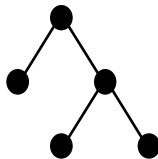




Architecture des Systèmes d'Information

Ajax



Traduction en cours

Principle



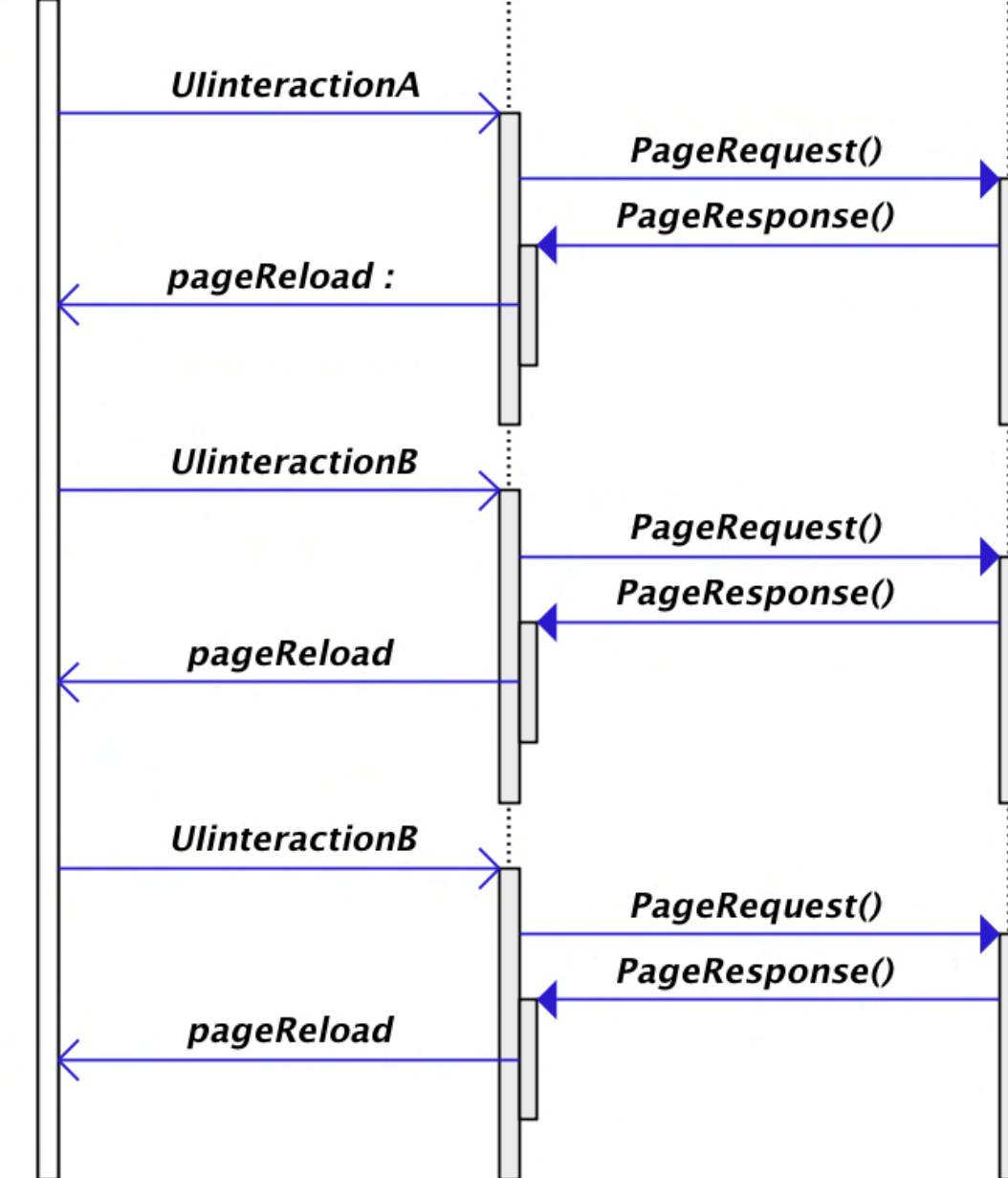
- Ajax make it possible Javascript to communicate directly with the server, using a special Javascript object XMLHttpRequest.
- With this object, Javascript can get information from the server without having to load a new page!
- It avoids page reload at for partial view refresh.





