Avanite.Ltd

WebData Control Evaluation Guide

Version 4.2.26.0

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1 About WebData Control

With web based applications and internet browsing being the norm today, the data generated by modern web browsers is increasingly causing system administrators issues. As ever, system administrators want to provide better controls, more security and minimise costs, whilst end users expect a great user experience, a fast logon and the same consistent experience in every session and on each machine they use.

Microsoft Internet Explorer (IE), Google Chrome, Mozilla Firefox, and more recently Microsoft Edge are often provided as the standard mechanisms for browsing the internet and accessing web based applications. These browsers all have proprietary mechanisms for storing cookies, browsing history, temporary internet files and document object model (DOM) information.

WebData Control has been designed to allow for the granular management of this browser generated data to sanitize and optimize it based on the needs of the IT department, facilitating the ability to provide end users a great user experience.

Looking at Microsoft Internet Explorer 11 and Microsoft Edge, much of the data corresponding to web browsing is now indexed and held within a central database, the webcachev01.dat. This database is located in %UserProfile%\AppData\Local\Microsoft\Windows\WebCache. To identify data such as cookies and browsing history, you need the actual files on disk, the associated registry data, and the webcache database. If any one of these are not present, then the data is redundant, affecting the user experience.

This webcache database brings in major issues when we look at users roaming between devices. The webcache database starts at 26-32MB (dependant on OS version) and rapidly grows as users use the system. Things such as Universal Apps available from the Windows store, and simple browsing of the local network writes data into the database. This means that webcache files can rapidly grow to 100s of Megabytes.

For Google Chrome and Mozilla Firefox the story is much the same with databases being used to store cookies, browsing history and supporting data. The file system is also used to store temporary internet files, browser cache information and other data such as frequently visited sites. These databases rapidly grow as users interact with the browsers and storing and restoring this data between sessions leads to increased storage costs, greater network utilization, and significantly longer logon and logoff times.

WebData Control is unique and provides a fresh solution to the problem. The conventional way is to allow the dataset to grow and increase centralised storage. With WebData Control, the administrator can define which data is to be kept and which data is to be deleted. It seamlessly manages the contents of the browser databases, the relevant files on disk, and relevant registry entries for a complete all-in-one solution.

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2 Feature Summary

WebData Control has been designed to allow administrators to take control over the data generated by the common web browsers used in Enterprises.

2.1 Common Browser Support

WebData Control supports the following web browsers:

- Microsoft Internet Explorer 10/11
- Google Chrome
- Mozilla Firefox
- Microsoft Edge

2.2 Cookie Management

Cookies are essential to enable a rich browsing experience for users. Cookies enhance browsing for users by websites to keep track of user information and preferences. Although many cookies are useful, there are also cookies that are used for other purposes such as tracking and targeting people/computers with adverts.

WebData Control allows you to define which cookies you want to keep and which you want to remove via advanced policies which provide granular control over the management of cookies. Cookies can be managed across all the common browsers that are supported.

Cookies can be managed in a number of ways, WebData Control will remove cookies, cookie files and associated cookie data in the following ways:

- Remove cookie data associated with cookies not created, modified or access in the last x number of days
- Remove cookie data relating to the third-party cookies
- Remove cookie data relating to specific cookie types
- Remove cookie data for expired cookies or cookies which are no longer relevant
- Remove cookie data for defined sites
- Always retain cookie data for defined sites

> ***Note:*** *For an explanation of cookie terms see Appendix A*

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2.3 Browsing History Management

Information relating to a user's browsing history is stored by each of the supported web browsers in different ways. Webdata Control gives a consistent method for an administrator can configure WebData Control to manage the browsing history retained for users:

- Define how long to keep browsing history
- Remove browsing history data for defined sites
- Always retain browsing history data for defined sites

2.4 Web Data Management

2.4.1 Temporary Internet Files

Temporary Internet Files are designed to provide a faster web experience by placing much of the data within a webpage locally on the machine. The sheer amount of data stored means that this has long been more of a burden than useful technology and is historically dumped between sessions. WebData Control provides a fresh approach to the management of temporary internet files as it is now possible to manage temporary internet files on a per site basis.

2.4.2 DOM Store Data

Document Object Model (DOM) data is stored as websites are visited by users. This DOM data is used to store web page structures and speed up browsing and navigation. The DOM data often stored in the form of XML, HTML or jscript files, becomes large and cumbersome. WebData Control provides the ability to granularly manage the DOM data stored by each browser allowing only required DOM data to be retained.

2.4.3 Compatibility Data

For IE and Edge the webcache database holds compatibility information ensuring that older websites are rendered correctly in newer browsers. This is comprised of a default set of URLs provided by Microsoft. WebData Control allows for the default list of sites to be deleted to help reduce the size of the webcache database as much as possible. The compatibility data is downloaded again when the browser is launched launch, so can be safely deleted if minimum size of the webcache is the primary concern.

