eXperimental Infrastructures for the Future Internet

D9.2b: XIFI Office – Description and Establishment

Revision: v.0.8

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Abstract	The XIFI Federation Office has been established through provision of its communication hub, providing a first point of contact and a Helpdesk for infrastructure owners and developers interested to participate in the XIFI federation activities. In the first phase, it provides support to the five initial XIFI nodes. In the second phase it will support the 2nd phase FI-PPP use case scenarios and the inclusion of further infrastructures (nodes) in the federation and support for new trial scenarios.
Keywords	XIFI Federation Office, Communication Hub, Helpdesk, Support for infrastructures and experimenters

Document Revision History

Version	Date	Description of change	List of contributor(s)
0.1	25.03.2014	First draft	Halid Hrasnica (Eurescom)
0.2	31.03.2014	Inclusion of application template for new infrastructures wishing to join, plus some other small improvements	Adam Kapovits (Eurescom)
0.3	01.04.2014	Minimum requirements for a new node included, and also the terms and conditions for associate members (based on the Planet-Lab example) and a proposal for federation contract for associate members (based on the Panlab approach) The latter two still need to be harmonised.	Adam Kapovits (Eurescom)
0.4	08.04.2014	Text (without appendices) harmonised and completed.	Halid Hrasnica (Eurescom)
0.5	09.04.2014	A further clean up of the text in the main body of the document, but Appendices still need to be harmonised and cleaned up	Adam Kapovits (Eurescom)
0.6	11.04.2014	Comments from Maurizio Cecchi, Federico Michele Facca and Anastasius Gavras	
0.7	15.04.2014	Clean-up and consolidation in light of the received comments	Adam Kapovits (Eurescom)
0.8	30.04.2014	Further clean-up and consolidation	Adam Kapovits (Eurescom)

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Nature of the deliverable:	R (Report)	
Dissemination Level		
PU	Public	✓
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to bodies determined by the XIFI project	
CO	Confidential to XIFI project and Commission Services	

EXECUTIVE SUMMARY

The first version of the XIFI deliverable D9.2 "XIFI Federation Office – description and establishment", which was produced in autumn 2013, included a comprehensive description of the XIFI Federation Office and its activities, in particular in relation with the XIFI Federation operational procedures developed in the scope of WP5. With submission of deliverable D9.2 the XIFI Federation Office was also formally established and was fully operational during the XIFI Open Call for additional project partners, calling for new infrastructures to join the XIFI Federation.

In accordance with the conclusions of the D9.2 and recommendations received from the project reviewers, this revised version of the deliverable (D9.2b) lays down all necessary procedures for inclusion of new infrastructures in the federation from both operational and legal points of view. The deliverable is intentionally written as a short document clearly describing the procedures for joining the Federation. The main target group here are the infrastructures potentially interested to join the Federation as non-XIFI project partners. As such the outlined approach draws on practices established and proven in similar large scale infrastructure and testbed federation activities, such as the efforts in the Future Internet Research & Experimentation (FIRE) initiative (e.g. OneLab[2], PII[3] or OpenLab[4]) and similar global initiatives like PlanetLab[5]. It adapts the existing approaches to the particular situation of XIFI in the frame of the FI-PPP programme. We foresee that the framework construct presented here can eventually, through appropriate modifications become the foundation of the operation of the XIFI federation after the end of project XIFI when there will be no further funding. Of course this evolution requires significant further work and discussion among infrastructure provider project partners and with other work packages of the project, most notably WP8, but also including any associate members of the federation that join on a voluntary basis through the processes outlined in this document. With respect to the experimenters and developers, some basic information is provided in the document as well.

The Federation Office procedures rely on inputs and feedbacks from other project work packages, in particular WP5. Therefore, the sustainability aspects cannot be considered only from the Federation Office point of view and are therefore considered on the Federation level in the scope of the XIFI WP8 (see comment above).

Finally, the deliverable D9.2b should be seen as a living document, which might be changed in accordance with relevant procedures discussed within the project and in the scope of other work packages, e.g. WP5. Thus, it has to be reflected in an updated version of this document if the particular operational procedures change for any reason.

In particular, the future evolution of the XIFI infrastructure capacity and its integration are still under discussion in the frame of the FI-PPP programme. Currently those discussions point towards an integration of the XIFI infrastructure capacity under the brand name of FI-Lab and likely under the technical control of FI-Lab. This introduces a risk and an additional complexity beyond the control of XIFI, in case the terms and conditions under which FI-Lab operates in the future are in conflict with the spirit and concept of federation as assumed in this document for the XIFI Federation office.

