



Original Research

# **Key-Value Stores:** Adoption Trends Through a **Valkey Lens**

Author: Aleksandra Mitroshkina, Director, Solutions Marketing, Percona

Editor-in-chief: Matt Kane, Director of Content Marketing, Percona

## Table of Contents

<b>Executive Summary</b> .....	<b>3</b>
<b>Results</b> ... ..	<b>4</b>
<b>Demographics</b> .....	<b>4</b>
Title.....	4
Company size .....	5
<b>Data Footprint</b> .....	<b>6</b>
<b>Technology Stack</b> .....	<b>7</b>
<b>Redis Licensing Changes and Valkey Adoption</b> .....	<b>8</b>
Initial reaction to Redis licensing change .....	8
Awareness about the Valkey project.....	10
Current adoption plans .....	11
<b>A Need for Commercial Support</b> .....	<b>12</b>
<b>Percona’s Promise to the Valkey Community</b> .....	<b>14</b>
<b>Conclusion</b> .....	<b>15</b>
<b>Methodology</b> .....	<b>16</b>
<b>Appendix</b> .....	<b>16</b>

# Executive Summary



*Percona's survey helps underscore the importance of the Valkey project and illustrates the strength of our community-led initiative. This survey highlights the need for an open source fork of Redis and the strength and momentum we are gathering from companies of varying sizes and needs. As a core maintainer of the project, we see this as a sign of the value of Valkey as the open source alternative to Redis.*



**Madelyn Olson**  
AWS Engineer and  
Valkey Project Maintainer

This executive summary outlines the critical insights derived from a survey of 151 IT professionals conducted by Percona from May to July 2024. It highlights key trends, adoption considerations, and the impact of Redis licensing changes on the IT community's adoption of Valkey. The findings indicate a strong interest in Valkey, driven by the need for a cost-effective and open source alternative to Redis, with commercial support playing a pivotal role in adoption decisions.

Below are the five key insights from the survey.

## **75% of surveyed Redis users are considering migration due to recent licensing changes**

The shift in Redis licensing to the Redis Source Available License (RSALv2) and Server Side Public License (SSPLv1) has motivated 75% of respondents currently using Redis to actively seek alternatives.

## **Of those considering migration, more than 75% are testing, considering, or have adopted Valkey**

A significant majority (75.71%) of those who are considering migration are either testing, considering, or have already adopted Valkey, an open source fork of Redis. Awareness of Valkey was also high, with over 63% of total respondents aware of the project from its inception.

## **Valkey is the most popular choice among those already using a Redis alternative**

While over two-thirds of respondents (67.13%) were still using Redis at the time of the survey, alternatives are gaining momentum. Among those using a Redis alternative, 23.49% are using Valkey, followed by DragonflyDB (17.59%), Skytable (13.19%), and KeyDB (8.79%). Other options, such as Memcached, MongoDB, and Couchbase, were mentioned but accounted for only a small share of responses.

## **Company size influences migration pace**

The representation of the respondents by the company size was balanced: The respondents were from Mid-market organizations (30.82%), Micro organizations (26%), or Large and Enterprise organizations (23.28%). This provides a diverse view of the survey results.

Mid-market, Large, and Enterprise organizations, due to their significant data management needs, show a cautious but increasing interest in migrating to Valkey. In contrast, Micro and SMB/SME organizations are generally more agile in their migration decisions compared to Mid-market, Large, and Enterprise organizations, which require extensive testing and validation.

## **Valkey adoption is tied to a need for commercial support**

Operational support is a critical consideration for adopting open source projects like Valkey. A majority (75.5%) of organizations plan to rely on third-party enterprise support, underscoring the importance of robust support infrastructure for the success of open source alternatives in production environments.

In conclusion, the report indicates a strong inclination towards alternatives to Redis, particularly toward Valkey, driven by licensing changes and the need for a cost-effective, scalable key-value alternative. The community's positive response to Valkey suggests a promising future for the project, provided it continues to evolve and meet the needs of its users.

# Results

Redis, the popular in-memory data store, changed its licensing to dual type: the Redis Source Available License (RSALv2) and Server Side Public License (SSPLv1) at the beginning of 2024.

