RED MAPLE
TECHNOLOGIES

Consultant Profile

David Griffiths

Director, CIO and Chief Engineer

▪ Summary

David is a very experienced Chief Engineer with 23 years' of technical leading, developing and architecting complex systems across Defence, Government and Commercial sectors. David is a Cyber Security and Cloud Infrastructure specialist with a rich background in agile methodology and modern software development technologies, covering a broad range of environments from embedded systems to web applications.

David graduated from Trinity College, University of Cambridge with a Master's Degree (MEng) in Electrical and Information Sciences. David is a Chartered Engineer (since 2007) and a member of the IET.

▪ His key capabilities include:

- Software and Systems Engineering, DevOps, Agile best practices, a Certified Scrum Master.
- Cloud services (AWS, Azure and GCP), deployment, production systems, site reliability engineering (SRE) methods.
- Cloud Native, Kubernetes, containerisation, micro-services architectures.
- Open source software tools and libraries. Use of modern OSS to provide solutions to cloud hosted systems and application specific features. Interactive visualisations in D3.
- Digital Transformation esp. migration to cloud, system hardening and modernisation.
- Application assurance, reviewing existing architectures and solutions from perspectives of cyber security, stability, maintainability and future roadmap.
- Making the complex simple. David is a good communicator and always strives to help customers understand. Leadership of Engineering teams, key stakeholder engagement.

David has a very broad set of technical engineering skills, with an emphasis on software engineering and system architecture. Having undertaken a number of prominent leadership roles, David has remained hands-on technical throughout his career, always being actively involved in software development and systems architecture.

▪ Experience and Skills

- Cyber Security architectures and practices
- Azure, AWS and GCP cloud services
- Cloud Native architectures and technologies, microservices, pub/sub messaging
- Cloud infrastructure, load balancing, replica-sets, sharding, horizontal scaling methods
- Kubernetes container orchestration, Docker
- Certified Scrum Master 2013
- Key software languages: C, C++, Golang, Python, Perl, JavaScript, TypeScript, bash scripts, makefiles.

- Open Source technologies, e.g. ElasticSearch, Kibana, RabbitMQ, Redis, MongoDB, NGINX
- Web dev frameworks: Angular7, React, D3,
- OAuth2, Reverse Web Proxies, Web App Firewalls
- Exploit dev: stack smashing, ROP, shellcode
- Certificate generation and management
- Open Source IOC and Threat Exchange resources
- Product Development & Project Management
- Embedded systems, DSPs, Assembler, RTOS
- Data analytics, Jupyter Notebook, Pandas dataframes
- Visualisation tools, D3, GraphViz

Career History

Director, CIO & Chief Engineer
Red Maple Technologies
(Jan 2019 to present)

- As CIO and Chief Engineer at Red Maple Technologies David bring expertise and deep technical knowledge in software development, cyber security, digital transformation and cloud native technologies.
- David is able to engage with clients at all levels, to understand and solve their problems, to describe options and solutions in a clear and uncomplicated way.

Network Effects & Cyber Security Lead
Trust Networks Inc
(July 2017 – Dec 2018)

- At the cyber security start-up Trust Networks, David was integral to developing the cloud analytics for real-time packet analysis, IOC detection and risk calculations. David also undertook responsibility for product manager, customer engagement, team leadership and mentoring.
- David efforts and experience helped rapidly build Trust Networks' IPR and product portfolio to the point of a successful sale to a US 'unicorn' company.

Assistant Chief Engineer
L3 TRL, Advanced Cyber Solutions
(May 2004 – June 2017)

- At L3 TRL, David headed up the Advanced Cyber Solutions team of 20 Engineers, the first Cyber-focussed capability delivery team in the company. David built up the engineering team from a clean slate, drawing on talent from within the wider organisation and recruiting new people to create a modern, agile, mission-focussed capability. David created a DevOps environment in which new ideas could flourish, whilst instigating and developing the L3 innovation framework now in use across the L3 business sectors.
- In this role David led and authored many successful bids for customer funded R&D and capability delivery into Government and MOD departments. David was the lead on engagements with R&D stakeholders such as Royal Holloway, an Academic Centres of Excellence in Cyber Security Research.
- Head of Software 2009-2012, David managed and led all SW and DSP teams (40+ people) across L3 TRL, developing and modernising software processes, and representing TRL at TickIT*plus* audits.

Further Role History

- Senior Engineer, Cabot Communications – DVB protocol stack development (Jun 2002 – May 2004).
- Team Leader, Telsis – DSP, H.261 video, SS7 telecoms switches (Oct 1996 – Jun 2002).