Informix Dynamic Server

a Bloor Research Briefing Note

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Introduction

There is always uncertainty immediately after the acquisition of a well-established product by a new vendor. However, with the passage of time the general trend becomes apparent. Are customers leaving the old software in significant numbers, at a steady but appreciable rate, in a trickle or hardly at all? Further, it is not just a question of losing existing customers. This happens to all products and vendors regardless of whether they are acquisitions or not. So a secondary question is the extent to which new users are adopting the platform, and whether old users are extending their use of the software? Even if some existing users are departing for other shores, the gains from new customers may more than outweigh any losses.

It has now been two years since IBM took over Informix. This is long enough for most of the customers who were Informix users at the time of the acquisition to decide whether IBM is keeping its acquisition promises and, more importantly, whether they desire to continue using their Informix products. IBM maintains that the existing Informix base is stable and, moreover, that it is gaining new sales of Informix products. IBM's competitors see any customer uncertainty as an opportunity to unseat Informix and have lost no time in sowing seeds of doubt in the minds of these prospects. This briefing note sets out to understand exactly how loyal Informix customers are remaining to IBM, particularly with respect to Informix Dynamic Server within the EMEA (Europe, Middle-East, and Africa) region.

Informix Products

When IBM acquired Informix in 2001 it acquired not just the various Informix databases and associated products, but also a number of additional databases and products that Informix had gained through its various acquisitions. The major products, and their current status, are as follows:

- Informix Dynamic Server (IDS)—this is the company's major offering for on-line transaction processing, which is marketed directly to users as a high-end OLTP database and via partners as an embedded database. Version 9.4 was released in March 2003 and this product is the main focus of this report.

- Informix Extended Parallel Server (XPS)—this was originally developed to run on MPP and clustered systems and is primarily targeted at very large data warehousing environments. IBM released version 8.4 in October 2002 and the next release, v8.50 is currently in development and should be available during the second half of 2004. This release will include a number of new features as well as support for new hardware platforms.

- Informix OnLine—this is primarily marketed through partners as an embedded database, typically for use in environments of up to around 100 users. The latest version is 5.20, which appeared in December 2002 with a number of enhancements. However, while IBM has promised ongoing support for Informix OnLine it has no plans for further enhancements to the product.

- Informix Standard Engine (SE)—like the OnLine product, this is primarily marketed as a database embedded in partner applications. Again, while continuing with support for SE, IBM has no current plans to issue enhancements.

- Informix 4GL—this development environment is widely used by the Informix partner community and it continues to be enhanced. The latest version (7.32) was released in March 2003 and IBM has also announced that it intends to integrate Informix 4GL with WebSphere Studio.

- Red Brick Warehouse—this is targeted at data warehouse and data mart environments and it is being actively developed by IBM. The latest version is 6.20, which was released in October 2002. The next release, version 6.3, is scheduled to be available in the first half of 2004 and will have a number of new features plus support for new hardware platforms.

- Cloudscape—this is used both by partners and customers as well as internally by IBM. However, it is not actively marketed. Nevertheless the product will continue to be enhanced. The current version of the product is 5.1.

- UniVerse and UniData—these extended-relational databases, which are widely used in embedded applications, will continue to be enhanced. As we write, UniVerse 10.1 is due for release shortly, while UniData Version 6 was

recently introduced. The associated tools products, RedBack, SystemBuilder and wIntegrate, continue to be enhanced and have scheduled feature releases.

As a general principle, for those products to which it has committed itself in terms of enhancements, IBM plans one major release every 18 to 24 months. For those products where no new enhancements are planned, IBM remains committed not just to supporting the products on an 'as is' basis, but also to continue to port these to new versions of relevant operating system platforms, as these become available.

Informix Dynamic Server 9.4

Informix Dynamic Server (IDS) is available in three versions: the Workgroup Edition, the Enterprise Edition and the Enterprise Edition Unlimited, where the last two of these differ only in their licensing arrangements.

The latest version of IDS is 9.4, which was released in March 2003. However, it should be appreciated that there are two extant versions of IDS: IDS 7 and IDS 9. Release 9.4 represents the latest version for both sets of users and existing users of IDS 7 are being encouraged to upgrade to version 9.4. During beta testing, the latest software was run on an equal mix of IDS 7 and IDS 9 customer sites.

IDS 9.4 runs under AIX, Sun Solaris, HP-UX, Windows 2000, Windows XP, Windows Server 2003, Linux, Compaq Tru64 and SGI Irix. IBM recently introduced IDS 9.4 on zSeries running Linux as well.

