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74-100

Microsoft Solution Framework Practitioner

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Abstract

This Study Guide intends to provide you with information to prepare for the Microsoft MSF 74-100 Exam.

As of the time of this writing, this exam is marketed under the 74-1xx exam series, which is a totally new line of offerings. Only Prometric carries this line of exams (as of this moment).

The MSF exam is multiple choices based, you need to answer 70 questions, and a passing score of 70% is required.

Before you start

This study guide provides you with information on the many different aspects of MSF. You should not use this information as your first step into solution consulting, as this exam is targeted towards candidates with real experience and solid background on implementing projects using MSF. If you are a beginner, I recommend that you first study material related to IT project management before working on this one.

This exam has nothing to do with MS specific technologies. This exam is about methodology – the methodology one follows when working on an IT project, regardless of the underlying software or hardware choices.

Business sense is VERY IMPORTANT for this exam. It is ok for you to know Linux instead of Windows 2000, but it is not ok if you are a pure tech guy with no knowledge on the business side of the world.

What is MSF?

Shorts for Microsoft Solutions Framework, MSF is an adaptable approach for successfully delivering technology solutions faster, with fewer people and less risk, while enabling higher quality results.

Let's refer to the official definition of MSF:

"MSF provides proven practices for planning, building, 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 the people, process, and technology elements that most projects encounter".

So, basically, you may treat MSF as a set of guidelines, a methodology, or a set of theories with practical insights. It is not just about project management, but it does contain elements very similar to those you will find in the other project management certification programs.

In the past, the MSF was divided into two sub-groups: Application Development and Infrastructure Deployment. Now they are combined into a single framework with a version number of 3.0. For the exam, you must know MSF 3.0 very very well.

What is MSF Practitioner?

According to MS, MSF Practitioners are typically consultants and/or IT professionals, developers, trainers, and managers that lead organizations in the adoption of MSF proven practices to be more successful delivering a wide variety of technology solutions.

MSF Practitioner candidates, as described by MS, typically have the following qualifications:

- Consulting and communication skills
- Relevant project delivery experience
- Recent professional experience applying MSF principles to a project
- Experience in project initiation and management
- Commitment to the core MSF principles.

So, in a sense, you do have to be a MS believer in order to truly master the MSF spirits.

Regarding the career potential of this title, as said by MS many companies use MSF Practitioners to help them improve team effectiveness and the business impact of their technology projects. MSF Practitioners consist of trainers that help teach organizations MSF, consultants that mentor organizations in the adoption and use of MSF, and employees that lead their own organizations in the application of MSF.

So, what are the core elements of MSF?

As described by MS, there are five primary topic areas:

- Team Model enables projects to scale, ensures teams meet a variety of stakeholder needs, and defines goal-driven roles and responsibilities.
- Process Model drives fast, high-quality results through a proven project life cycle that identifies key project activities.
- Project Management Discipline applies industry standard project management best practices to MSF principles.
- Risk Management Discipline is a comprehensive, proactive approach to minimizing the factors that could impact project success.
- MSF Readiness Management Discipline helps project teams identify skill gaps and opportunities for learning.

Some important points to remember for the exam:

Always remember, this exam is more about business than technology. And business requires sense – this is why I said you need to have business sense. And business sense always comes from common sense – in the exam, the questions require that you use your sense and judgment to pick up the correct answers.

Here are some facts that can be of assistance to you when you need to make your choices:

"Teams organized under the MSF team model are small and multidisciplinary, in which the members share responsibilities and balance each other's competencies to keenly focus on the project at hand. They share a common project vision, a focus on deploying the project, high standards for quality and communication, and a willingness to learn. This paper describes the various role clusters within the team, along with their goals and functional areas. Guidance is also provided on using the Microsoft approach to teaming when scaling for both small or large and complex projects."

Successful implementations of the MSF team model share several characteristics. They are:

- Team of Peers - places equal value on each role, that each role requires some form of internal organizational hierarchy for the purposes of distributing work and managing resources, and the Team leads for each role are responsible for managing, guiding, and coordinating the team while team members focus on meeting their individual goals.
- Customer-Focused Mindset - a commitment from the team to understand and solve the customer's business problem, and be able to trace each feature in the design back to a customer or user requirement.
- Product Mindset - treats the results of your labor as a product. To achieve this, MS recommends the creation of project identities so that team members see themselves less as individuals and more as members of a project team.
- Zero-Defect Mindset - every member should feel responsible for the quality of the product. There should be a commitment to quality - to perform their work at the highest quality possible.
- Willingness to Learn - a commitment to ongoing self improvement through the gathering and sharing of knowledge.
- Motivated Teams - the Teams must have high motivation as all IT projects are based on a high degree of intellectual input and interaction.

There are six role clusters defined in the team model—product management, program management, development, test, user experience, and release management. They define common ways to identify a combined set of functional areas and their associated responsibilities.

Note that the MSF team model emphasizes the importance of aligning role clusters to business needs. Study the table below inside and out!

