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Construction

What is connected construction?

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The construction industry is a major contributor to India's Gross Domestic Product (GDP) and is expected to grow further in the coming times. Therefore, optimal project management is vital for efficient construction operations. The concept of connected construction provides a solution towards effective project management.



The construction industry is one of the most vital industries of India. Keeping in mind the economic effects of this industry, the design, plans, and execution of construction projects have to be effective and efficient. Real estate developers are continuously looking for tools to minimise errors and manage their projects more efficiently. Towards this end, connected construction has emerged as an answer.

Connected construction refers to using [software](#) to integrate various teams, information, and technologies involved in a construction project. The software helps in the smooth flow of information from one team to another, one department to another, and from one stage to another.

The platform also keeps the entire workforce updated regarding the changes happening at any particular part or phase of the project. The same helps others adjust and align their work according to the latest changes. The usage of connected construction in contemporary projects is crucial due to the following reasons:

Project complexity. Multiple departments work simultaneously on a construction project. Planning, architecture, structural design, procurement, compliance, finance, and engineering, are some of the functions that have dedicated teams. Often, such units are located in different geographical locations. Additionally, a department may be working on one stage while another department would be on a different stage. Such complexity raises the risk of errors.

However, the slightest mistake must be avoided due to the scale of work and investment in most of these projects. A small error can have a domino effect on the entire project. Connected construction helps prevent and minimise mistakes.

Dynamic business environment: Construction projects are impacted by various factors such as environment, social conditions, regulations, market conditions, supply of materials, and the adequate availability of skilled labour. Therefore, project managers and all team members working on the project have to be aware of any conditions that might impact the project's development to avoid confusion and delays. Connected construction facilitates better integration of all relevant information so that all project teams have access to the appropriate information at all times.

Connected construction provides several benefits, including:

Cost efficiency. Error minimisation and the consequently reduced rework lead to expedited project operations and cost optimisation.

Enhanced quality and efficiency. Since all the teams and departments work in unison with the help of specialised software, the quality and efficiency of projects get improved.

Optimised scheduling: Connected construction offers real-time project visibility. This feature helps to optimise project schedules.

Improved asset management: Managers can easily monitor the status of the assets, such as material and machinery, being used in a project, enabling better decision making.

Several tools are available in the market for connected construction. For example, ArchiCAD is a powerful [Building Information Modelling](#) (BIM) software that lets project stakeholders design, visualise, document, and monitor projects of all sizes. However, every digital tool has its advantages and disadvantages. Hence, companies must conduct the necessary research towards the same as per their unique needs.

Overall, within the more extensive Architecture, Engineering and Construction (AEC) industry, the construction industry builds structures that enable other sectors to succeed. A robust built environment is critical for the long-term success of all sorts of businesses. Therefore, construction companies need powerful digital solution tools to design better buildings and deliver them timely. The AEC industry must also re-invent and leverage construction technologies to access innovative solutions and real-time insights that increase productivity and reduce cost.