ARGO Service Monitoring
http://argoeu.github.io

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ARGO Service Monitoring

A Flexible & Scalable Framework

- **Status**, **availability** and **reliability** of services
- Provides **multiple reports** using **customer defined profiles** (e.g. for management, operations etc)
- **Multi-tenant support** in the core framework
- Supports **flexible deployment** models
- Modular design enables **integration with external systems** (such as CMDBs, Service Catalogs etc)
- Can take into account **custom factors** during the report generation (e.g. the importance of a service endpoint, scheduled or unscheduled downtimes)
- Based on **open source** components

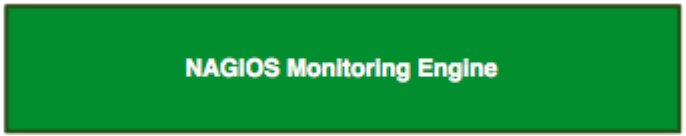
Status, Availability & Reliability

ARGO Service Monitoring

Status. Service Monitoring

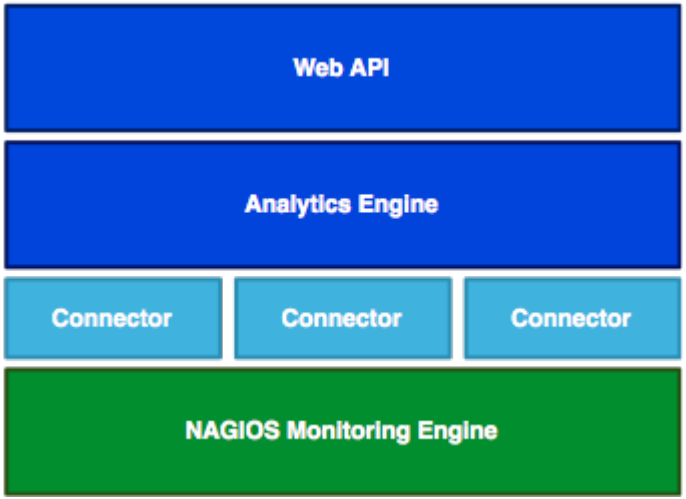
For status monitoring, ARGO relies on Nagios. All probes developed for ARGO follow the Nagios conventions and can run on any stock Nagios box.

ARGO provides an **optional set of addons** for the stock Nagios that provide features such as auto-configuration from external information sources, publishing results to a an external messaging service etc



Status, Availability & Reliability

ARGO Service Monitoring



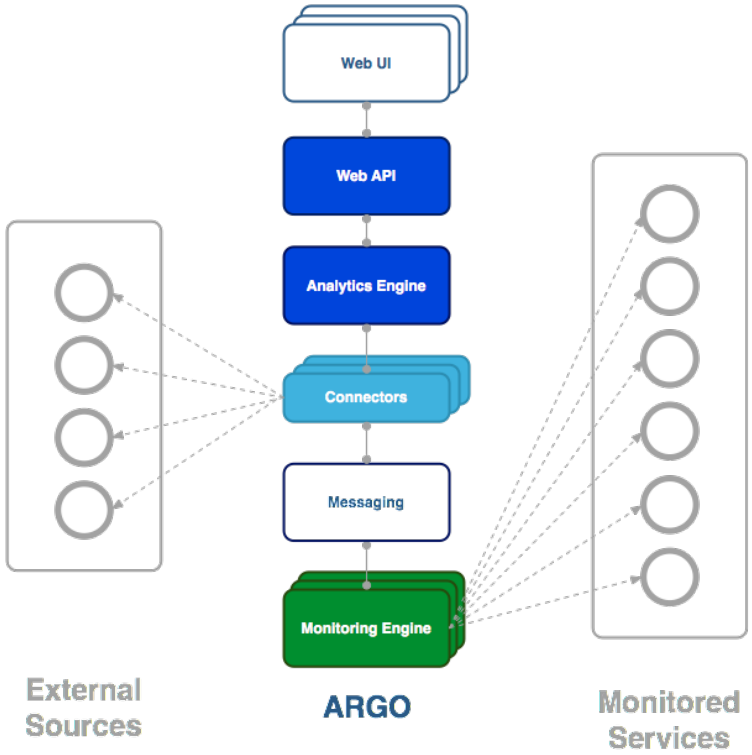
Availability & Reliability. Service Monitoring

For Availability & Reliability monitoring ARGO, introduces a modular architecture, which relies on Nagios for service endpoint monitoring and which can ingest in the Nagios monitoring results in order to **track** a vast number of **monitoring metrics**, provide real-time **notifications** and **status reports** and **monitor SLAs/OLAs**

ARGO comes in two flavors: **A standalone version** for deployment in low density e-Infrastructures with a limited number of services and **a cluster version** for deployment in high density e-Infrastructures with a large number of services.

