

Ceph User Survey 2022

Ceph User Survey

Deadline: March 25, 2022

Make your voice heard!

This information will help guide the Ceph community's investment in Ceph and the community's future development.

Frequently Asked Questions

Why is this survey important?

This information helps the Ceph development community and industry stakeholders focus our future development efforts and influences our day-to-day decisions.

What happens to the data?

Aggregated and collated results will be published shortly after the survey completes with the help of the Ceph User Survey Working Group. Individual survey responses will remain anonymous. The Ceph Foundation will be responsible for keeping that data private.

How long does the survey take?

Usually, about 10 minutes, although this may vary depending on the number of Ceph components you utilize.

On the **Platforms and Interface Questions** page, you will be asked:

- 1. Do you provide RADOS Block Device (RBD) services with your Ceph clusters?
- 2. Do you provide Ceph Object Gateway (RGW, Rados Gateway) services with your Ceph clusters?
- 3. Do you provide Ceph File system (CephFS) services with your Ceph clusters?

Additional questions may be included based on your response to these questions.

How do I report multiple deployments, for example, in different countries?

We recommend the survey be filled out for each type of deployment you have, regardless of state/country/etc. The answers are designed to facilitate this. Many respondents need to submit just once; nobody should need to submit more than two or three sets of answers.

How do I report an issue with the Survey?

The Ceph User Survey Working Group is an active set of volunteers who discuss making this survey worth the community's time. Please reach out to us at survey@ceph.io.

If you need to communicate with the Ceph Foundation directly or need help reaching the right person in the community, please let us help at foundation@ceph.io. General questions and feedback will be shared with The Ceph User Survey Working Group to refine the survey experience.

How will the Ceph User Survey continue to evolve?

The Ceph community loves feedback and learning about how the user community is using ceph. We also recognize that completing surveys can be tedious.

The Ceph Telemetry project allows Ceph clusters to anonymously and automatically report basic information about Ceph usage back to the developer community: what versions of Ceph are in use, what features are enabled, how big or busy clusters are, what types of hardware they are built with, what bugs are encountered, and so on. We strongly encourage all Ceph users to review what kinds of information is reported and then enable the telemetry feature or tell us why they are uncomfortable sharing that data. We would like to strike the right balance between maximizing participation and ensuring that the data is valuable.

As participation in telemetry increases, the user survey will focus more on non-technical details, like your organizations' industry, geography, size, and relationship with the open-source community and Ceph vendors.

We welcome any and all feedback on survey content so that the Ceph User Survey Working Group can improve the experience and data collected for next year.

General

Ceph User Survey 2022

How long have you been using Ceph?				
Less than 1 year	Between 1-2 years	Between 2-5 years		
More than 5 years	I don't use Ceph yet			

*Why do you use Cep	h?	
Open source	Scalability	Cost
Feature set	Security	High availability
Data durability / reliability / integrity	Performance	Integration with adjacent technologies
Other (Please specify)		
*Sector(s) of your org	anization?	
Commercial	Government	Military
Academic	Non-profit	Personal
Other (Please specify)		

Which resources do you check when you need help?

	Do not use					Primary source
Ceph Documentation	0	1	2	3	4	5
Ceph-users mailing list	0	1	2	3	4	5
Slack	0	1	2	3	4	5
Meet-up or other local groups	0	1	2	3	4	5
IRC	0	1	2	3	4	5
Commercial Provider	0	1	2	3	4	5
Source code	0	1	2	3	4	5
Additional Resource						

Where should the Ceph community focus its efforts? Very important important 2) (3) 5 Reliability 0 1 4 Management / 2 5 Configuration 5 Scalability 0 2 0 2 Security 5 2 Interoperability 0 1 5 0 Performance 2 Monitoring 0 2 0 2 3 Documentation 1 How do you participate in the Ceph community? IRC / Slack / etc Mailing list Reporting issues via the bug tracker Contributing code Contributing / enhancing Ceph events / documentation conferences Member of the Ceph Foundation Other (Please specify) *How likely are you to recommend Ceph to a colleague? unlikely likely

