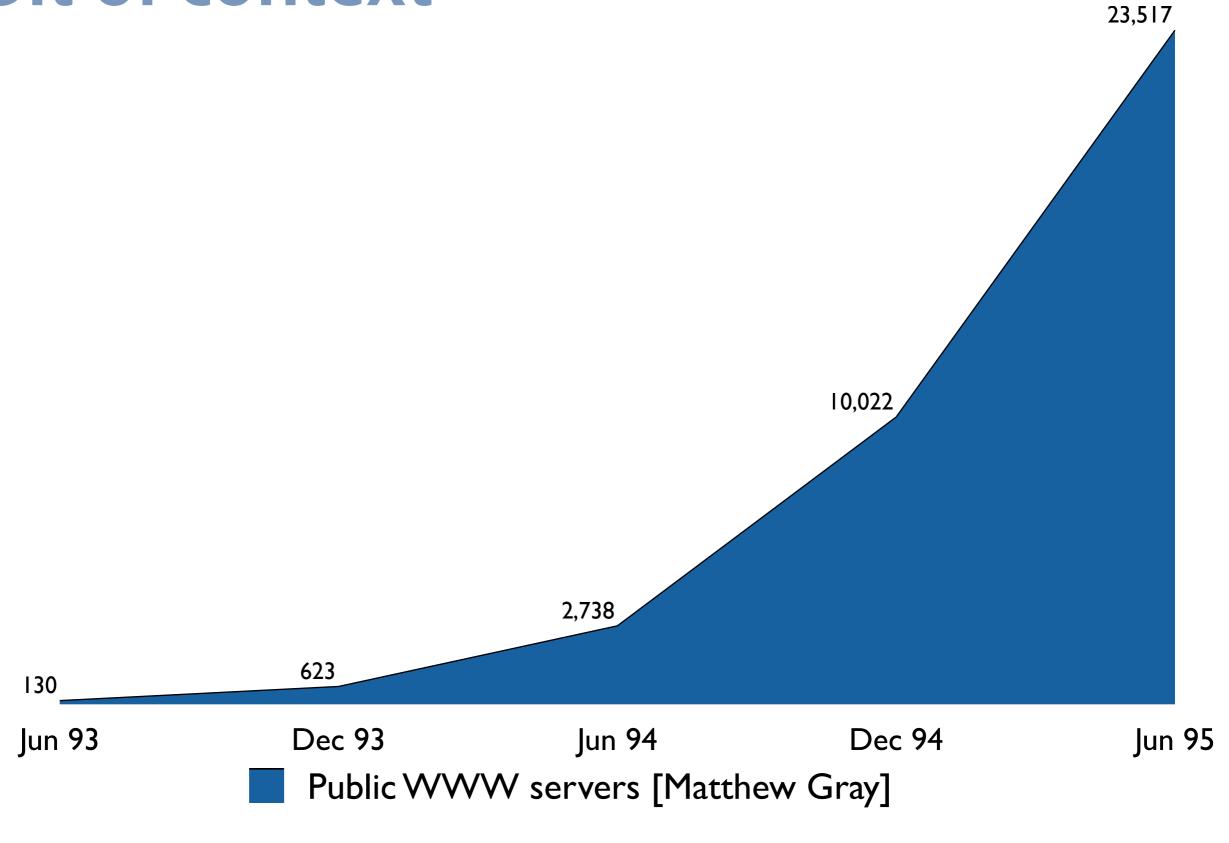