The licensing change of Redis from an open source three-clause BSD license to curb commercial use led to the creation of Valkey, a fork intended to preserve the original project's fully open source nature. Valkey, being a newly created fork of Redis, presents an opportunity for potential adopters to observe its growth and gather data on its adoption before making their migration decisions.

To understand the state of Valkey adoption, the general sentiment of the audience around Redis licensing change, and the community's plans for Valkey adoption, Percona launched a survey that ran from April to July 2024, collecting 151 responses from the IT community.

This report explores why organizations of all sizes rely on Redis and how recent licensing changes are prompting a shift to Valkey as an alternative to Redis.

This report provides a detailed analysis of the trends uncovered in the survey, complemented by qualitative insights from follow-up interviews with industry professionals and analysts.

## Demographics

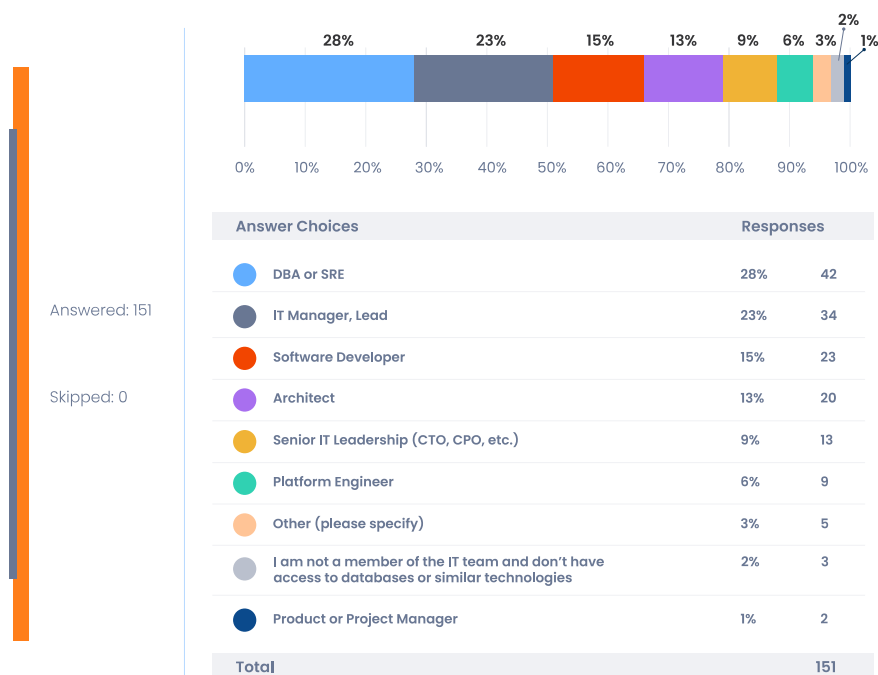
### Organizational Role

**A plurality of respondents (47%) were database practitioners.** Twenty-eight percent of replies came from DBAs or SREs, 13% from architects, and 6% from platform engineers.

**The second cohort presented in this survey is IT leadership** (middle management and senior leadership – CxO), totaling 32% of responses. Software Developers submitted 15% of survey responses.

A minority of respondents were representatives from the R&D function (project, product management, QA).

### What best describes your role in your current organization?



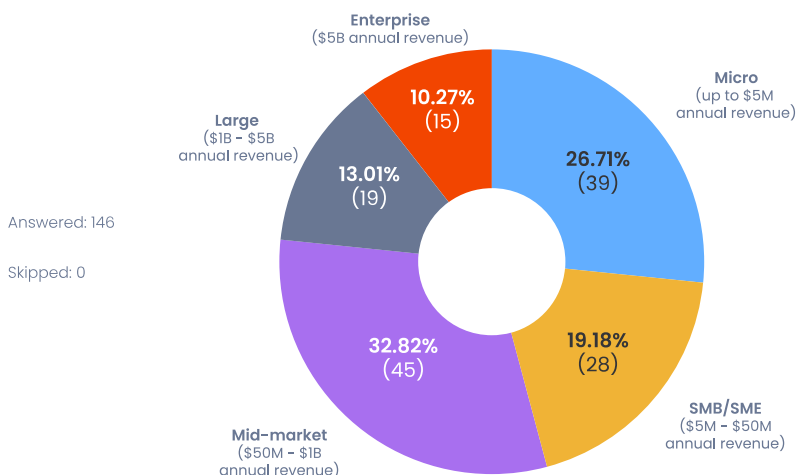
## Company size

Another dimension of the responses presented in this report is company size. We divided them into the following categories:

