



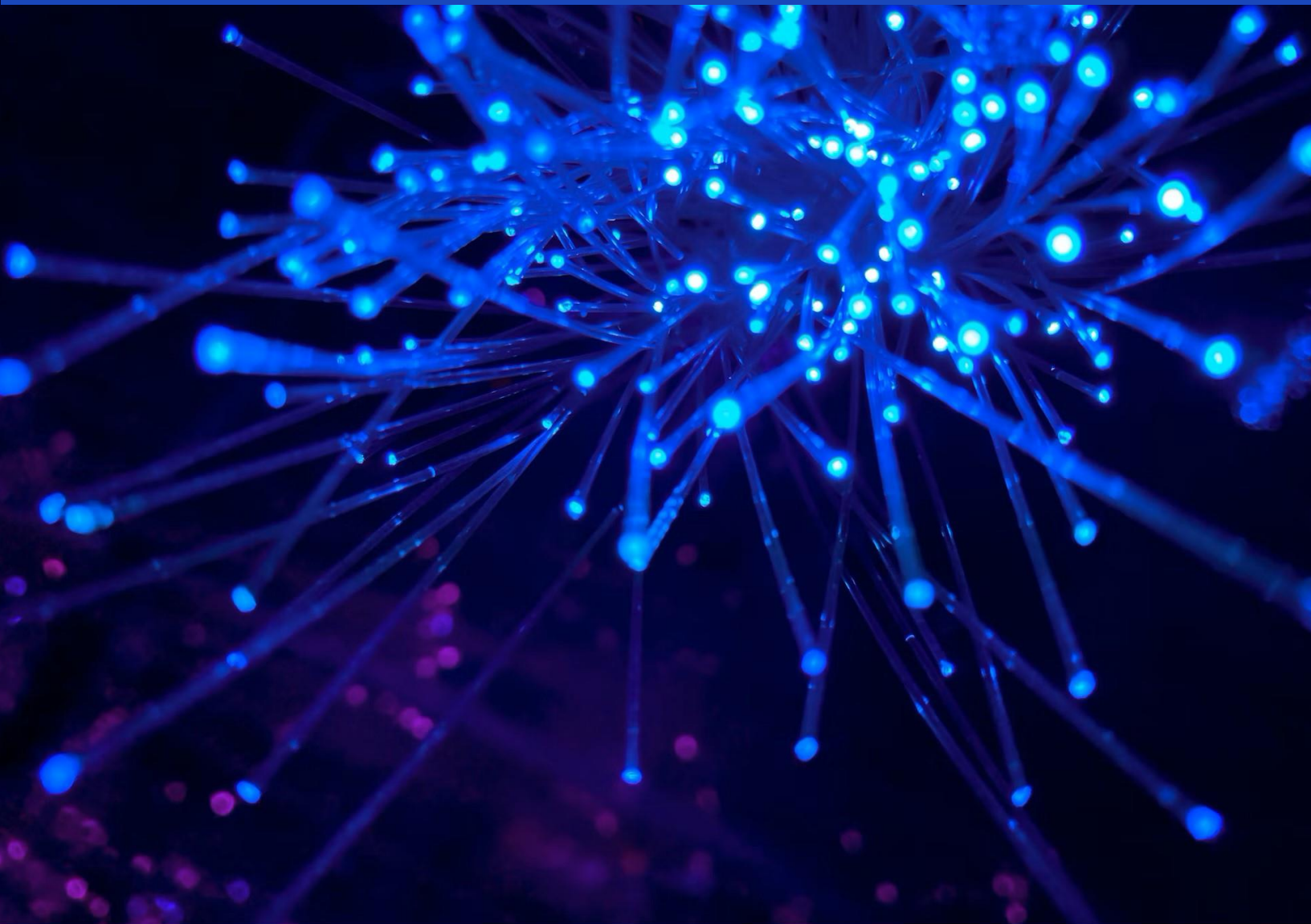
2024 FEDORA TECHNOLOGY ASSESSMENT REPORT

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2024 Fedora Technology Assessment Report

