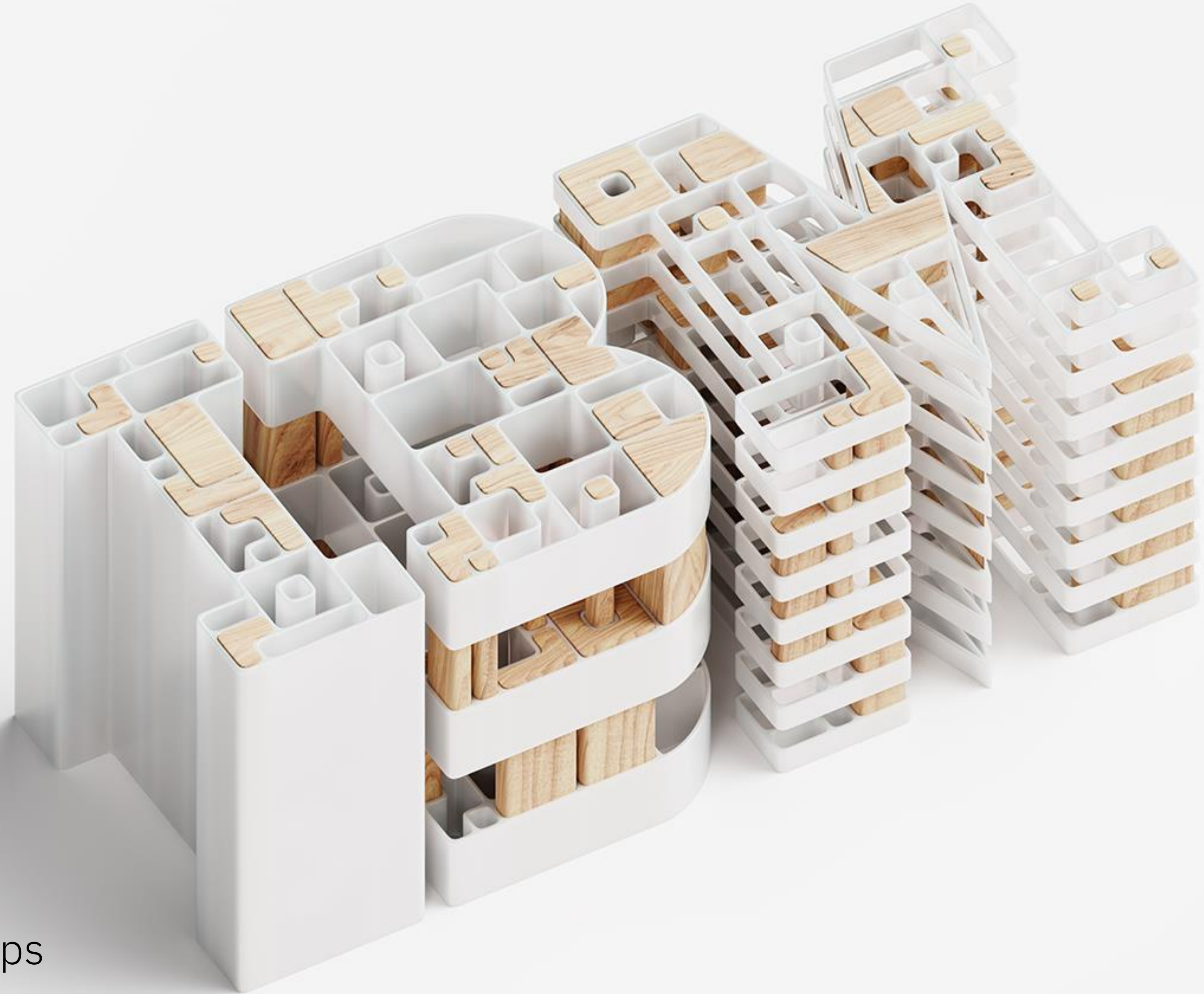


Simplify Mainframe Operations with IBM Z AIOps

—
IBM Concert for Z



Kekahu Aluli

Senior Product Manager – IBM Z AIOps

kekahu.aluli@ibm.com



Agenda

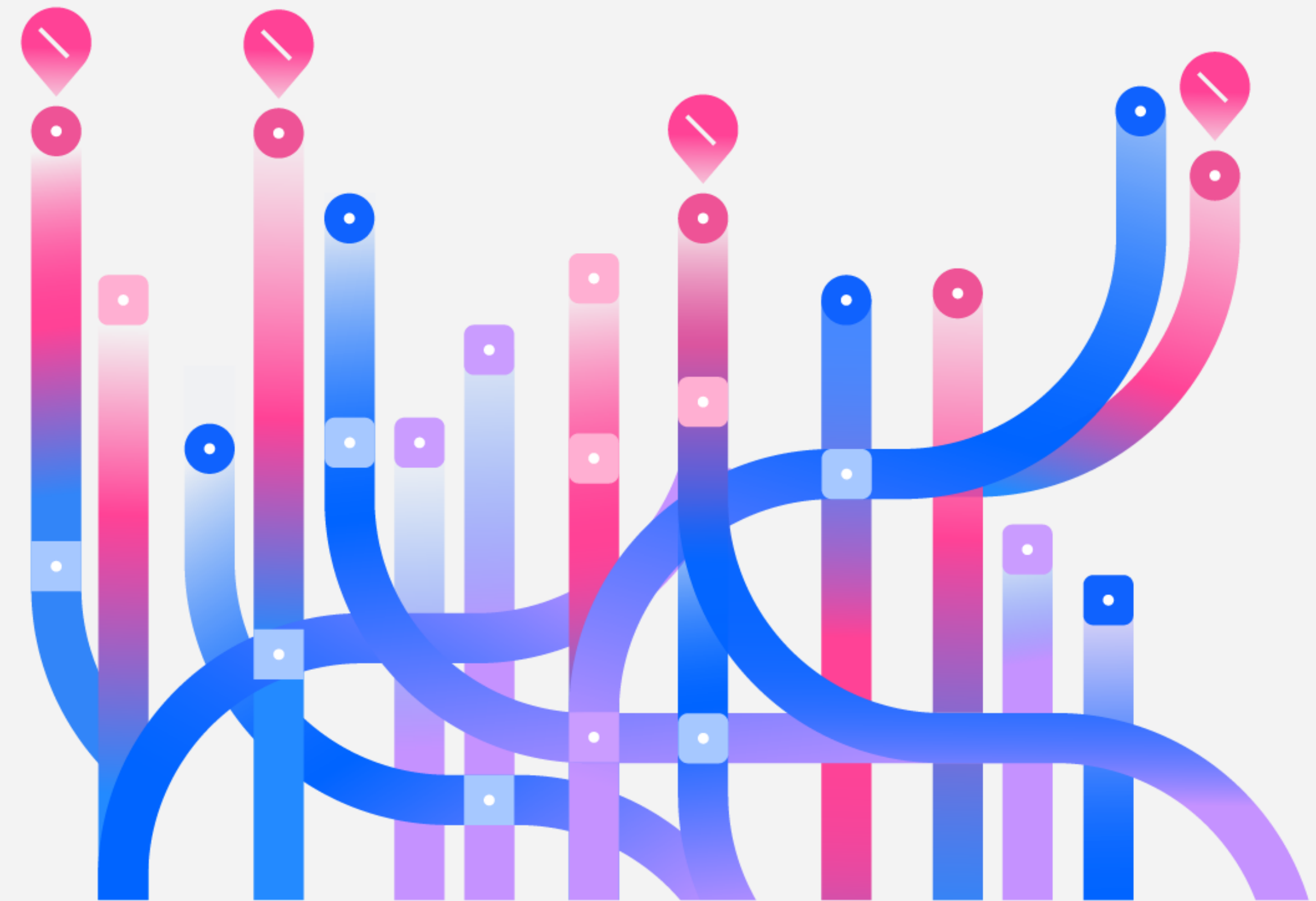
1. Customer and market challenges
2. Solution overview
3. Key capabilities
4. Use cases
5. Summary

