



# Release Notes

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## Browsium Proton 4.4

Product Version: 4.4.2

Release Notes Updated: 27 February 2018

### About this Release

This document lists new features and known issues, and potential incompatibilities as of the release date. If you discover an issue, please review the Known Issues list below to determine if it has already been documented. If the issue is not referenced, please visit the [Browsium Support website](#) for troubleshooting tips, product documentation, and the option to submit support tickets.

### What is Proton

Proton, the newest module in Browsium's browser management suite, is an easy to use web application inventory and analytics solution for enterprise IT. Along with its comprehensive inventory capabilities, Proton also provides critical correlations between browsers, web applications, and add-ons, giving IT teams the actionable insights they need to make better decisions. As a result, Proton is an invaluable resource in every modern IT department's management toolset.

### What's New in this Release

This section of the release notes is reserved for notable changes and new features since the prior version

#### What's new in Proton 4.4.2

This section details changes to Proton since the prior version, Proton 4.4.1

- Added multi select filters in Proton Manager.
- Added ability to filter on OS in Proton Manager.
- Added ability to start Proton in an inactive mode.
- URL query strings are now ignored by default. Setting is configurable for organizations that wish to collect the full strings.
- Added new "Attempts by URL" report under Java and ActiveX activity reporting tab.
- All activity data in Proton database is now deleted upon enabling Anonymization. This is done to ensure no PII or unintended data remains available for view or potential disclosure.
- Fixed an exception in Proton background activity processing.
- Removed noisy error type event logs in Browsium Client that are generated because of temporary connectivity issues.
- Improved performance of the Browsium Client while analyzing component (Java and ActiveX) usage.
- Disabled auto-enabling Browsium Chrome Extension when "Load unpacked extensions" setting is disabled by system administrator.
- Browsium Client queries AD fewer times by caching the responses for 7 days.
- Browsium Client improves its resiliency on systems with WMI subsystem problems.

# Minimum System Requirements

## Proton Express (evaluation kit)

<b>Operating System</b>	Windows 7 or later Windows Server 2008 R2 or later
<b>.NET Framework</b>	Version 4.0 or later
<b>Additional Components</b>	Microsoft IIS Express 7.5 (installed automatically) Microsoft SQL Server Express 2012 (installed automatically)
<b>Processor</b>	1 GHz or faster 32-bit (x86) or 64-bit (x64) processor
<b>Memory</b>	1 GB total system RAM; 2 GB for use on Windows Server

## Proton Service & Database

<b>Operating System</b>	Windows Server 2008 R2 or later
<b>.NET Framework</b>	Version 4.0 or later
<b>Additional Components</b>	Microsoft IIS 7 or later Microsoft SQL Server 2012 Web Edition or higher
<b>Processor</b>	1 GHz or faster 32-bit (x86) or 64-bit (x64) processor
<b>Memory</b>	2 GB system RAM

## Browsium Client

<b>Operating System</b>	Windows 7 or later Windows Server 2008 R2 or later (for multi-user terminal servers)
<b>Browsers</b>	Microsoft Internet Explorer 8, 9, 10, or 11 Microsoft Edge 40 or later Google Chrome 39 or later Mozilla Firefox 52 or later (41 or later with Browsium legacy extension)
<b>.NET Framework</b>	Version 4.0 or later (full version only)
<b>Processor</b>	1 GHz or faster 32-bit (x86) or 64-bit (x64) processor
<b>Memory</b>	1 GB total system RAM; 2 GB for use on multi-user terminal servers

