

## Ceph User Survey 2019

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**405**  
Total  
Responses

312 Completed Responses  

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93 Partial Responses

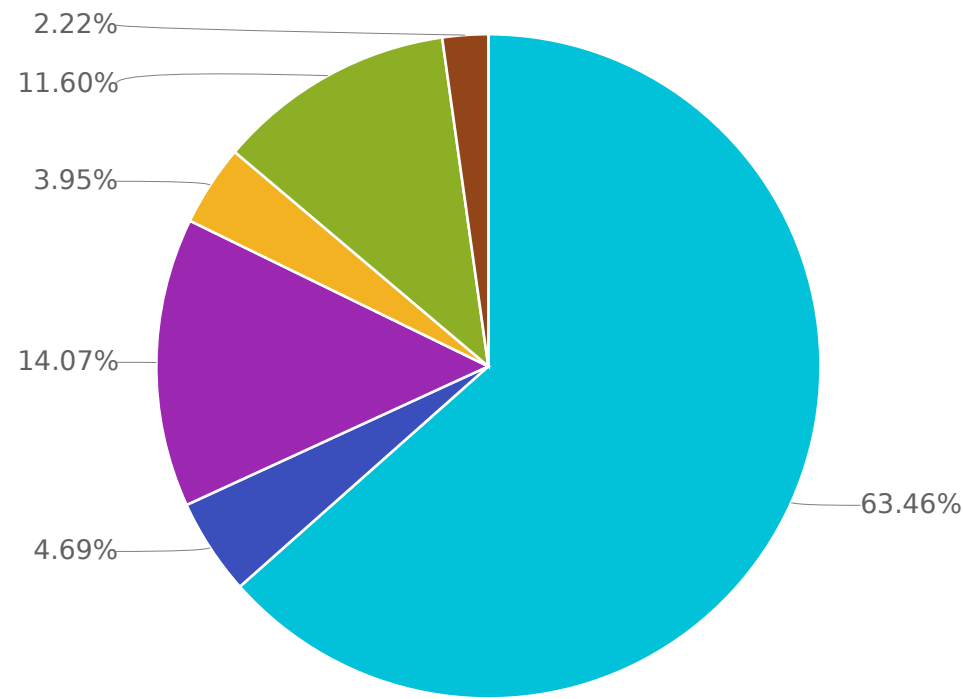
**1035**  
Survey Visits

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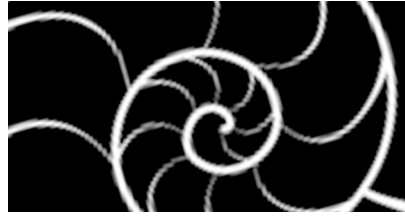
### Organization type

Answered: 405 Skipped: 0



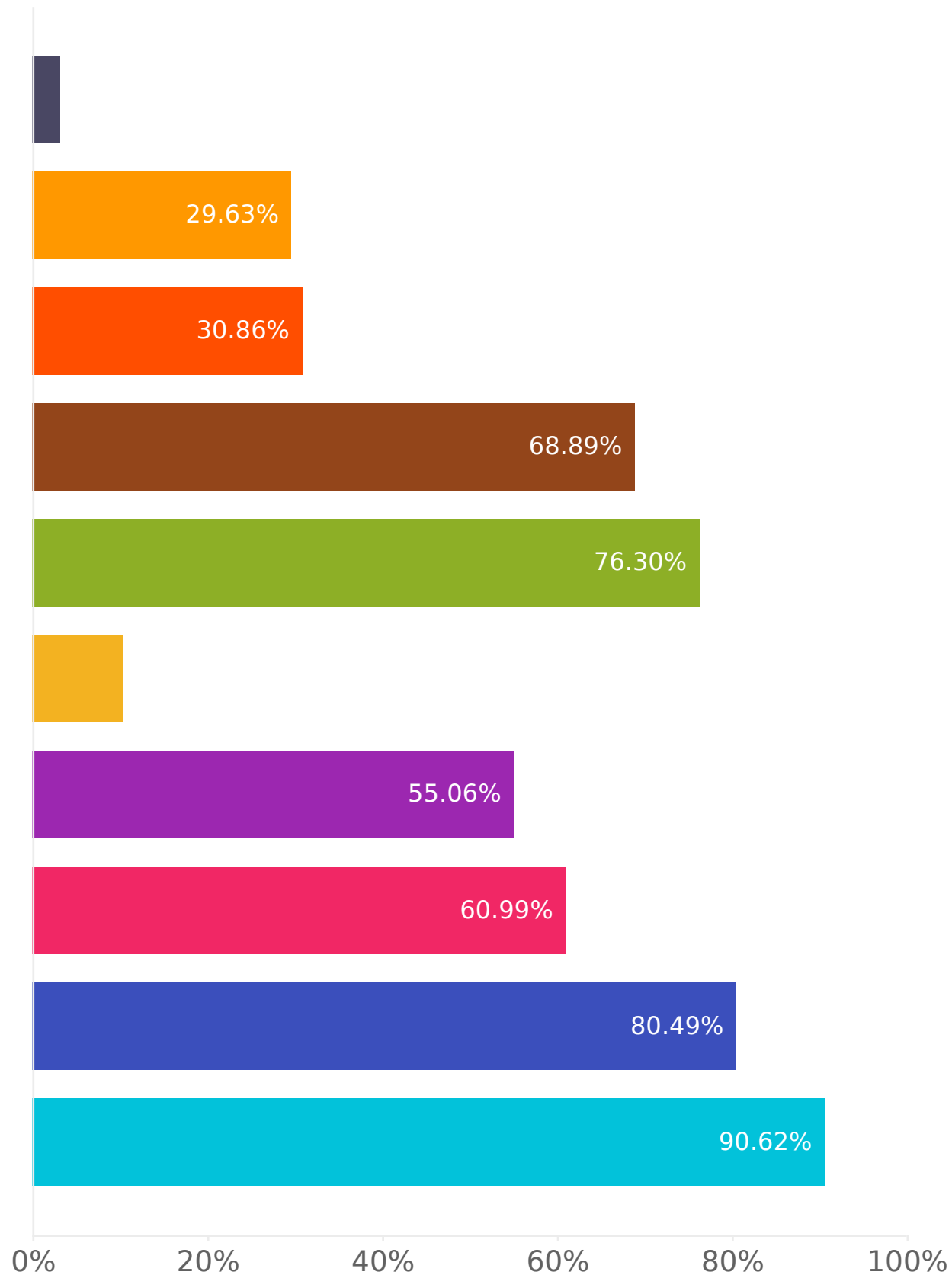
- Commercial
- Government
- Military
- Academic
- Non-profit
- Personal
- Other (Please Specify)

| Choices                | Response percent | Response count |
|------------------------|------------------|----------------|
| Commercial             | 63.46%           | 257            |
| Government             | 4.69%            | 19             |
| Military               | 0.00%            | 0              |
| Academic               | 14.07%           | 57             |
| Non-profit             | 3.95%            | 16             |
| Personal               | 11.60%           | 47             |
| Other (Please specify) | 2.22%            | 9              |



## Why use Ceph?

Answered: 405 Skipped: 0

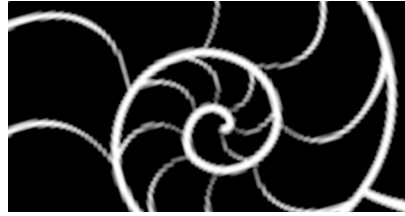


- Opensource
- Scalability
- Cost
- Feature set
- Security
- High availability
- Data durability / Reliability / integrity
- Performance
- Integration with adjacent technologies
- Other (Please specify)



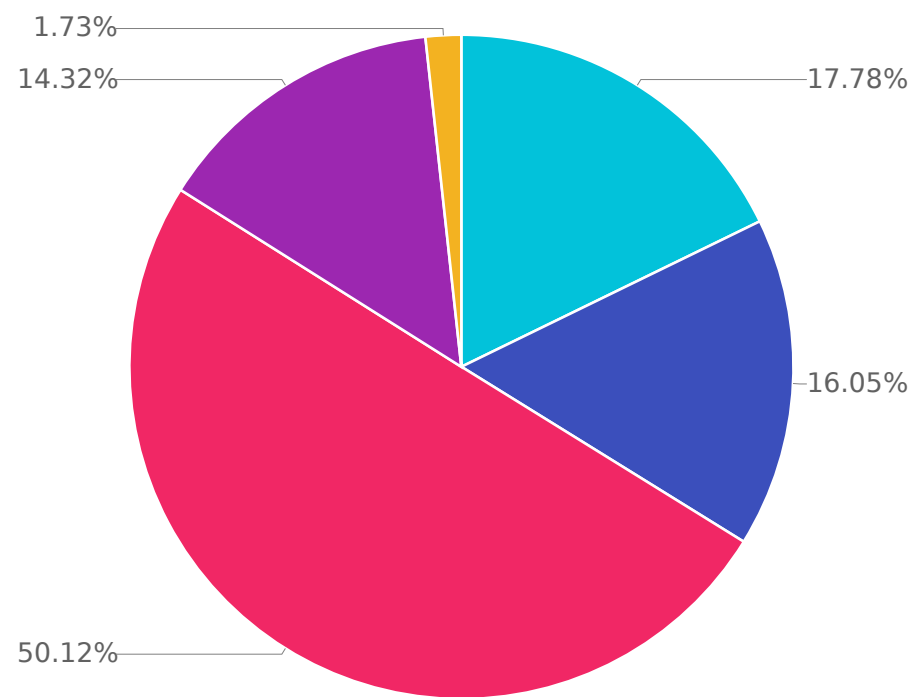
| Choices                                   | Response percent | Response count |
|---|------------------|----------------|
| Opensource                                | 90.62%           | 367            |
| Scalability                               | 80.49%           | 326            |
| Cost                                      | 60.99%           | 247            |
| Feature set                               | 55.06%           | 223            |
| Security                                  | 10.37%           | 42             |
| High availability                         | 76.30%           | 309            |
| Data durability / reliability / integrity | 68.89%           | 279            |
| Performance                               | 30.86%           | 125            |
| Integration with adjacent technologies    | 29.63%           | 120            |
| Other (Please specify)                    | 3.21%            | 13             |

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### How long have you been using Ceph?

Answered: 405 Skipped: 0



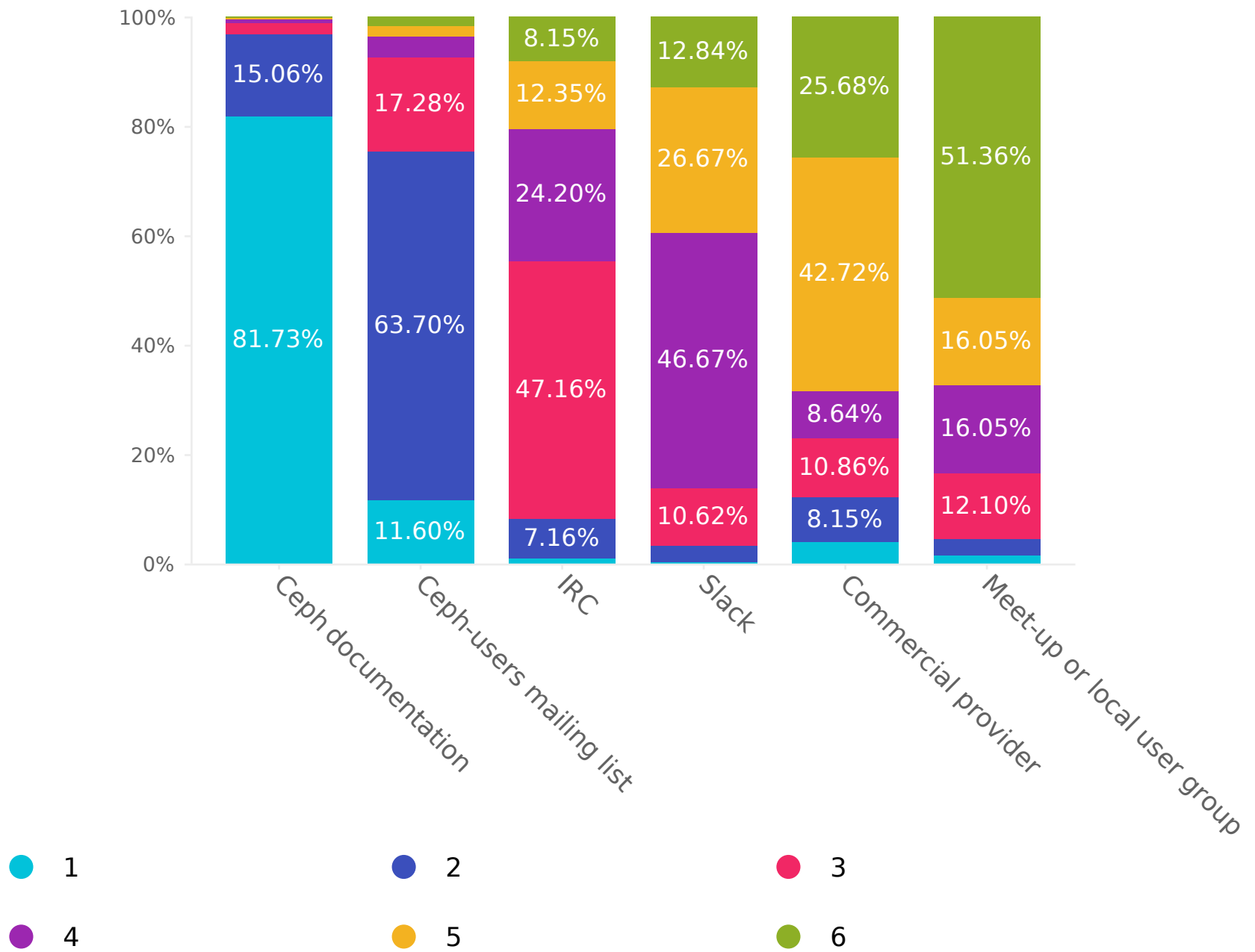
- Less than 1 year
- Between 1-2 years
- More than 5 years
- Between 2-5 years
- I don't use Ceph yet

| Choices              | Response percent | Response count |
|----------------------|------------------|----------------|
| Less than 1 year     | 17.78%           | 72             |
| Between 1-2 years    | 16.05%           | 65             |
| Between 2-5 years    | 50.12%           | 203            |
| More than 5 years    | 14.32%           | 58             |
| I don't use Ceph yet | 1.73%            | 7              |



Rank the order of resources you check first if you need help  
(1 being the highest priority)

Answered: 405 Skipped: 0





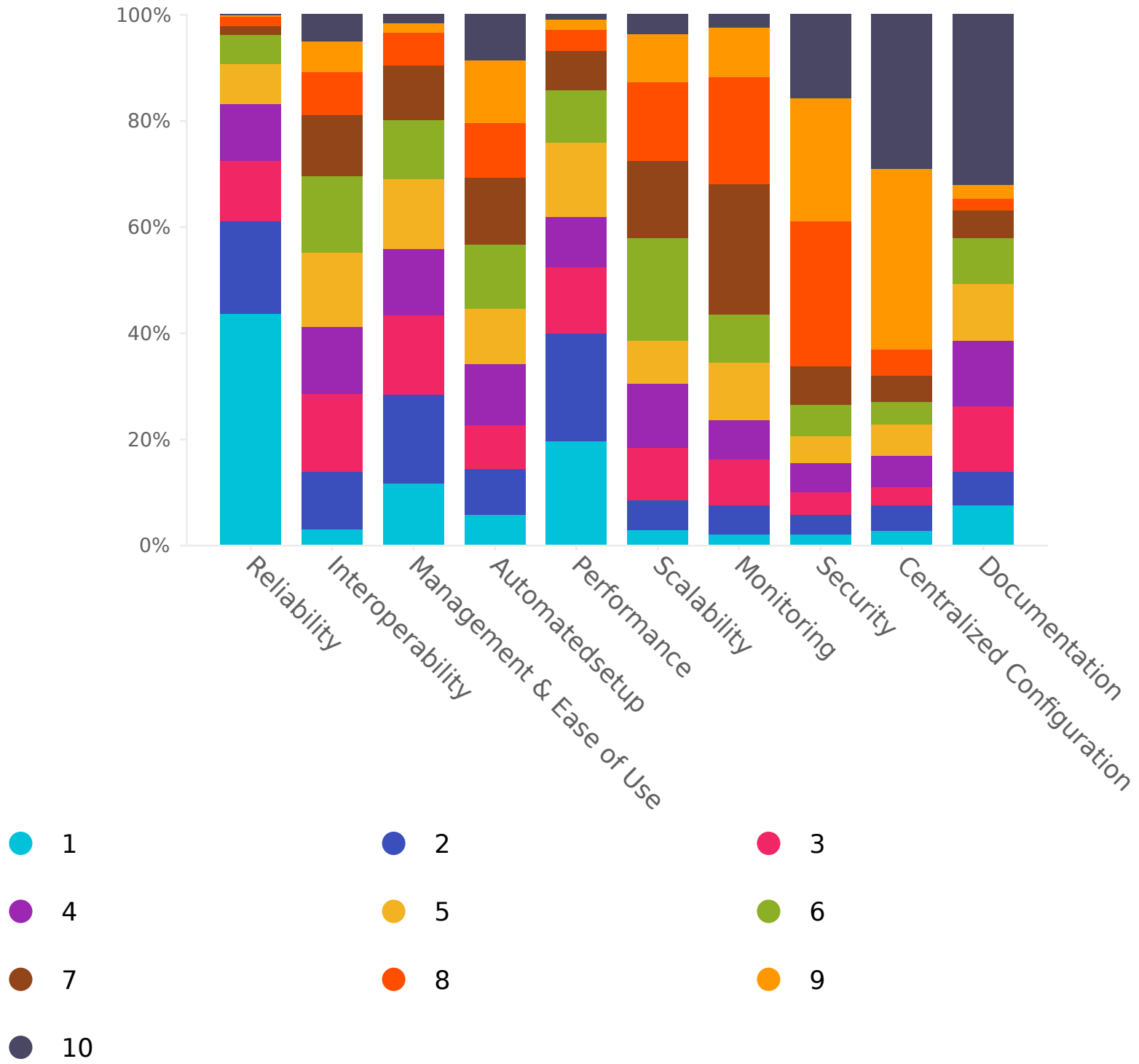
| Choices                       | 1               | 2               | 3               | 4               | 5               | 6               | Score | Rank | Response count |
|-------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------|------|----------------|
| Ceph documentation            | 81.73%<br>(331) | 15.06%<br>(61)  | 1.98%<br>(8)    | 0.74%<br>(3)    | 0.25%<br>(1)    | 0.25%<br>(1)    | 5.77  | 1    | 405            |
| Ceph-users mailing list       | 11.60%<br>(47)  | 63.70%<br>(258) | 17.28%<br>(70)  | 3.70%<br>(15)   | 1.98%<br>(8)    | 1.73%<br>(7)    | 4.74  | 2    | 405            |
| IRC                           | 0.99%<br>(4)    | 7.16%<br>(29)   | 47.16%<br>(191) | 24.20%<br>(98)  | 12.35%<br>(50)  | 8.15%<br>(33)   | 3.36  | 3    | 405            |
| Slack                         | 0.25%<br>(1)    | 2.96%<br>(12)   | 10.62%<br>(43)  | 46.67%<br>(189) | 26.67%<br>(108) | 12.84%<br>(52)  | 2.65  | 4    | 405            |
| Commercial provider           | 3.95%<br>(16)   | 8.15%<br>(33)   | 10.86%<br>(44)  | 8.64%<br>(35)   | 42.72%<br>(173) | 25.68%<br>(104) | 2.45  | 5    | 405            |
| Meet-up or other Local groups | 1.48%<br>(6)    | 2.96%<br>(12)   | 12.10%<br>(49)  | 16.05%<br>(65)  | 16.05%<br>(65)  | 51.36%<br>(208) | 2.04  | 6    | 405            |

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Rank where the Ceph community should focus its efforts (1 being the highest priority)

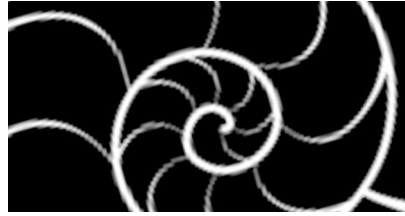
Answered: 405 Skipped: 0





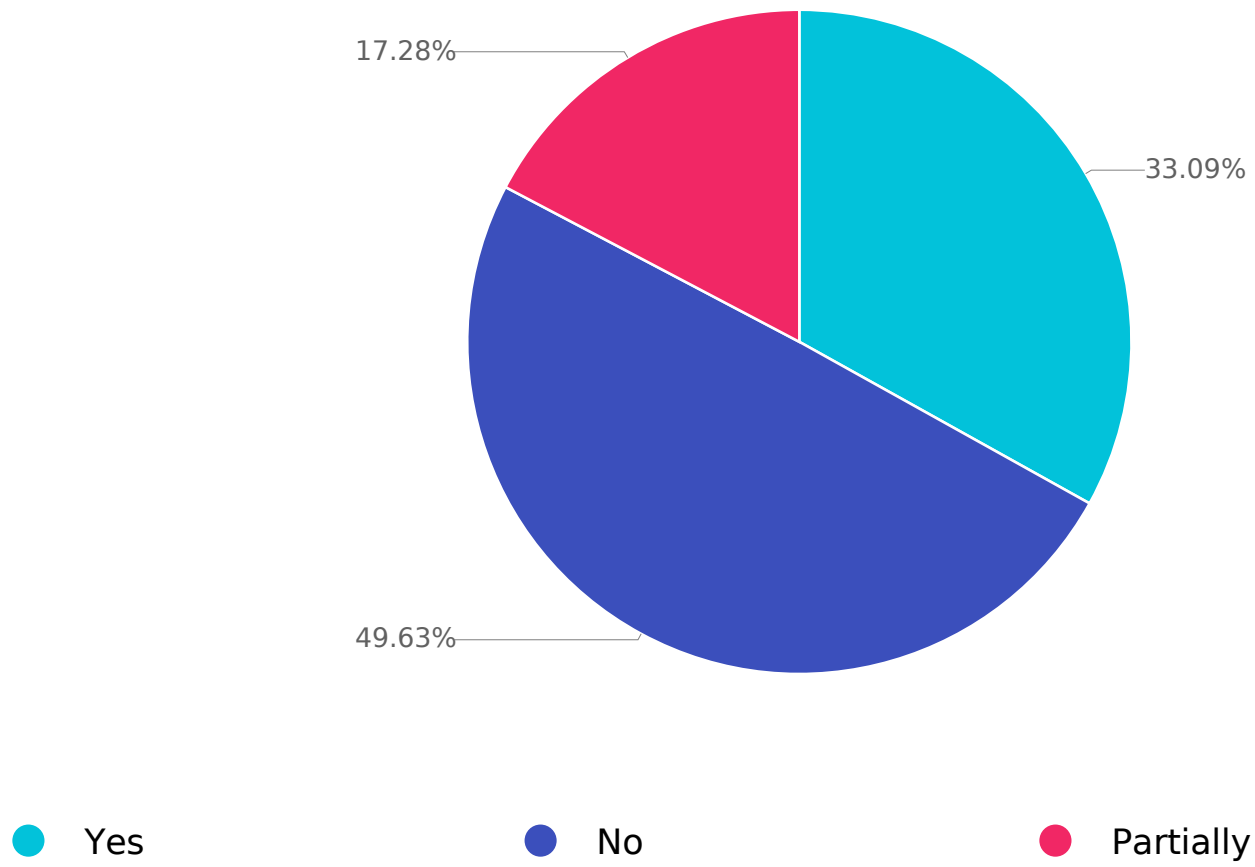


| Choices                                  | 1               | 2              | 3              | 4              | 5              | 6              | 7              | 8               | 9               | 10              | Score | Rank | Response count |
|--|-----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|-----------------|-----------------|-------|------|----------------|
| Reliability                              | 43.46%<br>(176) | 17.53%<br>(71) | 11.36%<br>(46) | 10.62%<br>(43) | 7.65%<br>(31)  | 5.43%<br>(22)  | 1.73%<br>(7)   | 1.73%<br>(7)    | 0.25%<br>(1)    | 0.25%<br>(1)    | 8.43  | 1    | 405            |
| Interoperability                         | 2.96%<br>(12)   | 10.86%<br>(44) | 14.57%<br>(59) | 12.59%<br>(51) | 14.07%<br>(57) | 14.32%<br>(58) | 11.60%<br>(47) | 8.15%<br>(33)   | 5.68%<br>(23)   | 5.19%<br>(21)   | 5.76  | 4    | 405            |
| Management and Ease of use               | 11.60%<br>(47)  | 16.79%<br>(68) | 14.81%<br>(60) | 12.59%<br>(51) | 13.09%<br>(53) | 11.11%<br>(45) | 10.37%<br>(42) | 6.17%<br>(25)   | 1.73%<br>(7)    | 1.73%<br>(7)    | 6.73  | 3    | 405            |
| Automated setup And lifecycle management | 5.68%<br>(23)   | 8.64%<br>(35)  | 8.15%<br>(33)  | 11.60%<br>(47) | 10.37%<br>(42) | 12.10%<br>(49) | 12.59%<br>(51) | 10.37%<br>(42)  | 11.85%<br>(48)  | 8.64%<br>(35)   | 5.18  | 5    | 405            |
| Performance                              | 19.51%<br>(79)  | 20.25%<br>(82) | 12.59%<br>(51) | 9.38%<br>(38)  | 14.07%<br>(57) | 9.88%<br>(40)  | 7.41%<br>(30)  | 3.95%<br>(16)   | 1.98%<br>(8)    | 0.99%<br>(4)    | 7.24  | 2    | 405            |
| Scalability                              | 2.72%<br>(11)   | 5.68%<br>(23)  | 9.88%<br>(40)  | 12.10%<br>(49) | 8.15%<br>(33)  | 19.26%<br>(78) | 14.57%<br>(59) | 14.81%<br>(60)  | 9.14%<br>(37)   | 3.70%<br>(15)   | 5.12  | 6    | 405            |
| Monitoring                               | 1.98%<br>(8)    | 5.43%<br>(22)  | 8.64%<br>(35)  | 7.41%<br>(30)  | 10.86%<br>(44) | 9.14%<br>(37)  | 24.44%<br>(99) | 20.25%<br>(82)  | 9.38%<br>(38)   | 2.47%<br>(10)   | 4.8   | 8    | 405            |
| Security                                 | 1.98%<br>(8)    | 3.70%<br>(15)  | 4.20%<br>(17)  | 5.43%<br>(22)  | 5.19%<br>(21)  | 5.93%<br>(24)  | 7.16%<br>(29)  | 27.41%<br>(111) | 23.21%<br>(94)  | 15.80%<br>(64)  | 3.59  | 9    | 405            |
| Centralized configuration                | 2.72%<br>(11)   | 4.69%<br>(19)  | 3.46%<br>(14)  | 5.93%<br>(24)  | 5.93%<br>(24)  | 4.20%<br>(17)  | 4.94%<br>(20)  | 4.94%<br>(20)   | 34.07%<br>(138) | 29.14%<br>(118) | 3.27  | 10   | 405            |
| Documentation                            | 7.41%<br>(30)   | 6.42%<br>(26)  | 12.35%<br>(50) | 12.35%<br>(50) | 10.62%<br>(43) | 8.64%<br>(35)  | 5.19%<br>(21)  | 2.22%<br>(9)    | 2.72%<br>(11)   | 32.10%<br>(130) | 4.89  | 7    | 405            |



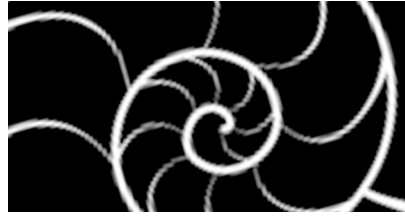
### Is telemetry enabled in your cluster?

Answered: 405 Skipped: 0



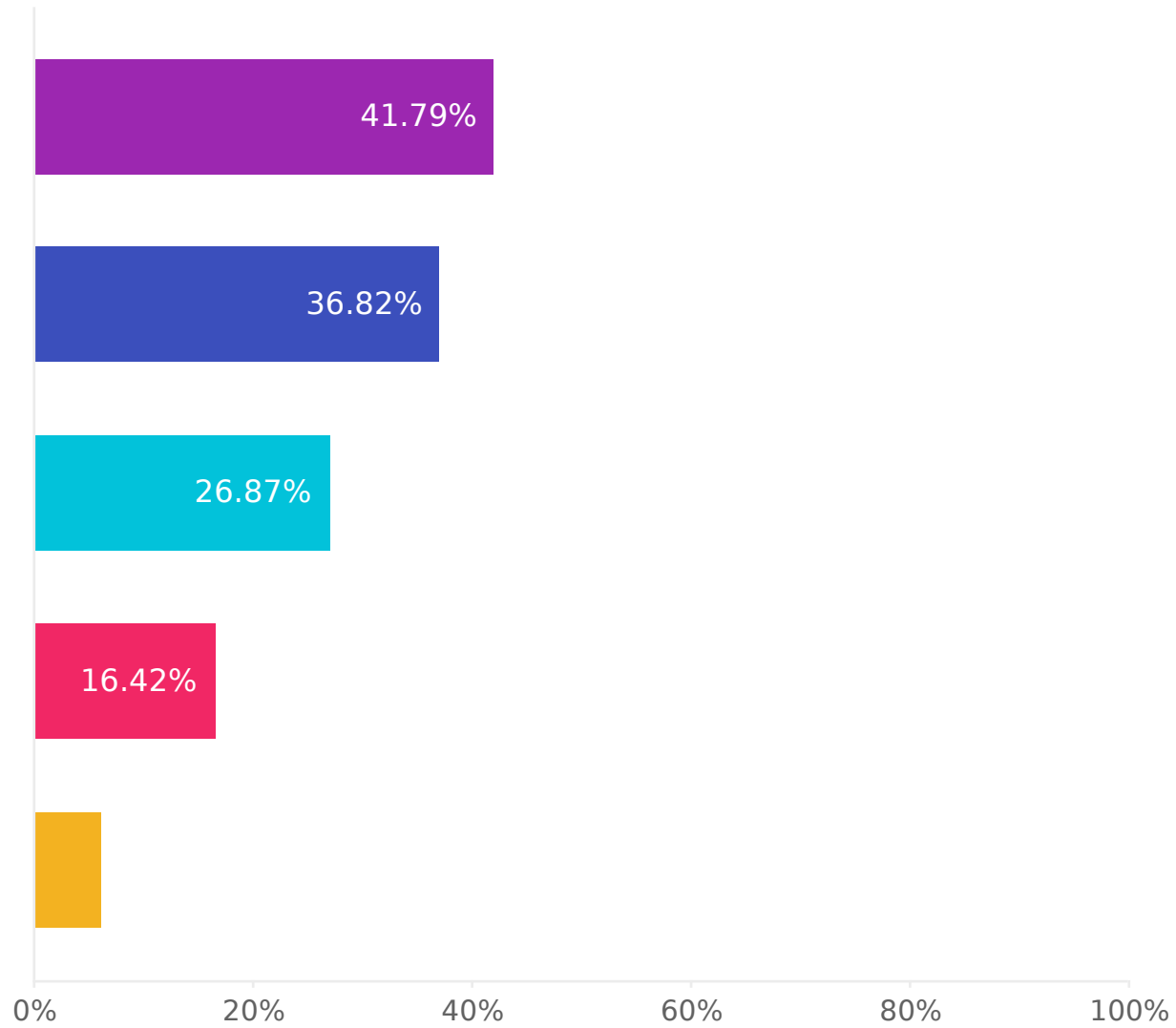
| Choices   | Response percent | Response count |
|-----------|------------------|----------------|
| Yes       | 33.09%           | 134            |
| No        | 49.63%           | 201            |
| Partially | 17.28%           | 70             |

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### Why do you not have telemetry enabled?

Answered: 201 Skipped: 204



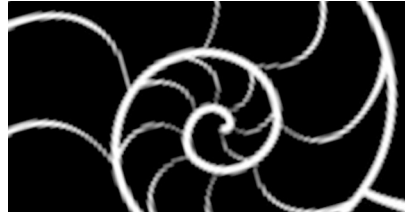
● Didn't know this Feature existed

● Support for: Firewalled / airgapped / non-online environment

● Other (Please specify)

● Data privacy requirements

● Not available in Current Ceph version



| Choices                                 | Response percent | Response count |
|---|------------------|----------------|
| IRC / Slack/ etc                        | 29.63%           | 120            |
| Mailing list                            | 55.56%           | 225            |
| Reporting issues via the bug tracker    | 44.94%           | 182            |
| Contributing code                       | 7.16%            | 29             |
| Contributing / enchancing documentation | 11.11%           | 45             |
| Ceph events (attendee)                  | 29.14%           | 118            |
| Ceph events (organizer)                 | 3.21%            | 13             |
| Ceph events (presenter)                 | 7.65%            | 31             |
| Member of the Ceph Foundation           | 2.22%            | 9              |
| Other (Please specify)                  | 12.35%           | 50             |

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How likely are you to recommend Ceph to a colleague?

