## Smashing the Stack for Fun and Non-Profit

### Dr. Melanie Rieback

RADICALLU ODEN, SECURIU

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## When hackers grow up...



## Not-for-profit business model

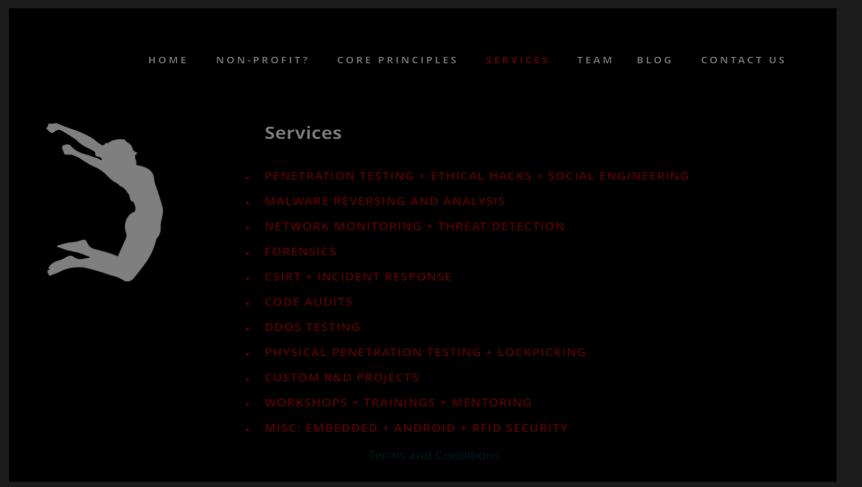
•Fiscal Fundraising Institution (FFI)



## (With 90% of our profits!)



## **Our Services**

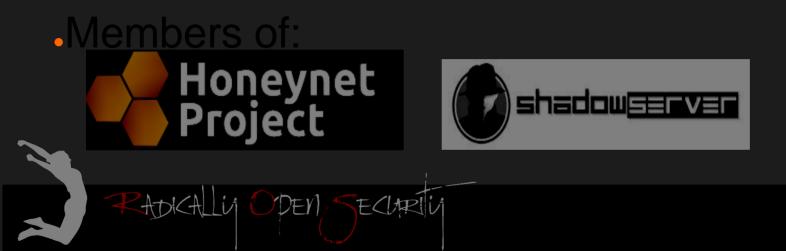


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## Our Team is...

•Founders and Core-Developers:





# **ROS Core Principles**

No sketchy sh\*t
Teach to fish
Open-source
IOCs for free
Zero days (responsible disclosure)



## Research is fun!!!

# NetAidKit Open-source DDoS analysis (OSAS) Cuckoo Malware Sandbox We're open to new ideas!!! :-)



## Wi-Fi Tor/OpenVPN Router



https://netaidkit.net



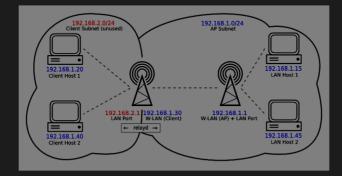
## We're not re-inventing the wheel



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**∩PENVPN**<sup>™</sup>



#### Setup

Before you can use the NetAidKit, you've got to make it your own. On this page, we will give your NetAidKit a new wireless network name and password and choose an administrator password you will use to make changes in the future.

Let's get started!

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Enter a new network name	~~~~
Enter a new network password	
To make sure only you and people you trust can connect to your NetAidKit, choose a password to protect your new wireless network	ς.
Enter a new administrator password	•
Enter a distress password	
Finish Setup	

Change Wireless Network:	×
Choose a new wireless network to connect to with the NetAidKit and enter the password if any:	
Select a wireless network:	
O PressGreen	
O Laura's Draadloos Amsterdam	
○ FreePUguest	
⊖ FreePUguest	
PressGreen	
◯ Sitecom67D060	
mjenkinsons wireless	
⊖ Matrix	
O PirateBox - Share Freely	_
Wireless Password	
Connect	
Cano	əl





#### Welcome!

The NetAidKit is currently connected to the following wireless network:

#### **PressGreen**

Change Wireless Network

#### You are connected to Tor

The Tor network can be used for extra anonymity and to circumvent censorship. Connecting to Tor will send all your traffic over the anonymous Tor network.

