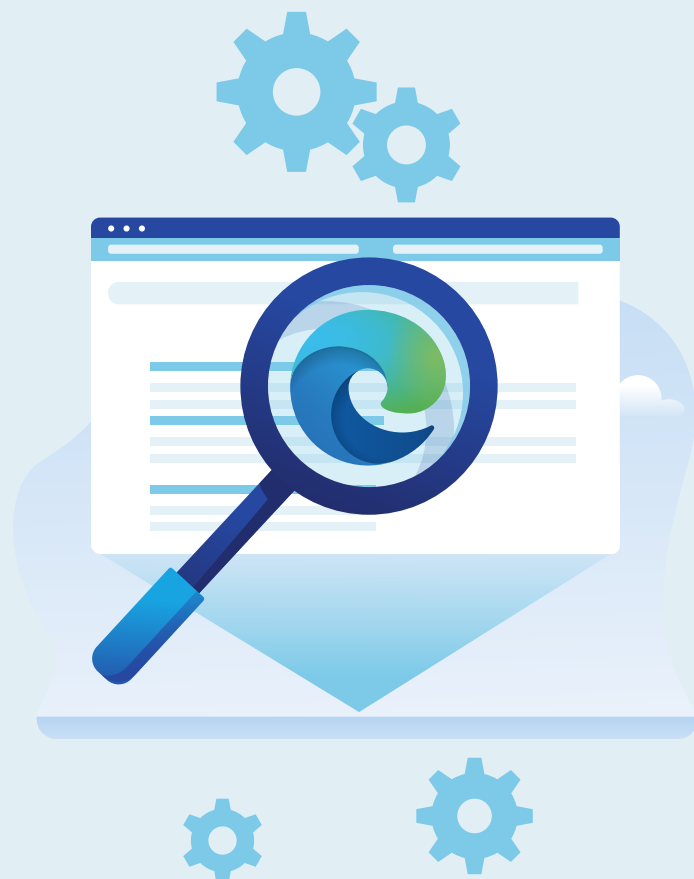


# CCN-CERT BP/26



## Microsoft Edge security recommendations

BEST PRACTICE REPORT

JUNE 2022

**ccn-cert**  
centro criptológico nacional

**CCN**  
centro criptológico nacional

Edit:



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# 1. Introduction

**The purpose of this document is to set out the procedures and utilities needed to implement and secure Microsoft Edge against the risks to which it may be exposed.**

For this purpose, a series of steps and instructions are provided to enable the browser to be configured manually. A configuration file is also provided to apply security measures and thus facilitate the possibility of implementing security.

In the development of this guide, the **Microsoft Edge Stable** program installer in **Version 102.0.1245.33 (Official 64-bit version)** for Windows operating systems was used. This configuration is also valid for the Microsoft Edge Business version.

Regardless of which version you choose, Stable or Business version of Microsoft Edge, both correspond to the same build, with the only difference being that the Business version does not require an internet connection for installation.



# 2. Microsoft Edge web browser

Microsoft Edge was initially built with Microsoft's own **EdgeHTML** and **Chakra** engines. In 2019, Microsoft Edge was rebuilt as a Chromium-based browser, using the **Blink** and **V8** engines. These engines provide better security and a better look and feel.

Microsoft Edge will replace the Internet Explorer browser in Windows environments as the default browser starting with the 1709 distribution of Windows 10 and in the new Windows 11 operating system.

**Microsoft Edge will replace the Internet Explorer browser in Windows environments as the default browser.**

**NOTE : Additional information about the end of support for Internet Explorer 11 and the replacement by Microsoft Edge is available via the following link:**



<https://blogs.windows.com/windowsexperience/2021/05/19/the-future-of-internet-explorer-on-windows-10-is-in-microsoft-edge/>

Microsoft Edge is available for free download from the Microsoft website. It is also deployed by default on Windows 10 and Windows 11 operating systems with no download required.

## 2. Microsoft Edge web browser

An internet connection is required to download the installer, as for the browser installation process. If the computer on which Microsoft Edge is installed does not have an internet connection, you will need to download the full browser via the **“Business”** version of the browser, using the alternative link provided by Microsoft for this purpose.

**NOTE: The downloading of the browser will be carried out later on, more specifically in the point “2.3 DOWNLOAD”. However, a download link from the manufacturer of the Business version of the browser is provided below, as this guide is based on the stable version of the browser:**



<https://www.microsoft.com/es-es/edge/business/download>

You can also install and update the Microsoft Edge browser from the **Windows Update** tool of the Windows operating system, manually by downloading the latest version from the Microsoft website or from the Microsoft Edge settings panel itself.

In this regard, Microsoft Edge must have the latest security-related software updates installed. If the latest security-related software updates for Microsoft Edge are not applied, this would be considered a **critical security flaw**.



## 2. Microsoft Edge web browser

# 2.1 Versions

Microsoft Edge offers a major release cycle cadence of four (4) weeks, but the effective duration of supported support for a stable channel release is approximately twelve (12) weeks.

**NOTE: Additional information on the product lifecycle can be found at the following link:**

 <https://docs.microsoft.com/es-es/deployedge/microsoft-edge-support-lifecycle>

Security updates and maintenance updates are only available in the latest version of the **“Stable”** version and the latest version of the **“Beta”** channel. If you are using older versions of Microsoft Edge, you are likely to miss out on the latest quality and security updates.

The following is a summary of the different versions of Microsoft Edge:



### Microsoft Edge

The Stable Channel is designed for wide deployment in the organisation and is the channel that most users should be on. It is the most widespread of the releases and is the result of the stabilisation of the feature set available in the previous version of the Beta Channel. New features are shipped approximately every 4 weeks. Security and quality updates are shipped as needed.

## 2. Microsoft Edge web browser

### Microsoft Edge BETA



The Beta Channel is intended for production testing deployment to a representative set of users. This channel provides a great opportunity to validate that configurations or requirements work as expected in an environment. If a problem is found, it is possible to fix it before the release is published in the stable channel. Like the Microsoft Edge release new features are shipped approximately every 4 weeks. Security and quality updates are shipped as needed.

### Microsoft Edge DEV



The DEV channel is intended to help plan and develop the latest updates to Microsoft Edge, but at a higher quality than the Canary channel. This channel is used to get an early look at what's new and prepare for the next Beta release.

### Microsoft Edge Canary



The Canary channel is updated daily and is the most cutting-edge of all channels. If you want to access the latest features, they will appear here first.

### Microsoft Edge Business

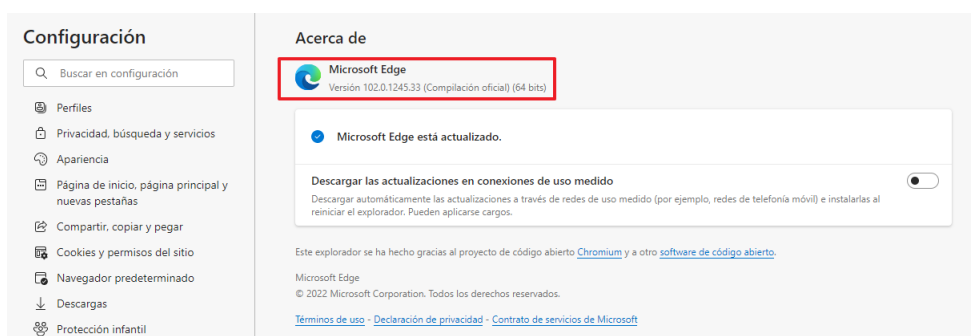


This version is the same Microsoft Edge browser that is used in the stable version. The difference is in how it is deployed and managed. IT administrators can download this version to install the Microsoft Edge browser through an .msi installer and manage their organisation's browsers through group policies.

## 2. Microsoft Edge web browser

To find out which version of Microsoft Edge is installed on a device, follow the steps below:

Start Microsoft Edge, and click on the **...** button at the top right of the browser. Then click on **“Settings”** in the panel that appears. Then go to the **“About Microsoft Edge”** section. The version number of the installed version will be displayed below the name of Microsoft Edge, as shown in the image below:



## 2.2 Minimum requirements

The following are the minimum system requirements necessary to implement Microsoft Edge:



### Supported operating systems (32-bit and 64-bit versions).

- Windows 7
- Windows 8.1
- Windows 10 Professional 1709 and later
- Windows 10 Home 1709 and later
- Windows 10 Enterprise 2015 LTSC
- Windows 10 Enterprise 2016 LTSC
- Windows 10 Enterprise 2019 LTSC
- Windows 11 Professional

## 2. Microsoft Edge web browser



- Windows 11 Enterprise
- Windows 11 Home
- Windows Server 2008 R2
- Windows Server 2012
- Windows Server 2012 R2
- Windows Server 2016 (LTSC)
- Windows Server 2019 (LTSC)
- Windows Server (SAC)
- macOS Sierra 10.2 or higher
- iOS 11 or higher
- Android KitKat4.4 or higher
- Linux (Ubuntu, Debian, Fedora and openSUSE)

**NOTE: Additional information on supported operating systems is available via the following official manufacturer's link:**



<https://docs.microsoft.com/es-es/deployedge/microsoft-edge-supported-operating-systems>



### **Recommended hardware requirements:**

- Recommended minimum requirements for the installed 64-bit operating system.
- Recommended minimum requirements for the installed 32-bit operating system.

