

OpenSFS Survey March 2016 Results

Background

A survey was developed and finalized during LWG meetings early in 2016. The intention was to collect information about Lustre usage across the community as input into the OpenSFS long-term support strategy.

Key Findings

- 97 respondents completed the survey compared to 89 in 2015, 76 in 2014, 73 in 2013 and 90 in 2012
- While Lustre 2.5.x remains the most broadly used Lustre version in production, there has been strong uptake in adoption of Lustre 2.7.x and even some usage of Lustre 2.8 prior to it being GA

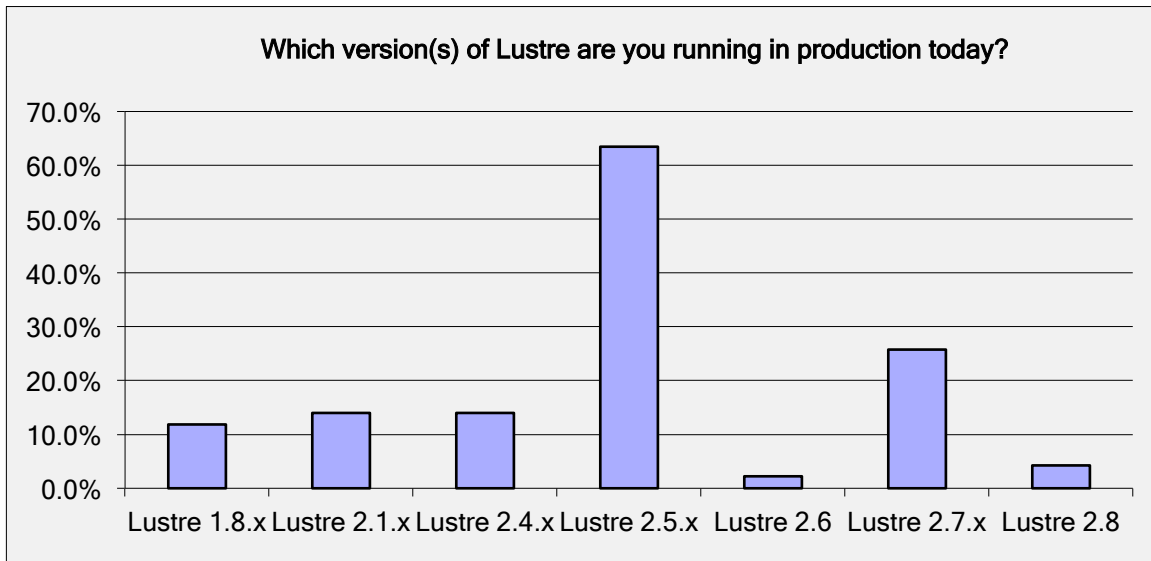
Detailed Findings

1. Which version(s) of Lustre are you running in production today?

This question allowed multiple selections so the sum can exceed the total number of respondents.

| Which version(s) of Lustre are you running in production today? | | |
|--|-------------------------|-----------------------|
| Answer Options | Response Percent | Response Count |
| Lustre 1.8.x | 11.8% | 11 |
| Lustre 2.1.x | 14.0% | 13 |
| Lustre 2.4.x | 14.0% | 13 |
| Lustre 2.5.x | 63.4% | 59 |
| Lustre 2.6 | 2.2% | 2 |
| Lustre 2.7.x | 26.9% | 25 |
| Lustre 2.8 | 4.3% | 4 |
| Other (please specify) | | 15 |
| <i>answered question</i> | | 93 |
| <i>skipped question</i> | | 4 |

Most comments provided clarifying details about which vendor distribution they were using. One site reported using Lustre 2.3



2. What Linux distribution(s) do you use?

This question allowed multiple selections so the sum can exceed the total number of respondents.

| Distro | Servers # | Servers % | Clients # | Clients % |
|------------------------|-----------|-----------|-----------|-----------|
| RHEL/CentOS 5.x | 12 | 12.6% | 11 | 11.6% |
| RHEL/CentOS 6.x | 88 | 92.6% | 83 | 87.3% |
| RHEL/CentOS 7.x | 11 | 11.6% | 32 | 33.7% |
| SLES 11 SPx | 2 | 2.1% | 14 | 14.7% |
| SLES 12 | 1 | 1.1% | 2 | 2.1% |
| SLES 12 SP1 | 1 | 1.1% | 3 | 3.2% |