- Micro (up to \$5M annual revenue)
- SMB/SME (\$5M-\$50M annual revenue)
- Mid-market (\$50M - \$1B annual revenue)
- Large (\$1B - \$5B annual revenue)
- Enterprise (\$5B+ annual revenue)

Mid-market organizations were most heavily represented (30.82%), followed by Micro organizations (26.71%). Respondents from Large and Enterprise organizations were represented in 23.28% of responses, and respondents from SMB/SME organizations totaled 19.18%.

### What is the size of the organization you work for?



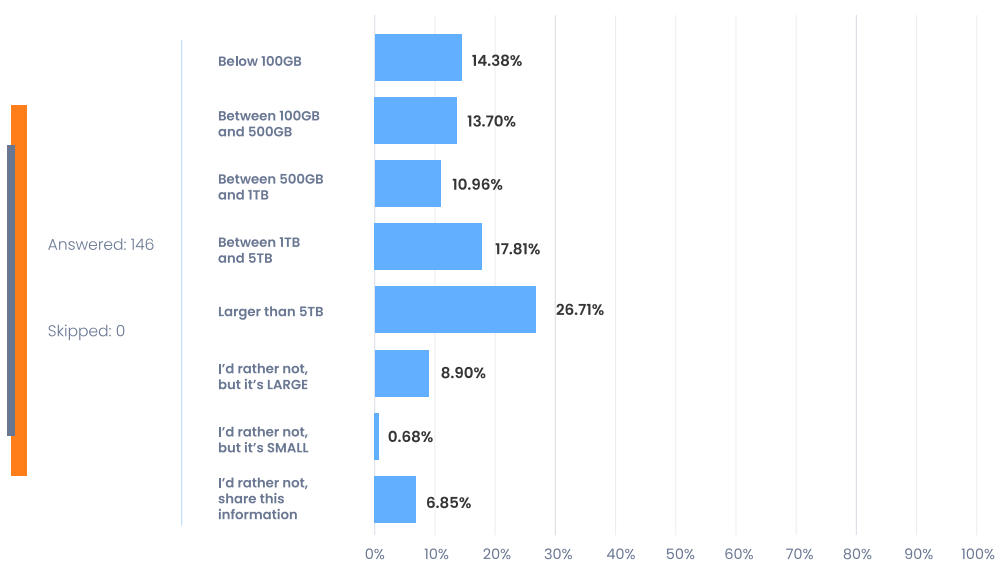
## Data Footprint

We asked the respondents to identify the size of the largest database (DB) they work with. This allowed us to understand the correlation between their organization's database footprint and the urgency to make a migration decision.

- **The majority of respondents work with large databases.** In fact, 44.52% of respondents manage databases containing more than 1TB of data (17.81% work with DBs containing data between 1TB and 5TB; 26.71% manage databases larger than 5TB).
- **39.04% of respondents work with smaller databases (up to 1TB).**

Other respondents decided not to disclose the size of the databases they work with.

### Can you share the size of the largest database you are working with?



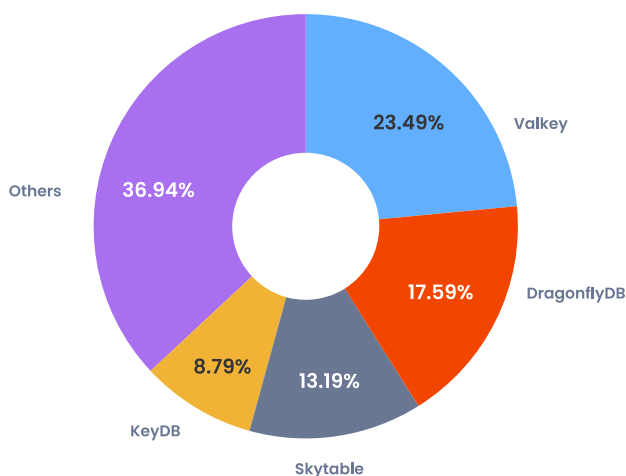
## Technology Stack

To learn more about respondents' technology stack, we asked whether they use any key-value store/in-memory database platforms in their infrastructure, and if yes, which ones.

