How to get a Job in the Cloud/Cyber?

Practical tools, advices and resource to get a job in cybersecurity (Cloud & DevSecOps) with advices from a panel of experts

Date: **27/5/2020 - 1PM – 2PM UK Time**

Zoom : https://zoom.us/j/92876054466
Meeting ID: 92876054466
Password: **** - Sent via Eventbrite
Direct Call (UK): +441314601196
Questions: in Zoom Chat

Francesco Cipollone
CSA UK Chair
Director NSC42

Stephen Owen
Interim CISO

Ben Craig
Director of Comms CSA UK

Owanate Bestman
Director Bestman Solutions

Recruiter Infosec People

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CSA UK Webinar:
Cloud & Cyber
Training and Certification

27 MAY 2020 – Zoom
https://zoom.us/j/92876054466

http://www.agmcsauk.org

http://www.cloudsecurityalliance.org.uk

@ csaukchapter

https://www.linkedin.com/groups/3745837/

UK Chapter

Agenda

Agenda

"To take the best of the Global CSA guidance and make it relevant and practical for a UK audience, encouraging the growth of local cloud security talent."

- **Chapter intro - Francesco Cipollone (5 min)**

- **Talk/Panel – Francesco/Stephen/Ben/Owanate (30-40min)**

- **Closing – Francesco Cipollone (5 min)**

UK Chapter

"To take the best of the Global CSA guidance and make it relevant and practical for a UK audience, encouraging the growth of local cloud security talent."

- **http://www.cloudsecurityalliance.org.uk/**
- **Research**
  - **1-pagers, blog posts, projects**
- **Events**
  - **Conference presentations, CCSK Training**
  - **AGMs, featuring world-leading experts**
- **Academic Outreach**
  - **Undergrad and Postgrad Research projects**
  - **Student mentoring**

Volunteer!

"To take the best of the Global CSA guidance and make it relevant and practical for a UK audience, encouraging the growth of local cloud security talent."

- **Mentoring**
- **Research – we currently open for proposal**
- **Events – we currently have September event**
- **Networking**

Contact us!

- **Twitter: @csaukchapter**
- **LinkedIn: https://www.linkedin.com/groups/3745837/**

CSA AGM:
Virtual (streaming)

