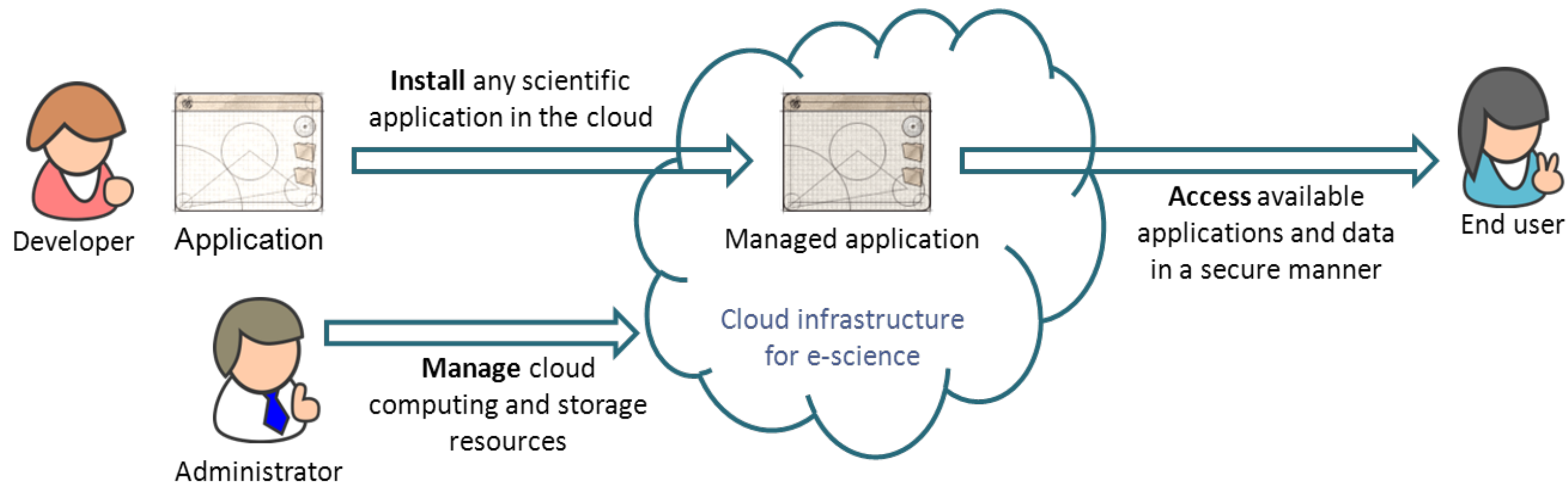


Cloud Platform for Medical Applications

M. Bubak, P. Nowakowski, T. Bartynski, T. Gubala, D. Harezlak, M. Kasztelnik, M. Malawski, J. Meizner - Cyfronet AGH Krakow, PL
 A. Belloum, S. Koulouzis, D. Vasunin - University of Amsterdam, NL
 P. Coveney, D. Chang - UCL London, UK
 R. Diaz Rodriguez, D. Ruiz Lopez - ATOS Research, ES