Customer and market challenges

The size and complexity of IBM Z has outpaced new skill acquisitions

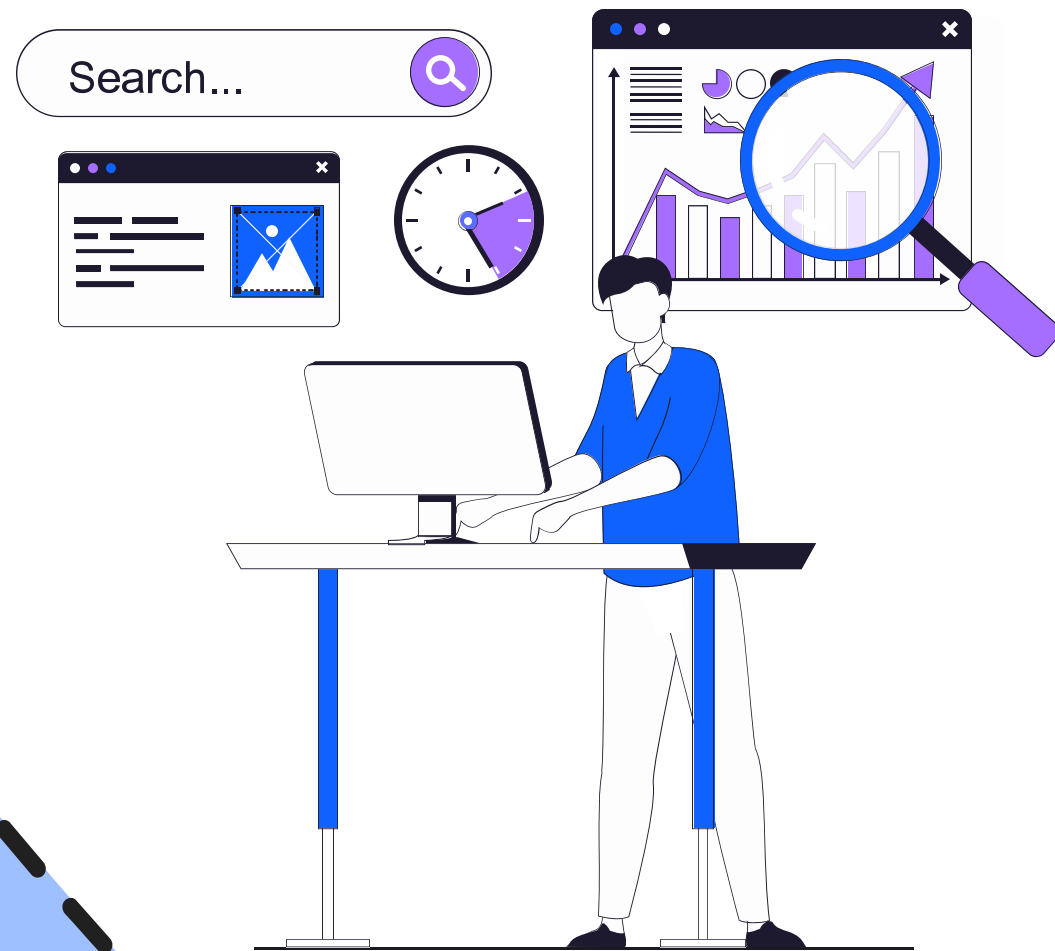
- Each IBM Z area requires **unique sub-domain expertise** and **different tools** with **inconsistent functionality**
- There's no easy way to view **how issues relate** and **correlate** across **siloed toolsets** and data sources
- There's no easy way to know what to do to **resolve an issue** once it has been identified
- The **skills gap continues to widen**, leaving less experienced staff with **greater challenges**
- Humans don't have the capacity to analyze, correlate, prioritize, and respond to all the available data at the speeds modern businesses require.

This is a job for [automation and AI](#).



Navigating operational data across Z is complex, time-consuming, and involves numerous silos

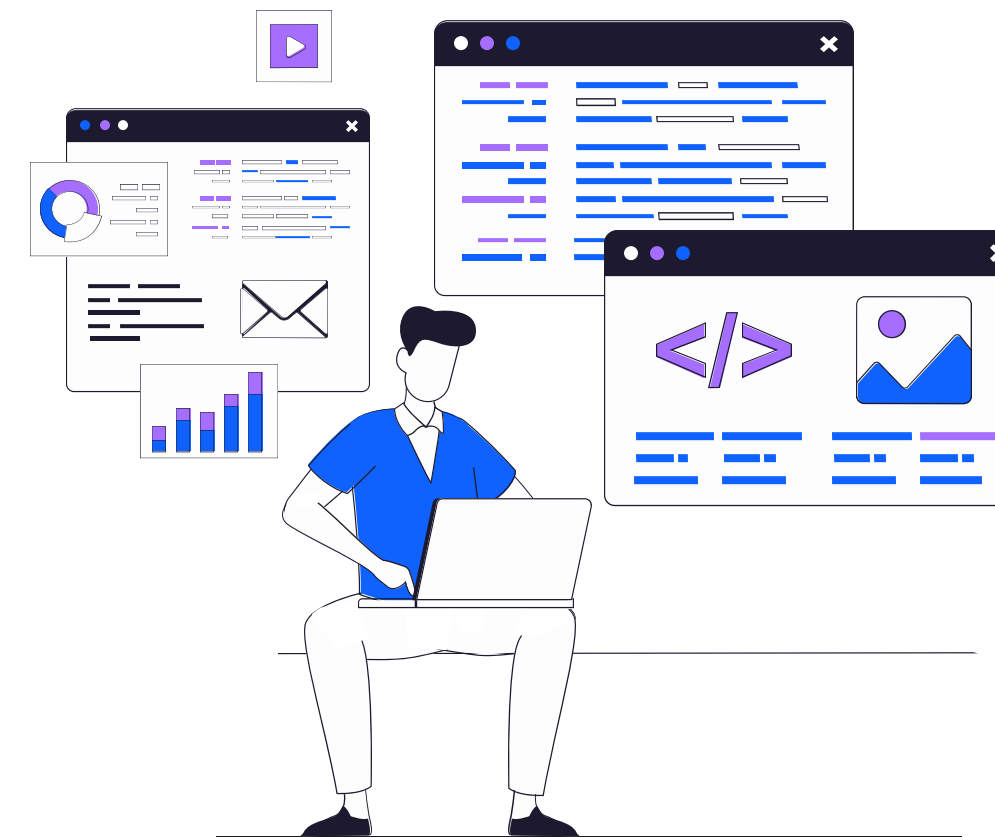
Spend hours trying to find the right information



Need help from experts to interpret and resolve problems



Perform manual tasks that can require switching between tools and screens



Afraid of causing errors with consequences



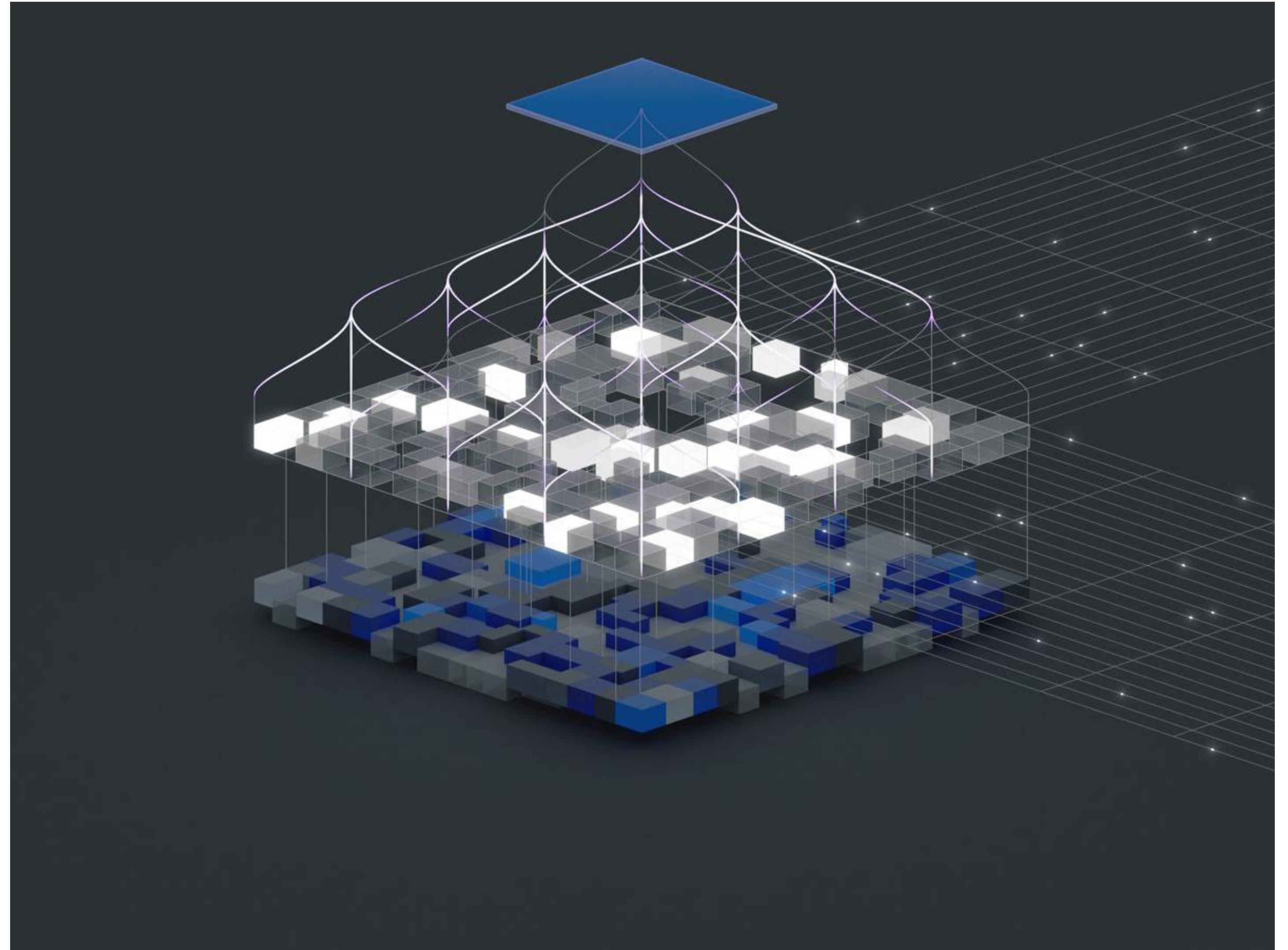
Newer professionals particularly struggle with these issues

