

# Hyper Text Transfer Protocol

How clients/servers talk to each other



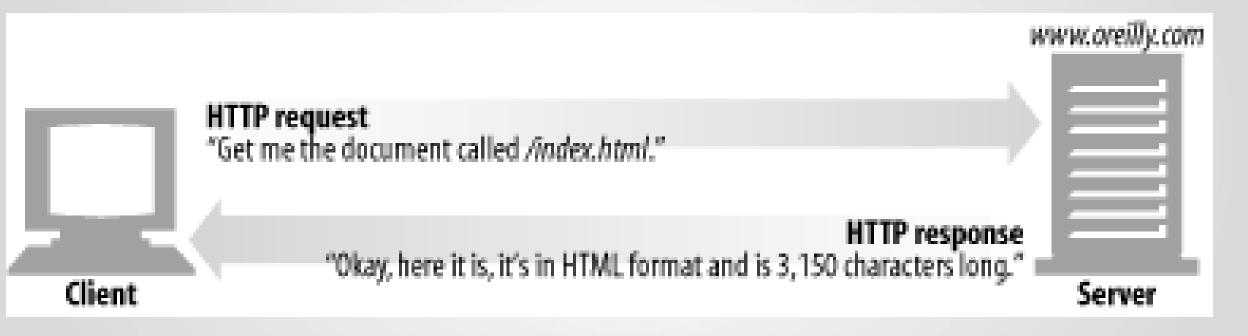
## Objectives

- To know how web clients and servers communicate
- To know where resources (web content) come from
- Knowing how web transactions work "under the hood"
- To know the format of the messages used for HTTP communication





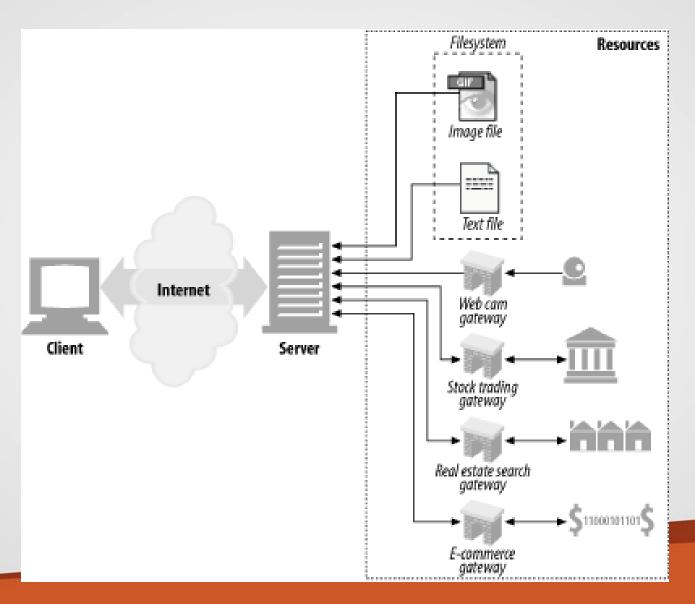
## Clients & Servers







## Resources







## **Transactions**

HTTP request message contains the command and the URI

Client

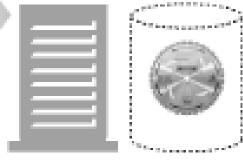
GET /specials/saw-blade.gif HTTP/1.0 Host: www.joes-hardware.com



HTTP/1.0 200 OK

Content-type: image/gif Content-length: 8572





www.joes-hardware.com

HTTP response message contains the result of the transaction





## Methods

#### Some common HTTP methods

**HTTP** method

**Description** 

**GET** 

Send named resource from the server to the client.

**PUT** 

Store data from client into a named server resource.

DELETE

Delete the named resource from a server.

**POST** 

Send client data into a server gateway application.

**HEAD** 

Send just the HTTP headers from the response for the named

resource.





## Status Codes

#### Some common HTTP status codes

HT	ГР
status	code

#### **Description**

200 OK. Document returned correctly.

Redirect. Go someplace else to get the resource.

