

SELECT

BUSINESS SOLUTIONS

UltraQuest Cloud Server

White Paper

Version 1.0

Disclaimer and Trademarks

© Select Business Solutions, Inc. 2015. All Rights Reserved.

Information in this document is subject to change without notice and does not represent a commitment on the part of Select Business Solutions, Inc. to provide or continue providing said functionality. This document may not, in whole or part, be copied, photocopied, reproduced, translated or reduced to any electronic medium or machine-readable form without prior written consent of Select Business Solutions, Inc.

The software described in this document is furnished under license or non-disclosure agreement and may be used or copied only in accordance with the terms and conditions of that agreement. It is against the law to copy the software on any medium except as specifically allowed in the license or non-disclosure agreement.

NOMAD is a registered trademark of Select Business Solutions, Inc. and UltraQuest is a trademark of Select Business Solutions, Inc.

Because of the nature of the material, numerous hardware and software products are mentioned by their trade names in the publication. In most, if not all, cases these designations are claimed as trademarks by their respective companies. It is not the publisher's intent to use any of these names generically, and the reader is cautioned to investigate all claimed trademark rights before using any of these names other than to refer to the product described.

For more information about Select Business Solutions Inc., or to download an electronic copy of this document please visit the Select Website: <http://www.selectbs.com/>

Table of Contents

Introduction	2
UltraQuest Cloud Server	2
UltraQuest Cloud Server Architecture	2
Additional Features and Benefits.....	4
Summary	4
Glossary.....	5

Introduction

UltraQuest Cloud Server is a solution that allows BI tools and report-generating products (e.g. IBM® Cognos, SAP® BusinessObjects™ and SAP® Crystal Reports) to directly access data on z/OS and z/VM.

With the Cloud Server, you can use familiar PC software packages to access data from mainframe data sources like VSAM, DB2, IMS, QSAM and NOMAD. End users can retrieve up-to-the-minute information with the BI tools or reporting solutions they already use without having to extract and download the data.

UltraQuest Cloud Server

The initial setup is done by an administrator. He sets up the databases that may be accessed by users on the UltraQuest Cloud Server. Using UltraQuest Reporter on his PC, a wizard guides him through the creation and publishing of a Data Access Definition (DAD) for one or more of the databases available via the mainframe UltraQuest Server. Using your BI software, he defines a JDBC or ODBC connection to the DAD he published on the mid-tier UltraQuest Cloud Server. The database is now ready to be accessed.

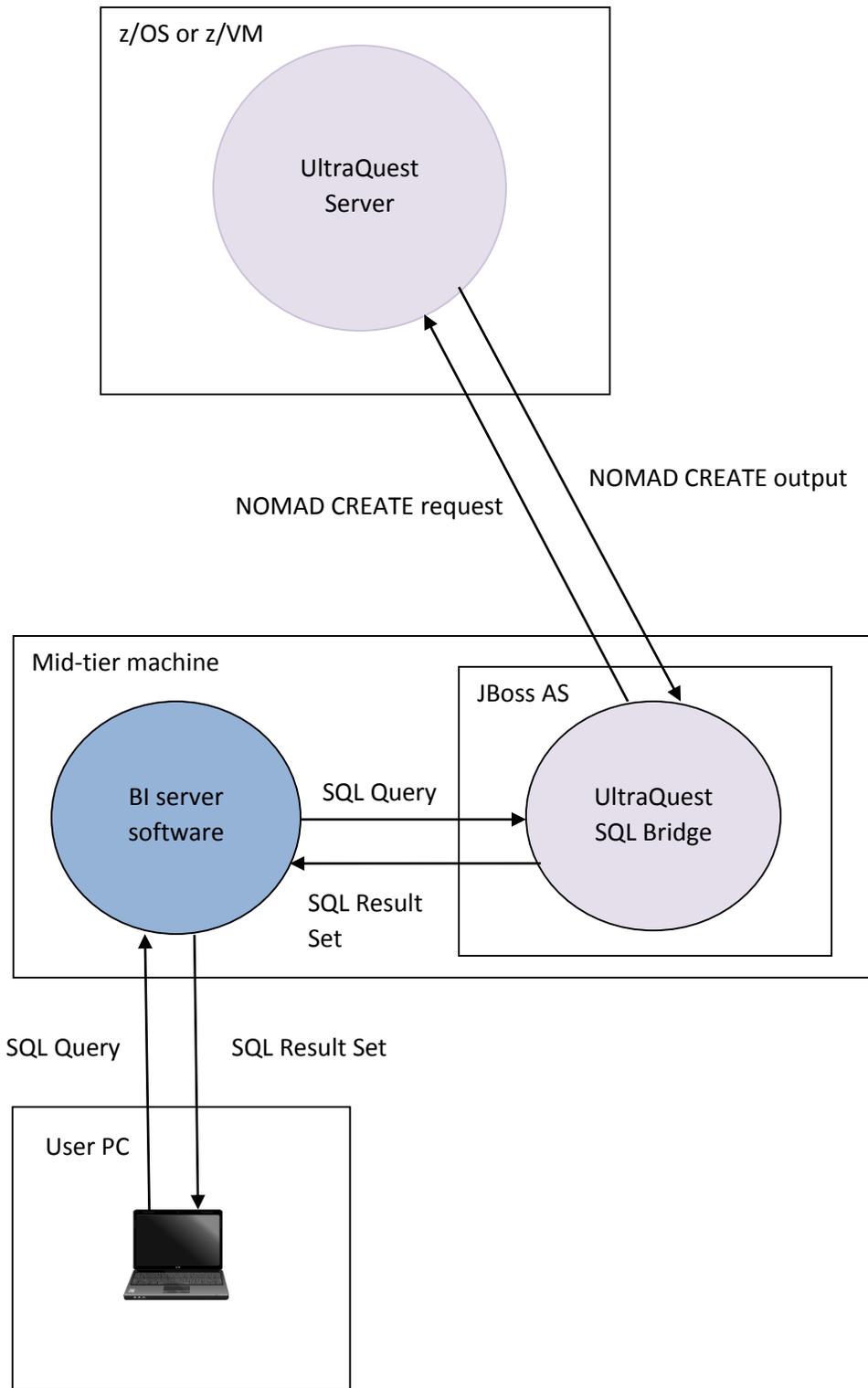
To the user of your BI product, this new data source looks like any other – one or more tables and their columns. He creates, executes, and views the result of a query the way he always does this. He must supply a valid mainframe userid and password to access the data, and is subject to any operating system or UltraQuest/NOMAD constraints for that userid.

