**Background**

The Office of Computational Science (OCS) Service Desk is a reviewer’s single source of information for all 24 OCS supported tools and services.

We received over **2,500 total requests** for support in 2018, a **111 percent increase** from 2016.

We received **582 analysis requests** in 2018, an increase of **152 percent** from 2016.

We aim to provide **innovative, flexible, and reliable support** for OCS Tools and Services in support of regulatory review.

We strive to **revolutionize data** for **faster decision making** by connecting artificial intelligence and data automation to clinical research.

**Natural Language Processing**

CARLA can interpret requests without the need for key words using **Natural Language Processing**.

Logs are captured and sent to the Service Desk, eliminating back and forth emails.

**FDA’s Future with CARLA**

Analysts can focus on more **complex analysis support requests**.

Reviewer technical issues will be resolved **faster**.

Time will be spent on what **matters most**.

**CARLA**

- **Innovative, cognitive, and scalable conversational framework**
- **Local (On-prem or embedded) installation** with no external dependencies – for data sensitive applications or lack of internet connectivity
  - Available on FDA Intranet
- **Standard Functionality**
  - Intent classification (Machine Learning)
  - Entity matching
  - Configured dialog flows
- **Enhanced Functionality**
  - Integrated Sentiment analysis of user input
  - Slots, Folders, Actions, and Digressions
- **Version Control**
  - Easily discover duplicates and similar examples in multiple intents
- **AI-Based Intent Conflict Resolution**
  - Connect to an agent
  - With chat history

**Medical Reviewer’s Day**

8:00 - 9:00

Help Requested

Contact OCS Service Desk

9:00 - 16:00

Continuous Information Exchange

Work

16:00 - 17:00

24/7 Assistance

Reviewers have the flexibility to receive support any time of day, any day of the week.

**Data Privacy**

CARLA is locally hosted on the FDA Intranet, keeping sensitive data private, safe, and secure from data breaches and attacks.

**Data Insights**

Conversation logs are captured, compared against historical trends and analyzed to identify patterns and solutions for common reviewer questions.

**Automation**

CARLA can resolve Tier 0 & 1 requests **without human intervention**, increasing the efficiency of support requests resolved in a single day.

**Growth Management**

CARLA helps manage the continuous growth of support requests and responsibilities that the OCS Service Desk has been receiving.

**Disclaimer:** The views expressed in this presentation are those of the authors and do not represent the policy of FDA.