Synechron

Synechron

Resolve.AI

Transforming Production Support with Gen AI

Generative AI enhanced IT support for operational resilience for a Global full-service bank

The **Background**

The organization aimed to improve production support by leveraging AI-driven solutions to manage application and security incidents more effectively, supporting operational efficiency and risk mitigation. The goal was to boost incident prioritization, root cause analysis, and proactive maintenance to ensure system reliability. Key stakeholders were IT ops-teams, security analysts, incident managers, and business continuity planners.

The **Challenge**

Traditional incident management is reactive, causing delayed responses and extended resolution times. The complexity of correlating incidents with system changes hindered accurate root cause identification. The opportunity existed to implement an AI-enabled ITSM assistant for predictive and preventive maintenance.

The **Solution**

Resolve.ai was deployed for AI-driven incident management, covering root cause analysis, incident-change correlation, and predictive maintenance. It integrates with existing ITSM platforms, focusing on accuracy and real-time prioritization. Using Generative AI and machine learning, it automates incident diagnosis and suggests solutions. Its analytics enable proactive issue resolution, shifting support from reactive to predictive.

The **Outcome**

The implementation resulted in faster incident resolution, reduced downtime, and improved system reliability. Enabled proactive maintenance, decreasing the frequency and impact of production issues. Overall, the solution increased IT support efficiency and strengthened organizational resilience.

Transforming Production Support with Gen AI

Key Features

Incident Automated Root Cause Analysis

Identify potential root cause of an incident by correlating current logs and historical incidents. The benefit of this feature is that Level 1 and Level 2 support teams now have additional knowledge and actionable steps to try before escalating to expert teams..

Historical Incident Analysis

Identify key pain points by analyzing all historical incidents. It dynamically categorizes incidents based on the notes provided, rather than relying on predefined categories.

Capacity Planning and Anomaly Detection

AI to monitor CPU, memory, disk space, and application logs via systems like AWS CloudWatch. It also identifies unexpected errors from changes or new implementations, flagging them as anomalies. This proactive approach enhances detection capabilities beyond incident tracking.

Change Impact Analysis

Focuses on improving Mean Time to Detect (MTTD) by leveraging AI to assess the potential consequences of changes made to systems and applications. It analyzes historical Change Request (CR) data to identify patterns and correlations between change requests and incidents.

Transforming Production Support with Gen AI

Solution Design Approach

Data Sources

ServiceNow feeds fresh and updated data into the Resolve.AI platform via configured APIs. The File Store quietly archives critical logs from applications and the ArcSight SIEM system. Suddenly, AWS Alarm springs into action, sounding real-time alerts to flag anomalies.

LLM Orchestration

LLM Orchestration powers intelligent search and response through a suite of AI services. It uses RAG and embedding services to process and contextualize data. Amazon Titan generates embeddings, while Claude 3.5 Sonet drives the search model. Together, they enable fast, accurate, and context-aware interactions.

Domain Services

Domain Services streamline operations by analyzing change and incident records from ServiceNow. App logs are scanned for errors and stored in a Vector DB for quick access. A chatbot responds to user prompts, Anomaly Detection flags unusual patterns in network traffic and user activity for proactive action.

Knowledge Management

Knowledge Management organizes insights for smarter operations. Qdrant Vector DB stores knowledge embeddings for fast retrieval. Mongo DB holds processed data from incident and change request analyses. Together, they enable efficient access to structured and contextual information.

Synechron

Thank you

For more information, please contact:

Partnerships@Synechron.com