According to the results, the majority of the respondents (**66.91%**) currently use Redis as their main caching/key-value store solution.

Among respondents not currently using Redis, 23.49% have adopted Valkey, followed by DragonflyDB at 17.59%, Skytable at 13.19%, and KeyDB at 8.79%. The remaining 36.94% opted for a variety of alternatives, such as Memcached, MongoDB, Couchbase, Kafka, etcd, DynamoDB, and Aerospike. Although this "Others" category represented the largest group, no single solution was as widely adopted as the top four.

### Adoption of Key-Value Store/In-Memory Database Platforms as an Alternative to Redis

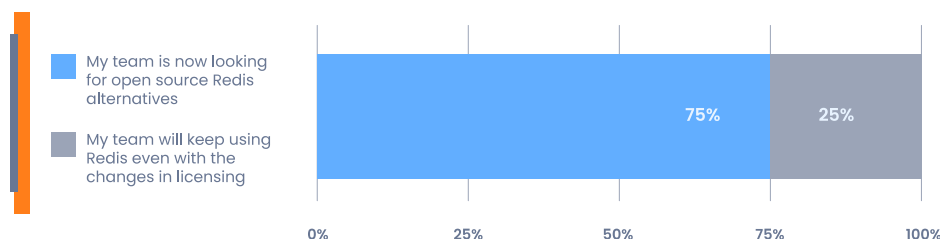


## Redis Licensing Changes and Valkey Adoption

We asked respondents a series of questions to understand their views on Redis licensing changes and Valkey adoption.

### Initial reaction to Redis licensing change

We found that the **news from Redis regarding the licensing change prompted 75% of respondents to look for a Redis alternative**. A subset of respondents, 25%, **planned to keep using Redis despite the licensing change**.



We asked current Redis users to elaborate on the reasoning behind their decision to look for Redis alternatives, and they stated the following:

**“The fact that Valkey is being supported by the Linux Foundation definitely convinced us about the seriousness of the project. We have been using Redis (the open source one) for years and didn’t expect the change of licensing to happen one day.”**

– E-commerce website owner and developer, Micro organization

**“We will try Valkey, make some tests, and possibly switch to it.”**

– DBA/SRE, Large organization

**“We have been using Redis for a long time, but due to recent licensing changes, we are considering transitioning to a more open source solution. One option we are evaluating is Valkey. However, we are currently uncertain about the level of expertise our team will need to effectively implement.”**

– Software Developer, Micro organization

When asked to elaborate on the reasoning behind their decision to keep using Redis, the respondents stated:

**“Redis is heavily embedded in our applications, so we’ll likely continue to use it despite licensing changes; however, we’d consider giving Valkey a try for future dev projects.”**

– IT Manager, Enterprise organization

**“We have a large Redis deployment and are planning to migrate to Valkey in a smooth manner.”**

– DBA/SRE, Micro organization

**“Redis proved itself as a reliable piece of tech.”**

– Software Developer, Mid-market organization

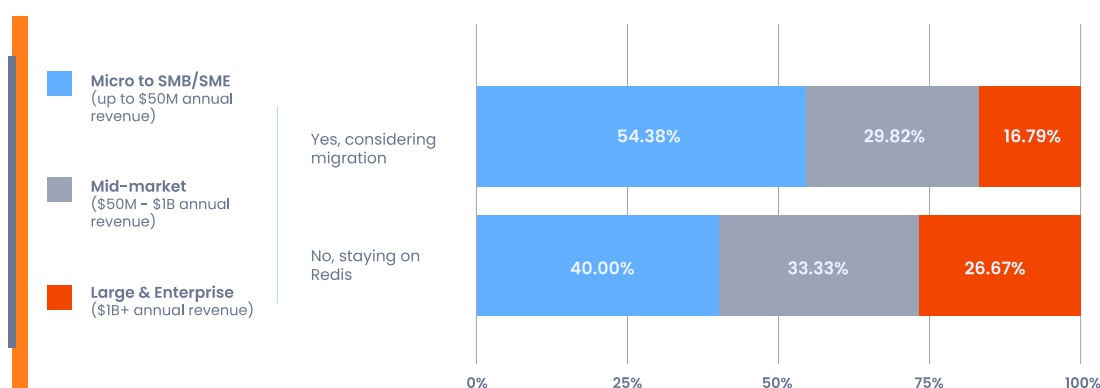
Upon completion of the survey, we conducted follow-up interviews with survey respondents and validated our findings with industry analysts. These conversations led us to categorize software adopters into two camps: those who value their relationship with a vendor, where licensing changes are not enough to motivate a migration, and those who value innovation and open source over vendor relationships.



