



COLLABORATION
CONFERENCE

#CSCollab2023



STATE OF THE UNION CloudStack Enables

Rohit Yadav

VP of Apache CloudStack

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November 23-24, 2023 | Paris, France



About

- **Rohit Yadav**, From Gurugram, India
- VP Apache CloudStack
- VP Engineering ShapeBlue
- 11+ years with Apache CloudStack as Committer and PMC Member
- Kubernetes and Kubernetes-SIG Member
- Authored several flagship CloudStack features and tools, served as Release Manager
- Leader, Mentor, Software Architect
- Married, loves cats, homelabbing, programming





CloudStack
=
Enabler Technology

It's Been A Year!

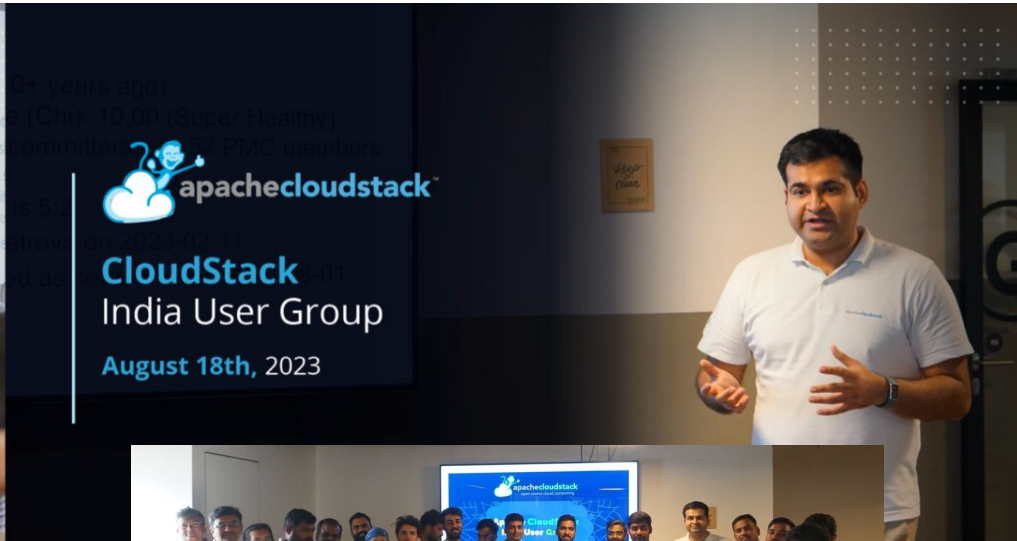


CloudStack Enabled At CloudFest, KubeCon and CloudNativeCon 2023





CloudStack Enabled In Europe and India





CloudStack GSoC 2023 Project Enabled

Support Import-Export Instances on KVM



Ayush Pandey
GSoC 2023 Student



Nicolas Vazquez
GSoC 2023 Mentor



CloudStack Blog Migration Enabled



CloudStack Blog

All Posts

News

Announcements

Case Studies & Integrations

Meet the Community

CloudStack Collaboration Conference Agenda is Now Live!

October 3, 2023



Ivet Petrova
PMC Member



Are you ready for the most anticipated Apache CloudStack event of the year? The CloudStack Collaboration Conference is back, and this time it's happening in Paris on November 23-24.

The wait is finally over, as the conference agenda has just been released, giving attendees the chance to plan their schedules and make the most of this extraordinary gathering of cloud enthusiasts, developers, and industry leaders.

Tags: [news](#)

[Read More](#)

<https://cloudstack.apache.org/blog>



Enabling New CloudStack Project Website!

The screenshot shows the new CloudStack project website. At the top is the CloudStack logo and a navigation menu with items: About, Community, Use Cases, Users, Documentation, Download, Blog, and a search bar. The main heading is "Apache CloudStack™" followed by the tagline "Easy-to-use, Reliable, Scalable and Powerful IaaS Open Source Cloud Computing Platform". Below this, it announces "Apache CloudStack 4.18.1.0 LTS is out!". There are two buttons: "Download" and "Documentation". To the right is a large illustration of the monkey mascot sitting on a cloud.

The screenshot shows the old CloudStack website. The main heading is "Open-Source Cloud Computing". Below it is a sub-heading: "An open source software designed to deploy and manage large networks of virtual machines, as a highly available, highly scalable infrastructure as a Service (IaaS) cloud computing platform." There are "Download" and "Documentation" buttons. At the bottom, there is a row of logos for partner companies: brainboard, NTT DATA, leaseweb, INDIQUS, ARSAT, we SYSTEMS, brainboard, and NTT DATA. To the right is a 3D illustration of the monkey mascot sitting on a stack of server racks.

