SOFTFIRE

Software Defined Networks and Network Function Virtualization Testbed within FIRE+

Grant Agreement Nº 687860

SoftFIRE First Open Call
(Call for Experiments, Guidelines and Rules for Participation)

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1 About SoftFire

SoftFIRE integrates European independent testbeds that are made available with a set of basic functionalities related to Network Function Virtualization and Software Defined Networking. The project is aiming at assessing three major characteristics that an NFV/SDN platform should support: interoperability with various functional elements, programmability of the offered functions and security of the entire framework. The federated infrastructure is devoted to experimentation / development of services and applications. Services and applications are chosen in a competitive way by means of Open Calls. The SoftFIRE Project will support three waves of Open Calls. The different waves will benefit from the incremental empowerment and consolidation of the single testbeds and the federated one.

More information about SoftFIRE can be found here: www.softfire.eu

The current document is about the first Open Call.

2 First Call Objectives

SoftFIRE Consortium invites applications to its First Open Call for experiments to be carried out on the Federated Testbed.

The first Open Call of the SoftFIRE project focuses on interworking and interoperability in order to assess the effort of the federated testbeds in creating a single environment for experimentation. It will be complemented by an InterOpTest, in which the Project Partners and few other invited third parties will show the results achieved so far. This will also offer the opportunity to interested third parties to familiarize with the platform in order to understand its current functions and how to use them to develop applications and services.

The proposed work plan may address platform enhancements, services offered by the platform or applications running on the platform.

Applicants are suggested to read carefully this document and to refer also to the website of the project for timely information. Applicants can also refer to opencall@softfire.eu in order to get in contact with the project in case they need to clarify any issues with the Open Call.

Selected applicants will be granted access to the SoftFIRE federated testbed and will receive support from the consortium according to the rules and constraints specified in the Handbook (SoftFIRE, Handbook: Guidelines and Rules for on-demand access to the SoftFIRE Testbed, 2016) where also all details about the testbed infrastructure can be found.

3 First Open Call information

Project full name: SoftFIRE - Software Defined Networks and Network Function Virtualization

Testbed within FIRE+

Project number: 687860

Call identifier: SoftFIRE-OC1

Call title: First SoftFIRE Open Call for Experiments

Total Budget: € 500,000

Maximum Funding per proposal: € 50,000

Type of participants: The typical profile of participants is academics, industrial or SMEs active in the domain of NFV/SDN and 5G research and applications that need to run experiments to test, evaluate and optimize their solutions and applications. The rules of participation are indicated in SoftFIRE First Open Call: http://www.softfire.eu/open-calls/

Duration of the experiment: The maximum allowed duration of each experiment is 3 Months

Language of the proposal: English

Proposal submission: online submission through the portal

Call deadline: 20 September 2016 at 17:00h CET (Brussels time)

Proposal Template: Proposals must use the provided template (in Word format)

Detailed Call Information: SoftFIRE First Open Call

Notification of Acceptance: 14 October 2016

Contact: opencall@softfire.eu

Web address for further information: http://www.softfire.eu/open-calls/

4   How to Submit a Proposal

Organisations willing to submit a proposal must do so by using the Proposal Template available on the website.

Proposals are submitted in a single stage.

All detailed Information about the SoftFIRE First Open Call can be found also on the project's website http://www.softfire.eu/open-calls/ giving indications on how to structure a proposal, how the proposal should be submitted and the criteria for evaluation.

4.1   Eligibility criteria

Applicants:

- must be eligible for participation in the EC H2020 projects: http://ec.europa.eu/research/participants/data/ref/h2020/wp/2014_2015/annexes/h2020-wp1415-annex-a-countries-rules_en.pdf
- can only be selected for funding for one proposal (even if the proposer submitted multiple proposals that are ranked high enough to be selected for funding).

SoftFIRE consortium members cannot apply to this call.

4.2   Results and Deliverables

Applicants must clearly indicate in their proposal the results they intend to achieve and how to measure them.

Selected applicants will be also requested to produce a final report in which achieved results are clearly reported and documented against the original objectives. They will also be requested to report about their experience with the federated tesbeds and provide hints and suggestions on the NFV/SDN technologies made available by SoftFIRE.

4.3   Proposal template

Applicants must use the proposal template available at www.softfire.eu/open-calls/. In the document, applicants will find instructional specifying the type of information expected per section.
Each section has indicated a limited number of pages. The applicants are sole responsible for completing all required fields in the template according to the instructions.