Vendor relationship-first	Open source-first
<ul style="list-style-type: none"> <li>• Organizations that value existing vendor relationships</li> <li>• The current solution is too deeply embedded into the organization's infrastructure</li> <li>• The cost of switching is higher than the cost of relicensing</li> </ul>	<ul style="list-style-type: none"> <li>• Organizations that prioritize technological innovation and the long-term viability of the software they adopt</li> <li>• Switching to one of the alternatives brings more capabilities and return on investment</li> </ul>

When filtering results by company size, those from Micro and SMB/SME organizations stated they are more likely to migrate from Redis sooner than Mid-market, Large and Enterprise organizations. The latter are currently testing alternatives and evaluating their options before making a final decision.

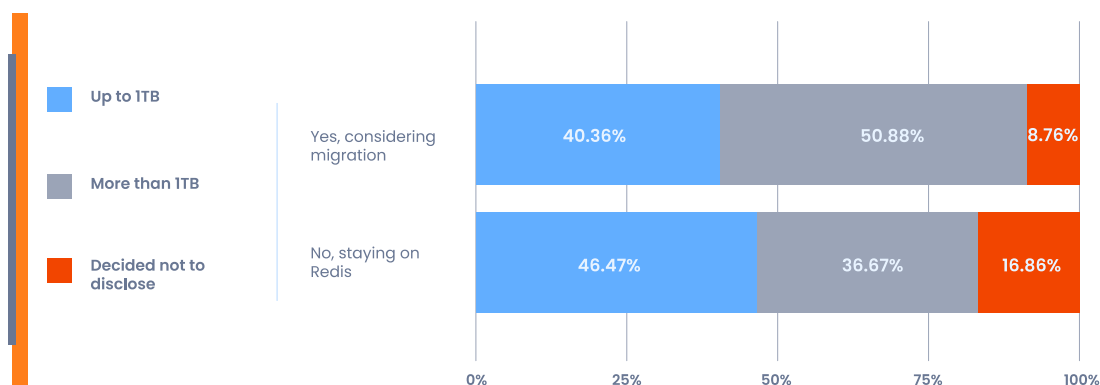
### Migration Plans by Company Size



Question #7, by company size:  
What do you think about Redis moving the code base to a more restrictive license?

From the perspective of an organization's data footprint, those who deal with larger databases (more than 1TB) are more likely to consider migration from Redis quicker than those with a smaller database footprint.

### Migration Considerations by Largest Database Size

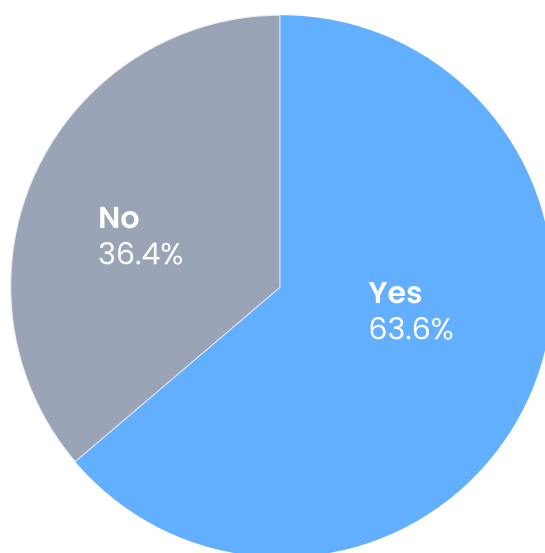


The survey findings support the idea that organizations with larger datasets require robust, scalable solutions to maintain performance and reliability. If the new licensing model limits their ability to scale effectively or makes scaling cost-prohibitive, they are more inclined to migrate to alternatives.