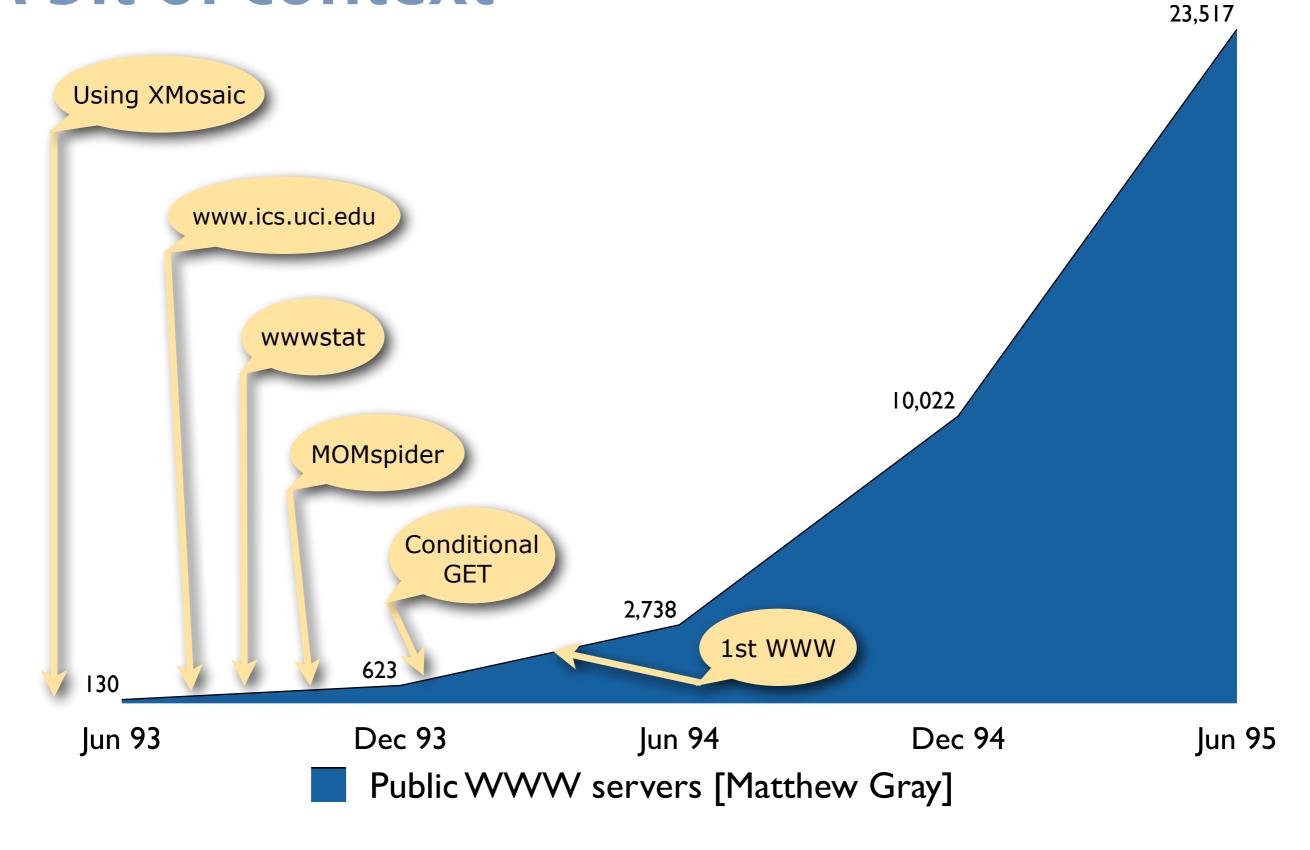
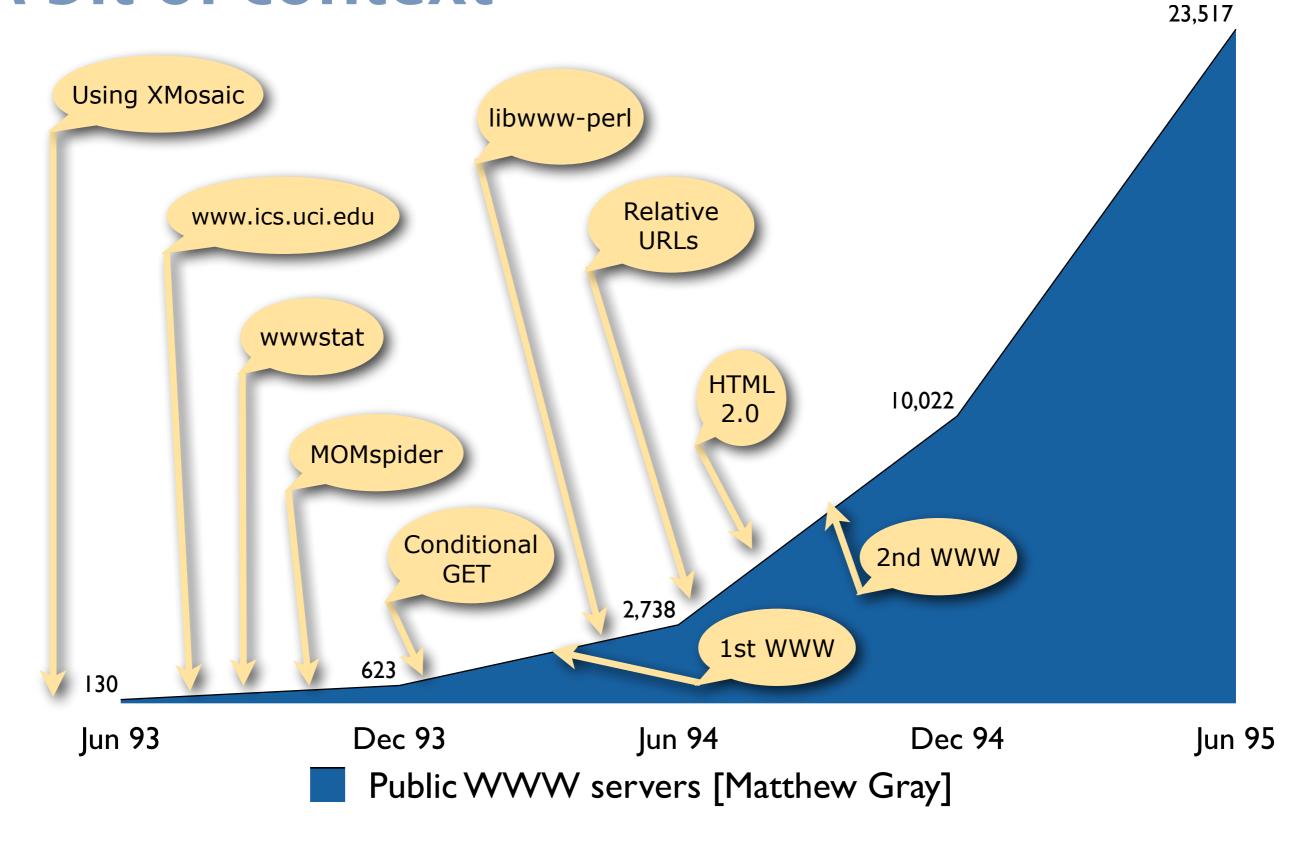
