

# CASE STUDY

## INFRASTRUCTURE DESIGN ENGINEERING ARCHITECTURE AND INTEGRATION-2 (IDEAI-2)

U.S. PATENT AND TRADEMARK OFFICE

### THE PROBLEM:

USPTO needed to stabilize critical legacy systems and implement next generation patent and trademark systems to support changing business needs and strategic direction and to meet NARA Enterprise Record Management compliance deadlines.

### THE SOLUTION:

Octo provides subject matter expertise in the areas of enterprise, data, and application architecture. We **designed and implemented new automated information systems** and infrastructure changes that **improve access and delivery of critical data** to examiners, internal stakeholders, and the public. We also offer full lifecycle support and as a key team player, provide the linkage between USPTO's Legacy Mainframe environment and its Next Generation Platform.

### THE BENEFITS:

Octo's automated data quality script generation and functional testing have accelerated application and system development and deployment. Our support will provide USPTO deeper insights into its workloads, performance, and needs for improvements that will increase service delivery to all stakeholders who use USPTO IT systems.

### KEY TAKEAWAYS



Octo **has introduced several new technologies** such as a SOLR-based search application that supports 8,000+ Patent Examiners by mining NoSQL databases installed in AWS, improving search results and reducing time spent on searches.



We developed and maintain over 300 database models, schemas, and data dictionaries that **facilitate data storage, retrieval, and analysis.**



Through automation, we have **improved existing functions** such as search, and leveraged emerging technologies to improve IT products and services.



Octo **developed a proof of concept for complex data management** automating unique repetitive tasks with Robotic Process Automation (RPA)

### CAPABILITIES SHOWN:



Agile  
DevSecOps



Artificial  
Intelligence



Data  
Analytics