

WebRTC

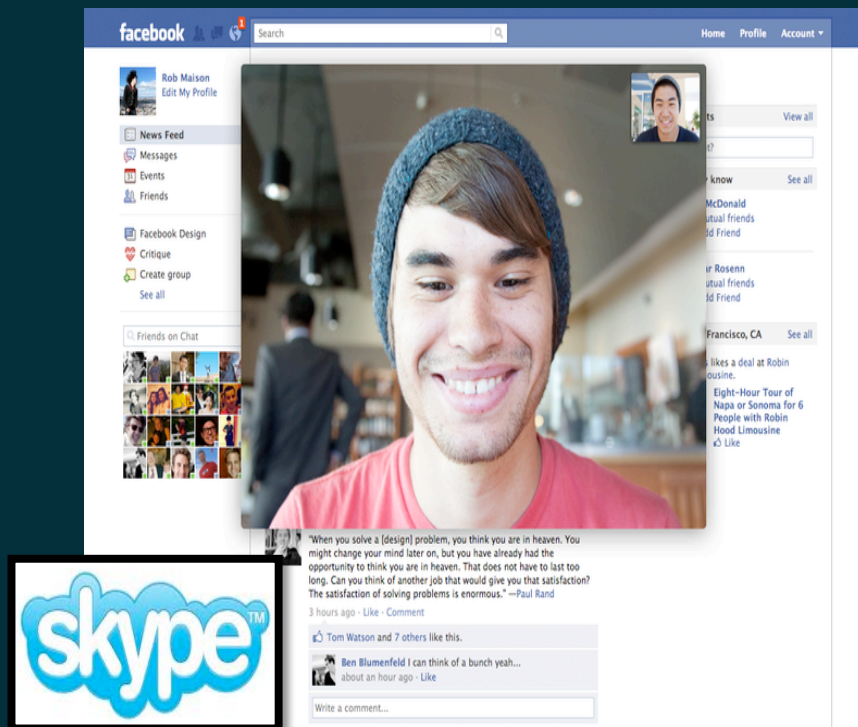
The simplified, hand wavy, fluffy version

IETF 82

Cullen Jennings



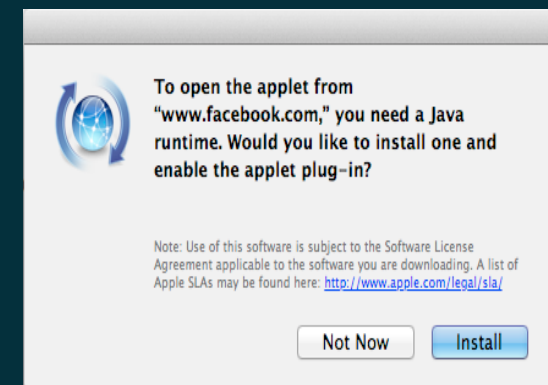
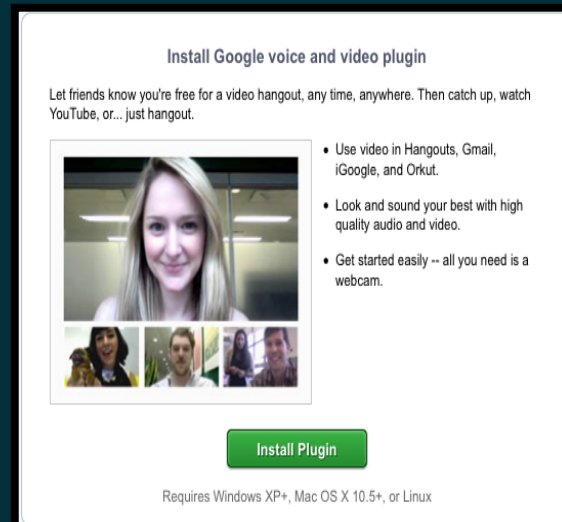
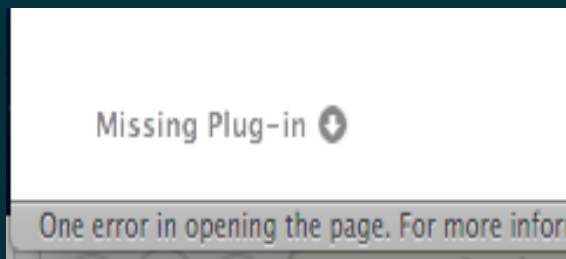
Interactive Voice and Video is in your browser today ...