4.4   Proposal participants

The proposal can be submitted by one legal entity. In case the proposal will be successfully selected, these legal entities will become Subgrantees of SoftFIRE as described in section 6.

4.5   Proposal language

The proposal must be prepared in English.

4.6   Submission of proposals

Proposals must be submitted electronically in PDF format ONLY at www.softfire.eu/open-calls/.

If you discover an error in your proposal, and provided that the call deadline has not passed, you may submit a new version. Only the last version received before the call deadline will be considered in the evaluation.

Proposals must be received by the closing time and date of the call. Late proposals, or proposals submitted in any other way than through the online submission form, will not be evaluated.

4.7   Acknowledgement of receipt

You should request a delivery receipt for your email. As soon as possible after the close of call, an Acknowledgment of receipt will be emailed to you by SoftFIRE. The sending of an Acknowledgement of receipt does not imply that your proposal has been accepted as eligible for evaluation.

5 Evaluation Process

The evaluation will be performed by mixed "internal / external" expert panel. "Internal" experts are from members of the SoftFIRE consortium having the technical knowhow, special knowledge of SoftFIRE testbeds and/or relevant business expertise; external experts are selected according to their specific knowledge of the SDN/NFV and 5G domains.

Please refer to the website for Open Call Calendar at www.softfire.eu.

The evaluation will go through three steps, summarized in Figure 1:
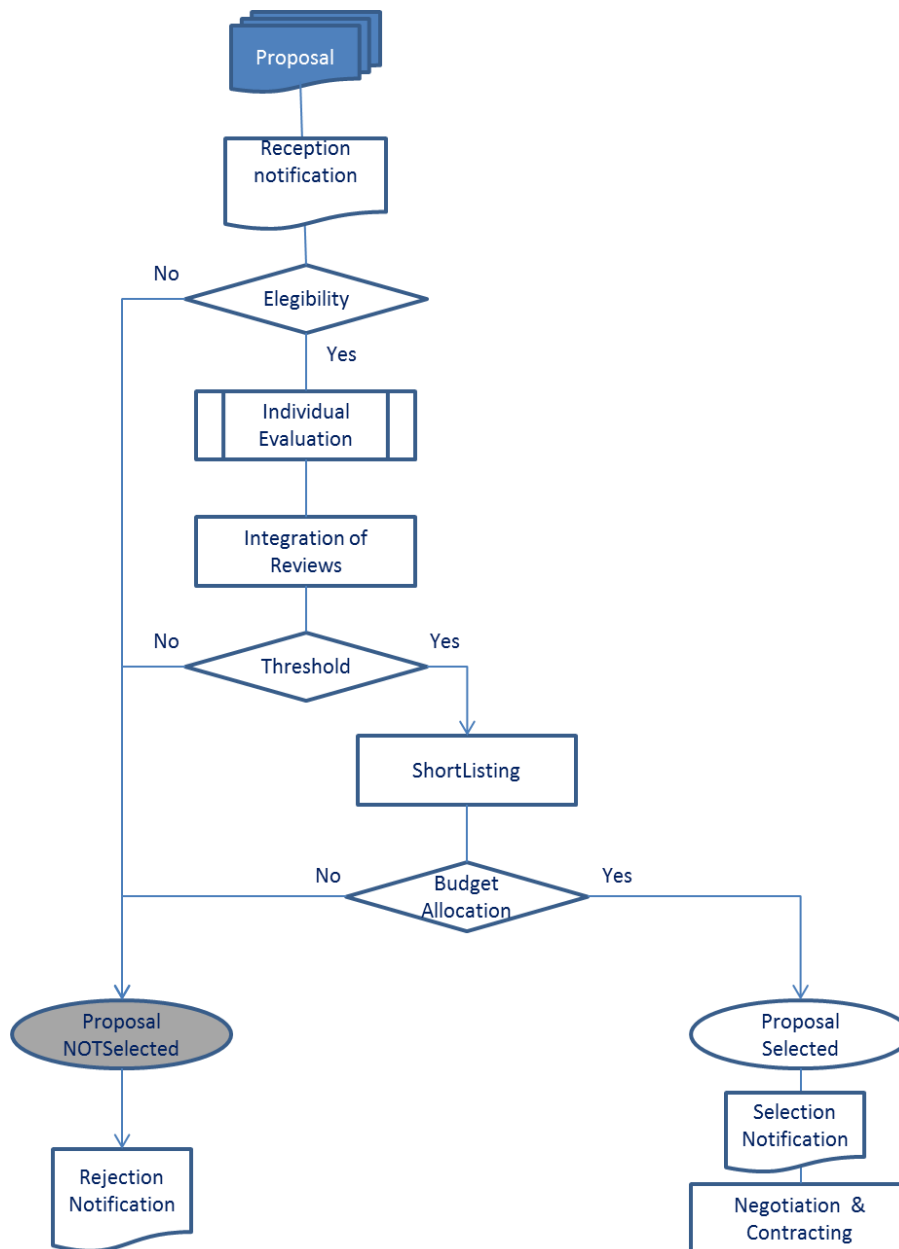
Figure 1: Evaluation Process