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[2] http://onelab.eu/

[3] http://www.panlab.net/

[4] http://www.ict-openlab.eu/

[5] http://www.planet-lab.org/

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ABBREVIATIONS

5G	5th Generation
AUP	Acceptable Use Policy
BSD	Berkeley Software Distribution
CPU	Central Processing Unit
CV	Curriculum Vitae
DCRM	Data Center Resource Management
FI-PPP	Future Internet Public-Private Partnership
GE	Generic Enabler
GPL	General Public License
HD	High Definition
IPv6	Internet Protocol version 6
LAN	Local Area Network
MDVPN	Multi-Domain Virtual Private Network
NOC	Network Operation Centre
NREN	National Research and Education Network
QoS	Quality of Service
RAM	Random-Access Memory
SSH	Secure Shell
VPN	Virtual Private Network

1 FEDERATION OFFICE PROCEDURES – OVERVIEW ON PROCEDURES FOR JOINING THE FEDERATION

In order to support communication among the XIFI Federation members as well as among the Federation and a wide public, the Federation Office established a communication hub and corresponding Federation Helpdesk. The access to the communication hub and the help desk is ensured through the XIFI website at https://fi-xifi.eu/home.html.

The same access point is used to maintain communication with new infrastructures (nodes) willing to join the XIFI Federation and offer their capacity for the FI-PPP application development, deployment, and testing. In order to join the Federation, the new infrastructures have to go through several steps, as is presented in Figure 1. During all the steps, the Federation Office guides the new infrastructures through the process and establishes necessary contacts with appropriate WPs and partners of the XIFI project.
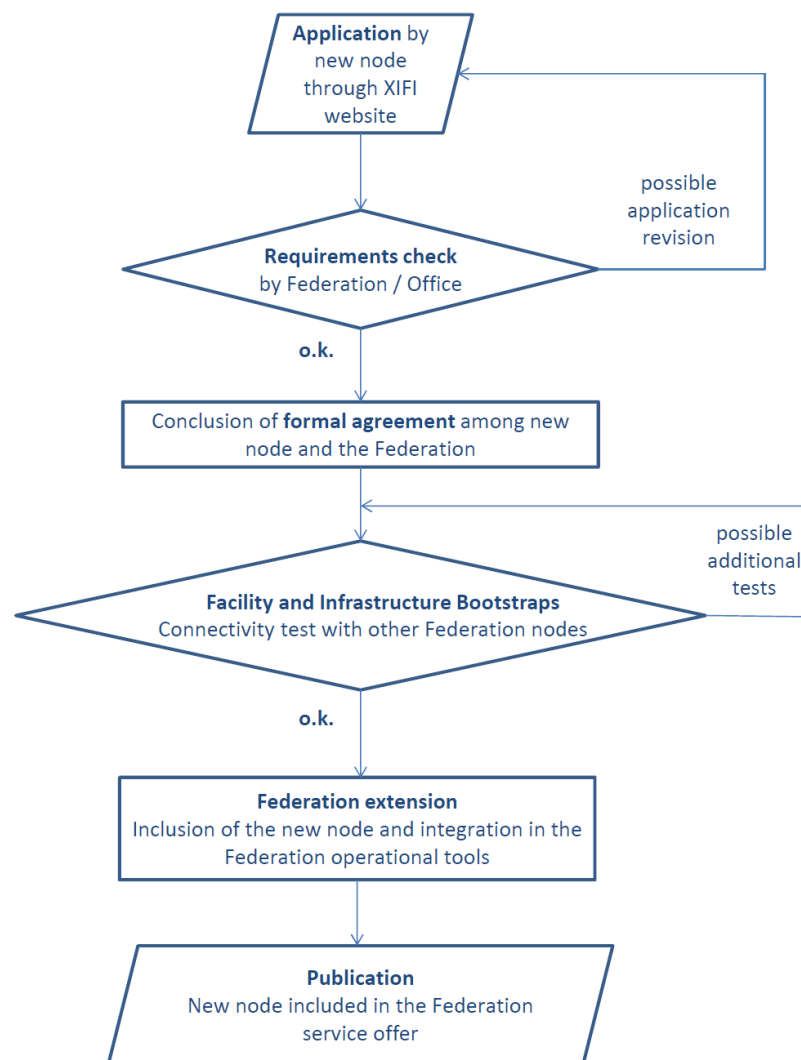

Figure 1: Overview *on Procedures for Joining the XIFI Federation*

The following sections provide more details on both operational and formal steps for joining the XIFI Federation.