Sort of ...

Yes, we can do interactive voice and video today, but it's...

- Proprietary, no interoperability
- Dependant on 3rd Party Browser plug-ins or add-ons
- Not easy to deploy



Personal Shopper/Instant Customer Care

The screenshot shows the Amazon.com homepage with a search for 'router'. The top navigation bar includes the Amazon logo, a greeting, and links for 'Today's Deals', 'Gifts & Wish Lists', and 'Gift Cards'. A search bar shows 'router' with a 'GO' button. To the right are links for 'Cart' and 'Wish List'. A promotional banner for '25% Off Select Valentine's Day Gifts' is visible. Below the search bar, a 'Shop for Routers' section features a video call overlay with a smiling male representative. The main content area displays search results for 'router', including a list of related searches and a list of products. The left sidebar contains navigation links for 'Department', 'Computers & Accessories', 'Tools & Home Improvement', 'Video Games', 'Shipping Option', 'Networking', and 'Brand'. The bottom of the page features a 'Listmania!' section.

amazon.com Hello. Sign in to get personalized recommendations. New customer? Start here. 25% Off Select Valentine's Day Gifts

Your Amazon.com Today's Deals Gifts & Wish Lists Gift Cards Your Account Help

Shop All Departments Search All Departments router GO Cart Wish List

Shop for Routers
Check out our great selection of routers from top brands like Bosch, DEWALT, and Milwaukee. See all routers.

router

Related Searches: router n, router wireless, wireless router.

Showing 1 - 16 of 65,848 Results Choose a Department to enable sorting

- Cisco-Linksys WRT54GL Wireless-G Broadband Router (Compatible with Linux)** by Cisco
Buy new: \$79.99 Click for product details 43 Used & new from \$47.99
Get it by **Tuesday, Feb 8** if you order in the next **28 hours** and choose one-day shipping.
★★★★☆ (924)
Eligible for **FREE** Super Saver Shipping.
Electronics: See all 6,837 items
- Amazon Connected Home**
Streaming Music Security Cameras
Home Automation Improving Cell Phone Coverage
Streaming Movies Printer Sharing
- Cisco-Linksys E1000 Wireless-N Router** by Cisco
Buy new: \$72.99 Click for product details 45 Used & new from \$25.98
Get it by **Tuesday, Feb 8** if you order in the next **28 hours** and choose one-day shipping.
★★★★☆ (133)
Eligible for **FREE** Super Saver Shipping.
Electronics: See all 6,837 items
- Cisco-Linksys WRT54GL Wireless-G Broadband Router** by Cisco

Department
Computers & Accessories
Computer Routers
Computer Networking Switches
Ethernet Cables

