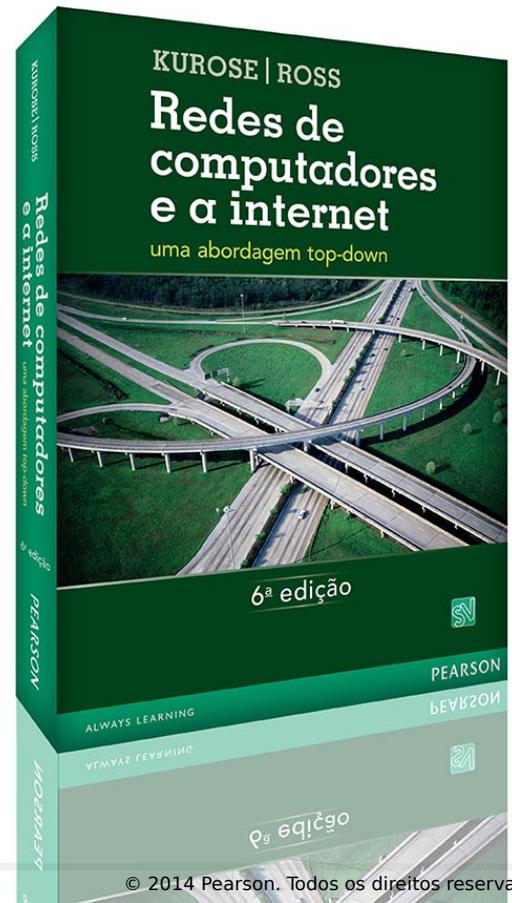


# Capítulo 2

# Camada de aplicação

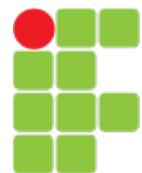