The screenshot shows the CloudStack simulator demo interface. It features a dashboard with various metrics and a list of virtual machines. The metrics include:

- Inventory: 11.27%
- CPU: 0.00%
- Storage: 1.62%
- Primary storage: 0.00%
- Public IP addresses: 0.00%
- Management IP pool: 0.00%
- Secondary storage: 0.00%
- VLAN/VXN: 0.00%
- Shared network: 0.00%
- GPU: 0.00%
- CPU usage: 0.00%

 Below the metrics is a "Try CloudStack Simulator Demo" button.

About CloudStack™

Apache CloudStack is open source software designed to deploy and manage large networks of virtual machines, as a highly available, highly scalable Infrastructure as a Service (IaaS) cloud computing platform. CloudStack is used by a number of service providers to offer public cloud services, and by many companies to provide an on-premises (private) cloud offering, or as part of a hybrid cloud solution.

CloudStack is a turnkey solution that includes the entire "stack" of features most organizations want with an IaaS cloud: compute orchestration, Network-as-a-Service, user and account management, a full and open native API, resource accounting, and a first-class User Interface (UI). CloudStack currently supports the most popular hypervisors: VMware, KVM, Citrix XenServer/Hypervisor, XCP-ng, Oracle VM server and Microsoft Hyper-V.

<https://cloudstack.staged.apache.org>

The screenshot shows a page titled "Apache CloudStack Infrastructure for Virtual Machines and Bare Metal". It features a diagram illustrating the architecture of the CloudStack infrastructure, showing components like Compute, Storage, Network, and User Interface. Below the diagram is a "Download" button. The text describes CloudStack as a turnkey solution that includes the entire "stack" of features most organizations want with an IaaS cloud: compute orchestration, Network-as-a-Service, user and account management, a full and open native API, resource accounting, and a first-class user interface (UI). It also mentions that users can manage their cloud with an easy-to-use Web interface, command-line tools, and/or a full-featured RESTful API.

Open for review and feedback...



Healthy Community Enabled

- Super Healthy Community (Score 10.00)
- Welcome New Committers:
 - Sina Kashipazha
 - John Bampton
- Welcome New PMC Members:
 - Daniel Augusto Veronezi Salvador
 - Ivet Petrova
 - Abhishek Kumar (*recently accepted invitation)

** As of 23 Nov 2023



Releases Enabling Us

CloudStack:

- 4.17.2.0 on 16th December 2022
- 4.18.0.0 on 20th March 2023
- 4.18.1.0 on 12th September 2023

CloudStack CloudMonkey CLI:

- 6.3.0 on 10th May 2023

Others:

- Cluster API Provider for CloudStack (CAPC): v0.4.9-rc8 (Nov '23)

New Release:
Apache CloudStack 4.18

apachecloudstack
open source cloud computing

- Edge Zones
- Autoscaling
- Managed User Data
- Two-Factor Authentication Framework
- Support for Time-based OTP (TOTP) Authenticator
- Volume Encryption
- SDN Integration - Tungsten Fabric

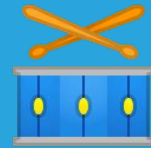
The graphic features a central 3D stack of server racks with four CloudStack logos on top, surrounded by four smaller server rack icons connected by a network mesh. The background is light blue with a subtle grid pattern.



Upcoming Releases to Enable

- CloudStack 4.19: Go see Abhishek's talk on what's coming
- Others upcoming and future releases:
 - CloudStack Terraform Provider v0.5.0
 - CloudMonkey v6.4.0
 - CAPC v0.4.9 GA, v0.5.0
 - CloudStack 4.18 and 4.19 Maintenance releases
 - Next Major CloudStack Release - 4.20...

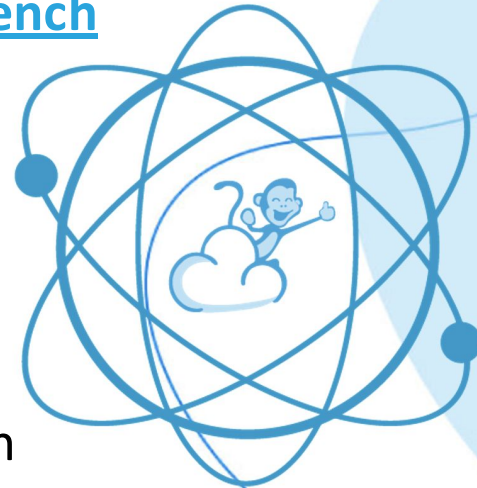
Drumroll Please





Enabling New CloudStack Project!

- Introducing **CSBench**
<https://github.com/apache/cloudstack-csbench>
- New CloudStack Benchmarking and Load Generation Tool
- Enables testing CloudStack performance and operations at scale
- Early in the development phase, contribution and collaboration are welcome!