Project Abstract:

The Fedora Program Team, in collaboration with the Technology Working Group, designed a project to understand the specific Fedora-related priorities of using institutions and gauge, the capacity and available resources of both individuals and institutions to contribute to the Fedora community between 2024 and 2026. They collaborated with the Research and Innovation Division at Lyrisis to survey Fedora users. Responses were collected between November 2023 and January 31, 2024, and analyzed by Leigh A. Grinstead, Senior Digital Services Consultant from Lyrisis, an independent, nonprofit research group.

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Introduction

The Fedora Program Team, in collaboration with the Technology Working Group, is interested in understanding the specific Fedora-related priorities of using institutions and gauging the capacity and available resources of both individuals and institutions to contribute to the Fedora community in the next 18-24 months. They collaborated with the Research and Innovation Division at Lyrasis to survey Fedora users. Responses were collected between November 2023 and January 31, 2024, and analyzed by Leigh A. Grinstead, Senior Digital Services Consultant from Lyrasis, an independent, nonprofit research group. Responses will be kept confidential and only aggregate results are reported here. Demographic data has been collected only to resolve conflicting responses from the same institution.

The survey noted that, occasionally, Lyrasis researchers like to follow up to confirm trends or clarify their understanding of data collected through small focus groups or individual outreach. Seventy-six percent of participants said yes, they would be willing to be contacted if necessary.

Demographics:

The survey asked for both institutional responses and individual responses. We received 25 responses to the survey, representing 22 unique institutions from 16 regions, and nine countries.

