Western Digital's Journey To Build Business Resiliency Through Cloud And ERP Transformation

Imagine three different organizations, three different cultures, three heavily customized ERP systems, three thousand applications, and three different ways of looking at data, and multiple processes across the manufacturing, supply chain, planning, and finance. Even the customer segments of the companies were widely different, ranging from Distribution/Channel sales, to Cloud providers/OEMs/B2B enterprises to end customers as their personal storage devices.

Maybe not to the same scale, but this situation should sound familiar to anyone who has been through a merger or acquisition.

When three companies came together in 2016, after data storage company Western Digital acquired HGST (formerly Hitachi's hard disk drive business) and SanDisk Corporation, the scenario above became a reality.

Recently, I had the pleasure of talking to Jahidul Khandaker, CIO at Western Digital and a leader of the transformational journey at Western Digital, along with their longtime partner Infosys.

What follows is the story of a five-year multi-phase journey that will be complete in a few months. My thanks to Mr. Khandaker for his time and insights, and I hope his story will inspire you if a merger or acquisition is in your future.

Jahidul Khandaker, CIO at Western Digital
Source: Western Digital

TRANSFORM FOR THE FUTURE WITH A CLOUD-FIRST STRATEGY

When the three legacy companies came together, Western Digital, HGST, and SanDisk, there was a minimum of three of everything. Between the three Fortune 500-sized companies there were 10 manufacturing plants, global operations, and three highly customized ERPs with thousands of peripheral applications with redundancies.

At the outset, Western Digital used two SAP instances on-premises and one instance of Oracle E-Business Suite (EBS) on-premises. Picking one of these options as the system in the future would mean a change for two-thirds of the new company. Also, realizing the existing systems were highly customized raised doubt about whether one would scale for the new company, which might involve completely re-implementing it all over again. All these factors led to the decision to move to the cloud.

The company embarked upon a five-year rationalization effort across the entire portfolio to standardize processes and consolidate and integrate applications.

After six-months of evaluation involving various scorecards and a hundred employees from Western Digital, the decision was to go with Oracle Fusion.

By the way, an excellent decision in my opinion. I have written about the rise of Oracle applications. The move to a SaaS model was significant, and the products are more comprehensive and feature-rich today, enhanced using artificial intelligence and machine learning capabilities.

A phased approach was developed to roll out “matured” cloud functionalities for common functions globally followed by unique solutions required for each of their manufacturing sites.

Fundamental tenets of the decisions were “cloud first” and minimal business impact to core business functions (manufacturing, shipping, and customer revenue).

The first three phases of the program brought finance, indirect procurement, and order management functions on to cloud, providing a much-needed foundation for building a single source of truth for financial reporting.

TRANSFORMING THE CORE IN PARTNERSHIP WITH INFOSYS

In 2019, Western Digital started the most crucial part of the transformation journey. This fourth and final phase would transform manufacturing, inventory operations, and

intercompany finance for 10 manufacturing plants across five countries, contract manufacturers and end users in a future-ready platform. Infosys was engaged to bring in an outside-in industry view to challenge current business practices and identify opportunities to harmonize process across the sites and standardize by eliminating custom practices.

The program was divided in multiple sub-phases. First sub-phase involved transforming manufacturing operations and intercompany transfers between component factories alongside payroll consolidation, reporting consolidation in Oracle BI. Second sub-phase had as many as 12 parallel projects for bringing hard disk drive manufacturing operations to cloud and consolidating all shipping and revenue operations, making way to retire two out of three legacy ERPs.

A global PMO was established to manage complexities and dependencies across various programs. The program team established governance structure including all levels of business and IT leadership and agreed to adhere to standard applications and avoid complex customizations.

Infosys proposed a solution that focused on handling end-to-end transformation efforts from understanding legacy systems to data extraction and business process reengineering, leveraging Infosys Oracle Hi-tech Solution, part of Infosys Cobalt.

Infosys Cobalt is a set of services, solutions and platforms for enterprises to accelerate their cloud journey. It helps businesses redesign the enterprise and build new capabilities across the public, private, and hybrid cloud, across PaaS, SaaS, and IaaS.

