

MARS

Maintenance & Assets for contRols

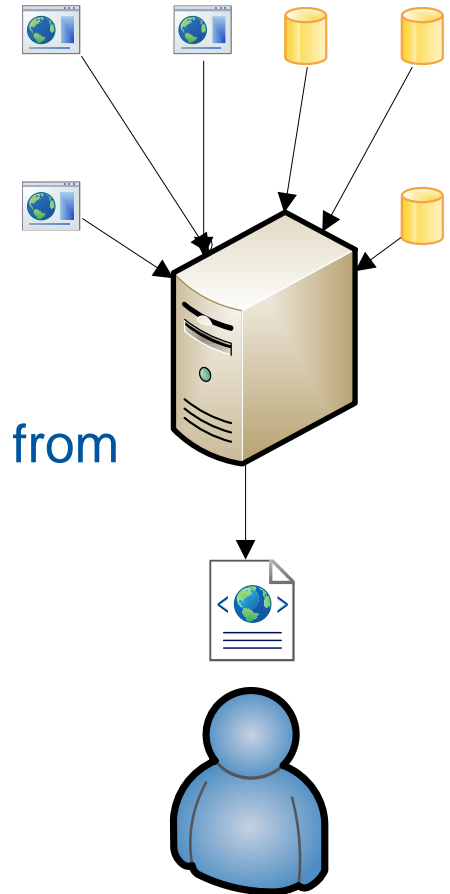
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Agenda

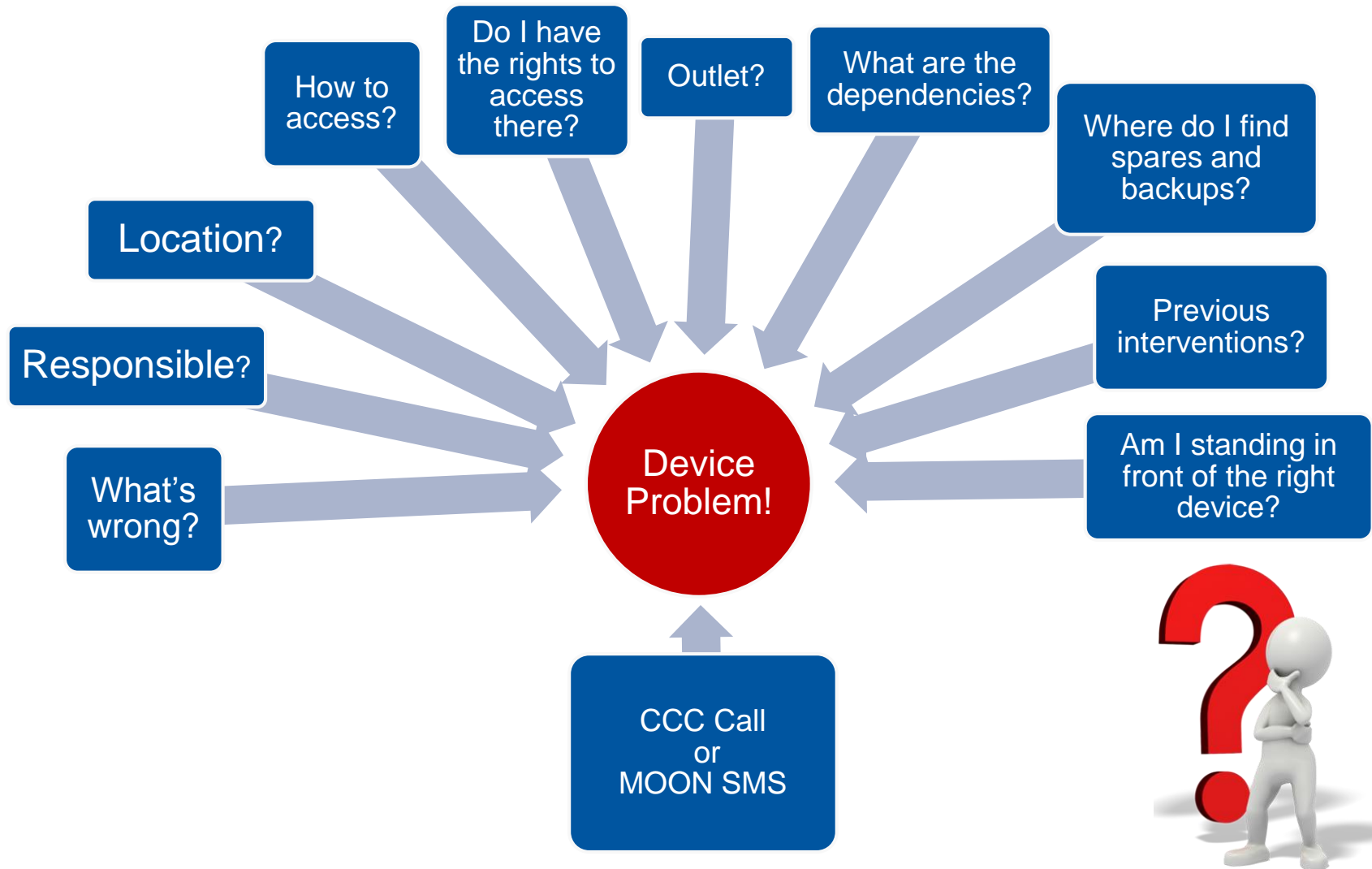
- Purpose of the project
- Use-case
- High level overview
- Current status
- Possible improvements
- Technology stack
- Demo

