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PLANT INFRASTRUCTURE INFORMATION MANAGEMENT SYSTEM

A cost effective and efficient way to gather real time mobility information of people and assets is the current need of all industries. GEOLOGIX has developed a Web GIS based rapid technological development framework which makes it possible to track the current status, and health of project. The project specific "Automatic alarming system" will also generate early warnings on any anomaly over chosen web based or application-based platform (SMS, E. Mail, WhatsApp etc).

The production plant construction industry has become highly competitive due to the drastically escalating unavoidable variable costs. The profit can still be augmented by optimizing the resource utilization & timely completion of construction tasks which demands sophisticated IT driven technologies. Companies generally dependent on the reports of contractors, sub-contractors and suppliers which is frequently found manipulated and haggly which results



in delay of plant commissioning dates causing huge financial losses to company. The solution to an early or at least timely completion of construction & fabrication is to deploy a "dedicated project construction information management team equipped with latest and sophisticated IT, GIS, PM and BIMS tools" collecting the unbiased facts of ground, processing it as per the planned data and updating to customized "dash board" designed as per the management need.

Advantages of an exclusively designed technology center:

- Reduced capital investment
- Culture, technology and working style of an IT company is different than a process plant and its involved construction/fabrication companies.
- Plant owner company will be free from sophisticated IT driven technology acquisition and manpower retention involved construction and fabrication project reporting. This team will be never used after commissioning of plant.
- Neutral reporting of project status

We, at GEOLOGIX focus on leveraging our extensive engineering expertise, our strengths in scientific computing & information technology, our willingness to innovate, and our exceptional teamwork to deliver quality solutions that enhance customer value and improve the performance and profitability of our customer.

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THE TECHNOLOGY CENTER

Geologix has been a leading technology and engineering application and scientific computing company since 1994, focused on providing innovative and reliable solutions for digital transformation for integrated operations in Petrochemical, energy and utility.

The Technology Centre will install sophisticated information & communication technologies which would potentially link every process within the project as per management requirement. The resources will be deployed to the live locations for firsthand data capture. The data will consist of readings, measurements, pictures, videos and reports which will reside on the central data server of Technology center. System will send notification to nominated person as and when information will be updated. Information crossing the threshold will generate early warnings and notification will go to nominated person via selected channel like phone, fax, mail, SMS etc.

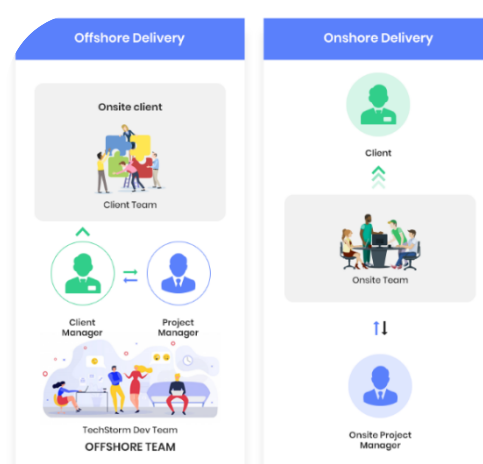
Technology center has experience in essential principles of budgeting, finance, organization, scheduling, conflict, and legal issues in construction industry and know-how to handle diverse teams meeting the assorted business objectives which will be used to design the early warning stage gates.

Information sharing; either on a one to one basis or to a small workgroup allows individuals to share knowledge and test ideas during a production process. In a project environment, the face-to-face interdisciplinary social interaction will usually occur in meetings, of various types and formality. The Technology Center will provide the custom developed "reporting dash-board" for every work group.

APPROACH

GEOLOGIX has developed three set of teams.

- First team will be placed onsite to collect the ground facts while working closely with contractors, suppliers and local agencies. Geologix onsite team is positioned by the "company – (plant owner)", to assist in collecting ground facts about construction and upload the data to project information management server placed on cloud.
- The second team is the IT team who will work on various reports, analyze it and make it available on "custom built" dashboards. This team will develop and maintain IT and engineering infrastructure of the information repository system and reporting system.
- The third team consist of Subject Matter Experts (SME) who provides necessary technical support to the team deployed onsite. The SMEs also guide IT team to develop the reporting format as required at different level of management in the company.



Since only the first team is placed onsite while second and third team is placed at the facility of Geologix. This deployment construct brings economy to of value proposition.

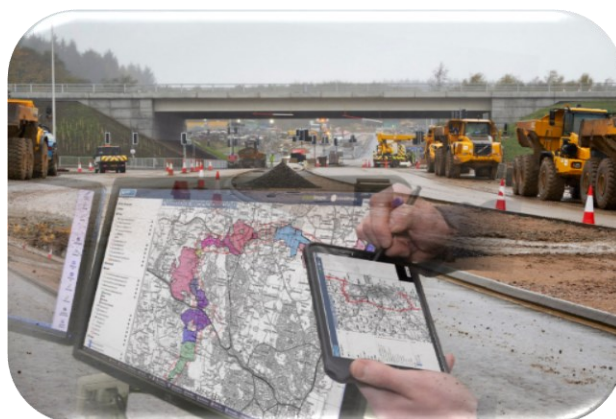
PROPOSED ACTIVITIES THAT GEOLOGIX WOULD UNDERTAKE

Pre Project-Mobilization:

