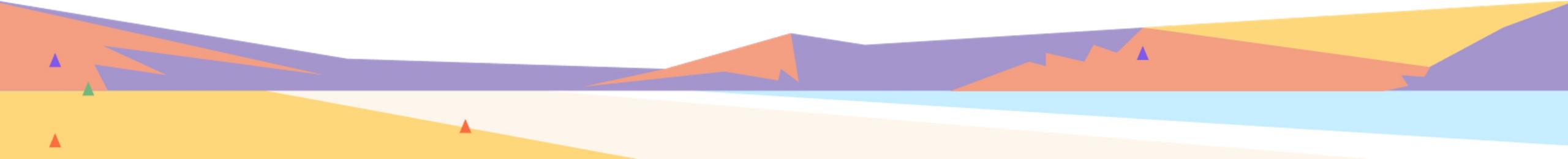


# The Need For Data Security

Mike Andrews

Open Raven







## Data breach at BigBasket hits 20 mn users' privacy

Leak contains names, email IDs, password hashes, pin, contact numbers, addresses

TECH HACKERS

## Big Data Breaches Found at Major Email Services

by Reuters

MAY 5, 2016, 8:00 PM EDT



The Telegraph

## Guardian staff forced to work out of former brewery after ransomware attack

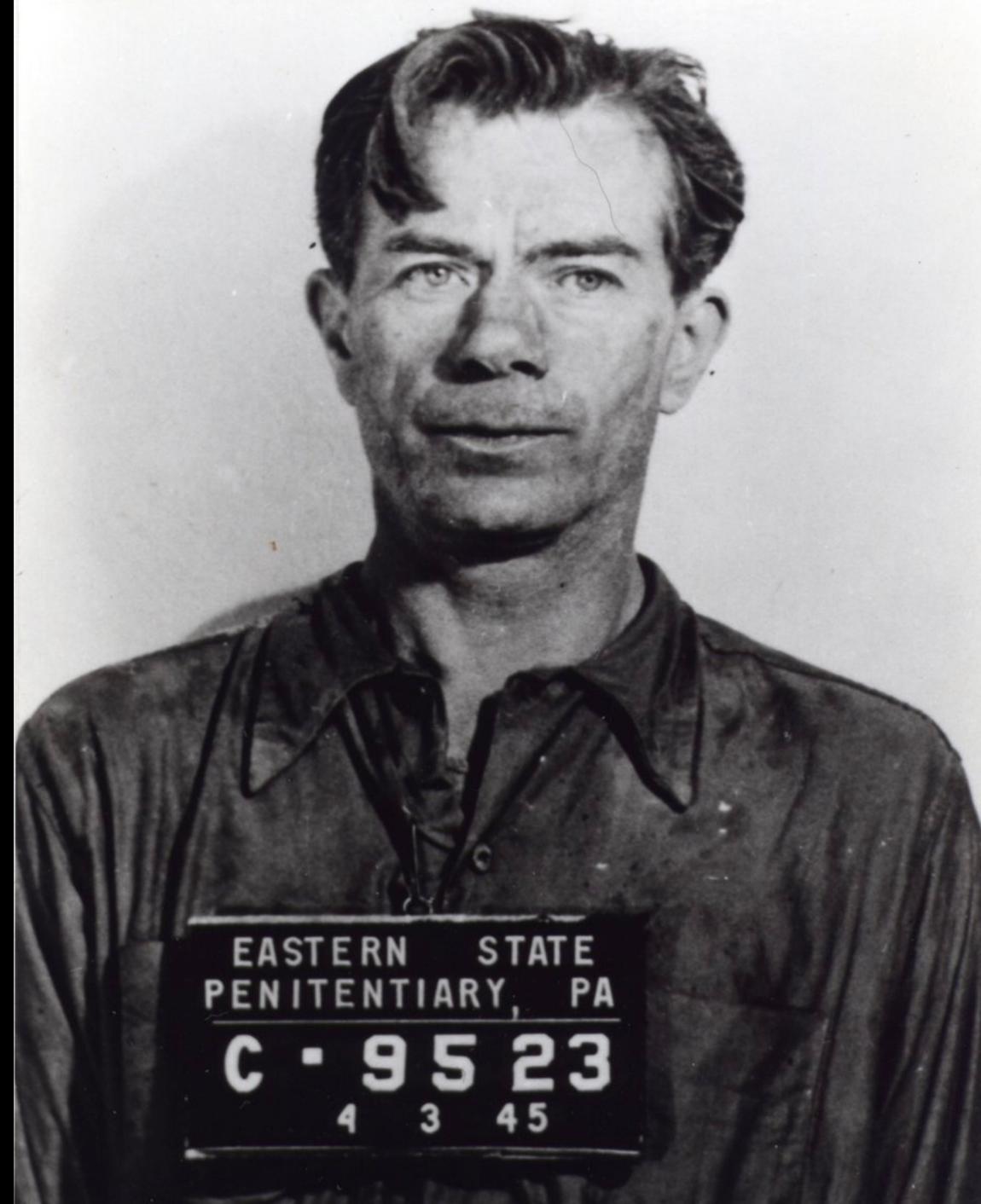
King's Cross headquarters remains shuttered following cyber attack in December

