



NFV&MEC PLUGTESTS 2020

Update to LFN June 2020

 [#NFVplugtests](#)

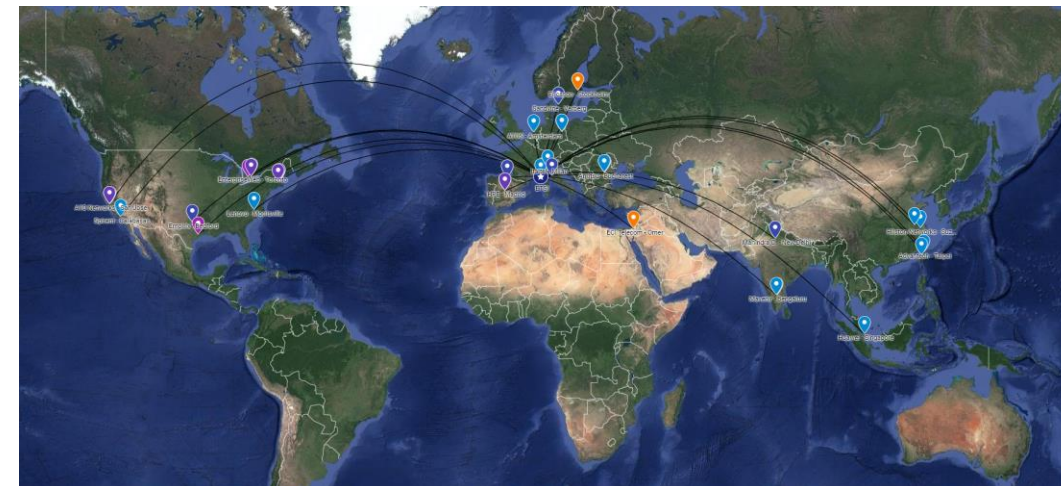
[#MECplugtests](#)

