



From: Founding members of an OSG on OSM
To: ETSI Director General
Subject: Terms of Reference of the Open Source Group on 'Open Source MANO' (OSG OSM)

1 Decision/action requested

The Director-General is requested to approve the creation of the OSG OSM and of its Terms of Reference; and to appoint Francisco Javier Ramon Salguero (Telefonica S.A) as Convenor for the first meeting.

2 References

TWP clause 3	Operation of Industry Specification Groups
TWP clause 3.2	Creation and Termination of an Industry Specification Group
TWP Annex D.3	Requirements for an Industry Specification Group

3 Rationale

Two of the key components of the ISG NFV architectural framework (GS NFV 002 V1.2) are the NFV Orchestrator and VNF Manager, hereafter referred to as "ETSI MANO".

Software development of ETSI MANO specifications can

- 1) ensure the capacity to implement ETSI MANO using state-of-the-art software development and validation tools; and
- 2) facilitate the implementation and take up of ETSI NFV architecture; and
- 3) provide practical and essential feedback to the finalisation of the ETSI MANO stage two and three specifications; and
- 4) increase the likelihood of interoperability among MANO, VNFs (Virtualized Network Functions) and VIM (Virtual Infrastructure Manager) implementations.

This OSG defines a framework for the software development of a regularly updated reference implementation of ETSI MANO. OSG OSM complements the work of ISG NFV and vice versa. In particular, OSG OSM will provide an opportunity to capitalise on the synergy between standardization and open source approaches by accessing a greater and more diverse set of contributors and developers than would normally be possible. This maximises innovation, efficiency and time to market and ensures a continuing series of true (conformant) reference implementations.

4 Terms of Reference for ETSI OSG OSM [TWP D.3, Part Aa]

4.1 Scope

Open Source Group Open Source MANO (OSG OSM) uses the ISG mechanism as a framework to develop a software reference implementation of ETSI MANO.

The reference implementation developed by OSG OSM shall be non-normative. Any potential improvements or corrections related to existing ISG NFV Group Specifications that may be identified by OSG OSM will be submitted to ISG NFV as Change Requests for further consideration.

OSG OSM shall not produce Group Specifications. It may produce Reports (hereafter called OSG OSM Reports).

Neither the CR's nor the OSG OSM Reports will contain code for direct inclusion into an ISG NFV Group Specification.

The code shall be developed according to accepted open source working procedures. This brings a new approach to a number of the working processes that will be necessary to develop, test and contribute source code. These processes (hereinafter "OSM Working Procedures") will utilize the software development platform hosted and managed by the Secretariat (as described in section 15 of this present document), and will be finalized during the first OSG OSM plenary meetings.

NOTE: While this OSG OSM will focus on a single MANO reference implementation it is understood that it is potentially only one possible implementation of many.

4.2 Membership in OSG OSM plenary meetings

Membership in OSG OSM plenary meetings is restricted in accordance with Clause 3.4 of the ETSI Technical Working Procedures to ETSI Full/Associate members and applicants for Full/Associate membership [hereafter "OSG OSM Member(s)], who have signed the OSG OSM Membership Agreement.

Observers and non-members of ETSI [hereafter "OSG OSM Participant(s)] may participate in the OSG OSM plenary meetings according to the rules as described in the OSG OSM Participant Agreement. Participation of OSG OSM Participants is subject to signature of the OSG OSM Participant Agreement, and payment of a per-meeting participation fee as described in the OSG OSM Participant Agreement.

4.3 Dues

Currently, no annual dues are anticipated for OSG OSM Members and OSM Participants.

4.4 Duties and Rights of OSG OSM Members and OSM Participants

OSG OSM Members and OSM Participants have the duty to constructively cooperate in compliance with all applicable competition law rules on the development of OSG OSM Reports within the scope of the OSG OSM as described in 4.1.

OSG OSM Members have the right to qualify for Leadership Group positions and participate in decision making according to the principles described in section 14 of this present document.

OSG OSM Members may cast their vote on the approval of an OSG OSM Report when necessary.

OSG OSM Members and OSM Participants have the right to appeal directly to the ETSI Board to challenge a Chairman's decision and shall inform the OSG OSM Chairman and the ETSI Director-General beforehand.

4.5 Participant Fee

The OSG OSM Participants shall pay to ETSI a per-meeting attendance fee amounting to 100.- Euros per person per OSG OSM plenary meeting day in 2016 and increased to 200.- Euros per person per OSG OSM plenary meeting day from 2017 onwards.

4.6 Preparation of OSG OSM Reports

OSG OSM Reports are prepared within the OSG OSM plenary meetings or within specific working groups.

