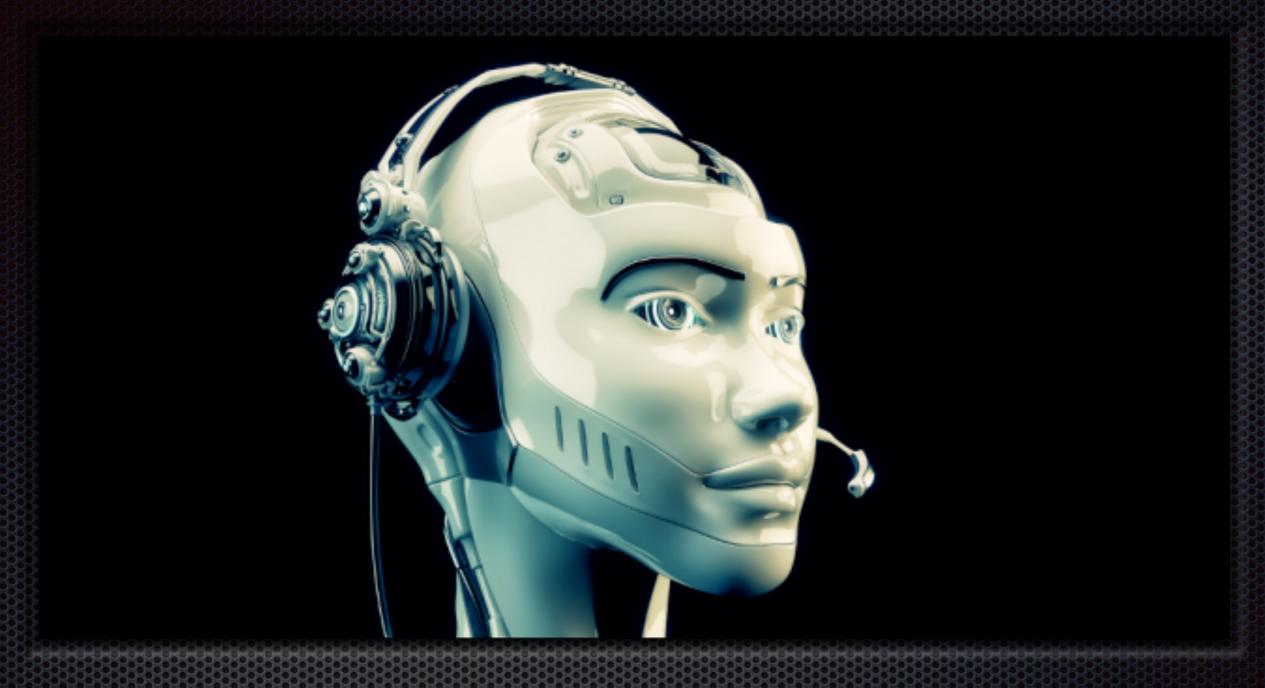
PHP does IVR

Breaking the rules for fun and profit

Mike Harrison <u>mike@geeklabs.com</u> @meuon

https://github.com/mikegeeklabs/ivrdemo

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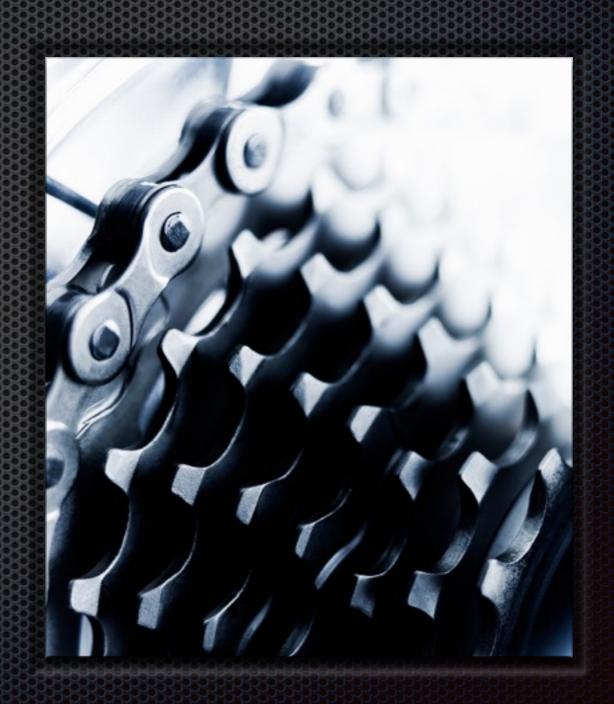
IVR: Interactive Voice Response Not a human on the telephone. A robot.

