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Who Owns This? Automating Backstage Catalog Ownership at Scale

Who we are

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Who we are

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the stepstone group

The Stepstone Group is one of the world's leading online recruitment companies.

10+
Countries worldwide

10+
Job platform brands

3000+
Employees

130M
Job applications yearly

Who we are

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Backstage

Our Backstage catalog

600+
Engineers

120+
Teams

130+
Systems

7000+
entities in our Backstage catalog

Our Backstage story

Our Backstage catalog grew with the organization

2021	We started using Backstage
+150	New entities (monthly)
30%	entities with ownership issues

As adoption grew, keeping ownership current became an operational problem

Ownership problems

Ownership stopped reflecting the organization

People leave. Teams reorganize, change names, or disappear.

Missing ownership	An entity has no owner
Zombie ownership	An entity points to a team that no longer exists or has no members

During an incident, the catalog can lead responders to a dead end

Why this matters now

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AI AGENTS

They query the catalog directly

Bad data means wrong answers, at scale.

AUTOMATION

It depends on the owner field

Notifications, incidents and escalations only work if it is right.

CATALOG QUALITY IS NO LONGER NICE-TO-HAVE

Stale ownership used to be embarrassing. In an AI-driven workflow, it is a bug.

From script to plugin

FIRST ITERATION

Email script

Proved the thesis: unowned entities dropped by about 2 percentage points after the first run.

On its own it cannot move the needle further.



