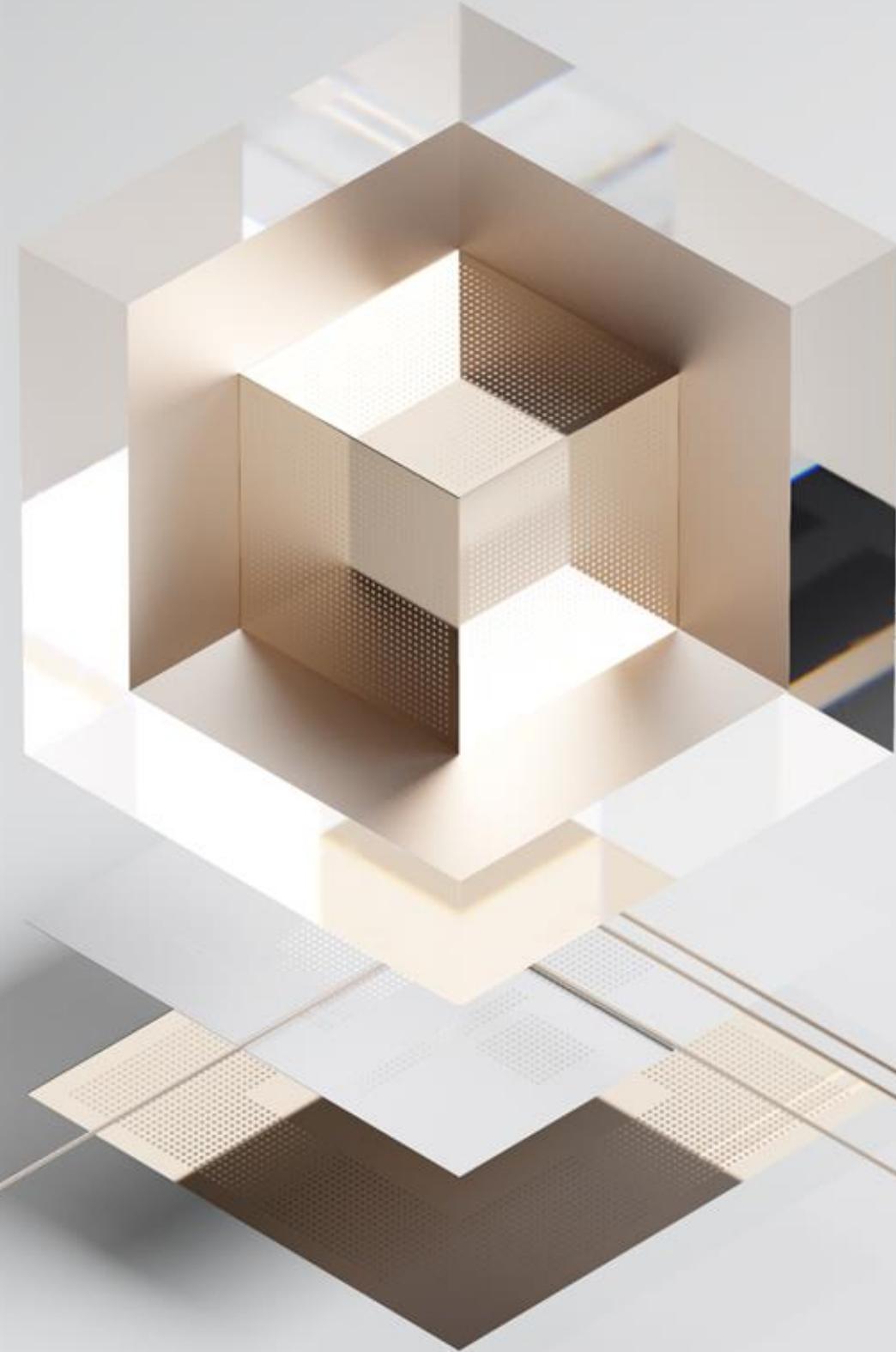


December 01-02, 2025

Root Cause Analysis & Mitigation Plan



Agenda

Incident summary

Incident impact

Root cause analysis

Incident timeline

Piano solutions

Summary

Incident date

December 01-02, 2025

Affected software modules

Insight/Piano Content Crawler Data Collection

Affected environment or location

All clients

Incident scope

Partial outage

Incident duration

1680 minutes

Impact

Incident severity

Major

Impact description

Content processing experienced significant delays, which resulted in delayed delivery of content profiles to recommendation engines and postponed indexing of newly published articles in client site search results.

Root cause

On December 1, 2025, the MongoDB database used by the Content Pipeline became unavailable due to the persistent volume reaching capacity limits.

As a result, content processing delays occurred and recently published articles on client sites were indexed in search results with significant delays.

To resolve the issue, Piano deployed a fix that temporarily bypassed the unavailable MongoDB instance and restored the MongoDB service to an operational state. The processing delays have been resolved and the content backlog has been processed.

To prevent this from happening in the future, Piano will implement enhanced monitoring of MongoDB storage capacity with proactive alerting before limits are reached, and improve overall alerting for MongoDB service availability.