Modular Architecture

ARGO Service Monitoring



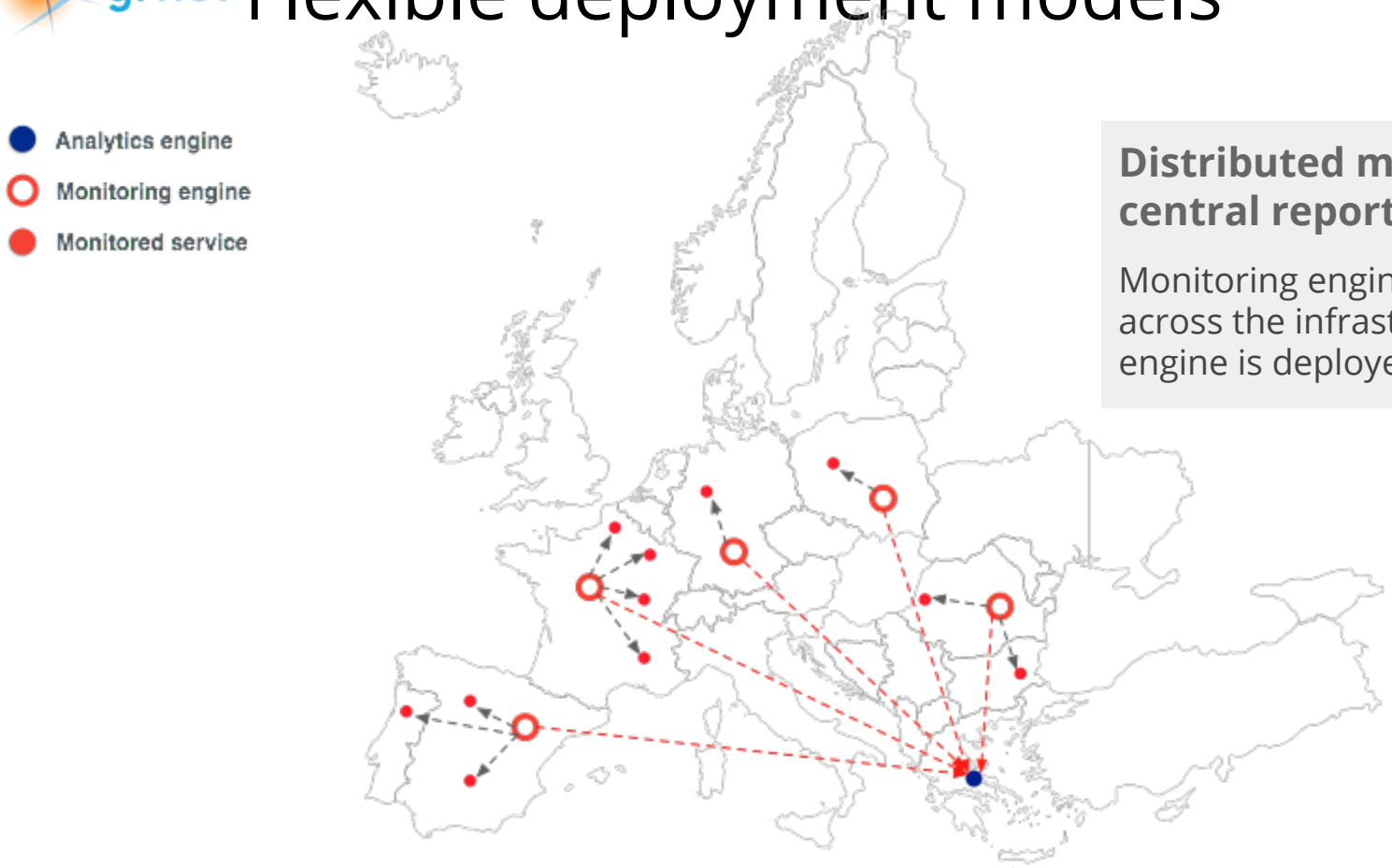
ARGO Components. Modular Architecture

At its core, ARGO uses a **flexible** monitoring engine (Nagios), a **powerful** analytics engine and a **high performance** web API.

Embracing a **modular, pluggable architecture**, ARGO can easily support a **wide range of e-Infrastructures**.

Through the use of **custom connectors**, ARGO can connect to multiple external **Configuration Management Databases** and **Service Catalogs**.

