISOLATION

Lock/Unlock Endpoints:

Allow for Locking/Unlocking of Endpoints

ON

Isolation Title:

Malware or suspicious application behavior has been detected on this computer.

Maximum 80 Characters

Isolation Message:

Message to display to end-users when an endpoint is isolated

Your system has been locked by the IT Department. Please contact the Helpdesk for further information.

Maximum 255 Characters

Custom Icon Image:

Icon to display on the custom message screen

DRAG A FILE TO UPLOAD

CHOOSE A FILE

File Requirements:

FILE TYPE:

BMP

OPTIMAL FILE SIZE:

150PX BY 150PX

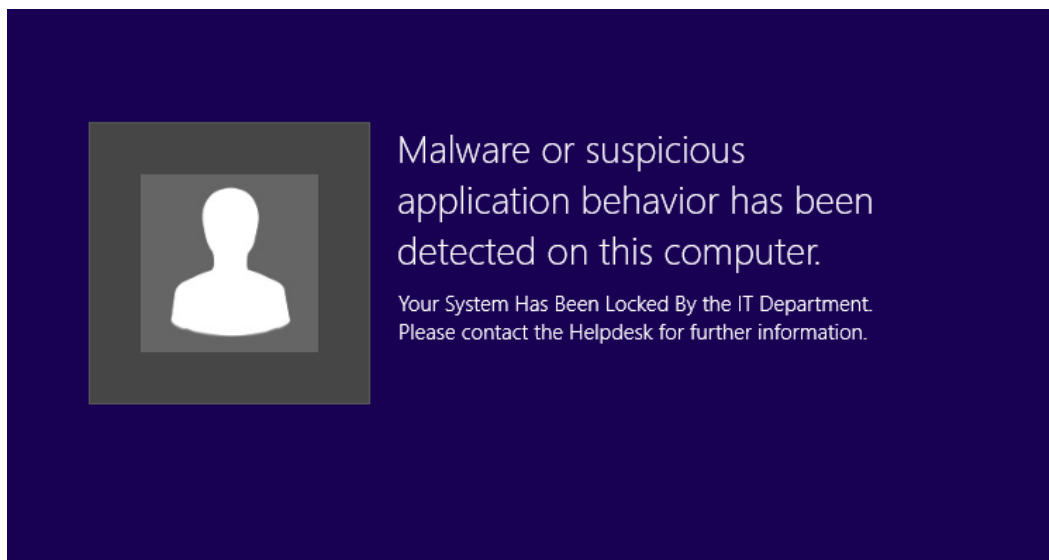
FILE SIZE:

2MB (maximum)

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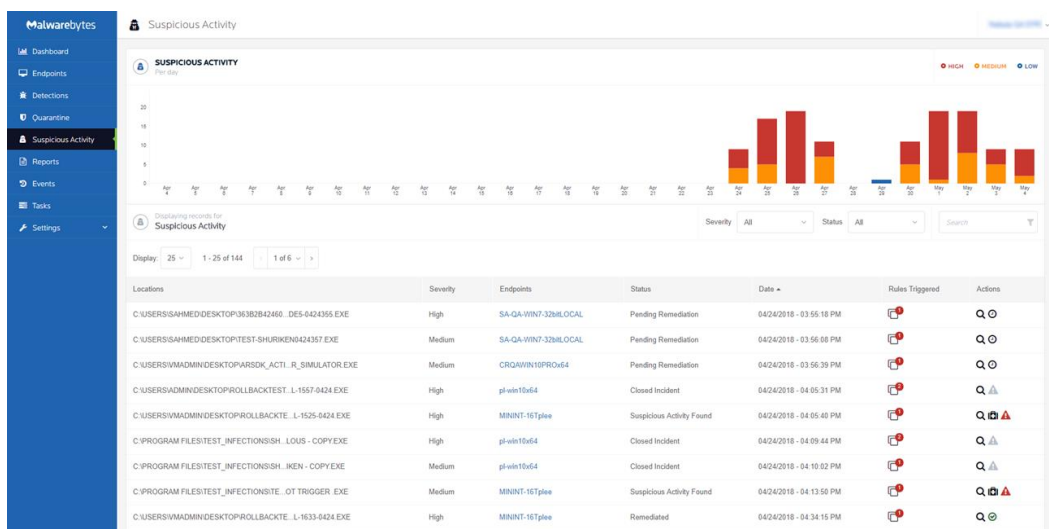
Customization becomes available to the Super Admin or Group Admin once Endpoint Isolation has been enabled. Either choose a file – using the Explorer-like construct – or drag and drop a file onto the screen area as shown above. There are strict limitations imposed on the pixel size of the image. If you attempt to use an image which is larger than the maximum dimensions, an error message will be displayed and the image will be rejected. An example screenshot of what an end user will see is shown below. It uses the default isolation message and image.



Please note that endpoints already being isolated when customization occurs will continue to see “old” messaging until they are removed from isolation and re-isolated. Finally, please remember to save changes to the specific policy that you have just customized. Details on how to perform isolation are in the following section of this guide.

Managing Suspicious Activity

Now that you have configured Suspicious Activity Monitoring, let’s discuss how you can act on any activity that may appear. The central hub for you to access any Suspicious Activity can be found by clicking the Suspicious Activity tab from the left menu. Below is a screenshot of the Suspicious Activity menu.



The bar graph will display the number of activities detected, broken down by their severity. *Malwarebytes* automatically categorizes and assigns severity based on the nature of the behavior detected. The console will display

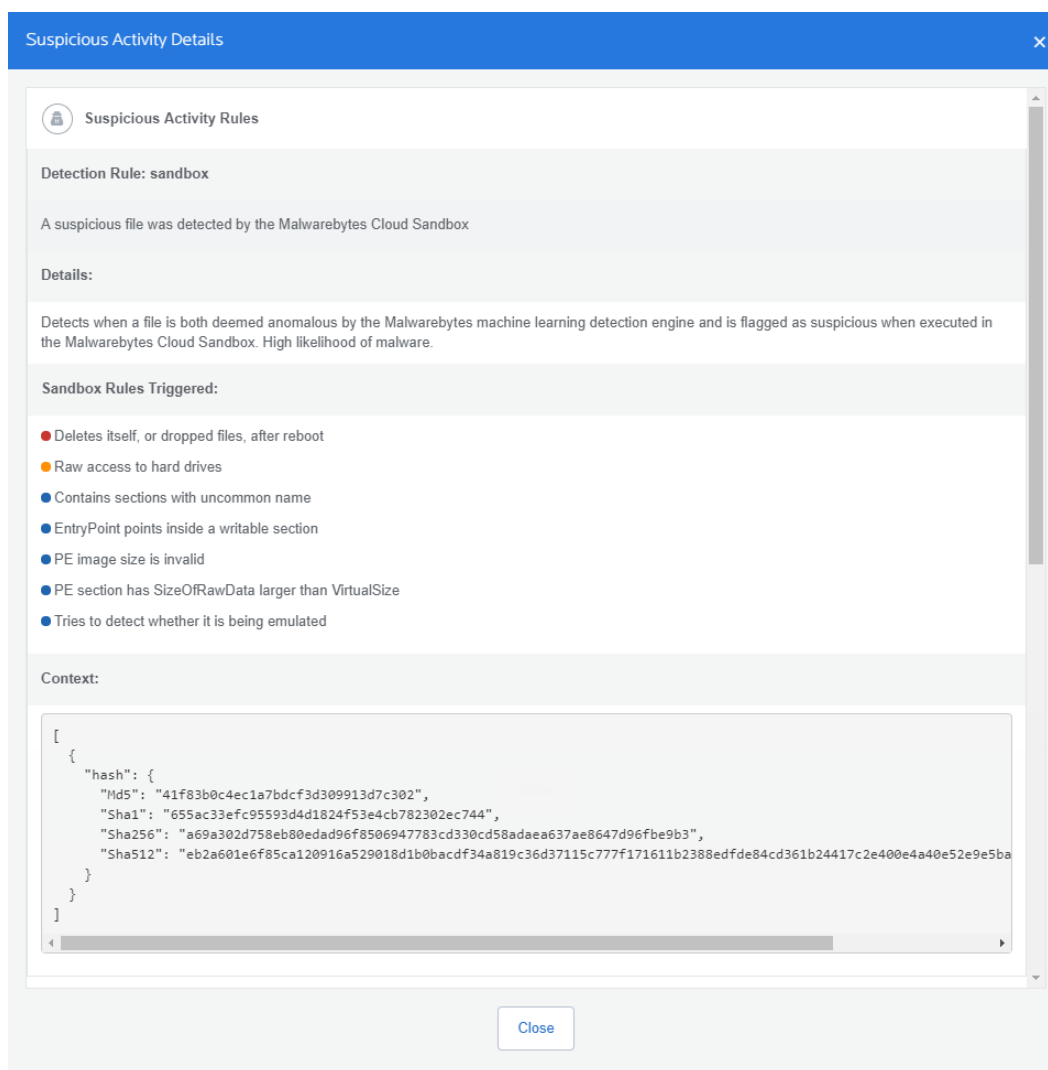
the highest severity of any given process. If the endpoint plugin detects multiple behaviors from a process, you will need to open the activity details to see each of them. Each severity has an associated visual cue: low severity behaviors are blue, medium severity behaviors are yellow, and high severity behaviors are red. By default, the list of activities is sorted by Date. You can change the sort order by clicking the column headers. Not all columns are available for sorting.