Multiple design sessions and workshops were conducted across geographies to build consensus on to-be business processes and validate key design decisions. The key design decisions had direct impact on value to customers, agility in operations, business intelligence and employee productivity. The landscape was complicated by myriad of applications, process disparities, compliance deficiencies, massive data variations, completely new ERP, and cultural challenges with 1000+ ERP user base. Harmonization of processes and the ability to execute efficiently across all business functions was a key requirement.

Western Digital’s businesses share a common customer and supplier base across various product lines with similar buying pattern across the products. Prior to the transformation, customers and suppliers interacted with as many as three separate legacy organizations operating from different locations worldwide.

Western Digital not only consolidated the processes but enabled more automation with focus on self-service capabilities. The new digital platform facilitates real-time commits, exchange of information empowering business with real-time decision making to improve significant cost savings.

The other key area where Western Digital was committed to optimize was integrated cost modeling with single product cost across all the factories. Western Digital harmonized product BOMs on Product Data Hub enabling centralized product costing across factories. Improved quality of product master also enabled Transportation management and Trade compliance.

A SOA based integration with manufacturing execution systems (MES) providing robust solution for processing millions of transactions from IOT enabled shop floor and providing platform for seamlessly enabling HDD and Flash MES in the future. Additionally, process integration was also built with manufacturing sub-contractors and 3PLs to bring in agility and traceability to HDD manufacturing

COVID-19 pandemic hit the world around the time of first cutover. A quick realignment of approach and teams helped in delivering entire training and stabilization remotely. What was more impressive was that second and even more complicated phase of the program was delivered completely remotely.

RESULTS TO DATE

Western Digital successfully rolled out the solution in production in multiple releases – Media and Substrate factories, Head Components factory followed by two hard disk factories.

The “phased releases” philosophy rather than a "big bang" significantly reduced business risk. The best part of the entire transformation was that the go-live events had no impact on shipments to customers or finance operations.

This transformation improved the experience across three stakeholders: customers, employees, and suppliers.

Here are some of the most significant business benefits according to WD:

- Faster time to market and reduced overall cost to manage operations
- Harmonized customers / products / organizations enable flexibilities in building & selling

- Enhanced supplier collaboration enabling better visibility of inventory and reduce supply disruptions in future
- Operational efficiencies such as inter-company transactions
- With a single ERP system, the ordering process is more straightforward, and more transactions are automated.
- The most significant benefit is going to be analytics. In a single ERP system, the data is the single source of truth that can provide insights that will add tremendous value to the organization

WRAPPING UP

Mr. Khandaker summarizes some of key learnings from this massive transformation journey so far, “ERP Transformations are not just about technical platform modernization; they offer opportunities to organizations to rediscover themselves. Successful transformation requires many ingredients to come together in the right amounts:

1. Executive sponsorship from business leaders and project organization including various level of business leads with commitment to adopt standard processes and reduce customizations
2. Extreme focus on business risk management by consistently monitoring implementation priorities and keep on aligning releases to manage business priorities
3. Change management and training are most crucial to building business confidence and prepare them for change
4. Data clean up in legacies, accurate data conversion across applications and meticulous cutover planning were major success factors in delivering seamless application transition
5. Engaging right partners who not only bring expertise but also bring commitment to customer success and ability to negotiate tough changes.
6. The ability of organization to sustain changes by investing in in-house talent ramp up to learn new skills to support ERP journey.”

The current go-live has laid the foundation for future phases which would bring shipment and revenue operations on Oracle cloud platform to complete ERP journey.

I hope you have found some pearls of wisdom you can use in this story. As many of you can attest, it is hard to upgrade your current ERP system. It is even more complicated to

switch from one ERP vendor to another, but to retire multiple legacy ERP systems and move to the cloud simultaneously is the hardest thing I have come across. Compound that with the last 15 months in a COVID-19 situation where the project must be carried out remotely without interactive workshops and completing the project on schedule is genuinely remarkable.

IMPORTANT INFORMATION ABOUT THIS PAPER

CONTRIBUTOR
Patrick Moorhead, CEO, founder and Chief Analyst at Moor Insights & Strategy

PUBLISHER
Patrick Moorhead, CEO, Founder and Chief Analyst at Moor Insights & Strategy

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