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D2.7: Federation operations, tools and support – Update 1

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Abstract	This deliverable describes the federation operation and support statistics for the first 36 months and the current state of the operational tools.
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* R: Document, report (excluding the periodic and final reports)

DEM: Demonstrator, pilot, prototype, plan designs

DEC: Websites, patents filing, press & media actions, videos, etc.

OTHER: Software, technical diagram, etc.



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EXECUTIVE SUMMARY

This deliverable gives an overview of the operational usage of the federation during the first 36 months of the Fed4FIRE+ project. It gives details on statistics of usage, testbeds reachable for the users, how support is organised and statistics on support tickets. It gives also an overview/tutorial/manual of the jFed user tool features.

This deliverable shows statistics for all 36 months, but only shows the new features since D2.2.



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1 STATISTICS ON USERS AND EXPERIMENTS

1.1 USERS

The figure below shows the cumulative number of accounts in the federation since September 2013. The previous project Fed4FIRE and the current Fed4FIRE+ project are indicated. In total there have been created more than 1640 user accounts and on top of that about 350 accounts for classes have been made. These class accounts are typically reused each year.

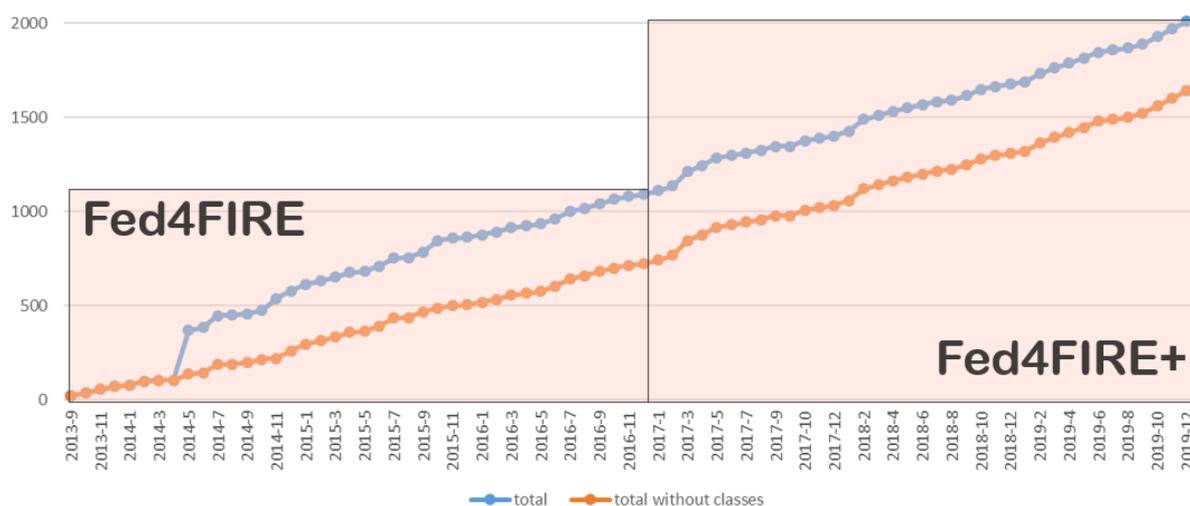


Figure 1: Cumulative accounts over time

1.2 EXPERIMENTS

The graph below gives an answer to the question ‘how many experiments have been run?’. For this, we have the concept of a ‘project’ in the Fed4FIRE authority. A project is requested by a PI (Principal Investigator) and can contain multiple people. Examples of projects are e.g. a PhD, a master student thesis, a research project, an open call experiment. It is clear that within such a project (e.g. a PhD over multiple years) multiple tests/setups are run on the same topic. From September 2013 till now, about 900 projects have been created. Interesting to note is that during Fed4FIRE 46 Open Call experiments were run, and during Fed4FIRE+ till now about 80. It shows that this is a minority compared to all other experiments.

During the last 12 months 215 new projects were created on the Fed4FIRE authority (run by imec).

- Internal to imec: 100
- External to imec: 100
- Classes: 15
- 158 of those projects were started by new users (new during the last 12 months). 57 projects were started by existing users.

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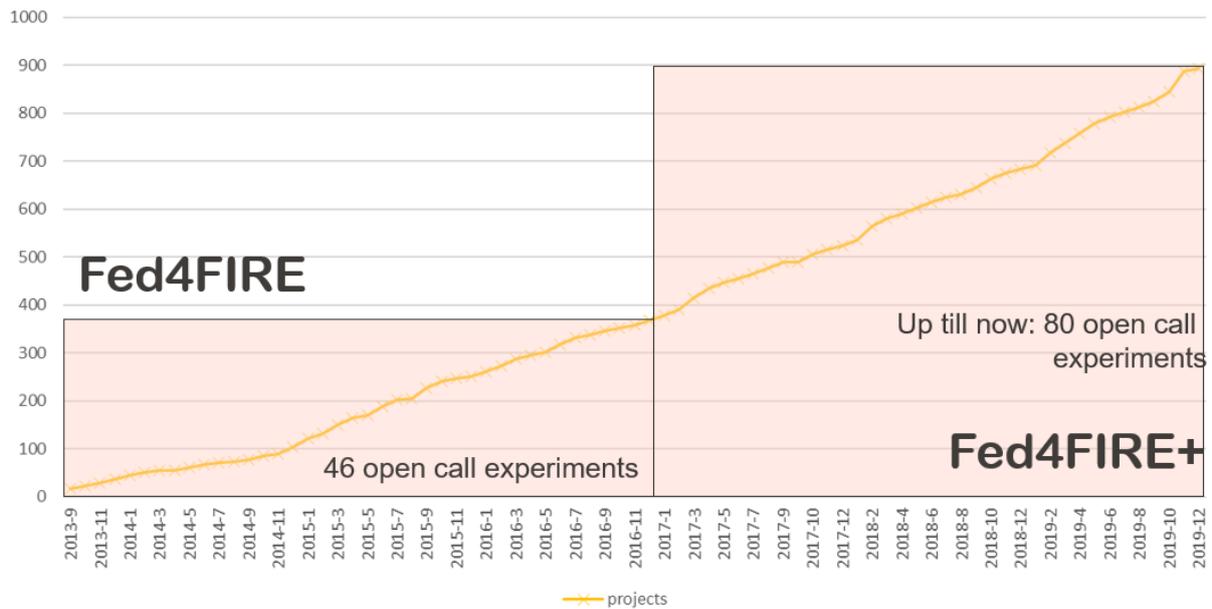


Figure 2: Number of projects in the federation

1.3 DETAILED MONTHLY USAGE

The previous graphs are cumulative, so the question arises what the actual usage is. The following two graphs illustrate this. A slice exists out of slivers. A slice is the collection of resources a user reserves and provisions to run his experimentation. A sliver is a technical concept and varies per testbed: on some testbeds a sliver can exist out of multiple nodes, on other testbeds each node in an experiment is a sliver. A sliver consists always of resources of a single testbed. The graph below shows per month the number of slivers created. In some months peaks of more than 3000 created slivers can be seen. The feature in jFed to store the slivers, was introduced in the stable version end of 2015. That's the reason before that only moderate usage can be seen.

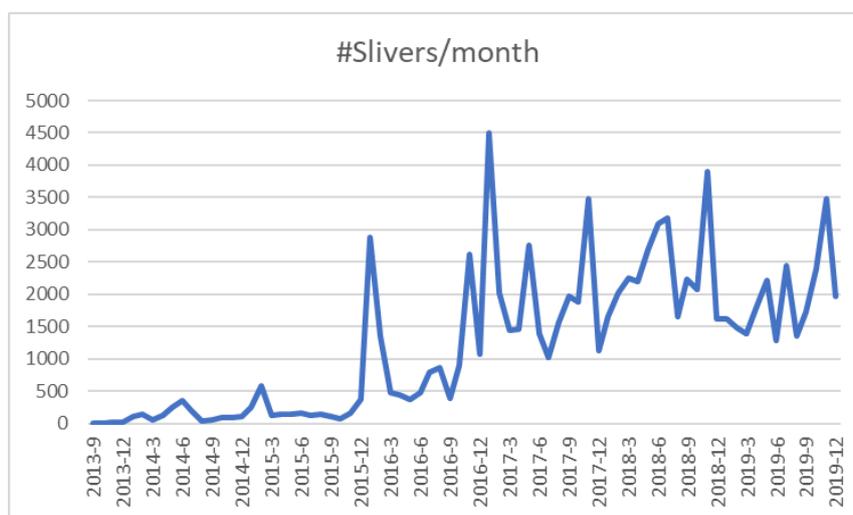


Figure 3: Number of slivers created per month (this can be a number of nodes or a single)

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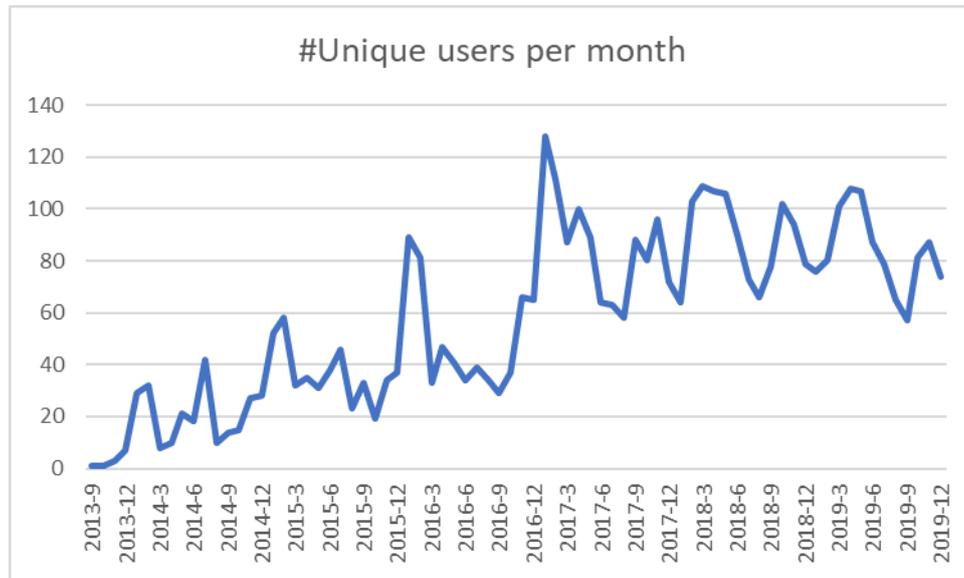


Figure 4: Number of unique users per month

Figure 4 gives an indication of the number of unique users reserving resources each month.

Over the last 12 months, 338 different users were active on Fed4FIRE testbeds via a Fed4FIRE account. In total they set up 23004 slivers (average of 68 per user) for a total of 406 nodeyears. (a nodeyear is the usage of 1 node during 1 year, or e.g. 2 nodes during 6 months).