THE PLUGIN

Not a cron job, a process

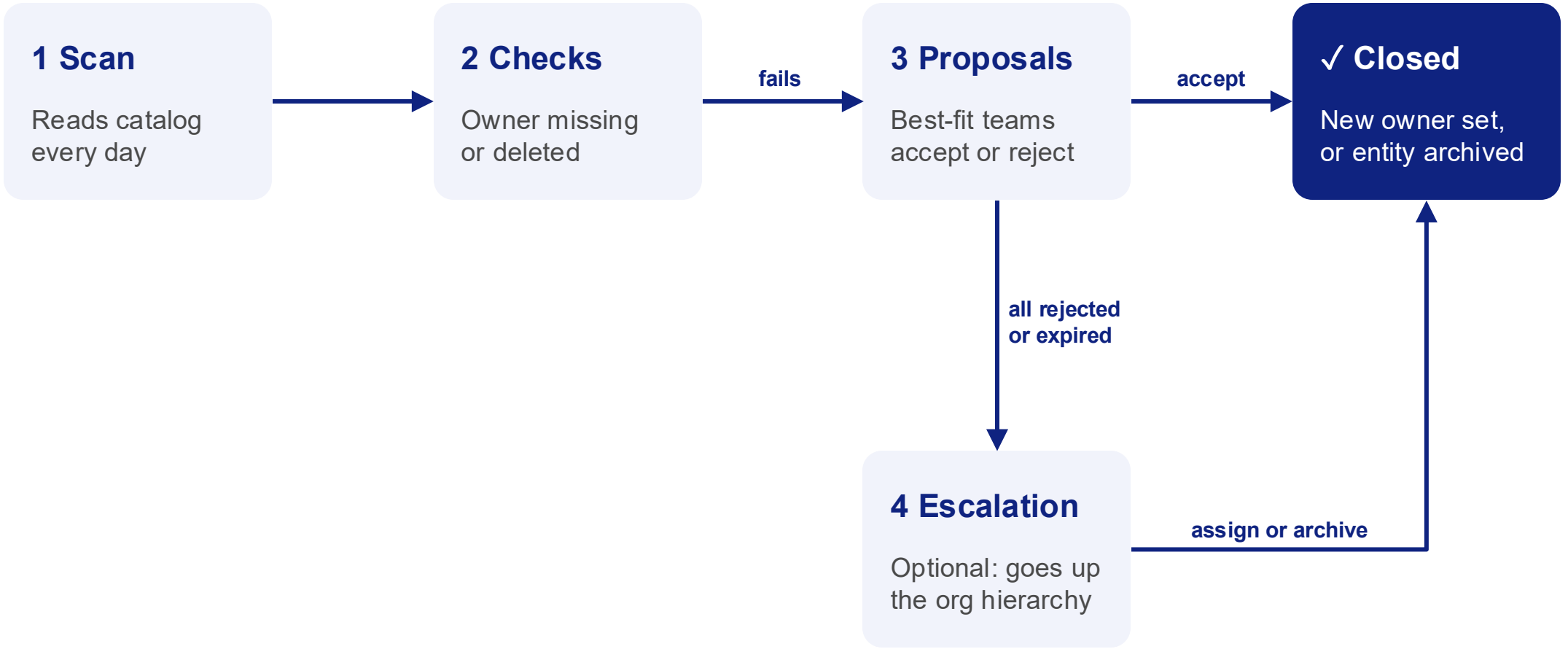
Detection loop

Grace periods

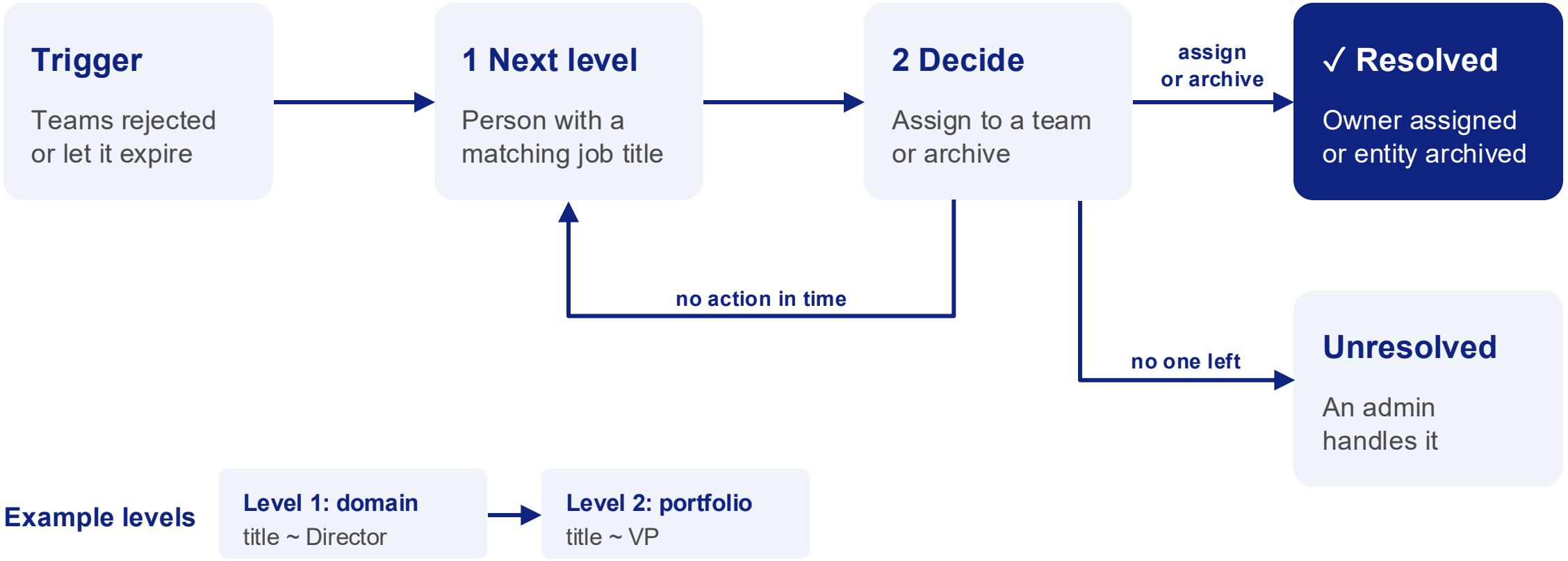
Escalation

Visibility

Ownership Matcher - Workflow



Ownership Matcher - Escalation



Example levels

Level 1: domain
title ~ Director

→

Level 2: portfolio
title ~ VP

Configurable from day one

Detection rules

What counts as a problem

- Orphaned
- Zombie
- User-as-owner
- Non-team groups
- *Plus your own rules*

Suggestion strategies

Who to suggest as the new owner

- **Top Contributor:** commit history
- **Org Proximity:** parent System's owner
- *Plus your own strategies*