2.4.4 Enterprise Mode Data

IE and Edge both have Enterprise Mode capabilities built in which allow administrators to define how websites are rendered for compatibility. Regardless of whether Enterprise Mode is actually used the webcache database contains data related to Enterprise Mode. WebData Control allows for this data to be deleted from webcache to keep the size of the file down to

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the minimum required. When Enterprise Mode is used the relevant data will be downloaded again when the browser is launched, so can be safely deleted if minimum size of the webcache is the primary concern.

2.5 Windows Store Apps

With Windows 8 and above, Windows Store Applications were introduced. These applications known as Store Apps, Universal Web Platform apps, Modern UI apps or Metro apps also store web data in both the file system and the webcache database. Much of the data is redundant and not user facing. WebData Control allows for Universal App data to be removed from the webcache database ensuring only relevant data for the user is retained. Where data is required to be retained for any Universal App, this may be specified in the configuration.

2.6 Web Data Reporting

WebData Control provides an administrator the capability to report on the web data that exists in each user session. When Data Reporting is enabled a report of history and cookie information stored for the user is output for analysis.

The report data can be used to understand the web data being stored for each user and can then be used to further configure WebData Control to achieve greater control and efficiencies.

> ***Note:*** *For further information on the data output from WebData Control reporting please see Appendix B*

2.7 Data Optimization

Once all data has been managed as per the defined configuration, WebData Control optimizes the web browser databases ensuring all redundant data is cleared and all residual space is reclaimed. This ensures the databases such as the IE and Edge webcache database size are kept to an absolute minimum, this will minimise the impact on the supporting infrastructure and ensure better logon/logoff times for the users. Chrome and Firefox databases are also optimized providing the same functionality across all supported browsers. Which databases are optimized depends on the browser and options selected when configuring WebData Control.

> ***Note:*** *Some white space in the webcache data is marked as reserved and therefore cannot be reclaimed*

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2.8 Roaming Profile Support

WebData Control actively supports management of Internet Explorer cookies in a roaming profile scenario. As per https://docs.microsoft.com/en-us/internet-explorer/ie11-deploy-guide/browser-cache-changes-and-roaming-profiles, when the "Delete cached copies of roaming profiles" Group Policy setting is enabled and the profile is of a Roaming type, when WebData Control executes it automatically manages cookies in the AppData\Roaming section of the user profile.

When using this mechanism only cookie information is retained between sessions with .dat or .rcookie files being generated in the AppData\Roaming part of the user profile. When Internet Explorer launches in each new session the .dat/.rcookie files are used to recreate the webcachev01.dat file. WebData Control understands the inter-relationship and manages the cookies as expected.

2.9 Notification Service

The Avanite Notification Service is an option which can be selected as part of the full installation to include a service to automatically execute WebData Control during the logoff phase of a user session. This component is not required but can be used to provide a simple installation and execution mechanism if required. The service will ensure that WebData Control is executed prior to any profile management solutions and before the user profile is unloaded during the logoff of a user session.

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3 Installing and Configuring WebData Control

3.1 Evaluation Installation

The evaluation installation has been designed to minimize the configuration required by administrators. It an Avanite Evaluation configuration and will install the configuration locally removing the need to set the options through Group Policy Objects (GPO).

> ***Note:*** *For details of the Avanite Evaluation configuration see Appendix A*

When installed in evaluation mode data is sent to the Evaluation Reporting Service, which will be processed and then displayed in graphical format when signing in to the Avanite Evaluation Reporting Website.

A trial license (valid for a period of 14 days) is also installed for quick and easy configuration.

3.1.1 Installation

In order to use WebData Control it must be installed on each Windows Desktop, Virtual Desktop or Terminal Server where you wish to manage user web data.

3.1.2 Pre-Requisites

The only pre-requisite for the installation of WebData Control is Microsoft .Net version 4.5 or greater. If not present, then the installation will prompt for the software and exit.

