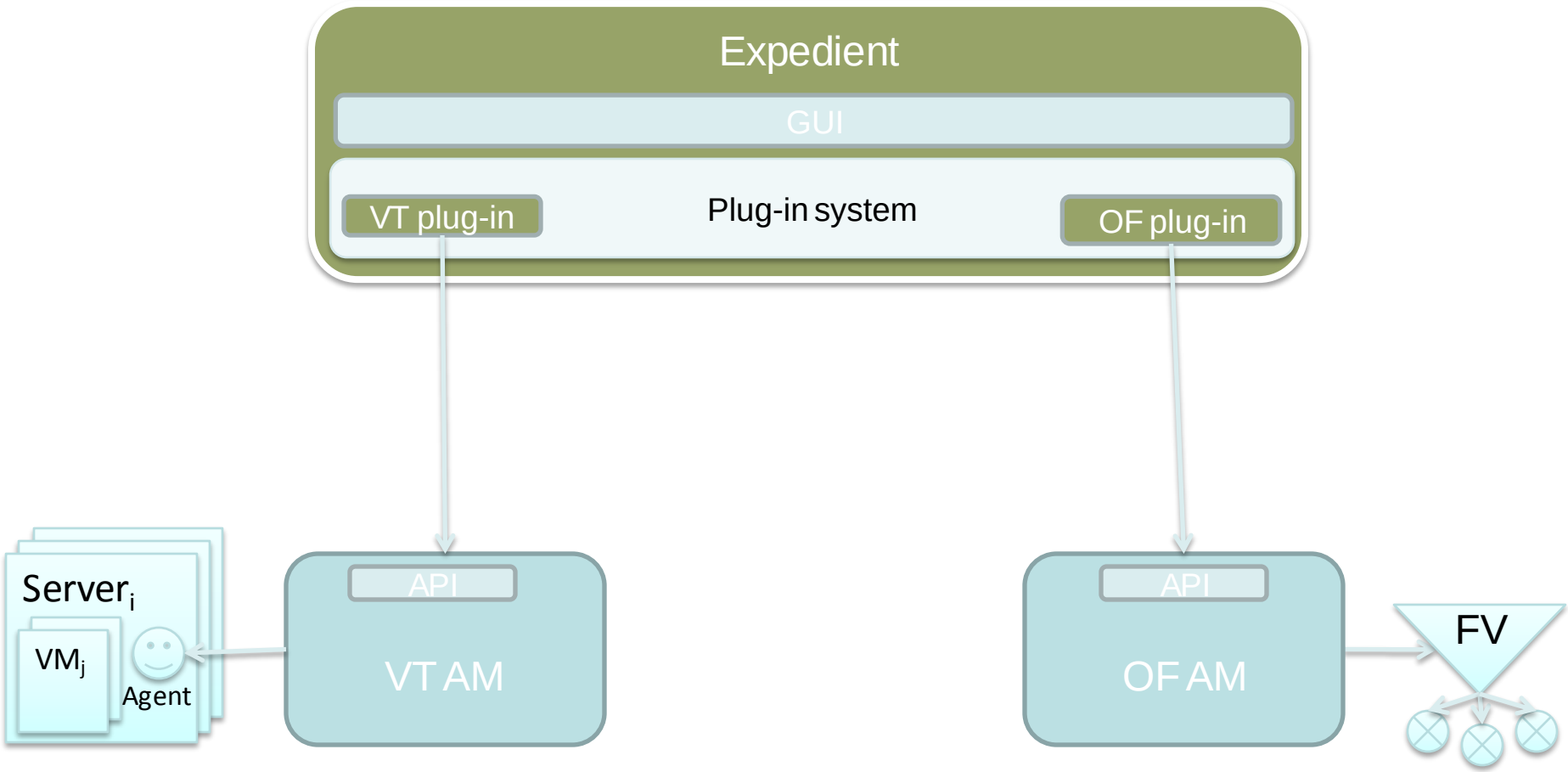
OCF development status and Roadmap

DANA team (i2CAT)