Apart from the Fed4FIRE testbeds, also the following non-European testbeds were used with Fed4FIRE accounts:

- Brazilian Futebol testbeds: 33 unique users over the last year with 1288 slivers (39 slivers per user), for 1.1 nodeyears in total
- US GENI testbeds: 31 unique users for a total of 310 slivers (10 slivers per user) and 46.5 nodeyears (of which 1 user used more than 35 nodeyears)

1.4 CROSS TESTBED SECURITY

Fed4FIRE was invited by US testbeds (cloudlab, fabric, exogeni, emulab, geni) on a cross-testbed-security channel.

There were some users trying to use testbed resources for bitcoin mining and it seems they tried to get an account on all testbeds. There were matches between Fed4FIRE and US testbeds requests indeed, but we had not approved their account on Fed4FIRE as the requests were strange and the people did not respond to questions from our side.

2 SUPPORT FROM WITHIN JFED TOOL

2.1 SUPPORT WIZARD IN JFED

Starting from jFed 5.7.2, which was released on March 22th, 2017, the jFed Experimenter GUI contains an advanced support wizard. This wizard allows the user to contact the Fed4FIRE+ support team at imec for assistance when they run into problems while using one or more testbed resources.

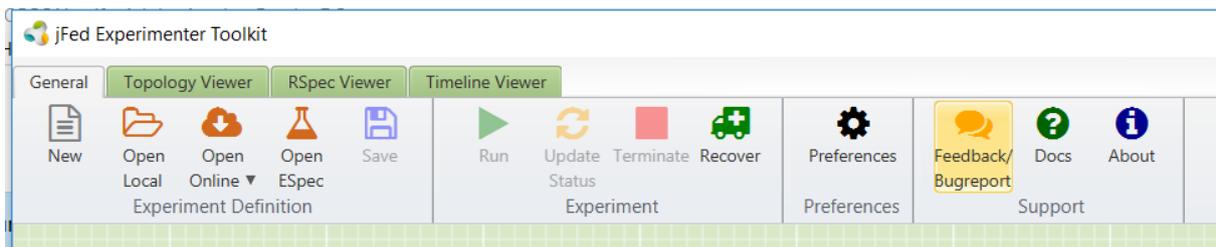
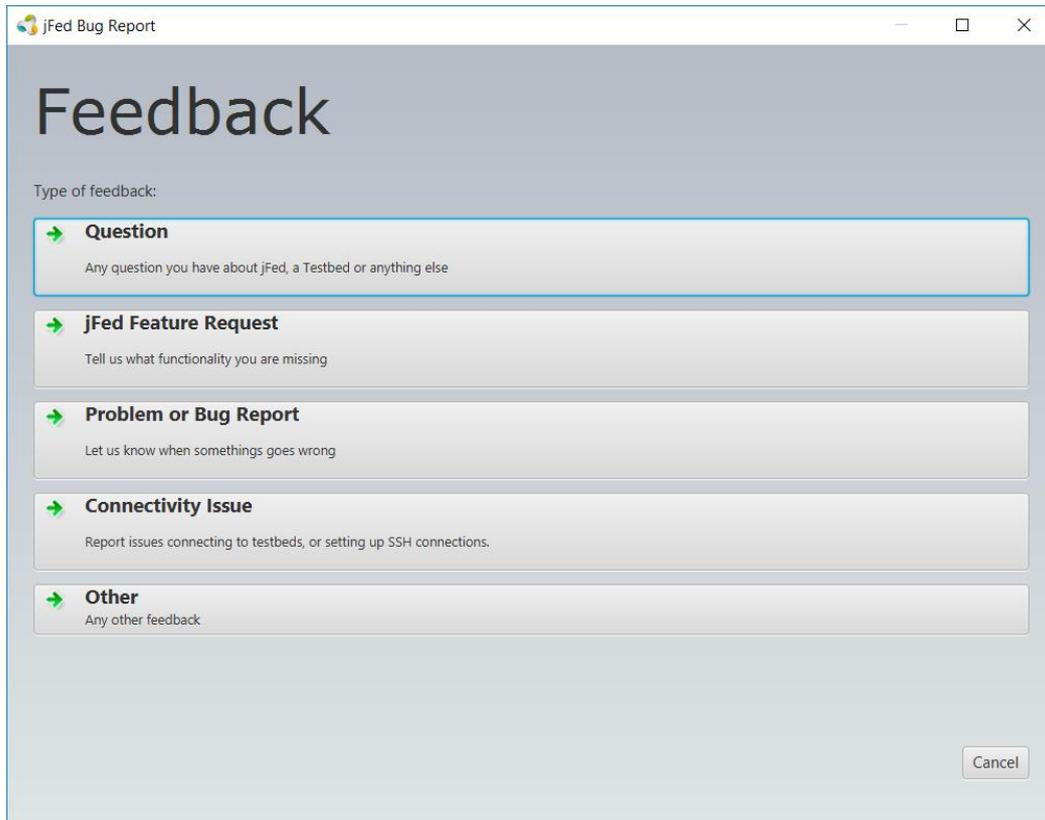


Figure 5 jFed Feedback/Bugreport button

The first page of the wizard allows the user to select the category for the question he wants to pose:

- **Question:** any question about jFed, a testbed or anything else
- **jFed Feature Request:** for reporting missing functionality in the jFed GUI
- **Problem or Bug Report:** for reporting unexpected behaviour of the jFed GUI or a testbed
- **Connectivity issue:** for when the user is unable to connect to a testbed API endpoint or a testbed resource
- **Other:** any other feedback

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The screenshot shows a web browser window titled "jFed Bug Report". The main heading is "Feedback". Below the heading, it says "Type of feedback:". There are five selectable options, each with a green arrow icon on the left:

- Question**: Any question you have about jFed, a Testbed or anything else
- jFed Feature Request**: Tell us what functionality you are missing
- Problem or Bug Report**: Let us know when somethings goes wrong
- Connectivity Issue**: Report issues connecting to testbeds, or setting up SSH connections.
- Other**: Any other feedback

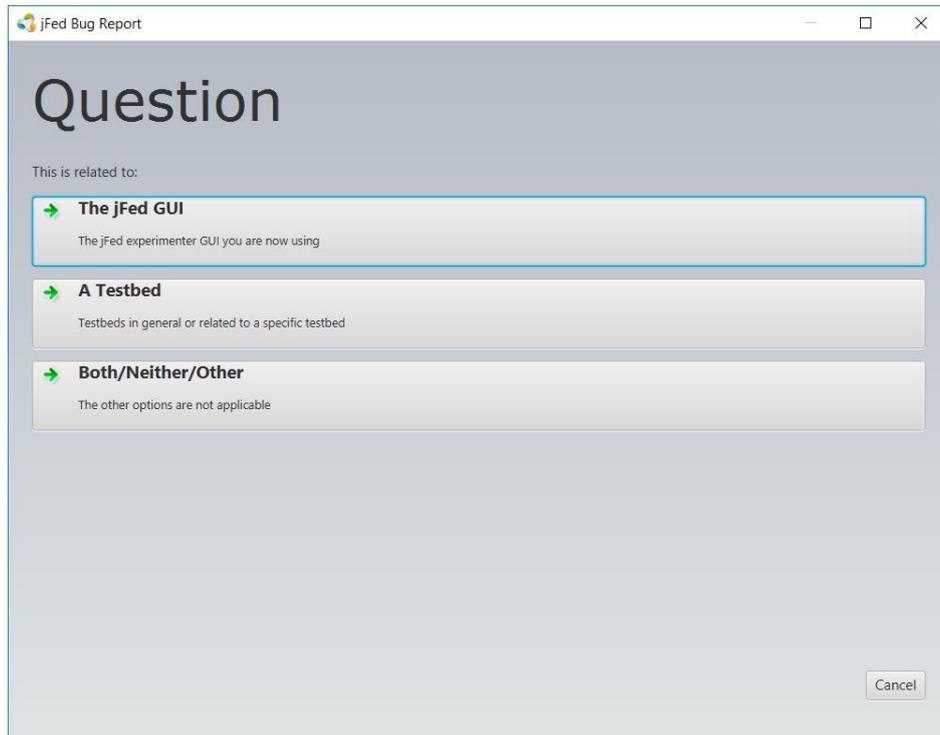
A "Cancel" button is located in the bottom right corner of the form area.

Figure 6 Start screen of the Feedback wizard

Depending on the category the user chooses, he has the option to further specify the type of support request he has. The screenshots below show the follow-up pages when an user selects the category 'Question'. The first follow-up question allows him to specify if he has a question about the jFed GUI and/or a testbed that he/she wants to use. When the user selects the latter, a second follow-up question allows the user to select the testbeds about which the question goes. For ease of use, the testbeds that are currently active in an experiment are put on top of the list, and are indicated in bold.

By asking these questions, it is possible to do a first triage when the support request is submitted. This allows the support backend to automatically forward the request to the correct testbed support contact.

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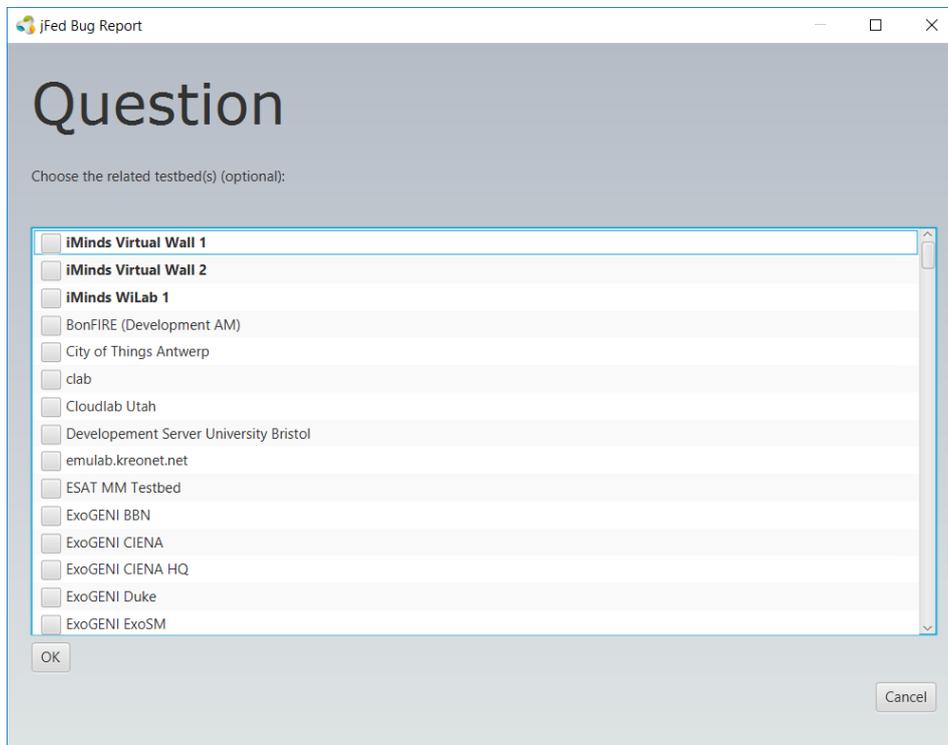
Question

This is related to:

- The jFed GUI**
The jFed experimenter GUI you are now using
- A Testbed**
Testbeds in general or related to a specific testbed
- Both/Neither/Other**
The other options are not applicable

Cancel

Figure 7 Specifying what the question is about



Question

Choose the related testbed(s) (optional):

- iMinds Virtual Wall 1
- iMinds Virtual Wall 2
- iMinds WILab 1
- BonFIRE (Development AM)
- City of Things Antwerp
- clab
- Cloudlab Utah
- Development Server University Bristol
- emulab.kreonet.net
- ESAT MM Testbed
- ExoGENI BBN
- ExoGENI CIENA
- ExoGENI CIENA HQ
- ExoGENI Duke
- ExoGENI ExoSM

OK

Cancel

Figure 8 Specifying which testbed the question is about

When appropriate, the support form asks the user if he wants the question to also be posted on the public Fed4FIRE+ experimenters mailing list. This encourages users to share their

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problems with other experimenters, and creates a publicly accessible list of frequently asked questions and their respective solutions.