Why not use

- Must exist inside of firewall
- not everyone wants SaaS
- required to "own" it
- \$\$\$\$\$\$ (mine, not theirs..)

What gear do I need?

- Linux(ish) Server
- Asterisk
- Cepstral Voices (optional)
- **■** PHP
- SIP-VoIP line trunking



Asterisk? WTF is Asterisk?

The swiss army knife of VoIP It's a phone system... or an IVR platform

"apt-get install asterisk" to learn the hard way

see: <u>asterisk.org</u> for real answers

/etc/asterisk/sip.conf

This is for a test phone.. I am using "twinkle"

[twinkle]
username=twinkle
secret=twinkle
host=dynamic
dtmfmode=rfc2833
insecure=port,invite
context=from-internal
type=friend
fromuser=twinkle

Just used for testing

check firewall rules

/etc/asterisk/extensions.conf

```
[juice]
exten => 233,1,AGI(juice-agi.php)
exten => 233,1,Hangup
[default]
exten => 233,1,AGI(juice-agi.php)
exten => 233,1,Hangup
[from-internal]
exten => 233,1,AGI(juice-agi.php)
exten => 233,1,Hangup
```

AGI = Like CGI (not really)

- Asterisk Gateway Interface
- Prehistoric Robot

```
root@grunge:/usr/share/asterisk/agi-bin# php ./juice-agi.php
ANSWER
STREAM FILE juice-en-welcometothetest ""
GET DATA juice-en-accountormeter 13200 11
0 result=00005
STREAM FILE juice-en-accountloc0000520150203
GET DATA juice-en-iscorrect 2000 1
0 result=1
STREAM FILE juice-en-yourcreditbalance
SAY number 150.00
```

Why do this with PH?

Once you have a hammer.....



Disclaimer:

I am not a programmer.
But I am good with a hammer and duct tape.

I do not recommend anything I am about to show you, it may not be safe or even useful.

My goal is to share something useful and entertaining...

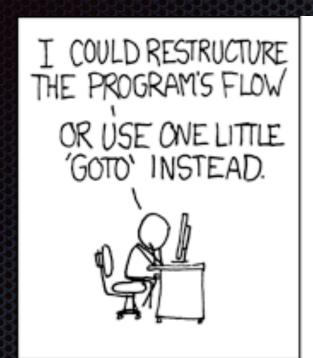
In and Out

```
include ("juice-agi.inc");
ob_implicit_flush(false);
set_time_limit(30);
error_reporting(0);
$stdin = fopen('php://stdin', 'r');
$stdout = fopen('php://stdout', 'w');
// ASTERISK * Sends in a bunch of variables, This accepts t
// There is an elegant way to do this and I forgot it.
while (!feof($stdin)) {
   $temp = fgets($stdin);
   // Strip off any new-line characters 1 review
   $temp = str_replace("\n", "", $temp);
   $agivar[$s[0]] = trim($s[1]);
   break;
```