## Awareness about the Valkey project

One of the primary determinants of success for open source projects is how quickly they are able to attract a critical mass of supporters and contributors. Although it's still too early to come to any conclusions concerning how successful Valkey will ultimately be, the unusually high levels of early interest and awareness certainly indicate the project shows promise.

According to the survey, **more than 63% of respondents were aware of Valkey's existence from the inception of the project.** The remaining 36% answered "No" to the question "Have you heard about Valkey, an open source Redis alternative?"

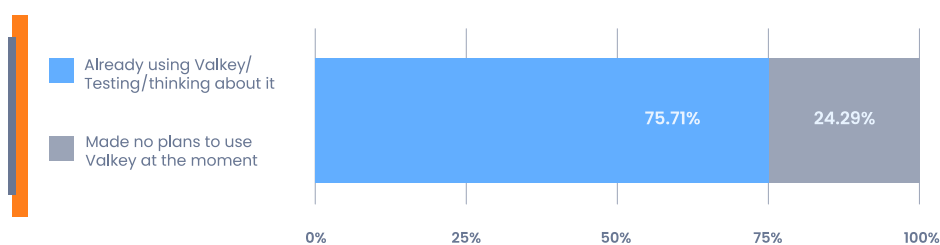


Question #8: Have you heard about Valkey, an open source Redis Alternative?

## Current adoption plans

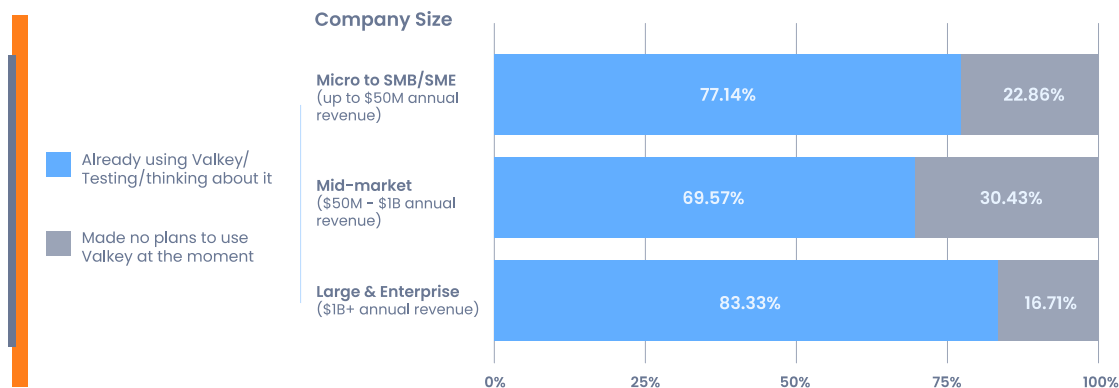
As part of the survey, we wanted a clearer understanding of respondents' current Valkey adoption plans. In response to the question, "Have you already decided to adopt Valkey in your organization?", **75.71% of respondents indicated that they have either already migrated or are testing/considering adopting Valkey.**

This seems to suggest that the support this project has received from its sponsors and the community has been effective in driving interest.



When looking at adoption plans filtered by company size, **Large and Enterprise organizations represent the biggest cohort of planned adopters and current users.** This is understandable, as the impact of licensing changes tends to be more substantial for organizations that handle large amounts of data. However, these organizations tend to migrate more slowly to alternatives due to potential downtime and operational support considerations.

## Valkey Adoption Plans by Company Size



To accelerate adoption, the Valkey community and endorsers should consider providing the necessary tools and services to ensure a smooth transition to its Redis alternative.

## A Need for Commercial Support

The extensive community support infrastructure allowed Redis to thrive as an open source project, attracting a diverse user base and fostering a collaborative environment that contributed to its rapid growth and improvement.

We don't know yet what will happen to all these resources after the licensing change, but no matter the size of the organization or the vastness of its data footprint, adopting an open source project for critical production environments always involves careful consideration of operational support, which can delay the decision to adopt new technology.

