

LMS, SCORM, eLearning, Oh My!

What is an LMS?

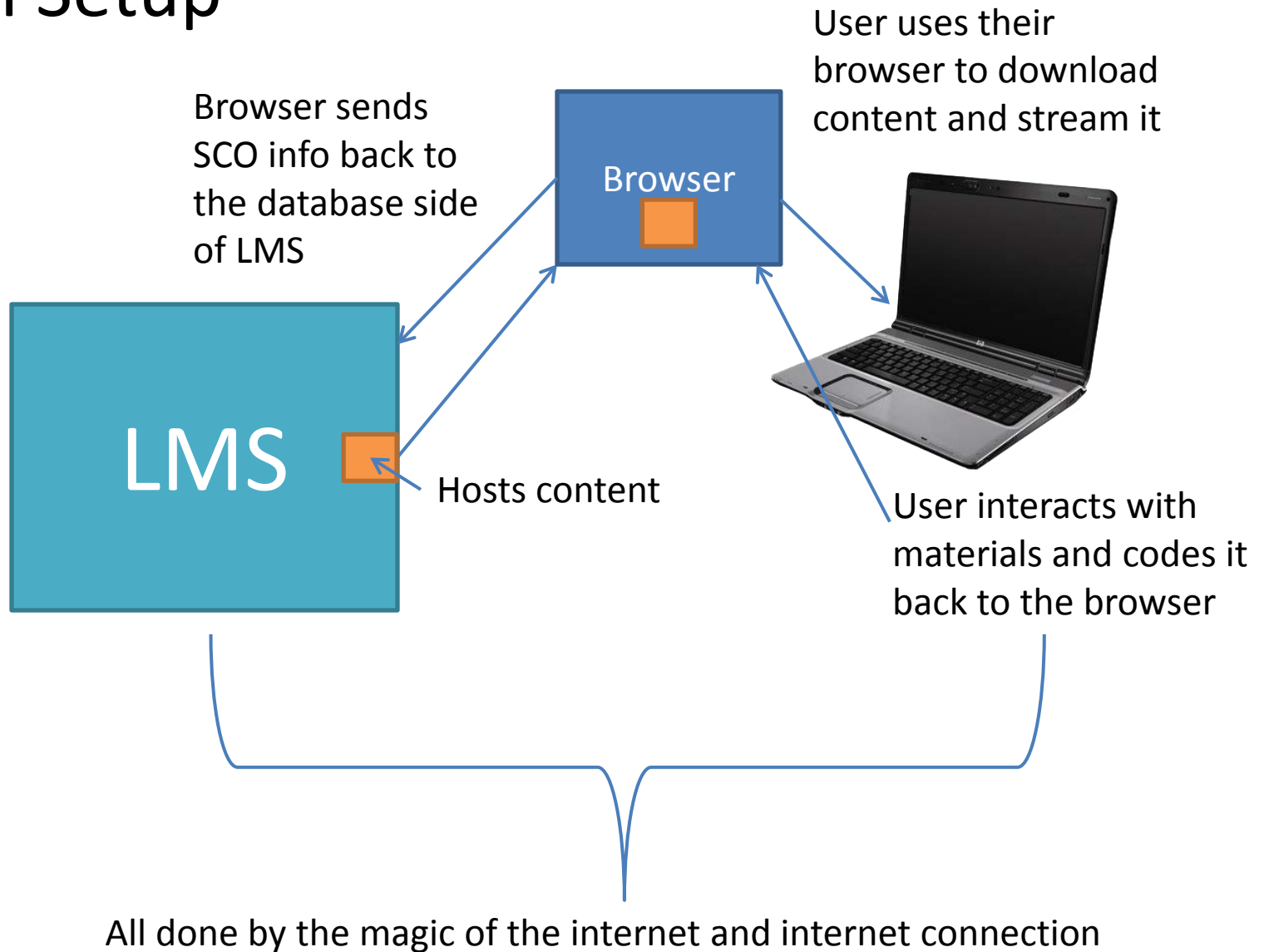
Think about what it ultimately does.