0

1

2

3

4

5

6

7

8

9

10

Please share the top reason for p	icking the previous answer (optional)
Top 3 wishlist features (add each	on a separate line, optional)

st What countries are y	our deployments in?	
Afghanistan	Albania	Algeria
Andorra	Angola	Antigua & Deps
Argentina	Armenia	Australia
Austria	Azerbaijan	Bahamas
Bahrain	Bangladesh	Barbados
Belarus	Belgium	Belize
Benin	Bhutan	Bolivia
Bosnia Herzegovina	Botswana	Brazil
Brunei	Bulgaria	Burkina Faso
Burundi	Cambodia	Cameroon
Canada	Cape Verde	Central African Rep
Chad	Chile	China
Colombia	Comoros	Congo
Congo {Democratic Rep}	Costa Rica	Croatia
Cuba	Cyprus	Czech Republic
Denmark	Djibouti	Dominica
Dominican Republic	East Timor	Ecuador
Egypt	El Salvador	Equatorial Guinea
Eritrea	Estonia	Ethiopia
Faroe Islands	Fiji	Finland
France	Gabon	Gambia
Georgia	Germany	Ghana
Grand Fenwick	Greece	Grenada
Guatemala	Guinea	Guinea-Bissau
Guyana	Haiti	Honduras
Hungary	Iceland	India
Indonesia	Iran	Iraq
Ireland {Republic}	Israel	Italy
Ivory Coast	Jamaica	Japan
Jordan	Kazakhstan	Kenya
Kiribati	Korea North	Korea South

Kosovo	Kuwait	Kyrgyzstan
Laos	Latvia	Lebanon
Leng	Lesotho	Liberia
Libya	Liechtenstein	Lithuania
Luxembourg	Macedonia	Madagascar
Malawi	Malaysia	Maldives
Mali	Malta	Marshall Islands
Mauritania	Mauritius	Mexico
Micronesia	Moldova	Monaco
Mongolia	Montenegro	Morocco
Mozambique	Myanmar, {Burma}	Namibia
Nauru	Narnia	Nepal
Netherlands	New Zealand	Nicaragua
Niger	Nigeria	Norway
Oman	Pakistan	Palau
Panama	Papua New Guinea	Paraguay
Peru	Philippines	Poland
Portugal	Qatar	Romania
Russian Federation	Rwanda	St Kitts & Nevis
St Lucia	St. Vincent & Grenadines	Samoa
San Marino	Sao Tome & Principe	Saudi Arabia
Senegal	Serbia	Seychelles
Sierra Leone	Singapore	Slovakia
Slovenia	Solomon Islands	Somalia
South Africa	South Sudan	Spain
Sri Lanka	Sudan	Suriname
Swaziland	Sweden	Switzerland
Syria	Taiwan	Tajikistan
Tanzania	Thailand	Togo
Tonga	Trinidad & Tobago	Tunisia
Turkey	Turkmenistan	Tuvalu
Uganda	Ukraine	United Arab Emirates

United Kingdom	United States	Uruguay
Uzbekistan	Vanuatu	Vatican City
Venezuela	Vietnam	Yemen
Yuggoth	Zambia	Zimbabwe
That would be Telling :p		

Telemetry

*Do you have Telemetry enabled on your cluster(s)? (Telemetry will automatically report anonymized information about your cluster, like the size of your cluster, what version of Ceph you are running, and what bugs you have encountered.)					
	Yes, telemetry is enabled on all of my clusters		Yes, telemetry is enabled on some of my clusters		No, telemetry is not enabled on any clusters
Wł	ny is telemetry not en	able	ed?		
	I haven't gotten around to it yet		My cluster(s) are running a Ceph version older than Luminous		My cluster(s) are on a protected network that does not have access to the internet
	My organization's security policy does not allow storage systems to communicate with vendors or external organizations		My organization's security policy has reviewed the information reported by telemetry and judged that it should not be shared		Enabling telemetry would require review by my organization's security team and I have chosen not request a review
	I am worried that even the anonymized information reported by telemetry may compromise my organization's security.		I do not believe that the Ceph community should be collecting any of this information		
	Other (Please specify)				
be	ou cannot send telem willing to manually se ing so?		•	•	• •
	Yes		No		
	Other (Please specify)				

Have you disabled any of the default telemetry channels?				
basic: cluster capacity, cluster size, ceph version, number of pools and file systems, which configuration options have been adjusted)	crash: information about daemon crashes, including the type of daemon, ceph version, and stack trace	device: anonymized device health metrics (e.g., SMART hard disk metrics)		
-	dent' telemetry channel (votion and contact email ac			
I left 'ident' disabled (the default)	I enabled 'ident' and configured a cluster description and/or email address			
Have you used the publi	ic Ceph Telemetry dashbo	ards and/or Devices		
No, I didn't realize they existed	No, I knew they existed by have not used them	Yes		
Why did you use the pul telemetry dashboard?	blic telemetry dashboard	and/or the device		
Out of curiosity	To inform my decisions about when or whether to upgrade	To make decisions around cluster sizing (for new cluster(s))		
To make decisions around cluster expansion (for existing cluster(s))	To make decisions about which type of storage devices to buy (HDD vs SSD)	To make decisions about which vendor(s) or model(s) of storage devices to buy		
Other				

