

Simon Clifford

The Digital Blue line Insight into the Cyber Policing Landscape

The Police ICT Company

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CYBER CRIME

CONTEXT

Current Landscape

Future Considerations

RESPONSE

NCSC / Cyber Essentials

Cyber Resilience Centres

Cyber Specials / Volunteers & Beyond

Evolution of Action Fraud

Cyber Alarm



Pandora's box

A process that once begun generates many complicated problems

STOCHASTIC RISK

Dictionary

stochastic

stochastic

/stə'kastɪk/

adjective *technical*
adjective: **stochastic**

having a random probability distribution or pattern that may be analysed statistically but may not be predicted precisely.

Origin



mid 17th century: from Greek *stokhastikos*, from *stokhazesthai* 'aim at, guess', from *stokhos* 'aim'.

Translate stochastic to

Use over time for: stochastic



An iceberg floating in the ocean. The tip of the iceberg is visible above the water surface, while the much larger, submerged part is visible below. The sky is blue with light clouds, and the water is a deep blue. The text is overlaid on the image in white, bold font.

Cyber Crime

4.1 Billion records stolen in 2019

54% increase on 2018

**Over 15 Billion records stolen in
the past 7 years**

HEALTH INSURANCE \$20

FULL IDENTITY \$1200+

DATE OF BIRTH \$11

SOCIAL SECURITY NUMBER \$30

DATA BLACK MARKET
SOURCE: DELL SECUREWORKS

Hackers steal £650 million in world's biggest bank raid

Investigators uncover what is thought to be the biggest ever cybercrime with more than £650 million going missing from banks around the world



Uber

BRITISH AIRWAYS

Manage My Booking

Flights and holidays

£183,390,000
GDRP Fine

Customer data theft



have stolen £650 million from banks Photo: Alamy

MASSIVE DATA BREACH HITS 143 MILLION AMERICANS

EQUIFAX

By Martin Evans, Crime Correspondent

4:09PM GMT 15 Feb 2015

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British banks are thought to have lost tens of millions of pounds after a gang of Russian based hackers spent the last two years orchestrating the largest cybercrime ever uncovered.

As much as £650 million is thought to have gone missing after the gang used computer viruses to infect networks in more than 100 financial institutions worldwide.

Crime

- News » UK News »
- Banks and Finance »
- Technology »
- Technology News »

In Crime



167 Million

Linked



Hacked accounts on ~~SALE!~~

Free

QUANTUM COMPUTING

Impact of Security & Cyber



53 Qbits – 200 seconds

IBM's Summit, the world's most powerful supercomputer, 10,000 years.