Solution overview

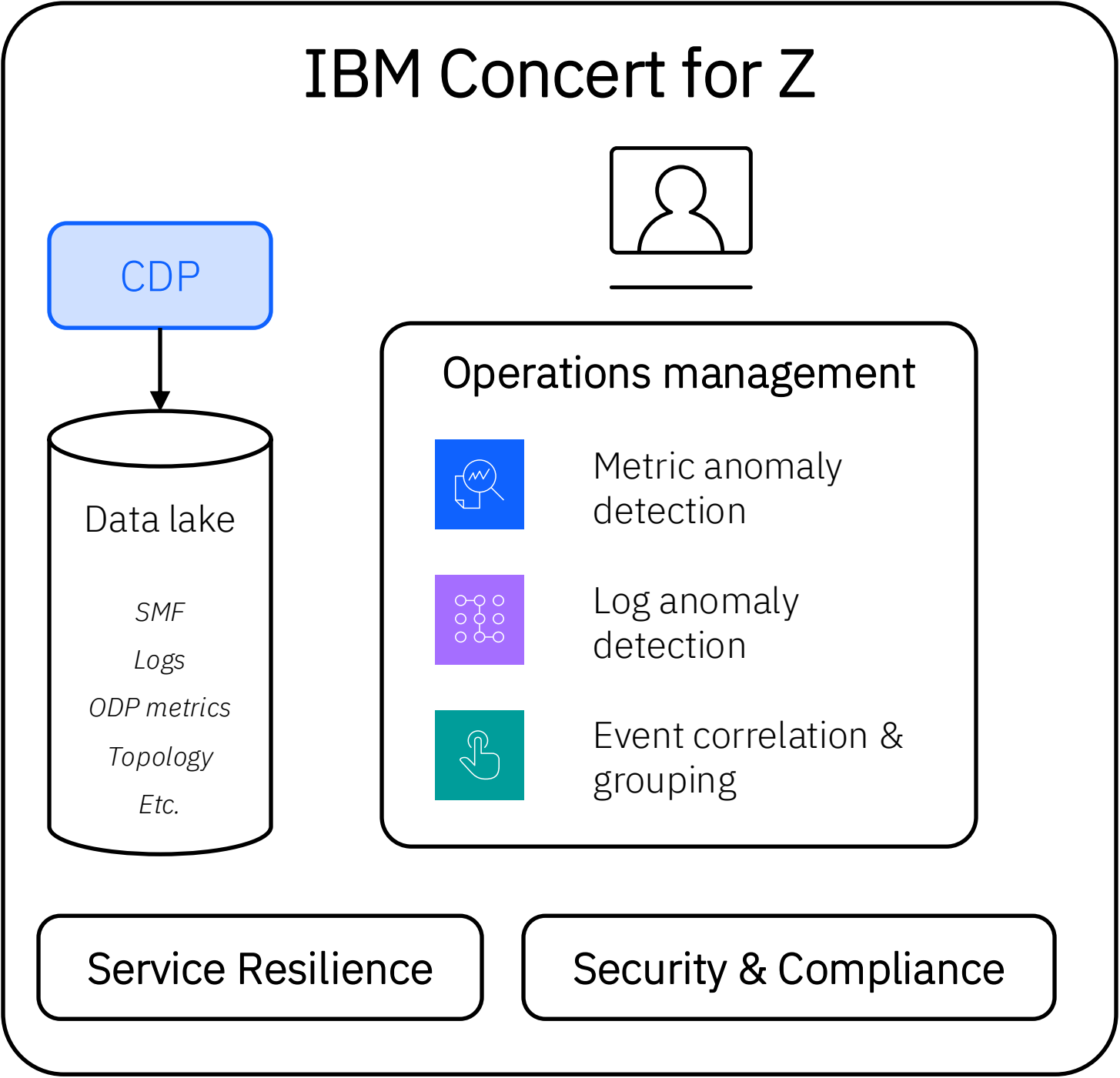
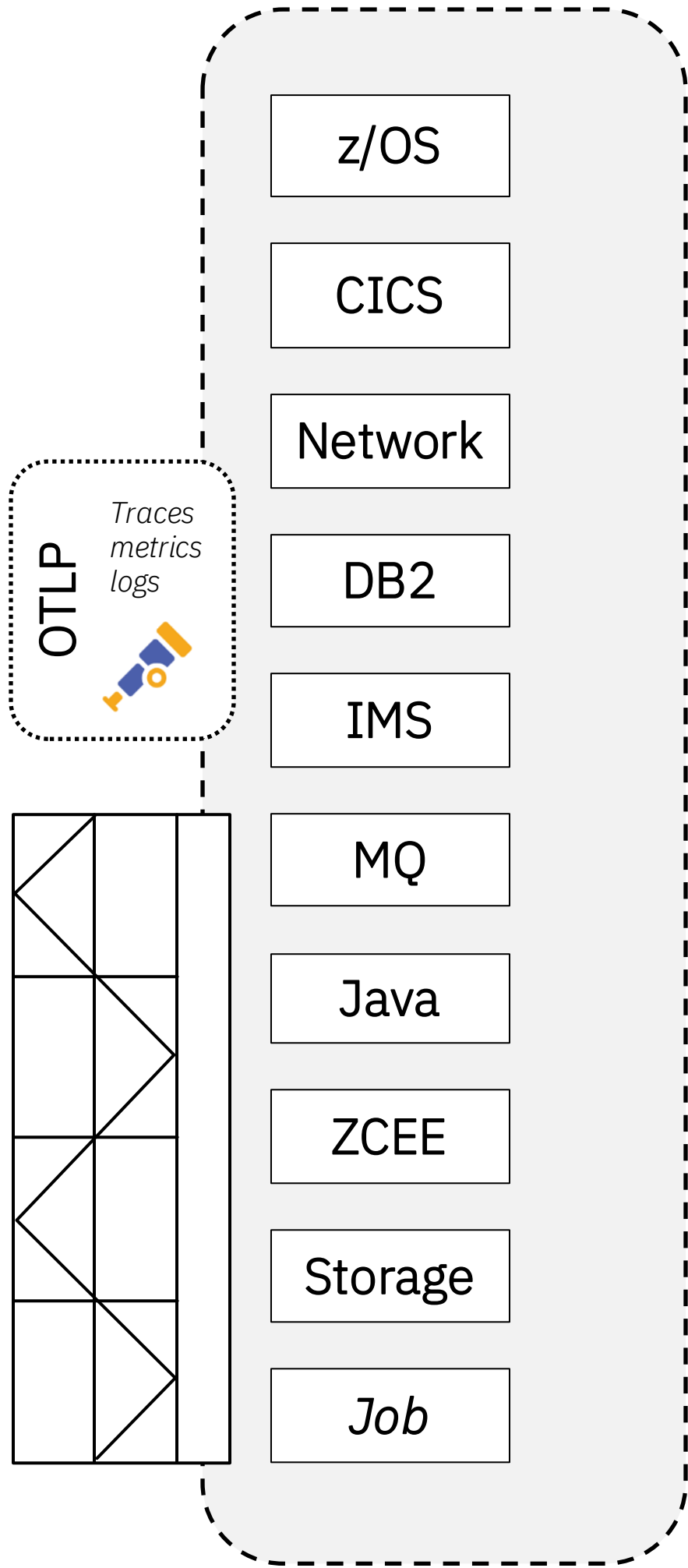
Overwhelming number of alerts and data is the problem. United simplicity is the solution.

IBM Concert for Z **simplifies mainframe operations** by unifying workflows, prioritizing events and providing actionable insights.

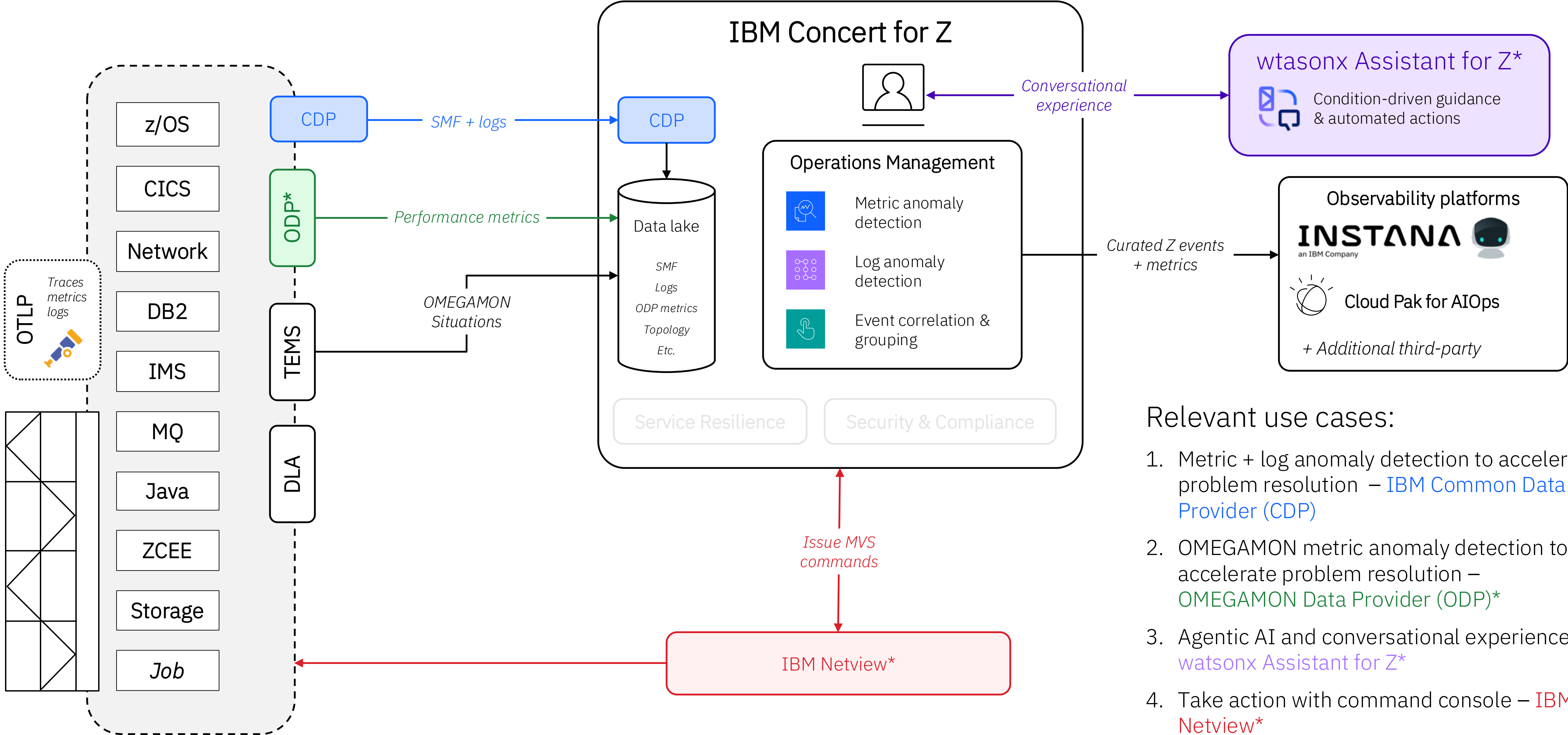
It aggregates, correlates and contextualizes events and data to help teams make **faster, more confident decisions** - maximizing infrastructure availability and reducing downtime within a single, streamlined solution.