22 SEPT 2020 – Zoom
http://www.agmcsauk.org

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UK Chapter Board

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Board Member

Lewis Troke
Director Research

Dr Runli Guo
Board Member

Francesco Cipollone
Chair & Events

Christopher J Hodson
Co Director Research

Dimitri Yates
Board Member

Paul Simmonds
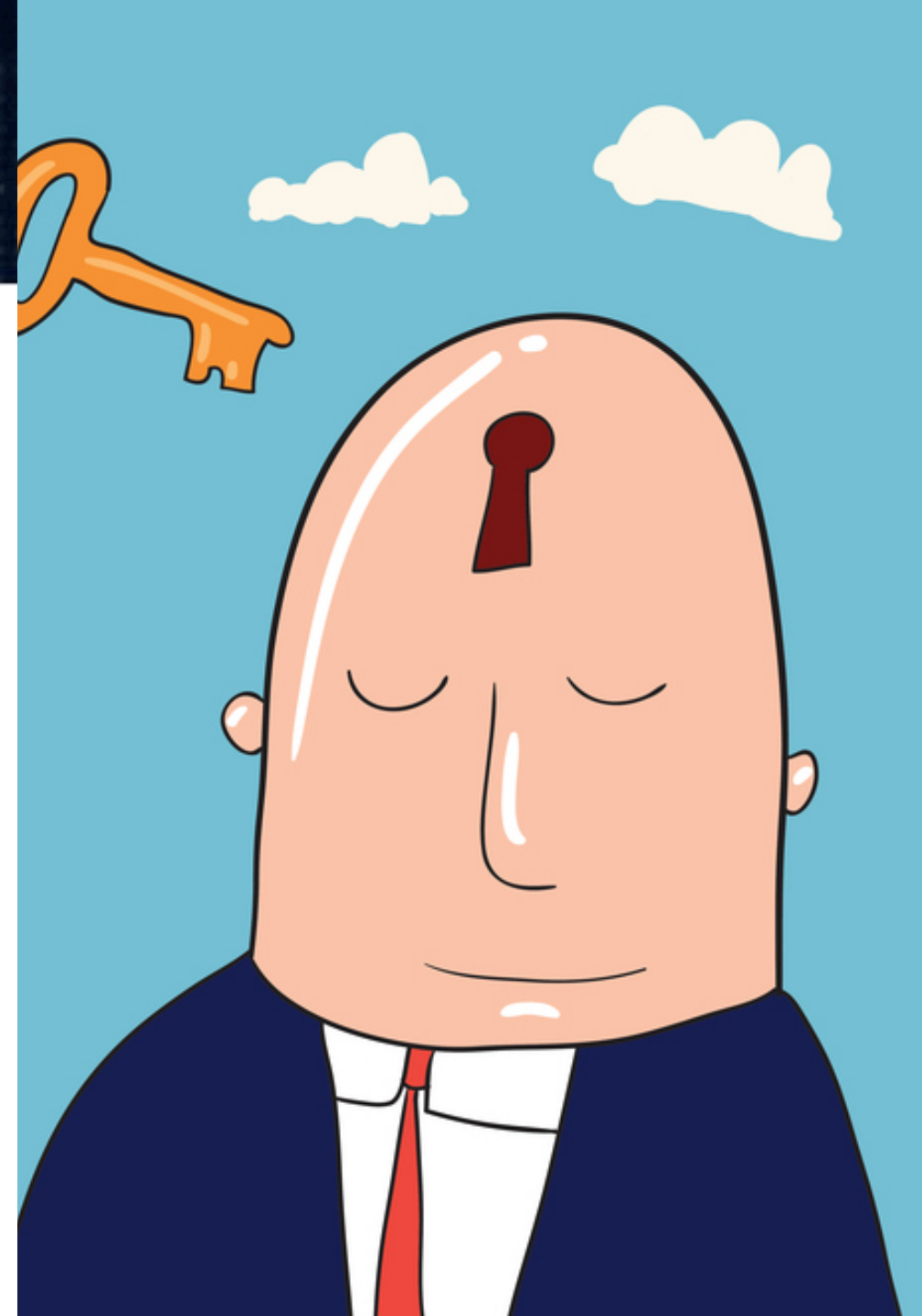Co-Chair

Ben Craig
Communication
Director

Vladimir Jirasek
Director of Events

DEVSECOPS & Cloud Security Career Paths

Unlike other technology professions, Cloud careers are a continual knowledge quest. Security elevates it to the next level.

If you don't like learning and not passionate about the subject, Move on, nothing to see here!

Meet The Panel

Francesco Cipollone

CSA UK Chair

Director NSC42

Stephen Owne

CSA UK Vice Research Director

Director CrystalThinking

Ben Craig

Director of Comms CSA UK&I

Recruitment Lead Infosec People

Owanate Bestman

Director Bestman Solutions

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Francesco Cipollone

https://www.linkedin.com/in/fracipo/

https://twitter.com/FrankSEC42

Chair CSA UK&I

Director NSC42

Francesco is the Director of NSC42 Ltd a cybersecurity consultancy UK Based.

Francesco brings his absolute passion for everything cyber to the chapter and the energy that characterize him

Francesco and NSC42 have been helping organizations define and implement cybersecurity strategies and protect their organizations against cybersecurity attacks

Francesco.cipollone@cloudsecurity alliance.org.uk

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https://www.cloudsecurityalliance.org.uk

CSAUK **cloud security alliance**® United Kingdom

CSA **Chapter Forum**

Stephen Owen

CSA UK Member

in LI : https://www.linkedin.com/in/stephen-owen-data-protection

Stephen Owen is a Security Leader with complementary Security, Cloud Architecture and Data Privacy professional skills, who was formerly CISO and DPO for several high-profile UK companies where he was well known for his detailed and pragmatic advice. Over the last ten years, Stephen has supported a range of companies throughout EMEA on multiple cloud digital transformations and legacy transition projects. Capping his data privacy and security expertise, Stephen was also recognised by the industry and awarded a Fellow of Information Privacy from the International Association of Privacy Professionals in 2016.

Benjamin Craig

Ben.craig (at) cloudsecurityalliance.org.uk

Director of Communications

Ben is one of the rare unicorn in the recruitment industry. Committed and passionate about cybersecurity and focused on growing his and the community knowledge.

Ben brings his network and insight of the industry and most important his passion for cybersecurity in the UK Chapter.

Ben is currently a principal consultant at Infosec People.

INFOSEC

Owanate Bestman

✉ ob@bestmansolutions.com

Director Bestman Solutions

Owanate has spent the last 7 years recruiting in the Cyber Security field, securing individuals and teams which meet specific technical and/ or leadership requirements for some of the world's most innovative firms, to the mutual benefit of individuals' career progression and the needs of the company. Before this Owanate recruited Technology and Operational Risk specialists, during this period he was successful in staffing several high profile banking regulatory programmes.

Owanate is the founder of Bestman Solutions, a search and selection firm dedicated to meeting the demand for cyber security skills.

71% of breaches in 2019 were financially motivated

The number of data breaches reported since 2017 to regulators has increased 480%.

