

Introduction to Clients and Servers

CSC 120 / ISC 150

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- ▶ There was an Internet (computers were connected together) but no way to distribute data to scientists around the world
- ▶ Tim Berners-Lee (CERN) devised a way to locate and share data between computers using a **hyperlinking framework** and a **markup language** to describe the hyperlinks

The Web and HTML (2)

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 - ▶ Users click on items called **links** to open documents.
 - ▶ Documents can be stored on your computer or on another computer anywhere in the world.
 2. **hyperlinking framework**: Hyper Text Transfer Protocol **HTTP** - a “contract” for how computers on the Internet communicate with each other in order to request and serve (return) documents.

The Client-Server Model

- ▶ Documents are **stored** on computers called **Servers** (Web Servers)

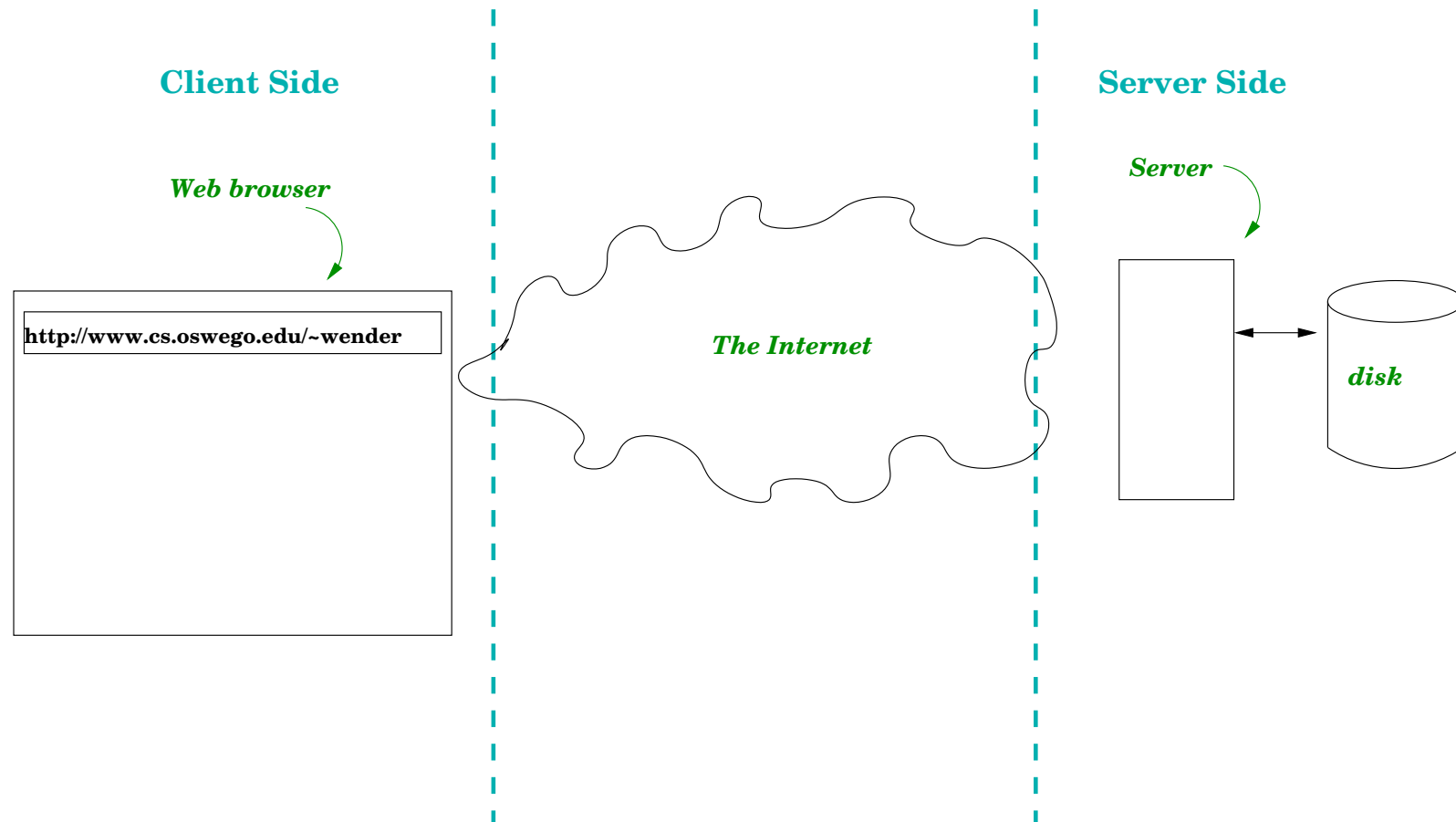
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- ▶ Documents are **stored** on computers called **Servers** (Web Servers)
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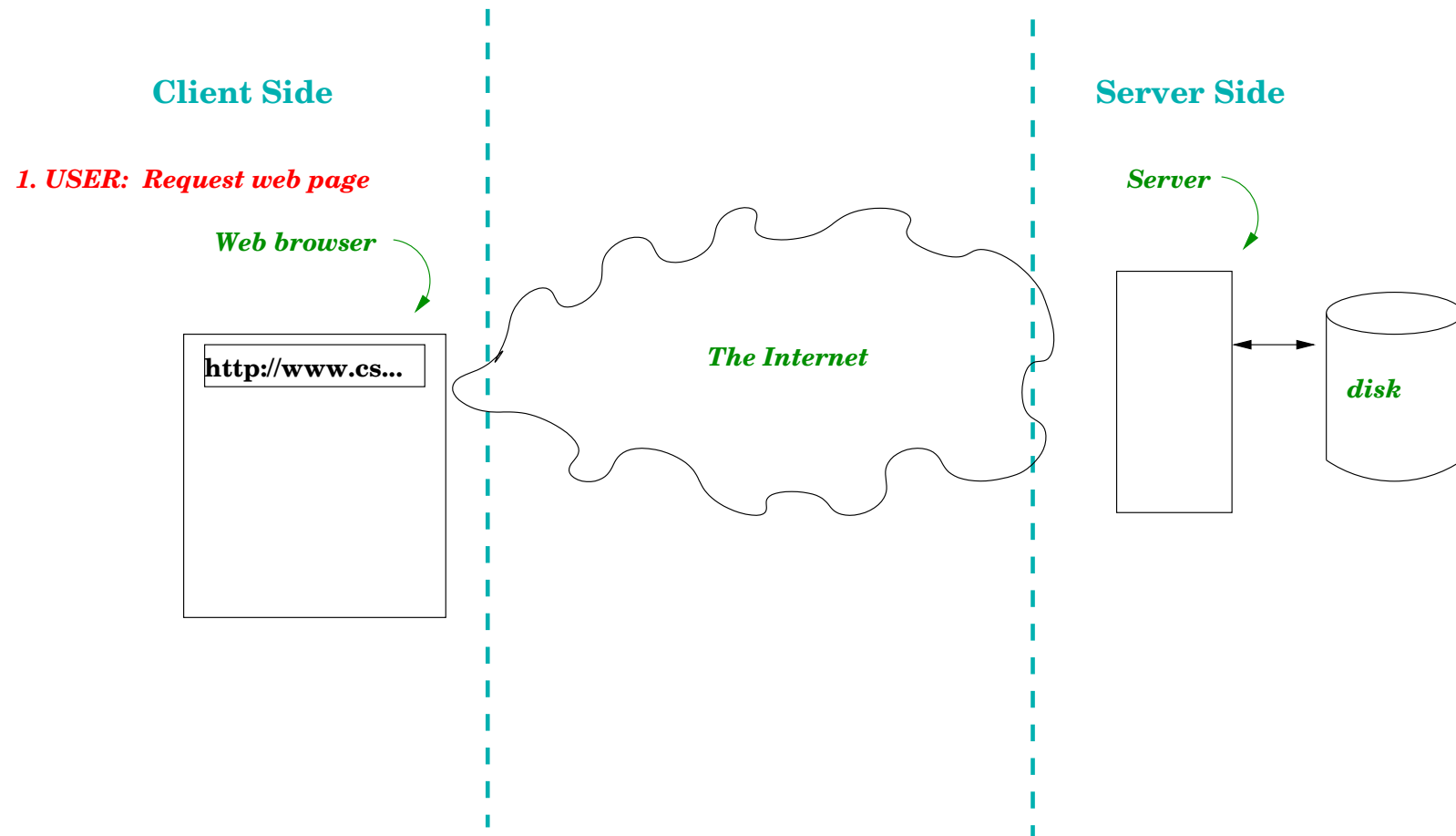
The Client-Server Model

- ▶ Documents are **stored** on computers called **Servers** (Web Servers)
- ▶ The user (YOU!) request a document using a web browser on your **client** machine
- ▶ HTTP is a communication standard (a contract) for how to communicate a request for a document (by the client) and response to the request (from the server) to produce the document.

