

The Road to Strimzi 1.0

Jakub
Scholz

Paolo
Patierno



Paolo Patierno

- Senior Principal Software Engineer @ IBM
- Strimzi maintainer and co-founder
- CNCF Ambassador



Jakub Scholz

- Engineer @ Cloudera
- Strimzi maintainer and co-founder
- CNCF Ambassador

Strimzi 1.0 is (almost) here!

Strimzi 1.0 roadmap

- 1.0.0 and **v1** CRD API **Proposal** (September 2025)
- Strimzi **0.49** + **v1** CRD API (November 2025)
- Strimzi **0.50** (January 2026) + Strimzi **0.51** (early March 2026)
- Strimzi **1.0** (April 2026)

Main changes

- The **v1** CRD API
 - Introduced in Strimzi 0.49.0
 - Big API cleanup
 - Deprecated fields from the v1beta2 API were removed (ZooKeeper, ...)
 - Removed many specific APIs in favour of extensible APIs (OPA, OAuth, ...)

Upgrade

- Flexible upgrade path
 - Start with Strimzi ≤ 0.48
 - Middle step Strimzi 0.49 - 0.51
 - Finish it by moving to 1.x
- **v1** API Conversion tool to help with the CR and CRD upgrade

- Supports
- KRaft-based

- Up
- Su
- Al
- M
- St

- Update y
- before u
- Upgrade
- API **right**
- Use the

- Upgrade to 1.0 or later **right after** the CRD Upgrade
- **v1beta2** is removed when the CRDs are installed and cannot be used anymore