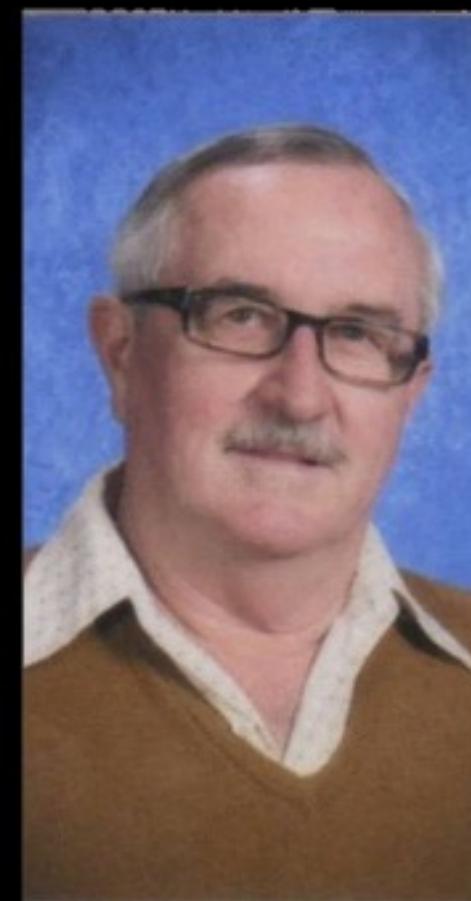
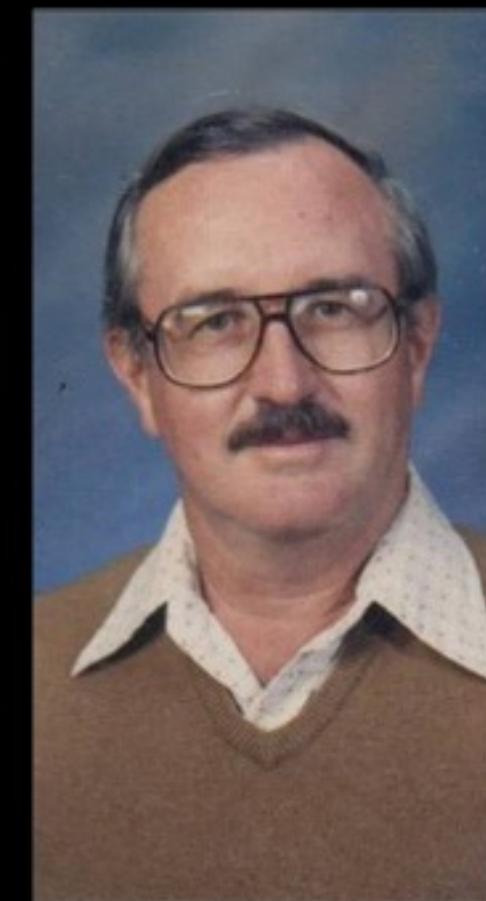
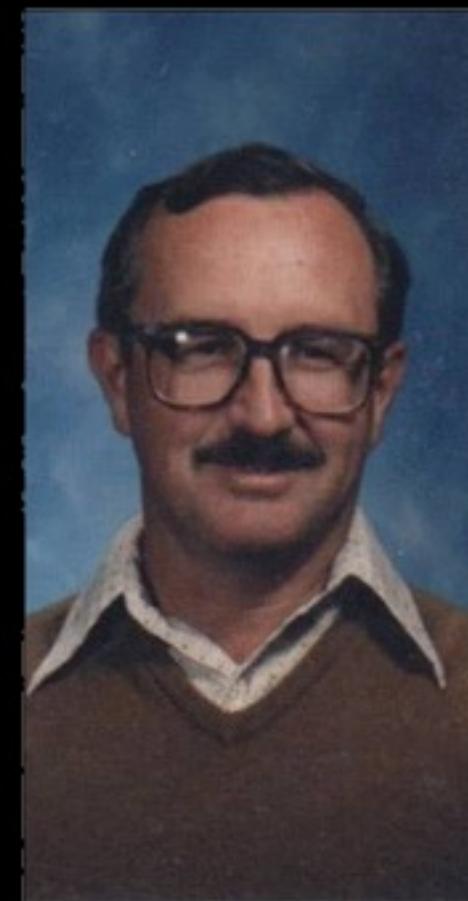
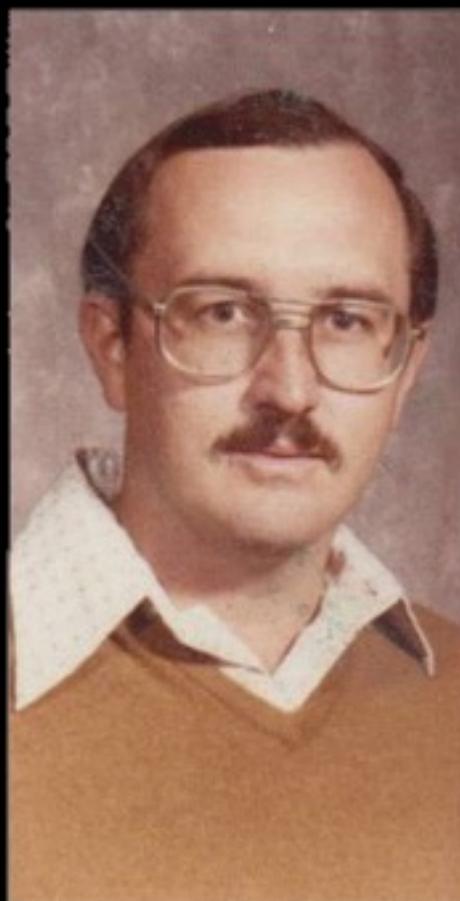
## Medibank confirms hacker had access to data of all 3.9 million customers