WEBpage:HMI

WEB:Application





Browser



Javascript Calls

2

5

Updates DOM



Initial
Page
Request

1

Request

3

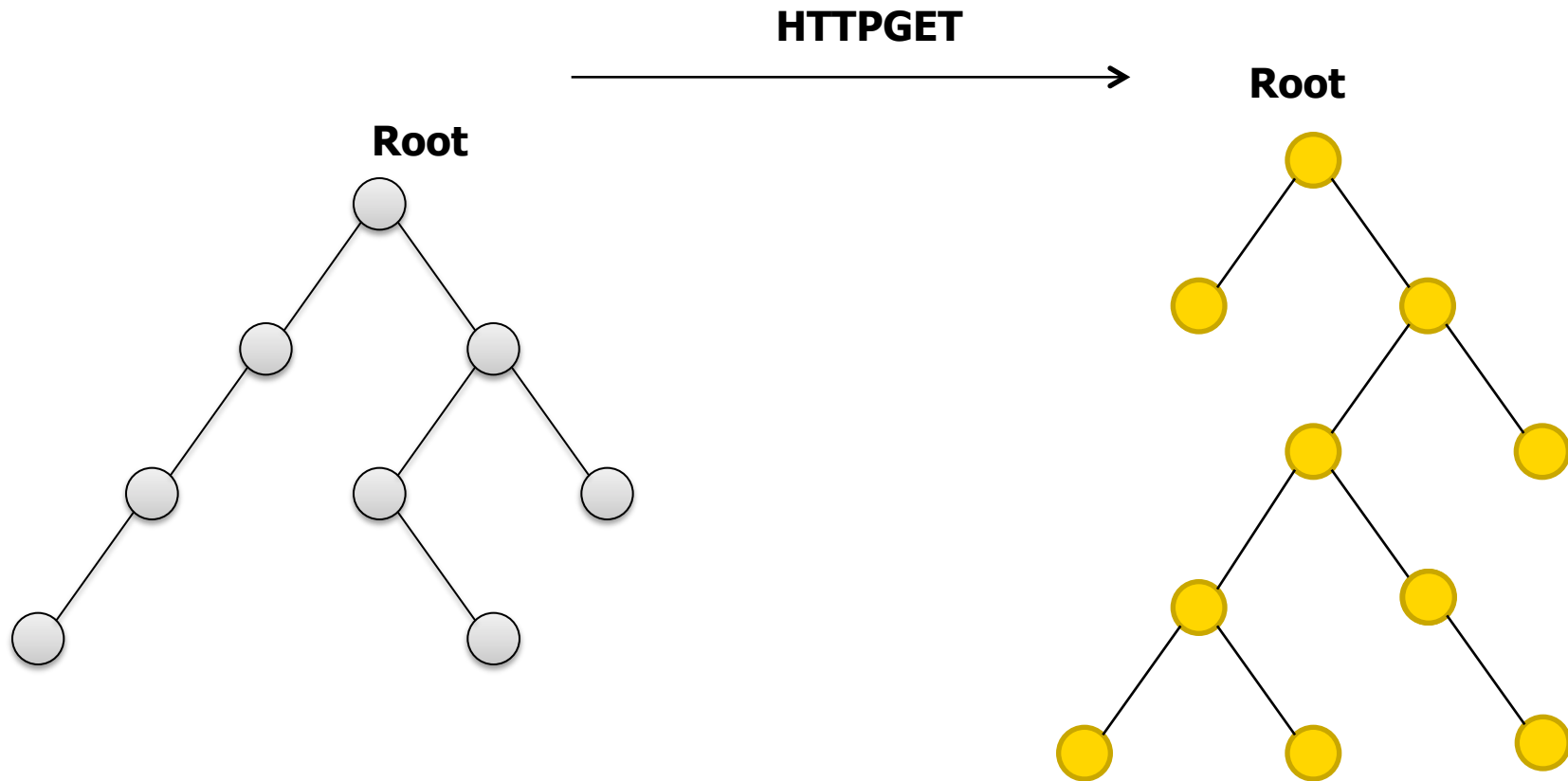
4

Response

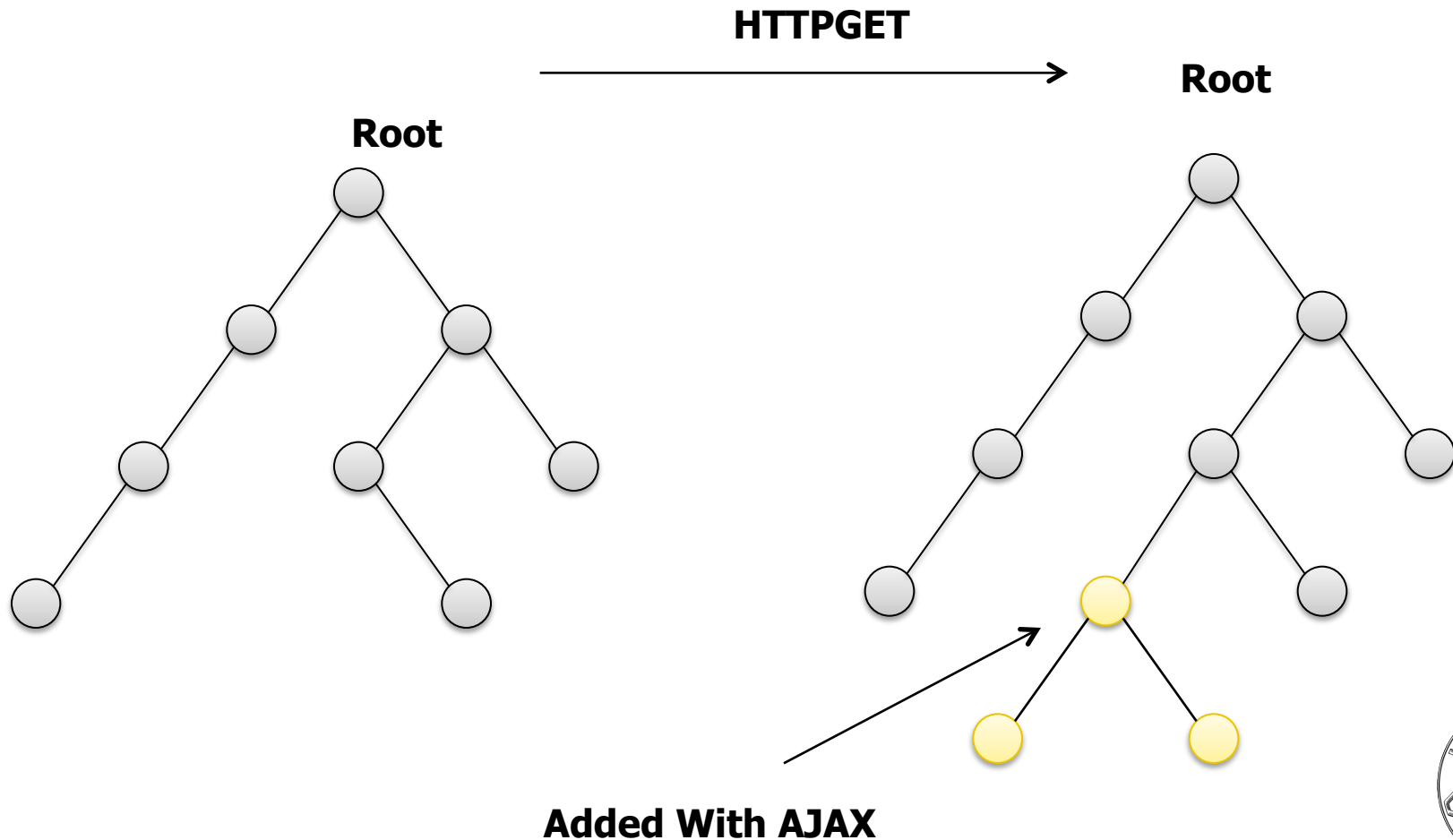
Server



Without Ajax : New DOM Tree per request