Flexible deployment models



Distributed model with central reporting

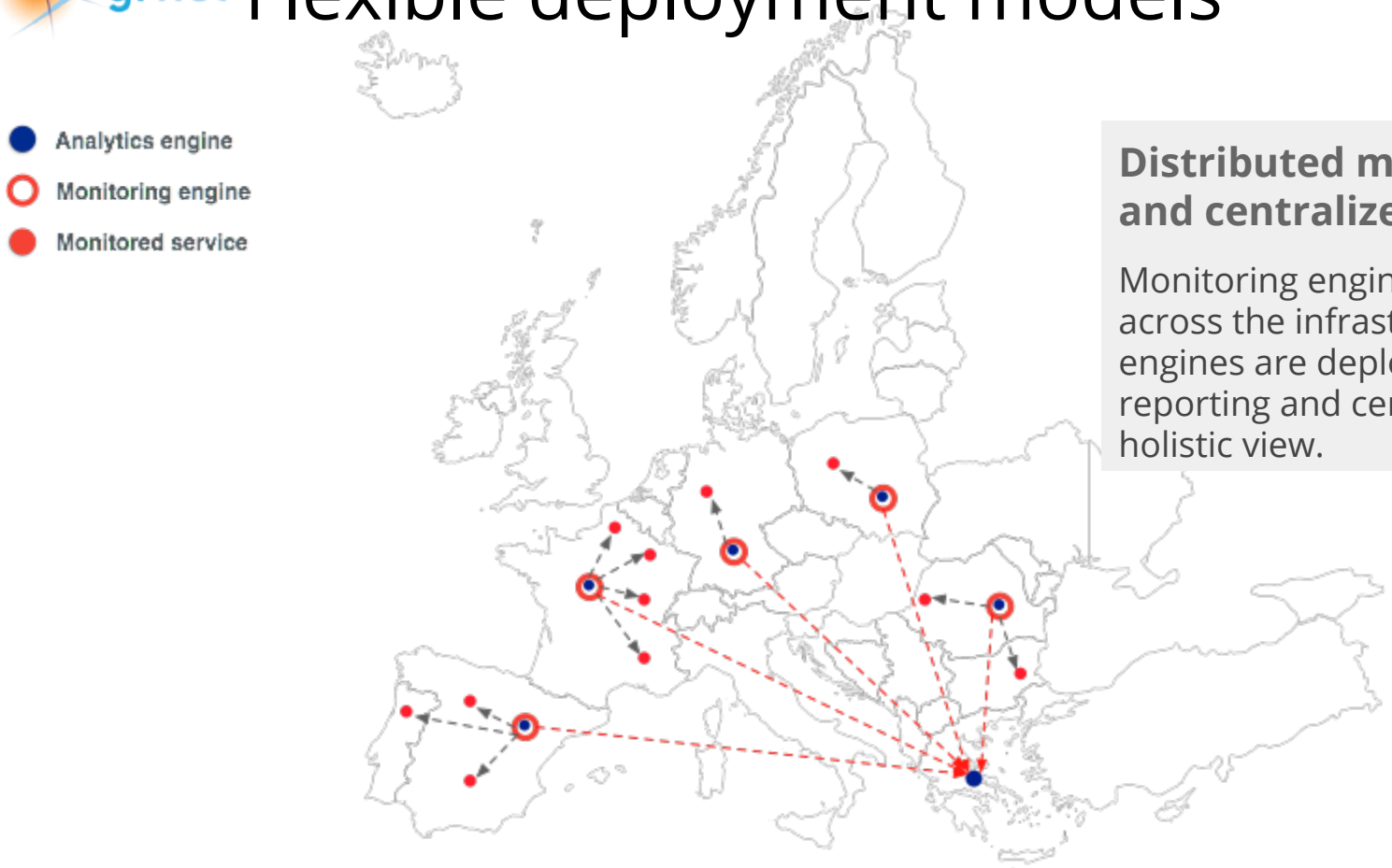
Monitoring engines are distributed across the infrastructure. Analytics engine is deployed centrally

Flexible deployment models

Centralized Model

Monitoring and reporting engine deployed at a central location

Flexible deployment models



Distributed model with local and centralized reporting

Monitoring engines are distributed across the infrastructure. Reporting engines are deployed locally for local reporting and centrally providing a holistic view.

ARGO in EGI

ARGO Service Monitoring

- Web site: http://argo.egi.eu
- Currently uses the **distributed model with centralized reporting**
  - Investigating migration to the centralized model
- **Distributed monitoring engines (Nagios) per NGI or VO**.
- **Monitoring results are published to the ARGO Reporting Engine.**
  The Message Broker Network is used as the transport mechanism
- **3 profiles for generating Status, Availability & Reliability Reports**.
  ROC_CRITICAL, OPS_MONITOR_CRITICAL, CLOUDMON_CRITICAL.
  Can implement more profiles if needed

ARGO Adoption & Developments

ARGO Service Monitoring

- ARGO is developed by GRNET (Greece) in collaboration with SRCE (Croatia) and CNRS (France)
- ARGO provides (or will provide soon) Service Reporting for Status, Availability and Reliability Reports in EGI, EUDAT, GRNET Prace Tier-1 and CLARIN-EL.
- ARGO follows an open source development process
  - All development takes place on github - http://github.com/argoeu/
  - New requirements are gathered after consultation with the user communities

Thank you
Questions?