

# U2 Offerings (UniVerse / UniData)

In addition to the specific commitments being fulfilled for the next releases of U2 databases and products as noted below, the IBM U2 group is actively committed to researching how best to leverage IBM's expertise and products in application integration, development and mobile applications through the MQSeries, Websphere and DB2 Everyplace product families.

### UniVerse

UniVerse is an extended-relational DBMS that supports both direct records I/O as well as standard SQL and offers ActiveX, ODBC, OLEDB and Java interfaces.

UniVerse 10, targeted for Q4 of 2001, will include enhancements to openness, security, robustness and scalability. This release will provide a native JDBC driver as well as support for XML input and output from the database engine. Security improvements come from the added support of Secure Socket Layer (SSL) for the HTTP and Socket interfaces. UniVerse file management tools will be enhanced to offer a complete suite of tools for very large (64-bit) files and there will be additional support for file-based triggers. The UniVerse replication functionality will be enhanced to support virtual attributes and distributed files, and the UniVerse RAID debugger will be improved. UniVerse 10 will also offer SQL optimization and additional data type support for Microsoft tool access to UniVerse. Finally, a new Java applet-based administration tool will allow administration of multiple UniVerse systems either through the included client or any Java-enabled web browser.

IBM intends to continue to enhance, sell and support UniVerse and to fulfill Informix's intention to deliver UniVerse 10 and beyond.

### UniData

UniData is an extended-relational, ODBC-compliant database that supports repeating groups, hierarchies, and arrays. UniData offers both best-of-breed native interfaces with ActiveX, Java and C interfaces as well as industry standard interfaces such as ODBC, OLEDB, and HTTP.

UniData 6.0, targeted for 2H of 2002, will include enhancements to openness, security, robustness and scalability. This release will provide a native JDBC driver as well as support for XML input and output from the database engine. Security improvements come from the added support of Secure Socket Layer (SSL) for the HTTP and Socket interfaces as well as encryption options for the U2 clients. UniData 6.0 will include real-time replication functionality as part of the core database features as well as SQL optimization and additional data type support for Microsoft tool access to UniVerse. Finally, an updated Java applet-based administration tool will allow administration of multiple U2 systems either through the included client or any Java-enabled web browser.

IBM intends to continue to enhance, sell and support UniData and to fulfill Informix's intention to deliver UniData 6.0 and beyond.

Page 2 October 2001

## U2 Related Tools and Products

#### RedBack

RedBack is IBM's scalable object-enabling solution for the U2 databases. Beginning as strictly a web-development tool, the product continues to evolve beyond this basic functionality. As RedBack is no longer a web-only product, its object capabilities also provide a natural solution for those customers looking to develop scalable client/server object-based applications. For instance, Java applications can now interact with the U2 back-end. Furthermore, it can be used to interface with other 3<sup>rd</sup> party products such as Crystal Reports fairly easily. There is also an interface to IBM's SystemBuilder 4GL allowing existing SB+applications to be accessed via RedBack Business Objects (RBOs).

Release v4.0 of RedBack has been available on the Intel platform, which includes Microsoft WIN/NT/2K and Linux RedHat since July 1, 2001. Tier 2, or major UNIX platform support is expected to be available by September 30<sup>th</sup>. With this release, the proprietary "RedBack Developer" component has been removed, the RBO scope and analysis tool is now available as a JAVA applet, enhanced debugging facilities provide for the tracking of RBO performance through logging of execution times and optionally recording object properties, and a new "SYSINFO" class provides access to installation specific information. Improvements to the parsing of inbound XML requests, allow for auto correction of malformed tag structures. In addition, SOAP is supported, in the context of Microsoft's v1.1 specification. J2EE server support is also now provided by the new RedBeans Server package, which accommodates enterprise beans both stateful and stateless. The RedBack Gateway component is improved with variable responder configuration. This feature provides for better performance whereby the administrator can define an initial number responders (low) and a maximum number of responders (high) which will be automatically be spawned as the number of server requests throttle up. Conversely, as the server becomes quiescent, the number of responders will be reduced by the gateway automatically, until the initial number of responders defined, remain.