Tools & Home Improvement
Routers
Router Bits
Router Accessories

Video Games
PC Game Hardware
+ See All 25 Departments

Shipping Option (What's this?)
Any Shipping Option
Free Super Saver Shipping

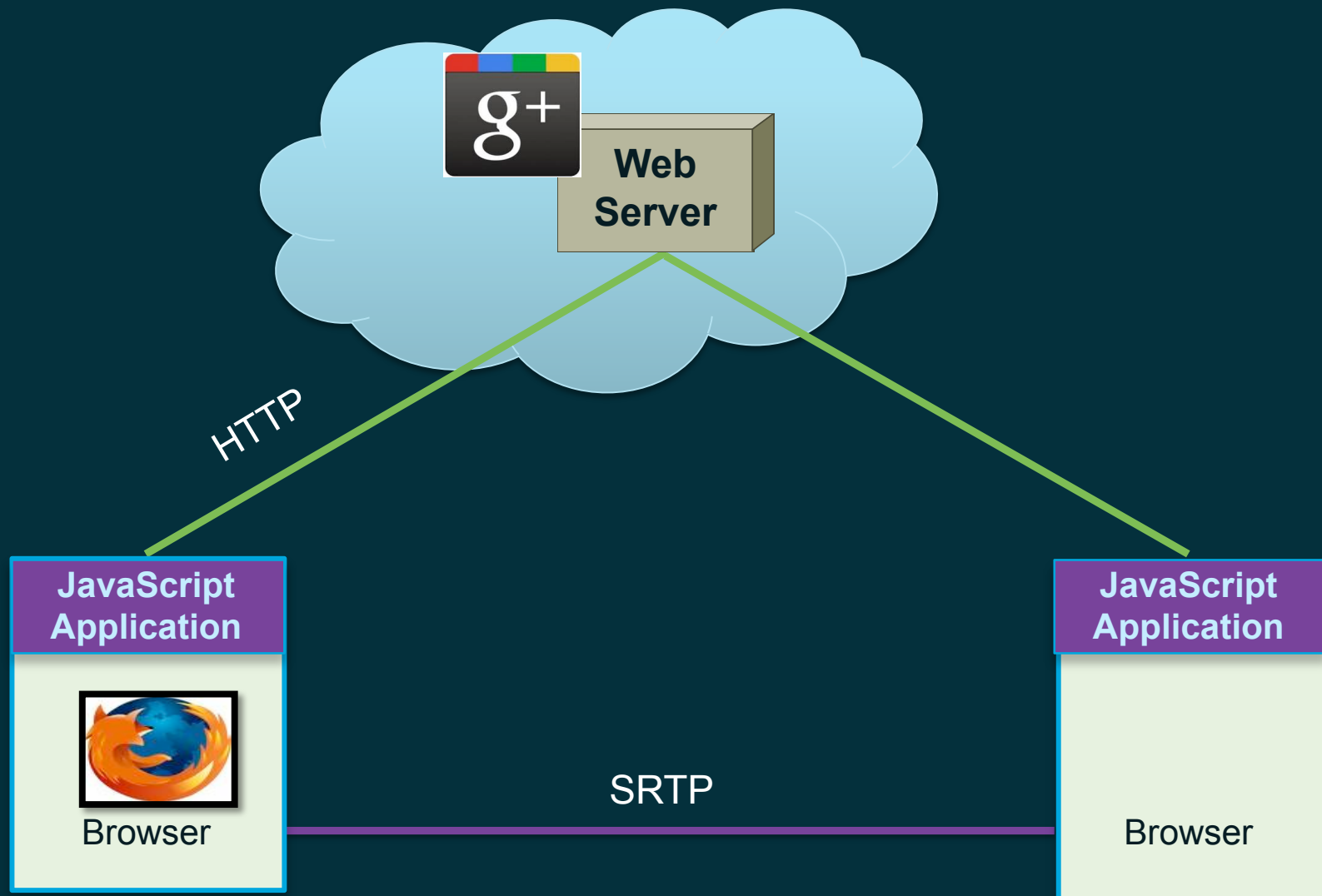
Networking

Brand
Any Brand
Belkin (92)
Buffalo Technology (27)
Cisco (889)
D-Link (170)
MediaLink (4)
Netgear (193)
TP-Link (40)
TRENDnet (74)