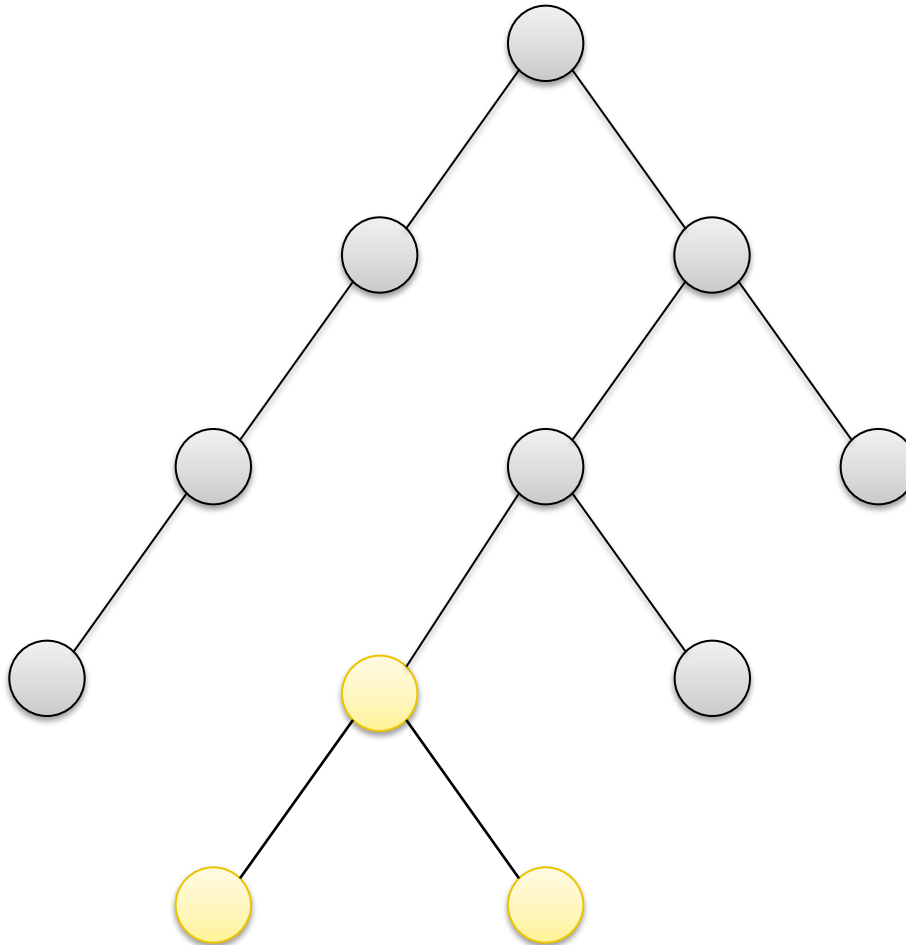
WitAjax : Partial DOM Tree update



Ajax Partial Update of the DOM.