2 OPERATIONAL PROCEDURES

2.1 Application

In order to apply for inclusion in the XIFI federation, owners or operators of an infrastructure have to provide all necessary related information, as is specified in the respective application form/template, available at the XIFI project website (https://fi-xifi.eu/home.html) and in the Appendix B of this document.

The application form is evaluated by the XIFI Federation Office by using an automated procedure, so that the proposers can receive a very quick feedback on their applications. Upon a request received from a new node interested to join the federation, the XIFI Federation Office checks that the minimum requirements for joining the federation are met, based on information provided by the new node in the application form. If the outcome of the review is positive the new node will be guided by the Federation Office towards the next steps of integration

If necessary, depending on the information provided by the proposers, related information will be forwarded to WP1 and WP8 to evaluate suitability of the new infrastructure for the XIFI federation. Technical feasibility of the new infrastructure for the federation is analysed by WP1, whereas related socio-economic evaluation is carried out by WP8.

2.2 Facility and Infrastructure Bootstraps

Facility bootstrap

During this step, the Federation Office initiates a connectivity test among a master XIFI node and the new infrastructure node joining the federation and compiles a corresponding report which indicates suitability of the new node to proceed with further steps. Practically, the Federation Office establishes a direct relation among the nodes, where the connectivity test is managed by the master node, establishing (as a preferred choice) corresponding Multi-Domain VPN interconnections, but in case MDVPN is not supported by the NRENs involved, then using conventional VPN.

Infrastructure Bootstrap

After successful facility bootstrap, the Federation Office initiates a wide connectivity test involving all federation nodes and the new node and completes this activity with a corresponding report, where necessary inputs are gathered from the already existing XIFI Federation nodes.

2.3 Federation Extension

Inclusion in the FI-PPP ticketing system

In order to track and solve eventual technical problems within the XIFI Federation and its nodes, a JIRA based ticketing system is used, which is shared by the FI-WARE and XIFI projects on the FI-PPP level. The ticketing system allows easy contacts among Federation nodes as well as among nodes and experimenters, when needed, in order to contact the right experts within the Federation to solve any problems identified.

Publication

The last operational step for joining the Federation is to publish information about the new infrastructure and its capabilities through FI-Ops (https://www.fi-xifi.eu/fi-ops/), with the support of the XIFI Federation Office. The FI-Ops tools include a number of services to support Federation of FI-Lab nodes. Some of this services are extensions of existing FI-WARE GEs, others are brand new services developed in XIFI. The XIFI Federation Office allows new nodes to register in the FI-Lab.

Once registered, if the node is correctly deployed, resources deployed are available in the Cloud Portal and the capacity of the new node is displayed in the infographic and status pages of FI-Lab (http://infographic.lab.fi-ware.org). By using the FI-lab and FI-Ops functionalities, the owners/operators of the XIFI infrastructures can deploy the Cloud Hosting Generic Enablers and Monitoring Adapters to provide the basic for new FI-WARE instances and can monitor the status of the different services through FI-Lab. Furthermore, it is possible to manage cross FI-Lab node connectivity of services allowing for highly distributed cloud applications as well as register and deploy infrastructure service offer in FI-Lab, including Generic Enablers, Specific Enablers and Future Internet Facilities (e.g. Sensor Networks, 5G Antennas, etc.).

3 FORMAL PROCEDURES

From the formal point of view, a new infrastructure joining the XIFI Federation has to accept the "Terms and Conditions of Associate Membership in the XIFI Federation", which are included in the Appendix C of this document[6]. At the same time the "Acceptable Use Policy of the XIFI Infrastructure Federation Resources", which is presented in the Appendix E, outlines the conditions for developers regarding the usage of resources.

To complete the necessary formal procedure and acknowledge the legal documents mentioned above, a new infrastructure has to sign a "XIFI Federation Associate Membership Contract", which is provided in Appendix D[7]. With the conclusion of the associate membership contract the new infrastructure becomes an associate member of the Federation under conditions that all operational steps for inclusion of the new infrastructures (Figure 1 and Sec. 2) are concluded.

As an associate member of the XIFI Federation an infrastructure has the same rights and obligations as all other nodes already included in the Federation, but associate member infrastructures do not become members of the XIFI project consortium. It is expected that after the end of the XIFI project all XIFI project infrastructures and the associate members become full members of the XIFI Federation, but the terms and conditions at which this Federation will operate still need to be elaborated.

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[6] The Terms and Conditions of Associate Membership in the XIFI federation follows the example of the Terms and Conditions of Membership in PlanetLab as laid out in http://forge.fi-ware.org/plugins/mediawiki/wiki/fiware/index.php/FI-LAB_Terms_and_Conditions and adapts it to the XIFI case

[7] The XIFI Federation Associate Membership contract follows the example of the Panlab Interconnection Contract (as described in deliverable D1.5 of Panlab at http://www.panlab.net/fileadmin/documents/PII-Deliverables/D1.5-Updated_version_of_the_Panlab_framework_v1.0.zip) and adapts it to the XIFI case.