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23rd June 2020

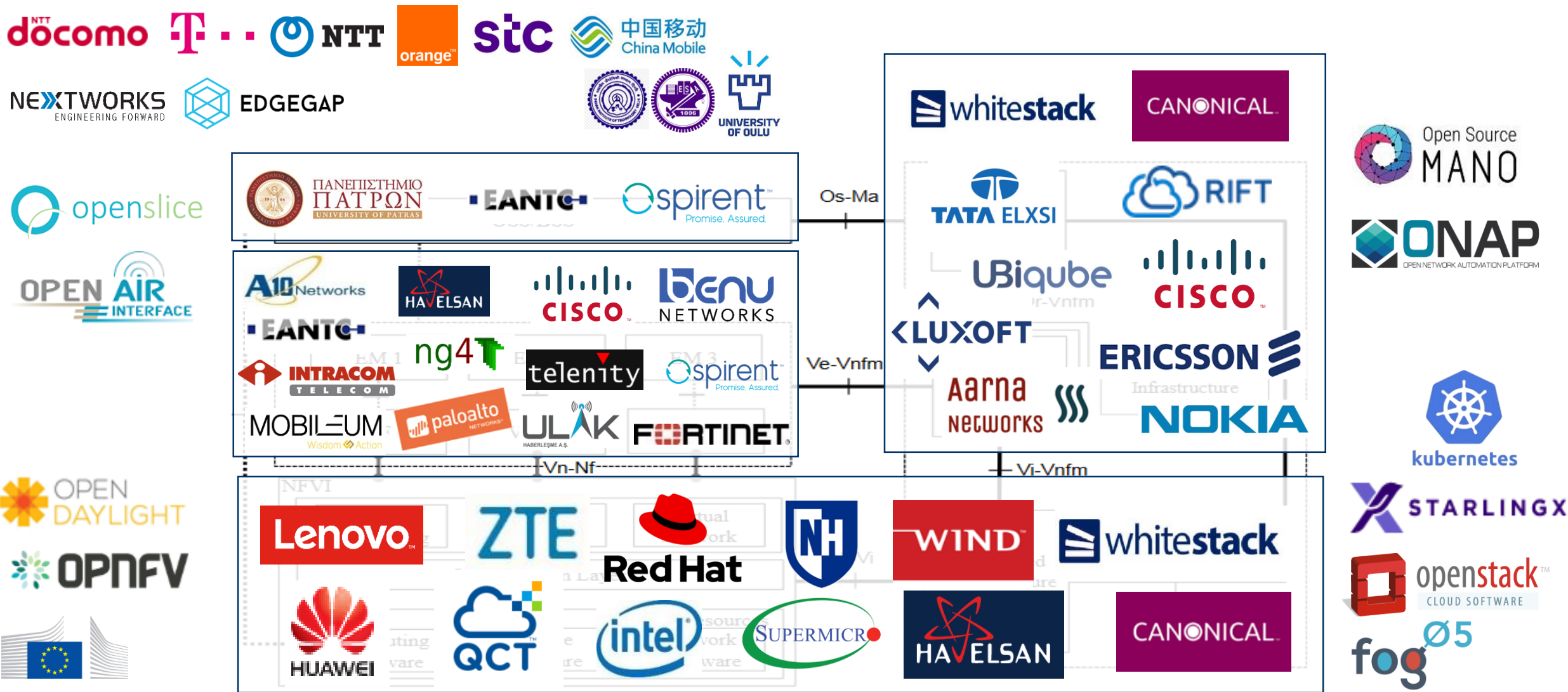
ETSI NFV Plugtests Programme

- ✔ Bringing NFV (&MEC!) implementers together for testing since 2017
- ✔ Joining is free and open for any organisation providing an implementation to test or to support the testing. Operators and academia can join as observers.
- ✔ Powered by HIVE – Hub for Interoperability and Validation at ETSI



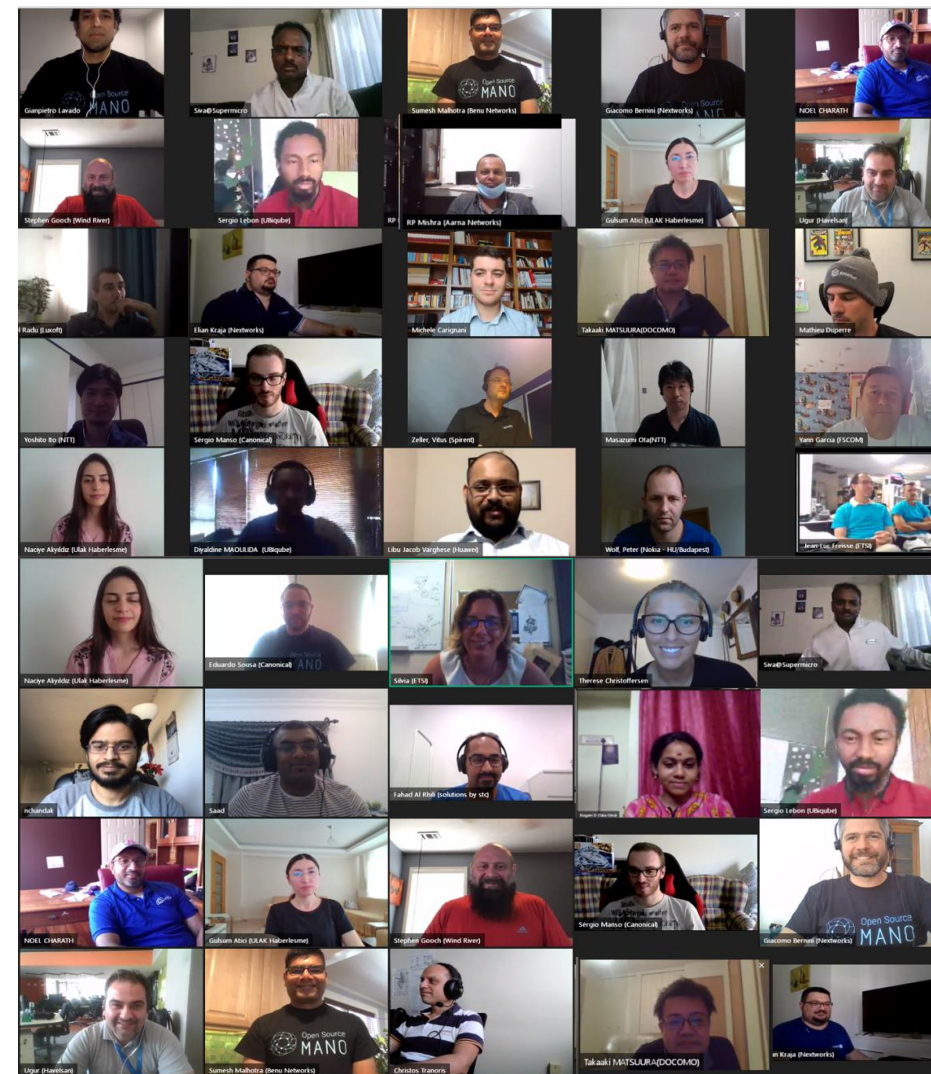
- ✔ [1st NFV Plugtests](#), Madrid, January 2017
- ✔ [2nd NFV Plugtests](#), ETSI, January 2018 – Co-located with 1st OSM Hackfest
- ✔ [3rd NFV Plugtests](#), ETSI, May 2018 – Co-located with OPNFV Fraiser Plugfest
- ✔ [Remote NFV API Plugtests](#), February-April 2019
- ✔ [4th NFV Plugtests](#), ETSI, May 2019 – including an experimental MEC track
- ✔ [NFV&MEC Plugtests 2020](#), Fully Remote, June 2020

