



## Visual Studio 2005 Team Foundation Server Hosting Brief

Visual Studio 2005 Team Foundation Server is the development collaboration server underlying Visual Studio Team System, Microsoft's application lifecycle management tools suite. Team Foundation Server enables enterprise-class version control, work item tracking, build automation, and reporting.

Team Foundation Server (TFS) is a server product built on top of standard Microsoft technologies, including ASP.NET web services, SharePoint, and SQL Server 2005. TFS is traditionally self-hosted inside of an organization. A single Team Foundation Server can support up to 2000 users with the appropriate hardware configuration. See recommended hardware configurations below.

Team Foundation Server is available through the SPLA licensing program, enabling hosters to potentially offer a Team Foundation Server hosted offering. See SPLA pricing details below. To date there are no hosters offering such a service. However, we are running a pilot program with several hosters and a handful of customers to begin the process of building a partner ecosystem of TFS hosters.

TFS can successfully be deployed by a hoster using a dedicated server model or even a virtualized server model. This would mean that each hoster customer organization would have its own Team Foundation Server instance. Organizations who do distributed development or do not want to deal with the administrative overhead of maintaining their own Team Foundation Server may find such a hosted offering compelling.

Due to product limitations, however, Team Foundation Server cannot be offered as a shared hosting offering. This means that a hoster cannot allow multiple hoster customer organizations to create and use separate team projects on the same Team Foundation Server instance. This is due to data portability issues and information leakage. A single Team Project cannot be isolated for backup\restore nor for portability from one Team Foundation Server to another. Additionally, certain information about all of the Team Projects on a given server is available to every client who has access to even a single team project on the server. This means that information including team project names, work item type definitions, and some fields (potentially usernames) can be viewed by anyone who has a Team Project on the server. Because of these limitations, we strongly discourage and do not recommend any hoster offering a shared hosted TFS offering. We do plan, however, on making improvements to the product in a future edition to enable TFS shared hosting scenarios.

If you have further inquiries regarding Team Foundation Server hosting, please contact us at [tfshost@microsoft.com](mailto:tfshost@microsoft.com).

## TFS Licensing Under the SPLA

This section covers the SPLA licensing fees for two possible hosted TFS deployment scenarios.

### Scenario 1

TFS and SQL Server 2005 installed on a single (dedicated) server (AT/DT) configuration using local machine accounts to authenticate client connections.

Software	SPLA Product Name and Number	Price
Team Foundation Server	Visual Studio Foundatn Svr All Lng Lic/SA Pack MVL SAL (Part Number 125-00361)	\$25.21/user/month
SQL Server 2005	N/A	No charge because (per the language in the SPLA Product Use Rights document), SQL Server is included in the TFS license.
Windows Server 2003 Standard Edition	Two options: a) Windows Svr Std All Lng Lic/SA Pack MVL 1 Proc (Part Number P73-00978) b) Windows Svr Std All Lng Lic/SA Pack MVL SAL (Part Number P73-03408)	Two options a) \$145.83/proc/month b) \$3.60/user/month.  For the number of users likely required in this scenario, hosters will probably choose option b)

Assuming the hoster chooses per user licensing, the base license cost per account would be  $\$25.21 + \$3.60 = \$28.81/\text{user/month}$ .

## Scenario 2

TFS installed on a single (dedicated) server connecting to a single database on a SQL server shared with other customers. Local machine accounts (on the AT) are used to authenticate clients.

Machine 1:

Software	SPLA Product Name and Number	Price
Team Foundation Server	Visual Studio Foundatn Svr All Lng Lic/SA Pack MVL SAL (Part Number 125-00361)	\$25.21/user/month
Windows Server 2003 Standard Edition	Two options: a) Windows Svr Std All Lng Lic/SA Pack MVL 1 Proc (Part Number P73-00978) b) Windows Svr Std All Lng Lic/SA Pack MVL SAL (Part Number P73-03408)	Two options a) \$145.83/proc/month b) \$3.60/user/month.  For the number of users likely required in this scenario, hosters will probably choose option b.

Machine 2:

Software	SPLA Product Name and Number	Price
SQL Server 2005	N/A	No charge because (per the language in the SPLA Product Use Rights document), SQL Server is included in the TFS license.
Windows Server 2003 Standard Edition	Two options: a) Windows Svr Std All Lng Lic/SA Pack MVL 1 Proc (Part Number P73-00978) b) Windows Svr Std All Lng Lic/SA Pack MVL SAL (Part Number P73-03408)	Two options a) \$145.83/proc/month b) \$3.60/user/month  For the number of users likely required in this scenario, hosters will probably choose option b.

Assuming the hoster chooses per user licensing, the base license cost per account would be  $\$25.21 + \$3.60 + \$3.60 = \$32.41/\text{user/month}$ .

## Specifications

The information below can be used as a guide for sizing TFS hardware. Dual server deployments with a separate Application Tier (AT) and Data Tier (DT) machine are necessary only for teams over 400 people or for shared SQL server deployments.

Fewer than 20 users	single processor, 2.2 GHz	8 GB	1 GB	Shared with the application tier (single-server)
20 to 50 users	single processor, 2.2 GHz	30 GB	1 GB	Shared with the application tier (single-server)
50 to 100 users	single processor, 3.4 GHz	30 GB	1 GB	Shared with the application tier (single-server)
100 to 200 users	single processor, 3.4 GHz	40 GB	2 GB	Shared with the application tier (single-server)
200 to 400 users	dual processors, 3.4 GHz	80 GB	2 GB	Shared with the application tier (single-server)
400 to 800 users	dual processors, 2.8 GHz	80 GB	2 GB	Separate from the application tier (dual-server)
800 to 2,000 users	quadruple processors, 2.8 GHz	150 GB	4 GB	Separate from the application tier (dual-server)

The server that is running Team Foundation Server should have a reliable network connection with a minimum bandwidth of 1 Mbps and a latency maximum of 350ms.

## More Information

SPLA Licensing

<http://www.microsoft.com/serviceproviders/licensing/default.aspx>

Hardware Requirement and Performance Consideration

[http://msdn2.microsoft.com/en-us/library/ms400687\(VS.80\).aspx](http://msdn2.microsoft.com/en-us/library/ms400687(VS.80).aspx)

Visual Studio 2005 Team Foundation Server

<http://msdn2.microsoft.com/en-us/teamsystem/aa718825.aspx>