# **Installing and Using This Release**

- Run Proton-Setup.exe to install the server components of Proton. Once you have a functioning server, then you may install the Browsium Client using Browsium-ClientSetup.exe, which utilizes the address of your Proton server.
- Install using the Express Install (Evaluation-only) option unless Browsium has already provided you with a license key. This will install Proton Express which is designed for evaluation use.
  - Proton Express will run for 30 days and is limited to 50 clients. It will automatically install Browsium Client on the system running Proton Express so you'll have an instant test environment. You may install Browsium Client on up to 49 additional clients, manually or via scripted install.
  - Proton Express installs a self-signed certificate that is trusted only on the system running Proton Express. Attempting to run the Proton Manager (web application for administration and reporting) from a remote client will result in a series of SSL certificate warnings. Those warnings can be bypassed, but it's recommended that you access the Manager from the same system running Proton Express.
- If you have a valid Proton license key, install using the Full Install (License Key Required) option. Keep in mind the Full Install option has much higher system requirements and is far more complex, including requiring an SSL certificate. You'll want to review the Proton Administration Guide before attempting a Full Install.
- Proton Express setup defaults to using port 31068 for its HTTPS traffic. This default value is used to avoid conflicts with other web services running on the system. The Full Install of Proton defaults to port 443, and is designed for dedicated server environments with no other web services that might compete for this port. Port 443 is always the best choice as the port number need not be specified when the server URL is accessed and most firewalls already allow HTTPS traffic on port 443. You can choose any port number for Express or Full Install during setup and Proton will configure IIS to use the selected port.
- To access Proton Manager, choose (or search for) Proton Manager from the Start menu of the system running Proton Express or Proton Server. This will provide a special link to the Manager, with your server URL embedded, to automatically populate the server URL in the login screen. You may also access the Manager directly from <https://proton.browsium.com/manager> and then enter your Proton server URL manually (example: <https://myprotonserver.mycompany.com:port/server>).
  - If you're accessing Proton Manager for the first time, select Create Account to create your Proton Administrator account. The first account is auto-approved. Subsequent accounts will need to be approved via the Manager's Users page.
- Browsium Client extensions for Internet Explorer, Chrome, and Firefox must be enabled before Proton activity data is recorded from each browser. See section 5 of the Proton Administration Guide for details on managing browser extensions in an enterprise deployment.
- Proton is designed so that older clients can communicate with and send activity data to newer versions of Proton server. However, we recommend that you upgrade clients soon after upgrading the server to provide comprehensive collection of new inventory and activity data elements.
  - Browsium Client 4.4 can be installed as a direct upgrade to Browsium Client 4.x, or Proton Client 1.x, and will automatically inherit the Proton Server URL value from the prior client installation.
  - Proton Server 4.4 can be installed as a direct upgrade to Proton Server 4.x or 1.x. Both the Server and Database must be upgraded, so check both the Server and Database boxes during setup. If these are running on separate server systems, only check the box for the component running on that system.
- Read the [Proton Administration Guide](#) for more information on installing and using Browsium Proton.

## **Known Issues**

- Proton Client systems will not connect properly to Proton Server unless running .NET 4.0.
- The name of the Proton database, entered during a full installation of Proton, cannot have a "." in the string (e.g., naming the database "Proton4.4"). Completing set-up with such a string will result in failure to properly set up the Proton database.
- File upload detection may not work properly in Firefox 52 ESR. Upgrade to Firefox 53 or later for full file upload detection functionality.
- Java usage detection may detect the incorrect version if the web site requesting the Java applet is only open briefly, either because the tab was closed or because there was a navigation to another web site.
- Java usage detection may detect the incorrect version if there are navigations to multiple web sites requesting Java applets in a tab and one of the web sites uses a non-default version of Java. For example, if there is a navigation to site A for which Ion is remediating a non-default version of Java followed by a navigation to site B for which the default version of Java is used, then Proton may detect that site B used the non-default version of Java that was used by site A.
- Proton 4.0 added the capability of detecting ActiveX components being created via JavaScript calls to 'new ActiveXObject' and similar scripting means. For this capability to work, ActiveX auditing must be enabled in Internet Explorer. The Browsium Client installer will automatically enable this auditing. However, if auditing is subsequently disabled, then this capability of Proton will no longer work. Proton will not attempt to re-enable the auditing.
- As part of creating an inventory of ActiveX components installed on a machine, Proton will attempt to load the ActiveX components to test the safety flags. If Proton cannot load the ActiveX component for any reason (e.g., the component has dependencies not loaded by Proton), Proton will not be able to determine the safety flags reported by the component's module. Proton will still determine the safety flags reported in the registry for the component.
- If Proton Server is being installed on Windows Server 2012 or Windows Server 2012 R2 that's also a domain controller and does not have IIS installed, Proton setup will be unable to install IIS automatically. To work around this, install IIS first and then run Proton setup.
- The date selector in Proton Manager is not automatically updated when your PC's calendar rolls to the next day while a browser is open with the Manager loaded. To work around this, refresh your browser tab and the date will become current.
- Java version detection during browsing activity may not be reported until the browser tab is closed because of the way Java interacts with the Internet Explorer DOM.
- The version number of the Browsium Client extensions for Chrome and Firefox may not be an exact match with the version number of the Browsium Client and Internet Explorer extension. This is by design as the version and publishing mechanisms are different for each component. Consult the Proton Knowledge Base for a current list of the version numbers for each Proton component.
- The Proton Manager web site works best in Google Chrome and Internet Explorer 11. Earlier versions of Internet Explorer may have reduced functionality.
- Running the Browsium Client on virtual machines that have been cloned may result in a duplicate machine SID causing Proton to only see inventory and activity data from one of the clients. It's also possible that the client connected to the Proton Server may alternate, resulting in unpredictable inventory and activity data.
- Installation of the local version of Proton Manager (not the default, found in Advanced Options during setup) running under IIS requires the URL Rewrite Module 2.0 for IIS to be installed. This dependency is automatically installed by setup. If, for some reason, the URL Rewrite Module installation fails during Proton setup, no error will be shown. However, you will see a web.config error from IIS when trying to load the Manager site. If you run into this problem, install the URL Rewrite Module manually to fix your local installation of Proton Manager on IIS.