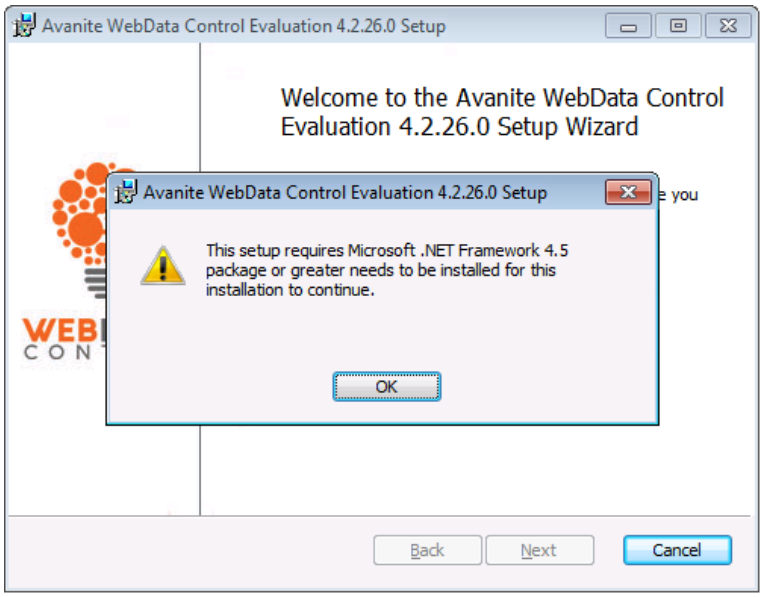


Figure 1 - Required pre-requisite missing

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3.1.3 Interactive Installation

To install the evaluation WebData Control, please follow the following steps.

1. As an administrator, run AvaWDCEvaluationx86.msi or, AvaWDCEvaluationx64.msi depending on your system architecture. Click Next to continue the installation.

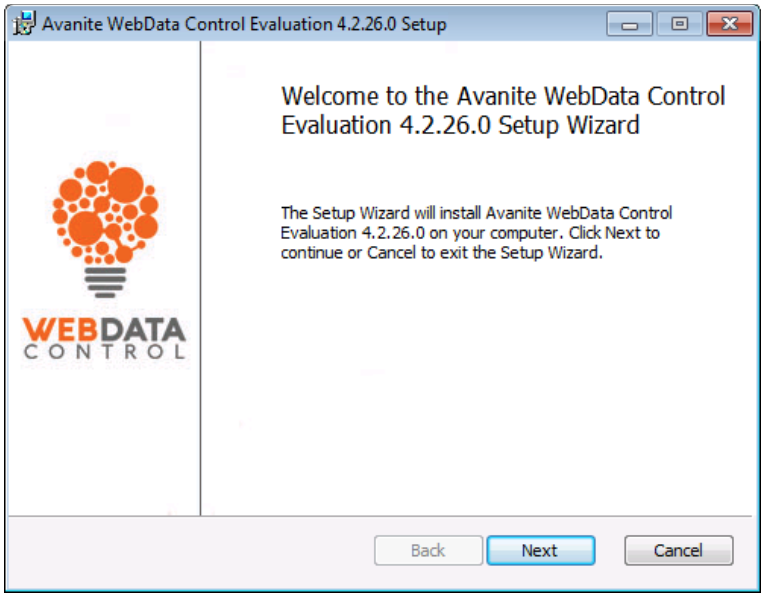


Figure 2 - Welcome screen

2. Read the EULA and if you accept the agreement check the box and click **Next.**

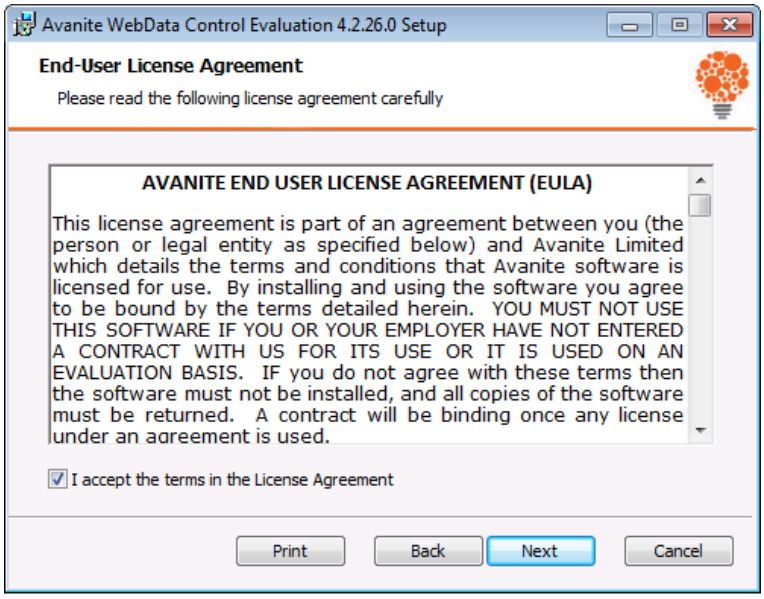


Figure 3 – EULA Acceptance

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3. To proceed with the installation, enter the details as requested by the installer. The email address is a required field as this is used to send login details to, the other fields are optional. The password and access details will automatically be sent to the email address provided once data is received. Once the relevant details have been entered click **Next.**