Two respondents skipped this question

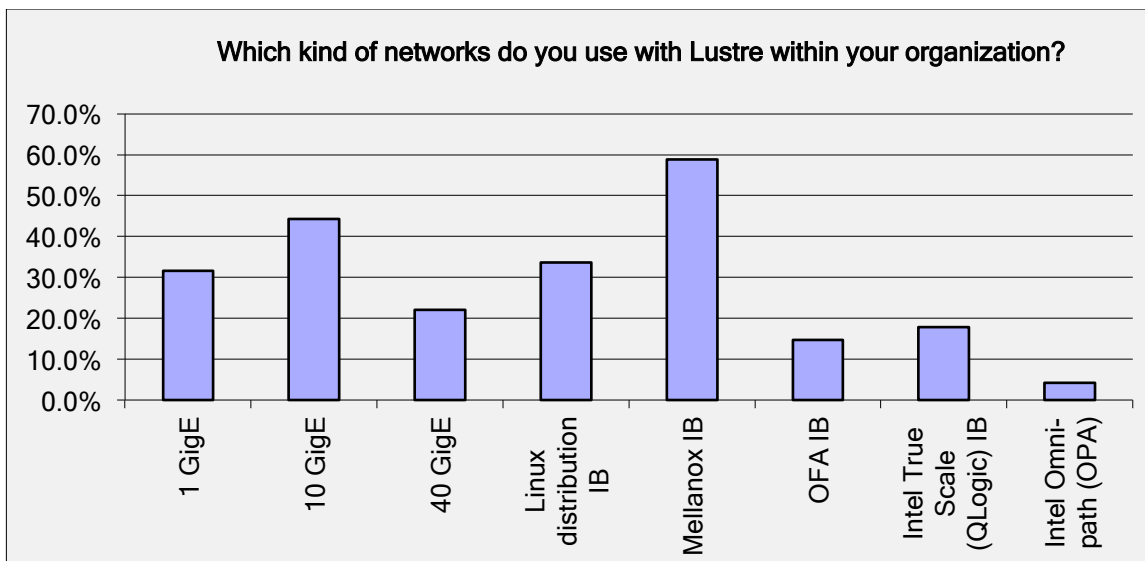
Other options indicated –1 Ubuntu and 1 Fedora Core

3. Which kind of networks do you use with Lustre within your organization?

This question allowed multiple selections so the sum can exceed the total number of respondents.

| Answer Options | Response Percent | Response Count |
|----------------|------------------|----------------|
| 1 GigE | 31.6% | 30 |
| 10 GigE | 44.2% | 42 |
| 40 GigE | 22.1% | 21 |

| | | |
|------------------------------|-------|-----------|
| Linux distribution IB | 33.7% | 32 |
| Mellanox IB | 58.9% | 56 |
| OFA IB | 14.7% | 14 |
| Intel True Scale (QLogic) IB | 17.9% | 17 |
| Intel Omni-path (OPA) | 4.2% | 4 |
| Other (please specify) | | 8 |
| answered question | | 95 |
| skipped question | | 2 |



4. What best describes your level of interest in the following recent Lustre features?

| Answer Options | Use in production | Will use within year | Testing /Evaluating | Feature not ready yet | May use in future | No interest | Response Count |
|------------------------------------|-------------------|----------------------|---------------------|-----------------------|-------------------|-------------|----------------|
| DNE | 9 | 15 | 17 | 1 | 35 | 6 | 83 |
| HSM | 5 | 10 | 20 | 3 | 39 | 10 | 87 |
| NRS | 3 | 4 | 10 | 2 | 36 | 12 | 67 |
| LFSC (lctl) | 12 | 17 | 23 | 0 | 26 | 5 | 83 |
| Wide Striping (161 - 2000 stripes) | 5 | 3 | 11 | 1 | 27 | 28 | 75 |
| ZFS | 21 | 5 | 21 | 4 | 34 | 4 | 89 |
| answered question | | | | | | | 93 |
| skipped question | | | | | | | 4 |

5. Which feature(s) would you like to see in upcoming versions of Lustre?

This question permitted free text answers and there was great diversity in the answers. The most popular suggestions had six respondents interested and was for project quotas