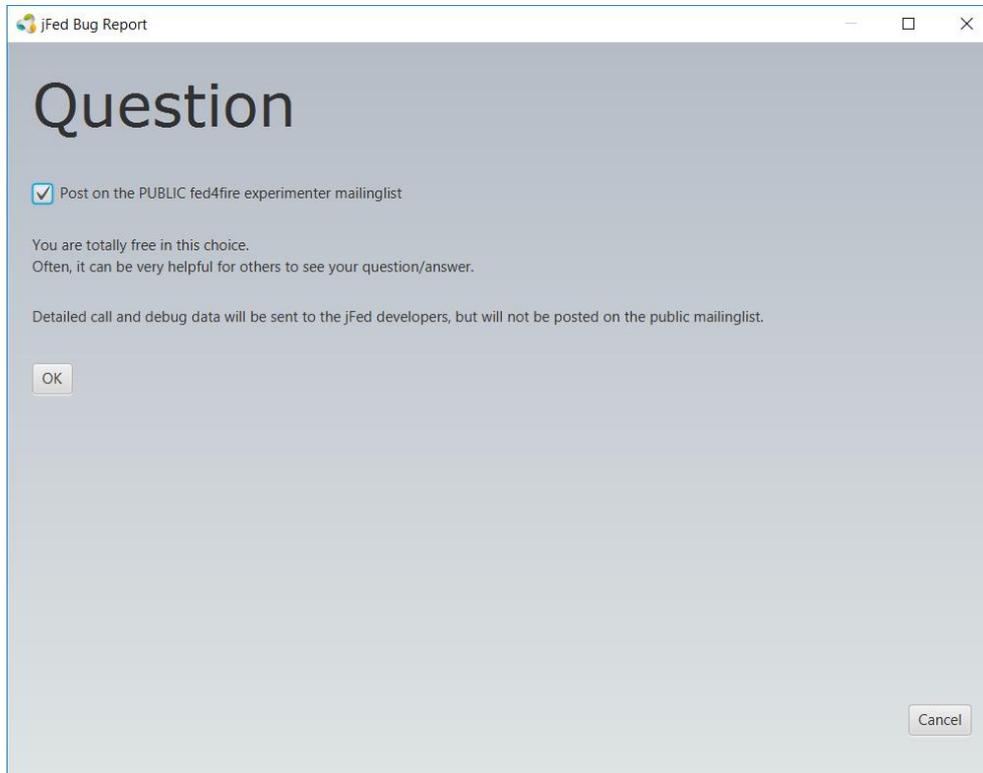


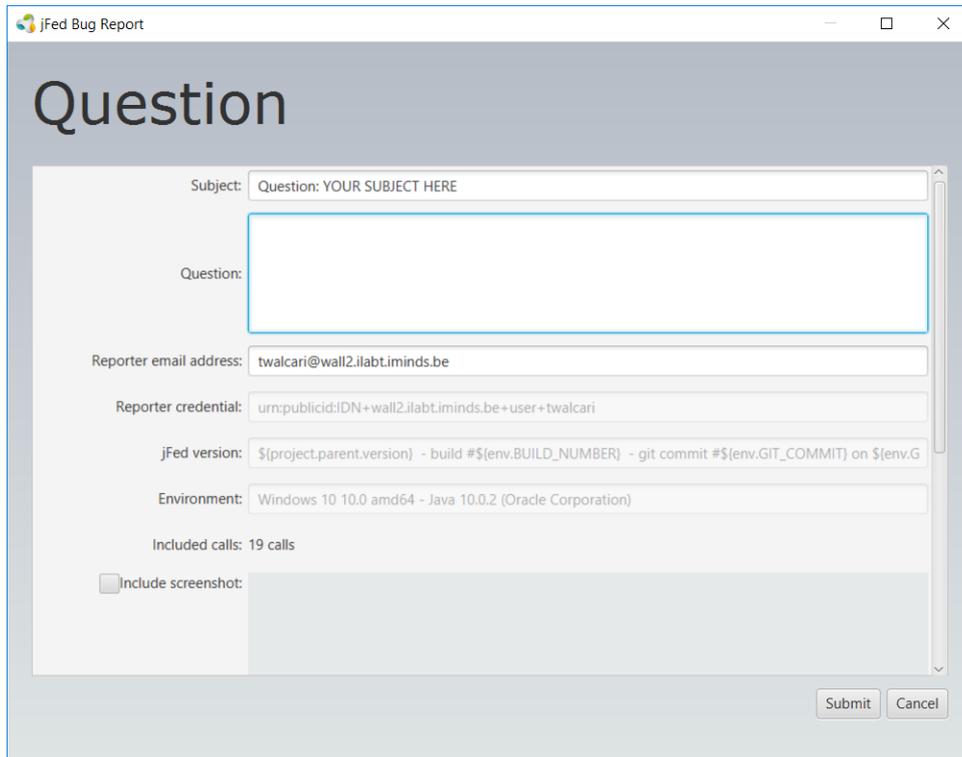
Figure 9 Asking if the support request may be posted on a public mailing list

The last screen of the wizard allows the user to enter his question, and shows which information will be included in the support request. This information always contains:

- An unique ID of the experimenter “reporter credential”
- The email address on which the experimenter can be reached
- The jFed version used to submit the support request
- The environment in which jFed runs (OS and Java version)
- All API calls made by jFed up until that point (request and responses)

Optionally the user can also include a screenshot to help explain his support request.

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The screenshot shows a web browser window titled "jFed Bug Report" with a "Question" form. The form fields are as follows:

- Subject: Question: YOUR SUBJECT HERE
- Question: (Empty text area)
- Reporter email address: twalcari@wall2.ilabt.iminds.be
- Reporter credential: urn:publicid:DN+wall2.ilabt.iminds.be+user+twalcari
- jFed version: \${project.parent.version} - build #\${env.BUILD_NUMBER} - git commit #\${env.GIT_COMMIT} on \${env.G
- Environment: Windows 10 10.0 amd64 - Java 10.0.2 (Oracle Corporation)
- Included calls: 19 calls
- Include screenshot:

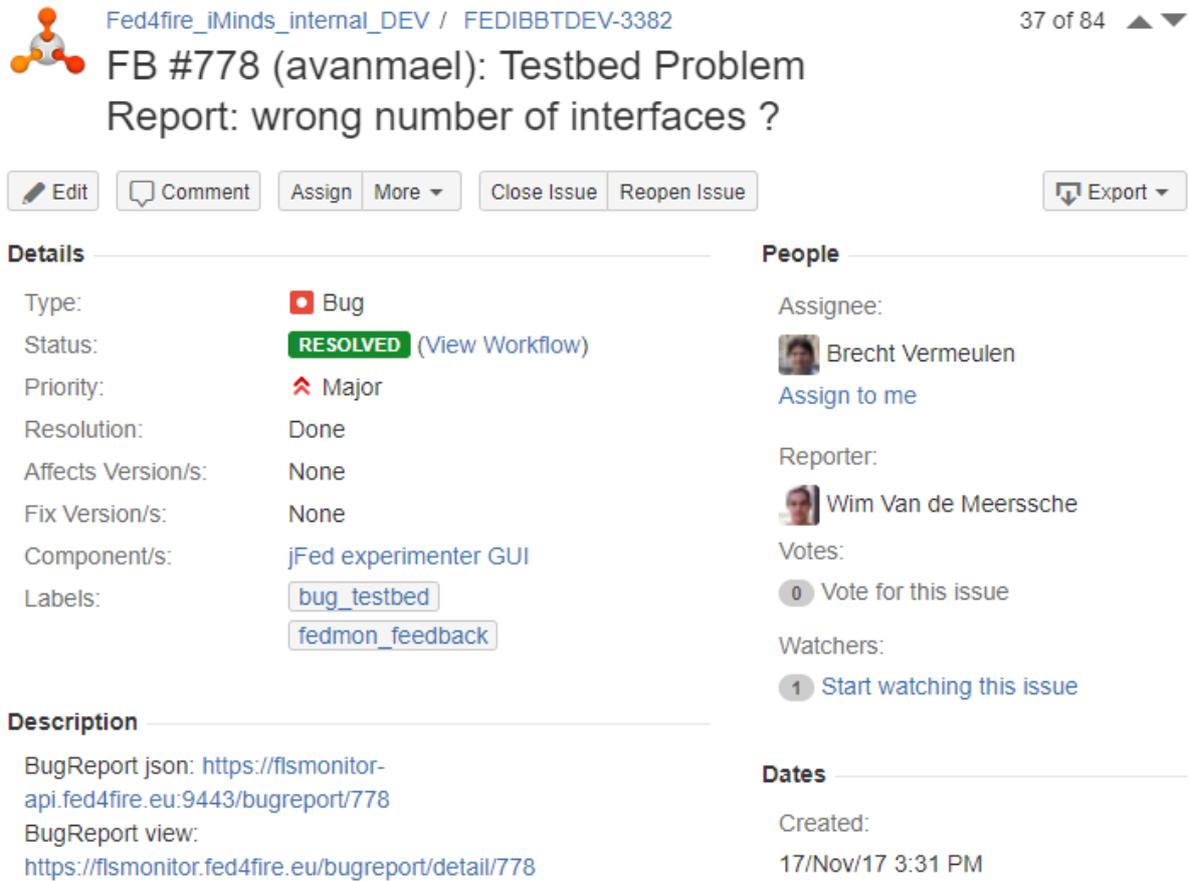
At the bottom right of the form are "Submit" and "Cancel" buttons.

Figure 10 Support request details form

2.2 SUPPORT REQUESTS BACKEND

The submitted support requests automatically create a ticket in a JIRA issue tracker, and are also sent as a mail to the Fed4FIRE+ support team in imec.

