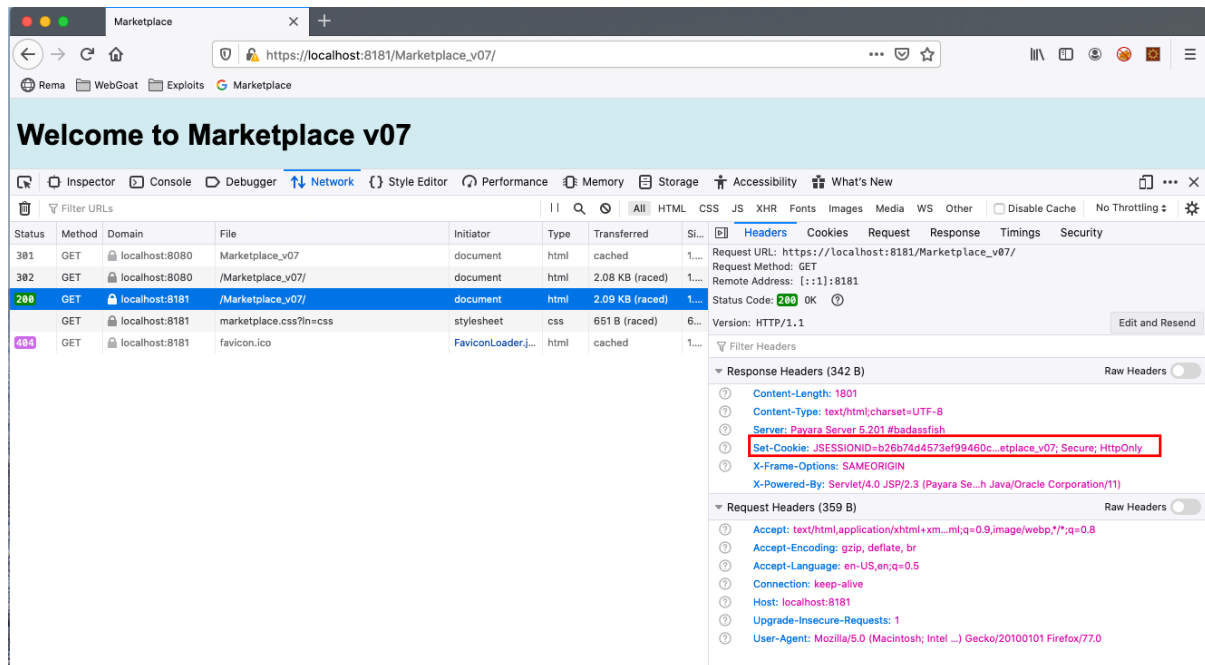


PoC demonstration with Jakarta EE-based application running on local Payara application server

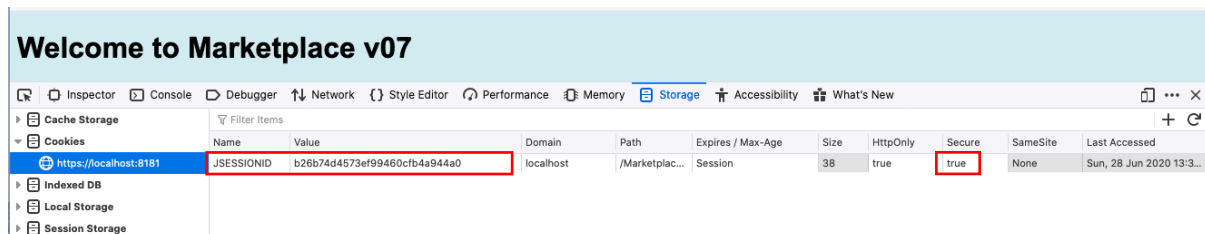
Entering `http://localhost:8080/Marketplace_v07/` results in a redirection to `https://localhost:8181/Marketplace_v07/` and a cookie is set using the Secure flag.



The screenshot shows the Network tab in a browser's developer tools. The selected request is a GET to `https://localhost:8181/Marketplace_v07/`. The response headers are expanded, showing the following key-value pairs:

- Content-Length: 1801
- Content-Type: text/html;charset=UTF-8
- Server: Payara Server 5.201 #badassfish
- Set-Cookie: JSESSIONID=b26b74d4573ef99460c4b4a944a0; Secure; HttpOnly**
- X-Frame-Options: SAMEORIGIN
- X-Powered-By: Servlet/4.0 JSP/2.3 (Payara Se...h Java/Oracle Corporation/11)

Cookie storage after the request to `https://localhost:8181/Marketplace_v07/`, which confirms the Secure flag is set:



The screenshot shows the Cookies tab in a browser's developer tools. The cookie table is as follows:

Name	Value	Domain	Path	Expires / Max-Age	Size	HttpOnly	Secure	SameSite	Last Accessed
JSESSIONID	b26b74d4573ef99460c4b4a944a0	localhost	/Marketplac...	Session	38	true	true	None	Sun, 28 Jun 2020 13:3...

Entering `http://localhost:8080/Marketplace_v07/` in the address bar:

The screenshot shows a web browser window with the address bar containing `https://localhost:8181/Marketplace_v07/`. The page title is "Welcome to Marketplace v07". The browser's developer tools are open to the Network tab, displaying a list of requests. The first request is highlighted, and its headers are expanded. The 'Request Headers' section shows a 'Cookie' header with the value 'JSESSIONID=b26b74d4573ef99460cfb4a944a0', which is highlighted with a red box. The 'Request URL' is also highlighted with a red box.

Status	Method	Domain	File	Initiator	Type	Transferred	Size	Headers	Cookies	Request	Response	Timings
302	GET	localhost:8080	/Marketplace_v07/	document	html	2.08 KB	1...	Request URL: http://localhost:8080/Marketplace_v07/		Request Method: GET		
200	GET	localhost:8181	/Marketplace_v07/	document	html	2 KB	1...	Remote Address: [::1]:8080		Status Code: 302 Found		
200	GET	localhost:8181	marketplace.css?n=css	stylesheet	css	cached	6...	Status Code: 302 Found		Version: HTTP/1.1		
404	GET	localhost:8181	favicon.ico	FaviconLoader...	html	cached	1...					

Note that the HTTP request (before redirecting to HTTPS) **includes the Cookie** in the request. This should not happen with a cookie that has the Secure flag set.