Preparing Dynamics NAV or Dynamics 365 Business Central for upcoming changes to browser cookie policy

The web is constantly evolving to improve the user experience, security, and privacy. Upcoming releases of some browsers expected early calendar year 2020 include a change in how cookies are handled. This change affects federated authentication flows and cross-domain hosting scenarios when using these browsers, which means it can potentially affect users' ability to connect to Business Central or Dynamics NAV in one or more of the following situations:

- When using the Business Central Outlook Add-In.
- Business Central as a SharePoint app.
- Business Central is using Azure Active Directory authentication.
- Business Central is embedded in an iframe as part of another web site.

Which browsers are impacted by the change

- Google Chrome (major version 80, currently scheduled for release on February 4th, 2020)
- Microsoft Edge (as an update at the same time or later than Google Chrome version 80)

NOTE! Other supported browsers may adopt similar cookie policies. We recommend you read on and take action no matter which browsers or browser versions your users use to sign into Business Central.

Which cookie policies are changing

Browsers have changed the implementation of the `SameSite` attribute according to the following:

- Cookies default to `SameSite=Lax`
  By default, if no `SameSite` attribute is specified, then cookies are treated as `SameSite=Lax`. For more information from Google Chrome, see Cookies default to SameSite=Lax.
- Reject insecure `SameSite=None` cookies
  If a cookie that requests `SameSite=None` is not marked Secure, it will be rejected. For more information Google Chrome, see Reject insecure SameSite=None cookies.

What to do to prevent disruption

To prevent disruption, you must upgrade the platform for your version of Dynamics NAV or Business Central to an update listed in the following table, or a later update. If your deployment is already running on one of these updates or later, then no action is required. However, we recommend that you test your deployment with any available pre-release versions of the impacted browsers, such as Chrome 80 Beta.

Version	Minumum recommended update
Dynamics NAV 2015	61
Dynamics NAV 2016	49
Dynamics NAV 2017	36
Dynamics NAV 2018	23
Dynamics 365 365 Business Central Fall 2018	13
Dynamics 365 Business Central Spring 2019	06
Dynamics 365 Business Central 2019 Release Wave 2	15.1

NOTE! Currently, Chrome 80 implements a temporary mitigation to allow LAX+Post requests in a 2 minute window. This should be enough to make Azure AD authentication work. However, this mitigation will be removed at some point. For more information from Chrome, see SameSite Updates.

Additional changes required to load balancer configuration

If the web server is hosted inside a web farm, it is important to add the SameSite attribute for the session affinity cookie. In an IIS web farm, you can do this by adding additional rewrite rules in the system web.config file as follows:

```
<rule name="Add SameSite Cookie Flag to ArrAffinity cookie" enabled="true">
    <match serverVariable="RESPONSE_Set_Cookie" pattern="ARRAffinity=.*" />
        <conditions>
            <add input="{R:0}" pattern="SameSite=(Lax|Strict|None)" ignoreCase="true" negate="true" />
            <add input="{HTTP_USER_AGENT}" pattern="Macintosh; Intel Mac OS X 10_14.+Version/.*Safari"
ignoreCase="true" negate="true" />
            <add input="{HTTP_USER_AGENT}" pattern="CPU iPhone OS 12" ignoreCase="true" negate="true" />
            <add input="{HTTP_USER_AGENT}" pattern="iPad; CPU OS 12" ignoreCase="true" negate="true" />
        </conditions>
        <action type="Rewrite" value="{R:0};SameSite=none" />
</rule>
```

This rule will append the `SameSite=none` attribute to the `ARRAffinity` cookie except for older versions of Safari and iOS browsers which have known limitations with handling `SameSite` attributes.

Testing

To test your solution, use Chrome 80 Beta version. To download Chrome 80 beta version, go to https://www.google.com/chrome/beta/.

You can also test on older Chrome versions by manually enabling the SameSite flag. To do this:

1. Start Chrome browser.
2. In the **Address**, type `chrome://flags`.
3. Set **SameSite by default cookies** to **Enabled**.
4. Set **Cookies without SameSite must be secure** to **Enabled**.

For more information about testing on older Chrome versions, see https://docs.microsoft.com/en-us/aspnet/samesite/system-web-samesite#test-with-chrome

Known issue with Dynamics NAV cumulative updates for November and December

In Chrome 80 Beta or older Chrome versions where **Cookies without SameSite must be secure** (`chrome://flags/#cookies-without-same-site-must-be-secure`) is **Enabled**, the web client will not load when using HTTP protocol. A fix for this issue will be included in the January 2020 updates. For now, the workaround is to either switch to HTTPS or set `chrome://flags/#cookies-without-same-site-must-be-secure` to **Disabled**.