General Cluster Questions

*How many clusters do	pes this information represent?	
*Raw capacity (in TB) o	of your largest cluster	
*Total raw capacity of a	all clusters (before replication)	
*Total usable capacity	of all clusters (after replication)	
*How much RAM (in GE	3) do you have for each OSD?	
*Which Ceph releases Pacific (16.x) Mimic (13.x)	do you run? Octopus (15.x) Luminous (12.x) or older Master	

*Whose Ceph packages / container images do you use?				
Upstream packages (ceph.io)	OS Distribution packages (RHEL, Canonical, SoftIron, Croit et al)	We build our own packages / custom version		
Other (Please specify)				
*What operating systems	are you using on cluster	nodes?		
Ubuntu	Debian	RHEL / CentOS / Fedora		
SUSE	FreeBSD/OpenBSD/NetB SD	Other OS		
*Do you use cache tiering	?			
○ No	Yes, in front of EC pools for functionality	Yes, for performance reasons		
*How soon do you apply o	lot/minor releases to you	r cluster?		
Within a week after release	Within a month after release	Longer		
Never	When there's a compelling reason			

*Wh	ıy?		
	I apply upgrades quickly to get any available bug fixes or security fixes	I apply upgrades quickly because they require little effort	I delay upgrades due to concerns about regression
	I delay upgrades due to concerns about new functionality	I delay upgrades because there are too many updates	I delay upgrades because of the effort involved
	I only upgrade as needed to address issues		
	Other (Please specify)		
*Ho	w soon do you perfor	m major version upgrade	es?
	Within a month of release	Within half a year of release	Within a year
	Longer	When there's a compelling reason	Never (clusters remain on major release they were deployed with, immutable infra)
*Wł	ny?		
	I upgrade quickly to get new features	I upgrade quickly to get any available bug fixes or security fixes	I upgrade quickly because it is easy
	I only upgrade as needed to address specific bugs or needed features	I delay upgrades due to concerns about stability	I delay upgrades due to concerns about performance regressions
	I delay upgrades due to the effort required to upgrade	I delay upgrades to avoid a changed user experience due to new features	
	Other (Please specify)		

Which Ceph Manager m	nodules do you enable?	
balancer	crash	devicehealth
diskprediction	iostat	pg_autoscaler
restful	I don't know / default set	
Other (Please specify)		

Hardware

*Which ch	assis / server ve	endors do you use for clus	ster nodes?
IBM		Lenovo	Dell
HPE (He	wlett Packard)	Supermicro	QCT (Quanta)
Intel		SoftIron	Cisco
Fujitsu		Huawei	We build our own
Raspber	ry Pi	Ambedded	Inspur
Prefer no	ot to say		
Other (P	Please specify)		
ARM AMD EP		tures and manufacturers Intel Xeon AMD (other)	Intel (other) Power
ARM AMD EP	YC Please specify)	Intel Xeon	Intel (other)
ARM AMD EP Other (P	YC Please specify)	Intel Xeon AMD (other)	Intel (other)
ARM AMD EP Other (P Which type HDD (SA	YC Please specify) oe of storage de	Intel Xeon AMD (other) evices are used?	Intel (other) Power NVMe (including
ARM AMD EP Other (P Which type HDD (SA	YC Please specify) De of storage de	Intel Xeon AMD (other) evices are used?	Intel (other) Power NVMe (including

*Which OSD layout strate	gies do you employ?			
LVM (ceph-volume)	Partitions	At-rest encryption (dmcrypt)		
lvmcache	dm-cache	bcache		
CAS / OpenCAS (Intel)	Separate journal device (Filestore) or RocksDB/WAL device (BlueStore)	All-in-one OSD (default, colocated, no separate metadata device)		
Containerized daemons	Defaults / I don't know			
*Do you use a dedicated replication and recovery		ate network for OSD node		
Yes	○ No	Mix of yes and no		
*Network technologies in	use			
1 Gb/s Ethernet	10 Gb/s Ethernet	25 Gb/s Ethernet		
40 Gb/s Ethernet	100 Gb/s Ethernet	200 Gb/s Ethernet		
400 Gb/s Ethernet	InfiniBand	RJ45 (Copper)		
DAC (Copper)	AOC / Fiber			
Other (Please specify)				
*IP address families in use	2			
IPv4 only	○ IPv6 only	Oual stack		

st Preferred number of C	CPU sockets per server a	and why
Single	Dual	Quad
No preference / beats me		
Explain why?		
*How many OSDs in yo	our largest cluster?	
10 or fewer	O 10 to 100	100 to 500
500 to 1000	1000 to 3000	3000 +
*Which OSD back ends	do your clusters emplo	by?
Filestore (XFS, EXT4, BTRFS)	BlueStore	Both Filestore and BlueStore
Not sure		
Other (Please specify)		
*RADOS data protectio	n strategies in use	
Replication (2x)	Replication (3x)	Replication (4 or more copies)
Erasure coding		