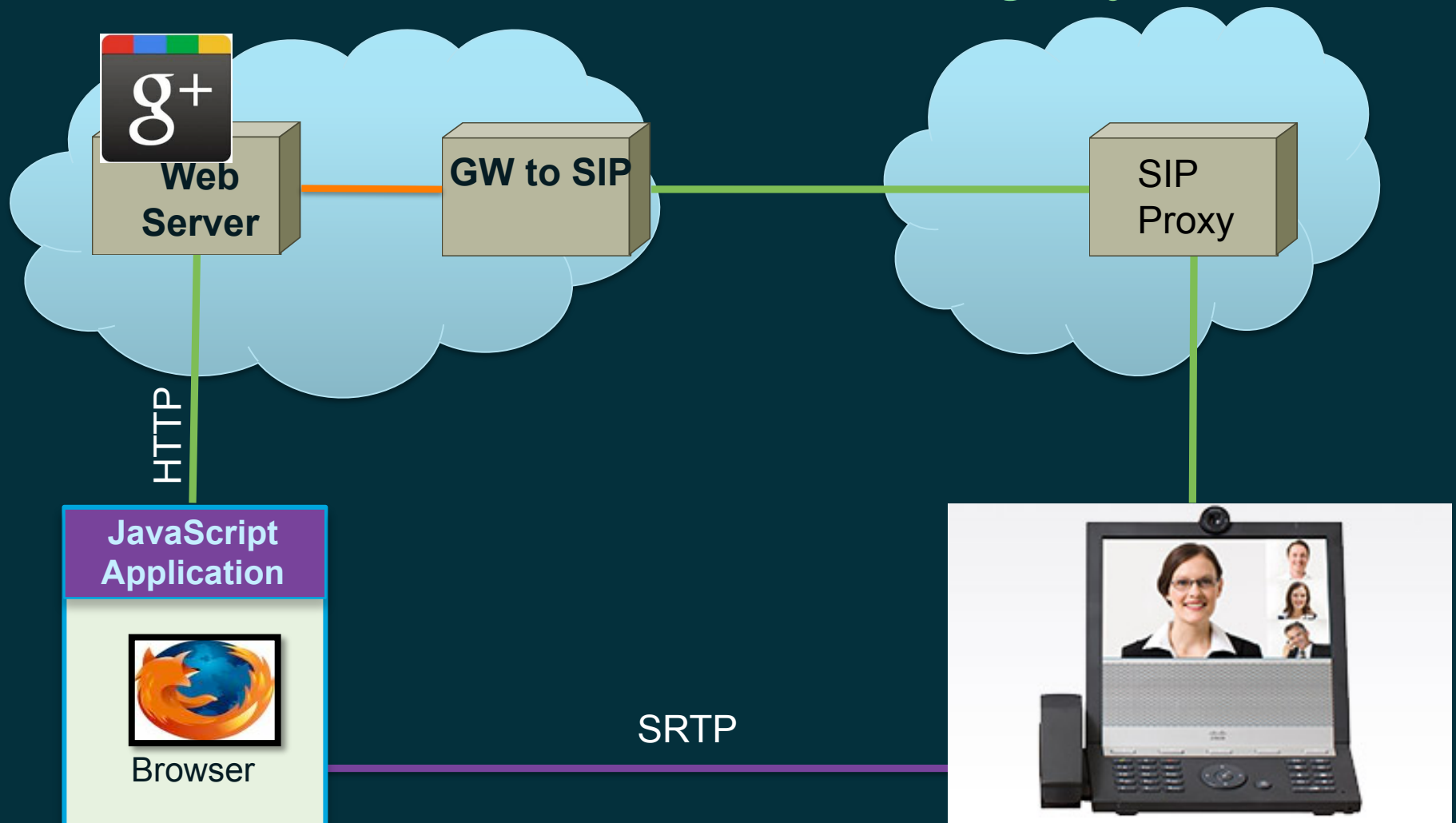
Listmania!