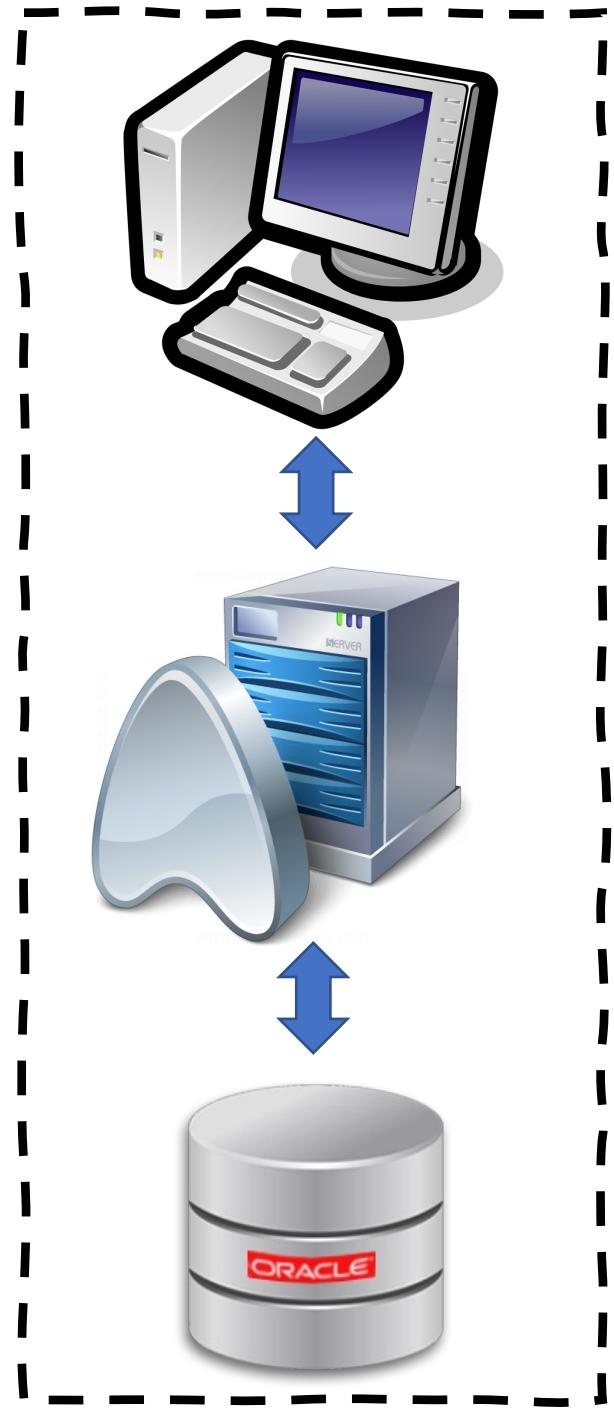
Data breach, which exposed all Medibank, ahm and international student data, could cost health insurer \$35m

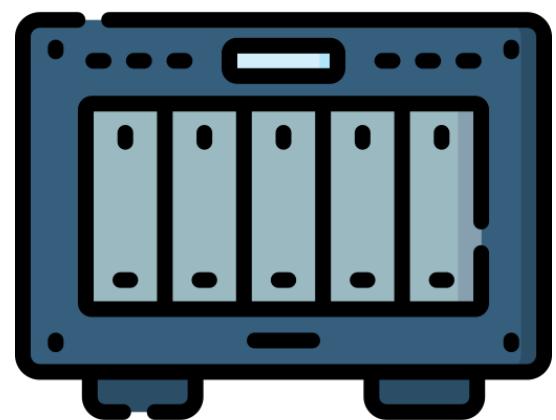
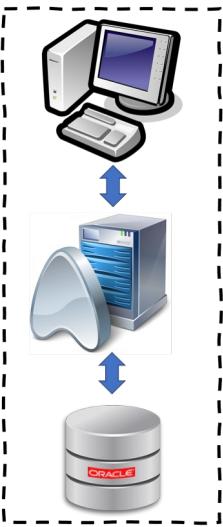
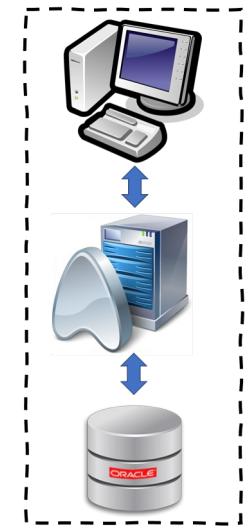
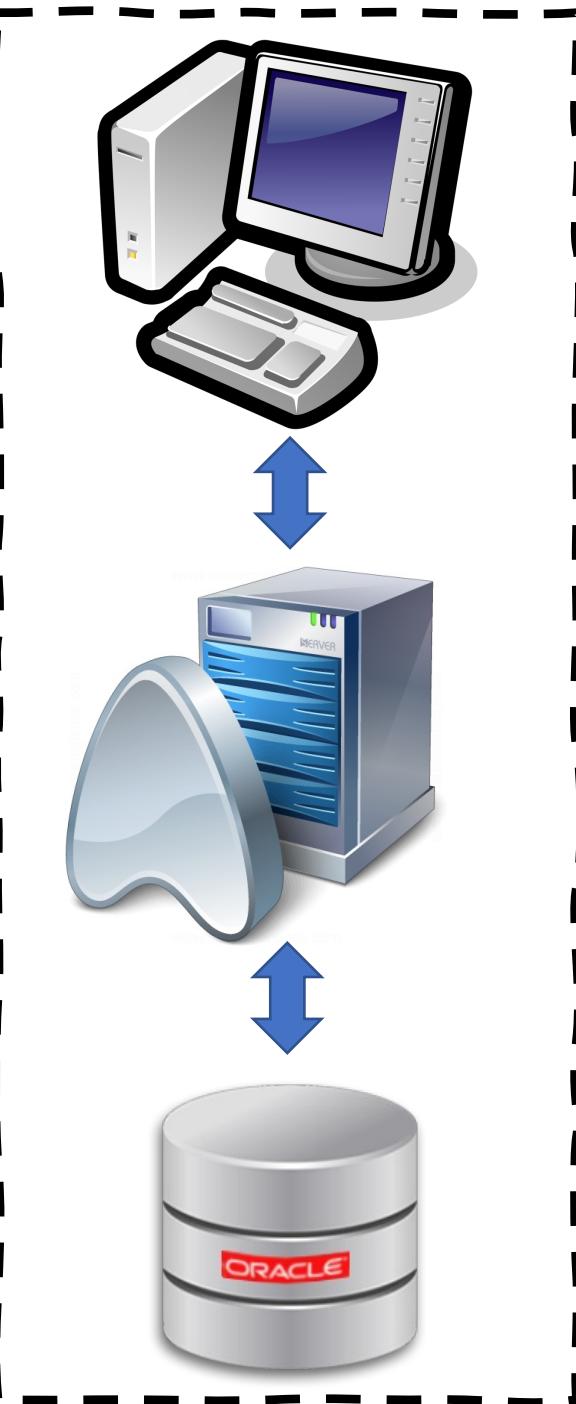
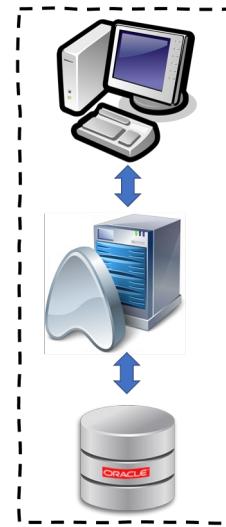
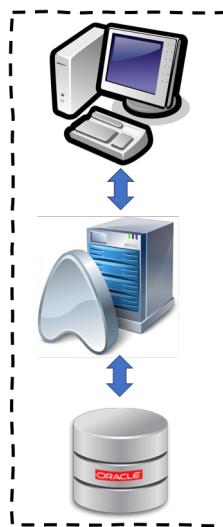
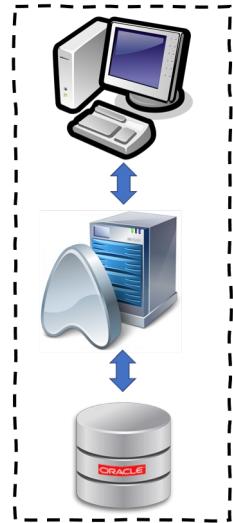
REUTERS

