CHAPTER 4

Work Plan and Methodology

The proposed framework will be developed in .NET Environment. C#.net is very supportive for handling various processes on window based environment. Lots of processes related to hardware and software can deal with .net environment. As discussed in the problem, Alchemi Middleware is .net framework based middleware that provides the runtime machinery that is executable on window to make the computational desktop grid, and a .net based application program interface and tools to develop the .net grid application. Alchemi middleware based desktop grid can be set up in the Proposed research lab. Desktop computational grid environment can be created for understanding the faults related to grid at software level and the hardware level. Role of computational power can be seen in running desktop grid. UP and down in computational power can be observed in running computational grid. The Proposed Framework will be developed according to the problem definitions. Alchemi middleware desktop grid has some hardware software requirements given below.

Common Requirements

Microsoft .NET Framework 1.1

Manager

Manager installation requires:

- SQL Server 2000 or MSDE 2000

Installation

The Alchemi Manager can be installed in two modes:

- As a normal Windows desktop application
- As a Windows service. (Supported only on Windows NT/2000/XP/2003)
Executor

Installation

The Alchemi Executor can be installed in two modes

1) As a normal Windows desktop application

2) As a windows service. (supported only on Windows NT/2000/XP/2003)

Cross Platform Manager

The Cross Platform Manager (XPManager) requires

- Internet Information Services (IIS)
- ASP.NET

Alchemi Console

The Console (Alchemi.Console.exe) is a grid administration and monitoring tool. It is located in the bin directory. The power availability and use of power in real time can be seen in the graph provided in the Alchemi Console.