High level architecture - Event Management perspective



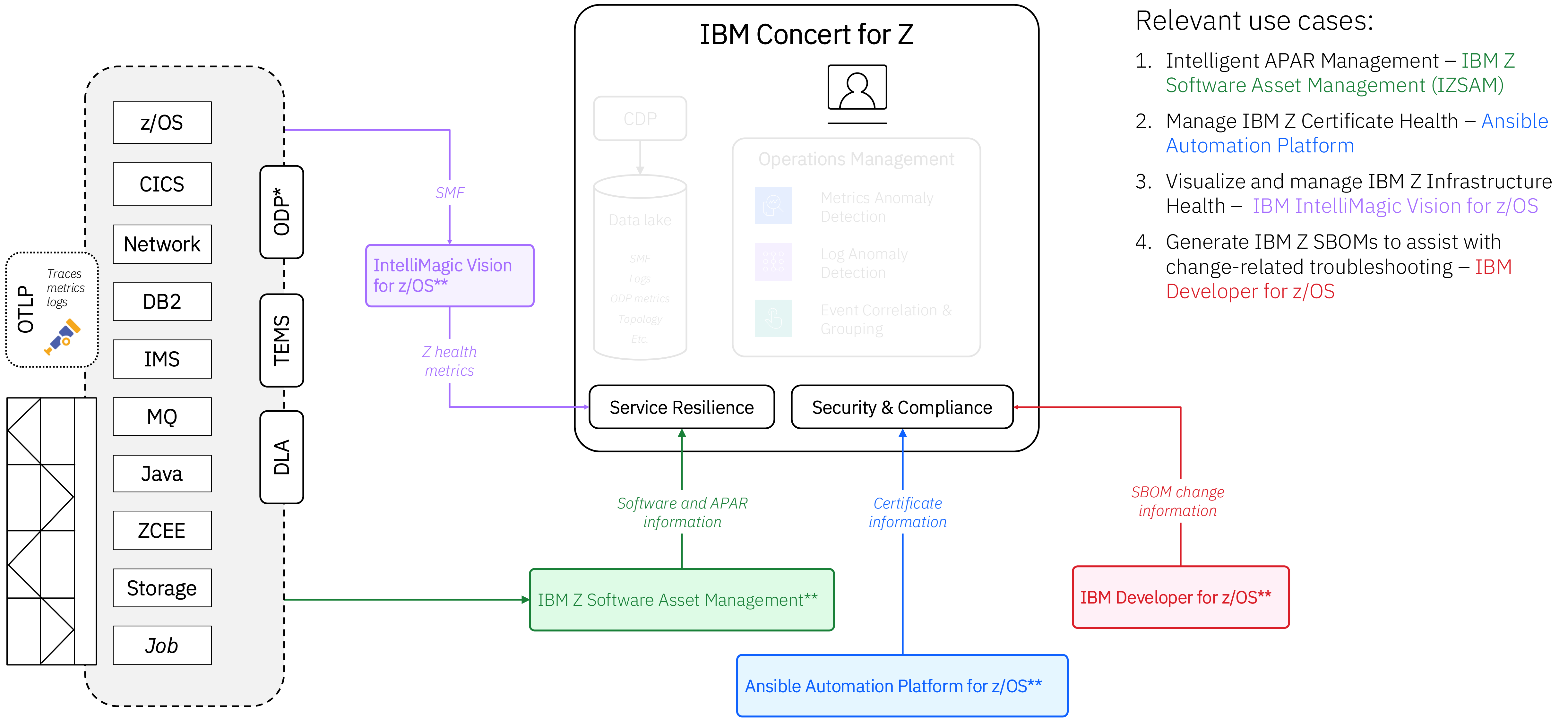
High level architecture - Operations Management perspective



- Relevant use cases:
1. Metric + log anomaly detection to accelerate problem resolution – [IBM Common Data Provider \(CDP\)](#)
 2. OMEGAMON metric anomaly detection to accelerate problem resolution – [OMEGAMON Data Provider \(ODP\)*](#)
 3. Agentic AI and conversational experience – [watsonx Assistant for Z*](#)
 4. Take action with command console – [IBM Netview*](#)

*Not included with IBM Concert for Z. Required software to enable specified use case.

High level architecture – Service Resilience and Security perspectives



Relevant use cases:

1. Intelligent APAR Management – [IBM Z Software Asset Management \(IZSAM\)](#)
2. Manage IBM Z Certificate Health – [Ansible Automation Platform](#)
3. Visualize and manage IBM Z Infrastructure Health – [IBM IntelliMagic Vision for z/OS](#)
4. Generate IBM Z SBOMs to assist with change-related troubleshooting – [IBM Developer for z/OS](#)

IBM Concert for Z

No silos. Better answers, faster.

IBM Concert for Z provides operational performance and health insights across the entire Z AIOps stack, eliminating silos and accelerating MTTR.



It makes organizations:



More effective by eliminating silos and enabling issue resolution from a single interface



More efficient with prioritized insights and action-oriented recommendations to lower mean time to resolution (MTTR)



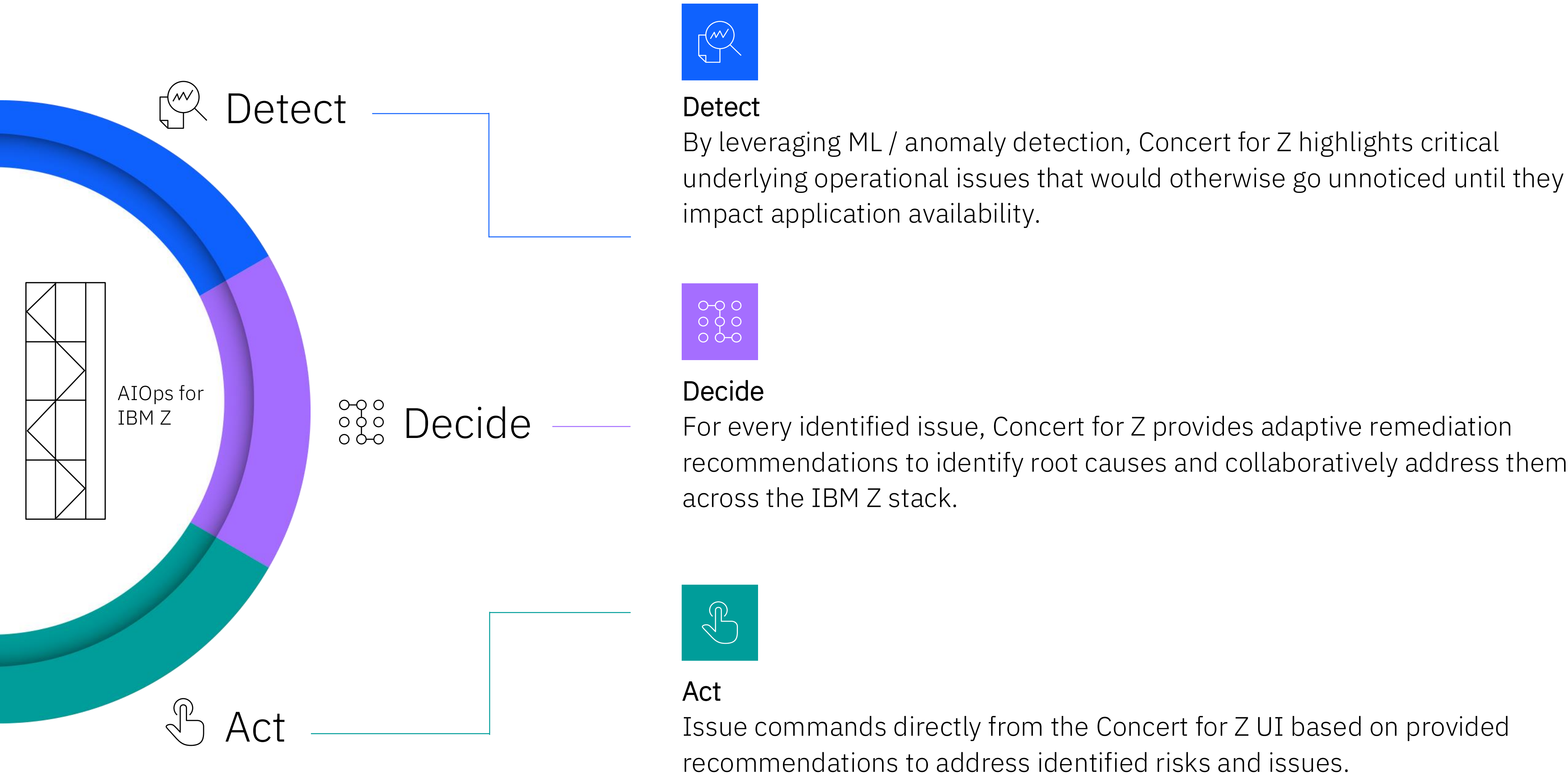
More productive by enriching newer staff with expert knowledge via recommendations and watsonx Assistant for Z



More proactive via early-warning anomaly detection and intelligent grouping and ranking of system-wide alerts

Key capabilities

Your one stop shop for mainframe operations





Detect

Proactively identify hidden operational issues

Proactively highlight operational issues with built-in **Machine Learning** and **anomaly detection**

Detect anomalies in **subsystem specific KPIs** for Db2®, CICS®, MQ®, IMS® and z/OS® based on SMF data and performance metrics coming from OMEGAMON

