**Technical Capability**

MERP Systems Inc. proposes a structured and technically robust approach to meet the requirements defined in the Statement of Work (SOW) for the modernization of the Information Product Data System (IPDS). Our methodology centers around a multi-phase data migration strategy supported by ShareGate Migrate Pro and the development of a modern, scalable, and compliant architecture leveraging Microsoft 365 and Azure platforms.

**Data Migration Strategy**

Our team will execute the SharePoint 2019 to SharePoint Online migration using a phased model, with embedded controls to preserve metadata, user permissions, and version history. The following outlines our process:

**Discovery and Planning Phase (Q4 2025 – Q1 2026)**

* Assess SharePoint 2019 environment including content structure, metadata, retention settings, and access roles.
* Identify sensitive and regulated data to apply appropriate controls.
* Document current infrastructure, usage trends, and compliance needs.
* Develop and finalize a ShareGate-powered runbook and migration schedule.

**Phase 1: Archive Site Migration (Q1 – Q2 2026)**

* Migrate ~3.6TB from WSS\_Content\_IPDSv2\_Archive.
* Maintain fidelity of metadata, folder structure, and permissions.
* Schedule during low-impact hours to minimize user disruption.

**Phase 2: Active Libraries Migration (Q2 – Q3 2026)**

* Migrate Content0–4 (~150–170 GB each).
* Utilize ShareGate’s incremental sync to ensure continuity of operations.
* Validate post-migration document integrity and accessibility.

**Phase 3: Utility and Home Sites (Q4 2026)**

* Migrate WSS\_Content\_IPDSv2\_Home (~1.4 GB).
* Confirm branding, UI/UX fidelity, and end-user readiness in SharePoint Online.

**Data Validation and Continuity**

We will implement ShareGate’s comparison and rollback tools to validate data migration. Operations will be performed during off-peak hours, with user outreach and training to prepare stakeholders.

**Access and Permissions Requirements**

* **SharePoint 2019:** Farm Admin or Site Collection Admin for data extraction.
* **SQL Server:** Read-only access for analytics (optional).
* **Microsoft 365:** Global and SharePoint Admin for provisioning, configuration, and access management.
* **Azure AD:** Admin access to manage security groups, MFA, and conditional access.

All permissions will be granted under DOI policy using time-restricted, least-privilege models.

**Migration Tool Justification – ShareGate Migrate Pro**

MERP Systems will use ShareGate Migrate Pro to manage all phases of migration. This tool is widely used for secure, high-volume migrations in federal environments and meets all USGS requirements.

**License and Capabilities**

* **Tier:** Pro
* **Annual Cost:** $9,995
* **Activations:** Up to 5 concurrent admin machines
* **Features:** Unlimited data migration, version and metadata retention, PowerShell automation, reporting, and rollback

**Cost Efficiency:** The Pro tier is optimal for this engagement, avoiding unnecessary cost associated with the Enterprise tier (which supports 25+ activations at $17,995/year). ShareGate Pro meets the project scope while reducing cost by ~45%.

Optional add-on: ShareGate Protect ($1,995/year) is available for post-migration governance and lifecycle management.

**Architecture and Platform Design**

The future-state IPDS environment will be cloud-native and FSP-compliant, leveraging:

* **SharePoint Online and OneDrive** for content management
* **Power Platform** for automation and business logic
* **Azure SQL and Blob Storage** for scalable data services
* **Azure API Management** for system interoperability

The platform will support over 3,000 users and accommodate over 10,000 annual product submissions.

**Workflow Modernization**

IPDS workflows will be replatformed using Microsoft Power Automate and Power Apps:

* Peer review management and approval routing
* Metadata-driven content handling
* Reviewer anonymity and FSP validation logic

Power BI dashboards will offer visibility into task status and performance.

**Performance Optimization and Monitoring**

* Index high-traffic libraries to enhance responsiveness
* Segregate archival data to reduce load
* Use Azure Monitor and Power BI for real-time analytics

**Security and Accessibility**

* MFA, conditional access, and federated identity via Azure AD
* Section 508-compliant interfaces with screen reader support
* Use of Purview for sensitivity labels and DLP enforcement

**Roadmap and Innovation (Option Year 2+)**

Enhancements include:

* AI reviewer suggestions (Graph API + Azure AI)
* FSP rule enforcement automation (AI Builder + Power Automate)
* Metadata extraction (Microsoft Syntex)
* Usage analytics via Azure Monitor

**Deliverables**

* Fully functional SharePoint Online-hosted IPDS
* Migration runbooks, logs, and rollback tools
* Documentation and user guides
* API integrations with ScienceBase and SIPP
* Access and security configuration
* Power BI reporting and system dashboards

MERP Systems has the required capabilities, platform familiarity, and execution discipline to deliver a secure, compliant, and future-ready modernization of the IPDS in accordance with USGS and DOI requirements.