



NBC Bearings Digital Transformation in Manufacturing

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NASSCOM IoT CoE

Master Class Series

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From a brownfield to a Connected Factory state (1/3)

Challenges faced



Need for higher efficiency in operations

- With the help of traditional methods of lean, six sigma, 5S, TPM etc, Plant OEE achieved around 78-80%



Delayed decision making

- Old methods of manual data collection consisting of human error leading to delayed analysis
- Lack of connectivity & lack of real-time statistics across shopfloor



Limited connectivity among large number of equipment with huge data flow

- Multiple machinery, diverse controller sets, adhoc data tag nomenclature, I4.0 compatibility for data exchange
- High data flow for big data analytics, identify critical, bottleneck machinery



Constrained interconnection of processes across all plants

- Is your manufacturing value chain interconnected for information flow?

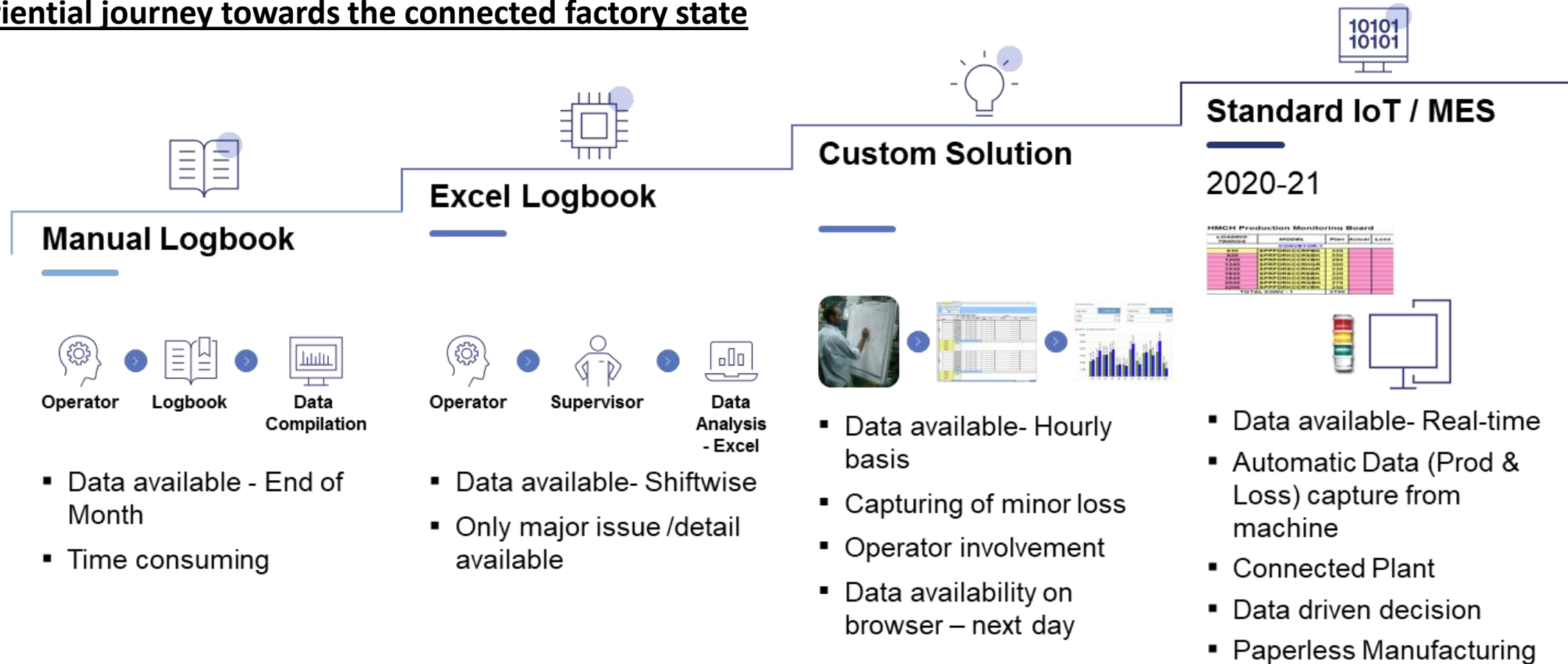


Lack of IT infrastructure in the plant

- Has the connectivity, network foundation been set for your factory?

From a brownfield to a Connected Factory state (2/3)

Experiential journey towards the connected factory state



From a brownfield to a Connected Factory state (3/3)

Approach adopted



What was the philosophy

For Connected Factory it was Data first philosophy

Enablement **Data** Insights **Wisdom**



Management sponsorship: freedom to fail, learn and quickly rebound



Objective: Define clear objectives. **Move from reactive to a pro-active way of working**



Inclusive: Cross functional teaming, shopfloor, production, maintenance, plant quality, IT



Tech ecosystem: One may not be able to do it all by yourself. Explore and develop partnerships, start-ups, IT companies, automation companies etc



Start small, prove and then scale up. Prepare a unified data layer first (that's the most challenging part) then add the interaction and visualization layer



Thank You!

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