

# IETF in the Browser

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# The Purpose of the IETF

- The goal of the IETF is to make the Internet work better.
- The mission of the IETF is to produce high quality, relevant technical and engineering documents that influence the way people design, use, and manage the Internet in such a way as to make the Internet work better.

# The Applet Paradigm

- An application exists in multiple parts
  - Servers (usually plural)
    - Data storage
    - Business logic
    - Authentication and authorization
  - Client (usually in browsers)
    - The Browser Platform
    - Downloaded code at runtime
    - Plugins
- This is not new.

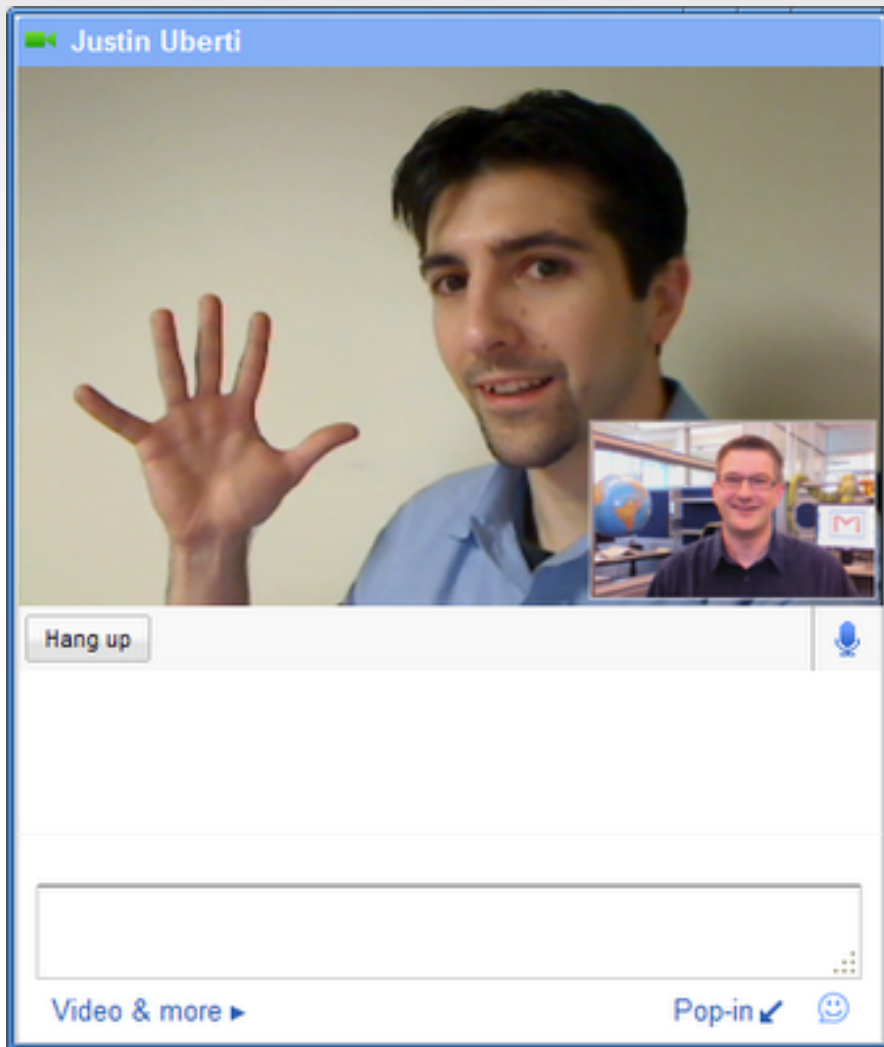
# Internal vs External

- Internal interfaces require no agreement
  - The two sides are, in some sense, "the same"
  - Version match ensures consistency
- External interfaces require agreement
  - Need for documentation varies
  - Version/feature negotiation ensures consistency

# RTCWEB motivation

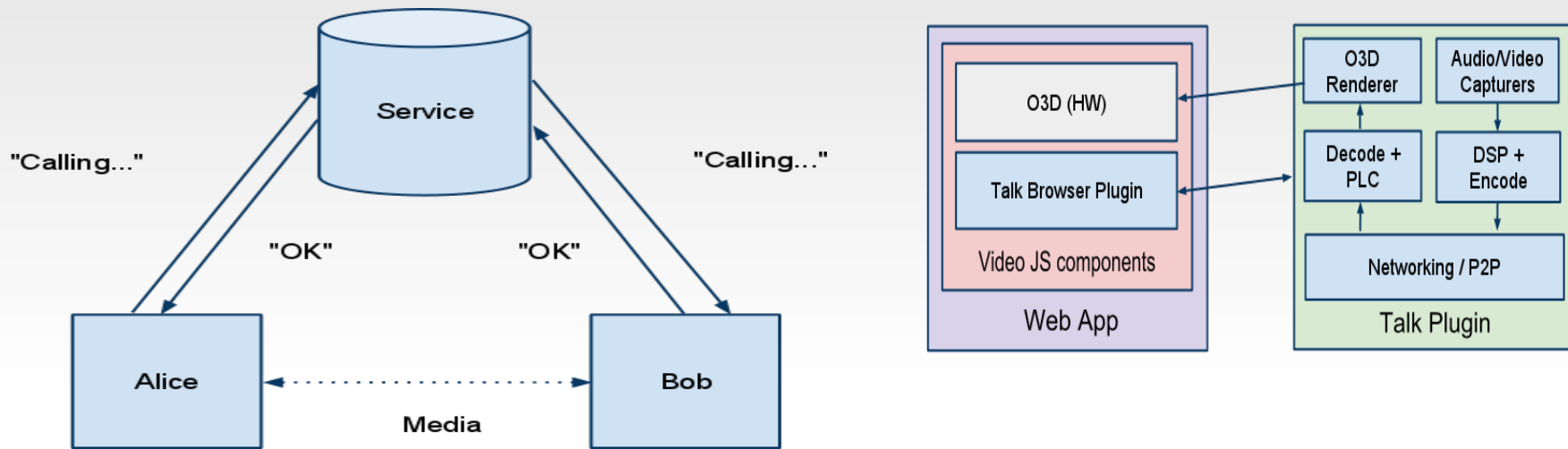
- Real time communication from browser is old.
  - People have done it for years.
- Required components:
  - Browser
  - Downloadable plugin
  - Runtime-loaded code
- Each provider does his own.

# Google Talk Video



- Audio and video in Google Talk
- Embedded in Gmail
- Phone integration
- Standards-based: XMPP, Jingle

# Google Talk Architecture



- Servers mediate connection setup
- Media flows directly client-to-client
- Plugin needs to be available for all platforms

# A Standard Vision

- Uniform network interfaces in browsers
  - Compatible – not same – protocol support
- Uniform APIs in browsers
  - Access to network functions
- Downloadable apps run everywhere
  - With different capabilities, naturally



# RTCWEB: Now versus Future

- High barriers to entry: Must build ecosystem
- Apps must have reasonable payback
- Innovation suffers
- The Internet is less useful to people
- Anyone can do video-using apps
- Novel use flourishes
- New tech can be deployed with immediate benefit
- The Internet is more useful to people

# Future Standards

- We have more components, not fewer
- There are more places where differing entities meet
- Standards are a function to make meeting easier
- We need more standards. Not less.