

- TMTOWTMS -

There's More Than One Way To Monitor System(s)



May 16 2008
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Who are We?

はてなに入社しました  ★199★



<http://d.hatena.ne.jp/antipop/20080501/1209636817>

Let me introduce myself to you

軽く

自己紹介をさせていただきます。

JEEN

Perldoc-kr



Yesterday, I got an incredible super sexy item.

昨日、JesseからT-Shirtをもらいました

He said,
“If you make a patch for Prophet during this talk,
I'll give you this T-shirt.”

Jesseさん曰く、
“Prophetをペッチしてくれたら、
このT-Shirtあげるよ”

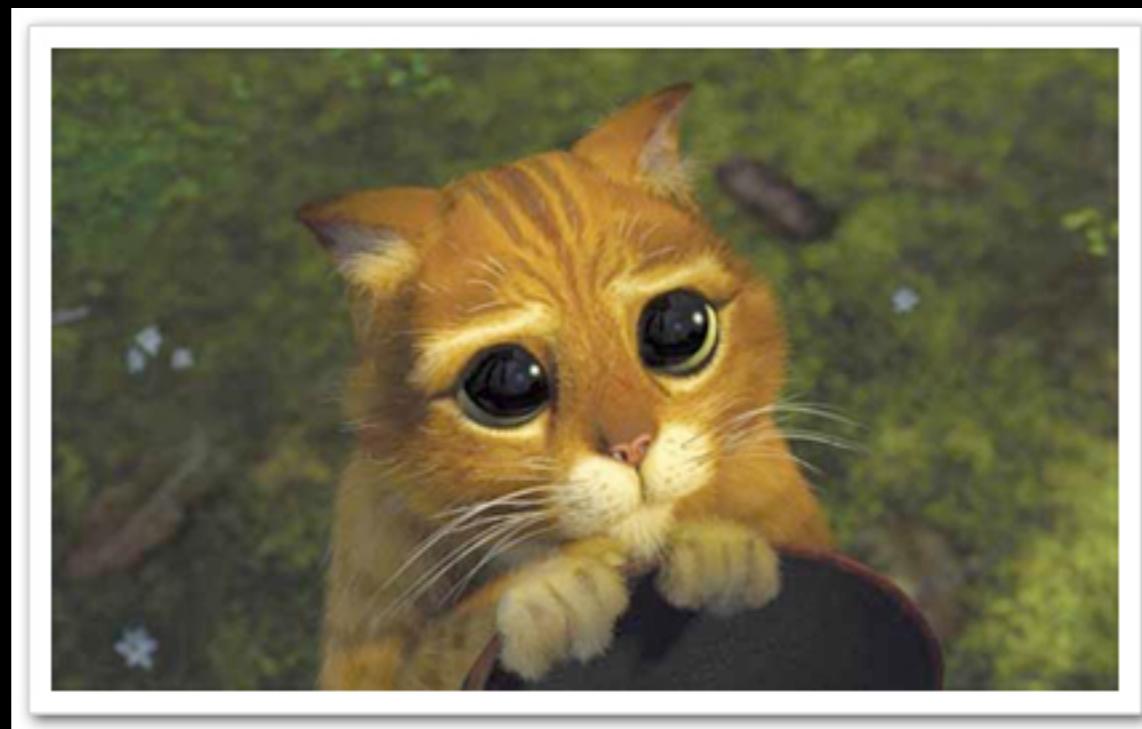
But I did nothing!

でも、私はなにもやってないのに...

Hmm...

Maybe What He thought would be...

もしかして、彼は
こう思ったのかもしれません。



“How Pity!”

“かわいそうだな”

It's a Joke!

もちろん、冗談です

Anyway, Thanks so so much Jesse!

とにかく、Jesseさん！
ありがとうございます！

Your Free Software “will” be running at our company

あなたのソフト使わせていただきます。

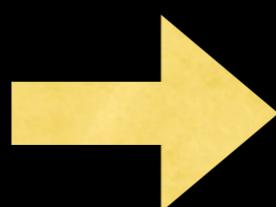




2007



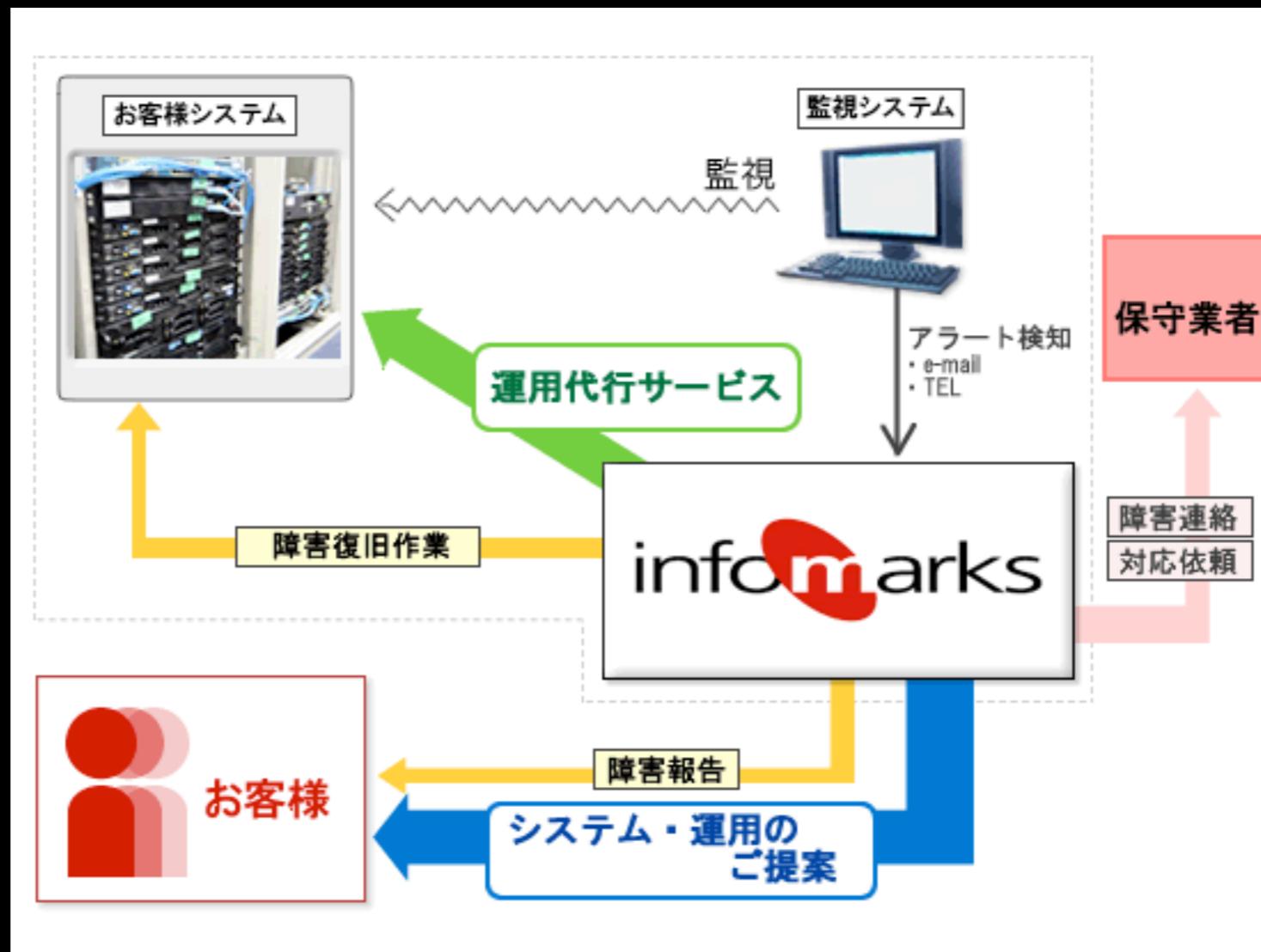
2008



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Company Works



System Monitoring, Maintenance

Promotion Support

EC Service Support

And

CodeRepos

CodeRepos

Hosted by [INFOMARKS Corporation](#)



<http://www.infomarks.co.jp/>

<http://blog.infomarks.co.jp/>

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- System Monitoring
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System Monitoring

Why?

It's a main job of our company

There has been too many session
about

System Monitoring

in
YAPC::(.) (¥d+)

Yeah, That Is Why I'm talking about

“Too Many” eq “Very Important”

True / False ?

It's Your Choice.

TALOMT

It Means...