OCF: status

- Under constant work
- 0.x versions
  - Based on Stanford's Expedient (only UI+CH) and opt-in
  - Support for OpenFlow 1.0 equipment, XEN virtualized servers
  - Basic monitoring on AM connections and VMs status
- 1.x versions
  - New architecture: APIs, AAA, RSpecs, AMs
  - Complete monitoring and provisioning flows
  - Opt-in manager replaced by FOAM
  - Isolation of clearinghouse and driver-based UI
  - AMs/RMs provided with a Policy Engine (rule based policies on resources)
  - Integration of VeRTIGO & VT planner

v0.5 architecture



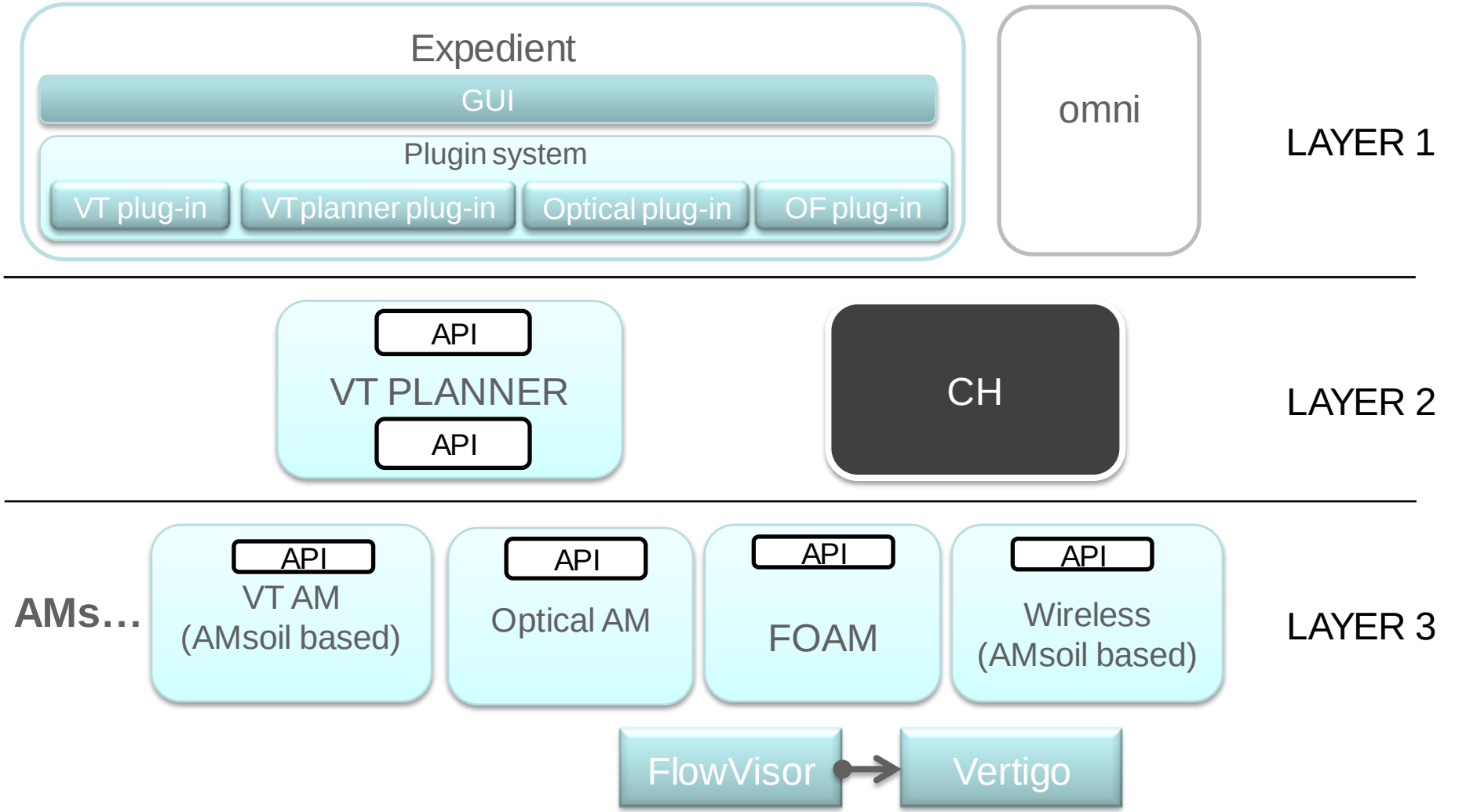
Roadmap towards 1.0

- v0.6
  - Integration of FOAM in the OCF *[on progress, feedback with Vassilis]*
    - Beta status, coexistence with Opt-in AM for easy transition
  - SFA API for the VT AM and the Opt-in AM *[done]*
  - Bug solving from 0.5 *[done]*
  - VT AM interface for the VT planner *[almost done, returning server status]*
  - Optional features:
    - Spirent ready VT AM and AGENT
- When?
  - Expected by first weeks of September
    - Imminent release