Thirty five respondents skipped this question

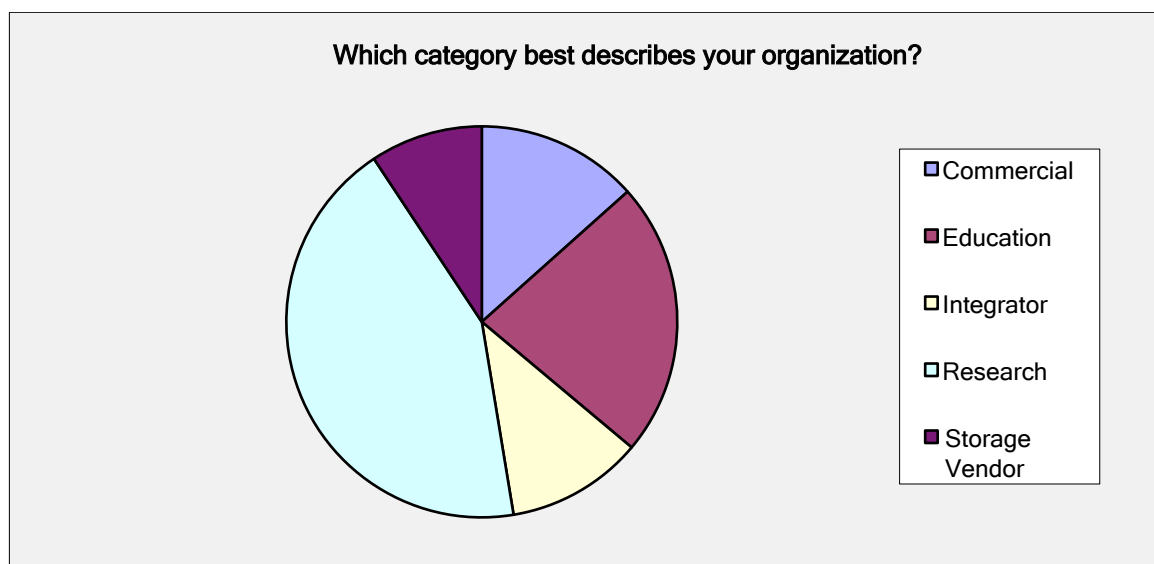
6. Which organization do you represent?

76 Answered this question; 23 skipped it.

7. Which category best describes your organization?

This only permitted a single selection so the sum of respondents should equal the total number of respondents.

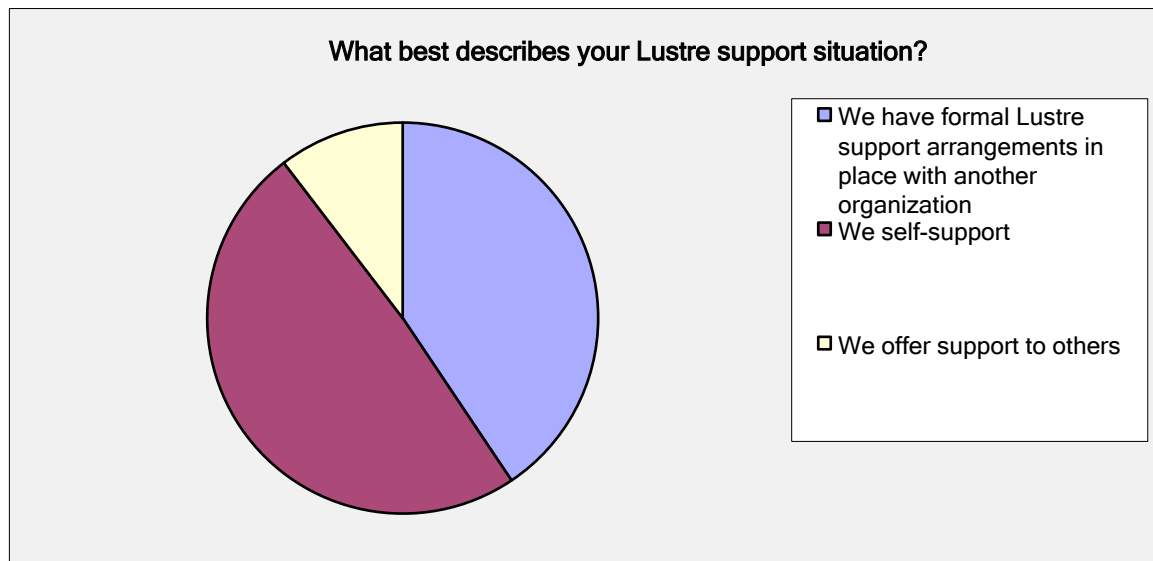
| Answer Options | Response Percent | Response Count |
|--------------------------|------------------|----------------|
| Commercial | 13.4% | 13 |
| Education | 22.7% | 22 |
| Integrator | 11.3% | 11 |
| Research | 43.3% | 42 |
| Storage Vendor | 9.3% | 9 |
| <i>answered question</i> | | 97 |
| <i>skipped question</i> | | 0 |



8. What best describes your Lustre support situation?

This only permitted a single selection so the sum of respondents should equal the total number of respondents.

| Answer Options | Response Percent | Response Count |
|---|------------------|----------------|
| We have formal Lustre support arrangements in place with another organization | 40.6% | 39 |
| We self-support | 49.0% | 47 |
| We offer support to others | 10.4% | 10 |
| <i>answered question</i> | | 96 |
| <i>skipped question</i> | | 1 |



9. What is the total number of Lustre filesystems you have in production?

406 filesystems were declared across all respondents.

Five respondents skipped this question

10. How many of the following components do you have in your largest Lustre filesystem?

Component Total

| | |
|---------------|---------|
| MDS | 158 |
| MDT | 155 |
| OSS | 2,632 |
| OST | 9,410 |
| Client | 147,030 |

Eight respondents skipped this question.