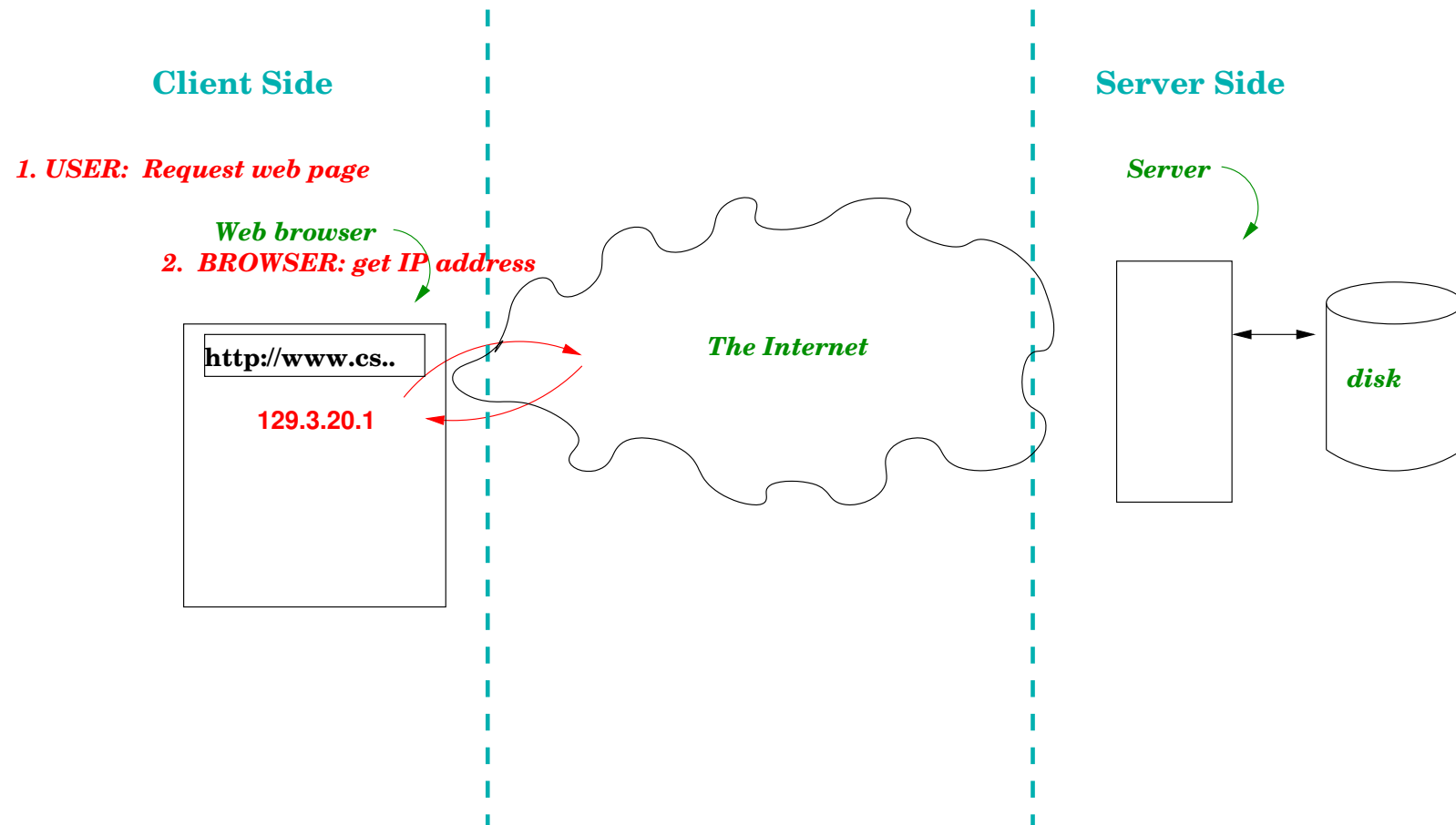
Client (with Web Browser) and Server



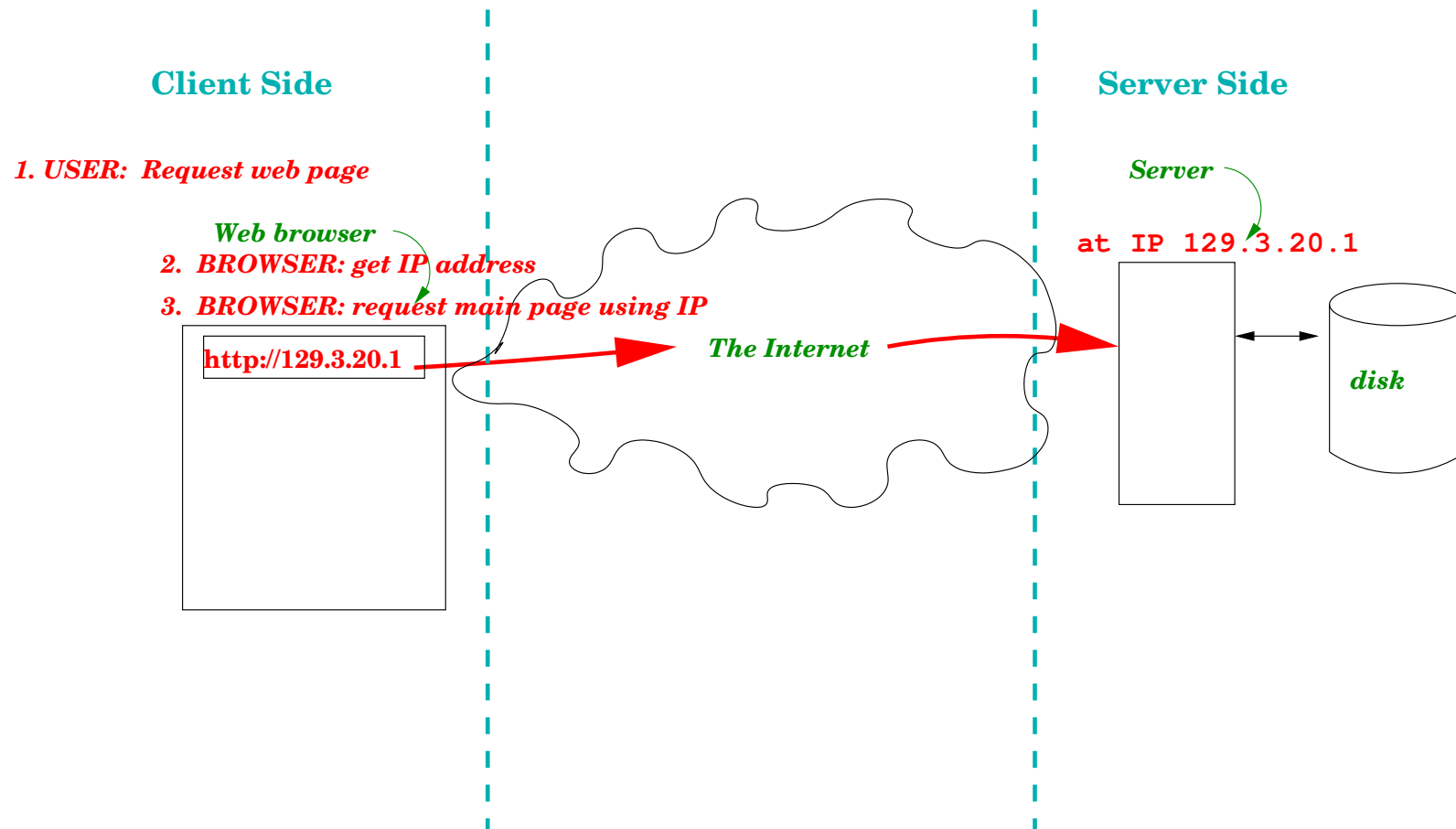
YOU want to view a web page



