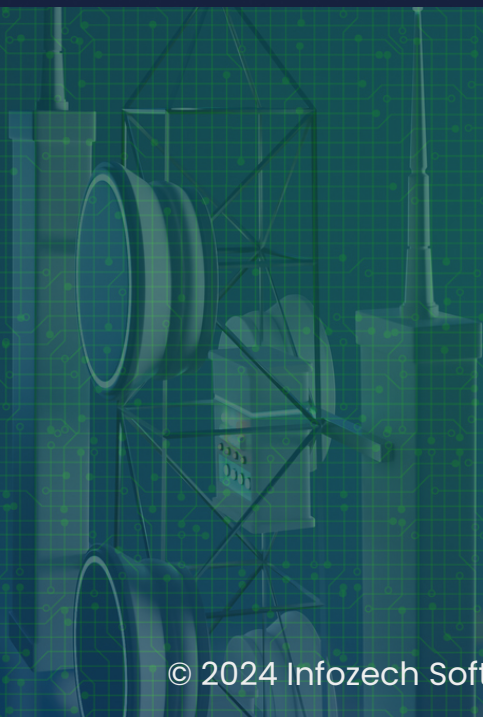


Infozech Software Private Limited



Strategic Asset Lifecycle Management: Transforming Telecom Tower Operations

Jan 26th, 2024



The Telecom infrastructure industry requires significant capital investments for the development of geographically distributed assets, primarily telecom towers. A substantial amount of financial resources are deployed to procure, monitor and maintain assets, which form the backbone of the telecom network.

Asset Management is now emerging as a priority area for telecom infrastructure industry leaders. Traditionally the telecom tower industry has been constrained by a lack of visibility on assets.

While ERP captures procurement data at the Project level, it doesn't give visibility into the operational life cycle of the asset. Top issues CFOs and Asset managers struggle with are:

- what are my true holding of Assets- the precise value of my assets with their location (site, warehouse), utilisation, monetisation to ensure the integrity of financial records
- How can I better manage existing capital works in progress (CWIP) and get assets capitalised on time.
- How can CAPEX allocation and spends be improved with data based forecasting and budgeting on acquisition of assets.

As the industry continues to evolve, the implementation of a strategic Asset Lifecycle Management (ALM) solution becomes imperative for streamlining processes, optimizing costs, and driving revenue growth.

This whitepaper from Infozech delves into the key components of ALM, offering insights into the challenges faced by telecom tower companies and emphasizing the transformative impact of strategic asset management on operational efficiency, financial performance, and overall business resilience.

Introduction

Over the last few years, our business solutions and marketing team have been talking to several CXOs of the telecom industry across different geographies and have realized that their biggest challenge is 'Mobile Asset Lifecycle Management(MALM)'.

With towerco assets spread over huge geographical areas, keeping track of all assets and their condition is a complex and challenging task. But if ignored, the failure of even a single piece of equipment can shut down site operations, causing the loss of thousands or even a million dollars.

Challenges in Asset Lifecycle Management: Navigating Communication, Integration, and Data Accuracy Hurdles with ERP Systems

In the ever-evolving landscape of business planning and ERP system integration, a common challenge is ensuring smooth communication and data synchronization. CFOs believe ERP is a consolidated repository of what was Paid for, not what you have in operation or being tracked.

Assets follow a lifecycle – from acquisition to maintenance and operation, to decommissioning or replacement. Often for an organisation, maintaining a shared set of asset information at each stage of lifecycle – a single source of truth becomes challenging considering the volume and variety of asset information.

Besides, asset data is consumed by multiple people across multiple departments and captured in multiple places and ways. Often data capture may happen through a physical hand written checklist, laptop or mobile; then transported across one or more systems via automated tools or manual re -entry. This process in itself is cumbersome and prone to inducing errors.

It also leads to duplication of data both within and across functions. The critical asset data of sites resides in Silos in multiple systems with multiple functions and the data versions that ERP (Finance), Network (Technical), and Operations have are rarely in sync.

A lot of information is lost during the integration with ERP. Due to lack of effective and timely integration, information becomes outdated, and a distractor instead of being an enabler.

The inefficiency of the legacy tools in monitoring, tracking, and managing assets results in unaccounted assets, ghost assets, idle assets and a lot of discrepancies in the asset records.