- Web storefronts offer personal shopper/instant help functionality
- The user is presented with a means to instantly video call a storefront customer care representative
- The customer care agent could be using legacy video phone / call center

Architecture



Architecture – Connection to Legacy VoIP



Security

- Some ways a bit like problem in SIP based communications
- Some ways a bit like HTTP / HTML security
- PITA to secure something where you download the applications from the attacker



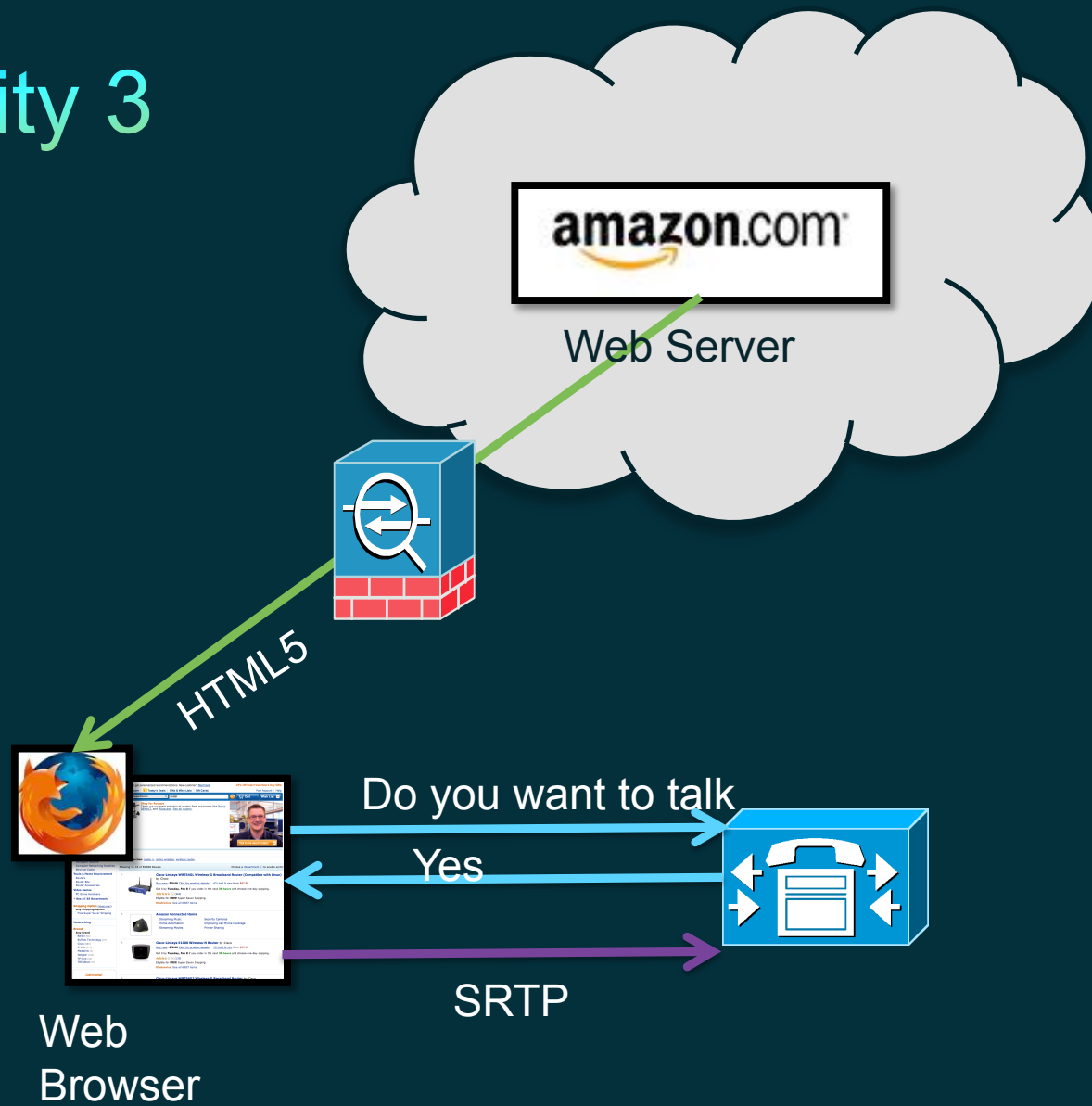
Security 1



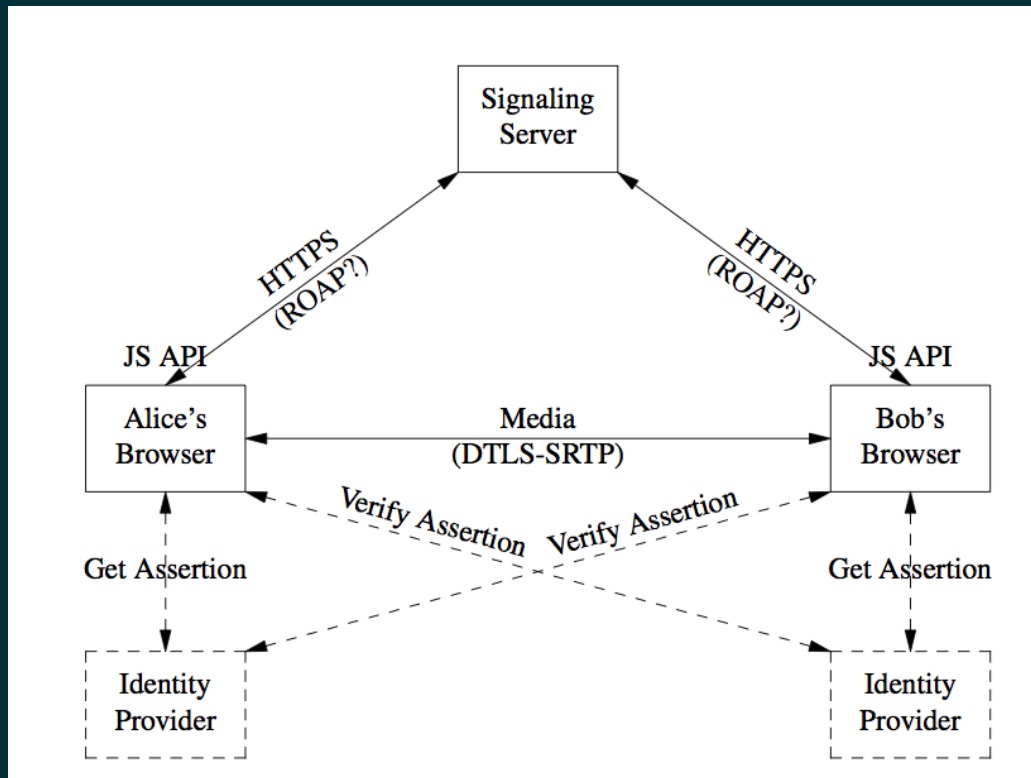
Security 2



Security 3



Identity



- Used to understand who is access camera
- Used to understand who the encrypted media is from or to

(Thanks to EKR for figure)

RTCWeb is going to help choose

- Audio codecs (G.711 and perhaps opus)
- Video codecs (who knows but VP8 and H.264 get mentioned)
- Way to transport media (SRTP and perhaps RTP)
- Ways to transport p2p real time application data
This is for game moves etc. Might be SRTP over DTLS over UDP.
- Requirements for API to control media engines and GW to SIP
- Ways to deal with NAT / FW traversal (ICE, STUN, TURN)
Optimizations for using less UDP ports for media to speed up ICE
- Ways to key the media security (DTLS and / or / perhaps SDES)
- Ways to assert identity of of who media is encrypted to
Hopefully we can support multiple identity protocols

Points of Overlap with CLUE

- We both wish AVT had one way to send RTP on single or small number of UDP flows
- Both have people bringing proposal to do things like negotiate video codec parameters without using SDP

