

JOHNSON CONTROLS – DEPLOYING A ‘BUSINESS OPERATING SYSTEM’ (BOS) TO REALIZE THE FULL POTENTIAL OF DIGITAL TRANSFORMATION ACROSS 19,000 USERS

Digital transformation is so much more than replacing paper with zeros and ones. One of the most critical elements for success is establishing a cultural foundation so everyone in the company has a common understanding of how the organization functions.

A Business Operating System (BOS) is the means to a cultural foundation. A BOS gets everyone in the company on the same page, with the same vision, working toward the same goals. Clearly defined expectations, processes, and accountability enable the company to meet its objectives and achieve its strategy – like a well-oiled machine.

Johnson Controls and strategic partner Infosys have successfully implemented a BOS on top of a highly heterogeneous set of systems acquired over many years. With that backdrop, I was excited for the opportunity to talk with Diane Schwarz, Chief Information Officer at Johnson Controls, to hear the success story.



Diane Schwarz, Chief Information Officer,
Johnson Controls

“DATA PUDDLES” TO A DATA LAKE

Johnson Controls is a 136-year-old, global leader for smart, healthy and sustainable buildings. Milwaukee-based company that develops products and services for buildings such as fire, HVAC, security, and building control products for predictive analytics and intelligent facilities. To quote Diane, “the IT infrastructure at Johnson Controls has more ERP systems than you can count on your fingers and toes.” A situation that many of you can relate to, I’m sure.

Enterprise Resource Planning (ERP) consolidation has begun across two parts of the business, with the installation and service side going to [Oracle Fusion](#) and the

manufacturing plants moving to [SAP](#). This is the first time I have seen an ERP split between two vendors and I thought that was interesting. Frankly, this is the first customer I have heard of that has not gone “all in” with a single vendor.

In advance of achieving the transformation results of the ERP consolidation, has not impacted the BOS project which requires retrieving data from various systems, as Diane affectionately refers to as “data puddles.” Johnson Controls selected [Microsoft Azure Data Lake](#) as the target repository.

A SYSTEMIC WAY TO MANAGE THE BUSINESS

Johnson Controls needed a systemic way to manage the business, to avoid surprises. At the outset, it started with a handful of Key Performance Indicators (KPIs). The first task was to pull data from the older ERP systems into a data lake. A standard set of dashboards followed along with training across the whole organization. Every branch manager and sales leader used a standard dashboard to run weekly operations meetings.

The dashboard became more than a record of numbers. If a KPI was not meeting the goal, each leader had to introduce countermeasures. Countermeasures enabled the leadership to be aware of the issue, understand the remedy and who was accountable – a closed-loop system.

Over a couple of years, the process matured with more metrics developed for different personas covering all aspects of the business, such as sales, service, and supply chain.

The BOS is now a strategic platform at Johnson Controls. Data originates from 30 sources with over 400 KPIs that span the different domains, with many more on the roadmap.

19,000 users now use the system with over 1,200 standard operating procedures.

The BOS has become the tool that drives a predictable and consistent way of working, measuring progress, and driving financial outcomes. Johnson Controls can point to areas where the BOS has improved time to resolve and business margins. As one manager noted, “BOS helps leaders lead.”

The BOS dashboard is a plan-of-record ensuring the organization is on the same page. New tools reveal a greater understanding of the risks and opportunities. In the future, it

will be less about looking in the rear-view mirror to find out what happened with the KPIs and more about understanding the anomalies and using analytics to predict future outcomes. That is going to be a game-changer.

FACING CHALLENGES WITH A GOOD DOSE OF PERSEVERANCE AND TENACITY

The cultural challenge to get everyone aligned to the standard scorecard was a significant hurdle. Think of a branch manager told by corporate leadership to change a system that s/he thought worked great for them for decades. The response is typical “that is extra work.” The task was to convince the organization that it is not extra work but replacement work to operate consistently across the organization and stop local practices.

Over time, Johnson Controls has stamped out local practices, with the leadership team \ reinforcing appropriate practices. Not weekly, or daily, but in every meeting! “Where are your countermeasures?” “Who is accountable?” Diane noted jokingly, “Change management is straightforward, as long as somebody else is changing!”

The result? No more PowerPoint! The tools and the KPIs drive operational reviews. That’s very powerful—a gold standard to measure the business.

A second challenge was that it took time to build the foundation, and people immediately did not see the results. Developing the KPIs took time to connect 30 systems with several hundred data points.

Diane aptly put it, “you need to be persistent and diligent. Sometimes it feels like you are using a sieve to get data into the data lake. But the data that sticks is worthwhile.”

INFOSYS: STRATEGIC PARTNER AND AN EXTENSION OF THE TECHNOLOGY TEAM.

Infosys has been a partner to Johnson Controls for many years, from both an operational and a delivery perspective, with the institutional knowledge to keep the legacy systems running. Additionally, Infosys has played a crucial role in the transition to new ERP systems.

Infosys was instrumental in helping with alignment and standardized definitions across different business domains. Infosys also helped pull information from the backend systems and consolidate it into a standard model using Microsoft Azure.

WRAPPING UP

The key takeaway from this analysis should be that understanding the human side is critical to realizing the benefits of digital transformation and preparing your company to scale.

In this brave new world, organizational silos can be costly, causing organizations to be at risk of failure or, at the very least, challenged to scale.

A BOS is a critical tool to establish control across the organization. A BOS is a playbook for leaders to run the company and a set of expectations for every employee, and the absence of it can lead to miscommunication, individual agendas, and team conflicts that derail your company's success. To avoid frustration, wasted time, and energy as you grow, I would encourage you to investigate the options for a BOS seriously.

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