

# Cloud Based Telephony Applications

In an instant with Twilio and Heroku

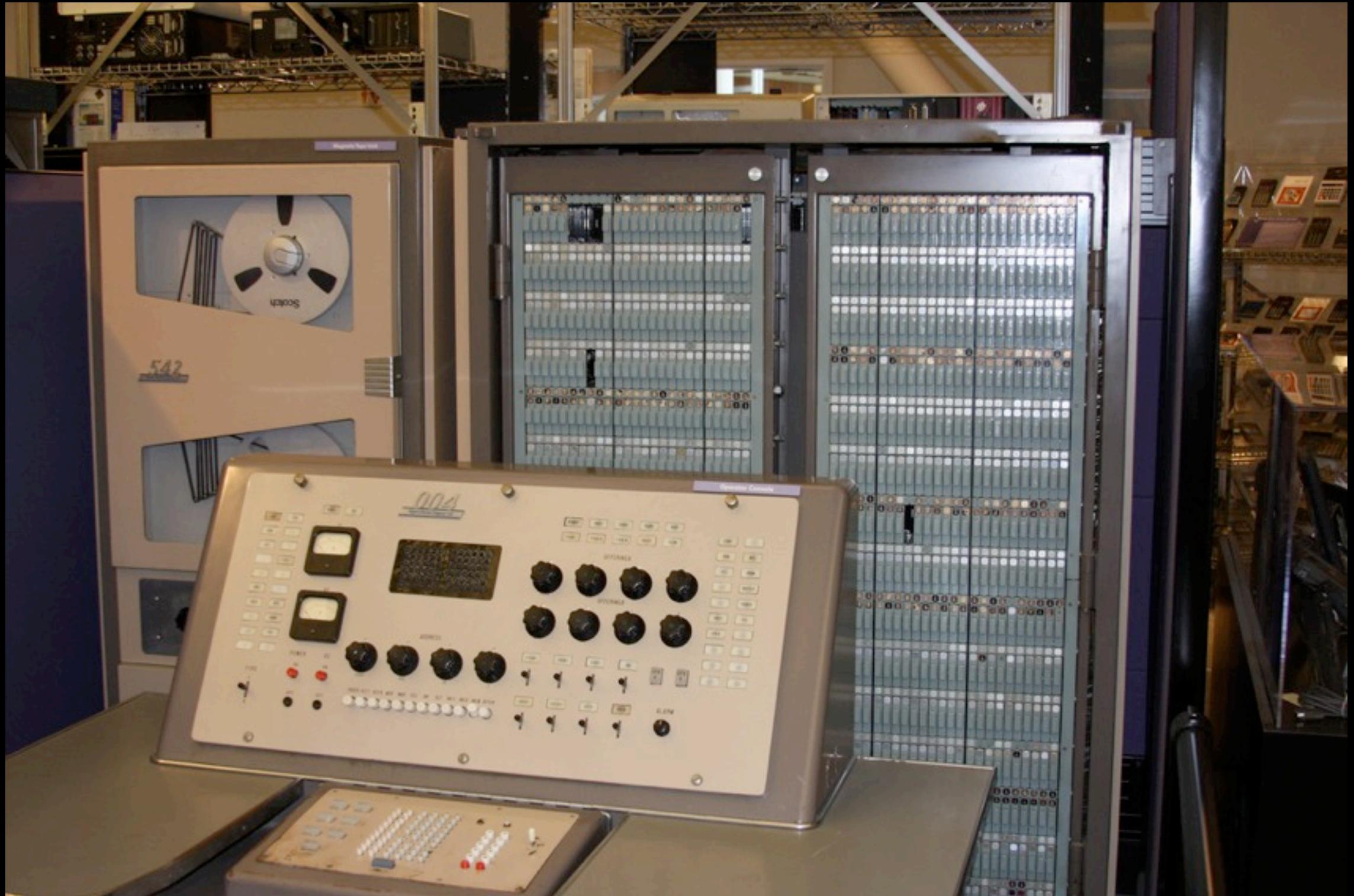
Philly Lambda: April 18th 2011

But First!