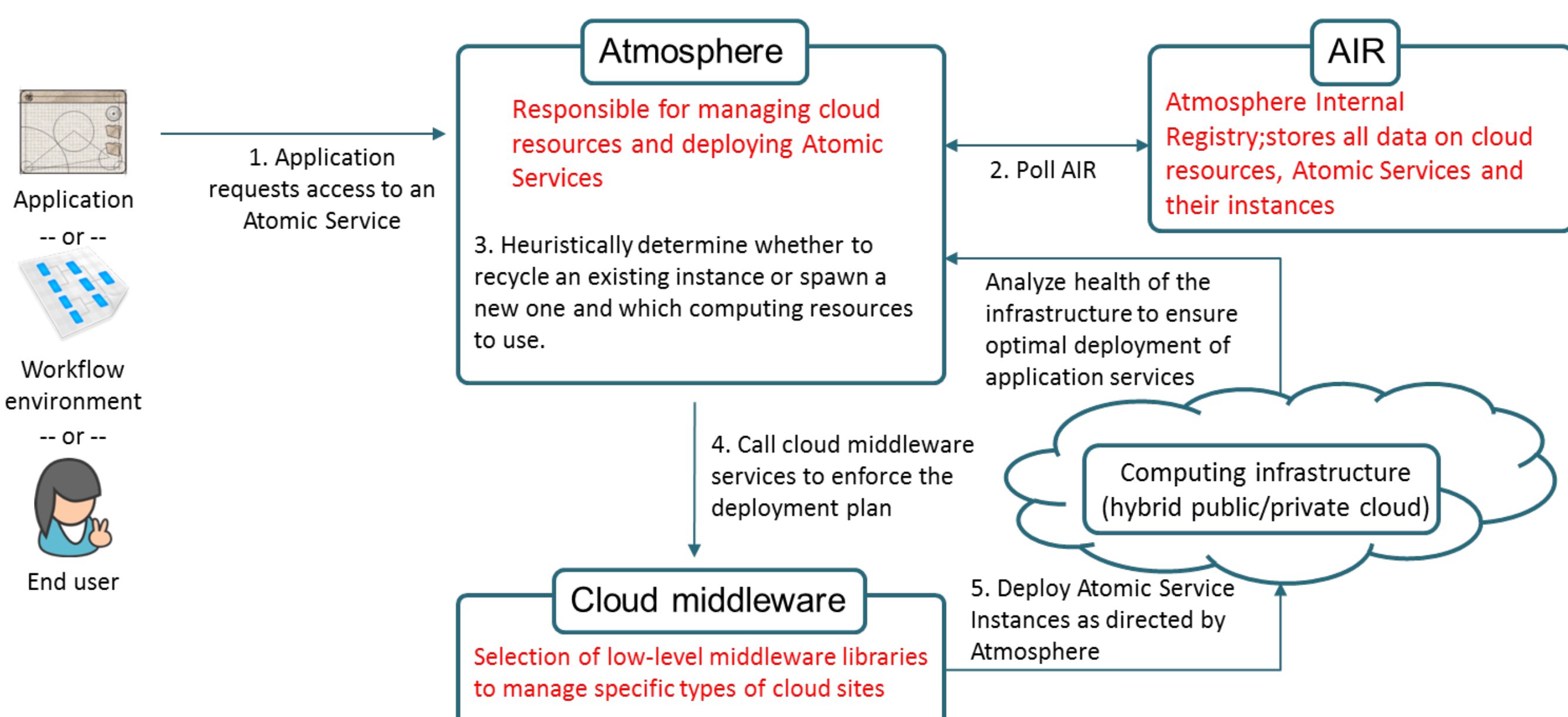


Basic Features



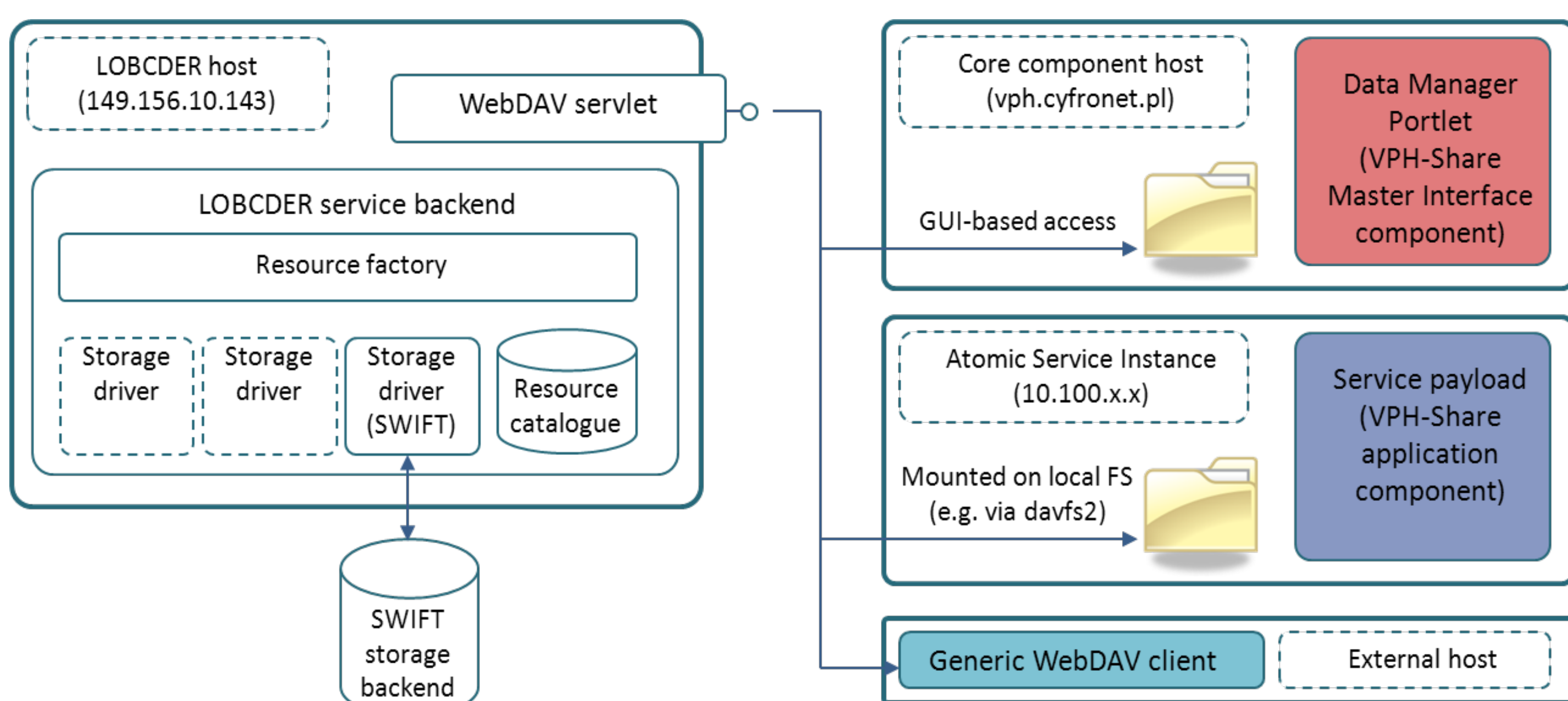
Direct access to raw virtual machines, large-scale computations can be delegated to cloud/HPC, computations can be executed close to data