# Interação usuário-servidor: *cookies*

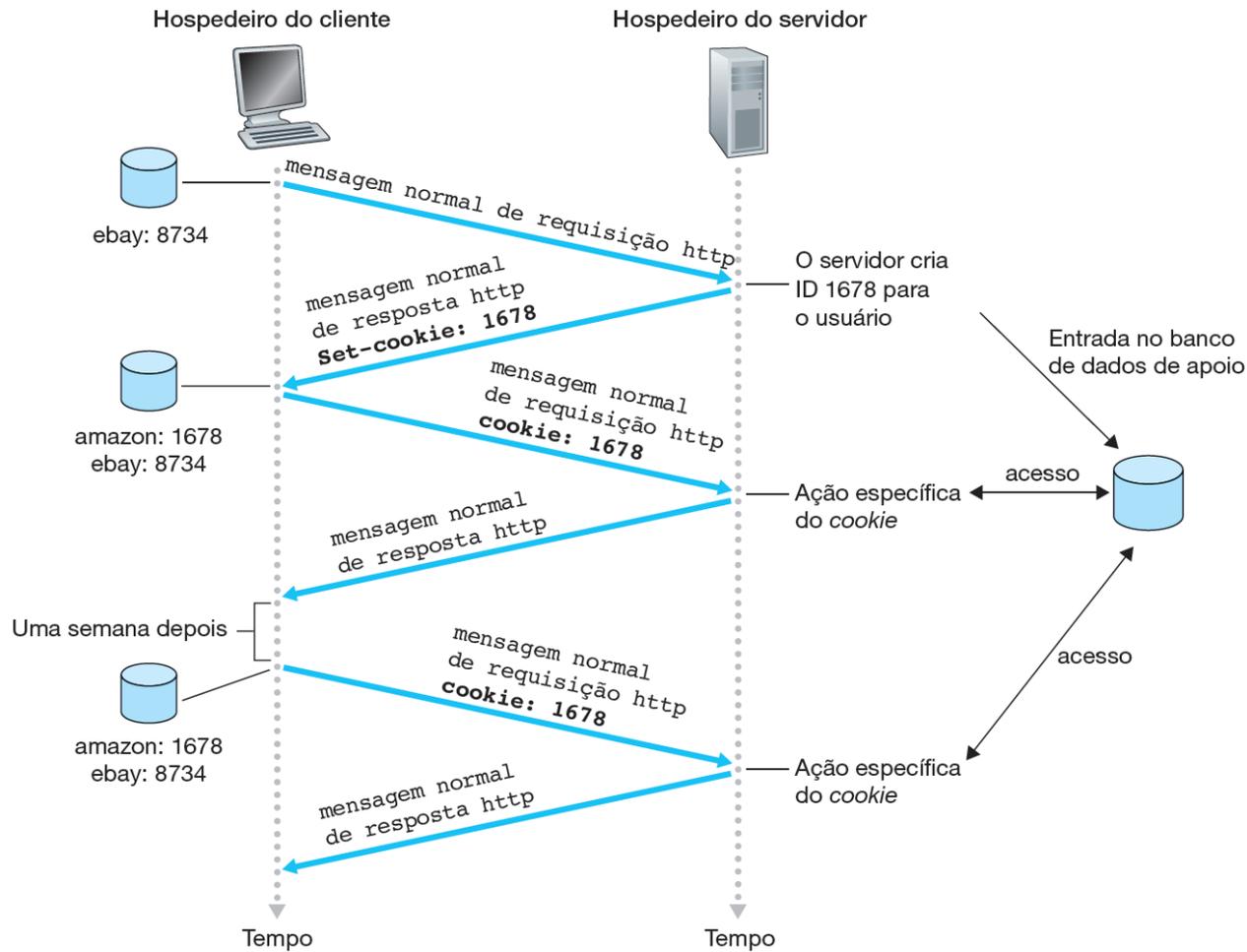
Cookies, definidos no [RFC 6265], permitem que sites monitorem seus usuários.