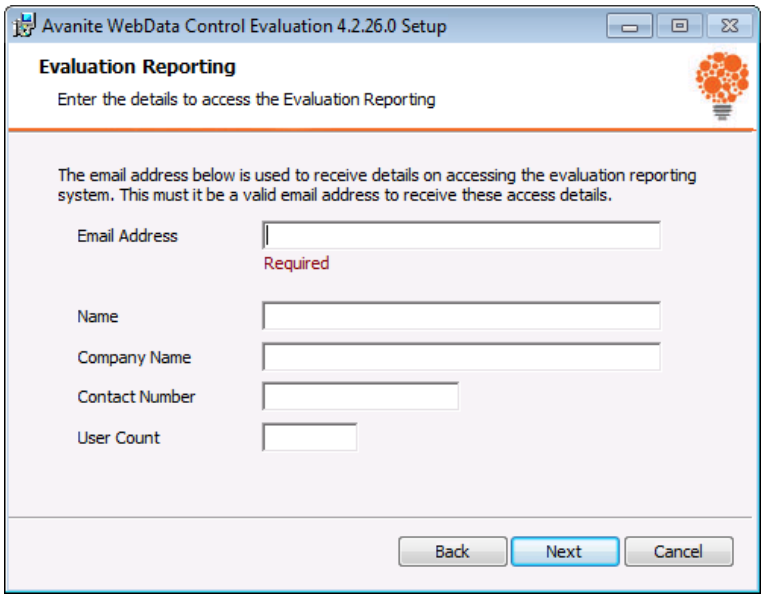


Figure 4 - Custom Setup options

4. Select the destination folder where you want to install the application and click **Next**. Installing into the default folder is recommended.

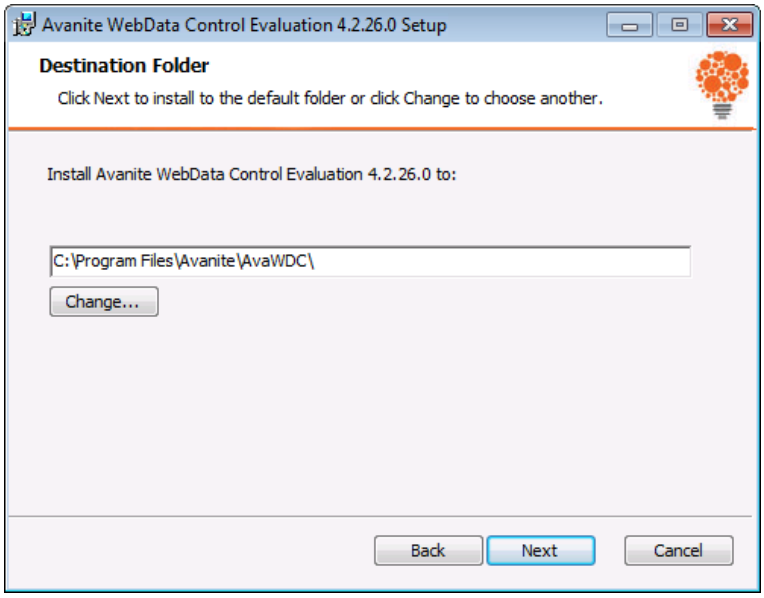


Figure 5 - Destination folder

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5. Click **Install**.