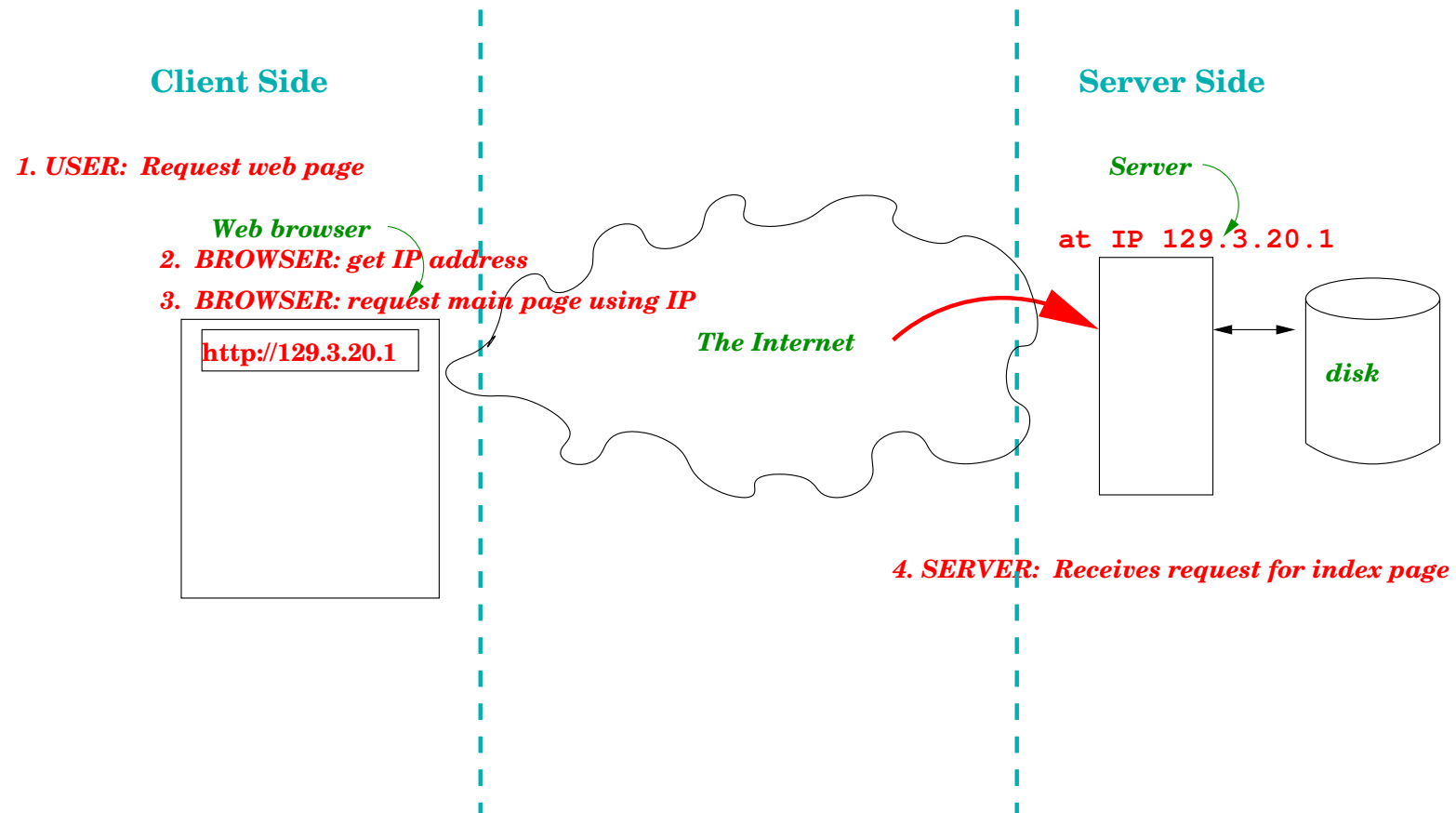
Browser gets IP address



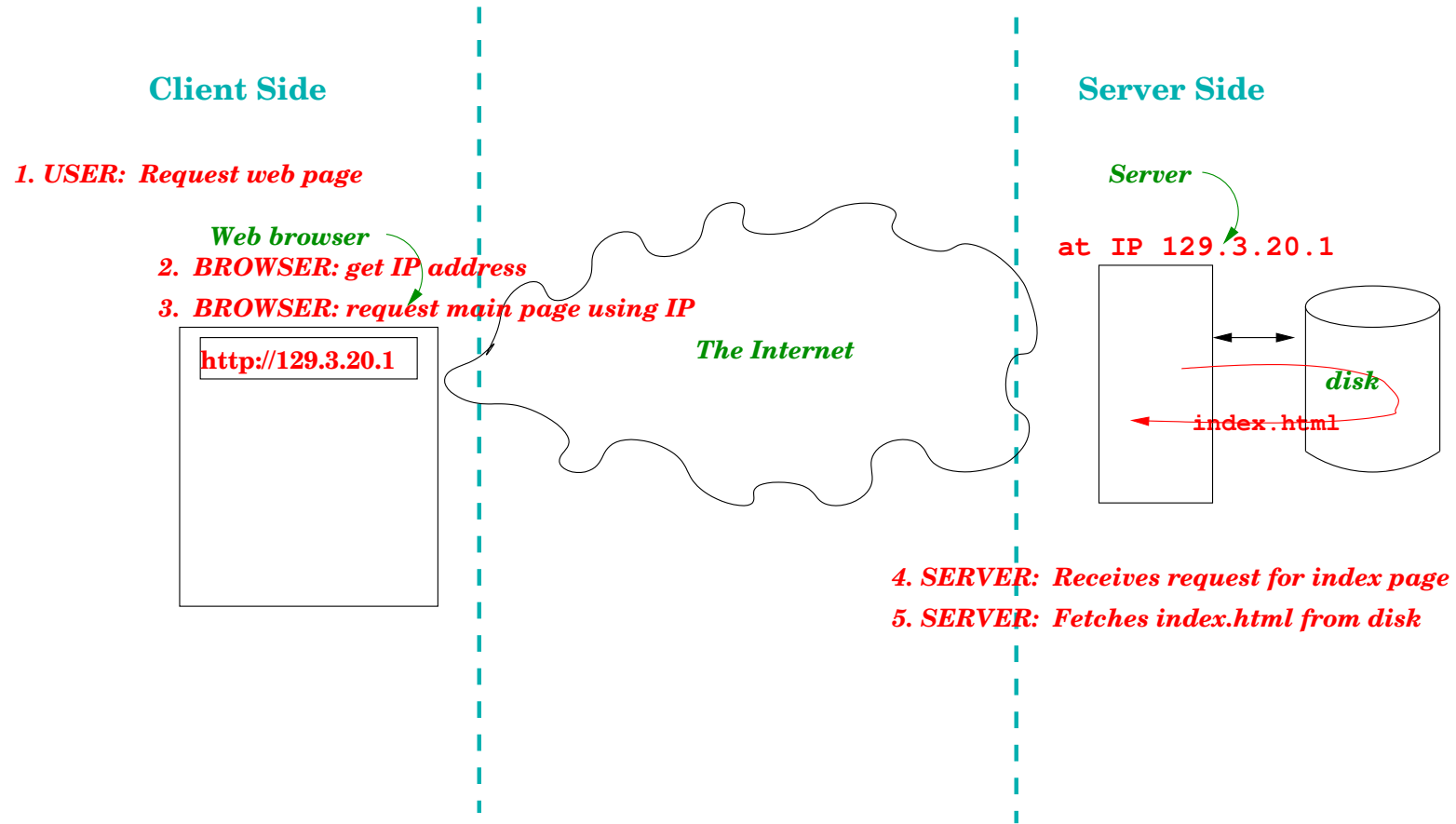
Browser requests document via Internet