APPENDIX A – MINIMUM TECHNICAL REQUIREMENTS THAT NEED TO BE MET TO BECOME A XIFI INFRASTRUCTURE NODE

Project XIFI defines an infrastructure node that has the following characteristics and offers the following services:

- offers capacity to host specific software components named "Generic Enablers[8] (GEs)" to provide a common solution for Future Internet applications,
- offers high speed connectivity to the Internet and/or the GÉANT network,
- optionally offers additional capacities such as: sensing environment, advanced wireless connectivity, etc.
- offers services to developers: support, backup
- offers access to user communities for running trials.

Capacity needs to be indicated according to the nature of the resources provided, e.g. a data centre offering storage and processing capacity would be expected to provide a significant number of cores and associated data storage, whereas a sensing network would be described according to the number and range of accessible sensors, etc.

The infrastructure should have adequate connectivity that supports the connection of the proposed additional node to the XIFI federation and the available bandwidth can demonstrably support access to the services offered by the proposed additional infrastructure node.

Up to date information about the current XIFI infrastructure nodes and the requirements of new infrastructure nodes can be retrieved at the XIFI project website at https://fi-xifi.eu/home.html

Minimum Connectivity Requirements

The connectivity capacity will be used for two aims: connect to the backbone of XIFI federated cloud to support node management operations, and provide connectivity to the deployed services for end-users.

- 1 Gbps GEANT connectivity for the backbone
    - Backbone will be implemented in IPv6
- 100 Mbps Internet connectivity for end-users
    - Service to end-users will be provided in dual stack IPv4 / IPv6
- SEC Firewall

Data Centre Requirements

The data centre capacity will be used for deploying the FI-WARE platform and the GEs and the XIFI services that will allow connectivity to the federation. To this aim the data centre is required to be able to host OpenStack installation or to have it already available. The basic required software stack is the one described in FI-WARE documentation for DCRM installation (https://forge.fi-ware.org/plugins/mediawiki/wiki/fiware/index.php/IaaS_Data_Center_Resource_Management_-_Installation_and_Administration_Guide) additional services will be provided by XIFI for network and data centre monitoring. Such services in general terms will leverage on top of existing monitoring tools provided by the data centre.

The following resources should be dedicated to XIFI and the FI-PPP for the hosting of GEs and SEs:

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[8] http://catalogue.fi-ware.org/enablers

- http://wiki.fi-xifi.eu/Public:NodeMinimalRequirements

Other General Requirements

Infrastructures participating or wishing to join should as well offer a variety of additional capacities and services to widen the offer of current XIFI nodes.

- additional capacities may include: sensing environment, advanced wireless connectivity, smart city datasets, etc.
- additional services may include: support, backup, training, access to end-user communities, etc.

New infrastructure nodes should always consult the up to date list of evolving technical requirements published at http://wiki.fi-xifi.eu/Public:NodeMinimalRequirements.

APPENDIX B – APPLICATION FORM FOR INFRASTRUCTURES WISHING TO JOIN THE XIFI FEDERATION

An infrastructure wishing to join the XIFI federation need to complete an application form that is also available on-line on the XIFI project website (https://fi-xifi.eu/home.html), and provide information concerning the following:

- Specify the legal entity that wishes to join the federation, together with a short description of the legal entity, its research activities and providing any reference relevant for making their case for joining the federation

- Provide a short description of the infrastructure offered to be federated, including any existing user base

- Describe the objectives aimed to be achieved, including the socio-economic ones, through joining the XIFI federation

- Provide a description of the node and technical infrastructure offered, resources dedicated to the XIFI federation in terms of
    - Number of CPU cores
    - Core types
    - Total RAM offered
    - Total HD storage capacity offered
    - Number and type of servers
    - Per server capacity
    - Switches and routers
    - Firewall
    - Network connectivity available to access the node (bandwidth and/or dark fibre available through the National Research Network / NREN)
    - Virtualisation service, hypervisor used
    - Help desk support provided
    - Overall architecture of the node
    - Access services / technologies covered
    - Networking services offered / covered
    - Authentication, Authorisation and Accounting solution deployed
    - IPv6 and QoS capabilities

- Provide CVs of the key personnel that will be responsible for the operation and administration of the node

APPENDIX C – TERMS AND CONDITIONS OF ASSOCIATE MEMBERSHIP IN THE XIFI FEDERATION

XIFI

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Terms and Conditions of Associate Membership
in the XIFI Federation

Review Carefully

Associate Membership to the XIFI Federation shall be granted by the XIFI Federation Manager in its sole and absolute discretion. Notice of Associate Membership shall be sent to the above-named applicant ("Associate Member") within thirty (30) days of submission of this Associate Membership Agreement to the address above. Such notice shall be sent to both the Primary Technical Contact and the Primary Administrative Contact.