There's A Lot Of Monitoring Tools

- **Nagios**
 - <http://www.nagios.org/>
- **Zabbix**
 - <http://www.zabbix.com/>
- **JFFNMS**
 - <http://www.jffnms.org/>
- **Big Brother**
 - <http://bb4.com/>
- **Big Sister**
 - <http://bigsister.graeff.com/>
- **Etc**

What To Monitor

- Port-Availability
 - HTTP, HTTPS, SSH, TELNET
 - FTP, SMTP, IMAP
 - POP3
 - etc

- System Resources
 - DISK
 - CPU
 - Memory
 - Swap
 - Network
 - I/O
 - Load Average
 - Process
 - etc

- Application/Daemons
 - MySQL/Oracle
 - DNS
 - Mail
 - Apache
 - etc

- System/Application Log
 - Kernel log
 - DB error.log
 - Web server error.log / access.log
 - etc

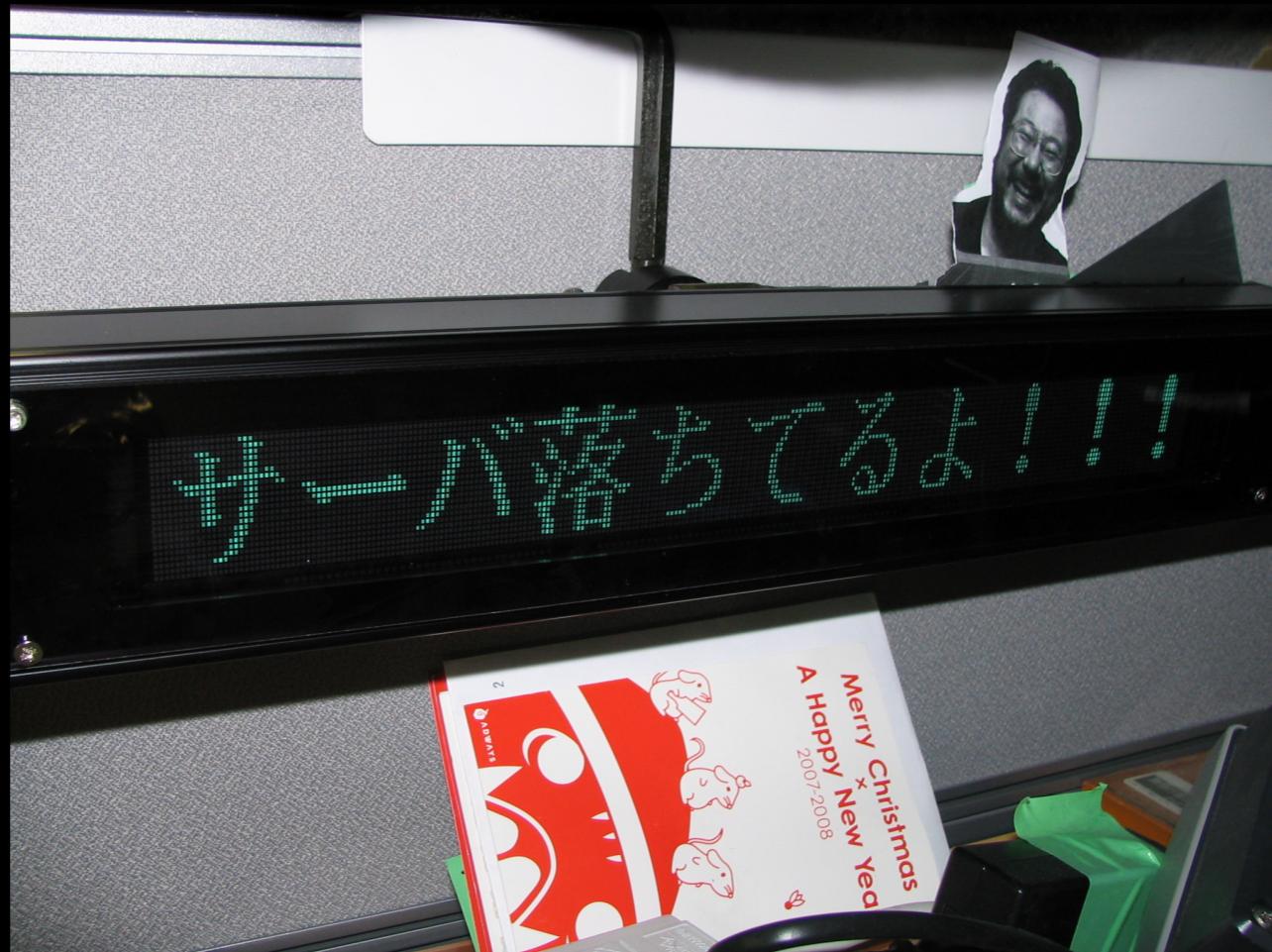
There's More Than
One Way
To Notify Warnings!

Mail

Instant Messenger

IRC

and...



VFD?

But No one knows
SOMETHING WRONG

Like This...



Or



Warning Lamp?

What do you think about
CTI?

では、CTIはどうでしょうか？

CTI

CTI ?

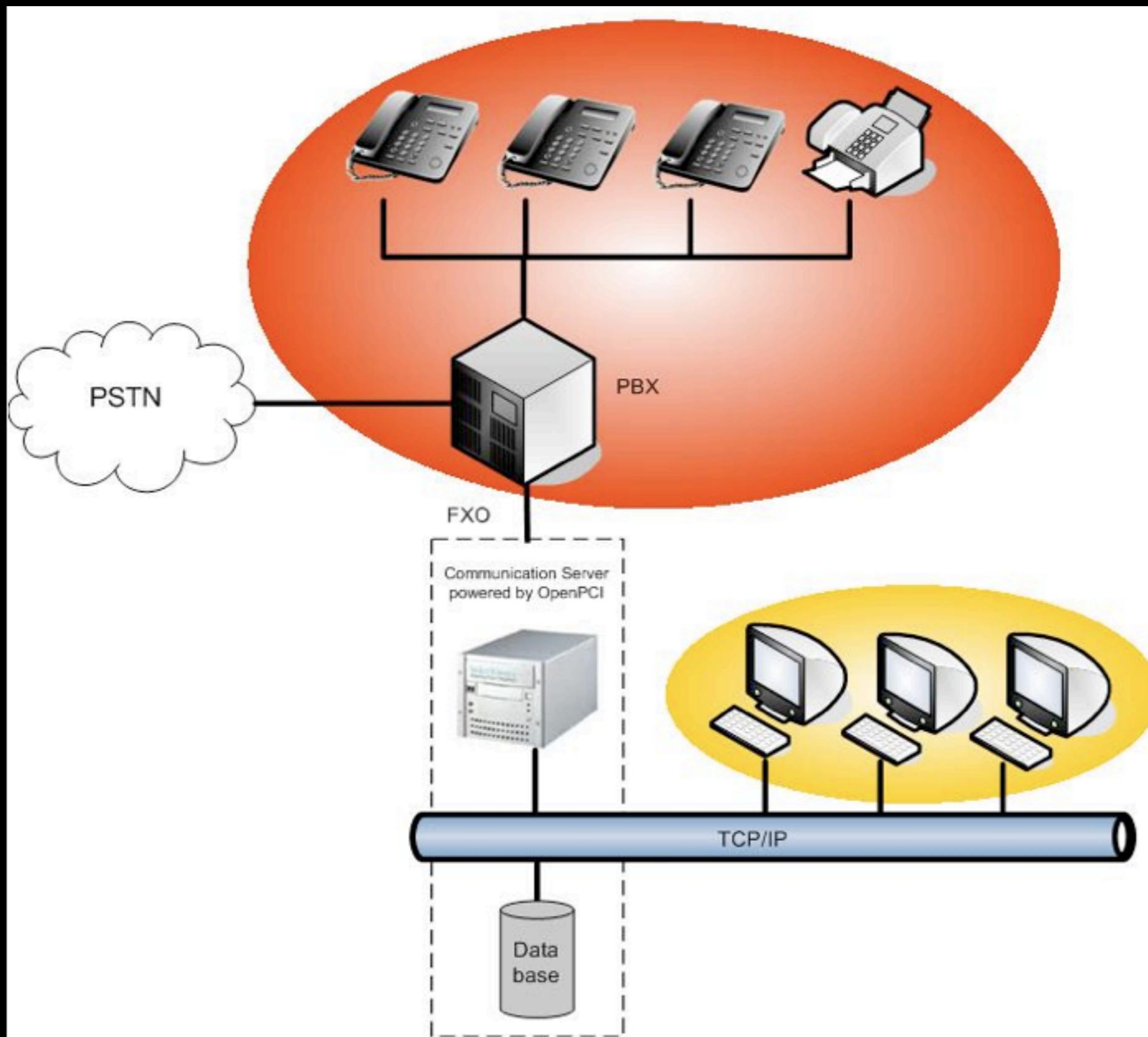
Computer Telephony Integration

コンピューターと電話との統合

CTIの機能

- 電話をかけたり、受けたり
- 一般電話で発信者の番号を表示したり
- 電話の内容を録音したり
- 向こうが押した番号を拾ったり

Computer Telephony Integration



CTI is used on...

Tele-Banking

Customer Support

顧客サポート

Tele-Marketing

電話販売

Voice Phishing

オレオレ詐欺
(振り込め詐欺)

And so on...

その他いろんなところで
よく使われています。

Before CTI

CTI導入の前には

We used to get
inbound calls

From Several Services Whenever
system is in trouble

なんか障害が発生したら、電話をかけてくれる
あるサービスを使ってたのです。

But, It Costs Every Months

でも、それ毎回お金かかることだし...

¥

But, It Costs Every Months

でも、それ毎回お金かかることだし...

Hmm...

We always wanted to make a system that is either

どうすれば

a Low Cost

安くて

Scalable

拡張性あつて

under our Control

会社で勝手にいじってもいい
システムを作れるんでしょうか？

The Answer is ...

結局, 答えは

CTI

And

OSS

CTI with Closed Source

クローズドソースとCTIを組み合わせたら

- OS \$200
- Application \$3000

だいたいこんなにかかるって書いてありました

- from www.voicetronix.com.au

But, Open Source is...

でも オープンソースでは



- OS ¥0
- Application ¥0

セ 口

- from www.voicetronix.com.au



Wow!