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The screenshot shows a JIRA ticket interface. At the top right, there is a navigation bar with '37 of 84' and a dropdown arrow. The ticket title is 'FB #778 (avanmael): Testbed Problem Report: wrong number of interfaces ?'. Below the title are several action buttons: 'Edit', 'Comment', 'Assign', 'More', 'Close Issue', 'Reopen Issue', and 'Export'. The ticket is categorized under 'Details' and 'People'. The 'Details' section includes fields for Type (Bug), Status (RESOLVED), Priority (Major), Resolution (Done), Affects Version/s (None), Fix Version/s (None), Component/s (jFed experimenter GUI), and Labels (bug_testbed, fedmon_feedback). The 'People' section lists the Assignee (Brecht Vermeulen), Reporter (Wim Van de Meerssche), and a 'Start watching this issue' button. The 'Description' section contains two links: 'BugReport json: https://flsmonitor-api.fed4fire.eu:9443/bugreport/778' and 'BugReport view: https://flsmonitor.fed4fire.eu/bugreport/detail/778'. The 'Dates' section shows the ticket was created on '17/Nov/17 3:31 PM'.

Figure 11 Example JIRA ticket of a support request

The description of the support request contains (links to) all the info the user provided.

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Description

BugReport json: <https://flsmonitor-api.fed4fire.eu:9443/bugreport/771>

BugReport view: <https://flsmonitor.fed4fire.eu/bugreport/detail/771>

User email: avanmael@wall2.ilabt.iminds.be✉

User URN: urn:publicid:IDN+wall2.ilabt.iminds.be+user+avanmael (Wall2 Users)

Feedback:

- Type: Bug Report
- About: Testbed(s)
- Related testbeds:
 - urn:publicid:IDN+wall1.ilabt.iminds.be+authority+cm
- Description:
 - on node n0710-10.wall1.ilabt.iminds.be, eth5 doesn't seem to be connected to the LAN as it cannot ping any other node
- jFed Version: 5.8.0 - build #4 - git commit #05fa10136faf211b90d49d0eb2e92bc03df36a5a on HEAD
- jFed Environment: Windows 7 6.1 amd64 - Java 1.8.0_144 (Oracle Corporation)
- Send to mailinglist: — No
- Included calls: 65
- Includes screenshot: No

Figure 12 Description in JIRA of a support request

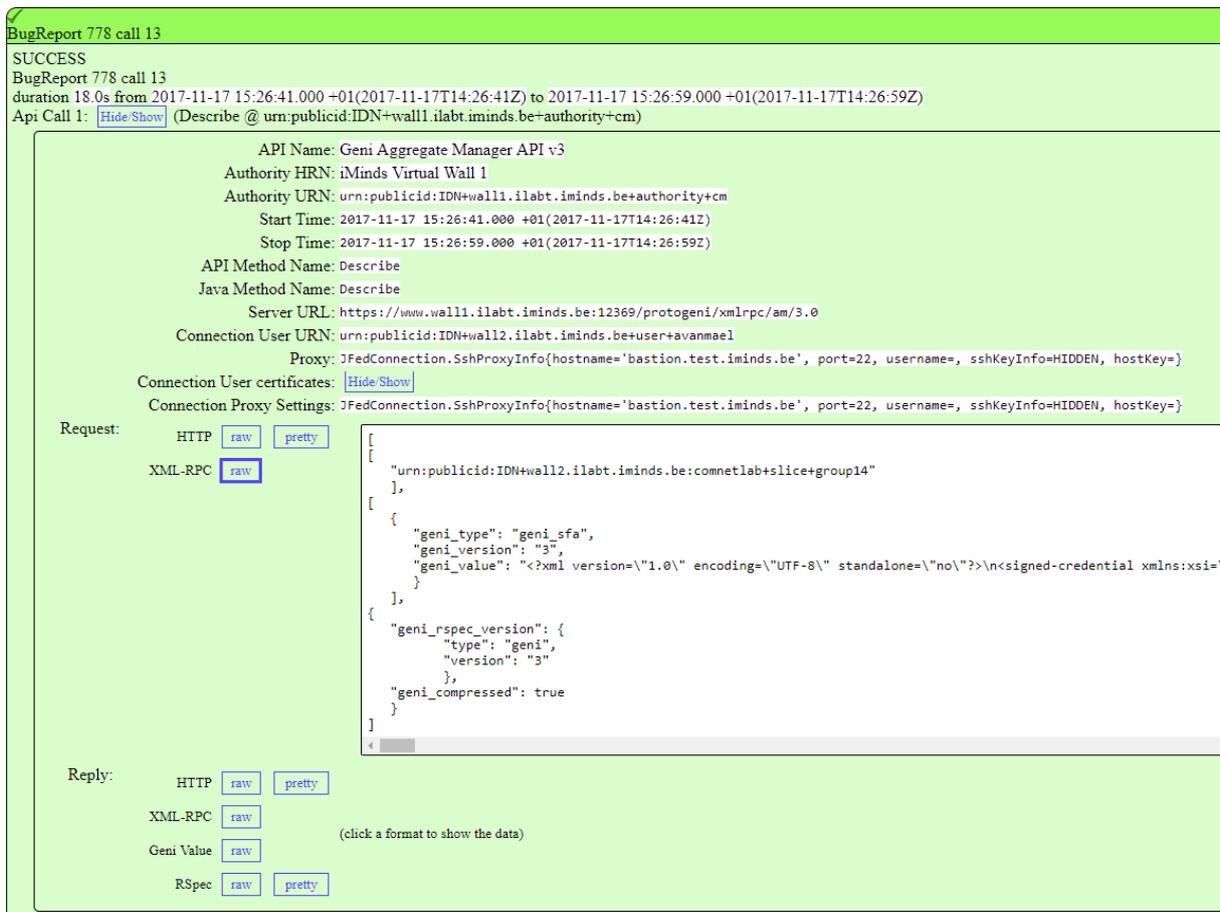
The description also contains links to a more detailed bugreport-view which exposes – amongst others – all API requests and responses done by the jFed GUI, the results of a connectivity test, and the last 2048 log lines generated by the jFed software:

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Details:

ID: 771
 Reporter Urn: urn:publicid:IDN+wall2.ilabt.iminds.be+user+avanmael
 Date: 2017-11-16T11:54:07Z
 reportType: BUG
 reportTarget: TESTBED
 relatedTestbeds: urn:publicid:IDN+wall1.ilabt.iminds.be+authority+cm
 subject: Testbed Problem Report: issue on interface
 postOnPublicList: false
 Description: on node n0710-10.wall1.ilabt.iminds.be, eth5 doesn't seem to be connected to the LAN as it cannot ping any other node
 screenshot: None
 jFed Version: 5.8.0 - build #4 - git commit #05fa10136faf211b90d49d0eb2e92bc03df36a5a on HEAD
 User Info: (Click to show)
 Email Address: avanmael@wall2.ilabt.iminds.be
 preferences: (Click to show)
 API Calls: (Click to show 65 Api Call URIs)
 connectivityTestResults: (Click to show 191 connectivity test results)
 logLines: (Click to show 2048 loglines)
 Slices: (Click to show 19 slices)
 stitchingJobReports:

Figure 13 Details-view of a support request



BugReport 778 call 13
 SUCCESS
 BugReport 778 call 13
 duration 18.0s from 2017-11-17 15:26:41.000 +01(2017-11-17T14:26:41Z) to 2017-11-17 15:26:59.000 +01(2017-11-17T14:26:59Z)
 Api Call 1: [Hide/Show](#) (Describe @ urn:publicid:IDN+wall1.ilabt.iminds.be+authority+cm)

API Name: Geni Aggregate Manager API v3
 Authority HRN: iMinds Virtual Wall 1
 Authority URN: urn:publicid:IDN+wall1.ilabt.iminds.be+authority+cm
 Start Time: 2017-11-17 15:26:41.000 +01(2017-11-17T14:26:41Z)
 Stop Time: 2017-11-17 15:26:59.000 +01(2017-11-17T14:26:59Z)
 API Method Name: Describe
 Java Method Name: Describe
 Server URL: https://www.wall1.ilabt.iminds.be:12369/protogeni/xmlrpc/am/3.0
 Connection User URN: urn:publicid:IDN+wall2.ilabt.iminds.be+user+avanmael
 Proxy: JFedConnection.SshProxyInfo{hostname='bastion.test.iminds.be', port=22, username=, sshKeyInfo=HIDDEN, hostKey=}

Connection User certificates: [Hide/Show](#)
 Connection Proxy Settings: JFedConnection.SshProxyInfo{hostname='bastion.test.iminds.be', port=22, username=, sshKeyInfo=HIDDEN, hostKey=}

Request:
 HTTP [raw](#) [pretty](#)
 XML-RPC [raw](#)

```

[
  [
    "urn:publicid:IDN+wall2.ilabt.iminds.be:comnetlab+slice+group14"
  ],
  [
    {
      "geni_type": "geni_sfa",
      "geni_version": "3",
      "geni_value": "<?xml version='1.0' encoding='UTF-8' standalone='no'?'>\n<signed-credential xmlns:xsi="
    },
    {
      "geni_rspec_version": {
        "type": "geni",
        "version": "3"
      },
      "geni_compressed": true
    }
  ]
]
  
```

Reply:
 HTTP [raw](#) [pretty](#)
 XML-RPC [raw](#)
 Geni Value [raw](#) (click a format to show the data)
 RSpec [raw](#) [pretty](#)

Figure 14: Detailed overview of a single API call

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All subsequent actions taken for processing the support request are logged into the JIRA-ticket. This allows the Fed4FIRE+ support team at imec to follow-up on issues and ensure a quick and thorough solution for the experimenter.

2.3 OVERVIEW OF SUPPORT REQUESTS

Starting from the release of jFed 5.7.2 on March 22th, 2017; we received 573 support requests via this form (the uncaught exceptions are automatically sent by jFed, so no user initiated support request).. There were about 2100 reported issues by 330 different users (of which 10 US GENI users which reported issues). Of these 2100, about 1500 are uncaught exceptions which are automatically reported by jFed after approval by the user and help us to improve jFed. The 573 support requests are initiated by humans. After manually verifying the contents of these support requests (and removing the uncaught exceptions), we can break them down into 5 categories. Most of the reported issues were bugs:

- **connectivity:** the user is experiencing a network problem preventing him from reaching one or more Fed4FIRE+ testbed API endpoints and/or resources on a testbed
- **Question:**
 - **question_jfed:** the user has a problem using jFed which was resolved by explaining a jFed feature and/or directing him to the relevant jFed documentation
 - **question_testbed:** the user has a problem using a testbed which was resolved by explaining how a testbed functions and/or by directing him to the relevant testbed documentation
- **feature_request:** a request for a new feature in the jFed GUI
- **Bug:**
 - **bug_jfed:** the user experienced unexpected behaviour by the jFed GUI, which had to be resolved with a bugfix in jFed
 - **bug_testbed:** the user experienced unexpected behaviour by a testbed, which had to be resolved by the testbed support operator
 - **bug_user:** the user experienced unexpected behaviour because of an error at the end-user end (wrong PC-clock, incorrect RSpec, broken Java setup, ...)
- **Other:** this was only at the start, when there were less categories. This was not reported in 2018 or 2019.