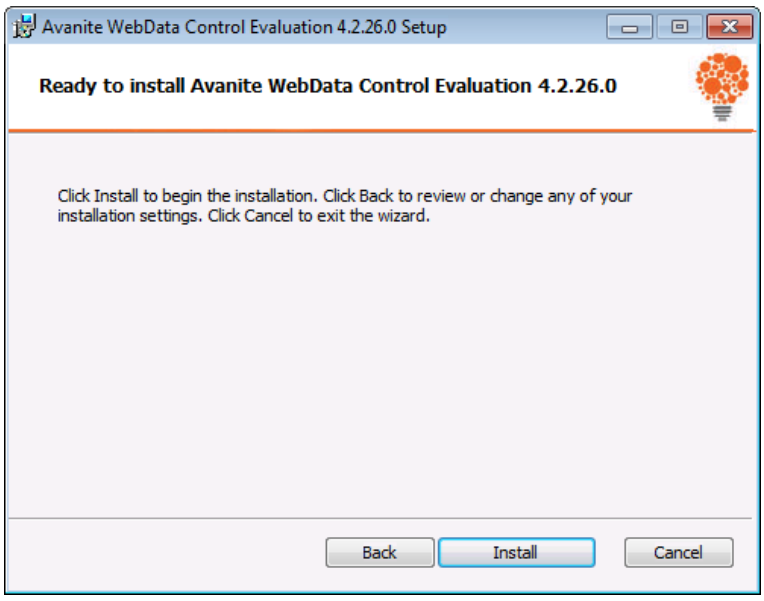


Figure 6 – Confirmation screen

6. After the installation is complete, click **Finish**.

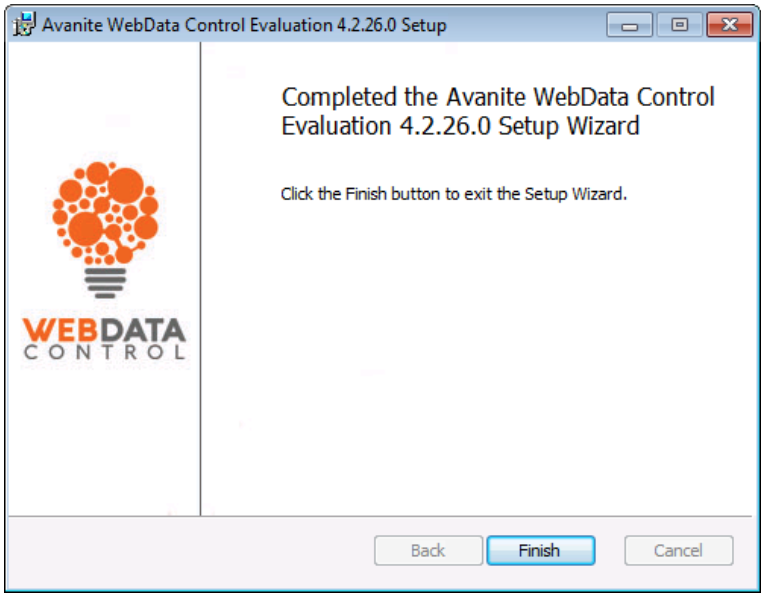


Figure 7 - Installation Completion

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4 Evaluation Reporting

Upon successful installation of the Avanite WebData Control software an email will be sent to the email address provided during the setup process. This email will contain the url to access the Avanite Evaluation Reporting Website along with a password to gain access.

When evaluating, the Avanite WebData Control software will operate in an "passive" mode for the first 2 logons for each user. Data for these 2 user sessions will be uploaded to the Avanite Evaluation Reporting Website and will show the current state for each user.

After 2 successful logons have been completed the WebData Control software will start to operate normally and data for these subsequent user sessions will also be uploaded to the Avanite Evaluation Reporting Website for comparison.

An example of the reports that can be seen in the Avanite Evaluation Reporting Website are shown below. The user (Eval1) shown in the examples below had browsed a few hundred websites over the preceding weeks, continued to logon and browse 20 websites in each session.

The Reports use a colour coding system as follows:

- Dark Grey – data gathered in "passive" mode
- Light Grey – data removed by Avanite WebData Control
- Orange – data remaining after Avanite WebData Control

4.1 Welcome Screen

Navigating to the Avanite Evaluation Reporting Website will present a user with a welcome screen as shown here. Click the Logon button and enter the email address and password to sign in:

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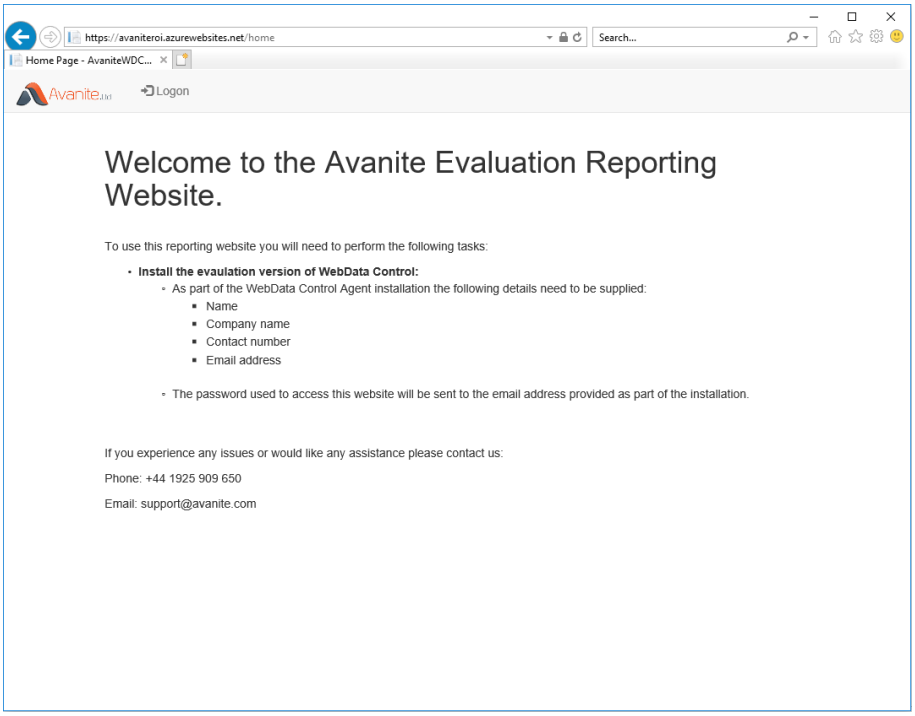