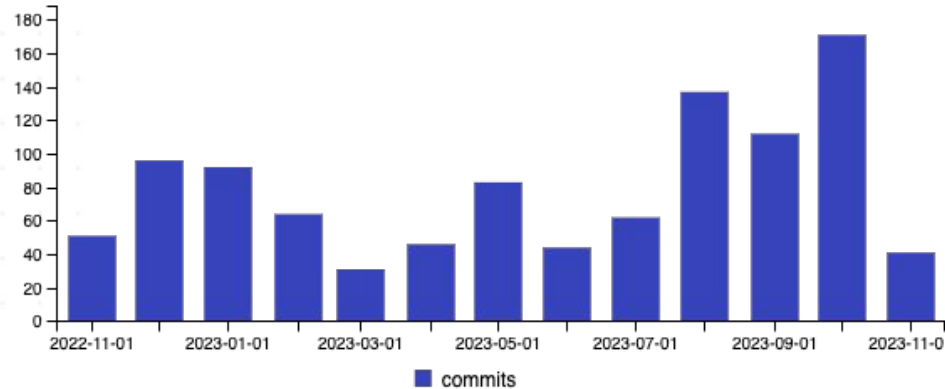


Insights: Community Enables CloudStack



Github Trends

- 1600+ Github Stars and Growing
- 1000+ Github repo forks



Commits Activity By Month (Github)