Upon receiving such notice (the "Effective Date"), Associate Member shall abide by and be subject to the terms and conditions as set forth in this Associate Membership Agreement and the Acceptable Use Policies (the "AUP"), and XIFI Design Notes (XDN), (collectively "XIFI Federation Policies"), all of which are available at www.fi-xifi.eu (the "XIFI website"), and are incorporated herein by reference.

Associate Member hereby represents that it has reviewed the XIFI Federation Policies on the XIFI website as of the date hereof.

Term and Termination The term of Associate Membership shall begin on the Effective Date, and shall run for the duration of the XIFI project[9]. This Associate Membership Agreement shall be binding upon and inure to the benefit of the parties and their employees, agents, representatives and successors.

Associate Member may terminate this Associate Membership Agreement for any reason at any time upon thirty (30) days written notice to the XIFI Federation Office manager. The XIFI Federation may also terminate this Associate Membership Agreement at any time upon thirty (30) days written notice to Associate Member.

Associate Membership Obligations Associate Member's duties and obligations are as set forth herein and as set forth in the XIFI Federation Policies (collectively, "Associate Membership Obligations").

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[9] The Federation will be transferred to a foundation when this is established. The foundation upon establishment will publish its own governance and may update the Federation policies.

The Associate Membership Obligations may be amended from time to time by the XIFI Federation Office manager (as approved by the General Assembly) of the XIFI project, upon written notice to the Associate Members of XIFI Federation (provided that this Associate Membership Agreement and the terms set forth herein shall control in the event of conflict). Associate Member shall be given at least thirty (30) days' prior written notice of the effective date of an amendment, and amendments shall be only prospective in their effect and application. Associate Member shall be bound by a duly adopted amendment unless Associate Member elects to terminate this Associate Membership Agreement. Failure to abide by the XIFI Federation Policies may result in disciplinary actions as deemed appropriate by the XIFI Federation Office manager (and as approved by the XIFI General Assembly), including termination or suspension of Associate Membership.

Costs and Expenses Associate Member shall bear its own costs and expenses related to its Membership, including, but not limited to, compensation payable to Associate Member's employees and consultants that participate in XIFI on behalf of Associate Member, and all travel and other expenses associated with the Associate Member's participation in XIFI activities. Associate Member shall have no right of reimbursement from XIFI.

Intellectual Property XIFI shall maintain a repository of Software submitted by Associate Members in support of XIFI's mission and purpose. Software and other Intellectual Property made available to Associate Members by XIFI is from one of five sources:

I. Intellectual Property and Software Contributed by Associate Members to the XIFI federation

A. ***Intellectual Property*** If Associate Member desires to contribute Intellectual Property to the XIFI infrastructure federation (except for Software contributions, which shall be governed by the terms of paragraph B below), Associate Member may do so by submitting to the XIFI Federation Office manager a written Intellectual Property assignment or license agreement, specifying in detail what Intellectual Property is being contributed, what terms and conditions XIFI Associate Membership Application shall apply to the use of such Intellectual Property, and whether such Intellectual Property is subject to any obligations to third parties. In the absence of explicit written terms to the contrary, it shall be presumed that such Intellectual Property is non-exclusively licensed to XIFI and Associate Members on a worldwide, perpetual, royalty-free basis (without the right to sublicense) to use for academic, non-commercial research purposes within the XIFI Federation. Contributing Associate Members may reserve all patent rights and copyrights whatsoever, including the right to restrict or prohibit commercial use or distribution of any such Intellectual Property. XIFI is under no obligation to accept any such contribution; and no Associate Member shall be compelled to make any such contributions; nor will the submission of any such contributions or licenses under this Associate Membership Agreement affect such Associate Member's Intellectual Property rights in any non-contributed Intellectual Property or Intellectual Property owned by such Associate Member. The XIFI Federation Office manager shall notify the membership of the XIFI federation of any accepted Intellectual Property.