Activity Details

When an endpoint detects suspicious activity, *Malwarebytes* will show the location of the originating process, the endpoint associated, the rules triggered, and the actions available. Clicking the endpoint name will bring you to the details screen for that endpoint. Clicking the icon under *Rules Triggered* will bring you to a screen with detailed information on the behaviors that the endpoint agent detected.

Locations	PID	Date	Rules Triggered
<input type="radio"/> C:\USERS\VMADMIN\DESKTOP\TEST_RULES-1842-8563.EXE	4664	05/03/2018 - 06:43:00 PM	This activity triggered 38 rules across 2 items. Click to hide details.
<input type="radio"/> C:\USERS\VMADMIN\DESKTOP\TEST_RULES-1842-8563.EXE	4664	05/03/2018 - 06:42:58 PM	Add Exception Task Scheduled Process Killed
<input type="radio"/> C:\WINDOWS\SYSWOW64\CRHOME.EXE	8748	05/03/2018 - 06:43:02 PM	Run Suspicious File

The screen will show suspicious activities by their parent process **1**. Next to each parent process is a radio button – click this to see more information in the Process Graph, described on the following page. You can click the + to expand the parent process and show any child processes created **2**. Each child process will display the individual behaviors that *Malwarebytes* detected **3**. You can click any of these colored boxes to learn more about the behavior. If a process has a large number of behaviors associated with it, you will need to click the ellipses (•••) to the right of the screen **4**. If you click on any individual behavior, you will see a screen showing you more information. You can see what the endpoint detected and why it is suspicious. You also will see the specific context of the behavior from the endpoint.



The context shown will depend on the suspicious behavior detected and the rule that behavior triggered. In the example shown, the process was detected because it launched a suspicious file. The context shows you the run command, as well as the file that was opened. Different rules will show different contextual information to help you understand the specific reason why *Malwarebytes* detected a process. If our Cloud Sandbox detected the process, you will see a list of all sandbox rules that the detection triggered.

Process Graph

When we detect suspicious behavior, it is often not clear what happened based off log data. The Process Graph helps provide additional context so you can understand what exactly a process did. This will help you better decide if the behavior is actually malicious, or just unusual. To begin, select the parent process of the activity you want to investigate further using the radio button to the left of the process name. The Process Graph will appear in the lower section of the screen.



The main display of the graph shows a visual representation of the process ❶. Child processes or injected processes will appear as new branches from the parent. Details on the parent process, including the endpoint name, process path, PID, and the total time the infection was left unresolved on the system, are shown above the graph ❷. If the graph has many processes, you can navigate with your mouse, or you can use the controls along the right side of the screen ❸. The controls allow you to zoom in/out, reposition the graph, or expand/collapse additional context. If you want to view additional details on a process, click the node to select it. Additional context and information will appear to the right ❹. This pane will show you additional details such as the command and switches used to launch the process. You can click the links under Activities ❺ to view specific file operation details.

Suspicious Activity - Raw Activities Details

Process path: C:\Users\vmadmin\Desktop\RANDOMWARE\RANDOMWARE.EXE
Activity type: File Rename

Display: 50 1 - 50 of 68 1 of 2

Timestamp	Object Path	New Path
08/14/2018 - 11:11:32 AM	C:\Users\vmadmin\Desktop\Lite_Files_for_Ransomware_Testing - Copy (3)\SampleWord2003Doc.doc	C:\Users\vmadmin\Desktop\Lite_Files_for_Ransomware_Testing - Copy (3)\SCRPPYWA-15E4-E06T-A0F8-0887B20A29.zzzzz
08/14/2018 - 11:11:33 AM	C:\Users\vmadmin\Desktop\Lite_Files_for_Ransomware_Testing\SampleExcel2003File.xls	C:\Users\vmadmin\Desktop\Lite_Files_for_Ransomware_Testing\SCRPPYWA-15E4-E06T-8E53-60451A7E38E9.zzzzz
08/14/2018 - 11:11:33 AM	C:\Users\vmadmin\Desktop\Lite_Files_for_Ransomware_Testing - Copy\SampleExcel2003File.xls	C:\Users\vmadmin\Desktop\Lite_Files_for_Ransomware_Testing - Copy\SCRPPYWA-15E4-E06T-8C77-36D5105BAF4B.zzzzz
08/14/2018 - 11:11:33 AM	C:\Users\vmadmin\zenmap\zenmap.db	C:\Users\vmadmin\SCRPPYWA-15E4-E06T-8178-36A26176DB1D.zzzzz
08/14/2018 - 11:11:33 AM	C:\Users\vmadmin\Desktop\Lite_Files_for_Ransomware_Testing - Copy (3)\SamplePDF.pdf	C:\Users\vmadmin\Desktop\Lite_Files_for_Ransomware_Testing - Copy (3)\SCRPPYWA-15E4-E06T-A103-152626BE6A06.zzzzz
08/14/2018 - 11:11:33 AM	C:\Users\vmadmin\Desktop\myscan.xml	C:\Users\vmadmin\Desktop\SCRPPYWA-15E4-E06T-4536-706B185D894B.zzzzz
08/14/2018 - 11:11:33 AM	C:\Users\vmadmin\Desktop\Lite_Files_for_Ransomware_Testing - Copy (3)\vincent-camacho-687392-unsplash.jpg	C:\Users\vmadmin\Desktop\Lite_Files_for_Ransomware_Testing - Copy (3)\SCRPPYWA-15E4-E06T-29F1-5279EB905B1F.zzzzz
08/14/2018 - 11:11:34 AM	C:\Users\vmadmin\Desktop\Lite_Files_for_Ransomware_Testing\vincent-camacho-687392-unsplash.jpg	C:\Users\vmadmin\Desktop\Lite_Files_for_Ransomware_Testing\SCRPPYWA-15E4-E06T-6F20-A731049EE652.zzzzz

Close

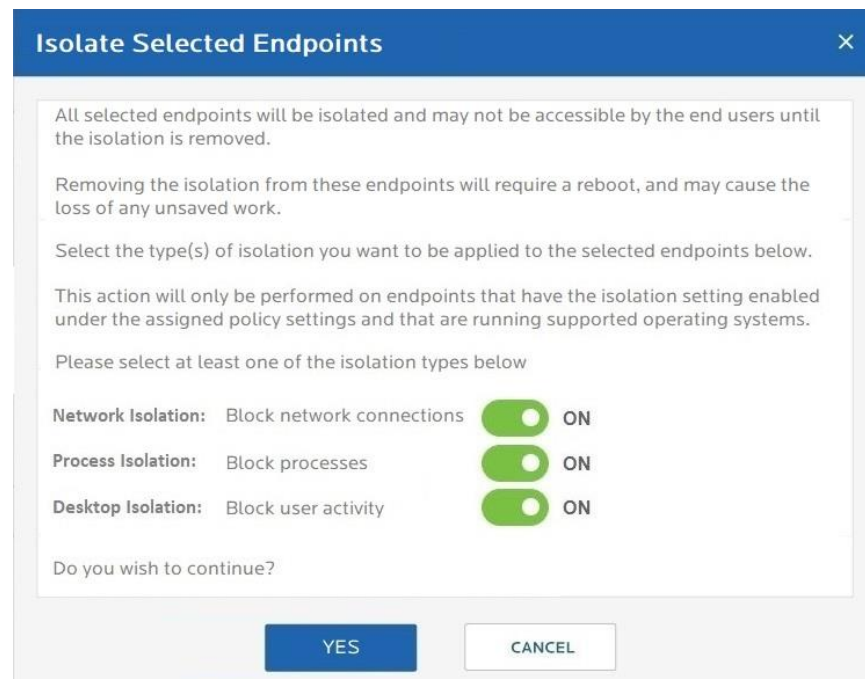
Endpoint Isolation

Before you can isolate an endpoint, *Malwarebytes* must run a Threat Scan on the system. This is necessary to install all of the plugins for the Endpoint Agent. We automatically run a Threat Scan on an endpoint when *Malwarebytes* is first installed, but you may decide to run a scan ahead of this. Once the scan finishes, you will be able to isolate the endpoint.

There are three different isolation modes – you can enable each mode separately, or you can combine them to create a more restrictive isolation. The three isolation types are:

- **Network Isolation:** Prevent the endpoint from communicating with other devices via your network.
- **Process Isolation:** Restrict which processes can run on the endpoint, and prevent processes from interacting.
- **Desktop Isolation:** Prevent end-users from accessing endpoint completely.