A tecnologia dos cookies tem quatro componentes:

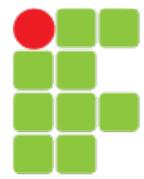
1. uma linha de cabeçalho de cookie na mensagem de resposta HTTP;
2. uma linha de cabeçalho de cookie na mensagem de requisição HTTP;
3. um arquivo de cookie mantido no sistema final do usuário e gerenciado pelo navegador do usuário;
4. um banco de dados de apoio no site.



# Interação usuário-servidor: *cookies*



- Mantendo o estado do usuário com *cookies*.
- *Ver cookies no Wireshark*



# Cookies: keeping "state" (cont.)

client



server



ebay 8734

cookie file

usual http request msg

Amazon server  
creates ID  
1678 for user

usual http response  
**set-cookie: 1678**

create  
entry

backend  
database



ebay 8734

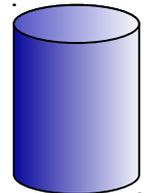
amazon 1678

usual http request msg  
**cookie: 1678**

cookie-  
specific  
action

access

usual http response msg



access

cookie-  
specific  
action

one week later:



ebay 8734

amazon 1678

usual http request msg  
**cookie: 1678**

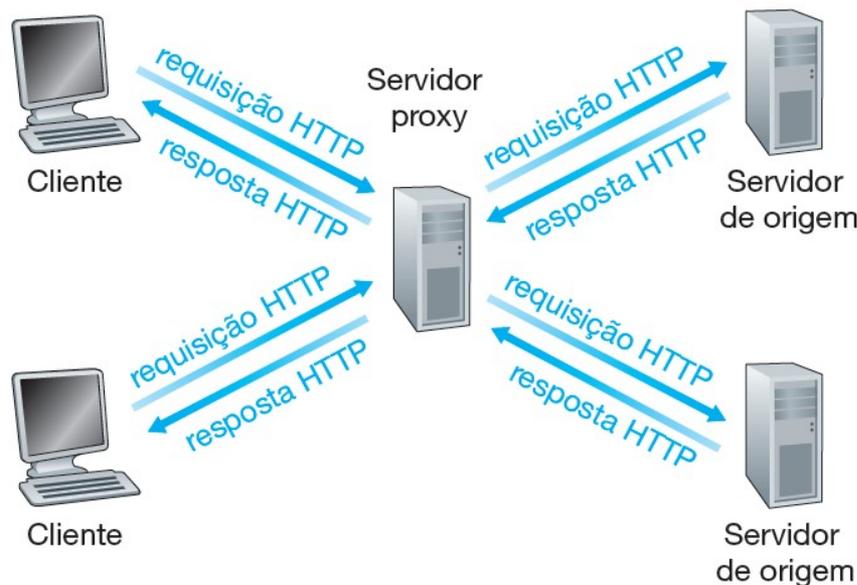
cookie-  
specific  
action

usual http response msg

# Caches Web

- Um *cache Web* — também denominado **servidor proxy** — é uma entidade da rede que atende requisições HTTP em nome de um servidor Web de origem.

Clientes requisitando objetos por meio de um *cache Web*:

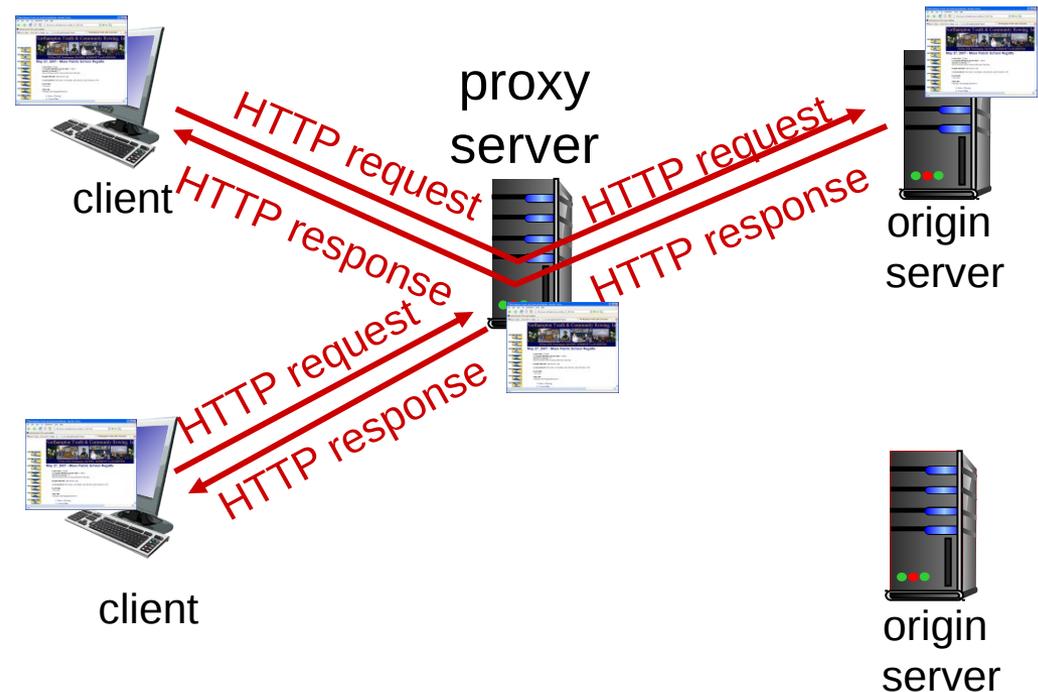


- GET condicional** – mecanismo que permite que um *cache* verifique se seus objetos estão atualizados.