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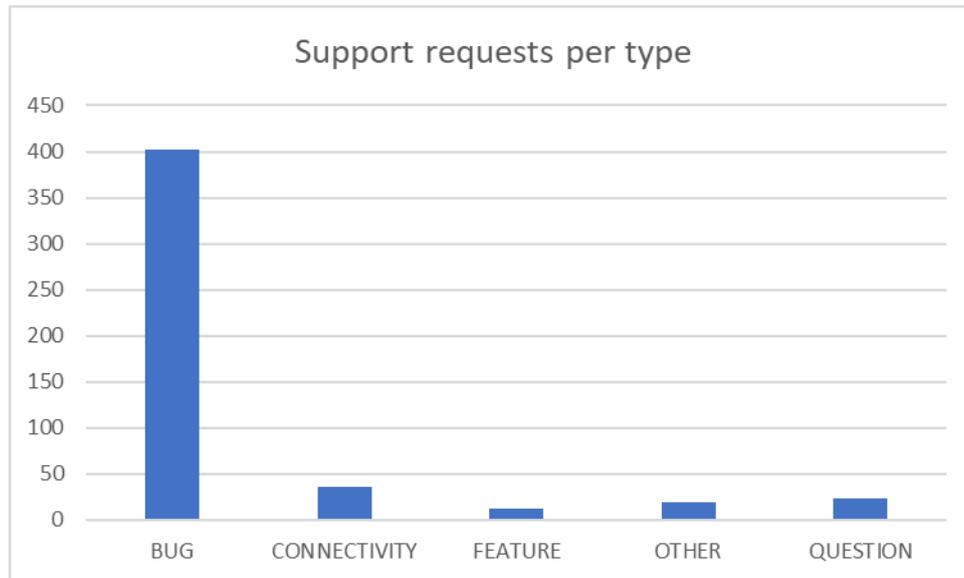


Figure 15 Support requests by type

To end, Figure 16 gives an overview of the support requests over time. It can be seen from this, that usage and support requests are spread over time.

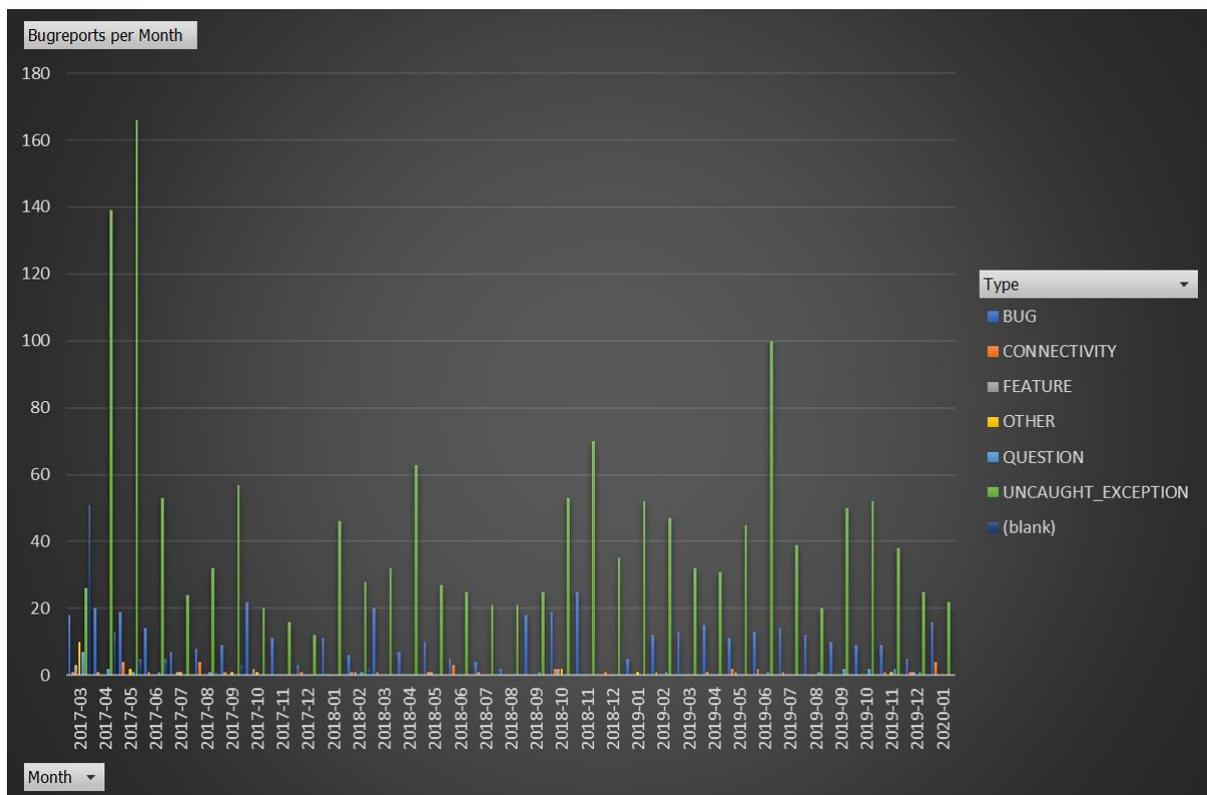


Figure 16 Support requests by type and over time

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2.3.1 'connectivity' support requests

These requests are all related to connectivity issues between the experimenter and the testbeds. Main issues encountered were lack of IPv6-support, corporate firewalls blocking non-standard ports (Fed4FIRE+ testbed API's also use non-standard ports like 12369), unstable WiFi-connections.

Most of these connectivity-issues could be resolved by asking the user to enable the built-in proxy of jFed.

One support request showed a Man-in-the-middle attack being performed on the connections between the experimenter from Malaysia and the testbeds he was trying to use. Because of the security features in the Aggregate Manager API, these attacks caused the API-calls to fail.

2.3.2 'question_jfed' support requests

These requests were solved by explaining jFed functionality to the experimenter. When this information was lacking in the documentation, then it was added to clarify the issue for future users.

An example question was about the list of 'available nodes' which is available in the GUI. We needed to explain better that the information for populating this list was cached, which means that it can be out-of-date for a few minutes, and doesn't reflect recently started/ended experiments.

2.3.3 'question_testbed' support requests

These requests were solved by explaining testbed functionality or error messages to the experimenter. Most of the error messages concerned insufficient available resources; the inability to extend an experiment because of future reservations and invalid configuration of a testbed resource request.

2.3.4 'feature_request' support requests

These requests concern feature requests for new functionality in the jFed GUI.

Sample feature requests are: better warning dialog layout, exposing more information about the reserved testbed resources to the experimenter or displaying the information in another format.

2.3.5 'bug_jfed' support requests

These requests concern unexpected behaviour of jFed due to bugs in the software.

These requests were then converted into a ticket in the jFed software issue tracker.

2.3.6 'bug_testbed' support requests

These requests concern unexpected behaviour of a testbed due to operational problems in the testbed.

These requests were then forwarded to the testbed support team to be resolved.

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2.3.7 'bug_user' support requests

These requests were resolved by fixing configuration-errors in the environment in which jFed was run.

Most notably, errors of the user's PC-clock make that requests using timestamps fail because they are in the past/too far in the future.

Another error involved a Java-version which was incorrectly configured, which made the use of high-quality encryption mechanisms impossible



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3 USABLE TESTBEDS

The two screenshots below show the number and locations of the testbeds that can be used with a Fed4FIRE account and the jFed tool.



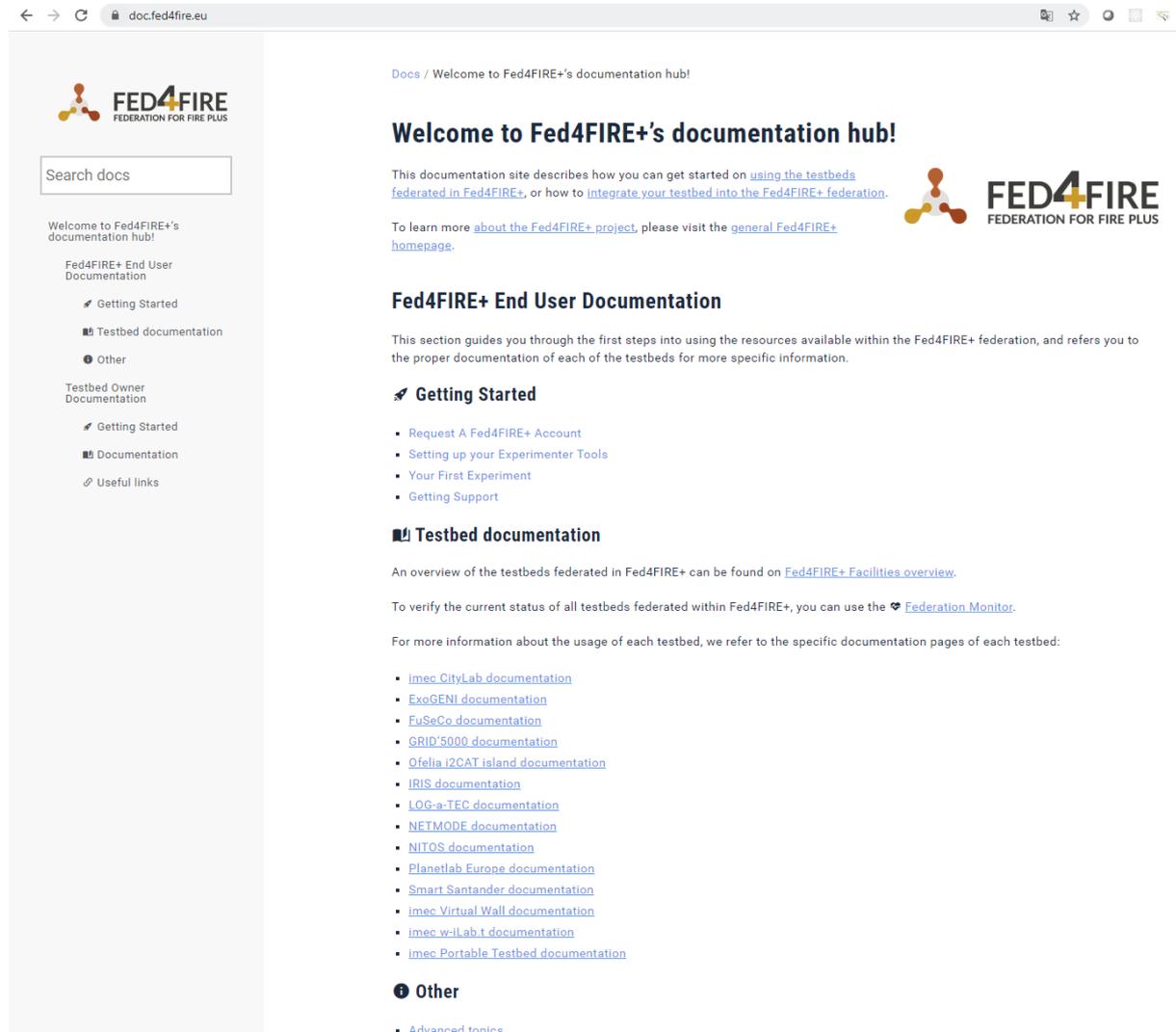
Figure 17: Overview of available testbeds from the Federation monitor view



Figure 18: Overview of the available testbeds from the jFed view

4 FED4FIRE DOCUMENTATION

The Fed4FIRE documentation website (<https://doc.fed4fire.eu>) has been refreshed for both the content and the look and feel, as you can see below.