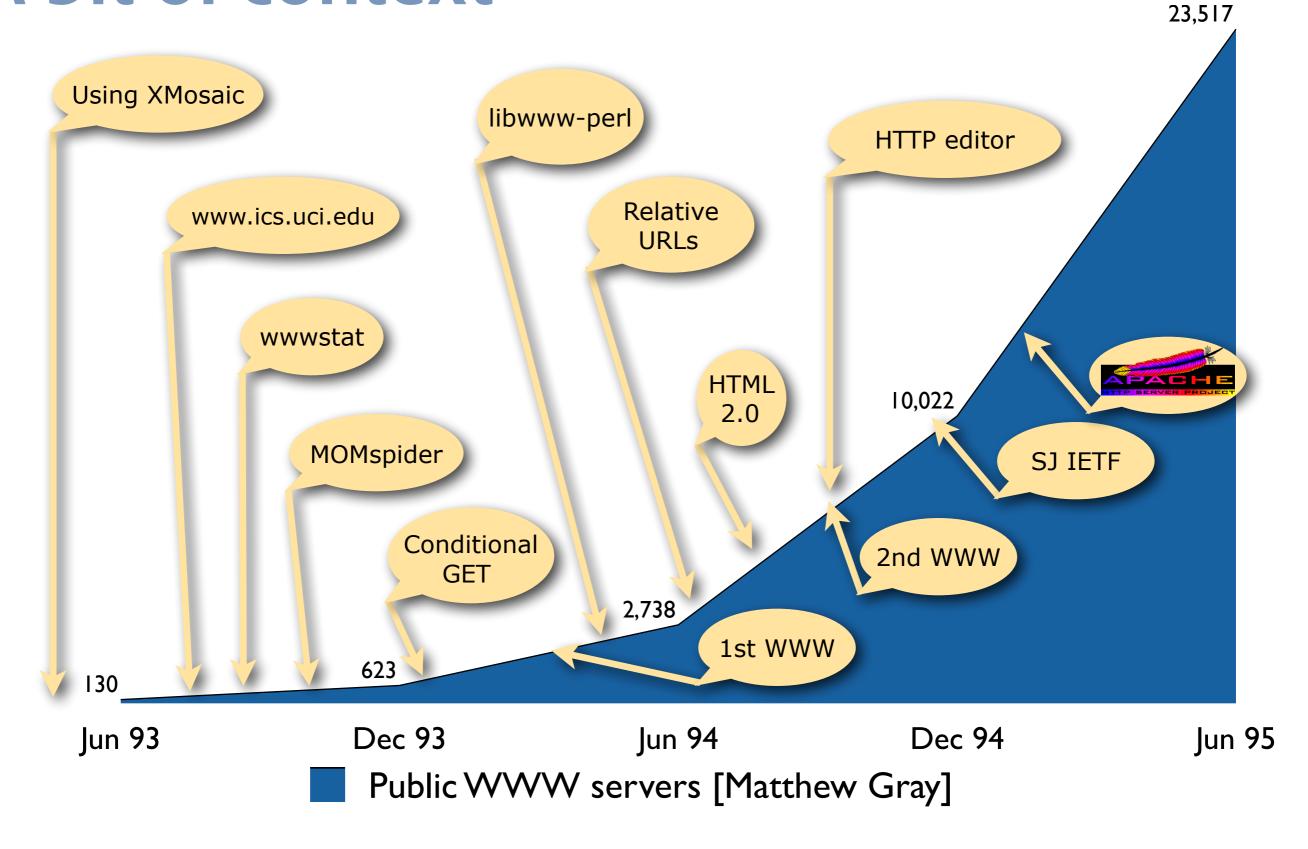