NFV&MEC Plugtests 2020 – Participation



NFV&MEC Plugtests 2020 – by the numbers

- ✔ 40 organizations / 160 participants
- ✔ 33 VNFs / 5 CNFs / 18 Network Services
 - ✔ vFW, vGW, vEPC, 5G Core, traffic tools...
- ✔ 9 full MANO Solutions / 2 stand alone VNFMs
- ✔ 2x8 NFV platforms: OpenStack + Kubernetes
- ✔ 5 MEC Apps / 2 MEC Platforms
- ✔ 3 OSS/BSS solutions & automation tools
- ✔ 8 observer operators / academia



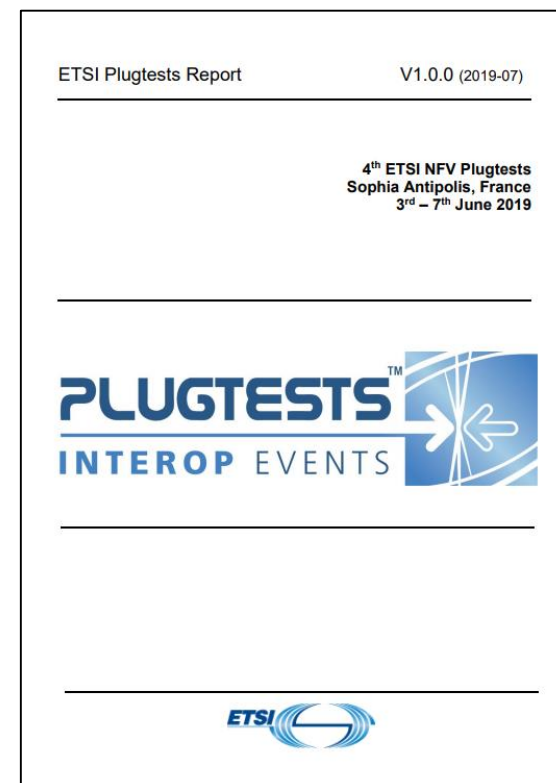
NFV&MEC Plugtests 2020 – Scope

- ✔ **Multi-vendor NFV Interop (72 Test Sessions)** – based on NFV TST007 v2.6.1
 - ✔ Several configurations, some including S-VNFM or OSS/BSS solutions / simulators
 - ✔ Including an experimental **Cloud Native Track (11 Test Sessions)**
 - ✔ And some **multi-site** deployments
- ✔ **NFV Automated Interop (7 Test Sessions)** – based on NFV SOL016 draft
 - ✔ New (experimental) Robot Framework Test Suite developed to support it
- ✔ **NFV API Conformance (190+ Test Sessions)** – based on NFV TST010
 - ✔ Robot Framework for SOL002, SOL003 and SOL005 V2.4.1, V2.6.1
- ✔ **Multi-vendor MEC & MEC-in-NFV Interop (6 Test Sessions)** – new test plan (based on MEC010-2 & MEC011)
- ✔ **MEC API Conformance (170+ Test Sessions)** – based on MEC DEC032
 - ✔ Robot Framework and TTCN-3 Test Suites for MEC011, MEC012 and MEC013

Overall (*) 85 Multi-vendor Interop Test Sessions
360+ API Conformance Test Sessions

Coming up next

- ✓ Some test sessions being finalised this week
- ✓ The Plugtests team will work in the Plugtests Report during the next month
 - ✓ Results & Lessons Learnt will be presented at NFV, MEC and OSM meetings in September
- ✓ All the Robot Framework Test Suites available in the [ETSI Forge](#)
 - ✓ Many issues (~45) found and fixed during this Plugtests
- ✓ An additional Remote API Plugtests under discussion for end 2020
- ✓ Aiming for a face-to-face event in June 2021
 - ✓ Will fall back to remote if hosting / travel restrictions still apply
- ✓ In-between events, implementations remain connected to HIVE and are welcome to run additional testing, PoCs, demos, showcases..

