Rocket® Uniface Data Server
Providing direct, transparent access to heterogeneous databases

Applications that require access to different data sources usually require a complex infrastructure with middleware for each source. In addition, IT staff must maintain infrastructure changes in each middleware product separately.

Organizations worldwide depend on the Rocket® Uniface Data Server to give their applications concurrent access to any number of databases and data sources, simplifying the infrastructure and lessening the IT burden.
How it works

The Uniface client code passes data service requests via a network driver to the Uniface Data Server, which translates the requests into native SQL statements before passing them to the relevant database.

System administrators can configure resources optimally because the Uniface Data Server offers many flexible deployment options.

A Uniface-based application using the Uniface Data Server
The Rocket Uniface Data Server enables organizations to further improve efficient deployment and distribution of Uniface applications.

Because applications that require access to different data sources usually require a complex infrastructure with middleware for each source, client PCs consume resources, and IT is required to perform complex installation tuning. You can easily simplify this situation by using and chaining data servers (see diagram 2 below). Chaining provides applications with access to multiple data sources through a single infrastructure. Since the Uniface Data Server provides a single light-weight networking middleware layer with centralized maintenance, it significantly lessens the burden on IT.

Chaining Data Servers

Uniface components and services can reside on remote servers, while the client application can retrieve data and execute on it at run time. Users benefit from this capability because components reside on a single location but can be executed by every client who is connected to the data server.
Benefits of the Rocket Uniface Data Server

Provides superior client/server performance via intelligent network messaging and management by reducing network traffic and database overhead on the server, which is critical for optimizing distributed systems performance. For example, optimization techniques significantly reduce the network and database overhead for transmitting tokenized I/O data between systems by sending only the required query data rather than all the data.

Saves the time and effort of installing database client software on individual clients.

Improves network security by implementing TLS (Transport Layer Security), which ensures secure transmission of data inside the network. Specifically, Rocket has added a cryptography layer to the Uniface network stack. Rocket built this implementation with a TLS layer on top of a standard (but refactored) TCP driver, yielding several improvements. The new TLS driver utilizes OpenSSL libraries and encrypts the network traffic, including IPv6, between Uniface processes encompassing both shared and exclusive servers. Additionally, the driver supports ‘Peer Name Verification,’ which helps mitigate compromises such as 'Man in the Middle' attacks. Even better, configuration is straightforward and uses familiar mnemonics such as ‘tls:’ & ‘USYS$TLS_PARAMS.’ Uniface applications can easily and reliably ensure encryption is applied regardless of the underlying IPv’N’ network infrastructure implementation and protocol support.

Delivers superior data scalability to Uniface applications because it allows you to easily migrate your applications to more powerful database servers. For example, without changing the client configuration, Uniface clients can access data from smaller scale Windows servers up to Linux, Unix, or iSeries servers.

Performs transparent application-level referential integrity across data sources on multiple servers, fostering automatic data integrity in distributed, multi-database environments — without any programming — thus, one transaction can run over several databases.
About Rocket Software

Rocket Software partners with the largest Fortune 1000 organizations to solve their most complex IT challenges across Applications, Data and Infrastructure. Rocket Software brings customers from where they are in their modernization journey to where they want to be by architecting innovative solutions that deliver next-generation experiences. Over 10 million global IT and business professionals trust Rocket Software to deliver solutions that improve responsiveness to change and optimize workloads. Rocket Software enables organizations to modernize in place with a hybrid cloud strategy to protect investment, decrease risk and reduce time to value. Rocket Software is a privately held U.S. corporation headquartered in the Boston area with centers of excellence strategically located throughout North America, Europe, Asia and Australia. Rocket Software is a portfolio company of Bain Capital Private Equity. Follow Rocket Software on LinkedIn and Twitter.