Jul 2015 = 849,602,745 (36,127x)

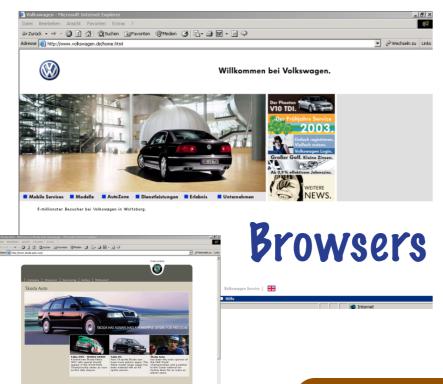


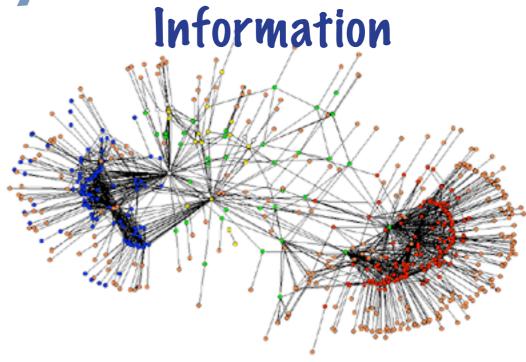


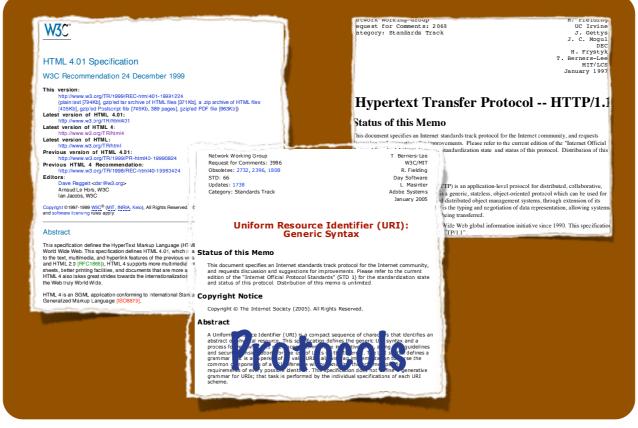




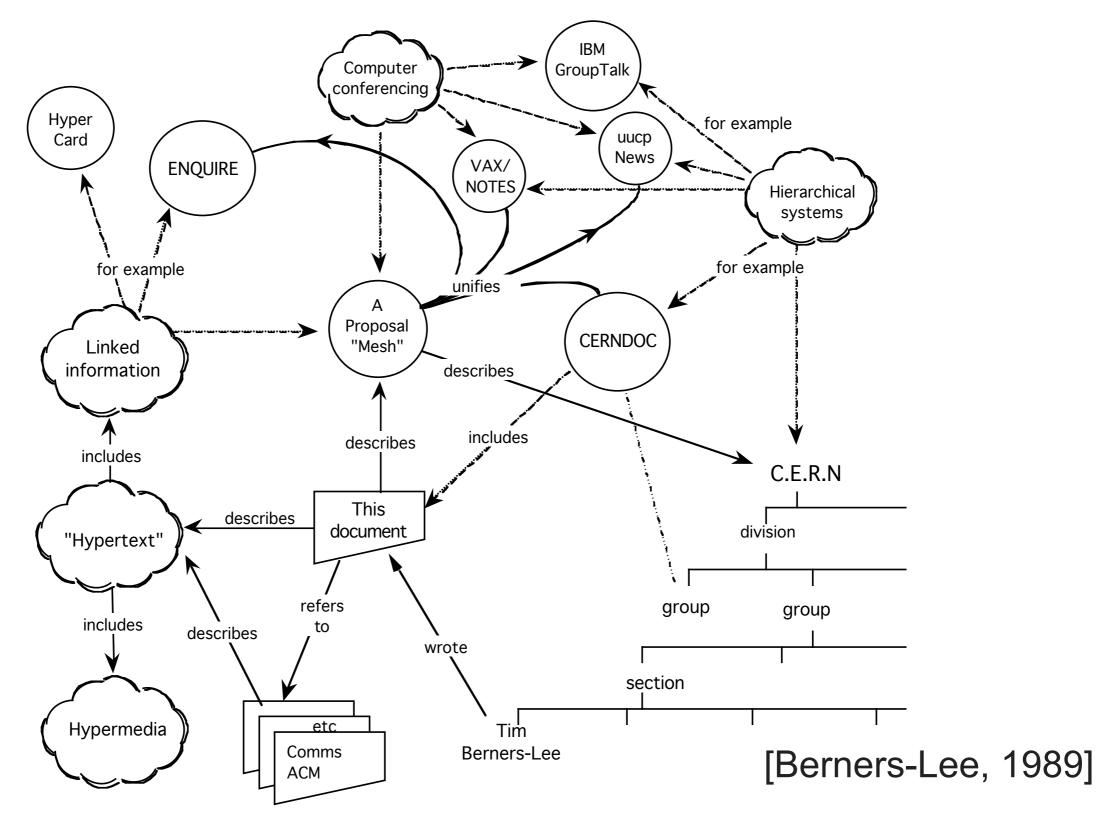
What is the Web, really?



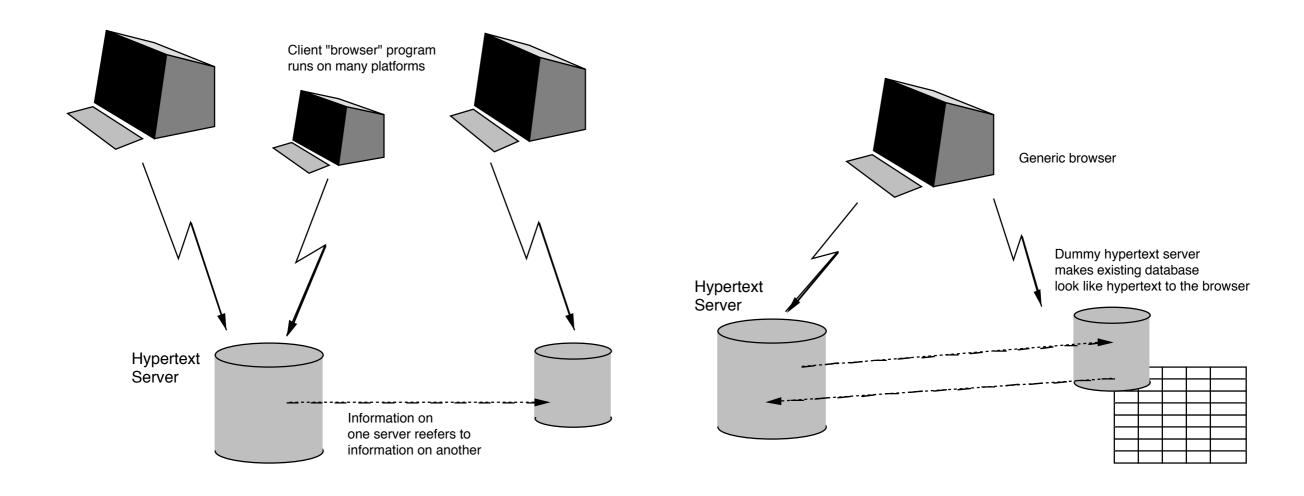




# An application integration system



### Role of HTTP



# Charles Eames on "design" [1972]

#### What is your definition of "design"?

▶ A plan for arranging elements in such a way as to best accomplish a particular purpose