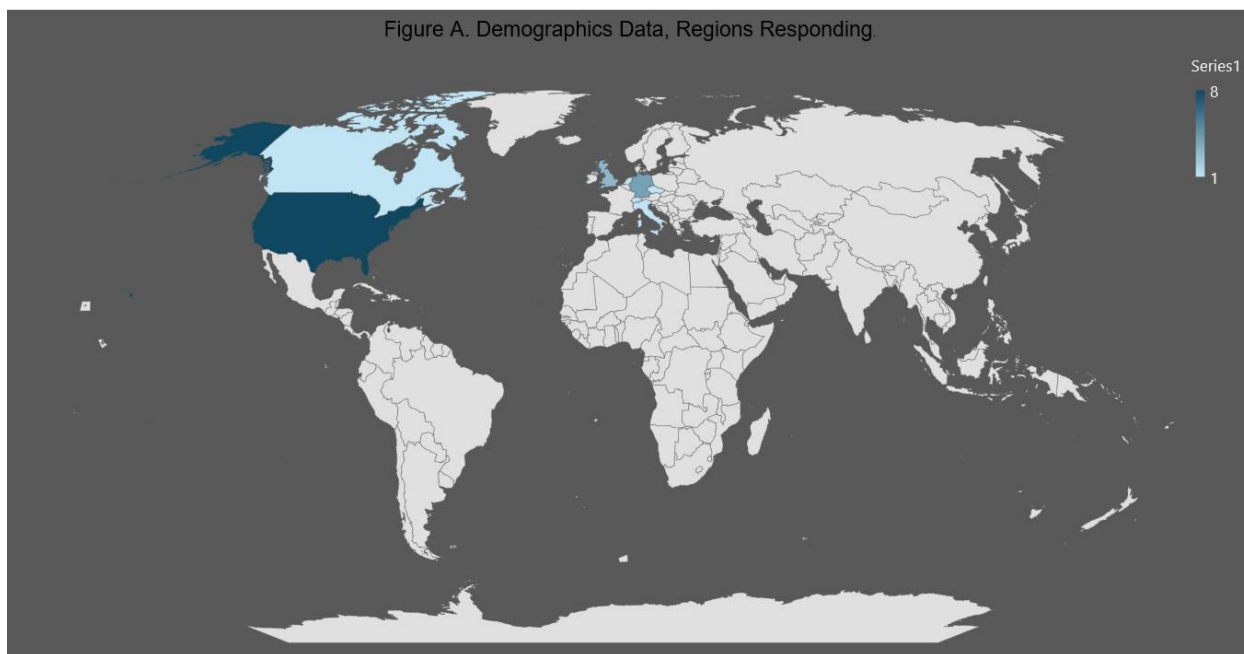


Figure A. Demographics Data, Regions Responding.

Background

The Fedora Program Team, in collaboration with the Technology Working Group, is interested in understanding the specific Fedora-related priorities of using institutions and gauging capacity and available resources of both individuals and institutions to contribute to the Fedora program in the next 18-24 months.

Contributions within the open-source community are commonly understood to be contributions of code – and that is certainly something that Fedora is interested in, but there are many other contributions that are equally valuable, such as project documentation, outreach and program management.

The goals of this survey were twofold. The first was to prioritize a list of potential projects, established during the Future Technology Information Gathering Sessions held in late summer of 2023, and use the results to build a community roadmap and prioritize work for the next 18-24 months.

The second part of the survey attempted to quantify the capacity and resources available within using institutions during that timeframe from the following areas:

- Development
- Documentation
- Outreach/Program Management

It is important to note that community projects and technical projects may run concurrently based on available resources.

It is also important to recognize that the responses often represented the views from a team within an institution, and not a single individual. Some respondents indicated that several group discussions were held to provide the most accurate answers for this survey. While 25 survey responses were collected, the actual total number of individuals who provided input toward answers could be far greater.

Understanding Community Priorities

The first section of the survey outlined a list of four ideas, along with a description of the idea and possible tasks that could fall within its scope. These ideas and the related tasks were gathered from community conversations that took place during the Future Technology Information Gathering sessions. The survey aimed to understand the priority participants believe should be placed on each of these ideas and how important they feel they are to the future advancements of Fedora.

Ideally, the results of this survey will be used to help Fedora define its priorities in the coming months. However, community availability and staff resources will ultimately determine which projects will be prioritized rather than individual responses.

SECTION 1

Respondents were asked to rank the following projects using a 1 - 5 scale of strongly disagree, disagree, neutral, agree, or strongly agree.

It is important that the Fedora Community focus on:

1. Fedora Technical Documentation Upgrades.

This work involves an evaluation of the most current Fedora technical documentation on the Fedora wiki to identify gaps and opportunities. Work in this area could include, but is not limited to:

- Identifying and updating broken/dead links on the Fedora Wiki
- Evaluating recommendations and proposing recommendations for improving wiki documentation regarding the user experience
- Identifying gaps in current information relating to Fedora 6.x
- Updating and simplifying the process for publishing new release documentation

In summary, 72%, (18 respondents) said that they **agreed** or **strongly agreed** that this was important for the Fedora community to focus on, 24% were **neutral**, and 4% (1 respondent), **disagreed** that this was important for the community.

2. Performance & Scale Considerations.

This exploratory work will investigate current Fedora 6 performance and scale capabilities and seek to understand if/how improvements can be achieved. Work in this area could include, but is not limited to:

- Identifying and documenting configuration tweaks to help improve performance.
- Gathering use cases to understand barriers to ingesting increasingly large files and file sets into Fedora without impacting performance.
- Documenting work on the general performance of Fedora 6 within generalized pre-defined profiles.
- Exploring additional work to document performance “gotchas” when using S3
- Seeking to propose and refine best practices for implementing F6 on cloud storage infrastructure

In summary, 88% (22 respondents) **strongly agreed** and **agreed** that it was important for the community to focus on performance and scale considerations. Interestingly, 12% (3 respondents) were **neutral** about this particular topic, but 0 respondents **disagreed** or **strongly disagreed**.

