A **GOVERNMENT TECHNOLOGY** THOUGHT LEADERSHIP PAPER | AWS AND QUANTIPHI

How to process government documents smarter and faster

Discovering, organizing, and managing information across various documents is pivotal to state and local government work. To enhance efficiency and accuracy, agencies should consider the benefits of intelligent document processing (IDP).

IDP uses generative artificial intelligence (GenAI) to unearth and extract valuable data embedded within PDFs and other text files. Compared to conventional optical character reader (OCR) solutions, IDP represents a substantial leap forward for departments of labor, revenue, public health, regulatory compliance, legal affairs — and other agencies that rely on document-intensive work.

"There's a lot of potential for agencies of all kinds," says Jennifer Kent, a senior fellow with the Center for Digital Government, who spent more than 15 years in executive leadership in California's public healthcare system.

Major IDP use cases

- **Public health.** Agency personnel and clinicians can quickly access critical information from patient lab reports, expediting the analysis and summarization of test results. A user-friendly chatbot can provide information about test centers and vaccination sites and answer health-related questions based on local factors.

- **Regulatory compliance.** Complex documents containing laws, policies, and procedures can be seamlessly ingested into the system. Agency staff can then query the system to ensure adherence to regulatory standards. A high-quality IDP solution can be tailored to anonymize, redact, and deduplicate data, enhancing security and privacy.

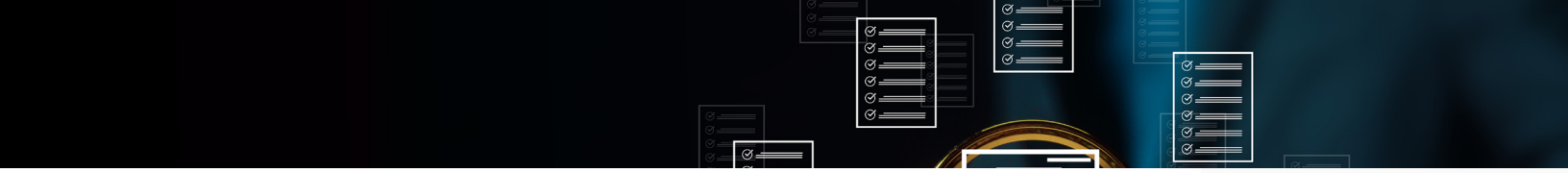
- **Legal affairs.** For lawyers, prosecutors, public defenders, and investigators, an IDP system facilitates fast access to case law and precedents that strengthen cases. The technology significantly reduces the hours spent sifting through extensive case files.

- **Department of labor.** Offices can streamline the processing of thousands of documents related to citizen unemployment benefits, insurance application claims, and more.

- **Other eligibility functions.** An IDP system helps automate eligibility determinations for everything from taxes and food stamps to voter registration and the DMV.

Implementation challenges

Knowing where to start. Deploying an IDP system enterprisewide can feel daunting. Focus on one service, and remember that it doesn't need to be public facing. You can use it internally to solve any problems.



Infrastructure. The first hurdle is digitizing documents and moving them somewhere for processing, analysis, and storage. This could require some agencies to seek cloud alternatives to reduce their reliance on on-premises infrastructure.

Privacy. Agencies must address data and privacy concerns that could stall implementation. Leading IDP solution developers can help resolve this issue.

"We can redact or anonymize personally identifiable information," says Shubham Kackar, senior technical product manager at Quantiphi. "We don't extract and store it unless the customer explicitly asks us to do so. We keep all the information in the customer's environment, so data remains in their account."

Best practices

- **Data governance.** Have a clear understanding of the content within your current and historical data sets. You will need to be aware of document classification and extraction requirements. Establish a governance committee to develop data policies and define responsibilities.

- **Risk management.** Consult with financial and legal leadership early in the process to address liabilities and avoid costly delays.

- **Transparency and communication.** Involve all stakeholders in implementation. Communicate often and make sure their input has an impact on the outcomes.

- **Efficiencies and cost savings.** Automating document processing can generate considerable savings by streamlining cumbersome processes and reducing costs associated with paper storage. Make sure you analyze the total cost of ownership of IDP.