#### Does the creation of design admit constraints?

Design depends largely on constraints

#### What constraints?

- The sum of all constraints.
- ▶ One of the few effective keys to the design problem:
  - the ability of the designer to recognize as many of the constraints as possible
  - willingness and enthusiasm for working within these constraints
  - constraints of price, of size, of strength, balance, of surface, of time, etc.
  - each problem has its own peculiar list

#### Low entry barrier

- Hypermedia User Interface
- Simple protocols for authoring and data transfer
- must be Simple and Reusable; want Extensible

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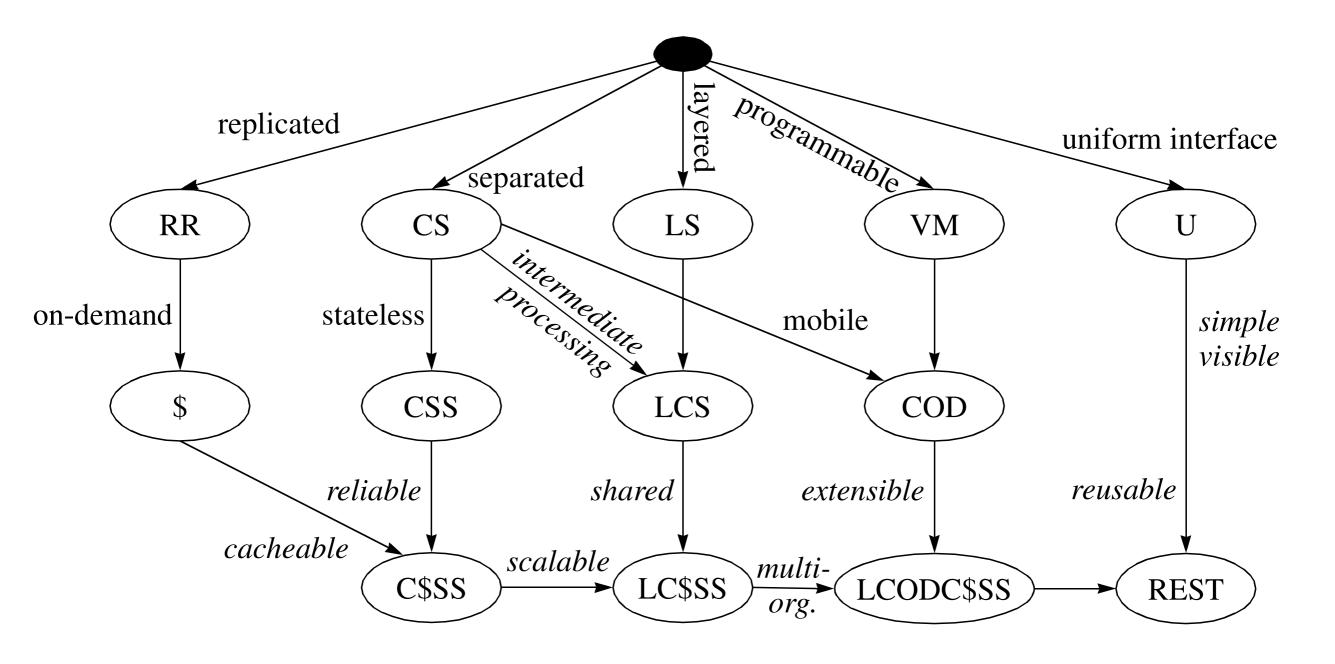
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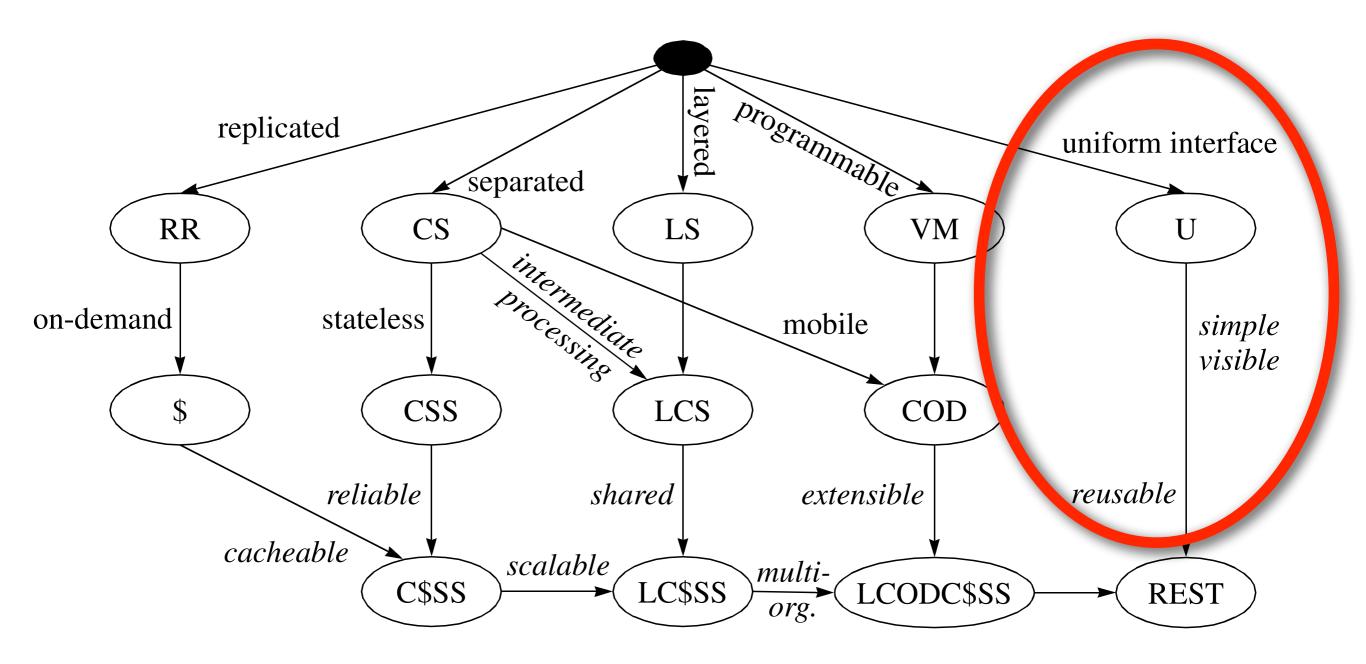
#### Multiple organizational boundaries