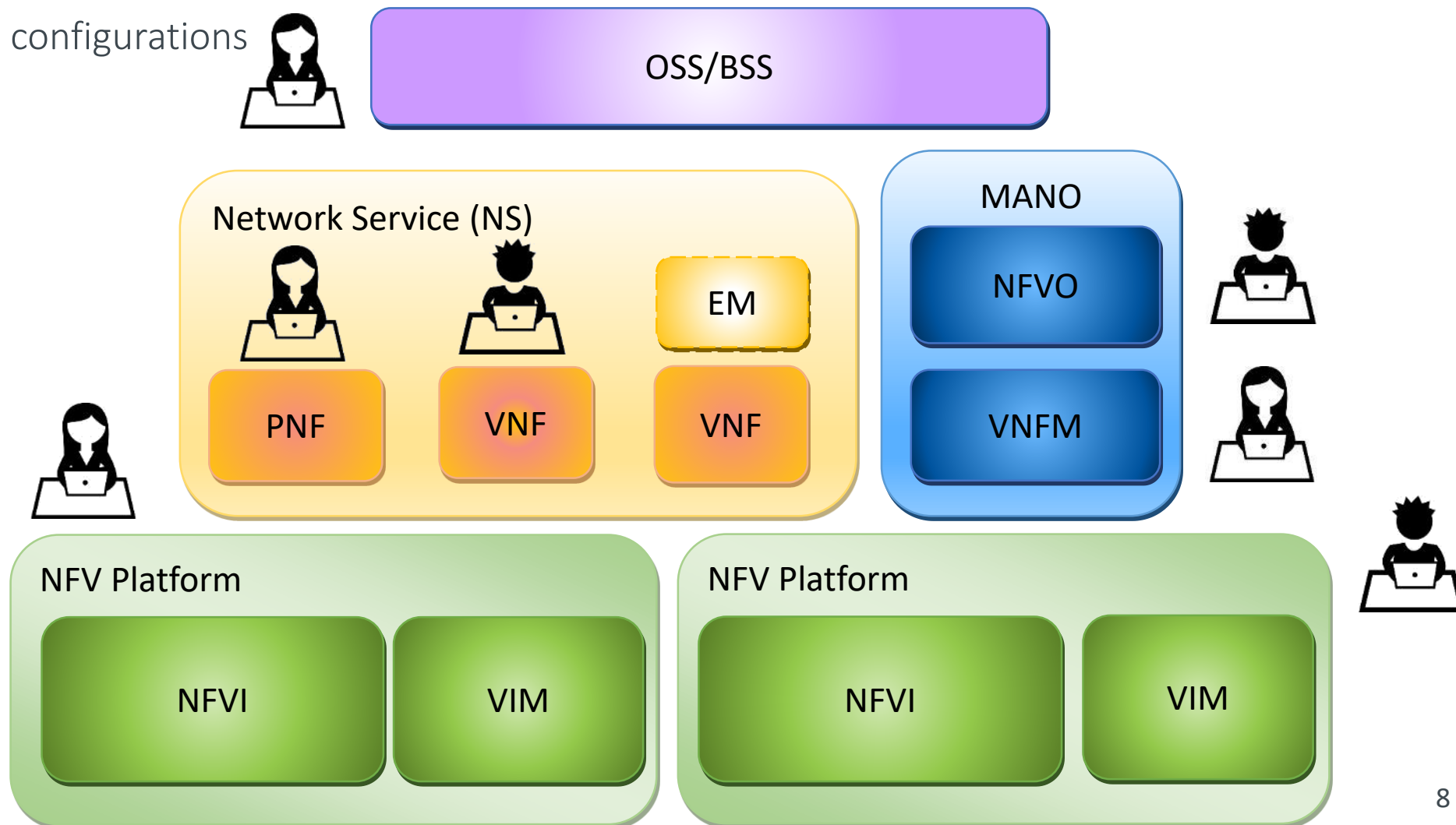


Thank you !

