

**UNITED STATES
PATENT AND TRADEMARK OFFICE**



Patents end to end IT updates

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Patent artificial intelligence update

Auto classification

- Leverage a machine-learning algorithm to establish classifications on incoming patent applications
 - Currently most new patent applications are classified by a contractor
 - Transition to Cooperative Patent Classification (CPC) as an agency will have a new internal classification called C* which will be the classification for the claimed subject matter
 - Auto classification tool aims to give a full CPC classification as well as C*s to a portion of incoming patent applications

Patent AI search

- Conducting surveys and training for AI-based features on third-party search tools that are already available to the examining corps
- Continuing to explore technologies for additional AI-based capabilities that may be useful to assist examiners with retrieving potential prior art

Stabilization update

Impact

- Continuity of business operations for patents processing

Remediation approach

- Migration of infrastructure components for legacy applications to USPTO- and vendor-supported versions in order to minimize outage risk

Accomplishments

- Developed rigorous plan to sequence and stabilize nine critical patent systems
- Reviewed and finalized stabilization assessment and recommendations provided by systems integrator for the nine critical patent systems; one patent application has been stabilized (P-ELP which stores all patent documents)

Next steps

- Authorized systems integrator to move forward with stabilization for Private PAIR; other patent systems will be stabilized as part of phased approach
- Roadmap draft for transitioning systems to the future state architecture, which will provide HA/failover capabilities, cloud adoption simpler unified user experience, as well as an increase in infrastructure resilience for business continuity (flexible enough to address different customer segments)

Cybersecurity update

Scope

- Protection of intellectual property and patent business operations from a systems and infrastructure perspective

Current state

- Role-based access control for authentication and authorization
- Annual security and risk assessments
- Penetration testing to detect and remediate vulnerabilities
- Data encryption
- Robust security controls, security monitoring, and incident response

Planned enhancements

- Identity Access Management (manage lifecycle of digital identity)
- Zero Trust Architecture (strict identity verification for both users and devices)

Questions and comments

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