Rocket

Rocket
UniVerse

Deliver Fast, Flexible, and Secure Applications with Low Overhead

- Create, deploy, and maintain high-performing business applications with short time to value

- Implement industrial-strength data security and compliance

- Ensure business continuity with robust HA/DR configurations

- Minimize ownership costs with simple administration and light hardware requirements

Organizations worldwide rely on the Rocket® UniVerse platform for building fast, flexible, and secure applications. Part of the Rocket MultiValue family of DBMS and application platforms, Rocket UniVerse powers thousands of business-critical operations across industries such as finance, healthcare, manufacturing, distribution, retail, and higher education.

UniVerse provides everything you need to develop and deliver robust applications that evolve with the needs of your business. It combines a high-performance database engine, native and open programming languages, built-in security, and replication capabilities for High Availability and Disaster Recovery (HA/DR). The platform supports applications residing on premises or in the cloud, and is easily accessed from mobile devices.

You get the performance, reliability, and security of an enterprise-class application, with low Total Cost of Ownership (TCO). Your users enjoy the lightning fast response times they've come to expect in today's data driven world.

▶ Create, deploy, and maintain high-performing business applications with short time to value

Rocket UniVerse is an ideal platform for delivering high-performance Online Transaction Processing (OLTP) applications with complex business rules. Because UniVerse mimics the way users think, applications are easy to develop and maintain, and developers without MV experience can get up to speed quickly.

You can store data in a more natural structure than SQL-based platforms allow, and access all the information you need with one direct read. Dynamic, multi-level data structures result in fewer tables and fewer joins. Variable length records save space compared to the set-table length of traditional relational databases. Your developers can alter business logic and storage formats quickly because you don't have to redesign a rigid database structure.

The UniVerse development environment provides all you need to develop your application and make it open to other applications on other platforms. You can utilize RESTful web services to easily access data and logic. The JSON data interchange format is especially efficient working with the dynamic array data structure at the heart of the MultiValue database. You can also extend applications using other open development standards such as ODBC, JDBC, and UniObjects.

Options for building applications include integrated BASIC programming environments, and Rocket web and GUI tools, U2 Web DE and SB/XA. From the UniVerse 11.3.1 release onwards, you can introduce developers with more recent training to UniVerse via the Python programming language. Python support even lets you leverage resources from the Python open source community, including pre-written standard modules.

▶ Implement industrial-strength data security and compliance

Audit-logging capabilities let you easily establish configurable audit histories of assets and events. These audit trails help you comply with HIPAA, HITECH, PCI-DSS, the European Union Data Protection Directive, Basel III, SOX, and other requirements. More granular audit data and access to chronologically generated data make it easier to respond to spot audits. Audit logging also supports sequential file logs, for improved performance without system interruptions.

You can configure UniVerse to help meet Federal Information Processing Standard (FIPS) 140-2 requirements using an embedded cryptographic module. Automatic data encryption ensures that if data is lost or stolen, it cannot be viewed without keys. To make encryption easier to maintain, use updates from Rocket to update modular OpenSSL libraries on the server independent of UniVerse software updates.

UniVerse offers flexible security purpose-built for different deployment options. For cloud deployments, UniVerse includes its own credential manager, which allows Single Sign-On (SSO) within UniVerse without having to expose back-end server credentials. For on-premises deployment, UniVerse can simply use the operating system credentials for end-user SSO.

▶ Ensure business continuity with robust HA/DR configurations

Whether revenue goals or uptime SLAs drive you to deliver your applications on a 7x24 basis, it's imperative to keep data protected in the event of a disaster. You can achieve both with a single tool when developing UniVerse applications.

UniVerse replication is based on a publisher/multi-subscriber model. This makes it practical to deploy unified HA/DR that prevents system outages while limiting damage from disasters.

You also have fine-grained control over replication. Tune cross-group transactions (CGT) to boost performance when replicating large volumes of transaction data and multiple replication groups. Protect replicas from accidental changes by keeping subscribers a defined interval behind the publisher. With better control over data availability and reliability, you can deliver much-requested configurations to support data warehouses or reporting analytics and BI—without affecting production performance.

