



DATASHEET

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 enterprise-level data security and compliance
- Ensure resiliency with robust HA/DR configurations
- Minimize costs with simple administration and low hardware footprint

Organizations worldwide rely on Rocket® UniVerse® to build fast, flexible, resilient, and secure applications. Part of the Rocket MultiValue Application Platform, 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 it's easy to develop for 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.



[www.rocketsoftware.com](http://www.rocketsoftware.com)



## ► 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. The workflow in UniVerse mimics the way users think, making it easy to develop and maintain applications, and allowing developers without MV experience to 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, and developers can increase performance and save on storage by using field level updates. An Intelligent Queue Manager combines replication updates to further boost performance. With UniVerse, you can alter business logic and storage formats quickly because you don't have to redesign a rigid database structure.

Once you're up and running, administrators can monitor activity, so you can address system file and architecture issues before they become a problem. Performance monitoring helps you save money by deferring hardware upgrades, and increases application performance.

The UniVerse development environment provides all you need to develop your application and make it open to other applications on other platforms. You can use RESTful web services to easily access data and logic. The JSON data interchange format is especially efficient at working with the dynamic array data structure residing 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 the Rocket U2 Web DE and SB/XA web and GUI tools. You can also 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 for 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 supports sequential file logs for improved performance without system interruptions. You can also use Change Data Capture, which shows the original value as well as the change. This level of granularity is required as part of security regulations such as HIPAA and PCI. Given that audit logs are a drain on storage, you'll appreciate the space savings of audit file compression.

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. You can also use updates from Rocket to update modular OpenSSL libraries on the server independent of UniVerse software updates, making it easier to maintain encryption.

UniVerse offers flexible security options that are purpose-built for different deployment options. UniVerse includes its own credential manager which can assist with cloud deployments, and allows single sign-on (SSO) within UniVerse without having to expose back-end server credentials. If you're deploying on-premises, UniVerse can simply use the operating system credentials for end-user SSO.



## ► Ensure resiliency with robust HA/DR configurations

Whether revenue goals or uptime SLAs drive you to ensure 24x7 availability, it's imperative to keep your data protected in the event of a disaster. With UniVerse, you can achieve both goals with a single development tool. And if the unanticipated occurs, the automatic UniVerse Recoverable File System (UV RFS) will restore files before your business misses a beat.

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

You also have fine-grained control over replication. It's easy to tune cross-group transactions (CGT) to boost performance when replicating large volumes of transaction data and multiple replication groups. You can even protect replicas from accidental changes by defining a time interval between publisher and subscriber updates. 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.

In the event of an unanticipated failure, UV RFS can bring systems back online quickly and reduce the risk of file corruption because it keeps track of files not yet committed to disk. RFS takes the expensive human element out of repairing damaged files because it ensures that every transaction is recorded.

## ► Minimize costs with simple administration and low hardware footprint

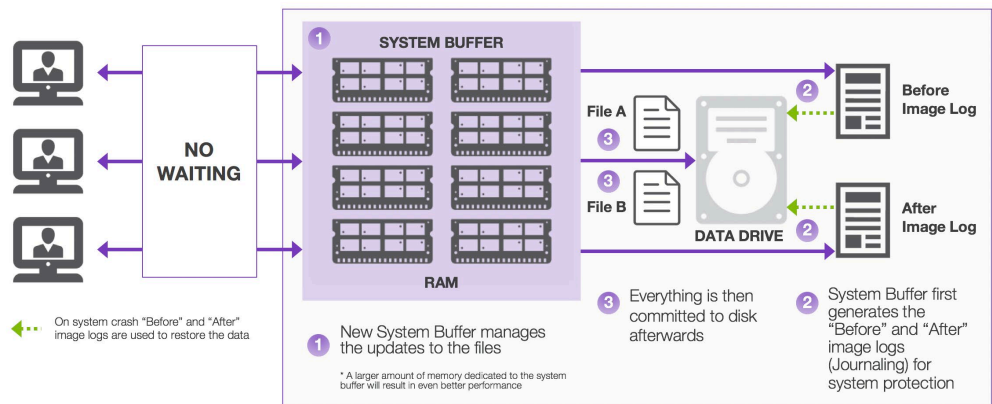
Rocket UniVerse partners and customers report lower TCO with minimal DBA involvement, and faster application development and maintenance. The UniVerse database structure is inherently efficient, consuming fewer hardware and network resources and requiring less supervision than a traditional relational 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.

“Top performance is non-negotiable for financial institutions who rely on Ultracs, Ultradata's banking system. Ultracs was developed on the Rocket MultiValue application platform which includes the UniVerse database—as it has proven itself to be a fast, economical and cost-effective solution when compared to market alternatives time and time again.”