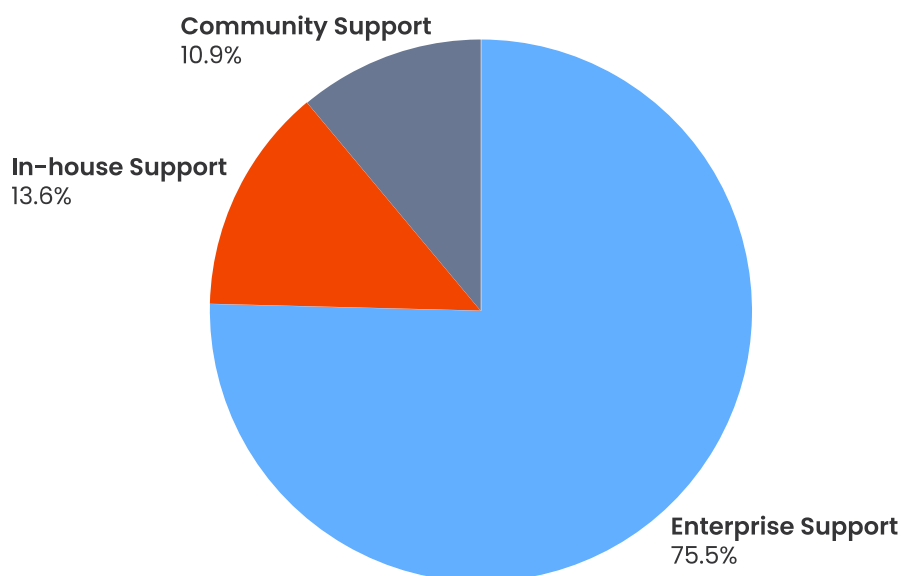
The survey highlights such considerations in several ways:

- Some organizations are uncertain about the internal resources required to support and maintain an open source Redis alternative.
- Others are exploring managed versions of Redis alternatives.
- Many are seeking external support and management options for Redis alternatives.

We also asked the surveyees to share their approach to supporting open source software, whether it is Valkey or any other FOSS project they may be using:

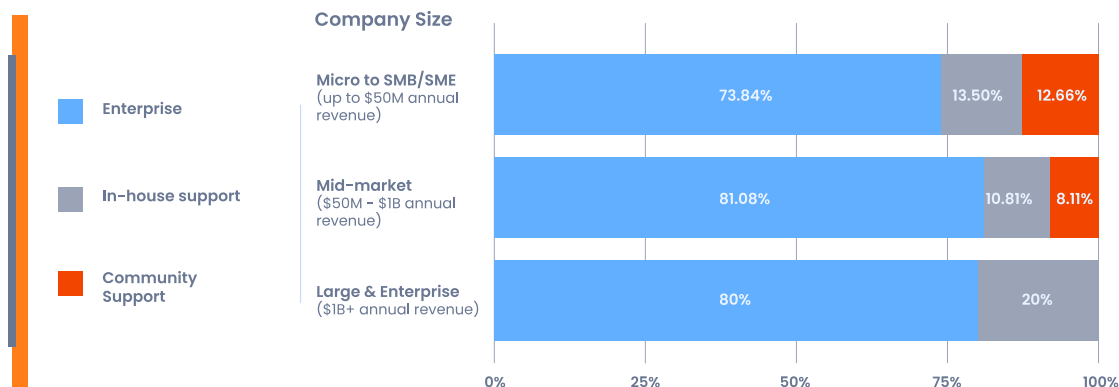
*Do you consider the availability of external vendor support for open source projects like Valkey an important factor when making technology decisions?*

The **majority of organizations (75.5%) plan to rely on enterprise support provided by third-party organizations**, regardless of whether they have internal talent to maintain the Valkey project. **The minority (24.55%) are planning to fully support their Valkey deployments with in-house teams** or community resources.



Understandably, Large and Enterprise organizations are much less likely to consider community support a viable solution for Valkey maintenance in critical production environments. Such organizations largely rely on enterprise support vendors or managed solutions, or in the minority of cases, on their in-house team.

### Valkey Adoption Plans by Company Size



Smaller organizations, on the other hand, are planning to rely on community resources to support Valkey.