3. Building a User Network of Shared Implementations.

This work will be focused on gathering active Fedora 6 use cases, with a particular focus on building a comprehensive knowledge base of deployment best practices and integrations with other systems. Work in this area could include, but is not limited to:

- Gathering and documenting information from users to find out how the Fedora community is addressing challenges.
- Building a comprehensive knowledgebase of deployment best practices and integrations with other systems.

- Implementation and utilization of existing standards (e.g., CORE Notify).
- Integrating external systems (via the Camel toolbox or other means).
- Meeting other institution-specific needs beyond the scope of the core application.
Building a user knowledgebase of Fedora implementations

In summary, 44% of respondents were **neutral** about the importance of building a user network of shared implementations. Additionally, 40% of respondents **agreed**. However, only 12% (3 respondents) **strongly agreed**, and 4% **disagreed** that it was important. No respondents **strongly disagreed** as to its importance.

4. HTML UI Facelift.

Recognizing that the current Fedora HTML UI was developed for Fedora 4, this work would see the planning and development for updating the current UI to act as an “administrative dashboard.” Additional work in this area could include, but is not limited to:

- Resolving currently broken or outdated features already documented in open Jira tickets from community members.

The results about the importance of an HTML UI facelift appear to be more mixed than we see in the other answers. Respondents indicated that 20% of them **disagreed**, 32% were **neutral**, and another 32% **agreed** on its importance. Only 16% (4 respondents) **strongly agreed** that it should be prioritized.

5. Continued Migration Support.

This is an on-going priority for the Fedora program and committers, but the work here could potentially involve ways to better assist with migrations, what types of support are needed and where and how our efforts can best serve the community. Work in this area could include, but is not limited to:

- Soliciting feedback from the community on additional support needs.
- Investigating further migration barriers and how Fedora’s community can lower those barriers
- Continuing to document Fedora 6 implementations and migration success stories
- Identifying and investigating partnerships with potential service providers who are invested in open-source community growth

This question also had a somewhat distributed response, although less so than the last question. Respondents reported that 36% of them felt **neutral** about the importance of continued migration support. Responses for **agree** and **strongly agree** each scored 32%, representing 16 respondents.

Overall Rankings

Based on the data, and considering the total weighted averages for each, the following is a prioritized list, from most to least important, of the proposed tasks at this specific moment in time:

- Performance and Scale Considerations
- Technical Documentation Upgrades

- Continued Migration Support
- Building a User Network of Shared Implementations
- HTML UI Facelift

	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE	TOTAL	WEIGHTED AVERAGE
Technical Documentation Upgrades.	0.00% 0	4.00% 1	24.00% 6	40.00% 10	32.00% 8	25	4.00
Performance & Scale Considerations.	0.00% 0	0.00% 0	12.00% 3	36.00% 9	52.00% 13	25	4.40
Building a User Network of Shared Implementations.	0.00% 0	4.00% 1	44.00% 11	40.00% 10	12.00% 3	25	3.60
HTML UI Facelift.	0.00% 0	20.00% 5	32.00% 8	32.00% 8	16.00% 4	25	3.44
Continued Migration Support.	0.00% 0	0.00% 0	36.00% 9	32.00% 8	32.00% 8	25	3.96

Figure B. Overall Rankings

SECTION 2:

Resources and Capacity

The next section of the survey sought to gather details on potential resources and capacity that individuals *and/or* institutions may have to contribute to the Fedora program in the next 18-24 months. The answers in this section will understandably be estimates.

The survey itself noted that it was “*important to the success of the Fedora community roadmap that the questions be answered to the best of a respondent’s ability.*” This would allow the Fedora Program Team and Governance group to have a baseline understanding of capacity for future resource allocation and planning.