**sources: Github, Apache Kibble, Apache Reporter, Apache Kibble (<https://demo.kibble.apache.org>)

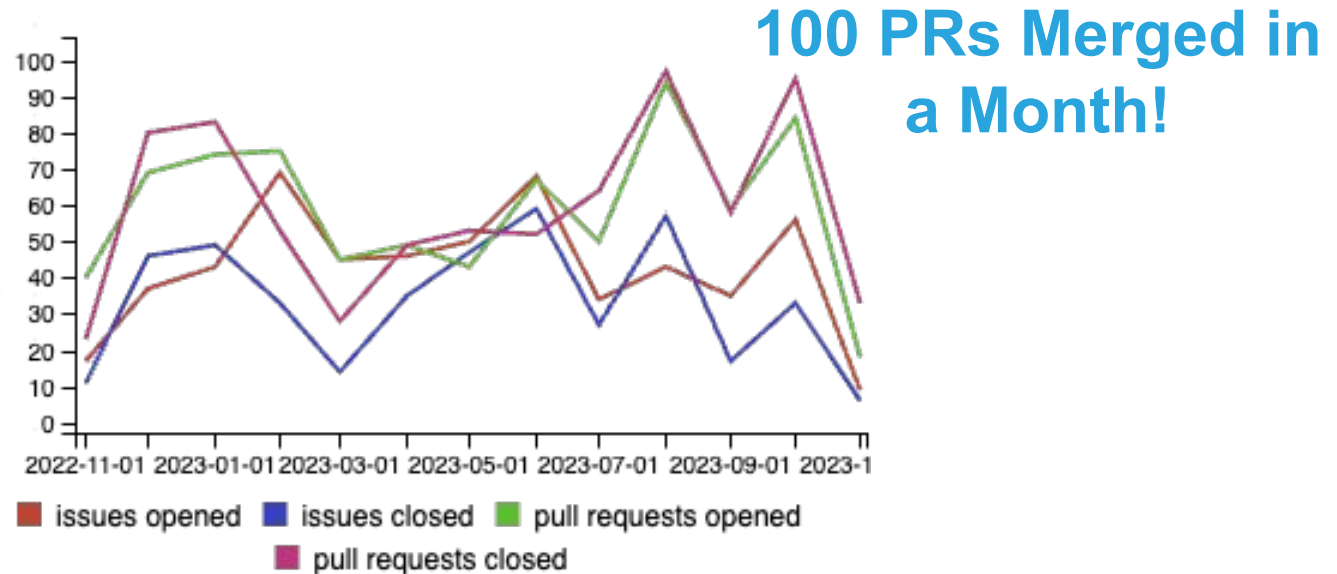


Our Github Repo got 1700+ Unique Visitors in the Last 15 days

**source: <https://github.com/apache/cloudstack/graphs/traffic>, as of 21 Nov '23

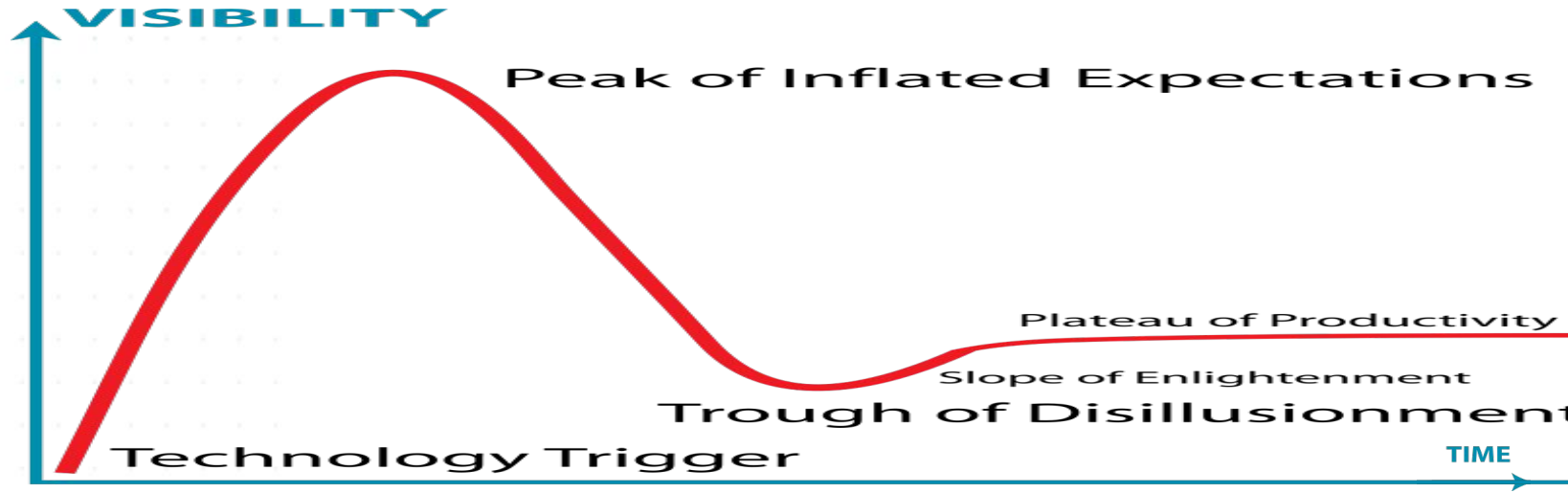


Github Issues and PRs Trends



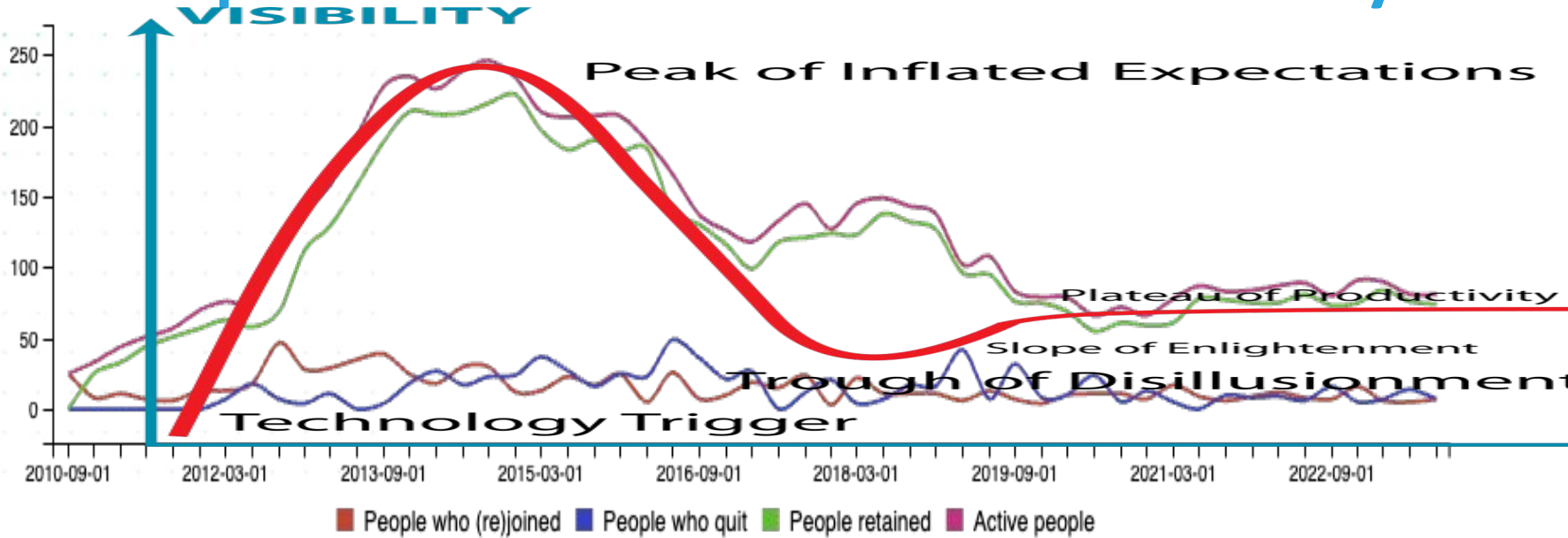
Issues and PRs Opened/Closed By Month

**sources: Apache Kibble (<https://demo.kibble.apache.org>),
<https://github.com/apache/cloudstack/pulse/monthly>



Everybody's Seen The Hype Curve

Developer Retention: Plateau of Productivity



Developer Retention over time (codebase)