Answered: 405 Skipped: 0



| Detractors (0-6) | Passives (7-8) | Promoters (9-10) | Net Promoter Score |
|------------------|----------------|------------------|--------------------|
| 43               | 139            | 223              | 44.44              |



Please share the top reason for picking the previous answer (optional)

Answered: 177 Skipped: 228

- Ceph is the definitive shared storage. No more to say.
- Ceph has been very reliable
- Ceph has proven to be a stable, scalable, cost-effective storage solution for us.
- Feature set Reliability Integration with OpenStack, iSCSI, NFS...
- Ceph is like magic!
- It's a great option for getting reliable storage on hardware w/o vendor-lockin.
- Really the best clustered file-system If you need stability CEPH rules with its open source Model.
- I've found Ceph to be the most reliable storage platform for bare metal Kubernetes instances.
- It works on any hardware.
- Seems near-indestructible Good documentation
- Industry standard, open and performant.
- Ceph has been a great platform in terms of ease of use, scalability, and failure tolerance. There are also an immense number of options for tuning and customization that are not required for out of the box operation but that can be implemented as knowledge about the platform increases. Results in a manageable learning curve.



### Top 3 wishlist features (add each on a separate line)

Answered: 177 Skipped: 228

- Predefined tuning profiles easy disaster recovery procedures documented safe upgrades globally improve cli. To me nautilus is definitive.
- Enhanced kernel modules Autoshard for multisite Auto-handle the many warnings
- Dedicated device(s) in each osd node, providing nvme read cache for osd's (use case PB scale backup target with option for booting VM's directly from backup, with redirected write to prod storage) option for enabling deduplication, either on pool level or at least on rbd image level. Native RBD driver for ESXi.
- Multi-MDS stable Automatically picking active/standby-replay/standby MDS on separate machine
- Faster releases when issues are identified. Better support for all features on Ubuntu. Easy methods of managing CRUSH maps.
- rbd namespace limit / throttle IOPS support for Debian Linux distribution.
- A good filestore to bluestore converter. Ability to cloud-burst from our own DC to something.
- Ability for Rados Gateways to provide an error for accessing inaccessible PGs rather than fall over. Fully functional dashboard ( iscsi and NFS are lacking ) Official Support of NFS through rados gateway WITH useful documentation.
- Windows driver for RBD VMWare ESX driver for RBD.
- Pools and pgs, I still have issue getting my heads around keeping the correct numbers in check. Although the PGCalc is handy, it's still quite a head scratcher at times.
- Don't publish unfinished/buggy packages - no tooling / usage changes in minor releases.
- 1. Better support for Ubuntu on ARM64 (the community version is missing ARM64 builds, even though Canonical provides out of date ones) 2. Automated disk replacements 3. Higher IOPS per CPU core on all-SSD clusters.
- DKMS modules for linux kernel in major distros. CephFS revert to snapshot mgr: switch from cherry-pick to aiohttp.
- Performance for AllFlash Overall performance S3 features and performance
- Automated disk replacements Deduplication
- 1. Better support for Ubuntu on ARM64 (the community version is missing ARM64 builds, even though Canonical provides out of date ones) 2. Automated disk replacements 3. Higher IOPS per CPU core on all-SSD clusters
- Native oVirt integration.
- SSH Orchestrator more integrations in the web interface easy upgrades between major versions



### Top 3 wishlist features (add each on a separate line) continued...

Answered: 177 Skipped: 228

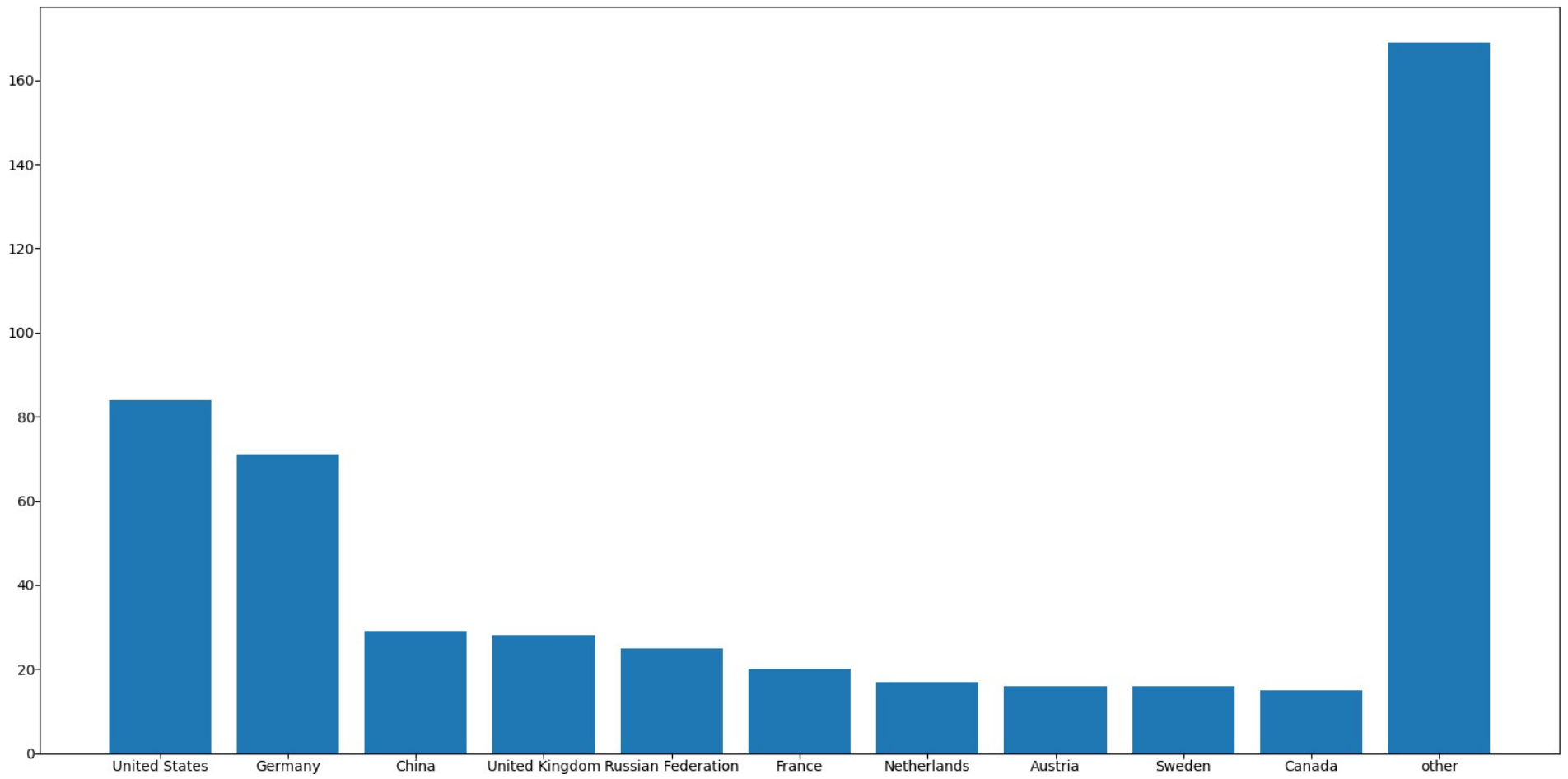
- Easier administration of pool and integration of namespace with kubernetes. GUI Maintaining of ceph-deploy.
- Automated-ish failed OSD replacement Self-analysis benchmarking, e.g. Hit a button, walk away for a few hours, get a report: Your network sucks, you're disks are slow. SMART integration
- Easier deployments. Better graphics in the documentation that show configurations (I'm a visual learner). Native windows support.
- Improve recovery tools Improve the orphans find/finish tools and documentation Improve documentation for recovery scenarios
- Official disk database with crowdsourced standardized benchmarks perhaps thru a script that run checks testing how suited a device is for ceph and reports to the database. Easier ipv4-> ipv6 migration Default to ipv6 on all documentation, to avoid implementing technical debt
- Easy setup, configuration and deployment Automatic caching Less ram dependent or efficient ram auto allocation
- Better documentation on performance monitoring and pin pointing. Improved workflow in replacing disks, eg finding what disk belongs to which osd, including the db disk.
- Native RBD support for Windows Native CephFS support for Windows
- Better docs -better packaging -make iscsi a first class citizen
- Graceful handover and upgrades of cephfs Ability to see all connected clients by IP, and the services they use and versions of clients Ability to control when ceph reports error state (MDS in read only mode is a warning? Really?)
- Samba support in Ceph-Ansible Less PG churn when adding devices Ability to restore Bluestore OSD if WAL/DB device fails but the storage device does not
- Graphical cache config Data flow graphical Performance reporting.
- Better built-in monitoring for block and object storage clients. Better documentation for errors and warning messages. Better ways to hunt slow requests.
- Automatic separate journal creation. Point and click repair options Easier adding of new nodes to cluster
- defaults w/ explanations next to action controls. (e.g. Button 'Deploy NFS' prompts for config with defaults) - Help Bubbles in GUI next to options which explain the option AND give API usage of that option. - Separation of user concerns from system concerns (e.g. ceph 'buckets' for system use vs. user data.





What countries are your deployments in.

Answered: 405 Skipped: 0



| Choices        | Response percent | Response count |
|----------------|------------------|----------------|
| Afghanistan    | 0.00%            | 0              |
| Albania        | 0.49%            | 2              |
| Algeria        | 0.00%            | 0              |
| Andorra        | 0.25%            | 1              |
| Angola         | 0.00%            | 0              |
| Antigua & Deps | 0.00%            | 0              |
| Argentina      | 0.99%            | 4              |
| Armenia        | 0.00%            | 0              |
| Australia      | 2.22%            | 9              |
| Austria        | 3.95%            | 16             |
| Azerbaijan     | 0.25%            | 1              |
| Bahamas        | 0.00%            | 0              |
| Bahrain        | 0.00%            | 0              |
| Bangladesh     | 0.00%            | 0              |
| Barbados       | 0.00%            | 0              |
| Belarus        | 0.25%            | 1              |
| Belgium        | 1.23%            | 5              |
| Belize         | 0.00%            | 0              |
| Benin          | 0.00%            | 0              |
| Bhutan         | 0.00%            | 0              |



|                        |       |    |
|------------------------|-------|----|
| Bolivia                | 0.00% | 0  |
| Bosnia Herzegovina     | 0.00% | 0  |
| Botswana               | 0.00% | 0  |
| Brazil                 | 2.22% | 9  |
| Brunei                 | 0.00% | 0  |
| Bulgaria               | 0.00% | 0  |
| Burkina                | 0.00% | 0  |
| Burundi                | 0.00% | 0  |
| Cambodia               | 0.00% | 0  |
| Cameroon               | 0.00% | 0  |
| Canada                 | 3.70% | 15 |
| Cape Verde             | 0.00% | 0  |
| Central African Rep    | 0.00% | 0  |
| Chad                   | 0.00% | 0  |
| Chile                  | 0.25% | 1  |
| China                  | 7.41% | 30 |
| Colombia               | 0.00% | 0  |
| Comoros                | 0.00% | 0  |
| Congo                  | 0.00% | 0  |
| Congo {Democratic Rep} | 0.00% | 0  |
| Costa Rica             | 0.00% | 0  |



|                    |       |    |
|--------------------|-------|----|
| Croatia            | 0.25% | 1  |
| Cuba               | 0.00% | 0  |
| Cyprus             | 0.00% | 0  |
| Czech Republic     | 0.49% | 2  |
| Denmark            | 3.21% | 13 |
| Djibouti           | 0.00% | 0  |
| Dominica           | 0.00% | 0  |
| Dominican Republic | 0.00% | 0  |
| East Timor         | 0.00% | 0  |
| Ecuador            | 0.00% | 0  |
| Egypt              | 0.00% | 0  |
| El Salvador        | 0.00% | 0  |
| Equatorial Guinea  | 0.00% | 0  |
| Eritrea            | 0.00% | 0  |
| Estonia            | 0.00% | 0  |
| Ethiopia           | 0.00% | 0  |
| Faroe Islands      | 0.25% | 1  |
| Fiji               | 0.00% | 0  |
| Finland            | 1.48% | 6  |
| France             | 4.94% | 20 |
| Gabon              | 0.00% | 0  |



|                    |        |    |
|--------------------|--------|----|
| Gambia             | 0.00%  | 0  |
| Georgia            | 0.25%  | 1  |
| Germany            | 18.02% | 73 |
| Ghana              | 0.00%  | 0  |
| Greece             | 0.00%  | 0  |
| Grenada            | 0.00%  | 0  |
| Guatemala          | 0.00%  | 0  |
| Guinea             | 0.00%  | 0  |
| Guinea-Bissau      | 0.00%  | 0  |
| Guyana             | 0.00%  | 0  |
| Haiti              | 0.00%  | 0  |
| Honduras           | 0.00%  | 0  |
| Hungary            | 0.49%  | 2  |
| Iceland            | 0.25%  | 1  |
| India              | 3.21%  | 13 |
| Indonesia          | 0.74%  | 3  |
| Iran               | 0.25%  | 1  |
| Iraq               | 0.25%  | 1  |
| Ireland {Republic} | 0.74%  | 3  |
| Israel             | 0.25%  | 1  |
| Italy              | 2.72%  | 11 |



|               |       |   |
|---------------|-------|---|
| Ivory Coast   | 0.00% | 0 |
| Jamaica       | 0.25% | 1 |
| Japan         | 0.74% | 3 |
| Jordan        | 0.00% | 0 |
| Kazakhstan    | 1.23% | 5 |
| Kenya         | 0.00% | 0 |
| Kiribati      | 0.00% | 0 |
| Korea North   | 0.00% | 0 |
| Korea South   | 0.49% | 2 |
| Kosovo        | 0.00% | 0 |
| Kuwait        | 0.00% | 0 |
| Kyrgyzstan    | 0.25% | 1 |
| Laos          | 0.00% | 0 |
| Latvia        | 0.99% | 4 |
| Lebanon       | 0.00% | 0 |
| Lesotho       | 0.00% | 0 |
| Liberia       | 0.00% | 0 |
| Libya         | 0.00% | 0 |
| Liechtenstein | 0.00% | 0 |
| Lithuania     | 0.49% | 2 |
| Luxembourg    | 0.49% | 2 |



|                  |       |   |
|------------------|-------|---|
| Macedonia        | 0.00% | 0 |
| Madagascar       | 0.00% | 0 |
| Malawi           | 0.00% | 0 |
| Malaysia         | 0.49% | 2 |
| Maldives         | 0.00% | 0 |
| Mali             | 0.00% | 0 |
| Malta            | 0.00% | 0 |
| Marshall Islands | 0.00% | 0 |
| Mauritania       | 0.00% | 0 |
| Mauritius        | 0.00% | 0 |
| Mexico           | 0.00% | 0 |
| Micronesia       | 0.00% | 0 |
| Moldova          | 0.25% | 1 |
| Monaco           | 0.00% | 0 |
| Mongolia         | 0.00% | 0 |
| Montenegro       | 0.00% | 0 |
| Morocco          | 0.00% | 0 |
| Mozambique       | 0.00% | 0 |
| Myanmar, {Burma} | 0.00% | 0 |
| Namibia          | 0.00% | 0 |
| Nauru            | 0.00% | 0 |



|                    |       |    |
|--------------------|-------|----|
| Nepal              | 0.00% | 0  |
| Netherlands        | 4.20% | 17 |
| New Zealand        | 0.99% | 4  |
| Nicaragua          | 0.00% | 0  |
| Niger              | 0.00% | 0  |
| Nigeria            | 0.00% | 0  |
| Norway             | 1.73% | 7  |
| Oman               | 0.00% | 0  |
| Pakistan           | 0.00% | 0  |
| Palau              | 0.00% | 0  |
| Panama             | 0.00% | 0  |
| Papua New Guinea   | 0.00% | 0  |
| Paraguay           | 0.25% | 1  |
| Peru               | 0.00% | 0  |
| Philippines        | 0.25% | 1  |
| Poland             | 2.47% | 10 |
| Portugal           | 0.00% | 0  |
| Qatar              | 0.00% | 0  |
| Romania            | 0.49% | 2  |
| Russian Federation | 6.42% | 26 |
| Rwanda             | 0.00% | 0  |





|                                |       |    |
|--------------------------------|-------|----|
| St Kitts & Nevis               | 0.00% | 0  |
| St Lucia                       | 0.00% | 0  |
| Saint Vincent & the Grenadines | 0.00% | 0  |
| Samoa                          | 0.00% | 0  |
| San Marino                     | 0.00% | 0  |
| Sao Tome & Principe            | 0.00% | 0  |
| Saudi Arabia                   | 0.25% | 1  |
| Senegal                        | 0.00% | 0  |
| Serbia                         | 0.00% | 0  |
| Seychelles                     | 0.00% | 0  |
| Sierra Leone                   | 0.00% | 0  |
| Singapore                      | 1.73% | 7  |
| Slovakia                       | 0.00% | 0  |
| Slovenia                       | 0.00% | 0  |
| Solomon Islands                | 0.00% | 0  |
| Somalia                        | 0.00% | 0  |
| South Africa                   | 0.74% | 3  |
| South Sudan                    | 0.00% | 0  |
| Spain                          | 2.72% | 11 |
| Sri Lanka                      | 0.00% | 0  |
| Sudan                          | 0.00% | 0  |



|                      |        |    |
|----------------------|--------|----|
| Suriname             | 0.00%  | 0  |
| Swaziland            | 0.00%  | 0  |
| Sweden               | 3.95%  | 16 |
| Switzerland          | 2.47%  | 10 |
| Syria                | 0.00%  | 0  |
| Taiwan               | 0.99%  | 4  |
| Tajikistan           | 0.00%  | 0  |
| Tanzania             | 0.25%  | 1  |
| Thailand             | 0.25%  | 1  |
| Togo                 | 0.00%  | 0  |
| Tonga                | 0.00%  | 0  |
| Trinidad & Tobago    | 0.00%  | 0  |
| Tunisia              | 0.00%  | 0  |
| Turkey               | 0.99%  | 4  |
| Turkmenistan         | 0.00%  | 0  |
| Tuvalu               | 0.00%  | 0  |
| Uganda               | 0.00%  | 0  |
| Ukraine              | 0.99%  | 4  |
| United Arab Emirates | 0.00%  | 0  |
| United Kingdom       | 7.16%  | 29 |
| United States        | 21.48% | 87 |



|              |       |   |
|--------------|-------|---|
| Uruguay      | 0.00% | 0 |
| Uzbekistan   | 0.25% | 1 |
| Vanuatu      | 0.00% | 0 |
| Vatican City | 0.00% | 0 |
| Venezuela    | 0.00% | 0 |
| Vietnam      | 0.00% | 0 |
| Yemen        | 0.00% | 0 |
| Zambia       | 0.00% | 0 |
| Zimbabwe     | 0.00% | 0 |

---

---



How many clusters does this information represent?

Answered: 177 Skipped: 228

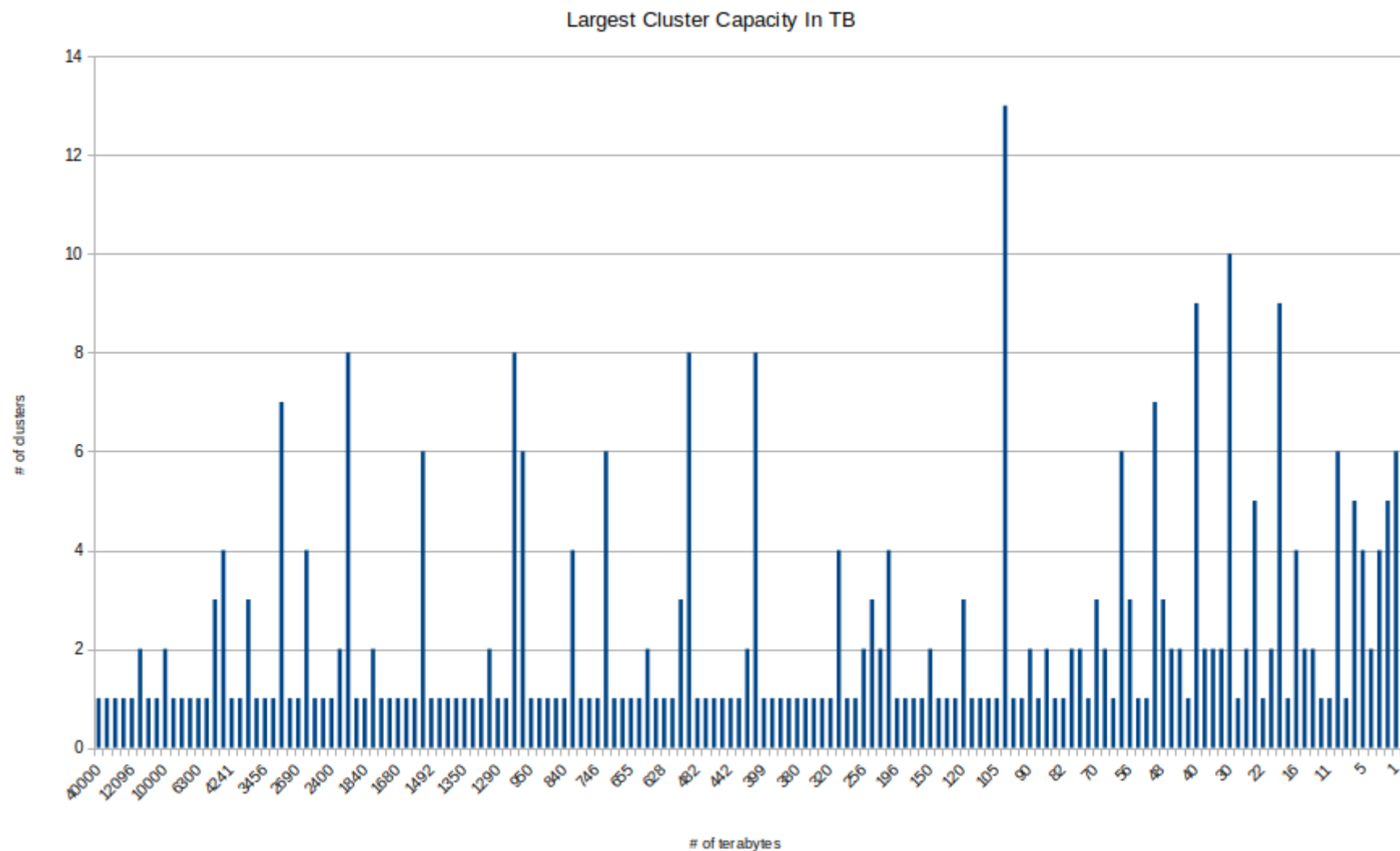
| # of clusters | Represented |
|---------------|-------------|
| 1             | 115         |
| 2             | 86          |
| 3             | 49          |
| 4             | 19          |
| 5             | 19          |
| 6             | 8           |
| 7             | 8           |
| 8             | 9           |
| 10            | 13          |
| 11            | 1           |
| 12            | 2           |
| 13            | 1           |
| 14            | 3           |
| 15            | 2           |
| 19            | 1           |
| 20            | 1           |
| 40            | 2           |
| 48            | 1           |
| 85            | 1           |



