ETSI-Alignment Task Force Update for EUAG

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Orchestration Scenarios (a.k.a. ETSI-Alignment) Task Force weekly meeting,
Weekly meeting: Mondays at 12PM UTC, 5AM PT, 8AM ET, 2PM CET, 5:30PM India, 8PM China.
https://zoom.us/j/722438866
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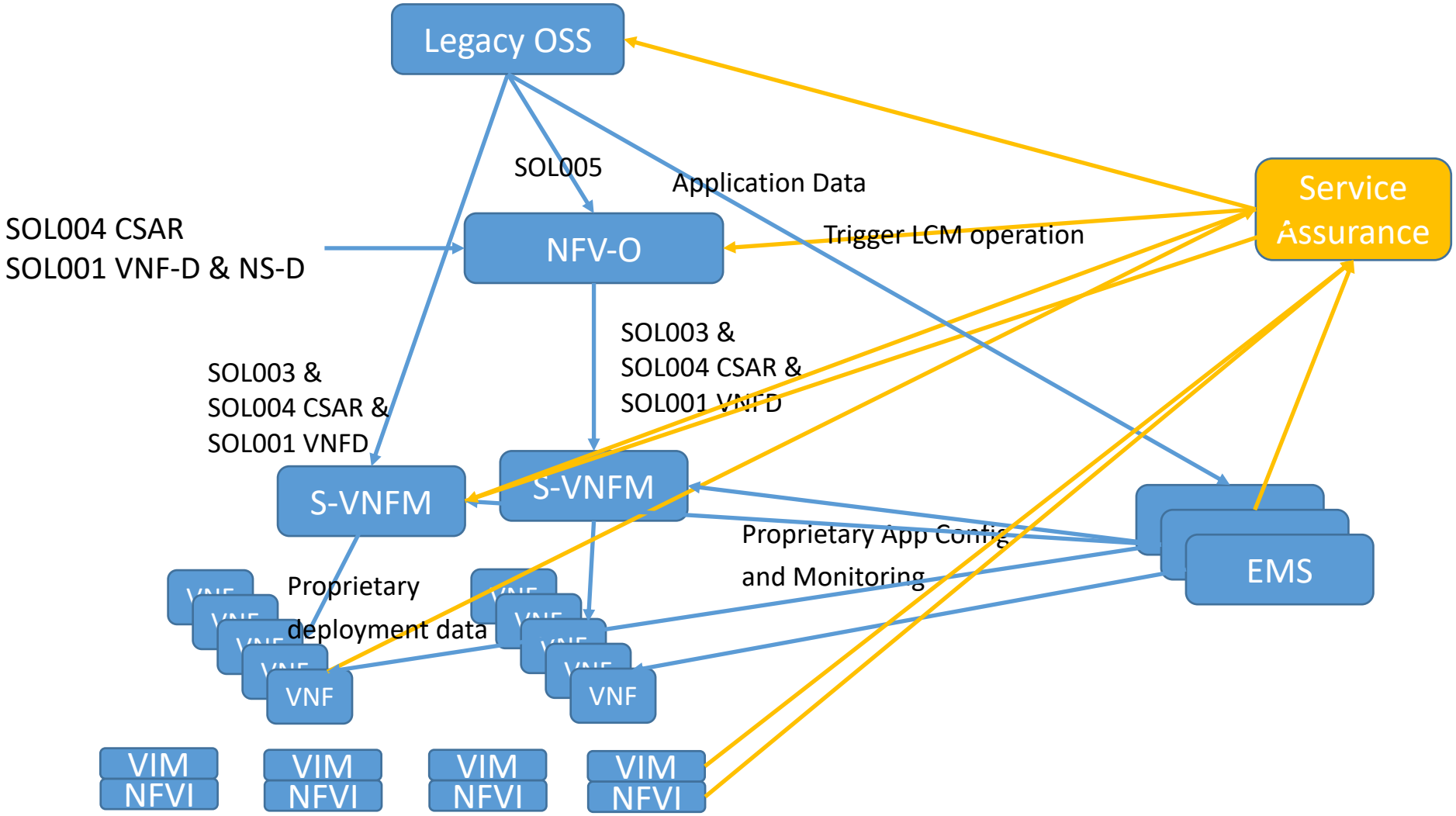
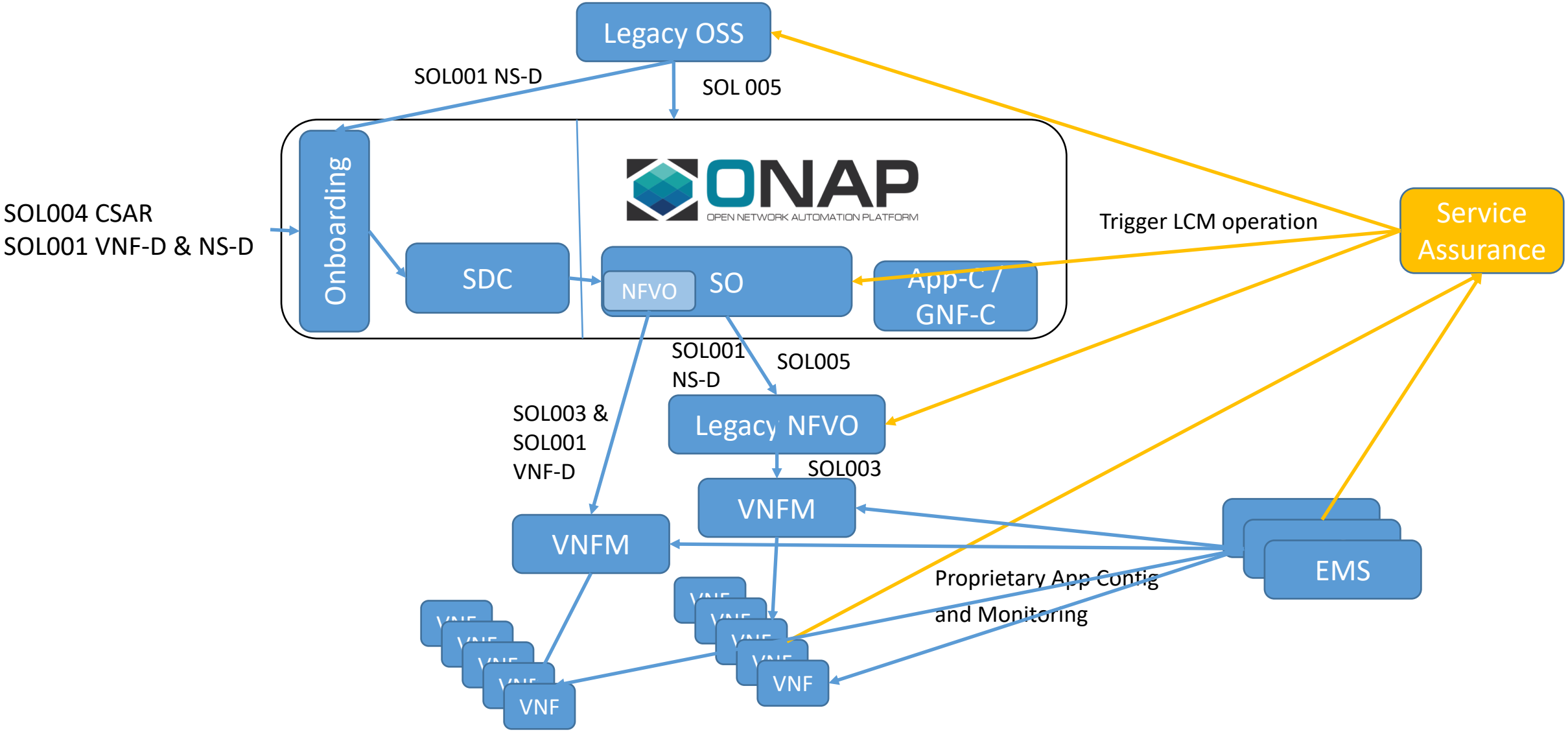
Existing NFVO, VNFM, EMS and Service Assurance