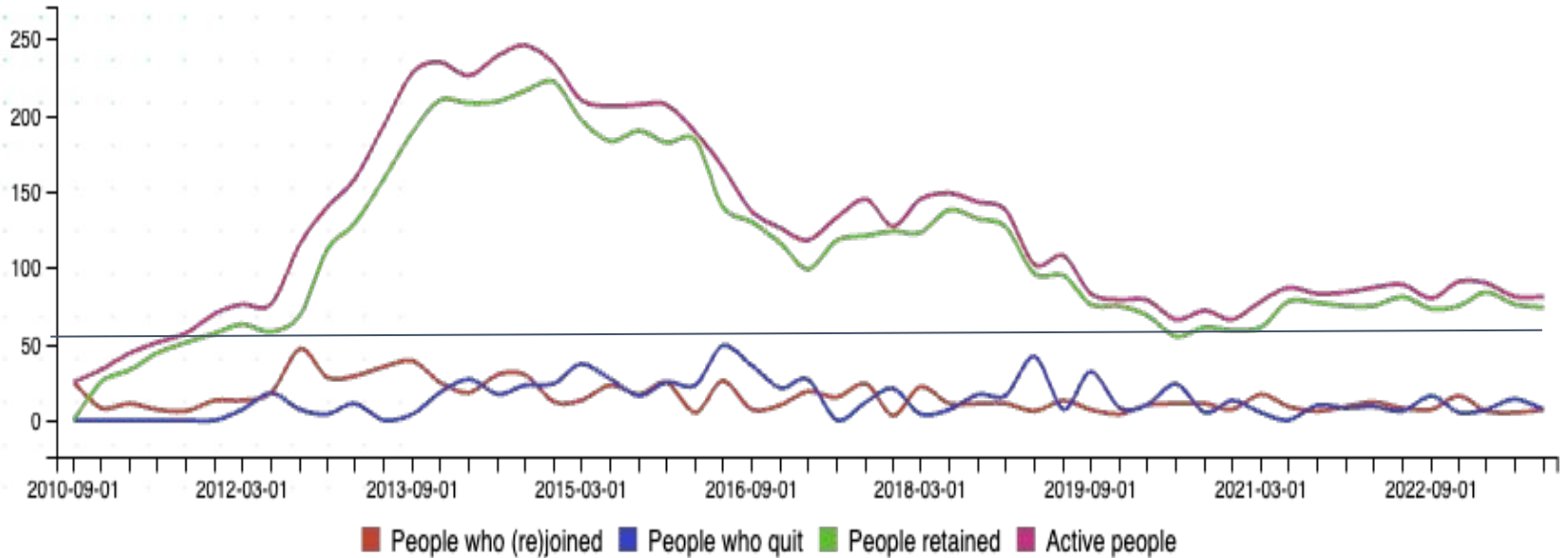
This shows Contributor retention as calculated over a 12 month timespan.

The average experience of currently active people is 2 years, 7 months.

**source: Apache Kibble



Developer Retention: Plateau of Productivity



Developer Retention over time (codebase)

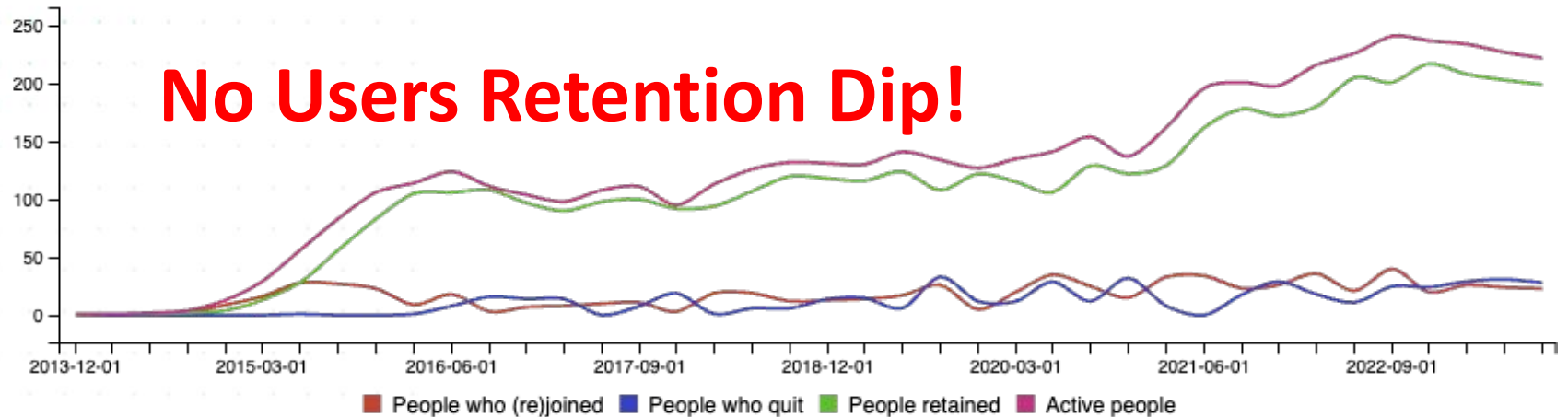
This shows Contributor retention as calculated over a 12 month timespan.