Q14

### Largest cluster capacity in TB

Answered: 344 Skipped: 61

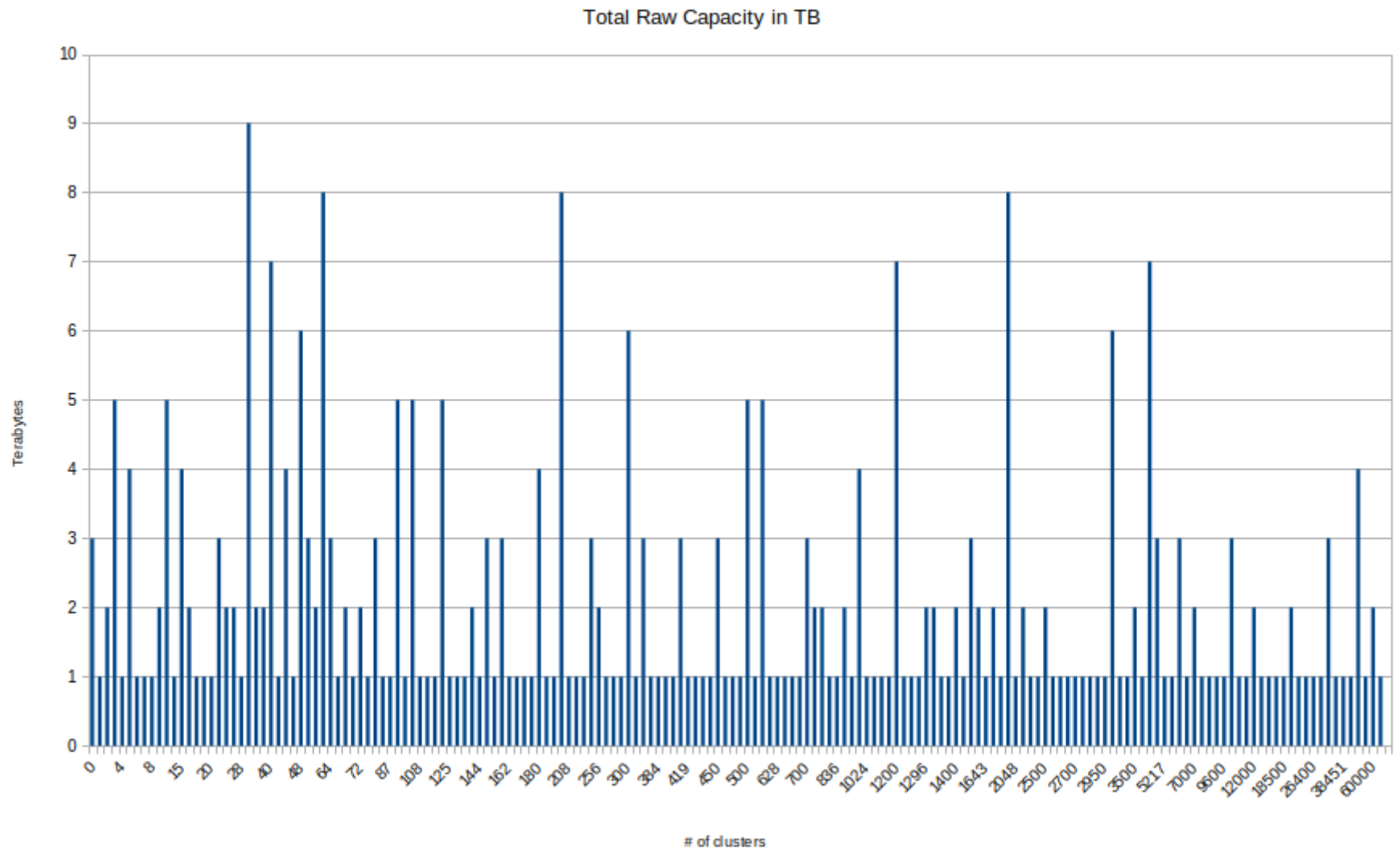




Q15

### Total raw capacity

Answered: 344 Skipped: 61

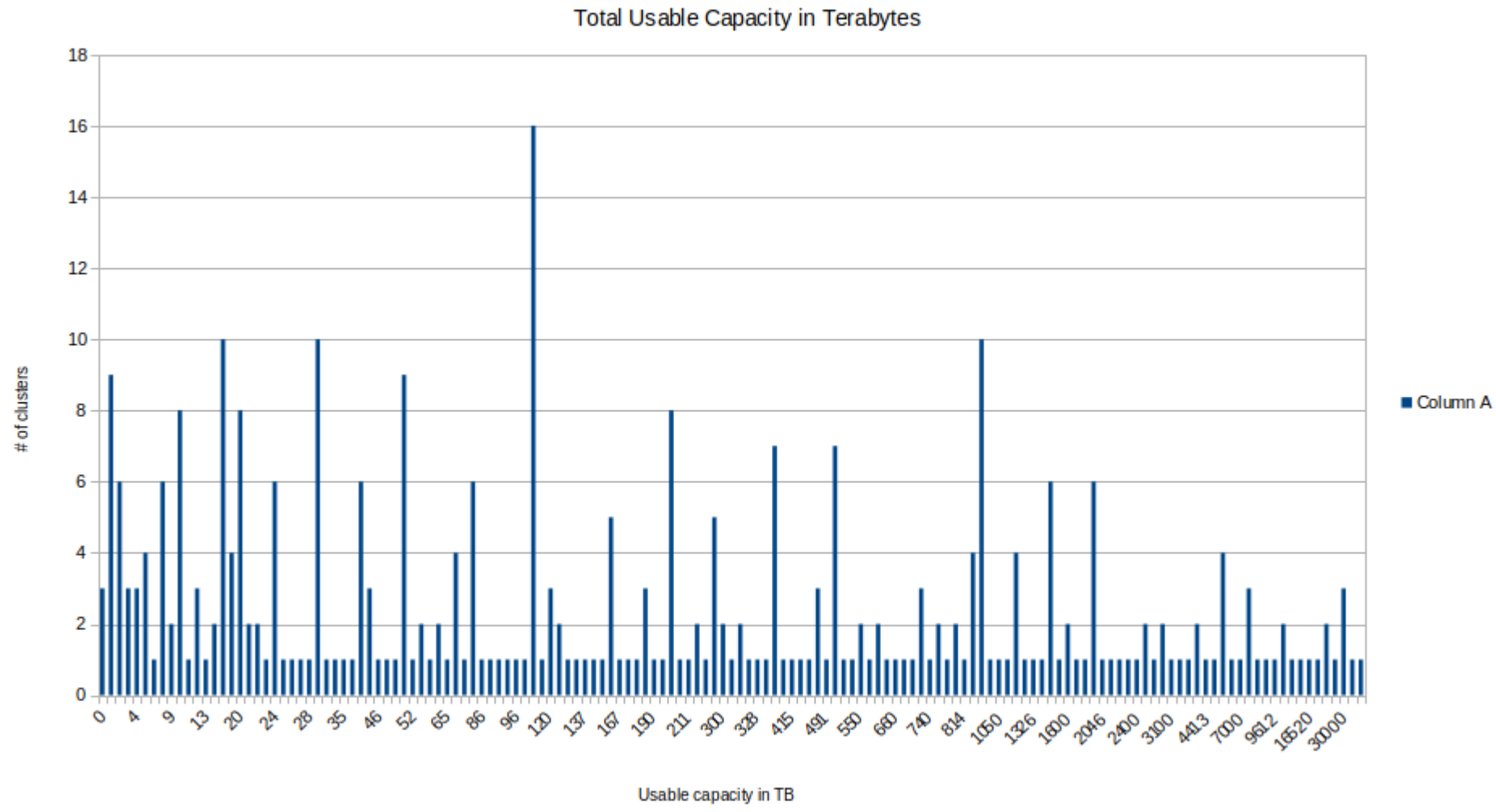




Q16

### Total usable capacity

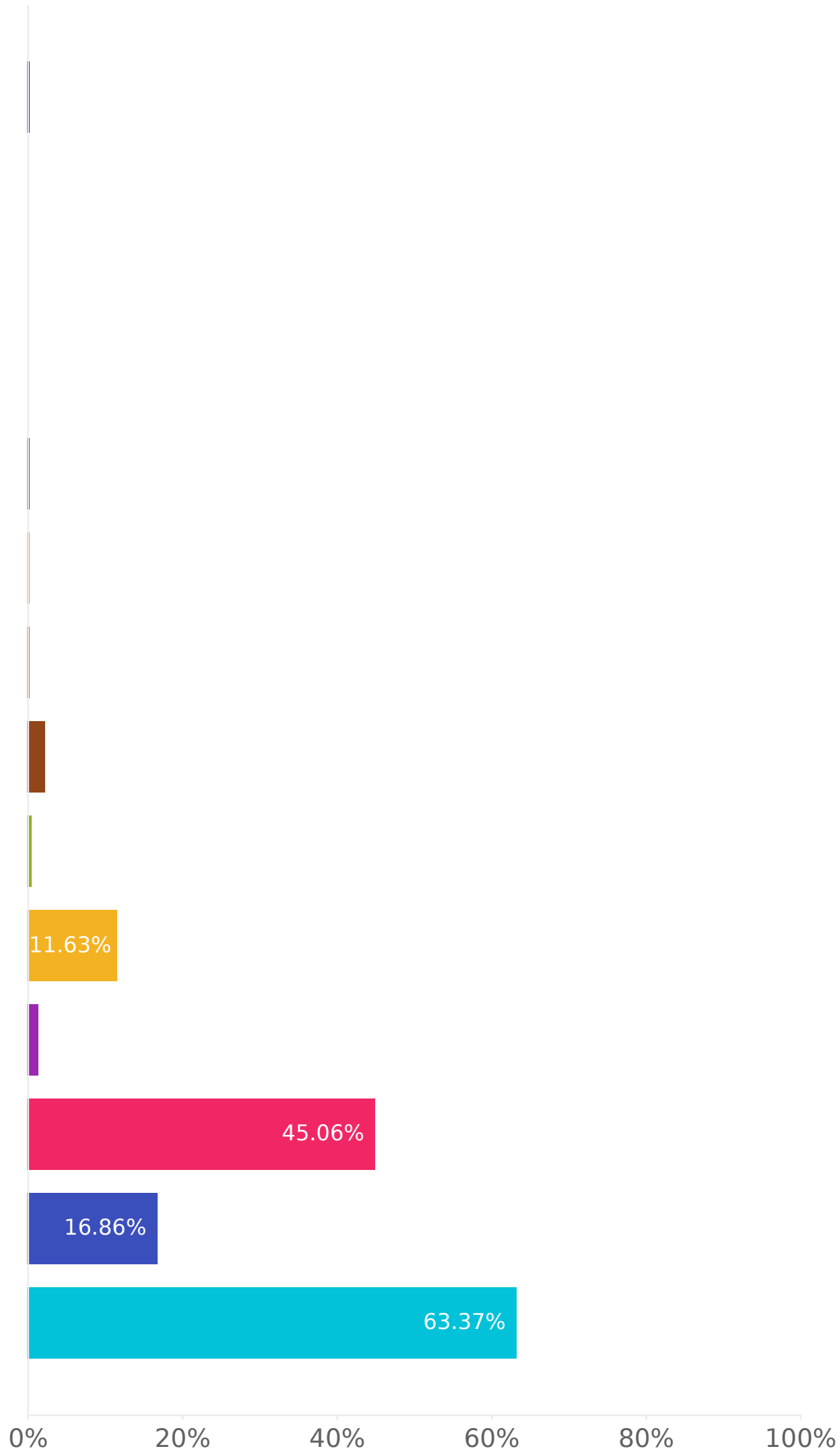
Answered: 343 Skipped: 62





### Which Ceph releases do you run?

Answered: 344 Skipped: 61



-  Nautilus
-  Mimic
-  Luminous
-  Kraken
-  Jewel
-  Infernalis



● Hammer

● Giant

● Firefly

● Dumpling

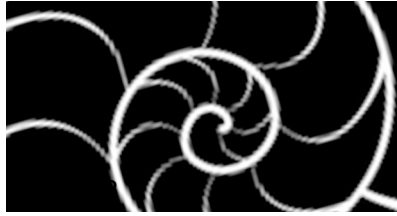
● Cuttlefish

● Bobtail

● Argonaut

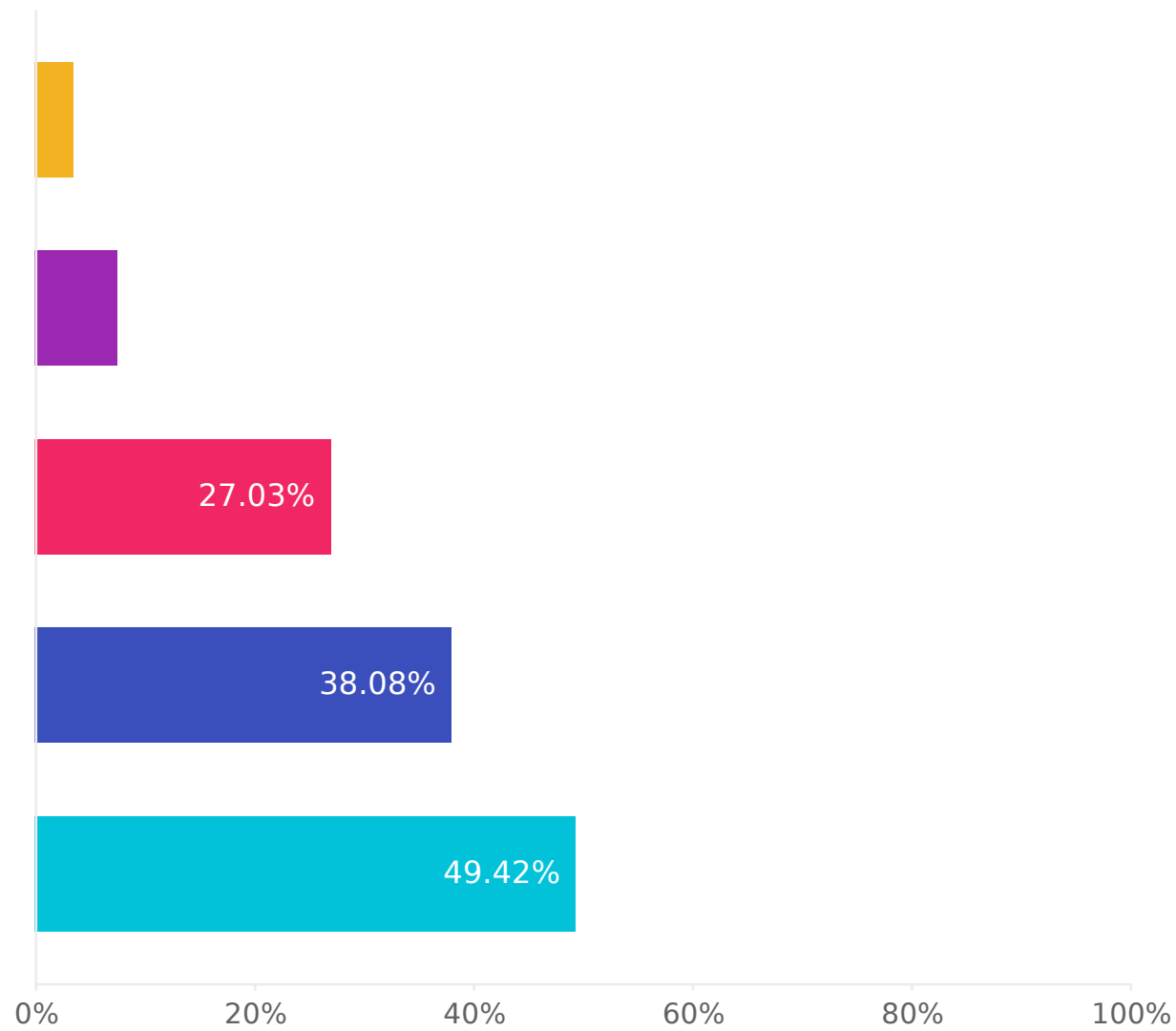
● Master

| Choices    | Response percent | Response count |
|------------|------------------|----------------|
| Nautilus   | 63.37%           | 218            |
| Mimic      | 16.86%           | 58             |
| Luminous   | 45.06%           | 155            |
| Kraken     | 1.45%            | 5              |
| Jewel      | 11.63%           | 40             |
| Infernalis | 0.58%            | 2              |
| Hammer     | 2.33%            | 8              |
| Giant      | 0.29%            | 1              |
| Firefly    | 0.29%            | 1              |
| Dumpling   | 0.29%            | 1              |
| Cuttlefish | 0.00%            | 0              |
| Bobtail    | 0.00%            | 0              |
| Argonaut   | 0.00%            | 0              |
| Master     | 0.29%            | 1              |



### Which Ceph packages do you use?

Answered: 344 Skipped: 61



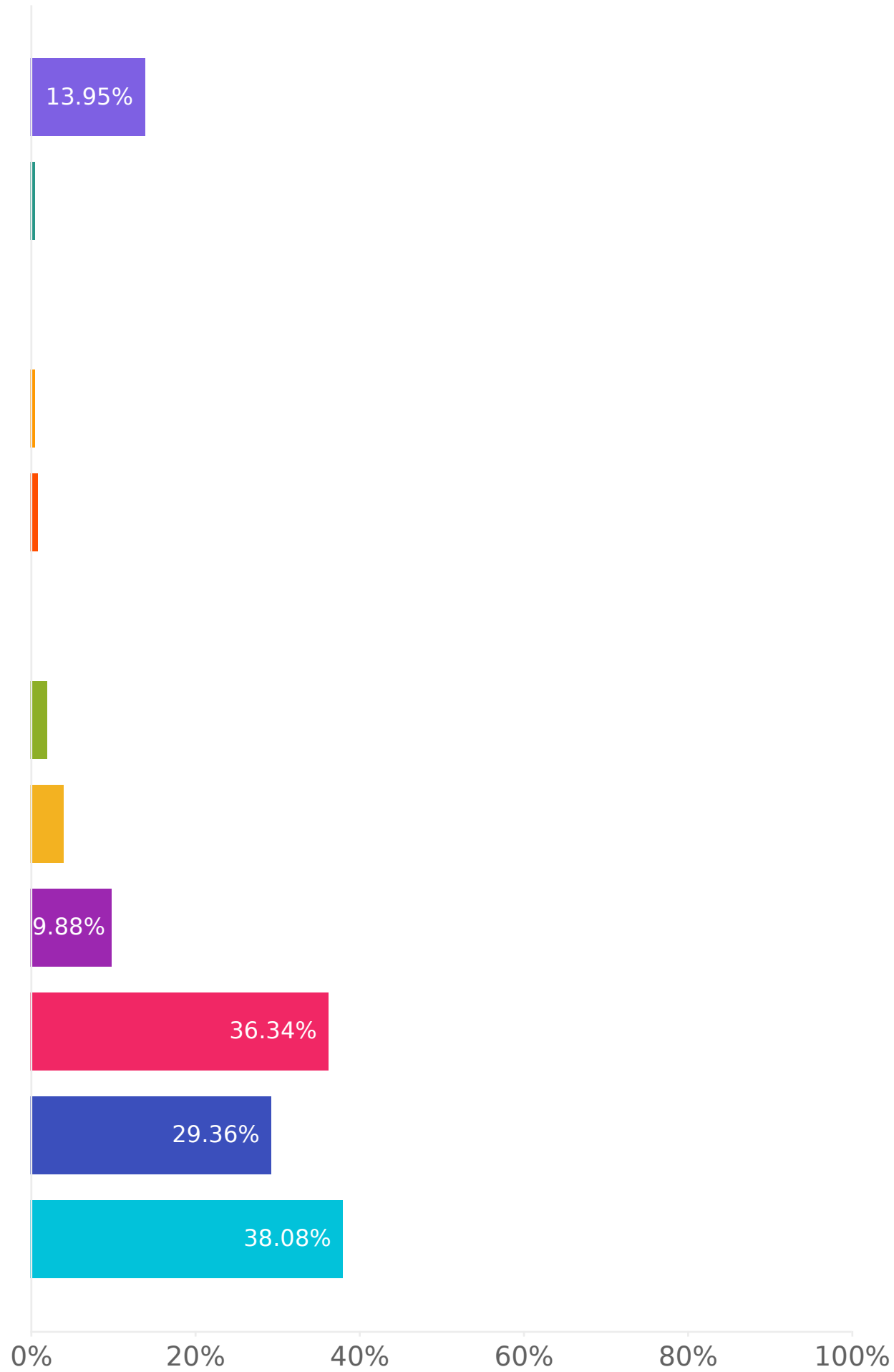
- Upstream packages
- Distribution packages
- Vendor packages
- We build our own packages
- We built a custom version

| Choices                   | Response percent | Response count |
|---------------------------|------------------|----------------|
| Upstream packages         | 49.42%           | 170            |
| Distribution packages     | 38.08%           | 131            |
| Vendor packages           | 27.03%           | 93             |
| We build our own packages | 7.56%            | 26             |
| We built a custom version | 3.49%            | 12             |

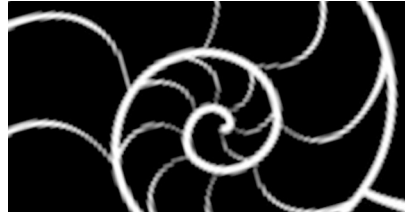


### What operating system are you using on the cluster nodes?

Answered: 344 Skipped: 61

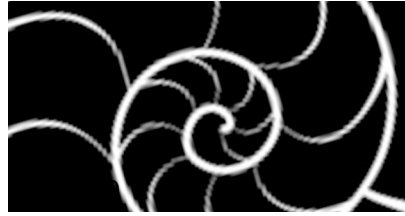


- Ubuntu
- Debian
- CentOS
- Red Hat Enterprise Linux
- SUSE Linux Enterprise Server
- openSUSE
- Oracle Linux
- Arch Linux
- FreeBSD/OpenBSD/NetBSD
- Solaris, IllumOS or other OpenSolaris derivatives
- Gentoo Linux
- Other (Please specify)



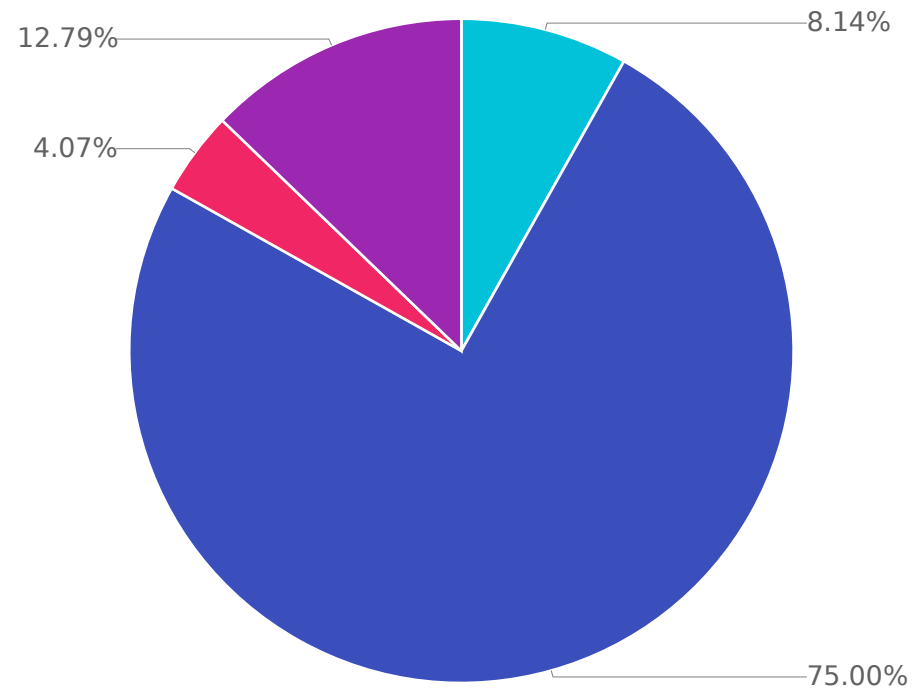
| Choices   | Response percent | Response count |
|---|------------------|----------------|
| Ubuntu  | 38.08%           | 131            |
| Debian  | 29.36%           | 101            |
| CentOS  | 36.34%           | 125            |
| Red Hat Enterprise Linux                          | 9.88%            | 34             |
| SUSE Linux Enterprise Server                      | 4.07%            | 14             |
| openSUSE  | 2.03%            | 7              |
| Oracle Linux                                      | 0.00%            | 0              |
| Arch Linux  | 0.87%            | 3              |
| FreeBSD/OpenBSD/NetBSD                            | 0.58%            | 2              |
| Solaris, IllumOS or other OpenSolaris derivatives | 0.00%            | 0              |
| Gentoo Linux                                      | 0.58%            | 2              |
| Other (Please specify)                            | 13.95%           | 48             |

---



### Do you use cache tiering?

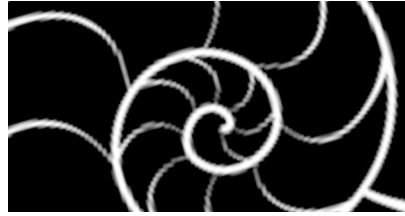
Answered: 344 Skipped: 61



- I don't know what that is
- No
- Yes, in front of EC pools for functionality
- Yes, for performance reasons

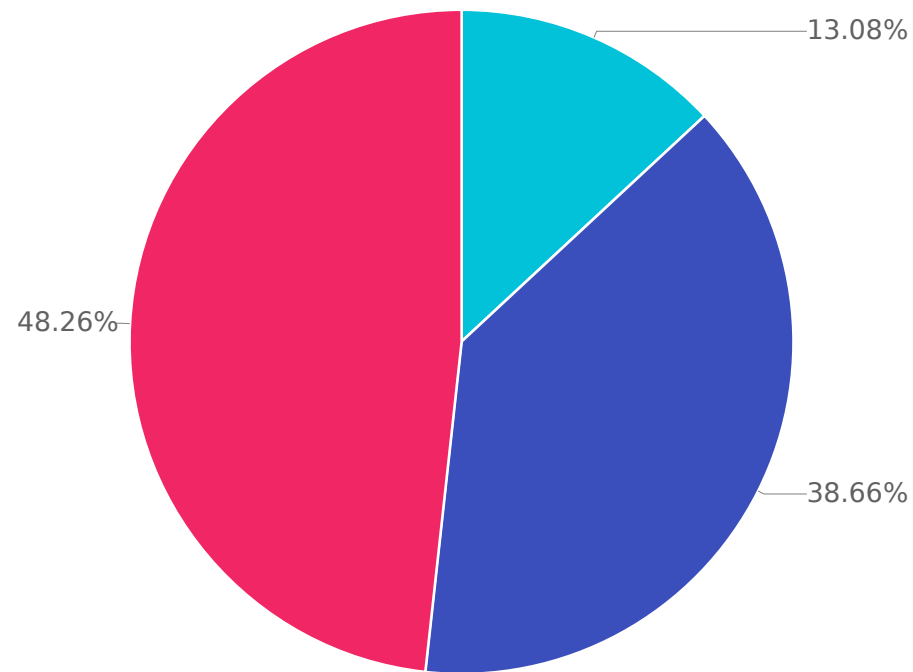
| Choices                                     | Response percent | Response count |
|---|------------------|----------------|
| I don't know what that is                   | 8.14%            | 28             |
| No  | 75.00%           | 258            |
| Yes, in front of EC pools for functionality | 4.07%            | 14             |
| Yes, for performance reasons                | 12.79%           | 44             |

---



### How soon do you apply dot/minor releases to your cluster?

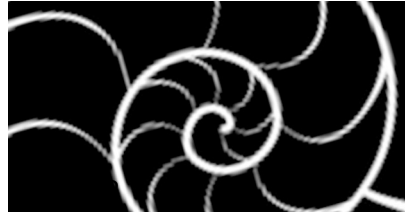
Answered: 344 Skipped: 61



● Within the week      ● Within a month      ● Longer

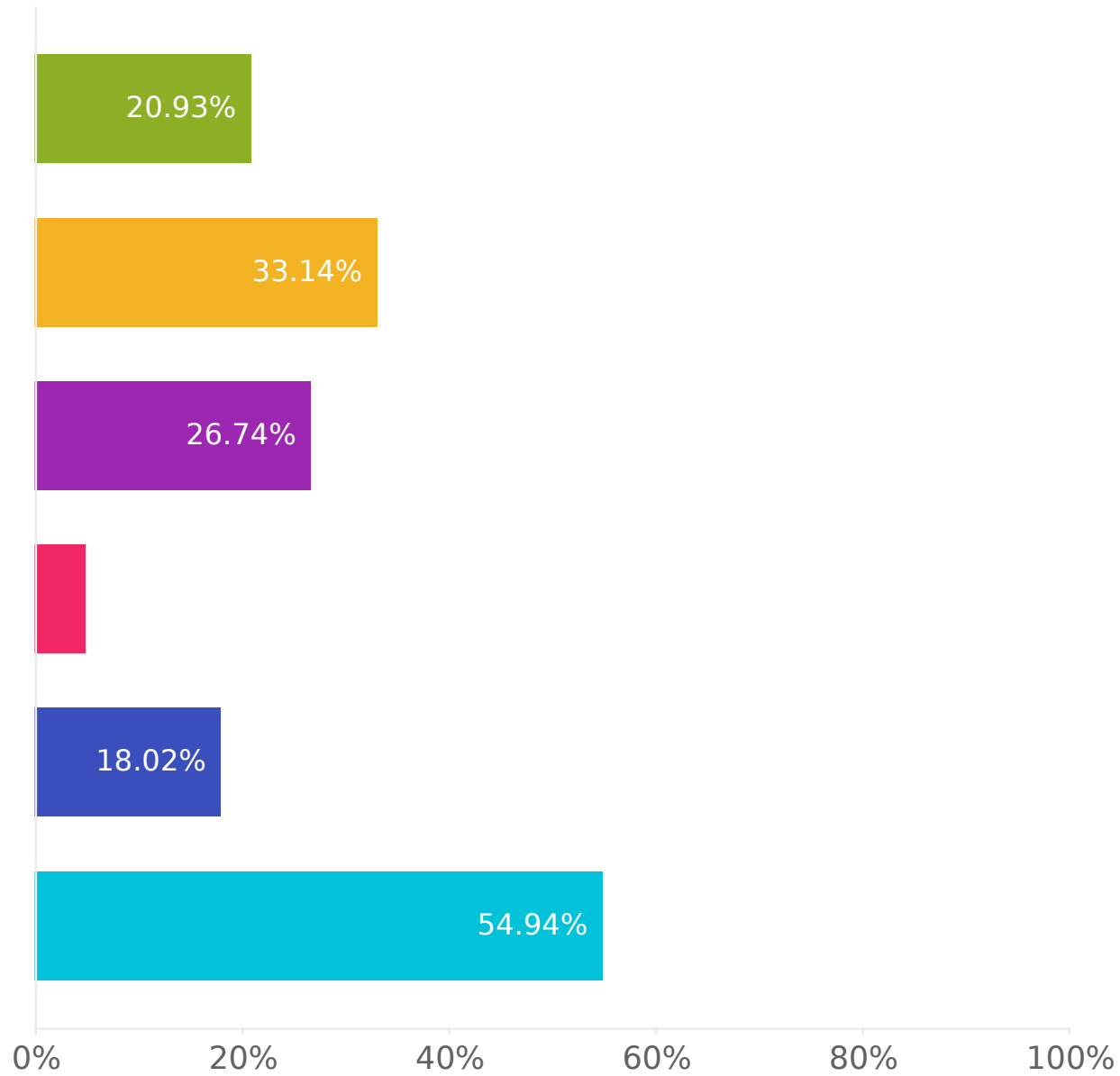
| Choices         | Response percent | Response count |
|-----------------|------------------|----------------|
| Within the week | 13.08%           | 45             |
| Within a month  | 38.66%           | 133            |
| Longer          | 48.26%           | 166            |

---



### Why?

Answered: 344 Skipped: 61



- Concerns about regression
- Concerns about new functionality
- Too frequent updates
- Patching only as needed to address encountered
- Effort of update installation
- Other (Please specify)



| Choices  | Response percent | Response count |
|--|------------------|----------------|
| Concerns about regression                      | 54.94%           | 189            |
| Concerns about new functionality               | 18.02%           | 62             |
| Too frequent updates                           | 4.94%            | 17             |
| Patching only as needed to address encountered | 26.74%           | 92             |
| Effort of update installation                  | 33.14%           | 114            |
| Other (Please specify)                         | 20.93%           | 72             |

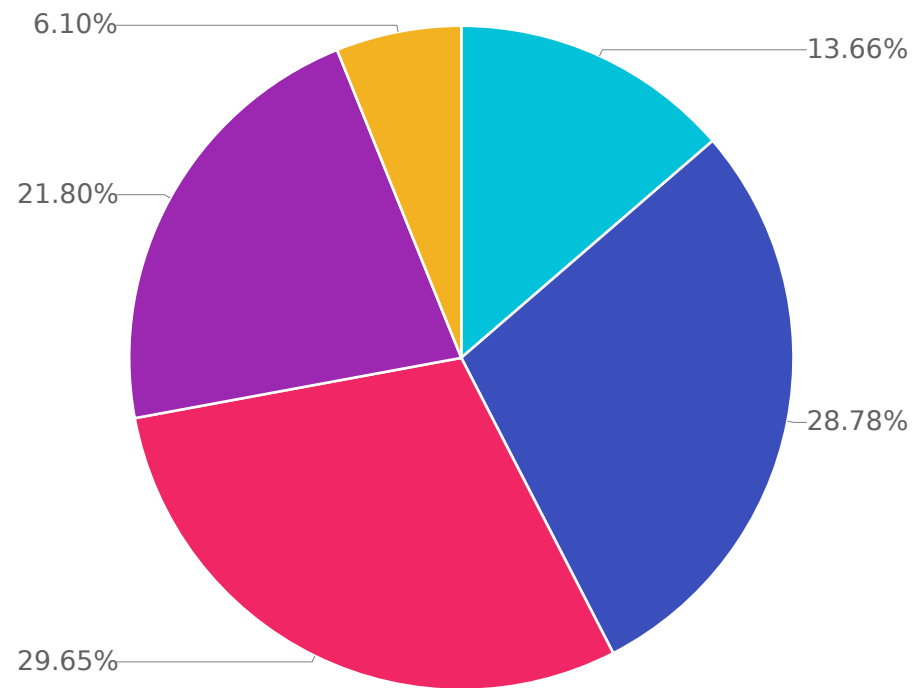
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### How soon do you perform major version upgrades?

Answered: 344 Skipped: 61



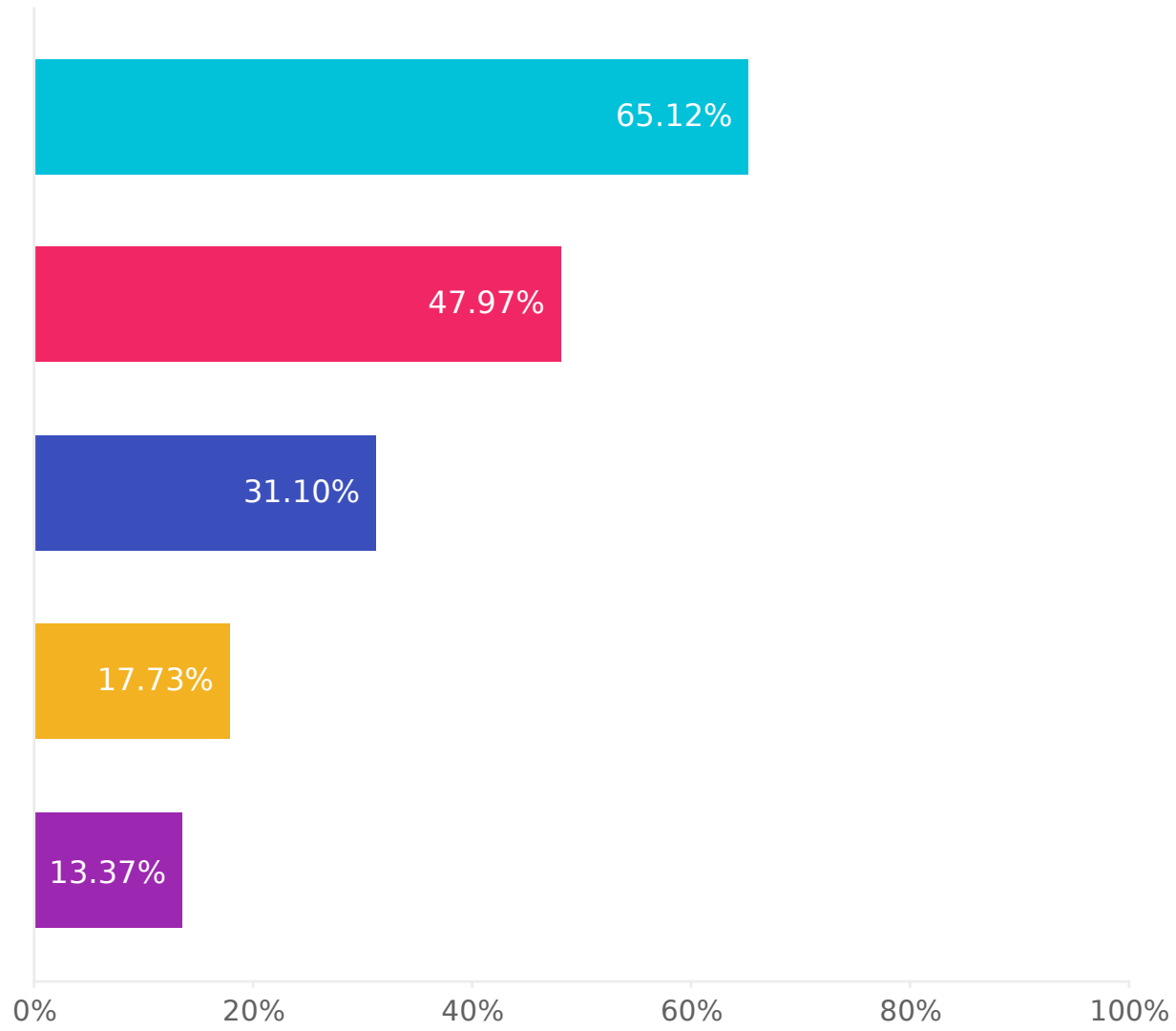
- Within a month
- Within half a year
- Within a year
- Longer
- Never (clusters remain on major release they were deployed with)

| Choices  | Response percent | Response count |
|--|------------------|----------------|
| Within a month   | 13.66%           | 47             |
| Within half a year   | 28.78%           | 99             |
| Within a year  | 29.65%           | 102            |
| Longer   | 21.80%           | 75             |
| Never (clusters remain on major release they were deployed with) | 6.10%            | 21             |



### Why?

Answered: 344 Skipped: 61



● Concerns about stability

● Concerns about performance regressions

● Changed user experiencedue to new features

● Effort of upgrade

● Other (Please specify)



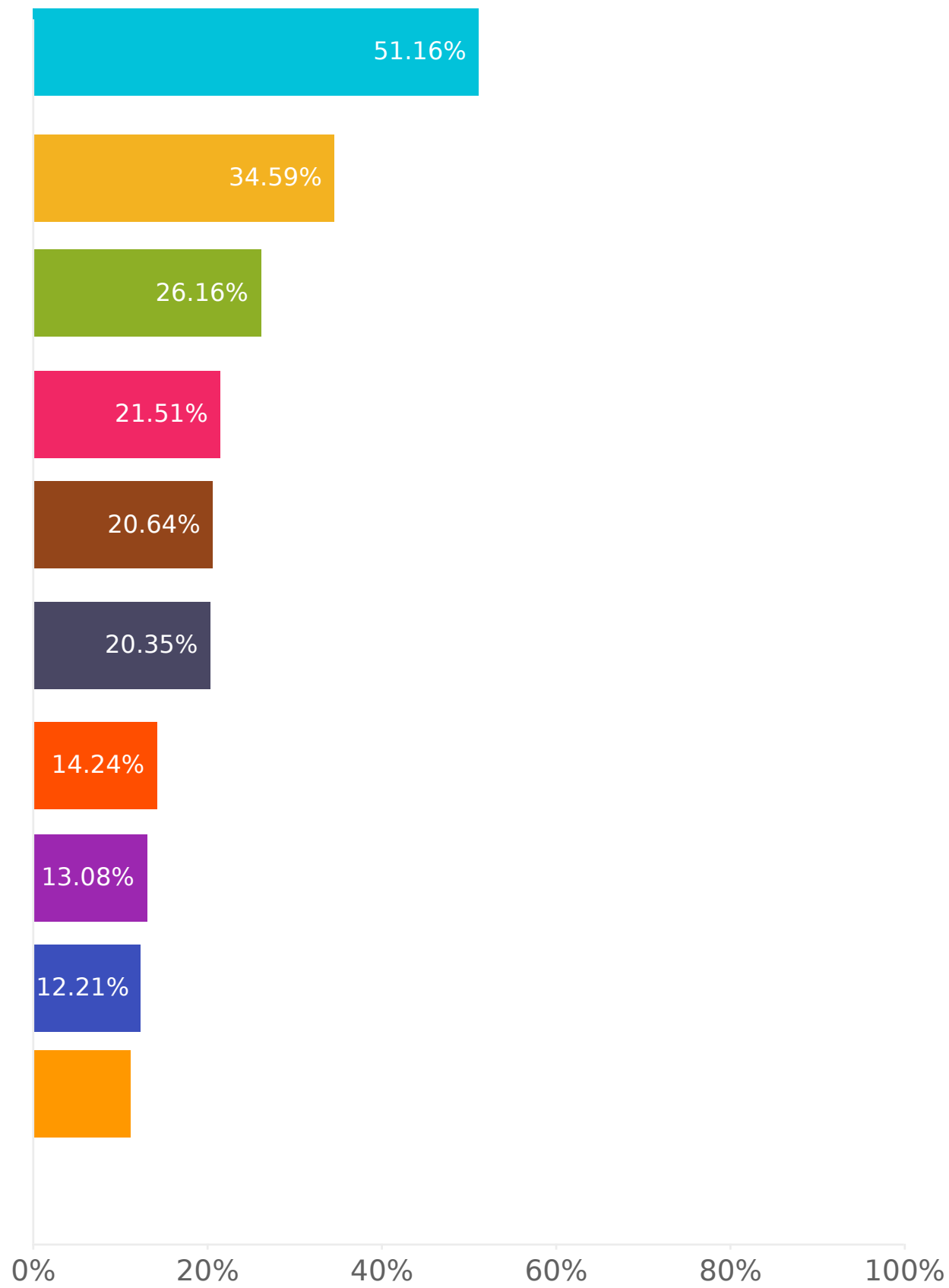
| Choices                                     | Response percent | Response count |
|---|------------------|----------------|
| Concerns about stability                    | 65.12%           | 224            |
| Concerns about performance regressions      | 31.10%           | 107            |
| Effort of upgrade                           | 47.97%           | 165            |
| Changed user experience due to new features | 13.37%           | 46             |
| Other (Please specify)                      | 17.73%           | 61             |

---

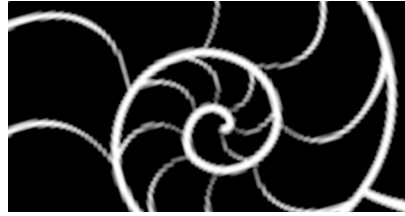


### What Ceph Manager modules do you enable?

Answered: 344 Skipped: 61



- balancer
- iostat
- pg\_autoscaler
- devicehealth
- restful
- Other (Please specify)
- I don't know
- diskprediction
- crash
- Not applicable



