

# Resource Management, Allocation and Forecasting

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*Resource management: Process of managing and using an organization's resources optimally so that profits are maximized and no resources are underutilized or over utilized.*

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## **Introduction**

Resource management is the process of managing and using an organization's resources in an optimal fashion. A typical goal is to maximize profits, and typical constraints are that resources are not underutilized or over utilized. An organization's growth and ROI depends on the utilization of its resources.

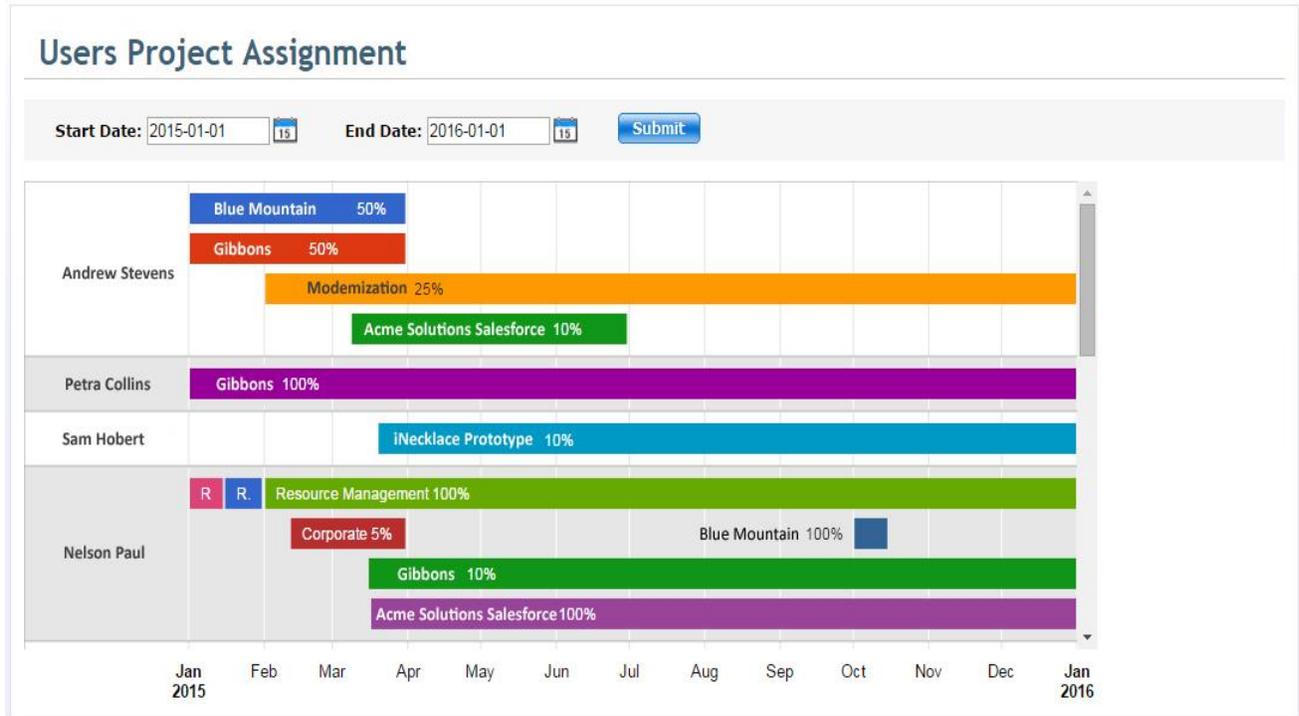
While the resources that need to be managed can be diverse, such as human resources, physical assets, financial resources, etc., it is believed that human resources are the most complex to manage, and therefore they are used as an example in this paper.

Basic questions that most organizations have to explore before allocating the team members on a project are:

1. Do we have employees within our organization with required specific skill sets and of desired profile required for a newly win project?
2. If employees are available within the organization, can they be assigned to a new project or not?
3. If we have to hire new employees, what skill sets are required in them?
4. How many people should be hired?
5. Can newly hired employees be utilized in some other already ongoing projects once this project is over?

## **Challenges**

The ever evolving business landscape indicates that the HR departments are no longer confined to employee timesheets, trainings and employee benefits. There has been an indication of paradigm shift happening towards making HR teams a strategic partner in decision making. Despite the recession, many organizations with strong service verticals have recognized the need to invest in systems that track, manage and forecast the resource allocations.



## Resource Allocation and Forecasting

Resource Allocation is a function of Project Start date, project end date; skill sets required, percentage of involvement required.

In a simple case scenario an organization may have multiple projects running and those projects may not be sharing the resources at all. A little more complex situation would be when the resources are shared in some proportions and those numbers are published regularly so that someone can analyze the utilization numbers. But what would happen when the numbers of projects are huge and size is also humongous especially like federal projects involving more than 100's of team members. The dynamics of such projects are very difficult to manage manually. The project costs can sharply rise where the resources are underutilized and actually very difficult to calculate who bears the losses.

Hence there is definitely a need to manage and forecast the resource allocation. BizMerlin allows that a user can be allocated to one or more projects with different allocations in percentage and for different intervals of time. At the same time it can be analyzed which team member is already overcommitted or out of

the users on bench which all can be used for a project based on skill set matrix. It is so amazing if a team member's present as well as past and future allocations to the same project are available on the same page. If a positive value is generated by calculating the staffing gaps report (which is the difference between planned and actual available resources) a corresponding position can be opened and then recruitment process can be initiated for that position. Each interviewer can make the evaluations for the candidates and finally an offer can be made based on these assessments. So, BizMerlin provides a smooth and step by step process of planning and management. The following graphical representation makes it all the more clear.