Detect anomalies in **occurrence, frequency, or sequence** of system messages

IBM Concert for Z

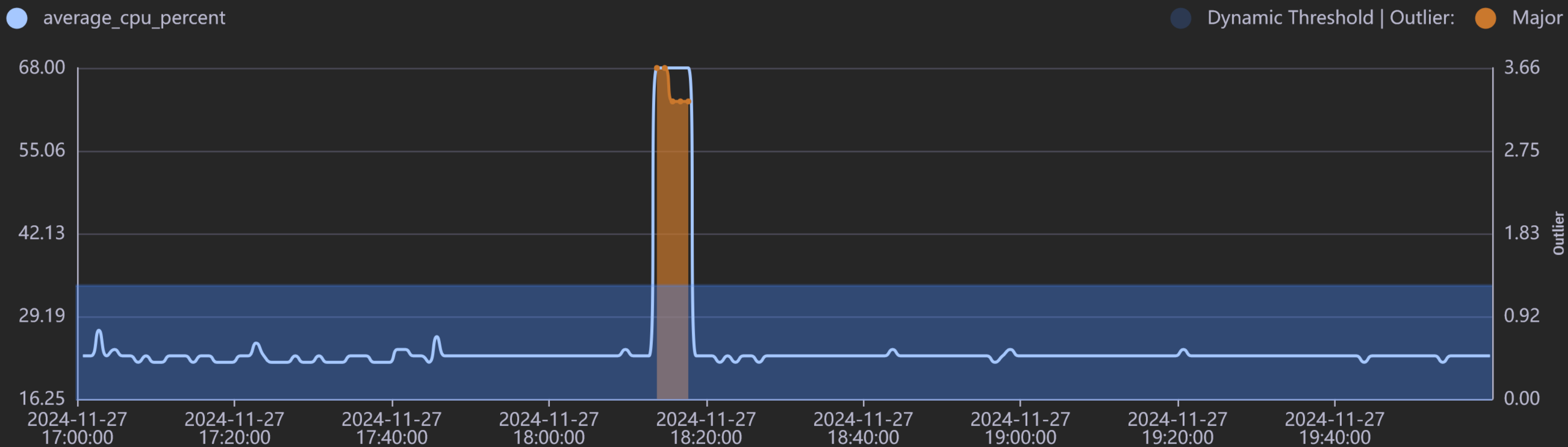
< **Abnormal average_cpu_percent on LPAR LP11**

Add to Co

KPI anomaly **open**

Description	Event source	TEPS server name	ID
LPAR LP11 metric "average_cpu_percent" is higher than usual	omegamon	—	00fb24a1c5f2a876f09becebcc2d020e0f84f16825200785c067cccd37466ca6
Local Timestamp			
2024-11-27 18:17:44			

Event timeline



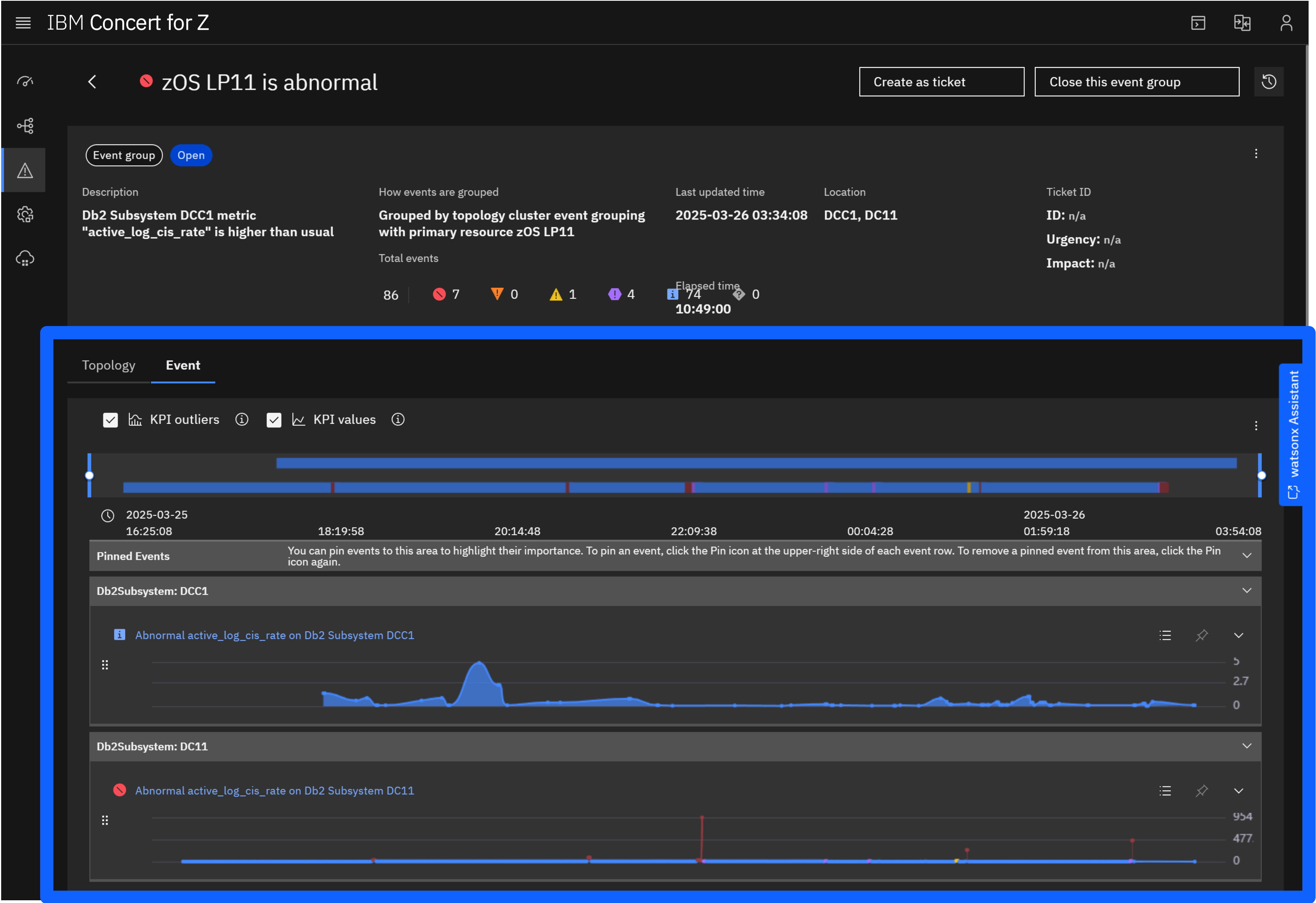


Detect

Built-in event grouping for noise-reduction

Issues, events, and alerts across IBM Z are **aggregated, correlated, grouped,** and **prioritized by risk level** to help identify critical risks

Examine event groups by severity level and drill into issues and anomalies for further investigation





Decide

Built-in expert advice for every issue

Expert advice, supported by **generative AI** and **built-in IBM Z expertise**, provide critical insights into issues and **actionable remediation advice**

Resolve issues faster and **facilitate faster new skills acquisition** and **knowledge transfer**

IBM Concert for Z

Abnormal active_log_cis_rate on Db2 Subsystem DC11

Add to Comparison Analysis

Actions

KPI anomaly

open

Description

Event source

TEPS server name

ID

Db2 Subsystem DC11 metric "active_log_cis_rate" is higher than usual

omegamon

—

8dc1ef4c5111e534ab048e912c29bdf1684e3af2032c0d4f1a0d6faa9bc2f556

Local Timestamp

2025-03-26 02:54:08

Event timeline

active_log_cis_rate

Dynamic Threshold | Outlier: Critical

Related KPI

High Risk

DC11

Total events: 17

ZPARMs

Origin node

MAXDBAT

CTHREAD

CACHEDYN

Data sharing group

IDBACK

NUMLKTS

Db2 version

Expert advice

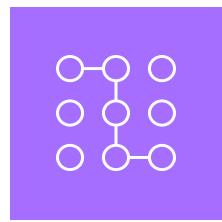
Check the log write activity: Analyze the log write activity to identify if there is an unusual increase in log writes. Check the log write rate and the number of log writes per second.

Optimize output log buffer usage: Make log output buffers as large as feasible. Review and adjust active log data set parameter OUTBUFF.

Increase log space: Verify that the log space is sufficient to handle the increased log write activity. Check the available log space and consider increasing it if necessary.

Check for any database or application issues: Identify if there are any database or application issues that could be causing the increased log write activity.

Use IBM Db2 Log Analysis Tool for z/OS to monitor the log activity and identify any bottlenecks or issues.