- Proton does not provide an easy way to recover lost administrator passwords. If you forget your Proton administrator account password, contact Browsium Support for assistance. Direct access to the SQL database can be used to reset the accounts so you can re-create the first, auto-approved administrator account.
- Installing Proton Express on a PC that has SQL Server Management Studio or other SQL-related components may cause Proton Setup to skip installing SQL Server 2012 Express. To work around this, install SQL Server 2012 Express manually and then run Proton Setup.
- The bar chart on the Activity -> Web Application Usage page shows a bar for each application displayed in the table. When a large page size (e.g. 100 or 1000) is selected, the bar chart may become unreadable.
- Attempting to install the Full version of Proton Server or Manager on Windows 10 results in an IIS configuration error. Proton Server Full Install is only supported on Windows Server - on client systems, like Windows 10, use Proton Express instead.
- When you make a rule change, you can see the new or updated rule in the Manager, but the changes to web application mappings are not enacted immediately. Rule mapping is done in the background on the Proton database server. The length of time that takes varies depending on the size of the database, the change made, how many URLs the rule matches, the speed and load on the database server, and what other background processing is occurring.

## **Contact**

For technical support, please visit the [Browsium Support website](#).

# What's New in Prior Releases

## What's new in Proton 4.4.1

This section details changes to Proton since the prior version, Proton 4.4

- Fixes a setup dependency issue when Proton Manager is not installed on the same machine as Proton Server.
- Fixes an exception while processing incoming activities from Proton Clients.
- Fixes arithmetic overflow issue displaying performance reports.
- Added check to reject all non-anonymized data when anonymization is enabled for all users and machines.

## What's new in Proton 4.4

This section details changes to Proton since the prior version, Proton 4.3.1

- Adds support for Microsoft Edge.
  - Edge support requires systems be domain joined and side loading extensions enabled.
- Adds support for 64-bit Firefox.
- Adds Script Error Reporting for Chrome and Firefox for broader web application error detection.
- Added Client Authentication Tokens and IP filtering for enhanced security.
- Fixes an issue where changing settings in Configuration may revert Privacy settings to OFF.

## What's new in Proton 4.3.1

This section details changes to Proton since the prior version, Proton 4.3.

- Improves file upload detection to properly detect the upload and properly capture the "uploaded to" field on more websites.
- Improves detection of user accounts on Google properties.
- Synced files detection no longer detects hidden metadata files from Dropbox.
- Improves performance of synced files detection for collections with a very large number of individual files.
- Fixes a bug in Proton Manager when navigating between pages where the page title changes but no navigation occurs.
- Fixes a bug in user account detection so that it now functions properly even if a page has multiple forms that meet login criteria.
- Fixes a bug in Proton Server that caused an arithmetic overflow error converting IDENTITY to data type tinyint.
- Fixes a bug in Browsium Client Internet Explorer Extension so that it now properly registers itself as compatible with Internet Explorer Enhanced Protected Mode on Windows 8 and later.
- Improves Browsium Client performance when it detects Proton Server is offline or unreachable.

## What's new in Proton 4.3

This section details changes to Proton since the prior version, Proton 4.2.3.

