Rocket

Rocket
UniData

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

- Ensure business continuity with robust HA/DR configurations

- Minimize ownership costs with simple administration and light hardware requirements

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

UniData provides everything you need to develop and deliver secure, stable, data-driven applications that scale and evolve with your business needs. 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 premise or in the cloud, running on desktop or mobile devices

You get the performance, reliability, and security of an enterprise-class application, with low total cost of ownership.

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

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

In a MultiValue database, 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 UniData development environment provides everything you need to develop your application and open it to other applications—even on other platforms. You can utilize RESTful web services to easily access data and logic. The JSON data interchange format is especially efficient for 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 traditional integrated BASIC programming environments, and the Rocket web and GUI tools U2 Web DE and SB/XA. From the UniData 8.2 release onward, you can introduce newer developers to UniData through the Python programming language. Python support also lets you leverage resources from the Python open source community, including pre-written standard modules.

▶ Implement industrial-strength data security

You can configure UniData 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, Rocket has separated the maintenance of the OpenSSL libraries from UniData software updates, allowing you to update security independently from updating the UniData server.

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

Audit-logging capabilities let you easily establish configurable audit histories of assets and events. The automated production of these audit trails reduces the time required to document compliance with HIPAA, HITECH, PCI-DSS, the European General Data Protection Regulation, Basel III, SOX, and other regulatory mandates that require an understanding of who and what is accessing your data, and when. More granular audit data and access to chronologically generated data make it easier to respond quickly and accurately to spot audits. Audit logging also supports sequential file logs, for improved performance without system interruptions.

▶ Ensure business continuity with robust HA/DR configurations

Whether delivering 7x24 application availability is driven by revenue or SLAs, it's imperative to keep data protected in the event of a disaster. You can easily achieve both high availability and the ability to recover quickly from an outage with UniData HA/DR configurations.

UniData replication is fast and flexible. It is based on a publisher/multi-subscriber model that makes it practical to deploy unified HA/DR, preventing system outages while limiting damage from disasters.

You also get fine-grained control over replication with UniData. It lets you tune group transactions to boost performance when replicating large volumes of transaction data and multiple replication groups. You can also increase efficiency with Field-Level Replication, transmitting only fields that are modified, rather than the entire record. Configure a separate subscriber with Delayed Standby Replication to protect replicas from accidental or malicious changes by keeping subscribers a defined interval behind the publisher.

> " *This product answers almost every audit question. The Audit module can be configured from high-level system-wide activity to specific user file-level access and change logging, to program and process logging. If you can think of an audit question, UniData 8.2 Audit can be configured to provide the answer.* "
>
> **Russell Patterson**
> IT Specialist
> Rural Finance

▶ Minimize ownership costs with simple administration and light hardware requirements

Rocket UniData partners and customers report lower TCO with minimal database administrator (DBA) involvement, and faster application development and maintenance. The UniData database structure is inherently efficient, consuming fewer hardware and network resources, and requiring less supervision than a traditional relational database. Smaller sites can operate and scale with minimal DBA resources, and even large sites can 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 lower TCO.

Modern developers prefer current tools. Python is one of the most widely-used open source languages and runs natively on UniData 8.2. Using Python enables you to leverage a wealth of functionality available as open source code.

