

**UNITED STATES  
PATENT AND TRADEMARK OFFICE**



# Artificial intelligence (AI)/IT updates

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# Patent Search

- 2020 milestones

- Completed the migration of ~39 million Chinese, European, Korean, Japanese, French, and World Intellectual Property Organization patent documents and images into the Search tool
- Began testing of a Google/Accenture Chrome extension for inclusion of artificial intelligence into search capabilities. Collected feedback from ~300 Patent's User Centered Design Council members on over ~700 patent applications to develop metrics

- 2021 outlook

- Themes: Increase efficiency of examination process; cost reduction; make at least one AI capability available to patent examiners
- Goals/Success Criteria: Complete rollout of Search tool to all patent examiners and lay foundation for retirement of legacy Search systems; complete ingest of 70 million foreign image and text documents; deployment of AI capability to examiners
- Experiments: Develop public facing Search in the cloud

# Patent Center

- 2020 milestones

- Trained 6,200 users since mid-April 2020, receiving positive feedback
- Addressed defects based on user feedback resulting in improved DOCX handling and customer experience
- Added supplemental examination and two additional ePetitions

- 2021 outlook

- Themes: Modernize and streamline patent application process by implementing a unified interface for the public to submit, manage, and research patent applications
- Goals/Success Factors: Add functionality to meet parity with EFS-Web, Private and Public PAIR; respond to user feedback and improve system and user experience
- Experiments: Prototype additional DOCX functionality

# Data Center Migration

- 2020 milestones

- Contract for primary site awarded August 2020.
- Current site discovery and new site design approx. 50% complete
- Migration strategy and planning approx. 25% complete
- Vendor self certification compliance with NIST 800-53 security controls

- 2021 outlook

- Themes: Increase resiliency of IT infrastructure and products
- Goals/Success Factors: ATO approved for Manassas; initial network and base infrastructure installed and tested; migrate Boyers to Manassas; migrate network circuit provide to N-Wave
- Experiments: N/A

# New Ways of Working

- 2020 milestones

- Establishment of Agile Delivery Office to enhance value delivery for business operations
- Migration of infrastructure components for legacy applications to USPTO- and vendor-supported versions in order to minimize outage risk
- Began establishment of a cloud infrastructure that will provide operational resiliency and infrastructure currency
- Improved IT Security Awareness Training to increase awareness of phishing emails, insider threats, and privacy protection
- Decreased number of Plans of Action and Milestones (POA&Ms) for security deficiencies by 40%

- 2021 outlook

- Themes: Increase value delivery to business lines; leverage lessons learned to drive organizational and process maturity; Improve security of business products to enable secure business operations
- Goals/Success Factors: Migrate development teams to Agile methodology; track DevSecOps Metrics and develop action plans for improvement; Increase cloud hosted systems for extended scalability and modernization; Complete deployment of improved identity, Credential, and Access Management (ICAM) and Privileged Access Management (PAM) solutions
- Experiments: Assess performance and cost of cloud infrastructure; Replacement of EAI-HUB with Patent Event Bus

# AI search for patents

- 2020 milestones
  - Vision and high level roadmap established including potential future capabilities
  - Launched prototype and assessed foundational AI search capabilities
  - Assessment supported decision to expand program; fully resourced for FY21
- 2021 outlook
  - Themes: operationalization; continue prototyping future capabilities
  - Goals: release AI to corps with PE2E Search; value determination; further improvements
  - Success criteria: adoption; prior art identification
  - Experiments: usage rates; AI vs. non-AI; search metrics

# Auto-classification

- 2020 milestones
  - Vision and high level roadmap established including ROI approach
  - Launched and assessed auto-C\* capabilities and full auto-CPC
  - Assessment supported live implementation of auto-C\*; started December 2020
- 2021 outlook
  - Themes: ROI monitoring of auto-C\*, development of full auto-CPC
  - Goals: expand auto-C\* implementation; improve full auto-CPC
  - Success criteria: auto-C\* ROI justifies expansion; competitive quality for full auto-CPC
  - Experiments: iterative approach for full auto-CPC



# Questions and comments

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