*Andrew Hubbard, General Manager of Clients and Marketing, Ultradata*

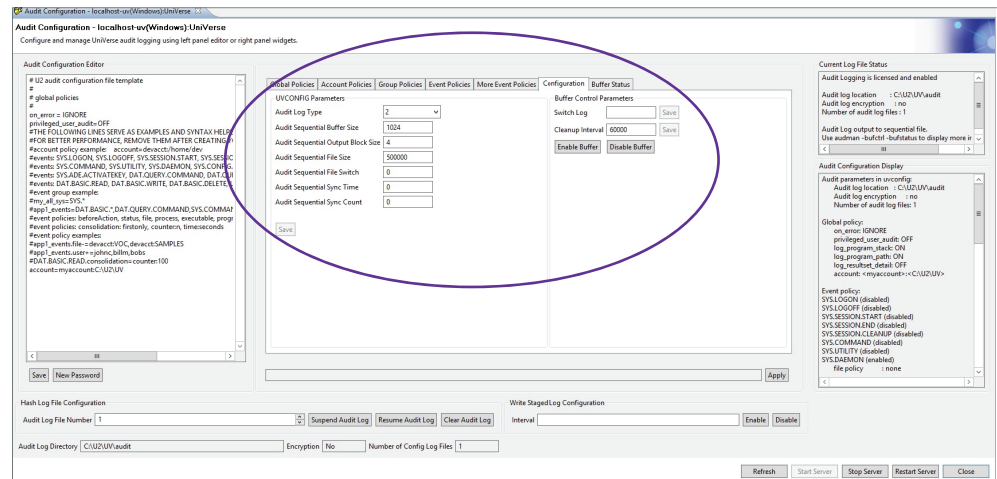


UniVerse has a database processing engine that supports high efficiency, high availability, and RFS. The system buffer manages all file updates in memory before committing to disk, improving response times to user requests. When RFS is enabled the system buffer also generates before-and-after log images to ensure no transaction is ever lost.



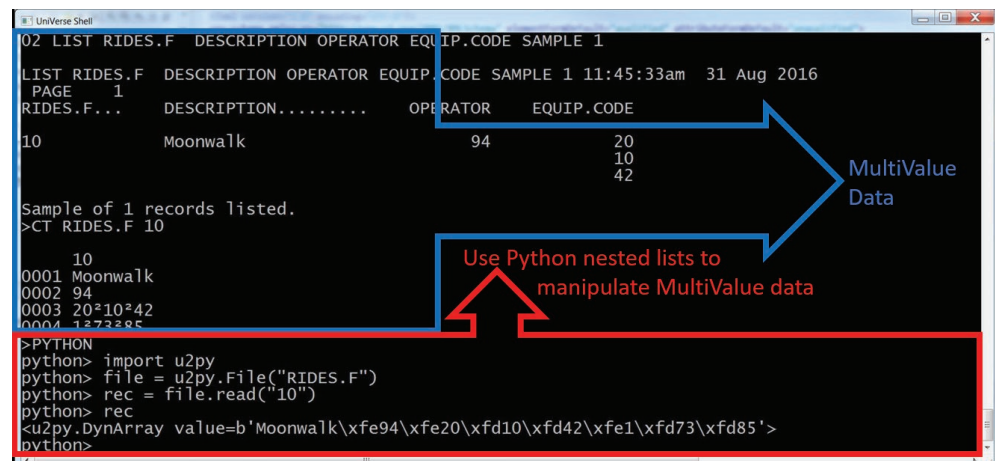
Designed for performance

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



Configuring Audit Logging from the GUI XAdmin interface

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 programming languages, and it interfaces with UniVerse as a native language.



Working with Python as native language from within UniVerse



## ► Tech Specs

### SERVER SPECIFICATIONS

- AIX 7.1, 7.2
- Amazon Linux AMI 2016.09, 2017.03
- CentOS 6.1+, 7.0
- Oracle Linux x86 7.3, 7.4
- Red Hat Enterprise Linux, 6.1+, 7
- SUSE Linux Enterprise Server 11(SP4), 12 (SP1)
- Windows 10, 2012 (R2), 2016, 2019

All UniVerse releases from 11.3.1 onwards are 64-bit only

### 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
- SSL v1.0.2m
- TLS v1 / 1.1 / 1.2

### SUPPORTED ROCKET PRODUCTS\*

- Rocket® Aldon Lifecycle Manager
- Rocket® U2 DBTools
- Rocket® SB/XA
- Rocket® U2 Common Clients
- Rocket® U2 Toolkit for .NET
- Rocket® U2 Web DE
- Rocket® wIntegrate

### 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)

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



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