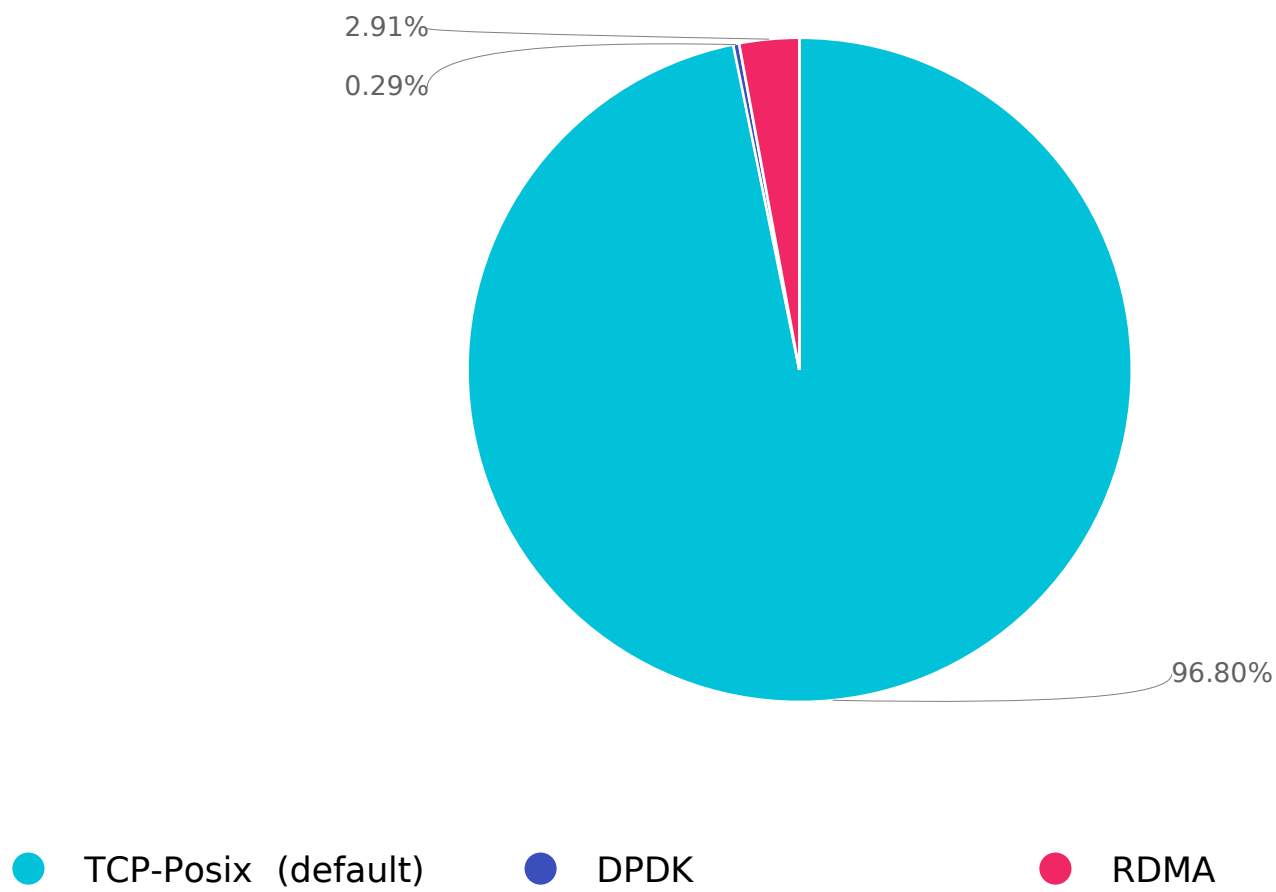
| Choices                | Response percent | Response count |
|------------------------|------------------|----------------|
| balancer               | 51.16%           | 176            |
| crash                  | 12.21%           | 42             |
| devicehealth           | 21.51%           | 74             |
| diskprediction         | 13.08%           | 45             |
| iostat                 | 34.59%           | 119            |
| pg_autoscaler          | 26.16%           | 90             |
| restful                | 20.64%           | 71             |
| I don't know           | 14.24%           | 49             |
| Not applicable         | 11.05%           | 38             |
| Other (Please specify) | 20.35%           | 70             |

---



### Which messenger type is in use?

Answered: 344 Skipped: 61



| Choices             | Response percent | Response count |
|---------------------|------------------|----------------|
| TCP-Posix (default) | 96.80%           | 333            |
| DPDK                | 0.29%            | 1              |
| RDMA                | 2.91%            | 10             |

---

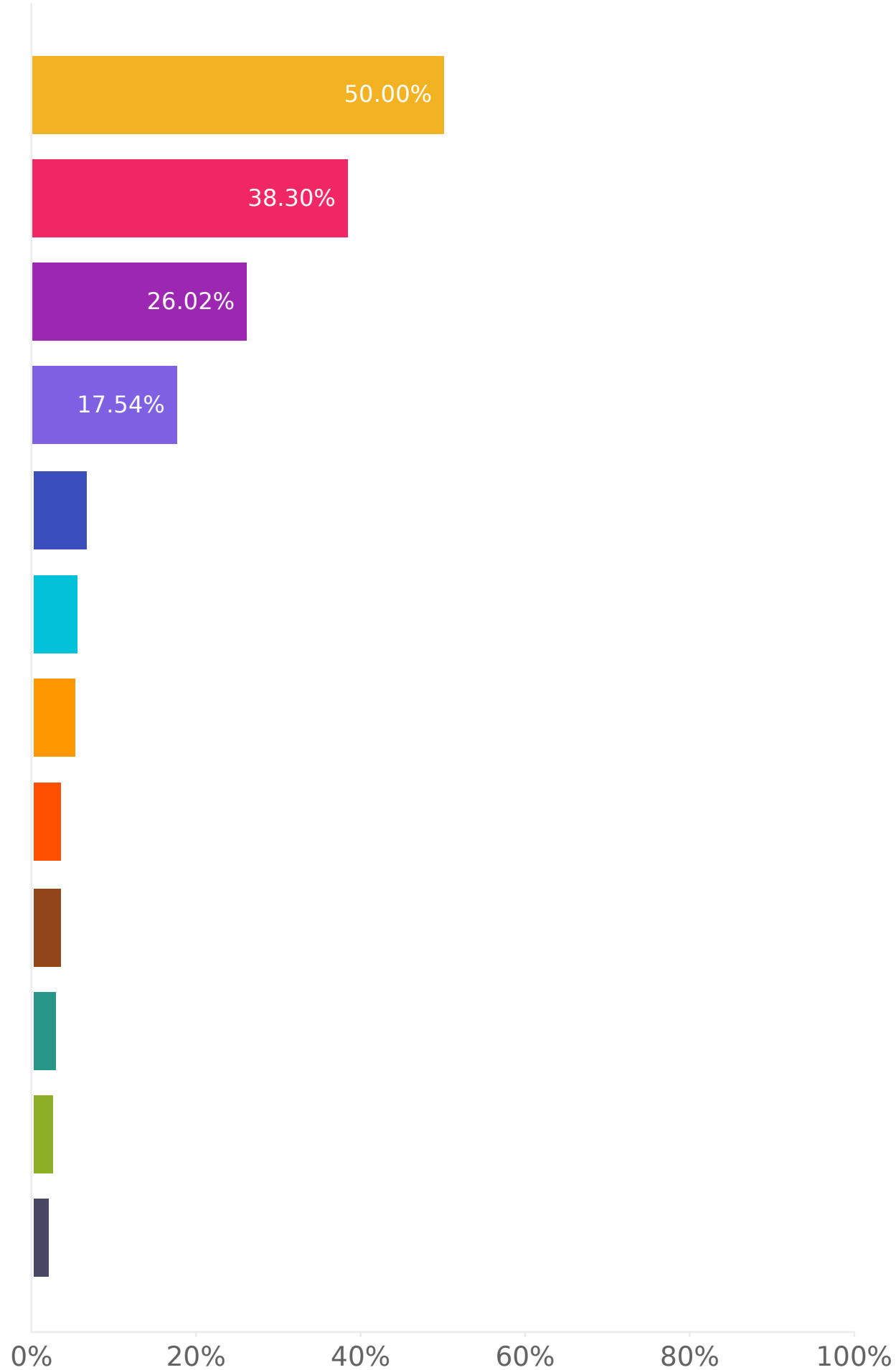


## Hardware

Q27

What hardware vendors do you use for the nodes?

Answered: 342 Skipped: 63



- |  |   |   |
|--|---|---|
|  Supermicro                     |  Lenovo  |  Cisco                   |
|  Dell                           |  IBM     |  Prefer not to say       |
|  HPE                            |  Huawei  |  QCT                     |
|  Other specify (Please specify) |  Fujitsu |  Raspberry Pi Foundation |

| Choices                 | Response percent | Response count |
|-------------------------|------------------|----------------|
| IBM                     | 5.26%            | 18             |
| Lenovo                  | 6.43%            | 22             |
| Dell                    | 38.30%           | 131            |
| HPE                     | 26.02%           | 89             |
| Supermicro              | 50.00%           | 171            |
| QCT                     | 2.34%            | 8              |
| Cisco                   | 3.22%            | 11             |
| Fujitsu                 | 3.22%            | 11             |
| Huawei                  | 4.97%            | 17             |
| Raspberry Pi Foundation | 1.75%            | 6              |
| Prefer not to say       | 2.63%            | 9              |
| Other (Please specify)  | 17.54%           | 60             |

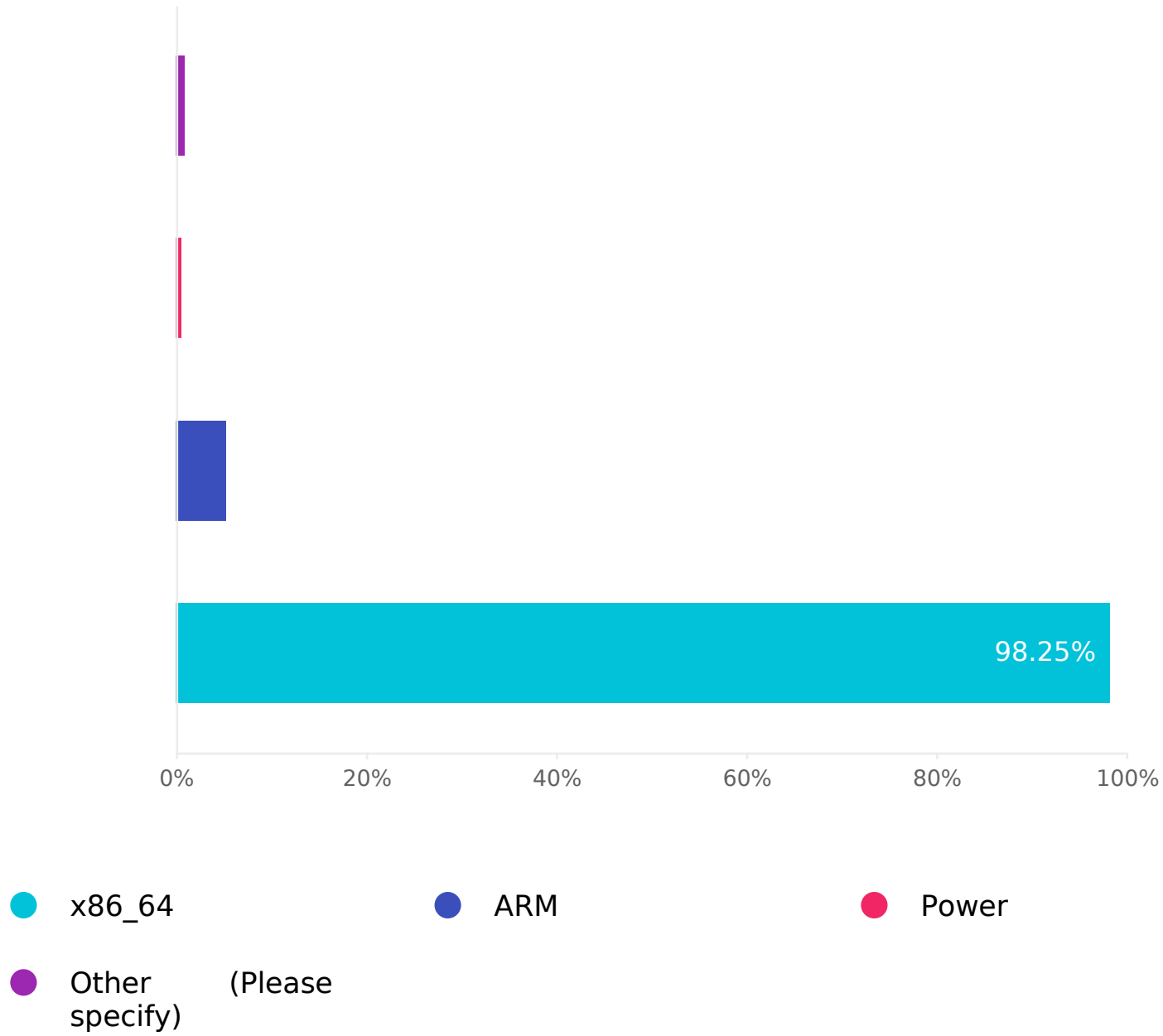
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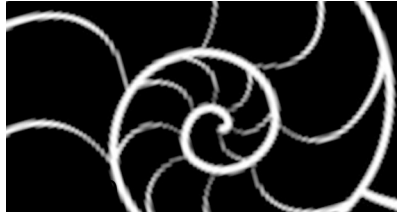


### What processor architecture do you use?

Answered: 342 Skipped: 63

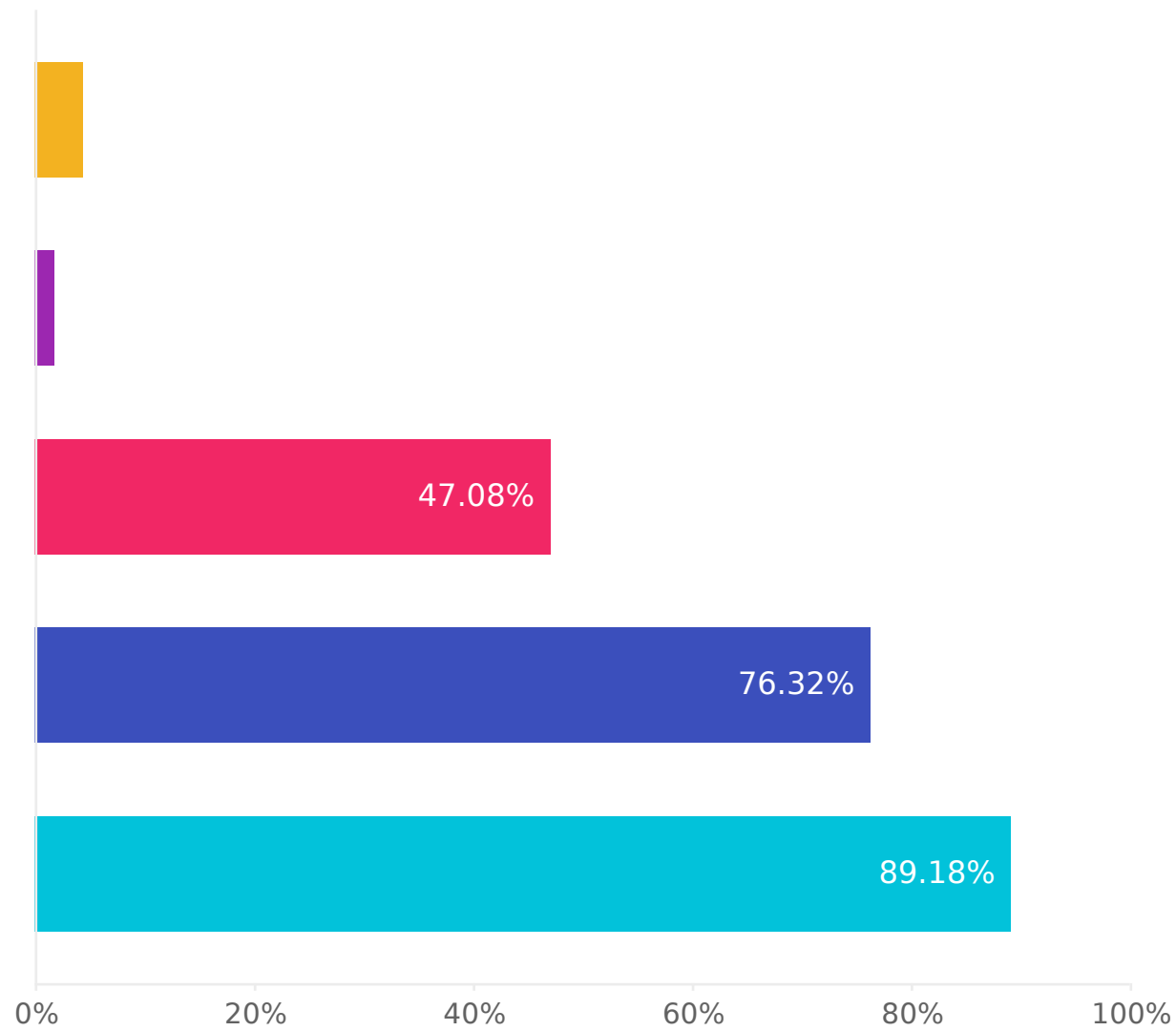


| Choices                | Response percent | Response count |
|------------------------|------------------|----------------|
| x86_64                 | 98.25%           | 336            |
| ARM                    | 5.26%            | 18             |
| Power                  | 0.58%            | 2              |
| Other (Please specify) | 0.88%            | 3              |



### Which type of storage devices are used?

Answered: 342 Skipped: 63



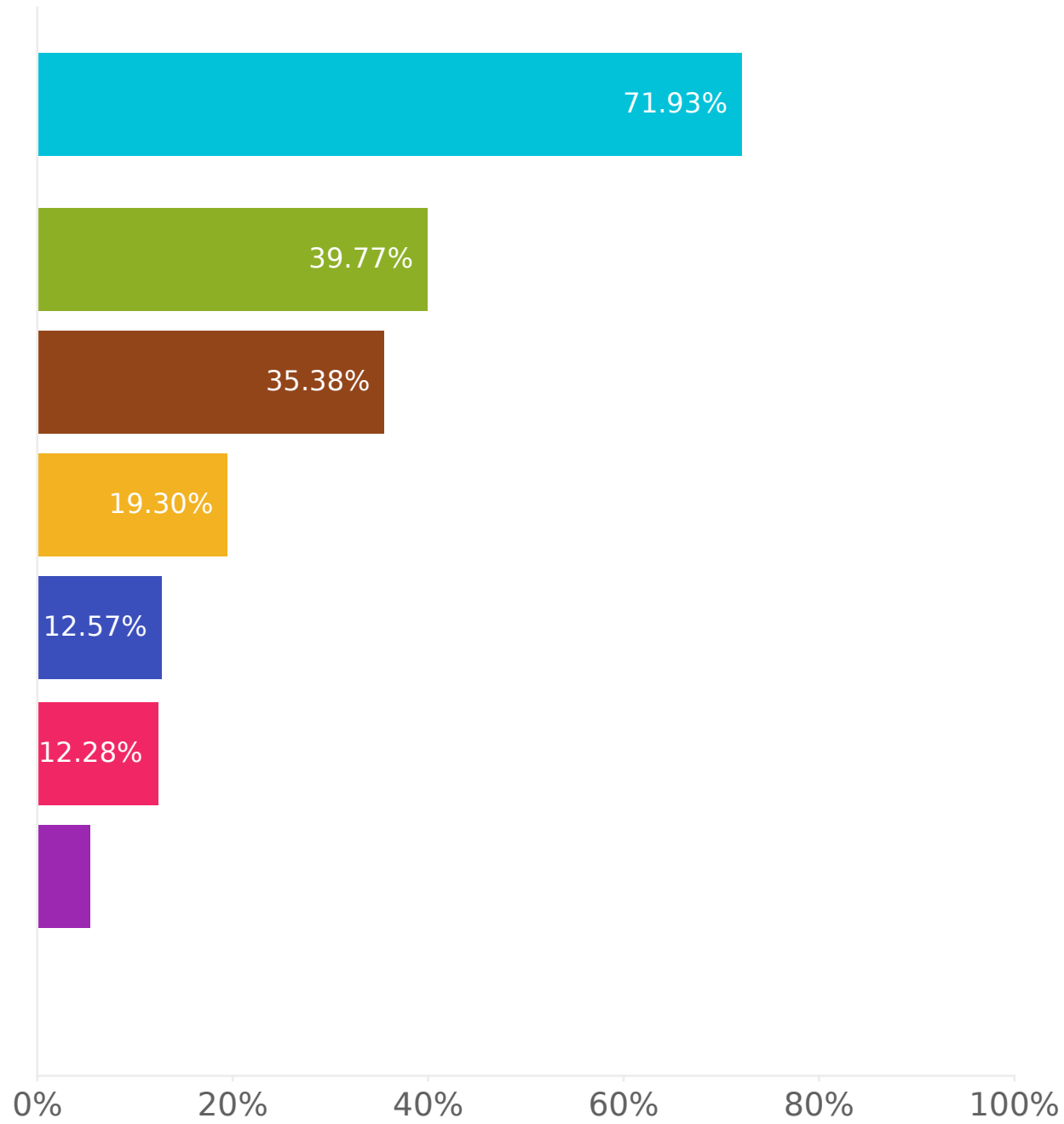
- HDD (SATA, SAS)
- SSD (SATA, SAS)
- NVMe
- MicroSD card
- Optane

| Choices         | Response percent | Response count |
|-----------------|------------------|----------------|
| HDD (SATA, SAS) | 89.18%           | 305            |
| SSD (SATA, SAS) | 76.32%           | 261            |
| NVMe            | 47.08%           | 161            |
| MicroSD card    | 1.75%            | 6              |
| Optane          | 4.39%            | 15             |



### Which OSD layout features do you use?

Answered: 342 Skipped: 63



- LVM (ceph-volume)
- Separation between RocksDB/WAL and Data device
- All-in-one OSD
- Separate journal device (FileStore)
- Partitions
- Encryption
- lvm/dm-cache/bcache/iCAS



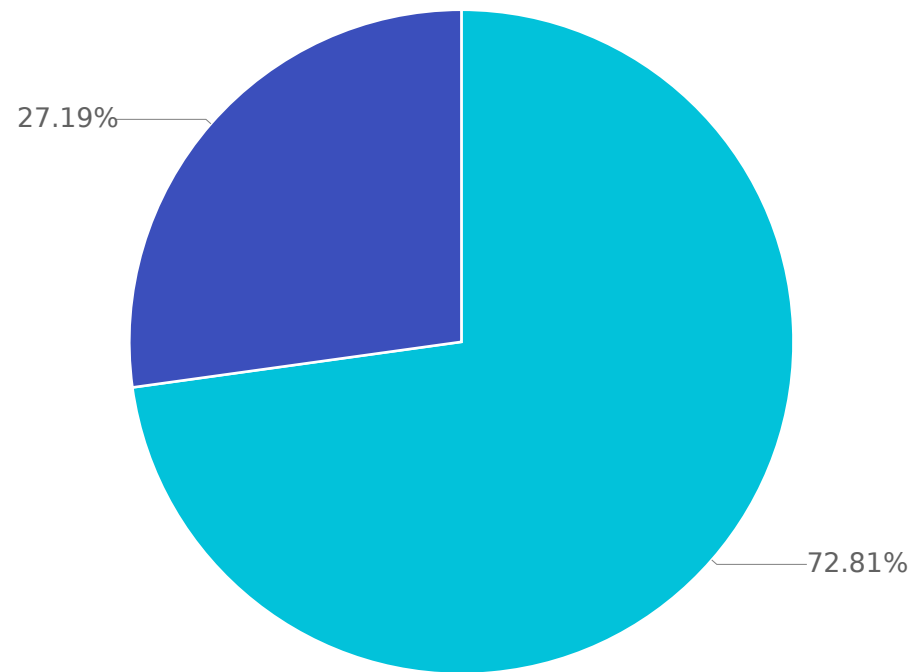
| Choices  | Response percent | Response count |
|--|------------------|----------------|
| LVM (ceph-volume)                              | 71.93%           | 246            |
| Partitions                                     | 12.57%           | 43             |
| Encryption                                     | 12.28%           | 42             |
| lvm/dm-cache/bcache/iCAS                       | 5.26%            | 18             |
| Separate journal device (FileStore)            | 19.30%           | 66             |
| Separation between RocksDB/WAL and Data device | 39.77%           | 136            |
| All-in-one OSD                                 | 35.38%           | 121            |

---



### Do you use a dedicated network for the OSDs

Answered: 342 Skipped: 63



● Yes      ● No

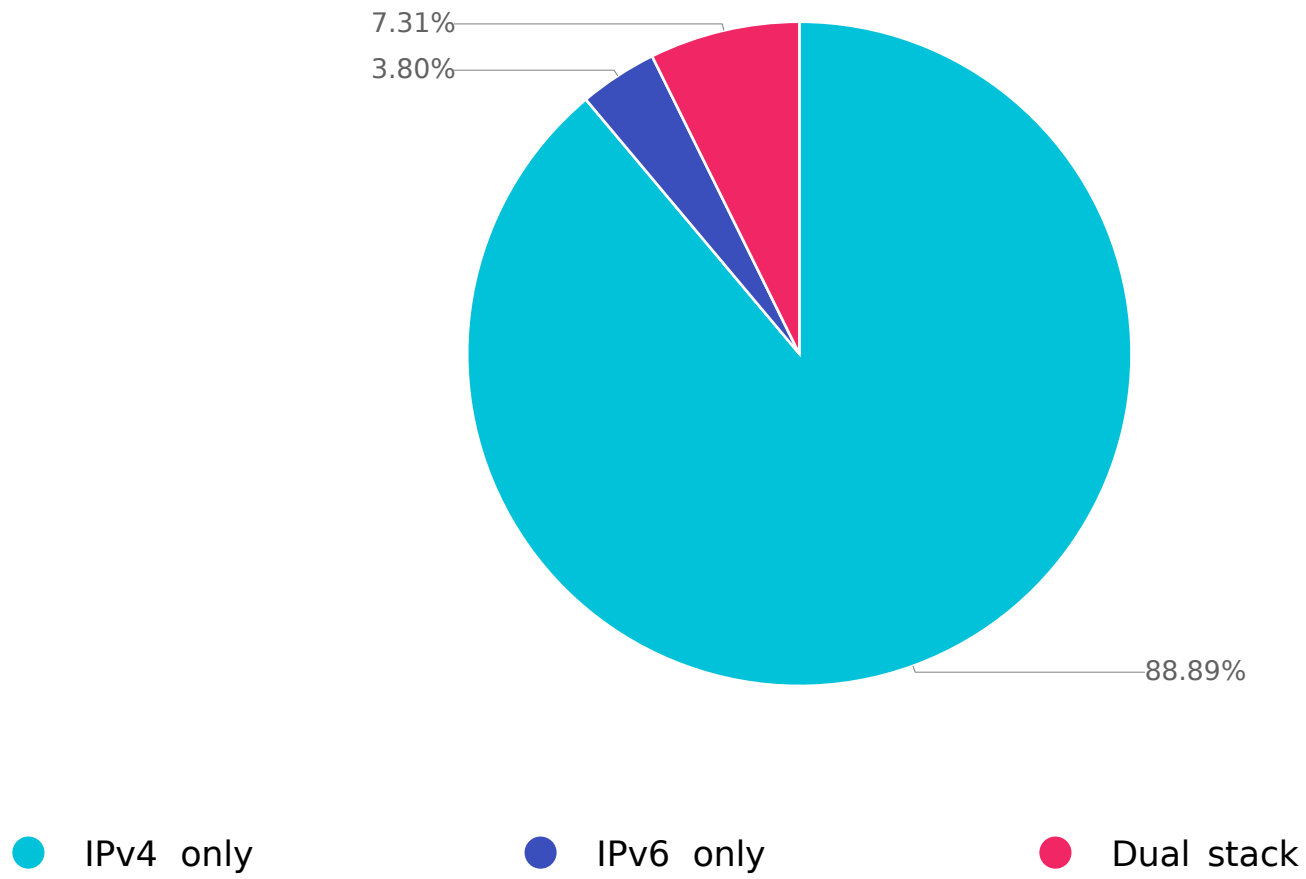
| Choices | Response percent | Response count |
|---------|------------------|----------------|
| Yes     | 72.81%           | 249            |
| No      | 27.19%           | 93             |

---



### IP protocol usage

Answered: 342 Skipped: 63



| Choices    | Response percent | Response count |
|------------|------------------|----------------|
| IPv4 only  | 88.89%           | 304            |
| IPv6 only  | 3.80%            | 13             |
| Dual stack | 7.31%            | 25             |

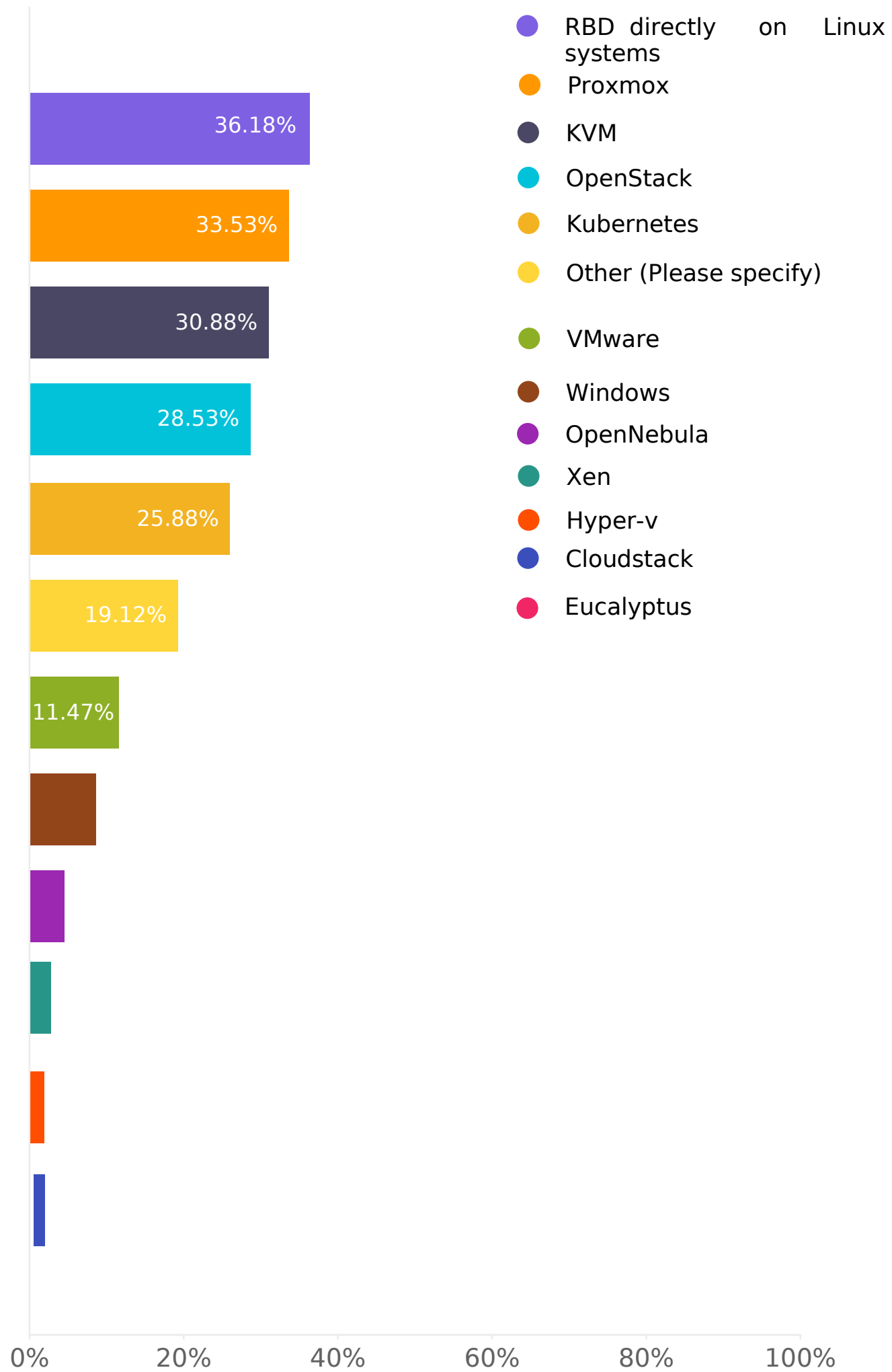
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Q33

## Platforms and Interface Questions

What platforms do you use Ceph with?

Answered: 340 Skipped: 65





Q33

What platforms do you use Ceph with?