ONAP integration with existing NFVO, VNFM, EMS and Service Assurance



ONAP ETSI Alignment Requirements

- ETSI standard supports for packaging, distribution, security and catalog of VNF, PNF and NS.
  - ONAP shall support SOL004 and SOL007 package onboarding and distribution (VNFSDK, SDC, SO, VFC and others)
  - ONAP shall support ETSI Package security and validation (VNFSDK, SDC, SVNFM, VFC, External NFVO)
  - ONAP shall support ETSI package catalog in runtime (SO, ONAP-ETSI Catalog Manager)
- External VNFM scenarios (SOL003 support):
  - ONAP shall ingest and save (without modification) a SOL004 CSAR package for later consumption by a SOL003 compliant VNFM/NFVO (VNFSDK, SDC, ONAP-ETSI Catalog Manager)
  - ONAP shall ingest and interpret a SOL001 compliant VNFD in order to design an ONAP Service (VNFSDK, SDC)
  - ONAP shall understand resource requirements in the VNFD for each deployment and scaling level (SO, SOL003 Adapter, A&AI, OOF)
  - ONAP shall support a SOL003 compliant SBI to plug in external VNFM (SO, SOL003 Adapter, VF-C)
  - ONAP shall have a mechanism for specifying that a VNF instance should be runtime managed by a particular VNFM type (design time) and instance (run time) (SO, SOL003 Adapter, OOF, A&AI)
  - ONAP shall have a way to inventory a VNF that was deployed using an external VNFM (SO, A&AI)
- External NFVO scenarios (SOL005 support):
  - ONAP shall ingest and save (without modification) a SOL007 Network Service Package. (VNFSDK, SDC) for later consumption by a SOL005 compliant NFVO
  - ONAP shall ingest and save (without modification) a SOL004 CSAR package for later consumption by a SOL003 compliant NFVO (VNFSDK, SDC, ONAP-ETSI Catalog Manager)
  - ONAP shall ingest and interpret a SOL001 compliant NSD/PNFD in order to design an ONAP Service (VNFSDK, SDC)
  - ONAP shall be able to convert an ONAP Service into a SOL001 compliant NSD (SOL005 Adapter)
  - ONAP shall have a SOL005 compliant SBI (SO, SOL005 Adapter, VF-C, External NFVO)
  - ONAP shall have a mechanism for specifying that a Service should be runtime managed SO, VF-C or external NFVO (SDC, SO)
  - ONAP shall have a way to inventory a Service that was deployed as a Network Service using an external NFVO (SO, A&AI)
  - ONAP shall be able to design a Service that includes some VNFs and some hierarchy (nested) of Services (NSs) (SDC)
  - ONAP shall have a way to Deploy and Life-Cycle Manage a Service that includes some VNFs and some hierarchy of Services (NSs) (SO, A&AI, SND-C, SOL003 & SOL005 Adapters)
- EM-Triggered VNF/VNFC Management (SOL002 support):
  - ONAP shall support: 1) VNFM-triggered VNF Configuration, 2) EM-triggered VNF/VNFC LCM and 3) VNF Indicator Interface, based on SOL002 standard (SOL002 Adapter, APPC, DCAE, Policy)

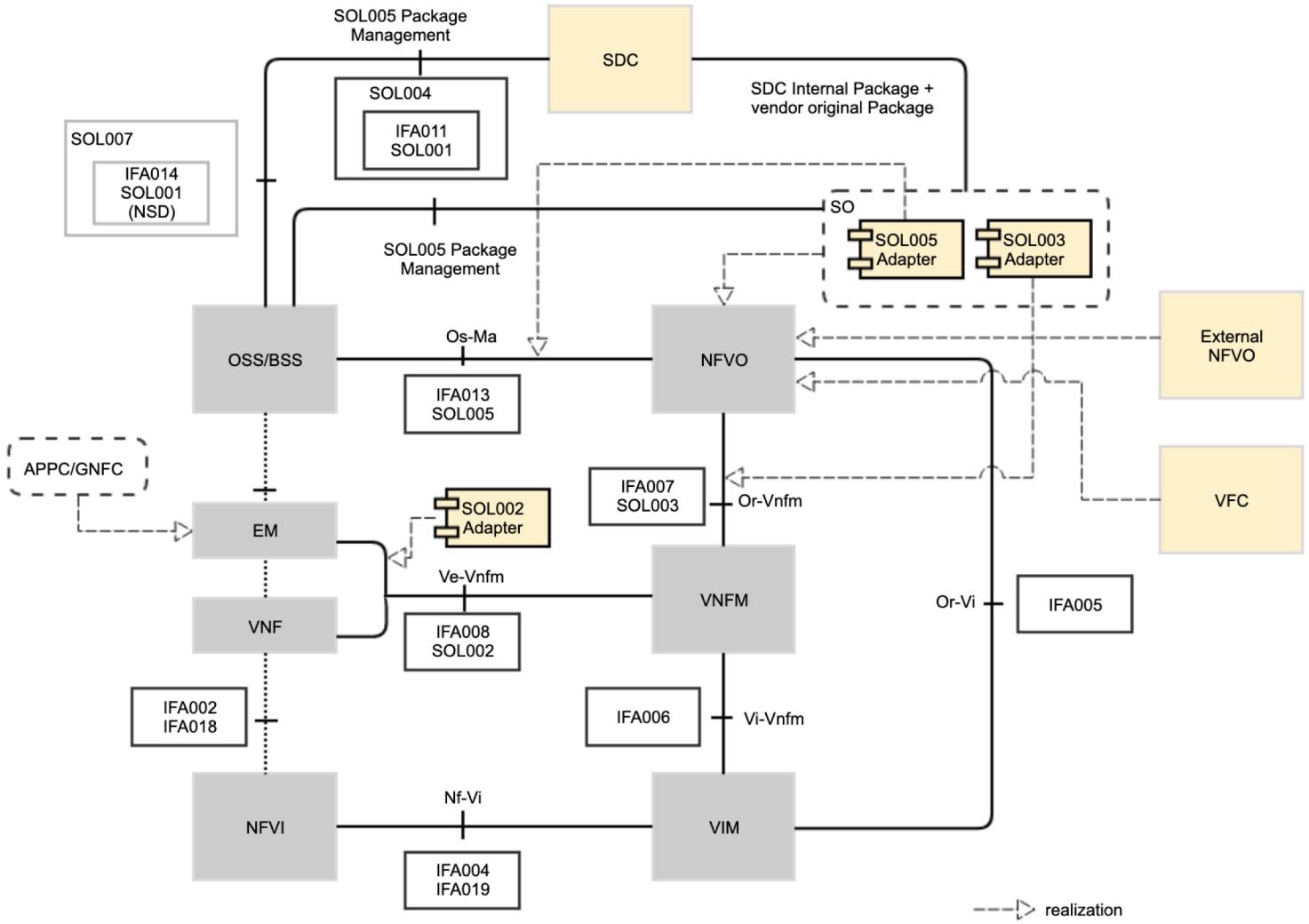
ETSI MANO and ONAP ETSI Alignment Landscape

