HyperXeon Lite

Promotional Guide

Revision 1.0
February 2009

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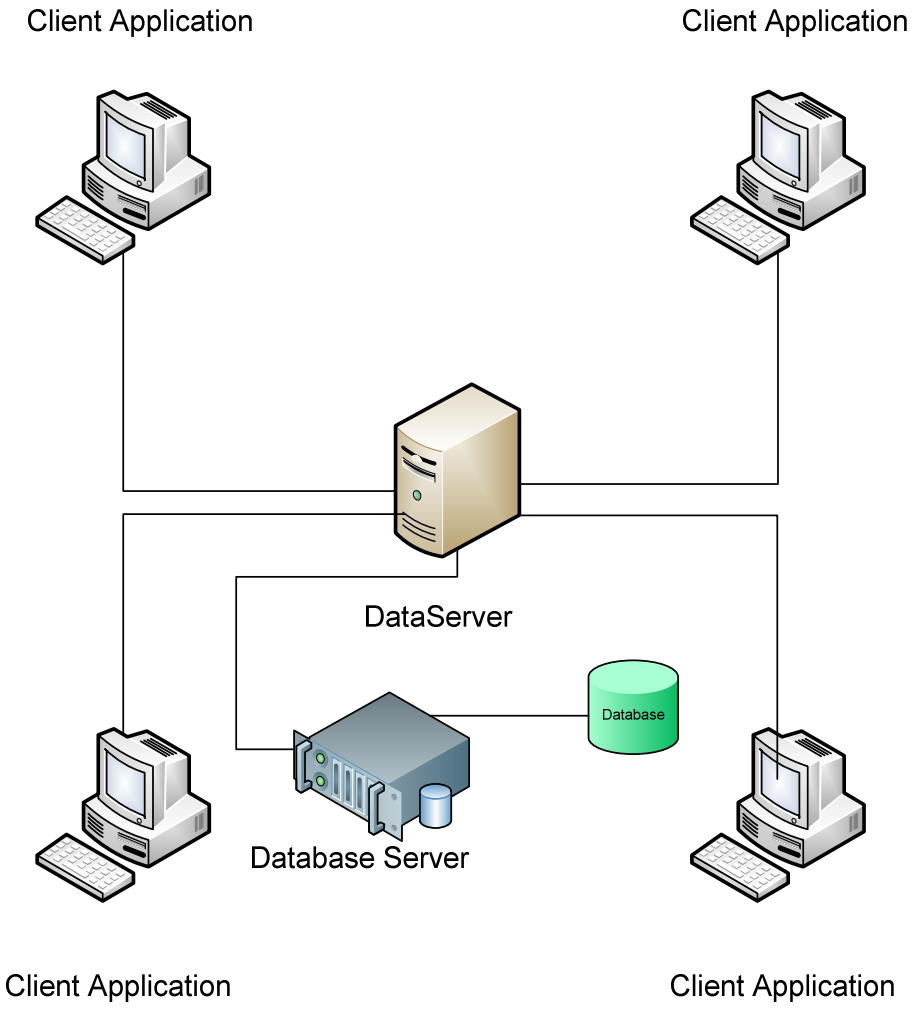
Introduction

HyperXeon Data Platform Technology is Upsilon Dynamics new proprietary server technology and concept that in a nutshell allows multiple client applications to use the same server that provides access to facilities such as database access, network access, encryption, compression, security, licensing, client distribution and much more. The system consists of a server, combined with client applications connecting to the server which in turn connects to database servers and other data storage mechanisms.



The concept is no different than the conventional client/server architecture used in most network based applications today with a few yet highly innovative advantages.

HyperXeon Lite Server

The Lite distribution of the server provides a subset of the total functions the full featured HyperXeon server has to offer; Upsilon Dynamics chooses to use the Lite version for applications and clients that don't require or need the more advanced administrative features of the full server application.

One Architecture - One Solution

The HyperXeon DataServer application is a highly flexible and versatile server application designed to provide a single and dynamic point of contact that provides services for not one; but many different applications simultaneously.

With a single server spanning all Upsilon Dynamics applications, administrative training is reduced and IT expenditures related to servicing of multiple servers is also reduced. This single point of contact architecture also allows applications to access and store data in a standardized way, allowing easy integration between applications if necessary.

Network Availability for Enterprise Level Multi User Systems

Immediately when you use the API for accessing the server, you have all the functionality and connectivity of a fully networkable application. All applications connecting to the server have the potential to be made into multi-user systems very easily using the API's.

Commercial Database Support

The server supports many types of commercially available database systems including:

- Oracle
- DB2
- SQL Server 2003/2005/2008
- MySQL
- PostGreSQL
- Access
- SQLite (for lightweight single user applications)

This allows administrators to choose whatever database system they feel is best suited to their needs; and what is appropriate based on the type of application, data needs, scalability and other factors.

Note: Customers must obtain the proper licensing and database software to use. The system comes preconfigured to use Access and SQLite; but more advanced RDBMS requires administrator configuration.

Database Structure and Creation

The DataServer uses a portable schema replication system, meaning Database schema is created automatically for you and pre-populated with whatever data is necessary for the applications using the server. The system supports tables, multiple field types, indexes and constraints. This allows for easy upgrades and initial installations without the need for complex scripts and processes. Schema changes, addition of fields and more is easy as the system automatically checks for tables and fields and automatically updates as necessary.

Flexible Licensing

The server takes care of all licensing; meaning licensing is done on a per application basis. Licensing can be set as permanent, with expiration, for an unlimited of unique clients as well as a specific maximum. Licensing is done in a standard way for all connecting applications; the server also supports trials which allow connectivity for a maximum of x number of days for trials.

