yeah, we can build that.
yeah, we can build that.

RED5PRO
LIVE STREAMING FOR ANY SCREEN

Our beta SDK is now available!

SIGN UP
yeah, we can build that.
what we will cover

what’s possible with WebRTC
background on streaming media for the web
the details
experiences that WebRTC enables
what’s next!
what can you do with WebRTC?
video chat

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live broadcasting
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internet of things
a bit of history
Major General George Owen Squire
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yeah, we can build that.
yeah, we can build that.
In 2005 we reverse engineered the Flash streaming protocol and released an open source server.
Two years later we quit our day jobs and started our company.
At first these guys were weren’t too happy!
but then we built this with adobe

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yeah, we can build that.
Today Red5 is used by thousands of companies for all kinds of experiences

entertainment • enterprise • educational • events • retail • social media • non-profits

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yeah, we can build that.
yeah, we can build that.

realtime communication
yeah, we can build that.
yeah, we can build that.
yeah, we can build that.
get access to media (camera and mic)

find a peer

negotiate media formats (JSEP)

establish communication channel (ICE)

stream media
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media access

navigator.getUserMedia(constraints, successCallback, errorCallback);
next you will need a server.
why the heck do I need a server?!
isn’t this P2P?!
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find a peer

custom application code that you write
negotiate media formats

using javascript session establishment protocol
send a session description protocol (SDP)
establish a communication channel

addIceCandidate(new RTCIceCandidate(message.candidate));
STUN

Session traversal utilities for NAT allows you to get a device's IP address that's behind a firewall.

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yeah, we can build that.

**TURN**

traversal using relays around NAT proxies the stream through a server for when p2p fails due to a firewall
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**ICE**

**interactive connectivity establishment** is WebRTC’s framework for negotiating firewalls
stream media

now you finally get your p2p streaming connection
recording and transcoding

a server helps if you want to record the experience or combine the streams into one

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a quick review

- get access to media (camera and mic)
- find a peer
- negotiate media formats (JSEP)
- establish communication channel (ICE)
- stream media

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yeah, we can build that.
let’s see some code
services | libraries
---|---
vLine | PEERJS
Twilio | simpleWebRTC
Tokbox | rtc.io
Vidyo | RED5 PRO

what a pain! is there any way this can be easier?
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what does WebRTC make possible?

yeah, we can build that.
Be My Eyes
Lend your eyes to the blind
yeah, we can build that.
Yeah, we can build that.
yeah, we can build that.
Your browser is the *console*, your phone is the *controller*.

Download Apple iOS Free on the App Store!

Download Android Free on Google Play!

Download and start up the Brass Monkey application now. Make sure your device is on the same WiFi connection as your computer or smart tv.

I need help setting up my wifi

Re-checking for smart-devices in.. 3
robust server
Fast - build realtime data, audio and video streaming applications
Connectable - pair devices across the internet and locally
Extensible - tap into other libraries via Java based application framework
Scalable - connect to other servers for large deployments

client-side SDKs
Easy - SDK that abstracts the complex networking and rendering for you
Creative - instant second screen connectivity for access to motion sensors and touch
Flexible - freedom to extend, modify and customize experiences for your app
Unified - consistent cross platform API for each platform

iOS • Android • HTML5 • Unity • C
public void start() {
    camera.stopPreview();

    stream = new R5Stream(new R5Connection(configuration));
    stream.setView((SurfaceView) getActivity().findViewByld(R.id.surfaceView));

    R5Camera r5Camera = new R5Camera(camera, 320, 240);
    R5Microphone r5Microphone = new R5Microphone();

    stream.attachCamera(r5Camera);
    stream.attachMic(r5Microphone);
    stream.publish("red5prostream");
}
javascript example

```javascript
var video = document.querySelector('video');

function start() {
  var stream = new R5Stream(new R5Connection(configuration));
  video.src = window.URL.createObjectURL(stream);

  var r5Camera = new R5Camera(camera, 320, 240);
  var r5Microphone = new R5Microphone();

  stream.attachCamera(r5Camera);
  stream.attachMic(r5Microphone);
  stream.publish("red5prostream");
}
```
yeah, we can build that.

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RED5 PRO
get early beta access
sign up at red5pro.com