OpenSFS Survey March 2014 Results

Background

A survey was developed and finalized during CDWG meetings early in 2014 Its intention was to collect information about Lustre usage across the community as input into the OpenSFS long-term support strategy. The questions remained largely in line with those of the 2012 and 2013 surveys in order to identify trends over time.

Key Findings

- 76 people completed the survey compared to 73 in 2013 and 90 in 2012
- There has been strong uptake in adoption of Lustre 2.4.x (33 vs 37 unique 1.8.x)

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.

Lustre Version	2012 %	2012 #	2013 %	2013 #	2014 %	2014 #
Lustre 1.4.x or earlier	1.10%	1	1.4%	1	0%	0
Lustre 1.6.x	9.20%	8	4.2%	3	2.7%	2
Lustre 1.8.0-1.8.5	37.90%	33	6.9%	5	15.1%	11
Oracle Lustre 1.8.6-1.8.8	11.50%	10	6.9%	5	12.3%	9
Intel/Whamcloud Lustre 1.8.x-wc1	65.50%	57	48.6%	35	34.3%	25
Lustre 2.0.x	3.40%	3	2.8%	2	4.1%	3
Lustre 2.1.x	20.70%	18	38.9%	28	39.7%	29
Lustre 2.2.x	8.00%	7	8.3%	6	8.2%	6
Lustre 2.3.x	N/A	N/A	13.9%	10	5.5%	4
Lustre 2.4.x	N/A	N/A	N/A	N/A	45.2%	33
Lustre 2.5.x	N/A	N/A	N/A	N/A	11.0%	8

3 respondents skipped this question.

There has been strong adoption of Lustre 2.4.x.

Three respondents selected "other" - two were still evaluating and one was running 2.1.x servers with 1.8.x clients.

2. Which Linux distribution(s) do you run in production for your servers?

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

Distribution	2012 %	2012 #	2013 %	2013 #	2014 %	2014 #
RHEL 6.x	20.50 %	16	27.7%	18	34.9%	23
CentOS 6.x	30.80 %	24	35.4%	23	59.1%	39
RHEL 5.x	34.60 %	27	29.2%	19	16.7%	11
CentOS 5.x	50.00 %	39	40.0%	26	27.3%	18
SLES 11	11.50 %	9	N/A	N/A	N/A	N/A
SLES 11 SP0	N/A	N/A	1.5%	1	0%	0
SLES 11 SP1	N/A	N/A	13.8%	9	7.6%	5
SLES 10	2.60%	2	1.5%	1	0%	0

10 respondents skipped this question

This 2013 survey introduced finer granularity between SLES11 service packs for this question because the differences in kernel versions are significant for Lustre users.

Other options indicated – 5 Scientific Linux 6; 3 Scientific Linux 3; 6 Ubuntu 12; 2 Debian 6

3. Which Linux distribution(s) do you run in production for your clients?

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

Distribution	2012 %	2012 #	2013 %	2013 #	2014 %	2014 #
RHEL 6.x	35.10%	27	40.3%	25	48.3%	29
CentOS 6.x	44.20%	34	45.2%	28	55.0%	33
RHEL 5.x	35.10%	27	30.6%	19	21.7%	13
CentOS 5.x	45.50%	35	29.0%	18	26.7%	16
SLES 11	27.30%	21	N/A	N/A	N/A	N/A
SLES 11 SP0	N/A	N/A	3.2%	2	0%	0
SLES 11 SP1	N/A	N/A	22.6%	14	11.7%	7
SLES 11 SP2	N/A	N/A	9.7%	6	13.3%	8
SLES 11 SP3	N/A	N/A	N/A	N/A	10%	6
SLES 10	10.40%	8	4.8%	3	0%	0

16 respondents skipped this question

This 2013 survey introduced finer granularity between SLES11 service packs for this question because the differences in kernel versions are significant for Lustre users.

Other options indicated – 7 Scientific Linux 6; 2 Scientific Linux 5; 7 Ubuntu 12; 3 Debian 6; 1 Debian 7; 1 OpenSuse 12; 1 Fedora 14; 1 Fedora 18

4. Which versions of Infiiniband do you use within your organization?

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

	2013 %	2013 #	2014 %	2014 #
Linux distribution	46.5%	33	61.1%	44
Mellanox	38.0%	27	41.7%	30

OFA	25.4%	18	25%	28
QLogic Truescale	11.3%	8	9.7%	7
We do not use OFED	21.1%	15	13.9%	10

This question was restructured because the equivalent question on the 2012 survey – Do you use OFED within your organization? – showed a large proportion of respondents using Infiniband but not using he in-kernel drivers.

One respondent selected other options and indicated that OFED was not used for Lustre

4 respondents skipped this question

5. How long has your organization been using Lustre?

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

Lustre Usage	2012 %	2012 #	2013 %	2013 #	2014 %	2014 #
Still evaluating	3.40%	3	4.1%	3	7.9%	6
Less than 1 year	4.50%	4	5.5%	4	2.6%	2
1-3 years	15.70%	14	21.9%	16	14.5%	11
Over 3 years	76.40%	68	68.5%	50	75%	57

0 respondents skipped this question

6. Which category best describes your organization?

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

Category	2012 %	2012 #	2013 %	2013 #	2014 %	2014 #
Commercial	14.9%	13	11.0%	8	10.5%	8
Education	20.7%	18	19.2%	11	10.5%	8
Integrator	4.6%	4	1.4%	1	6.6%	5
Research	52.9%	46	56.2%	41	65.8%	50

Storage Vendor	6.9%	6	12.3%	9	6.6%	5

0 respondents skipped this question

7. What region(s) is your organization based?

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

Region	2012 %	2012 #	2013 %	2013 #	2014 %	2014 #
Americas	55.6%	50	58.3%	42	52.6%	40
Europe	44.4%	40	34.7%	25	47.4%	36
Asia-Pacific	15.6%	14	18.1%	13	10.5%	8
Africa	2.2%	2	1.4%	1	4.0%	3

0 respondents skipped this question

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.

Support Arrangement	2012 %	2012 #	2013 %	2013 #	2014 %	2014 #
We have formal Lustre support arrangements in place with another organization	36.0%	32	32.9%	24	30.2%	23
We used to have formal Lustre support arrangements in place with another organization but they have lapsed	4.5%	4	4.1%	3	5.3%	4
We use the community mailing lists for support	28.1%	25	19.2%	14	30.3%	23
We self-support`	30.3%	27	38.4%	28	25%	19
We do not have Lustre problems so do not need support	1.1%	1	0%	0	2.6%	2
We offer support to	N/A	N/A	5.5%	4	6.6%	5

others						

0 respondents skipped this question

9. Which organization do you represent?

55 Answered this question; 21 skipped it.

10. If not already a member, what would make your organization more likely to join OpenSFS?

50 respondents skipped this question.

Of those that responded suggestions with multiple responses were: Already a member of OpenSFS/EOFD (8); too expensive (5); Clearer value proposition (3)