Source Gartner Report 2018
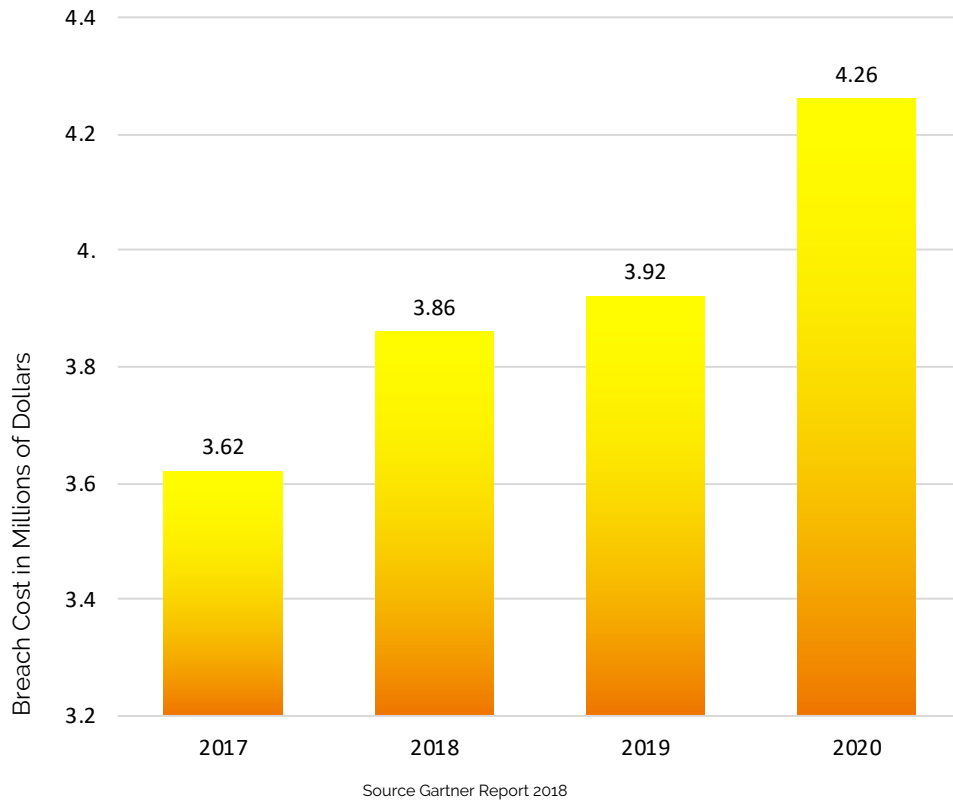
AVERAGE COST OF DATA BREACH IN MILLION OF DOLLARS
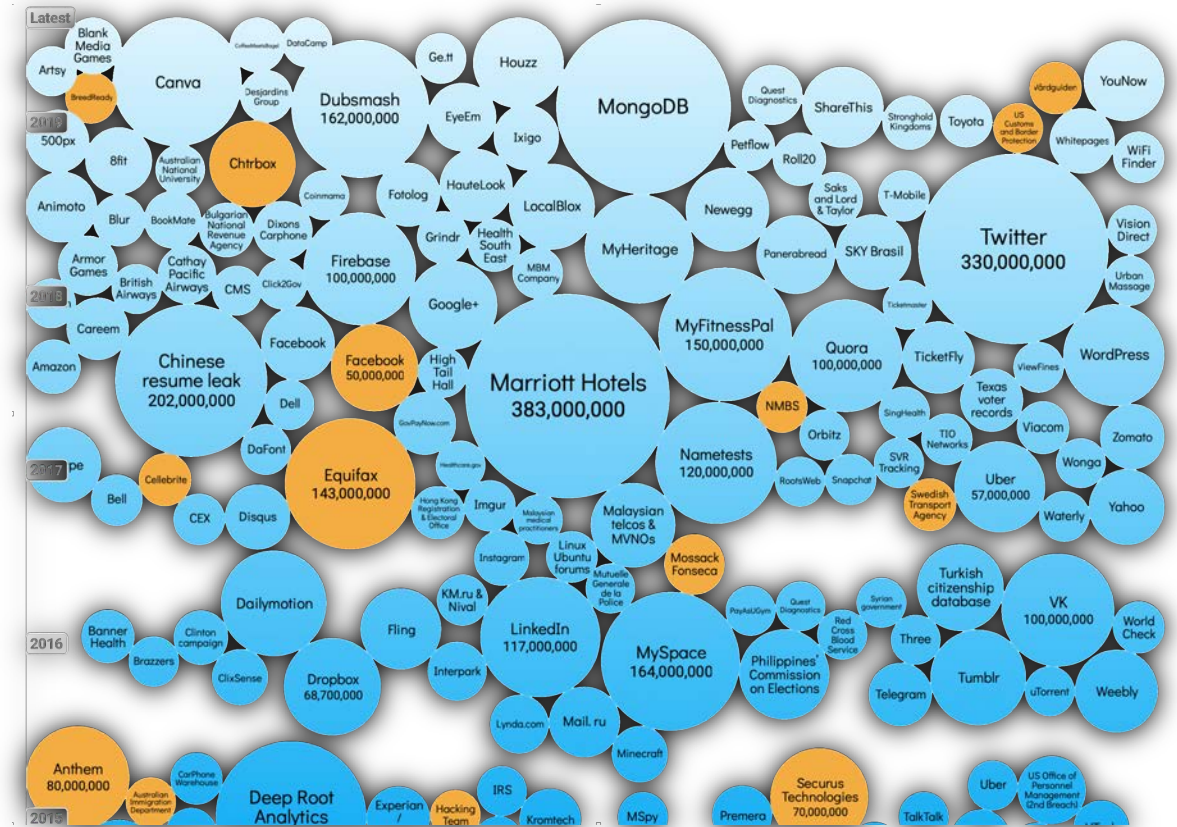
THE BREACH OVERVIEW