## Australian Clinical Labs pathology unit hit by data breach





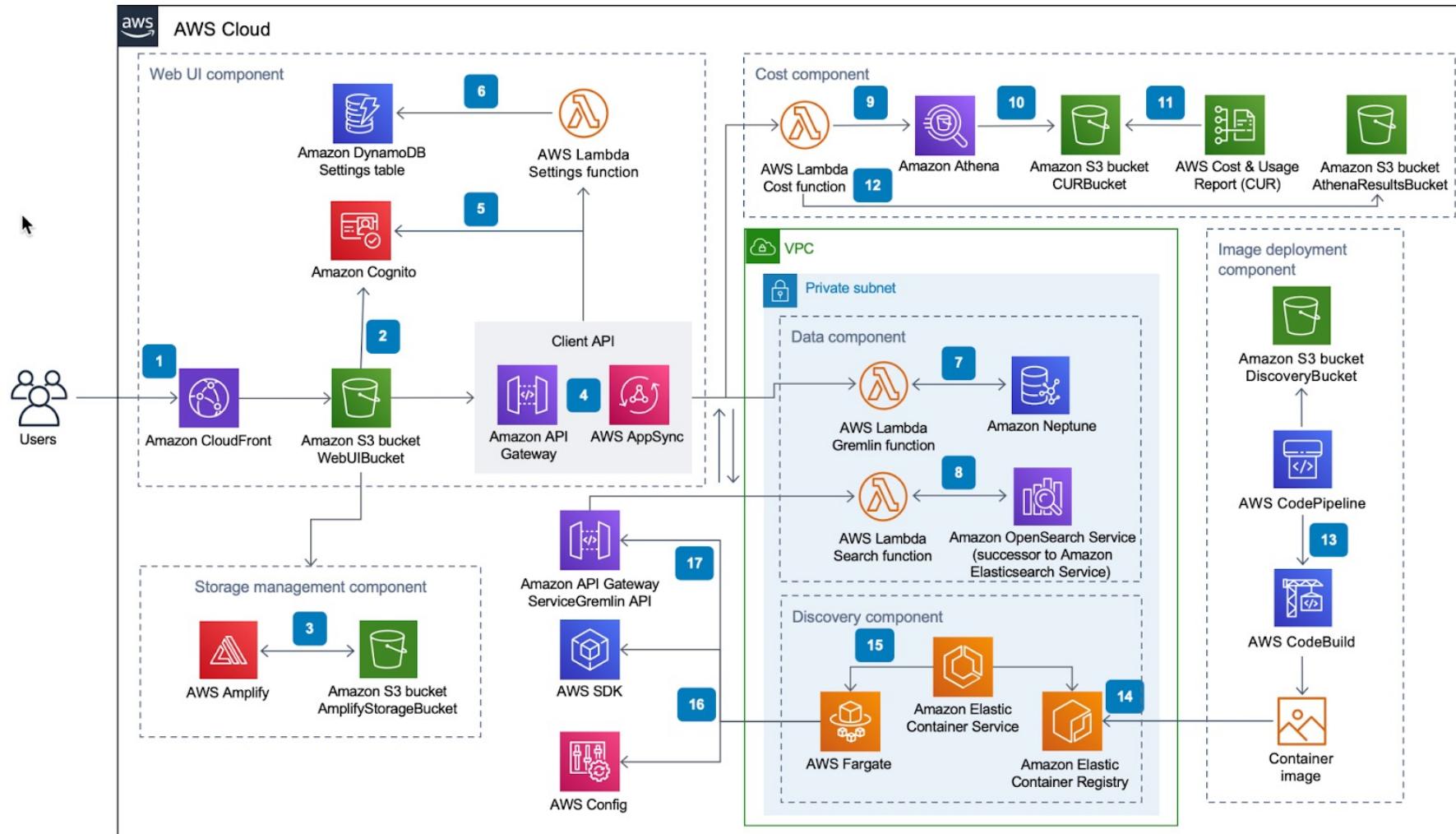








Tehc





**SHUT UP AND TAKE MY MONEY**







## Our Footprint

Hundreds of PB across ~1000 accounts

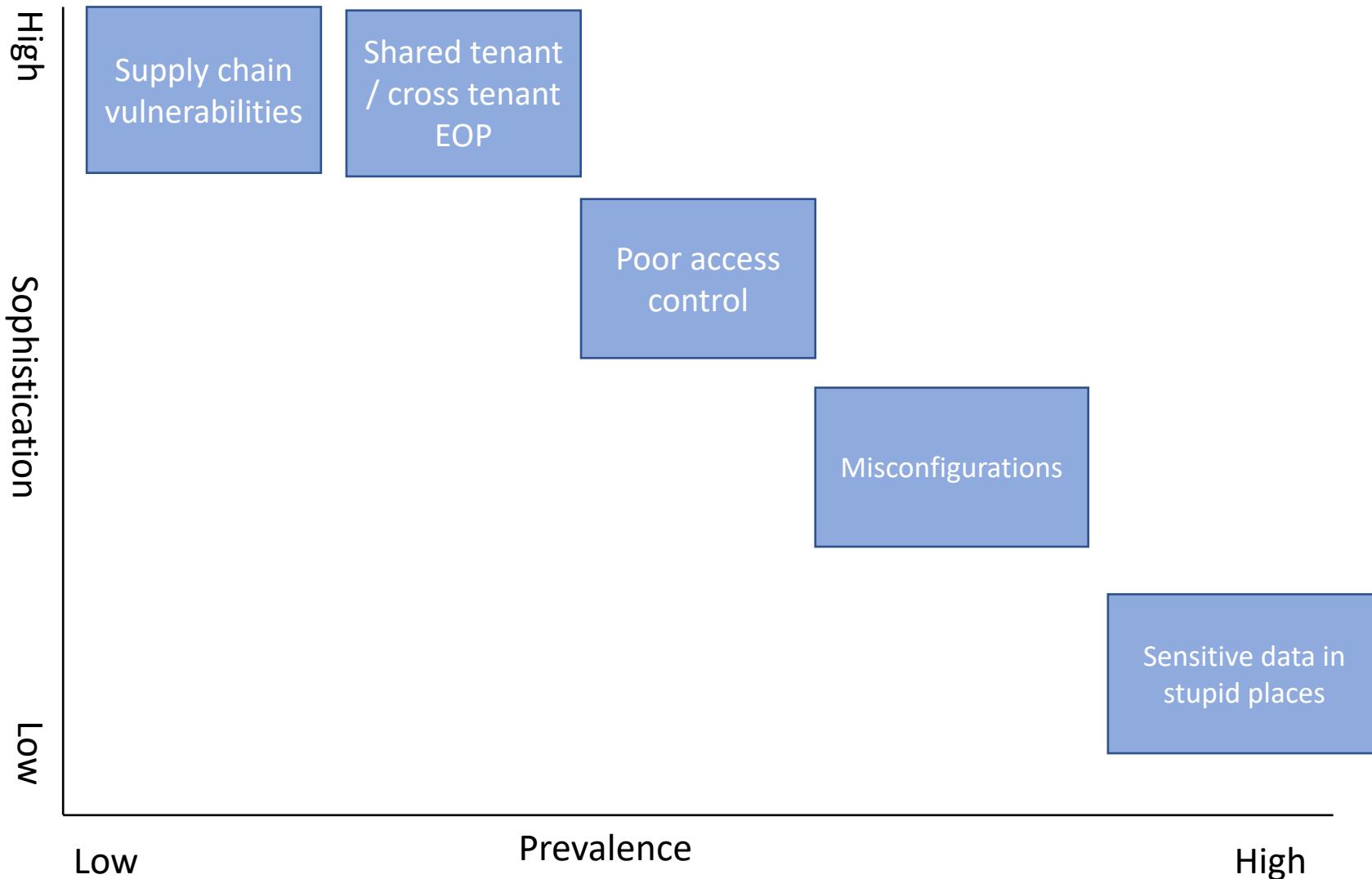
- ✖ S3 = 78.33%