UI



Ajax : Asynchronous JavaScript And Xml



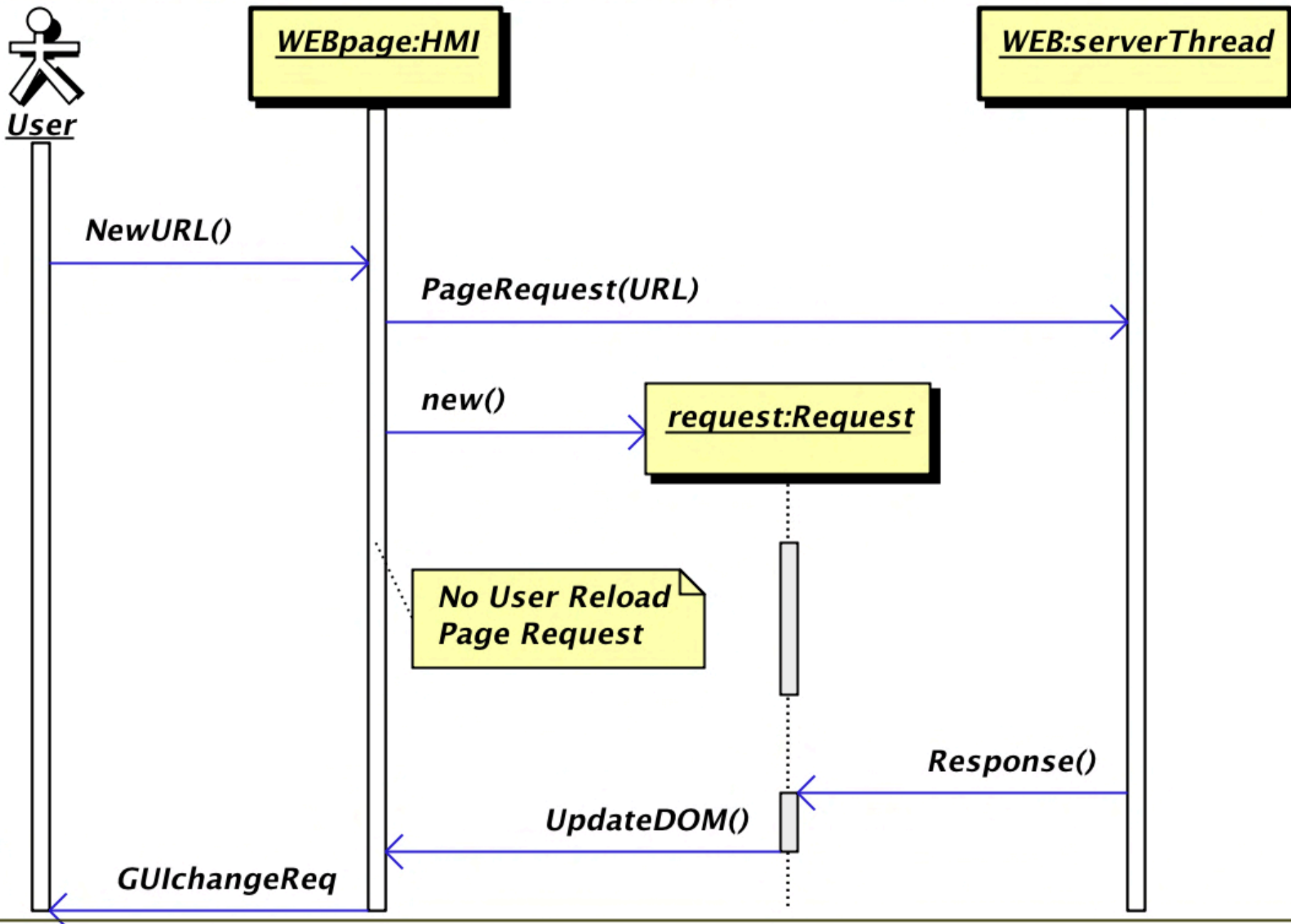
- **XMLHttpRequest**

- First implementation in IE activeX
- Ajax updated portion is sent as XML to the browser where the DOM is updated

