

**AWS Reference Architecture Diagram** 

# **Real-Time Casino Player Analytics**



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# Real-Time Casino Player Analytics: AWS Reference Architecture Diagram

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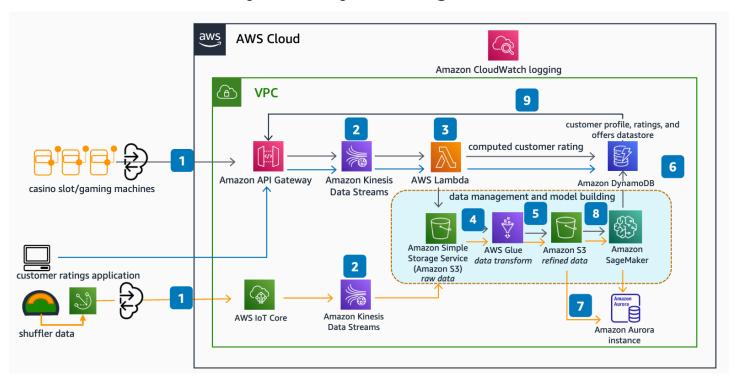
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## **Real-Time Casino Player Analytics**

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This architecture enables casino customers or game developers to build a real-time analytics pipeline and promote advertising offers to customers during the game session.

#### **Real-Time Casino Player Analytics Diagram**



- 1. Casino slot machine and shuffler data is streamed from the casino floor via a private network into **Amazon API Gateway** and **AWS IoT Core**, respectively.
- 2. Data is then streamed into Amazon Kinesis Data Streams.
- 3. Slot data from **Kinesis Data Streams** is processed by **AWS Lambda** to calculate customer rating and store a raw copy in **Amazon S3** for machine learning (ML) training.
- 4. Raw data from slots and shufflers is transformed to identify unique records, and stored in a refined data **Amazon S3** bucket for use by the ML pipeline.
- 5. Refined slot data is used to train and update the ML model on **Amazon SageMaker**, which can then predict the best offers for the individual customer.
- 6. The customer profile, ratings, and offers are updated in **Amazon DynamoDB** for fast retrieval by slot machines or a customer rating application.

- 7. Refined shuffler data is stored for aggregation and retrieval in **Amazon Aurora**.
- 8. Refined shuffler data is then used to extract metrics and develop an ML model to predict failures. Failure prediction in turn will recommend proactive maintenance.
- 9. The customer profile, ratings, and offers are made available to be consumed by games and applications to promote within the game or session.

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#### **Further reading**

For additional information, refer to

- AWS Architecture Icons
- AWS Architecture Center
- AWS Well-Architected
- Games Industry Lens AWS Well-Architected Framework

#### **Diagram history**

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Change	Description	Date
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