Atmosphere Management Service



Manages the available cloud infrastructure and heuristically deploys application services to ensure optimal QoS

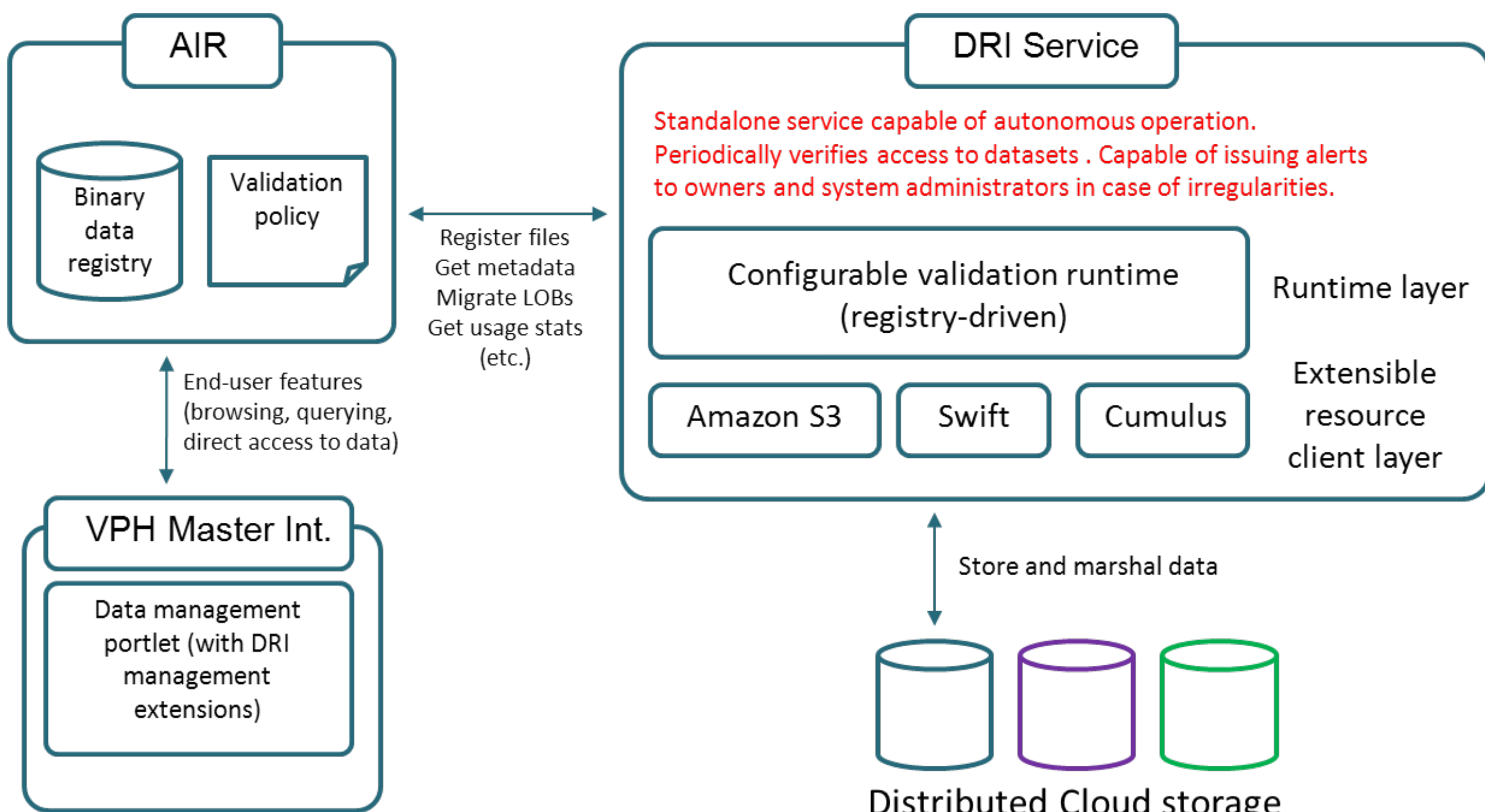