WHAT IT GIVES THE ORG

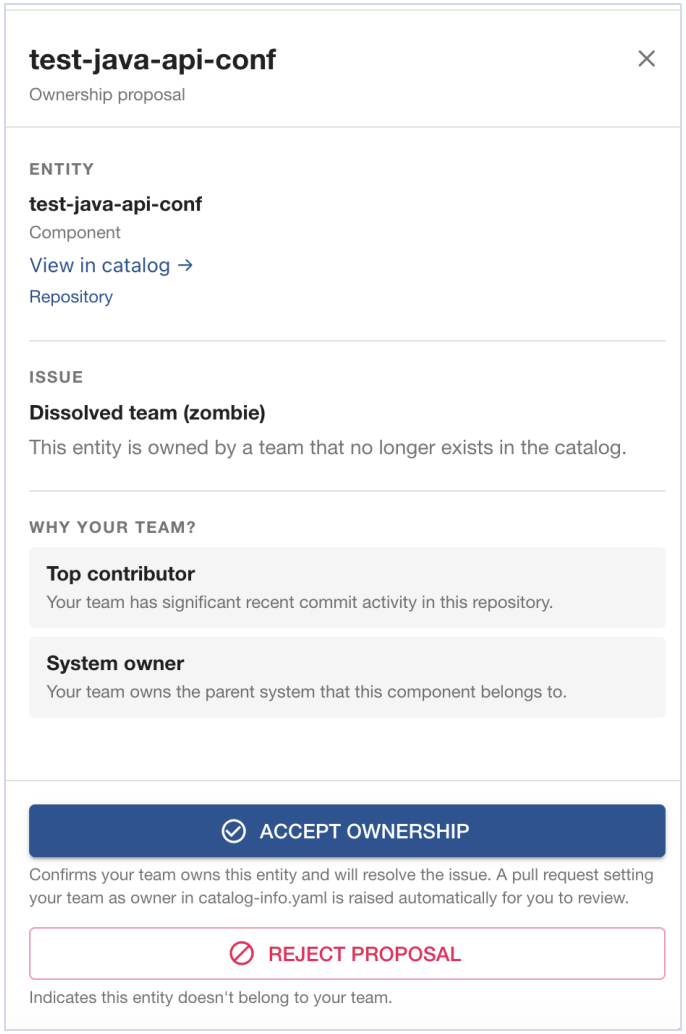
Visibility instead of silent decay

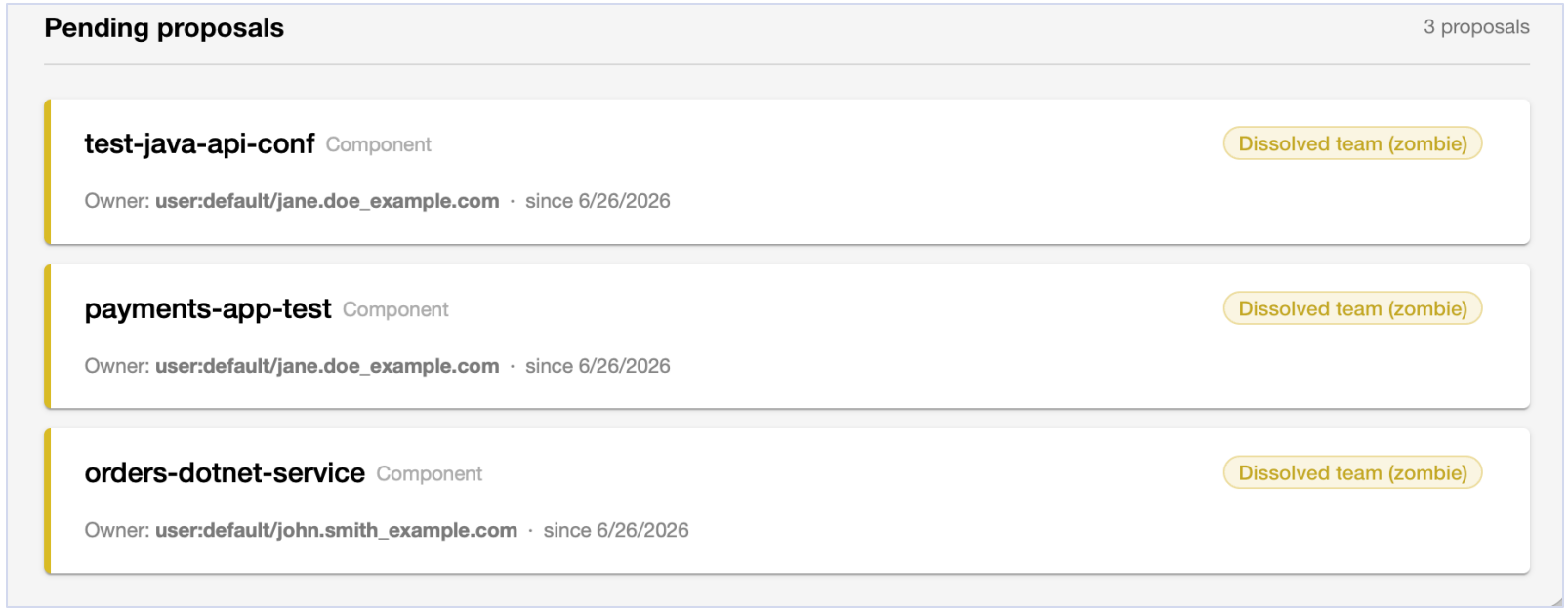
A process owners can follow

Numbers we can report quarter over quarter

Accepting a proposal

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The team accepts

One click on Accept ownership confirms that the team owns the entity.

A pull request opens

The plugin sets spec.owner in catalog-info.yaml and raises a pull request to review and merge.

The scan confirms it

When the catalog shows the new owner, the case closes as resolved in the admin panel.

Keeping teams in the loop

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BACKSTAGE NOTIFICATIONS

Ownership Proposals

Your team has 3 pending proposal(s) to review.

Review now

Reminders until it is resolved

- Pending proposals waiting for a decision
- Accepted ownership where spec.owner is still unchanged, with a link to the pull request
- Entities marked for archiving

Configurable for your company

How teams are reached is configurable, from notifications and email to channels of your own. Timing, schedule and branding are configuration too, so it fits your catalog and your company.

EMAIL DIGEST

Catalog: Ownership Issues to Review

Catalog health digest — September 2026

Hello **example-team**,

Your team has **14 entities** in the catalog with outstanding ownership issues.
Keeping catalog data accurate helps the platform route alerts, route incident escalations, and support discovery correctly.

Action required: Please review and resolve the ownership issues listed below.