すげえー

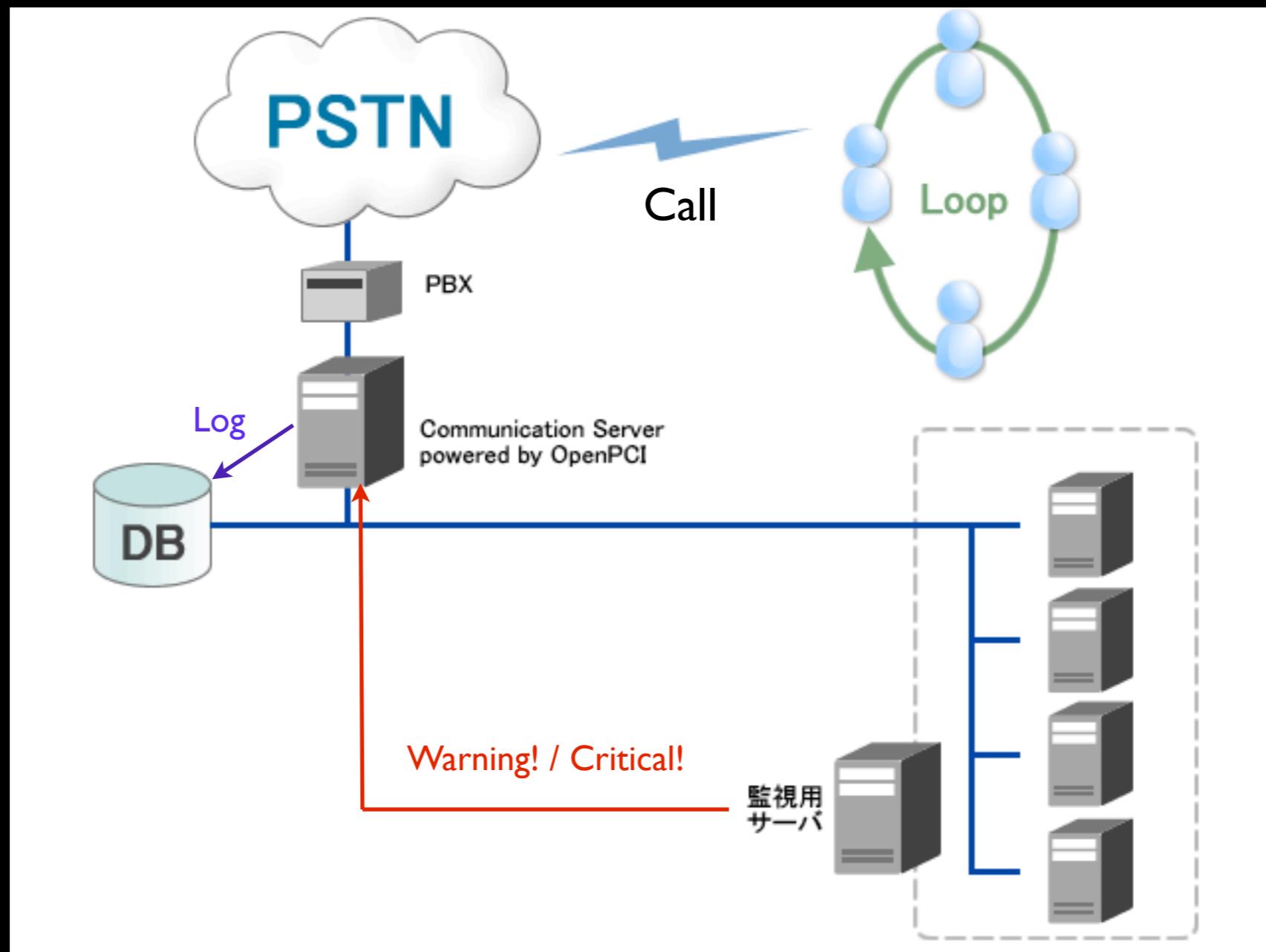
Voicetronix OpenPCI Card

- CPAN Module
(Telephony::CTPort)
- Low Cost (\$400~)
- RJ-11



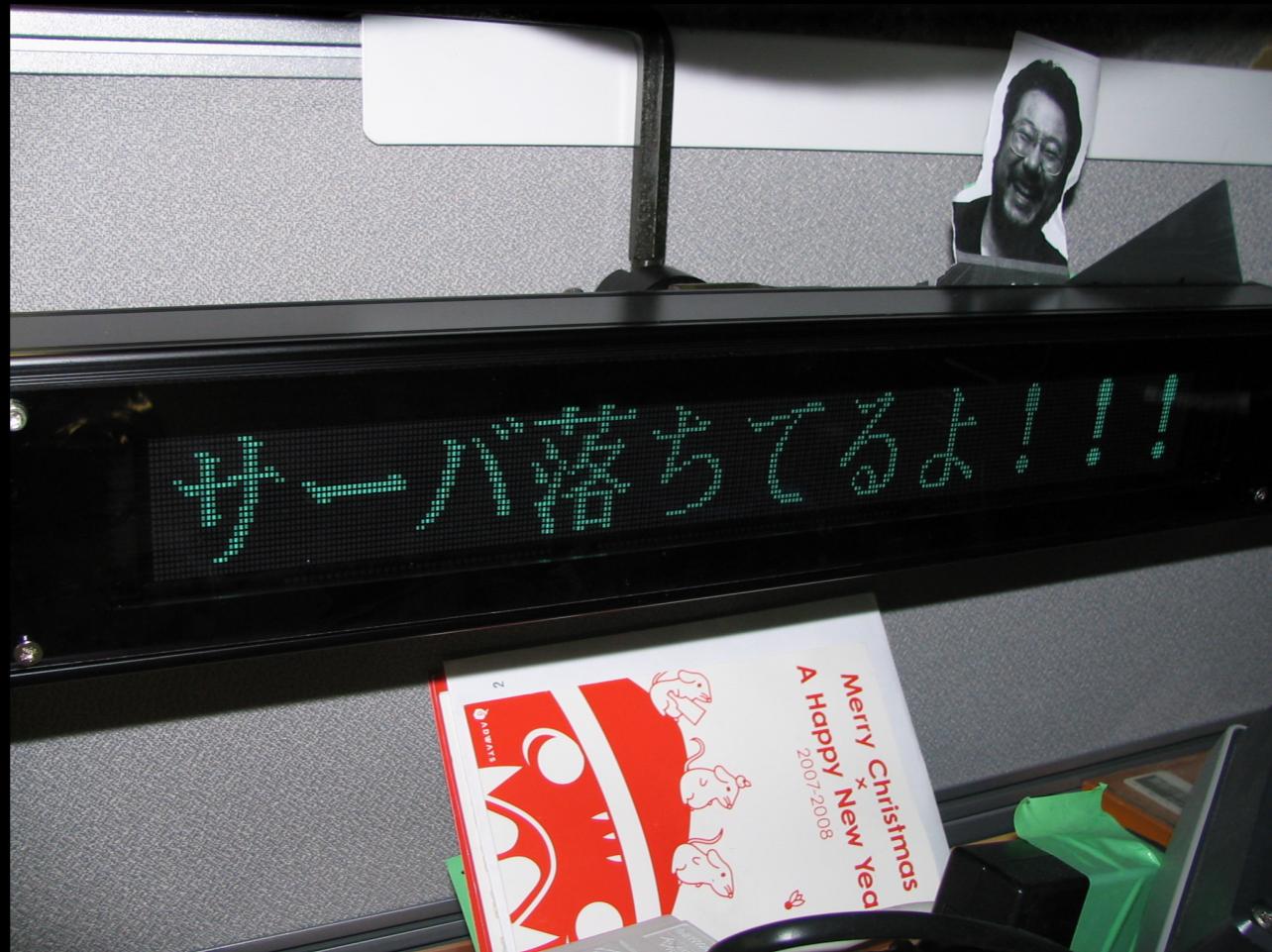
CTI on System Monitoring?

こんなCTIをどうしてシステム監視に
使うか?



ex >
while(Monitoring)

監視中に



HTTP is down!

Ringing~

Off Hook

電話受けて

Hello?

声かけると

“Somethings Wrong!”

“なんかおかしいよ”

“Somethings Wrong!!”

“なんかおかしいんだよ”

Something's Wrong!!!