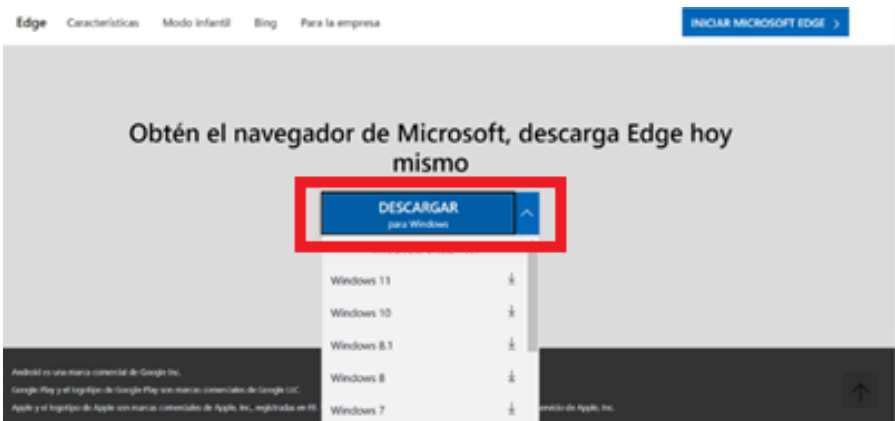
## 2. Microsoft Edge web browser

# 2.3 Download

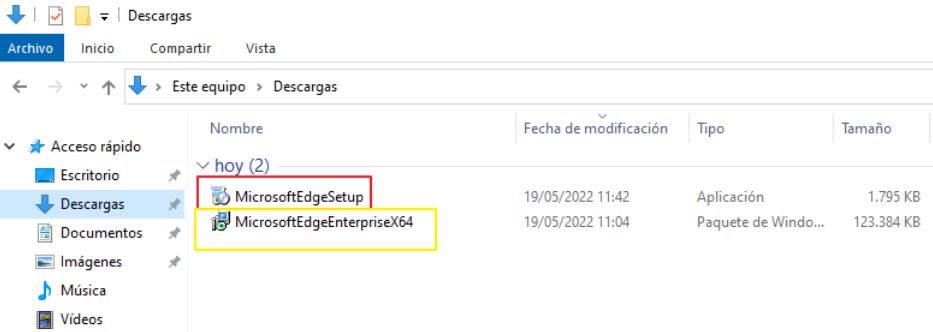
In some cases, for example in the Windows 10 Pro and Home operating systems, Microsoft Edge is already installed by default and integrated with the operating system.

The following is the process to follow to download the Microsoft Edge browser on computers that do not have it installed by default and require it to be installed:



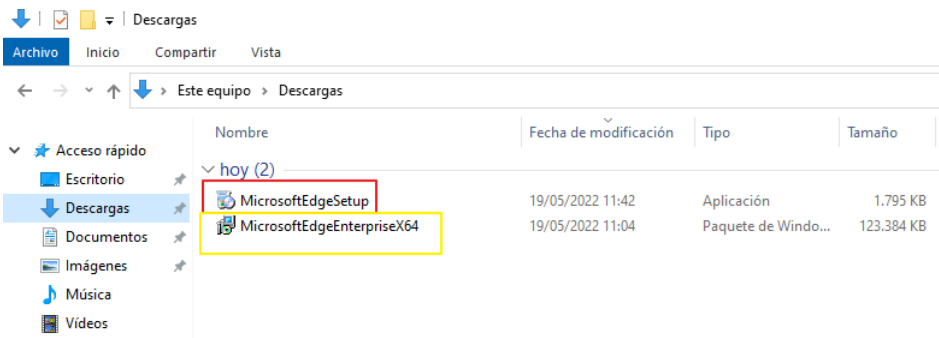
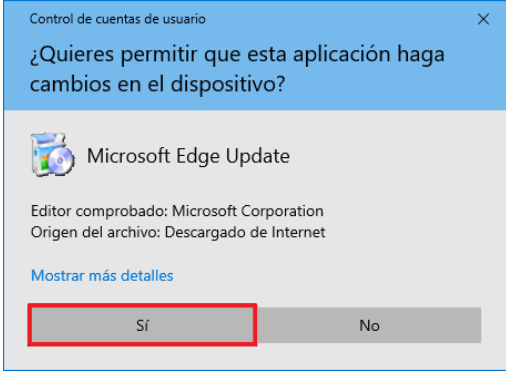
Passage	Description
1.	To download the programme from the official source, please use the following link:  <a href="https://www.microsoft.com/es-es/edge">https://www.microsoft.com/es-es/edge</a>
2.	Download the browser version according to your operating system.   A screenshot of the Microsoft Edge website's download page. The page is in Spanish and features a large blue button labeled 'DESCARGAR para Windows' (Download for Windows) which is highlighted with a red rectangular box. Below this button is a list of operating system options: Windows 11, Windows 10, Windows 8.1, Windows 8, and Windows 7, each with a small downward arrow next to it. The page header includes 'Edge', 'Características', 'Modo infantil', 'Bing', and 'Para la empresa'. A blue button in the top right corner says 'INICIAR MICROSOFT EDGE >'. At the bottom, there is a footer with legal notices in small text.

## 2. Microsoft Edge web browser

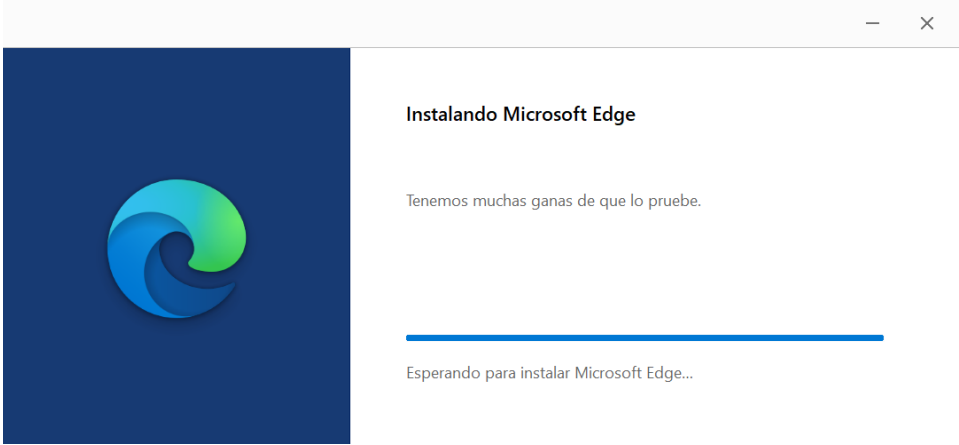
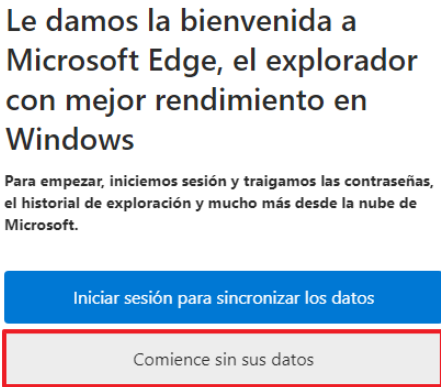
Passage	Description																
<h3>3.</h3>	<p>The downloaded file will appear in the location you have determined, depending on the configuration set in the browser you are using.</p> <p>The red box in the image corresponds to the normal download of the installer that requires an internet connection <b>(Used during the guide)</b>.</p> <p>The yellow box in the image corresponds to the download for <b>offline computers</b>, where Microsoft Edge offers the <b>Business</b> solution for offline installations.</p>  <p>The screenshot shows a Windows File Explorer window titled 'Descargas' (Downloads) with the address bar showing 'Este equipo &gt; Descargas'. The left sidebar shows 'Acceso rápido' (Quick access) with 'Descargas' selected. The main pane displays a table of files:</p> <table border="1"><thead><tr><th>Nombre</th><th>Fecha de modificación</th><th>Tipo</th><th>Tamaño</th></tr></thead><tbody><tr><td>hoy (2)</td><td></td><td></td><td></td></tr><tr><td>MicrosoftEdgeSetup</td><td>19/05/2022 11:42</td><td>Aplicación</td><td>1.795 KB</td></tr><tr><td>MicrosoftEdgeEnterpriseX64</td><td>19/05/2022 11:04</td><td>Paquete de Windo...</td><td>123.384 KB</td></tr></tbody></table>	Nombre	Fecha de modificación	Tipo	Tamaño	hoy (2)				MicrosoftEdgeSetup	19/05/2022 11:42	Aplicación	1.795 KB	MicrosoftEdgeEnterpriseX64	19/05/2022 11:04	Paquete de Windo...	123.384 KB
Nombre	Fecha de modificación	Tipo	Tamaño														
hoy (2)																	
MicrosoftEdgeSetup	19/05/2022 11:42	Aplicación	1.795 KB														
MicrosoftEdgeEnterpriseX64	19/05/2022 11:04	Paquete de Windo...	123.384 KB														

## 2.4 Installation and initial configuration

To install Microsoft Edge, perform the following steps:

Passage	Description
1.	<p>Run the downloaded file by double-clicking on it, either in the version that requires an internet connection (Used during this guide) or the version without internet connection.</p> 
2.	<p>To begin with the installation of Microsoft Edge, elevation of privileges is required.</p> <p>To do this, click on the “Yes” option in the pop-up window (“User Account Control”) or enter the user with privileges to install if required.</p> 

