

OpsLive

IT Business Management Consulting

Information
Technology
Management
Cycle

Bridging Business and Technology





Overview

Managing Information Technology (IT) for an organization requires a diverse and robust set of skills and disciplines in order to successfully deliver the appropriate services. IT executives and their teams must be well versed in account management, financial management, strategy development (business and technical), planning, and people skills. The Plan, Build, Run model discussed here can be utilized to evaluate the IT organization. Plan, Build, Run consists of discrete yet interdependent processes supporting an effective IT organization. Many IT operational frameworks¹ and models are available, however the Plan - Build - Run concept provides a simple yet reliable way to improve how IT runs. An effective assessment and improvement framework can be developed using this method. Also, the Plan, Build, Run model can be augmented as needed by more detailed frameworks, such as these: Information Technology Infrastructure Library (ITIL), Microsoft Operations Framework (MOF), IBM's Process Reference Model for IT (PRM-IT), Project Management Body of Knowledge (PMBOK), and Capability Maturity Model Integration (CMMI).

The Plan – Build - Run model is a circular life-cycle with distinct steps where each stage has a cascading affect on the other. Understanding this concept of inter-reliance and inter-dependence is important, missing components in one stage of the model impacts the other stages. While this interdependence can have a negative effect, it also provides an opportunity to introduce incremental changes which have a positive accumulating affect.

¹ IT Service Management (ITSM) - http://en.wikipedia.org/wiki/IT_Service_Management

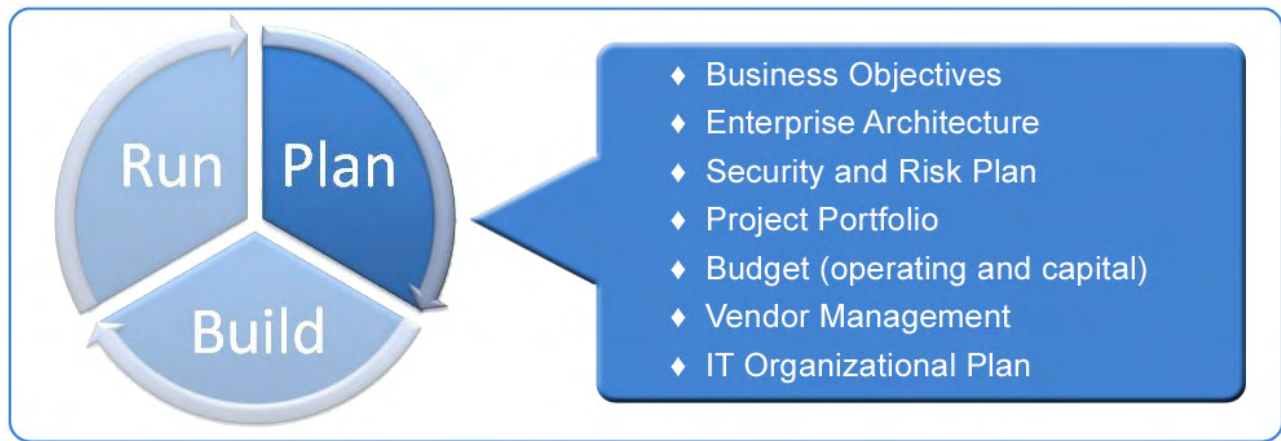


Illustration 1: Planning Stage Component

Plan

The Plan stage represents the IT organization's opportunity to assess the business's operational direction along with the current IT position. This is more than taking a physical inventory. It includes all of the services provided to the business, the potential need for additional services, elimination of service, risk and security evaluation, and potential opportunities for reduction in operating costs. Developing and maintaining a financial outlook is likely the first activity normally associated with this stage, but developing and utilizing an Enterprise Architecture (EA) and a risk management plan are foundational elements to be undertaken before completing a financial outlook. This enhanced assessment provides the best opportunity to identify IT services which can contribute and support overall organizational growth, maximize risk management spend, while building a foundation for improved operational efficiencies (i.e. improved cost management). Enterprise Architecture (EA) provides the mechanism to understand the business's strategy and structure which is required to align and leverage technology for business results, this is the reason the IT organization exists. Adhering to an Enterprise Architecture and a risk management plan enables the organization to take a critical view of the planned direction, align technology direction with business priorities, setting the optimal direction to be pursued by technology implementations (i.e. projects). Once the EA and risk assessments are complete, supporting technology architecture plans should be updated, capital investment plans completed, staffing levels estimated, then finally the operational budget can be accurately defined. These activities lead the development of the project portfolio, which is shared with the organization's leadership. Sharing and refining the project portfolio with organizational leadership provides an opportunity to build consensus amongst the leaders on what items are important for IT to deliver, while ensuring the agreed upon projects are properly funded. The agreed upon list of projects, EA, and risk management plan set the IT activities for the year, and make up the project portfolio managed within the IT organization. IT leadership utilizes these plans to set and communicate the direction of the organization supported by performance goals and objectives. This stage produces the following knowledge and documents utilized within the Build and Run stages: Enterprise Architecture, Security and Risk Plan, Project Portfolio, Budget (operating and capital), and IT Organizational Plan.