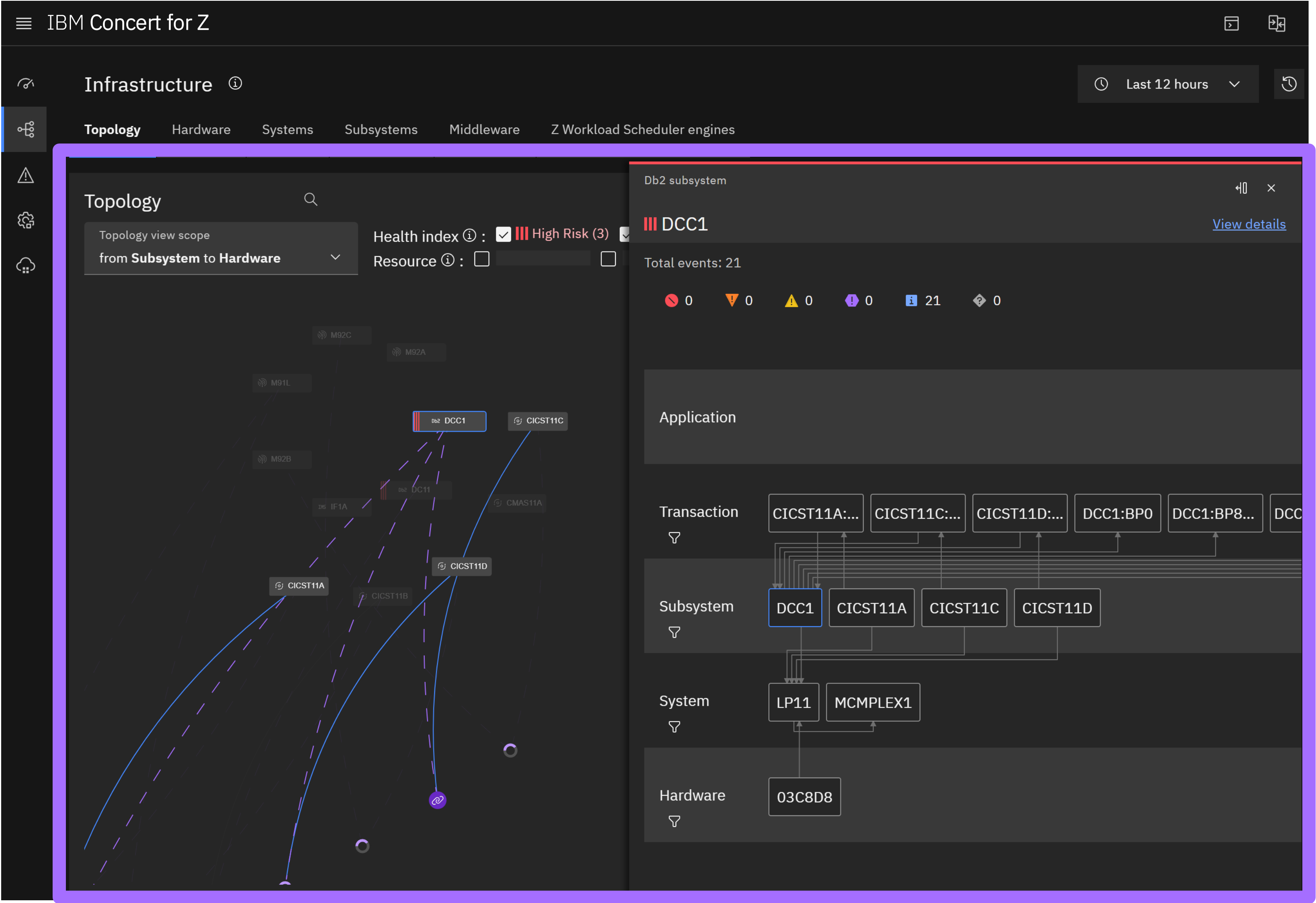


Decide

Critical connections visible at a glance

The **graphical topology viewer** makes connections between **business applications** and **mainframe resources** immediately clear

Risks are **spotlighted** and can be drilled down into for further analysis





Act

Gather insights from watsonx Assistant for Z

The integration with **watsonx Assistant for Z** identifies the next steps and **actions to solve issues**

Access to expert advice and recommendations for issue resolutions is **at your fingertips**

IBM Concert for Z

Abnormal active_log_cis_rate on Db2 Subsystem DC11

KPI anomaly

open

Description

Db2 Subsystem DC11 metric "active_log_cis_rate" is higher than usual

Local Timestamp

2025-03-26 02:55:08

Event source

omegamon

TEPS server name

-

ID

01bc218dbeeb59193a152cf9966b3e80fb55da4cbe4f4d2b8167636f2f371d4c

Add to Comparison Analysis

Actions

Expert advice

Check the log write activity: Analyze the log write activity to identify if there is an unusual increase in log writes. Check the log write rate and the number of log writes per second.

Assistant

AI Accuracy of generated answers may vary.

You 12:46 PM

Why would active log rate be higher than usual in a db2 subsystem?

12:47 PM

An increase in active log rate could be due to frequent active log switches, which can be caused by a higher checkpoint frequency. This is done to prevent the deferred write queue from growing to an optimum size. Additionally, the buffer pool size and deferred write thresholds also play a role in determining the active log rate. If the buffer pool size decreases, these thresholds are reached more frequently and cause I/Os to write some of the pages on the deferred write queue to a hard disk drive more often.

AI Accuracy of generated answers may vary.

?

Type something...

Powered by IBM watsonx

Event timeline

active_log_cis_rate

Dynamic Threshold | Outlier: Critical Minor Warning Info

Related KPI

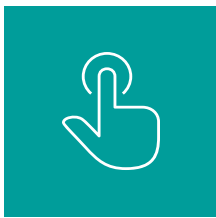
High Risk

DC11

Total events: 16

ZPARMs

Origin node	MAXDBAT	CTHREAD
-	-	-
Data sharing group	IDBACK	NUMLKTS



Act

Issue commands directly from the UI

Built-in **Integrated Command Console** allows authorized users to issue commands directly from the UI

Submit commands to MVS and NetView to take actions and restore service

IBM Concert for Z

< ▼ LPAR LP11 is abnormal

Event group

Open

Description

CICS Region CICST11C metric "maximum_tasks_percent" is higher than usual

Grouping reason

Grouped by topology cluster event grouping with primary resource LPAR LP11

Last updated time

2025-02-21 15:00

Total events

59 🔴 - 🟡 10 🟢 17 🟡 4 🔵 - 🔵 28

Elapsed time

01:52:00

Topology

Event

Topology

Topology view scope

from System to Middleware

Health index ⓘ :

🔴 High Risk (6) 🟡 Medium Risk (0) 🟢 Low Risk (0) 🔵 Healthy (0)

Resource:

🔍 Sysplex 🔍 z/os System

Db2 DC11

5

CICST11D

Command console

Issue an MVS command against an LPAR for various system management tasks.

z/OS account username

mahr

z/OS account password

....

LPAR SMF ID

LP11

MVS command

D J,CICST11A

Clear

Type your command and press Enter.

Response

CNZ4106I 12.29.55 DISPLAY ACTIVITY 048
JOBS M/S TS USERS SYSAS INITS ACTIVE/MAX VTAM OAS
00045 00090 00003 00039 00064 00003/00300 00101
CICST11A CICST11A CICS NSW SO A=006C PER=NO SMC=000
PGN=N/A DMN=N/A AFF=NONE
CT=02.01.58 ET=00261.36
WUID=STC08886 USERID=IBMUSER
WKL=STC SCL=STCMED P=1
RGP=N/A SRVR=YES QSC=NO
ADDR SPACE ASTE=7EC72B00

watsonx Assistant

Operations Management

use cases

Focus on what matters most



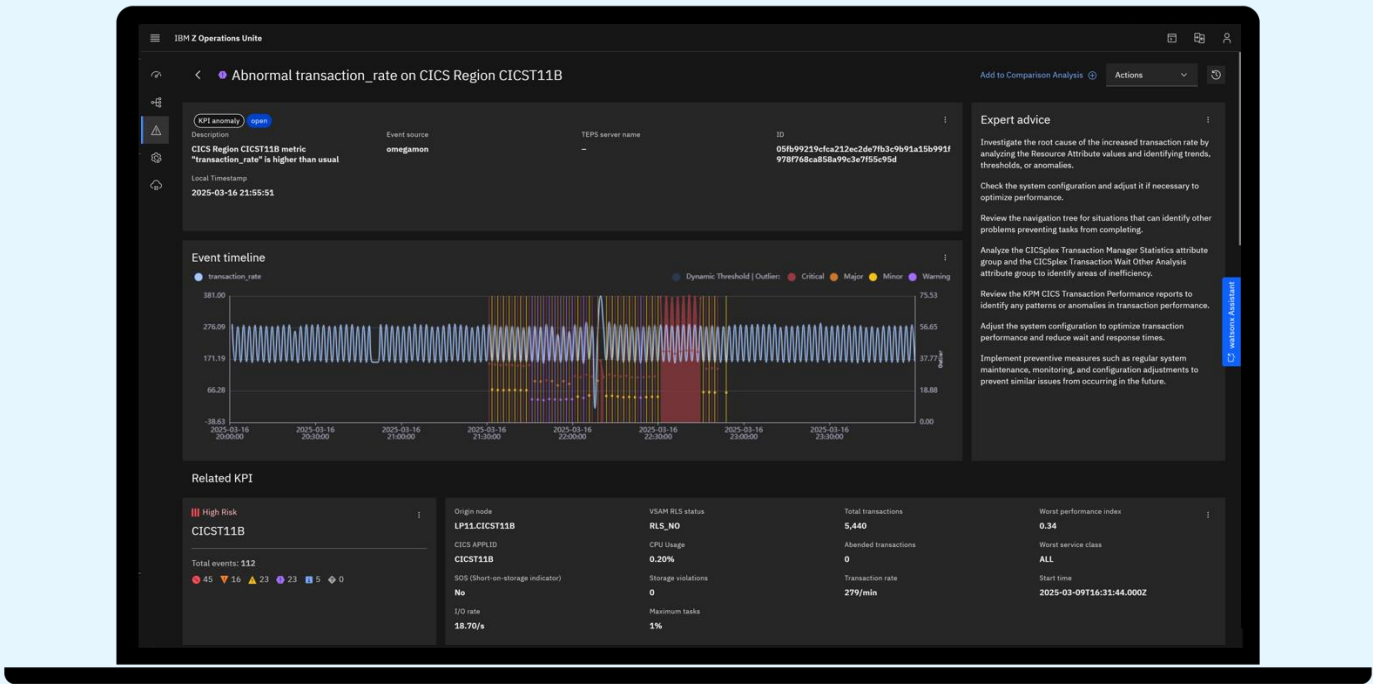
Pain points

- Overwhelmed by too many alerts and events across multiple siloed tools and infrastructure areas requiring different skillsets
- Difficult to understand actual severity of issues and which alerts are most urgent
- No easy visibility into issue correlation across Z areas