Due to unavailability of consumable and reliable asset data, no insightful dashboards on asset's performance, consumption, and its monetisation can be produced for decision making

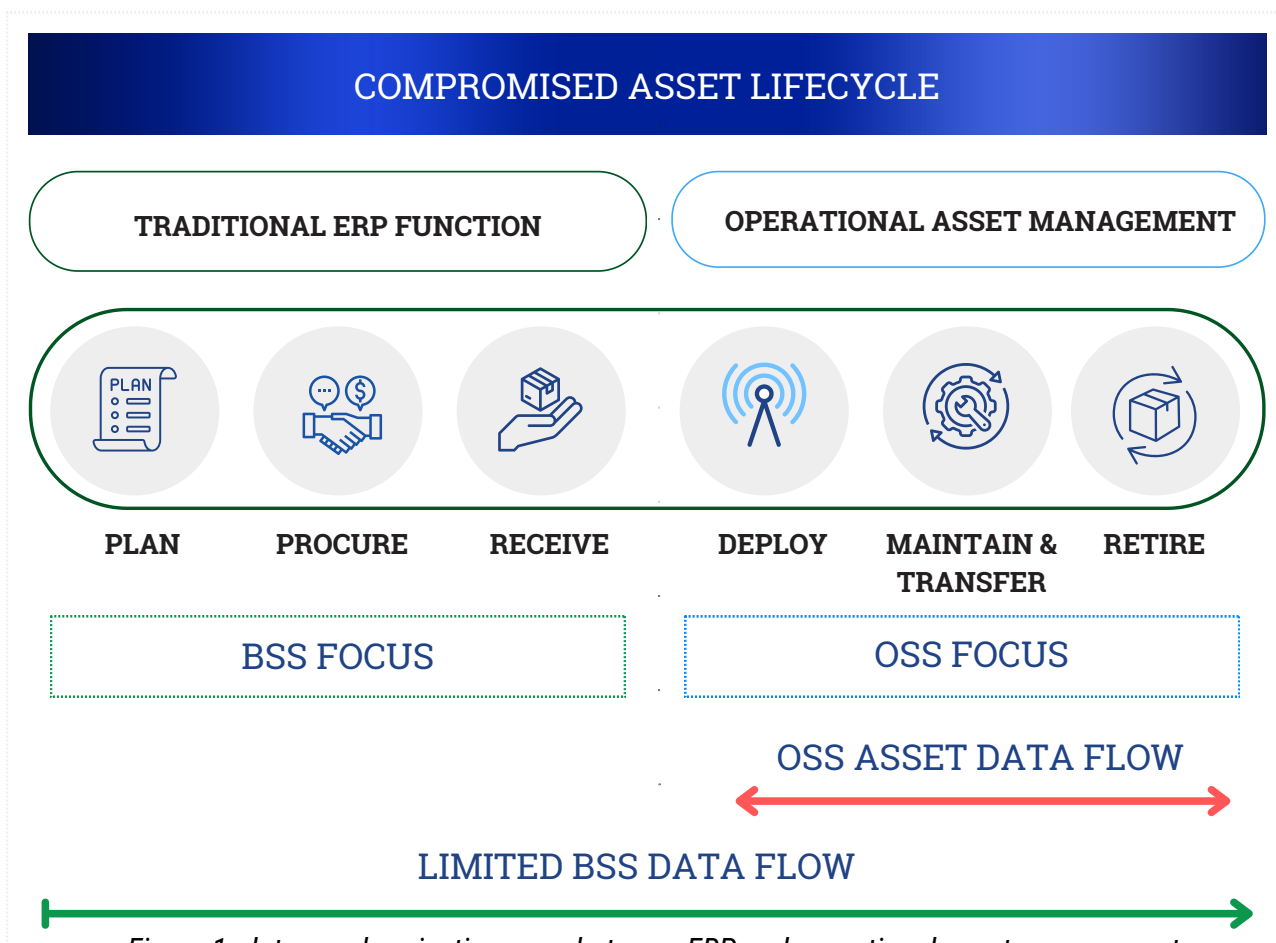


Figure 1 -data synchronization gaps between ERP and operational asset management

The Stakeholders' Concerns



Shorter technology cycles and dynamic changes in operating environment are driving lot of Capex and Opex pressures on the telecom infrastructure industry. CFOs have long complained about the ongoing struggle with systems that are poorly integrated and are expensive to maintain. Existing infrastructure records are incomplete, out of date and detached from real operational data. **A CFO needs to know how many assets are lying unused and therefore not producing revenue, ROI on deployed assets.**

Critical asset and infrastructure costs are so enormous (\$350 billion globally) that finance and supply chain executives are all starting to demand better Asset Lifecycle Management solution to solve a plethora of their pain points. Assets are often so old and bookkeeping so inefficient that management teams do not see the sizable impact these assets have on profit and loss.