“なんかおかしいんだってば”

the CTI Notifier(?) just called us

こんな感じでCTI通知しております。

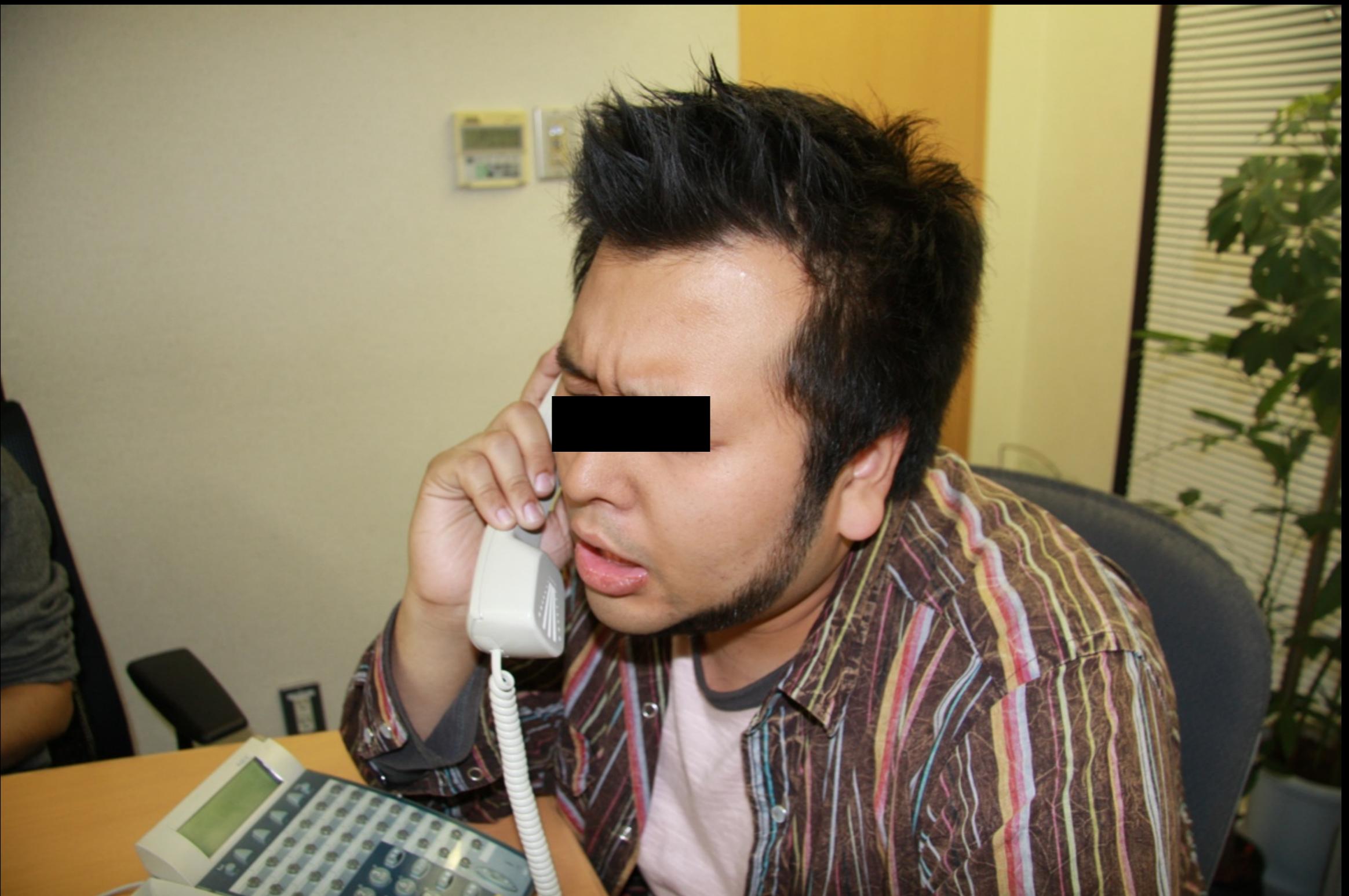
Whenever SA hears
“Somethings Wrong”

このタイミングで、システム運用担当者のほうが
”なんかおかしいよ”と言われたら

- He would be (彼は多分)
 - stressed (ストレスが出来たり)
 - impatient (いきなり緊張したり)
 - angry (ちょっと起ったり)
 - et cetera...(よくない現状いろいろ)

Like This

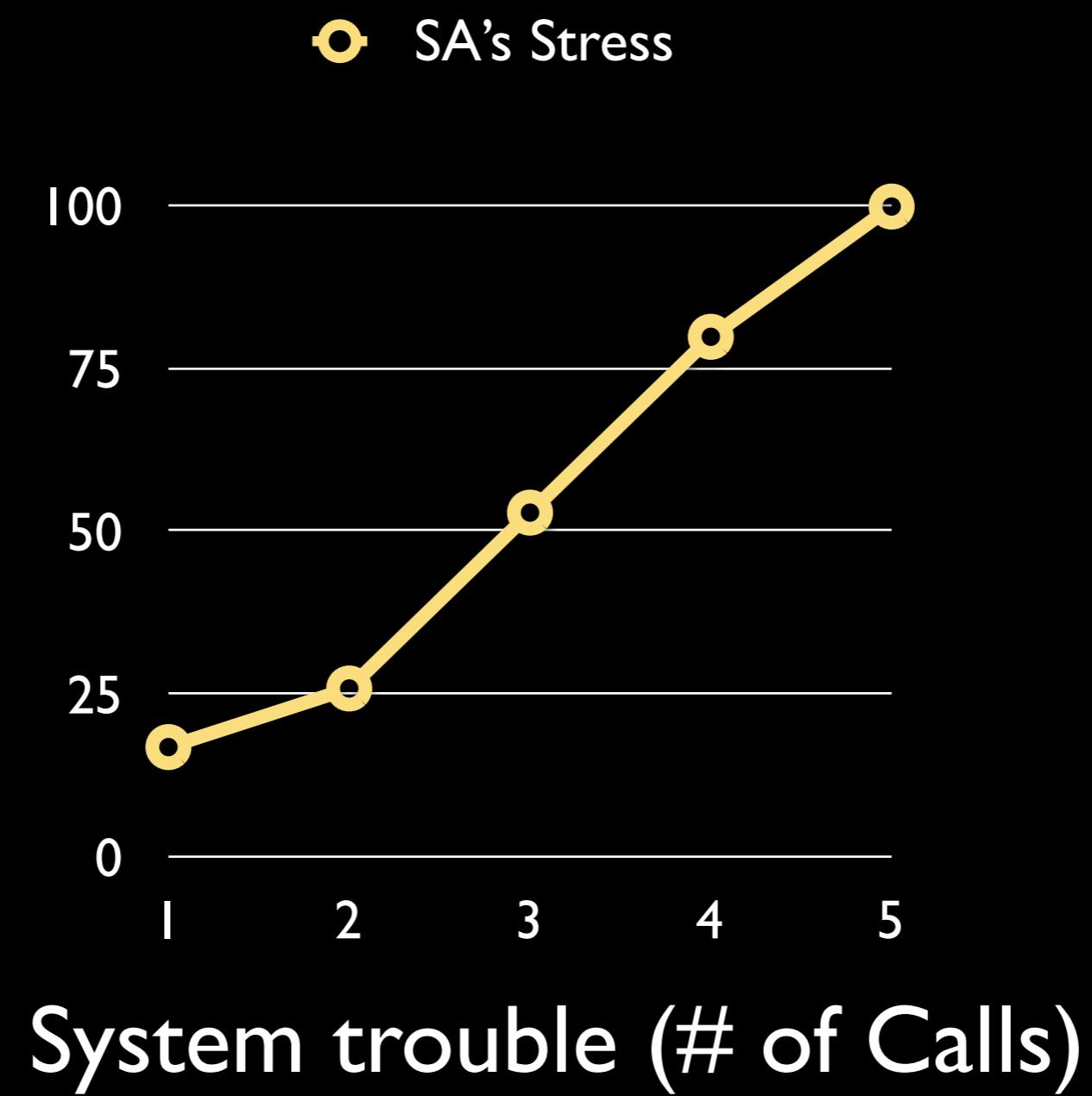
こういう風にですね



“WTF?” “なんだと！”

In the Graph...