4.7 Rules governing the OSG OSM including deviations from the ETSI Technical Working Procedures (TWP)

4.7.1 Participation in the work of the OSG OSM (TWP 3.4)

Observers or non-members of ETSI must agree to and sign the OSG OSM Participant Agreement in order to be authorized to participate in the OSG OSM plenary meetings.

All contributions to the code and downloads of the code shall be made according to the license as attached in Annex A of this present document.

4.7.2 Convening an OSG OSM plenary meeting (TWP 3.5 and TWP 1.5)

4.7.2.1 Invitation to an OSG OSM plenary meeting (TWP 1.5.1)

The invitation to an OSG OSM plenary meeting and the necessary logistical information shall be disseminated by the hosting organization at least 21 days before the meeting to all on the OSG OSM list.

The kick-off meeting of the OSG OSM plenary will be announced in a Collective Letter by the ETSI Secretariat.

4.7.2.2 Agenda for an OSG OSM plenary meeting (TWP 1.5.2)

The draft agenda shall be disseminated by the responsible Chairman to the OSG OSM mailing list (a single mailing list for all OSM Members and OSM Participants) at least 21 days before an OSG OSM plenary meeting. The draft agenda shall include details of draft OSG OSM Reports for approval and officials for appointment. Any other subject matters where voting may be required shall also be included and indicated in the draft agenda.

The draft agenda for the first OSG OSM plenary meeting will be announced in a Collective Letter by the ETSI Secretariat.

4.7.2.3 Documentation for an OSG OSM plenary meeting (TWP 1.5.3)

Documents shall be numbered as shown in the following example:

ETSI/OSM(nn)x

This numbering system has three logical elements:

- 1) **ETSI:** to indicate that it is an ETSI document;
- 2) **OSM:** the name of the OSG;
- 3) **(nn):** to indicate the year, e.g. (15);
- 4) **x:** to indicate any additional information concerning the unique number of the document or its status, etc

The format for the code version/ release numbering will be decided at the kick off meeting.

4.7.2.4 Registration for an OSG OSM plenary meeting (TWP 1.5.4)

Every Attendee shall register prior to the meeting using the Meetings Application on the ETSI Portal or on arrival at the meeting. Where registration is made on arrival at the meeting each Attendee representing an OSG OSM Member or OSG OSM Participant shall declare the precise name of that OSG OSM Member or OSG OSM Participant. An Attendee may only represent one OSG OSM Member or one OSG OSM Participant.

4.7.2.5 Maintaining the OSG OSM mailing list (TWP 1.5.5)

OSG OSM shall maintain a list within an email exploder list established specifically for that purpose. Any individual may join this email exploder list if he/she is a representative of a legal entity that has signed an OSG OSM Member or OSM Participant agreement and has an ETSI server user account, and those who join this email exploder list will be considered as being on the OSG OSM mailing list. Failure to reconfirm the intention to remain on the email exploder list at regular intervals (lists are normally reviewed every six months) will result in removal from this email exploder list and thus from the OSG OSM mailing list.

The OSG OSM mailing list shall be used for the dissemination of information within OSG OSM plenary.

4.7.3 Decision making (TWP 1.7 and TWP 3.7)**4.7.3.1 Code development activity**

The initial structure of OSG OSM will be setup as described in Section 14 of this present document. In the kick-off-meeting, the Leadership Group as defined in section 14 below shall determine the code development and software release working procedures (i.e., the OSM Working Procedures) for submission and integration on the Secretariat development platform.

4.7.3.2 OSG OSM Plenary meetings

The OSG OSM plenary shall endeavour to reach Consensus on the approval of draft OSG OSM Reports. If Consensus cannot be achieved, the Chairman can decide to take a vote.

- The main principle should be the one of a simple majority on the basis of one vote per OSG OSM Member.
- OSG OSM Members are only eligible for voting (voting members), if they have been present during at least 2 out of the previous 3 meetings.
- Founding members of the OSG OSM as identified in section 12 below shall be eligible to vote during and up to the end of the first 3 meetings following the creation of the OSG OSM.
- OSG OSM Participants shall not be entitled to vote.

5 ETSI field of interest [TWP D.3, Part Ab])

Standardization of Network Function Virtualization in ETSI ISG NFV is a core activity of ETSI. The provision of a reference implementation compliant to ETSI MANO supports ISG NFV.

6 Why any overlapping or complementary elements (with reference to existing work or Terms of Reference of any existing Technical Committee or Project) is regarded as desirable [TWP D.3, Part Ac])

This OSG OSM does not overlap with any ongoing ETSI activity. It fully complements the work of ISG NFV. See sections 3 and 4.1 (Rationale and Scope) of this present document for details.