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Scope 1 – NFV Interop testing

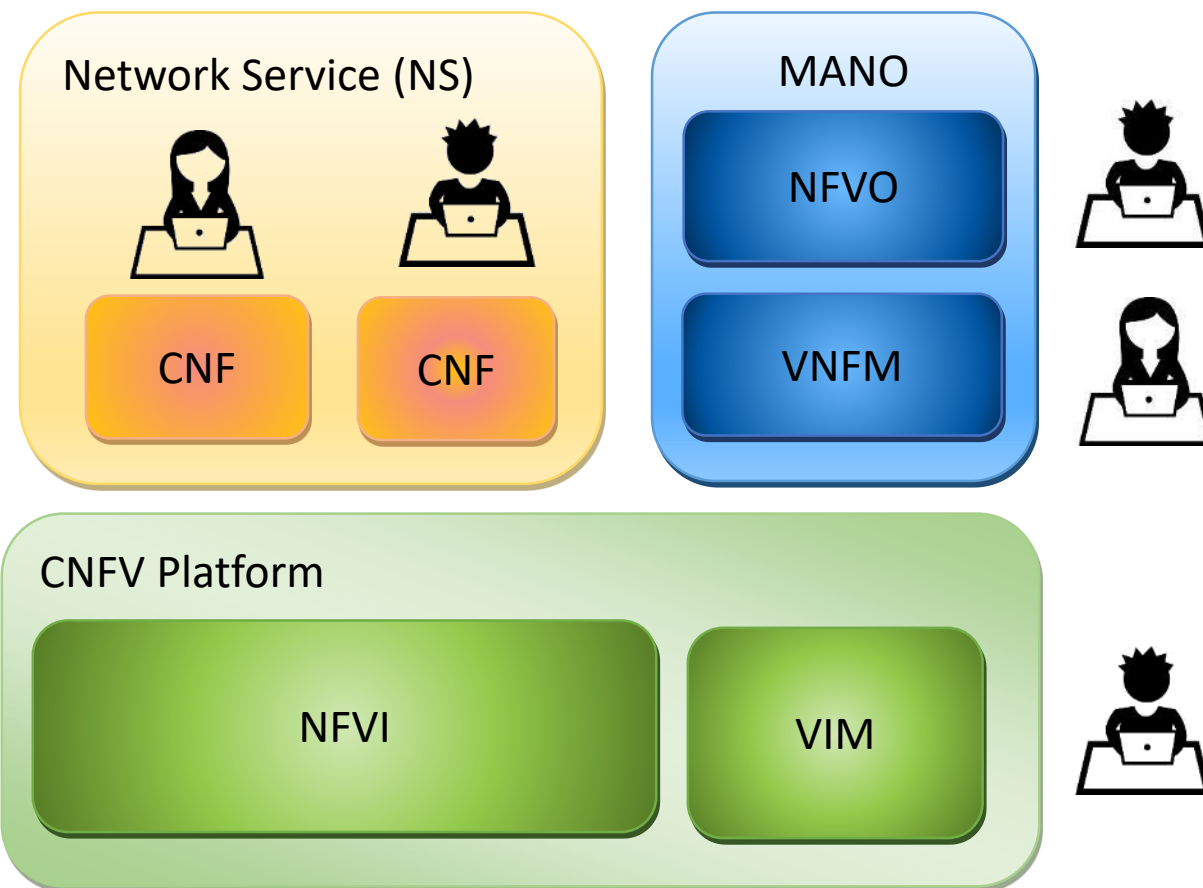
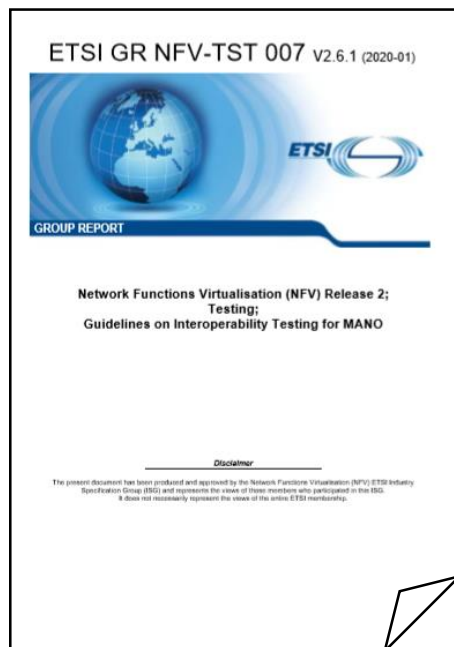
- Based on [NFV- TST007 Guidelines for NFV Interoperability Testing v2.6.1](#)
- Multi-vendor, several configurations