Cybersecurity Landscape
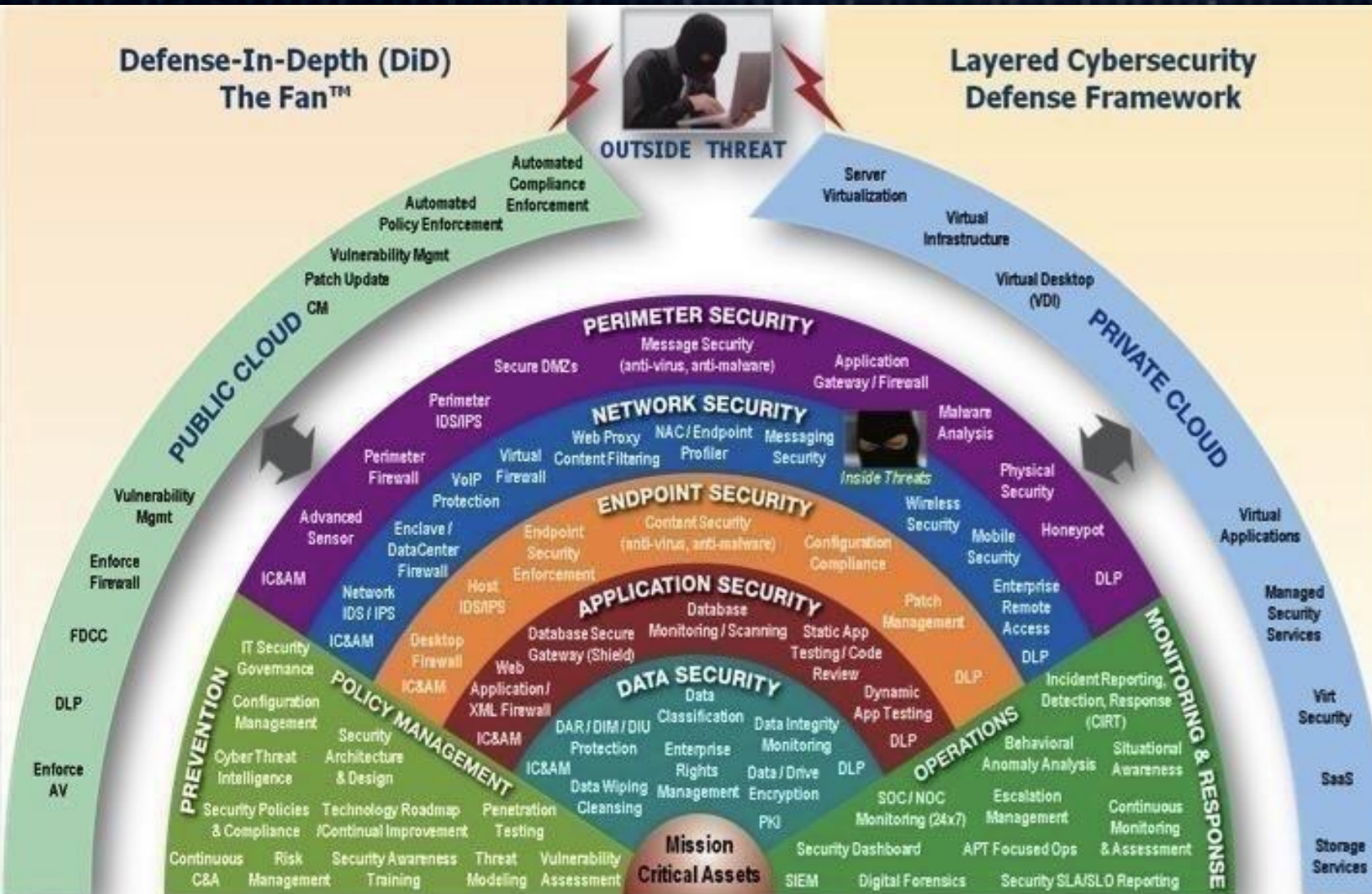
- Cloud Security – Defends Cloud Configuration, VM,

- Network/Infrastructure security – defends OS and Other layers on prem but also on cloud

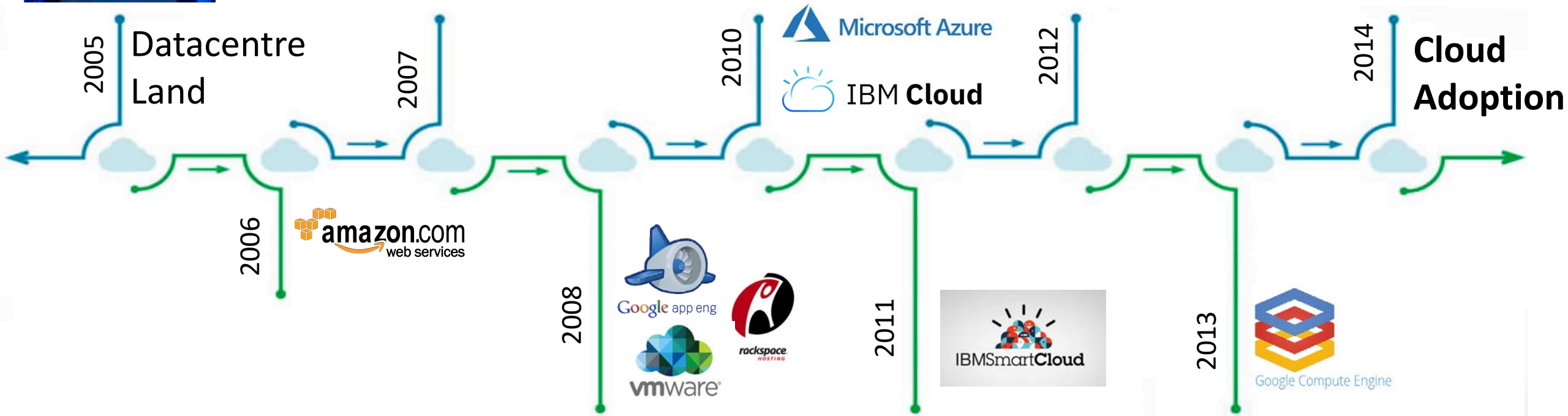- Endpoint Security – defends user facing

Operational Security

- SOC, Red team etc…

Governance –

- Policy and regulations, compliance…

Today we will focus on cloud security but all the other areas are applicable

Story of the Cloud

Datacentre Land

Cloud Adoption

2005 · 2006 · 2007 · 2008 · 2010 · 2011 · 2012 · 2013 · 2014

Security Salary at a glance

CISO

The CISO is a broad job title, reflected in the variance in salaries on offer. Can be a managerial, executive leadership or board level role.