> " *After being involved with MultiValue and UniVerse for more than 30 years and still firmly believing in the rock-solid 7x24 performance of the database, we now have a breath of fresh air blowing in the form of Python for UniVerse. This much anticipated release will extend the life of many applications way into the future and beyond. Modern applications can now be developed with a wealth of resources available. Well done, Rocket.* "
>
> **Jan van Schalkwyk**
> Senior Developer
> Youi, an Australian insurance provider

▶ Minimize ownership costs with simple administration and light hardware requirements

Rocket UniVerse partners and customers report lower TCO with minimal DBA involvement and faster application development and maintenance. The UniVerse database structure is inherently efficient, consuming fewer hardware and network resources and requiring less supervision than a traditional relational database. Smaller sites can operate with minimal DBA resources, while even large sites maintain very small administrative teams. The inherent stability of the database, the use of dynamic files, and ease of redefining data without rebuilding tables all contribute to reduced maintenance overhead and TCO.

An important part of an employee recruitment and retention plan is to be sure you are using tools that developers know or want to learn. Python is one of the most widely used open source community programming languages, and it interfaces with UniVerse 11.3.1 as a native language.
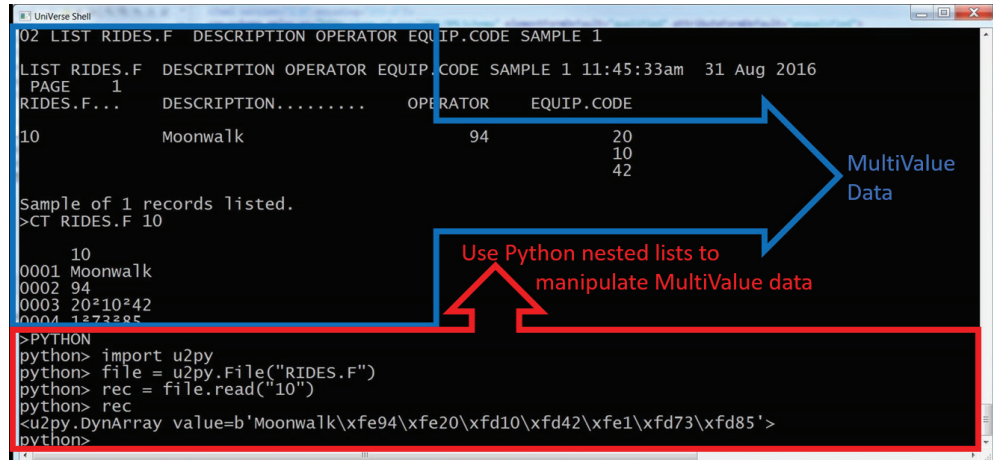

Figure 1: Working with Python as a native language from within UniVerse

If you are responsible for supporting a department that handles compliance and audits, you need to be able to easily manage Audit Logging. A graphical user interface with XAdmin helps you monitor and maintain your audit environment.
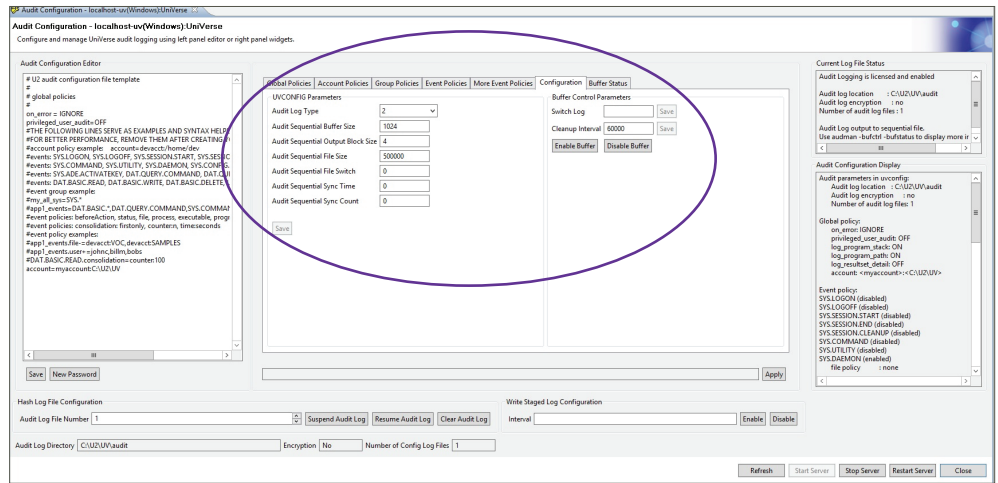