- EBS = 17.29%
- RDS ≈ 1.63%
- DynamoDB ≈ 0.88%
- ✖ FSx = 0.16%
- DocumentDB = 0.14%
- EFS ≈ 0.12%
- ✖ Redshift ≈ 0.06%

S3  
78.33%

EBS  
17.29%



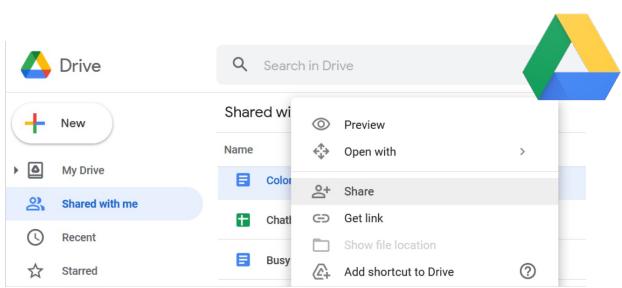
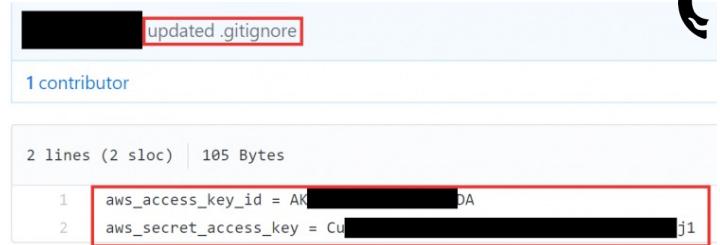
# How companies are getting hacked



