



Photo by Vladislav Klavin

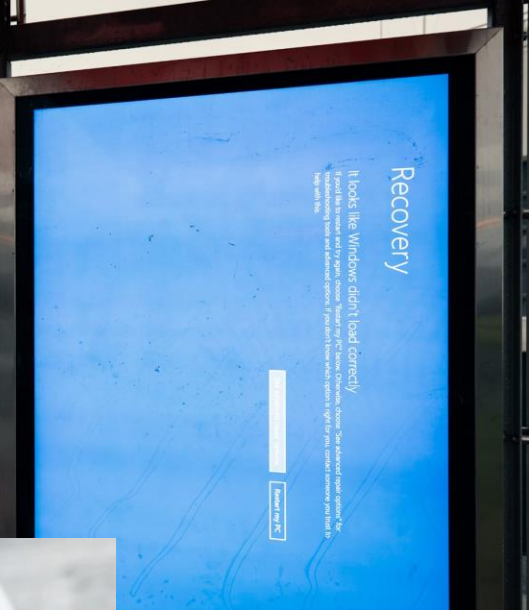


```
<code>"login" id="login_form" >  
ont color='red'><b>Authentication Failed</b>  
id="dError1" class="dError1">please contact  
-auth-status--1</saml-auth-status>  
/php/login.php'</code>
```

The only constant

FAILURE

in this changing world



# HI I'M ANSSI !



- **Testing** Specialist 20 years
- Failure Specialist
- Football player, coach, and fan





The only constant

FAILURE

in this changing world



FAILURE

Factors and conditions  
that contributed to  
the likelihood of  
failure?

FAILURE



BACKGROUND

FAILURE



BACKGROUND

FAILURE

The specific action  
or event that set  
the failure in  
motion?





BACKGROUND

TRIGGER

FAILURE



BACKGROUND

TRIGGER

FAILURE

The effects and consequences  
resulting from the failure?

BACKGROUND

TRIGGER

FAILURE

IMPACT

STORY





*Photo by James Wainscoat on Unsplash*

THE ONE  
THAT GOT  
AWAY



## UUTISET

Kotimaa Poliittikka Ulkomaat Pääkirjoitus Tampere Turku Oulu Helsinki Espoo Van

KOTIMAA

# KSML: Iso tietovuoto - DNA:n salaiset numerot julki

**DNA:n salaiset numerot ovat vuotaneet julki.**

JAA



KOMMENTIT

STT

23.8.2011 6:51 | Päivitetty 23.8.2011 6:58

Teleoperaattori DNA:n asiakkaiden salaisia puhelinnumeroita päätyi julkiseen jakeluun kevään ja kesän aikana, kirjoittaa Keskisuomalainen tiistaina.

Liittymien numeroita oli väliaikaisesti Suomen Numeropalvelun valtakunnallisessa tietokannassa, josta numeropalveluyritykset saavat puhelinnumeronsa.

Tietovuoto tapahtui DNA:n järjestelmäpäivityksen yhteydessä.



## Uutiset

Tuoreimmat

Venäjän hyökkäys

Sää

Kotimaa

Ulkomaat

Talous

Kotimaa

## KSML: DNA:n asiakkaiden salaisia numeroita vuoti julkisuuteen

Tuhansia puhelinoperaattori DNA:n asiakkaiden salaisia numeroita on vuotanut viime kevään ja alkukesän aikana julkisuuteen. Sanomalehti Keskisuomalaisen mukaan tietovuoto sattui järjestelmäpäivityksen yhteydessä. Julki pääsi jopa yli 30 000 salaiseksi tarkoitettua numeroa.

Major data leak

yvässä Suomen Numeropalvelun tietokannassa, kevat puhelinnumeroita.

DNA:n mukaan virhe koski asiakkaita, jotka vaihtoivat liittymätyyppejä DNA:n sisällä huhtikuun 10. päivän ja kesäkuun 28. päivän välillä. Operaattori sanoo, että nyt kaikkien numeroiden salaisuus on tarkistettu ja varmistettu.


DNA on lähettänyt kirjeen kaikille, joiden numerotiedot ovat voineet muuttua väliaikaisesti julkisiksi. DNA lupaa myös hyvitystä asiakkaille, joita vuoto on koskenut.



```
Subscription
Type: OLD
```

```
Subscription
Type: NEW A
- Add X, G, A
- Remove O, H
```

```
Subscription
Type: NEW B
- Add X, L
- Remove P, H, D
- S to true
```





Subscription  
Type: OLD

Subscription  
Type: NEW A

- Add X, G, A
- Remove O, H
- S to FALSE

Subscription  
Type: NEW B

- Add X, L
- Remove P, H, D
- S to true



BACKGROUND

TRIGGER

FAILURE

IMPACT



# TRIGGER

Bug in code?