*a Story...*

# Credit Card Activation

# IVR Vendor



# Really Good At:

Being Robust

Handling Lots of Simultaneous Calls

Reporting / Metrics

Did I mention Being Reliable?

Mon: Submit updated Flow

Tue: Not Ready Yet?

Wed: Ready? Great!

We test it...and want changes

Thu: Submit updated Flow

Fri: Not Ready Yet? Er, my week's over.

**VENDOR**



**Y U NO UPDATE FASTER!**

[memegenerator.net](http://memegenerator.net)



Idea #1



```
function voice_prompt () {  
    echo "    SPEAKING: $1"  
    say -v "Vicki" "$1"  
}
```

```
function get_user_keypress () {  
    KEY=""  
    echo -n "Press a Key: "  
    read KEY  
    export KEY  
}
```

***I know: I'll use Bash!***

```
echo "Pretending I'm an IVR..."
```

```
function say_top_menu () {  
    voice_prompt "Press 1 to hear your current balance."  
    voice_prompt "Press 2 to make a payment."  
    voice_prompt "Press star to hear this menu again."  
    voice_prompt "Press 0 to disconnect."  
}
```



**kyleburton** kyleburton

quickly prototype an IVR interaction? OSX: use 'say' and some bash if/else logic, made some product people real happy in about 60s :)

16 Feb

— in reply to @kyleburton ↑



@kyleburton you are an OS X "say" addict.

16 Feb via [Twitter for iPhone](#) ☆ [Favorite](#) ↺ [Retweet](#) ↩ [Reply](#)



**kyleburton** kyleburton



@[redacted] here: <https://gist.github.com/830204> too much?

16 Feb

— in reply to @kyleburton ↑



@kyleburton sweet. Poor man's IVR  
prototyping.

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# Idea #2

The Services  
I'm About  
To Discuss  
Didn't Exist  
*5 Years Ago*

# Twilio

Cloud Based Telephony

Internet Based API

I couldn't find a reference for  
when Twilio was founded.

(domain registered since 2007)

“In telecommunication, telephony encompasses the general use of equipment to provide voice communication over distances, specifically by connecting telephones to each other”

- Wikipedia



# Twilio

- Receive Calls
- Initiate Calls
- Conference and Forward
- SMS Send / Receive

# Twilio

## *Simple* HTTP Interface

# Heroku

Founded in 2007

PaaS

Ruby on Rails

Tons of Add Ons

Awesome: Check

# What Do They Have In Common?

You can try  
them...