EU/SI

£125-£400k → 0%

Security Architect

Technical roles with something of a management overview, will focus predominantly on High Level Design looking at the workflow and broad controls. Will translate the security policy into technical specification.

EU/SI/PS

£75-£140k ↑ 5%

Security Solutions Architect

Senior yet hands-on role which encompasses developing technical solutions, identifying security controls, and creating design documentation. Will help embed security in to projects throughout the business.

EU/SI/PS/V

£75-£140k ↑ 5%

Enterprise Security Architect

Proven track record of developing security architectures and acting as technical design authority cross enterprise-scale infrastructures. Ability to understand deep technical topics from a top-down and management perspective.

EU/SI

£90-£145k ↑ 4%

Application Security Specialist

Responsible for architecting security controls around all aspects of the application environment, from secure development, server stacks and web app firewalls.

EU/SI/V

£80-£150k → 0%

SecDevOps

Responsible for developing applications securely. Will have thorough knowledge of Java and agile development practices.
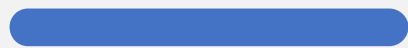
EU/SI/V

£70-£110k ↑ 20%

Cloud Security careers

DevSecOps

Keeping the security lights on in the Cloud

Golden Unicorns

4+ Years experience £80k..£120k

LinkedIn UK roles as of May 2020 – 169 vacancies

Cloud Security Architect

Bridge between business & implementation

Unicorns

4+ Years experience £90k..£130k+

LinkedIn UK roles as of May 2020 – 248 vacancies

Cloud Auditors

Should and will they exist.

TBC

£80k+?

DevOps

Build it now! and keep the lights on

Stallions

4+ Years experience £70k..£105k

Google jobs UK roles as of May 2020 xxxx

Unlike other technology professionals, Cloud skills is knowledge quest, which never stops. Security further elevates

Positioning yourself to a hiring manager for cloud security careers

Focus on Your Technical Skills

When speaking to a hiring manager, focus on your technical skills and certifications. You will find you are both 'speaking the same language'. Tip: if you can teach the hiring manager something new that they don't know, you will stand out.

Take a Consultative Approach

The most successful interviews are when the interviewee takes a consultative approach to prove themselves. Challenge the status quo with technical solutions or empirical examples of what you have done previously; remember the hiring manager is looking for someone who can think for themselves and problem-solve.

Communicate

The integration of security into other areas (e.g. DevSecOps) means that teams who have not historically collaborated need to be totally transparent as they learn together, and that requires an environment which encourages change and growth alongside excellent communication. Alongside talking about your technical skills ensure your people-skills and personality come across too.

Target Your Potential Employers

Consider whether your technical skills, personality and background would suit a big corporate employer or a small consultancy, or a start-up/SME. Target employers based on this and explain to the hiring manager what specific skills you can bring to that environment.
Remember to build connections and expand your industry network via events and networking; this is the best way to get a foot in the door to new opportunities.

Who is hiring in Cloud?

- There are currently over 3000 vacancies on LinkedIn in Cloud Security in the UK
- The emergence of Cloud vacancies mean that employers are seeking transferrable skills to address the skills gap
- Key employers hiring in the Cloud space are;

Government

**Insurance**

Communication Technology

Consultancies

Banking

Tip: utilise a specialist recruitment consultancy
"This was my first high-level hire for cloud transformation and the market expertise of InfoSec People was invaluable. I was looking for someone to tell me what 'good' looks like - InfoSec fully scoped my vacancy and helped me position it favourably in the marketplace".
- Director of a local SME on the advantages of using a specialist recruiter