To isolate an endpoint, you must select the **Isolate Endpoint(s)** action from the **Manage Endpoints** screen. For information on how to reach this menu, refer to page 10 in this guide. When you select the endpoint(s) to isolate, a prompt will appear asking you to confirm the level of isolation. You can specify the degree of isolation by toggling each layer individually. The default value is On for all three isolation methods.



If you select multiple endpoints to isolate, and some of those endpoints are already isolated, then applied isolation modes will be cumulative. For example, if you isolated an endpoint previously with Process Isolation, and later attempt to isolate that endpoint (along with others) with Process Isolation and Network Isolation, the initial endpoint would have both isolation types active.



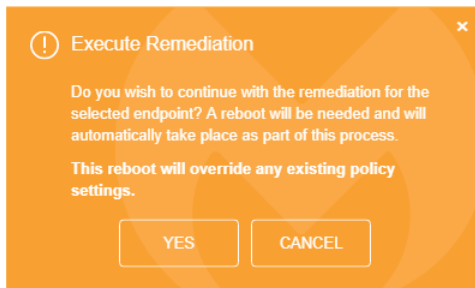



You cannot modify the isolation type of an individual endpoint. If you need to change the isolation type, you must either remove isolation entirely, or apply the isolation update as part of a group as described earlier. You can remove an endpoint from isolation using the **Remove Isolation** action from the Manage Endpoints screen – this will require a reboot. You cannot remove individual isolation types from endpoints.

If you have enabled Process Isolation, only Privileged Processes are allowed to launch on the endpoint. Privileged Processes belong to one of the criteria below:

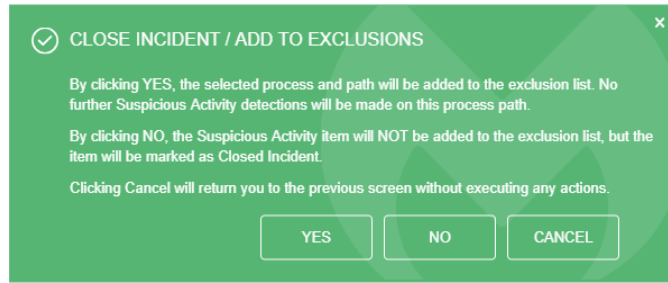
- Predefined (hardcoded) processes. Currently only two such processes are defined: CONSENT.exe, necessary to execute UAC elevated processes, and CSRSS.EXE which is a critical system process.
- Processes digitally signed by Malwarebytes. All such processes are allowed to run on isolated endpoints unrestricted.
- Processes spawned by other Privileged Processes. Any process with a Privileged parent process becomes Privileged itself. These processes can further create child processes which are privileged.

Rollback and Remediation

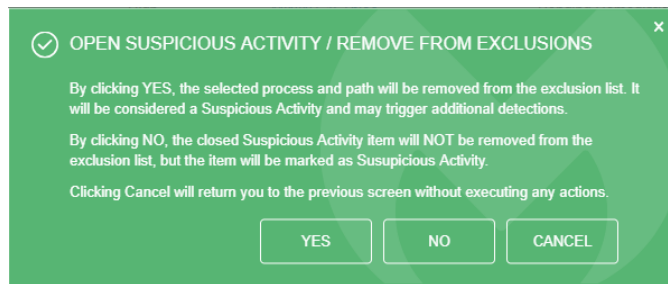
When you are ready to act on suspicious activity, you will see five potential icons for a threat. Let's discuss each of these.

	<p>This icon will take you to the list of Rules Triggered as described earlier.</p>
	<p>This icon initiates remediation on the endpoint. <i>Malwarebytes</i> will analyze suspicious activity, then combine our Malware Removal Engine and Rollback cache to remove remaining threats and restore files which the threat removed or encrypted. If you have not enabled the Rollback cache in your policy, you may not be able to restore all files. The endpoint will reboot automatically to finish remediation, which could result in the loss of any unsaved work. You can perform remediation on an isolated endpoint.</p> <p>Browser settings (for most major browsers) for all user profiles on the endpoint will be available for rollback. This includes Google Chrome, Mozilla Firefox, Microsoft Internet Explorer (version 11.x only) and Microsoft Edge, all on Windows platforms.</p> <div data-bbox="620 747 1091 1033"><p>The dialog box is titled "Execute Remediation" with a close button (X) in the top right corner. It contains the following text: "Do you wish to continue with the remediation for the selected endpoint? A reboot will be needed and will automatically take place as part of this process. This reboot will override any existing policy settings." At the bottom, there are two buttons: "YES" and "CANCEL".</p></div> <p>In some situations, <i>Malwarebytes</i> may not be able to restore all files. If this occurs, you can manually attempt to restore files from the endpoint. Files will be stored in the folder:</p> <pre>%PROGRAMDATA%\Malwarebytes Endpoint Agent\Plugins\EDRPlugin \Restored Files</pre> <p><i>Malwarebytes</i> will create several folders inside this directory that are associated with the attempted rollback. These folders will contain subfolders with the username of the Windows account the files originated from, if the program was able to record it. There is no guarantee a particular file will be recoverable using this method.</p> <p>PLEASE NOTE: If suspicious activities include a component that has been excluded by Policy Level Exclusions, that component will not be remediated due to its exclusion status.</p>
 	<p>These icons appear after you send a remediation request to an endpoint. The first icon indicates that the endpoint has a scheduled remediation task which has not yet finished. The second icon appears once the remediation task finishes.</p>
	<p>This icon allows you to mark the suspicious activity as closed if you elect not to perform remediation. Most likely, you would use this in the case of a False Positive. As <i>Malwarebytes</i> analyzes behavior of a process, a non-malicious file may appear to be suspicious. This is not an indication that the file is harmful, but instead that it behaves in a suspicious manner. When you mark an activity as closed, you will see a prompt asking if you want to add the process to your Exclusions list. If you do this, <i>Malwarebytes</i> will not flag future behavior from this process. If you choose not to add</p>

the process as an exclusion, the single activity will be marked as closed, but you may see future events from the same process.



This icon will only appear for an activity previously marked as closed. Clicking on the icon will allow you to re-open the activity, and remove the process from the Exclusions list. You can choose to re-open an activity but to leave it in the Exclusions list.



Settings

So far, we have created users, added endpoints, and defined policies. We may wish to add more endpoints at a later time. We also need to configure the environment so that a stable protection platform is in place. Let's begin!

Policies

Policies define the behavior of the *Malwarebytes Endpoint Agent*. For information on configuring and using policies, refer to the **Policies** chapter, starting on page 13 of this guide.

Schedules

This ties the pieces together so that threat remediation can occur on a schedule you define, and according to your specifications. The best way to understand this process is to do it. Go to **Settings ► Schedules**, and click **New** to create a new scan schedule. You will see a screen that looks like this. Begin by giving the new scan a name. You may create several scans over time to serve your needs, so choose a name that will stand out when the number of scans mounts.

The screenshot shows the 'Settings' window with the 'Edit Schedule' dialog open for a schedule named 'dt_new_scan'. The dialog has 'Cancel' and 'OK' buttons in the top right. Below the title bar, it says 'Please define your scheduled scan below.' The 'Schedule Name' field contains 'dt_new_scan'. Under the 'Scan Type' section, the 'Scan' radio button is selected. For 'WINDOWS:', the 'ON' toggle is checked, and the 'Scan Method' dropdown is set to 'Threat Scan'. There is an unchecked checkbox for 'Quarantine found threats automatically'. For 'MAC:', the 'ON' toggle is checked, and the 'Mac Scan Settings' dropdown is set to 'Quarantine found threats automatically'. There is a checked checkbox for 'Potentially Unwanted Programs (PUPs)' and a dropdown set to 'Treat detections as malware (recommended)'. The 'Asset Inventory Scan' radio button is unselected. Under the 'Scan Targets' section, a list of 'Available groups' is shown with checkboxes: 'III CJR Group of Groups III', 'CJR - QA Dept', 'CJR - QA Desktops (EPP)', 'CJR - QA Servers (IR)', 'CJR - Temp Group (No Plugins)', and 'IIJB TEST'.

Scan Type

You may choose a Scan or an Asset Inventory Scan, but not both at the same time. When running a Scan, there are individual settings for Windows endpoints and for Mac endpoints. You may include both in the same scan. While a Mac is limited to a Threat Scan, there are three types of scans available to a Windows endpoint.

The **Threat Scan** detects a large majority of threats that your computer may be faced with. Areas and methods tested include:

- **Memory Objects:** Memory which has been allocated by operating system processes, drivers, and other applications.
- **Startup Objects:** Executable files and/or modifications which will be initiated at computer startup.
- **Registry Objects:** Configuration changes which may have been made to the Windows registry.
- **File System Objects:** Files stored on your computer's local disk drives which may contain malicious programs or code snippets.
- **Heuristic Analysis:** Analysis methods which we employ in the previously-mentioned objects – as well as in other areas – which are instrumental in detection of and protection against threats, as well as the ability to assure that the threats cannot reassemble themselves.

The **Threat Scan** is the scan method which we recommend for daily scans. While it will not scan every file on your computer, it will scan the locations which most commonly are the launch point for a malware attack.

