

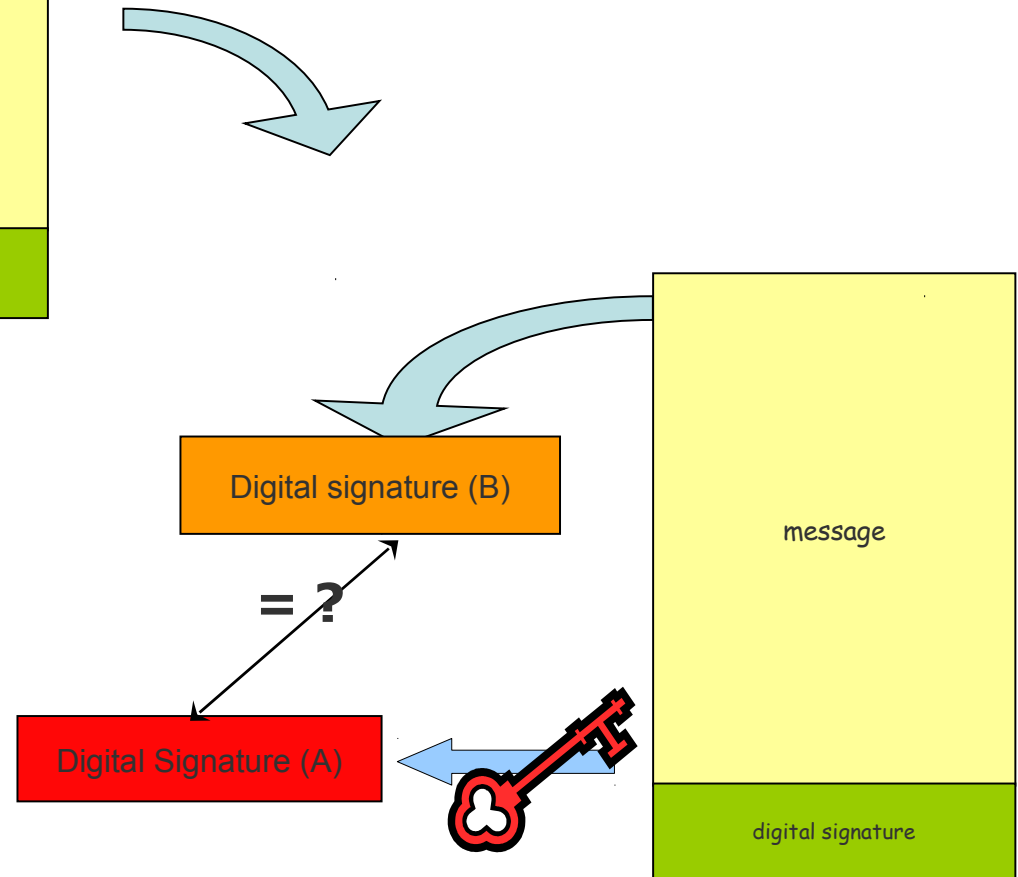
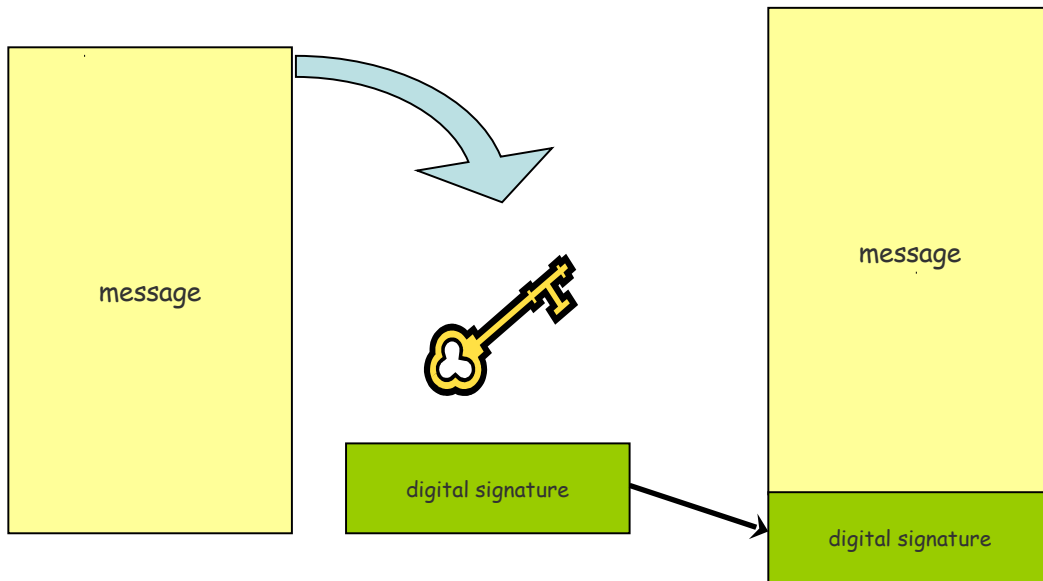
First ATLAS-SouthCaucasus Software/Computing Tutorial

