IBM **Maximo**®

IBM Maximo for Civil Infrastructure

Highlights

- Continuously track and manage assets, including components of a structure, such as cables, hangers and decks as well as related assets, such as fans, dampers and dehumidifiers
- Manage planned and unplanned work activities, ranging from routine maintenance to complex structure updates
- Perform and record the results of inspections on steel and concrete structures, roads, rails, and related equipment
- Track contractor work, purchase orders, and contracts
- Visualize planned work and anomalies in asset, linear, spatial, or schematic views, accounting for the differing user interactions based on the different structures

Reduce the risk and cost of maintaining civil infrastructure through insightful asset management, monitoring, health assessment and prediction.

Infrastructure managers around the world are responsible for the safety of aging structures and systems, many of which are still in operation 50 to 75 years after their original construction. In the US, the Federal Highway Administration reports that 40% of rails, roads, bridges and tunnels have outlived their useful lifespan and are in dire need of repair.* While billions of dollars are spent annually on inspections, there is little confidence in the results.

And to complicate matters further, the cost of constant physical inspections and maintenance continues to increase. Budgets are strained. Resources are depleted. And only a small percentage of repairs and replacements are prioritized each year. This worsening situation presents a tremendous challenge for infrastructure managers who want to repair and replace their assets — in a more efficient and strategic manner — before catastrophic failure.

* Source: Federal Highway Administration

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A specific solution to a widespread problem

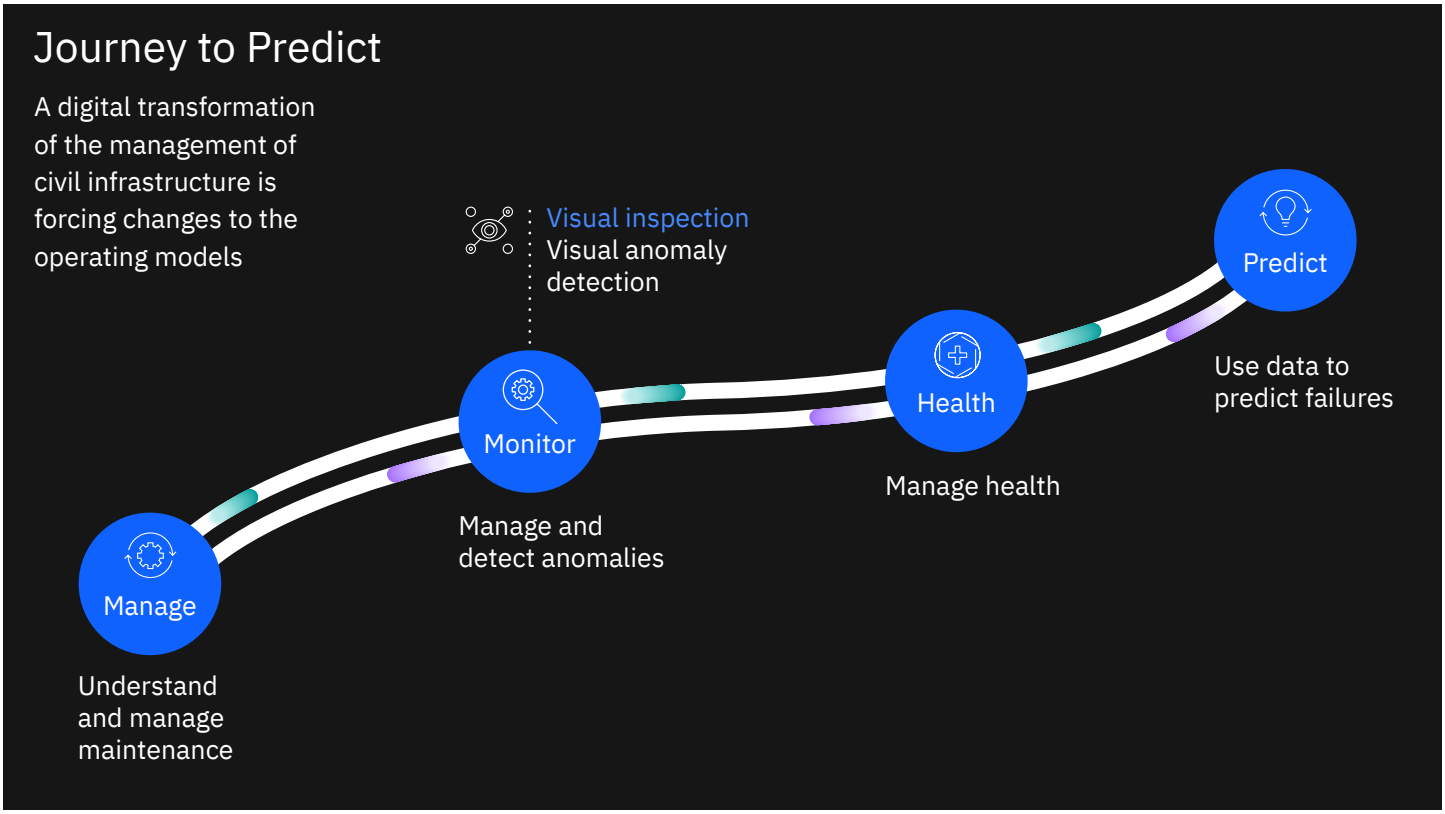
The answer is a single, comprehensive asset management solution that can monitor widely dispersed structures by collecting and integrating data from enormous, disparate databases and from sensors on the infrastructure. Then by applying machine learning to create reliable statistical models, the system can identify priorities and help manage the activities of maintenance and engineering personnel. Historically, a single unified model has been beyond the capabilities of most engineering systems and applications. IBM® Maximo® for Civil Infrastructure provides the single, comprehensive solution that asset managers require.