The **Hyper Scan** is limited to detection of immediate threats. Areas and methods tested include:

- **Memory Objects:** Memory which has been allocated by operating system processes, drivers, and other applications.
- **Startup Objects:** Executable files and/or modifications which will be initiated at computer startup.

While a **Hyper Scan** will clean any threats which have been detected, we strongly recommend that a **Threat Scan** be performed if a Hyper Scan has detected threats.

You may also choose to run a **Custom Scan**. This allows you to scan according to specifications which you define at the time of the scan. These settings will override scan settings defined elsewhere. When performing a **Custom Scan**, the following settings are available to you.

- **Quarantine found threats automatically:** This setting allows you to quarantine immediately on detection, or be prompted for each presumed threat detected during a scan.
- **Scan memory objects:** Memory which has been allocated by operating system processes, drivers, and other applications. It is important to note that threats detected during scans are still considered threats if they have an active component in memory. As an extra measure of safety, memory objects should be scanned.
- **Scan startup and registry settings:** Executable files and/or modifications which are initiated at computer startup, as well as registry-based configuration changes that can alter startup behavior.
- **Scan within archives:** If checked, archive files (ZIP, 7Z, RAR, CAB and MSI) will be scanned up to four levels deep. Encrypted (password-protected) archives cannot be tested. If left unchecked, archive files will be ignored.
- **Rootkits:** These are files stored on your computer's local disk drives which are invisible to the operating system. These files may also influence system behavior.

You can also choose whether Potentially Unwanted Programs (PUPs) and Potentially Unwanted Modifications (PUMs) will be considered as malware or simply ignored. You can choose each separately. Finally, you can specify a **Scan Path**, which defines the top level of a folder tree to be scanned.

Scan Targets

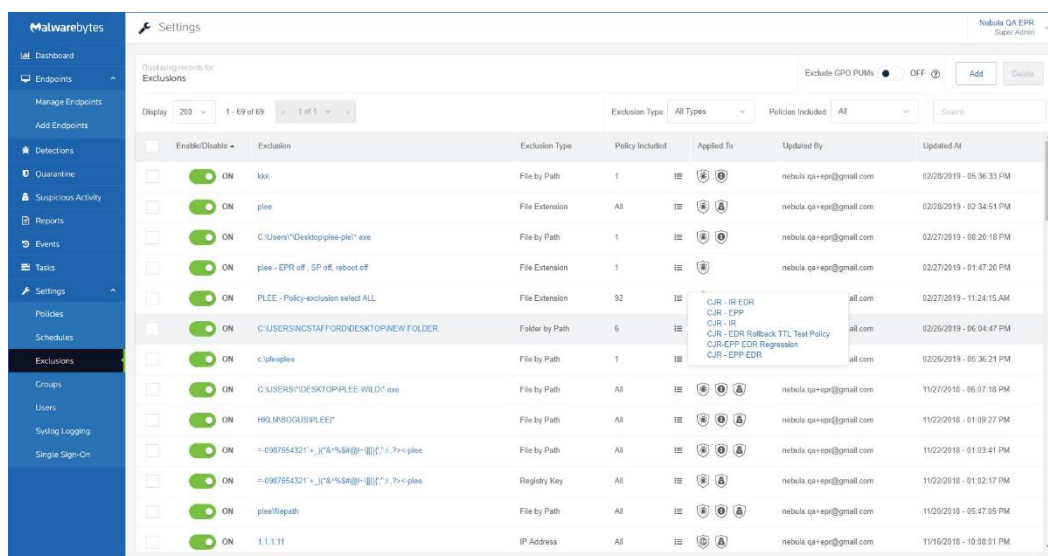
This is where you choose the group of endpoints that will be scanned. Earlier, we created the policy that defines the behavior of the group, then we added endpoints as members of the group. Here is where it all comes together. Add or Remove groups from the list of groups to be scanned, and finally set the **Scan Schedule**.

Scan Schedule

The last piece of the puzzle is to schedule the scan. You may not select a day that is in the past, and if you select today as a starting day for the schedule, you may not schedule it at a time that has already passed.

Exclusions

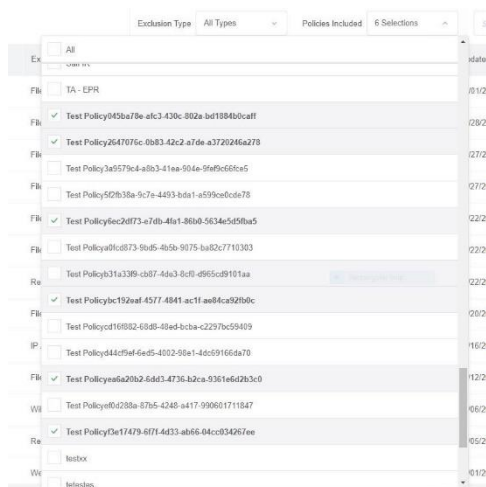
You may find that exclusions are needed to provide satisfactory performance in your environment. They may be needed if antivirus and anti-malware products interfere with each other's performance. They may also be needed if a trusted application or data file is being flagged as a false positive – being seen as a threat when you know that it is not. Creating exclusions for these items helps to provide the best performance. You can access **Exclusions** by clicking **Settings ► Exclusions**. The screenshot below shows an example of the **Exclusions** screen.



Each exclusion can be toggled on or off, should you need to temporarily allow a previously excluded item. In the upper right, a toggle is available to **Exclude GPO PUMs**. The list of which registry keys are excluded is available by hovering on the help icon.

Policy Level Exclusions

In the past, all exclusions were applied globally. All endpoints would be subject to the same exclusions, regardless of how the endpoint was being used. Now, exclusions are specific to the policies which are applied to endpoints. You may still create a global exclusion, or select which policies an exclusion applies to.



When viewing exclusions, the *Policies Included* pulldown allows you to select all policies, or to show only exclusions for selected policies.

In the example shown here, six policies are selected. Only exclusions applied to those six policies will be displayed. On the **Exclusions** screen, look for the *Policy Included* column, which contains the word “All” or a number, which denotes the number of policies that the exclusion is applied to. Hover over the icon to the right of this number to see a list of those policies.

If you have access to that policy, you may click it to go to the **Settings** screen for that policy.

Exclusion Types

There are several types of exclusions you can add to *Malwarebytes*. Some exclusions support wildcards. To exclude multiple entries with a common component in their name, use asterisk (*) and question mark (?) wildcards. The * matches any number of any character; the ? matches any single character. Here are details and examples for each exclusion type:

Exclusion Type	Technology	Example(s)
File by Path	Malware Protection Ransomware Protection	C:\Windows\Foo\Bar.exe
Folder by Path	Malware Protection Ransomware Protection	C:\Windows\temp\
File/Folder with Wildcard†	Malware Protection Ransomware Protection	C:\Users*\Documents* C:\Users*\Desktop\test*.exe C:\temp\test?.exe C:\temp*.exe
File Extension	Malware Protection	doc pdf
MD5 Hash	Anti-Exploit	e4d909c290d0fb1ca068ffaddf22cbd0 9e107d9d372bb6826bd81d3542a419d6
Registry Key	Malware Protection	HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall\F oobar
Registry Key with Wildcard††	Malware Protection	HKU*\Software\Microsoft\Windows\CurrentVersion\Policies\Asso ciations *
Web Monitoring	Website Protection	C:\Windows\Zoom\Zoom.exe
Website/IP Address	Website Protection	www.malwarebytes.com 234.213.143.154 2001:4860:4860::8888

† Ransomware Protection exclusions do not support wildcards.

†† If you would like to exclude a group of registry values using a wildcard character, you may do so using the format <PATH><KEY>|<VALUE>*.

When you add an exclusion, we will automatically apply the exclusion to protection layers based on the Exclusion Type chosen. Please note that not all exclusion types can be applied to all layers. If you want to customize what layers the exclusion is for, expand the list by clicking **Exclusion Applied To**. Here is a list of protection layers. You can always change what layers an exclusion applies to after it has been created.

- **Exploit Protection:** Behavior-based detection of vulnerabilities in common applications and the operating system. Only available for Windows endpoints.
- **Malware Protection:** Real-time protection using both signature and machine-learning based detections of malicious files.
- **Ransomware Protection:** Behavior-based detection of ransomware attacks. Only available for Windows Endpoints.
- **Website Protection:** Protection from malicious network traffic, including websites or direct connections. Only available for Windows Endpoints.
- **Suspicious Activity:** Protection from anomalous files, and rollback of ransomware. Only available for Windows Endpoints for *Endpoint Protection and Response* customers.

Adding/Editing Exclusions

If you wish to add a new exclusion, click the **Add** button in the upper right corner of the Exclusions screen. To edit an existing exclusion, click on the desired Exclusion on that same screen. Both options utilize the same screen, shown here.

If the exclusion is not to be used globally (in all policies), choosing the **No** option will cause a pulldown to appear which lists all policies that are active. That pulldown is consistent with the one shown previously under Policy Level Exclusions. When you have completed the addition/edit, you may enable the new exclusion immediately, or do so later. An event (severity: Audit) will be created as a result of this activity.