The average experience of currently active people is 2 years, 7 months.

**source: Apache Kibble



Issues (Users) Retention



Retention over time (issues)

This shows Contributor retention as calculated over a 12 month timespan.

The average experience of currently active people is 1 year, 9 months.

**source: Apache Kibble

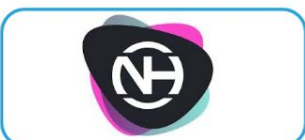
Ever Growing Users

Enabling Community → Enabling CloudStack



CloudStack Adoption Enabling Its Ecosystem

Among the Apache CloudStack Users are:



... and many more

**Let's Hear From Some
Happy & Enabled
CloudStack Users**



*“Stable platform on which
you can build a company”*



Wido den Hollander
CTO at Your.Online

“Game-changer”



Swen Brüseke
Managing Director, proIO GmbH

“Cost-effective, modern capabilities”



Daya Rajaratnam
Chief Strategy Officer at iVedha

*“CloudStack and Terraform
bring scalability and flexibility”*



Fraunhofer

Tamara Muryshkin
Enterprise Service Manager
Fraunhofer-Gesellschaft



ARSAT



*“As we evolved into IaaS services, we transitioned through various orchestration technologies but eventually consolidated and replaced all of these technologies with **Apache CloudStack** due to its **exceptional flexibility and simplicity in management, especially in its upgrade process between versions among other aspects.**”*

- Fernando Alvarez

Head of IT infrastructure, ARSAT

ARSAT



KDDI



*“We have been providing a corporate cloud **IaaS service** called **KCPS** for about **10 years**. We use **CloudStack** as the basis for this service. We have nearly 2,500 hosts running on it, on which more than 13,000 end-user virtual machines are deployed.*

*The customer target is mainly medium to large enterprises that we can reach that use our L2 leased line NW service, called WVS, and many of them have **strong needs for a very stable, high-quality service**.*

*The **stability and operational simplicity of CloudStack** are key advantages for us in meeting these customer needs.”*

- **Shin Murasaki**
Technical Lead, KDDI Corporation





NTT Data



*“We use **CloudStack** with KVM in our private cloud environment... this **enables** us to guarantee stable, cost-efficient and secure operation in a flexible infrastructure and we benefit from simple, intuitive and reliable orchestration with Apache CloudStack.”*

- Andre Walter

Vice President, NTT Data Business Solutions





Our “Known Users” list shows **225**
organisations and companies.

