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The future of EAM: how the Connected Digital Twin is shaping your landscape

[Section 1]

Introducing the Connected Digital Twin

New capabilities offered by the Internet of Things (IoT) are radically altering our relationship to our environment. Integrated weather forecasting, cameras, light and temperature sensors, drones and mobile technologies don't just act with great accuracy and speed; they interact.

You're familiar with the complexities of managing high value physical assets. So you'll understand how, if harnessed in the right way, these connected technologies are game-changing for your business. This is, after all, the era of the newly connected worker, where drones and wearable technologies relieve the burden of dangerous tasks.

IBM Maximo is the world's leading Enterprise Asset Management (EAM) application. Once a planning tool that primarily used historical data, it's evolved into a smart application that consumes real-time data to enable preventative insights. It allows you to manage the entire lifecycle of all your assets with clarity and efficiency, enabling considerable savings and other benefits.

IBM Maximo does this by intelligently synthesising specific data from the IoT, creating an interactive digital version of your asset: its twin. IBM Maximo has matured to become the Connected Digital Twin.

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IBM Maximo has taken the next step. Find out what's new – in full.



[Section 2]

Connect now for a more efficient asset lifetime

IBM Maximo is the ultimate efficiency booster for businesses that depend on the operational capacity and reliability of physical assets. It reduces risks related to human error, speeds reaction time and streamlines processes.

Right now, industry-specific tools and standards (such as IBM IoT Platforms, BIM, COBie and RDS-PP) reflect an assumption that your business will be integrating them with applications as sophisticated as IBM Maximo.

By embracing this step change and connecting the digital twin, you can eliminate up to 20% of your biggest costs: manual labour, asset downtime, material costs and inventory. You could see your asset utilisation increase by up to 10%. What could these figures mean for your business?

A life-long digital thread

By deploying the Connected Digital Twin earlier in the asset lifecycle, you simplify the management of your assets throughout their full lifetime, in a 'digital thread' that runs through design, build, operation and decommissioning.

The Connected Digital Twin weaves this thread into a broader interactive network of assets, people and systems that enables complete visibility with seamless communication.

Throughout the operational lifetime, critical components will not be missed. Steps will not be overlooked. You can use real-time insight to inform decisions that shield your business from all types of asset-related risk.

For example, decommissioning a power station may take decades - but with built-in future planning, data will remain complete and useful. At acquisition or disposal, buyers won't be surprised by asbestos or other hazardous material; handover includes a clean and comprehensive history with preventative and predictive information included.

With the Connected Digital Twin, your most important physical assets are:

1. **designed** intelligently using real-time data that gives insights into future impacts and possibilities.
2. **built** more quickly and efficiently, with the ability to visualise outcomes in detail.
3. **commissioned** into production faster
4. **operated** at lower servicing cost and higher efficiency.
5. **decommissioned** in a planned way, with a clear, full history.



[Section 3]

Monitoring and protecting the health of assets

One vital consideration during an asset's entire lifetime is its health. Individual pieces of data will give glimpses into its health at a point in time. But the Connected Digital Twin improves overall asset health by vastly broadening that visibility and keeping it up to the moment.

It does this by connecting elements of the Internet of Things (IoT), such as sensors, drone images or weather forecast data, to your twinned digital asset. These elements are readily available as out-of-the-box tools; they simply need IBM Maximo to harness their potential. Linked intelligently, they create a real-time digital replica of your asset that drastically improves information quality and planning.

Your real-time asset health monitor

Once connected, your Digital Twin constantly monitors the 'heartbeat' of its physical twin - your asset. Not only is each data item recorded and delivered to the Connected Digital Twin in real time, but IBM Maximo understands the asset's normal state. It supports preventative maintenance, by helping to predict issues before they occur, preventing costly downtime and outages.

Any conceivable risk to your asset – whether it's overheating, weather damage or component degradation – is proactively reduced from the get-go, so you can maximise asset lifetime and productivity.

Enabling up-to-the-minute compliance

With broad awareness and deep insights, you can keep your business at the leading edge of ever-shifting compliance. Regulations surrounding health and safety or the environment, for example, become easier to meet. Whether you're tracking emissions or planning for asbestos disposal at end of life, IBM Maximo has already factored in the necessary considerations from data in the Connected Digital Twin.



[Section 4]

Future-proofing asset productivity

The exceptional potential of IBM Maximo lies in its ability to look after tomorrow's asset management as well as today's.

By routinely predicting and fixing issues before they occur, you'll rarely take assets out of production unexpectedly. By helping you manage assets this way, the Connected Digital Twin increases uptime as much as 20%. Together with a lower maintenance time and costs, this makes digital twinning a guardian of future profitability.

By shifting towards connected technologies to manage assets, you will only continue to maximise productivity.

Deepen asset intelligence over time

As the network of connected components grow, so too will the richness of data feeding in to IBM Maximo. By encompassing emerging technologies, now and in years to come, your business will enjoy extraordinary capabilities that support intelligent growth. Connecting the Digital Twin today lays the foundation for the huge advantages that IBM Maximo can offer into the future.

[Section 5]

This is the future of EAM

The tools and data standards to support IBM Maximo are already in place. Asset-based businesses are weighing up the risks of not taking this exciting step forward.

There's no doubt about it. With increasingly intelligent competition, an uncertain economic landscape and an environment of frequent legislative change, the time to leverage the Connected Digital Twin is now.

Contact us

To discuss what the Connected Digital Twin could mean for your business, please contact **Peter Kearney** or **Nigel Sylvester** or visit the Deloitte Maximo CoE at [\[URL\]](#).