Platforms and Interface Questions

*With which	platforms do yo	u use Ceph?	
OpenStack		Cloudstack	OpenShift
OpenNebul	a	Kubernetes	VMware
Microsoft W	/indows	Hyper-V	Proxmox
KVM / QEM	J	Xen	KRBD directly on Linux systems
rbd-nbd		None	
Other (Plea	se specify)		
*Do you prov clusters?	vide RADOS Bloc	k Device (RBD) service	es with your Ceph
Yes		No	
*Do you prov your Ceph o		t Gateway (RGW, Rado	os Gateway) services with
Yes		No	
*Do you prov clusters?	vide Ceph File sy	rstem (Ceph FS) servic	es with your Ceph
Yes		No	
*Do you use	the Ceph Dashb	ooard with your Ceph c	:lusters?
() Yes		No	

RADOS Block Device (RBD)

RBD deployment status		
Development / Testing	Staging	Production
Proof of Concept (PoC)		
*What are your use case	os for PPD2	
Scratch		Logs
	Build	Logs
Video	CDN	Big Data & Analytics
AI/ML	HPC	Containers
Virtualization	Home Directories	Archives
Backups	OLTP	
Other (Please specify)		
*RBD (block storage) clie	ent access methods in use	
librbd (e.g., in combination with qemu)	Linux kernel RBD	iSCSI (tcmu-runner)
iSCSI (LIO with /dev/rbd)	rbd-nbd	Dokan (MS Windows)
Other (Please specify)		
*Do you use RBD snapsh	nots and / or clones?	
Yes	No	Unknown

Rados Gateway (RGW)

RGW Ceph cluster role	es (dev, staging, producti	ion, PoC)
Development / Testing	Staging	Production
Proof of Concept (PoC)		
Vhat are your RGW w	orkloads?	
Scratch	Build	Logs
Video	CDN	Big Data & Analytics
AI/ML	HPC	Cloud
Containers	Home Directories	Archives
Backups	OLTP	
Other (Please specify)		
		(when RGW is deployed)
Where do you run the	RGW daemon?	
Dedicated machine	On the same machine a another OSD	S
Do you run the RGW o	laemon in a container?	
Yes	○ No	
_		

*RG	W clients and libraries	s us	sed	
	Amazon SDK		Boto	Boto3
	s3cmd / s3tools		rclone	custom / in-house
	Minio		None	
	Other (Please specify)			
*RG	W authentication med	ha	nism	
	RGW (built-in)		Keystone	LDAP
	Other (Please specify)			
.				
*Wr		l/or	cache do you use with	
	HAproxy		Nginx	Varnish
	Dedicated hardware appliances (Alteon, F5, etc)		DNS round-robin	ExaBGP
	Unknown		None	
	Other (Please specify)			
Do	you have multisite cl	uste	ers?	
	Yes		No	
Do	you have more than	one	realm in your setup?	if so, how many?
	0		1	<u>2</u>
	3+			

*Do you have more th	nan one zone group in	n your setup?
*Do you have more the largest zone group?	nan one zone in your	setup? if so, how many in the
*Is the syncing policy	between zones globa	al or per bucket?
Global	Per bucket	
Which Bucket Notific	ations endpoints do <u>y</u>	you use?
Kafka	AMQP	НТТР
What's a bucket notification?	None	
Which other endpoints wou	ld you like to have?	