LMS

Hosts content and streams it (ex: eLearning)

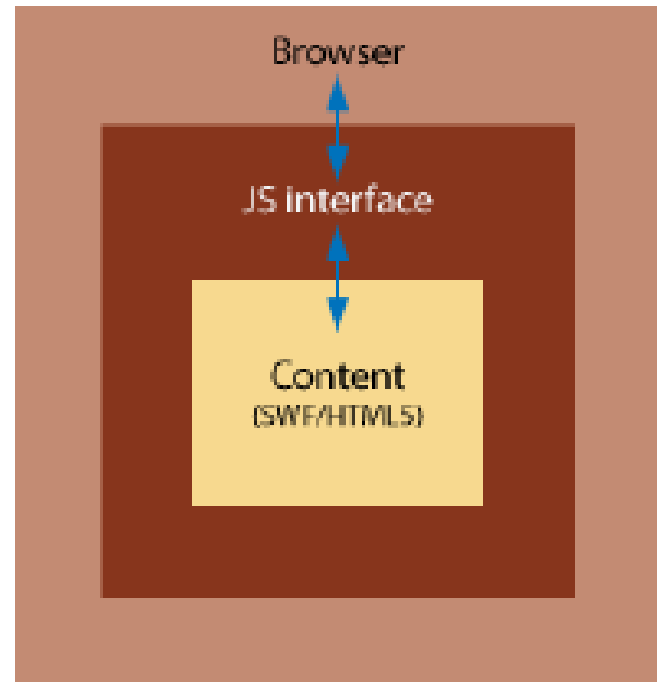
Database (course data and student records)

Typical Setup



Browsers

- No IE 6, 7, 8
- Don't have a 3rd party toolbar
- No Compatibility Mode
- Cache issues
- Security programs like MacAfee/ Norton
- Pop-up Blocker off
- **Cookies and Scripting:** should be enabled on the learner's workstation in order to allow courseware bookmarking.



Once we build slides, quizzes and activities we need to package up a course and send it to LMS.

We do this with a standardized language or program called SCORM, AICC or Tin Can as the top languages.

SCORM (Sharable Content Object Reference Model)

The SCORM standard makes sure that all e-learning content and LMSs can work with each other, just like the DVD standard makes sure that all DVDs will play in all DVD players.



The Internet

The internet is comprised of a number of large carriers, many smaller carriers, and their subsidiaries.

Each carrier is responsible for their own ability to move data across their networks, as well as interfacing with everyone else they must talk to transfer data. At each one of these hand-offs, various issues can arise, the least of which is latency. For this reason, the least number of handoffs possible usually means the best connection and the least latency.

A typical internet connection to your favorite website may see as many as five or more changes of ISPs as it tries to send your request, and receive data back. Even within your ISPs network, your data may cross many different pieces of equipment and many different networks on its way to its final destination.

Each one of these transitions, ISP handoffs, and changes inside an ISP, are known as hops.

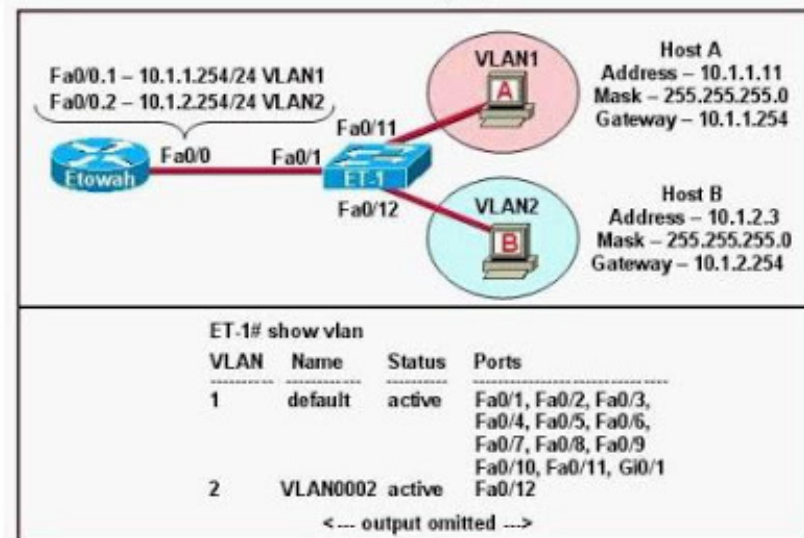
The Internet

Browsing a web page from your browser on your desktop can entail anywhere from 8 to 25+ "hops." The higher the number of "hops", the higher the chance for latency.