5.1.1. Proposal Evaluation Criteria

As a general rule, the level of innovation and novelty, the quality of the proposed experiment and of the executing team will play a major role in the selection process.

All proposals will be ranked based on general criteria:

- Excellence
- Impact
- Implementation

Those general criteria are further elaborated in Table 1 and Table 2 below, where the first table reports sub-criteria relevant to the assessment of proposal targeting platform enhancements and developments, while Table 2 is relevant for proposals addressing new applications and services.

Criteria	Excellence	Impact		Implementation	
	Technical and Innovation Merit	**Contribution to the creation of a SoftFIRE-based Ecosystem**	**Business Impact and considerations**	**Practical Feasibility on SoftFIRE testbeds**	**Technical Soundness**
Threshold	7	6	6	Y(*)	7
Weight	0,40	0,20	0,10		0,30
P r o p e r t i e s	Relevance of the proposal for SoftFire federated testbes	Potential to increase knowledge at the European level and differentiate the proposition	Desirability/need of the proposed service/function	Implementability on the SoftFIRE infrastructure	Clarity and quality of the proposal
	Appropriateness of technical and methodological approach (interoperability, programmability and security)	Clarity and Quality of the Technological benefits for an European Ecosystem			Quality of the proposing group
	Originality and innovative value of the proposed features/tests and their relation to the status of the art	Contribution to standards or open interfaces		Alignement of the Projectwith respect to SoftFIRE constraints	Quality of the workplan
	Potential of exploitaiton/inclusion in SoftFire of [proposed functionalities and features (including legal/admin aspects)				Qulity of the team
	(*) This is a binary criteria: the proposal is feasible or not on SoftFIRE platform				

Table 1: evaluation Criteria for Platform related Proposals (Objective 1)

Criteria	Excellence	Impact	Implementation	
	Technical and Innovation Merit	**Business Impact and considerations**	**Practical Feasibility on SoftFIRE testbeds**	**Technical Soundness**
Threshold	**7**	**6**	**Y(*)**	**7**
Weight	0,30	0,40		0,30
P r o p e r t i e s	Relevance of the proposed service/product to SoftFire federated testbes	Desirability of the proposed service/product	Implementability on the SoftFIRE infrastructure	Clarity and quality of the proposal
	Appropriateness of technical and methodological approach (interoperability, programmability and security)	Market prospects		Quality of the proposing group
	Added value provided by SoftFire to the new product/service	proposed business plan	Alignement of the Projectwith respect to SoftFIRE constraints	Quality of the workplan
		quality of the proposing team		
	(*) This is a binary criteria: the proposal is feasible or not on SoftFIRE platform			

Table 2: Evaluation Criteria for proposal addressing Applications and Services

Based on the received scores, proposals will be ranked and shortlisted. Shortlisted proposals will be invited to negotiate the final terms of the agreement, including the workplan, budget and relevant results/achievements.

6 Relationships with SoftFIRE consortium and funding scheme

6.1 Administrative Duties

Selected organizations will become a Third Party of the consortium using Cascade Funding (also known as sub-granting). In the remainder of this document a 'Third Party using Cascade Funding' is referred to as Subgrantee.

Contracts with the Subgrantee will be done by SoftFIRE's coordinator, EIT Digital IVZW.

Any legally binding commitment from the side of EIT Digital IVZW shall be subject to the entering into of a written contractual agreement between EIT Digital IVZW and the Subgrantee

The administrative tasks for the Subgrantee, including cost and activity reporting obligations and related documents will be provided during the negotiation and contracting phase.

At the end of the project the Subgrantee will submit a "Final Report" consisting of:
- An Activity Report containing an analysis of the achieved results against those negotiated in the contract. The Subgrantee shall also report about its experience with the federated tesbeds and provide hints and suggestions on the NFV/SDN technologies made available by SoftFIRE.
- cost report detailing all eligible costs incurred.