Other (Please specify)

- Docker
- NFS-ganesha
- Samba
- S3
- CephFS in HPC cluster
- S3 backup
- Ceph FS w/ LXC bind mount shares





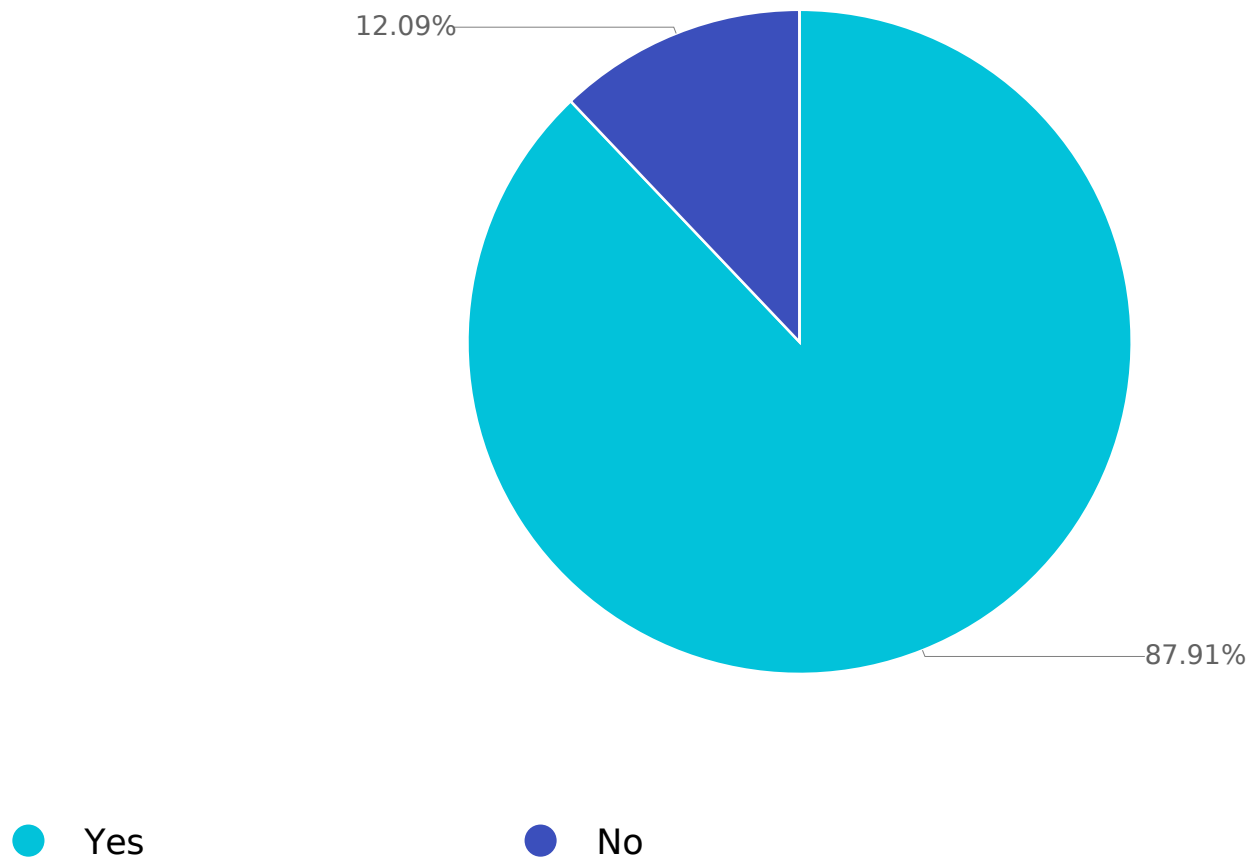
| Choices                       | Response percent | Response count |
|-------------------------------|------------------|----------------|
| OpenStack                     | 28.53%           | 97             |
| Cloudstack                    | 1.47%            | 5              |
| Eucalyptus                    | 0.00%            | 0              |
| OpenNebula                    | 4.41%            | 15             |
| Kubernetes                    | 25.88%           | 88             |
| VMware                        | 11.47%           | 39             |
| Windows                       | 8.53%            | 29             |
| Hyper-v                       | 1.76%            | 6              |
| Proxmox                       | 33.53%           | 114            |
| KVM                           | 30.88%           | 105            |
| Xen                           | 2.65%            | 9              |
| RBD directly on Linux systems | 36.18%           | 123            |
| Other (Please specify)        | 19.12%           | 65             |

---



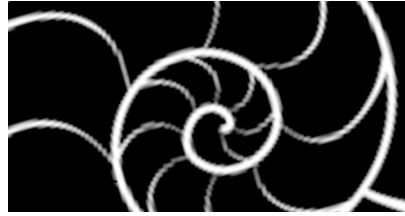
Do you use the Rados Block Device (RBD) interface in your Ceph cluster?

Answered: 339 Skipped: 66



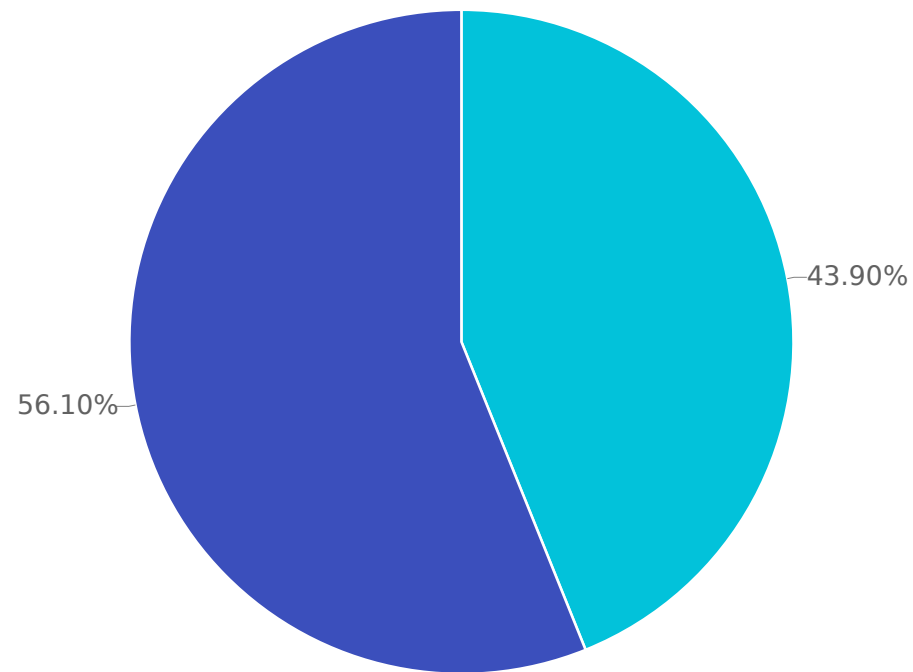
| Choices | Response percent | Response count |
|---------|------------------|----------------|
| Yes     | 87.91%           | 298            |
| No      | 12.09%           | 41             |

---



Do you use the Rados Gateway (RGW) interface in your Ceph cluster?

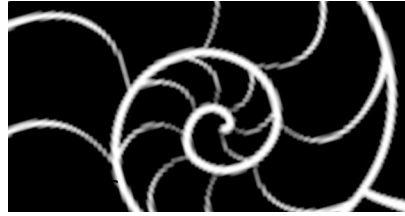
Answered: 41 Skipped: 364



● Yes      ● No

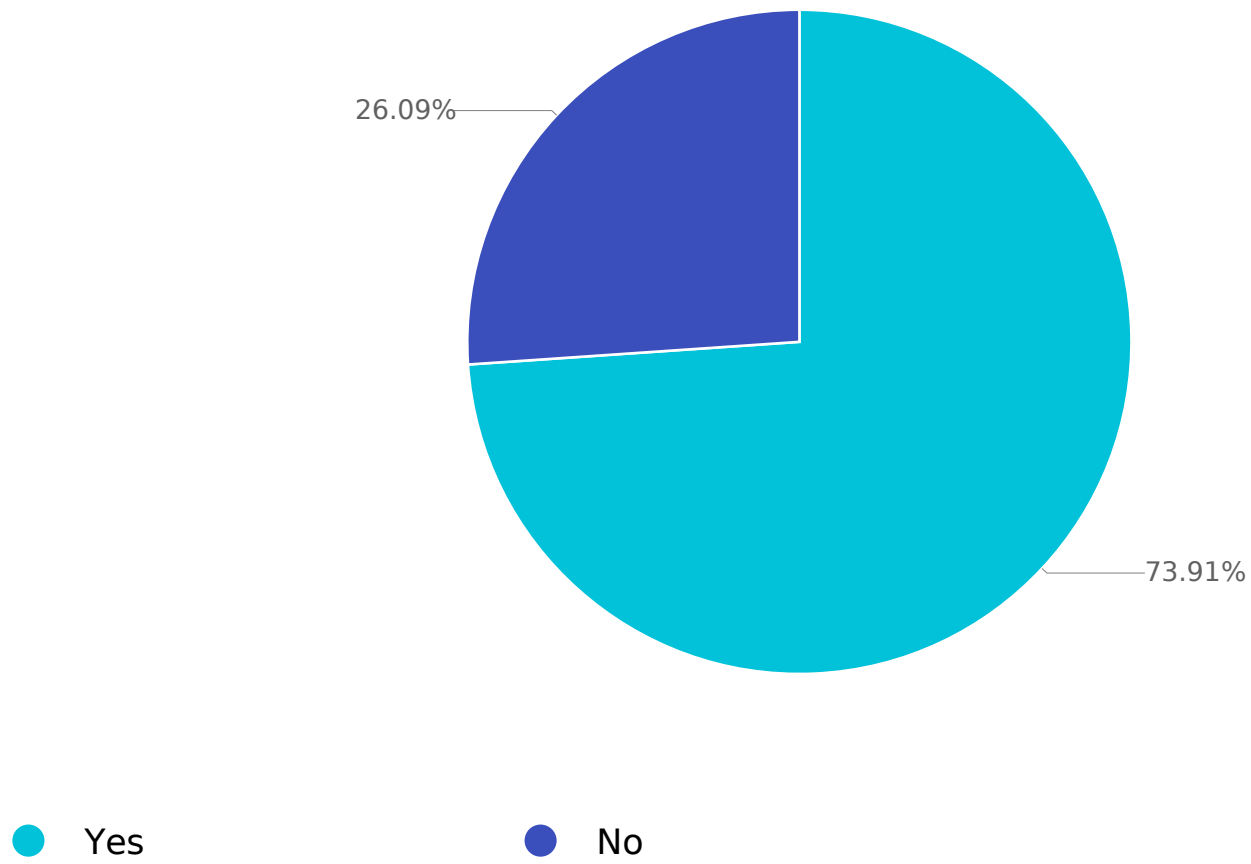
| Choices | Response percent | Response count |
|---------|------------------|----------------|
| Yes     | 43.90%           | 18             |
| No      | 56.10%           | 23             |

---



Do you use the Ceph Filesystem interface in your Ceph cluster?

Answered: 23 Skipped: 382



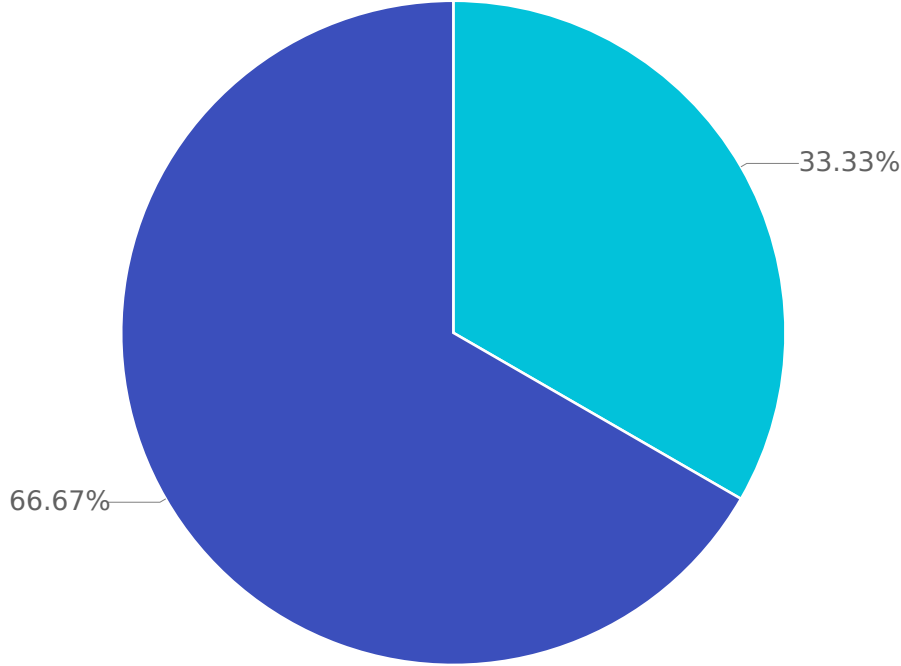
| Choices | Response percent | Response count |
|---------|------------------|----------------|
| Yes     | 73.91%           | 17             |
| No      | 26.09%           | 6              |

---



Do you use the Ceph Dashboard?

Answered: 6 Skipped: 399



● Yes      ● No

| Choices | Response percent | Response count |
|---------|------------------|----------------|
| Yes     | 33.33%           | 2              |
| No      | 66.67%           | 4              |

---

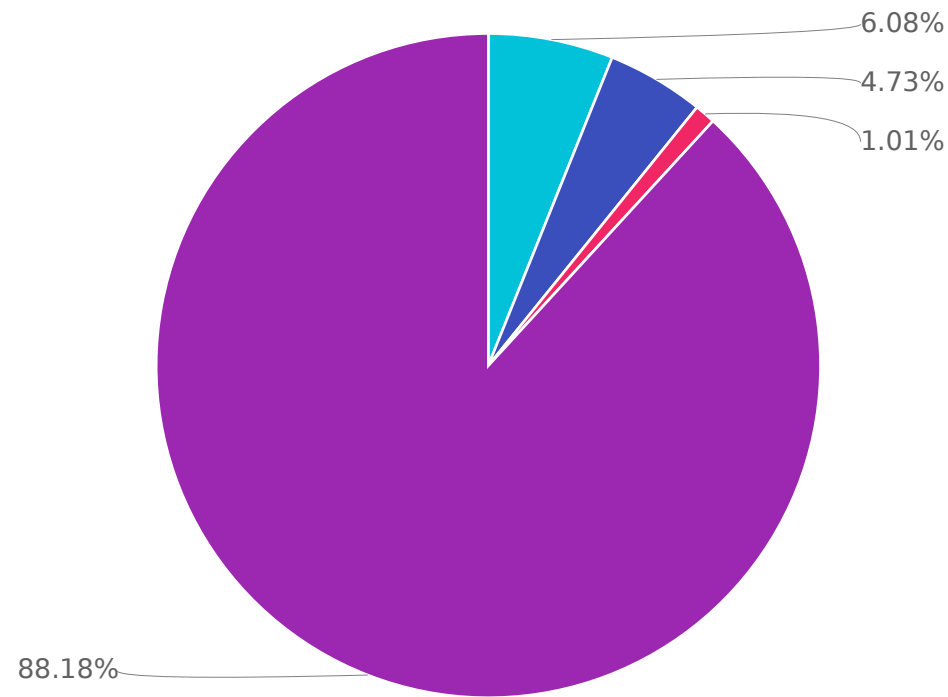


## RADOS Block Device (RBD)

Q38

### Environment status

Answered: 296 Skipped: 109



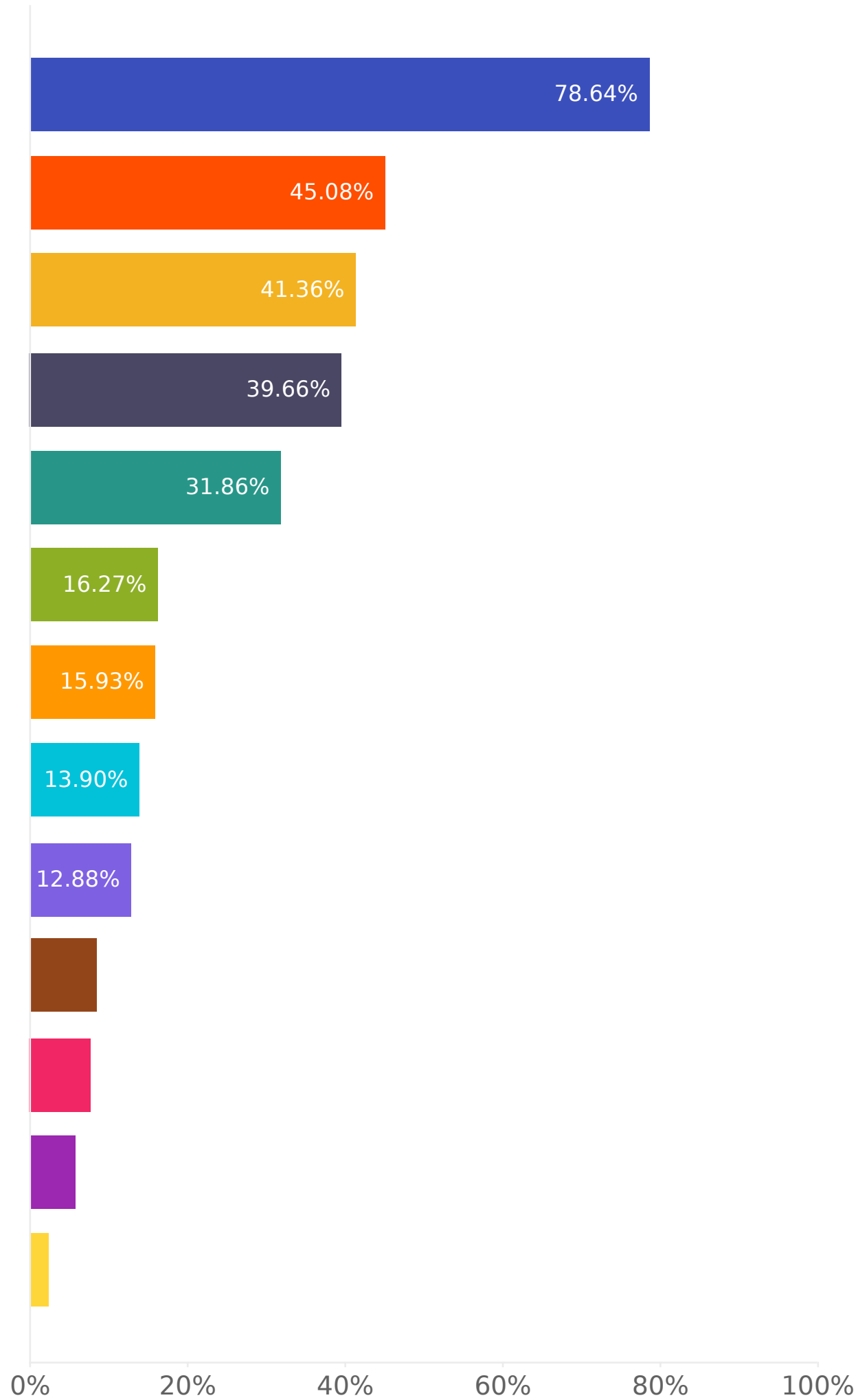
- Test/POC
- Development
- Staging
- Production

| Choices     | Response percent | Response count |
|-------------|------------------|----------------|
| Test/POC    | 6.08%            | 18             |
| Development | 4.73%            | 14             |
| Staging     | 1.01%            | 3              |
| Production  | 88.18%           | 261            |

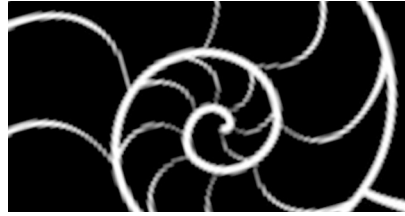


### What are the use cases?

Answered: 295 Skipped: 110



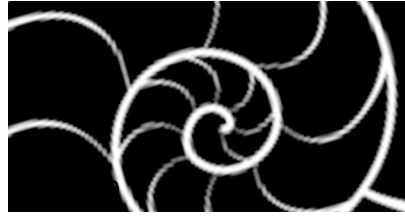
- Virtualization
- Backups
- Cloud
- Containers
- Archive Storage
- Home directories
- Big data and analytics
- HPC
- Logs
- Build
- Scratch
- CDN
- Internet of things



| Choices                | Response percent | Response count |
|------------------------|------------------|----------------|
| Virtualization         | 78.64%           | 232            |
| Backups                | 45.08%           | 133            |
| Cloud                  | 41.36%           | 122            |
| Containers             | 39.66%           | 117            |
| Archive Storage        | 31.86%           | 94             |
| Home directories       | 16.27%           | 48             |
| Big data and analytics | 15.93%           | 47             |
| HPC                    | 13.90%           | 41             |
| Logs                   | 12.88%           | 38             |
| Build                  | 8.47%            | 25             |
| Scratch                | 7.80%            | 23             |
| CDN                    | 5.76%            | 17             |
| Internet of things     | 2.37%            | 7              |

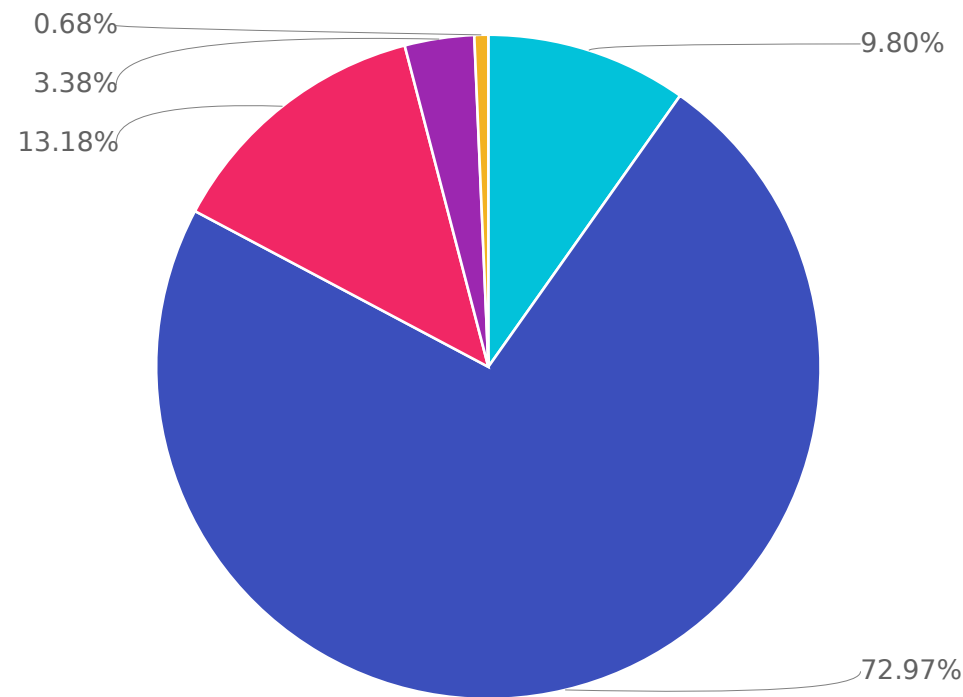
---





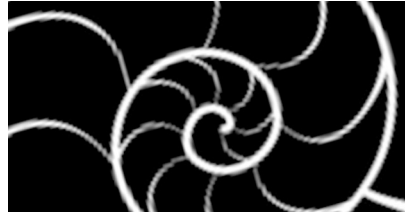
### Are you using RBD asynchronous mirroring for Disaster Recovery / Multi-site?

Answered: 296 Skipped: 109



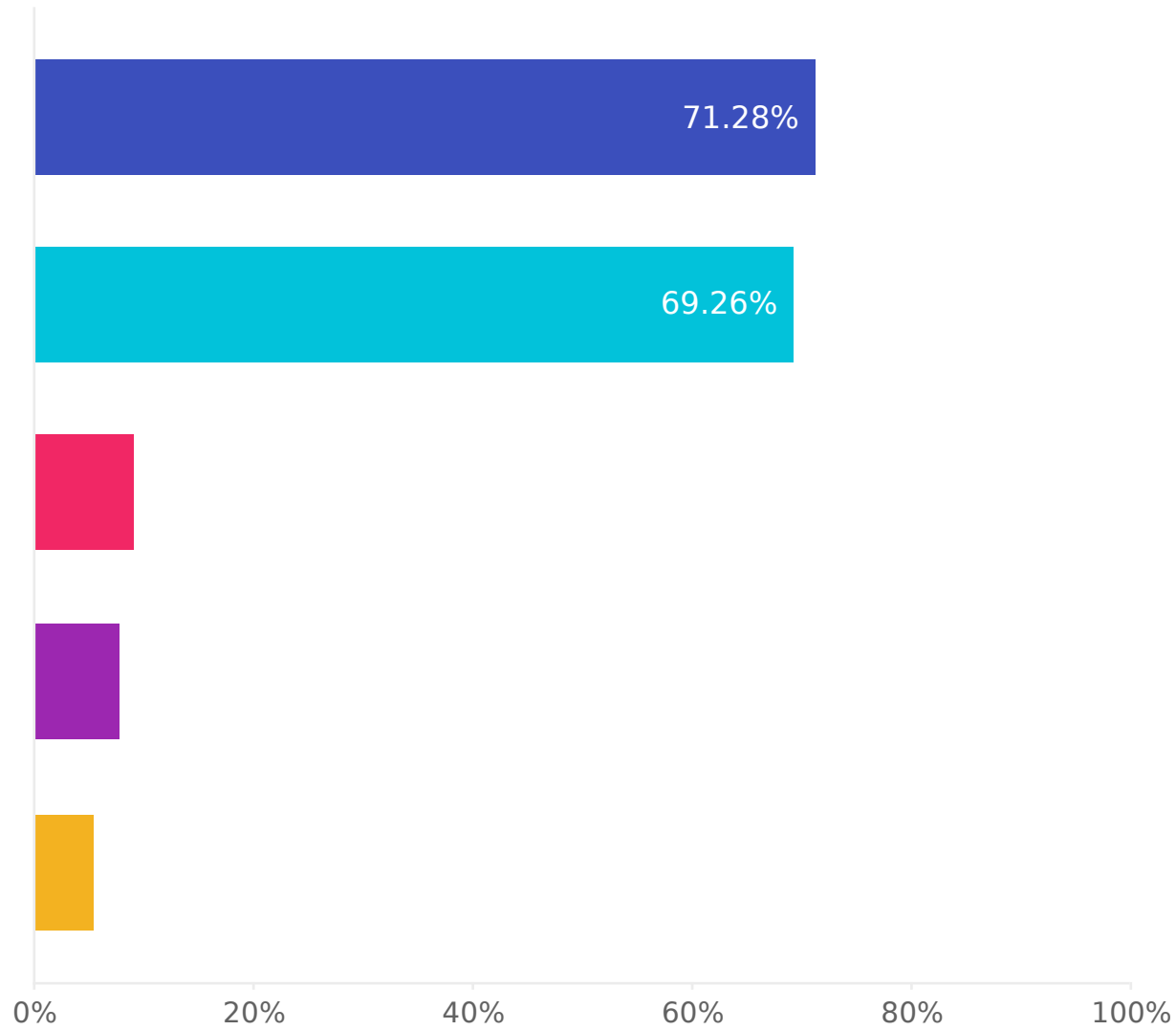
- Yes
- No
- Not needed
- Incompatible with my performance requirements
- Not compatible with My RBD feature requirements

| Choices   | Response percent | Response count |
|---|------------------|----------------|
| No  | 72.97%           | 216            |
| Not needed                                      | 13.18%           | 39             |
| Yes   | 9.80%            | 29             |
| Incompatible with my performance requirements   | 3.38%            | 10             |
| Not compatible with my RBD feature requirements | 0.68%            | 2              |



### Clients accessing Ceph's block storage

Answered: 296 Skipped: 109



- Linuxkernel RBD
- librbd
- iSCSI (tcmu-runner)
- iSCSI (LIO with /dev/rbd)
- Other (Please specify)

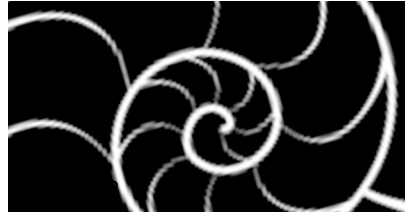
| Choices                   | Response percent | Response count |
|---------------------------|------------------|----------------|
| librbd                    | 69.26%           | 205            |
| Linuxkernel RBD           | 71.28%           | 211            |
| iSCSI (tcmu-runner)       | 9.12%            | 27             |
| iSCSI (LIO with /dev/rbd) | 7.77%            | 23             |
| Other (Please specify)    | 5.41%            | 16             |



## Clients accessing Ceph's block storage

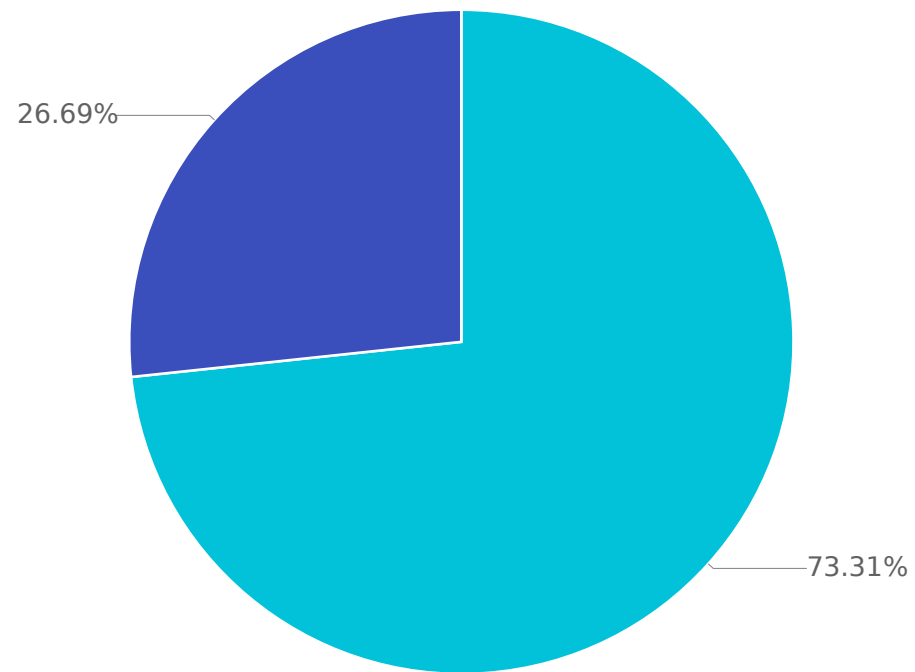
Other (Please specify)

- NFS
- Petasan
- QEMU
- ISCSI w/ LIO



### Do you use snapshots?

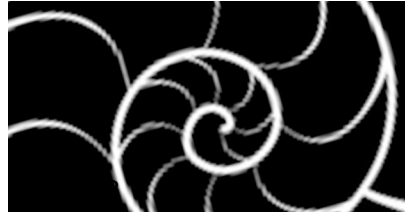
Answered: 296 Skipped: 109



- Yes
- No (Please specify why not)

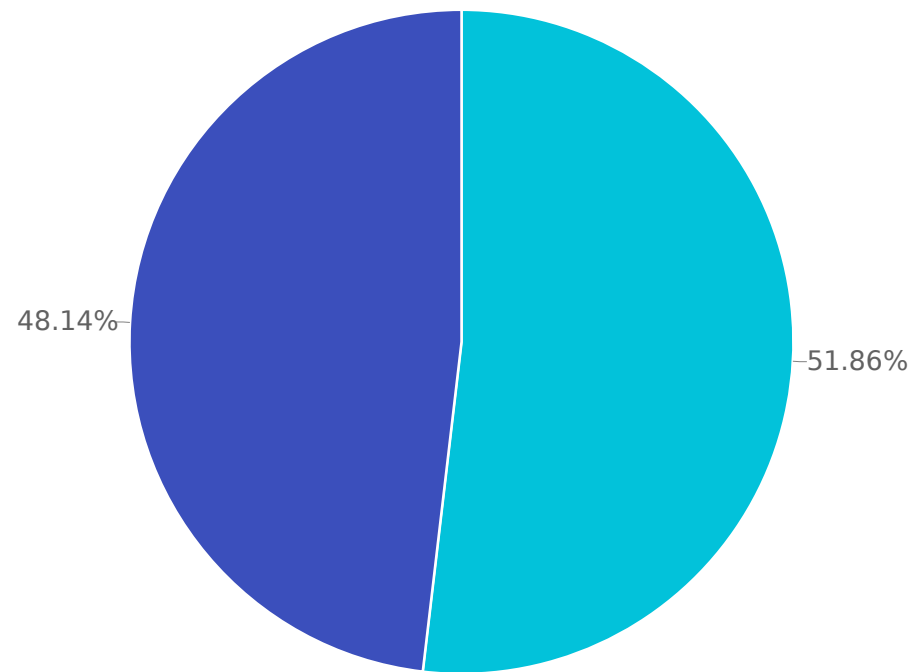
| Choices                     | Response percent | Response count |
|-----------------------------|------------------|----------------|
| Yes                         | 73.31%           | 217            |
| No (Please specify why not) | 26.69%           | 79             |

---



Do you use the Rados Gateway (RGW) interface in your Ceph cluster?

