

Higher Education: Security & Penetration Testing



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Our Approach

Infuse Consulting is a specialist provider of independent security testing services to Higher Education Institutions covering the full software development lifecycle including Agile, DevSecOps, Waterfall and V-Model development methodologies.

The service provides security test professionals together with our proven OSSTMM (Open-Source Security Testing Methodology Manual) will be used to carry out the security tests. The OSSTMM is a peer-reviewed methodology for performing security tests and metrics and is the de-facto standard for security testing. It was originally designed by Pete Herzog who was IBM's Chief Ethical Hacker for many years.

- The OSSTMM includes
- Network Surveying
 - Port Scanning
 - System Fingerprinting
 - Services Probing
 - Automated Vulnerability Scanning
 - Exploit Research
 - Manual Vulnerability Testing and Verification
 - Application Testing
 - Firewall & Access Control List Testing
 - Intrusion Detection System (IDS) Testing
 - Security Policy Review
 - Document Grinding (Electronic Dumpster Diving)
 - Competitive Intelligence
 - Trusted Systems Testing
 - Password Cracking
 - Privacy Policy Review
 - IDS & Server Logs Review

Our Security and Penetration Services offer is:

- Penetration Testing
- Remote Access Security Assessment
- Security Compliance
- Virtual Security Team
- Web Application Security Assessment
- Mobile App Security Assessment
- Vulnerability Assessment
- Wireless Testing
- ISO 27001 Consulting

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The security tests detailed are non-destructive penetration tests that are designed to emulate a hacker in every sense, and therefore, ensure that all avenues of exploitation and data leakage are explored. All testing is based on the OSSTMM methodology for security testing which is outlined previously. This method encompasses a range of attack methods and is the best way to ensure that there is a thorough understanding of the relevant vulnerabilities.

A report of findings and recommendations will be produced and sent to a nominated, executive or IT contact. The findings can also be presented and discussed in a de-briefing conference call, such that preventative measures can be planned. All results will be analysed and presented in line with industry best security practice.

Once these tests have been performed and all vulnerability information has been presented to you, we will perform a telephone de-brief of the information found. Infuse will then perform a re-test of the vulnerabilities found to ensure your organisation has remediated them at no extra charge within the first 90 days of the initial work. Any additional tests or work outside this scope after the initial re-test has been performed will be chargeable.

Service Features

- Over 15-years of experience to draw upon to ensure that your security is tested to the highest level.
- Adherence to leading methodologies including:
 - The Open-Source Security Testing Methodology Manual
 - Open Web Application Security Project
 - Certified Information Security Systems Professional (ISC)2
 - Certified Ethical Hacker
 - Leading partnerships with major tool vendors and CI/CD

Business Benefits

- Detect existing and potential vulnerabilities in your software.
- Perform professional security application analysis and code review.
- Prepare your software for a secure launch or upgrade.
- Respond to cybersecurity incidents and threats.
- Meet global cybersecurity standards.

Partners & Clients

Our Higher Education Clients



Our Partner Ecosystem



A Selection Of Our Higher Education Projects & Benefits

Client	Project Brief	Infuse Services Provided
University College London	Tribal SITS-to-Cloud project to manage, plan, implement testing strategies, tools, automation and frameworks around functional, non- functional testing across the test lifecycle. Enhance the UCL team Benefit: Automate 90% of testing and reduce regression testing on SITS to under 5-hours	Test Management, Functional Test Delivery, Continuous Testing, Performance Engineering and NFT
King's College London	Managed services across several projects: VLE, ERP, Access systems,, R&D, Curriculum, LMS, CRM and Student lifecycle. Benefit: 40 projects since 2018; saving 35% on testing costs since start of work	Development Lifecycle Review, Test Management, Functional Test Delivery, Continuous Testing, Performance Engineering and NFT
University of East Anglia	Managed services across several projects: Admissions, Curriculum, Tribal SITS, Tribal SITS-to-Cloud and Test Strategies. Benefit: Automated 200 tests across SITS and reduce regression testing to 3 hours	Test Management, Functional Test Delivery and Continuous Testing,
London Southbank University	Architecture and Test Lifecycle support for LSBU's LEAP programme encompassing the rollout of Salesforce, ESB, Identity management and a new cloud-based student record system since 2020	Architecture Review, Full Stack Development, Test Management, Functional Test Delivery, Continuous Testing, Performance Engineering and NFT
Queen Mary University of London	Re-architecture of the Moodle environment on Azure and performance testing of the clearing process and telephony systems (functional and non-functional) simulating 400 call agents since 2020. Testing of WiFi network throughout the university Benefit: Mitigated issues that would have stopped 75% of calls getting to the clearing agents 2 years in a row	Architecture Review, Performance Engineering and NFT
Edinburgh Napier University	DevOps maturity with recommendations in process of being implemented	ICM Assessment, DevOps roadmap, business case and transformation roadmap
University of Exeter	Performance Testing projects across VLE migrations and upgrades Benefit: Mitigate issues related to Moodle during enrolment and exams during the Pandemic	Performance Engineering and NFT
University of Aberdeen	DevOps (ICM) transformation assessment, test automation POC and tool chain assessment for Applications Management team	Infuse Capability Modelling/TMMi Model for DevOps
Anglia Ruskin University	Enterprise architecture consultancy around recommending integration roadmap of 100+ subsystems using Event Streaming	Architecture Review
University of Bristol	myERP the new integrated Finance, HR, Payroll and Procurement system Student Lifecycle Support Programme which will transform how students interact with the university Save over £1m in testing costs across the programme	Test Management, Functional Test Delivery, Continuous Testing, Performance Engineering and NFT
University of Bradford	Bradford are re-implementing Tribal SITS and have no test process, team or tools.	Test Management and Functional Test Delivery