グラフで見ると



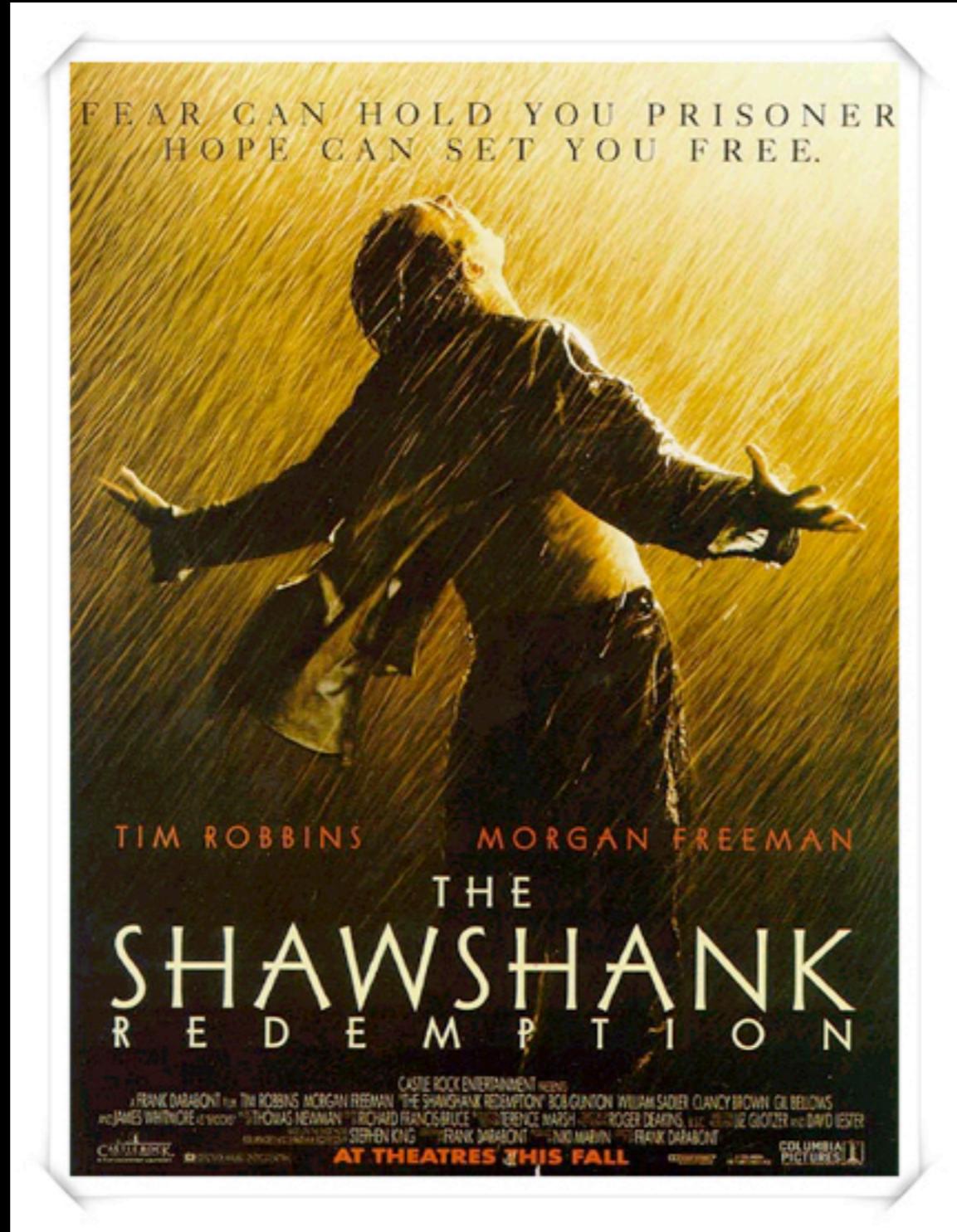
we wish SA for some happiness

システム導入して
運用担当者はよろこんでくれないかな

Is there any good solution?

なんかいいアイディアないかな？

!



Yatta~

After We have Completed
this Mission,

一応これやったからは、

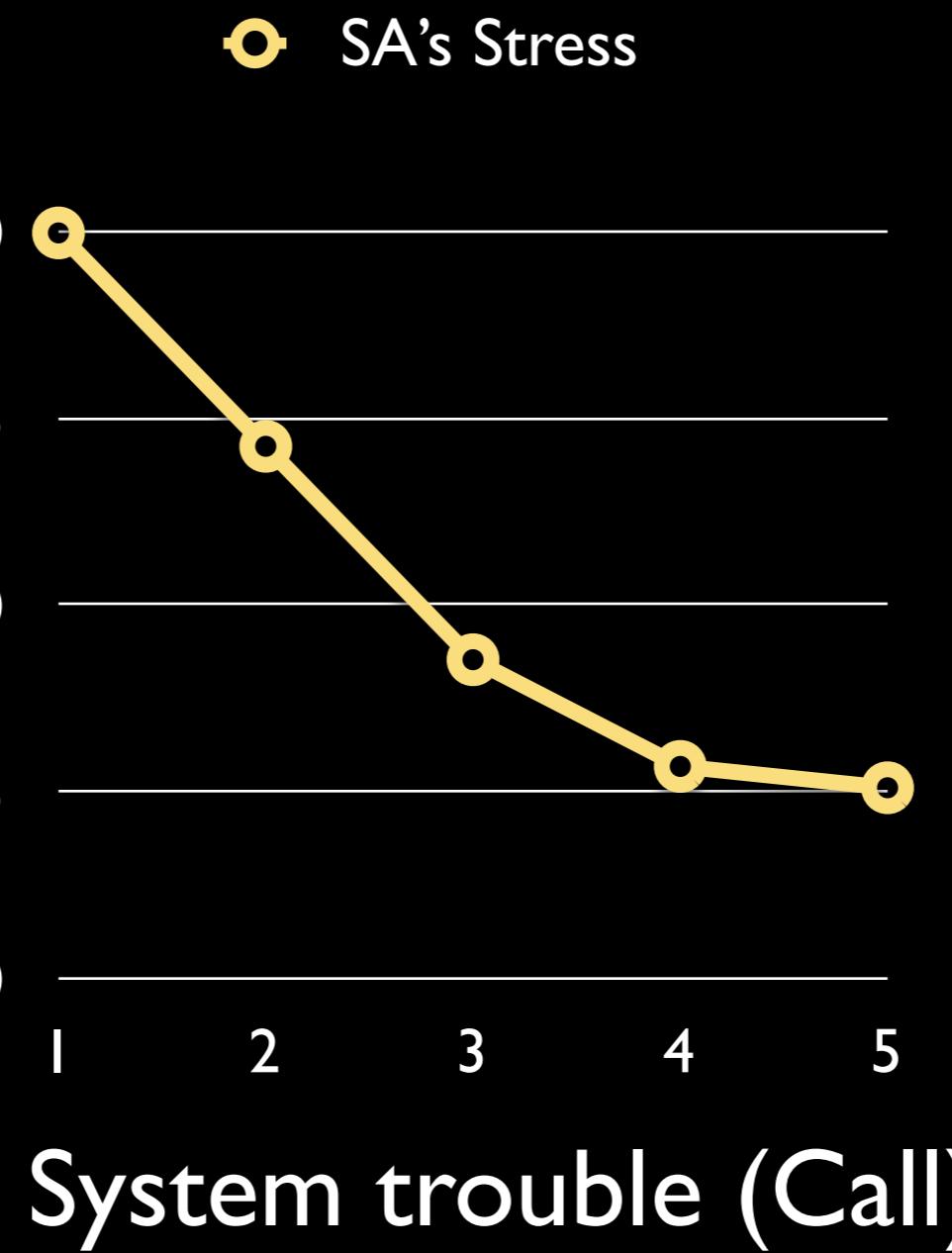
SA will be
(.+)
whenever
Service goes Down

運用担当者は
サービスが落ちても

- Happy(喜んでくれるし)
- Less Stress(ストレスもなさそうだし)
- etc(いい影響いろいろ)

In Visual Mode

ビジュアル的に見ると



More × 2 Visual Mode

ではもっともっとビジュアル的に見ると

Like This

こういうふうになります



Why?

なんで?

What's happened to him?

彼になにがあったんでしょうか？

The Silver Bullet is what
we gave to him is...

私たちが彼にあげた、解決策は...



これ

Code

use Telephony::CTPort

Methods

Methods

- `on_hook()`, `off_hook()`

Methods

- `on_hook()`, `off_hook()`
- `wait_for_ring()`, `wait_for_dialtone()`

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- `on_hook()`, `off_hook()`
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- `record($file_name, $timeout,$term_key)`

Methods

- `on_hook()`, `off_hook()`
- `wait_for_ring()`, `wait_for_dialtone()`
- `record($file_name, $timeout,$term_key)`
- `collect($max_digits, $max_sec)`

Methods

- `on_hook()`, `off_hook()`
- `wait_for_ring()`, `wait_for_dialtone()`
- `record($file_name, $timeout,$term_key)`
- `collect($max_digits, $max_sec)`
- `dial($number)`

Make a Call

some_event()

Make a Call

on_hook()

some_event()

Make a Call

on_hook() →

some_event()

Make a Call

`on_hook()` → `off_hook()`

`some_event()`

Make a Call

on_hook() → off_hook() →

some_event()