Review your team's ownership queue →

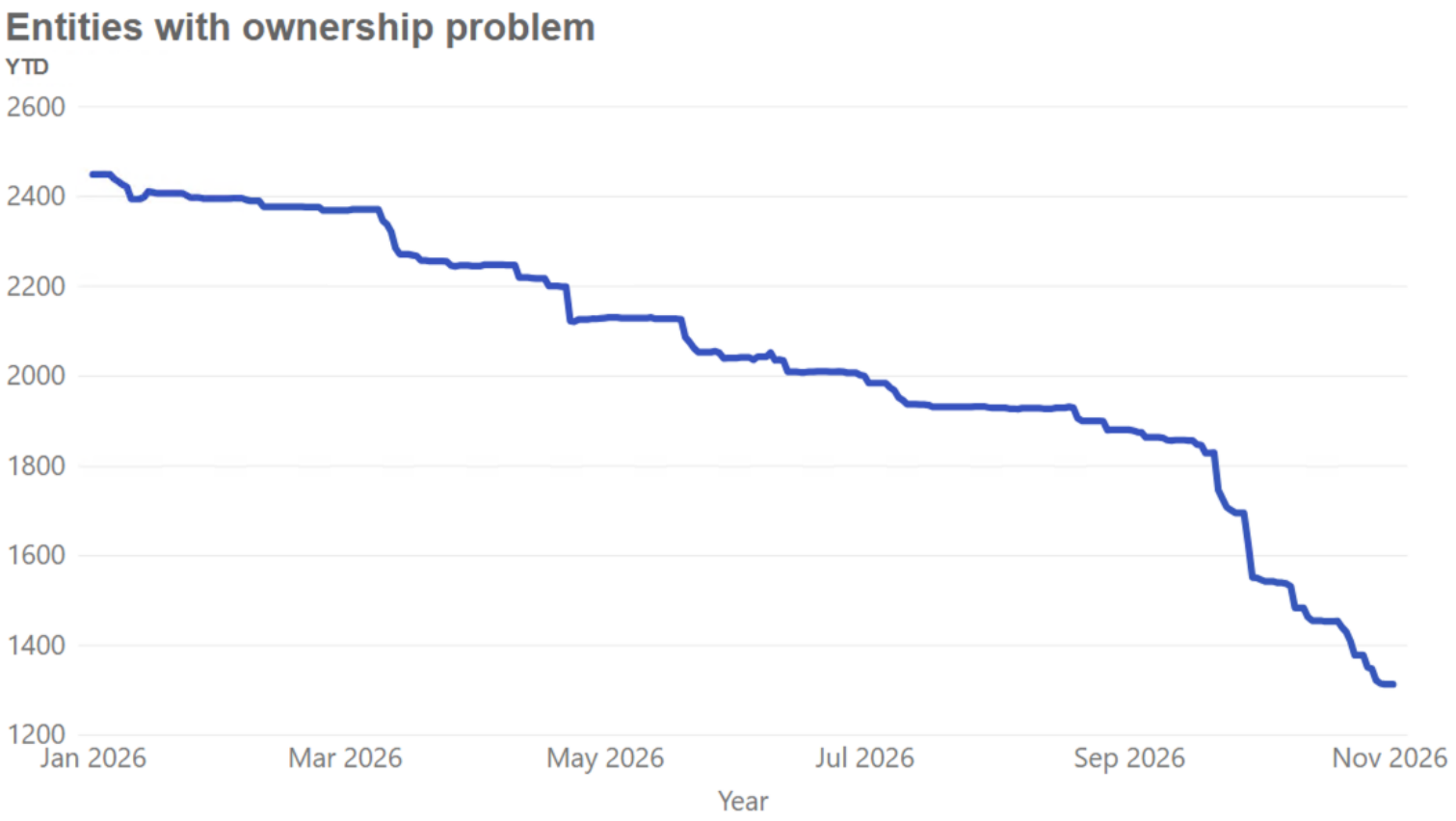
Breakdown by issue type

Issue type	Count
No owner (orphaned)	10
Dissolved team (zombie)	4

Breakdown by entity kind

Kind	Count
Component	14

Catalog ownership trajectory



AT ROLLOUT

2245

TODAY

1312

Unowned entities fell ~40% after ownership-matcher delivery.

The real picture today

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UNKNOWN OWNERS

▼43%

no owner at all

ZOMBIE OWNERS

▼41%

team disbanded or renamed

BROKEN OWNERSHIP

▼43%

HISTORICAL DASHBOARDS

Counted only entities with no owner at all.

THE PLUGIN

Also detects zombie owners, and can be configured to catch user-as-owner, non-team groups and other problems.

Try it yourself

Ownership Matcher is open-sourced

Find unowned entities, propose owners, escalate until resolved.

Repository	**stepstone-tech/backstage-plugins**
Plugin	**workspaces/ownership-matcher**

Scan the code and take it for your catalog



github.com/stepstone-tech/backstage-plugins

Q&A and Feedback

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