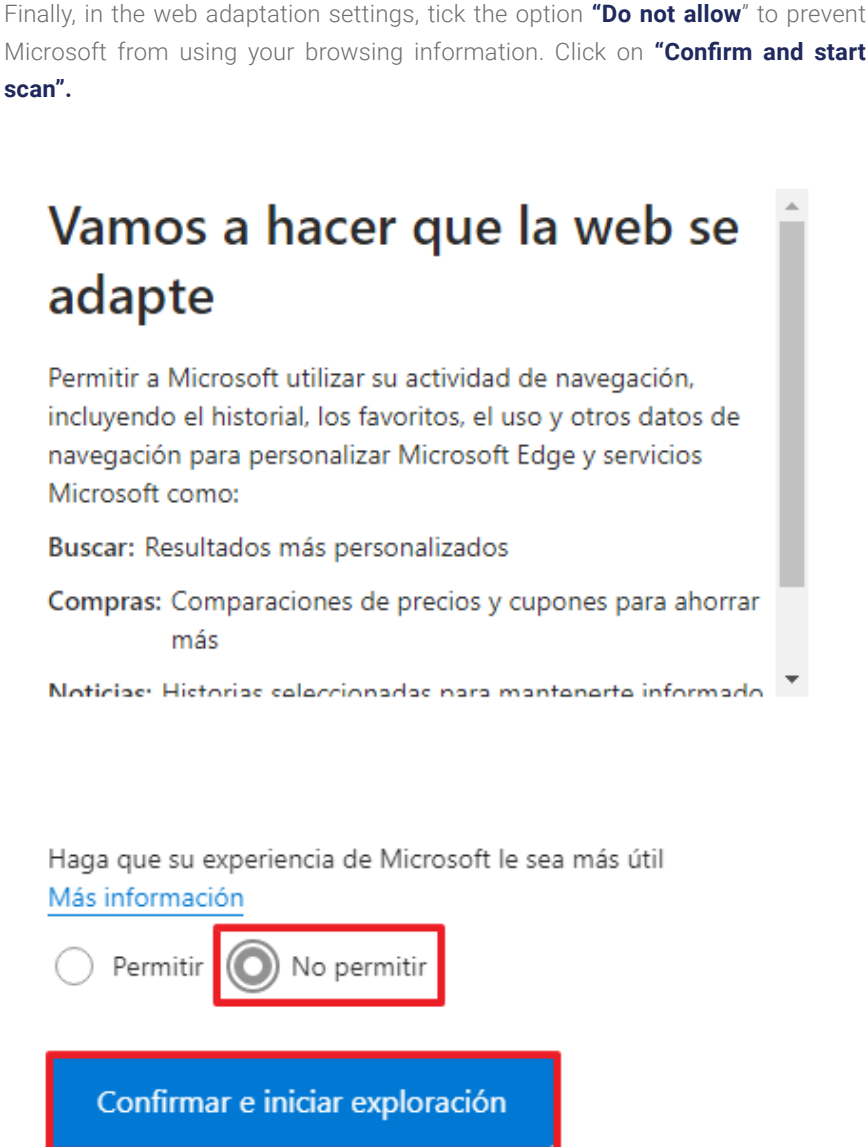
## 2. Microsoft Edge web browser

Passage	Description
3.	<p>Once allowed to run, it will download and install automatically.</p> 
4.	<p>After completing the installation, on the first start-up, a welcome window will appear where security settings must be made.</p>
5.	<p>In the first Microsoft Edge configuration window check the option <b>“Start without your data”</b>.</p> 

## 2. Microsoft Edge web browser


Passage	Description
<b>6.</b>	<p>In the second Microsoft Edge configuration window, check the option <b>“Continue without this data”</b>.</p> <p><b>Podemos ayudarle a importar sus datos de exploración de Google</b></p> <p>Si usa un explorador de Google con la sincronización activada, podemos ayudarle a importar sus marcadores, historial y mucho más desde Google para que esté listo para usar Microsoft Edge. <a href="#">Administrar</a></p> <p><b>Iniciar sesión en Google para continuar</b></p> <p><b>Continuar sin estos datos</b></p>
<b>7.</b>	<p>On the next screen, configure access to recent scan data. Tick the <b>“Do not allow”</b> option to restrict such access and click on <b>“Confirm and continue”</b>.</p> <p><b>Tenga siempre acceso a los datos de exploración recientes.</b></p> <p>Incorpore periódicamente sus datos de exploración para estar siempre al día. Puede administrar sus preferencias en cualquier momento en Configuración <a href="#">Administrar</a></p> <p><input type="radio"/> Permitir <input checked="" type="radio"/> <b>No permitir</b></p> <p><b>Confirmar y continuar</b></p>

## 2. Microsoft Edge web browser

Passage	Description
8.	<p>Finally, in the web adaptation settings, tick the option <b>“Do not allow”</b> to prevent Microsoft from using your browsing information. Click on <b>“Confirm and start scan”</b>.</p>  <p>Vamos a hacer que la web se adapte</p> <p>Permitir a Microsoft utilizar su actividad de navegación, incluyendo el historial, los favoritos, el uso y otros datos de navegación para personalizar Microsoft Edge y servicios Microsoft como:</p> <p><b>Buscar:</b> Resultados más personalizados</p> <p><b>Compras:</b> Comparaciones de precios y cupones para ahorrar más</p> <p><b>Noticias:</b> Historias seleccionadas para mantenerte informado</p> <p>Haga que su experiencia de Microsoft le sea más útil <a href="#">Más información</a></p> <p><input type="radio"/> Permitir <input checked="" type="radio"/> No permitir</p> <p><b>Confirmar e iniciar exploración</b></p>
9.	<p>After these settings, several browsing windows will open, one of which is oriented towards the aesthetic customisation of the browser. You can ignore them and continue with the next section.</p>

# 2.5 Configuration guidelines

The Microsoft Edge browser has a graphical interface for editing its usage and security settings.

To access the configuration interface, start Microsoft Edge and click on the button  at the top right of the browser. Then select the **“Settings”** section, where the user-editable configuration options will appear.

An alternative method to access the configuration interface is to type **“edge://settings/profiles”** in the address bar.



## 2.5.1 Synchronisation and basic language settings

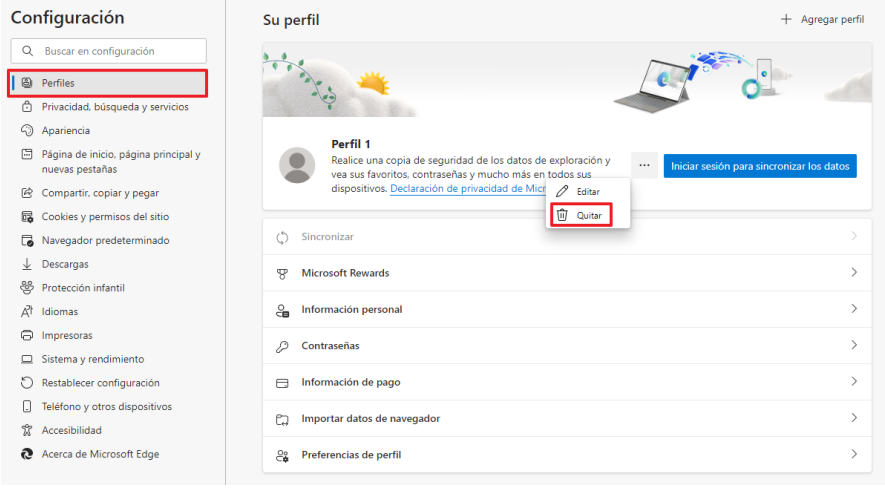
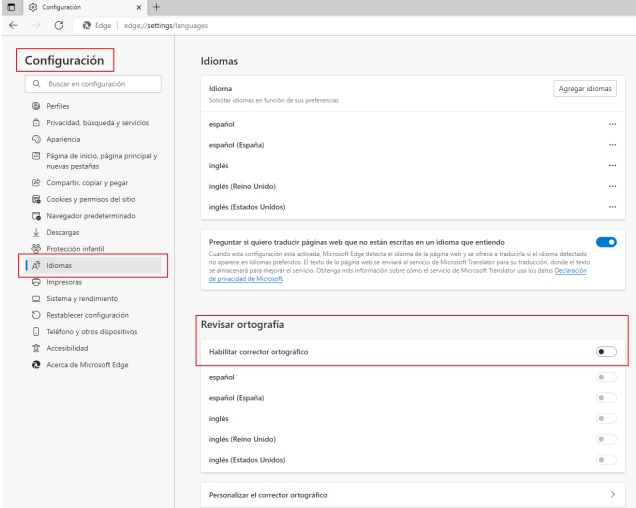
The Microsoft Edge browser enables automatic synchronisation with Microsoft services, allowing users to, among other things, automatically synchronise various items such as bookmarks, open tabs, passwords, extensions, etc.

This information is stored in the Microsoft account provided by the user for this purpose. It should be noted that in order to avoid privacy and security problems, it is recommended to disable this functionality in the browser.

Once the browser is installed, follow the steps below to make the basic language setting and disable the spell checker, so that no user data is collected by these methods:



## 2. Microsoft Edge web browser

Passage	Description
1.	<p>In the <b>“Profiles”</b> section, and whenever possible, deletion of any synchronised accounts is recommended to prevent disclosure and/or collection of the information collected.</p> <p>This is not impeded by the existence of profiles to differentiate the use of the browser.</p>  <p>The screenshot shows the 'Configuración' (Settings) menu on the left with 'Perfiles' (Profiles) highlighted in red. On the right, the 'Su perfil' (Your profile) section is visible, showing 'Perfil 1' with an 'Eliminar' (Remove) button highlighted in red.</p>
2.	<p>In the <b>“Settings”</b> menu, in the <b>“Languages”</b> section, access the <b>“Check spelling”</b> section. Disable the option <b>“Enable spell check”</b>.</p>  <p>The screenshot shows the 'Configuración' (Settings) menu on the left with 'Idiomas' (Languages) highlighted in red. On the right, the 'Idiomas' section is visible, showing the 'Revisar ortografía' (Check spelling) section with the 'Habilitar corrector ortográfico' (Enable spell checker) option disabled.</p>