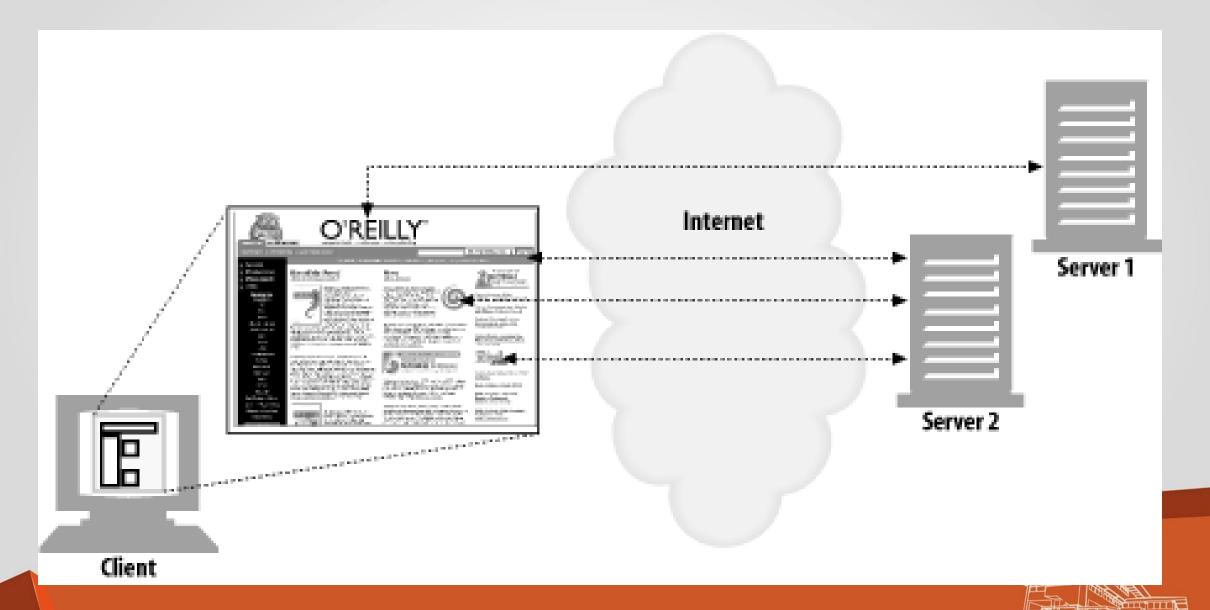
Not Found. Can't find this resource.





### Palawan State University

# HTTP Multiple Requests





## Messages

(a) Request message

GET /test/hi-there.txt HTTP/1.0

Accept: text/\*

Accept-Language: en,fr

Start line

Headers

Body

(b) Response message

HTTP/1.0 200 OK

Content-type: text/plain

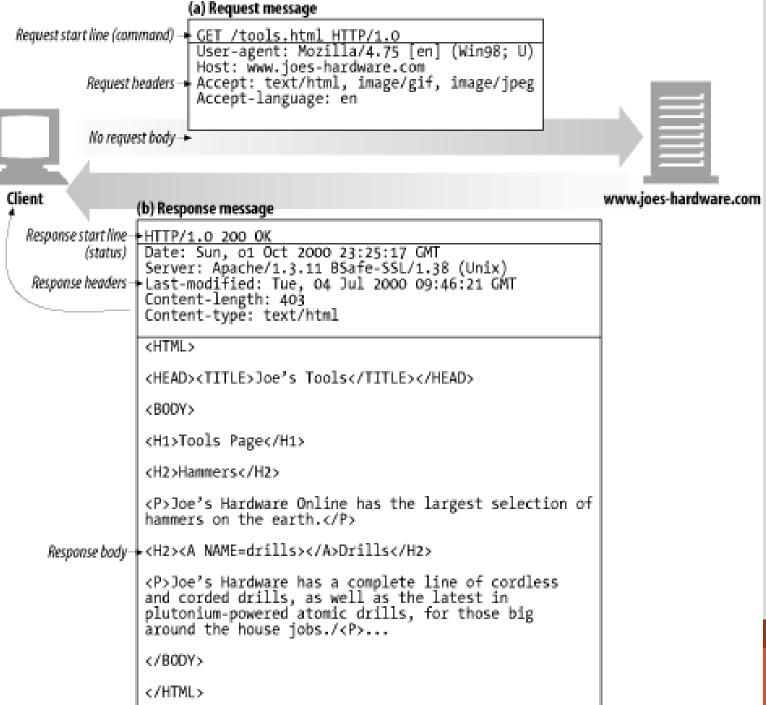
Content-length: 19

Hi! I'm a message!





# **Example GET** transaction





### Connections

HTTP

TCP

IP

Network-specific link interface

Physical network hardware

Application layer

Transport layer

Network layer

Data link layer

Physical layer





What steps happens during connection?

