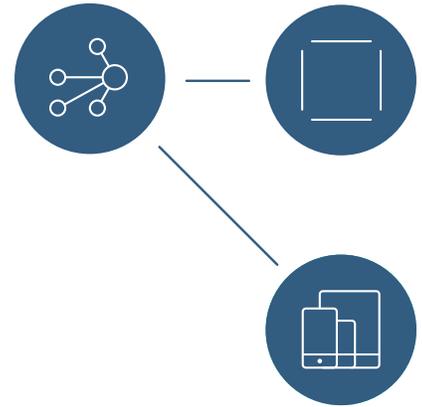# Watson IoT™

IBM Maximo Network on Blockchain

Enhance IBM Maximo with blockchain

Create more transparent, accurate and traceable asset transactions across business networks by integrating blockchain with Maximo.

Solution

You're already tracking assets across your enterprise in IBM® Maximo®. But what happens when one of those assets needs repair or inspection from parties in your business network? How can you integrate the data from parties in your business networks with your own system? The inability to integrate into one system of record can lead to siloed information fraud and lack of visibility into transactions that impact each asset.

Let's look at the real-world example of wind turbine inspections. This business process includes outsourcing to a supplier for business-critical parts with a precise series of events to be conducted by skilled personnel in a regulated industry. Recently, this business would only have three options for tracking inspections. They could manually enter the results into Maximo, integrate their system with the contractor's system, or purchase Maximo for their contractors if they are a consistent business partner. None of these options are ideal, and now there is a better alternative.

With IBM Maximo Registry on Blockchain, each party involved in the transaction would input their data on the blockchain, and a subset of that data would then be moved into Maximo. This way, all data surrounding an asset is verifiable, immutable and visible to all involved parties. Even IoT devices attached to the assets would be tracked on the blockchain to ensure accurate asset data in real time.

Challenges

— Siloed information across each party involved in an asset transaction. Your business tracks data in an EAM system, but much work is done outside the system by external parties.

— Inability to track accurate history of assets.

— Enabling all participants in your business network to use Maximo—and input data accurately—is unrealistic.

Benefits

Consistent processes

By having all parties touching an asset or its parts on one network, and sharing one ledger, processes are consistent and compliance is easier to achieve.

Immutable records

All asset data on the blockchain is permanent and cannot be altered. This reduces the potential for fraud as records are tamper-evident and can be valuable in conflict resolution.

Complete records in Maximo

With all data related to the asset transaction available on the blockchain, you can choose which data is needed to complete records in Maximo. You no longer have to rely on manual input or potentially incomplete information.

Reduction in paperwork and manual handling

With one shared ledger, paperwork is significantly reduced and manual transmission of information between parties is unnecessary.

How it works

Blockchain works best when used within a business ecosystem. Below is an example of how an asset transaction may be tracked using blockchain:

— An organization using Maximo and its ecosystem partners (such as contractors, auditors and business partners) are authorized to view and create specific transactions on the blockchain. Permissions are granted to each authority based on the level of visibility they require.

— For an asset inspection, an inspector would receive inspection notifications from the blockchain and send inspection results to the blockchain.

— An engineer may transact on the blockchain when inspectors find irregular conditions that require engineering review. The review of the asset by the engineer might require data collected by a sensor on the asset and fed to the blockchain.

— For safety related matters, a government official may be notified of an inspection and be required to review and/or sign-off on the inspection results. The sign-off is recorded within the blockchain with no worry that paperwork will be lost.

— IBM Blockchain provides the private blockchain infrastructure of distributed peers that replicates the data and validates the transaction through secure contracts.

— Using Maximo's business objects and related components, a smart contract is configured in Maximo and deployed to the blockchain to execute the transaction within specific parameters—as designated by the participants of the network.

Learn more

Understand the basics of blockchain and how it works with IoT in this infographic.

Speak to your sales rep for more information on how this solution can add value to your business networks or visit the IBM Marketplace to schedule a consultation.
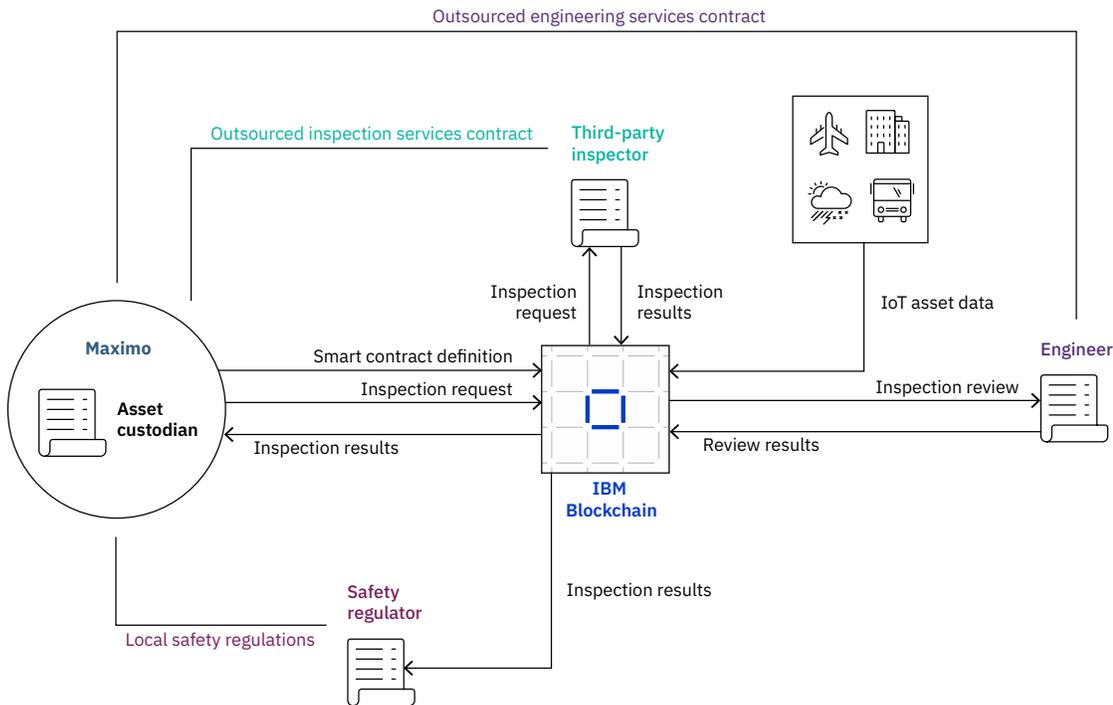

Figure 1:
How different parties in your network would engage with the blockichain and Maximo.