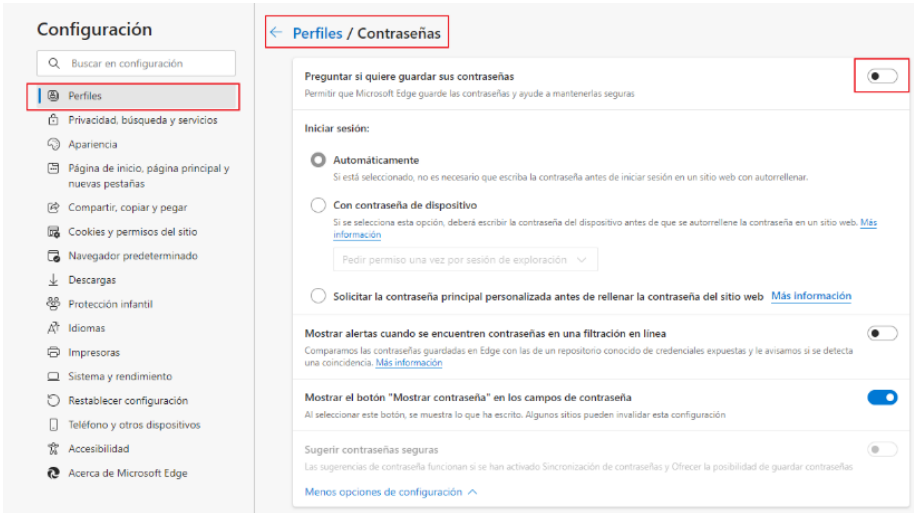
## 2. Microsoft Edge web browser

### 2.5.2 Profile section

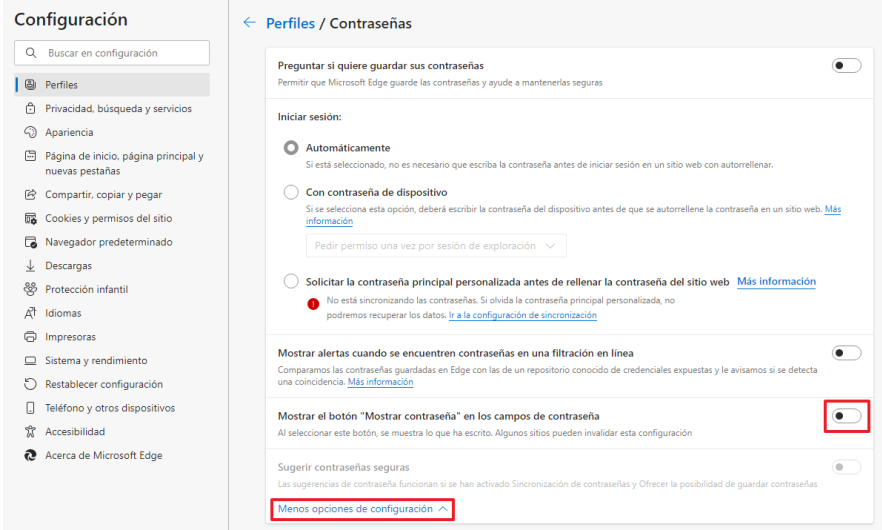
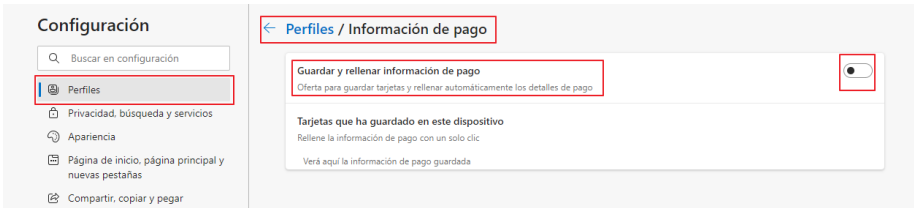
In this section, the settings to be taken into account will be indicated, so that the data stored in the browser are not exposed to possible unwanted attacks and to prevent them from being stored directly.

Each of the steps to be followed for the proper configuration of this section is described below:

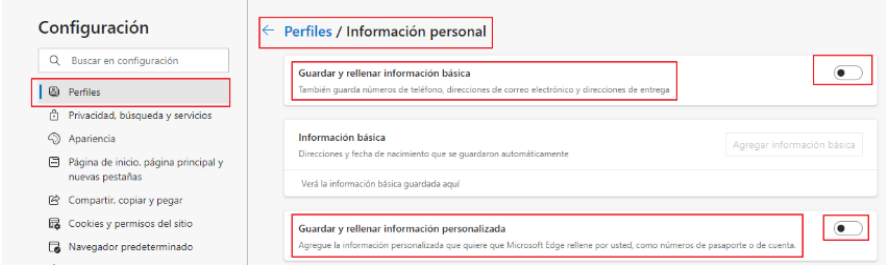


Passage	Description
1.	Because of the way credentials are stored, it is possible that a malicious attacker could gain access to user accounts and/or use <b>"Stored Credentials"</b> for unwanted logins.
2.	To avoid such misuse, disable the option <b>"Ask if you want to save your passwords"</b> in the <b>"Profiles"</b> section under <b>"Passwords"</b> : 

## 2. Microsoft Edge web browser

Passage	Description
<p>3.</p>	<p>Then click on the option <b>“More configuration options”</b> and disable the option <b>“Show the “Show password” button in the password fields”</b>.</p> 
<p>4.</p>	<p>The <b>“Payment methods”</b> information is an attractive element for attackers looking to make fraudulent use of it and, therefore, it is recommended not to have this information <b>stored</b> in the Microsoft Edge browser to avoid being the target of malicious attacks.</p>
<p>5.</p>	<p>Disable the option <b>“Save and fill in payment information”</b>, as shown in the image below, in the <b>“Profiles”</b> section under <b>“Payment information”</b>:</p> 
<p>6.</p>	<p>As in the previous case, the storage of information, although not critical, can provide an attacker with relevant information about the user’s movements, actions or other considerations.</p>

## 2. Microsoft Edge web browser

Passage	Description
<b>7.</b>	<p>To prevent the use of this information, disable the following options:</p> <ul style="list-style-type: none"><li>+ <b>“Save and fill in basic information”.</b></li><li>+ <b>“Save and fill in personalised information”.</b></li></ul> <p>These can be found in the “Profiles” section, under “Personal information”:</p>  <p>The screenshot shows the 'Perfiles / Información personal' settings page. On the left, the 'Perfiles' menu item is highlighted. The main content area has two sections: 'Guardar y rellenar información básica' and 'Guardar y rellenar información personalizada'. Both sections have a toggle switch on the right, and both are currently turned off (disabled).</p>
<b>8.</b>	<p>In addition to the aforementioned configuration, the following options must be disabled in each of the aforementioned sections of the profiles section:</p> <ul style="list-style-type: none"><li>+ <b>“Microsoft Rewards” section:</b><ul style="list-style-type: none"><li>• <b>Disable “Earn Microsoft Rewards in Microsoft Edge”.</b></li></ul></li><li>+ <b>“Profile preference” section:</b><ul style="list-style-type: none"><li>• <b>Disable “Allow single sign-on for professional or educational sites using this profile”.</b></li></ul></li></ul>

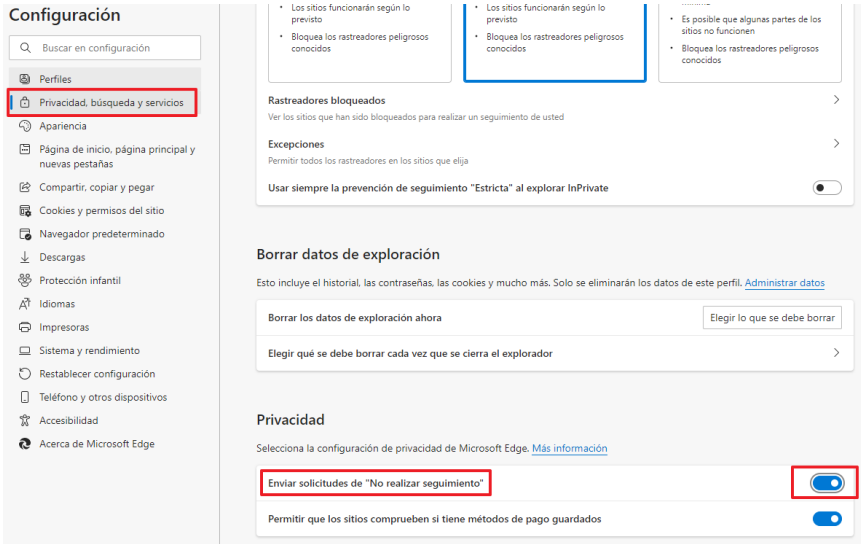
## 2. Microsoft Edge web browser

### 2.5.3 Privacy, search and services section

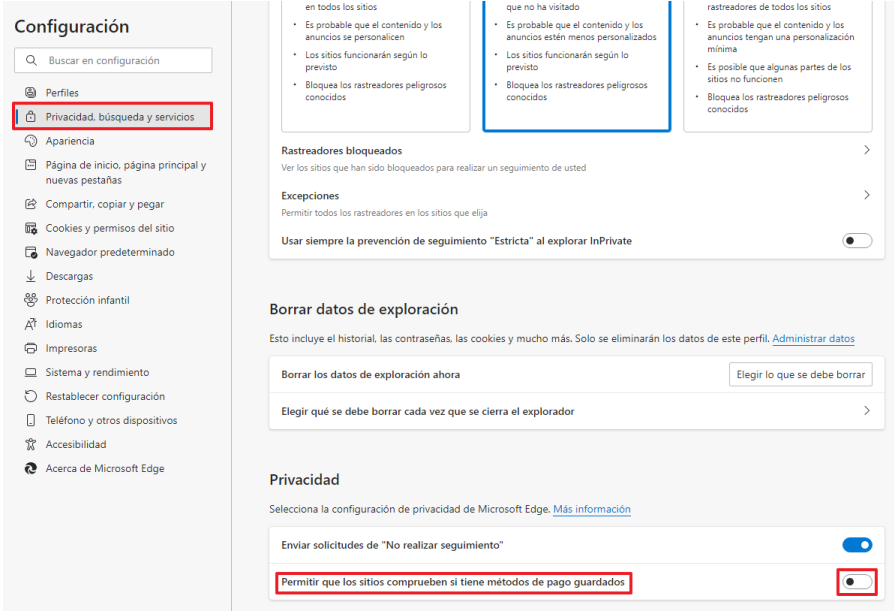

In this section, the privacy, search and service options will be configured to avoid obtaining unwanted and/or required information and to limit the functionalities of the services offered through the browser.