0-days

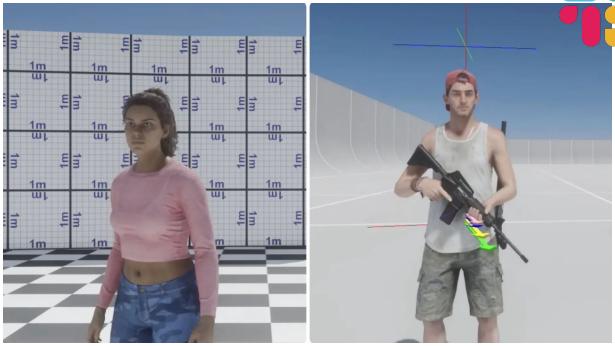
basic  
misconfigurations

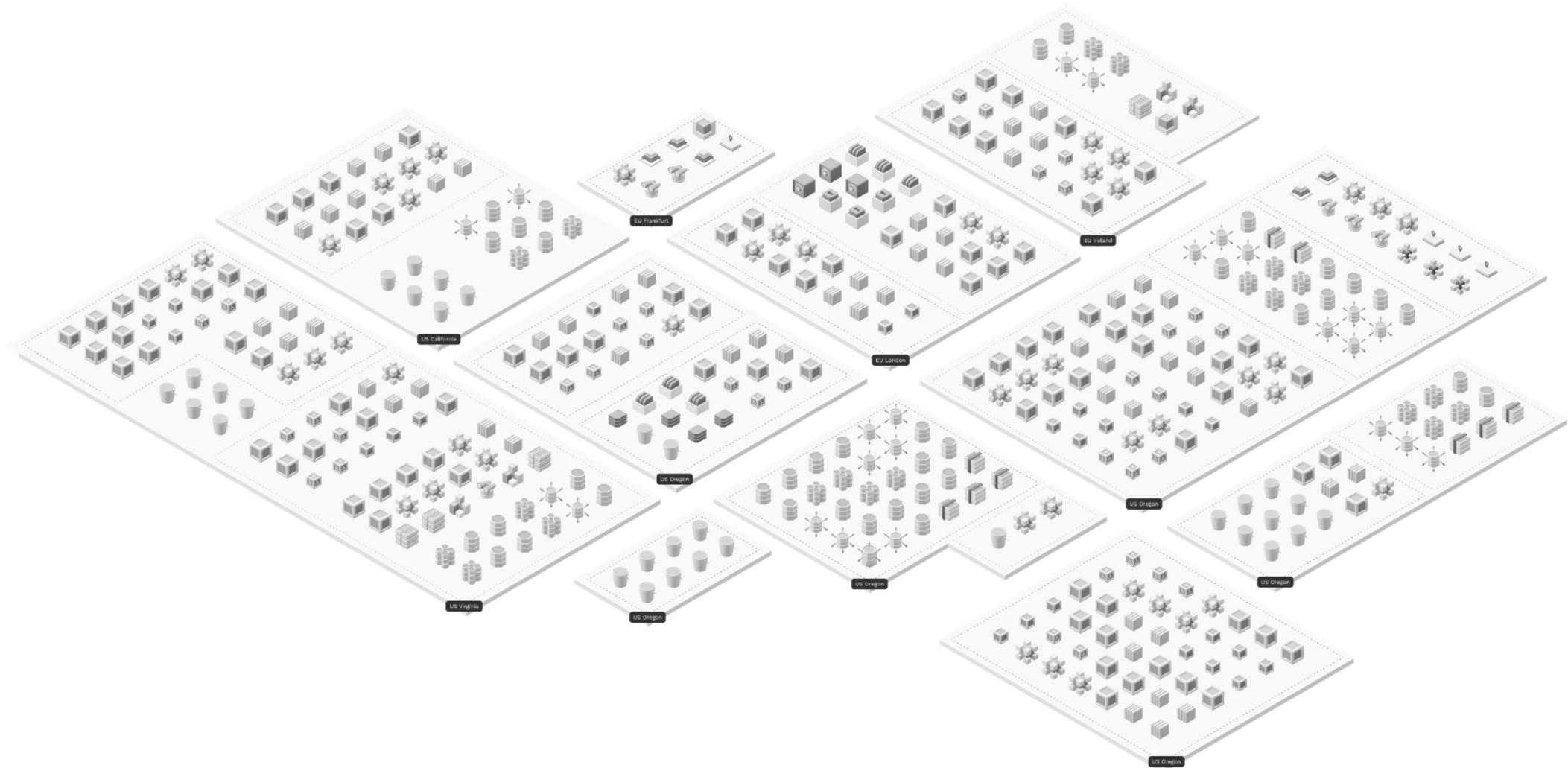
# Moar data in crappy places

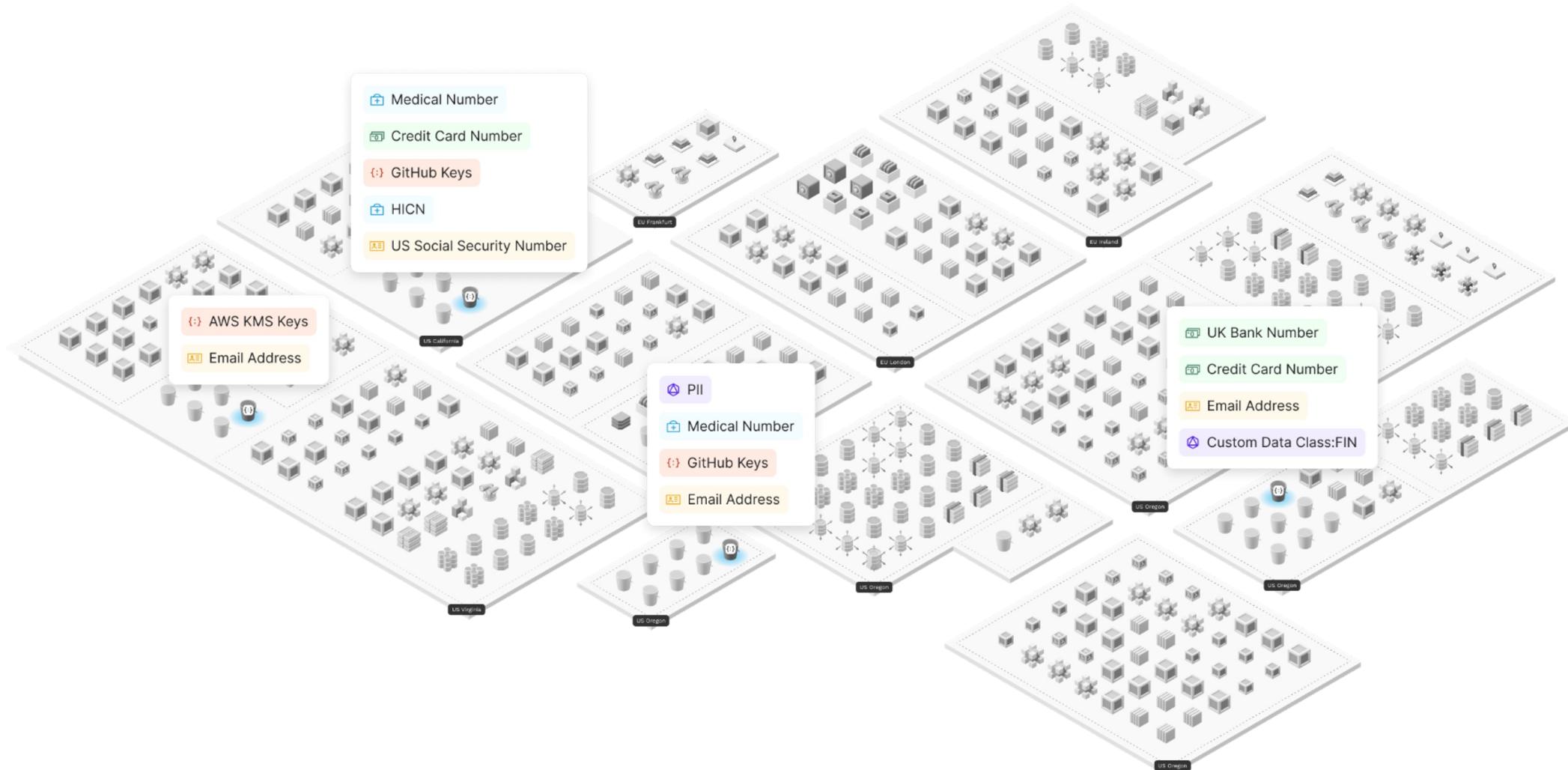


```
{
  "_id": "AW5jx7H3dHWXWnpzmnQ2",
  "_index": "nb_theme_address_case_dwd-total",
  "_score": null,
  "_source": {
    "ADDR_DETL": {
      "CASE": {
        "BRIEF_CASE": "May 3, 2018",
        "CITY": "Shanghai"
      }
    }
  }
}
```

The police of our bureau found that [REDACTED] used VPN software in [REDACTED] Shanghai to go over the wall to the foreign website "Twitter" and forward reactionary remarks involving the party, politics, and leaders", "Suspected of disturbing social and public order", "The police summoned the suspect [REDACTED] to the public security organ with his work