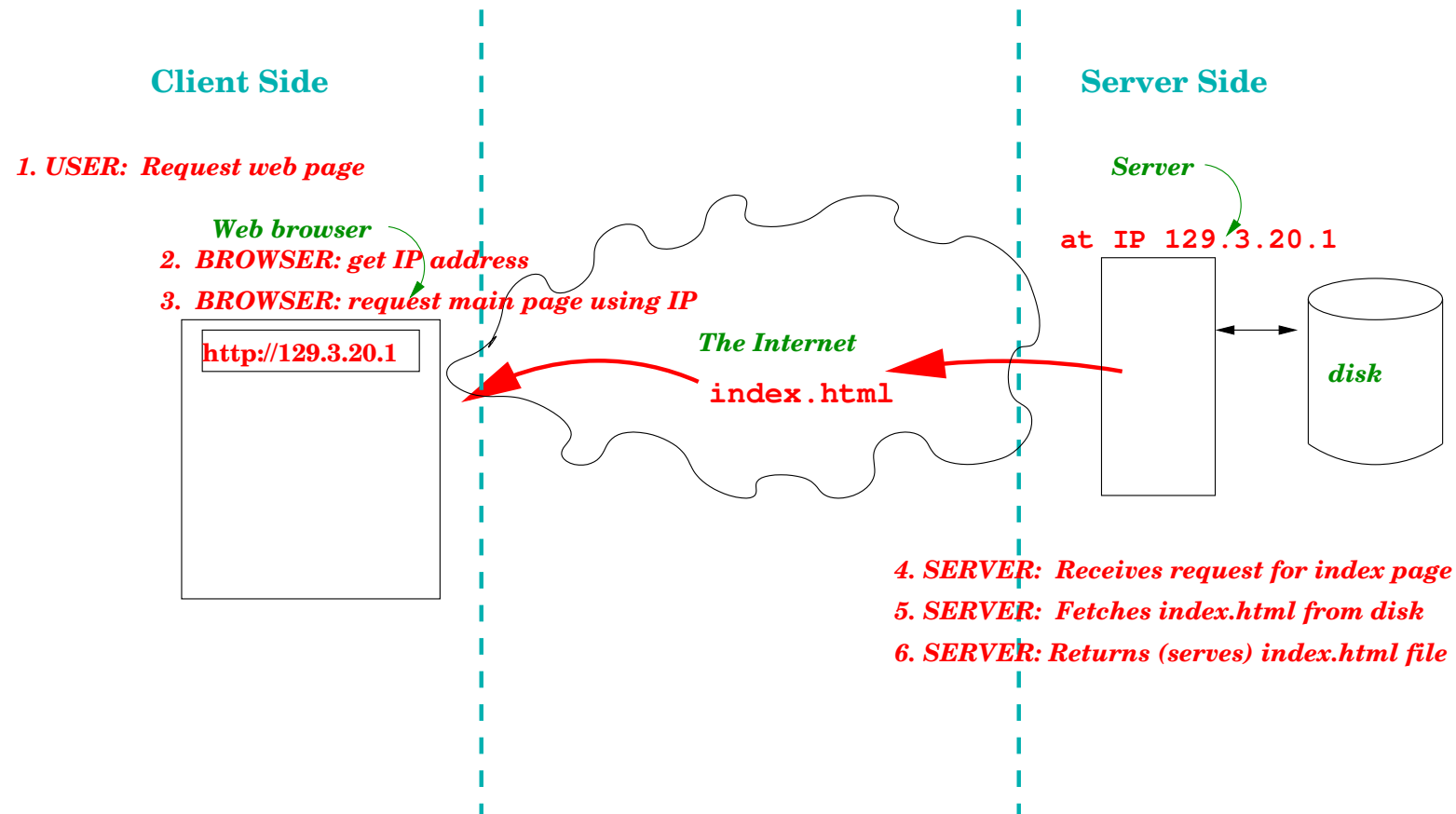
Server receives request for index.html



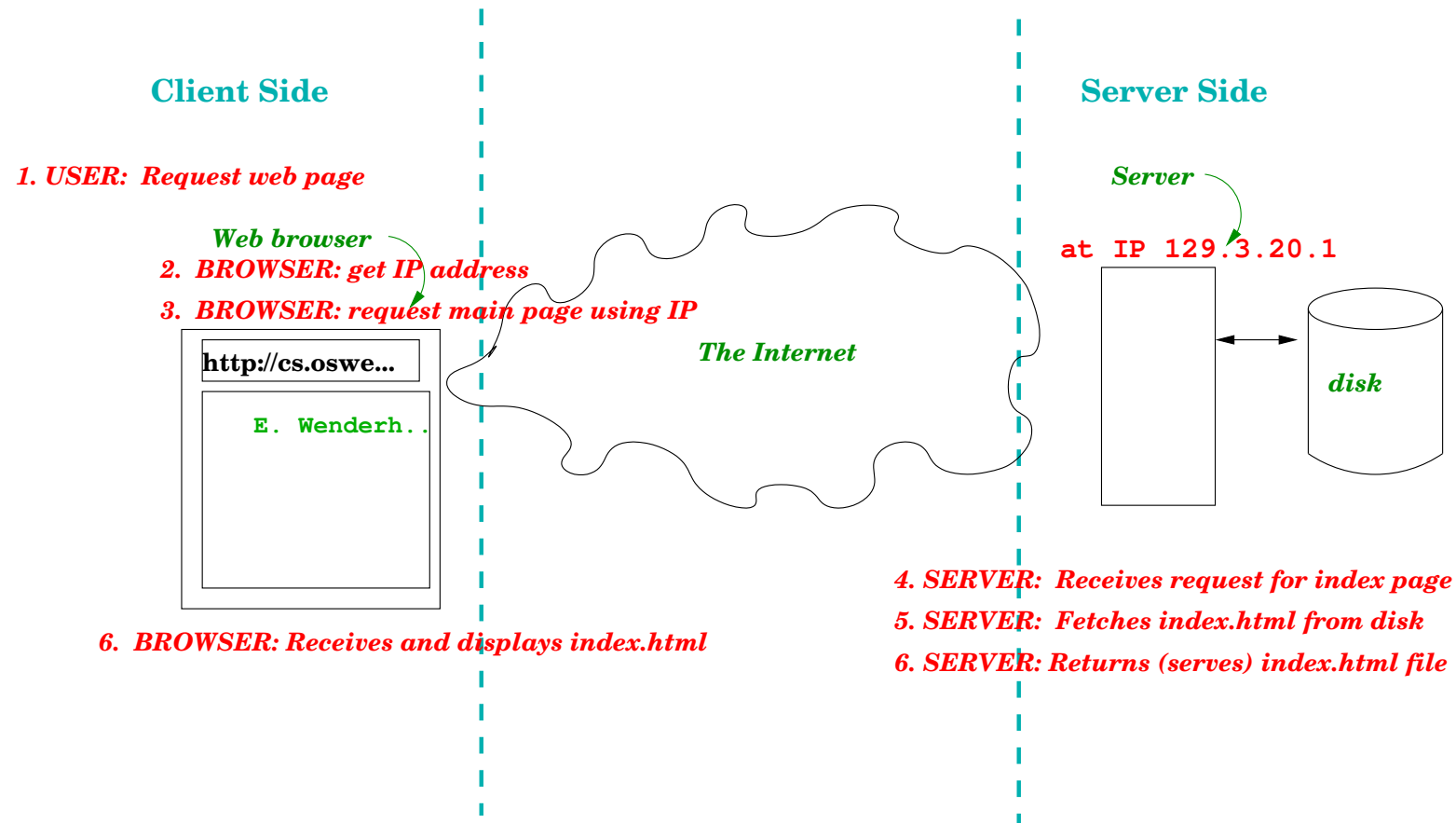
