
KubeCon
CloudNativeCon
India 2024





Introduction to Vitess

Scalable Database for Modern Applications

Speakers

KubeCon CloudNativeCon India 2024

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Agenda

- Vitess Overview
- New and Upcoming Features
- Query Serving Demo
- Q&A



Vitess Overview

What is Vitess?

Cloud Native Database

Massively Scalable

Highly Available

MySQL 5.7/8.0/8.4* Compatible

Why Vitess?

- Write Contention
- Backup / Restore times
- Read Replication
- Max Instance Size

Works with

- Database Frameworks
- ORMs
- Legacy Code
- Third Party Applications

Community

15 Maintainers

1768 PRs
101 PR authors

36 Companies

27 New Contributors

Dec 2023 - Dec 2024
Source: devstats.cncf.io

Vitess in production



Flipkart

GitHub

HubSpot

JD.COM 京东

Square

New Relic.

nozzle

peak

Pinterest

PlanetScale

shopify

slack

stitchlabs

Vinted

weave

Glossary

Keyspace

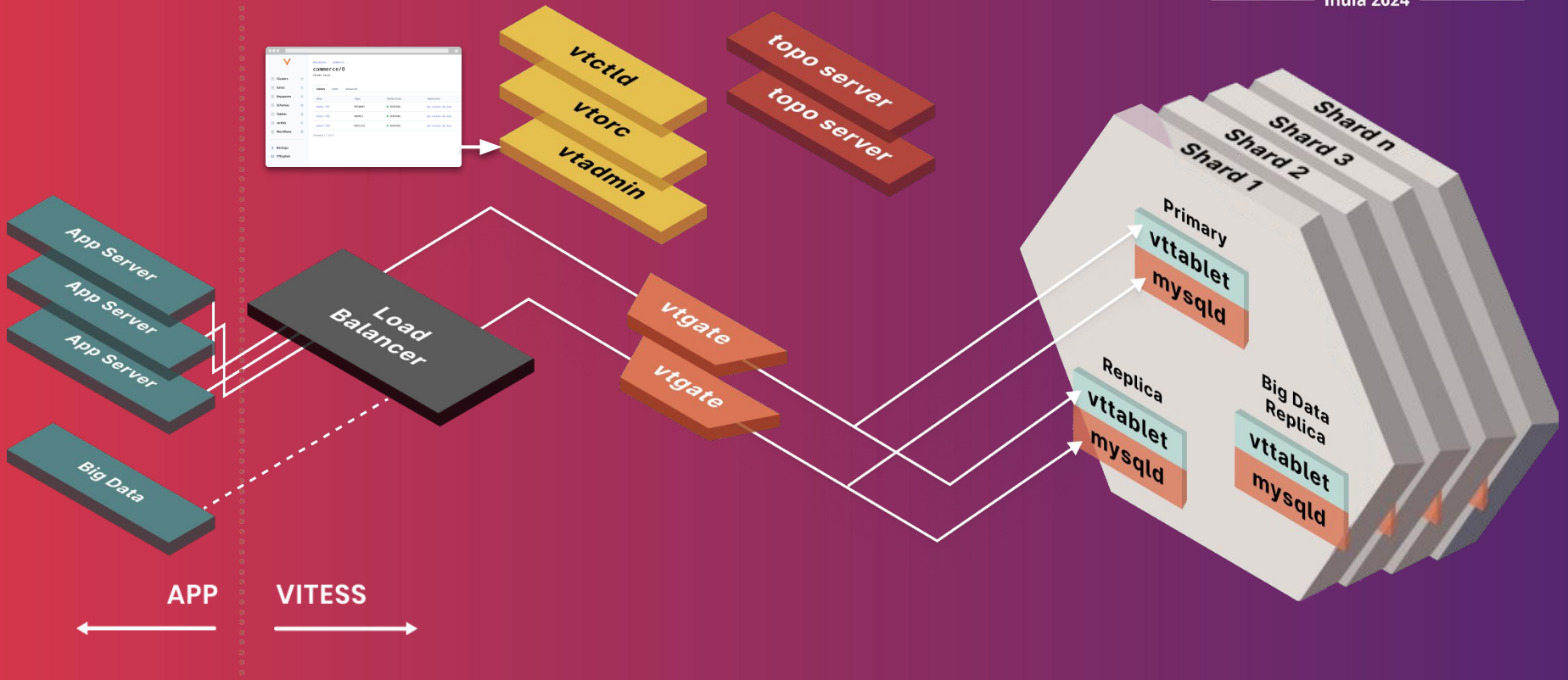