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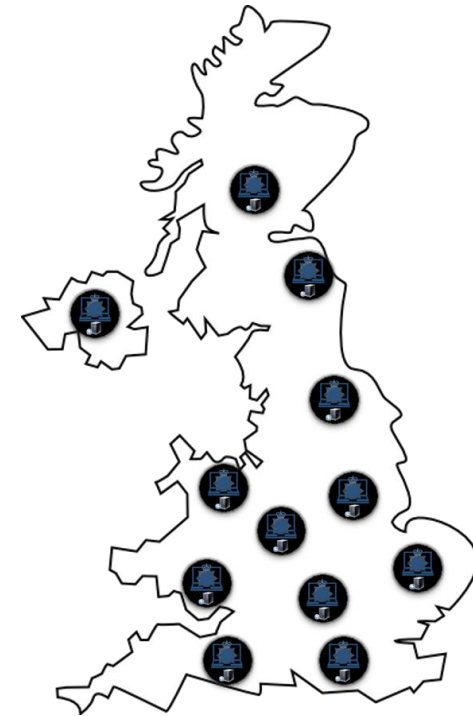
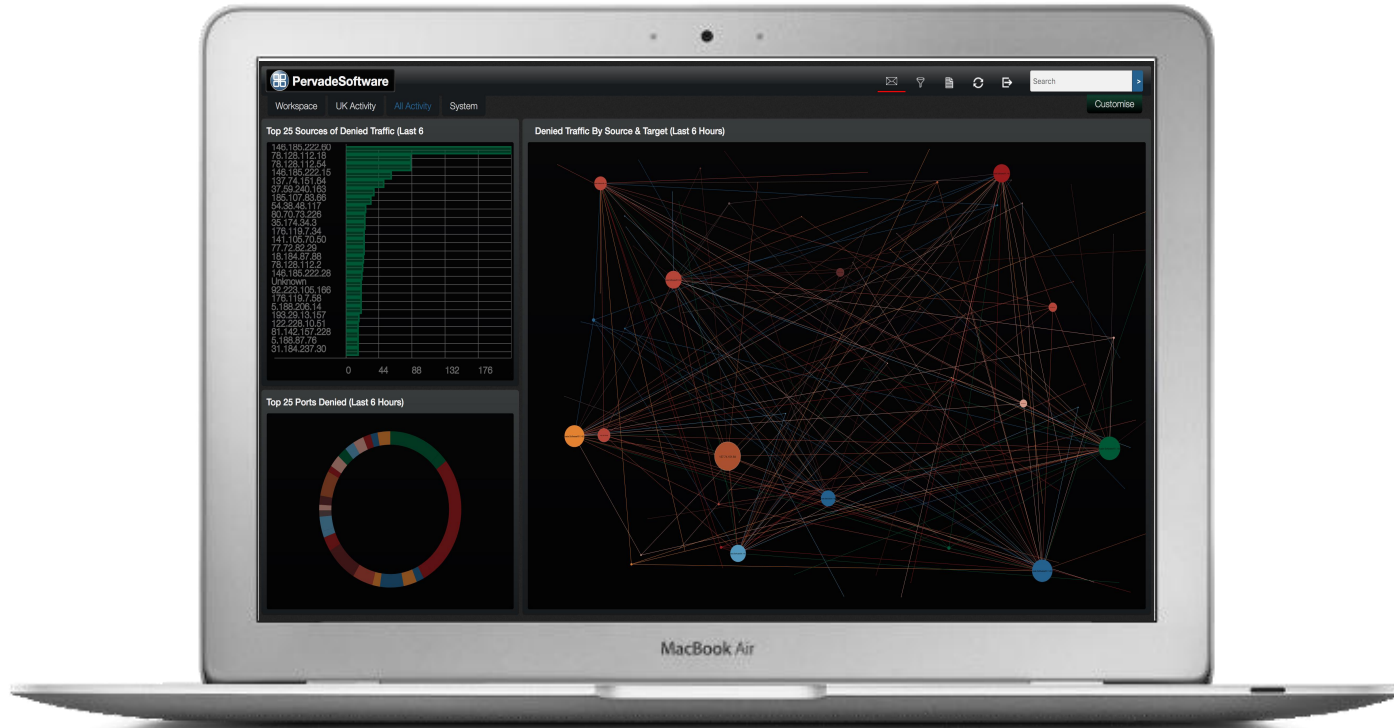
Cyber Specials / Volunteers & Beyond

Evolution of Action Fraud

Cyber Alarm



POLICE CYBER ALARM





WHY IS CYBER ALARM NEEDED

- * Reporting cyber crime, is difficult and inconsistent
- * Attempted Cyber Crime is not reported
- * Funding follows reporting
- * Cost of cyber investigation (Ensuring value for money)
- * Efficient & effective use of finite specialist resource
- * The Voice of security/cyber leads lack management support
- * Dynamic Threat landscape
- * Evidence prioritisation for new capabilities

THE GENESIS OF CYBER ALARM

- * User need
- * Stakeholder engagement
- * Identify emerging threat landscape
- * Minimum viable product proof of concept
- * Pilot introduction
- * Multi-level stakeholder engagement
- * Delivery at Pace
- * Independent validation

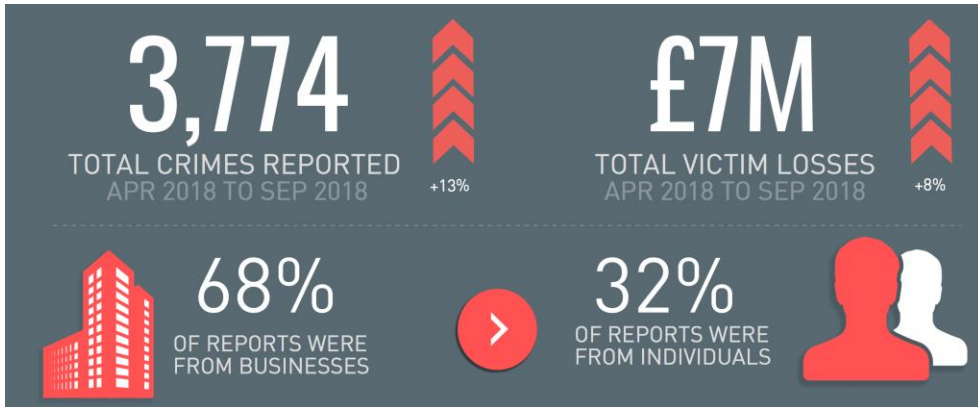
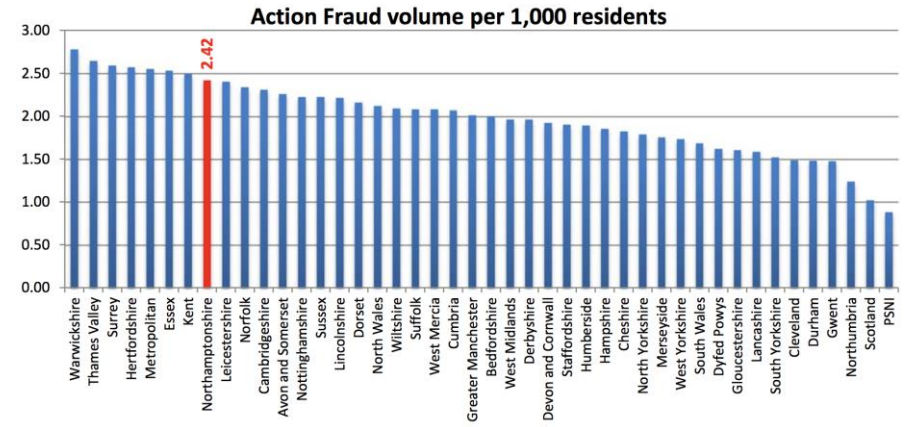