CephFS

ephFS deployment st		□ p., l. e'
Development / Testing	Staging	Production
Proof of Concept (PoC)		
	6 0 1 500	
hat are your use cas		
Scratch	Build	Logs
Video	CDN	Big Data & Analytics
AI/ML	HPC	Containers
Virtualization	Web Hosting	Home Directories
Archives	Backups	
Other (Please specify)		
ephFS access method Linux kernel CephFS mount	ds in use ceph-fuse	libcephfs
mount	ceph-fuse	
Linux kernel CephFS mount NFS (nfs-ganesha)		libcephfs CIFS (SMB, Samba)
Linux kernel CephFS mount	ceph-fuse	
Linux kernel CephFS mount NFS (nfs-ganesha)	ceph-fuse	
Linux kernel CephFS mount NFS (nfs-ganesha)	ceph-fuse	
Linux kernel CephFS mount NFS (nfs-ganesha) Other (Please specify)	ceph-fuse	CIFS (SMB, Samba)
Linux kernel CephFS mount NFS (nfs-ganesha) Other (Please specify)	ceph-fuse NFS (Kernel NFS server)	CIFS (SMB, Samba)
Linux kernel CephFS mount NFS (nfs-ganesha) Other (Please specify) pical number of file s	ceph-fuse NFS (Kernel NFS server) system clients (for largest	CIFS (SMB, Samba)
Linux kernel CephFS mount NFS (nfs-ganesha) Other (Please specify) pical number of file so the solution of	ceph-fuse NFS (Kernel NFS server) system clients (for largest 51 - 100 2500+	CIFS (SMB, Samba) cluster, if multiple cluste 101 - 500
Linux kernel CephFS mount NFS (nfs-ganesha) Other (Please specify) pical number of file so the second se	ceph-fuse NFS (Kernel NFS server) system clients (for largest 51 - 100	CIFS (SMB, Samba) cluster, if multiple cluste 101 - 500
Linux kernel CephFS mount NFS (nfs-ganesha) Other (Please specify) pical number of file solution in the sol	ceph-fuse NFS (Kernel NFS server) system clients (for largest 51 - 100 2500+ rgest cluster, if multiple cl	cluster, if multiple cluste 101 - 500 usters)

subtree pinning?	
○ No	Unknown
S snapshots?	
○ No	Unknown
S Quotas?	
○ No	Unknown
v or experimental Ceph FS fea	atures are important to
Mantle (Programmable Metadata Balancer)	Multiple File Systems within a Ceph Cluster
Mirroring	
')	
	No S snapshots? No No Quotas? No No W or experimental Ceph FS feather than the Mantle (Programmable Metadata Balancer)

Ceph Dashboard

How lik	cely are	you to	recom	mend t	the Cep	h Dash	nboard	to a co	lleague	?
Unlikely										Likely
0	1	2	3	4	5	6	7	8	9	10
Does to	ne dash	board l	nelp yo	u to pe	erform	tasks b				ng the
Yes				No			O S	ometimes	5	
O No (F	Please spe	ecify)								

How often do you use certain dashboard features?

	Do not use					Primary Source
Landing page (at a glance monitoring)	0		2	3	4	5
Display cluster logs	0		2	3	4	5
Mon status page	0	1	2	3	4	5
OSD management	0	1	2	3	4	5
Pools management	0	1	2	3	4	5
RBD management	0	1	2	3	4	5
iSCSI target management	0		2	3	4	5
NFS Ganesha management	0		2	3	4	5
CephFS management	0	1	2	3	4	5
RGW management	0	1	2	3	4	5
View embedded Grafana dashboards	0		2	3	4	5
What functiona	lity would y	ou like to	see adde	d to the da	ashboard?	,

Management and Operation

st What metrics and mor	nitoring tools do you us	e?
Ceph Dashboard	Ceph-Dash	Croit
Intel VSM	Proxmox	InfluxDB
Prometheus	node_exporter	ceph_exporter
Ceph-metrics	Grafana (custom)	Zabbix
Nagios/icinga	Graphite	Collectd
Telegraf		
Other (Please specify)		
*Which deployment and	d configuration platforr	ns do you use to manage your
*Which deployment and Ceph clusters?	d configuration platforr	ns do you use to manage your
	Ansible (other /	cephadm / Ceph
Ceph clusters? Ansible (ceph-ansible)	Ansible (other / homebrew)	cephadm / Ceph orchestrator?
Ceph clusters? Ansible (ceph-ansible) Chef	Ansible (other / homebrew) Juju	cephadm / Ceph orchestrator? Proxmox
Ceph clusters? Ansible (ceph-ansible) Chef Puppet	Ansible (other / homebrew) Juju Salt / DeepSea	cephadm / Ceph orchestrator? Proxmox ceph-deploy
Ceph clusters? Ansible (ceph-ansible) Chef	Ansible (other / homebrew) Juju	cephadm / Ceph orchestrator? Proxmox
Ceph clusters? Ansible (ceph-ansible) Chef Puppet	Ansible (other / homebrew) Juju Salt / DeepSea	cephadm / Ceph orchestrator? Proxmox ceph-deploy
Ceph clusters? Ansible (ceph-ansible) Chef Puppet Rook SoftIron Storage	Ansible (other / homebrew) Juju Salt / DeepSea	cephadm / Ceph orchestrator? Proxmox ceph-deploy