Please note: All exclusions related to Suspicious Activity must be globally applied.

Groups

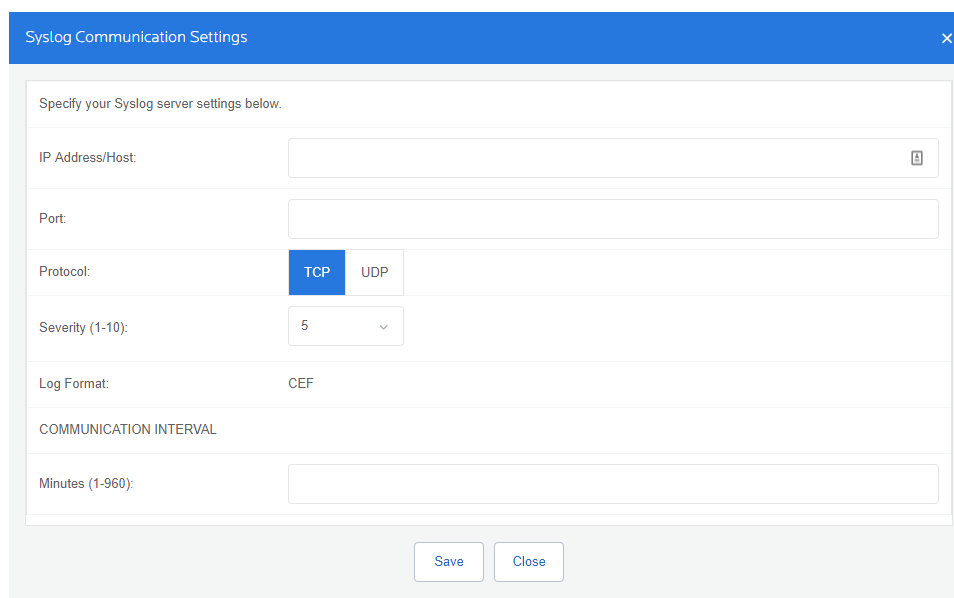
Groups are used to join several endpoints into one functional area, allowing you to apply manage them simultaneously with one Policy. For information on Groups, refer to page 12 of this guide.

Users

For information on how to manage your existing users, or how to invite new users, refer to page 5 of this guide.

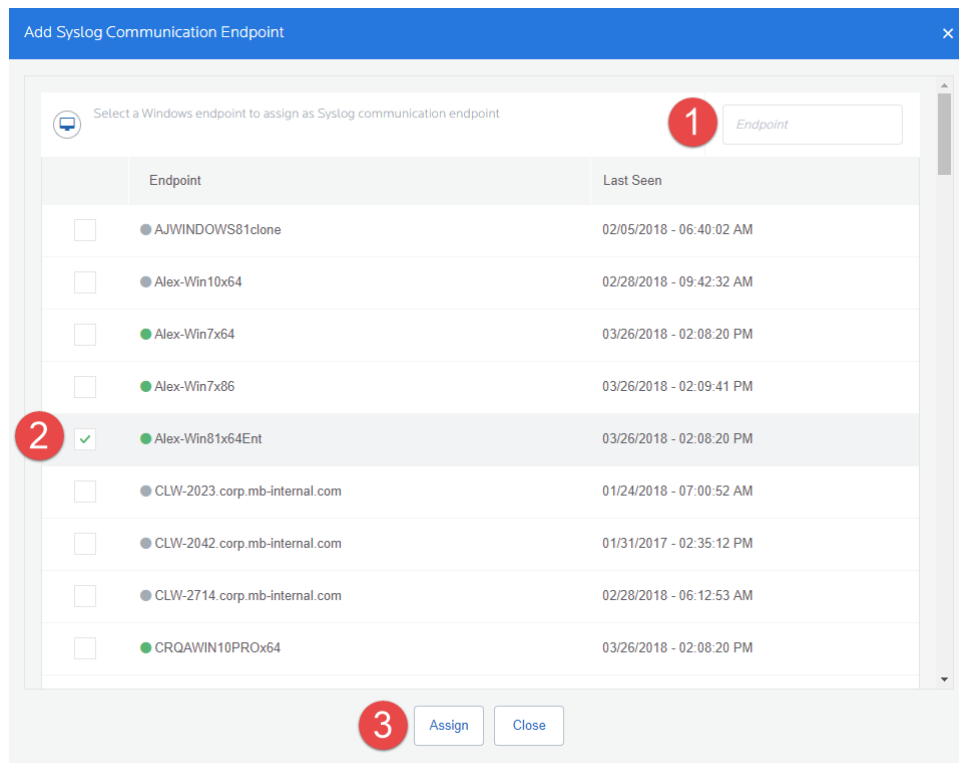
Syslog Logging

In addition to the reporting available in the application, you can export data from *Malwarebytes* to a Syslog server. To do so, you must promote an existing endpoint to act as an intermediary between the Malwarebytes server and your Syslog server. We refer to this endpoint as the Syslog Communication Endpoint. The first step in this process is to configure your Syslog server settings. Go to **Settings ► Syslog Logging** and click **Add** to begin. You will see a screen that looks like this. You will need to provide the information for your Syslog server. These settings will apply to your entire *Malwarebytes* account.

The image shows a 'Syslog Communication Settings' dialog box with a blue header and a close button (X) in the top right. The main area is white and contains the following fields: 'IP Address/Host' with a text input and a small icon; 'Port' with a text input; 'Protocol' with two buttons, 'TCP' (selected) and 'UDP'; 'Severity (1-10)' with a dropdown menu showing '5'; 'Log Format' with a text input showing 'CEF'; and 'COMMUNICATION INTERVAL' with a sub-label 'Minutes (1-960)' and a text input. At the bottom are 'Save' and 'Close' buttons.

- **IP Address/Host:** The address of your Syslog server.
- **Port:** The port you have specified on your Syslog server.
- **Protocol:** You may choose to use either TCP or UDP protocol.
- **Severity:** This setting determines the Severity of *Malwarebytes* events in Syslog. All events sent to Syslog will use the same Severity.
- **Log Format:** This field is informational only. All logs are sent in CEF format.
- **Communication Interval (Minutes):** The value entered in this field determines how often the Communication Endpoint will gather Syslog data from the *Malwarebytes* server. If the endpoint is unable to contact Malwarebytes, we will buffer data from the last 24 hours. Data older than 24 hours ago will not be sent to Syslog.

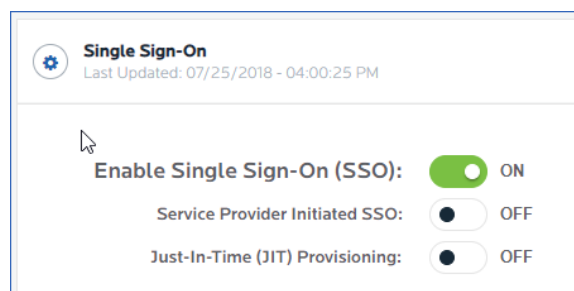
Once you have entered the information for your Syslog server, click **Save**. You will now choose an endpoint to promote as the Communication Endpoint. You must choose a Windows endpoint that has the *Malwarebytes* agent installed. Mac endpoints are not available to promote as the Communication Endpoint. You may scroll to find the endpoint, or search for it by name in the upper right ❶. Select the endpoint you want to promote ❷, and then click **Assign** ❸. A confirmation window will appear. Click **Yes** to promote the endpoint and return to the Settings screen.



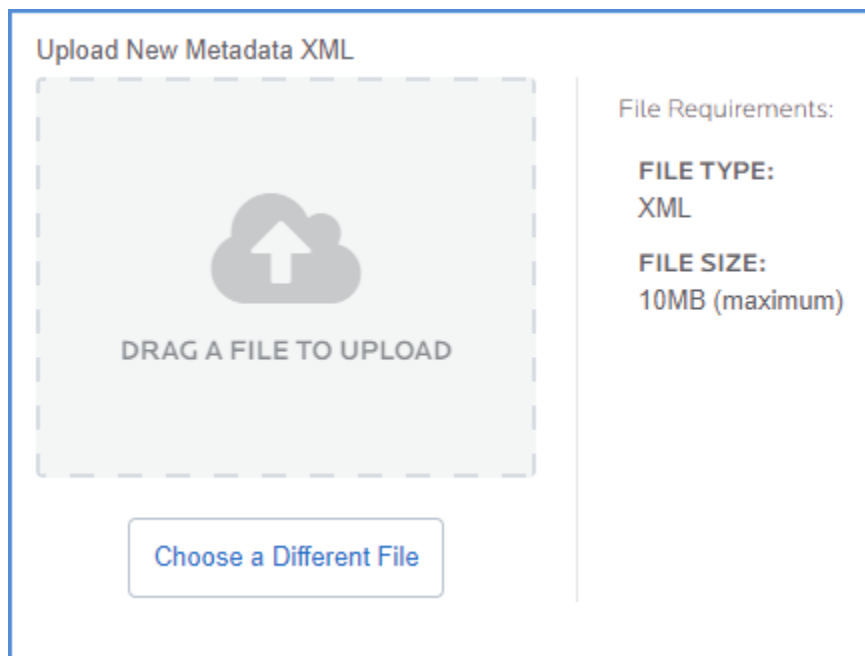
You have now configured your Syslog server and your Communication Endpoint. The endpoint will now begin to transfer data to Syslog automatically – there is no additional configuration needed on the endpoint. You can change the settings for your Syslog server by clicking **Syslog Settings**. If you need to use a different endpoint as the Communication Endpoint, you must first click **Remove** to demote the existing endpoint. Then, you can promote a new endpoint by clicking **Add**. You can temporarily demote the Communication Endpoint using the **On/Off** toggle on this screen. This is a useful option when troubleshooting your Syslog settings.