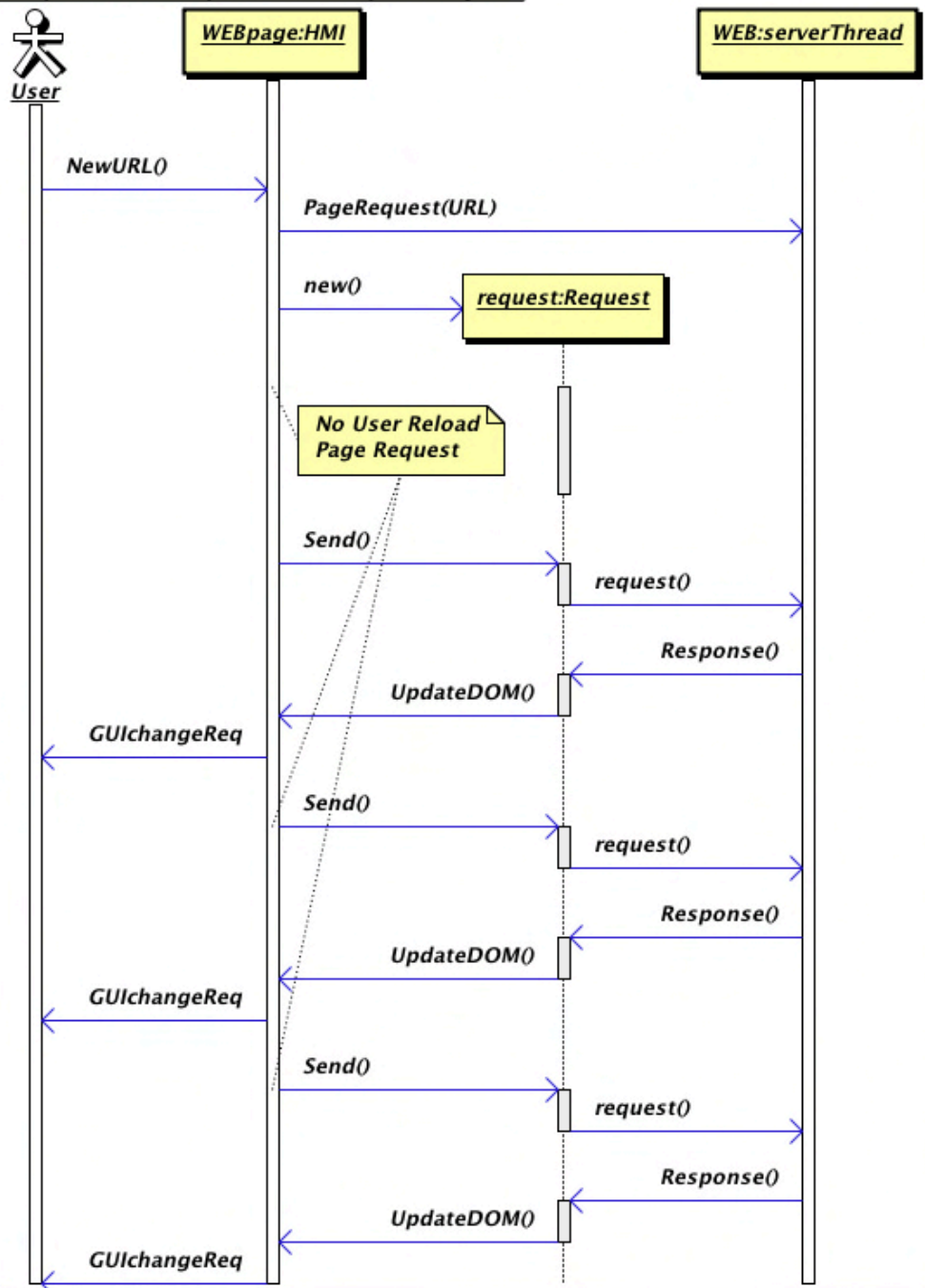
<https://developer.mozilla.org/en-US/docs/DOM/XMLHttpRequest>