Role Cluster	Goal	Functional Areas	Responsibilities
Product Management	Satisfied customers	Marketing Business Value Customer Advocate Product Planning	Acts as customer advocate Drives shared project vision/scope Manages customer requirements definition Develops and maintains business case Manages customer expectations Drives features vs. schedule vs. resources tradeoff decisions Manages marketing, evangelizing and public relations Develops, maintains, and executes the communications plan
Program Management	Delivering the solution within project constraints	Project Management Solution Architecture Process Assurance Administrative Services	Drives development process to ship product on time Manages product specification—primary project architect Facilitates communication and negotiation within the team Maintains the project schedule and reports project status Drives implementation of critical trade-off decisions Develops, maintains, and executes the project master plan and schedule Drives and manages risk assessment and risk management
Development	Build to specification	Technology Consulting Implementation Architecture and Design Application Development Infrastructure Development	Specifies the features of physical design Estimates time and effort to complete each feature Builds or supervises building of features Prepares product for deployment

			Provides technology subject matter expertise to the team
Test	Approve for release only after all product quality issues are identified and addressed	Test Planning Test Engineering Test Reporting	Ensures all issues are known Develops testing strategy and plans Conducts testing
User Experience	Enhanced user effectiveness	Technical Communications Training Usability Graphic Design Internationalization Accessibility	Acts as user advocate on team Manages user requirements definition Designs and develops performance support systems Drives usability and user performance enhancement trade-off decisions Provides specifications for help features and files Develops and provides user training
Release Management	Smooth deployment and ongoing operations	Infrastructure Support Operations Commercial Release Mgmt.	Act as advocate for operations, support and delivery channels Manage procurement Manage product deployment Drive manageability and supportability trade-off decisions Manages operations, support, and delivery channel relationship Provide logistical support to the project team

Process models establish the order of project activities - they represent the entire life cycle of a project. Traditionally, the waterfall model and the spiral model are two popular process models used in the information technology industry:

- Waterfall model uses milestones as transition and assessment points, that each set of tasks must be completed before the next phase can begin. It works best for projects where it is feasible to clearly delineate a fixed set of unchanging project requirements at the start.
- Spiral model focuses on the continual need to refine the requirements and estimates for a project. It can be very effective when used for rapid application development on a very small project, but since the model does not incorporate clear checkpoints, the development process may become chaotic.

MSF process model combines the best principles of the waterfall and spiral models. It basically includes milestones in the spiral.

MSF distinguishes between two types of milestones: Major milestones and interim milestones.

- Major milestones serve to transition from one phase to another and to transition responsibility across roles. MSF defines specific major milestones that are generic enough for any type of IT project.
- Interim milestones serve as early progress indicators and segment large work efforts into workable pieces. They can vary greatly depending on the type of project. MSF provides a set of suggested interim milestones, but teams define specific interim milestones that make sense for their projects.

Milestone	Primary driver
Vision/Scope Approved	Product Management
Project Plans Approved	Program Management
Scope Complete	Development and User Experience
Release Readiness Approved	Testing and Release Management
Deployment Complete	Release Management

Note that MSF advocates so called Milestone-Driven Accountability – as said by MS, the successful achievement of each milestone requires special leadership and accountability from each of the other team roles. As a project moves sequentially through each phase, the level of effort for each of the roles varies. Milestones can help manage this ebb and flow of involvement in the project.

The MSF process model is directly associated with the following four MSF principles:

- Work Toward a Shared Vision
- Stay Agile
- Focus on Delivering Business Value
- Foster Open Communication

You should be able to tell the difference between a product and a solution. Our focus here is the solution, not just the product:

Products	MSF Solution
Designed for the needs of a mass market.	Designed or tailored to fit individual customer needs.
Delivered as a packaged goods or “bits” (by way of download, CD-ROM, and so on).	Delivered as a project.

The three distinctive features of the MSF process are:

- A phase and milestone-based approach.
- An iterative approach.
- An integrated approach to building and deploying solutions.

What we mean by iterative is actually about “Versioned releases”. MSF recommends that solutions be developed by building, testing and deploying core functionality. Later sets of features are added. The processes do not necessarily occur sequentially, that the time between versions varies on the size and type of project, as well as customer needs and strategy.

Work on the CORE functionality and fix those with the HIGHEST RISK first! Add other features bit by bit later on.

Believe it or not, MSF even advocates preparing frequent builds (daily builds at the extreme!) of all the components of the solution for testing and review. This approach, as described by MS, is recommended for developing code as well as for “builds” of hardware and software components. This approach enables the stability of the total solution to be well-understood, with ample test data, before the solution is released into production.

For successful implementation of MSF, readiness is critical both for the team members (at the project planning stage) and the users (at the deployment stage). MSF suggests a proactive readiness strategy:

Readiness Management: A Proactive Approach		
Proactive	**vs.**	**Reactive**
Treat readiness planning as positive	vs.	React to shortfalls in knowledge, skills, abilities
Use a known and structured process	vs.	Using and ad hoc process or none at all
Anticipate and schedule readiness needs	vs.	Conduct training or fix gaps as they occur
Develop and use knowledge management system	vs.	Unknown knowledge assets

The three components of readiness concentrated on during the Define step are:

1. Scenarios
2. Competencies
3. Proficiencies

Scenarios are the usage requirements, competencies represent the skill types, and proficiencies represent the skill levels.

After training, there has to be a way to assess the effectiveness. According to MS, the assessment should be conducted according to a documented process that is capable of meeting the assessment purpose. This is the time to conduct planning for the assessment. Activities should include:

- Define the required inputs.
- Document the activities to be performed in conducting the assessment.
- Document the resources required and the assessment schedule.
- Document a description of the planned assessment output.

Final words:

MSF is a big topic. The best way to learn about this topic is to follow the guidelines and have them applied to your real life projects. In terms of the exam, it is best that you go through the online documentation provided by MS in the Technet site. If you understand the theories behind the framework you should have no problem passing the exam.