# Web caches (proxy server)

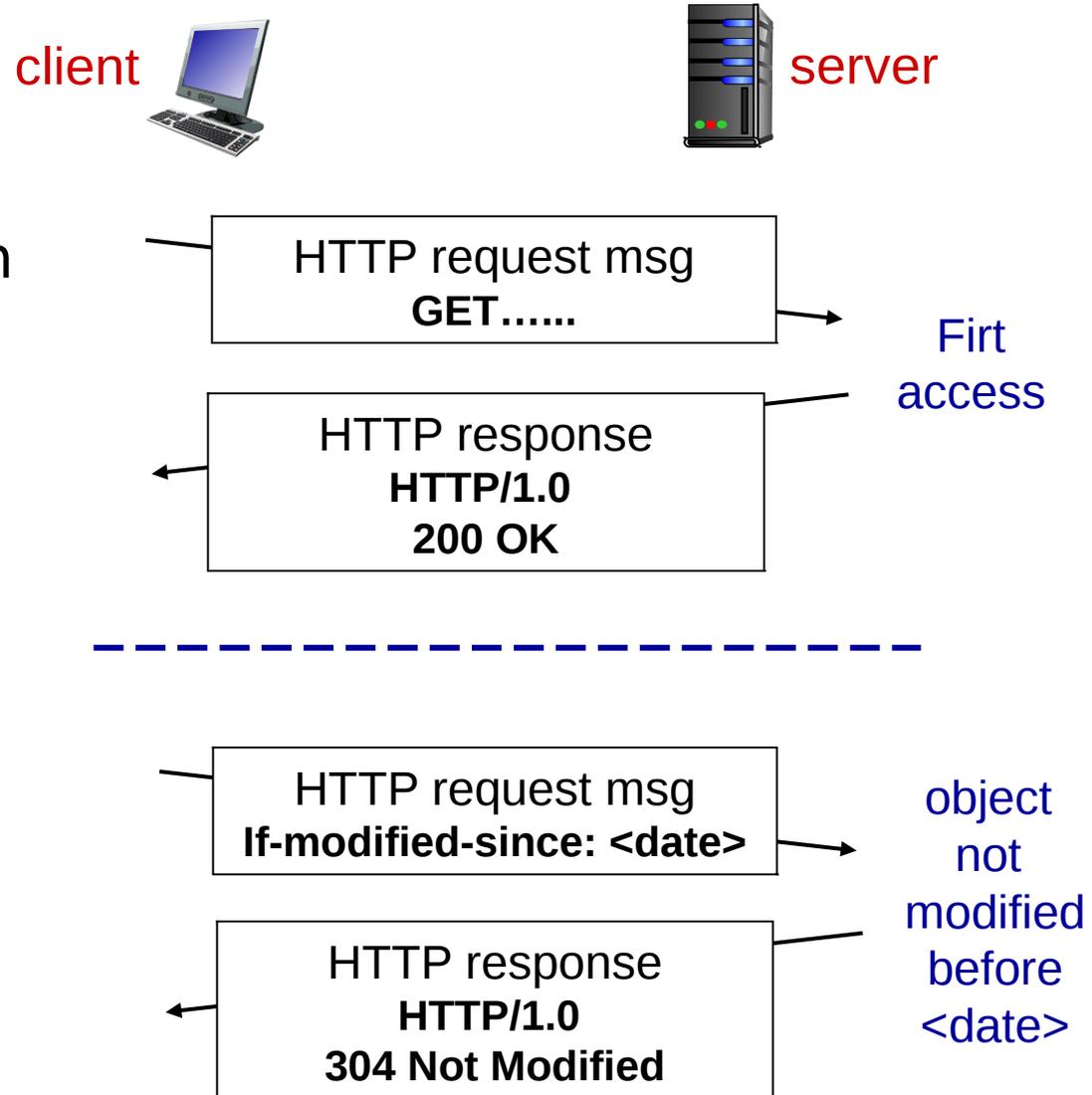
*goal:* satisfy client request without involving origin server

- ❖ user sets browser: Web accesses via cache
- ❖ browser sends all HTTP requests to cache
  - object in cache: cache returns object
  - else cache requests object from origin server, then returns object to client



# Conditional GET

- ❖ **Goal:** don't send object if cache has up-to-date cached version
  - no object transmission delay
  - lower link utilization
- ❖ **cache:** specify date of cached copy in HTTP request
  - If-modified-since:**  
**<date>**
- ❖ **server:** response contains no object if cached copy is up-to-date:
  - HTTP/1.0 304 Not Modified**



# Conditional GET

- ❖ **Goal:** don't send object if cache has up-to-date cached version
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**If-modified-since:**  
**<date>**
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