permit.", "CASE\_TYPE": null, "CASE\_STATE": null, "ORGANIZER\_POLICE\_TYPE": null, "ORGANIZER": null, "ORGANIZER\_NAME": null, "ORGANIZER\_AREA": null, "TIME": {"ACCEPTANCE\_TIME": null, "REGISTER\_TIME": null}, "CLOSING\_TIME": null, "PUNISH\_TIME": null, "CASE\_TIME": null, "REPORT\_TIME": "2018-05-04T08:08", "ACCEPTANCE\_UNIT\_JSON": {"ACCEPTANCE\_UNIT\_NUMBER": null, "ACCEPTANCE\_UNIT\_NAME": null}, "TABLE\_SOURCE": "shga\_dwd.base\_xwsba\_case\_gg\_jqxx\_dft", "CASE\_ADDRESS": null, "ADDR\_TYPE": "02", "BLOCK\_L4": "[REDACTED]", "BUILDING\_L9": "[REDACTED]", "CASE\_NUMBER": "[REDACTED]", "CITY\_L2": "Shanghai", "CONFIDENCE": "5", "COUNTY\_L3": "[REDACTED]", "GEOHASH7": "[REDACTED]", "GEOHASH8": "[REDACTED]", "GEOHASH9": "[REDACTED]", "LATITUDE": "[REDACTED]", "LOC\_SOURCE": "0", "LONGITUDE": "[REDACTED]", "MCS\_ID": "[REDACTED]", "NONL6": "[REDACTED]", "PROVINCE\_L1": "Shanghai", "ROAD\_L5": "[REDACTED]", "ROOM\_L12": "[REDACTED]", "STD\_ADDRESS": "[REDACTED] Shanghai, Shanghai"}, "type": "a", "sort": [27689]
}