Disconnect from Tor

#### VPN

A Virtual Private Network creates an encrypted tunnel between the NetAidKit and a trusted network over the Internet.

AirVPN\_United-Kingdom\_UDP-443.ovpn

Connect to VPN



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#### **ISOC.nl Internet Innovatie Award 2015**

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Met de ISOC.nl Innovatie Award wil Internet Society Nederland vernieuwende en belangwekkende initiatieven rondom internet de erkenning geven die ze verdienen. Innovaties, die een stimulans betekenen voor de groei van en kennis over het internet. De prijs wordt uitgereikt aan personen, instellingen of initiatieven en is een teken van grote maatschappelijke waardering voor prestaties ter verbetering van het internet en het gebruik ervan.

Tijdens de Internetnieuwjaarsbijeenkomst 2015 in Amsterdam werd NetAidKit uitgeroepen tot winnaar van de ISOC.nl Internet Innovatie Award 2015. Bij het gebruik van internet buitenshuis zijn mensen vaak veel kwetsbaarder dan ze denken. Het nemen van tegenmaatregelen (zoals het gebruik van tunnels en dynamische MAC-adressen) is relatief complex, en op veel apparatuur zoals smartphones van Apple of Android-devices bijna onmogelijk. NetAidKit wil een simpel en goedkoop (open source/open hardware) apparaatje bieden dat als buffer functioneert en de complexieit afvangt - en zo kwetsbare gebruikers zoals journalisten en mensenrechtenactivisten afschermt en beschermt.



Uit handen van juryvoorzitter Jan Andries Wolthuis ontvingen Menso Heus (Internet Protection Lab/Free Press Unlimited) en Melanie Rieback (Radically Open Security) de prijs.

# Open-Source DDoS Analysis System (OSAS)



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Nationale Beheersorganisatie Internet Providers

## Cuckoo Malware Sandbox

			100000000000000000000000000000000000000	2017/201-013			General Information	Arrest total	Dropped Files	Network Analysis	Behavior Anal
eneral Informatio			This is a report	generated by <u>Cu</u>	<u>ckoo Sandbox</u> , a	n open source a	utomated malware	analysis system.			
Cuckoo Version: Inalysis Started: Inalysis Ended: Duration: Tile name; Tile size: Tile size: Tile type: RC32:	v0.3.2 2012-03-02 22:42:57 2012-03-02 22:47:34 276 seconds sample4.exe 392195 bytes PE32 executable for M 41E0E118 a23337df63737e6567db6		() Intel 80386 32	-bit							
HA1: HA256: HA512: sdeep:	a2337/d1637376267/d06 6015394409503921472e5 af18e7e9b5464e993e38e 6c5db48482e49d9d361d7 None None matched	3bc25364ab4cc3 e9297bd97189aa	ac71f35038cc62655		5d50x594d4d53fd;	ffleff50a8lda9e	a8be89c22208b7a61	13b3b2f96ffe597			
SHA1: SHA256: SHA512: Sideep: PEID Signatures:	60f394b4b95d921417ee5 af18e7e9b5464e993e38e 6c5db48482e49d9d361d7 None	3bc25364ab4cc3 e9297bd97189aa	ac71f35038cc62655		5d50x594d4d53fd;	ffleff50e81de9e	a8be89c22208b7a61	13b3b2f96ffe597			
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# How Can We Help?

- Security geeks:
- -Work for us!
- Students
- -Student projects available!!!
- •Companies:
- -Buy from us!
- Idealists:
- -Volunteer for us!



## **Questions?**

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