Figure 2: Configuring Audit Logging from the GUI XAdmin interface

You can easily monitor Replication and Sync status using the XAdmin tool. The Replication Status "green light" indicates that the publisher and subscriber are connected for all groups involved in the replication. The "green light" Sync Status indicates that the publishing and subscribing databases are synchronized.
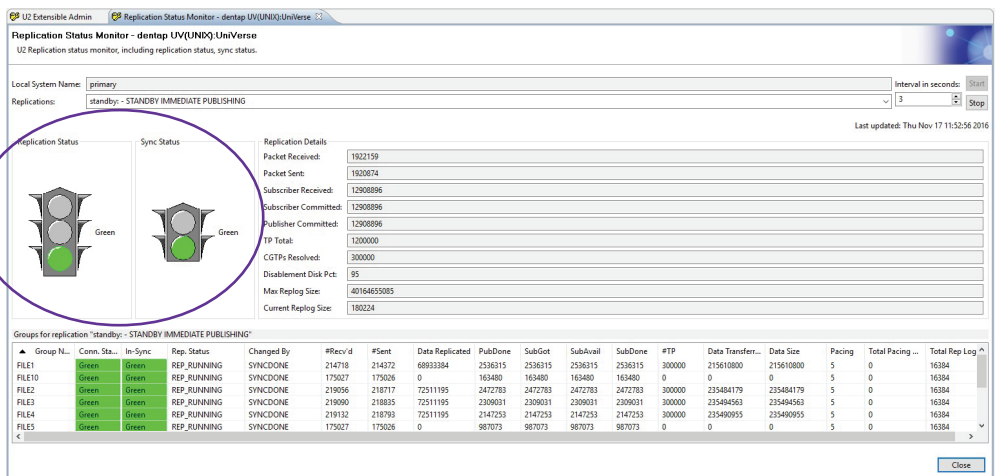

Figure 3: Monitoring replication status from the GUI XAdmin interface

Tech Specs

SERVER SPECIFICATIONS

- AIX 7.1 64-bit
- CentOS 6.0 64-bit, 7.0 64-bit
- HP Intel Itanium 11.31 64-bit
- Red Hat Enterprise Linux 6, 7 64-bit
- Solaris 11 x86 (64-bit)
- 11 SPARC (64-bit)
- SUSE Linux Enterprise Server 11 (SP2) 64-bit
- Windows 7 (sp1), 8.1, 10, 2008 (R2 SP1), 2012 (R2)

SUPPORTED FRAMEWORK & PROTOCOLS

- callHTTP support
- External Database Access (EDA) through SQL Server, Oracle, DB2
- HMAC – SHA1/SHA2 support in BASIC
- IPv4/IPv6 dual-stack enabled
- NLS/I18n support
- OAuth 2.0 support
- OpenSSL v3
- TLS v1 / 1.1 / 1.2

SUPPORTED ROCKET PRODUCTS*

- Rocket® Aldon Lifecycle Manager
- Rocket® DB Tools
- Rocket® Discover
- Rocket® SB/XA
- Rocket® U2 Commons Clients
- Rocket® U2 Toolkit for .NET
- Rocket® U2 Web DE
- Rocket® wIntegrate

* Please see the UniVerse Product Availability Matrix at: https://rbc.rocketsoftware.com/matrix.asp for version compatibility details.

ROCKET U2 COMMON CLIENTS

Easily connect to U2 databases using standard drivers and native APIs for Rocket U2 databases. Includes:

- ODBC (Open Database Connectivity), a standard API for many DBMSs
- JDBC (Java Database Connectivity), a pure NLS-capable Java driver
- OLEDB (Object Linking and Embedding Database), a Microsoft API
- UOJ (UniObjects for Java)
- InterCall, for any C client
- UCI (UniCall Interface), an SQL call-level interface

ROCKET U2 DBTools

Eclipse-based tools for programming and administration. Includes:

- U2 RESTful Web Services Developer (U2 REST)
- U2 Basic Developer Toolkit (BDT)
- Extensible Administration Tool (XAdmin)
- U2 Web Services Developer (U2 WSD)

- rocketsoftware.com
- info@rocketsoftware.com
- US: 1 877 577 4323
  EMEA: 0800-520-0439
  APAC: 1800 823 405
- twitter.com/rocket
- www.linkedin.com/company/rocket-software
- www.facebook.com/RocketSoftwareInc
- blog.rocketsoftware.com

Rocket®