The settings to be configured are described below:

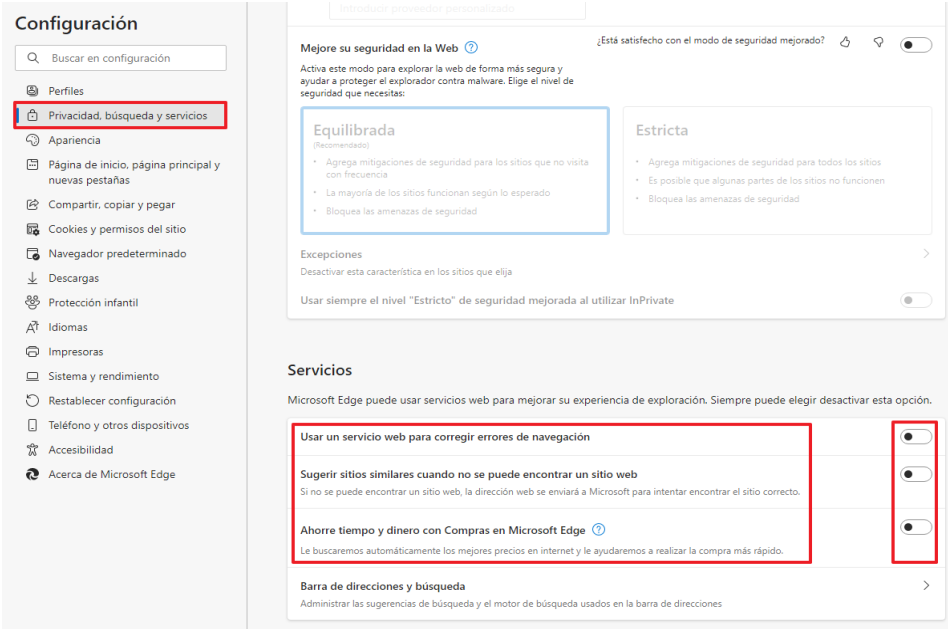


Passage	Description
1.	<p>In the <b>“Privacy, search and services”</b> section itself, in the <b>“Privacy”</b> section, disable the <b>“Send do not track requests”</b> option, as shown in the image below:</p>  <p><b>Rastreadores bloqueados</b> Ver los sitios que han sido bloqueados para realizar un seguimiento de usted</p> <p><b>Excepciones</b> Permitir todos los rastreadores en los sitios que elija</p> <p>Usar siempre la prevención de seguimiento "Estricta" al explorar InPrivate <input type="checkbox"/></p> <p><b>Borrar datos de exploración</b> Esto incluye el historial, las contraseñas, las cookies y mucho más. Solo se eliminarán los datos de este perfil. <a href="#">Administrar datos</a></p> <p>Borrar los datos de exploración ahora <input type="button" value="Elegir lo que se debe borrar"/></p> <p>Elegir qué se debe borrar cada vez que se cierra el explorador &gt;</p> <p><b>Privacidad</b> Selecciona la configuración de privacidad de Microsoft Edge. <a href="#">Más información</a></p> <p>Enviar solicitudes de "No realizar seguimiento" <input checked="" type="checkbox"/></p> <p>Permitir que los sitios comprueben si tiene métodos de pago guardados <input type="checkbox"/></p> <p><b>No realizar seguimiento</b></p> <p>Cualquier efecto de activar esto depende de si un sitio web responde a la solicitud y de cómo se interpreta la solicitud. Por ejemplo, algunos sitios podrían responder a esta solicitud mostrando los anuncios que no estén basados en otros sitios web que haya visitado. Muchos sitios seguirán recopilando y usando sus datos de exploración; por ejemplo, para mejorar la seguridad, para proporcionar contenido, servicios, anuncios y recomendaciones en sus sitios web y para generar estadísticas de informes.</p> <p><input checked="" type="button" value="Enviar solicitud"/> <input type="button" value="Cancelar"/></p> <p><b>Note:</b> When this option is activated, a dialogue box will appear, click <b>“Submit request”</b> to continue.</p>

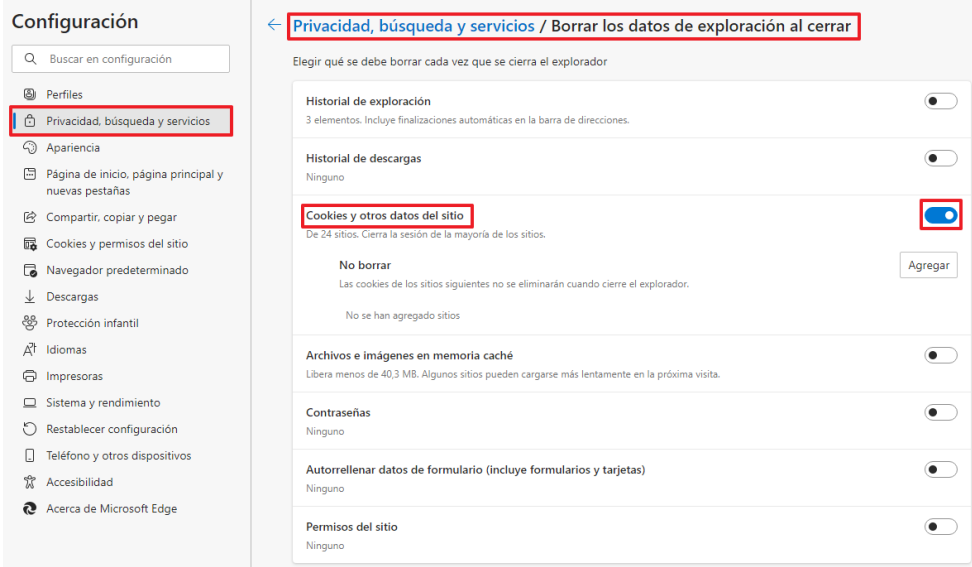
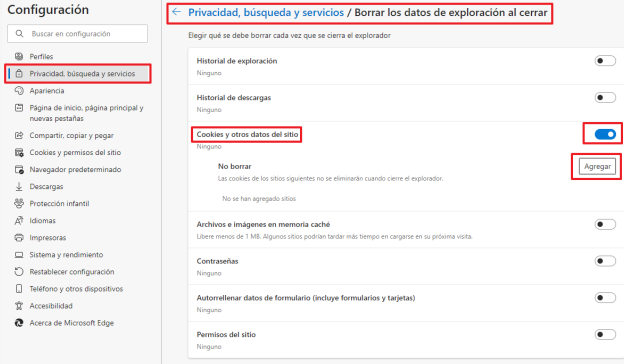
## 2. Microsoft Edge web browser

Passage	Description
<p>2.</p>	<p>In the same section, disable the option <b>“Allow sites to check if you have saved payment methods”</b>.</p>  <p>The screenshot shows the 'Configuración' (Settings) page in Microsoft Edge. The left sidebar lists various settings categories, with 'Privacidad, búsqueda y servicios' (Privacy, search, and services) highlighted in red. The main content area shows the 'Rastreadores bloqueados' (Blocked trackers) section, which is currently expanded. Below this, the 'Borrar datos de exploración' (Clear browsing data) section is visible. The 'Privacidad' (Privacy) section is also visible, with the option 'Permitir que los sitios comprueben si tiene métodos de pago guardados' (Allow sites to check if you have saved payment methods) highlighted in red and disabled.</p>
<p>3.</p>	<p>Next, in the <b>“Optional diagnostic data”</b> and <b>“Customise your web experience”</b> sections, make sure that both options are disabled as shown in the following image:</p>  <p>The screenshot shows the 'Configuración' (Settings) page in Microsoft Edge. The left sidebar lists various settings categories, with 'Privacidad, búsqueda y servicios' (Privacy, search, and services) highlighted in red. The main content area shows the 'Datos de diagnóstico opcionales' (Optional diagnostic data) section, which is currently disabled. Below this, the 'Personalizar su experiencia web' (Customize your web experience) section is visible, which is also currently disabled.</p>

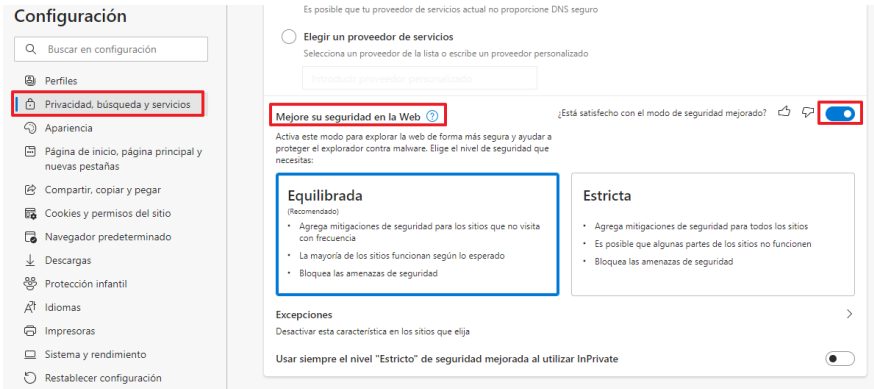
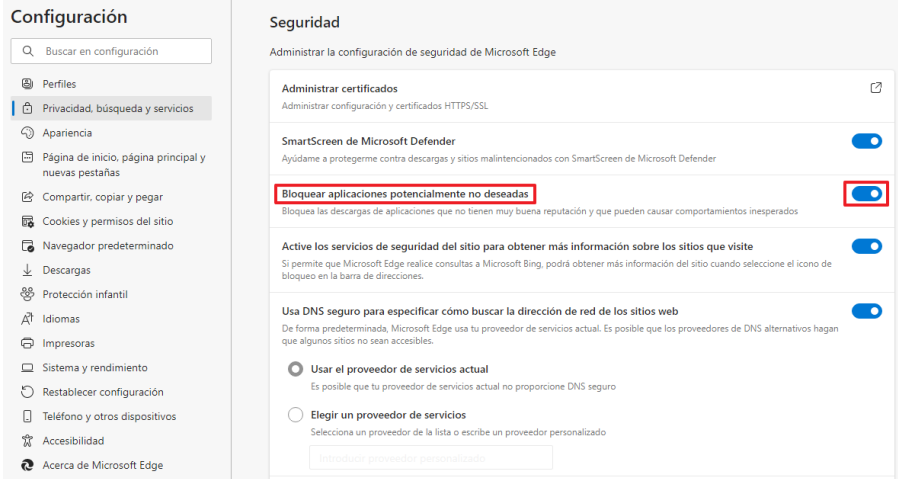
## 2. Microsoft Edge web browser

Passage	Description
4.	<p>Continuing in the <b>“Privacy, search and services”</b> section, in the <b>“Services”</b> section, the following options related to web services functionalities offered by Microsoft Edge will be disabled, as shown in the following image:</p>  <p>The image shows the Microsoft Edge settings page. The left sidebar has 'Privacidad, búsqueda y servicios' selected. The main content area shows the 'Mejore su seguridad en la Web' section with 'Equilibrada' selected. Below that, the 'Servicios' section is expanded, and three options are highlighted with red boxes: 'Usar un servicio web para corregir errores de navegación', 'Sugerir sitios similares cuando no se puede encontrar un sitio web', and 'Ahorre tiempo y dinero con Compras en Microsoft Edge'. All three options have their toggle switches turned off.</p>
5.	<p>Next, some settings must be defined that define the behaviour of the browser when the use of the browser is terminated so that the <b>files generated by the browser during its execution are deleted</b>.</p> <p>This encourages the loading of the latest versions of the pages visited, as well as the updated configuration for the website, on subsequent visits to the site, improving overall browsing security.</p>