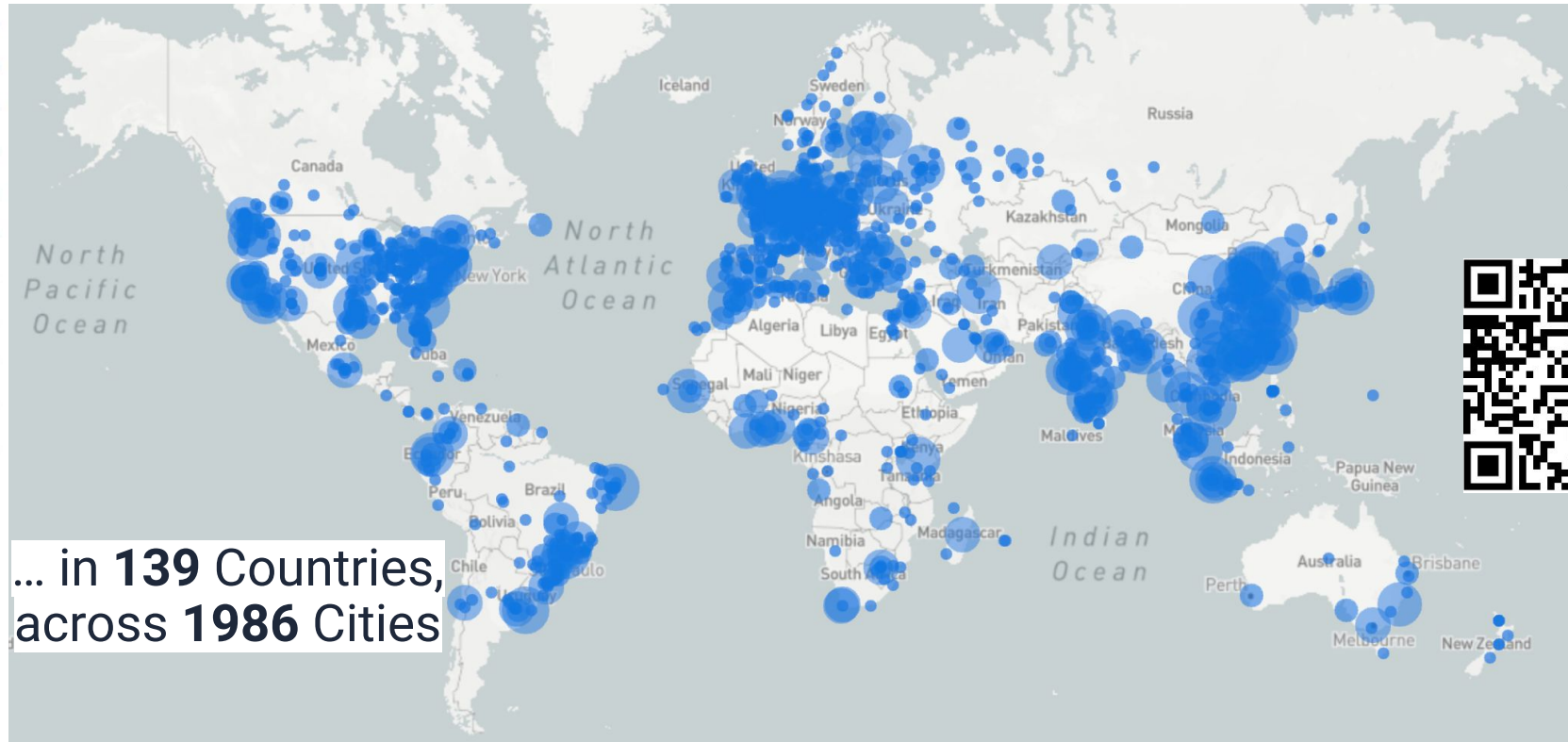


Our “Known Users” list shows **225**
organisations and companies.

In the **last 12 months**, CloudStack management
server packages downloaded **227,780** times
from **9037** unique IP addresses.**



Where Are Our Users?