Server finds index.html file on disk



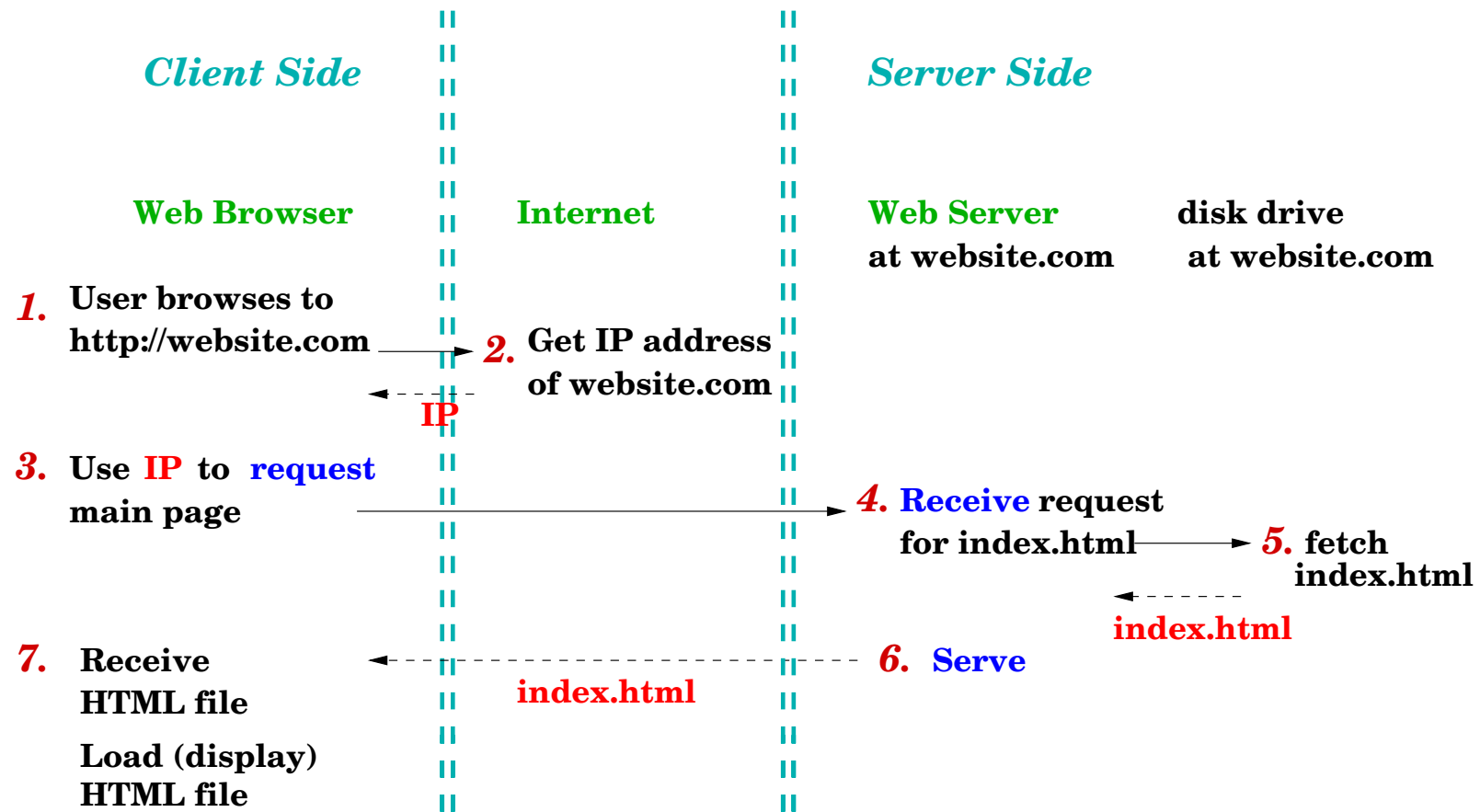
Server returns (serves) file to requesting computer



Browser receives index.html and loads(displays)



Simple Sequence of Client Request/Server Response



Dynamic Web Pages

▶ Client-Side Components

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- ▶ Client- and Server-side JavaScript reference

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 - ▶ ...and more...