Beyond v0.6

- v0.6+…v1.0?
  - Expedient refactoring *[under heavy work, advanced]*
  - New clearinghouse *[on hold]*
  - Integration of BOWL into the OCF stable branch *[on hold]*
    - GUI for BOWL AM
  - Vertigo integration into the OCF stable branch *[on hold]*
    - GUI for Vertigo
  - Optical AM integration into the OCF stable branch *[on hold]*
    - GUI for Optical AM
- When?
  - Before the end of the project
    - Positive mindset

v1.0 architecture: layered system



Future plans (from OFELIA D5.3)

- AMsoil
  - SFA RPC
  - GENI AM API v2 RPC handler and delegate
  - *Calendarization* or scheduling of resource reservations
  - Integration of the policy engine
  - Enforcement of (additional) authorization decisions
- Expedient
  - Maintenance and bug fixing
  - Improve performance, especially related to the load time of the GUI

Future plans (from OFELIA D5.3)

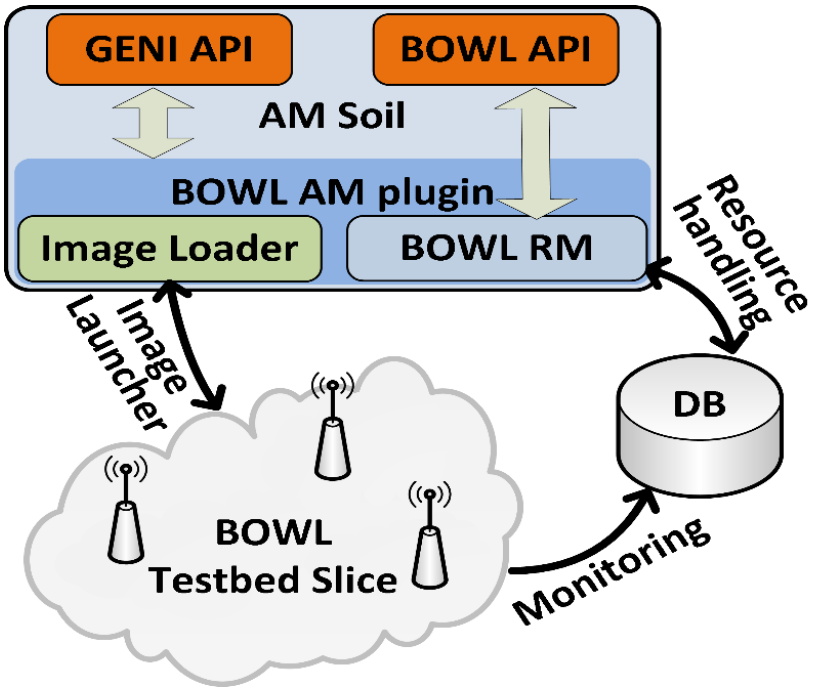
- VT AM
  - AMsoil based
  - Windows VMs
- OF AM
  - Maintenance and bug fixing
  - GENI API support and maintenance (until v2), so that external clients (like `omni`) can talk to FOAM under all circumstances
  - CH-FOAM API refinement and refactoring (if needed, based on new authorization mechanisms developed by other partners)
  - VT planner support from FOAM's side (in cooperation with CREATE-NET – developer team of the first component)
  - Documentation on future migration of FOAM to AMsoil (on how to achieve the transition, probably after the end of the project)

Future plans (from OFELIA D5.3)

- VT-planner
  - Integration of the VT-Planner VNE embedding algorithm
    - Support for the allocate, provision, list resources, and delete methods for networking resources only
    - Support for the allocate, provision, list resources, and delete methods for both virtual machines networking resources only
    - Support for VLANs generation
- Vertigo driver
  - Second version of the driver
    - Retrieve the capabilities of the switches ports
    - Capabilities include rate, medium and link features like auto-negotiation and pause

Future plans (from OFELIA D5.3)

- BOWL
  - Future BOWL AM architecutre with Image Loader (IL)
  - The IL would take a firmware image as input for the BOWL nodes and boot all nodes into the firmware selected by the experimenter



END