Client Installer and Documentation Distribution

In addition to being an application server; the server application functions as a web server as well. Users can navigate to the server home page from anywhere on their network to download installers, documentation and more. For example, if the DataServer is installed on a server named “test” on port 6001; a user anywhere on the network can type: http://test:6001 into their web browser and view the home page as shown in figure 1.0 below.

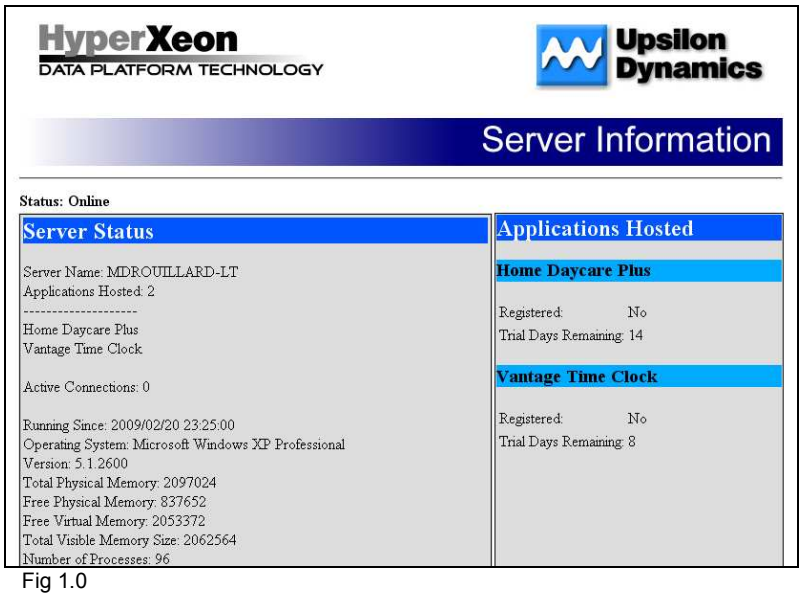


Fig 1.0

Installing client application is made extremely easy, you no longer have to search the network drive, run from PC to PC with installation CD's; simply navigate to the server home page and download all the installers and documentation you need (see figure 2.0 below).

Fig 2.0

Users can navigate this page very easily, clicking on any of the links under the "Installers" and "Documentation" section allows the user to download/view and run installations and pieces of documentation. There is also a news section below where administrators can add news and other bulletins.

Common API Access

All client application access the DataServer in the same, uniform way using a proprietary API Library. This library is what allows every application to connect to the server and gain access to all the services it has to offer.

Time Synchronization

The server can serve out the server date and time to keep all client applications in sync. It can also synchronize with Internet Time Servers (NTS).

Security and Compression

The DataServer can be configured to securely transmit all of the information over the network using encryption techniques. This ensures that anyone listening in cannot collect your sensitive information. Data can also be compressed, allowing quicker and more efficient use of bandwidth. Clients must also submit usernames and passwords to access the server.

Data Traceability

The server stores who and when data has been created or updated in each record of every table. These additional system fields are added which store the information; so administrators if so desired can track down who by and when data was changed or created. Figure 3.0 below shows a snapshot of a database record showing the fields.

a_cre_tist	a_upd_tist	a_cre_by	a_upd_by
2.0090131151451E+13	2.0090210E+13	UPSILON-1	UPSILON-1
2.0090131151451E+13	2.0090214E+13	UPSILON-1	UPSILON-1
2.0090131151451E+13	2.0090210E+13	UPSILON-1	UPSILON-1

Fig 3.0

Applications and Usage

- Upsilon Dynamics network enterprise level multi-user applications use the Lite version depending on features required from the server.
- Software companies looking for an easy solution for developing network, license capable applications in a fraction of the time and cost.
- Companies developing in house software, solutions or processes that require network level access or multi user support.

Licensing

Licensing is done on a per application basis, not on a server installation level. Licenses are provided by Upsilon Dynamics and are limited to a single DataServer usage for a single application; licenses are encoded with:

1. The name of the server the DataServer is running on.
2. The number of active unique client connections. This can be defined as a number or unlimited.
3. The application being licensed to use the server.
4. Expiration/Permanency; licenses can be defined as temporary expiring after a given date; or permanent.

Licensing scheme is a floating scheme meaning licenses can be picked up and dropped off as each client connects and disconnects from the server. One license corresponds to a single client connection as opposed to a specific user connection.

If you are a vendor using the DataServer; you will need to provide the users with licenses from us or have them contact Upsilon Dynamics directly for a license as licenses can ONLY be generated and purchased from Upsilon Dynamics.

Technology

Built on Microsoft .NET Technology.

Conclusion

- ✓ HyperXeon is Upsilon Dynamics proprietary dynamic server technology allowing multiple applications to run off of a single application server.
- ✓ The solution consists of a networked application server in combination with connecting client applications using a standard API written specifically for DataServer remote communication.
- ✓ The server provides network access, easy installer and document distribution through the server page, security through encryption and passwords, licensing, flexibility with various commercial database systems, data traceability, date and time synchronization and data compression.
- ✓ The solution comes in a standard server and a Lite server; the Lite of which has a small yet powerful subset of the total server functionality.

Find Out more

If you are still interested in HyperXeon technology, contact Upsilon Dynamics Sales at sales@upsilon-dynamics.com or if you have any sort of technical related questions our support crew at support@upsilon-dynamics.com and we will try our best to answer all of your questions. If you are interested in the full HyperXeon server solution, please direct all questions to sales@upsilon-dynamics.com as the complete solution will not be available until around mid 2010.