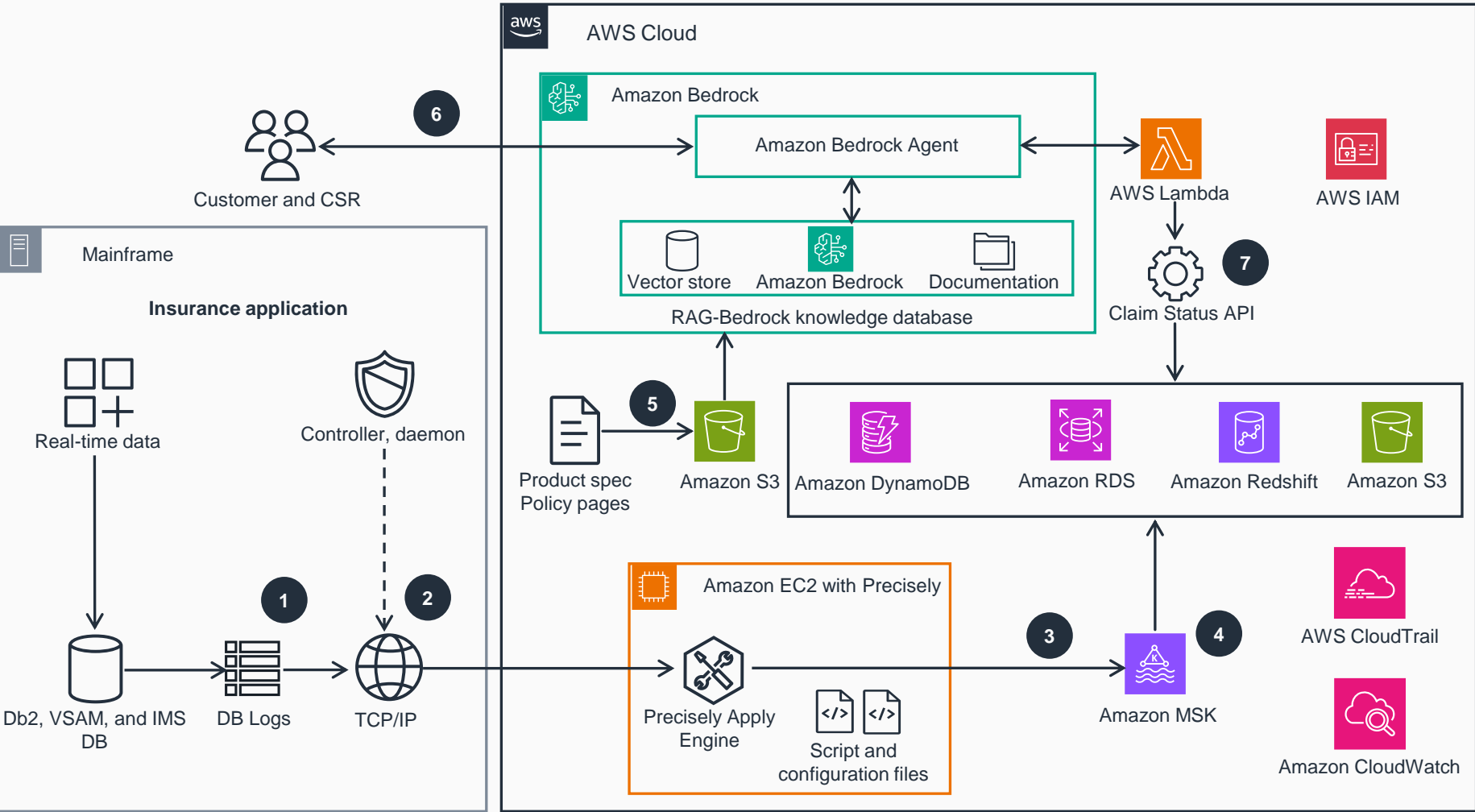


Guidance for Intelligent Insurance Assistant Using Replicated Mainframe Data on AWS

This architectural diagram shows how you can build a conversational AI chatbot capable of ingesting near real-time mainframe data. The mainframe data is replicated to AWS by the AWS Mainframe Modernization Data Replication with Precisely service, which facilitates the conversational AI agent's ability to respond to inquiries for both your customers and your customer service representatives.



- 1 For the **Amazon Bedrock** Agent to report the correct claim status, it needs to have access to near real-time data in the mainframe. **AWS Mainframe Modernization Data Replication with Precisely** makes this data available in **Amazon Relational Database Service** (Amazon RDS).
- 2 The **Precisely Publisher** component monitors the internal data storage for any changes and subsequently transmits the corresponding CDC records to the **Precisely Dispatcher** component through a TCP/IP network connection.
- 3 The **Precisely Apply Engine** component ingests the CDC records and transforms the data as necessary, such as by filtering or mapping the information, in order to align with the requirements of the target database. The **Precisely Apply Engine** then processes each CDC record and distributes the transformed data to **Amazon MSK**.
- 4 Customized Java application-based database connectors ingest the CDC records from **Amazon MSK** and stores the data in the designated target database. The target database can be any supported system, such as **Amazon DynamoDB**, **Amazon RDS**, **Amazon Redshift**, or **Amazon Simple Storage Service** (Amazon S3). **Amazon RDS** is used here.
- 5 The product specification and policy documentation files are uploaded to **Amazon S3** for the **Amazon Bedrock** knowledge base. This stored content will be used by the **Amazon Bedrock** Agent to deliver more relevant, accurate, and customized responses to customer inquiries.
- 6 Both customers and customer service representatives (CSRs) interact with the conversational AI-powered **Amazon Bedrock** Agent to make inquiries regarding the status of insurance claims.
- 7 The **Amazon Bedrock** Agent invokes an **AWS Lambda** function, which in turn invokes the **Claim Status API**. This API then retrieves the current status of an insurance claim from **Amazon RDS**.