Make a Call

`on_hook()` → `off_hook()` → `wait_for_dial_tone()`

`some_event()`

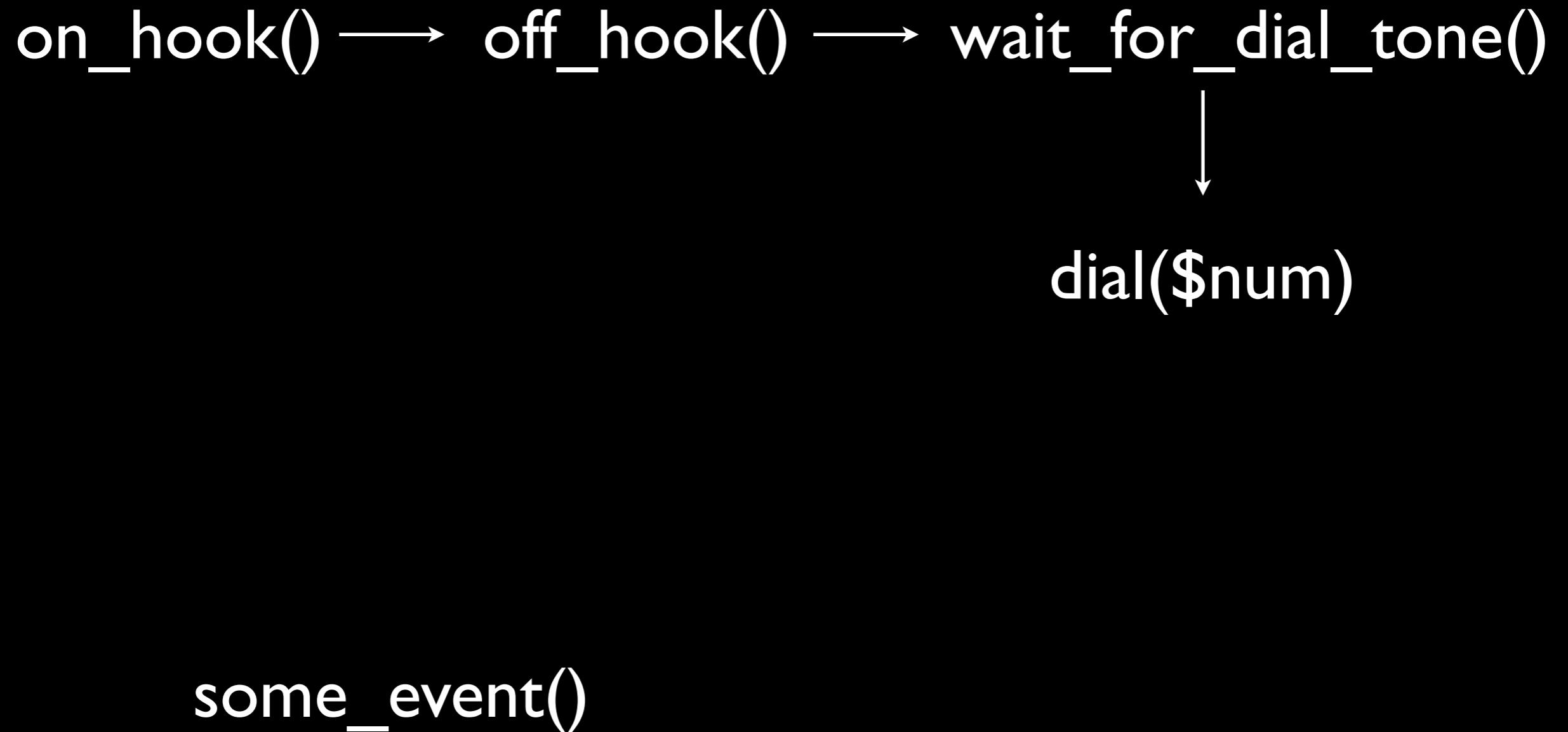
Make a Call

`on_hook() → off_hook() → wait_for_dial_tone()`

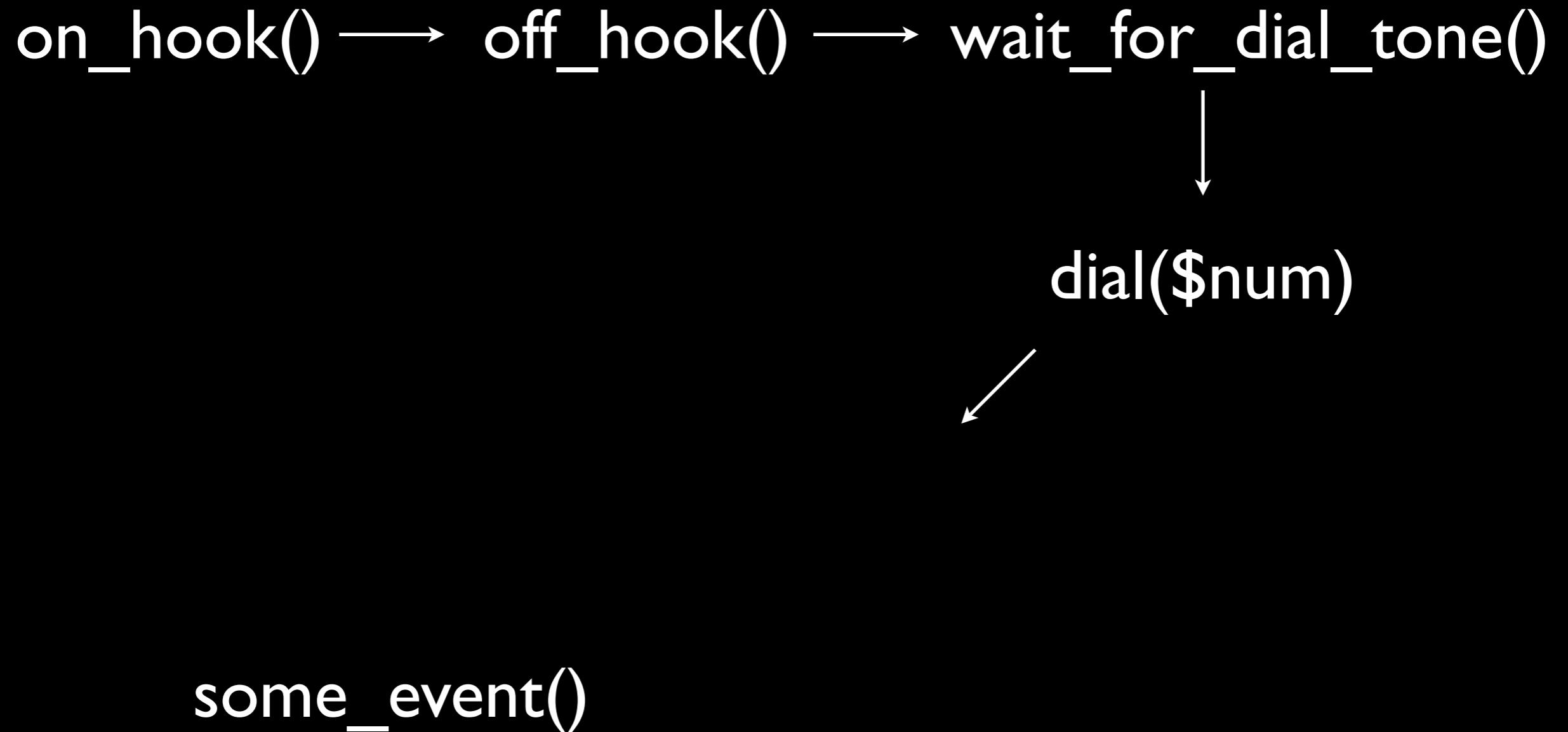


`some_event()`

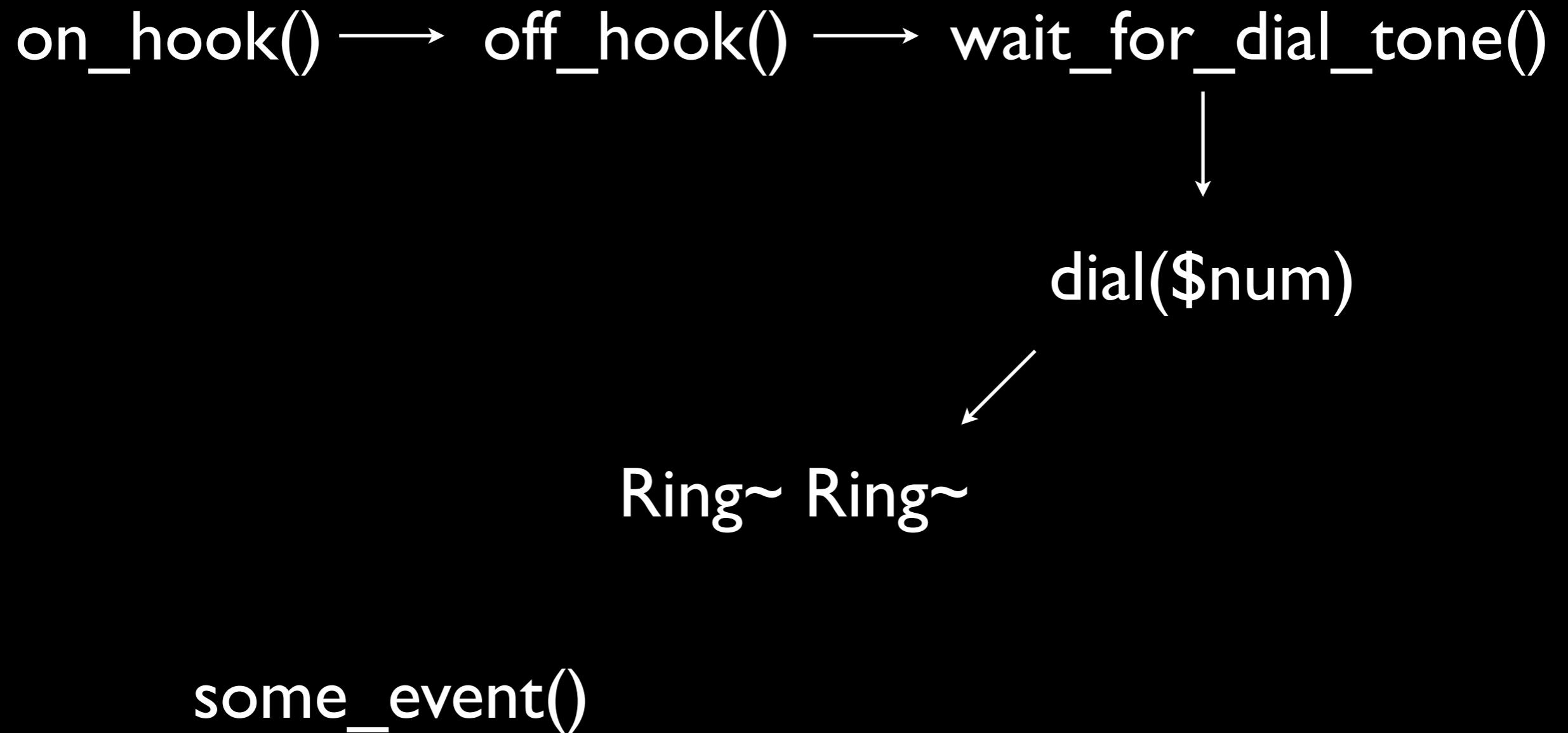
Make a Call



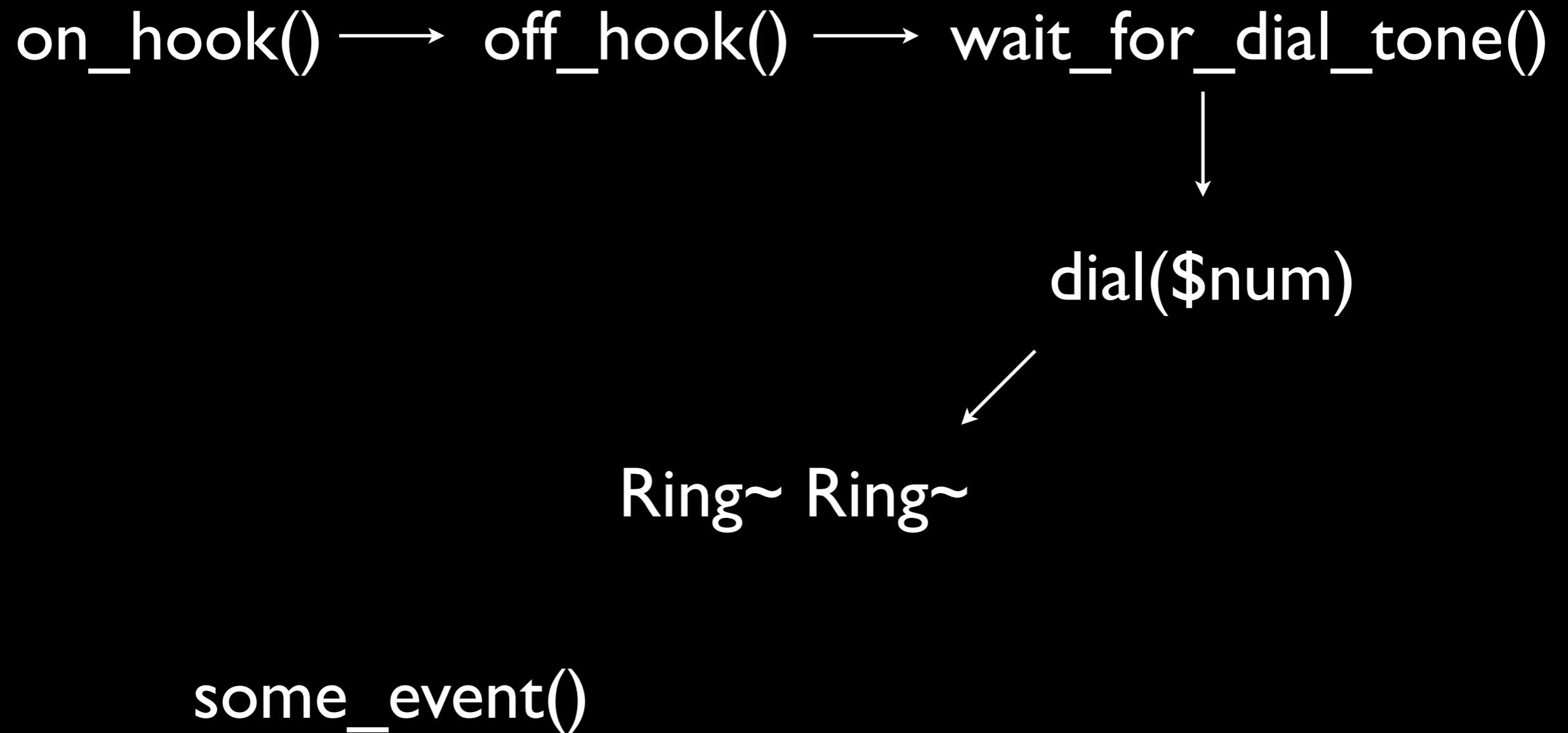
Make a Call



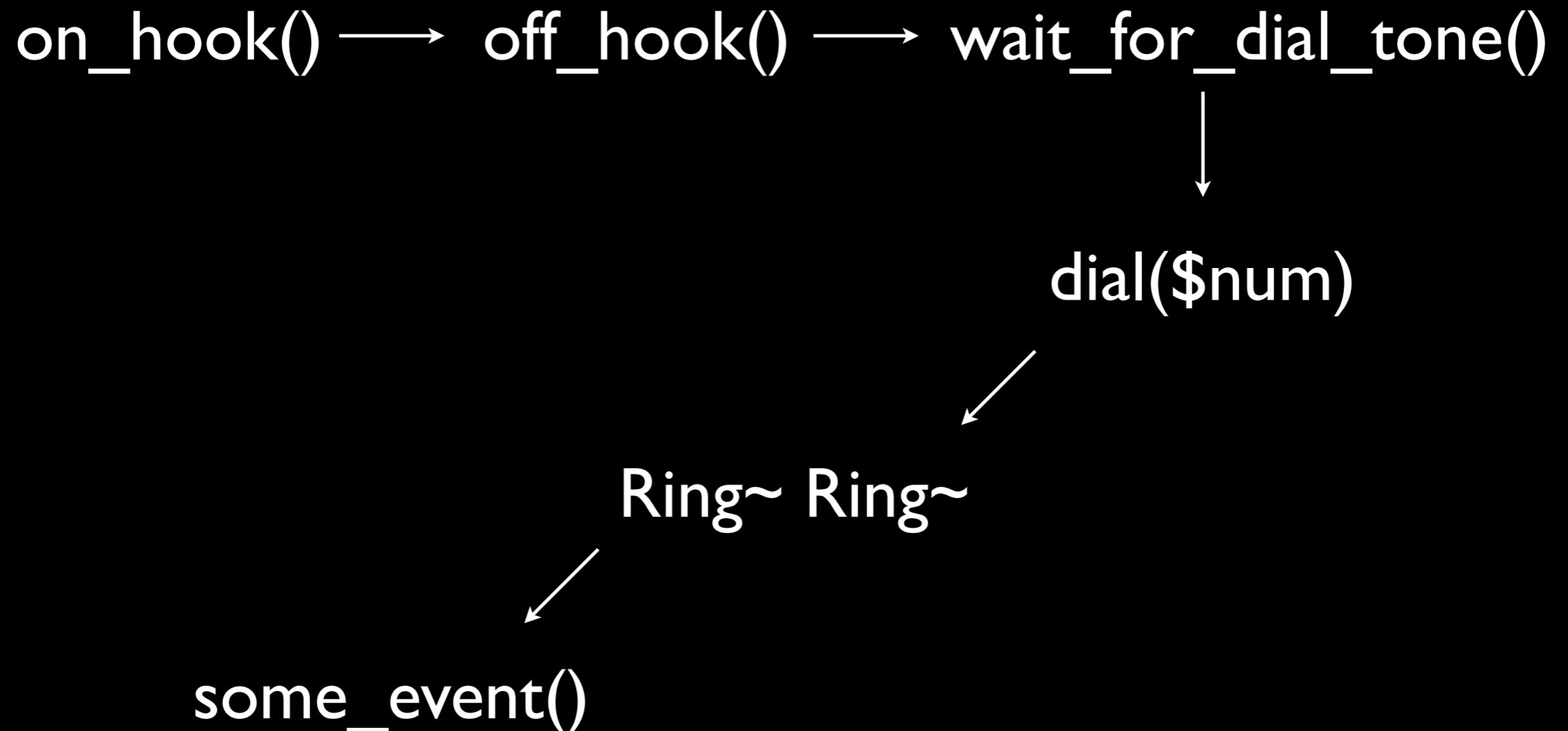