Figure 8 – Reporting Welcome Screen

4.2 Summary Screen

Once signed in the following Summary screen will be presented. This screen shows a summary of the reporting data that has been gathered for all users:

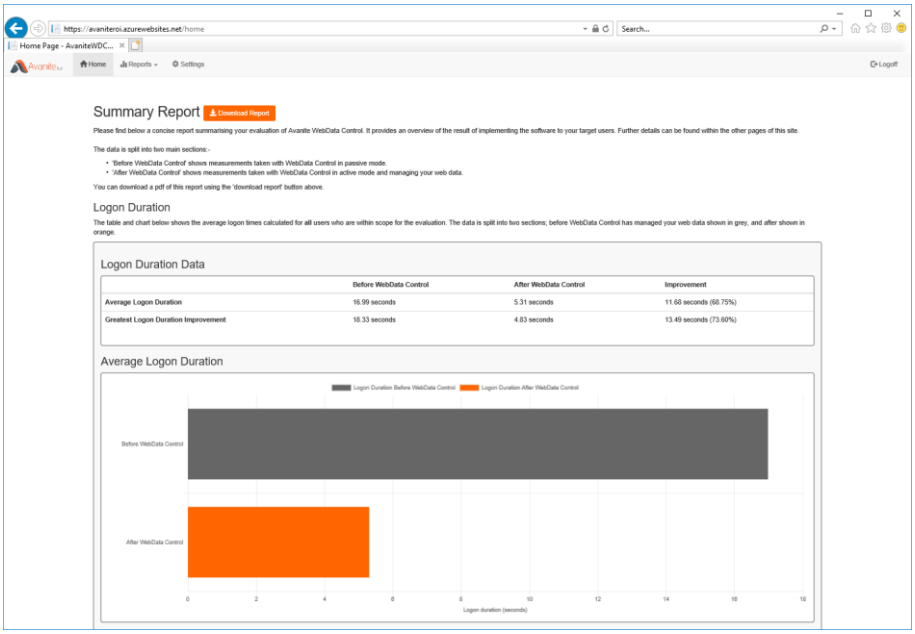


Figure 9 – Reporting Summary Screen

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4.3 Logon Report

The Reports menu item can be used to browse to the Logon Report which shows all the logon time information that has been recorded. Users can be searched or highlighted in the list to show the relevant detail:

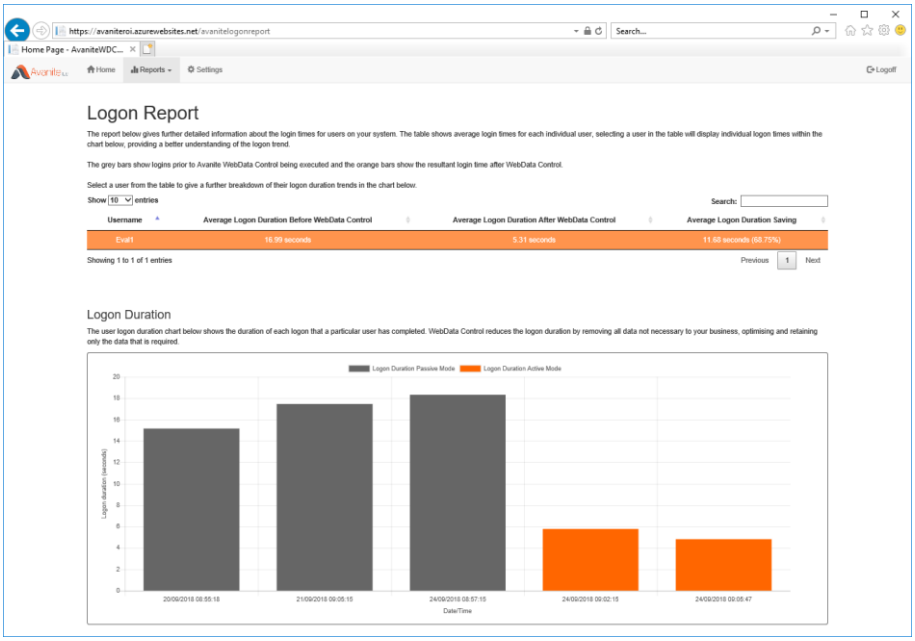


Figure 10 – Logon Report

4.4 Cookie Report

The Reports menu item can be used to browse to the Cookie Report which shows all the cookie information that has been gathered. Users can again be searched or highlighted in the list to show the relevant detail:

