

# HTTP/2 and Proxies

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2. Run over HTTP with an Upgrade header or other signaling
3. Run over TLS

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1. Run on a different port - 86%
2. Run over HTTP with an Upgrade header or other signaling - 67%
3. Run over TLS - 95%

(Tests run for WebSockets deployment, 2009)

Although not the original intent, the cryptography and popularity of HTTPS stopped the rising miasma of firewalls and network middleware from destroying port 443.

The end-to-end principle is *important*, and cryptography is its strongest guardian.

Plaintext is no longer reasonable.



End-to-end security is *important*, and cryptography is its strongest guardian.

We cannot build a sane Internet without end-to-end cryptography.

# User-consent is a failure from 'the 90's

- We are certainly not looking to make our security UI more complex.
- We are still paying off the debts of things like the ability to bypass an SSL interstitial.
- Chrome's SSL interstitials are bypassed ~70% of the time at the moment.

# This means that filtering has to be done at the client.

The screenshot displays the Chrome Supervised Users interface. On the left, a sidebar lists supervised users: Bailey, Casey, and Terry (selected). The main content area shows details for Terry, including a 'Supervised user' card with a trash icon, a 'Permissions' card with a 'Manage' link, and an 'Activity' log for September 27, 2013. The activity log shows three entries: www.youtube.com (9) visited at 03:50 PM (Allowed since 9/20), www.google.com (2) visited at 03:50 PM, and www.20thingsilearned.com (2) visited at 03:44 PM (Allowed since 9/19). A 'SafeSearch is locked' notification is also present.

chrome

+Chris [Grid Icon] [Bell Icon] Share [Profile Icon]

Supervised users **BETA**

- Bailey
- Casey
- Terry**

Supervised user [Trash Icon]

Terry

Permissions [Manage]

- Only approved sites
- 3 approved sites.
- SafeSearch is locked. [Unlock SafeSearch](#)

Activity: September 27, 2013 [Settings Icon]

<input type="checkbox"/> Site	Last visited
<input type="checkbox"/> ▶ www.youtube.com (9) <span>Allowed since 9/20</span>	Sep 27, 2013 03:50 PM
<input type="checkbox"/> ▶ www.google.com (2)	Sep 27, 2013 03:50 PM
<input type="checkbox"/> ▶ www.20thingsilearned.com (2) <span>Allowed since 9/19</span>	Sep 27, 2013 03:44 PM

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