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Five Risks to Consider When Selecting an MES

By Naveen Poonian, VP of Strategy, iBASEt

As manufacturing industries face a daunting amount of change in the fast-paced era of smart factories and digitally integrated global supply chains, many companies are seeking new MES solutions in an effort to achieve higher levels of excellence and innovation. The most sought after outcomes of an MES implementation include optimizing speed and flexibility, cutting production costs, enabling compliance with quality and regulatory standards, along with accelerating visibility and control. With proper planning and risk assessment, these are achievable. However, if the inherent challenges are not thoughtfully reviewed, costs, compliance, and control could be negatively impacted.

When selecting a Manufacturing Execution System, there are two broad types of Manufacturing Execution System (MES) implementations, each with its own set of risks: a custom built MES configuration based on an MES tool kit; or a Commercial-Off-The-Shelf (COTS) configuration of MES software.

Taking the time to do proper risk management, and to identify and mitigate risks before implementation, can protect the organization from unnecessary costs and headaches. Let's examine the key risk factors to consider when planning a smooth path to implementation.

Budget Risk

As companies operate with tighter budgets, it is becoming more critical to manage costs from deployment to adoption, not just the cost of the software licenses. Buying software can be an expensive proposition if you underestimate the actual services work required to make the software operational, including customization, integration and testing.

Custom-built MES configurations based on MES tool kits can run high ratios of license-to-service dollars, often upwards of 1:5. That means for every \$10,000 spent on licenses, you may actually be spending \$50,000 in services. With a COTS MES solution, the ratio can drop dramatically to the range of 1:2. It is important that the comparison of various solutions includes both expected license and service costs to get a more accurate estimate. For custom solutions, remember to account for the additional cost of managing the software production lifecycle as the toolkit and platforms require more upgrades.

Operational Risk

Configured and COTS MES solutions always have some kind of failure risk. The reasons could be inherent, including insufficient hardware, lack of training, or other improper implementation processes. Validation is an extremely important exercise when custom



building a solution; you have to know how your company's data and process flows will react in the software system. The one major benefit of looking at a COTS MES solution is that you can conduct a small pilot project to test and validate data in a sandbox or emulated environment before making a bigger purchasing decision or conducting a full rollout. Testing with a small sample of your data and processes in your own environment is one way to mitigate your operational risk.

Change Management Risk

Old processes and habits are often hard to change. Moving an organization from legacy processes to new ones or to investing in new software adoption requires heavy commitment from the management and the entire team. Implementing new solutions can be a scary undertaking for individuals (career risk) as well as groups; failure