What Is DEVSECOPS
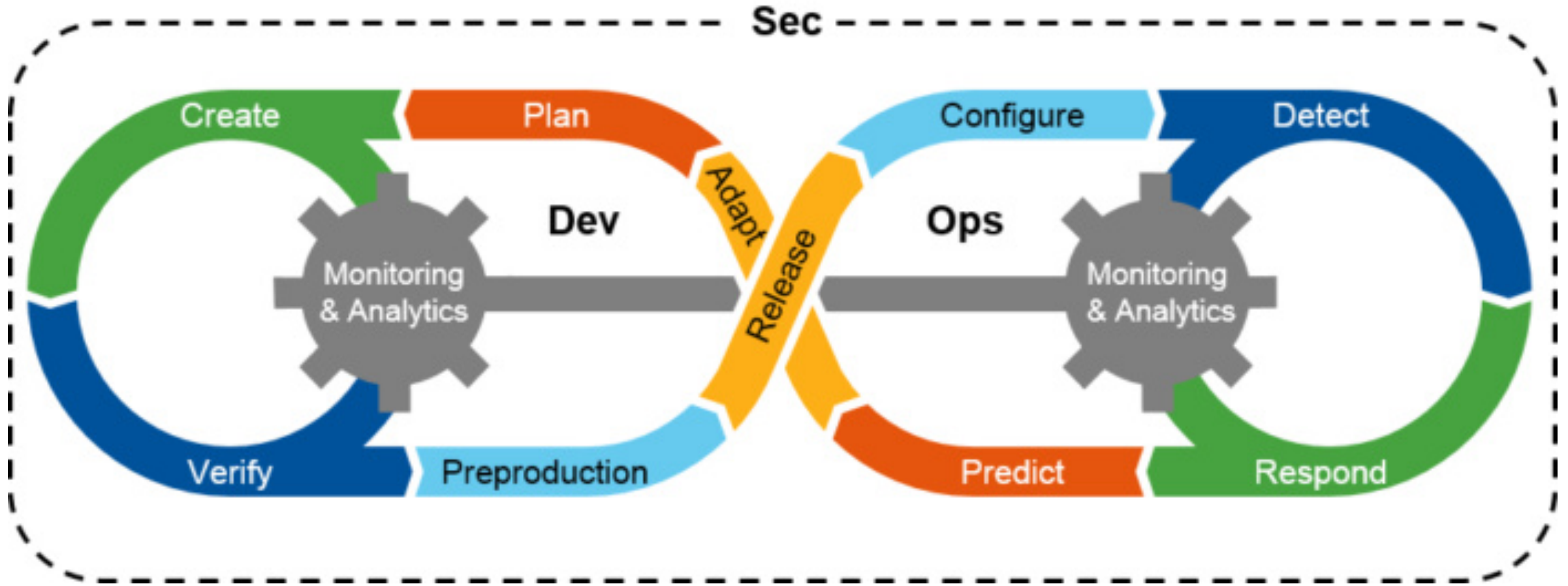
What Is DEVSECOPS

Design

The Objective of the various areas are

- **Ingredients**
- **Recipe**
- **Stock List (asset Register)**

Security Design

Act as Health Inspector

- **Verify Ingredients are not mouldy**
- **Verify Recipe does not contain poison**
- **Stock List (asset Register) –** verify the component used in the cake are genuine

Build/Test

The Objective of the various areas are

- **Combine ingredients (libraries+Code)**
- **Bake the cake**
- **Test the cake**

Security Build & Test

Act as Health Inspector

- **That the cake is made up of genuine ingredients (from asset register)**
- **Test the cake for mould**

Operate

The Objective of the various areas are

- **Sell The cake**
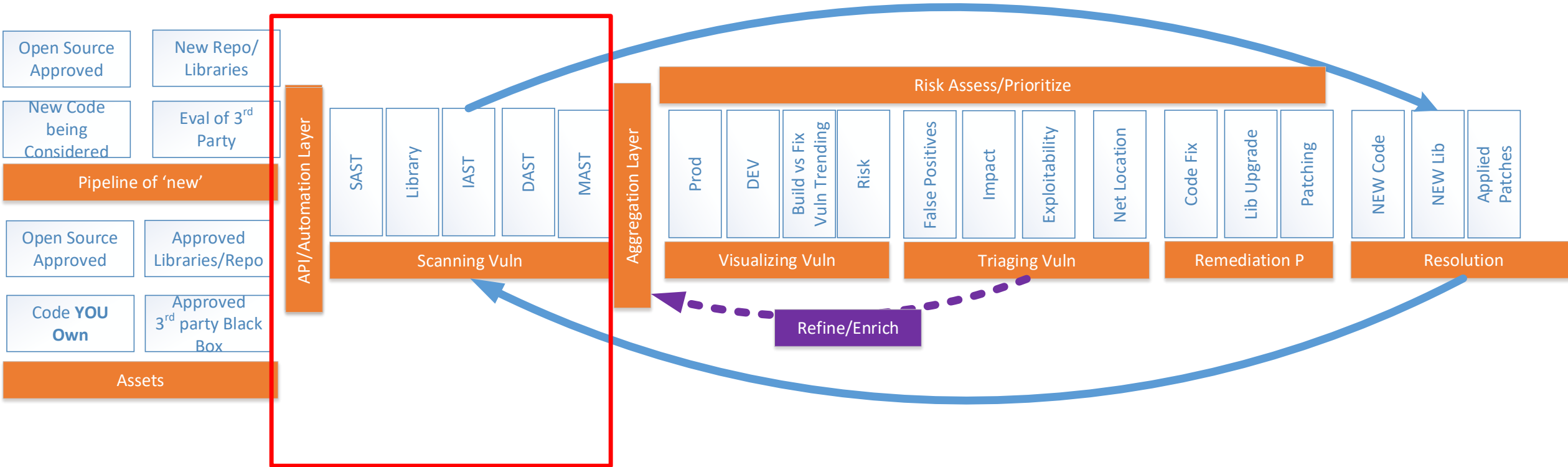- **Restock the cake on the shelf**

Secure Operate

Act as Health Inspector

- **Verify Cake on the shop are made of genuine ingredients (from asset register)**
- **Verify expiry data of Cake**
- **Test the cake for mould**

DEVSECOPS AREAS

How to get started DevSecOps

Developer
DevOps

IT Admin / Infrastructure Engineer

Network Engineer

Year 1

Virtual Machines, Storage (e.g AWS S3)
General functions/Lambda, Logging(e.g Cloud Watch)
IAM Access control, Terraform

CompTIA Security+, (Python or GO), AWS Associate Developer

£45k..£60k

Year 2

Databases, Golden images, WAF rules,
General functions/Lambda, Logging(e.g Cloud Watch),
Key/Secrets management. Concepts of Docker, Threat feeds,
Understanding of Security in pipeline CI/CD

AWS Associate DevOps, AWS Security specialist

£50k..£70k

Year 3

Logging ELK stacks, forensic snapshots, Kubernetes,
Maintaining compliance, Data leakage, MITRE ATT&CK
alignment, Static/Dynamic Code analysis tools

AWS Professional DevOps, AWS Advanced Networking

Cloud Security Alliance Chapter, DevSecCon

£70k..£100k

Year 4

Fine grain access control, Big data, IoT security, short life
10min certificates, Multi Cloud experience

CISSP, CCSP, Multi Cloud qualifications

BlackHat, Presenting /Papers+

£80k..£120k

They provide security guidance to DevOps/Infrastructure teams of reducing mistakes, promotion of good practices, providing repeatable protection and detection "capabilities" to allow teams to adopt and build faster (security is transparent). Eyes and ears to CISO, Security Operations Teams (SOC), support forensic and audit reviews.

