Automation Name	Contract Clause Review Tool
Implementing Agency	Department of the Treasury, Internal Revenue Service (IRS)
Description of Automation	A web-based tool allows users to upload contract documents and the Contract Clause Review Tool conducts a review of clauses within the documents to assess whether they are complete and current. Relevant clauses are identified primarily by having the software examine the words in an uploaded document, in addition to a user answering some questions. Missing, outdated, or otherwise erroneous clauses are rapidly identified by the software based on the clause recommendation logic. The Contract Clause Review Tool also provides recommendations for potentially relevant clauses so that Contracting Officers can adjust clause language and move forward with signing a contract that thoroughly addresses Federal Acquisition Regulation (FAR) and agency policy requirements.
Type of technology used	<ul> <li>Web application</li> <li>Natural Language Processing/Understanding (NLP)</li> <li>Cloud Computing</li> </ul>

	Achieved and potential benefits include:
	• Labor Hours Saved/Redirected. This automation significantly improves accuracy and reduced the time it takes IRS contracting employees to review and select clauses and provisions to be included in solicitations. While timeframes may vary by contract type, the IRS' Contract Clause Review Tool was reported to reduce the time to review clauses from 6 hours to approximately 1 hour. As of December 2022, the Contract Clause Review Tool has been used to inspect over 4,000 contract documents. IRS Office of Procurement Policy estimates that a thorough manual clause review takes 6 hours.
Benefits of Use	<ul> <li>Improved Accuracy. The tool has detected and/or helped correct over 90,000 clause errors.</li> </ul>
	<ul> <li>Reduced Procurement Administrative Lead Time (PALT). Automating pre- award steps in the procurement process can decrease PALT.</li> </ul>
	<ul> <li>Increased Compliance or Audit Readiness. The tool logic uses (or can use) the same parameters as oversight bodies when checking compliance for security clauses.</li> </ul>
	<ul> <li>Greater Consistency: The tool has a Clause Compliance Strategic Dashboard with trends and highly detailed statistics for individual clauses and provisions, which can help to ensure that clauses are selected in a consistent way across different buying offices.</li> </ul>

Automation Status	In production for more than 2 years. The IRS has been using automated clause generation and review since 2017.
Agency ATO Completed	No
Timeline: Time to Implement/Deploy	The Contract Clause Review Tool went into production after roughly 12 months. Several enhancements have been made in the last 4 years.
Is the automation and/or automation code available for use by another agency?	The code is part of a commercial product and can be made available by licensing with a providing vendor. There is more than one vendor with technologies suitable for producing these capabilities. The IRS did participate in customization of its in-house product and can offer other agencies insight into the logic used in the coding.
Primary Data Sources	<ul> <li>There are three data sources:</li> <li>1. Clause updates via ecfr.gov API (nightly checks)</li> <li>2. Statement of Work, solicitation and contract documents uploaded by users</li> <li>3. Short list of questions answered by contracting staff</li> </ul>
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Lessons Learned	<ol> <li>An IRS-conducted survey found that contracting professionals liked the Clause Review Tool and identified benefits to using this tool over another in-house document clause creator tool.</li> </ol>
	2. The automation can help ensure currency and accuracy of clauses. However, more development is needed to comprehensively determine all relevant clauses for a given document. The tool has the ability to flag some clauses that may be applicable, with the expectation that users will manually review a smaller number of clauses. There is a chance that some users will automatically use recommendations without review, which can also lead to some inaccuracy – though this would be caught during quality assurance reviews.
	<ol><li>Frequent user feedback and focus groups have been valuable in enhancing the automation. User requests have inspired enhancements such as:</li></ol>
	<ul> <li>For delivery/task orders, reducing duplicative recommendations to include FAR clauses already included in a government-wide contract.</li> </ul>
	<ul> <li>Adding more acquisition traits that can be automated to be detected in documents (e.g. access to sensitive information, construction, items available from AbilityOne). Detection of specific traits described in prescriptions are used to trigger clause recommendations.</li> </ul>
	<ol> <li>The tool can be used in multiple ways. While some will use this tool to automate review processes, there was interest in having these capabilities for creating documents/automating clause insertion.</li> </ol>
	<ol> <li>Users also mentioned that ideally, it would be great to have a solution that was integrated into the contract writing platform. This may not be feasible with all contract writing systems.</li> </ol>

	<ol> <li>It's important to have continuous engagement from a procurement policy subject matter expert (SME) to ensure any policy changes are timely implemented into the tool.</li> </ol>
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