

# ATLAS@Amazon Web Services: Running ATLAS software on the Amazon Elastic Compute Cloud

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We show how the ATLAS offline software is ported on the Amazon Elastic Compute Cloud (EC2). We prepare an Amazon Machine Image (AMI) on the basis of the standard ATLAS platform Scientific Linux 4 (SL4). Then an instance of the SL4 AMI is started on EC2 and we install and validate a recent release of the ATLAS offline software distribution kit. The installed software is archived as an image on the Amazon Simple Storage Service (S3) and can be quickly retrieved and connected to new SL4 AMI instances using the Amazon Elastic Block Store (EBS). ATLAS jobs can then configure against the release kit using the ATLAS configuration management tool (cmt) in the standard way. The output of jobs is exported to S3 before the SL4 AMI is terminated. Job status information is transferred to the Amazon SimpleDB service. The whole process of launching instances of our AMI, starting, monitoring and stopping jobs and retrieving job output from S3 is controlled from a client machine using python scripts implementing the Amazon EC2/S3 API via the boto library working together with small scripts embedded in the SL4 AMI. We report our experience with setting up and operating the system using standard ATLAS job transforms.

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