B. ***Software*** If Associate Member desires to contribute Software to the XIFI infrastructure federation, then the XIFI Federation Office manager shall distribute such Software as "open source" under terms and conditions substantially similar to the BSD Open Source License Agreements available at www.opensource.org (the "BSD License"). Such distribution shall be subject to any third party obligations, to the contributing Associate Member's consent, and to any other applicable legal restrictions. If Associate Member and the XIFI consortium agree to distribute the contributed code as "open source", Associate Member shall set forth its consent in a letter and shall submit the Software in source code form along with the letter. Further, if Associate Member's contributed Software is distributed as "open source", Associate Member shall also publish necessary associated research materials under terms and conditions consistent with the terms and conditions of the associated Software that it contributes. In the event Associate Member wishes to use or include third party Software as part of its open source contribution that, to the Associate Member's knowledge, would impair the ability to publish under the BSD License, Associate Member shall promptly inform the

XIFI Federation Office manager of its intention and the licensing terms to be used. Nothing herein shall be construed as to limit the ability to use or incorporate pre-existing software in the research that is provided under other license terms (e.g., a GPL License). Further, nothing herein shall compel Associate Member to contribute its proprietary Software as described herein. XIFI is under no obligation to accept any such Software contribution; and no Associate Member shall be compelled to make any such contribution; nor will the submission of any such Software contributions under this Associate Membership Agreement affect such Associate Member's Intellectual Property rights in any non-contributed Intellectual Property or Software owned by Associate Member. The XIFI Federation Office manager shall notify the membership of the XIFI federation of any accepted Software.

II. Intellectual Property and Software Created by XIFI project partners

Intellectual Property and Software created solely as a result of the efforts of XIFI project partners using community co-funding, as defined in the Consortium Agreement shall be used in furtherance of XIFI's mission and goals. Such Intellectual Property shall be deemed to be contributed by way of a license to use for such purpose on a royalty-free, perpetual, worldwide and non-exclusive basis. Software created solely as a result of these efforts will be distributed in source code form as "open source" under terms and conditions substantially similar to the BSD License. Such distribution shall be subject to any third party obligations and to any other applicable legal restrictions.

III. Intellectual Property and Software Created in Collaboration of an Associate Member and XIFI project partner(s)

A. *Intellectual Property*. If during the term of this Associate Membership Agreement any Intellectual Property is created jointly by Associate Member(s) and XIFI project partner(s) using community co-funding (excluding Software, which shall be governed by the terms of paragraph B below), the parties shall negotiate and decide between themselves as to whether a patent application will be filed and if so, who will file, prosecute and defend the application and resultant patent(s). Such Associate Members shall retain all rights, title and interest in such jointly-created Intellectual Property for its own use (including the right to sublicense) without payment of any fee or accounting whatsoever to the other party or parties. The respective interest of the XIFI Consortium in any such jointly-created Intellectual Property shall be treated as set forth in Paragraph II above.

B. *Software.* If Software is jointly created by XIFI project partners and Associate Member(s), such Software and documentation will be distributed in source code form as "open source" under terms and conditions substantially similar to the BSD License. Such distribution shall be subject to any third party obligations and to any other applicable legal restrictions.

IV. Intellectual Property and Software Created Solely by Associate Member

If an Associate Member solely creates Intellectual Property or Software in connection with its use of the XIFI federated infrastructure, then Associate Member shall retain all property rights in such Software or Intellectual Property. Associate Member may, in its discretion, contribute such Intellectual Property or Software in accordance with Paragraph I. Furthermore, Associate Members may deploy and test their proprietary Software on the XIFI federated infrastructure provided that such use is in accordance with the terms of this Associate Membership Agreement, including but not limited to the AUP posted on the XIFI website.

V. Intellectual Property and Software Created under Collaborations Between or Among Members

Associate Member may enter into collaborative research arrangements with other Associate Members of the XIFI federation provided that the l terms and activities of such collaborations do not violate the terms and conditions of this Associate Membership Agreement, including but not limited to XIFI's AUP.

No Other License Except as expressly provided by this Associate Membership Agreement, Associate Member does not grant or receive, by implication, or estoppel, or otherwise, any intellectual property or other rights.

Confidentiality Although many of the technical and some marketing issues and objectives of XIFI are not confidential, Associate Member shall not provide non-Members with XIFI draft documents, disclose any content from the XIFI repositories, wiki, etc. that are available for project internal use, only, or disclose information relating to XIFI's internal business or event planning without the express written approval of the XIFI project management. No other material or information exchanged between Associate Members as part of XIFI activities shall be deemed confidential or proprietary unless disclosed under a previously executed written agreement between the parties present at time of disclosure.