UltraQuest Cloud Server Architecture

An UltraQuest Cloud Server installation consists of the following components:

- Any tool that accesses data using SQL. This tool may have server and/or client components.
- The UltraQuest SQL Bridge provided by Select Business Solutions, which includes a JBoss Application Server.
- The UltraQuest Server software that provides a Web interface to mainframe data, from Select Business Solutions.
- UltraQuest Reporter, a PC application from Select Business Solutions used by administrators to create DADs.

The following diagram shows the path of a user's request through the UltraQuest Cloud Server, followed by a description of each step and the component involved.



1. The user creates a query in your BI product.
2. The BI product generates SQL code for the query.
3. Using the JDBC or ODBC connection defined by the administrator, the BI product passes the SQL query to the UltraQuest SQL Bridge.
4. The UltraQuest SQL Bridge converts the SQL query to one or more UltraQuest/NOMAD CREATE requests which are sent to the UltraQuest Server.
5. The UltraQuest Server executes the UltraQuest/NOMAD CREATE request, which may access data sources such as VSAM, QSAM, DB2, Oracle, SQL Server, IMS, and NOMAD. It then passes the output back to the UltraQuest SQL Bridge.
6. The UltraQuest SQL Bridge converts this data to an SQL result set, and passes it back to your BI product.
7. Your BI product presents the results of the query to the user.

In the diagram above, the BI product is depicted as having a server component. This may be common for some BI products, such as Cognos, but is not a requirement for using the UltraQuest Cloud Server. The client PC may communicate directly with the UltraQuest Cloud Server when supported by the BI product.

Additional Features and Benefits

The UltraQuest Cloud Server also supports:

- databases that include hierarchical structures, where each hierarchical path is mapped as a single table
- UltraQuest/NOMAD DEFINES (calculated columns defined in the UltraQuest/NOMAD Schema)
- joining data between different types of mainframe data sources as well as Oracle and SQL Server data sources on mid-tier platforms

The mapping of an UltraQuest/NOMAD Schema to SQL table/column definitions is dynamic. This means that any changes to the Schema are immediately reflected by refreshing the DAD and the view in the BI product, so the BI product user's view of the data is always current. There is no need for manual maintenance of external file mappings.

Summary

UltraQuest Cloud Server is a quick and easy solution which provides your users with direct access to mainframe data using their familiar PC reporting tools. For more information, contact us at info@selectbs.com.

Glossary

BI	Business Intelligence – reporting applications and analysis tools
DAD	Data Access Definition – database metadata used by the UltraQuest SQL Bridge
JBoss AS (Application Server)	an open source Java application server; see http://jbossas.jboss.org/
JDBC	Java Database Connectivity – an interface for the Java programming language that defines how a client may access a database
ODBC	Open Database Connectivity – an interface that defines how a client may access a database
SQL	Structured Query Language – a standard language for accessing databases
UltraQuest Cloud Server	a solution that allows BI tools and report-generating products to directly access data on z/OS and z/VM
UltraQuest Reporter	a product that allows creation and execution of reports over the Web, also used by the UltraQuest Cloud Server to create DADs
UltraQuest Server	software that provides a Web interface to mainframe data
UltraQuest SQL Bridge	the core component of the UltraQuest Cloud Server, accepting SQL code, accessing UltraQuest/NOMAD-accessible data, and returning an SQL result set