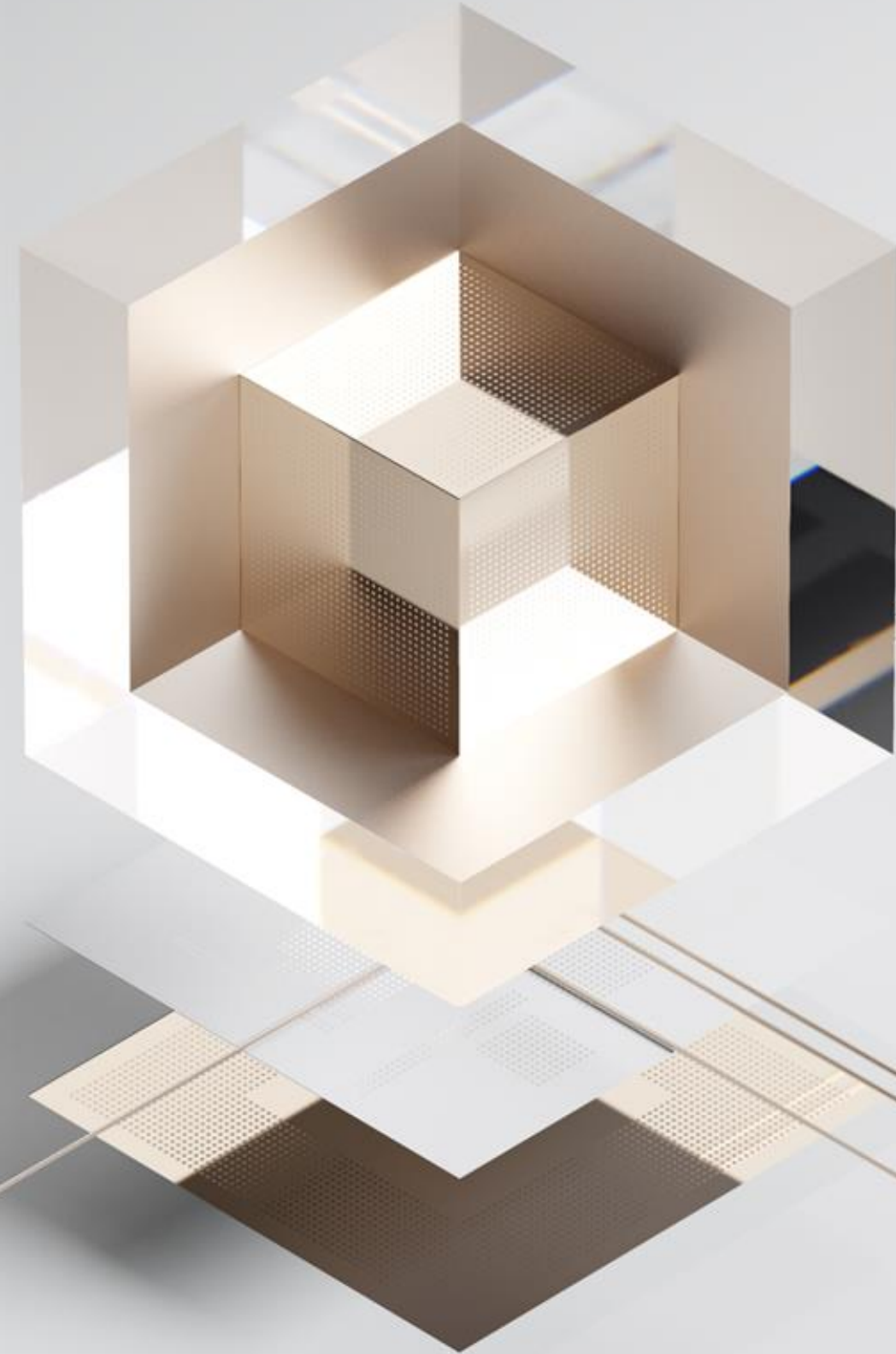


March 20-21, 2024

Root Cause Analysis & Mitigation Plan



Agenda

Incident summary

Incident impact

Root cause analysis

Incident timeline

Piano solutions

Summary

Incident date

March 20-21, 2024

Affected software modules

Insight/DMP/Insight/Search

Affected environment or location

Clients using a particular date/time format in API requests

Incident scope

Partial outage

Incident duration

~15h

Impact

Incident severity

Medium

Impact description

This incident affected all customers making API requests to `api.cxense.com` who were using a "+0000" formatted time zone in either start/stop fields or in cx authentication headers.

Root cause

On March 20, 2024, at 13:20 UTC, a Java date/time library update was deployed onto our API servers and to our Elastic related services.

Unfortunately, none of our automated tests executed any API calls with the affected time zone format (" +0000") in the request, so all of the tests all passed and the change was allowed to be deployed into production.

