



Leading HVAC manufacturer deploys artificial intelligence to meet new lease accounting rules

Keys to Success

Change requested

Locate and process an estimated 800 leases to comply with FASB's new lease accounting standard months ahead of the year-end deadline.

Change envisioned

A thorough lease discovery process revealed double the number of estimated leases. An innovative AI solution was deployed to process most of the workload.

Change achieved

Project completed on time with significant savings and efficiencies: 15-20% reduction in project hours, 42% cost savings and up to 95% accuracy.

FASB's new lease accounting guidance (ASC Topic 842), issued on February 25, 2016, requires organizations to recognize lease assets and liabilities on the balance sheet and disclose key information on lease transactions. For most companies with leased assets, the change significantly affects financial reporting. Companies must obtain key information through lease abstraction and populate a data template with that information to simplify the lease accounting process. The new standard changes the type of information required and includes details not typically held in accounting systems, so accounting departments will have to manually review leases to gather the required data elements.

A leading manufacturer of heating, ventilation and air conditioning equipment estimated it needed to process 700 to 800 lease documents to comply with ASC 842. The manufacturer voluntarily elected an early adoption date of April 2019 to allow adequate review and testing time, allowing only 20 weeks to complete the work.

Recognizing the complexity of completing this task successfully and on deadline, the company turned to Protiviti for help.

An Unexpected Discovery Reveals More Than Double the Lease Records

The company's products are sold through a network of more than 1,000 company-operated and independent distributors, so the reach for lease-related documents was widespread. One challenging aspect of implementing ASC 842 is ensuring all leases are located. Some lease-related documents are easily recognizable, but other sources of data may be difficult to identify, particularly where details are embedded in customer contracts or service agreements.

One challenging aspect of implementing ASC 842 is ensuring all leases are located. The discovery process took approximately ten weeks and revealed more than 1,700 leases—more than double the original estimate.

Protiviti's lease discovery operation included confirmations with external vendors, questionnaires and workshops with business owners, and reviews of general ledger transaction details and spend patterns, to ensure all embedded leases were captured. Another 100 leases were added through a mid-project acquisition.

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A New Type of Intelligent Solution

With a large number of leases to be processed and a short deadline, the company needed an innovative solution. The company's lease accounting software required 90 unique fields to be populated for each lease. Performed manually, this would have taken much longer than the time remaining to complete the project.

The Protiviti team created an automated document abstraction tool using artificial intelligence (AI) technology. Lease documents were uploaded in digital format and converted to text files using high-speed document scanning and optical character recognition (OCR) conversion. Protiviti applied machine learning and deep learning algorithms, training the system to recognize key lease accounting terms. After analyzing the company's approximately 1,700 leases, roughly half were standardized enough to use the automated solution. Predicted values from these documents were exported to the template and uploaded into the accounting software. Samples were validated to ensure accuracy. The remaining documents were processed manually due to poor scan quality, unreadable handwriting or other issues.

Beyond Meeting a Deadline

The use of AI technologies by Protiviti enabled the company to accelerate the lease abstraction process and complete the project on time and on budget, with an estimated 15–20% savings in overall project hours and a 42% savings over the projected cost of reviewing leases and abstracting information manually.

AI can be used for a wide variety of applications, and is especially useful in functions that use large amounts of data and require judgement. For this company, the use of AI-enabled technologies allowed them to accomplish more faster and with up to 95% data extraction accuracy, saving time and money while meeting a potentially disruptive compliance deadline.

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