- Development of Central document repositories with authorized access of each document. The document consist of design, BOQ, legal, contract, personal and other kinds of documents.
- Development of resource inventory register and deployment plan
- Digitalization of project execution plan and baseline.
- Development of project database.
- Mapping of equipment suppliers permissions with ground facts. Real time tracing of shipments
- GIS Mapping of sites, camps, queries and other associated sites. involved with the project.
- Management of different permission and compliances (including HSE, labor and local Govt norms)

During Project Activities:

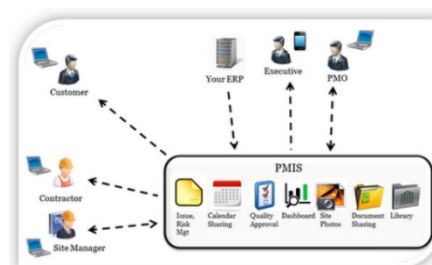
- Project mobilization report
- Resource deployment report
- Resource mobilization report
- Project activity report
- Inventory management & report
- Project progress report
- Variance report between project/activity planned v/s actual
- Project rescheduling report
- Critical activity (say legal) report
- Engineering Testing report
- Supply report, shipment status report
- Purchase & leased report
- Govt. officers visit and MoM
- Engineering Measurements and preparation of bill of quantities.
- Maintenance of all primary and secondary project records.
- Validation of contractors progress report.
- Weekly critical path analysis and submission of early warning signals that may cause project delay.



Note: above facts would be supported with time stamped photographs and scanned copy of reports.

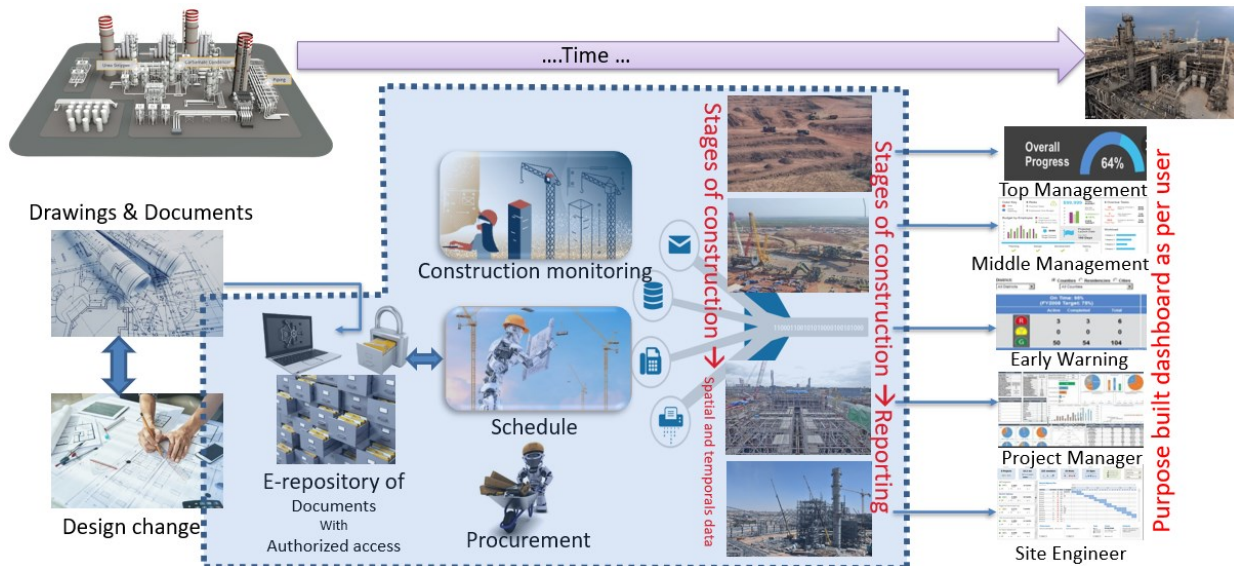
Post project Activity:

- Generation of project closure report
- Project handover report
- Development of assets register with its condition
- Assets release notice and mobilization letter
- Handover of project data to company
- Assistance in taking handover from contractors & suppliers
- Assisting in production of engineering and ground facts to support any legal complications (if any) with contractors, suppliers and local authorities.
- Technology transfer of system to company



Work Flow

The work flow is pictorially presented below. We will act third party inspector cum observer collecting the unbiased facts from the ground (site) and provide to the system which will do the data crunching and provide the compiled information updates to custom developed dashboards.



Deliverables

- In time update of site activities with supporting documents comprising, but not limited to :
 - E-mail, fax,
 - site pictures,
 - ground observations & facts collected from site
 - minutes of meetings
 - other misc. sources as defined during kickoff and authorized to collect data
- Updates would be available to custom developed multiple dashboards designed as per the “work level” of officer in-charge
- Dash board would be designed during kickoff meeting ensuring every concern officer is getting the information of his/her interest. Dashboard will be so designed that it will facilitate user to dive-in to details/data/updated/facts available below his/her organization hierarchy. Upward accessibility of data would be restricted.
- Real time support with the compiled data and supporting facts required as auxiliary evidence to a meeting, discussion, communications, reporting etc. during entire engagement duration.
- Transfer of entire data to client on completion of project engagement.

Engagement Model