Data Access for Large Binary Objects



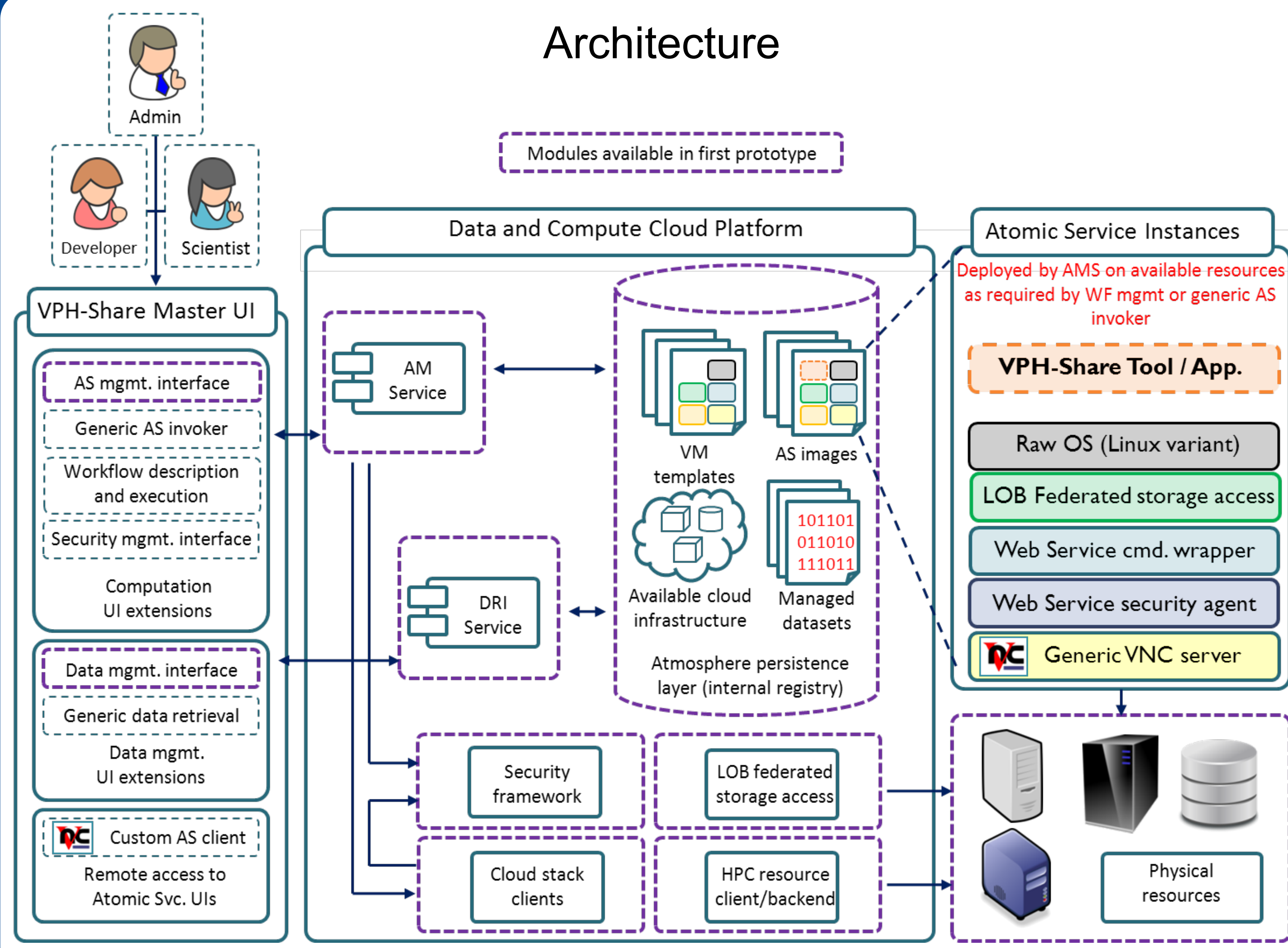
Enables data sharing, interfacing various storage resources, exposes a WebDAV interface