Projects/Exposure

Qualifications

Sector involvement

How to get started Cloud Security Architect

Developer DevOps

Security Architect

Solution Architect

Proactive role - SME of all things Cloud Security: SaaS, PaaS & IaaS. Lead or advise business stakeholders, architects and DevOps of the appropriate level of security. Define and maintain Cloud centric Security "blueprints" (reference architecture patterns).
Threat modeling, Logging specialist, Compliance alignment. Role works closely with DevOps and DevSecOps to verify pattern adoption and refinement of future recommendations. Its not using the same on-premise design patterns in the Cloud!

Year 1

£66k..£75k

Design reviews, Dataflow, Interface diagrams, digital asset and risk vs cost/effort recommendations, secrets management, legacy applications migration, data access management models, layered security controls, Landing zone/control tower patterns; External API (Auth/Protection), OWASP API/Application security

CompTIA Security+, (Python or GO), AWS Associate Architect

Year 2

£70k..£85k

MITRE ATT&CK, Threat modelling, Cloud security design patterns, Docker/Kubernetes, image provenance/validation lifecycle, Security Operating Centre (SOC) logging/triage collaboration; Scope and management of external Pen testing; Security Monkey or Config drift patterns; Regulatory sector compliance requirements
AWS Security specialist, AWS Data Analytics

Year 3

£80k..£110k

Evolve soft skills, Big data and continuous event stream security patterns, Data leakage/usage tracking/retention, Privacy by Design, audit/gap assessment of environments, Cloud focus Incident management; Security and contractual review of third-party SaaS providers;
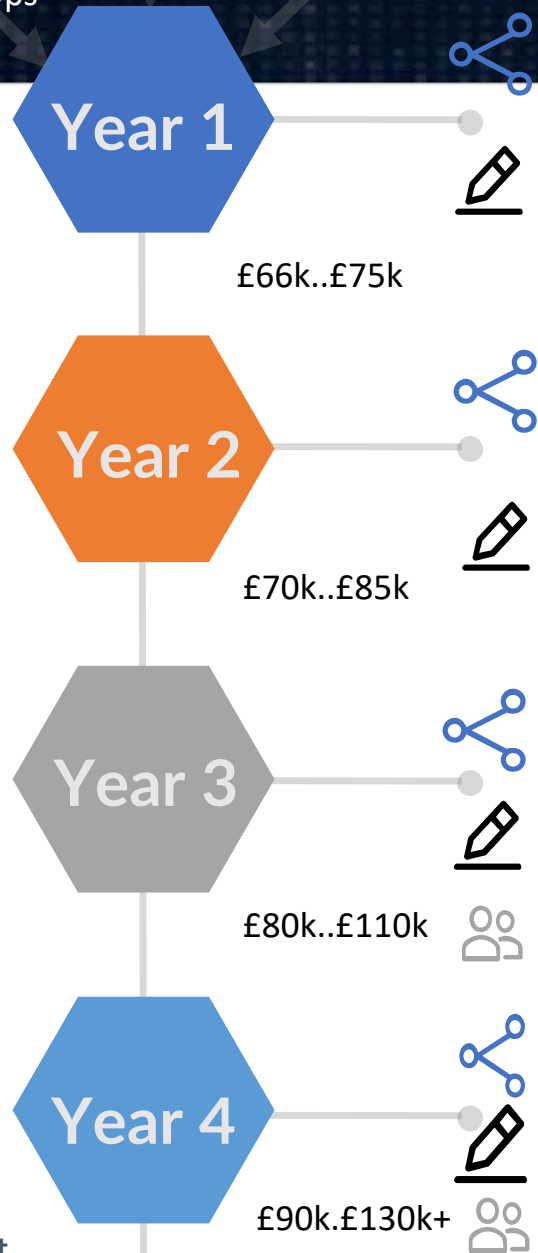
AWS Professional Architect, Privacy CIPP/E

Cloud Security Alliance Chapter, DevSecCon

Year 4

£90k.£130k+

Forensics, ELK log design patterns, Scope definition for purple team events and Audit/gap assessment of environments, Cloud focus Incident management

CISSP, CCSP, Multi Cloud qualifications

BlackHat, Presenting /Papers+

Projects/Exposure   **Qualifications**   **Sector involvement**

Cloud Security Cert - Independent

Cloud Security Cert

DEVSECOPS Resources

OWASP

OWASP ZAP

OWASP NBtacker
github.com/viraintel
owasp.org
viraintel.com

OWASP CHEAT SHEET SERIES PROJECT
Life is too short · AppSec is tough · Cheat!