7 Time plan [TWP D.3, Part Ad])

The planned date for completion of the work of the initial phase of OSG OSM is 24 months from the kick-off meeting.

OSG OSM will make proposals on how to evolve the OSG OSM's future activities after 24 months in a timely manner.

8 Chairmanship [TWP D.3, Part Ae]

The chair, vice-chair(s) and working group chairs of the OSG OSM are appointed for the initial period of 2 years. After each period they may be re-appointed. The chair and vice chair(s) of the OSG OSM shall be representatives of the Leadership Group (see section 14 of this present document).

Francisco Javier Ramon Salguero (Telefonica S.A.) has accepted to stand as convenor for the first OSG OSM plenary meeting. (See also section 14 of this present document.)

9 Resource requirements [TWP D.3, Part Af]

See section 15 of this present document.

10 ETSI Secretariat resources [TWP D.3, Part Ag]

"Basic administrative support" will be provided by the ETSI Secretariat, e.g.:

- info/meeting/document handling area on the ETSI Portal.
- document storage area on the ETSI DOCBOX server.
- e-mail lists provision
- entry of the Work Items into the WPM database .
- processing/publication of OSG OSM Reports (providing they have respected the ETSI Drafting Rules).
- a support officer will be allocated to provide guidance and assistance to the OSG OSM.

Support for meetings will be provided when the meeting is held at the ETSI Headquarters, e.g.:

- meeting rooms in ETSI premises.
- meeting support for invitations, badges, etc. in ETSI premises.
- tea/coffee in ETSI premises.

Meetings held outside of the ETSI Headquarters shall be supported by the hosting OSG OSM member organization.

11 OSG OSM membership agreements [TWP D.3, Part Ah]

All ETSI members may participate in OSG OSM plenary meetings provided they have signed the OSG OSM Membership Agreement.

Non-ETSI members have to sign the OSG OSM Participant Agreement to participate in OSG OSM plenary meetings.

12 ETSI full and/or associate members having declared their willingness to provide resources [TWP D.3, Part Ba]

The following members have indicated that they are willing to support the OSG OSM ("Founding Members"):

- BT PLC
- Intel Corporation (UK) Ltd
- Telefonica S.A.
- Telekom Austria AG
- Telenor ASA
- RIFT.io Inc

- Canonical Group Ltd (applicant member)
- Mirantis (applicant member)

13 Planned deliverables and their delivery dates shall be identified [TWP D.3, Part Bb)]

No formal ETSI deliverables will be produced by this OSG.

14 Internal organization [TWP D.3, Part Bc)]

The initial structure of OSG OSM shall include a Leadership Group (LG), a Technical Steering Committee (TSC), and an End User Advisory Group (EUAG).

The *Leadership Group (LG)* will initially be comprised of a subset of the Founding Members of the OSG OSM. The OSM Working Procedures will address how to take on additional LG members at a later date.

Its role is to set the direction of the OSG OSM and to take administrative decisions. The chairman of the LG is also the chairman of the OSG OSM. The chairman of the LG will be appointed at the first OSG OSM plenary meeting (kick-off meeting).

A *Technical Steering Committee (TSC)* will be set up to coordinate the OSG OSM's code development activities. As is common with open source development TSC members will comprise representatives from OSG OSM member organizations who contribute most to the OSG OSM work during a given period. It is desired that the individual is a respected code contributor in the OSG OSM or a respected individual in the NFV ecosystem.

The initial members of the TSC shall be nominated by the OSG OSM Chairman on behalf of the OSG OSM LG (Leadership Group) to assist in the work of the OSG OSM, in accordance with section 3.3.3 of the ETSI Technical Working Procedures.

An *End User Advisory Group (EUAG)* shall be set up to produce end user recommendations, in the form of feature requests and use cases. It will initially be comprised of operators/service providers.

In the kick-off-meeting of the OSG OSM, the Leadership Group shall determine the OSM Working Procedures.

15 Any committee/project-external ETSI resources required (i.e. outside those provided by the Industry Specification Group participants) shall be specified [TWP D.3, Part Bd)]

Access to a typical open source development platform (such as Git, Bugzilla, etc.) is requested.

16 Maintenance arrangements for deliverables shall be specified [TWP D.3, Part Be)]

The maintenance of deliverables will be assured by the OSG OSM. At the end of the work the OSG OSM shall define the follow-on responsibility for any required maintenance.

17 The relationship with ETSI Technical Organisation shall be specified (i.e. list the interfaces between the OSG OSM and ETSI TBs) [TWP D.3, Part Bf)]

There will be close synergy and liaison between OSG OSM and ISG NFV.

Annex A - Apache License, Version 2.0, January 2004

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