The screenshot shows the Fed4FIRE documentation website interface. The browser address bar displays doc.fed4fire.eu. The page features a sidebar on the left with a search box and navigation links for 'Fed4FIRE+ End User Documentation' and 'Testbed Owner Documentation'. The main content area includes a welcome message, a search box, and a list of documentation sections: 'Getting Started', 'Testbed documentation', and 'Other'. The 'Getting Started' section is expanded, showing links for 'Request A Fed4FIRE+ Account', 'Setting up your Experimenter Tools', 'Your First Experiment', and 'Getting Support'. The 'Testbed documentation' section is also expanded, providing an overview of federated testbeds and a list of links to specific testbed documentation pages, including imec CityLab, ExoGENI, FuSeCo, GRID'5000, Ofelia i2CAT island, IRIS, LOG-a-TEC, NETMODE, NITOS, Planetlab Europe, Smart Santander, imec Virtual Wall, imec w-iLab.t, and imec Portable Testbed. The 'Other' section includes a link for 'Advanced topics'.

Figure 19: Fresh look for the Fed4FIRE documentation website (<https://doc.fed4fire.eu>)

5 OVERVIEW NEWEST JFED FEATURES

In this section we want to highlight a number of important new features that were added to jFed in Fed4FIRE+ since D2.2. These are versions 6.0.0 of jFed and later.

5.1 MORE FLEXIBLE SSH MENU

For some usages, it is needed to have more flexibility on the ssh options (e.g. user choice, or to be able to do the ssh command manually). This is now added to the right click menu:

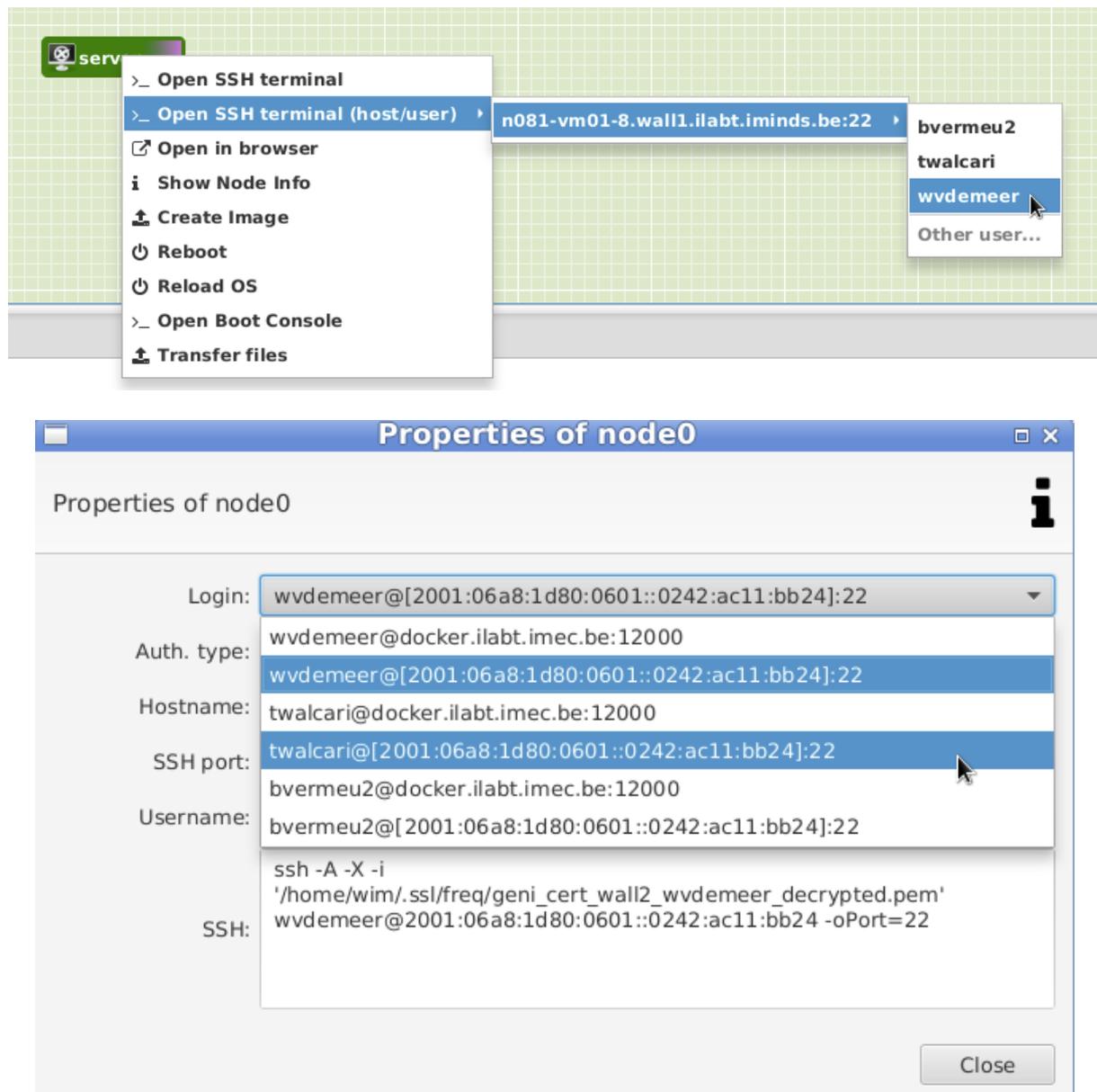


Figure 20: More flexible ssh options in jFed

5.2 EASIER ACCESS TO SSH PROXY SETTINGS

There is a new button at the right bottom of jFed to allow direct access to the proxy settings (for quick changes)

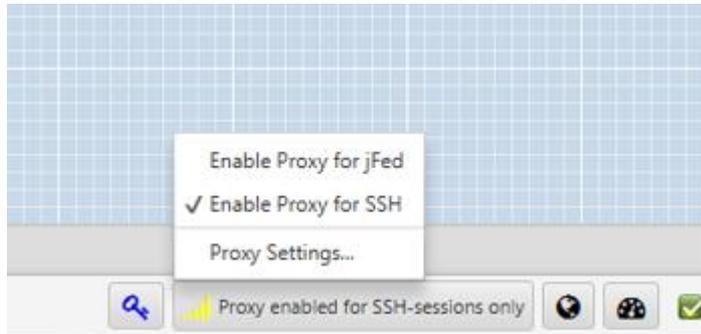
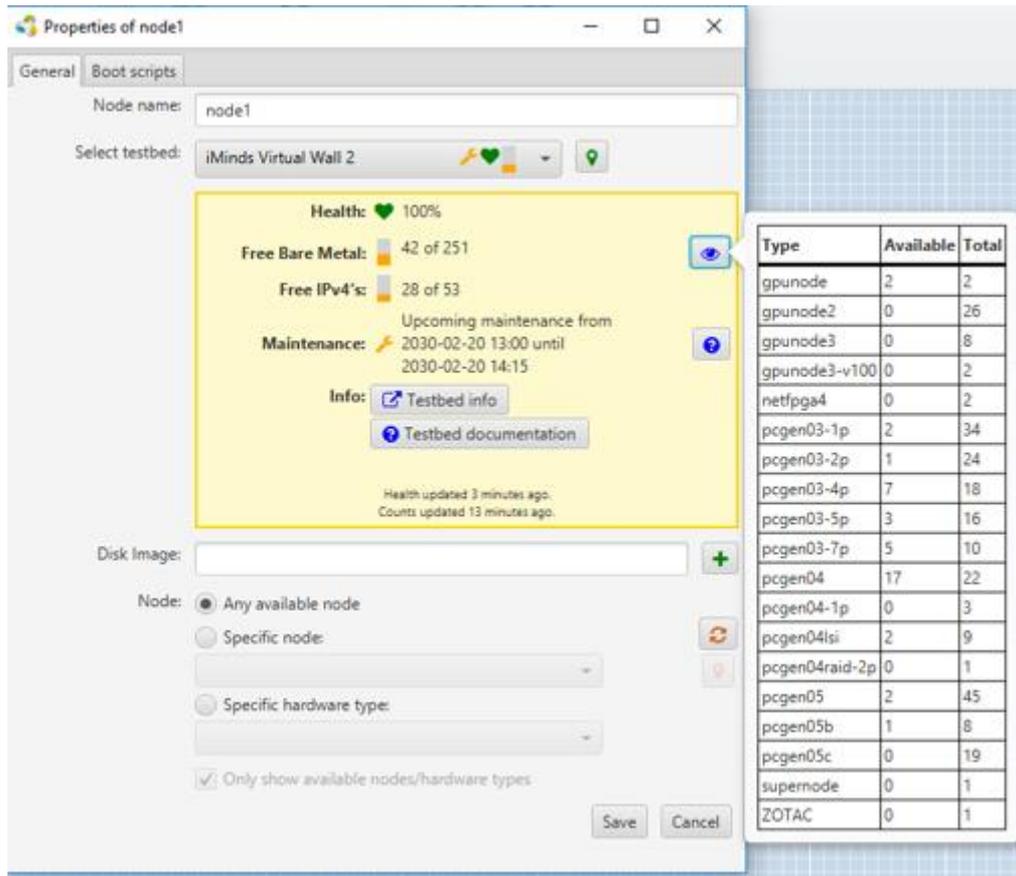


Figure 21: Easier access to ssh proxy settings in jFed

5.3 CHOSING THE RIGHT HARDWARE FROM JFED

In the previous version, we had already this overview:

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Type	Available	Total
gpunode	2	2
gpunode2	0	26
gpunode3	0	8
gpunode3-v100	0	2
netfpga4	0	2
pcgen03-1p	2	34
pcgen03-2p	1	24
pcgen03-4p	7	18
pcgen03-5p	3	16
pcgen03-7p	5	10
pcgen04	17	22
pcgen04-1p	0	3
pcgen04isi	2	9
pcgen04raid-2p	0	1
pcgen05	2	45
pcgen05b	1	8
pcgen05c	0	19
supernode	0	1
ZOTAC	0	1

Figure 22: jFed availability per hardware type

But now, the info per hardware type is added in the Advertisement RSpec (in the ListResources API call), e.g. like this:

```

-<hardware_type name="pcgen03-7p" hrn="Generation 3 (7 iface)">
  -<info media-type="text/plain">
    2x Hexacore Intel E5645 (2.4GHz) CPU, 24GB RAM, 1x 250GB harddisk, 7x gigabit nic
  </info>

```

This is documented at https://doc.fed4fire.eu/testbed_owner/rspec.html?highlight=hardware_type#advertisement-rspec-extension-hardware-information.