Single Sign-On

If your organization uses a Single Sign-On (SSO) provider, you can connect it to *Malwarebytes* from this menu option. The first time you open this menu screen, the feature is turned off. A screenshot of the primary SSO settings is shown below.



Clicking the **Enable Single Sign-On (SSO)** setting to the **On** position will enable the *Malwarebytes* console to control logins via your identity provider. Please note that this setting is disabled by default. Click the **On/Off** toggle to begin. Now that you have enabled SSO, you will need to connect *Malwarebytes* to your provider. Your SSO tool should be able to generate an XML file to integrate with new platforms. If you are unsure of how to do this, you should contact your SSO provider. Once you have the XML file from your SSO, you can drag it into the *Malwarebytes* console to begin upload. If you need to change which SSO tool *Malwarebytes* connects to in the future, you can upload a new XML file at any time.



Now that you have entered the metadata from your SSO into *Malwarebytes*, you will need to enter similar metadata from *Malwarebytes* into your SSO. Scroll further down the screen to the section titled **Malwarebytes Service Provider Details**. Click the first item in the list, **Service Provider Metadata**. This hyperlink will download an XML file for you to upload to your SSO tool to complete the connection. The other items in this section provide information for you to manually enter into your SSO tool, if necessary. If your SSO does not require any manual entry, you can ignore these items.

If you enable the **Service Provider Initiated SSO** setting, the *Malwarebytes* console will use your email address to determine if you are associated with an identity provider. If the lookup is successful, the login is routed via your identity provider's existing login methods. If not, users will be prompted for their password.

Finally, the **Just-in-Time (JIT) Provisioning** option allows IT administrators to determine whether an initial login to the *Malwarebytes* console will automatically create a local *Malwarebytes* Cloud user account. The default setting is **off**. If the new user's role is specified in the SAML Assertion, that role will be assigned to the user within *Malwarebytes*.

Malwarebytes Console expects the following SAML Attributes:

- email (*required*)
- display_name (*optional, email address will be used if not supplied*)
- role (*optional, acceptable values are ReadOnly, Admin, and SuperAdmin*)

Note: If the **Role** attribute is not supplied, then *ReadOnly* will be applied as the default role.

Users with the *ReadOnly* or *Admin* role attributes will be granted access to the Default Group only, while a *Super Admin* will be given access to all groups.

That's all there is to it! Now it's time to look at **System Status**.

System Status

Malwarebytes products are now ready to protect your endpoints. You have set up scan schedules. You have configured protection layers of Real-Time Protection. It is time to discuss how Malwarebytes keeps you informed with regard to malware-related activities on your endpoints. Tabs and topics to be discussed here include:

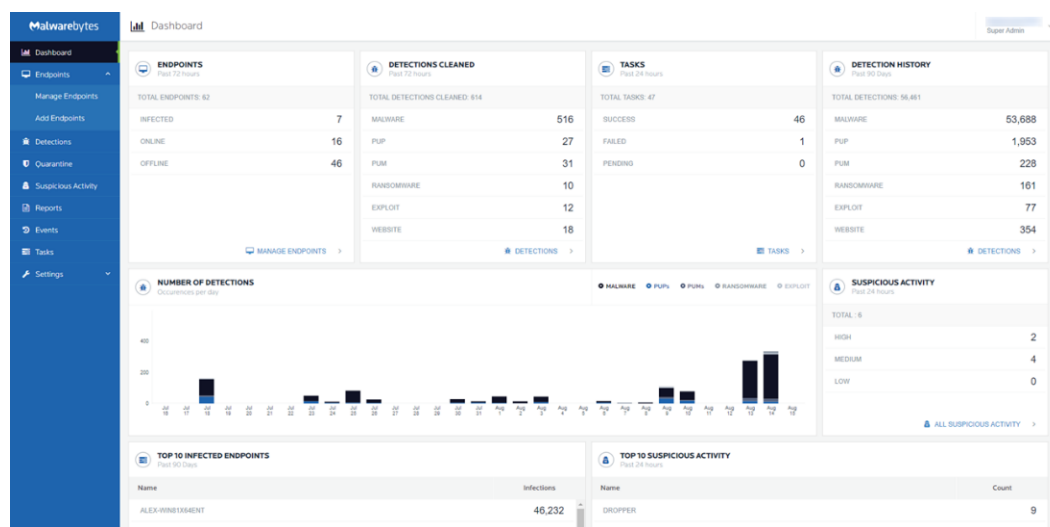
- Dashboard
- Threats
- Quarantine
- Real-Time Protection
- Events
- Tasks

Dashboard

When you first open the Malwarebytes console, the first screen that you will see is the Dashboard. It is designed to provide a high-level view of malware-related activities on your network. Data shown is a cross-section of information which is displayed in detail on the other Malwarebytes console status screens. The Dashboard view includes:

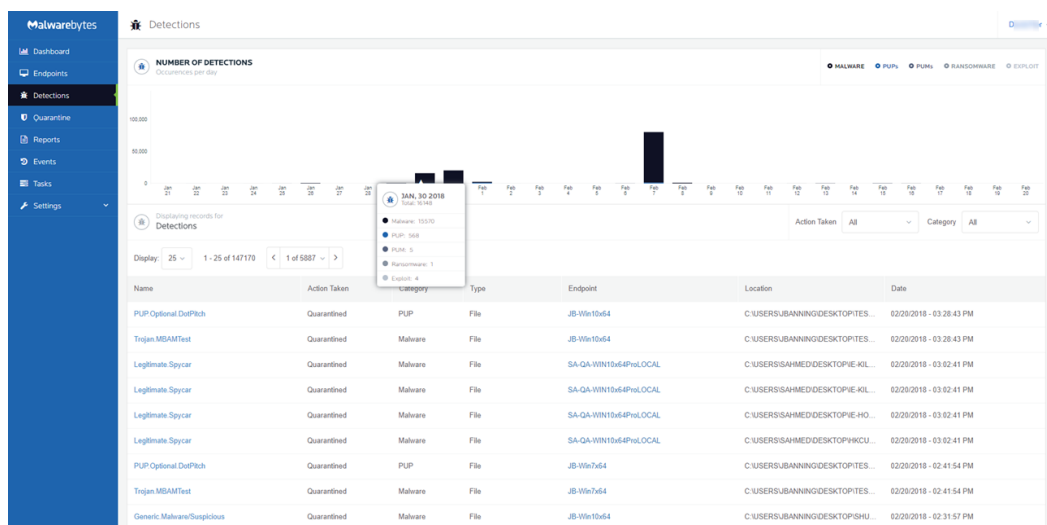
- Number of endpoints online, offline, and infected (both online and offline) over the most recent 72 hours
- Threats cleaned during the past 72 hours, broken down by Malware, PUP, PUM, Ransomware, Exploits, and Websites
- Tasks issued by the Malwarebytes console over the past 24 hours, broken down by status (success, failure or pending)
- Threats detected during the past 90 days, broken down by Malware, PUP, PUM, Ransomware, Exploits, and Websites
- A bar graph showing Malware, PUPs, PUMs, Ransomware, and Exploits by day, over the past 30 days
- Number of suspicious activities detected in the last 24 hours, categorized by severity
- List of Top 10 endpoints with the most detections over the past 90 days
- List of Top 10 suspicious activities detected in the last 24 hours
- List of Top 10 malware detections over the past 90 days
- List of Top 10 PUPs over the past 90 days
- List of Top 10 PUMs over the past 90 days
- List of Top 10 malicious/suspicious websites blocked in the last 24 hours

Information shown on the Dashboard is current as of the time you access the Dashboard. A screenshot of the Dashboard is shown below.



Detections

This tab provides a detailed itemization of every threat detected during a scan in the past thirty days. A bar graph indicates the level of threat activity on each day in that period. Hovering over any date in which threats were detected will show a breakdown of the count of the basic types of threats that were detected on that day. One specific date is shown in this screenshot for illustrative purposes.



You may also click on any specific detection to view more details about the detection. The main body of the screen is used to show threat data, divided into screens. You may navigate between screens, or change how many items are shown on each screen, using the controls at the left center region of the screen. Please note the two pulldown menus at the right center region of the screen. They are used to select what data is shown on the remainder of the screen.