Publicity During the term of this Associate Membership Agreement, Associate Member grants permission to XIFI to identify Associate Member as a member of the XIFI infrastructure federation in directories and marketing materials, including the XIFI website and in any other XIFI communications unless Associate Member sends XIFI written notice of its desire not to be so identified. Associate Member may publicly identify its own associate membership in the XIFI infrastructure federation in documentation, press releases, brochures and other materials. All such identifications by either party shall be limited to the name and address of the Associate Member or XIFI, as the case may be.

No Warrantee ANY GOODS, SERVICES, AND WRITTEN MATERIALS PROVIDED BY XIFI OR ITS AGENTS OR ANY ASSOCIATE MEMBER IN ANY FORM, WHETHER FURNISHED IN DRAFT OF FINAL FORM ARE PROVIDED "AS-IS WITH ALL DEFECTS" AND WITHOUT ANY WARRANTY OF ANY KIND. XIFI DISCLAIMS ALL WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NONINFRINGEMENT.

Liability Limited IN NO EVENT SHALL XIFI PROJECT PARTNERS OR ANY OTHER ASSOCIATE MEMBER BE LIABLE TO ANY OTHER ASSOCIATE MEMBER OF THE XIFI FEDERATION FOR ANY CONSEQUENTIAL, INCIDENTAL, PUNITIVE, OR LOST PROFIT DAMAGES, OR FOR ANY DAMAGES ARISING OUT OF LOSS OF USE OR LOSS OF DATA, TO THE EXTENT THAT SUCH DAMAGES ARISE OUT OF THE ACTIVITIES OF XIFI OR THIS AGREEMENT OR ANY BREACH THEREOF EVEN IF MEMBER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES

Nothing contained in this Agreement shall be deemed as creating any rights or liabilities in or for third parties who are not XIFI project partners or Associate Members of the XIFI infrastructure federation.

No Implied Joint Venture This Agreement does not create a joint venture, partnership or other form of business association between the Associate Members nor an obligation to develop, make available, use, license, buy or sell any information, product, services or technology.

APPENDIX D – ASSOCIATE MEMBERSHIP CONTRACT FOR INFRASTRUCTURE OWNERS JOINING THE XIFI FEDERATION

eXperimental Infrastructures for the Future Internet

XIFI FEDERATION ASSOCIATE MEMBERSHIP CONTRACT

Version 0.1 – 1 April 2014

An associate membership contract is signed by the XIFI Federation Office and the voluntary infrastructure provider, in order to ensure the legal inclusion of the infrastructure provider in the XIFI federation and enable access to the infrastructure provider's resources within the frame of the XIFI infrastructure federation.

Preamble

The intention is to use a unique associate membership contract for all infrastructures joining the XIFI infrastructure federation on a voluntary basis. With the conclusion of the associate membership contract, an infrastructure owner commits to make available a pre-defined part of its infrastructure facility (as specified in the Application Form for Infrastructures Wishing to Join the XIFI Federation) and to connect its administrative domain related to the infrastructure made available with the XIFI infrastructure federation in accordance with the General Terms and Conditions for Joining the XIFI Infrastructure Federation, defined below.

General Terms and Conditions for Joining the XIFI Infrastructure Federation

Joining the XIFI infrastructure federation implies supporting the research goals of the FI-PPP project XIFI. In particular, the infrastructure owner accepts and complies with the following obligations:

- Respect and promote the XIFI fundamental principles and concept in accordance with the XIFI Federation policies.
- Describe the resources made available to the federation: The infrastructure owner is expected to make available resources to the federation such as computing and storage resources, access to various networking resources and technologies, testing and supporting services, tools, etc. The infrastructure owner has already provided a comprehensive and complete description of its offered resources in its application giving evidence of the resource characteristics and its benefit for the XIFI infrastructure federation and FI-PPP community.
- Availability of resources: The infrastructure owner shall make all reasonable efforts to ensure that its resources operate properly, that they are reliable and secure, and of course, that they are available as outlined in its application.
- Data update cycle: The infrastructure owners are expected to update regularly the provided data as well as to provide information concerning any upgrade of the resources, new releases, etc. in order to ensure that a correct and complete picture is always retained regarding the operative resources.
- Maintenance assurance: The infrastructure owner shall make all reasonable efforts for fixing any bug, problem or defect found in its resources brought to the federation without undue delay. Any such issues should be reported to the federation office that should maintain a trouble ticketing system providing status information about open issues with the resources within the federation.
- Audit procedure: The federation could establish an audit procedure to observe and inspect the controls, compliance, performance, etc. of the infrastructure provider development inside the federation. All infrastructure providers are requested to co-operate with the procedure and consider the recommended corrective actions when deciding on the specific activities that will be performed in order to improve its performance.
- Acceptance of specific XIFI legal documents and rules as defined in the XIFI federation policy documents, as well as other related accompanying documents and operational rules of the XIFI infrastructure federation as defined by the XIFI Federation Office.