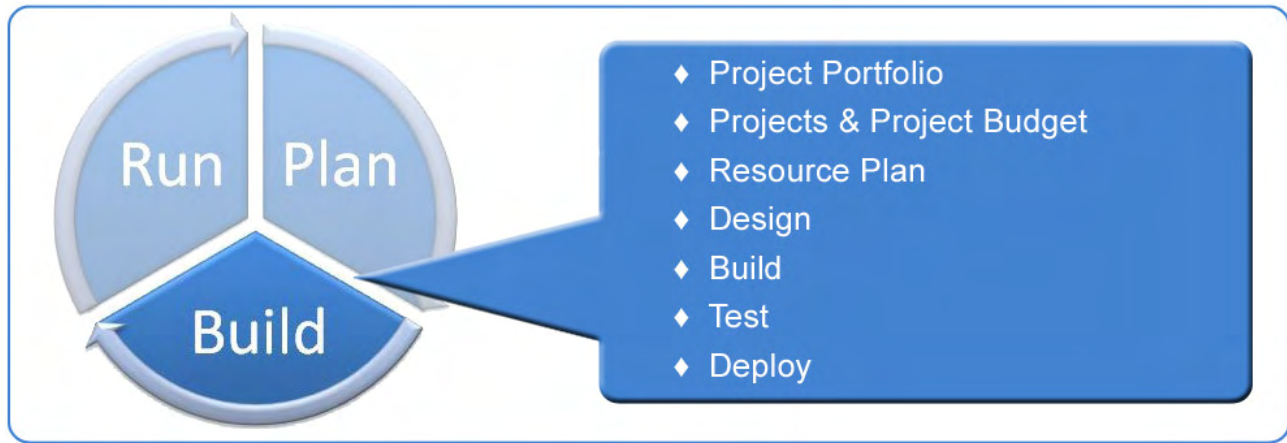


Illustration 2: Build Stage Components

Build

The Build stage focuses on delivering projects agreed upon during the Plan stage. The focus is execution. The Build stage refines the method for delivering projects, resource planning, resource utilization, project budget maintenance, and system changes or new technology implementations. While mid-term results are important in this stage, continued successful execution is critical to the mid and long-term health of the organization. Once a project is completely delivered and is running in production, the organization will likely support these services for many years to come, affecting operational efficiencies and expenses. This requires IT organizations to ensure projects are delivered in accordance to the EA and risk management plan along with a complete transition to production. All of these steps provide the operational team with detailed project deliverables and milestones it requires to be successful.

Poor execution within the Build stage, more so than any other area, results in service changes or technologies that are introduced to the IT environment which have an ongoing negative impact on the Run and Plan stages. Many times, rectifying these problems requires extra effort within stages not optimized for these activities. To illustrate, picture a new service being delivered to the organization (moving from Build to Run) that has availability issues. The team responsible for Run will begin to spend an inordinate amount of time maintaining availability, which then impacts operating budgets, resource planning, etc. This cascading effect does provide an opportunity to introduce enterprise level changes in incremental steps. Some examples of these include: implementations of Enterprise-wide network Class of Service (QoS); Service Oriented Architectures (SOA), and security improvements. While implementing these may seem a daunting effort for an IT team, experience shows that utilizing standards created during the architecture and risk planning steps and adhering to them during Build saves time and money. Over time, the cost of retrofitting the environment is reduced by all of the preparation and planning stages.

Some of the frameworks that support best practices within this stage are PMBOK, CMMI, and Microsoft's Solutions Framework (MSF). This stage produces the following knowledge and documents utilized within the Run and Plan stages: Project metrics (budget, resource plan, etc), Project Portfolio maintenance, Operation and Support documentation, Demand Management (in connection with Plan), and Release Management.



Illustration 3: Run Stage Components

Run

The Plan and Build stages are highly visible to the organization's leaders, but Run activities provide the services used by the organization to complete their daily jobs. Because of this, the IT organization responsible for Run interacts with every level of the organization (the internal customers) on a daily basis. It is important to recognize this daily interaction and service delivery has a large influence on how IT is viewed by the organization.

The Run stage includes processes that support the day-to-day delivery of services to the organization. Activities within this stage ensure effective service delivery with cost containment. Examples of foundational Run services that the IT organization should focus on include incident management, problem resolution, cost accounting, continuity management, change management, and supplier management. Effective operational environments utilize these elements, with many of them having dependencies on each other. A number of these elements are dependent upon incident management and problem resolution, making them foundational elements to the Run stage. The objective of incident management is effective incident reporting, troubleshooting, incident escalation, and triage. Additionally, it provides IT management with visibility into day to day operational issues, allowing for the identification and correction of the core problems impacting customers and increasing operational expenses. Augmenting these reactive processes with proactive measures assists in minimizing customer service interruptions and improving cost management. This is accomplished with system and application monitoring, providing active incident detection, reporting, and escalation enabling quick response.

The Information Technology Infrastructure Library (ITIL) provides a framework from which to implement best practice processes within this stage. This stage produces the following knowledge and documents utilized within the Plan and Build stages: Incident Metrics, Capacity plan, Operational expenses, Service Level metrics, and Incident Handling plan (includes Service Continuity).

Conclusion

It is important to recognize that Plan, Build, Run stages have different objectives and priorities but as a whole serve the organization by ensuring each stage is focused on a specific area. If not managed properly, the competing objectives can have an undesired impact. As an example, one of the goals within the Build stage is to deliver projects in a timely manner and at or below the project budget. This objective interferes with the Run stage's objective of maintaining a stable environment with downward operating expense pressures. Typically this means minimizing changes to the production environment because change introduces unknowns which can lead to service interruption and increased support needs. In this case, if build objectives have a stronger incentive it can cause projects to be rushed to production, skipping critical items such as security, testing, and training. Skipping or minimizing these steps will have a negative impact within Run. To minimize the undesired effects of competing objectives, utilize complimentary performance metrics within the different stages.

Plan, Build, Run is a simplistic approach to evaluating an IT organization to identify improvement opportunities. This simple view of the IT management life-cycle focuses improvement opportunities on areas providing the greatest potential benefit to the organization. If done effectively it prevents the “fix it all” mentality that can result from other evaluation methodologies, typically resulting in overwhelming the IT organization with many competing priorities.

