

# Challenges with SPDY deployment

Rajeev Bector  
Yahoo!

**Facts !**

# Fact

- Very heterogeneous Serving Environment
- Fragmented Serving Architecture
- Very little SSL

# Fact

- We have to live with **Inter-op** between HTTP/1.0 and SPDY for a LONG time to come.

# Fact

Many sites will continue to differentiate between "base html" and CDN content

- Operational Reasons
- Administrative Reasons
- Technical Reasons

# SSL

- Ads from 3rd-party ad-networks that do not support SSL.
- Sites designed without SSL in mind
- Usual co-location/virtual-hosting challenges with SSL
- Windows XP not supporting things like SNI (unfortunately, XP still makes up for a chunk of traffic).

# SSL (2)

- SAN can help but number of domains is staggering
- Wildcards don't really work when you have 4-level nesting
- Pages have lots and lots of domains that they serve data over.

# Goal

Can we deploy & benefit from SPDY without  
SSL Everywhere



# Yes, we can !

- Many Pages have large amount of CDN content (Static Objects, JS, CSS, Images)
- It sounds like a good place to optimize for Header and Concurrency related inefficiencies in HTTP/1.1 (which SPDY solves)

# Solution

- Serve Base Page over HTTP
- Serve CDN content over SPDY

**Except**

- HTML optimized for SPDY has **no sharding**.
- HTML optimized for SPDY has "**https://**" links to CDN
- Its also **operationally easier** to serve it using newer/separate end-points.

## **Solution (sorta ...)**

Sniff the UA ...

Except that ...

UA sniffing seems is getting more  
complicated every day ...

# Another problem ...

Downstream Caches should not serve SPDY html to non-SPDY browsers.

**Vary** header ... ummmm.

# Question ?

**Mixed-Mode Serving** : Can we do better for using SPDY (and HTTP/2.0 along with HTTP/1.1) ?