for free







# IVR

Activate Your Credit Card

Collect Info Ahead of Customer  
Service

Banking by Phone

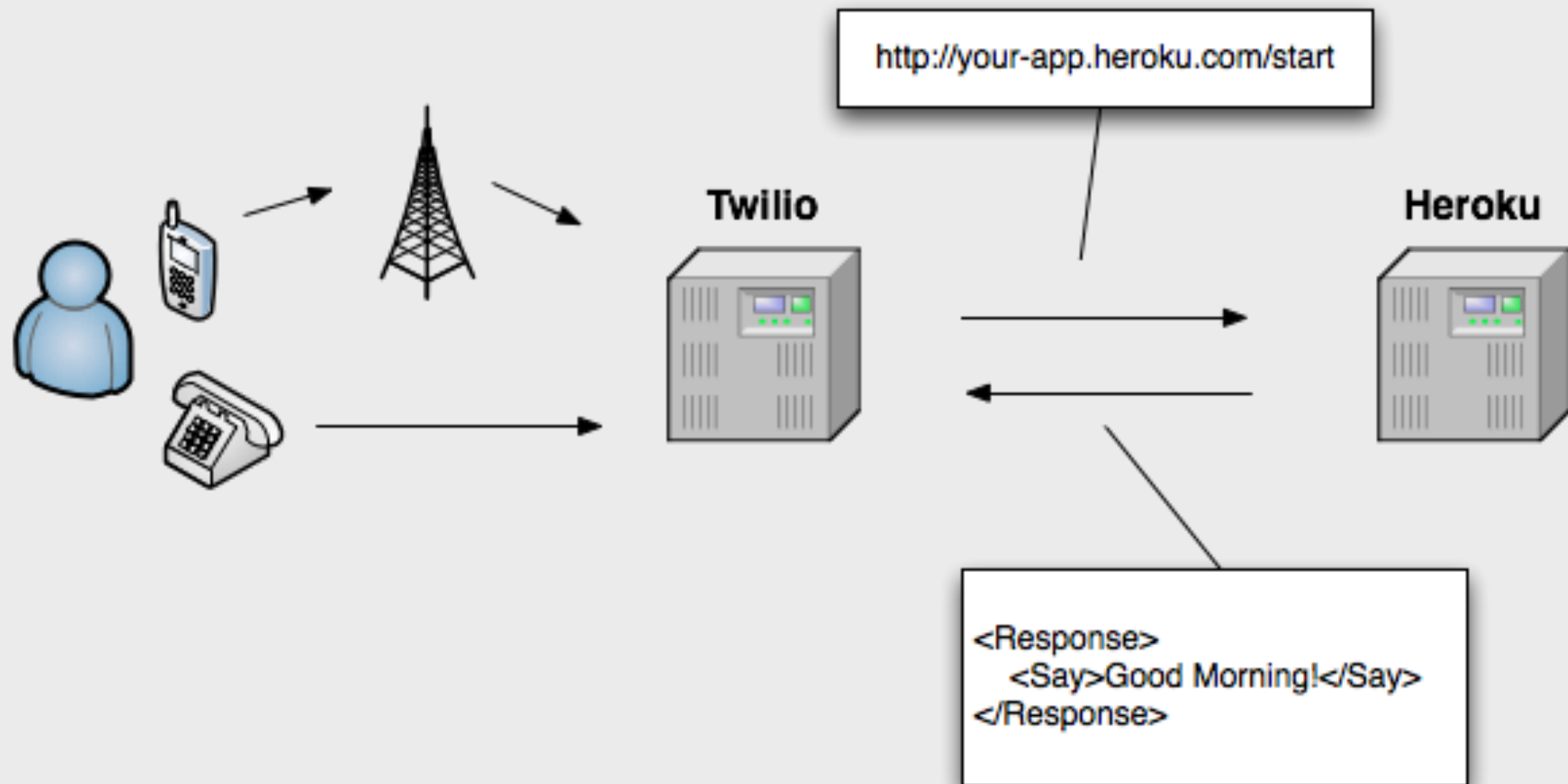
Snow Day Hotline / Robo Caller

RSVP Service

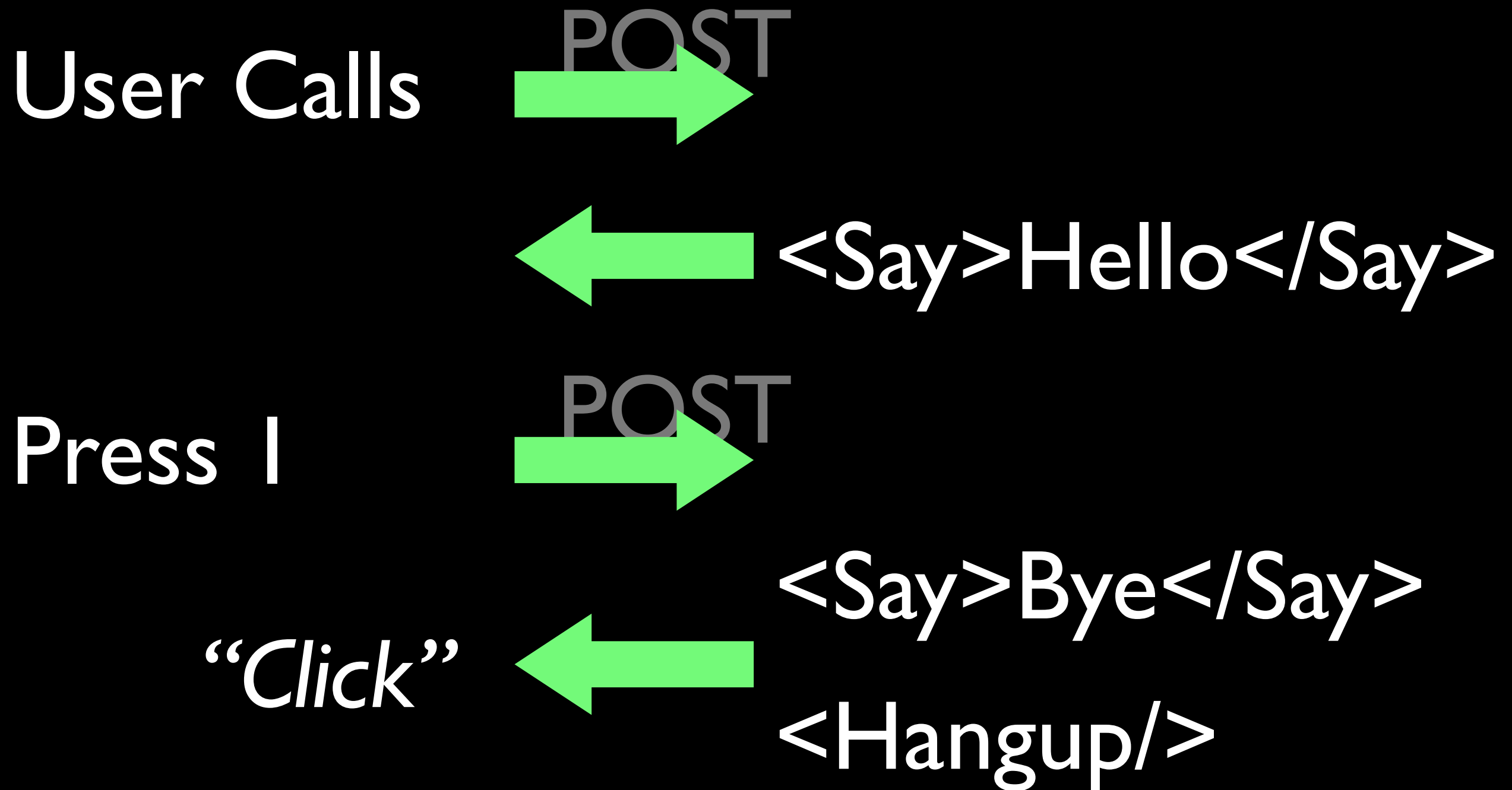
Reminder Service

Two Factor Authentication



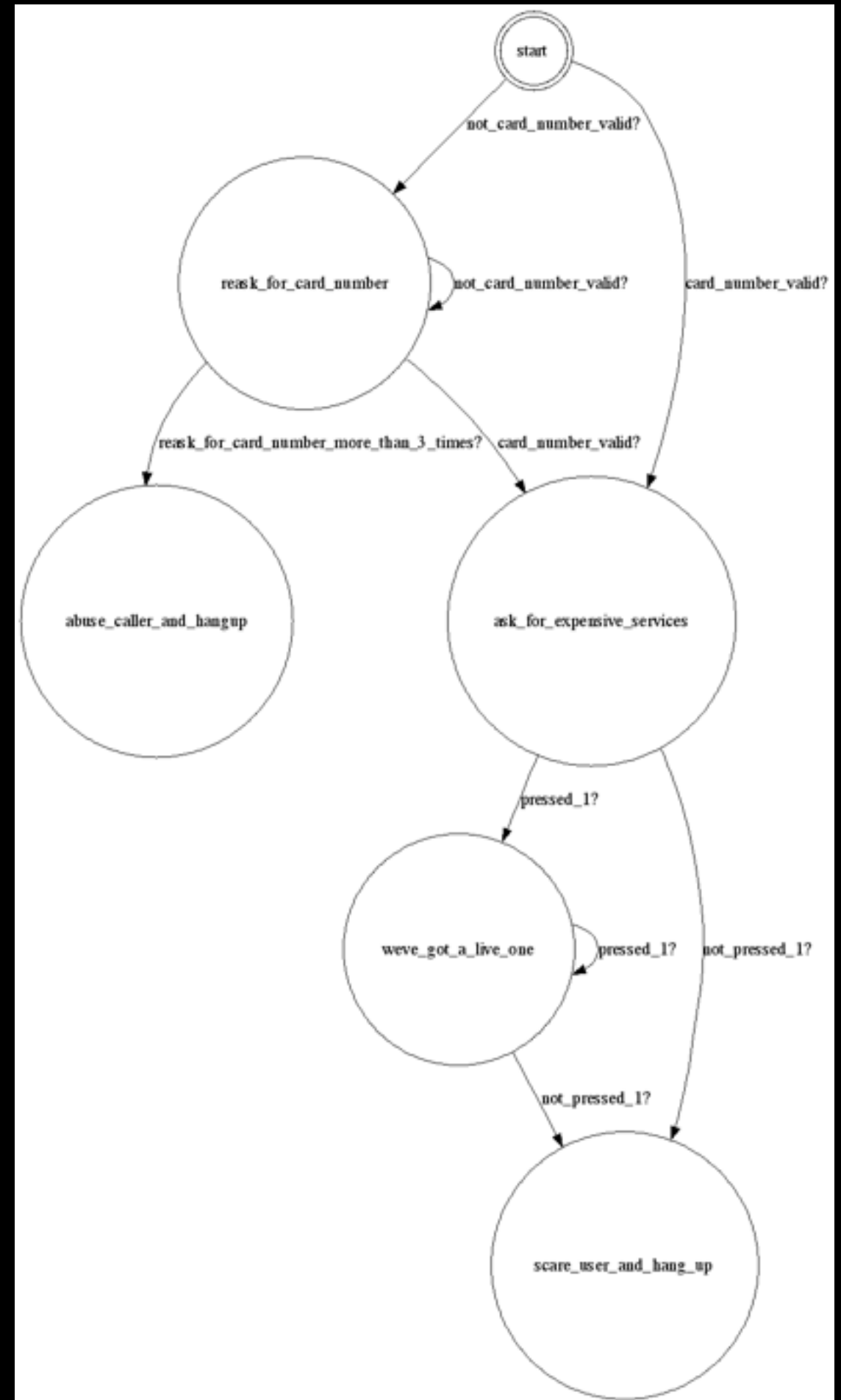


# Life Cycle



I modeled the IVR as a state machine.

See also: Newflow



# Show Some Code and The App





**kyleburton** kyleburton

@ [redacted] this is for you [ivr]: <https://gist.github.com/833002> (does this redeem my geek cred from the bash/say script? :)

17 Feb

— In reply to @kyleburton ↑



@kyleburton oooooo much prettier! You have purged yourself of TeH sh fuglies

17 Feb via [Twitter for iPhone](#) ☆ Favorite ↺ Retweet ↻ Reply

# Want to Try it?



Call: (610) 915-8524

Go to: <http://warm-wind-609.herokuapp.com/>

# Thank You

@kyleburton

[github.com/kyleburton/twilio-in-ten-minutes](https://github.com/kyleburton/twilio-in-ten-minutes)

[twilio.com](https://twilio.com)

[heroku.com](https://heroku.com)

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