IBM Maximo for Civil Infrastructure delivers asset lifecycle management capabilities to help improve asset monitoring and reduce the total cost of ownership (TCO). Maximo for Civil Infrastructure:

- drives inspections of concrete and steel structures and related assets and records the inspection results
- visualizes anomalies and work in structure-appropriate views, including linear, spatial, asset-based and building information management views
- manages planned and unplanned work for work orders, contractors, and purchasing management
- creates preventive maintenance and job plans to be incorporated into the work schedule

Maximo for Civil Infrastructure V7.6.1 incorporates the latest IBM asset lifecycle management capabilities, enabling civil infrastructure asset managers to manage and monitor their assets, assess health and predict risk. The solution enhances core Maximo Enterprise Asset Management functionality by providing a single install, using the add-ons needed to perform the initial configuration of security groups to focus on the applications most relevant to the management of civil infrastructure.

Maximo for Civil Engineering provides a wide range of capabilities covering all aspects of enterprise asset lifecycle management, including asset manage, resource management, worker safety, contractor management, purchasing, inventory management, defect tracking, planning, scheduling and reporting.



Manage
Maximo for Civil Infrastructure provides infrastructure owners with an accurate up-to-date account of the history, condition, and planned activity related to assets on and in bridges, roads, tunnels, and railways. With Maximo for Civil Infrastructure, maintenance activities and decisions can be driven by information that gives operators deeper insights into the infrastructure they are managing. Therefore, they can more efficiently inspect structures and manage the anomalies identified during inspections as well as manage routine work.

Monitor
Maximo for Civil Infrastructure helps operators monitor the condition of civil infrastructure throughout the lifecycle of the infrastructure, 24 hours a day. Sensors can be connected to give operators deeper insights into the infrastructure they are managing. The solution integrates inspection, anomaly tracking, and maintenance scheduling to help organizations improve asset life, keep critical systems up and running, and lower the TCO of civil infrastructure.

Health
Manual and drone inspections can't always identify underlying issues that may result in failure. By relying upon an intricate network of sensors, historical data, and factors such as environment conditions, Maximo for Civil Infrastructure makes it possible to obtain a reliable, accurate indication of the true health of infrastructure assets. It allows organizations to more efficiently visualize issues and understand the implications of anomalies identified, as well as manage routine condition-based maintenance work on structures.

Predict
Through sophisticated AI and analytics, Maximo for Civil Infrastructure identifies possible risks so managers can make fast, informed decisions about where and when maintenance is required. This approach replaces the traditional calendar schedules that often use up valuable man hours and resources unnecessarily. With Maximo, work is aggregated to maximize efficiency and systemic issues can be managed opportunistically. This results in increased uptime and helps to avert catastrophic incidents that could incur astronomical expenses.

Why IBM?

IBM Maximo is the market leader for enterprise asset management. It has supported infrastructure leaders for over 30 years across multiple industries and domains. Maximo is deployed in 99 countries and on all seven continents.

For more information:

To learn more about IBM Maximo for Civil Infrastructure please contact your IBM representative or IBM Business Partner, or visit www.ibm.com/internet-of-things/explore-iot/civil-infrastructure

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