- Fixes an issue where websites that relied on an overridden window.onLoad function were failing to render correctly in Firefox and Chrome when the Browsium Client extension was enabled.  
(This fix only available in build 4.3.0.286, slipstreamed into Proton release channel on 5 June 2017.)
- Detection and reporting of user logins to select web applications provides key insights into SaaS account usage to rationalize and optimize SaaS licenses.
- Detection and reporting of files shared via cloud services such as Dropbox and OneDrive exposes shadow IT usage and enables IT to preempt inadvertent information disclosure violations.

- Provides comprehensive listing of all files shared via native cloud service client software installed on Windows PCs throughout the organization.
  - Companion file upload detection reports on files uploaded by end users to select websites via a browser.
- Detection of native Windows cloud client applications such as Dropbox, Slack, Box, GoToMeeting, etc. provides detailed account usage reporting to track compliance and discover license optimization opportunities.
- User account and file upload detection utilizes specialized client-side data extraction code for top cloud services. This code is kept current via Proton cloud service definitions which are automatically updated on Proton servers.
- Redesigned performance analytics summarizes the performance of all web applications and surfaces how current load times compare with the historical average to aid in troubleshooting and performance optimization.
- Detection of script errors from client browsers provides key troubleshooting insights so problems can be addressed before helpdesk calls come in.
- Collection of server IP addresses aids in performance optimization and cloud migration reporting.
- Server processing resilience improves performance of Proton servers under load.
- Updated Firefox extension uses new WebExtensions model for better performance and reliability.

### What's new in Proton 4.2.3

This section details changes to Proton since the prior version, Proton 4.2.2.

- Fixes a compatibility issue in the Browsium Internet Explorer Extension that could cause certain older ActiveX controls to crash when closing an Internet Explorer window.

### What's new in Proton 4.2.2

This section details changes to Proton since the prior version, Proton 4.2.

- Fixes a timeout issue in Proton upgrade scripts while upgrading really large databases.

### What's new in Proton 4.2

This section details changes to Proton since the prior version, Proton 4.1.1.

- Adds a powerful new set of web application performance analytics to enable enterprise-wide endpoint detection and diagnosis of web application performance issues.
- Adds detection of 64-bit Java in both client inventory and activity.
- Improves the performance and functionality of charts and graphs.
- Improves client startup performance when some modules are inactive.
- Improves detection of changes in user data (e.g. org unit).
- Improves client data reporting robustness in server-not-available situations.
- Improves performance and reliability of full export of datasets from Proton Manager.
- Extends support for comprehensive user account password restrictions, including password expiration and custom regular expression password strength policies. See section 3.6.1 of the Proton admin guide for details.
- Adds support for multi-process Firefox which is planned to become the default operating mode in Firefox 51 and later.
- Fixes an issue that caused Java versions to sort incorrectly in certain reports.

### What's new in Proton 4.1.1

This section details changes to Proton since the prior version, Proton 4.1.

- Fixes a problem in which initial client reporting of inventory information could take a long time to complete on the server. This resulted in initial scaling issues for large deployments. With this fix, initial inventory processing is many orders of magnitude faster.
- Improves performance of ActiveX inventory reporting in Proton Manager.
- Fixes an issue where Java application activity may sometimes not get reported.
- Fixes an issue that caused changes to the Active Directory Organizational Unit for some users to not be reported to the Proton server.

#### What's new in Proton 4.1

This section details changes to Proton since the prior version, Proton 4.0.

