CoRover Architecture

Multichannel Input

..and more.

User

Virtual assistant

Capture query stream
(Text, Voice, Video, File)

Response template
(Card, button, text, URL, video, list, carousel, image, etc.)

Reverse proxy

Templated response for representative MIME type

HTTPS connection

Load balancer
(Round robin/IP hash/least connection)

Client access validation
(Request IP/domain validation)

Secure connection establishing with logs

Real-time streaming data pipeline for analytics

Kafka cluster

CoRover AI/ML engine

NLP preprocessing

Noisy entity removal
(HTML tags, stopwords, punctuations, white spaces, URLs etc.)

Text normalization
(Tokenization, lemmatization, stemming, sentence segmentation, etc.)

Word standardization
(Regular expression, lookup tables)

Language Identification
(Classifying the language of a piece of text eg. en, hi, etc.)

Processed data

Classification

Intent classification

Entity classification

```
{
  intent:intentName,
  entity:[{
    entityName1 : type
  },{
    entityName2 : type
  }]
}
```

Classified structured data

Structured KB   Media storage

Context response with action

Structured response

Context response

Third party APIs

Authentication & authorizaion
(SSO, OTP, basic auth, JWT, etc.)

Third party ERP & CMS integration

Storing/Retrieving user contextual data

Async dashboard service

Real-time analytics

Encryption/Decryption
(Protecting PII data masking)

Real-time analytics dashboard UI