Finding data on the Grid, setting up your account and Athena

Nurcan Ozturk, James William Walder & Miguel Villaplana

25 October 2010

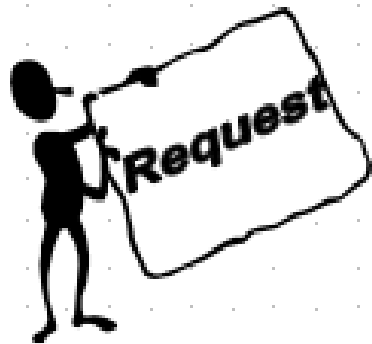
SECURITY



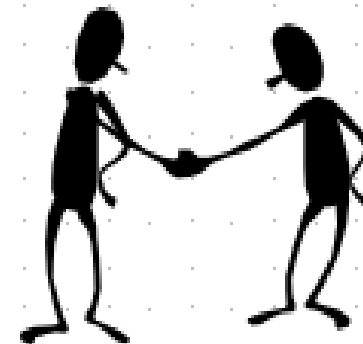
In an asymmetric key encryption scheme, anyone can encrypt messages using the **public key**, but only the holder of the paired **private key** can decrypt.

Security depends on the secrecy of that private key.

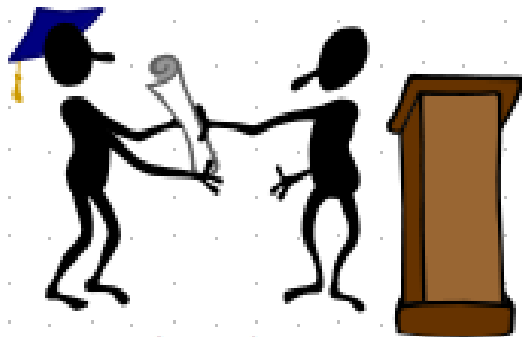
CERTIFICATION AUTHORITY



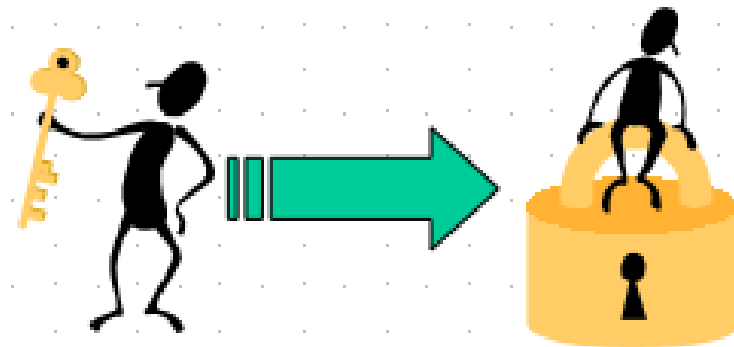
A certificate request is performed



The user identify is confirmed by the RA



The certificate is issued by the CA



The certificate is used as a key to access the grid

SETUP

CMT is the software configuration management tool adopted to handle the process of constructing, operating, deploying the Atlas software.

CMT is a public domain software developed at LAL specifically for physics research projects. Apart from the Atlas project, it is currently used in several other physics research projects (LHCb, Virgo, Planck, Auger, GLAST)

CAUTION: Setup seems to be a trivial matter but it is the main source of problems.