Make a Call



Make a Call



Make a Call



Receive a Call

Receive a Call

on_hook()

Receive a Call

on_hook() →

Receive a Call

`on_hook()` → `wait_for_ring()`

Receive a Call

on_hook() → wait_for_ring() →

Receive a Call

on_hook() → wait_for_ring() → Ring~ Ring~

Receive a Call

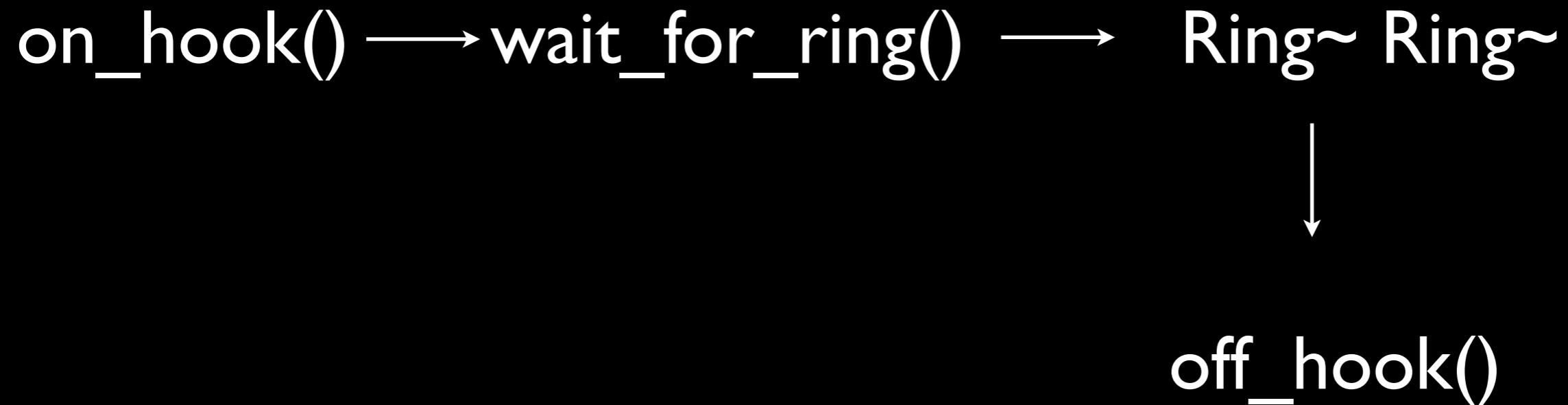
on_hook() → wait_for_ring() → Ring~ Ring~