Background

IDS is what used to be known as the Informix Universal Server. It is based on Informix's Dynamic Scalable Architecture (DSA), which uses a multi-threaded parallel everything approach that was first designed more than a decade ago. As such, DSA was the market leader (from a technological perspective) for a long time in terms of its application of parallelism and, indeed, it still has features (such as its pipeline parallelism) that are more advanced than competitive products such as Oracle 9i.

The other major feature of IDS is its inclusion of object-oriented features, together with the ability to extend the database through DataBlades. In both of these areas, Informix was, again, ahead of the market. As with parallelism, there are still features of these implementations that remain ahead of the competition. For example, we have had discussions with one third party vendor, a long-time partner of Oracle's, that is currently developing an Informix DataBlade: they have told us how much easier it is to develop a DataBlade for IDS than it is to develop comparable facilities for use in conjunction with Oracle 9i.

Value Proposition

IBM's main messages with respect to IDS are with respect to long term value for money. Because the product is relatively easy to install and imposes lower administration overheads (as much of the product is self-tuning) it provides a faster time to value and lower total cost of ownership than other database products. Allied to its performance characteristics (which reduce hardware requirements) this makes IDS particularly suitable as an embedded and OLTP database.

Another major feature of the product is its High Availability. Dynamic configuration parameters and online schema alterations allow planned system maintenance without shutdown. HDR (High-availability Data Replication) Failover allows a secondary system to serve as a hot standby in case of primary failure. Client connectivity can be programmed to automatically switch processing to the secondary server without intervention. According to IBM, this feature has been instrumental in keeping numerous emergency services online through a variety of disasters.

Release 9.4

When IBM first acquired Informix its first decision was to maintain existing Informix release schedules. In the case of IDS, this meant version 9.3 coming out in September 2001, which was the date originally planned. This release included a number of new features such as new extensibility features (extra datatypes, routines, aggregates and access methods).

As noted above, IDS has long had extensive parallel capabilities and it has always been well known for its performance characteristics and scalability. Thus when IBM announced that IDS 9.4 was "the fastest, most reliable, highest scaling IDS database ever produced" this was no small claim. In particular, in internal benchmarks, IBM quotes performance improvements of between 8 and 15% compared to all previous versions of IDS (both version 7 and 9).

The other major area where IBM has upgraded IDS in this release is in terms of the scalability of the product. When IDS was first designed, memory size, output file size and individual 'chunks' (used to create dbspaces to store data) were limited to 2Gb each, with an additional limit that there could not be more than 2,048 chunks. In effect, this meant that no database could be larger that 4Tb. All of these limits have now been lifted to the extent, for example, that now 128Pb can be stored in a single database instance.

The other major new features in this release include enhanced replication and security, and improved backup/restore facilities.

There are two areas in which other major database vendors (and, indeed, IBM in the case of DB2) are currently engaged in adding significant capabilities to their products. One is in business intelligence and the other is in support for XML.

In the case of the former, Informix targeted XPS and Red Brick at data warehousing although a number of customers have leveraged range partitioning and add/remove fragments to build significant warehouses using IDS, and there is also a DataBlade available to support OLAP processing.

In the case of XML, IDS supports this. However, XML documents can only be stored natively in the database as Binary Large Objects (BLOBs) at present. XML indexing and XQuery (a query language optimised for XML searches) are being developed only in DB2. We understand that IBM does intend to provide more native XML support in IDS and we look forward to seeing this in a future release.

Integration with DB2

In parallel with the ongoing IDS enhancement releases, IBM has announced that it is including the best features of IDS, XPS, and Red Brick in upcoming releases of DB2. For Informix users this is effectively a continuation of the Arrowhead vision, announced prior to the acquisition, which would have seen the best of IDS, XPS and Red Brick show up in one database. IBM is standing behind its promise to provide new releases of IDS for as long as customers require and expects that as DB2 inherits many of the IDS features customers will upgrade when they see fit. IBM has said that it does not wish to be seen as forcing a customer one way or the other, rather allowing them to make their own choice based on their own particular circumstances, and at a time best suited to them.

It is also worth noting IBM's attitude to pricing and licensing terms. IBM has stated that it is making every effort to be comparable between the products in this respect, given the constraints of having to maintain some continuity with the past pricing and licensing terms of Informix.

Given that both IDS and DB2 will exist for a long time, the need for the two databases to work together in a shared environment is obvious. This fits in closely with IBM's vision of a federated database environment, whereby multiple heterogeneous databases can coexist. IDS connectivity is built-in to DB2 and DB2 connectivity is possible through the Enterprise Gateway from IDS. In addition, the recently released DB2 Information Integrator supports heterogeneous query processing across DB2, IDS, and other non-IBM data sources—databases, file systems, spreadsheets and XML documents. Other features of DB2, such as replication, also support integration with IDS.