This information can then be shown to the user in jFed (before the users needed to look for this information in the documentation websites of each testbed) as shown below:

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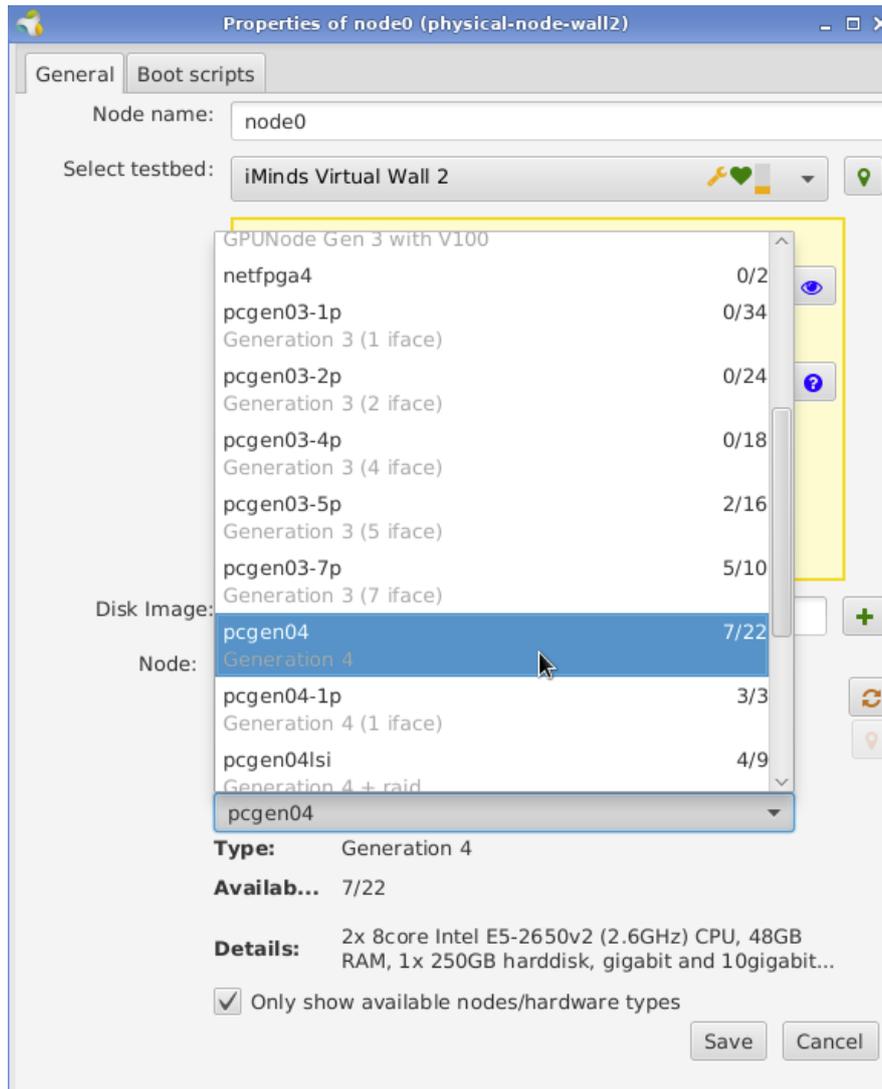


Figure 23: Choosing the right hardware in jFed

5.4 FILTERS TO SELECT RESOURCES

A new menu was added to make it easier to find the right resources in jFed.

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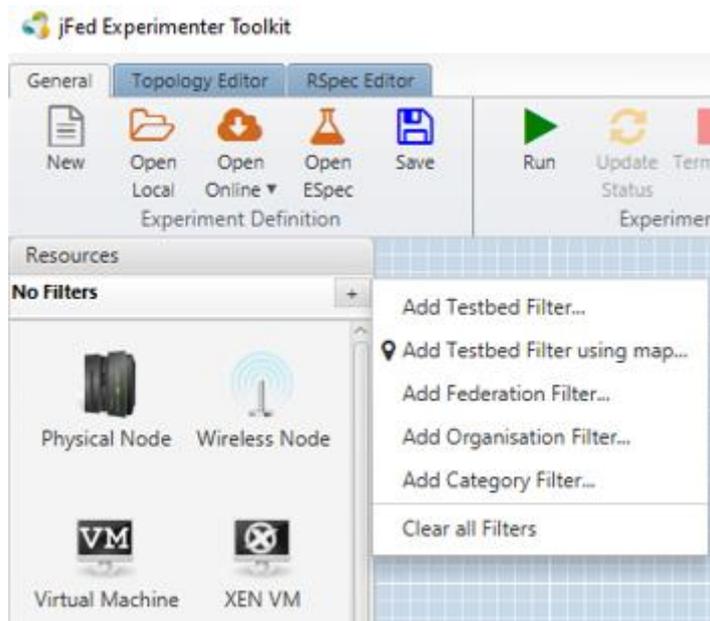


Figure 24: Filters in jFed to make it easier to find specific resources

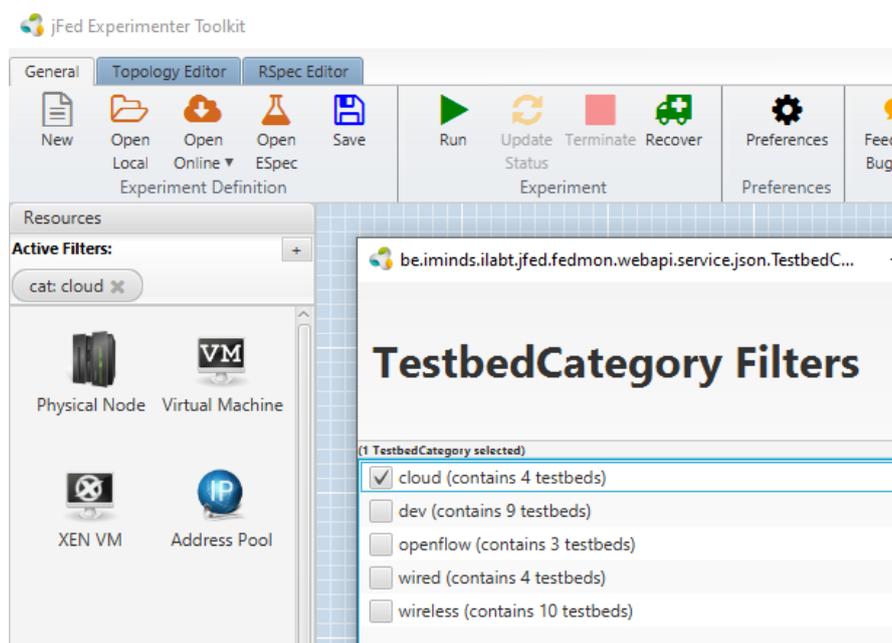


Figure 25: When only selecting the cloud testbeds, all wireless icons are hidden

5.5 INTERNAL JFED WEBBROWSER WITH PROXY CONNECTION

To ease access to specific pages on nodes, when right clicking a node and choosing open browser, the experimenter can easily open a browser to a specific port on that node, see screenshot. Now, it has been made possible, that you can use an internal jFed browser, so that you can access websites on IPv6 only nodes from jFed clients without IPv6 through the jFed proxy.

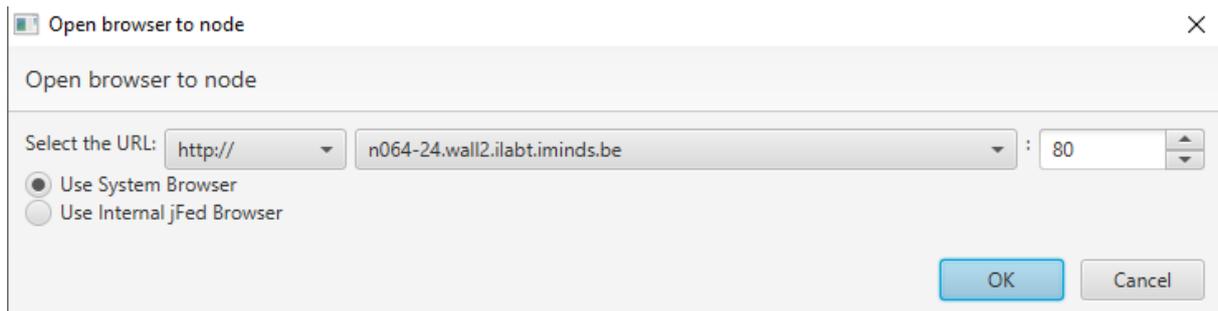


Figure 26: Open a webbrowser to a node, from jFed, now also with a jFed internal browser (to allow proxy usage)

5.6 USING NOW OPENSTREETMAP MAPS INSTEAD OF GOOGLE MAPS

For the maps (see Figure 17 and Figure 18) in jFed and fedmon we have moved away from google maps to openstreetmap maps for reasons of licenses.

5.7 RUNNING COMMANDS ON MULTIPLE NODES THROUGH JFED

In most larger experiments, it is needed to run commands on multiple nodes (e.g. for installing software). This feature in jFed has been extended with more options (now you can edit a script in jFed) and better debugging options).

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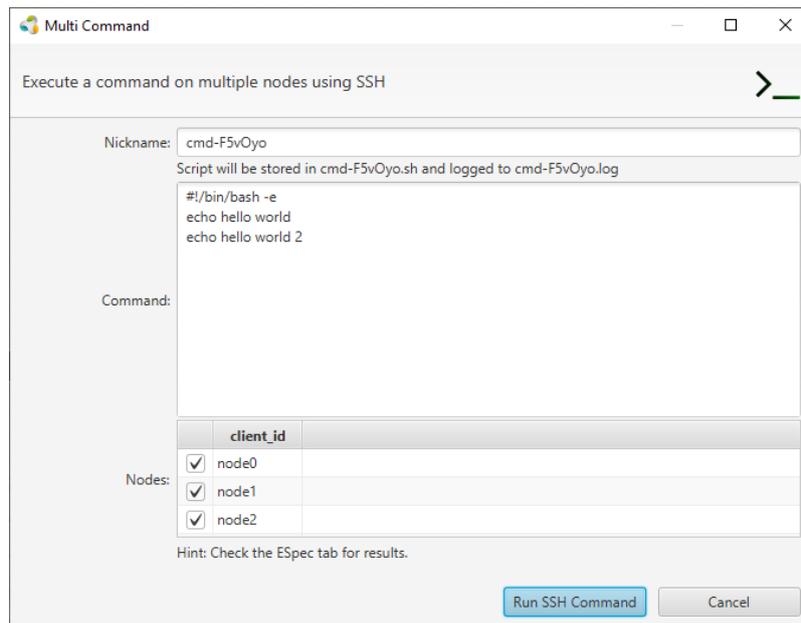