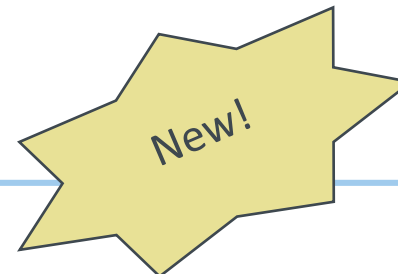
Scope 2 – NFV Interop testing – Cloud Native track



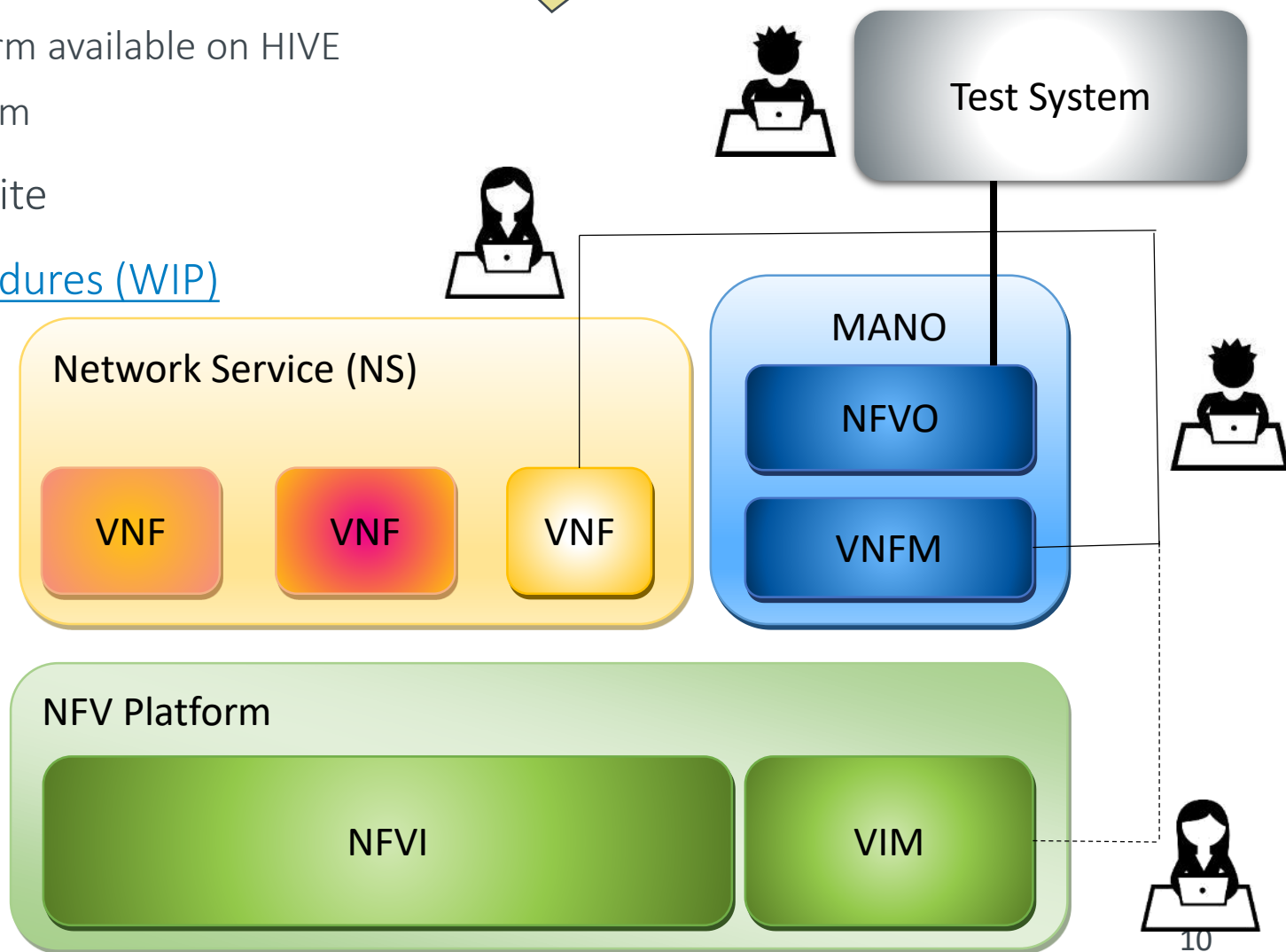
- Based on [NFV- TST007 Guidelines for NFV Interoperability Testing v2.6.1](#)
- Multi-vendor, starting with simpler configurations