WHY NORTHAMPTONSHIRE

Crimes

Northants has an abnormally high rate of reported cyber and fraud crime, despite being the 34th largest force it is 9th on the ranking of reported crimes per 1,000 residents with over £7m in estimated victim loss.

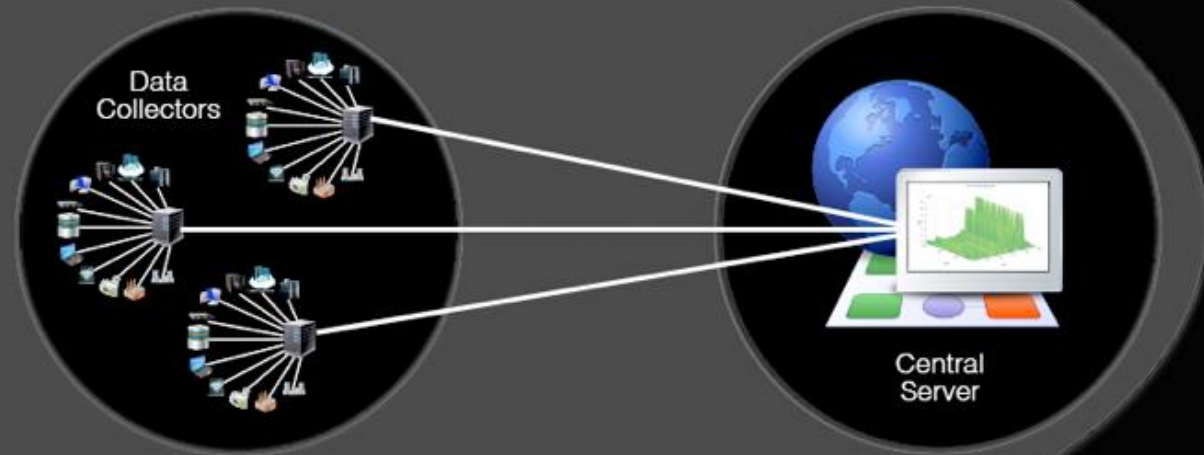


People

Northamptonshire Police has both Chief Constable and Police Fire & Crime Commissioner who want to draw on the benefits of digital capability and leadership of CC Peter Goodman around Cyber Capability



Cyber Alarm



Find local attacks on local victims

A unique award-winning monitoring system

Cyber Alarm is built on the Pervade OpView™ Platform which leverages an innovative new database architecture to provide unique capabilities:-

- ✓ Successfully gather data with no VPN, NAT rules or onsite engineering work
- ✓ Automatically detect and geo-locate the source IP address of attacks (where possible)
- ✓ Forces are alerted if attackers are in their area of jurisdiction
- ✓ Forensic evidence of the attack can be analysed and relied on in court
- ✓ Trend patterns of attacks can be communicated back to data contributors
- ✓ Data analytics can be used to inform national policy and statistics

This solution supports all strands of the UK Police Strategy:-

- ✓ PREPARE – by encouraging organisations to share their data
- ✓ PURSUE – attackers that are identifiable & reachable
- ✓ PROTECT – future victims through better intelligence and more arrests
- ✓ PREVENT – by making local businesses “higher risk” targets