Incident timeline

Minutes	Date / Time (UTC)	Description
-	2025-12-01 16:00:00	MongoDB used by the Content Pipeline failed due to persistent volume reaching capacity limits and content processing delays began to increase.
240	2025-12-01 20:00:00	Alert received regarding accumulated processing delays. Initial mitigation steps were implemented and delays were partially reduced.
900	2025-12-02 07:00:00	Processing delays increased further. Due to missing alerts in internal alerting system, a bypass solution was deployed to work around MongoDB unavailability and processing delays began to decrease.
1080	2025-12-02 10:00:00	Persistent volumes were recreated and MongoDB service was restored to operational status.
1680	2025-12-02 20:00:00	Processing delays were fully resolved and content profiles resumed normal processing without delay. Incident is resolved.

Piano solutions and corrective measures

Fixing a bug with delayed arriving of content profiles in the search index

Status

Done

Estimated delivery date

December 02, 2025

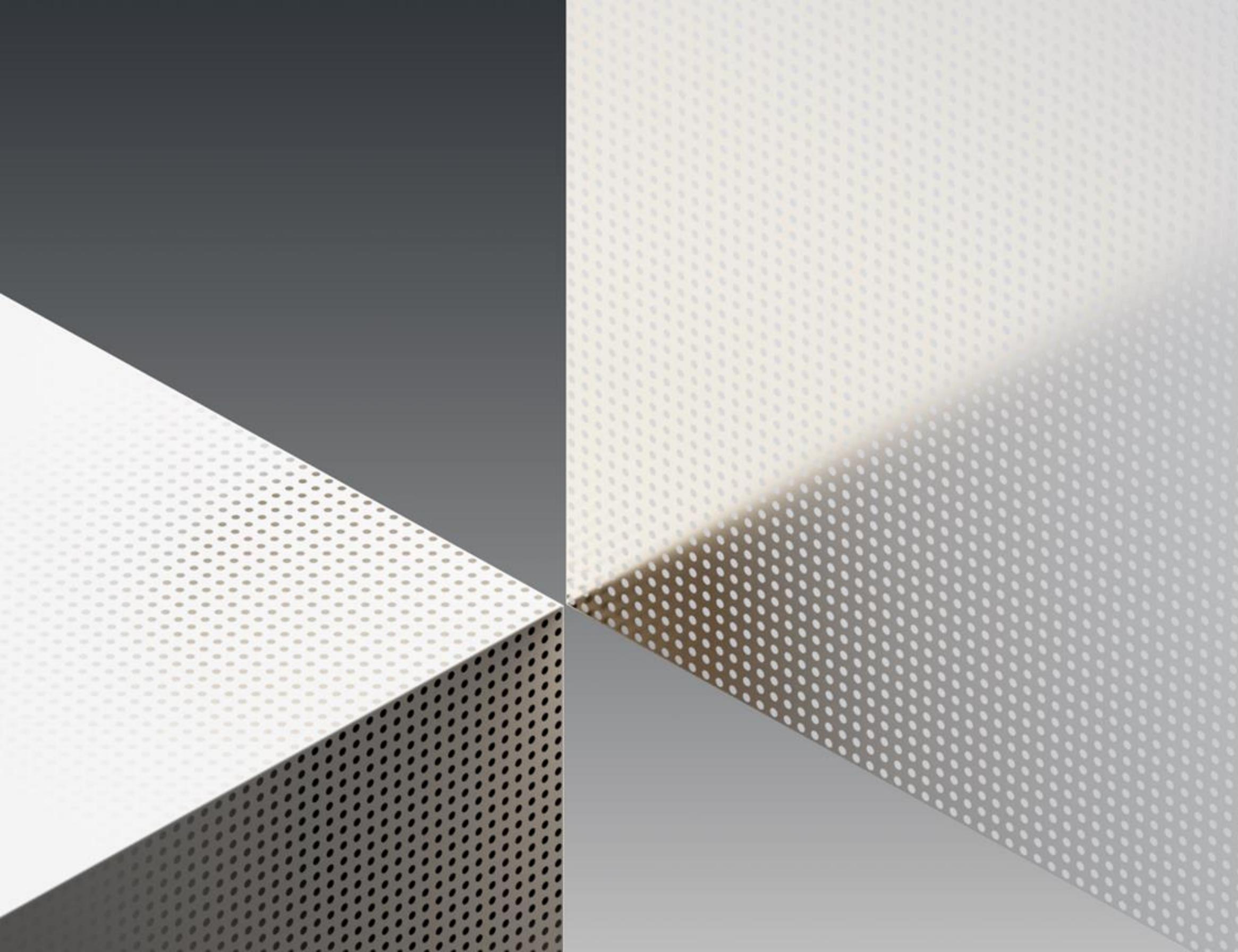
Improving monitoring and alerting of MongoDB availability

Status

Done

Estimated delivery date

December 04, 2025



piano

ANALYTICS + ACTIVATION

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