Figure 1: Working with Python from within UniData

If you are responsible for supporting a department that handles compliance and audits, you need to be able to easily manage audit logging. XAdmin has a graphical administrative interface that helps you monitor and maintain your audit environment.
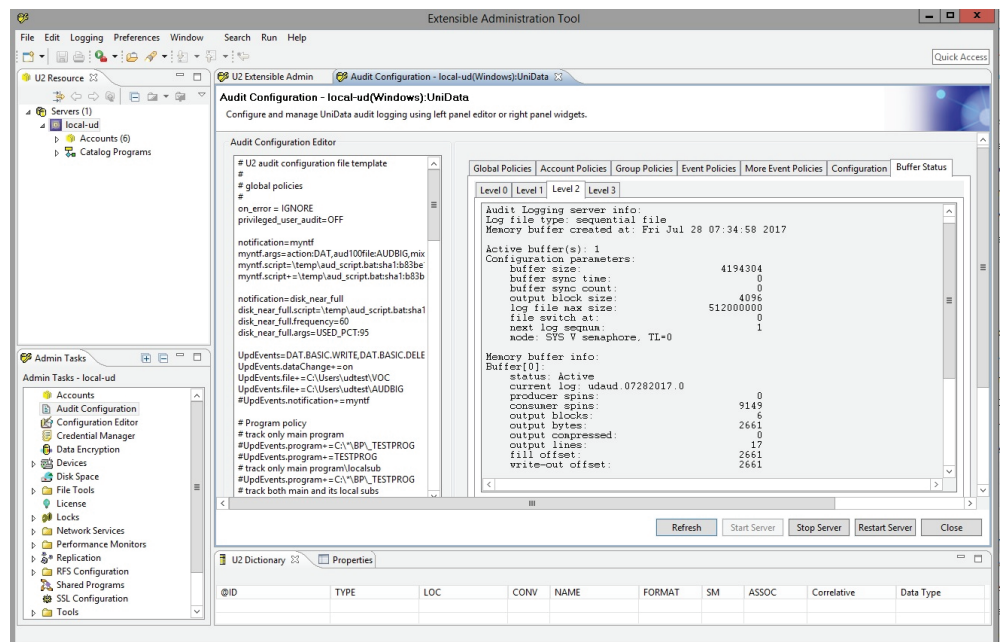

Figure 2: Configuring Audit Logging from the XAdmin administrative interface

You can easily monitor replication and sync status using the XAdmin interface. The replication status "green light" shown above indicates that the publisher and subscriber are connected for all groups involved in the replication. The "green light" sync status to the right indicates that publishing and subscribing databases are synchronized.
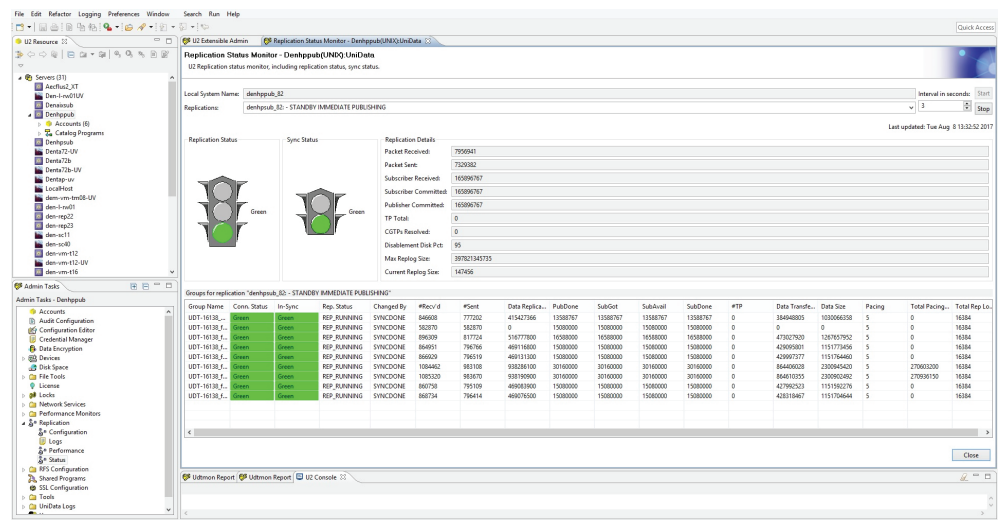

Figure 3: Monitoring replication status from XAdmin

Tech Specs

SERVER SPECIFICATIONS

- AIX
- CentOS
- HP Intel Itanium
- Red Hat Enterprise Linux
- Solaris 11 x86
- Solaris SPARC
- SUSE Linux Enterprise Server
- Windows

For details, please see the Product Availability Matrix at: https://rbc.rocketsoftware.com/matrix.asp

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

* From UniData 8.2+

SUPPORTED ROCKET PRODUCTS*

- Rocket® Aldon Lifecycle Manager
- Rocket® CorVu NG
- 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 UniData 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: 1 855 577 4323
EMEA:0800-520-0439
APAC: 612 9412 5400

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