Cyber Alarm helps local Police to fight local cyber crime



CYBER ALARM ROLLOUT

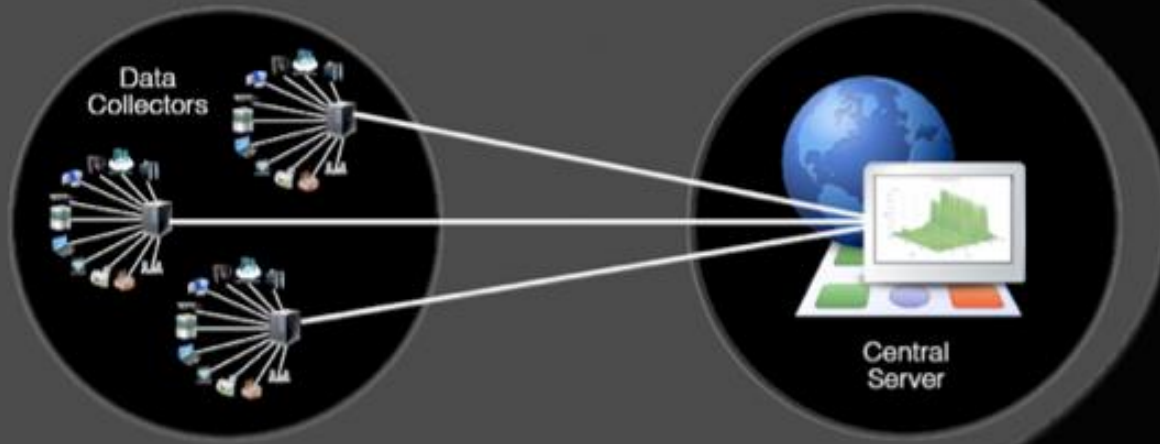


Police Cyber Alarm pilot capability planned to scale out in 2020.

Currently Cyber Alarm is a regional programme deployed in the East Midlands region.

Discussions with Nation Cyber Security Centre regarding links to Active Cyber Defense.

Cyber Alarm



Find local attacks on local victims

Currently Cyber Alarm is receiving information from:-

- Councils
- Schools
- Mental Health Clinics
- SME Tech Companies with valuable IP
- IT Managed Services Company
- Formula 1 Race Team

Great example of business and community out reach.

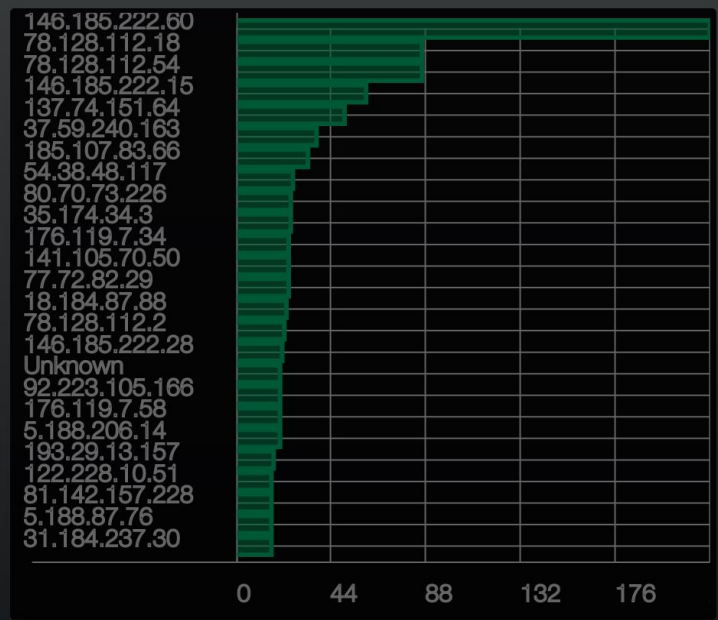
Work is underway to increase participation to thousands of contributors in 2019.

With regional and local coordination and cooperation.