Purpose

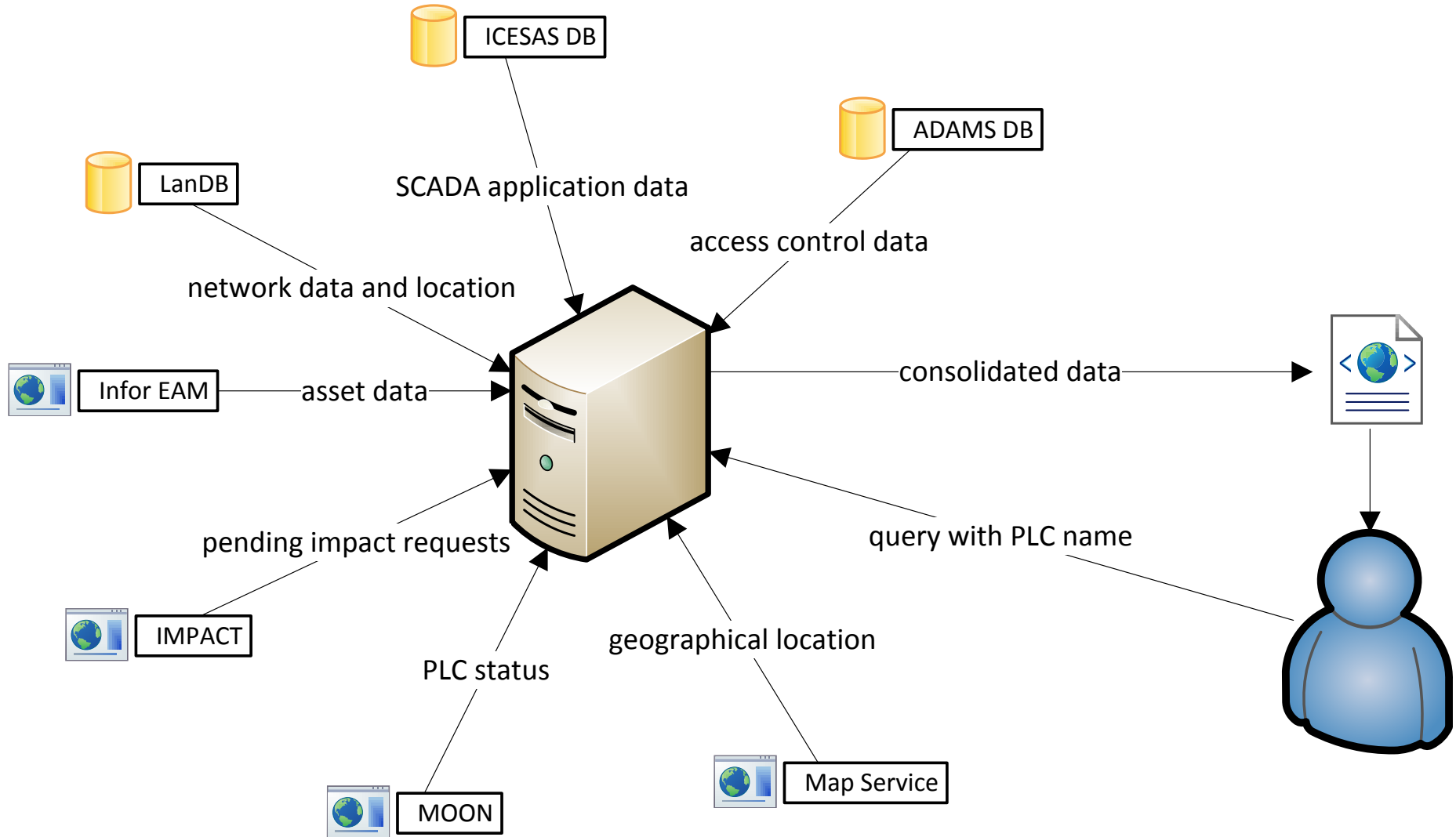
- Support piquet and experts during interventions
- Problem: Information for a device presently scattered over multiple data source (InforEAM, LanDB, MOON, etc.)
- Aims of MARS:
 - ✓ Provide a single access point to data
 - ✓ Hide the complexity of linking the fragments of data from the difference sources
 - ✓ Select the most relevant information
 - ✓ Data accessible from the web or mobile devices