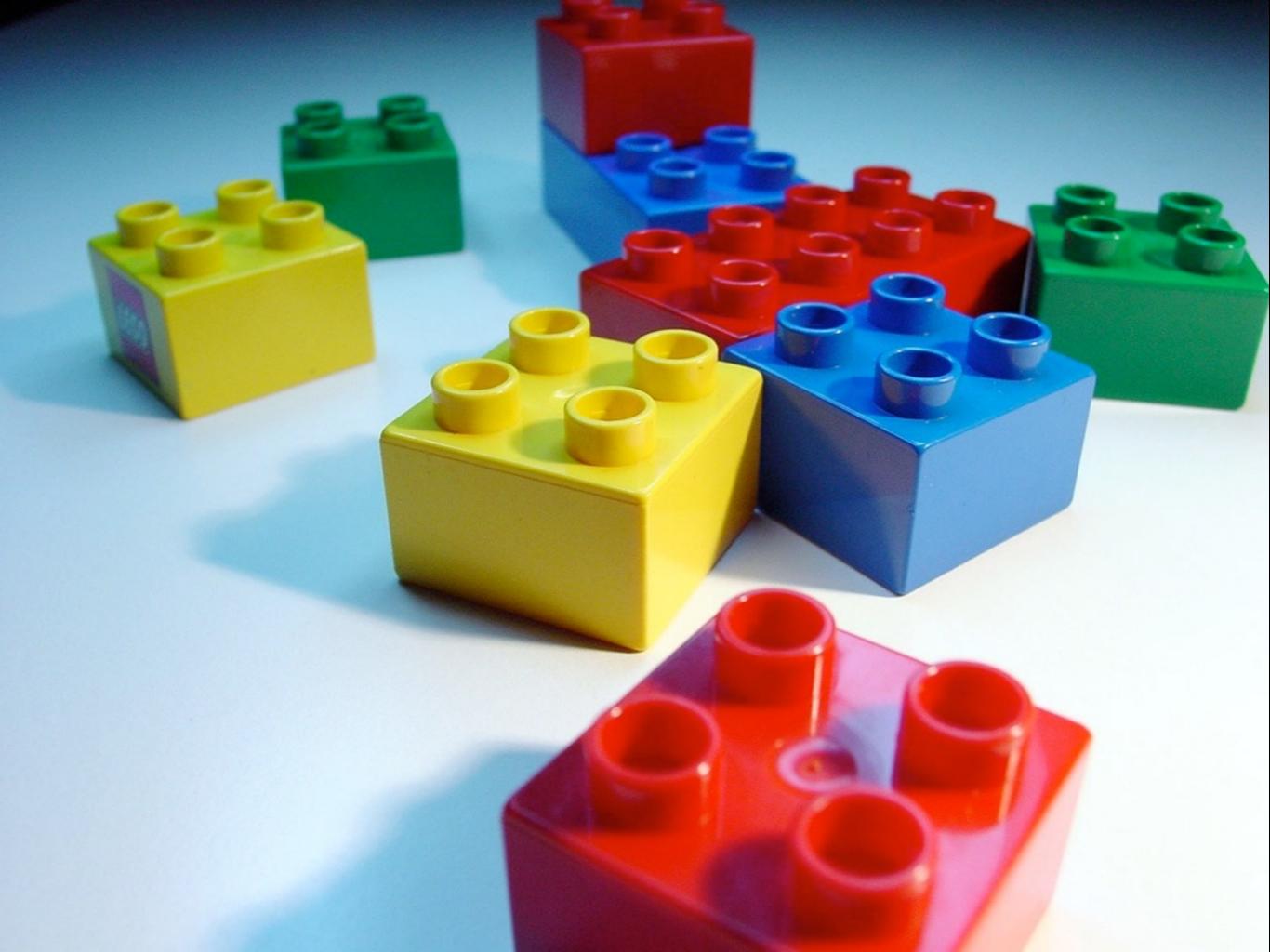
- Anarchic scalability
- Gradual and fragmented change (deployment)
- must be Scalable, Portable, Evolvable; want Reliable, Visible, Customizable, Configurable, Extensible, ...