Our Education Community Contributions

Event	Content Title/Link	Summary
UCISA CISG Dec. 2023	<u>Learn how Southampton Solent University (SSU) recently delivered a challenging student transformation programme on time and on budget</u> Aaron Tyler, SSU Programme Manager, Southampton Solent University	In this video (presented at UCISA CISG-2023), SSU Programme Manager Aaron Tyler presents how SSU rescued a challenging Student Record transformation programme that went live successfully in August 2023.
UCISA Webinar Nov., 2022	<u>UCISA Webinar - Why Non-Production Environment Management (NPEM) is critical to Digital Transformation success.</u> Jessica Roberts, Head of Transition & QA, King's College London	Learn how King's College London (KCL) approach Non-Production Environment Management (NPEM) using the Infuse NPEM model., giving them long term benefits in terms of time, cost, and better quality.
UCISA CISG Dec. 2022	<u>Learn how King's College London is leveraging the power of Cloud and Automation to deliver software continuously</u> Jessica Roberts, Head of Transition & QA, King's College London	Learn about KCL's continuous testing journey covering 35 projects across Testing, Non-production environments, Development lifecycle consulting, Test Automation, Performance Engineering
UCISA Leadership Mar 2022	<u>Are you ready for Clearing ?</u> Rupa Dey, Deputy CIO, Queen Mary University of London	Learn how QMUL handled clearing in 2021 and plan to handle clearing in 2022
UCISA CISG Nov. 2021	<u>Having your cake and eating it!</u> Ian Robotham, Assistant Director, University of Aberdeen	Learn how the University of Aberdeen plan to reduce cost, improve productivity, and improve student/staff UX through streamlined enterprise architecture
UCISA CISG Nov. 2020	<u>Storming and Performing with Covid-19</u> Richard Young, Assistant Director, Queen Mary University of London Jessica Roberts, Head of Transition & QA, King's College London Mark Sanders , Program Manager, University of Exeter	Learn about how University of Exeter (UoE), King's College London (KCL) and Queen Mary University of London (QMUL) successfully accelerated their digital transformation projects.
UCISA CISG Nov. 2019	<u>How King's College is utilizing Load and Performance testing on Moodle</u> John Newman, Senior Project Manager, King's College London	Learn how King's College London (KCL) approach Performance Testing on Moodle.
HE Strategy Forum Oct. 2019	<u>Streaming – A Field Report in partnership with Anglia Ruskin University</u> Paul Gallagher, Assistant Director, Anglia Ruskin University	Learn how Anglia Ruskin are transforming their system integration architecture to solve legacy point to point integration challenges.
HE Strategy Forum Feb. 2019	<u>Origami and Architecture in partnership with Anglia Ruskin University</u> Paul Gallagher, Assistant Director, Anglia Ruskin University	Learn how Anglia Ruskin are approaching innovation in Architecture
Video Case Study Nov 2018	<u>University of Bristol - Video Case Study</u> Nigel Summers, Test Manager, University of Bristol (SLSP Program)	Learn how the University of Bristol saved a significant amount in testing costs by using continuous testing

Why Infuse ?



Experience and Credibility

Established in 2002 with over 21 years of experience in software delivery and quality engineering consulting having helped successfully deliver over 500 projects around the globe.



Higher Education Specialists

We have successfully deployed test services on over 35 HEI clients so we understand your business drivers and ways of working. We have experience with systems such as Moodle, Tribal SITS, CourseLoop, SAP and have delivered services ranging from functional test delivery to test automation, performance testing, test environment management, and process optimisation.



Multi-disciplinary Team

We leverage experts across our practice to provide you with an end-to-end delivery capability from experienced test managers to scrum masters, agile coaches, architects, developers, and manual & technical testers.



Test Expertise & Team Integration

All our resource are ISTQB foundation certified and bring expertise in testing together with experience and energy to quickly integrate with your existing team. We have a history of enhancing existing test teams to accelerate progress and are comfortable delivering within and managing a mixed team including in-house, contractor and third-party resource.



Highly Motivated & Delivery Focused

Our team are highly motivated and delivery focused, and will go above and beyond expectations to ensure the successful delivery of the test workstream. We have demonstrated our commitment to success on numerous previous test engagements.



Competitive Delivery Model

We effectively deploy resource onsite, onshore and offshore on many of our engagements. Our experience of delivering from multiple locations provides you with a cost competitive proposition together with the ability to flex resource when required.



Technical Innovation

We have expertise across a wide range of innovative products from our own script-less test automation tool – useMango™ – to leading enterprise and open-source tools, through to our delivery accelerators.

Company Overview

Who We Are

- We are a team of 90+ engineers and consultants spread globally with a passion for modern software design, engineering and delivery.
- We possess deep expertise across Architecture, Agile, DevOps, Cloud Transformation, Quality & Performance Engineering.
- Since 2002, we have been helping companies of all sizes design, develop and deploy high quality software.
- Since 2018, we have been focused on supporting HEIs resolve their technology challenges as part of their digital transformation and cloud migration agenda.

Our Areas of Market Eminence

Consulting

Development
& DevOps

Quality
Engineering

Test
Environment
Management

useMango™
Test
Automation

Our Vision and Values

Be the first choice for our clients for their
technology delivery challenges



Be at the forefront of technical innovation

Champion and empower our
people



Build long term, trusted adviser relationships with
our clients



Act with honesty and integrity in all we do



If you would like further information on our service, please contact us.



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