Receive a Call

on_hook() → wait_for_ring() → Ring~ Ring~



Receive a Call



Receive a Call

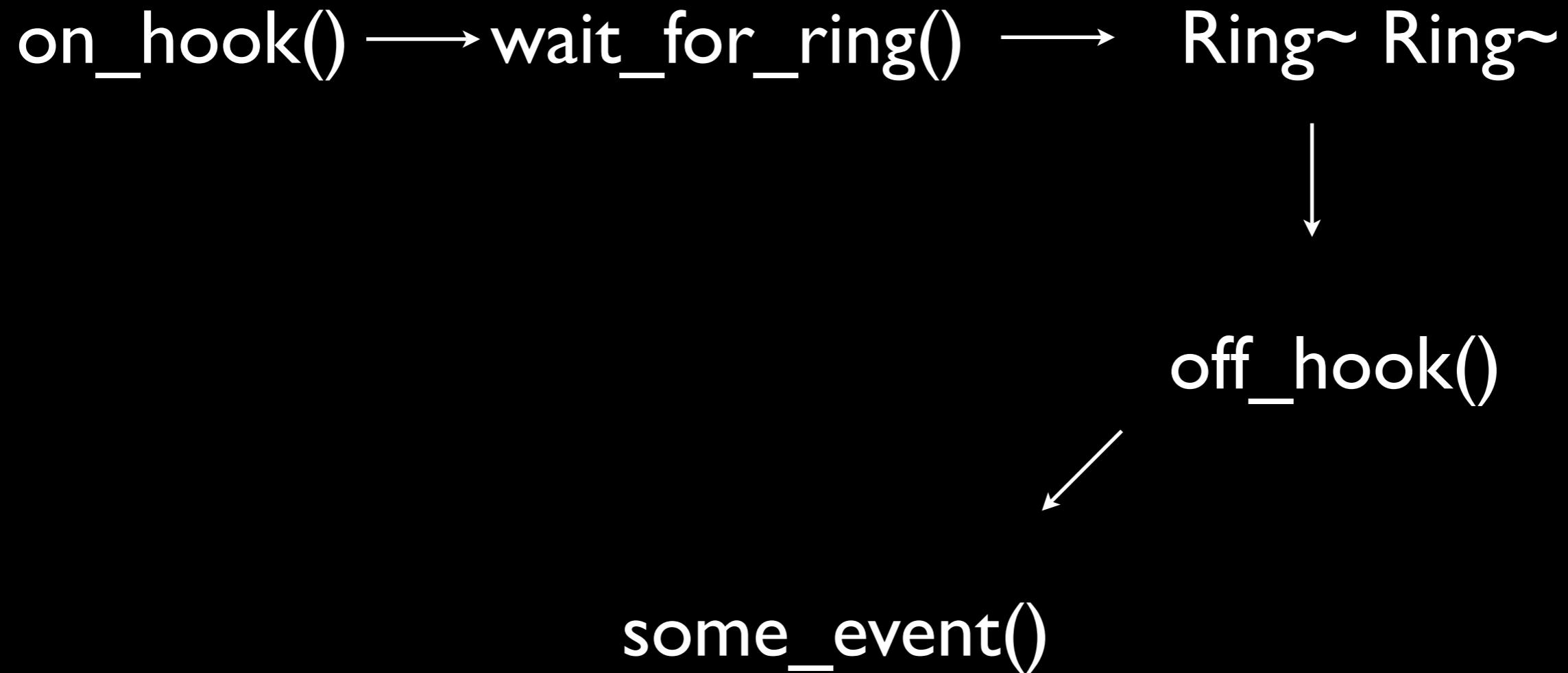
on_hook() → wait_for_ring() → Ring~ Ring~



off_hook()



Receive a Call



```
# CTI daemon 起動
$ ctserver -d

#障害発生通報

use strict;
use warnings;
use CTIServer;
my @list = (#phone numbers#);
my $ct = CTIServer->new(port => 1234);
foreach my $person (@list) {
    if ($ct->call($person, 20)) { # Call! $person = PHS number
        do_something() if $ct->play("39_warn.wav");
    }
}
sub do_something { blahblah; }
```

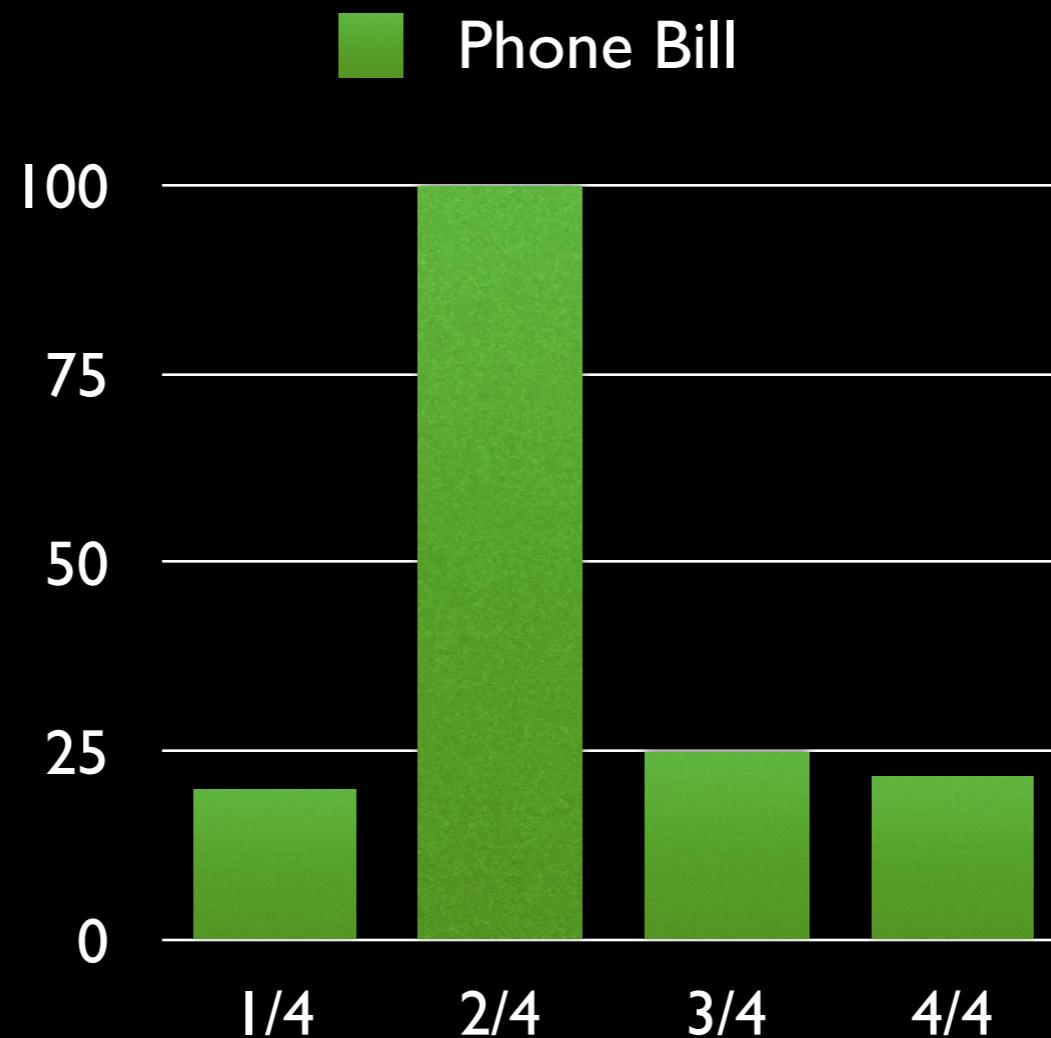
It will be a very Amazing System with
previously mentioned features.

さっき申し上げました機能でなんとかすると
すばらしいシステムができると思います。

But, It has a Critical Weakness!

それはCTIに致命的な弱点があったからです

It is...



While we were testing CTI,
our company received a huge telephone bill.

このCTIのテストをやってる時、
会社の電話代が.....

orz

I hope...

一個お願いがありますが、

Please Don't Use CTI for Voice Phishing! :-)

ぜひ、
“オレオレ詐欺”とかには
お使いなさいませんよう
お願いします。

Nagios

or

App::MadEye

use Class::Component;

Pluggable Monitoring System



Why Trac?

```
package App::MadEye::Plugin::Notify::HTTP;

use LWP::UserAgent;

sub request : Hook('notify') {
    $ua = LWP::UserAgent->new;
    $url = $posts->{target} . "?" . $parameter;
    $res = $ua->get($url);
}
```

```
package App::MadEye::Plugin::Notify::Trac;

use DBI;

sub request : Hook('notify') {
    my $dbh = DBI->connect("dbi:SQLite:trac.db","","","");
    my $sth = $dbh->prepare("INSERT INTO ticket ...");
    $sth->execute(...);
}
```


Demo

Summary

- CTI will be the best choice to happy M.S.
(but, you have to be with HOOO MOOO)
 - WARNING :Telephone bill
 - One Way on TMTOWTMS is Telephony ?

Thank You!

Any Questions?