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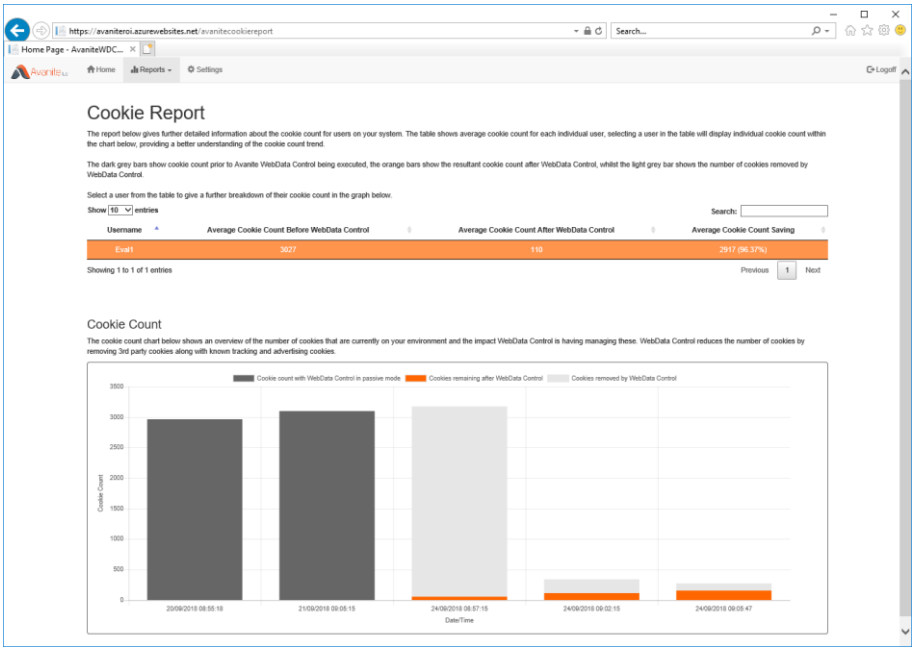


Figure 11 – Cookie Report

4.5 Cookie File Report

The Reports menu item can be used to browse to the Cookie File Report which shows all the cookie file information that has been gathered. This report may show no cookie files on certain operating system and browser combinations as cookies are stored entirely in the web browser databases. Users can again be searched or highlighted in the list to show the relevant detail:

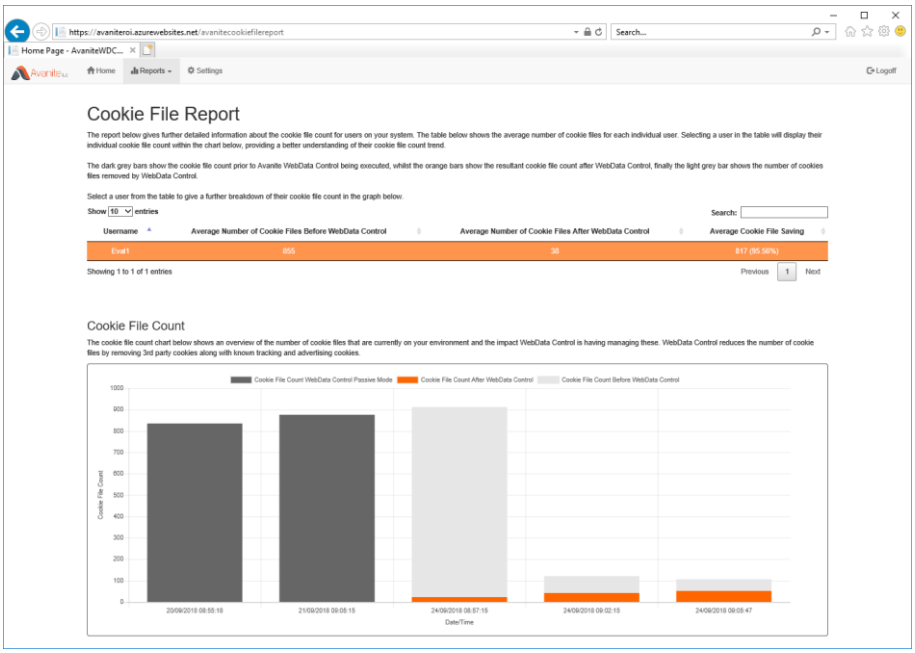


Figure 12 – Cookie File Report

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4.6 Disk Space Usage Report

The Reports menu item can be used to browse to the Disk Space Usage Report which shows all the information that has been gathered in relation to disk space utilization. Users can again be searched or highlighted in the list to show the relevant detail:

