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FEATURE

Inside Western Digital's massive cloud ERP migration

A three-company merger has given Western Digital CIO Steve Phillpott a unique lens on moving ERP to the cloud. Here are his key takeaways.

By Peter Sayer

Steve Phillpott joined Hitachi Global Storage Technologies (HGST) in early 2013, a few months after its acquisition by hard disk rival Western Digital (WD), expecting to be working on integrating the two companies' IT systems. Instead, he found himself cast into limbo for a couple of years while China's Ministry of Commerce (MOFCOM) decided whether it would allow the merger.

"The restrictions from MOFCOM didn't allow any communications between the HGST side and the WD side, so there couldn't be any integration planning until we got the final approval," Phillpott says.

While he waited, Phillpott set to work modernizing HGST's systems, moving email, file sharing, HR and sales to software-as-a-service offerings, including Office365, Box, Workday and Salesforce.

"Everything we put in with the understanding it had to be allowed to scale until we started the integration," he says.

Approval for the merger finally came on Oct. 19, 2015. Two days later, WD announced it was acquiring flash storage vendor SanDisk.

That's how Phillpott ended up with the task of integrating the IT systems of three Fortune 500 companies.

The thorny question of ERP

For anyone charged with facilitating a merger, Phillpott advises focusing first on



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the tools that will enable the companies to communicate and collaborate together, "because it's hard to do all these other projects when you're in fifteen different email systems and 250 different file servers and Wikis for sharing."

Getting that collaboration piece down first proved essential to tackling the thorny question of ERP. Western Digital was an Oracle shop, running E-Business Suite on premises. HGST and SanDisk ran SAP, also on premises — but SanDisk had already made the move to SAP's in-memory database, HANA, while HGST hadn't. On top of that, "All three of the legacy ERPs were heavily customized. There wasn't really anything all that simi-

lar between the instances," he says.

To complicate matters, the charts of accounts differed widely, as did the cost centers. "Every single approval process, practically, was different," Phillpott says.

That set Phillpott and his team thinking about where they really wanted to be in three to eight years. The cloud was working well for them in other areas of IT, but back then, "there weren't a lot of large, major, global enterprises with ERP in the cloud," he says. Still, incompatibilities between the existing ERP systems meant that at a minimum two-thirds of the combined company would have to go through change no matter what.

After a close look at the functionality



Steve Phillpott, CIO, Western Digital

and roadmap of Oracle's cloud ERP, as well as a large analysis of the total cost of ownership, Phillpott decided to take ERP straight to the cloud, rather than spend three or four years pulling together three on-premises ERP systems and then assessing whether to migrate to the cloud.

Clearly, it was a risky move: "It was a fairly big undertaking to take three companies of this size and bring them together, so that was risky. We are kind of going into a new product: that adds a level of risk. Plus, we have all the organizational transformation that's going on while all of this is happening," he says.

Bringing ERP to the cloud

To minimize this risk, Phillpott divided the migration into four phases, using the early phases to lay the foundations for the later ones, and putting off anything that could disrupt production.

Phase 1, which went live in July 2017, focused on financial consolidation, including some of the statutory reporting, and operational expenditure planning. "Phase 1 allowed us to put the foundation in, so it meant we redid our chart of accounts, we redid our cost centers, we redid our reconciliation process," he says.

Phase 2 went live in June 2018, with capital expenditure planning and indirect procurement. That sets up the source-to-settle process with suppliers, contracts, requisitions and so on, but it's "a little less risky than when I go to my direct [procurement], where I'm dealing with products that impact cost of goods sold and manufacturing," says Phillpott.

Order orchestration is the order of the day for Phase 3, which has just begun. It includes customer master data, and Oracle's Global Trade Management module. Phase 4 will get into heavier (and riskier) back-end capabilities, including direct procurement and financial capabilities around logistics and inventory.

"We're two years into a four-year (plus or minus) journey," he says. Then it will be time to decide what to do with the legacy ERP systems. From around the end of 2020, no new transactions will be committed to them. They won't go away right away, though: They'll be kept around to provide regulatory reporting capabilities, and then gradually their footprint will be decreased.

Managing change

When complete, Western Digital will have changed every element of its ERP system — but it will all have been for nothing if staff won't change with it.

"One of the biggest things that we talk about as being a critical factor for a project like this ... is the change management capabilities," he says.

Part of Western Digital's change management program is about communicating changes to staff: "We have things like digital signage, focus blogs, team training, virtual training, and then we do have a variety of engagement programs, shadowing of a process owner or focus days to work on certain things."

But equally important is showing them the changes. "We're not only testing the system to make sure it's ready to go live, we're also introducing the people to the system, starting to get them comfortable with it," Phillpott says.

Each phase of the ERP migration is broken down into multiple releases. "Within each release we do a very agile, iterative testing methodology. For example, on ERP Phase 2 we'll go through five or six versions of conference room pilot, and testing, and user acceptance testing, etc. Each wave of that testing gets a bigger user base," he says. That allows Phillpott and his team to get business owners and users involved as early as possible.

That early look at the system is one of the benefits Phillpott sees in software-as-a-service platforms: "You can get an initial configuration up and running very quickly and start users testing, which is kind of unique from an ERP standpoint." Compare that to the on-premises cycle

of ordering hardware, setting it up and then configuring the software: "It's just like months and months and months, if not longer."

After working on change management for the various SaaS introductions at HGST then Western Digital, Phillpott is looking at pulling together the lessons learned into standardized change management cookbooks.

Even without those books, things seem to be working so far: The first two phases of the ERP replacement went live on time. "Phase 2 actually went live under budget too, and I think a big part of that is the planning and the change management," he says.

The case against customization

Putting ERP in the cloud gives Western Digital access to new functionality sooner, one of the things Phillpott values most. The three legacy ERP systems haven't been upgraded in years, in part due to heavy customization. Because of this, Phillpott advises maintaining a vanilla implementation of core ERP elements and integrating, rather than customizing, where necessary.

"You really have to have a strong integration competency. You're going to have to integrate with other things out there and you really have to make sure you've got a good capability in that particular area," he says.

Those skills come from many places: the software vendor, the systems integrator, and line-of-business staff, as well as the IT team itself.

"The IT team, because of the work we've done over the last couple of years, is very familiar with cloud software-as-a-service integration competencies so for them the only thing they're doing is adjusting their skill set to a new product, in this case Oracle ERP," says Phillpott. So far, he's managed by training up the existing team, rather than hiring staff with new skills.

It can be good to bring in new skills from outside, though, as for instance he has done with systems integrators: Deloitte worked on the first two phases of Western Digital's ERP migration, while Accenture is handling the third.

"This is a very new space. Doing ERP implementation in the cloud is fairly new, and because of that we just felt it was good to bring in a little bit of diversity of thought," Phillpott says.