As part of aligning ONAP to ETSI MANO, ONAP will support ETSI standards for packaging, operations, security and monitoring for managing VNF, PNF and NS.

- For packaging, the SOL004 standard is used for the VNF and PNF package, and the SOL007 standard will be used for the NS package
- VNF, PNF and NS will be described by the SOL001 standard.
- For VNF LCM, Package Management, LCM operations and Monitoring, the SOL003 standard is used.
- For NS LCM and Package Management, LCM operations and Monitoring, the SOL005 standard is used.
- For EM triggered scenarios (LCM, Fault, Performance, Configuration), the SOL002 standard is used.
- ETSI Package and communication security will be supported.

ONAP components realization of ETSI MANO

- SDC will realize SOL004 and SOL007 package onboarding, design and distribution functionalities.
- External NFVO and VFC will realize the NFVO functionalities.
- SOL003 Adapter will realize the Or-Vnfm (SOL003) interface.
- SOL005 Adapter will realize the Os-Ma (SOL005) interface.
- SOL002 Adapter will realize the Ve-Vnfm (SOL002) interface.



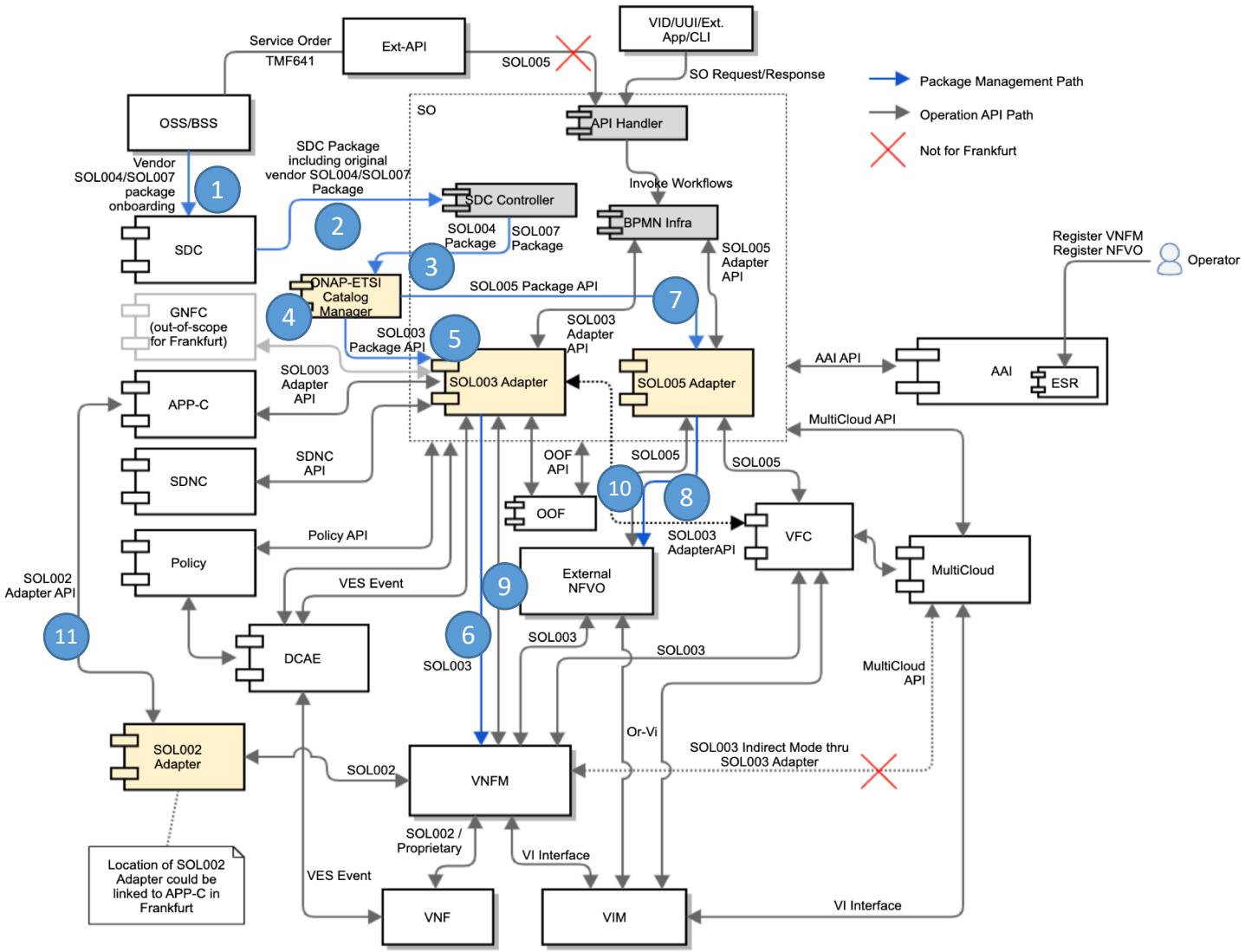
ONAP ETSI-Alignment Overall Architecture

ONAP will be aligned with ETSI standards: SOL004, SOL007, SOL001, SOL003, SOL005, SOL002

1. SDC will support SOL004/SOL007 Package Onboarding
2. SO (SDC Controller) will get an SDC package notification and queries for the SDC package including the vendor SOL004/SOL007 package
3. SDC Controller will invoke ONAP-ETSI Catalog Manager to store vendor packages
4. ONAP-ETSI Catalog Manager will store vendor packages in its database
5. SOL003 Adapter will query for VNF packages
6. SOL003 Adapter will forward VNF packages to VNFM
7. SOL005 Adapter will query for NS/PNF/VNF packages