- **Partnerships.** Agencies will need strong technology partners who can help them navigate the complexities of IDP.

Conclusion

Agencies may need to look beyond their first impressions of IDP.

"I think everybody's going to be focused on the speed and the efficiency, but I'm not sure people appreciate the thoroughness," Kent says. GenAI draws from an immense document pool — far larger than human minds can process. This can help your staff make sure that vital insights don't fall through the cracks.

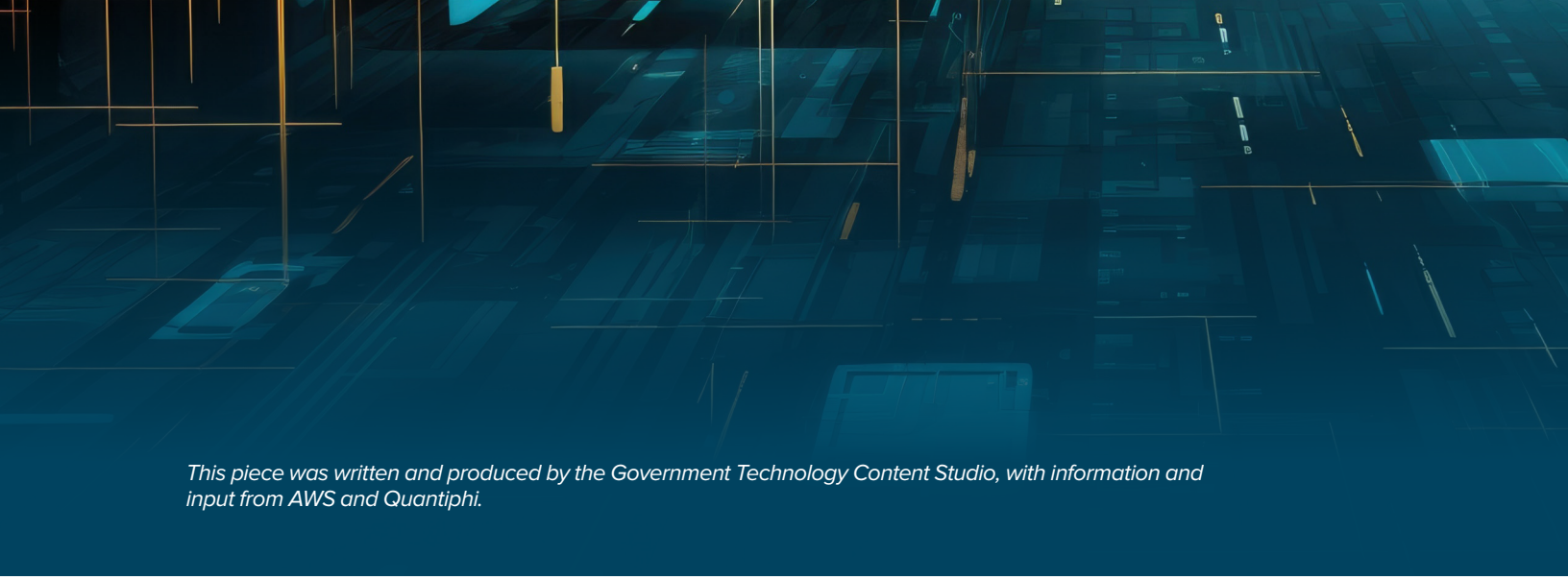
How IDP works

A service called QDox from Quantiphi provides a practical example of IDP technology in action.

- Quantiphi integrates a suite of Amazon Web Services (AWS) technologies in QDox. A public agency uploads PDFs and other text-based documents to the AWS Cloud. The platform ingests the documents, which uses large language models (LLMs) to classify each document and analyze the text within it.

- The system facilitates several important steps, including business rules validation and human review for accuracy.

- Finally, data is exported in JSON/XML format for processing. "Clients can use this output to create dashboards for gaining insights and for searching and querying purposes," says Shubham Kackar, senior product manager for QDox with Quantiphi.



This piece was written and produced by the Government Technology Content Studio, with information and input from AWS and Quantiphi.

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