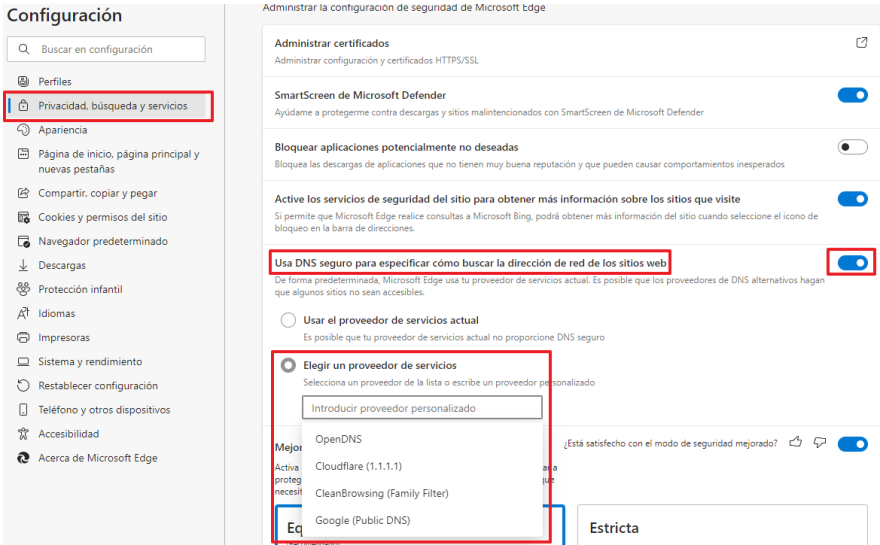
## 2. Microsoft Edge web browser

Passage	Description
6.	<p>To do this, in the <b>“Privacy, search and services”</b> section, in the <b>“Clear browsing data when closing”</b> section, enable the <b>“Cookies and other site data”</b> option as shown in the following image:</p>  <p>The screenshot shows the 'Configuración' (Settings) window in Spanish. The left sidebar has 'Privacidad, búsqueda y servicios' highlighted. The main area shows the 'Borrar los datos de exploración al cerrar' (Clear browsing data when closing) section. The 'Cookies y otros datos del sitio' (Cookies and other site data) toggle is turned on. The 'Agregar' (Add) button is visible.</p> <p><b>Note: There are some pages that require third party cookies to function properly. If you detect that a page is not working as expected, you may need to enable third-party cookies for it to work properly or add it as an exception. To do this, you can generate an exception for third-party cookies on certain pages to improve your user experience by adding the site, as shown in the following image, by clicking on the “Add” button:</b></p>  <p>This second screenshot is identical to the first one, but with a red box highlighting the 'Agregar' button in the 'Cookies y otros datos del sitio' section.</p>

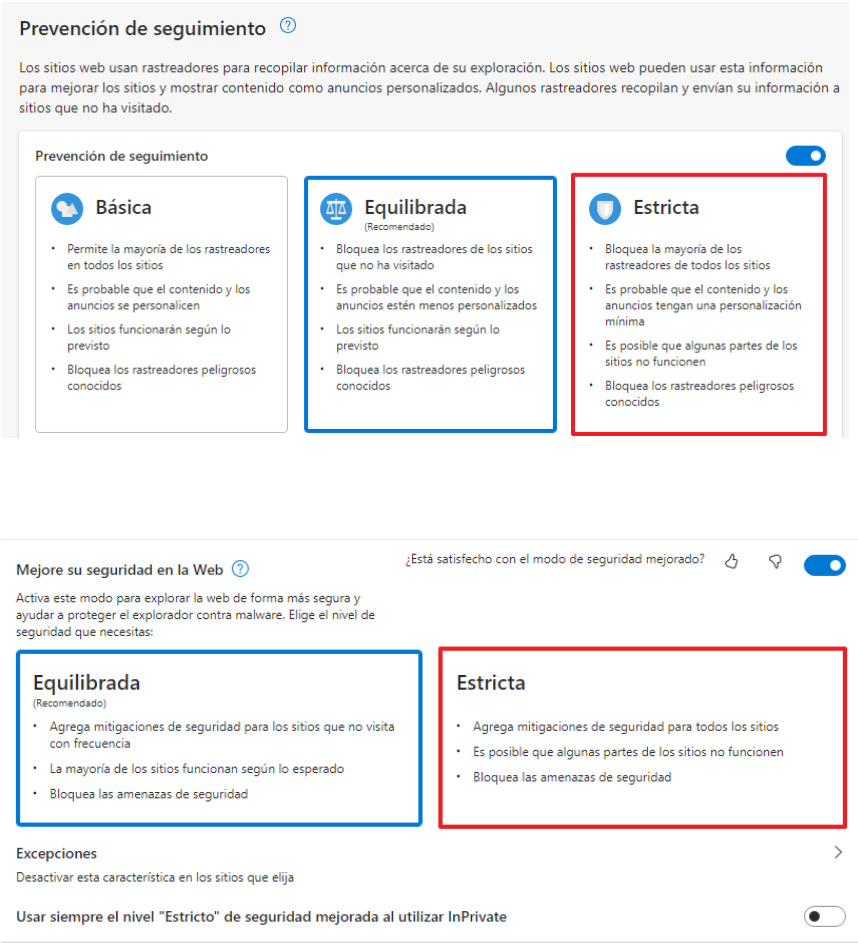
## 2. Microsoft Edge web browser

Passage	Description
<p style="text-align: center; font-size: 2em; font-weight: bold;">7.</p>	<p>In the settings of the <b>“Privacy, search and services”</b> section, enable the option <b>“Enhance your web security”</b> in the <b>“Security”</b> section. To obtain this protection, click on the text <b>“Enhance your web security”</b> or enable the option from the side button, as shown in the following image:</p>  <p>The screenshot shows the 'Configuración' (Settings) window. On the left sidebar, 'Privacidad, búsqueda y servicios' is selected. The main area shows the 'Mejore su seguridad en la Web' toggle, which is turned on. Below it, there are two security modes: 'Equilibrada' (Balanced) and 'Estricta' (Strict). The 'Equilibrada' mode is selected, and its features are listed: 'Agrega mitigaciones de seguridad para los sitios que no visita con frecuencia', 'La mayoría de los sitios funcionan según lo esperado', and 'Bloquea las amenazas de seguridad'. The 'Estricta' mode features are: 'Agrega mitigaciones de seguridad para todos los sitios', 'Es posible que algunas partes de los sitios no funcionen', and 'Bloquea las amenazas de seguridad'. At the bottom, there is an 'Excepciones' section with a toggle for 'Usar siempre el nivel "Estricto" de seguridad mejorada al utilizar InPrivate'.</p> <p>This protection offered by the Microsoft Edge browser includes, among others, the following features:</p> <ul style="list-style-type: none"> <li>– Add security mitigations for sites you do not visit frequently.</li> <li>– Most sites perform as expected.</li> <li>– Block security threats.</li> </ul>
<p style="text-align: center; font-size: 2em; font-weight: bold;">8.</p>	<p>In the same section, enable the option <b>“Block potentially unwanted applications”</b>:</p>  <p>The screenshot shows the 'Configuración' (Settings) window with 'Seguridad' (Security) selected in the sidebar. The main area shows the 'Seguridad' section with several toggles. The 'Bloquear aplicaciones potencialmente no deseadas' (Block potentially unwanted applications) toggle is turned on. Other toggles include 'SmartScreen de Microsoft Defender', 'Active los servicios de seguridad del sitio para obtener más información sobre los sitios que visite', and 'Usa DNS seguro para especificar cómo buscar la dirección de red de los sitios web'. At the bottom, there is a section for 'Usar el proveedor de servicios actual' (Use the current service provider) with a radio button selected.</p>

## 2. Microsoft Edge web browser

Passage	Description
9.	<p>The <b>“Use Secure DNS”</b> functionality is enabled by default. However, by default it makes use of the DNS of the current service provider, which may result in unsecured connections being attempted against a website due to service interruptions.</p> <p>It is therefore possible to set one of the DNS provided by the browser or even a customised one if you are in a business environment:</p> 
10.	<p>Then make sure that the options <b>“Microsoft Defender SmartScreen”</b> and <b>“Enable site security services to get more information about the websites you visit”</b> are enabled. If not, enable both options.</p>

## 2. Microsoft Edge web browser

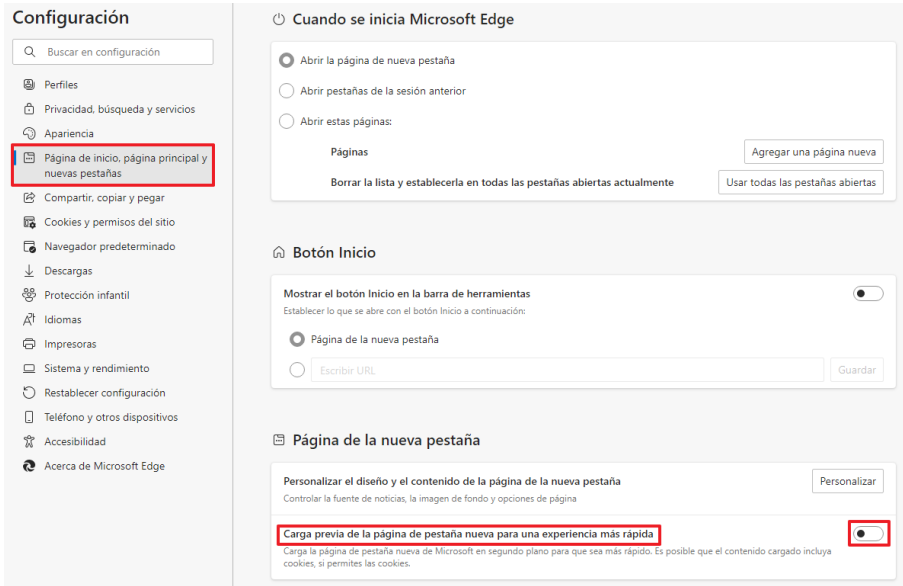
Passage	Description
11	<p>Finally, related to the settings aimed at preventing tracking and improving web security, it is possible to set up a more restrictive configuration by setting both settings to the "Strict" configuration.</p> <p>This setting is more secure but may cause certain websites to stop working as expected. Therefore, if this setting is enabled, it is possible to set exceptions for those websites that require it.</p>  <p>The screenshot shows two settings panels. The first panel, 'Prevenção de seguimento', has a toggle switch turned on. It offers three options: 'Básica', 'Equilibrada' (marked as recommended), and 'Estricta'. The 'Estricta' option is highlighted with a red border. The second panel, 'Mejore su seguridad en la Web', has a toggle switch turned on. It offers two options: 'Equilibrada' (recommended) and 'Estricta'. The 'Estricta' option is highlighted with a red border. Below these panels, there is an 'Excepciones' section with a right-pointing arrow, and a toggle for 'Usar siempre el nivel "Estricto" de seguridad mejorada al utilizar InPrivate' which is currently turned off.</p>

## 2. Microsoft Edge web browser

### 2.5.4 Section home page, main page and new tabs

As will also be discussed in later sections, background data delivery is a very important part of security and privacy to prevent the execution of malicious code.