Action Taken

All

All

Blocked

Found

Quarantined

Deleted

Restored

Action Taken defines the current status of detected threats.

Category is the type of threat which was detected.

Selecting subsets allows you to “remove the noise” and focus on the information you are most concerned with.

Category

All

All

Malware

PUP

PUM

Exploit

Ransomware

Website

Quarantine

A quarantined threat is one that *Malwarebytes* has detected, neutralized, and placed into a special container so that it cannot cause any damage to your computer. This tab allows you to view those threats. You may filter your view in two separate ways. The first method is by choosing a specific threat category, which can be *malware*, *PUP*, *PUM*, or *ransomware*. The second method is by selecting a time period, which can be the *last 30 days*, *last 7 days*, or *last 24 hours*. This is a consolidated view, meaning that all quarantined threats on all managed endpoints are shown. In

actuality, quarantined threats are stored on the endpoints themselves in an encrypted format. Two entries exist for each threat, the threat itself and proprietary information about the threat.

Their location on each endpoint is:

```
C:\ProgramData\Malwarebytes\MBAMService\Quarantine
```

After selecting quarantined threats, you may restore or delete them by selecting the threat(s) and then selecting the appropriate action. While you may restore or delete across multiple endpoints at the same time, you cannot restore and delete at the same time. Please note that false positives are possible in rare circumstances. Also, you may have items in Quarantine which are known, trusted files. You should not assume that the contents of Quarantine are malicious, nor should you assume that they are safe.

Mac endpoints using Real-Time Protection handle quarantine differently. Threats are encrypted and moved to a different folder. They are stored here:

```
/Library/Application Support/Malwarebytes/NCEP/Quarantine/
```

You may restore quarantined threats on Mac endpoints by moving the file from Quarantine to the original location. This action must be done on the endpoint, and is not available from the console.

Suspicious Activity

This tab displays a report of all Suspicious Activity detected on your endpoints. Suspicious Activity Monitoring is only available if you are a subscriber to *Malwarebytes Endpoint Protection and Response*. For more information on using this tab and feature, refer to the Endpoint Protection and Response chapter, starting on page 22 of this guide.

Reports

This tab allows you to create and generate reports covering a relative time period or a specific date range. Reports are personalized for each console user, and are available on-demand or scheduled.

The following report types are available:

- Detections Summary
- Endpoints Summary
- Events Summary
- Quarantine Summary
- Assets Summary
- Tasks Summary

These reports are provided in a Comma Separated Values (CSV) file format.

When an on-demand report has been requested, the request will be placed into a queue for processing. Once the report is complete, an email will be sent to the email address associated with your account so that you can download the report.

Scheduled reports are generated at the times below, based on the specified time zone

- **Daily Reports** – Every 24 hours at approximately midnight
- **Weekly Reports** – On one or more days of the week, at approximately midnight
- **Monthly Reports** – On a specific day every month, at approximately midnight

Scheduled reports are delivered once they have finished generating. There may be a slight delay based on the size of the queue.

All times shown in reports use Coordinated Universal Time (UTC), and feature an additional column that converts UTC to local time, as specified by the time zone setting.

Events

This tab displays a record of threats, remediation and other activities for installed endpoints. At the top of the screen is a bar graph showing system activities over the past thirty days. Immediately following is a pulldown menu which allows you to select the Severity of information being reported here. You may choose to display all activities, or narrow the view by selecting one of these settings. Use of the pulldown menu is strongly recommended. A large number of items can be reported here over time. There are several event types which can be shown. A representative sample for each severity is as follows:

- **Severe** – Threat has been found
- **Warning** – Threat has been cleaned
- **Info** – Completion of a scan
- **Audit** – Endpoint registered, policy level exclusion activity

Select any event to find out more about the event (in its own window). If an event is related to a policy level exclusion, hover over the detail line “<n> Policies” to find out which policies were affected.

Tasks

This tab is a record of all on-demand activities (asset management scans, malware scans, restore, delete) that have been requested on endpoints. The top of the tab shows the number of activities in each status type, summarized over the past thirty days. Information pertaining to the activity request (who, where, when) is logged, as is status of the activity. To focus on a single status, click the bar underneath the 30-day total for that status.

Please note: Tasks have a finite lifespan. Any tasks which have not been acted upon by the affected endpoint within 90 days of the task’s issuance will be removed from the task queue.

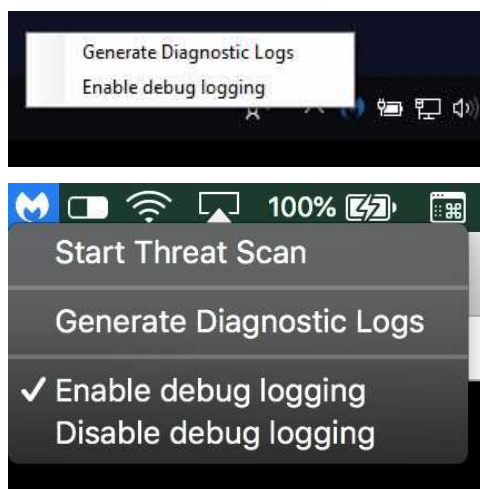
Appendices

The following sections are supplementary to the rest of this guide. You may not need the information within, but it is provided for your benefit. These appendices are shown to give additional examples to some functionality and tools provided with *Malwarebytes*.

Appendix 1: Enable Debug Logging

There may be times when working with our Customer Support team that you need to enable Debug Logging on your endpoints. Debug logging is a more detailed log level that helps when troubleshooting. You can enable Debug logging on both Windows and Mac endpoints. You can enable Debug Logging in two ways; from the tray icon for the Endpoint Agent, or from a Command Line.

To enable Debug Logging from a single endpoint, right-click the *Malwarebytes* icon in the tray/Mac Menu while holding the CTRL key. From the menu, click **Enable Debug Logging**. You can disable the logging by following these steps again.



If you need to enable Debug Logging without having to be physically present at each endpoint, you can do so with the following commands. These examples assume the default installation directory – you will need to modify the path if you have specified a different installation folder.

Windows

<code>MBCloudEA.exe -loglevel=debug</code>	Enable Debug Logging
<code>MBCloudEA.exe -loglevel=info</code>	Disable Debug Logging

Mac

<code>EndpointAgentDaemon -logging=debug</code>	Enable Debug Logging
<code>EndpointAgentDaemon -logging=info</code>	Disable Debug Logging

Appendix 2: Example Syslog Entry

An example of a Syslog entry generated by *Malwarebytes* is included here, in the raw CEF format. Following the raw format, we have expanded the values for the Syslog prefixes, CEF Headers, and Extensions used.

```
2018-04-13T21:06:05Z MININT-16Tjdoe CEF:0|Malwarebytes|Malwarebytes Endpoint  
Protection|Endpoint Protection 1.2.0.719|Detection|Website  
blocked|1|deviceExternalId=e150291a2b2513b9fd67941ab1135afa41111111 dvchost=MININT-16Tjdoe  
deviceDnsDomain=jdoeTest.local dvcmac=00:0C:29:33:C6:6A dvc=192.168.2.100 rt=Apr 13 2018  
21:05:56 Z fileType=OutboundConnection cat=Website act=blocked msg=Website blocked\nProcess  
name: C:\Users\vmadmin\Desktop\test.exe filePath=drivininfosproduits.info(81.171.14.67:49846)  
cs1Label=Detection name cs1=Malicious Websites
```

Syslog Prefix:	Description	Example(s)
Timestamp	Time of recorded event	2018-04-13T21:06:05Z
Host	Affected endpoint	MININT-16Tjdoe

CEF Header:		
Version	Version of the CEF format	CEF:0
Device Vendor	This will always be Malwarebytes	Malwarebytes
Device Product	Plugin installed on endpoint at time of event	Malwarebytes Endpoint Protection Malwarebytes Incident Response Malwarebytes Endpoint Protection and Response
Device Version	Plugin name and version	Endpoint Protection 1.2.0.719
Device Event Class ID	Type of event reported	Detection
Name	Category of event and action taken	Website blocked
Severity	Severity set in Syslog settings	1

Extension:		
deviceExternalId	Unique identifier of device generating event	e150291a2b2513b9fd67941ab1135afa41111111
dvchost	Device hostname	MININT-16Tjdoe
deviceDnsDomain	Device's DNS domain name	jdoeTest.local
dvcmac	Device's MAC address	00:0C:29:33:C6:6A
dvc	Device's IPv4 address	192.168.2.100
rt	Date/Time when the event occurred	Apr 13 2018 21:05:56 Z
filetype	Type of file that caused event	OutboundConnection File Module Process Registry Value Exploit
Cat	Category of the Event	Malware PUP PUM Ransomware Exploit Website

Extension: (continued)	Description	Example(s)
Act	Action Taken	blocked found quarantined deleted restored
Msg	Details of the system event	Website blocked\nProcess name: C:\Users\vmadmin\Desktop\test.exe
filePath	Path to the file, or blocked website domain	drivinfosproduits.info(81.171.14.67:49846) C:\users\vmadmin\Desktop\test.exe
cs1Label	The name label for the field cs1	Detection name
cs1	The detection name	Malicious Websites