Figure 27: jFed multi-command to run scripts on multiple nodes

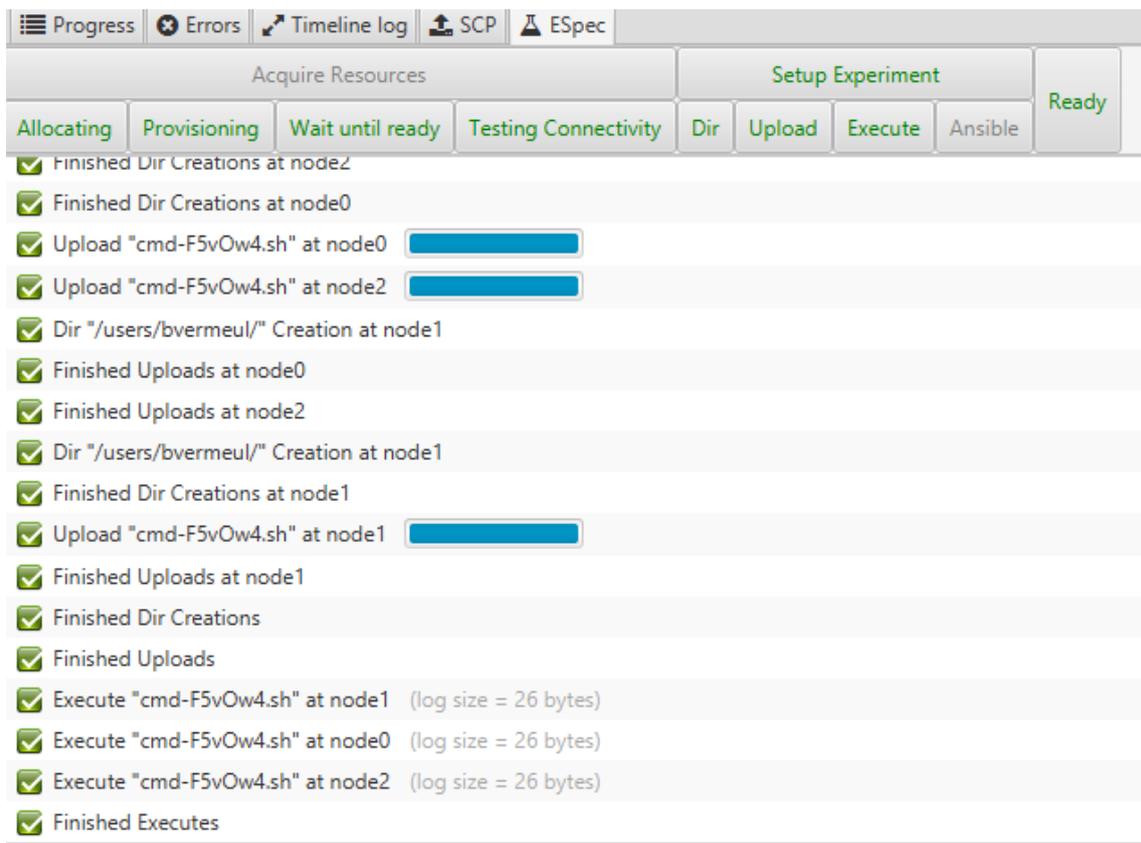


Figure 28: Debugging output of multi-command and ESPEC scripting

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5.8 EXPORT OPTIONS

The export of the node details in jFed has been extended and made more easy to access through the Export As menu. These export options are used for scripting through other tools as e.g. bash, ansible, ...

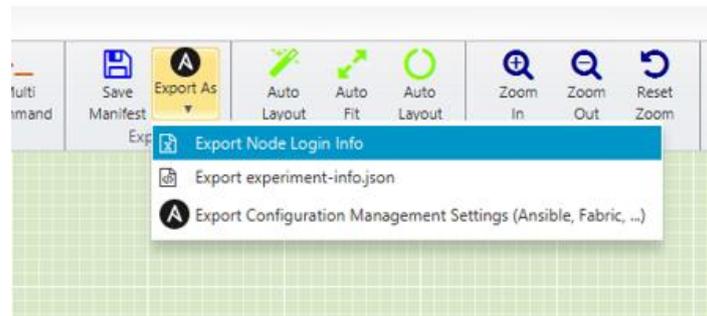


Figure 29: jFed export as options

5.9 EXTENDED JFED RECOVER DIALOG

The jFed recover dialog has been extended with some features asked by users:

- Possible to recover multiple experiments at once by multi-select
- Show expiration times in days from now, or in an absolute time
- Search/selection methods for the experiments

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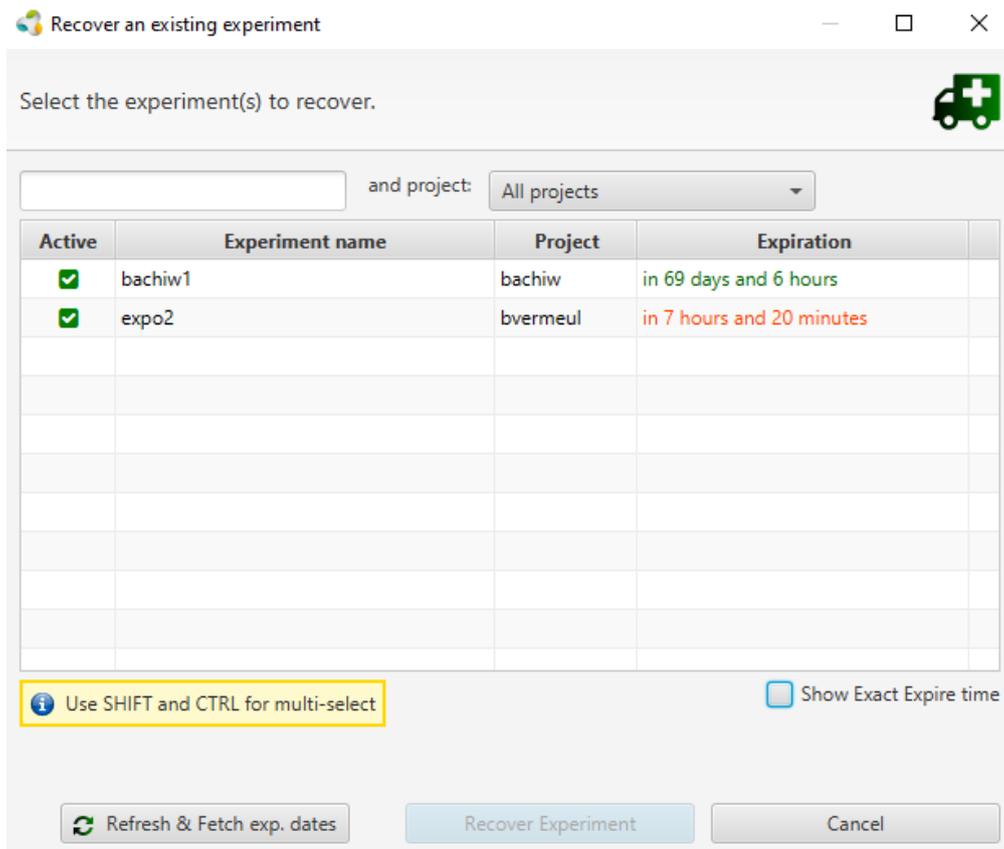


Figure 30: jFed recover dialog

5.10 ESPEC EXTENSIONS

More options are available to run an Experiment Specification (ESpec). It is now possible to use e.g. specific branches from a git repository and create RSpecs with links in.

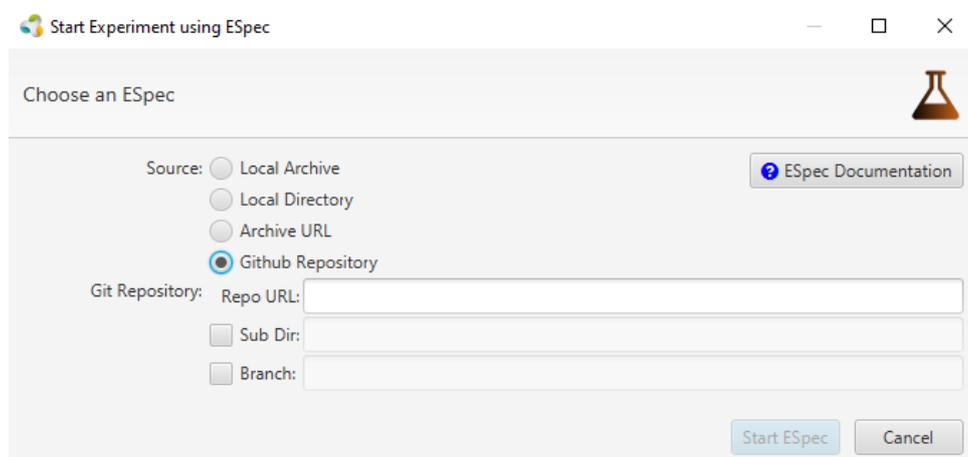


Figure 31: Run ESpec from jFed

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5.11 ADD EXTRA PORTAL OPTIONS TO JFED STARTUP SCREEN

For the new portal (see D3.4), the startup screen of jFed was adapted to support the old (<https://authority.ilabt.iminds.be>) and the new (<https://portal.fed4fire.eu>) user portals.



Figure 32: jFed account chooser

5.12 OTHER NEW FEATURES

Other features include:

- Fixes and tweaks for bandwidth test, some dialog boxes, reusing experiment names in jFed, jFed internal browser improvements (e.g. showing site errors), preventing default text in jFed bugreports, fixes for ssh connections
- Added “Rerun ESpec” button
- Showing an alert of user clock differs more than 1 hour from user authority clock (preventing successful API calls)
- Using GTK2 by default in linux (as there were issues with GTK3)
- Support for shared LAN on stitched links
- Proxy is now enabled by default for new jFed users (Reason: a lot of new users have connection issues that are easily solved by enabling proxy, but new users typically don't know about the proxy yet.)
- Added option to write ansible files from jFed CLI
- Added keepalive option for SSH on linux
- Support for new testbeds and specific features (see deliverable D2.9).
- jFed now also supports a testbed specific proxy for ESpec
- jFed CLI has extra functions for listresources and ssh
- The node info now also shows the used image for that node:

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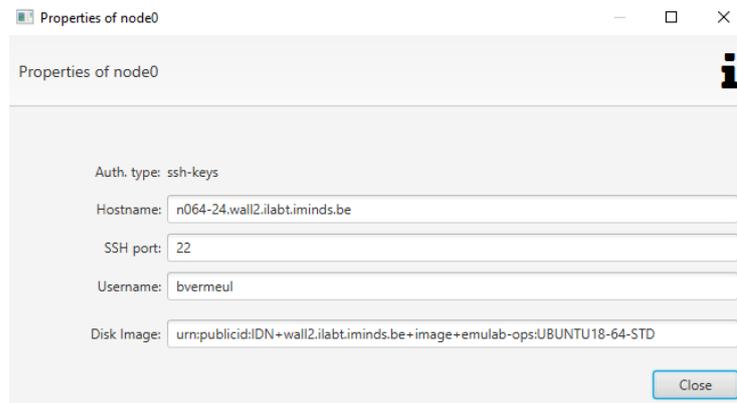


Figure 33: Node info dialog

6 APPENDIX: JFED FEATURES, USAGE AND USER MANUAL

This is the manual that appears online at <http://jfed.ilabt.imec.be>, more specifically at <https://doc.ilabt.imec.be/jfed-documentation/>. It highlights the features of jFed and how to use them. This is continuously updated (and versioned as can be seen at: <https://doc.ilabt.imec.be/jfed-documentation/>). The documentation was copied in D2.2. For the updates we refer to the online documentation which is always up to date.

