

Enabling Effective Project Monitoring and Control in Government using web based CPM/Pert Technology

Enterprise Project management as a management discipline in Govt. underpins much economic activity. It is an effective project management that translates promises into well managed processes that improves everyday life. There is also an ever-increasing need and awareness to monitor closely the efficiency of various activities and operations in the Government. Project management offers a suite of very powerful solutions, which can help to deliver the right information to the right people at right time with a combination of rich functionality and elaborate security.



Daisy Gupta
Senior System Analyst, NIC
daizy@nic.in

“The amateurish management of high-priced projects is a problem organizations fail to acknowledge”

With an EPM system decision makers can have a control room type of scenario where they can closely monitor the progress of all ongoing projects, fund allocations, resources assigned to them and can maintain a strategic orientation to meet the desired goals of an organization and works to ensure that projects proceed on the basis of their strategic alignment to the objectives of the organization. It will bring transparency within the organization and this will further add a strong commitment feeling among all team members. This is where Good Governance through Enterprise Project Management comes in.

Advantages of an EPM System

- Enterprise Project management (EPM) is an enterprise view of an organization which entails linking of organization's vision, mission, goals, objectives and strategies in a hierarchical fashion to ensure that optimal resources are committed to the right projects at right time.
- An EPM system enables an organization to plan, implement and control all projects/activities within an organization from a central location that rigorously assures all projects progress report to a single source.
- If added an element of CPM/Pert based technology, it will help to

maintain all critical activities within a project and take the appropriate action.

- Take advantage of embedded best practices and customized template to simplify project Planning/developing framework of activities thereby quickly realize a return on investments (ROI).

EPM for NVS

Analytics & Modelling Division of National Informatics Centre has developed and implemented a web based CPM/PERT based Enterprise Project Management System for Navodaya Vidyalaya Samiti (Ministry of Human Resource and Development).

“Navodaya Vidyalaya Samiti (NVS) is an autonomous organization of the Department of Secondary and Higher Education, Ministry of Human Resource Development (MHRD). It has the mandate to provide the requisite educational facilities in rural parts in all the Districts of the country, helping the merit candidates of the rural India and backward regions to contribute for the socio-economic development.”

Navodaya Vidyalaya Samiti planned to construct 582 residential schools all over the country in the rural areas. The present cost of one Vidyalaya based in Delhi has been estimated to be Rs. 8.94 crores and duration of construction is approximately 24 months. NVS is awarding the construction of Navodaya Vidyalayas

to various construction agencies. These agencies in turn outsource these construction activities to the bidding agencies through well defined and approved tender processing.

MHRD entrusted NIC for the development of an Enterprise Project Management (EPM) system for NVS.

EPM Solution is built on Microsoft Windows Server, Microsoft SQL Server, and Microsoft Windows SharePoint Services. The Office EPM Solution also includes pre-built integration with the Microsoft Office system, ERP applications, and the Microsoft collaboration platform.

Need for Replacement of Existing System: Before EPM solutions were built into NVS, the organization was struggling to monitor the time and cost overruns for its geographically scattered projects. There was no control on regular status reports required for monitoring progress of all ongoing projects. Construction status information is transmitted through fax/phone/email as and when required.

There was a delay of about two to three months in reaching the required status reports to the planners and decision makers. With an EPM system in place, reports can be retrieved at each level of monitoring as soon as it is updated by site engineers and approved by the approving authorities.

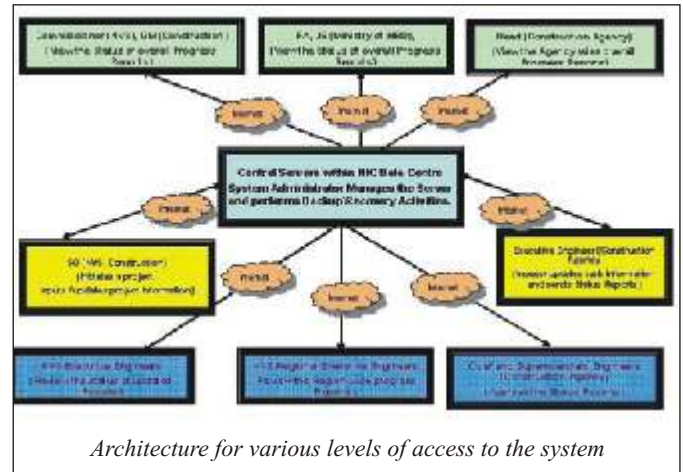
Beside this, there was non-availability of standard baseline PERT across different construction agencies leading to non-availability of a standard tool to compare the status of various ongoing projects.

Modus Operandi: The project management solution has been developed on Microsoft MS-Project platform. NIC through wide spread detailed consultations with NVS and its construction agencies advocated the baseline PERT for project management accomplishments in terms of key physical and financial indicators. More than 100 officials from NVS and various executing agencies had been trained to access the system.

Working Model: The Web application provides browser based simple interface to cater the need of various planners in terms of planning, monitoring and controlling the progress of various schools undertaken by NVS.

Initially when a project starts, PMO (NVS) will initiate a project by entering its basic information and publishing it on the web with templates for entering progress of various activities. Site engineers from various executing agencies has been provided a simple template to enter the progress

of various activities which get reflected at all levels of monitoring on immediate basis.



Architecture for various levels of access to the system

Central server having repository of data is placed at IDC Centre of National Informatics.

Benefits of the system

- NVS-EPM deployment will effortlessly collaborate and share essential information through Team Project Workspaces that use Windows SharePoint Services by-passing the constraints of geographical locations.
- Streamline the process and empowering at all levels including decision makers by providing customized reports/views alternatively ensuring timely information availability to Ministry of Education and other stakeholders on the progress of the projects
- All status reports which are being generated at present by various executive agencies can be accessed online.
- NVS-PMS is a unique application of this type in Govt. of India where alerts and warnings can be auto generated for effective project management or risk migration.
- Effective resource management by alignment of resources/schedules with strategic initiatives.

The extensibility and scalability of the Microsoft Office EPM Solution are additional advantages for MHRD and other govt. departments. Just having a solution based on the Microsoft Server technologies keeps the door open to all manner of extensions that they might find valuable in the future. Further since infrastructure and expertise exists within NIC, it is easier to take care of other similar EPM projects in MHRD as well as other govt. departments.