

Cognex upgrades expand SAP S/4HANA opportunities

Moving to 1909 version delivers more options and increases stability

Cognex is the world's leading provider of vision systems, software, sensors, and industrial barcode readers used in manufacturing automation. Cognex vision sensors help companies improve product quality, eliminate production errors, lower manufacturing costs, and exceed consumer expectations for high-quality products at an affordable price.

The company moved to SAP S/4HANA 1610 in 2017 and now needed to upgrade the system. The original plan was to move to 1809 but Cognex decided to skip straight to 1909. The new version would bring more functionality as Cognex moved through its IT roadmap, but the primary driver for the upgrade was to stay up to date with SAP releases and keep the business running smoothly.

The Capgemini team is truly part of the Cognex team. I don't consider Capgemini and Cognex as separate. I consider us to be one business applications team working together."

David Siple

Senior Manager,
IT DevOps for Business Applications,
Cognex

Preparing for the move to 1909

Cognex's long partnership with Capgemini began when it moved to SAP S/4HANA. For the current project, the two developed a six-month plan to move to 1909. "We had no run book going into this project," says Erin Quinn, IT and PMO Lead at Cognex. "We debated the project plan a number of times but, as we moved through, we finalized and landed on what we felt was a solid run book for moving to 1909. It is important because it means our process will go faster when we do this again.

"I would say that testing and test-plan documentation were really key going into this project. We spent about two months cleaning up all of our test plans with Capgemini and that was a huge win in terms of getting a whole library pulled together, and it made the process easier because we had already done the work. We were looking to prove we could do this in a way that was seamless to the business."

Capgemini's Houston Solution Design Center played a significant role in the test plans, and then acted as a second team that supported the Cognex IT group to execute hundreds of test cases twice in the dev environment. For example, there were issues found with shipping and consolidations that were tracked as tickets with SAP. Capgemini managed the interactions with SAP to ensure the tickets were escalated as needed.

The move was more of an upgrade to the technical landscape and less about introducing new functionality, but it has opened the doors to additional features, such as group reporting and warehouse management. The immediate changes are small and incremental but there are bigger plans on the IT roadmap.

Capgemini played a huge role in the development of the test plans and significantly tested in our dev environment. They were key to resolving issues and coordinating with SAP, as well as helping get our master data set-up in the environment. Capgemini was a true partner in this initiative."

Erin Quinn

IT, PMO Lead,

Cognex



Using testing to drive success

Cognex had decided to have only one quality environment but, as the project progressed, the team realized a second one was needed. This allowed for a second cutover for more practice than had been initially planned. It helped create confidence in the plan and was a valuable investment of time.

"It is a non-trivial task to do an upgrade in SAP – it is not like updating your iPhone," says David Siple, Senior Manager, IT DevOps for Business Applications, Cognex. "It gave us the opportunity to make sure we had all of our tasks identified in our project plan and it enabled us to have a reference system we could use to identify and resolve upgrade issues.

"The sandbox and the mock cutovers made this process easier," explains Siple. "The mock cutover gave us the ability to practice, practice, practice doing the upgrade and it was essential to the success of the project."

"It gave us the luxury of being able to refresh without disrupting other business that was happening in our development or quality environments," says Quinn. "We could actually do a second upgrade without impacting what was going on [with] our ongoing production support."

Cognex initiated a code freeze on the project to keep the number of changes to the production environment at a manageable level and minimize risk. It was agreed that trying to complete development at the same time as upgrading the transport environment would have been impossible.

"Once we explained to the business why the freeze was important, they understood it was part of the process," says Siple. "Of course, when the upgrade was launched, it did open the floodgates of requests but it was extremely important to have that freeze period."

Cognex actually went through a set of test plans twice with two different groups of testers. That meant a second set of eyes could help catch any issues early. By the time they brought in business users to complete testing, the IT team had identified 80 to 90 percent of the significant issues.

"I think testing really helped us catch things upfront in our development environment and part of that effort was getting a master data set that we could trust...to really mimic what we had in production," says Quinn.



Continuing to innovate

Cognex is enjoying the benefits of the move to 1909. It resolved issues with 1610 and provides a more stable environment. Scheduling SAP quality checks before and after the upgrade added confidence in the implementation and upgrade. It will provide Cognex more stability and the opportunity for group reporting, expanded Fiori apps, and the ability to explore SAP IBP.

"We went through a whole process we haven't before and I think the business gained confidence in our ability to upgrade and grow with this platform," says Quinn. "We created a test-plan library and laid the foundation to introduce other functional changes in the future."

Microsoft Azure hosts Cognex's SAP environment on virtual and physical machines with only a few third-party applications on-premises. One of the next projects will be moving the SAP HANA databases off physical machines in Azure and moving to virtual ones. There are a number of benefits to this but, primarily, it will deliver better latency in the environment.

"My advice to anyone going through an upgrade is to make sure you have it well planned and make sure you have testing," explains Siple. "If you think you have enough testing and your plan is good enough, you are wrong. You have to review, review, review and test, test, test. Planning and testing are paramount."



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