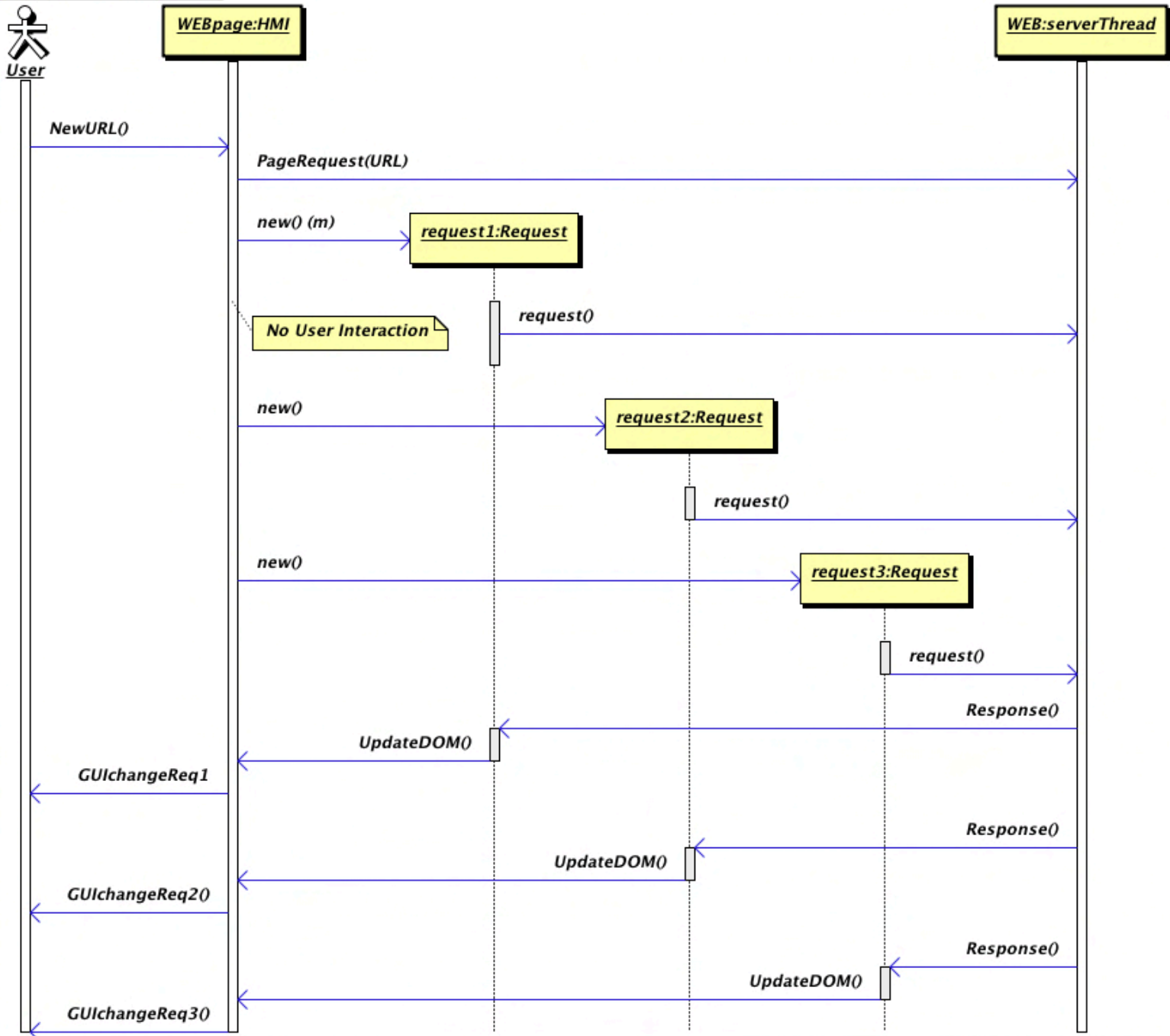
Asynchronous Update one Request Object



Asynchronous Update one Request Object



Asynchronous Update



Asynchronous Update



User

WEBpage:HMI

WEB:serverThread



NewURL()

PageRequest(URL)

new()

request1:Request

No User Interaction

request()

new()

request2:Request

request()

Response()

UpdateDOM()

GUIchangeReq1

new()

request3:Request

request()

Response()

UpdateDOM()

GUIchangeReq30

Request 3 response Before 2

Response()

UpdateDOM()

GUIchangeReq20

