Microsoft Solutions Framework

White Paper

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MSF Project Management Discipline v. 1.1

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Abstract

Microsoft Solutions Framework (MSF) has a distributed team approach to project management that improves accountability and allows a great range of scalability from small projects to very large, complex projects. This paper describes how the distributed team approach works and also explains how project managers relate to the MSF team model. Although project management is important in small projects, the focus in this paper is on large projects with extended teams. While not touching on all aspects of the project management field, recommended practices for planning and estimating are also given.

Overview of Frameworks

To maximize the success of information technology (IT) projects, Microsoft has made available packaged guidance on effectively designing, developing, deploying, operating, and supporting solutions built on Microsoft technologies. This knowledge is derived from the experience gained within Microsoft on large-scale software development and service operation projects, the experience of Microsoft's consultants in conducting projects for enterprise customers, and the best knowledge from the worldwide IT industry. The guidance is organized into two complementary and well-integrated bodies of knowledge, or frameworks. These are the Microsoft Solutions Framework (MSF) and the Microsoft Operations Framework (MOF).

Creating a business solution on time and within budget requires a proven approach. MSF provides proven practices for planning, designing, developing and deploying successful IT solutions. As opposed to a prescriptive methodology, MSF provides a flexible and scalable framework to meet the needs of any size organization or project team. MSF guidance consists of principles, models, and disciplines for managing people, processes, and technology elements, and their tradeoffs, that most projects encounter.

For more information on MSF, see: http://www.microsoft.com/msf

MOF provides technical guidance that enables organizations to achieve mission-critical system reliability, availability, supportability, and manageability of IT solutions built using Microsoft products and technologies. MOF's guidance addresses the people, process, technology, and management issues that pertain to operating complex, distributed, heterogeneous IT environments. MOF is based on industry best practices as documented in the IT Infrastructure Library (ITIL) from the UK government's Office of Government Commerce (OGC).

For more information on MOF, see: http://www.microsoft.com/mof

Introduction

One of the notable characteristics of MSF is the absence of a role or job title called project manager. This may seem surprising for a framework that addresses issues relating to successful completion of IT projects. Yet MSF attaches great importance to the discipline and competencies associated with project management.

This paper summarizes the key aspects of the project management discipline and shows how they are addressed by MSF. It illustrates how the MSF foundation principles lead to some distinctive concepts and practices in implementing project management.

It also describes how the MSF program management role provides the specialist project management skills to support the full team and describes how typical project management activities are distributed across the MSF team leads.

This paper is not intended to provide a how-to guide of project management, nor does it attempt to explain the many techniques used by skilled project managers. Instead, it shows how the principles of MSF lead to a project management approach where:

Responsibility for project management is distributed to team leads.

Project management specialists provide an approach which is based on facilitation and coaching, rather than imposing control on the rest of the team.

The MSF Team Model whitepaper is prerequisite reading for this white paper.

Underlying MSF Principles

Although not discussed here, the MSF Project Management Discipline applies all of the MSF principles in some way, but is most directly associated with the following.

Clear Accountability-Shared Responsibility

The MSF Team Model is based on the premise that each role presents a unique perspective on the project and that no single individual can successfully represent all of the quality goals of all the roles. Yet the customer needs an authoritative single source of information on project status, actions and current issues. To resolve this dilemma, the team of peers must combine a clear line of accountability to the customer with shared responsibility for overall success.

Within the team, each role is accountable for the activities necessary to achieve its own quality goal.

Each team member is responsible for the overall success of the project and quality of the solution and is expected to contribute ideas and observations based on their knowledge even in areas for which they are not personally accountable.

Specifically, the MSF team roles share responsibility for many aspects of project management, such as risk management, time management, quality management, planning, scheduling, team recruitment, and human resource management.

Empowered Teams Are More Effective

In an effective team, members are empowered to deliver their own commitments and have confidence that, where they depend on other peoples' commitments, these will be met. Likewise, the customer has a right to assume that the team will meet its commitments and will plan on this basis. Any delay or change should be reported as soon as possible.

An MSF team provides members with the empowerment they need to meet their commitments. This has a profound impact on the role of project management in its ability to monitor progress. Without empowerment and commitment, team managers must continually double-check if team members are still on track. Once they are confident that any delays will be reported as soon as they are known, team leads can provide a more facilitative role, helping team members assess their true position while offering guidance and assistance to them. Progress monitoring is distributed across the team and becomes a supportive rather than a policing role.

Key Concepts

To understand the MSF approach to project management, it is important to understand the way MSF defines the following concepts and terms.

Disciplines in MSF

MSF recognizes several areas of non-technology expertise that are important competencies of all the roles in the MSF team model. These are referred to as disciplines. For more information, see the MSF Team Model white paper.

Currently, MSF has addressed three disciplines. These are risk management, readiness management, and project management.