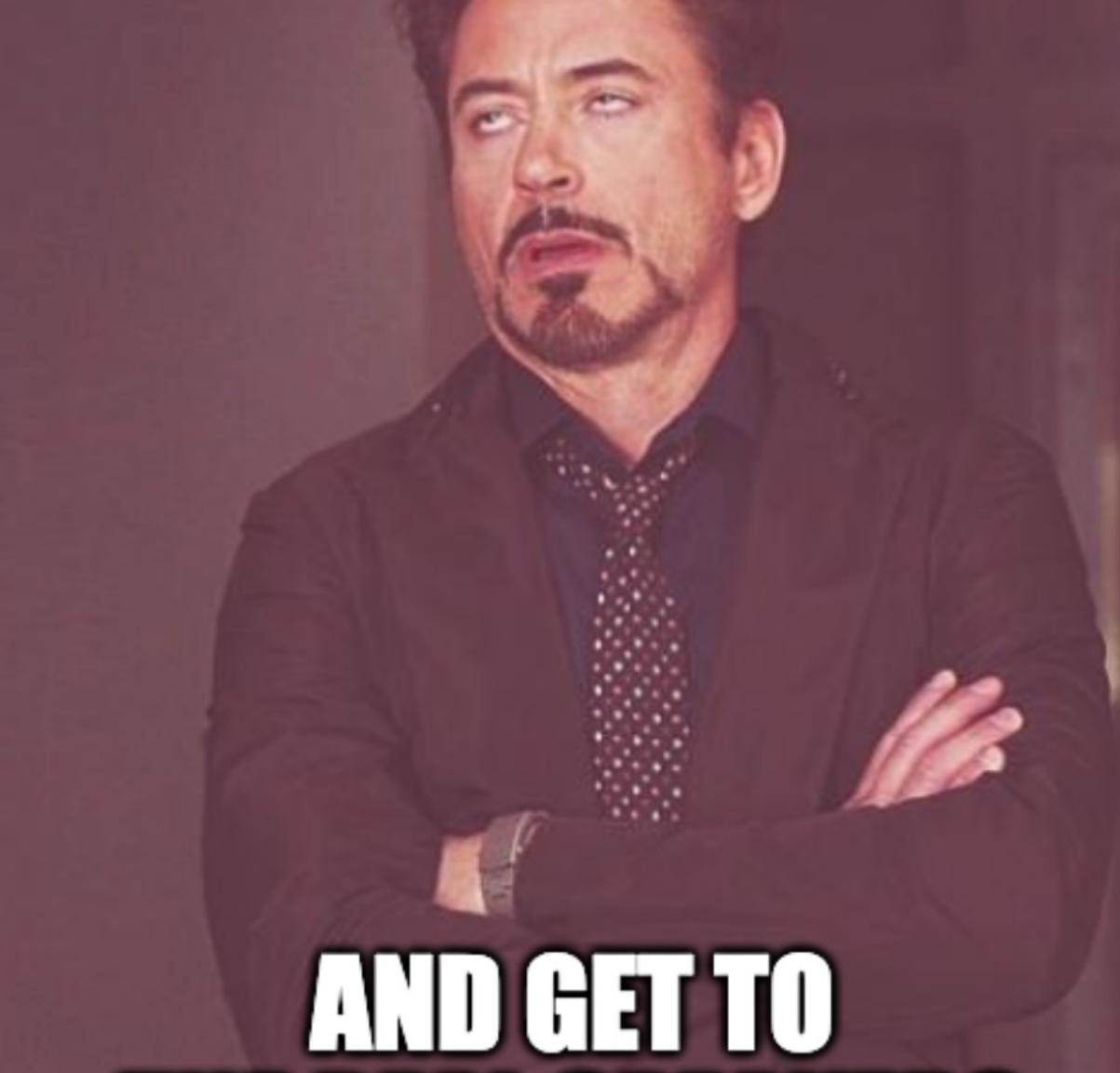








**PLEASE STOP TALKING**



**AND GET TO  
THE REAL SPEAKERS**



**ALL  
VULNERABILITIES**

**US**

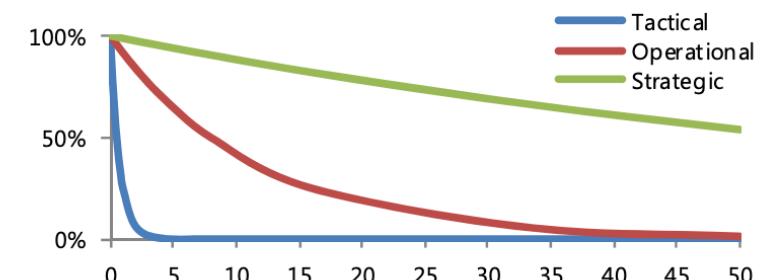
**DATA**

**IBM estimates that between 0.5% and 2% of an organisation's data is 'critical' - in other words, it has a significant financial value to the company. This can account for up to 70% of brand or market value.**

## **Study: less than 1% of the world's data is analysed, over 80% is unprotected**

**Digital Universe study finds that 0.5% of global data is analysed, and just half of data requiring security measures is protected**

### **THE HALF LIFE OF DATA**



#### **TACTICAL DECISION MAKERS**

In its analysis of tactical decision makers, Nucleus found that the average half life of data is 30 minutes or less. In actuality, the half life of tactical decision makers had a high standard deviation, with some companies self-reporting a half life of as little as six seconds. On average, only 30 percent of remaining data has value after that point for predictive analytics and future planning.

#### **OPERATIONAL DECISION MAKERS**

For operational decision makers, Nucleus found the half life of data averaged 8 hours, with a range of one hour to 48 hours. On average, 30 to 70 percent of remaining data has value after that point for predictive analytics and future planning.

#### **STRATEGIC DECISION MAKERS**

Companies that Nucleus identified as strategic in tempo made more measured decisions that tended to have longer time horizons. For these companies, the value of data tapered off at much slower rate, showing an average half life of 56 hours.





	DISCOUNTS	FBE	A/R	A/R MTD DEPOSIT	MTD FEES
	\$ 102.00	\$ 102.00	\$ -	\$ -	\$ -
	\$ 11,371.75	\$ 11,371.75	\$ -	\$ -	\$ -
	\$ 6,818.00	\$ 6,818.00	\$ 8,291.75	\$ -	\$ -
	\$ 2,558.07	\$ 2,558.07	\$ 20,849.82	\$ -	\$ -
	\$ 4,691.49	\$ 4,691.49	\$ 25,541.31	\$ -	\$ -
	\$ 5,432.52	\$ 5,432.52	\$ 30,973.83	\$ -	\$ -
	\$ 85,756.29	\$ 85,756.29	\$ 116,730.12	\$ -	\$ -
	\$ 8,550.97	\$ 8,550.97	\$ 125,281.09	\$ -	\$ -
	\$ 62,109.25	\$ 62,109.25	\$ 187,390.34	\$ -	\$ -
541.02	\$ 54,102.00	\$ 54,102.00	\$ 241,492.34	\$ 541.02	\$ 541.02
	\$ 689.98	\$ 689.98	\$ 242,182.32	\$ 541.02	\$ 541.02
	\$ 1,478.32	\$ 1,478.32	\$ 253,660.64	\$ 541.02	\$ 541.02
	\$ 556.12	\$ 556.12	\$ 254,216.76	\$ 541.02	\$ 541.02



# Thanks

Mike Andrews

mike@openraven.com

mike@mikeandrews.com

@ma