8. SOL005 Adapter will forward NS/PNF/VNF packages to External NFVO
9. SOL003 Adapter will support SOL003 Operations
10. SOL005 Adapter will support SOL005 Operations
11. SOL002 Adapter will support SOL002 Operations

Note: SOL003/SOL005/SOL002 Adapters will leverage common functionalities such as:

- Security, HPA, AAI access, Policy Access



For more architecture and design details: https://wiki.onap.org/display/DW/ETSI+Alignment+Support

Ask of EUAG

- Participation from other operators
  - Do you have ETSI MANO alignment requirements for ONAP?
  - Are you deploying ETSI compliant Orchestration?
  - Can you join the Orchestration Scenarios (ETSI Alignment) taskforce?
- Resources
  - Architectural – to validate the current approach to ETSI Alignment for ONAP
  - Development – Design, Coding and Integration of the ETSI Adapters
  - Testing – Validation of the ETSI Adapters with commercial VNFs, VNFMs, NFVOs

References

- ETSI Alignment Support, https://wiki.onap.org/display/DW/ETSI+Alignment+Support
  - ETSI Package Management, https://wiki.onap.org/display/DW/ETSI+Package+Management
  - ETSI Catalog Management, https://wiki.onap.org/display/DW/ETSI+Catalog+Management
  - Communication Security, https://wiki.onap.org/display/DW/Communication+Security
  - SOL003 Adapter, https://wiki.onap.org/display/DW/SOL003+Adapter
  - SOL005 Adapter, https://wiki.onap.org/display/DW/SOL005+Adapter
  - SOL002 Adapter, https://wiki.onap.org/display/DW/SOL002+Adapter
- SOL003 Adapter APIs, https://wiki.onap.org/display/DW/SO+VNFM+Adapter+APIs
- SOL003 Adapter Test Case, https://wiki.onap.org/display/DW/SO+VNFM+Adapter+Test+Case
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Thank you!