The survey asked: *As an individual, I have capacity to contribute to the development of Fedora over the next 12-24 months.*

Of the respondents, 68% of them said “**No**, they did not have time to contribute to the development of Fedora.” An additional 32% (8 respondents) responded “**Yes**, they did have time available.”

If respondents chose ‘**Yes**,’ they were taken to a checklist of roles and asked to define the areas where they could contribute. Those roles and the number of people who said they would be willing to fill them are included in the table below.

Roles	People available
Front End (i.e., HTML UI development)	1
Back End (i.e., core maintenance & feature development)	2
Technical Documentation	6
Testing/Performance Testing	8
Infrastructure Improvements (i.e., Docker images, Camel toolbox, etc.)	3
Wiki/Website content creation and updating of current resources	7
Identification and documentation of use cases as examples of technical ideas/concepts.	4
Coordination of webinars	1
Content creation (i.e., demo videos, blog post writing article writing, etc.)	5
Registry updates	2

When asked “*I estimate I can contribute X-hours on average, monthly for the next 12 months.*” The average is approximately 6 hours/month with actual answers varying.

Respondent #	Hours Available Per Month
1	8
2	12
3	0
4	8
5	16
6	5
7	0
8	2
9	6
10	ad hoc
11	12
12	2
13	0
14	2
15	10

When asked “*I estimate I can contribute X-hours on average, monthly for the next 24 months,*” the response was slightly lower, just over 5 hours/month.

Respondent #	Hours Available Per Month
---------------------	----------------------------------

1	12
2	0
3	8
4	16
5	5
6	0
7	2
8	6
9	ad hoc
10	0
11	2
12	2
13	10

Nearly 63% of institutions said their institutions **did not** have the capacity to contribute to the development of Fedora over the next 12-24 months. The remaining 37.5% of respondents said that their institution **did** have capacity.

The following table illustrates response rates when respondents were asked to comment on institutional capacity to contribute to development, documentation and outreach/community management roles.

Roles	Responses
Front End (i.e., HTML UI development)	3
Back End (i.e., core maintenance and feature development)	6
Technical Documentation	2
Testing/Performance Testing	10
Infrastructure Improvements (i.e., docker images, Camel toolbox, etc.)	4
Wiki/Website content creation and updating of current resources	4
Identification and documentation of use cases as examples of technical ideas/concepts	5
Coordination of webinars	0
Content creation (i.e., demo videos, blog post writing, article writing, etc.)	1
Registry updates	0

Looking at those potential roles, the survey asked institutions to "*Identify how many people are available to participate in work over the next 12 months.*" The average answer was **slightly over 1 staff member (1.3 staff members) available.**

Respondent #	Number of Staff Available
--------------	---------------------------

1	1 to 2
2	2 to 3
3	0
4	1 to 2
5	1
6	2
7	1
8	1

The survey also asked, "*Of these potential roles, how many people are available to do the work for 24 months?*" The answer was very similar to the answer above, with the institutions saying they had an **average of 1.27 staff available over a 24-month period**.

Respondent #	Number of Staff Available
1	1 to 2
2	2 to 3
3	0
4	1
5	1 to 2
6	1
7	3
8	0
9	1

Looking at how many monthly person-hours are estimated to be contributed on average, institutions estimated an **average of 9 hours per month**.

Respondent #	Hours Averaged
1	8
2	20
3	0
4	3
5	16
6	8
7	10
8	8

The survey asked institutions in an open response format to discuss how many person-hours are estimated, and in which areas? Responses varied and included:

- mostly infrastructure improvements, but also testing/performance testing and back end development [with no estimate on the time for such work].

- 240 [with no indication as to the work done—this was a different respondent than the person, above], 3 hours testing / performance testing.
- Mostly development, but potentially some use cases [but no estimate for time included with this]
- 8 hours a month in testing.

Presumably, some of the time estimates included in the information above would include some of the work mentioned here, although it is dangerous to make assumptions when it is not specifically tied to examples given by the respondents themselves.