Standard Functions

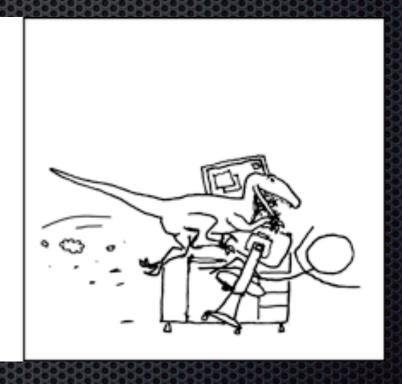
```
function sagi($whattosay, $file, $chars, $looplimit, $enforce) {
    GLOBAL $stdin, $stdout, $stdlog, $parm_debug_on, $result, $db, $callerid, $portal, $voic
    #Speak and say = SAS = If the file does not exist, create it.
    $voice = 'Allison-8kHz';
    100p = 0:
    $wait = 1200*$chars;
    if ($wait < 2000) {
        Swait = 2000:
    };
    //SCRIPT CREATION
    script("$whattosay", "human-juice-$language-$file.wav") ;
    while ($loop < $looplimit) {</pre>
      ##sagiagain:
        if (@fopen("/usr/share/asterisk/sounds/en/human-juice-$language-$file.wav", "r")) {
            $rc = execute agi("GET DATA human-juice-$language-$file $wait $chars");
            logit("human-juice-$language-$file.wav streamed");
        } else {
            if (@fopen("/usr/share/asterisk/sounds/en/juice-$language-$file.wav", "r")) {
                logit("juice-$language-$file.wav exists");
            } else {
                system("/usr/local/bin/swift -n $voice \"$whattosay\" -o /usr/share/asterisk
                logit("juice-$language-$file.wav created");
            };
            $rc = execute agi("GET DATA juice-$language-$file $wait $chars");
            logit("juice-$language-$file.wav streamed");
        if (!empty($rc[result]) and $rc[result] > -1) {
            $entered = dt($rc[result]);
            return Sentered:
       sleep(.1);
        $loop++;
```

And GOTO's









GOTO's are Bad Form But they work really well for an IVR

```
PAY CREDIT CARD
paycreditcard:
        $amount = chooseamount($owed);
        if ($amount < 1) {</pre>
            goto accountinfo;
        };
        sas('You entered', 'youentered');
        $rc = execute_agi("SAY number $amount \"\" ");
        sas("$currency", 'currency');
        sleep(.2);
        $chosen = sagi('if correct, press 1', 'ifcorrectpress1', '1', '2', tre
        if ($chosen != '1') {
            goto paycreditcard;
        };
    ccnum:
        $ccnum = sagi('Enter your 16 digit credit card number', 'enter16cc',
        sleep(.2);
        if (!ccluhn($ccnum)) {
            sas('Invalid credit card number', 'invalidccnum');
            #goto paymentoptions;
            goto ccnum;
        };
        sas('Thank You', 'thankyou');
        sleep(.2);
    ccexpmth:
        $ccexpmth = sagi('Enter 2 digit expiration month', 'enterexpmth', '2'
        $ccexpmth = str_pad($ccexpmth, 2, "0", STR_PAD_LEFT);
        if($ccexpmth < 1 or $ccexpmth > 12) { goto ccexpmth ; } ;
        sleep(.1);
        sas('Thank You', 'thankyou');
        sleep(.2);
    ccexpyr:
        $ccexpyr = sagi('Enter 2 digit expiration year', 'enterexpyr', '2', ';
           = date("y") ;
```

GOTO:

- are generally ignored.. the flow flows through them...
- can be nested within a function very well, looping back
- can be nested from function to function and raptors attack, bad weird things can happen to variables, scope, memory, flow, sanity, chaos increases...
- they work well for "non web" work like an IVR.
- I'd suggest KISS (Keep it Simple and Safe)
- May need an "else" catch all

Live demo's

(I hope this works..)

Note: This supports recorded files as well...

Fini. Questions? Ridicule?

https://github.com/mikegeeklabs/ivrdemo

or go to geeklabs.com and follow links