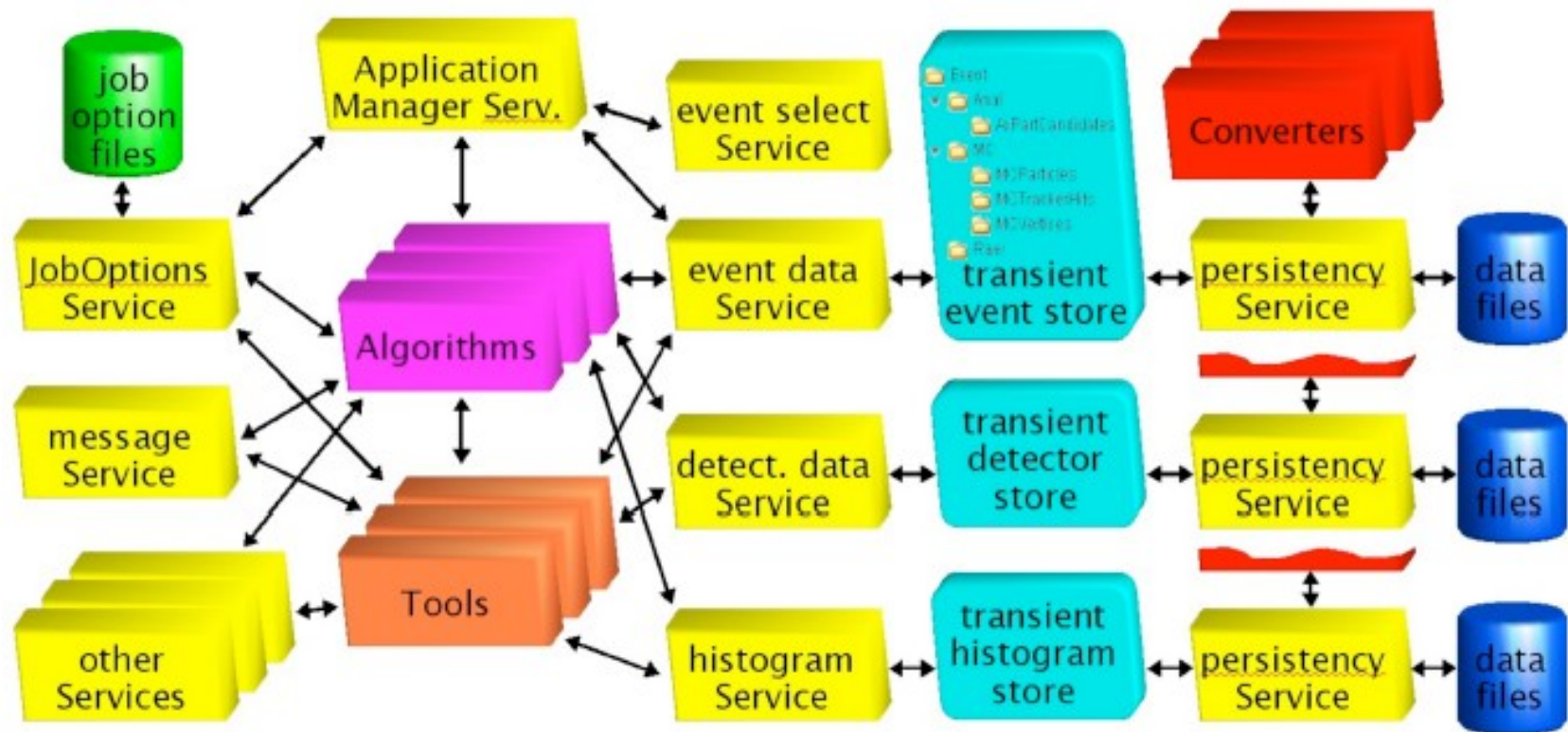
ATHENA: C++ control framework in which data processing and analysis is performed

- ▶ ATHENA is an implementation of Gaudi

The framework ensures your code

- ▶ runs at the right time
- ▶ with the right input data
- ▶ using the correct conditions data
- ▶ and correctly writes results to disk

The Athena Framework



ATLAS Athena
architecture
main components

