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Technology Announcement - SQL Server Database Transition

DATAIR is in the process of transitioning its Windows-based products from the Microsoft JET (Access) MDB database to Microsoft SQL Server client/server database platform.

Moving to SQL Server will allow us to attain greater levels of application performance, reliability, and scalability than previously available.

We have prepared the following summary in Q&A format to help you understand what this change will mean to you, and the steps you may need to take to prepare for this transition.

What does this mean to you?

First and foremost, SQL Server is a client/server database technology unlike JET. When configured properly, client/server databases can offer higher levels of performance and stability than file based databases.

Will my data transfer from my JET database?

Yes, we will include a utility to transfer your data from current database to your new one.

Do I need to buy SQL Server?

Not necessarily. DATAIR will be including a limited version of SQL Server 2005 called the Microsoft SQL Express (Express) that Microsoft allows us to distribute free of charge. Depending on the number of simultaneous users, and the type of work they will be doing, Express may be all you need.

How many users can Express support?

Express is limited to using 1 GB of RAM, 1 CPU, and database size is limited to 4 GB. For many clients, that will be more than sufficient. We recommend starting with Express and upgrading if the database size approaches 4 GB or if performance is unacceptable when multiple users are simultaneously performing operations which stress the database.

Is there a limit to the number of simultaneous users with SQL Server?

There is no practical limit beyond hardware limitations of the server hardware.

Can I start with Express and upgrade to SQL Server later on?

Yes, absolutely. Express and SQL Server databases are interchangeable. The database files are simply moved from one machine to another, or the computer hosting the Express database can be upgraded to SQL Server as long as the machine meets the necessary hardware and operating system requirements.

Can I have SQL Server on my network and Express on my home computer or laptop?

Yes. Plans can be moved back and forth between SQL Server and Express, just as they can be moved between two Access databases currently. The same limitations and caveats that apply now will continue to apply.

Are there hardware requirements?

Both Express and SQL Server need to run on a Windows-based computer.

In the case of SQL Server, a Windows 2000, or 2003 Server is required. See Microsoft's SQL Server web site for information on specific hardware and software recommendations for various editions of SQL Server.

In the case of Express, the software will run on Windows XP Home or Professional, Windows 2000 Pro or Server, Windows 2003 Server, or Windows Vista. This makes it possible to have a stand-alone machine or a notebook to be both the database server and run the application simultaneously. However, if you have multiple users connected to the database, our strong recommendation is for you to dedicate a machine to being the database server. This is the same advice we have given for years when it comes to file-based databases.

When reviewing Microsoft's hardware specifications, keep in mind these are MINIMUM requirements, not recommended values. Unlike file servers, performance is much more directly related to CPU speed and available memory.

Will Express and SQL Server run on a Novell Network?

Both Express and SQL Server must be installed on a Windows-based machine, so you cannot run the database server software on your Novell Server since it does not run the Windows operating system. However, Windows and Novell servers can peacefully

coexist on the same network. So, even though you have a Novell Network, you can still access a Windows Server or Workstation running Express or SQL Server on that network.

Are there any special network requirements?

SQL Server and Express are essentially protocol agnostic, however we recommend the TCP/IP protocol.

Is setting up a Client/Server Database Difficult?

Microsoft has made the setup of Express and SQL Server no more complicated than installing a typical piece of application software. If you have a particularly complex or non-standard network environment, there may be additional complexities to deal with that will require additional technical expertise. It is beyond the scope of this document, or DATAIR Support, to provide detailed guidance for specific technical environments.

Is SQL Server Expensive?

The cost will depend on a number of factors such as the number of processors on the server computer, the number of attached users, and the edition of SQL Server purchased. Contact a Microsoft-authorized distributor for pricing information on SQL Server.

Will I have to pay extra to get the SQL Server version of my DATAIR Windows-based applications?

No. This change is included in your normal monthly maintenance fees.

Will DATAIR install SQL Server for me?

No, we can not. If you feel you need assistance, we suggest you to contact an IT consultant to help you determine your database hardware and software needs. We provide installation instructions for typical networking environments which should be adequate for the vast majority of clients.

I already run SQL Server 2000 or 2005 for another software product I use. Can I use the same machine and server software?

Yes, absolutely. You can operate multiple SQL databases on the same machine. However, consider that this may increase the number of users and load on the database which may necessitate additional hardware and SQL client licenses. We do strongly

recommend that you install an additional ‘instance’ of SQL Server dedicated to DATAIR databases.