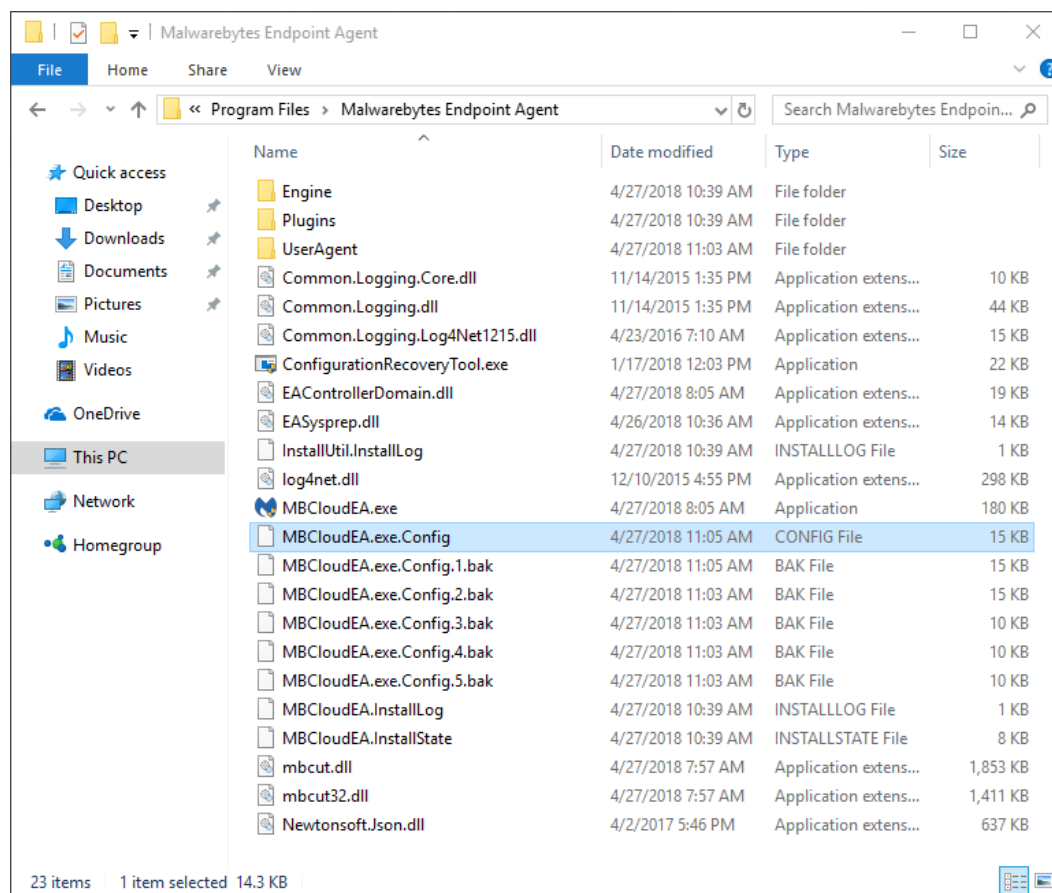
Appendix 3: Configuration Recovery Tool

The *Malwarebytes* Endpoint Agent stores certain settings for operation in a configuration file, **MBCloudEA.exe.config**. This file is saved in the same directory as the Endpoint Agent executable. For the sake of this guide, we will use one installation directory example. Your installation directory may be different based on your environment. The directory we will use is:

C:\Program Files\Malwarebytes Endpoint Agent

Occasionally the configuration file can become corrupted, for instance if a PC lost power while saving a setting to the file. The Endpoint Agent service is unable to start if this happens. To combat this, *Malwarebytes* will automatically create backups of the configuration file that you can restore using the Configuration Recovery Tool.

On initialization, the Endpoint agent creates up to five backups of the configuration file. The Configuration Recovery Tool will use one of these backups to restore a corrupted **MBCloudEA.exe.config** file. The newest file will have the lowest number. These files are stored in the same directory as the configuration file. An example is shown below.



The aptly named **ConfigurationRecoveryTool.exe** is located in the same directory as the configuration file and its backups. You will need to run the Recovery Tool from an elevated Administrator level command prompt. The tool will try to load the current configuration file – if it is successful, it will report that it does not need to replace the file. If the tool fails to load the configuration file, it will attempt to restore and load the most recent backup. If the backup fails to load, the recovery tool will repeat the process using the next oldest backup file. The recovery tool continues this process until it has either successfully restored a backup or has failed to restore all existing backups. If the tool is unable to restore from any of the backups, it will display a message to inform you that no valid backups were available. In this scenario, you will need to either restore the configuration manually or reinstall the endpoint.

Usage

To use the Configuration Recovery Tool, open an elevated command prompt and navigate to the Endpoint Agent installation directory. You must then run the tool with the following command:

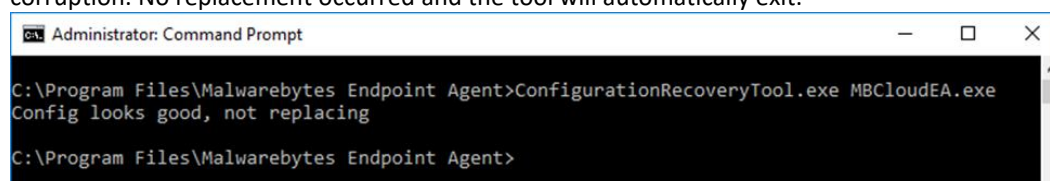
```
ConfigurationRecoveryTool.exe [path to exe] [Optional path to backup folder]
```

Two parameters are available to use with the Recovery Tool. If you do not enter any parameters, the tool will show examples of their usage. The parameters are:

- **[path to exe]** is the name of the executable that the configuration file you are restoring was created for. For the Malwarebytes Endpoint Agent, this will be **MBCloudEA.exe**.
- **[Optional Path to backup folder]** allows you to provide a specific directory containing backups. If you do not provide this parameter, the tool will attempt to recovery the configuration file using the backups in the current directory.

After the Recovery tool finishes running, there are three possible outcomes.

- **Configuration file loads successfully:** If the tool successfully loaded the configuration file with no corruption. No replacement occurred and the tool will automatically exit.

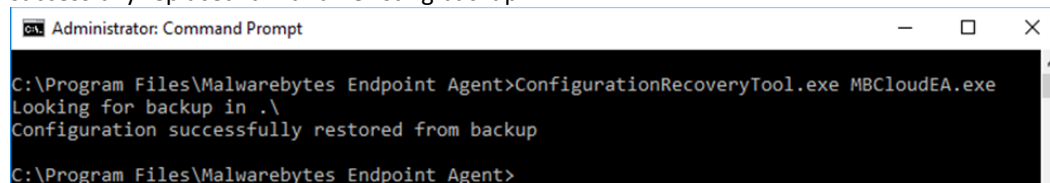


```
Administrator: Command Prompt

C:\Program Files\Malwarebytes Endpoint Agent>ConfigurationRecoveryTool.exe MBCloudEA.exe
Config looks good, not replacing

C:\Program Files\Malwarebytes Endpoint Agent>
```

- **Configuration file is corrupt and there is a valid backup:** The configuration file was corrupted and the tool successfully replaced it with an existing backup.

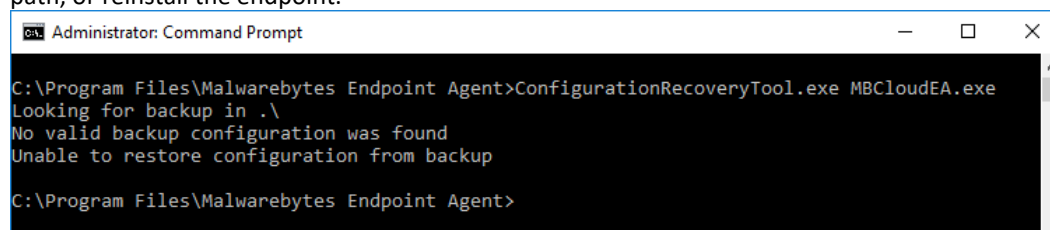


```
Administrator: Command Prompt

C:\Program Files\Malwarebytes Endpoint Agent>ConfigurationRecoveryTool.exe MBCloudEA.exe
Looking for backup in .\
Configuration successfully restored from backup

C:\Program Files\Malwarebytes Endpoint Agent>
```

- **Configuration file is corrupt and there is no valid backup:** The configuration file was corrupted and the tool was unable to restore an existing backup. You will need to either restore a backup from a different path, or reinstall the endpoint.



```
Administrator: Command Prompt

C:\Program Files\Malwarebytes Endpoint Agent>ConfigurationRecoveryTool.exe MBCloudEA.exe
Looking for backup in .\
No valid backup configuration was found
Unable to restore configuration from backup

C:\Program Files\Malwarebytes Endpoint Agent>
```