An infrastructure owner joining the XIFI federation has the following rights:

- To join the XIFI federation and participate to technical meetings pertaining to operational issues of the XIFI federation in accordance with its organisation rules.
- To benefit from becoming part of the FI-PPP community, engage with other players and participate in the further development of the support infrastructure
- To use all services and tools (FI-Ops) provided by the XIFI Federation Office to support the infrastructures taking part in the federation, as well as access to federation experience and solutions adopted by XIFI

Authorised representative of the Infrastructure owner:

Name:

Organisation:

Authorised representative of the XIFI Federation Office
(On behalf of XIFI infrastructure Federation)

Name:

Organisation:

APPENDIX E – ACCEPTABLE USE POLICY OF THE XIFI INFRASTRUCTURE FEDERATION RESOURCES

The XIFI infrastructure federation as part of the FI-PPP programme offers researchers and software developers (entrepreneurs and small enterprises) to experiment with future internet applications and services developed using the FI-Lab environment (FI-WARE Generic Enablers) and test them in a distributed environment, for example regarding scalability, and compatibility with various technologies, provided by the members of the XIFI infrastructure federation. All uses of the XIFI infrastructure federation resources should be consistent with this high-level goal.

The terms and conditions published by FI-WARE for developers using the FI-Lab facility (available at http://forge.fi-ware.org/plugins/mediawiki/wiki/fiware/index.php/FI-LAB_Terms_and_Conditions) are tailored for the FI-WARE testing scenario, and require an update considering the development and operational scenario to which the FI-PPP is evolving. In light of this the following acceptable use policy is proposed.

Guidelines

The XIFI infrastructure federation consists of computational and storage as well as other technology resources (e.g. sensor networks) made available by XIFI infrastructure federation member organizations that contribute with rack-space, network connectivity and various resources and support for those resources. Using the XIFI infrastructure federation resources is fundamentally different from running tests or experiments in a LAN-based lab or on an isolated wide-area testbed.

The XIFI infrastructure federation is designed to support among others network measurements that purposely probe the Internet. However, we expect all users to adhere to widely-accepted standards of network etiquette in an effort to minimize complaints from network administrators. Activities that have been interpreted as worm and denial-of-service attacks in the past shall be avoided.

It is likely that individual sites that host XIFI infrastructure nodes will have their own AUPs. Users should not knowingly violate such local AUPs. Conflicts between individual AUPs of XIFI infrastructure nodes and the XIFI infrastructure federation's stated goal of supporting research into wide-area networks and using distributed resources should be brought to the attention of the XIFI federation office.

While the central XIFI federation office is often the first point-of-contact for complaints about misbehaving services, it is our policy to put the complainant in direct contact with the researcher / developer that is responsible for the service.

The XIFI infrastructure federation also does not provide any guarantees with respect to the reliability of individual infrastructure nodes, which may be rebooted or reinstalled any time. Reinstalling a node implies that the disk is wiped, meaning that users should not treat the local disk as a persistent form of storage.

Overall Rules

The resources of the XIFI infrastructure federation shall not be used for any unlawful activities, or in connection with any criminal activities. The XIFI infrastructure federation shall in all cases be used in compliance with the applicable law.

Furthermore, the XIFI infrastructure federation is intended for research, development and educational purposes, and should not be used for (directly) commercial activities.

Users are entirely responsible for maintaining the confidentiality of their password and account information.

Users are liable for the consequences of violating the overall rules and the usage rules.

Usage Rules

Use existing security mechanisms. For example, all access to XIFI infrastructure federation resources must be via SSH.

Do not circumvent accounting and auditing mechanisms. This means you must associate your identity with the XIFI infrastructure federation resource in which your service/application/test/experiment runs, and you must not do anything to obfuscate the audit trail.

There shall be no hacking attempts of the XIFI infrastructure federation nodes.

An end user shall not attempt to use its XIFI infrastructure federation access authorisation to gain access to any hosting site resources that it is not authorised to use, or attempt to interfere with or compromise the normal functioning, operation and security of the XIFI infrastructure federation and any parts of it.

Do not do systematic or random port or address block scans.

Do not spoof or sniff traffic.

Consequences

Violation of this AUP may result in any of the following:

- Informing the administration of the end user's organization.
- Temporarily disabling the access;
- Terminating the access to the XIFI infrastructure federation resources;

To report a suspected violation of this policy, contact the XIFI infrastructure federation Support (support@fi-xifi.eu or federation-support@fi-xifi.eu).