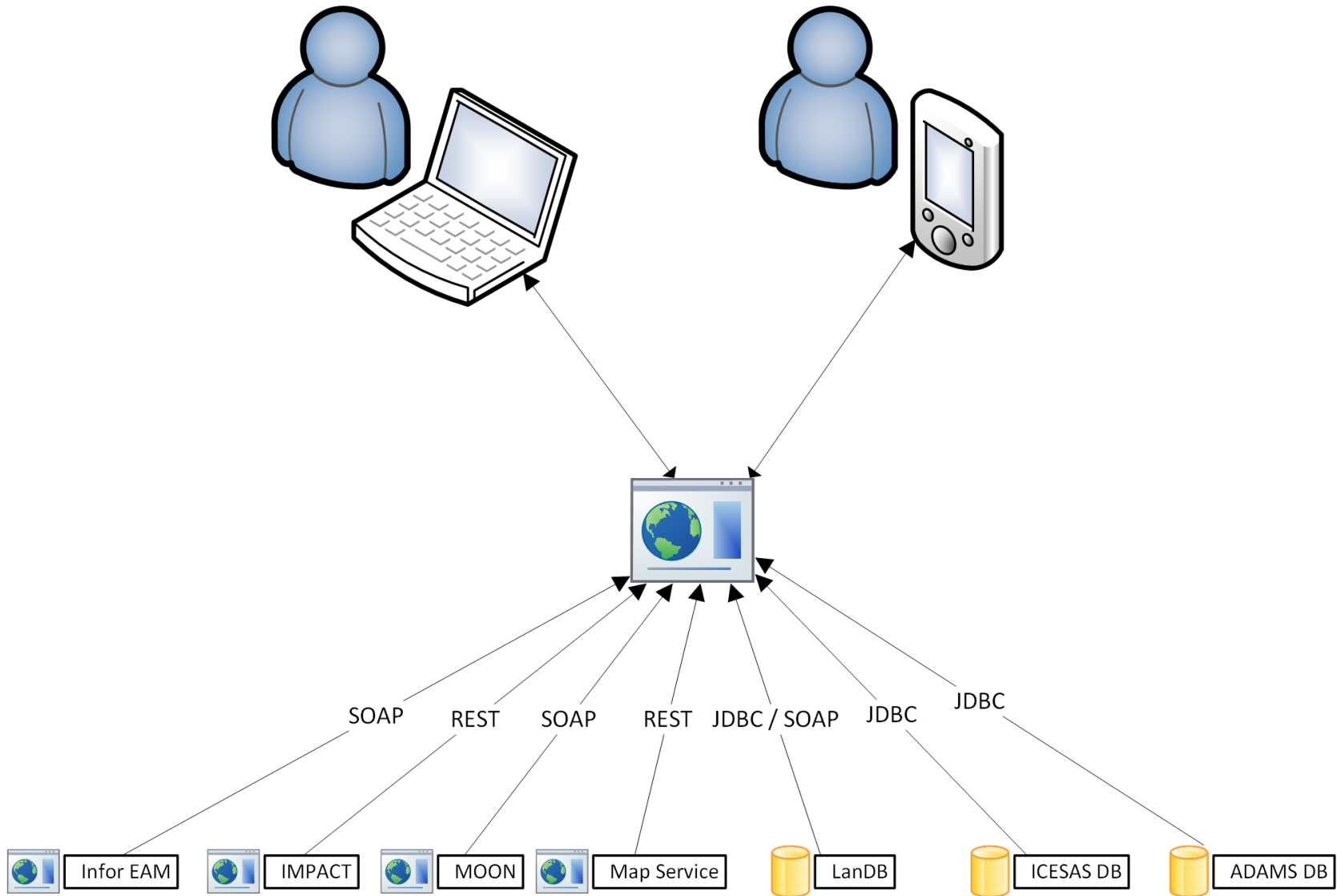


Use-case



Overview





Current status

- Web application is available at <https://cern.ch/ics-mars>
- Mobile application with built-in barcode scanner is also available for download
- Querying LanDB, Infor EAM, CERN Maps, ICESAS and IMPACT is working

- MOON data are not available until migration to new WinCCOA version (SOAP Interface)
- ADAMS access control data are limited to LHC – only source for access points for now is IMPACT

Possible improvements

- Query real data from MOON after the migration is complete
- Integrate with ADAMS 3 to get more precise access control information
- Link to the VersionDog with PLC source code deployed on the queried device
- Retrieve device hierarchy from InforEAM (e.g. what is my PLC made of?)
- Interplay with BE-CO “rack tools”
- More input required from experts

Technology stack

- Implementation:
 - Backend:
 - Java 8, Spring 4 (Boot, MVC)
 - Datasource access:
 - JAX-WS / Apache Axis
 - JAX-WS / Apache CXF
 - Spring RestTemplate / Jackson
 - Oracle JDBC
 - Web Frontend:
 - Freemarker
 - Bootstrap, jQuery, Javascript, MDL
 - Mobile App:
 - Xamarin
- Deployment on CERN Middleware-on-demand





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