Passage	Description
1.	<p>Within the <b>“Home page, main page and new tabs”</b> section, in the <b>“New tab page”</b> section, disable the <b>“Pre-load new tab page for faster experience”</b> option.</p>  <p>The screenshot shows the Windows Settings application for Microsoft Edge. The left sidebar lists various settings categories, with 'Página de inicio, página principal y nuevas pestañas' highlighted in red. The main content area is divided into sections: 'Cuando se inicia Microsoft Edge', 'Botón Inicio', and 'Página de la nueva pestaña'. In the 'Página de la nueva pestaña' section, the option 'Carga previa de la página de pestaña nueva para una experiencia más rápida' is highlighted in red, and its toggle switch is currently turned on.</p>

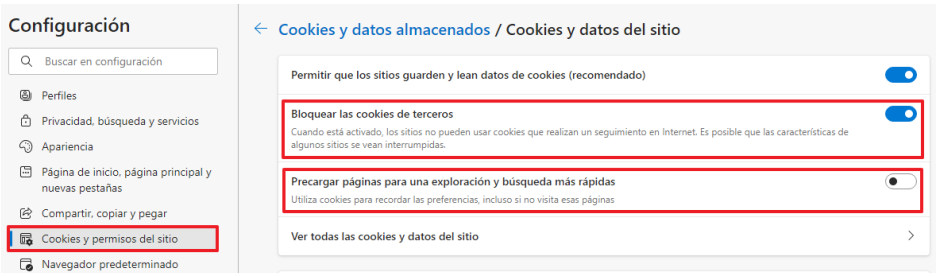
## 2. Microsoft Edge web browser

### 2.5.5 Cookies and site permissions section

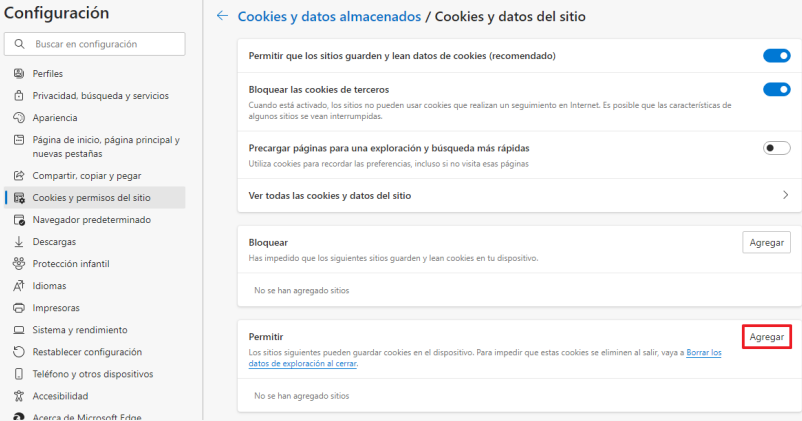
The configuration of cookies and background traffic is a very important part of security and privacy. Securely configuring these elements can prevent security breaches and potential theft of sensitive information, as an attacker could hide the execution of malicious code through background browser traffic.

To avoid these risks, we recommend the following settings in the Microsoft Edge browser:

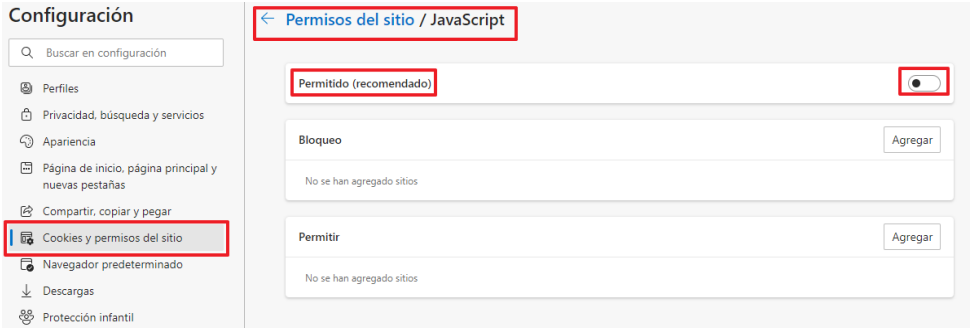
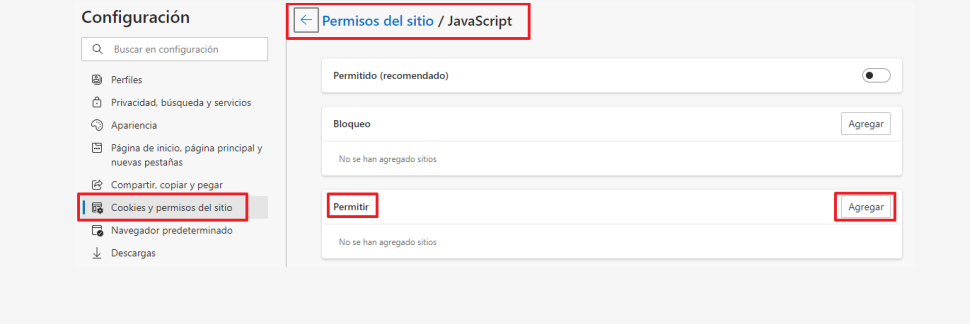
**Cookie settings and background delivery of information are a very important part of security and privacy.**

Passage	Description
1.	In the following, the aspects that prevent the storage and blocking of certain cookies will be modified to prevent the storage of information that is not necessary, as well as the blocking of information in the background.
2.	<p>In the Edge settings, go to the <b>“Cookies and site permissions”</b> section, and then to the <b>“Manage and delete cookies and site data”</b> section.</p> <p>Once there, enable the <b>“Block third-party cookies”</b> option and disable the <b>“Preload pages for faster browsing and searching”</b> option, as shown in the image below:</p> 

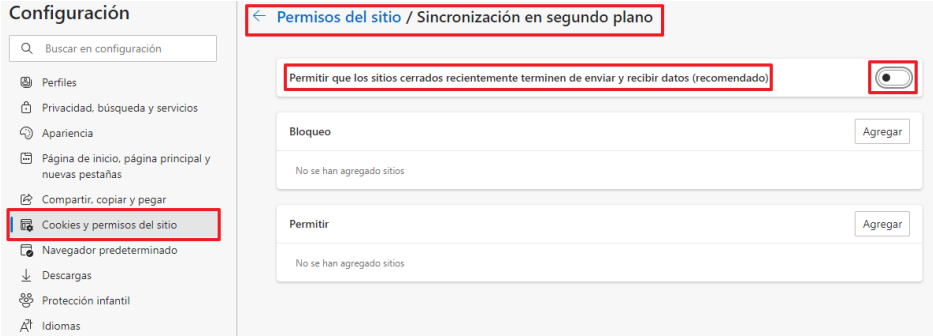
## 2. Microsoft Edge web browser

Passage	Description
	<p><b>Note: There are some pages that require third party cookies to function properly. If you detect that a page is not working as expected, you may need to enable third party cookies for it to work properly. To do this, you can generate an exception for third-party cookies on certain pages to improve your user experience, as shown in the following image.</b></p> 
<b>3.</b>	Continuing with the configurations, some aspects should be changed to avoid attacks on minimised windows, windows in the background, and code executions via JavaScript, which are commonly used for malicious attacks.