Full knowledge of what you own and its true potential is the first and most important step in developing a robust asset optimization strategy.

Top issues CFOs and Asset managers struggle with are:

Challenge 1: what are my true holding of Assets- the precise value of my assets with their location (site, warehouse), utilisation, monetisation to ensure the integrity of financial records

Challenge 2: How can I better manage existing capital works in progress (CWIP) and get assets capitalised on time.

Challenge 3: How can CAPEX allocation and spends be improved with data based forecasting and budgeting on acquisition of assets.

How Infozech can help?

Challenge 1: what are my true holding of Assets- the precise value of my assets with their location (site, warehouse), utilisation, monetisation to ensure the integrity of financial records?

Solution

- Conducting physical verification to ensure accurate asset data
- Reconciliation of Fixed Asset Register (FAR) with field-verified data

Process

- Physically verify all sites.
- Conduct on-site verification of assets in the warehouse.
- Utilize a mobile app with geotagging, GPS functionality, and dropdown checklists for technical verification. Capture geotagged photographs for enhanced accuracy.
- Reconcile asset data gathered from the field with ERPs Fixed Asset Register.

Data management strategy to get full knowledge of what you own and its true potential

Planning a data management strategy for your existing and new assets and then executing it through a reliable solution and a partner who has done it before.

Physical verification is diligently scheduled for every site and at every warehouse without exception. Each asset is tagged with a QR or RFID for its identification, and movement tracking. A Mobile app that auto populates a dynamic checklist based on site type, meticulously capturing over 1000+ attributes of each site. This enables field personnel to seamlessly scan, capture, and store geo-tagged asset data.

This application facilitates seamless collaboration between field and back-office teams as collected data can be sent on real-time basis. During each site audit, the collected asset data undergoes rigorous verification by the back-office team, ensuring accuracy and reliability.

The Finance team reaps substantial benefits from this streamlined process, as the verified data is reconciled against the fixed asset register (FAR)in ERP. This ensures a transparent and accountable process, eliminating discrepancies and enhancing overall financial control.

This one time audit provides validated and verified asset data building 'True Financial Book' and get assurance of valuation of fixed assets and accurate location.

It also leads to the creation of a "centralized asset data repository," serving as a comprehensive and reliable source for assets. This strategic approach not only optimizes the audit process but also fortifies the integrity of asset data, laying the foundation for a more robust and transparent data management strategy.