IBM Concert for Z

- Aggregates, correlates, and normalizes events and data from multiple domains, tools, or sources into a single, easy to use dashboard that makes it easy to evaluate the overall infrastructure health and pinpoint areas that require immediate attention
- Alerts across data sources and tools are aggregated, rated, and prioritized to help teams make faster, more confident decisions and address the most pressing issues first
- Provides a graphical view of the relationships between business applications and infrastructure resources

Reduce MTTR of issues



Pain points

- Time is wasted in tool switching going from one infrastructure area to the next looking for the root cause
- Operators don’t know where a problem originated or which area is limited, the issue, and waste time calling different SMEs trying to resolve the issue
- Experienced staff are limited, and newer staff are unfamiliar with many issues. This results in more time trying to understand the issue and find the appropriate solution
- Once the root cause of the issue has finally been identified, more time is spent in more tools switching to issue commands and resolve it

IBM Concert for Z

- Data and events from numerous IBM Z solutions and sources are aggregated and rated in a single dashboard, and relationships between applications and infrastructure resources are easy to spot. No tool switching required
- For every identified issue, built-in IBM Z Expert Advice is provided directly in the interface next to the issue. For further issue clarification and help in issue resolution, operators can ask watsonx Assistant for help by providing a conversational and learning experience
- Commands can be issued directly from the IBM Concert for Z Command Console for authorized users, eliminating the need for more tool switching and wasted time

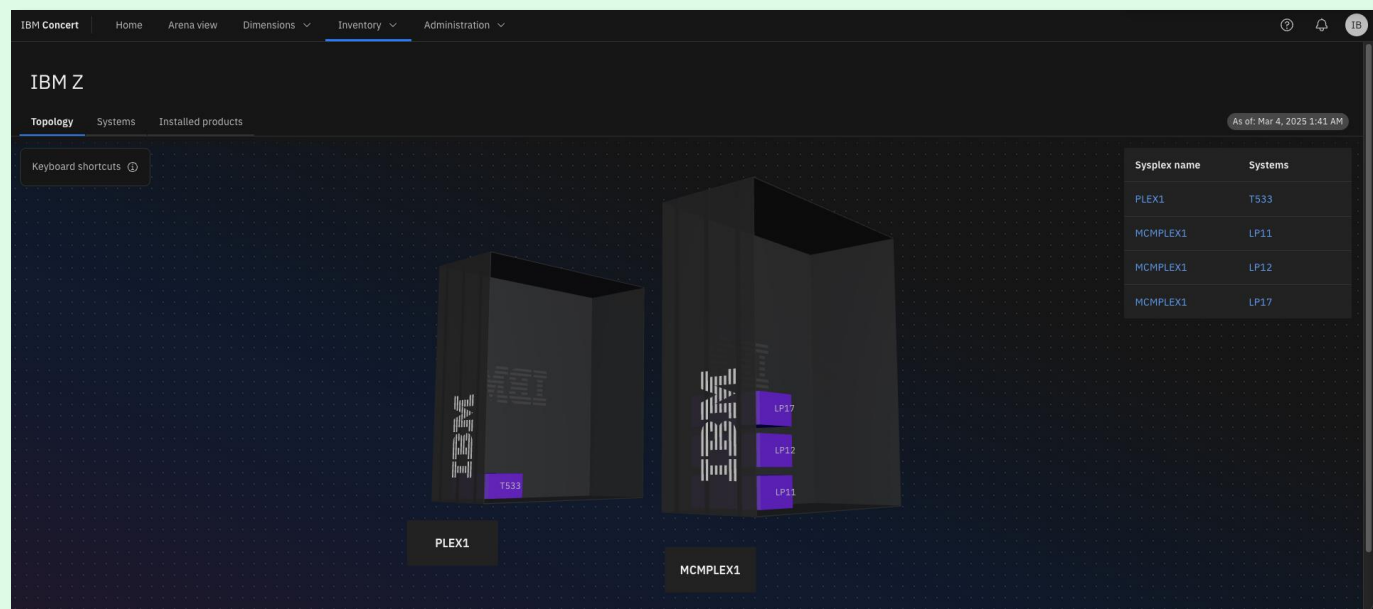
Use cases: Risk & Resiliency

Resiliency and Risk Management

Intelligent APAR Management

Mitigate Risks and Stay Resilient with Intelligent Maintenance Management

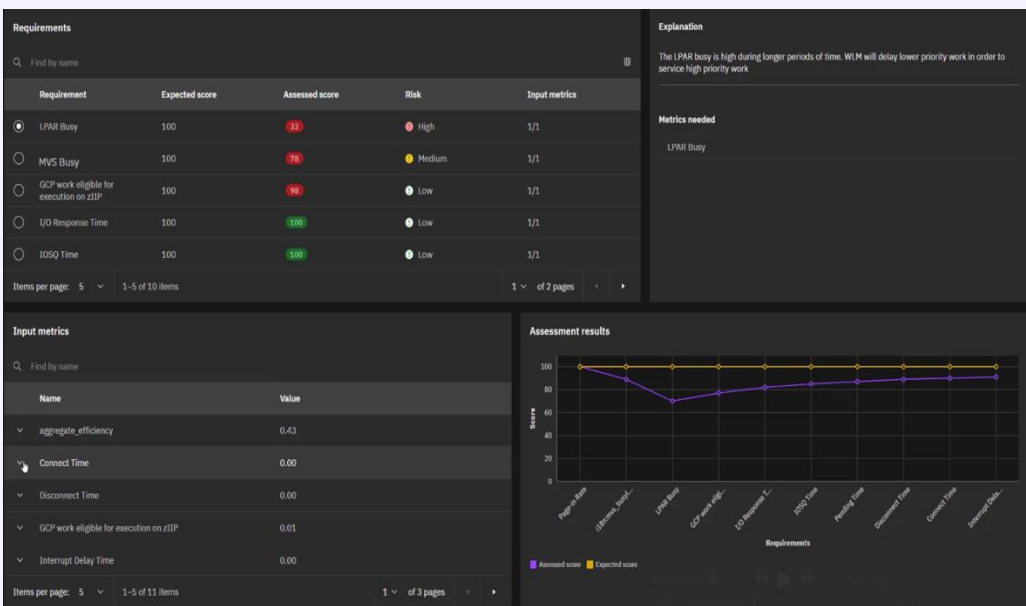
- Track maintenance drift across all z/OS environments
- Visualize APAR and/or HiPER risks, prerequisites, and relationships to clearly define your software upgrade roadmap
- Auto-initiate risk-based change tickets to kickoff installation with the proper IBM Z focal or through automation Agents
- Never suffer an outage due to unapplied maintenance again



Visualize and manage IBM Z Infrastructure Health

Holistically analyze utilization across the entire hybrid infrastructure

- Monitor IBM Z infrastructure health through comprehensive self-service dashboards
- Holistically analyze utilization across the entire Z infrastructure
- Get automated scoring, correlation, summaries, & actionable insights
- Prioritize Z risk and optimize costs