Incorrect unverified assumption  
unnoticed during testing





# BACKGROUND

Customer - Vendor

Detailed specs

Detailed test cases



Lack of shared understanding





# IMPACT

Brand and customer hit

Humility gain





# IMPACT

Learning: time heals :)





NEXT STORY



# FUN WITH DATA






Photo by Jakub Rostkowski on stocksnap




Web service,  
For authenticated users,  
under a phishing attack





Phisher had access to  
many of our users emails  
We did not have any MFA



In order to ensure you have rights to the email address, we have sent an email to youremailaddress@email.com with a confirmation code. Please enter the code in the email to the below field.

See that the verification code kUIaGs is shown in email to know it is sent by us.

Enter code here

Proceed



## Your confirmation code



Inbox x



**The example service** <theexampleservice@gmail.com>

14:21 (7 minutes ago)



to me ▾

Hi test user,

Your confirmation code is H0lld

You are getting this message because you are trying to log in to the service. This email is sent as a confirmation that you are the one actually trying to login.

To complete the login, please enter the confirmation code to the login page.

Make sure the login page contains this verification code kUlaGs.

The code is valid for 30 minutes. If you were not trying to login to the service, your account might have been compromised. In this case change your password, or contact customer care if that is not possible.

In order to ensure you have rights to the email address, we have sent an email to youremailaddress@email.com with a confirmation code. Please enter the code in the email to the below field.

See that the verification code kUlaGs is shown in email to know it is sent by us.

## Your confirmation code ▶ Inbox x

**The example service** <theexampleservice@gmail.com>  
to me ▼

Hi test user,

Your confirmation code is H0lld

You are getting this message because you are trying to log in to the service. Please provide the confirmation code that you are the one actually trying to login.

BACKGROUND

TRIGGER

FAILURE

IMPACT



# BACKGROUND:

(Weak login process)

(Phishing attack)

Hurry in development

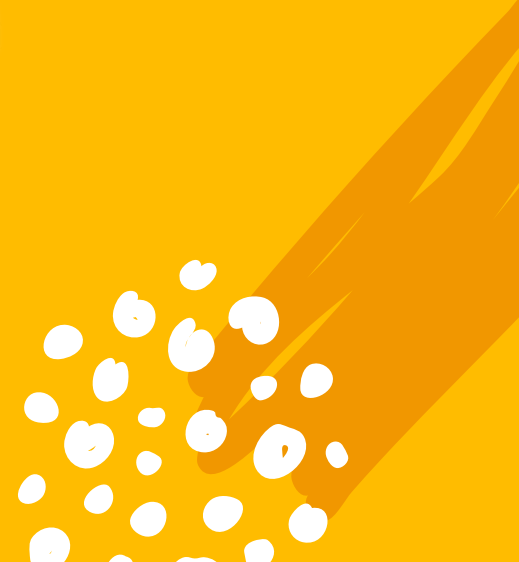
Lack of knowledge





TRIGGER

Poor implementation





# IMPACT

Customer confusion

Some unable to use the service  
For a very limited amount of time







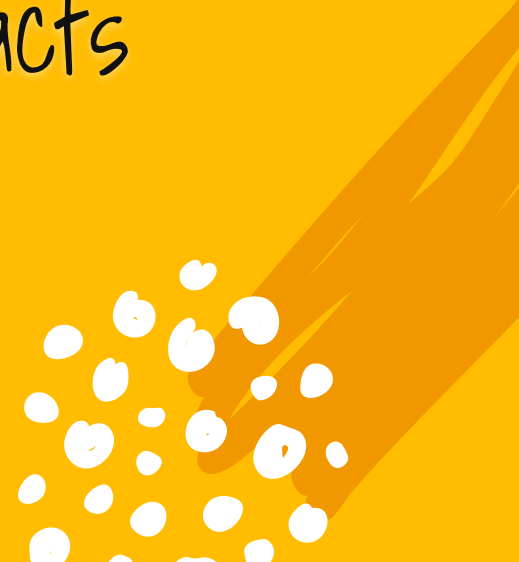
# BACKGROUND




We were able to react  
and fix quickly





The cost of defects  
Is the cost of their impacts





And being able to release  
quickly and regularly  
is often the  
cheapest option

Then again...  
Big problems  
are often "easy"



