

At Cardinal, we're always making sure you don't get surprised by outside updates that can impact your authentication flow. Read on to see what you can do to avoid these errors.

## What changed and how was I affected?

The most recent versions of Safari on macOS, iPadOS, and iOS have had a change to the way cookies are handled. Beginning in Safari version 13.1 on macOS, as well as on iPadOS and iOS versions 13.4, the browser now blocks third-party cookies by default. This version was released to the public at the end of March, and will begin rolling out as consumers update their devices.

A "third-party" cookie is defined as having a domain different from that which is currently present in the browser. For example, if you created a cookie to maintain a consumer's session context through multiple redirects within your checkout flow and the domain changes between the cart and order confirmation page, that cookie will no longer be accessible. This could impact your order conversion ability.

## What can be done to remedy the situation?

There are several ways you can ensure your integration is not impacted by this change. Please review the options below to determine the best solution for your needs.

### ***Option #1 (recommended): Leverage an optional merchant data field available on the Form POST that can be used to help track the customer session***

In both 3-D Secure 1.0.2 and EMV® 3-D Secure there are optional merchant data / session fields available to suit this use case.

In 3DS 1.0.2, you can look to leverage the MD field on the PARReq endpoint.

- *The MD ("Merchant Data") field: merchant state data that must be returned to the merchant.*
- *This field is used to accommodate the different ways merchant systems handle session state. If the merchant system can associate the final post with the original shopping session without any further assistance, the MD field may be empty. If the merchant system does not maintain state for a given shopping session, the MD can carry whatever data the merchant needs to continue the session.*
- *Since the content of this field varies by merchant implementation, the ACS must preserve it unchanged and without assumptions about its content.*

In EMV 3DS (versions 2.1 and 2.2), the threeDSSessionData field is available to facilitate similar interactions.

- *3DS Requestor session data that is returned by the ACS in the CRes message POST to the 3DS Requestor. Optionally used to accommodate the different methods 3DS Requestor systems handle session information.*
- *If the 3DS Requestor system can associate the final post with the original session without further assistance, the 3DS Requestor Session Data field may be missing.*
- *If the 3DS Requestor system does not maintain a session for a given authentication session, the 3DS Requestor Session Data field can carry any data the 3DS Requestor needs to continue the session.*
- *Because the content of this field varies by 3DS Requestor implementation, the ACS preserves the content unchanged and without assumptions.*

## **Option #2: Provide an alternate mechanism for retaining session on return from third-party sites that does not require cookies**

Utilizing Form POSTs or other methods, you may be able to eliminate the need for cookies related to sessioning. Other options include external state management utilizing frameworks such as Redis.

### **Additional information**

As we discussed, recent changes made to the cookie settings on macOS, iPadOS and iOS may affect you. We have outlined how to solve for possible issues based on your needs! If you have any questions, let's talk. We're here to help.

**Visit** <https://www.cardinalcommerce.com/about/contact> or **call** +1.440.352.8444

You can also reference the sites below for more info on updates and what you need to know.

Webkit.org -  
<https://webkit.org/blog/10218/full-third-party-cookie-blocking-and-more/>

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