DEPENDENCY-CHECK

WEBGOAT

OWASP JUICE SHOP PROJECT

SAMM

OWASP Virtual AppSec Days April 2020

Your Computer | Training: April 28-29 (4 hours each day)
Conference: April 27
CTF: April 30-May 2

NSC42 Limited
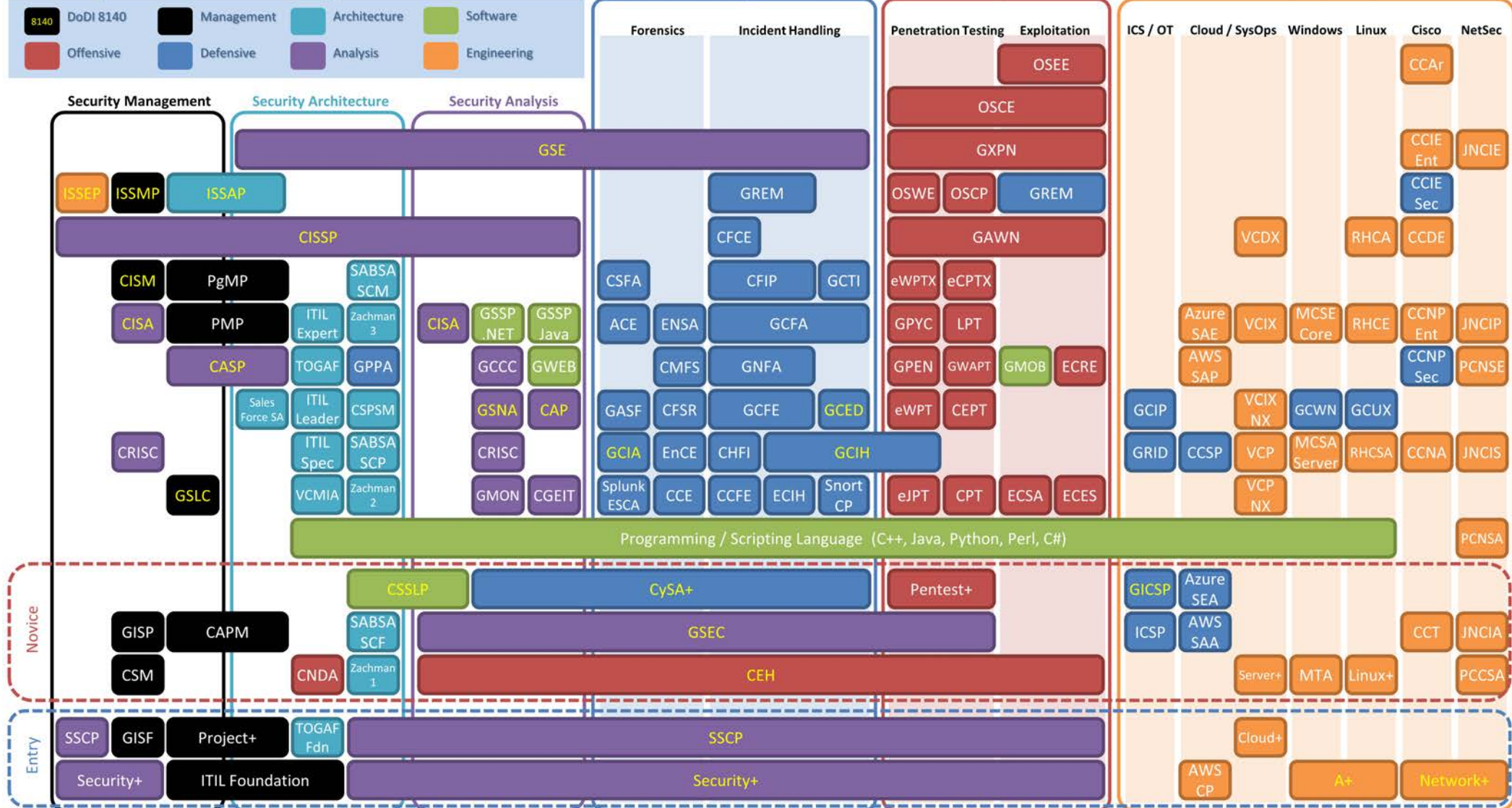
Cloud Security Training

DEVSECOPS & SDLC Security

SHE HACKS PURPLE

DevSecCon

ADDO
ALL DAY DEVOPS | 4.17.20
SPRING BREAK EDITION

DEV SEC OPS DAYS

tl;dr sec

Practical DEVSECOPS

Other Certifications

Security Certification Progression Chart 2020

Cloud Learning (Low cost route)

Other providers are available

Online – Azure Learning

Online – AWS Security Essentials

Online – GCP Cloud Infrastructure

Online - Cloud Guru

OneLine - Cloud Academy

Online – Cloud Udemy

Azure Security Blog

AWS Training and Certification Blog

AWS Security Blog

Netflix Tech Blog

Securosis Blog

Panel

Join!

Events Assistant

Marketing Assistant

Researchers

Whitepapers Contributors

Blog Post *Guest & members*

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Cyber Security & Cloud Podcast

By Francesco Cipollone   www.nsc42.co.uk/CSCP #CSCP

www.nsc42.co.uk/cscp

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@FrankSEC42

Cyber Security Awards 2020
Cloud Security Influencer of the Year

Submission – 10 of May 2020 (TBD)

Ceremony 4 July 2020

#CYSECAWARDS20

https://cybersecurityawards.com/
https://cloudsecurityalliance.org.uk
Submit: info@cybersecurityawards.com
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Q&A