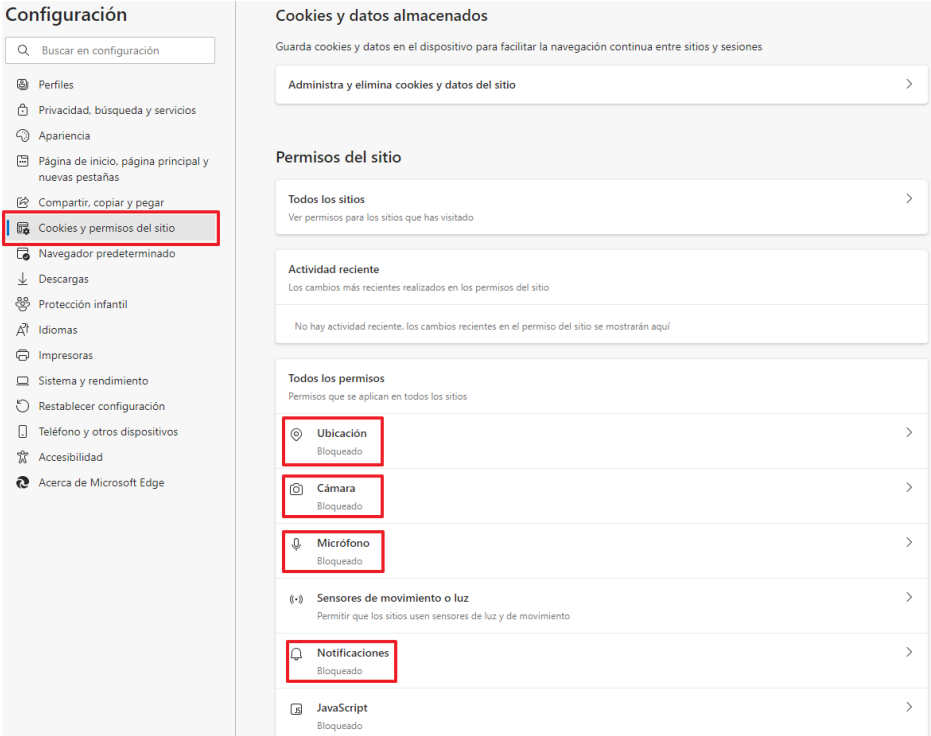
## 2. Microsoft Edge web browser

Passage	Description
4.	<p>To limit and avoid the above, you must access the <b>“Cookies and site permissions”</b> section, in the <b>“JavaScript”</b> section. Once inside JavaScript, <u>it is recommended to disable</u> the <b>“Allowed (recommended)”</b> option as shown in the following image:</p>  <p>The screenshot shows the 'Configuración' menu on the left with 'Cookies y permisos del sitio' selected. The main panel is titled 'Permisos del sitio / JavaScript'. The 'Permitido (recomendado)' toggle is turned off. Below it are sections for 'Bloqueo' and 'Permitir', both with 'Agregar' buttons and 'No se han agregado sitios' text.</p> <p><b>Note: In most cases, JavaScript should be kept enabled to provide full functionality on web pages that are visited. However, in some enterprise environments where enhanced levels of security are required, it is recommended to review these settings and block the use of JavaScript to prevent code execution attacks, adding exceptions only on those sites that are necessary for the organisation by adding them in the “Allow” section.</b></p>  <p>The second screenshot shows the same settings page. The 'Permitido (recomendado)' toggle is now turned on. The 'Permitir' button is highlighted with a red box, and the 'Agregar' button next to it is also highlighted with a red box.</p>

## 2. Microsoft Edge web browser

Passage	Description
<p>5.</p>	<p>Subsequently, in the same section, called <b>“Cookies and site permissions”</b>, the aspects relating to <b>“Synchronisation in the background”</b> shall be disabled, so as not to allow recently closed sites to carry out unwanted executions.</p> <p>Disable the option <b>“Allow recently closed sites to finish sending and receiving data”</b> as shown in the image below:</p>  <p>The screenshot shows the 'Configuración' (Settings) menu on the left with 'Cookies y permisos del sitio' highlighted. The main panel shows 'Permisos del sitio / Sincronización en segundo plano' with a toggle switch for 'Permitir que los sitios cerrados recientemente terminen de enviar y recibir datos (recomendado)' turned off. Below are sections for 'Bloqueo' and 'Permitir' with 'Agregar' buttons.</p>
<p>6.</p>	<p>To finish the settings in the <b>“Cookies and site permissions”</b> section, some aspects relating to the use of hardware communication elements of the equipment must be changed. This will allow the privacy settings to be set to suit the user’s needs.</p>
<p>7.</p>	<p>The following items shall be set to <b>“Locked”</b> status:</p> <ul style="list-style-type: none"><li>– <b>“Location”</b></li><li>– <b>“Camera”</b></li><li>– <b>“Microphone”</b></li><li>– <b>“Notifications”</b></li><li>– <b>“Automatic downloads”</b></li><li>– <b>“USB devices”</b></li><li>– <b>“Serial ports”</b></li><li>– <b>“File editing”</b></li><li>– <b>“Clipboard”</b></li><li>– <b>“Payment controllers”</b></li><li>– <b>“Virtual reality”</b></li><li>– <b>“Augmented reality”</b></li></ul>

## 2. Microsoft Edge web browser

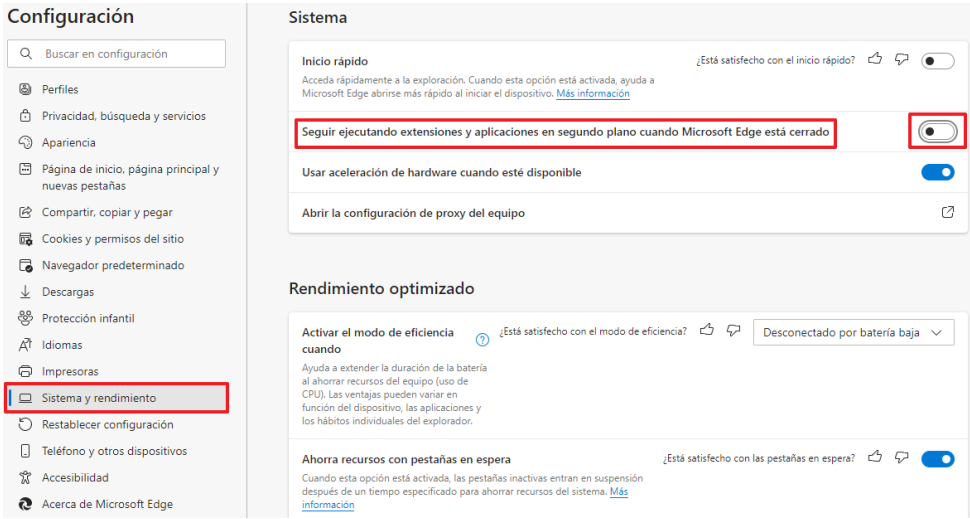
Passage	Description
	<p>These settings may be modified, allowing their use or adding exceptions to websites that require the use of these elements:</p>  <p><b>Configuración</b></p> <ul style="list-style-type: none"><li>Perfiles</li><li>Privacidad, búsqueda y servicios</li><li>Apariencia</li><li>Página de inicio, página principal y nuevas pestañas</li><li>Compartir, copiar y pegar</li><li><b>Cookies y permisos del sitio</b></li><li>Navegador predeterminado</li><li>Descargas</li><li>Protección infantil</li><li>Idiomas</li><li>Impresoras</li><li>Sistema y rendimiento</li><li>Restablecer configuración</li><li>Teléfono y otros dispositivos</li><li>Accesibilidad</li><li>Acerca de Microsoft Edge</li></ul> <p><b>Cookies y datos almacenados</b></p> <p>Guarda cookies y datos en el dispositivo para facilitar la navegación continua entre sitios y sesiones</p> <p>Administra y elimina cookies y datos del sitio</p> <p><b>Permisos del sitio</b></p> <p>Todos los sitios Ver permisos para los sitios que has visitado</p> <p><b>Actividad reciente</b></p> <p>Los cambios más recientes realizados en los permisos del sitio</p> <p>No hay actividad reciente. los cambios recientes en el permiso del sitio se mostrarán aquí</p> <p><b>Todos los permisos</b></p> <p>Permisos que se aplican en todos los sitios</p> <ul style="list-style-type: none"><li><b>Ubicación</b> Bloqueado</li><li><b>Cámara</b> Bloqueado</li><li><b>Microfono</b> Bloqueado</li><li><b>Sensores de movimiento o luz</b> Permitir que los sitios usen sensores de luz y de movimiento</li><li><b>Notificaciones</b> Bloqueado</li><li><b>JavaScript</b> Bloqueado</li></ul>

## 2. Microsoft Edge web browser

### 2.5.6 System and performance section

As discussed in previous sections, the execution of code in the background after closing the Microsoft Edge browser is susceptible to malicious attacks and should be disabled by following the steps below:



Passage	Description
1.	<p>In the <b>“System and Performance”</b> section, under <b>“System”</b>, disable the option <b>“Continue running extensions and applications in the background when Microsoft Edge is closed”</b>, as shown in the image below:</p> 

# 3. Checklist

Criticality	Description
<b>High</b>	Microsoft Edge must have the latest security-related software updates installed by manually installing the latest version available for download, the Microsoft Edge automatic update tool, or the Windows Update tool in the Windows operating system.
<b>High</b>	In case browser extensions are used, you should ensure that they are up to date and from reliable sources.
<b>Medium</b>	When a user switches from a secure (SSL-enabled) page to a non-secure page, Microsoft Edge is configured to notify the user.
<b>Medium</b>	Microsoft Edge is configured to block pop-up windows.
<b>Medium</b>	Microsoft accounts can be used and signed in to synchronise data in Microsoft Edge, with a user-provided account.
<b>Medium</b>	Microsoft Edge is configured not to auto-complete searches and URLs, without sending information to the default search engine.
<b>Medium</b>	Microsoft Edge is configured not to save site passwords.
<b>Medium</b>	Microsoft Edge is configured not to automatically sign in to websites that have your credentials stored.

### 3. Checklist

Criticality	Description
<b>Medium</b>	Microsoft Edge is configured not to save or autofill payment methods.
<b>Medium</b>	Microsoft Edge is configured to allow websites to not check for saved payment methods.
<b>Medium</b>	Microsoft Edge is set to block third-party cookies.
<b>Medium</b>	Microsoft Edge is configured not to preload information from pages.
<b>Medium</b>	Microsoft Edge is configured to allow closed pages to not send and receive data.
<b>Medium</b>	Microsoft Edge is configured to disallow the use of JavaScript, unless an exception is added.
<b>Medium</b>	Microsoft Edge is configured not to run background applications when you close the browser.





# Decalogue of recommendations for Microsoft Edge

- 1 It is recommended to always use the latest stable version with the latest updates.
- 2 **A review of the security-related functions of the software** is recommended, as it will provide a better defence against possible attacks.
- 3 If **plug-ins** need to be **installed**, it is recommended to use **official** and/or reliable **sources**.  
  
It is recommended that you **do not use the password vault available in Microsoft Edge**. Instead, it is recommended to **use other applications** that implement strong encryption to store passwords more securely.
- 4 It is recommended to **look at the site's identity button** (a padlock in the address bar to the left of the address bar) to quickly and easily find out whether **the connection to the page is encrypted** and, in some cases, who the owner is. This information helps in the detection of malicious pages.
- 5 The **use of secure protocols (https)** is **always** recommended, especially when personal data is used to secure end-to-end communications.
- 6 The **use of encryption software for sending personal information** is recommended as an additional security measure, including the use of secure protocols such as https.
- 7 The **use of two-factor authentication** is recommended for the use of online services. This adds an additional layer of security to accounts because additional verification will be required at login (SMS, phone call, authenticators, verification code, etc.).
- 8 It is recommended to **delete cookies and block background browsing** to prevent some websites from tracking search patterns and to safeguard user privacy.
- 9 It is recommended that you **clear your cache and delete temporary internet files** to solve common problems with websites.
- 10

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