Scope 3 – NFV Automated Interop Testing

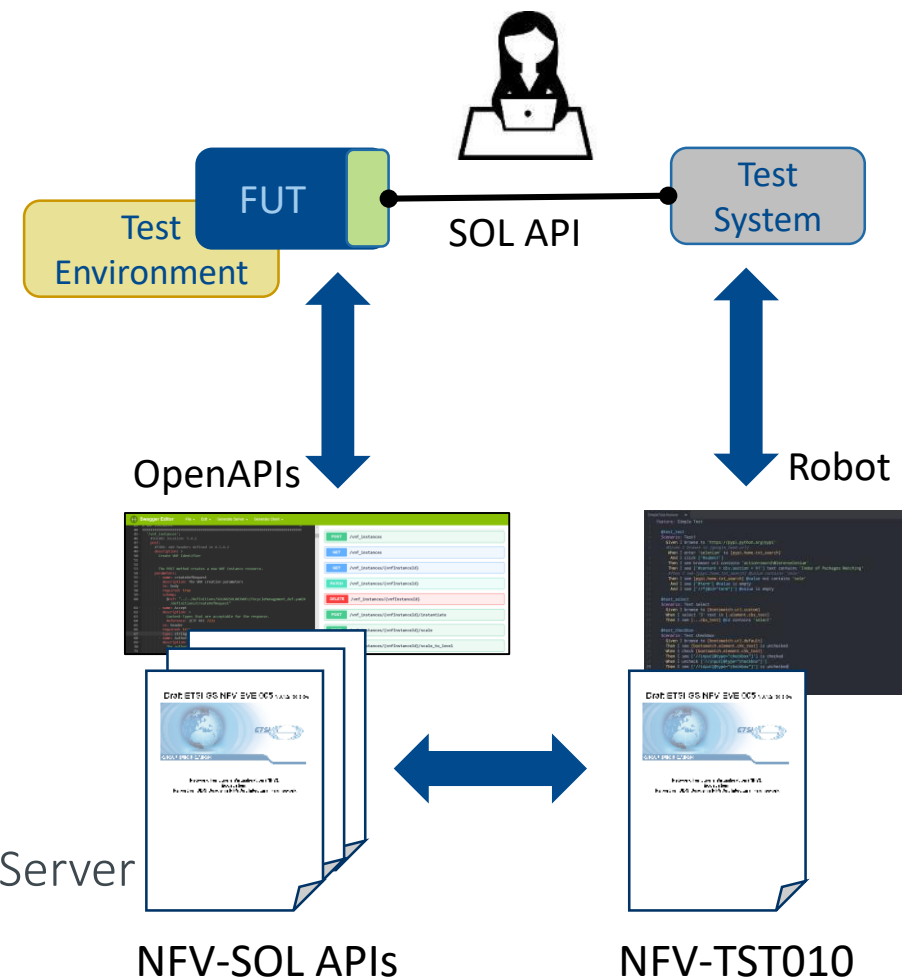


- ✔ Multi-vendor sessions
 - ✔ Run through the new Test Automation Platform available on HIVE
 - ✔ Experimental, supported by the Plugtests Team
- ✔ New experimental Robot Framework Test Suite
- ✔ Based on [NFV- SOL016 MANO Stage 3 Procedures \(WIP\)](#)
 - ✔ VNF package on-boarding
 - ✔ NS instantiation
 - ✔ NS termination
 - ✔ NS scale VNF
 - ✔ NS update (external VNF connectivity)
- ✔ Triggers and final checks based on SOL005
 - ✔ Additional checks based on SOL002, SOL003
 - ✔ Descriptors based on SOL001, SOL006