Shard

VSchema

Vindex

Architecture

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Features

- MySQL Compatibility
- Resharding
- Materialization
- Cluster Management
- Online Schema Changes
- Seamless Backup/Recovery Operations
- Query Consolidation
- Automatic Failure Detection and Repair

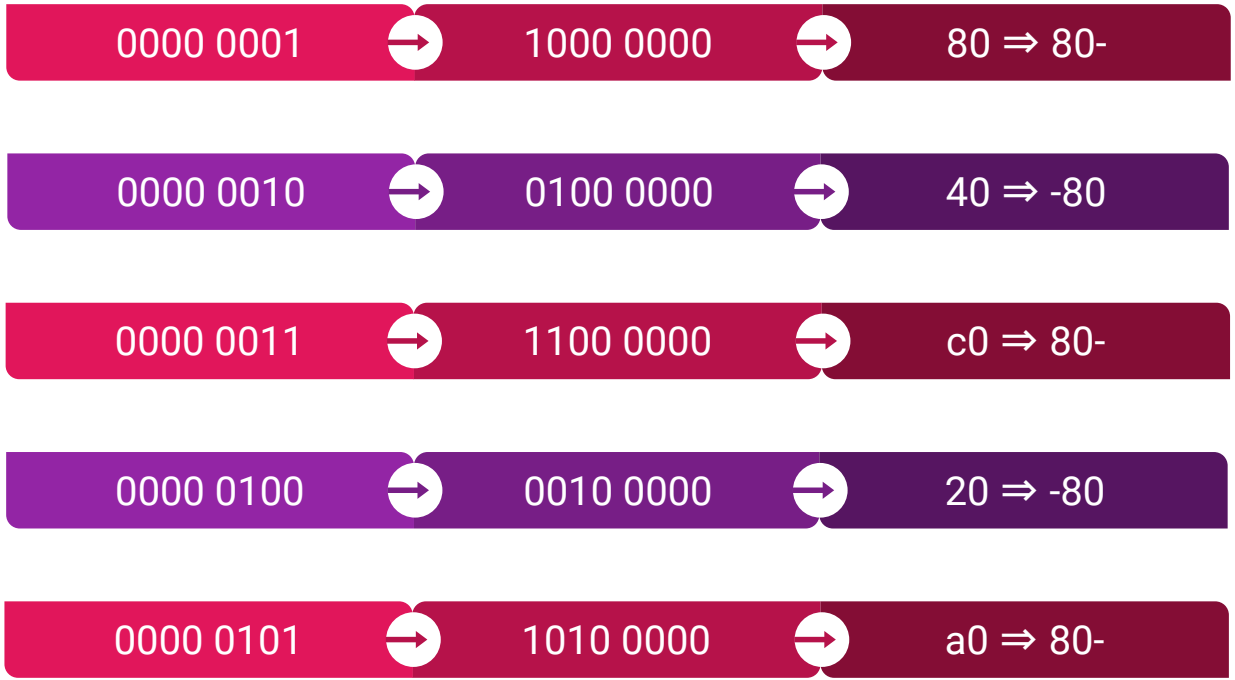
New Features

- Atomic Distributed Transactions
- Recursive CTEs
- VT Tool Kit
- Foreign Key Support
- Multi-Metrics Throttler
- Auto Scaling
- Cross-cell Planned Failovers
- Reference Table Materialization



Query Serving Demo

Reverse Bits Vindex



Resources

- Website: vitess.io
  - Docs: https://vitess.io/docs/
  - Tutorials: http://vitess.io/docs/user-guides/
  - Learning Course: https://planetscale.com/learn/courses/vitess
  - Source code: https://github.com/vitessio/vitess
- Slack: vitess.slack.com
- Demo:
  https://github.com/vitessio/contrib/tree/main/kubecon-india-24-demo



Thank You!