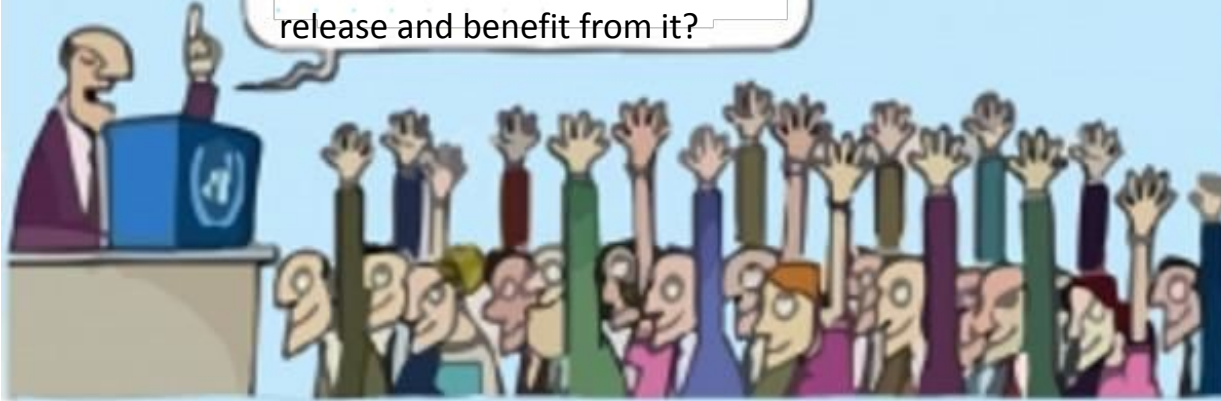


**... in 139 Countries,
across 1986 Cities**

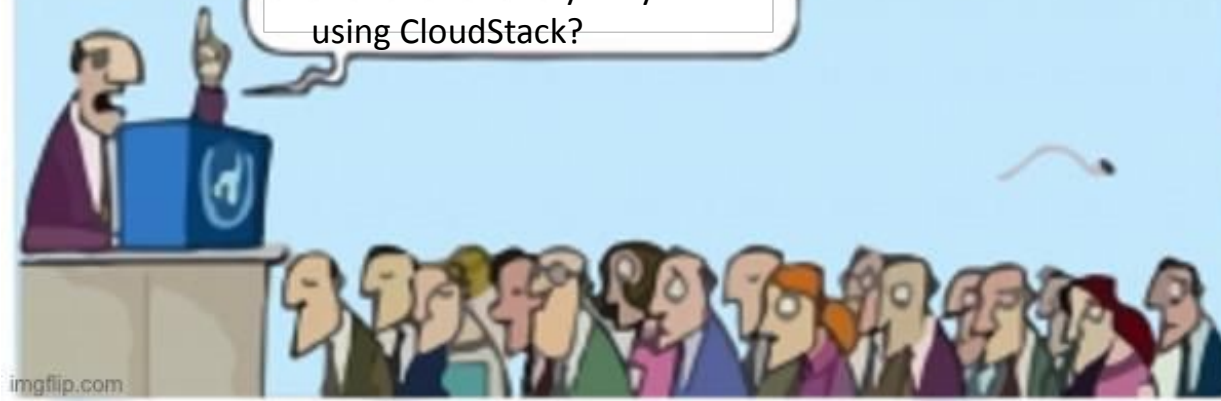
**36 months download stats mapped: <https://ipinfo.io/tools/map/94e8a49d-33a8-4f34-8d5d-6c9d19a6a4f8>



Who wants the new CloudStack
release and benefit from it?



Who wants to say they're
using CloudStack?



Are Silent Users, Happy Users?

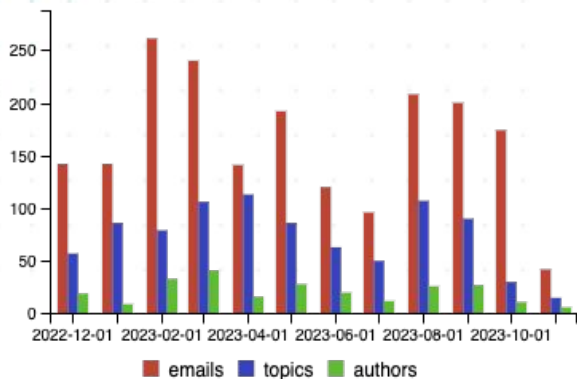
**CloudStack Users Are
Silent and Happy Users**

That's Great, But...

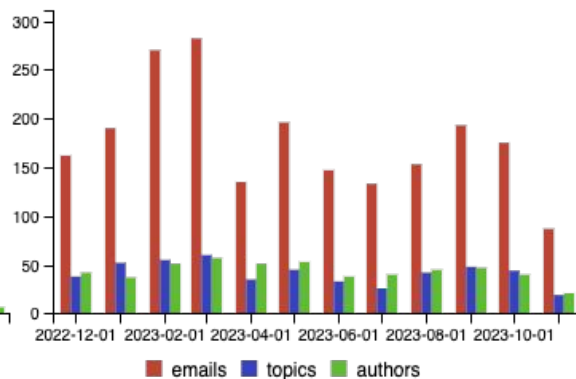
**Participation
Promotion
Awareness**



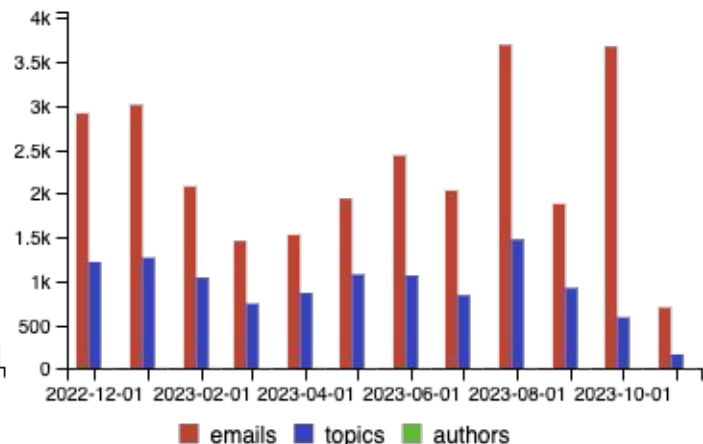
More People are Active on Github than on our Mailing Lists!



dev@cloudstack.apache.org



users@cloudstack.apache.org



commits@cloudstack.apache.org

Rethink Community Practices



User Organisations Can Help And Enable CloudStack

Get Involved

Collaborate

Contribute

**Make Some Noise,
Spread the Word!**



Thoughts on Future of CloudStack

**Enable Others:
Build on Abstractions**

**Enable Migration:
Users are Reconsidering
Hyperscalers**

Enable Tooling and Integrations: APIs and Automation

**Enable and Win
On Our Strengths**

#CloudStackEnables

#CloudStackJustWorks

That's It. That's The Talk.
Merci Beaucoup 🙏

OPEN-SOURCE CLOUD COMPUTING

#CSCollab2023

#CloudStack

@CloudStack