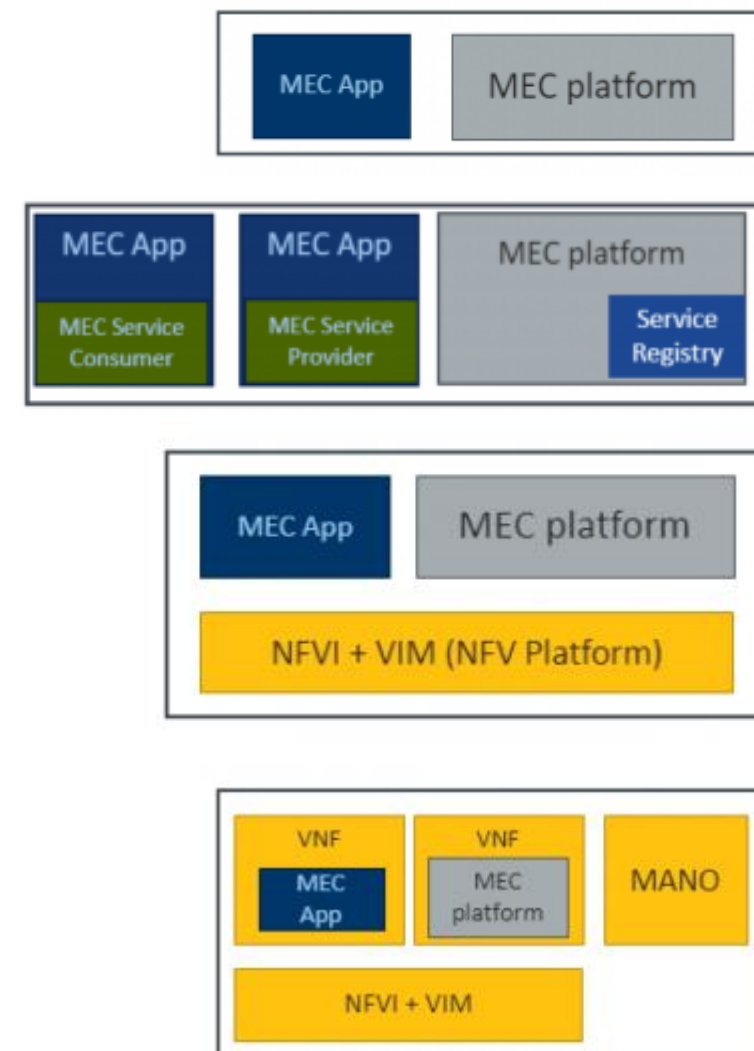
Scope 4 – NFV API Conformance Testing

- Individual Test Sessions (self-service) => Participants operate their FUT and the Test System
- New Test Automation Platform available on HIVE
 - An API testing briefing & platform demo will be provided
- Test Plan:
 - NFV TST010 – NFV API Conformance Specs
 - Robot Framework [Test Suites](#)
 - Targeting several SOL versions (2.4.1, 2.6.1, [3.3.1])
- Plugtests Team makes available on-line
 - the Test System: NFV API Client & notification end point
 - the Test Environment: NFVI and VIM.
- Participants provide:
 - the FUT: NFV SOL002/SOL003/SOL005[/SOL009/SOL011]... API Server
 - the Test Environment (optionally)



Scope 5 – MEC Interop Testing

- Multi-vendor Test Sessions
- Test for both MEC-in-NFV and MEC Standalone solutions
- Test Plan:
 - MEC Application Lifecycle
 - Traffic rules management and enforcement
 - MEC Services and MEC APIs
- Building on [Test Plan MEC IOP V1.0.0](#) from the 4th NFV Plugtests (2019)



Scope 6 – MEC API Conformance Testing



- Individual Test Sessions (self-service) => Participants operate their FUT and the Test System
- New Test Automation Platform available on HIVE
 - An API testing briefing & platform demo will be provided
- Test Plan:
 - MEC DEC 032 – MEC API Conformance Specs
 - Robot Framework & TTCN-3 [Test Suites](#)
- Plugtests Team makes **available on-line**
 - the **Test System**: MEC API Client & notification end point
- Participants provide:
 - the **FUT**: MEC010, MEC011, MEC012, MEC013, ... API Server
 - the **Test Environment**