### REST on a slide



### REST on a slide

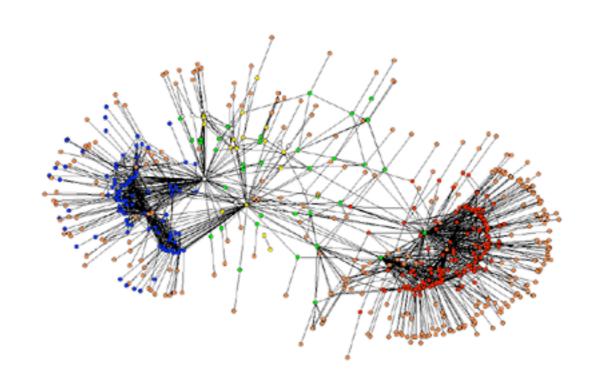




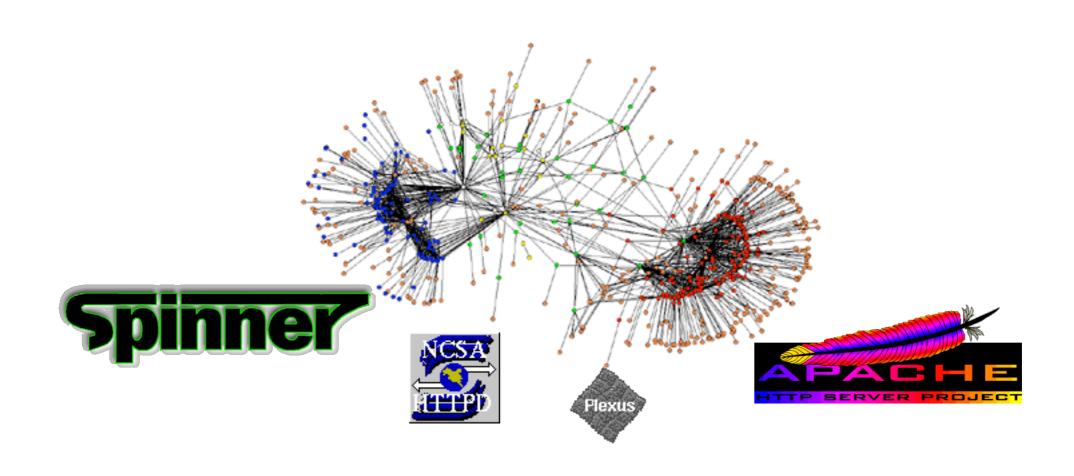




# Web Implementation (user view)

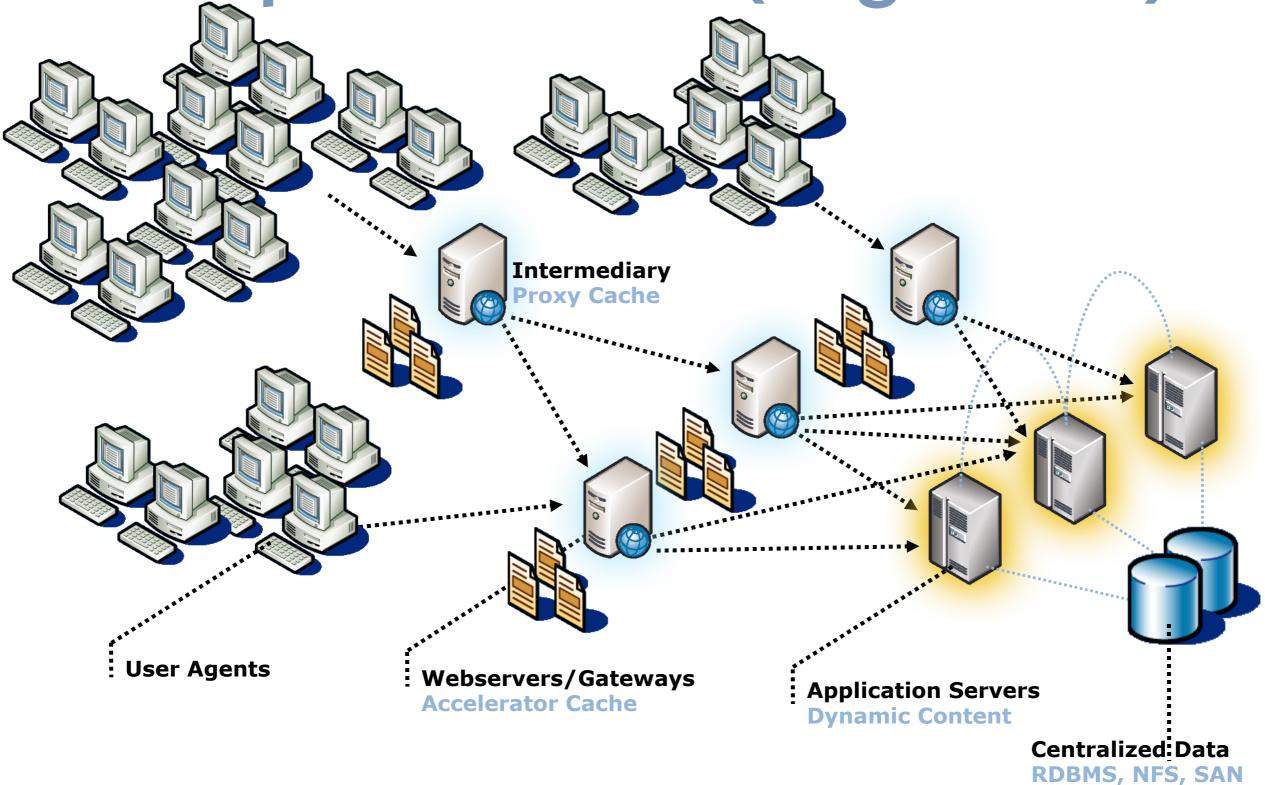


# Web Implementation (user view)



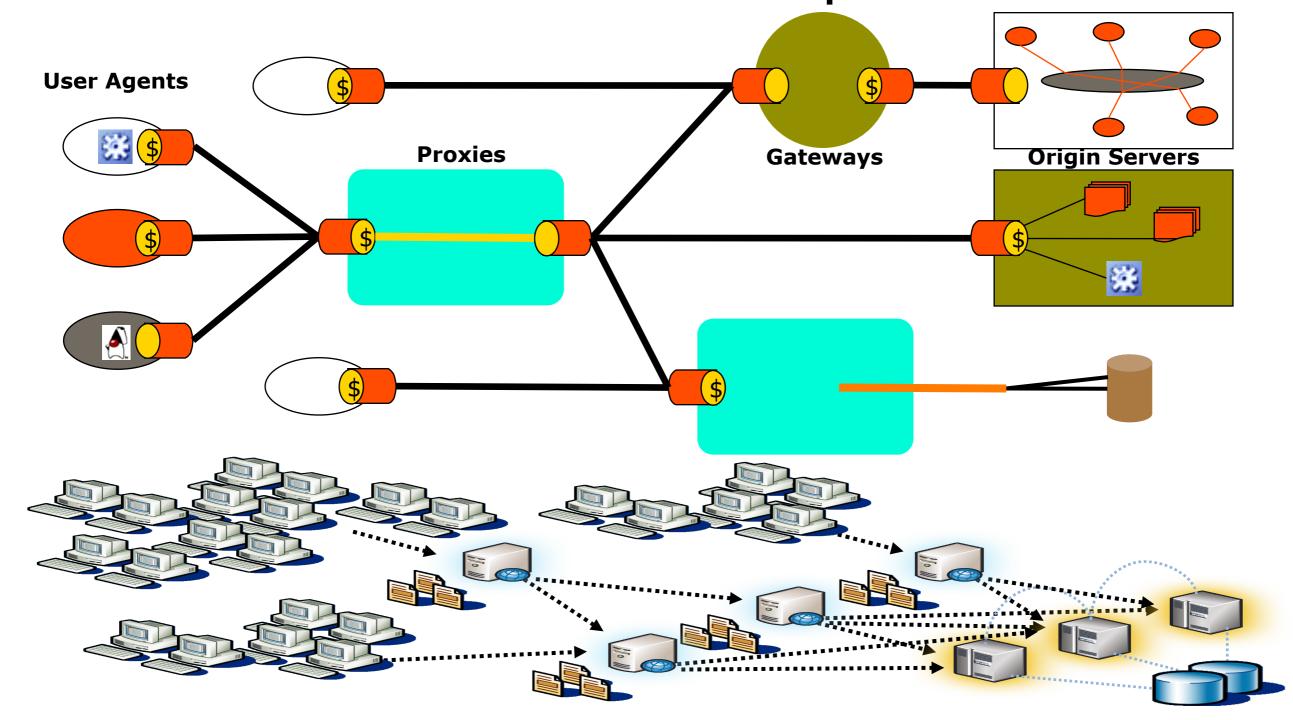
Web Implementation (user view) File Navigate Options Window Hotlist Help ViolaWWW THE UNIVERSITY OF LEEDS Home page The World Wide Web Leeds WWW Demonstration Public news groups from Univ Stuttgart (very slow!). School of Computer Studies newsserver inaccessible due to Information from the School of Chemistry NCSA Mosaic: Document View on on new sources of information on the World Information from the Computer Based Learning Unit. Options Navigate Annotate On this program, or the World-Wide Web project. Cello WWW Browser CERN Information SunSITE Northern Europe at the Department of Computing, Imperial Document Title: <u>File Edit Search Configure Jump Bookmark... Help</u> stor Internet Browser from the Legal Information 🏠 Document URL: http://src.doc.ic.ac.uk/ See also the analytical Yellow Pages , or in Fr Computer center Documentation, newsletters, news, help, etc. World Wide Web service provided by other H All public CERN news groups, such as news fr CFRN News Welcome to the Cello Internet Brows CERN User's Office, student news. See also The user guide for the RPC system developed The Archive -- SunSITE Northern Europe This is version 1.01a, March 16 1994 Special Note: What Cello is and does Today (2/Nov/94) the server was switched to CERN version 3.0 Cello is a multipurpose Internet browser which allows acces Data transfer complete. information resources of the Internet. It supports WorldWid Back Forward Home Reload Open... Save As... Clone New Window Close Window CSO/ph/qi, and Usenet News retrievals natively, and other n file://localhost/M:/WWW/CELLO/default.htm Plexus

Web Implementation (origin view)



#### Web Architecture

A vertical abstraction on implementation



#### Web Architecture

#### A vertical abstraction on implementation