MSF acknowledges that these disciplines have developed best practices that are well established across many industries, not just information technology (IT). Often these practices can be applied to IT operations and other business processes as well as IT projects. Rather than reinvent these practices, MSF summarizes what project teams need to know in these disciplines and adds insights gained by Microsoft teams over the last several years.

In order to perform effectively, the leads of all MSF team roles must have an adequate level of competency in each discipline.

What Is Project Management?

Before describing project management in an IT project, it is useful to understand the definition of project management, regardless of the type of project.

A *project* is a temporary venture, with a finite beginning and end, whose goal is to create a unique product or service. *Project management* is an area of knowledge, skills, tools and techniques used to achieve project objectives within agreed upon parameters of quality, cost, schedule and constraints. [1]

In some companies and countries, the term *program* is used to describe groups of projects that are coordinated together. To avoid confusion with the MSF team role cluster called program management, a group of projects is referred to as a *project portfolio*.

MSF categorizes the following areas of project management responsibilities, skills and activities[2].

Project Management area	Description
Project planning/Tracking/Change Control	Integrating and synchronizing project plans; setting up procedures and systems for managing and tracking change
Scope Management	Defining, breaking down scope of work (project scope); managing project tradeoffs
Schedule Management	Generating schedules from team estimates, task sequencing, matching resources to tasks, applying statistical techniques, schedule maintenance
Cost Management	Preparing cost estimates based on team time estimates; progress reporting and analysis; analyzing cost risk, value analysis
Staff Resource Management	Resource planning, team building, conflict resolution, skills readiness planning (for project)
Communications Management	Communication planning (team, customer/sponsor, users, stakeholders), project status reporting
Risk Management	Facilitating, driving team risk management process; maintaining risk documentation
Procurement	Soliciting contractor bids for services and/or hardware/software; preparing requests for proposals (RFPs), managing vendors or subcontractors; managing and negotiating contracts, agreements; opening purchase orders and approving invoices
Quality Management	Quality planning, determining which standards to use, documenting quality criteria and quality measurement processes

While complete guidance on each of the areas above cannot be given here, selected MSF recommended practices are provided later in this document.

Project Management Is Not Done only by Project Managers

In everyday speech, the term project management can be used to describe both a role and an area of skills and expertise. For example, consider the statement, “Project Management said they would have it done by now,” and the statement, “Space agencies tend to have excellent project management capabilities.”

This distinction is important because project management, as an activity, is done by many people who are not project managers.

As used in MSF, *project management* is always used to refer to the specific set of knowledge and skill areas listed above, not a role or job title. The term *project manager* will be used describe someone who is a specialist at project management.

Project Management and IT Specific Processes

In general, project management consists of knowledge areas and techniques that broadly apply to any industry area that does projects. Each industry area (for example aerospace, building construction, IT, and so on.) has specific processes, phases, roles, and practices that work best for that industry. In order to have successful projects, these industry-specific processes must be supplemented with generic project management practices.

MSF provides processes and recommended practices for IT projects. Its relationship to the discipline of project management is illustrated in Figure 1.

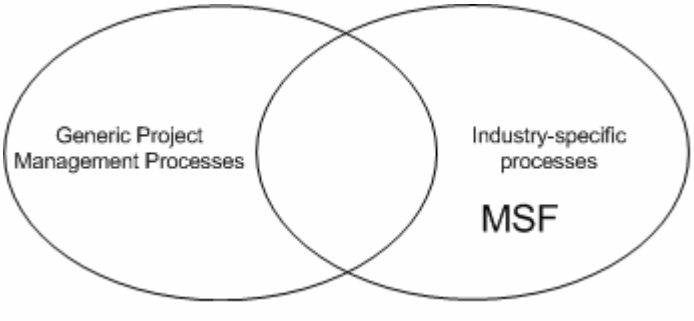

Figure 1 - Relationship of MSF to Project Management Discipline

The industry-specific domain in this case is the five phases of the MSF process model. An example of an industry–specific project management activity is recommended practices for bug tracking. The generic knowledge areas of project management are on the left. An example is recommended practices for managing contracts or tracking budgets. The intersection represents certain project management practices that are characteristic of MSF. These are presented next.

Characteristics of MSF Project Management

Three distinctive characteristics of the MSF approach are stated here and discussed more fully below:

Most of the responsibilities of the project manager role are encompassed in the MSF program management role cluster.

In larger projects requiring scaled up MSF teams, project management activities occur at multiple levels.

Some large or complex projects require a specialist project manager or project management team.

Project Manager Role Is Encompassed in Program Management

The MSF program management role cluster includes the functional responsibility areas shown below. In smaller projects, all the functional responsibilities are typically handled by a single program manager. As the size and complexity of a project grows, this role cluster is broken out into two branches of specialization: one dealing with architecture and specifications and the other dealing with project management.