How large can my databases be?

For Express, you are limited to 4 GB maximum per database, which is double what the JET database is limited to. You may create multiple databases and split your plans up among them, however you will lose cross-plan search and processing features as a result.

For SQL Server, there is no practical limit to the size of the database.

I occasionally encounter corruption of my MDB database that requires a Compact/Repair operation, or a restore from a backup. Will this happen with SQL and Express?

Because Express/SQL Server is a client/server database, the opportunity for this to happen is reduced dramatically. It is a more robust technology that isolates the integrity of the database from outside influences such as workstations that hang, network problems, etc. However, it is still subject to problems with the machine it is running on, and network and workstation problems can still cause problems in other ways.

How can I backup a SQL/MSDE Database?

While it’s possible to take a database off-line and copy it or back it up with standard backup software, we recommend backup software that’s designed to backup and restore SQL databases. In addition, SQL Server contains management tools that allow you to manually backup databases and schedule regular database backups to disk or tape. These tools are not included with the free MSDE included with our systems.

Please see the Technical Note “Backing-up your SQL Database” available in the Technical Publications section of the website.

Can I use Oracle, MySQL, or an older (or newer) version of SQL Server?

No, the software is designed to only work with Microsoft SQL Server 2000 or SQL Server 2005. Other databases do not have the necessary features needed for our software to operate.

Can I continue to use the Access MDB database?

We intend to discontinue support for using the MDB database once the 6 month migration period is over. Updates of the software released after the migration period is complete will not support MDB databases.

How long will DATAIR continue to support SQL 2000 and MSDE?

At this time we have no specific plans to discontinue support for SQL Server 2000 or MSDE, but we do expect it to be phased out at some point after SQL 2008 is released and certified compatible with DATAIR applicaitons. We will make an announcement a minimum of six months in advance of any such change.

If I am using SQL 2000 or 2005 do I need a DATAIR Instance of the server?

Yes. While it is possible to install a DATAIR database on a default instance of SQL Server, this generally results in technical support issues that require involvement by our development staff. If a DATAIR Database is installed on a non-DATAIR instance of SQL Server, we reserve the right to assess per-incident support fees for database-related issues.

Why did DATAIR choose SQL Server instead of Oracle, IBM DB2, or My SQL?

SQL Server has the highest market share of client/server databases for Windows-based servers, and is also the fastest growing. This is due to its exceptional performance, features, stability, and cost-performance ratio. We feel that reducing the number of vendors of products we employ reduces the likelihood of incompatibilities. Since we develop our software using Microsoft development tools to run on Microsoft operating systems, the choice was natural.

I've heard that with a client/server database I can have multiple offices connecting to the same database. Is this true?

While it may be technically feasible, our applications are not optimized for this type of environment. At this time, we neither recommend nor support this type of installation.

We recommend using Windows Terminal Server for multiple office or telecommuting situations where a single database is necessary. Keep in mind that multiple offices and/or telecommuters require additional DATAIR software licenses, regardless of how they access the software. DATAIR licenses are based on where the user is located, not the where the software is located.

Will the software operate differently after I switch to Express/SQL Server?

You will likely notice an increase in performance in some operations; however the features and functionality of the applications will not change.

Will I have to switch to SQL Server immediately?

No. There will be an approximately six month transition period to allow you to do it at a time that suits your needs. This transition period will begin once the last system to support SQL Server is released. The DC/Win Pension System currently supports SQL, and the Pension Reporter, FlexPlus, and Document Systems will follow suit in the fall of 2007. The Client Manager system will support it by mid-2008. All future Windows-based systems will support only the SQL database.

Will I have to switch all my systems to SQL Server at the same time?

With the exception of DC/Win, Yes. Since all systems share a single database, it will be necessary to convert all systems to SQL Server/Express at the same time. DC/Win currently uses a separate database, however as you convert additional systems, the data will be merged into DC/Win's database.

My IT department has created custom reports, data extracts, etc. from the current Access database. Will I need to have these rewritten?

Depending on how they were programmed, some alterations may be necessary. Keep in mind that DATAIR does not recommend, condone, or support database access by non-DATAIR applications.

I have more questions. Who can I ask?

Please address your questions to DATAIR's Technical Support group at tech.support@datair.com