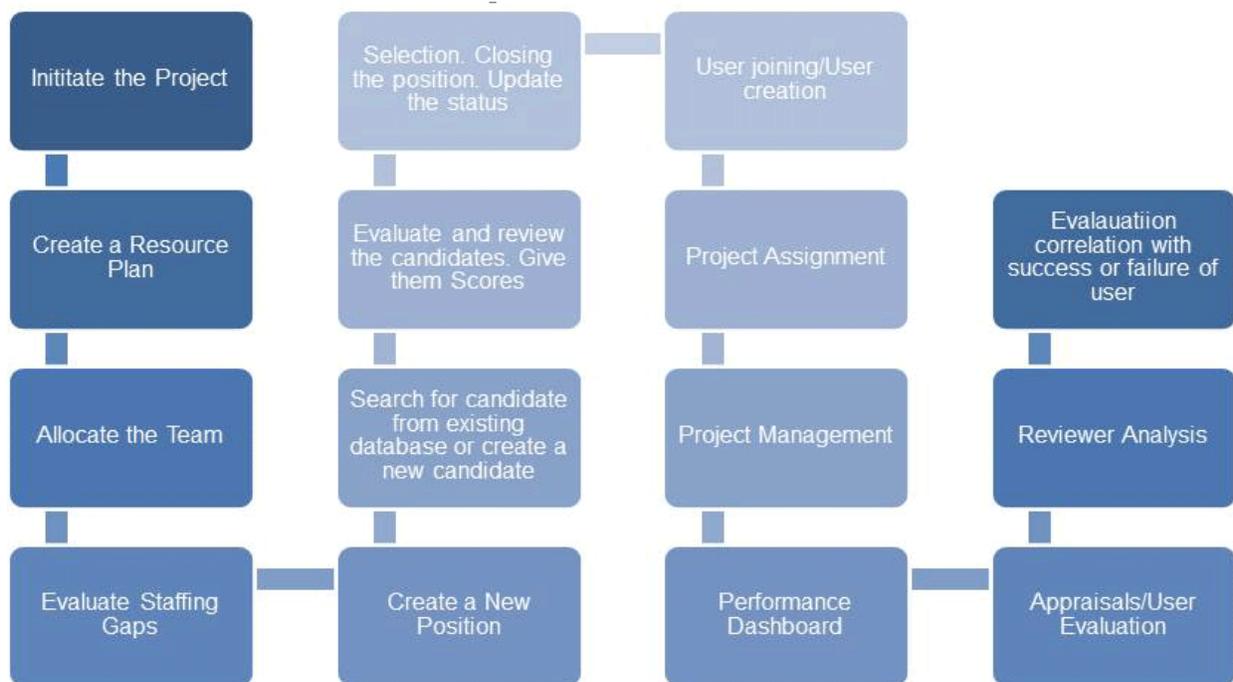


Figure 1: Resource planning complete process

## Major components of Resource management process

### 1. Skill matrix and Skill management

**Skill matrix** is a visual tool to aid in the management, control & monitoring of skill levels of the organization's employees. Well-implemented skills management should identify the skills that job roles require, the skills of individual employees,

and any gap between the two.

[See: [http://www.bizmerlin.com/documents/Skill\\_Matrix.pdf](http://www.bizmerlin.com/documents/Skill_Matrix.pdf)]

**Skills management** is the practice of understanding, developing and deploying people and their skills.

BizMerlin displays all tasks and skills of each individual, specifying their requirement to work in an area or team thus enabling proper resource planning by the project managers. *It can be also used to guide training programs and review project composition.*

## 2. Project team formation

A project team is a group of team members join together to accomplish some specific tasks that are related to that project. These team members may belong to different functional groups. For example in case of developing an ecommerce website we need programming developers, UI designers, QA personnel etc. Therefore, members from different functional areas work together to form a team for delivering the commitments.

## 3. Resource planning

A project's resource plan contains the profiles of the resources required, a count of each profile and the required begin and end dates. While creating a resource plan it can be decided that how many users of a given profile type are required for a project and for what duration of time.

## 4. Actual team

Actual team is the group of selected specific individuals (team members) for the project, along with their role in the project, reporting structure and their starting and end dates. You can add resources in a team for different intervals of time i.e resources can be added multiple times with different allocations for different time periods.

## 5. Staffing gaps

Your organization may have too few staff (a gap or deficit) in some job categories to implement projects plans effectively. In order to create staffing strategies, you must first define the staffing gaps that are expected for a definite date. Staffing



gaps reports may be generated for any date where you get the gap between your planned and actual resources for a project. If you find there is any gap you can plan to open a position and then ultimately hire a candidate for a required profile.

## **Summary**

Resource management is an important problem, one that almost every organization encounters. While every organization must identify their own most critical resources and then define and manage the processes to manage those resources, some best practices and frameworks can be well utilized in this endeavor. With BizMerlin's resource management solution, organizations can address many important aspects of the problem, and accurately track important entities like projects, resources, skills, positions, candidates, etc. By effectively managing these important data points, BizMerlin allows organizations to manage their resources in the most optimal way possible.