Anticipated for Tier 1 availability 1H02, maintenance release v4.1 will include support for stateless RBOs, JAVA servlets, and entity beans. Performance enhancements are also expected by introducing a re-designed object state repository as well as improved JNI and gateway timeout handling. Finally, informal integration with IBM's VisualAge and WebSphere products will give developers the option to take advantage of IBM's engineering effort with respect to these products, their features and their functionality. IBM intends to continue to enhance, sell, and support RedBack.

### MITS

The MITS (Management Information Tools Software) product suite provides an end-to-end business intelligence and online analytical processing (BI/OLAP) solution, specifically designed for the multi-valued, extended-relational database environment.

The MITS product family includes MitsMaker, MitsServer, MitsSecurity, MitsAdmin, and MitsView. The next release of MITS, scheduled for December 2001, will include MitsWeb; a turnkey add-on, which allows users to access hypercubes using most popular web browsers as well as performance monitoring tools. Also in the works is MitsBridge, a data extraction tool used to consolidate multiple multi-valued or ODBC data sources to create richer hypercubes. Support for SSL and U2 device licensing is planned in 2002.

The MITS product family supports the UniData and UniVerse databases and is also available for D3®, mvBASE®, and mvENTERPRISE® as well as jBASE® on both 32-bit Windows platforms and a wide variety of UNIX platforms. IBM has an exclusive agreement with Management Information Tools, Inc. (MITI) to sell this product.

## **SystemBuilder**

IBM's U2-exclusive 4GL tool is SystemBuilder. In its second incarnation, SB+ provides developers with the means to create process-oriented server-centric applications. There is also a WIN/32 client component, SBClient, which further enhances the capabilities of applications developed with SB+ by utilizing an ActiveX-based GUI environment. In addition, host-binding libraries provide for data migration between clients and SB+ as well as access to the GUI capabilities. The process orientation of the SB+ environment lends itself well to integration with RedBack.

SystemBuilder is a full-featured mature product, with a history in excess of fifteen (15) years. As such, most enhancements are driven by customer requests. Release v5.0.5 is the currently available release of all components. Release v5.2 is slated for general availability 4Q01. The majority of enhancements to the upcoming release address customer requests for improved functionality of the SBClient component. IBM intends to continue to enhance, sell, and support SystemBuilder.

Page 4 October 2001

### **COBOL Direct Connect**

COBOL Direct Connect (CDC) is a conversion tool and runtime interface for the UniData database. CDC converts C-ISAM files into UniData tables providing COBOL customers with all the advantages of an extended-relational database such as high availability and recoverability options as well as open interfaces such as ODBC, OLEDB, HTTP, and soon XML and JDBC, as well as tools such as RedBack Business Objects Server and the MITS BI/OLAP Tool Suite. CDC permits users to run both native ISAM files and UniData tables simultaneously, giving the user the best of both the COBOL and UniData environments. CDC is available for Acucobol and Merant's Micro Focus COBOL, including Server Express.

IBM intends to continue to sell and support this product for existing customers and business partners.

### wintegrate

wIntegrate is an advanced terminal emulation and host-based application enhancement tool for IBM's UniData and UniVerse databases, plus many other multi-valued databases. wIntegrate preserves the investment in host-based applications while giving them a more modern Windows look and feel. Although wIntegrate is not a 4GL or an application development environment, developers can easily create new front-ends for legacy applications and extend them to the web, without changes the logic or structure of those programs.

The wintegrate product family consists of wintegrate and Dynamic Connect, both of which support U2 device licensing. The next release of wintegrate will allow users to extend their Windows interfaces to the web and WAP via a thin-client interface. Additional enhancements to wintegrate include support for SSL - with further research being done to enhance ADA-compliance.

IBM intends to continue to enhance, sell and support these products.

### PI/Open

PI/Open is a multi-valued database. IBM intends to continue to sell and support this product for existing customers and business partners, providing a migration path to the UniVerse extended relational database.

#### Notice:

This document expresses IBM's current intentions and plans, which are subject to change. This document is not intended to and does not create a binding obligation of IBM to provide maintenance, support, enhancements or upgrades for any product. Maintenance, support, enhancements or upgrades for IBM Informix products will be provided in accordance with and subject to the terms of specific written agreements.

Page 6 October 2001