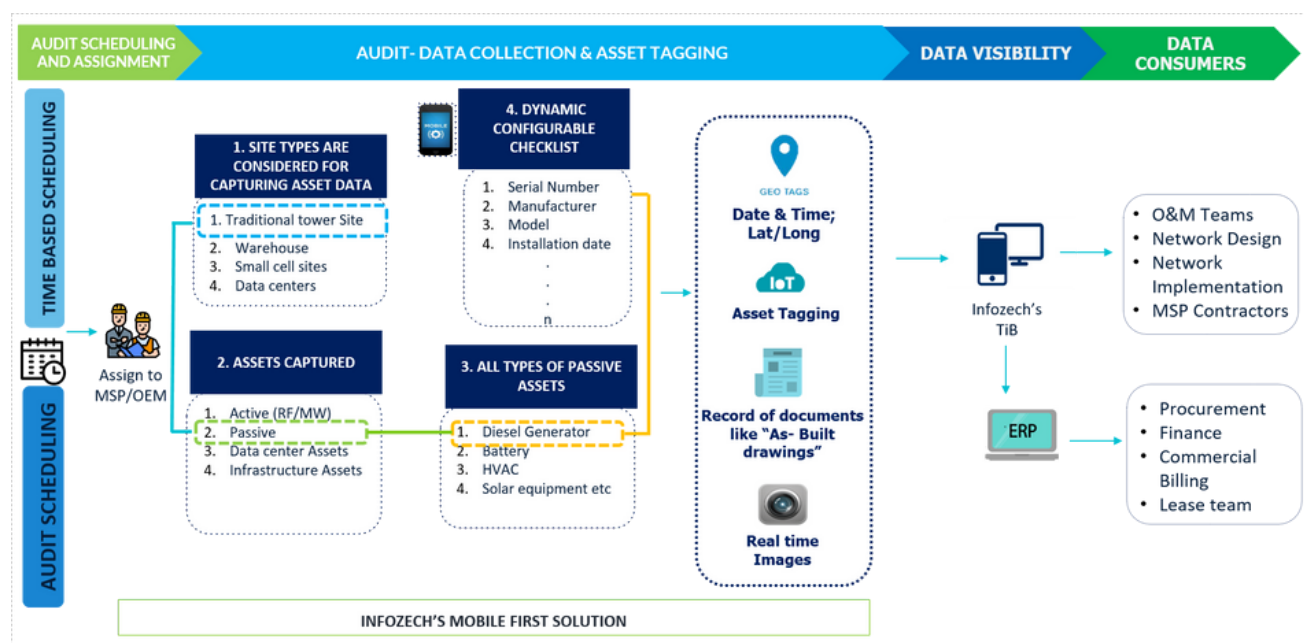


Figure 2: Physical verification to capture assets data , reconciliation with FAR and integration with ERP

Opportunities that having a “single source of the truth” data set open up in terms of interactions between different departments

The Asset Repository is a single, centralised database that stores and tracks organisational assets physically and financially. It maintains the asset's unique identifying information (UIN) which can be shared across the organisation thus eliminating redundancy and inaccuracies in asset reporting. The repository houses a complete history of acquisition details, maintenance logs and cost history over an asset's operational life.

Challenge 2: How can I better manage existing capital works in progress (CWIP) and get assets capitalised on time.

Solution

To effectively reduce the CWIP, it is necessary to streamline the allocation and completion of ongoing projects, ensuring they are completed within the projected timelines. Additionally, optimizing asset management processes for assets in transit and the warehouse can help minimize the overall CWIP.

Process:

- Digitize the end-to-end warehousing and asset monitoring process: This will provide real-time visibility and streamline the movement process.
- Digitize all movement processes: including movements from the warehouse to the site, site-to-site transfers, and site-to-warehouse disposals. This will ensure accurate and efficient tracking of assets at every stage.

- Introduce First In, First Out (FIFO) at the warehouse: FIFO at the warehouse to prioritize the usage of assets based on their arrival time. This will prevent inventory stagnation and ensure proper asset rotation.
- Streamline the capitalization process: This will facilitate accurate and timely recording of asset acquisitions in the financial books.
- Reduce Turnaround Time (TAT) on implementation, activation, and asset deployment: Implement measures to minimize the time taken for implementing assets, activating them, and getting them operational on-site. This will improve efficiency and reduce delays in asset deployment & capitalization.
- Optimize inventory at the warehouse: Analyze and optimize the inventory levels at the warehouse to avoid excessive stockpiling or shortages. This can be achieved through regular inventory audits, demand forecasting.

As now we already have a centralized asset data repository, all requests to procure and deploy for a project as capital works in progress can be first checked with the existing inventory. Based on inventory availability, Capex spend on new assets can be procured. Now these new assets are tagged right after they are procured, making assets easily identifiable and traceable during inventory management process. Once the asset is monetised, deployed on-site and moves from the warehouse to site or from one site to another site, its maintenance, repair and movement history can be tracked easily till an asset reaches its end of life.

The aim of digitisation is to spark the
journey from **People Driven** to **Data
Driven** processes through
Asset Visibility

