

## New Features of the Arm A Profile Architecture

### Summary:

This course has been designed to give you knowledge and practical applications of the new features of the Arm architecture. It has been built to lead on from the base level of knowledge covered on the Armv8-A courses.

At the end of the session delegates will be able to

- State the new features and extensions to the Arm Architecture
- Explain what the new features do and their benefit and application
- Be able to utilise the new features in their software design

### Prerequisites:

- Working knowledge of Armv8-A, or attendance at a previous Armv8-A training course
- Introduction to Armv8-A online training

### Audience:

This course is designed for software engineers writing application and system software for platforms using the latest version of the Arm Architecture

### Length:

2-day classroom or 4 x ½ day virtual classroom

### Topics:

The course will include:

- An overview of the fundamental features of the AArch64 architecture that forms the basis of the latest architecture version
- An analysis of the improved features that have been introduced and their effect on the on the virtualization behavior and the memory model.
- A discussion of the new security features
- An overview of the changes to the debug architecture

Followed by an introduction to the Future Architecture Technologies that have been added to the architecture:

- Transactional Memory
- Scalable Vector Extension (SVE and SVE 2)