Answered: 295 Skipped: 110



● Yes

● No

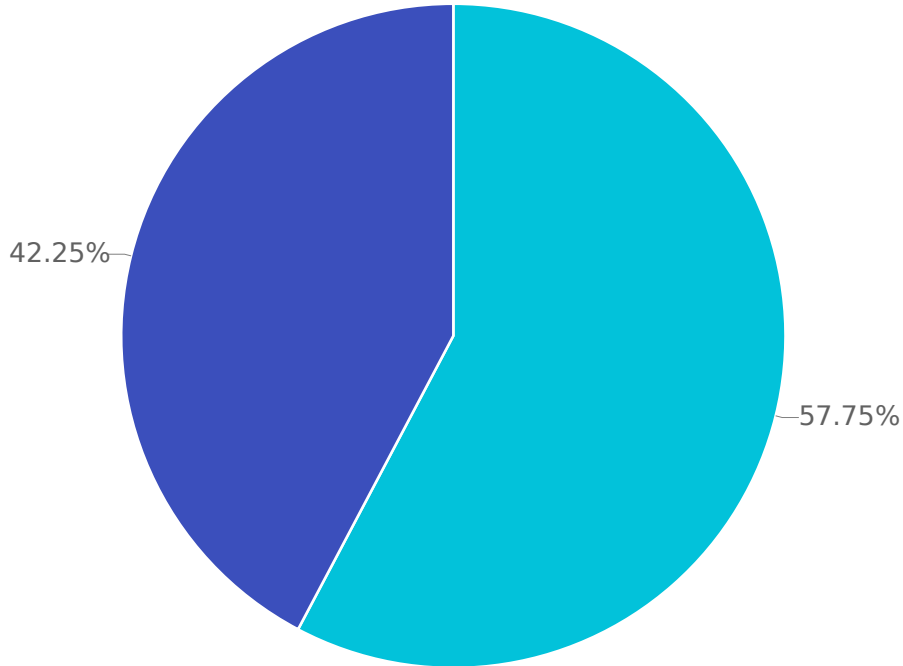
| Choices | Response percent | Response count |
|---------|------------------|----------------|
| Yes     | 51.86%           | 153            |
| No      | 48.14%           | 142            |

---



Do you use the Ceph Filesystem interface in your Ceph cluster?

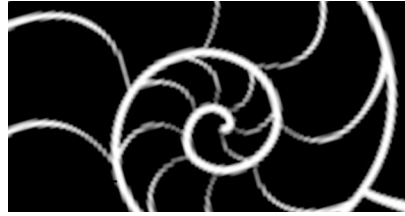
Answered: 142 Skipped: 263



● Yes      ● No

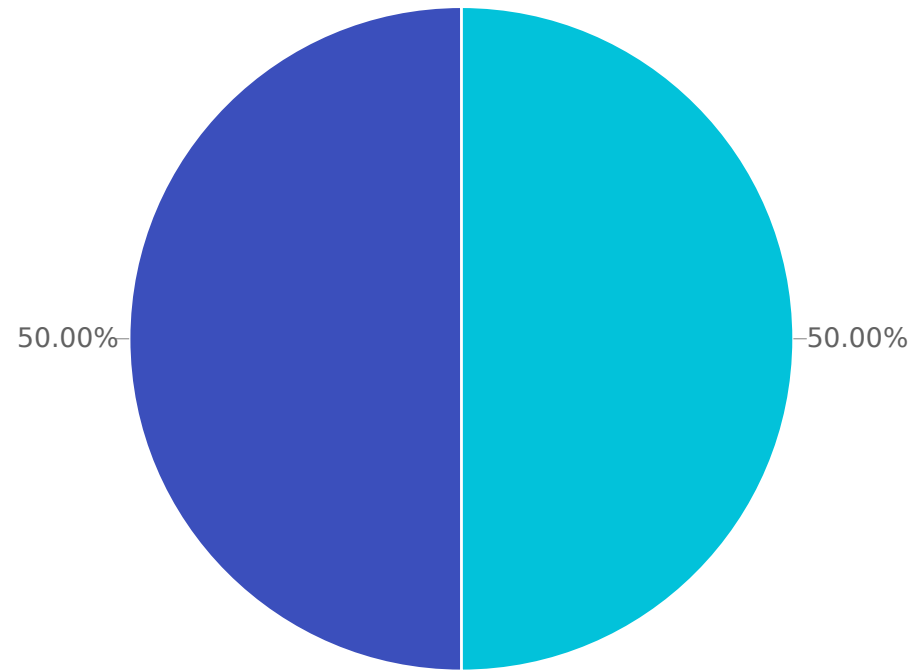
| Choices | Response percent | Response count |
|---------|------------------|----------------|
| Yes     | 57.75%           | 82             |
| No      | 42.25%           | 60             |

---



### Do you use the Ceph Dashboard?

Answered: 60 Skipped: 345



● Yes

● No

| Choices | Response percent | Response count |
|---------|------------------|----------------|
| Yes     | 50.00%           | 30             |
| No      | 50.00%           | 30             |

---

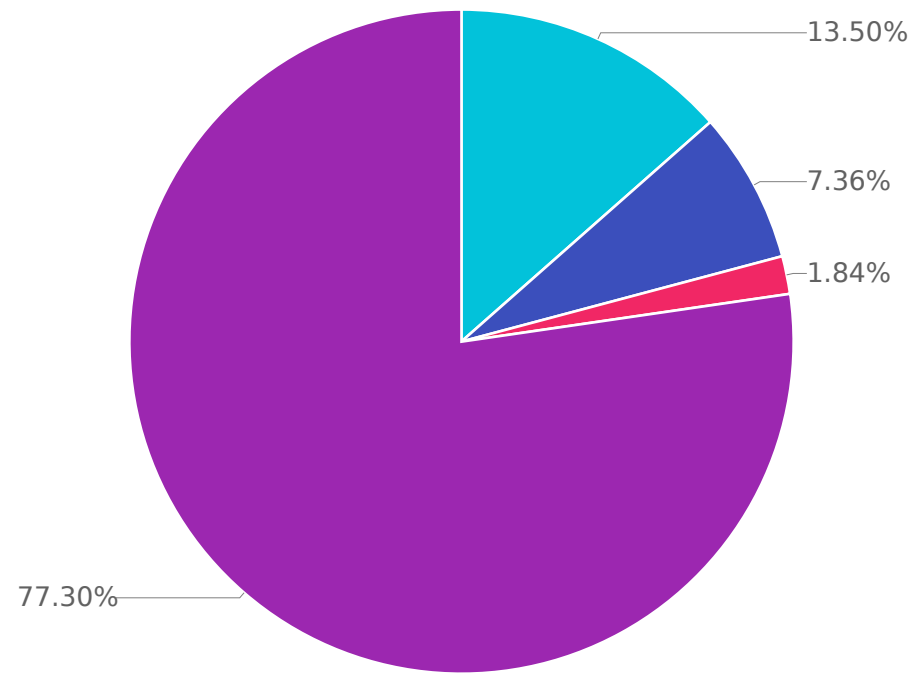


## Rados Gateway (RGW)

Q46

### Environment status

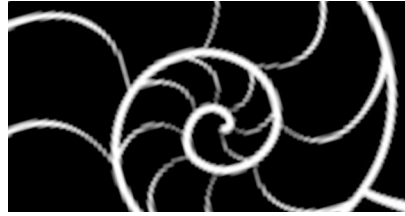
Answered: 163 Skipped: 242



- Test/POC
- Development
- Staging
- Production

| Choices     | Response percent | Response count |
|-------------|------------------|----------------|
| Test/POC    | 13.50%           | 22             |
| Development | 7.36%            | 12             |
| Staging     | 1.84%            | 3              |
| Production  | 77.30%           | 126            |

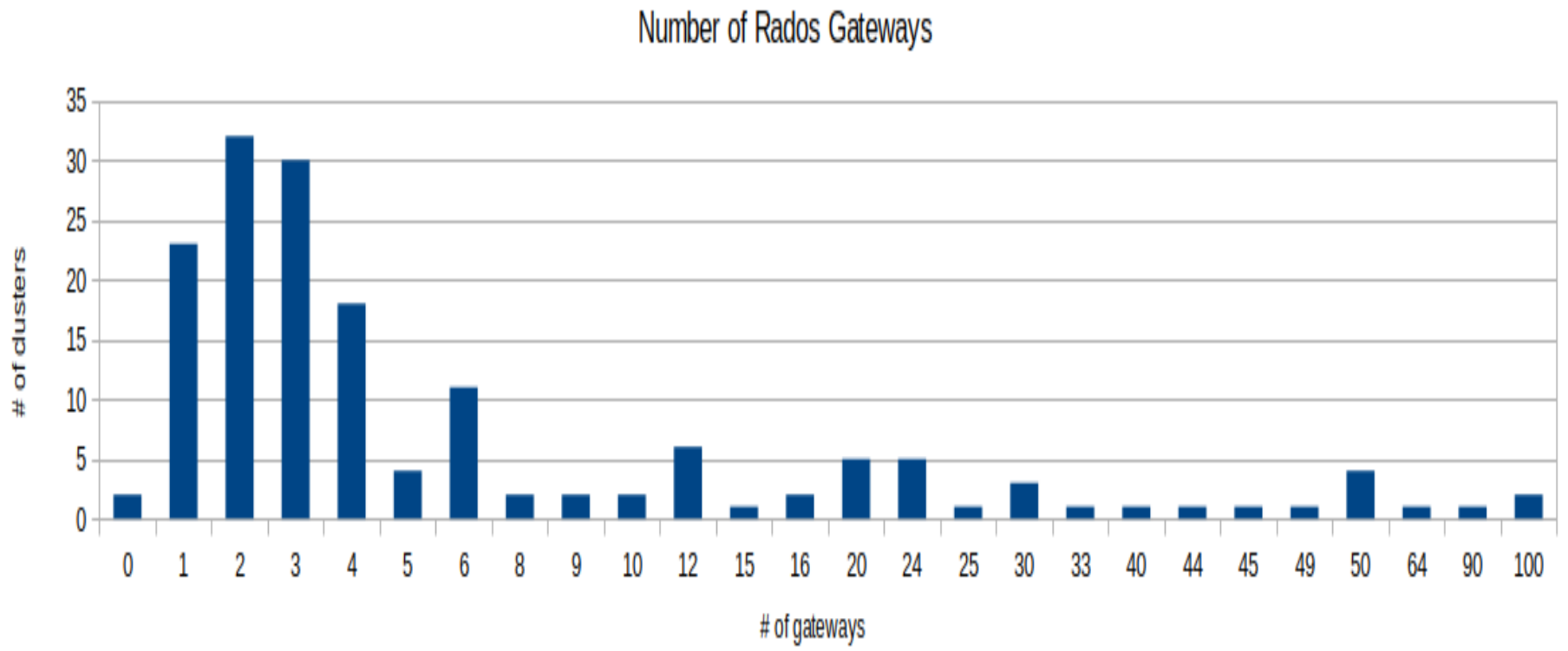




Q47

### Number of Rados Gateways

Answered: 162 Skipped: 243

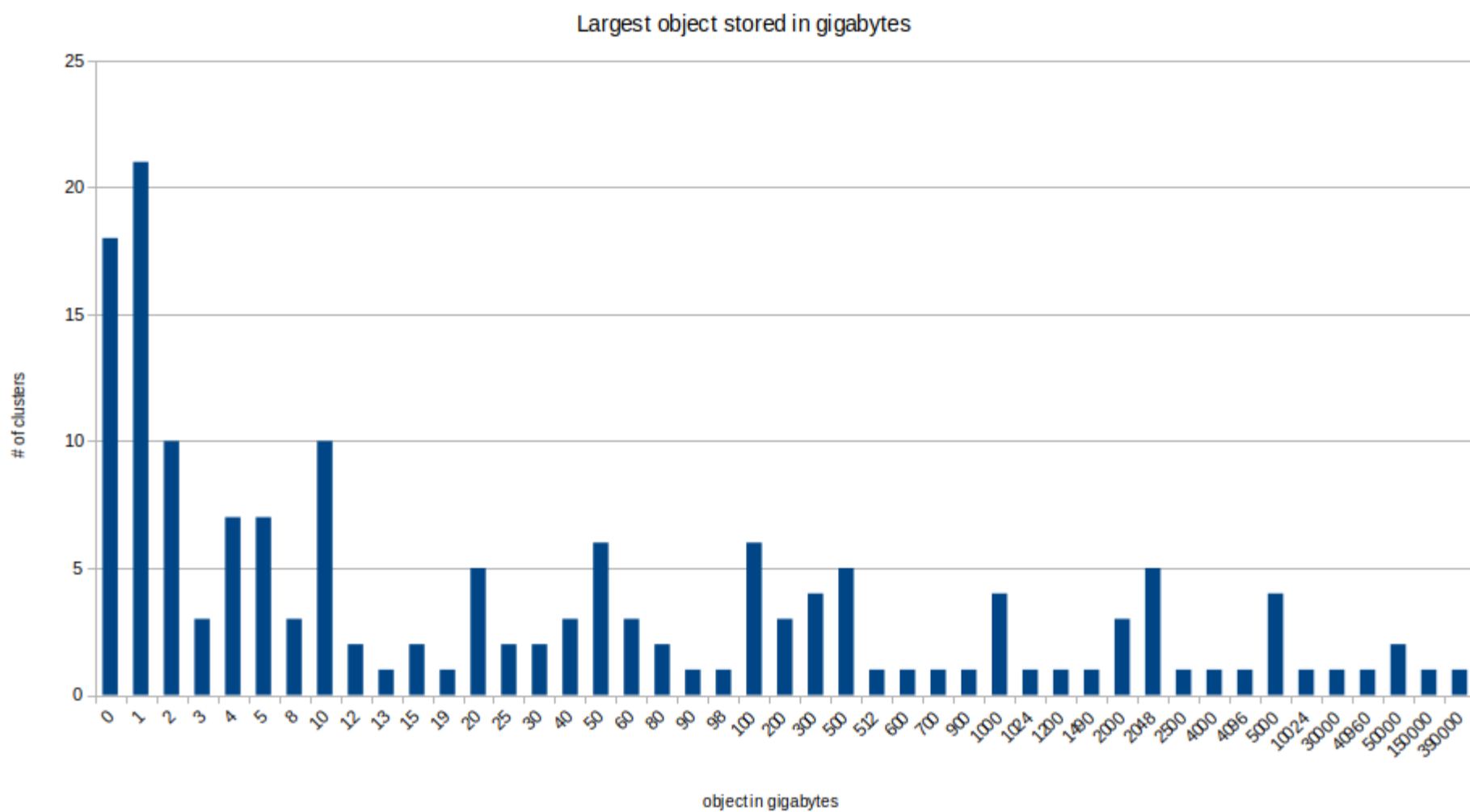


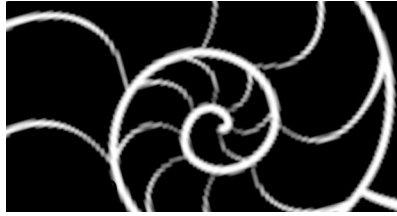


Q48

### The largest object stored in gigabytes

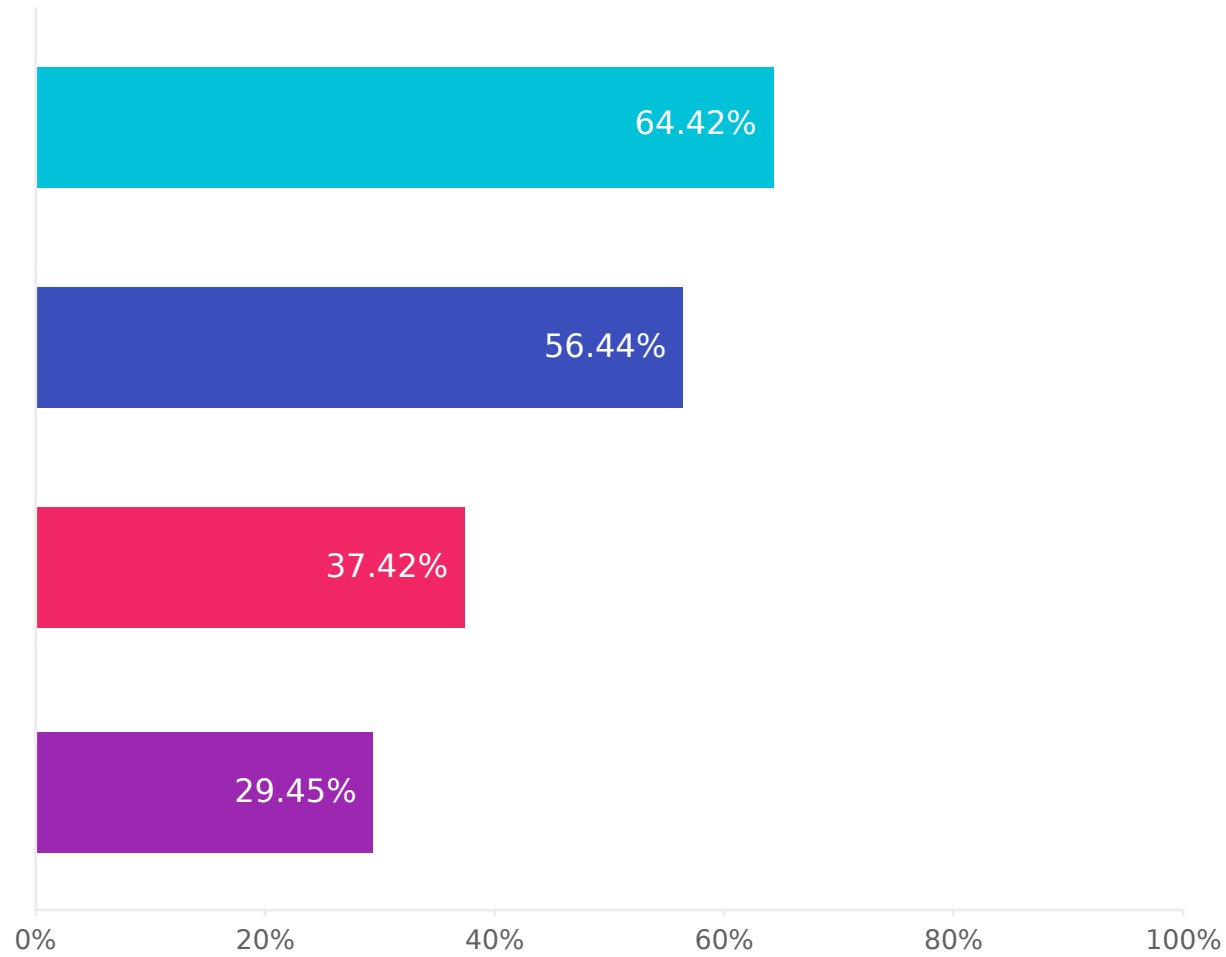
Answered: 162 Skipped: 243





## Workloads

Answered: 163 Skipped: 242



- Archive
- Backup
- Big data and analytics
- Other (Please specify)

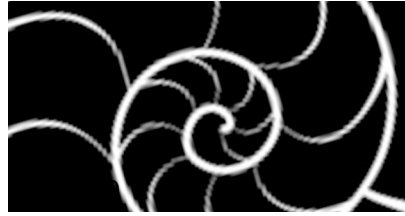
| Choices                | Response percent | Response count |
|------------------------|------------------|----------------|
| Archive                | 64.42%           | 105            |
| Backup                 | 56.44%           | 92             |
| Big data and analytics | 37.42%           | 61             |
| Other (Please specify) | 29.45%           | 48             |



## Workloads

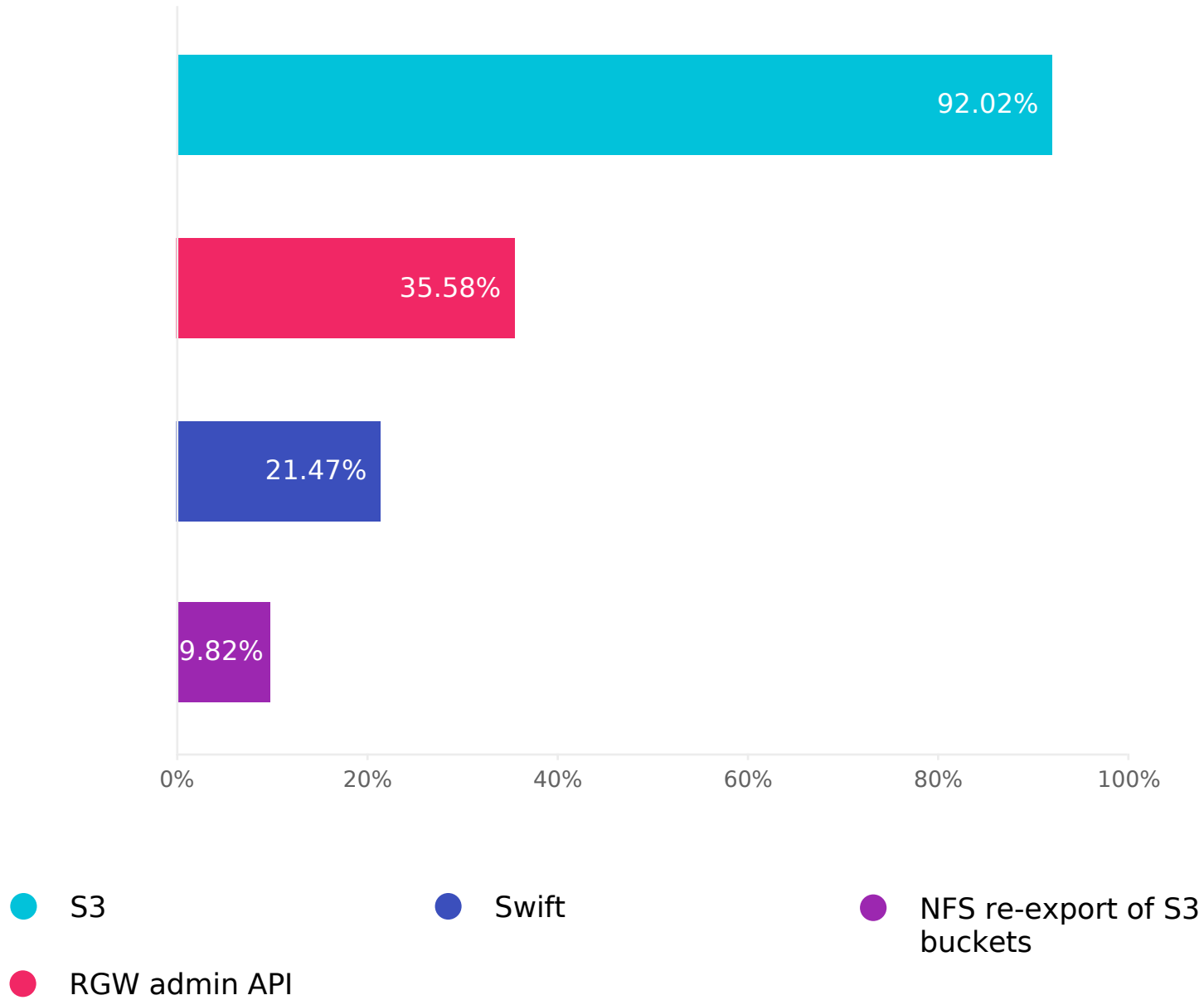
Other (Please specify)

- Satellite data
- Web-hosting
- Devops/web
- Genomics
- Containers
- Cloud
- S3 storage
- CDN for media stream

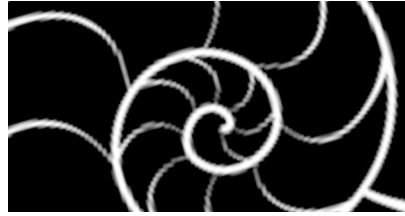


### RGW APIs used

Answered: 163 Skipped: 242

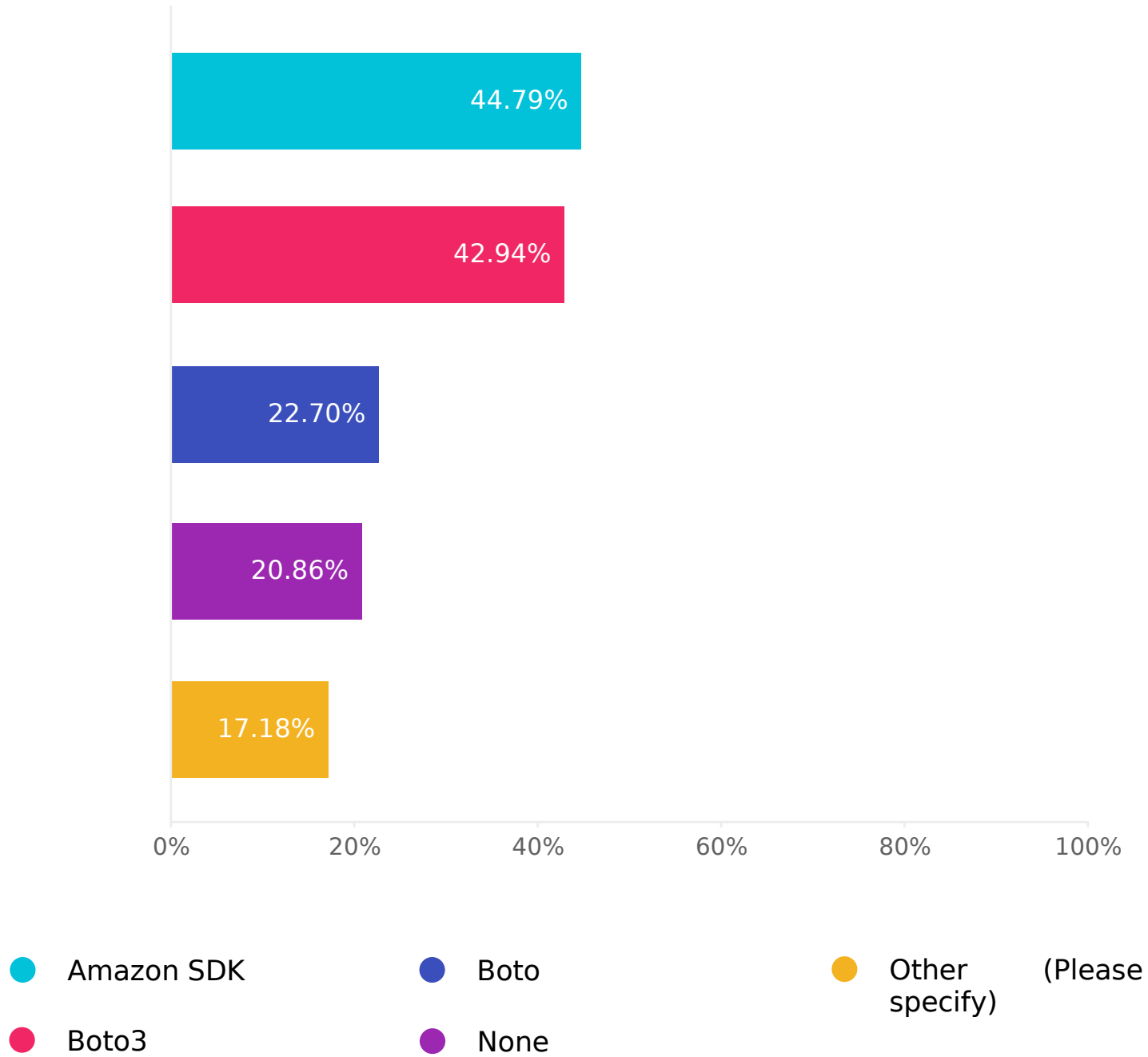


| Choices                     | Response percent | Response count |
|-----------------------------|------------------|----------------|
| S3                          | 92.02%           | 150            |
| RGW admin API               | 35.58%           | 58             |
| Swift                       | 21.47%           | 35             |
| NFS re-export of S3 buckets | 9.82%            | 16             |



### RGW client-side libraries used

Answered: 163 Skipped: 242



| Choices                | Response percent | Response count |
|------------------------|------------------|----------------|
| Amazon SDK             | 44.79%           | 73             |
| Boto3                  | 42.94%           | 70             |
| Boto                   | 22.70%           | 37             |
| None                   | 20.86%           | 34             |
| Other (Please specify) | 17.18%           | 28             |



## RGW client-side libraries used

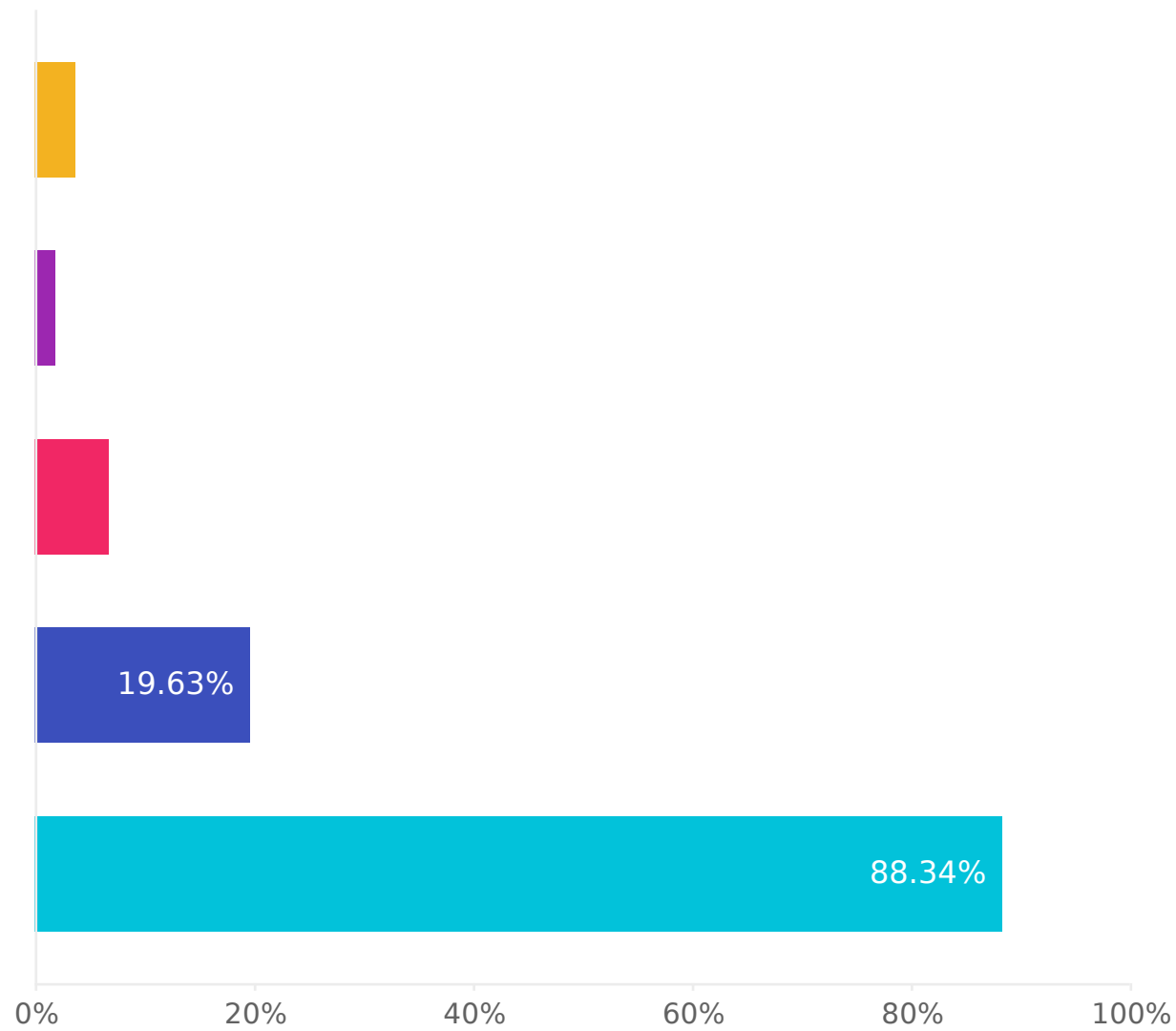
Other (Please specify)

- Globus S3 connector
- Minio-go
- Jets3t
- Cinder
- Cyberduck
- IBM TSM
- S3cmd



## RGW authentication mechanism

Answered: 163 Skipped: 242



- RGW (built-in)
- Keystone
- LDAP
- Other
- Other (Please specify)

| Choices                | Response percent | Response count |
|------------------------|------------------|----------------|
| RGW (built-in)         | 88.34%           | 144            |
| Keystone               | 19.63%           | 32             |
| LDAP                   | 6.75%            | 11             |
| Other                  | 1.84%            | 3              |
| Other (Please specify) | 3.68%            | 6              |





