Basis Cockpit

SAP Basis Monitoring & Email Alerts

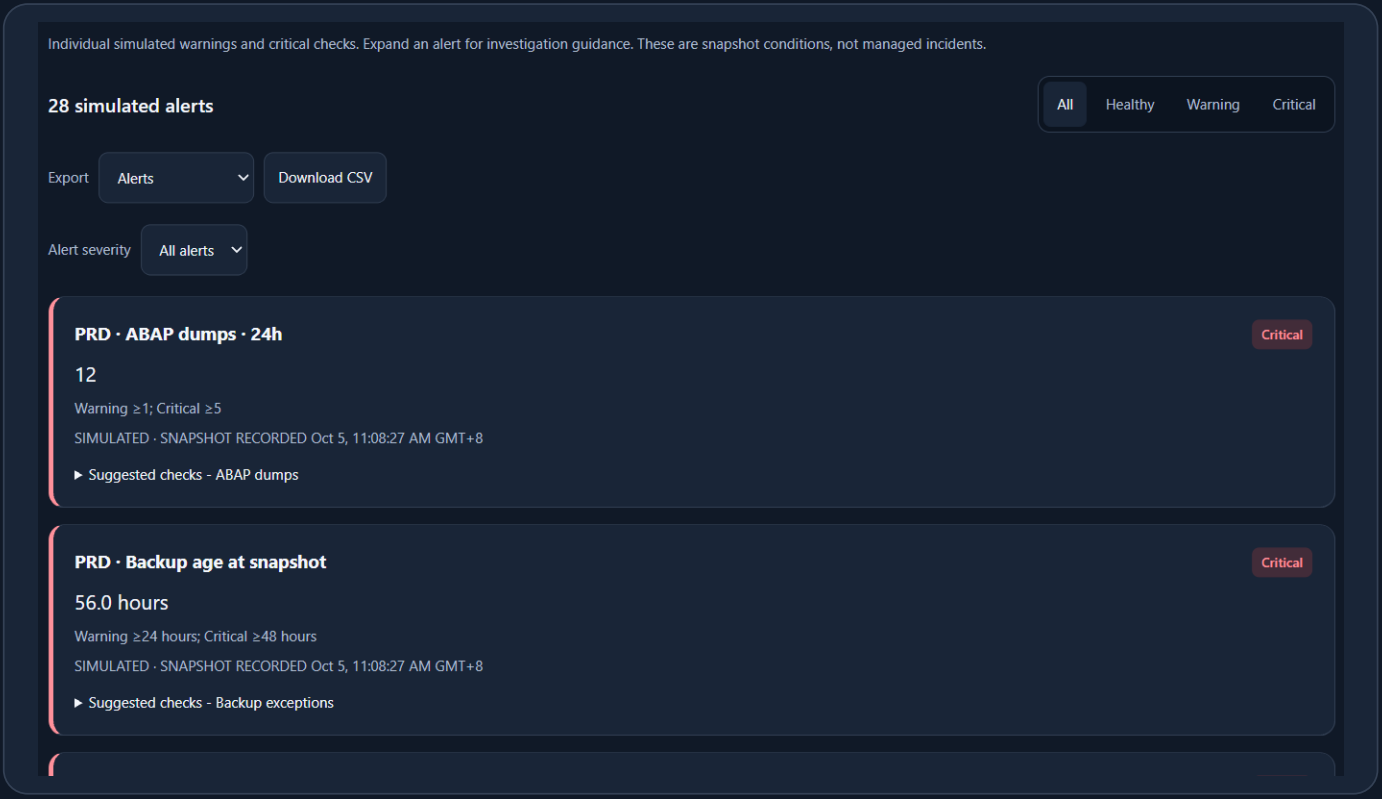
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A custom monitoring dashboard that brings sample landscape health, operational exceptions and investigation guidance into one interface. Built from project setup to cloud deployment, with automatic Critical-alert email delivery verified.

LANDSCAPE
DEV / QAS / PRD

DASHBOARD
8 monitoring views

EMAIL DELIVERY
Verified on BTP



ACTUAL DEPLOYED DASHBOARD / Alerts view showing simulated PRD conditions.