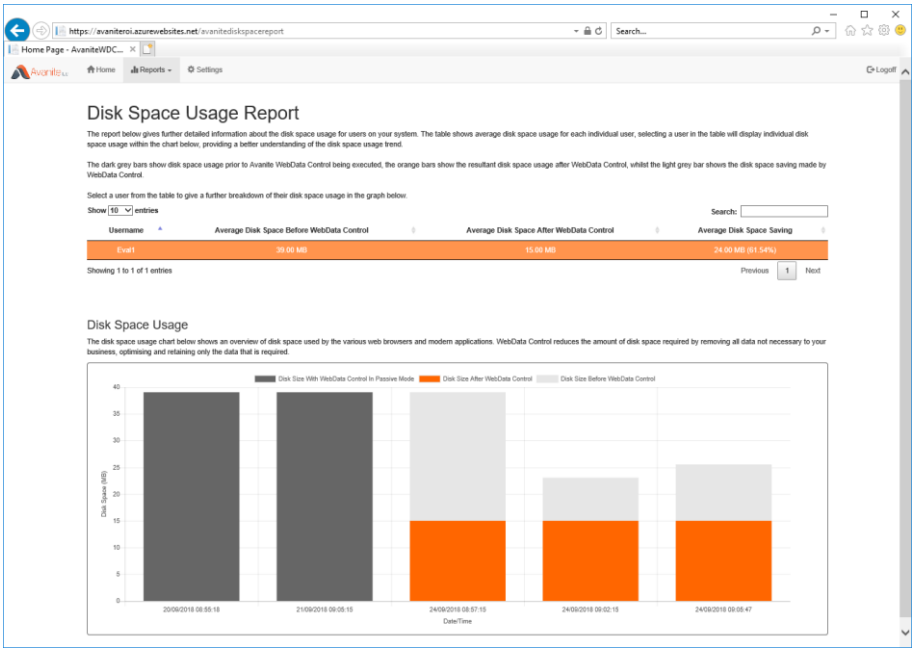


Figure 13 – Disk Space Usage Report

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Appendix A – Evaluation Defined Configuration

Global

Location - Avanite\WebData Control\Global

Policy	*Setting*
Data Optimization	Enabled
Event Logging	Enabled
Licence	Enabled

Chrome

Location – Avanite\AvaWcm\Chrome

Policy	*Setting*
Chrome Cookie Retention	Enabled Retain specified number of calendar days Days:- 7 Remove expired cookies:- Selected
Chrome Cookie Type Removal	Enabled Remove known advertising and tracking cookies - Selected
Chrome DOM Data Removal	Enabled
Chrome History Retention	Enabled Retain specified number of calendar days Days:- 7
Chrome Temporary Internet Data Removal	Enabled
Chrome Third Party Cookie Removal	Enabled

Internet Explorer

Location – Avanite\WebData Control\IE

Policy	*Setting*
IE Compatibility Data Removal	Enabled
IE Cookie Retention	Enabled Retain specified number of calendar days Days:-7 Remove Expired Cookies:- Selected
IE Cookie Type Removal	Enabled Remove known advertising and tracking cookies:- Selected
IE DOM Data Removal	Enabled Delete all Files
IE Enterprise Mode Data Removal	Enabled
IE History Retention	Enabled Retain specified number of calendar days

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	Days:- 7
IE Temporary Data Removal	Enabled Do not remove files on disk
IE Third Party Cookie Removal	Enabled

FireFox

Location – Avanite\WebData Control\FireFox

Policy	*Setting*
FireFox Cookie Retention	Enabled Retain specified number of calendar days Days:- 7 Remove expired cookies:- Selected
FireFox Cookie Type Removal	Enabled Remove known advertising and tracking cookies - Selected
FireFox DOM Data Removal	Enabled
FireFox History Retention	Enabled Retain specified number of calendar days Days:- 7
FireFox Temporary Internet Data Removal	Enabled
FireFox Third Party Cookie Removal	Enabled

Edge

Location – Avanite\WebData Control\Edge

Policy	*Setting*
Edge Compatibility Data Removal	Enabled
Edge Cookie Retention	Enabled Retain specified number of calendar days Days:-7 Remove Expired Cookies:- Selected
Edge Cookie Type Removal	Enabled Remove known advertising and tracking cookies:- Selected
Edge DOM Data Removal	Enabled Delete all Files
Edge Enterprise Mode Data Removal	Enabled
Edge History Retention	Enabled Retain specified number of calendar days Days:- 7
Edge Temporary Data Removal	Enabled Delete all Files
Edge Third Party Cookie Removal	Enabled

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Window Store Apps

Location – Avanite\WebData Control\Windows Store Apps

Policy	*Setting*
Windows Store Apps Data Removal	Enabled

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