## RGW authentication mechanism

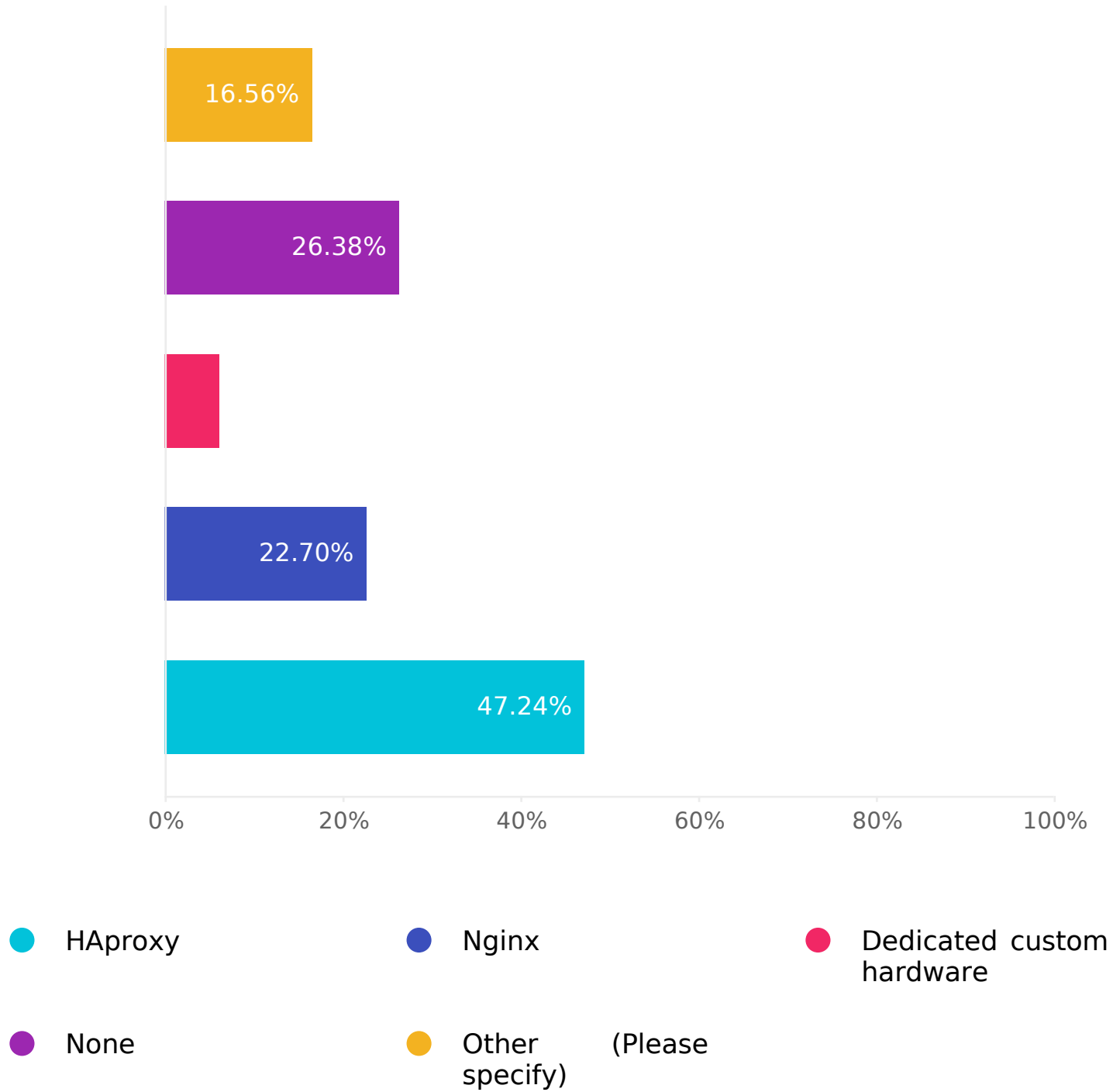
Other (Please specify)

- LDAP isn't great
- Croit
- Benji (similar to Backy2)
- CAS



### RGW external load balancers used

Answered: 163 Skipped: 242



| Choices                   | Response percent | Response count |
|---------------------------|------------------|----------------|
| HAproxy                   | 47.24%           | 77             |
| Nginx                     | 22.70%           | 37             |
| Dedicated custom hardware | 6.13%            | 10             |
| None                      | 26.38%           | 43             |
| Other (Please specify)    | 16.56%           | 27             |



## RGW external load balancers used

Other (Please specify)

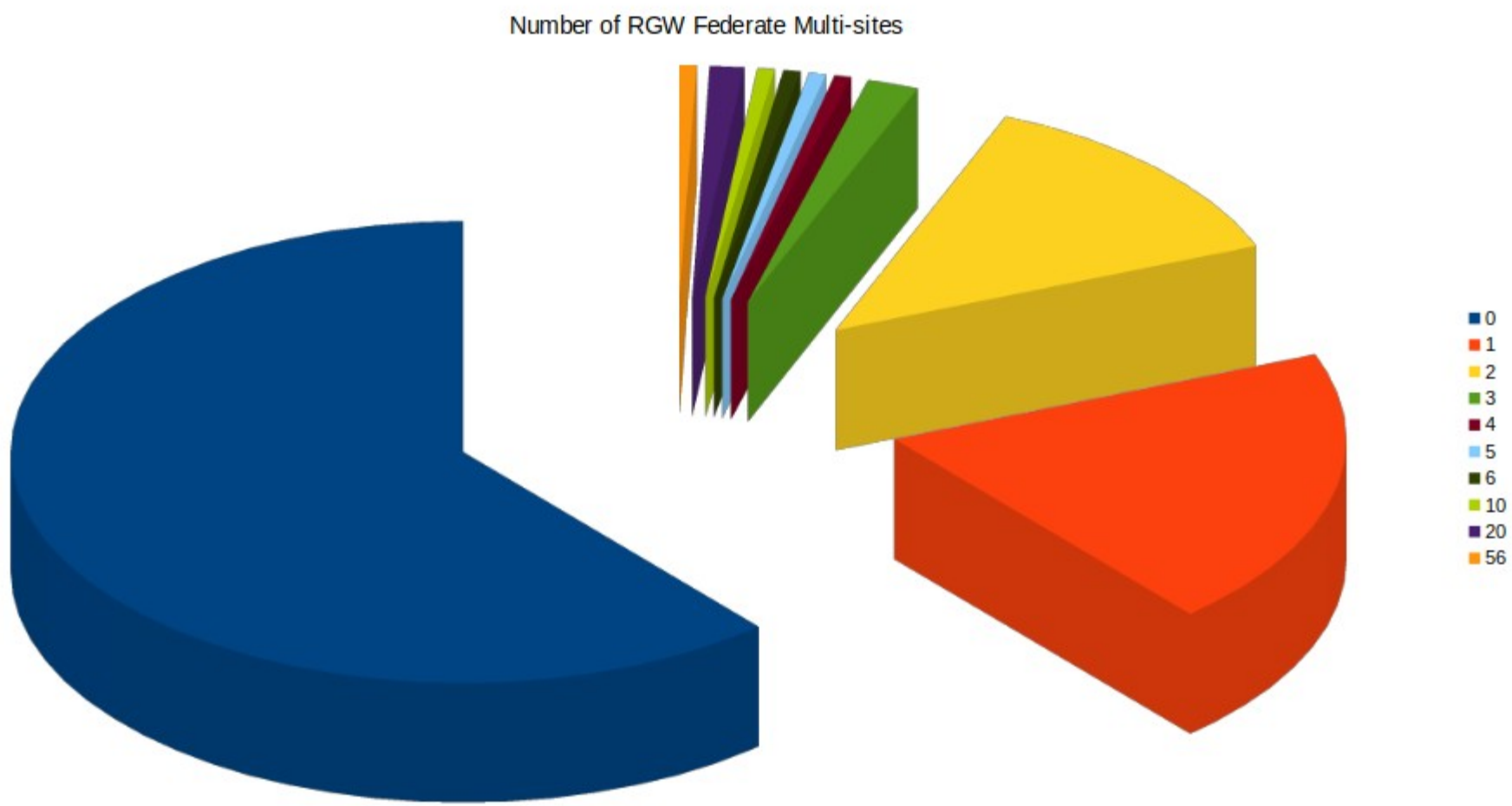
- F5
- BGP ECMP
- IPVS
- Keepalived
- Lbs
- BGP anycast
- DNS
- Varnish
- Croit
- Traefik



Q54

### Number of RGW federated multi-sites in a cluster

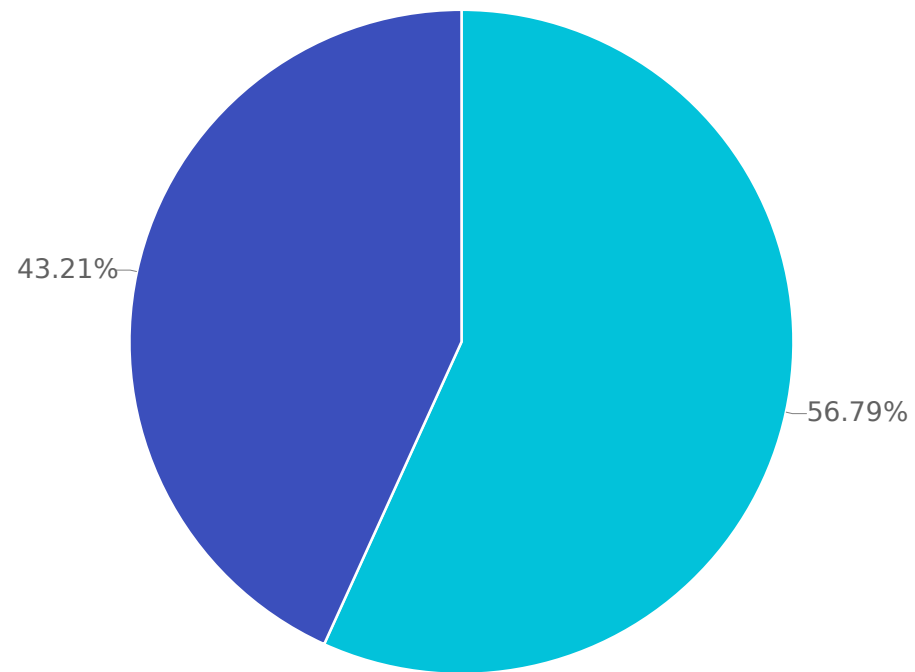
Answered: 163 Skipped: 242





Do you use the Ceph Filesystem interface in your Ceph cluster?

Answered: 162 Skipped: 243



● Yes

● No

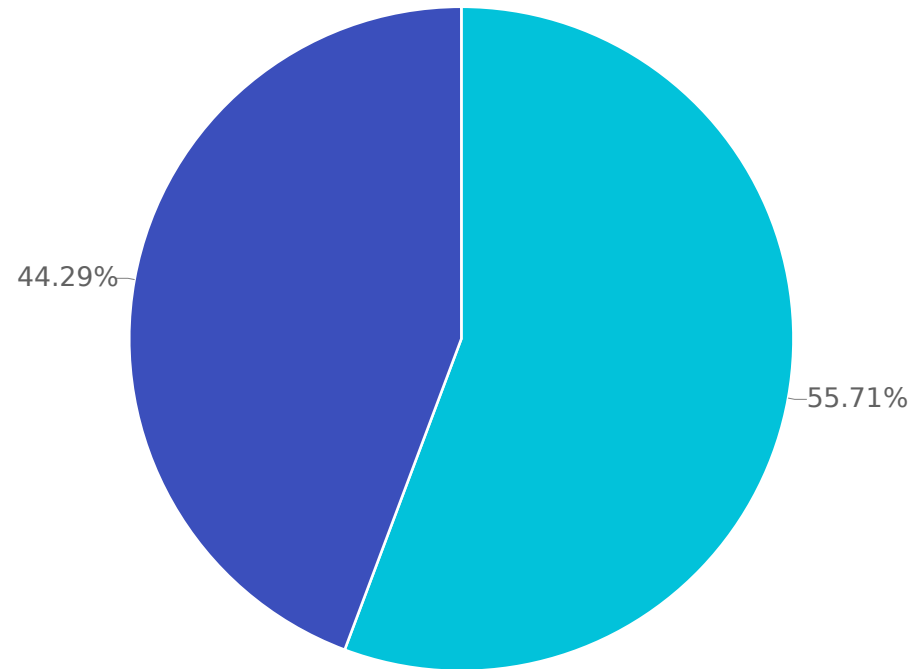
| Choices | Response percent | Response count |
|---------|------------------|----------------|
| Yes     | 56.79%           | 92             |
| No      | 43.21%           | 70             |

---



### Do you use the Ceph Dashboard?

Answered: 70 Skipped: 335



● Yes

● No

| Choices | Response percent | Response count |
|---------|------------------|----------------|
| Yes     | 55.71%           | 39             |
| No      | 44.29%           | 31             |

---

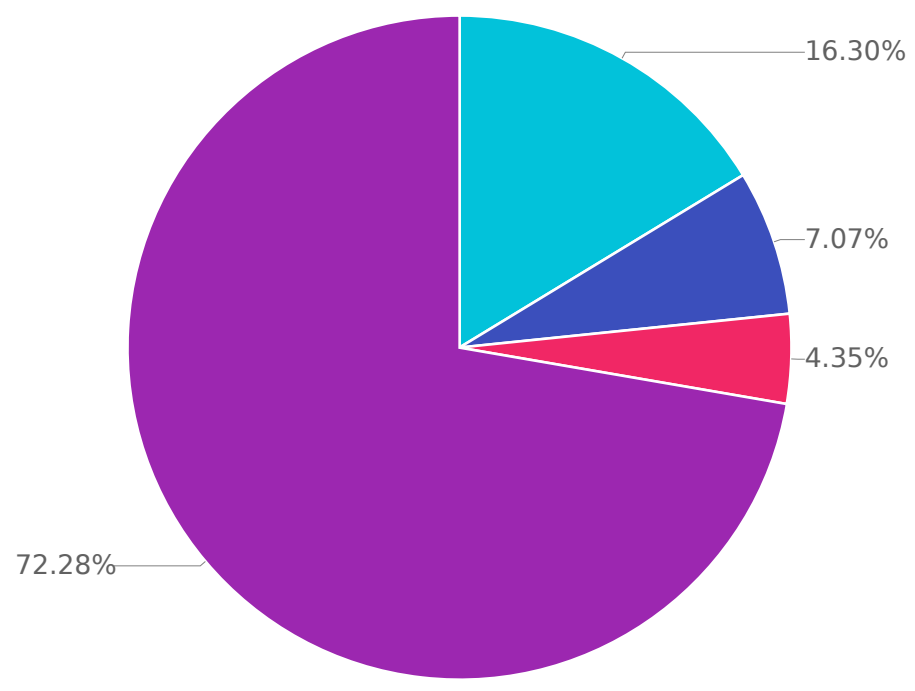


## CephFS

Q57

### Environment status

Answered: 184 Skipped: 221



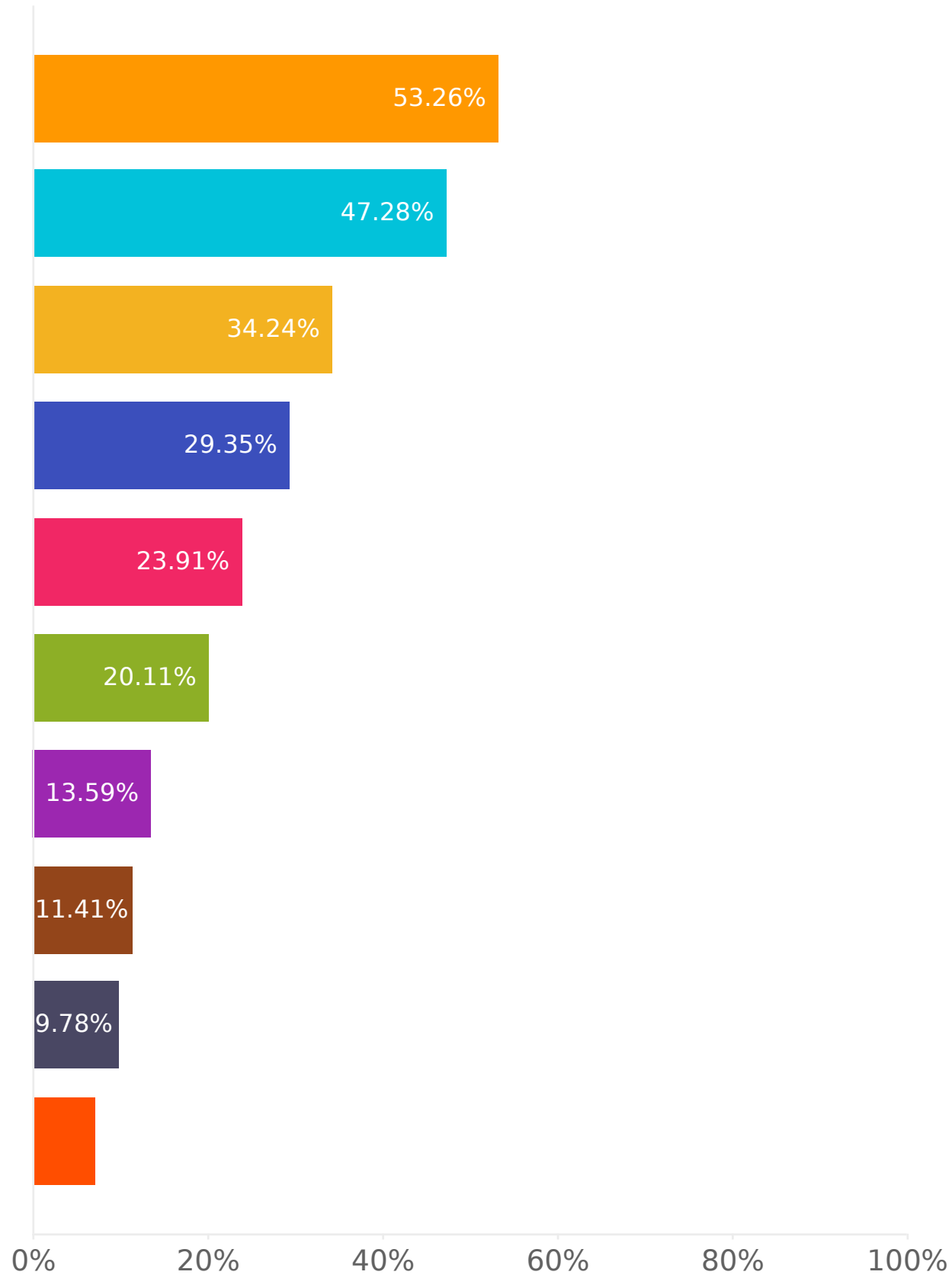
- Test/POC
- Development
- Staging
- Production

| Choices     | Response percent | Response count |
|-------------|------------------|----------------|
| Test/POC    | 16.30%           | 30             |
| Development | 7.07%            | 13             |
| Staging     | 4.35%            | 8              |
| Production  | 72.28%           | 133            |



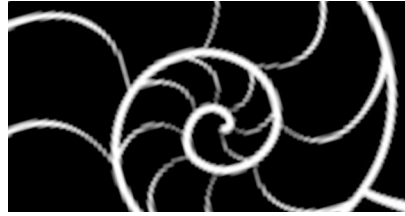
## Workloads

Answered: 184 Skipped: 221



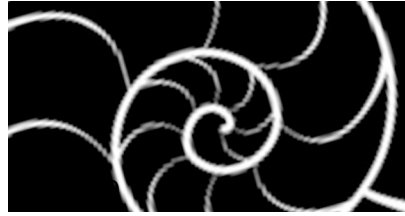
- General purpose NAS
- Backup
- Home directories
- Static archive
- Media/streaming
- HPC
- Build
- Big data (Hadoop, Spark)
- Other (Please specify)
- OpenStack Manila





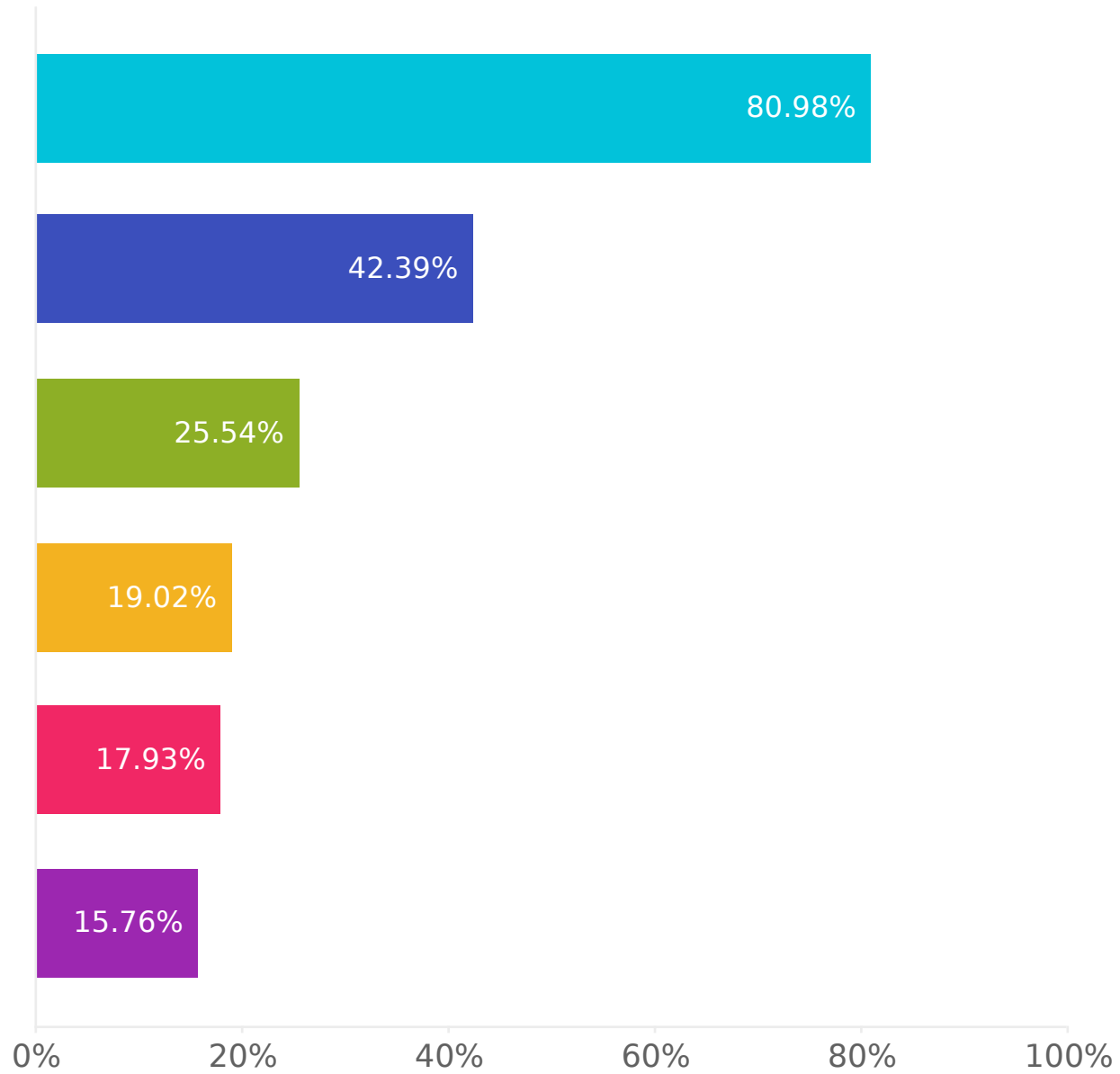
| Choices                  | Response percent | Response count |
|--------------------------|------------------|----------------|
| General purpose NAS      | 53.26%           | 98             |
| Backup                   | 47.28%           | 87             |
| Home directories         | 34.24%           | 63             |
| Build                    | 13.59%           | 25             |
| Static archive           | 29.35%           | 54             |
| Media/streaming          | 23.91%           | 44             |
| HPC                      | 20.11%           | 37             |
| Big data (Hadoop, Spark) | 11.41%           | 21             |
| Other (Please specify)   | 9.78%            | 18             |
| OpenStack Manila         | 7.07%            | 13             |

---



### Interfaces to access CephFS

Answered: 184 Skipped: 221



● Linux kernel CephFS mount

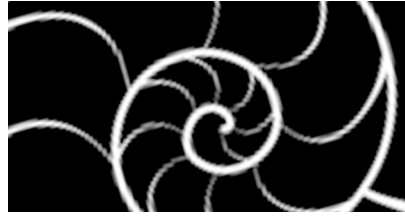
● ceph-fuse

● CIFS (samba)

● NFS (Kernel NFS server)

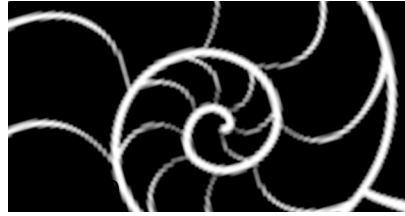
● libcephfs

● NFS (nfs-ganesha)



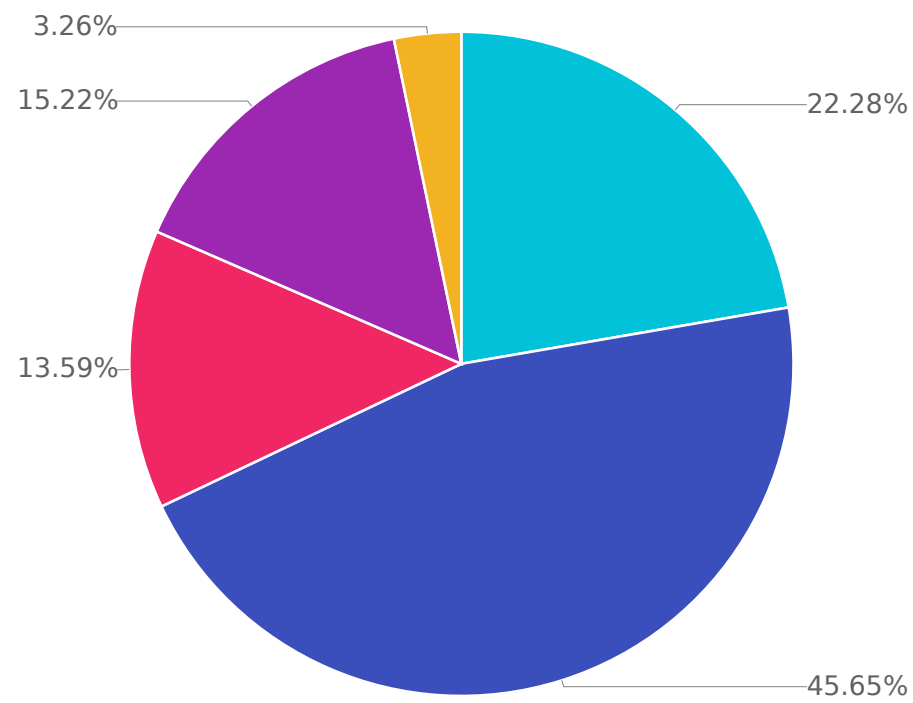
| Choices                   | Response percent | Response count |
|---------------------------|------------------|----------------|
| Linux kernel CephFS mount | 80.98%           | 149            |
| ceph-fuse                 | 42.39%           | 78             |
| CIFS (samba)              | 25.54%           | 47             |
| NFS (Kernel NFS server)   | 19.02%           | 35             |
| libcephfs                 | 17.93%           | 33             |
| NFS (nfs-ganesha)         | 15.76%           | 29             |

---



### Typical number of file system clients (for largest cluster, if multiple clusters)

Answered: 184 Skipped: 221



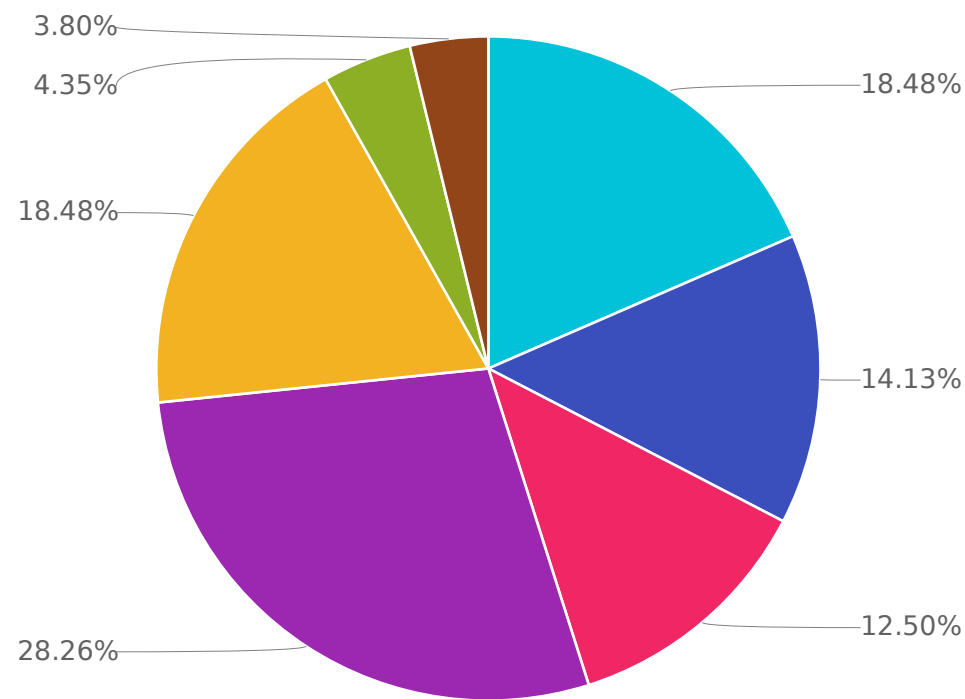
- 1 - 5
- 6 - 50
- 51 - 100
- 101 - 500
- 501 - 2500
- 2500+

| Choices    | Response percent | Response count |
|------------|------------------|----------------|
| 6 - 50     | 45.65%           | 84             |
| 1 - 5      | 22.28%           | 41             |
| 101 - 500  | 15.22%           | 28             |
| 51 - 100   | 13.59%           | 25             |
| 501 - 2500 | 3.26%            | 6              |
| 2500+      | 0.00%            | 0              |



Number of files (getfattr -d -m ceph.dir.rfiles /mnt/cephfs)  
(for largest cluster, if multiple clusters)

Answered: 184 Skipped: 221



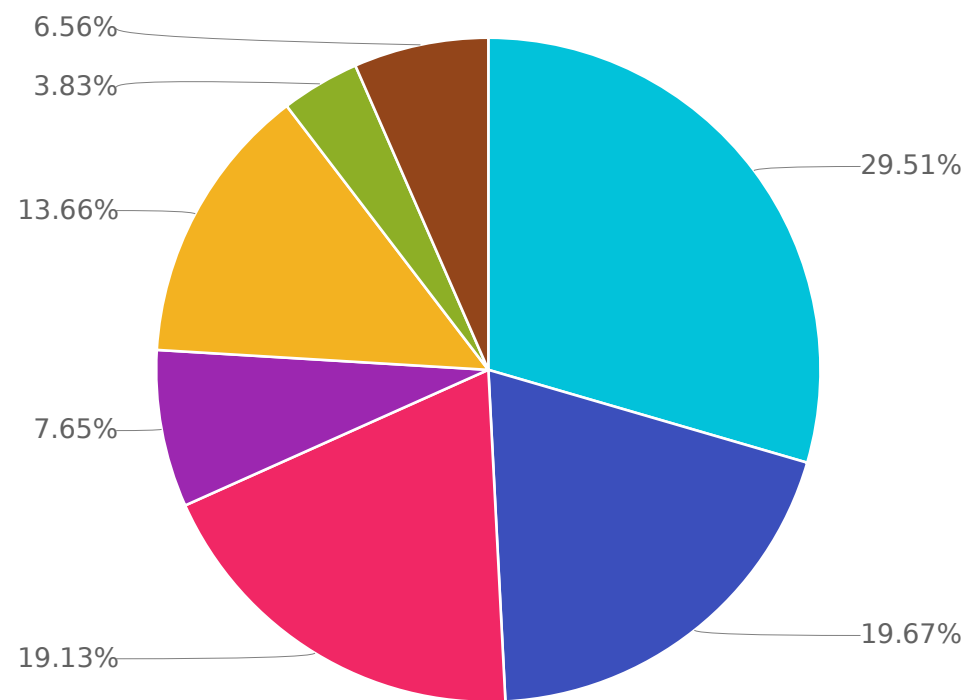
- >1k or less
- >10k
- >100k
- >1M
- >100M
- >1G
- >10G+

| Choices     | Response percent | Response count |
|-------------|------------------|----------------|
| >1M         | 28.26%           | 52             |
| >1k or less | 18.48%           | 34             |
| >100M       | 18.48%           | 34             |
| >10k        | 14.13%           | 26             |
| >100k       | 12.50%           | 23             |
| >1G         | 4.35%            | 8              |
| >10G+       | 3.80%            | 7              |



