



POSITION DESCRIPTION

Position Title:	Software Architectures Scientist
Position Reference Number:	ECRWCS003
Division	WCSD
Position Classification:	S&T3-4
Position Location:	Edinburgh (SA)
Security Level:	NV1
Minimum Academic Qualification:	Bachelor
Enquiries:	Duncan Fletcher duncan.fletcher@dst.defence.gov.au (08) 7389 6293

Academic Disciplines

Aerospace/ Aeronautical Engineering, Naval Architecture	Chemical, Radiological, Biological, Food sciences	Materials Science
Computer Sciences, IT, Software Engineering, Telecommunications	Mathematics and physics	Psychology and Social Sciences
Mechanical and Mechatronic Engineering (including robotics)	Electronic/ Electrical Engineering	Other

Position Overview

The Software Architectures Scientist will conduct research into novel and emerging software techniques and technologies to advance the state of the art of Australia’s combat and mission system architectures for ships, aircraft and land vehicles, to make them inherently agile, modular and distributed. This work will include adapting modern software technologies that drive the internet today into a “military internet of things” environment where processing power and networking are limited, but where an information advantage can be a decisive. The Software Architectures Scientist will use their knowledge and experience in software engineering or computer science to develop exemplar software systems, and prove the benefits through experiments with military, industry and academic partners.

Position Duties

The Software Architectures Scientist will:

1. Conduct research and development of adaptive information architecture (software) frameworks – including Pattern Oriented Software Architectures – that demonstrate improved capabilities for combat and mission systems.
2. Work collaboratively with research areas across DST, industry, academia – nationally and internationally – to apply adaptive information architectures to domain-specific Defence problems and Defence S&T research areas such as air, land, maritime and joint tactical warfighting systems.
3. Under limited direction, research techniques, applications and performance of adaptive information architectures to shape their evolution for increased resilience, agility and adoptability.
4. Publish findings in journals and at conferences; present and report outcomes to Defence stakeholders.

Other Requirements

Appointees will be required to undertake occasional interstate and overseas travel, and occasionally attend land, air or sea trials.

Appointees will be initially be engaged on a **BASELINE** security clearance with an upgrade to a **Secret Negative Vetting (NV1) Security Clearance** required upon commencement.