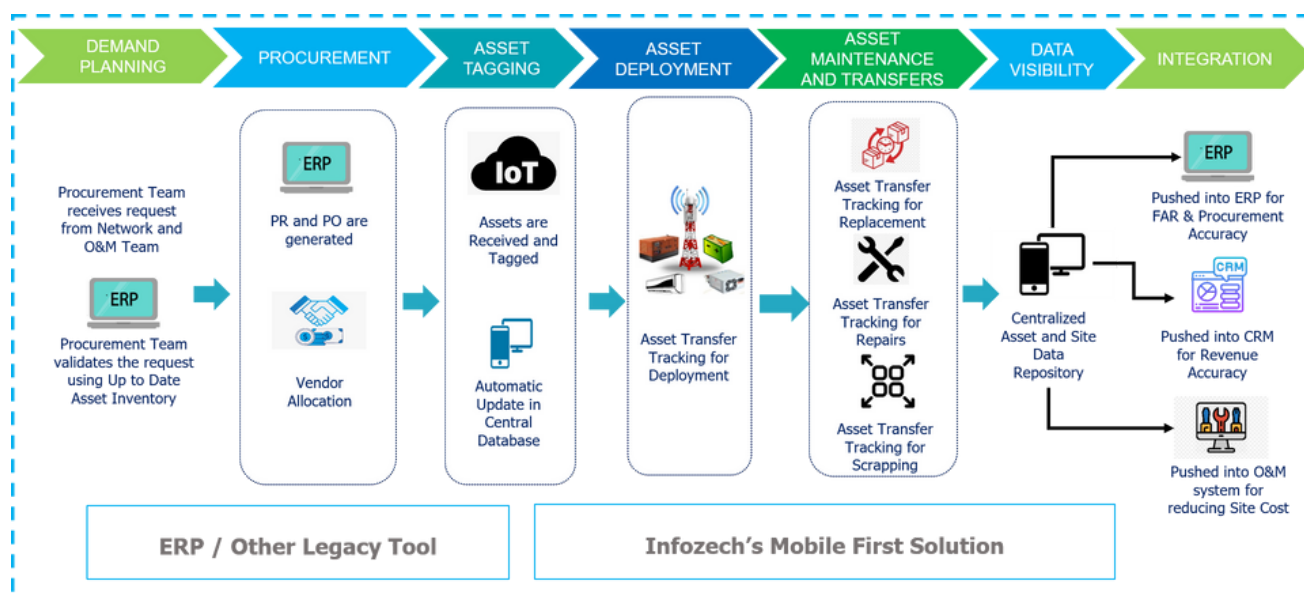


Figure 3: Data management strategy for new procurements- tagging to track asset through out its operational time

Challenge 3: How can CAPEX allocation and spends be improved with data based forecasting and budgeting on acquisition of assets

Solution

To enhance predictability in the asset procurement and budgeting process, it is essential to develop a comprehensive framework. This framework should focus on capturing the visibility of assets at all levels through an Asset Module, which will enable better predictability for budget allocation and asset procurement.

By implementing an Infozech's Asset lifecycle solution- iAsset, Telecom infrastructure providers can have a centralized system that tracks and manages assets across the organization. This solution provides real-time information on asset availability, location, and status. Having a clear view of the existing assets helps in accurate budgeting and forecasting for future asset needs.

Infozech's Asset lifecycle management solution, iAsset

Infozech's cloud-based asset lifecycle management solution that integrates, informs, and instructs. IoT-enabled iAsset works as a 'single strategic system' enabling organizations to transform their operations, digitally.

iAsset adds intelligence to automated workflows, real-time alerts, insights from data, dynamic edge control of assets, predictive maintenance, cross-domain analytics, and real-time visibility. Infozech's asset management system helps strengthen the link between Operational Excellence and Financial gain by presenting real-time information on asset lifecycle.

Some of the key features and benefits of iAsset are:

- **Asset Data Collection, Verification & Tagging:** iAsset team gathers asset data from different sources and physical asset verification is done using asset tags like Bar & QR codes, GPS, IoT, and RFID which helps in logging accurate asset information into a system.
- **Centralized Asset Database:** centralized repository for active, passive, and network assets is created which manages asset lifecycle and geographical information and becomes a single source of information to all departments about the asset environment which **increases Asset Visibility by 15% - 20%**
- **Asset Movement Digitization:** an acknowledgment-driven process where the stakeholders approve, reject, send & receive the asset, and the real-time location is updated of each asset. This asset movement digitisation has helped towercos **reduce Unplanned Downtime by 5% - 8%**.

- **Asset Audit:** iAsset offers planning, scheduling, audit activity definition, and user assignment for site audits. This also helps to identify the missing and newly found assets at the site which keeps the end users aware of the ground reality of assets. **Reduce the Audit Expenses by 70% - 75%.**
- **Asset Warranty Management-** iAsset manages your asset's warranty, insurance, and AMCs. iAsset actively tracks these associations and reminds you multiple times before they expire. **It reduces the cost of repairs by 18% to 20%**

Operational Asset data integration with ERP Infozech introduces a forward-thinking approach to integration.

Infozech's asset lifecycle management solution incorporates advanced configuration, acting as the cornerstone for seamless communication between systems. This ensures a streamlined flow of data, minimizing manual efforts and enhancing overall accuracy.