Data Reliability and Integrity

Keeps track of binary data and monitors its availability, advises the cloud platform when instantiating atomic services, shifts/replicates data between cloud sites

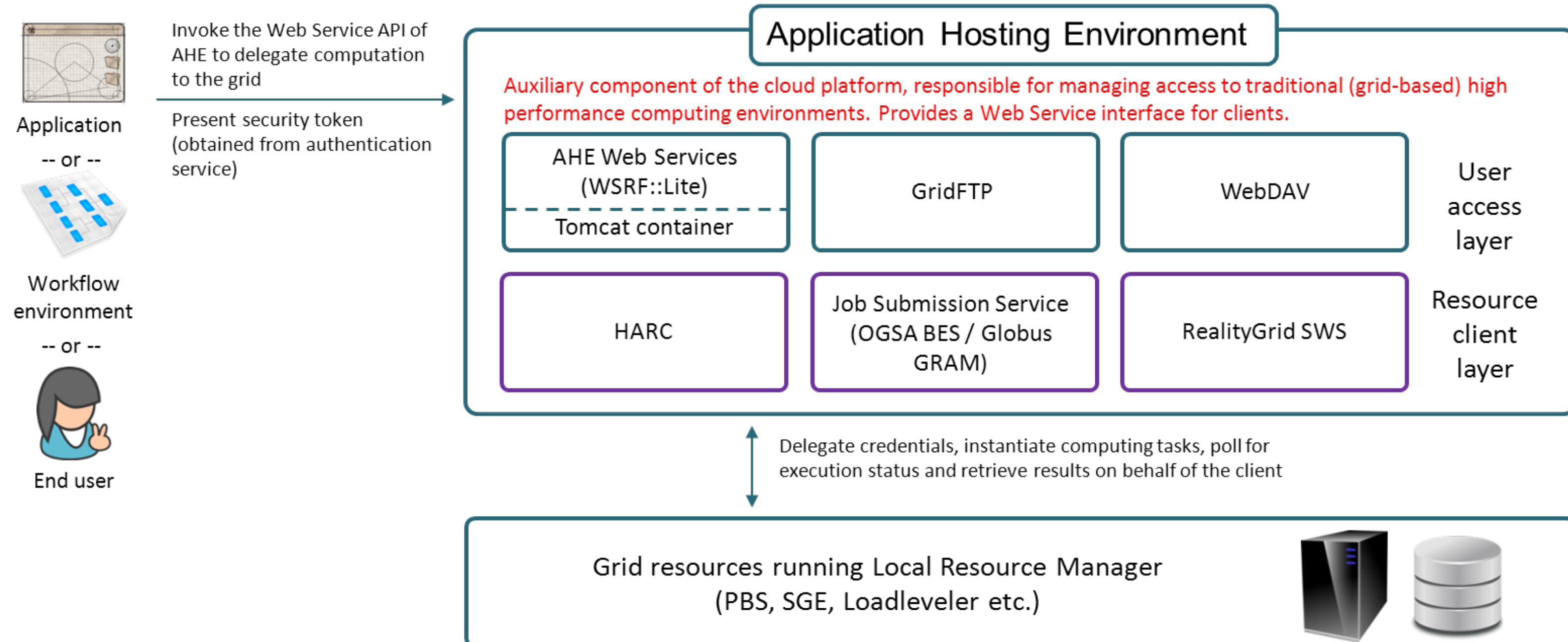


Architecture



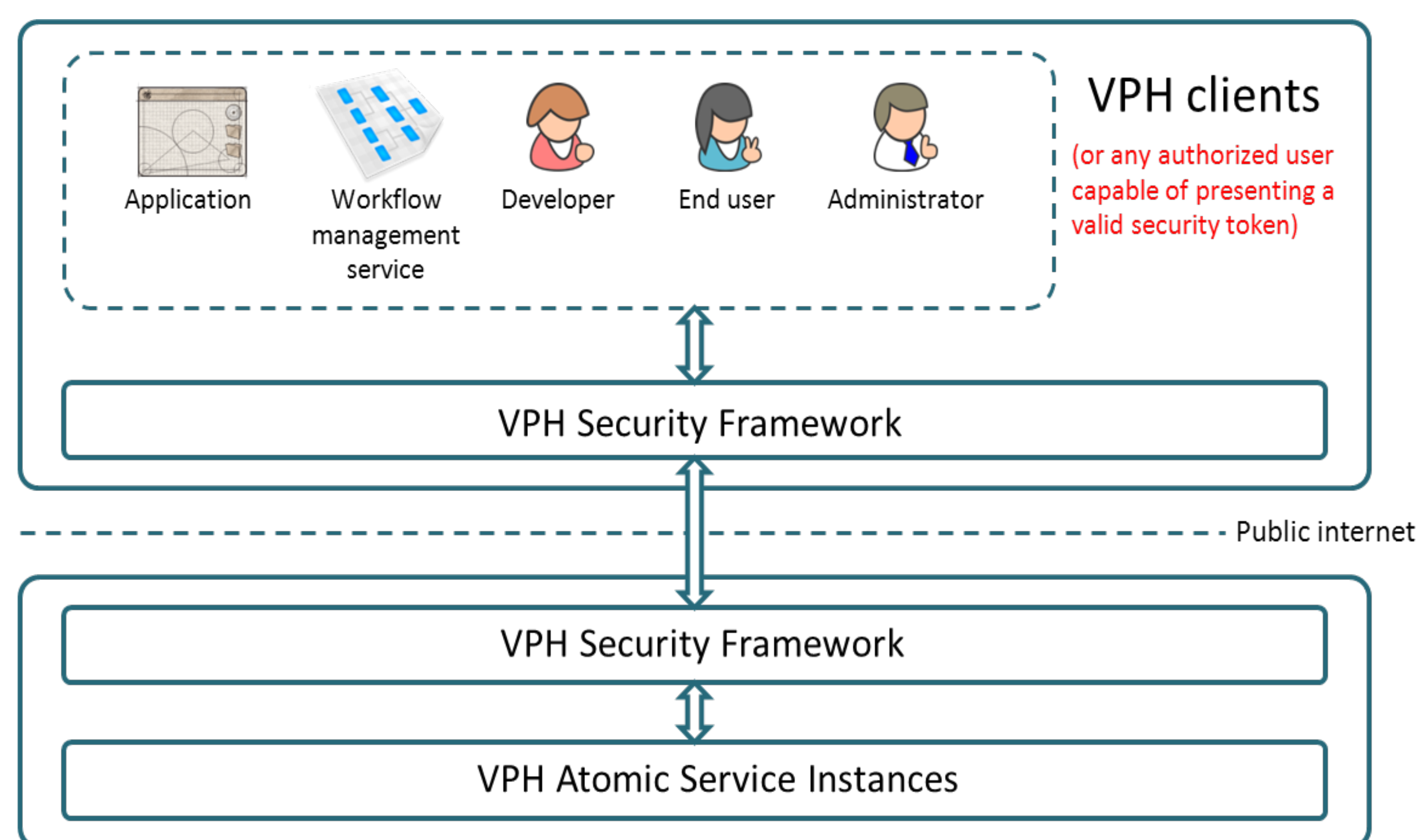
High Performance Execution Module

Provides virtualized access to high performance execution environments



Security Framework

Provides policy-driven access, ensures privacy and confidentiality of data



www.vph-share.eu

<http://dice.cyfronet.pl/>

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- Maciej Malawski, Tomasz Gubala, and Marian Bubak: Component-based Approach for Programming and Running Scientific Applications on Grids and Clouds. International Journal of High Performance Computing, 26 (3) 275-295 2012
- Spiros Koulouzis, Reginald Cushing, Konstantinos Karasavvas, Adam Belloum, and Marian Bubak: Enabling Web Services to Consume and Produce Large Distributed Datasets, IEEE Internet Computing, vol 16, No 1, pp 52-60, Jan/Feb 2012
- Reginald Cushing, Spiros Koulouzis, Adam Belloumy, Marian Bubak: Prediction-based Auto-scaling of Scientific Workflows, Workshop MGC'2011, December 12th, 2011, Lisbon, Portugal