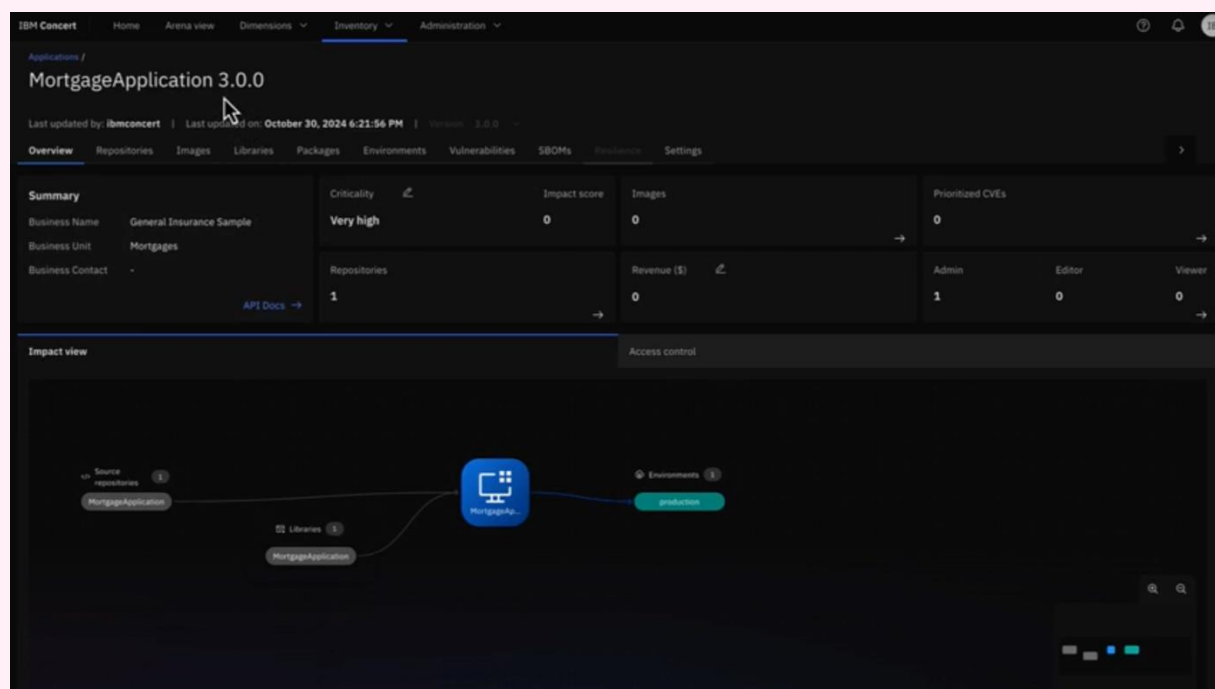


Security and Compliance

Generate IBM Z SBOMs to assist with change-related troubleshooting

Generate IBM Z-related SBOMs and visualize changes and its impact

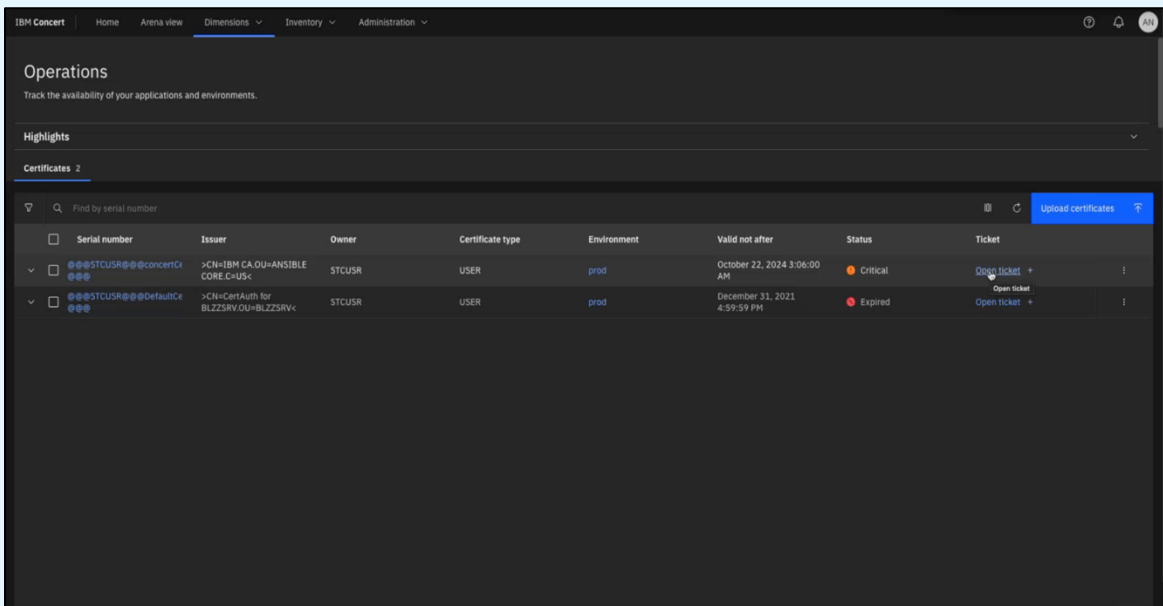
- Generate Z-related SBOMs and visualize changes & impacts
- Analyze configuration drift across entire infrastructure
- Reduce time spent on configuration and dependency fixes on Z through early root cause analysis.
- Automatically track evidence of changes over time for audit trail and compliance



Manage IBM Z Certificate Health

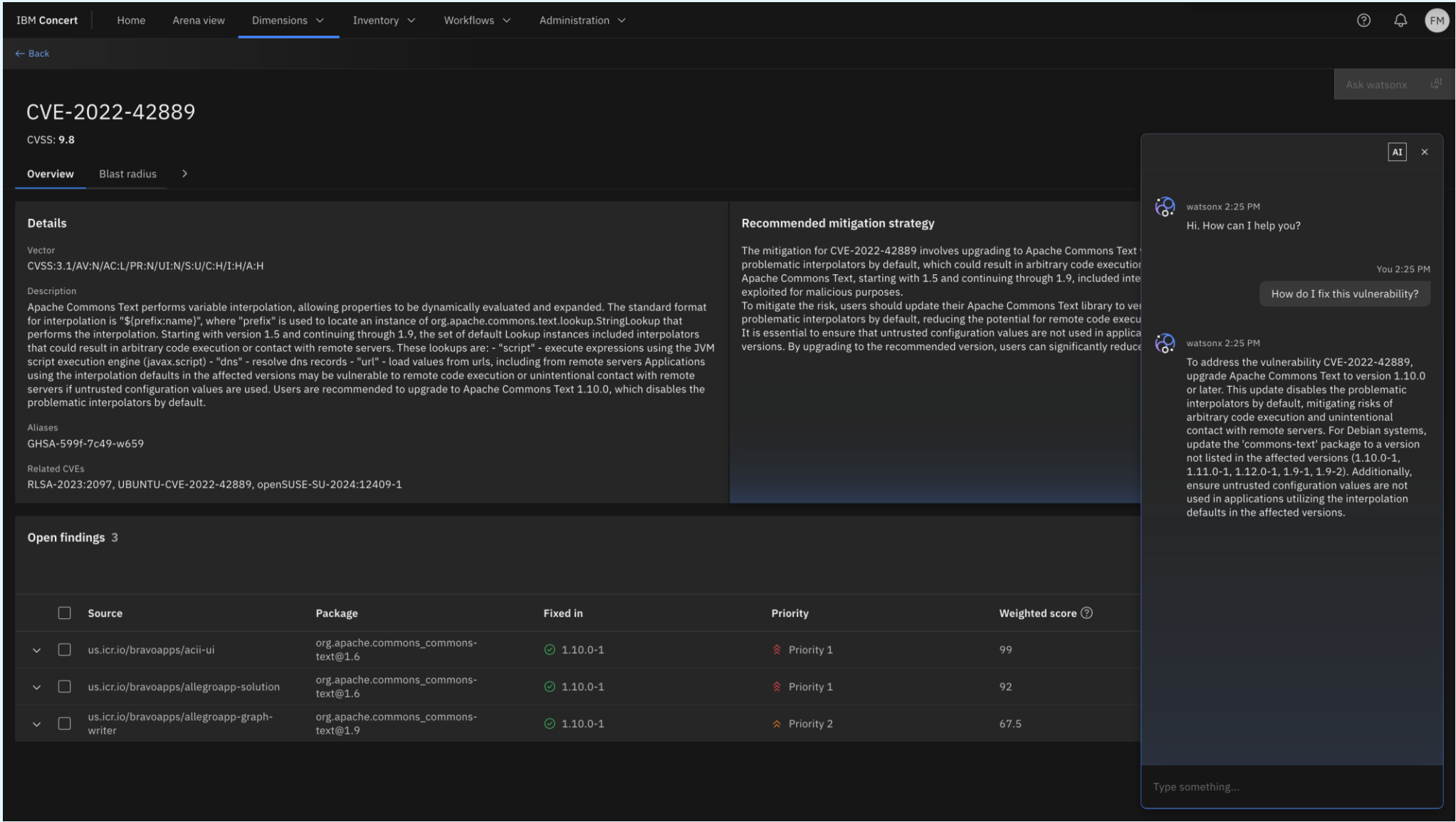
Streamline certificate management to minimize outages and security risks

- Streamline certificate management to minimize outages and security risks
- Get comprehensive visibility to IBM Z certificate health, automation management, and compliance posture
- Establish consolidated compliance monitoring across the application lifecycle via a centralized interface
- Save time, eliminate manual intervention, remove disruptions, reduce risk



Summary

IBM Concert for Z helps operations team to



1

Reduce Operational Costs

Eliminate manual effort by automating risk tracking, enabling your team to focus on strategic initiatives while minimizing time spent on risk identification and assessment.

2

Prevent Application Outages

Identify and prioritize high-impact fixes to ensure systems run smoothly, avoiding disruptions to business operations

3

Address coverage gaps

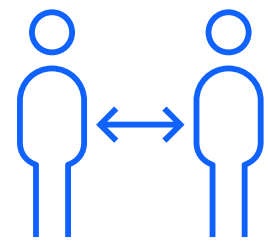
Leverage AI assistance for timely remediation and mitigation strategies to minimize system vulnerabilities and address coverage gaps

4

Minimize future upgrade challenges

Track and plan maintenance automatically in a timely manner and avoid future upgrade issues

Get started with IBM Concert for Z today



Personalized consultation

Experience the power of uniting your operations through a tailored consultation.

Get a customized demonstration to understand the capabilities of IBM Concert for Z and the transformational impact they can have on your business.

[Book an appointment →](#)



Learn more

View the Concert for Z product page to learn more and explore additional content on Concert for Z, including recorded demos that walk you through specific use cases and how Operations Unite can assist.

[Explore resources →](#)



Join our webinar

Join our webinar to see Operations Unite in action and discover how our powerful new solution can remove your silos, improve your MTTR, and reduce your skills gap.

[Register for webinar →](#)



View more resources

[RFA Announce →](#)

[Technical Blog from our Product Manager →](#)

Join the IBM zSystems AIOps Community

<https://ibm.biz/AIOpsCommunity>

Best practices for taking a hybrid approach to simplifying operations

<https://ibm.biz/AIOps-handbook>

Thank You

Kekahu Aluli
Senior Product Manager – IBM Z AIOps
kekahu.aluli@ibm.com

Notices and disclaimers

© 2025 International Business Machines Corporation.
All rights reserved.

This document is distributed “as is” without any warranty, either express or implied. In no event shall IBM be liable for any damage arising from the use of this information, including but not limited to, loss of data, business interruption, loss of profit or loss of opportunity.

Customer examples are presented as illustrations of how those customers have used IBM products and the results they may have achieved. Actual performance, cost, savings or other results in other operating environments may vary.

Workshops, sessions and associated materials may have been prepared by independent session speakers, and do not necessarily reflect the views of IBM.

Not all offerings are available in every country in which IBM operates.

Any statements regarding IBM’s future direction, intent or product plans are subject to change or withdrawal without notice.

IBM, the IBM logo, and ibm.com are trademarks of International Business Machines Corporation, registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the Web at “Copyright and trademark information” at: www.ibm.com/legal/copytrade.shtml.

Certain comments made in this presentation may be characterized as forward looking under the Private Securities Litigation Reform Act of 1995.

Forward-looking statements are based on the company’s current assumptions regarding future business and financial performance. Those statements by their nature address matters that are uncertain to different degrees and involve a number of factors that could cause actual results to differ materially. Additional information concerning these factors is contained in the Company’s filings with the SEC.

Copies are available from the SEC, from the IBM website, or from IBM Investor Relations.

Any forward-looking statement made during this presentation speaks only as of the date on which it is made. The company assumes no obligation to update or revise any forward-looking statements except as required by law; these charts and the associated remarks and comments are integrally related and are intended to be presented and understood together.