Integration with IBM Software Group Portfolio

Informix products are incorporated into the IBM software strategy and play a key role in enabling on demand businesses. In particular, much has been done to certify different releases of IDS (V7.3 and various versions of 9) with the IBM WebSphere and Tivoli products. Further, IBM has published an IBM Informix Redbook: "Using Informix Dynamic Server with WebSphere". This Redbook illustrates procedures for integration of the latest release of IDS with the IBM WebSphere portfolio.

Future Plans

IBM has not formally announced the details of its next release of IDS yet, but it is committed to the 18 month release cycle mentioned above, and Informix roadshows have detailed enhancements such as further security, RAS and performance improvements, tighter integration with other IBM Software, and standards adherence. In the interim, we are also aware that IBM is working with third party companies to develop new DataBlades, at least one of which (to provide faster indexing) should be available during the course of 2003.

User Perspective

There are two ways to look at what is happening within the Informix user community. The first is via whatever statistics are available and the second is through talking to customers. We have done both.

In the case of statistics, according to IBM, its Informix channel revenue grew in double digits in percentage terms in 2002, the company's top 28 Informix resellers in EMEA are all still focusing on Informix as their core product, and over 98% of former Informix customers are still IBM customers

Arguably more reliable is the following quote from Jerry Hamilton, the IIUG (International Informix User Group) President, provided earlier this year; "Oracle's claim that the Informix user base is defecting rapidly is ridiculous. 88% of the International Informix Users Group's (IIUG) membership has stated that they intend to stay with their current Informix products or try updated versions of these, as opposed to moving to a different database platform. In fact, loyalty to the Informix product line is so strong that IIUG's active membership worldwide grew by 35% in 2002."

Bear in mind that the figure for customers intending to stay loyal to Informix products was based on a survey conducted before IBM came through on its promise to upgrade IDS, included customers who use products that IBM is not updating (who, one would assume, would be more likely to leave), and that a significant proportion of the remaining 12% will simply have been unprepared to commit themselves. As a result, we believe that is wholly unlikely that significant number of IDS users are leaving or will leave the IDS platform.

Our Research

When canvassing Informix customers (who were based in a variety of European countries and covered both ISVs and end users) our intention was to identify their reactions to their experiences since the acquisition and their plans for the future. In particular, we were interested in how they felt towards IBM and whether they were reassured by IBM's statements at the time of the acquisition and, more especially, by events since then.

There are basically three types of users for IDS: software houses and ISVs, users who have purchased software from software houses and ISVs, and companies that have bought IDS directly for their own purposes. The truth is that customers in the middle category do not much care about the technical details of the database underlying their software applications, but only about the software itself and the fact that it is easy to administer, performs well, and so forth. Our efforts were therefore focused on the first and third categories.

The consistent response to our enquiries was that IDS had been selected originally because it was the best database engine they could have for their purposes and, because this remained the case, they had no intention of moving to other platforms. In the longer term, the users we spoke to expressed a willingness to consider moving to a future version of DB2 with IDS features built-

into it, but were unwilling to commit themselves without knowing more details.

From a more historical perspective, users were generally pleased with the acquisition and its results. Prior to the takeover, Informix had lost (largely for marketing rather than technical reasons) its position as one of the leading database suppliers. There was therefore some concern within the Informix user community as to the company's ability to meet its future commitments in terms of product development. Of course, the acquisition created a different sort of uncertainty but the users that we have spoken to feel reassured that IBM has kept its promises to date and they feel more confident with respect to future development of the product. In general, we would say that the user base is probably happier now than it was prior to the takeover.

This is particularly true as far as ISVs are concerned. They reported to us that they are finding it much easier to sell their products now that they have an IBM engine under the bonnet. Indeed, one of the ISVs we spoke to went so far as to suggest that IBM should re-brand IDS, perhaps calling it IBM Dynamic Server, as that would simplify their task even further. Indeed, this was the only respondent from whom we heard any criticism of IBM. He was certainly happier now than he was before the acquisition but he wanted IBM to do more marketing, hence the suggestion about re-branding. To us, this seems like a backhanded compliment.

To summarise: everything that we heard from IDS users backs up the story put about by IBM and the IIUG in the statistics reported above.

Conclusion

Based on our research our conclusion is that IBM is fulfilling its commitment to continue to upgrade IDS, and that IBM is meeting its promises to the Informix customer base. All the evidence suggests that the overwhelming majority of IDS users are happy with the product, happy with IBM's management and ownership of the product, and have every intention of staying with the product for the foreseeable future. What is more, the company's ISVs are successfully marketing their products built on top of IDS and, rather than any diminution, we can expect to see continued growth of the IDS user base.

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