Explore the working demo

Browser-based interface. All monitoring values are simulated.
Demo availability depends on the SAP BTP trial environment.

Open Basis Cockpit

One dashboard. Eight views.

A consistent view of health, performance and exceptions across three sample environments, with system filters and exportable results.

01

Overview

System availability, HANA memory, disk and data usage, with combined health indicators.

02

Performance

CPU, OS memory, dialog response time and busy work processes, with threshold-based severity.

03

Operations

Sample failed jobs, ABAP dumps, update errors, RFC errors and spool errors over 24 hours.

04

Backups

Latest backup attempt, last successful backup and backup age at the recorded snapshot.

05

Alerts

Warning and Critical conditions, severity filters, readings, thresholds and investigation guidance.

06

Certificates

Fictional certificate expiry records and configurable browser Warning / Critical day thresholds.

07

Trends

Generated CPU, HANA memory and disk trends: 13 points per metric over one hour, with value tables.

08

Guidance

Suggested SAP Basis checks to support triage. Guidance is read-only and performs no SAP actions.

Refresh, filters and CSV reporting

Manual refresh or auto refresh every 15-3,600 seconds, paused when the page is hidden. CSV exports follow system and alert severity filters. Refresh retrieves the fixed demo snapshot; it does not collect fresh SAP readings.

Built from start to finish

Implemented in SAP Business Application Studio and deployed to SAP BTP Cloud Foundry. The dashboard and notification backend share the same CAP monitoring service.

01 Create the development foundation

Created a Full Stack Cloud Application dev space and a Node.js CAP project in SAP Business Application Studio.

02 Model and serve monitoring data

Defined Systems, Certificates and MetricSamples entities. Added an OData V4 service and simulated DEV, QAS and PRD datasets.

03 Build the monitoring experience

Developed the HTML, CSS and JavaScript dashboard with eight views, threshold logic, guidance, refresh controls and CSV exports.

04 Add server-side email evaluation

Installed Nodemailer and added a CAP startup hook plus an internal scheduler. Gmail credentials are stored in backend environment settings.

05 Build and deploy the application

Built with production and demo profiles, packaged the dashboard and email files, and deployed with a Cloud Foundry manifest and one running instance.

06 Validate the email workflow

Received the setup test email, enabled automatic notifications, confirmed SMTP acceptance in BTP logs and received the 13-condition Critical-alert summary.

TECHNOLOGY STACK

SAP CAP / Node.js / OData V4 / HTML, CSS & JavaScript / SAP BAS / SAP BTP Cloud Foundry / Nodemailer / Gmail SMTP

Alerts delivered beyond the screen

Automatic email delivery was confirmed from the deployed BTP application on 5 October 2026. Closing the dashboard does not stop the backend scheduler while the app is running.

IMPLEMENTED AND DELIVERY TESTED

13 Critical conditions. One summary.

Confirmed: a setup test email and an automatic Critical-alert summary arrived in the recipient mailbox; BTP logs confirmed SMTP acceptance.
Message content: system ID, condition, reading, threshold, snapshot time and dashboard link.
Example triggers: HANA memory at 90% or above, failed backups and certificates with seven days or fewer remaining.

Notification controls

Five-minute backend checks, a 60-minute cooldown and suppression of unchanged Critical condition sets. Reminders are disabled by default. Gmail SMTP uses TLS and one configured recipient. Browser refresh settings do not control email timing; certificate email thresholds are configured separately on the backend.

What this project demonstrates

An end-to-end custom application: SAP Basis monitoring design, CAP service modelling, OData consumption, dashboard development, Cloud Foundry deployment and verified email integration.

Scope and practical limits

All readings, trends and certificate records are simulated. No live SAP systems or SAP Cloud ALM tenant are connected. Generated history and notification tracking are held in memory; restart resets them and may resend the initial summary. Delivery was verified; suppression over time remains a separate validation step. This is a portfolio demo, not a production monitoring service.

Customization for a real landscape

Potential extensions include approved SAP monitoring APIs or Cloud ALM integration where access is available, recipient groups, recovery notifications, persistent history and Android / iOS clients. Production use also requires authentication, roles, managed secrets, durable alert tracking and operational validation.

Independent project. No customer, employer or confidential landscape data is included.