Once customers started reporting the problem, Piano rolled back the changes.

Additional tests were added to include these types of timestamps.

Incident timeline

Minutes	Date / Time (UTC)	Description
00	March 20 13:20 PM	Date/Time library changes deployed to production
13h	March 21 01:34 AM	The Support team received customer's ticket on the issue and escalated to the next level.
14h	March, 21 04:18 AM	On-call engineers rolled back changes. Incident is resolved.

Piano solutions and corrective measures

Add additional tests to include all real date/time formats used by our customers.

Status

Done

Estimated delivery date

March 25, 2024

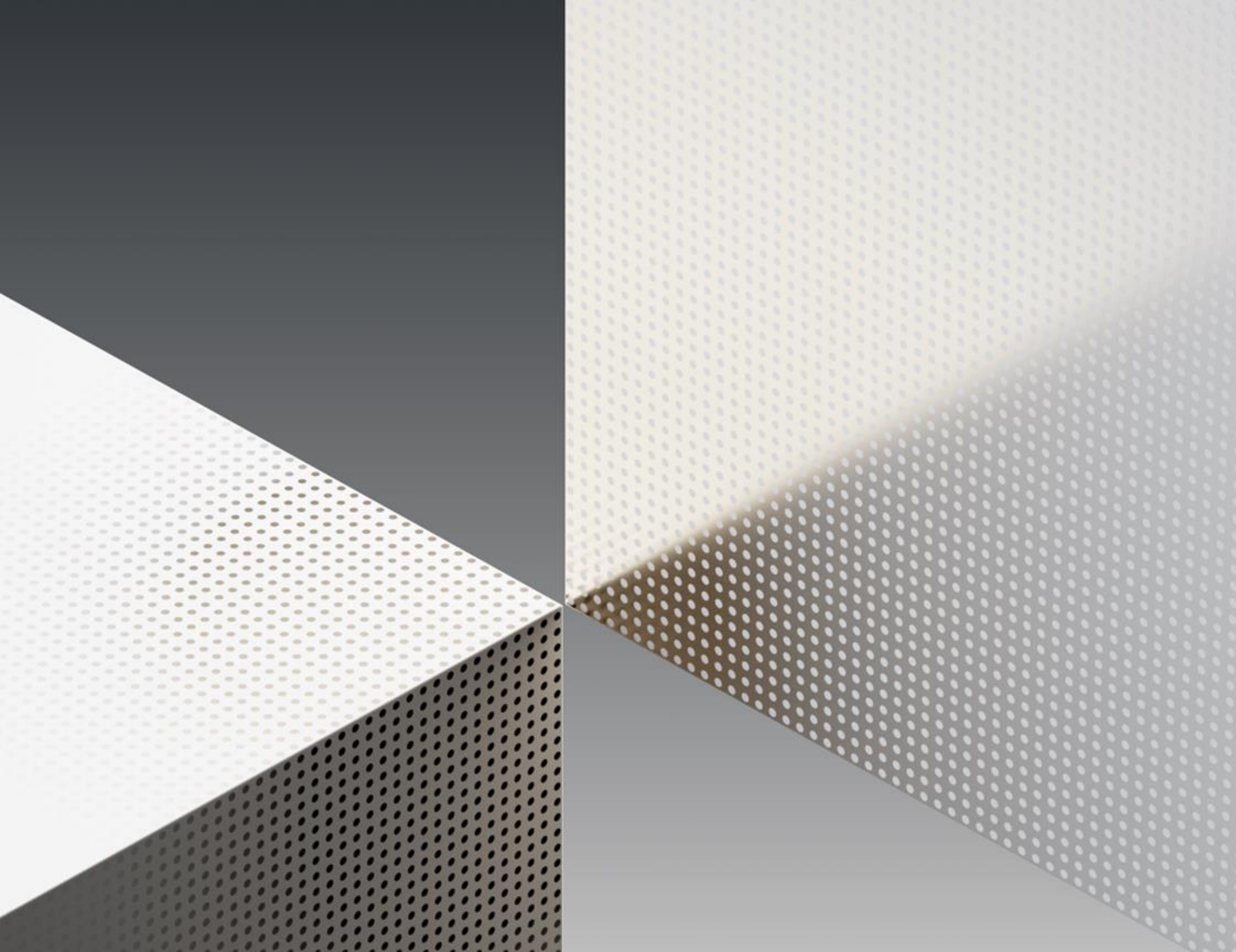
Add additional alerting to notify support engineers when API requests are failing at an increased rate.

Status

Done

Estimated delivery date

March 25, 2024



piano

ANALYTICS + ACTIVATION

We help businesses drive revenue by accelerating their ability to understand and influence customer behavior.

Learn more by reaching out to hello@piano.io