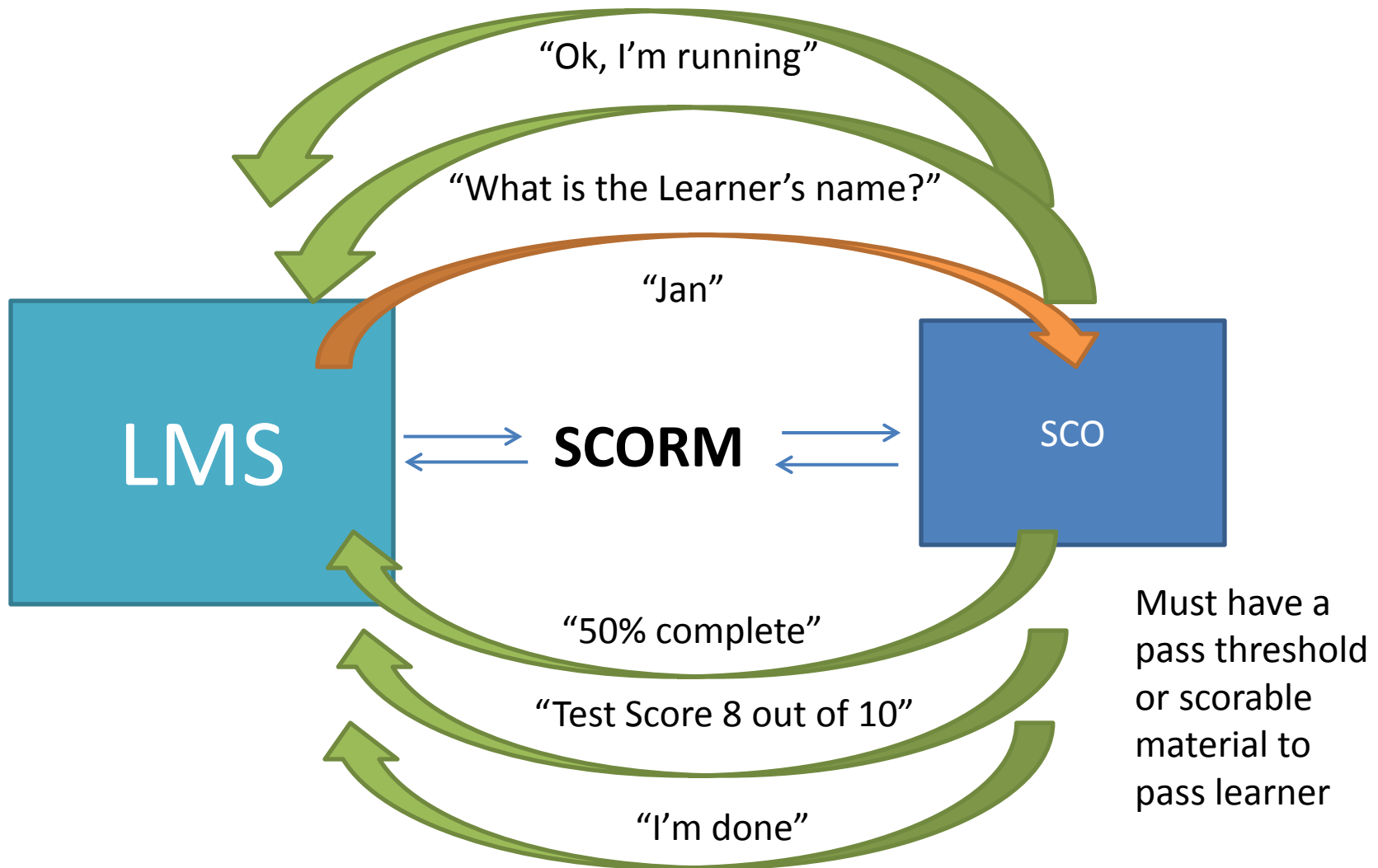
Any proxy servers or other equipment on a network can add to this number.

A sample page load may go something like this:

My web browser -> My company's LAN -> My company's firewall -> My company's ISP -> ISP's backbone provider -> website's backbone provider -> website's ISP -> website's firewall -> website's load balancer -> website's server.



What kind of communication?