### MDS cache size (for largest cluster, if multiple clusters)

Answered: 183 Skipped: 222



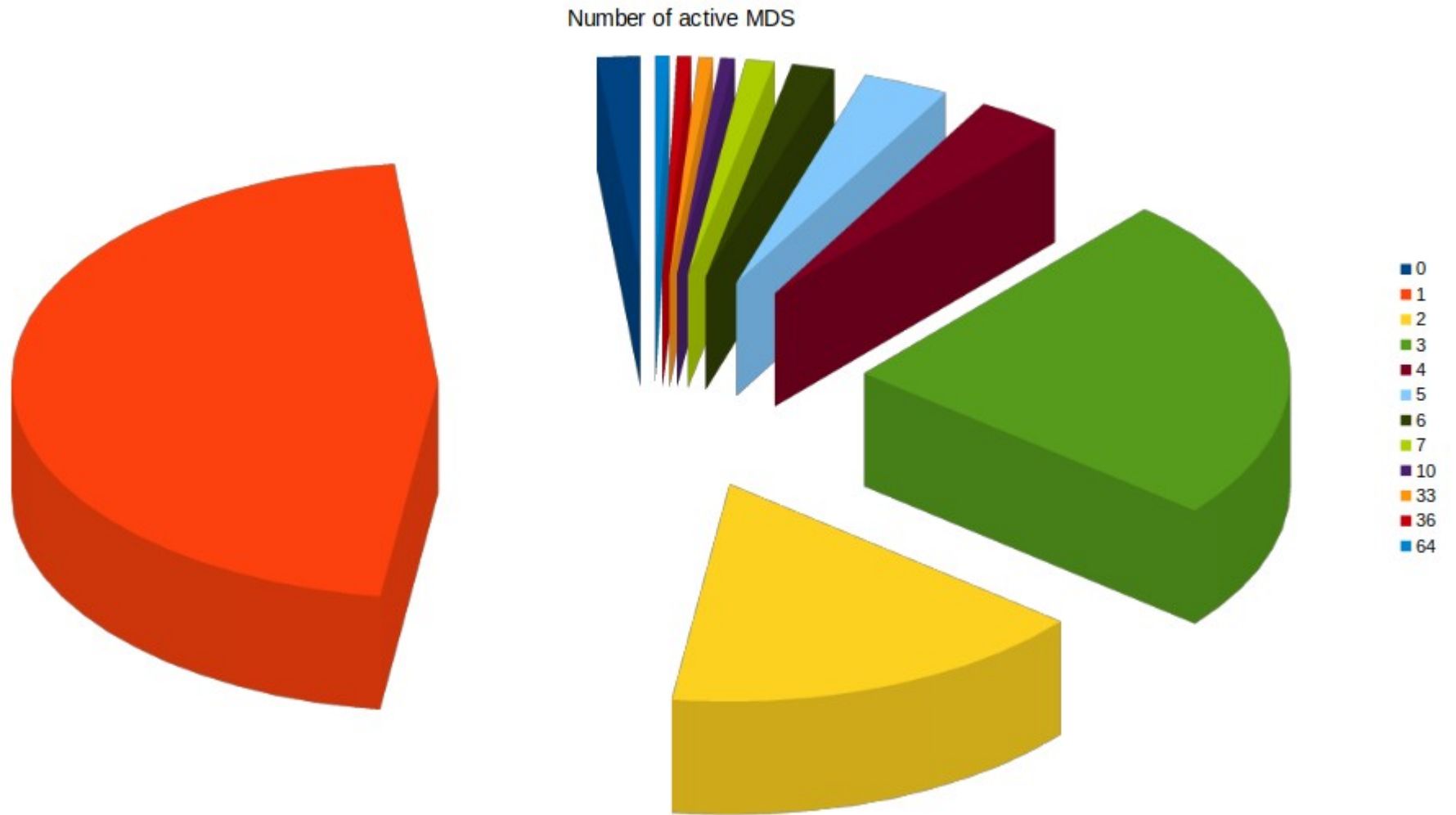
- 1G
- 2G - 3G
- 4G - 15G
- 16G - 31G
- 32G - 64G
- 65G - 127G
- 128G+

| Choices    | Response percent | Response count |
|------------|------------------|----------------|
| 1G         | 29.51%           | 54             |
| 2G - 3G    | 19.67%           | 36             |
| 4G - 15G   | 19.13%           | 35             |
| 16G - 31G  | 7.65%            | 14             |
| 32G - 64G  | 13.66%           | 25             |
| 65G - 127G | 3.83%            | 7              |
| 128G+      | 6.56%            | 12             |



Number of active MDS (for largest cluster, if multiple clusters)  
Answered: 184 Skipped: 221

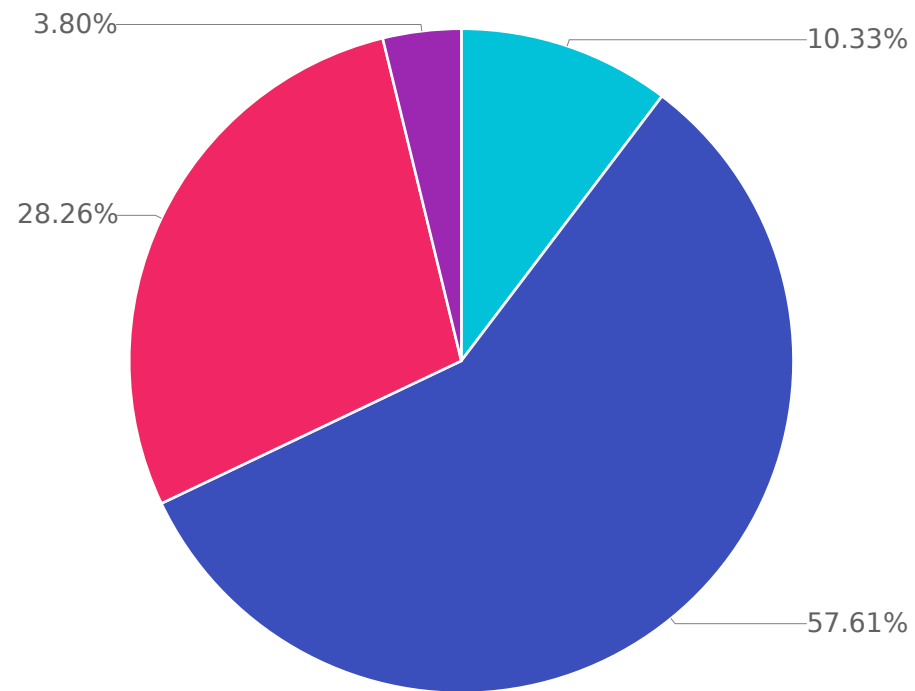
---





### Do you use subtree pinning?

Answered: 184 Skipped: 221



- Yes
- No
- Unknown
- Not applicable

| Choices        | Response percent | Response count |
|----------------|------------------|----------------|
| No             | 57.61%           | 106            |
| Unknown        | 28.26%           | 52             |
| Yes            | 10.33%           | 19             |
| Not applicable | 3.80%            | 7              |

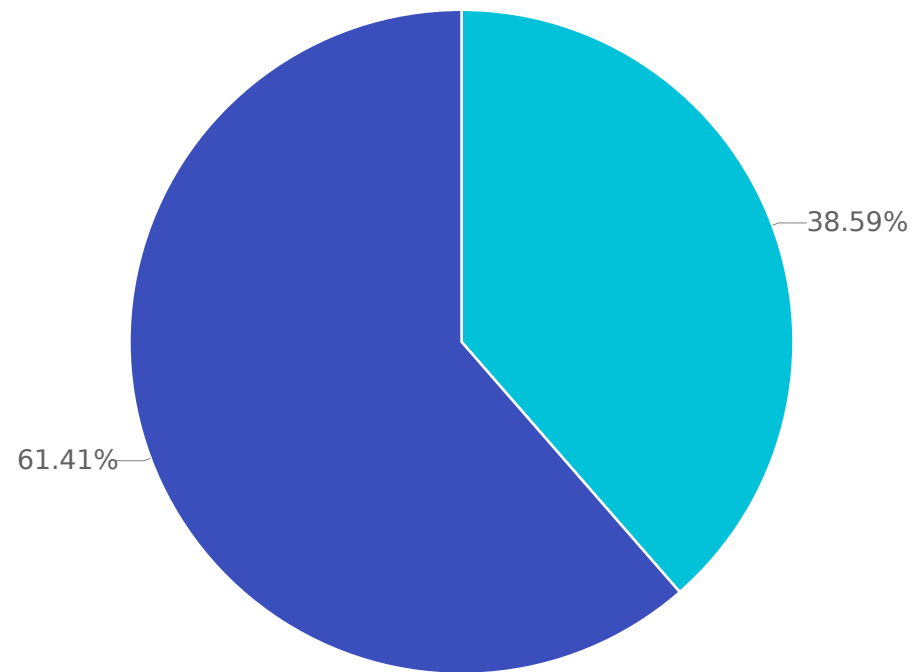






### Do you use snapshots?

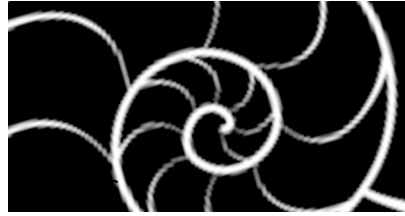
Answered: 184 Skipped: 221



● Yes      ● No (Please specify)

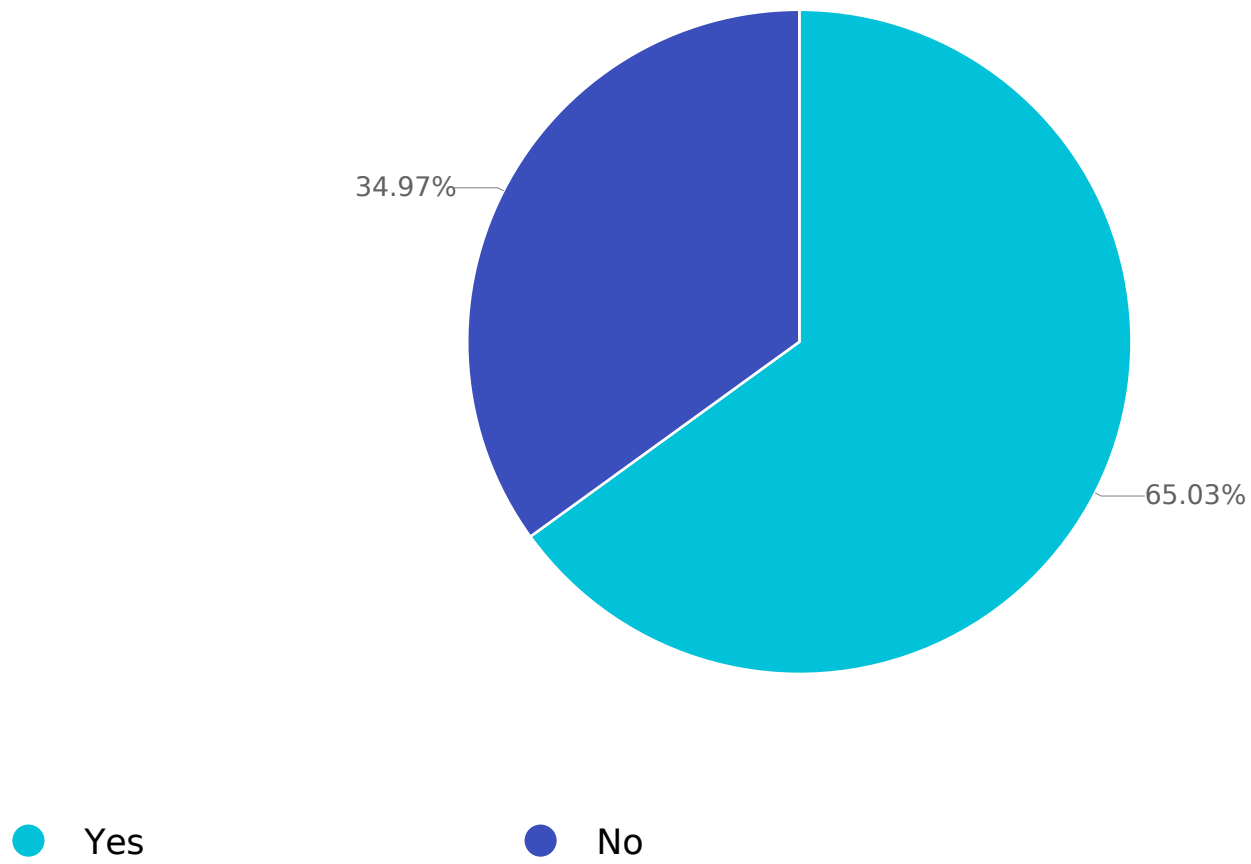
| Choices             | Response percent | Response count |
|---------------------|------------------|----------------|
| No (Please specify) | 61.41%           | 113            |
| Yes                 | 38.59%           | 71             |

---



### Do you use the Ceph Dashboard?

Answered: 183 Skipped: 222



---

| Choices | Response percent | Response count |
|---------|------------------|----------------|
| Yes     | 65.03%           | 119            |
| No      | 34.97%           | 64             |



## Ceph Dashboard

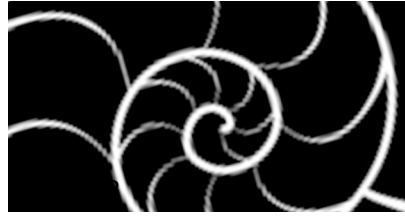
Q67

How likely are you to recommend the Ceph Dashboard to a colleague?

Answered: 184 Skipped: 221

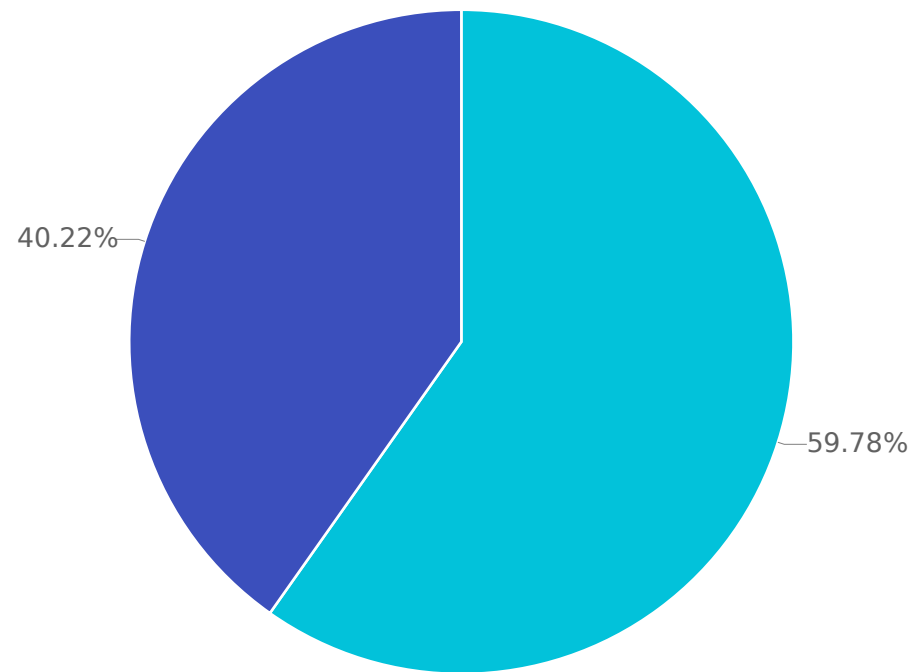


| Detractors (0-6) | Passives (7-8) | Promoters (9-10) | Net Promoter Score |
|------------------|----------------|------------------|--------------------|
| 42               | 75             | 67               | 13.59              |



Does the dashboard help you to perform tasks better/faster than using the CLI?

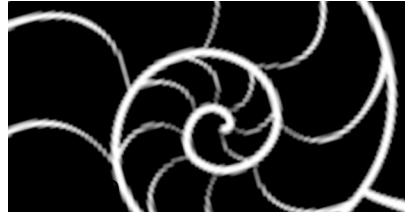
Answered: 184 Skipped: 221



● Yes      ● No (Please specify)

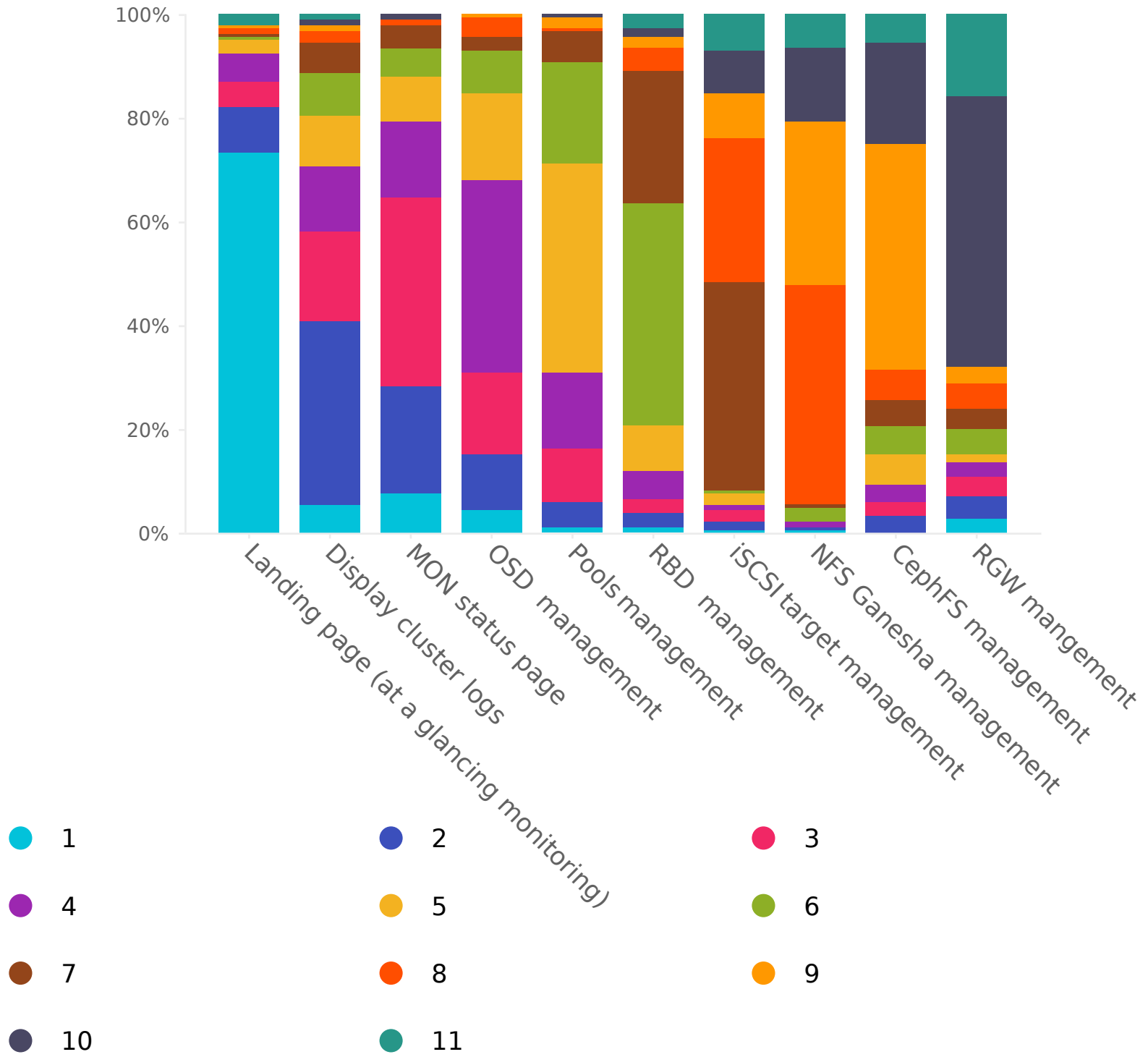
| Choices             | Response percent | Response count |
|---------------------|------------------|----------------|
| Yes                 | 59.78%           | 110            |
| No (Please specify) | 40.22%           | 74             |

---



### Rank how often you use certain feature-sets (1 being frequently)

Answered: 184 Skipped: 221



| Choices                               | 1               | 2              | 3              | 4              | 5              | 6              | 7              | 8              | 9              | 10             | 11              | Score | Rank | Response count |
|---------------------------------------|-----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|-------|------|----------------|
| Landing page (at a Glance monitoring) | 73.37%<br>(135) | 8.70%<br>(16)  | 4.89%<br>(9)   | 5.43%<br>(10)  | 2.72%<br>(5)   | 0.54%<br>(1)   | 0.54%<br>(1)   | 1.09%<br>(2)   | 0.54%<br>(1)   | 0.00%<br>(0)   | 2.17%<br>(4)    | 10.15 | 1    | 184            |
| Display cluster logs                  | 5.43%<br>(10)   | 35.33%<br>(65) | 17.39%<br>(32) | 12.50%<br>(23) | 9.78%<br>(18)  | 8.15%<br>(15)  | 5.98%<br>(11)  | 2.17%<br>(4)   | 1.09%<br>(2)   | 1.09%<br>(2)   | 1.09%<br>(2)    | 8.32  | 3    | 184            |
| MON status page                       | 7.61%<br>(14)   | 20.65%<br>(38) | 36.41%<br>(67) | 14.67%<br>(27) | 8.70%<br>(16)  | 5.43%<br>(10)  | 4.35%<br>(8)   | 1.09%<br>(2)   | 0.00%<br>(0)   | 1.09%<br>(2)   | 0.00%<br>(0)    | 8.57  | 2    | 184            |
| OSD management                        | 4.35%<br>(8)    | 10.87%<br>(20) | 15.76%<br>(29) | 36.96%<br>(68) | 16.85%<br>(31) | 8.15%<br>(15)  | 2.72%<br>(5)   | 3.80%<br>(7)   | 0.54%<br>(1)   | 0.00%<br>(0)   | 0.00%<br>(0)    | 7.91  | 4    | 184            |
| Pools management                      | 1.09%<br>(2)    | 4.89%<br>(9)   | 10.33%<br>(19) | 14.67%<br>(27) | 40.22%<br>(74) | 19.57%<br>(36) | 5.98%<br>(11)  | 0.54%<br>(1)   | 2.17%<br>(4)   | 0.54%<br>(1)   | 0.00%<br>(0)    | 7.1   | 5    | 184            |
| RBD management                        | 1.09%<br>(2)    | 2.72%<br>(5)   | 2.72%<br>(5)   | 5.43%<br>(10)  | 8.70%<br>(16)  | 42.93%<br>(79) | 25.54%<br>(47) | 4.35%<br>(8)   | 2.17%<br>(4)   | 1.63%<br>(3)   | 2.72%<br>(5)    | 5.83  | 6    | 184            |
| iSCSI target management               | 0.54%<br>(1)    | 1.63%<br>(3)   | 2.17%<br>(4)   | 1.09%<br>(2)   | 2.17%<br>(4)   | 0.54%<br>(1)   | 40.22%<br>(74) | 27.72%<br>(51) | 8.70%<br>(16)  | 8.15%<br>(15)  | 7.07%<br>(13)   | 4.3   | 7    | 184            |
| NFS Ganesh management                 | 0.54%<br>(1)    | 0.54%<br>(1)   | 0.00%<br>(0)   | 1.09%<br>(2)   | 0.00%<br>(0)   | 2.72%<br>(5)   | 0.54%<br>(1)   | 42.39%<br>(78) | 31.52%<br>(58) | 14.13%<br>(26) | 6.52%<br>(12)   | 3.38  | 10   | 184            |
| CephFS management                     | 0.00%<br>(0)    | 3.26%<br>(6)   | 2.72%<br>(5)   | 3.26%<br>(6)   | 5.98%<br>(11)  | 5.43%<br>(10)  | 4.89%<br>(9)   | 5.98%<br>(11)  | 43.48%<br>(80) | 19.57%<br>(36) | 5.43%<br>(10)   | 3.81  | 8    | 184            |
| RGW management                        | 2.72%<br>(5)    | 4.35%<br>(8)   | 3.80%<br>(7)   | 2.72%<br>(5)   | 1.63%<br>(3)   | 4.89%<br>(9)   | 3.80%<br>(7)   | 4.89%<br>(9)   | 3.26%<br>(6)   | 52.17%<br>(96) | 15.76%<br>(29)  | 3.39  | 9    | 184            |
| View embedded Grafana dashboards      | 3.26%<br>(6)    | 7.07%<br>(13)  | 3.80%<br>(7)   | 2.17%<br>(4)   | 3.26%<br>(6)   | 1.63%<br>(3)   | 5.43%<br>(10)  | 5.98%<br>(11)  | 6.52%<br>(12)  | 1.63%<br>(3)   | 59.24%<br>(109) | 3.24  | 11   | 184            |

Q70

What functionality do you miss most in the dashboard?

Answered: 184 Skipped: 221

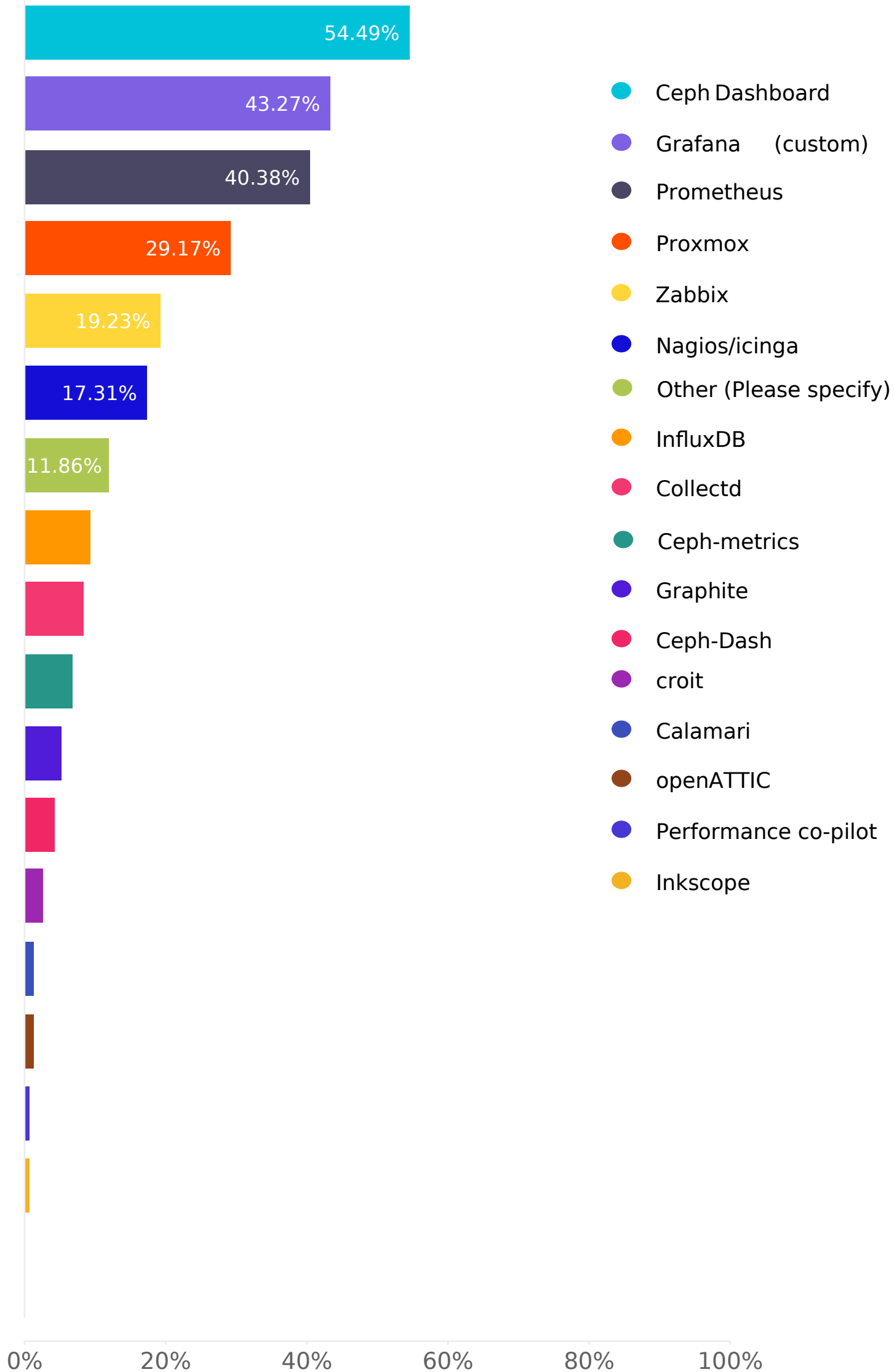
Not enough answers.



Q71

### Management and monitoring tools

Answered: 312 Skipped: 93





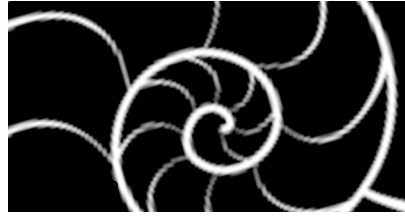
## Management and monitoring tools

Other (Please specify)

- Custom data fetched from the admin sockets and pushed top by telegraf to our influxdb server.
- ChekcMK
- Elastic/Logstash/Kibana
- Nagios
- Dizmo
- Datadog
- Dynatrace
- OpenNMS

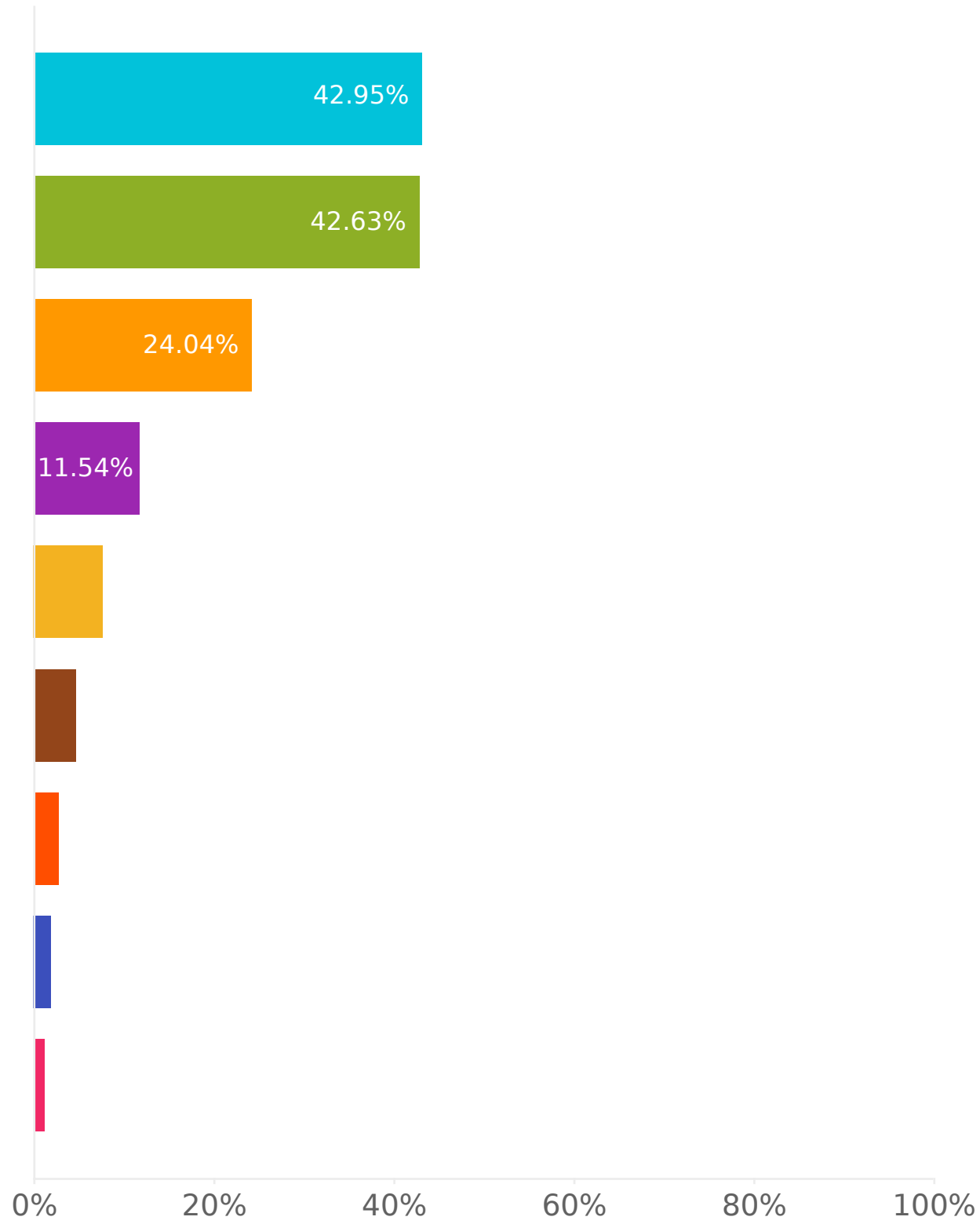


| Choices                | Response percent | Response count |
|------------------------|------------------|----------------|
| Ceph Dashboard         | 54.49%           | 170            |
| Calamari               | 1.28%            | 4              |
| Ceph-Dash              | 4.17%            | 13             |
| croit                  | 2.56%            | 8              |
| Inkscope               | 0.64%            | 2              |
| Intel VSM              | 0.00%            | 0              |
| openATTIC              | 1.28%            | 4              |
| Proxmox                | 29.17%           | 91             |
| InfluxDB               | 9.29%            | 29             |
| Prometheus             | 40.38%           | 126            |
| Ceph-metrics           | 6.73%            | 21             |
| Grafana (custom)       | 43.27%           | 135            |
| Zabbix                 | 19.23%           | 60             |
| Nagios/icinga          | 17.31%           | 54             |
| Graphite               | 5.13%            | 16             |
| Collectd               | 8.33%            | 26             |
| Performance co-pilot   | 0.64%            | 2              |
| Other (Please specify) | 11.86%           | 37             |



### Deployment and configuration

Answered: 312 Skipped: 93



- Ansible
- ceph-deploy
- Other (Please specify)
- Puppet
- Salt / DeepSea
- Rook
- croit
- Chef
- Juju



## Deployment and configuration

Other (Please specify)

- Proxmox
- Manual w/ CLI



| Choices                | Response percent | Response count |
|------------------------|------------------|----------------|
| Ansible                | 42.95%           | 134            |
| ceph-deploy            | 42.63%           | 133            |
| Other (Please specify) | 24.04%           | 75             |
| Puppet                 | 11.54%           | 36             |
| Salt / DeepSea         | 7.69%            | 24             |
| Rook                   | 4.49%            | 14             |
| croit                  | 2.56%            | 8              |
| Chef                   | 1.92%            | 6              |
| Juju                   | 0.96%            | 3              |

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