In addition, successful applicants will be requested to participate in the Event that will close the Open Call - a Hackathon where experimenters will show the achieved results and external programmers will hack and possible extend the new features and applications. More information on the Event will be timely made available in http://www.softfire.eu/events/

Eligible costs consist of personnel costs, direct costs (such as travel, equipment, etc.) and indirect costs. Subgrantees have to comply with the rules and the principles mentioned in Section I, Article 6 (Eligible and ineligible costs) of the H2020 AGA – Annotated Model Grant Agreement (see http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/amga/h2020-amga_en.pdf), in the same way as the beneficiaries. The rules concerning eligibility of costs, identification of direct and indirect costs and upper funding limits can be found in Section I, Article 22 of the H2020 AGA.

6.2 Funding scheme

The following payment scheme will apply:

- 25% of the agreed upon funding will be provided at the time the contract is signed.
- Based on the evaluation of the final report, a payment of up to 50% of the requested funding will be carried out by the project coordinator.
- The remaining 25% will be paid following the formal approval of the final report and corresponding work by the European Commission (EC).

7 Support to Experimenters

7.1 Call Helpdesk

For further information on the call, contact: opencall@softfire.eu;

For more general information please refer to info@softfire.eu

7.2 Useful Documents

- SoftFIRE First Open Call (this document)
- SoftFIRE Handbook (SoftFIRE, Handbook: Guidelines and Rules for on-demand access to the SoftFIRE Testbed, 2016)
- SoftFIRE Template for Experiment Proposal

Please refer to http://www.softfire.eu/open-calls/ for the complete documentation.

7.3 Foreground rights

The IP of the experiment's results generated by the Subgrantee will be owned by it provided that the SoftFIRE consortium and its partners are granted access to it for the pursuance of the project objectives and the exploitation of its results, in accordance to what is specified in the Grant Agreement. Details will be defined during the negotiation phase.

7.4 Federated Testbed Availability

The Platform will be operational during these time frames:

Working hours: 10:00 a.m. to 5:00 p.m. CEST

                Monday to Friday GMT

Outside this timeframe: issues/requests will be emailed and managed at best effort.

Please check your local time correspondence (http://www.worldtimebuddy.com/).

7.5 Constraints and Limitations during the Experiments

The SoftFIRE infrastructure is composed by loosely integrated platforms under different administrative domains. In addition the different platforms are ran for experimental purposes and they are not yet considered a mass production tool. This means that bugs and issues in the platform behavior can occur and will occur. Actually the scope of the experiments is also to support the tune up and the assessment of the platform as a whole.

The Platform is still under development and it has a basic set of functionalities that have to be tuned up and it is missing a number of features that will be progressively added in the future. SoftFIRE is by no means to be considered a product and so the usual support for software development cannot be granted.

Even if SoftFIRE aims at programmers, not all the features to allow for a fast programming approach are provided. This is due to differences in the component testbeds and to security controls imposed by different administrative domains. The programming phases could results cumbersome and not particularly attractive, however they may improve along the lifetime of the project.

Service level agreement (SLA) agreements do not apply during the experimentation phases. Because this is a period to test and explore SoftFIRE, the experimenters should not run production applications on the infrastructure Platform during the trial.

The SoftFIRE project reserves the right to discontinue at any time the service if the use is not consistent with the purpose of SDN/NFV and/or violate any aspects of infrastructure security or shall conflicts any on-going experimentation.

During the running period of the experiments, the SoftFIRE project will put in place a team that will support the experiments in their work on the platform. It is not offered as a professional service and its operations will be on the basis of best effort. The entire infrastructure is α-test platform. Possible downtime could occur without notice or due to overload caused by parallel experiments.

SoftFIRE will offer expertise available by email (with possible follow-up by phone) and two hours per day during the experimentation phase in order to collect issues and provide responses. We'll try to provide most of the answers by 24 hours (typically next morning or afternoon). Some issues could be not solvable due to the short time of the experiment period or due to the need to intervene on the platform. The supporting team will work with experimenters to circumvent the problems.

The project will also issue limits and constraints on the allocation of available resources. This is due to the need to support and allow parallel experimentations. These limitations depend on the total capabilities of the federated platform as well as the number of experimenters and their requests in terms of resources. Typical limitations could be related to the max number of VMs to be instanced, the number of physical resources usable or the max memory usable per experimenters. Other limitations could apply, or be notified during the course of the experimentations.

Additional information for the experimenters will be updated in the SoftFIRE portal at http://www.softfire.eu