≤ 0.48

0.49 – 0.51

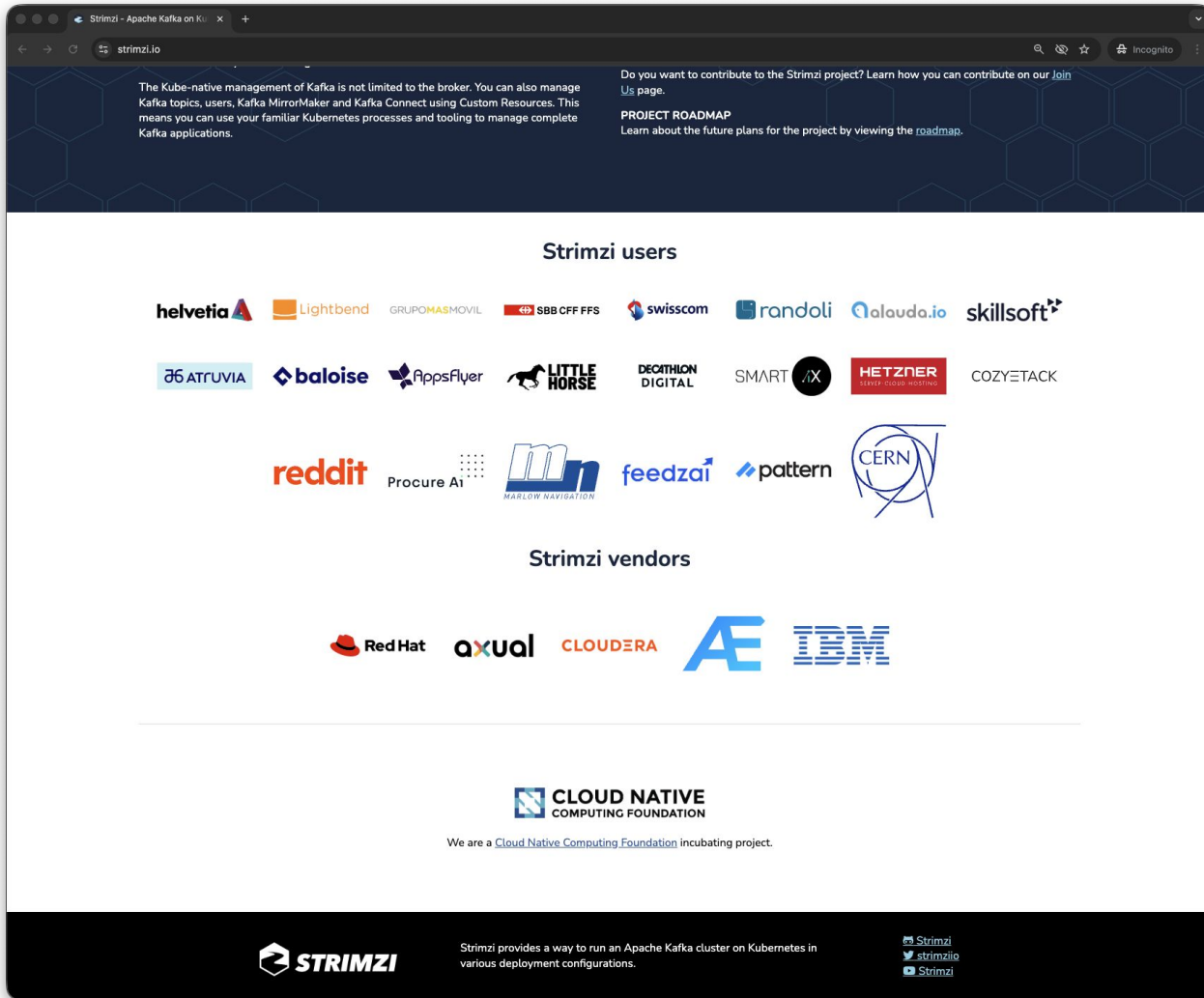
CRD
Upgrade

≥ 1.0

Conversion Tool

- Helps to deal with the new CRD version
- Convert custom resources in-place or in files
 - **convert-file** and **convert-resource** options
- “Upgrade” the CRDs
 - Required to remove the old **v1beta2** version; **crd-upgrade** option

What took as so long?



What took us so long?

- We knew that ZooKeeper removal will bring many breaking changes
 - It seemed reasonable to wait with 1.0 after it is done
 - Took way longer than initially expected
- **Sunk cost fallacy**

Making the most of it

- KRaft support
- `StrimziPodSets` and `KafkaNodePools`
- Horizontal autoscaling
- and more

What's next?

KRaft Dynamic Quorum

- Changing controllers topology dynamically
- Scales controllers without downtime
- High Availability of the KRaft quorum

KRaft Dynamic Quorum

- KRaft quorum reconciliation
- Scaling controllers ... but also:
 - Removing or Adding controller role to/from broker nodes
 - Handling of JBOD disk failures/changes
- Automatic migration from static to dynamic quorum

Cert-manager integration

- Delegate certificates lifecycle management
- Decouples certificate management from Kafka operations
- Supports both cluster and clients CA

Auto-rebalancing

- Leveraging Cruise Control anomaly detection
- Operator runs the rebalance via `KafkaRebalance` resource to fix goal violations
 - Cruise Control self-healing is not involved
- Complete the rebalancing features in Strimzi
 - On scaling up/down, move data across disks, fix anomalies

Gateway API

- Yesterday ... Ingress NGINX retired
- Bring your own Gateway (Envoy, Istio, Cilium, ...)
- `TLSSRoute` is finally available in the standard channel (since 1.5.0)
 - Support for both TLS Passthrough and TLS Termination
 - Created by the Strimzi operator based on a "listener" configuration



STRIMZICON

June 3, 2026

<https://strimzi.io/conference>

CfP is open!

- Submit at <https://sessionize.com/StrimziConVirtual2026/> by **March 31st**
 - Core Strimzi
 - Case Studies
 - Integrations
 - Operations

Visit us in Project Pavilion!

Kiosk P-1B



<https://strimzi.io/>



<https://github.com/strimzi>



@strimziio



<https://youtube.com/c/Strimzi>



<https://www.linkedin.com/company/strimzi>