## Percona's Promise to the Valkey Community

Percona is proud to formally state our support for the Valkey project and its community. At Percona, we believe an open world is a better world. Our mission is to enable everyone to innovate freely by providing the best open source database software, support, and services. And when we say "everyone," we mean everyone. From individual enthusiasts to entrepreneurs to global enterprises, we believe in the virtue and value of open source.

Recognizing the need for commercial support for Valkey, Percona is committed to providing 24/7 enterprise-grade support for organizations that plan to use Valkey in production. You can learn more about Percona Support for Valkey [on our website](#).

*"We believe in the power of open source for creating better software that meets the needs of users, developers, and companies, and that open source supports us all in achieving our goals. Many of our customers already use the Redis database, so the launch of Valkey to preserve unfettered access via a fully open source, community-powered project is a logical and vital outcome of Redis' recent business decision. We plan to provide commercial support for Valkey deployments in the future. We understand the need for profitability and revenue around open source projects to fairly compensate maintainers and contributors for their efforts. Over the past 18 years we have been working in this model, proving its viability without bait-and-switch licensing changes."*

- Ann Schlemmer, CEO at Percona

## Conclusion

In summary, this survey revealed significant insights into the adoption trends and considerations surrounding Valkey, a promising open source alternative to Redis. The primary drivers for this shift include the recent Redis licensing changes, which have prompted over 70% of respondents to explore alternatives, and a strong awareness and interest in Valkey, with 75% of participants considering or testing its adoption. The need for robust commercial support also emerged as a critical factor in organizations' receptivity to Valkey adoption, with 75.5% of organizations indicating plans to rely on third-party enterprise support to ensure successful implementation and maintenance of Valkey in production environments.

The survey aimed to assess the IT community's response to Redis' licensing changes and gauge its effects on the potential adoption of Valkey. By targeting professionals involved in database management, the survey successfully captured a representative sample of opinions, plans, and perspectives across various organizational sizes and sectors. The objectives of the survey were met, demonstrating a clear interest in Valkey as a viable alternative to Redis, driven by the need for cost-effective, scalable solutions supported by commercial enterprise services.

The survey proves that this is a pivotal moment in the key-value store landscape, with Valkey poised to gain significant traction in the coming months and years, as organizations seek open source alternatives to Redis. As Valkey continues to evolve, its ability to meet the unique needs of a diverse range of organizations, coupled with strong commercial and community backing, will be crucial in solidifying its position in the market.

## Methodology

The survey was conducted from April to July 2024 on the SurveyMonkey platform.

The survey aimed to study a group of IT professionals who are somehow related to database management, including leadership, consultants, Q&A, and R&D teams.

The survey's sample size is 151 responses, collected with an online questionnaire distributed through email, social media, and dedicated website pages. Follow-up interviews were conducted with a few of the respondents to get more in-depth insights. Additionally, survey results were validated with industry analysts from Forrester and RedMonk.

We used judgment sampling, which is when researchers choose samples because they feel they give them the information they require. To ensure we analyzed only qualified answers, the exclusion rules were applied:

- Those who were not members of the technical teams, like marketing or sales, and those who were not using key-value store solutions were disqualified.
- The respondents who do not use Redis or haven't heard of the change in licensing were not taken into consideration.

The survey included an incentive: Those who decided to add corporate email addresses to the survey were entered into a raffle for five \$100 USD Amazon gift cards. The winners were chosen randomly after the survey ended in July 2024.

We acknowledge the following limitations of the survey:

- The respondents were incentivized, and initially, it attracted a portion of unqualified respondents and multiple fraudulent submissions. To resolve this issue, we made the requirement for the email to be corporate, which alleviated the issue.
- The survey was distributed through Percona-owned or contracted channels: Percona Website, Percona email database, Percona social media, and The New Stack advertising. Because it was distributed through the Percona-related channels, it may underrepresent certain groups of professionals whom Percona channels don't yet reach. To resolve this limitation, we engaged with qualified industry analysts to evaluate survey insights with their market knowledge. Additionally, we disqualified those who didn't use any key-value store solutions from the survey.

## Appendix

- [Full survey questionnaire](#)
- [Raw survey results](#)





**PERCONA**

[percona.com](https://percona.com)