WMA

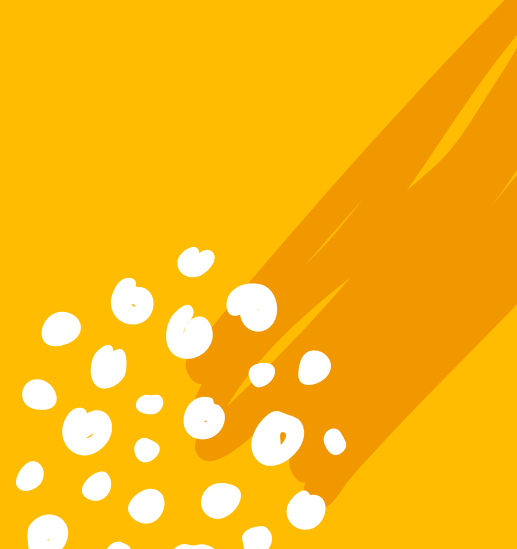


Spend time to  
Thoughtfully explore  
the Product





LAST STORY

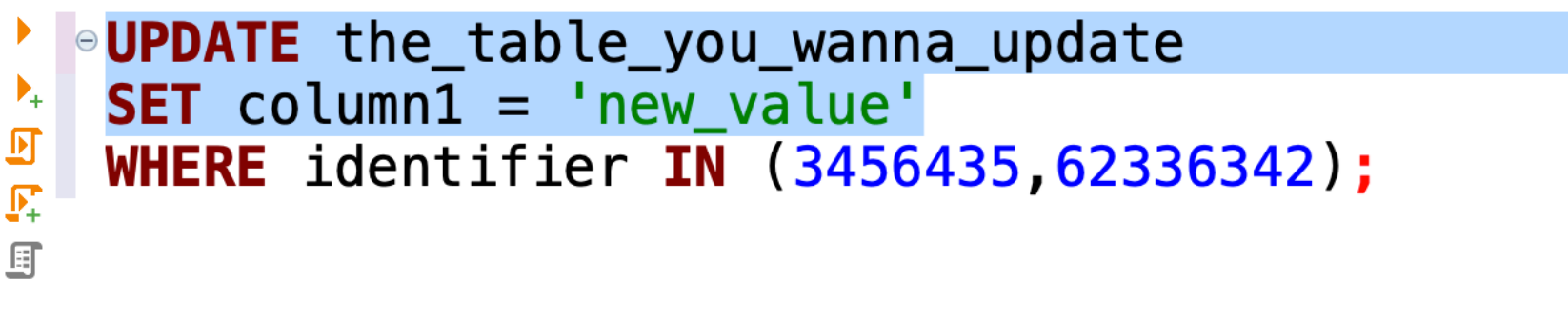




*Photo by Jeremy Bishop on StockSnap*

# HANDS IN PROD





```
UPDATE the_table_you_wanna_update
SET column1 = 'new_value'
WHERE identifier IN (3456435,62336342);
```

The image shows a SQL UPDATE statement in a code editor. The text is color-coded: 'UPDATE' is red, 'the\_table\_you\_wanna\_update' is black, 'SET' is red, 'column1' is black, 'new\_value' is green, 'WHERE' is red, 'identifier' is black, 'IN' is red, and the numbers '3456435,62336342' are blue. The statement is enclosed in a white box with a light blue header. On the left side of the box, there are several icons: a right-pointing triangle, a right-pointing triangle with a plus sign, a folder icon, a folder icon with a plus sign, and a keyboard icon. The background is yellow with decorative elements: a sun-like shape with white dots in the top left, a sun-like shape with orange dots in the top right, and a white scribble in the bottom left.





## Connection failed!

Unable to connect to host [REDACTED], or the request timed out.

Be sure that the address is correct and that you have the necessary privileges, or try increasing the connection timeout (currently 10 seconds).

MySQL said: Can't connect to MySQL server on '[REDACTED]' (61)

OK



*Photo by Kindel Media at Pexels*

For three  
long days...

BACKGROUND

TRIGGER

FAILURE

IMPACT

# TRIGGER

The update...

And an update...

And an update...



*Photo by Viivi Lehtelä*



# BACKGROUND



*Photo by Cindy Tang on Unsplash*



# BACKGROUND

Risk prevention, important

Practicing reaction to risk,  
even more so





# IMPACT

Huge customer impact

Also lots of learning and  
improvement!





But addressing one key  
impact was still missing







FEELINGS

# BLAMELESS POSTMORTEMS



Photo by Jason Goodman on Unsplash



# FINAL WORDS



*FAILURE*

I your-name-here am a Failure Specialist

With that I:

- Fail. And I'm open of my failures
- Avoid blaming myself or other people on failure, and instead take responsibility and look forward
- Effectively use different means to minimize the impact of failures
- Study and seek to understand failures of all kind, and use this learning to improve the system



# THANKS!

Slides Carnival

Pexels and unsplash

Testing Assembly



Find me at:



[linkedin.com/in/anssil](https://www.linkedin.com/in/anssil)


Questions, comments?





# Question 1



Have you identified  any key things in background that enables to avoid big failures?





## Question 11



Any other resources about failures you would recommend?



# THANKS!

Slides Carnival

Testing Assembly



Find me at:

[linkedin.com/in/anssil](https://www.linkedin.com/in/anssil)