- **Effortless Data Synchronization:** Our solution's configuration ensures smooth data flow, reducing manual interventions and improving accuracy.
- **Improved Operational Efficiency:** Streamlined communication using accelerates processes, responding more effectively to current business plans and potential changes.
- **Adaptability to Dynamic Environments:** Our solution embraces versatility, ready to integrate with evolving business strategies and adapt to changes in the system landscape.

iAsset adds value to the entire value chain of a telecom company by

- Increasing capitalization by 15% or further, when assets are capitalised on time, CWIP will always be in control
- tracking your end to end inventory and location of other assets to reduce capex as asset purchase decisions will be made with overall visibility and intelligence
- with the minutest details of Tower, Antennas etc being maintained in the repository, it becomes very easy to identify an Operator's allocated and consumed space to avoid over-billing and under-billing.
- reduced Time to Market to onboard customers faster as time spent for structural analysis, feasibility Testing etc. as these analysis can be done quickly from data available in a single source of truth, accessible via your desktop or mobile.

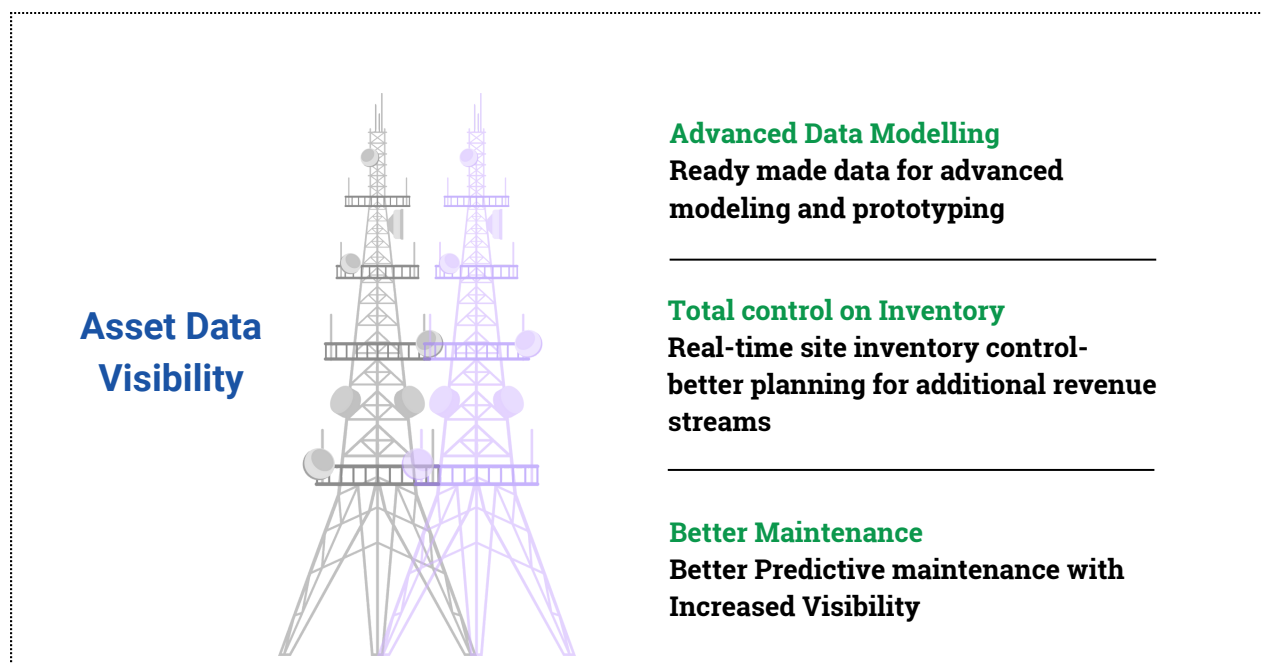


Figure 4: with an accurate asset data, (a data based digital twin of assets), a company prepares itself for multiple benefits it can reap through data utilisation)

BRINGING BACK THE FOCUS!

Dear Readers, this white paper is written with focus on CFOs concerns related to ERP and effective data management strategy for asset visibility, one that not only benefits the organisation but people believe in it, adopt it and make it a part of their daily work life.

We promise to come back and touch upon other aspects like billing of effective asset lifecycle management.

The logo for Infozech features the word "Infozech" in a bold, sans-serif font. "Info" is in blue and "zech" is in green. To the right of the text is a stylized graphic consisting of a blue triangle and a green triangle meeting at a point, with a white curved line separating them.

Infozech

TECHNOLOGY | TRANSFORMATION | INFRASTRUCTURE

Infozech is a Technology solution partner serving large Tower Companies and Operators. With deep domain knowledge of the Telco-tower infrastructure business, we excel at understanding our client's business processes and transforming them into efficient workflows for automation. We do this with our proven Software Modules, customization and configuration capabilities, services, and consultancy, in the Tower Domain business to ensure a faster TAT for our clients.

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