- Comprehensive Java detection and reporting:
  - New suite of dedicated Java usage reports, with full export capabilities, simplifies access to Java usage information and provide the insights needed to proactively manage Java versions and security organization-wide.
  - New detection and reporting for Java applications running outside of web browsers provides a complete view of Java usage throughout the organization.
- Comprehensive ActiveX control detection and reporting:
  - New suite of dedicated ActiveX usage reports simplifies access to ActiveX dependency and security information, by version and by web application.
  - New reporting on unused ActiveX controls identifies unnecessary attack surfaces to aid in defense-in-depth security mitigation.
- New web browser and web application performance analytics:
  - Proton now collects and reports on page fetch and load times for every web application, the first of many planned features to provide comprehensive client-side performance analytics for enterprise web applications.
- Other enhancements to existing Proton server and Browsium Client features:
  - Enhances Privacy Mode to optionally anonymize machine names in addition to previously supported user names and IP addresses.
  - Fixes an issue that caused IP address to be incompletely anonymized in specific network configuration cases.
  - Enhances bulk upload of rules to add support for Map rules (in addition to previously supported Ignore rules), along with new options to append new rules to the existing set or replace all rules with the new set.
  - Improves browser version detection and reporting to better handle multiple versions of the same browser on a single PC.
  - Adds the ability to pull organizational unit information from multiple properties in Active Directory.
  - General improvements to Browsium Client in the areas of stabilization, robustness, and performance.
  - Combines the splash screens for all modules into a single splash screen displaying configuration information for each module.
  - Cleans up client error logging, reducing the spurious error messages in Event Viewer.
  - Fixes a bug that occasionally caused document mode detection to fail.
  - Fixes a bug that caused Browsium Controller to crash on some systems while displaying the splash screen.

#### What's new in Proton 4.0

This section details changes to Proton since the prior version, Proton 1.2.1.

- The new, unified Browsium Client includes the agent functionality for Proton, Ion, and Catalyst, resulting in a single client deployment that works with all modules in the Browsium browser management suite.
  - Browsium Client includes browser extensions for Internet Explorer, Chrome, and Firefox.



- Browsium Client installs a new Browsium Service (BrowsiumService.exe) to handle client operations that require administrative privileges at runtime.
- Browsium Controller (BrowsiumController.exe) and Browsium Monitor (BrowsiumMonitor.exe) replace Browsium Proton Controller (BrowsiumProtonController.exe) and Browsium Proton Monitor (BrowsiumProtonMonitor.exe) from prior versions. These new processes provide functionality for Ion, Catalyst, and Proton if configured, reducing the overall memory footprint and number of processes required to run the Browsium suite.
- Privacy Mode anonymizes user names and IP addresses to comply with international privacy regulations.
- Enhances ActiveX detection and reporting provides deeper insights on legacy, insecure ActiveX controls that may be causing an unnecessary attack surface and attack vectors for hackers.
- Improves report export behavior, increasing speed, providing a full report export option (not just the visible rows), and simplifying the report export experience.
- Improves integration with Browsium Ion and Browsium Catalyst, with clearer identification of Ion profiles and more granular client inventory details to show the status of Ion and Catalyst configurations.

Client inventory details will only show Ion and Catalyst in the "Browsium" section of the report when Ion and Catalyst have a configuration deployed on the client system.

#### What's new in Proton 1.2.1

This section details changes to Proton since the prior version, Proton 1.2.

- Enhanced ActiveX detection runs faster, is more secure, and finds ActiveX controls by MIME type and within embed tags.
- Cleaner uninstall and upgrade behaviors.
- Client stability improvements, including a fix for a mismatched lookup table.

#### What's new in Proton 1.2

This section details changes to Proton since the prior version, Proton 1.1.

- Adds data collection and reporting of Document Mode values (in Internet Explorer only) to help identify which pages are rendered in legacy modes and insights into how that mode was selected.
- Reports now include information on ActiveX Control security values, specifically safe for scripting and safe for initialization, helping organizations identify and resolve insecure settings needed for line of business applications.
- Report columns can now be sorted in ascending or descending order to aid in content analysis.
- Now includes Data View exports, enabling easier sharing and integration of Proton report data into other media and analytics tools.
- New Diagnostics page in Proton Manager provides additional insights on system health and operations.
- Enables bulk upload of Ignore Rules to ease the creation of large sets of rules.
- New Power User account type in Proton Manager enables greater access without opening all settings.
- Performance enhancements in the Report & Filtering processes enable quicker response and ability to handle significantly larger data sets.
- Backend database performance optimizations enable larger client deployments and faster integration of data.
- Filters now support views by AD Site and IP range values.
- New Data Retention Policy helps compliance with corporate data requirements and manage database growth.
- Addresses a bug where rule mapping may not complete when too many records are active.
- Fixes bug where blocked ActiveX controls may be unreported in Proton inventory.
- Fixes bug where Proton client is not available for download in self-hosted Proton Manager.
- Fixes issue with F5 (refresh) not updating screen report views.

#### What's new in Proton 1.1

Proton 1.1 was the first commercial release of Proton, so every is new. All future releases will contain a change log detailing the new features and bug fixes in each release.