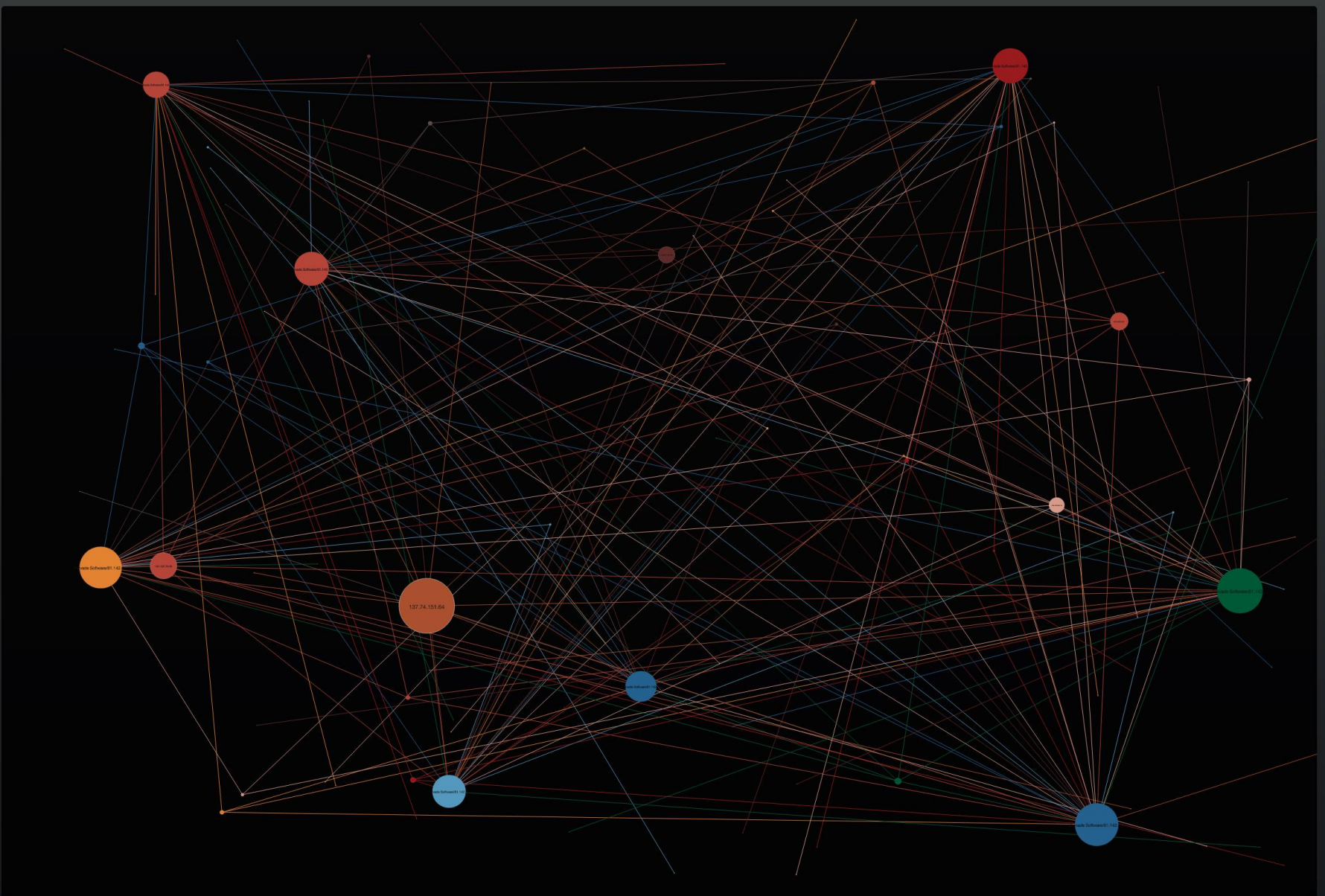
Details of current solution at: Cyberalarm.org.uk

Not Cyberalarm.org

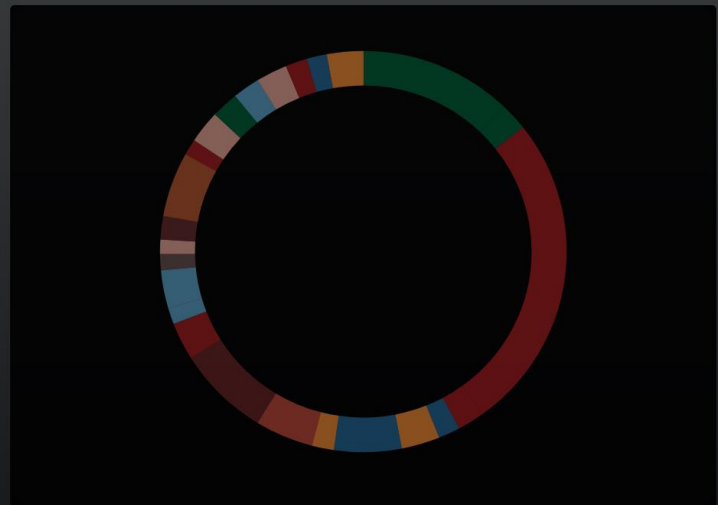
Top 25 Sources of Denied Traffic (Last 6)



Denied Traffic By Source & Target (Last 6 Hours)



Top 25 Ports Denied (Last 6 Hours)



Thank you

Questions

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