Typical Internet Performance (Non-Streaming Media)

(seconds to complete transfer)

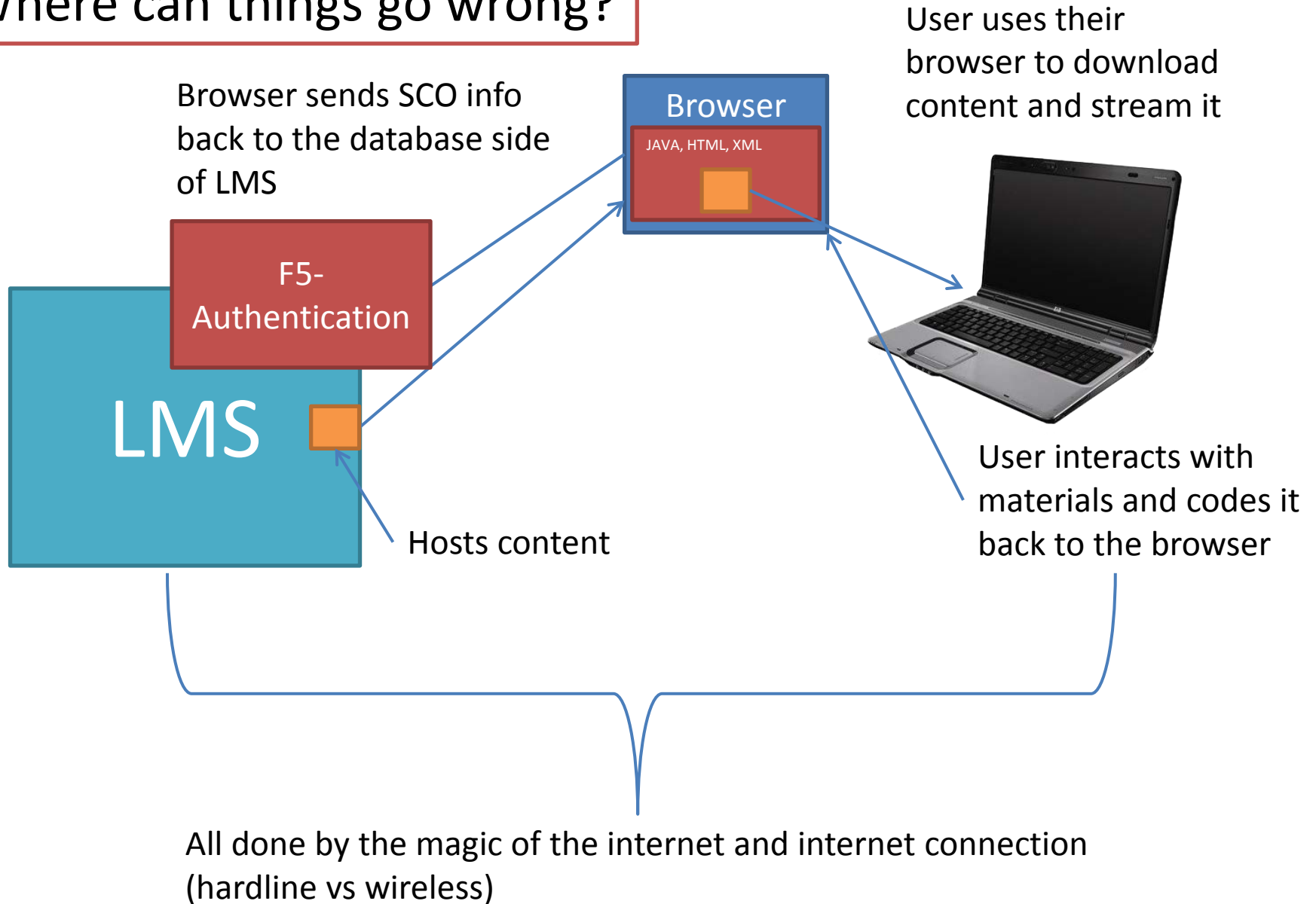
File Size (KB)	Bandwidth (Kbps)					
	5.6	25.6	51.2	100	155.4	1000
	Modem	DSL	DSL	1M	T1	10M
20000 (20 MB)	3571	781	391	220	129	20
10000 (10 MB)	1786	391	195	100	64	10
5000 (5 MB)	893	195	98	50	32	5
2000 (2 MB)	357	78	39	20	13	2
1000 (1 MB)	179	39	20	10	6	1
500 (0.5 MB)	89	20	10	5	3	1

Cells which are highlighted in red are not recommended configurations.

All examples above assume full bandwidth is available.

Troubleshooting

Where can things go wrong?



Je vais
être
victorieux

