



The Financial Services Grid Initiative

What is the Financial Services Grid Initiative?

The financial services grid initiative was created to provide a utility platform for financial services companies based upon the use of Grid technologies as a *utility* resource, allowing for the implementation of a mixed computing environment on a common infrastructure. The initiative is open to hardware vendors, software vendors and end user development teams all of whom have a common goal of utility computing in core production systems. All members are active in that they contribute their efforts or solutions to the utility computing goal.

The aim is to resolve and answer the hard questions that the financial industry needs solved in order to adopt a utility computing model, and to have assembled the companies who have the skills to deliver the solutions. Today there is not a common understanding of the problems, nor a common understanding of the platform features required to deliver the total solution. By joining the initiative, you get access to the solutions available from other members to resolve the issues.

What are the FSGI goals?

Rather than buy specialist hardware and software for specific areas of the financial companies application portfolio, the aim is to deliver one platform that can be used across all areas allowing:

- maximum flexibility in operations
 - ⇒ dynamic resource allocation
- lower costs of operations
 - ⇒ capacity on demand allocation
 - ⇒ off the shelf technology solutions
- lower cost of scale out computing
 - ⇒ scale by adding Grid resources
- maximising the utilisation of the computer resources:
 - ⇒ for cost benefits
 - ⇒ for environmental benefits

What do we mean by utility computing?

Utility computing is the term we use to describe a common hardware and software platform that can be demonstrated to run a wide range of financial applications covering both compute intensive tasks, batch processing tasks, asynchronous applications and synchronous applications, interactive and non-interactive tasks. In short, the same underlying technologies and hardware platform can be resource managed to cover ALL of the needs of a modern financial company from real time market positions, through online applications to batch processing.

What is the operating system platform?

The operating system platform chosen is Microsoft Windows Compute Cluster in conjunction with Microsoft Windows server.

The reasons being that:

- this provides the widest range of application interoperability that software vendors and architects can design their offerings for. Capable of running databases, web applications, online applications, data warehouses, trading systems and high volume batch processing
- the operating system runs on multiple hardware platforms from a single image and supports a wide range of hardware drivers
- the operating system is not owned or tied to one hardware vendor and their technology vision, plans or role out
- the operating system has a wide range of direct and indirect service suppliers and partners
- the operating system runs on single CPU nodes with one or more cores through to SMP platforms with 64 or more nodes and thus provides the widest range or configurations for an individual node in the utility Grid

What is the hardware platform?

The hardware platforms are vendor specific however the FSGI partners working with the FSGI will deliver a built-and-tested configuration where the capacity of the platform is well understood:

- technically
- per software vendor

Technically it is hard for software vendors or architects to keep up with the latest hardware changes and as a result they often specify older technologies and take a long time to introduce newer technologies into their applications.

The FSGI will provide reference architectures for the software and developer partners in conjunction with hardware suppliers that are known to work, known to have the correct drivers and configurations tested, and have some capacity testing. This, together with the hardware vendor's commitment to provide platforms for porting applications (under commercial terms), will reduce the time for new approaches to be adopted to the benefit of FSGI members, including those in hardware, software and applications.

In the current world of computing, the hardware is specified primarily by the software vendor or creator for the applications they are supplying; often overstated in order to ensure suitable capacity, and a lower likelihood of legal issues after deployment.

As we move to a utility mechanism, capacity and the use of it over a period of time needs to be known and managed at a much higher level. Rather than have, say a cluster dedicated to market positions during trading hours and idle (except for consuming power) during the night, this resource could be used for batch processing by other applications, if only the platform was understood, this is where the FSGI come in.

What applications are available?

The FSGI web site will be updated as application vendors confirm their ability to run on the platforms, hardware and software. There are also details and links of software tools and technologies that run on the platform that developers can investigate.

The aim is to have many of the leading names in financial software adopt over time the ability to run on the utility computing model and be able to size their applications in terms of capacity usage. This may involve them benchmarking, however even if the expected capacity usage is overstated then given the utility nature of the platform, this saves the end user companies from continuing to work with stand alone island platforms for each vendor.

Current members

Currently the technical members and their contact are shown below, with new members continually added. Developer members are also shown on the web site.

Microsoft

Contact: Dr Michael Newberry
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Dell

Contact: Mr Mark Cobban
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Corporate Modelling

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The Life And Annuity Group (TLAG)

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