

Application Deployment

How to Deploy Visual Dolphin

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Visual Dolphin is designed and developed to support remote multi-branch operations and help sharing information between the Head Office and the institution's branches.

Depending on the existing infrastructure of the client's installation and how critical data is to business, different scenarios apply.

The following lines provide some details about the different scenarios that are supported by Visual Dolphin

Independently of the adopted deployment scenario, the server hosting Visual Dolphin and its database should not be used at the same time as a Mail Server OR by any other client application. It should be completely independent and configured to host ONLY Visual Dolphin programs and database.

Deployment Scenarios

When considering the installation of Visual Dolphin in branches and trying to find up the best deployment scenario to exchange data between the Head Office and the branches, we have to take into account three deployment scenarios: offline, replication and online.

- Export/Import or Offline: using a magnetic media to backup and restore data between Branches or Point of Sales and Head Office
- Replication: Using a standard SQL Database supported feature that allows frequent updates between the different locations
- Online: Accessing remotely, using the Internet, one main server

The three proposed solutions are supported by Visual Dolphin but involve different investment in terms of hardware and communication.

Offline Solution

The Offline Solution or Export/Import is the most common procedure used in the previous years. It is very cost-effective since it does only require magnetic media (tapes, diskettes or else) to exchange data between sites. It definitely relies on well-tested Import/Export procedures that can control data integrity and maintain data completeness.

Two main disadvantages to this procedure are:

- a) Data is updated once a day and the business cannot have a direct control remote operations
- b) Magnetic media is not always reliable and may be damaged

Replication

Visual Dolphin relies for that on the replication features of Microsoft SQL Server. Replication is simply the process of sharing data between databases in different locations.

That is exactly what Visual Dolphin does: it replicates data, like the customer, supplier, inventory and financial information, to make the data available to all the institution locations or entities. According to a pre-defined frequency and the presence of a communication line, databases on different sites communicate and get updated. In other words, it means that information is all accurate and up-to-date in every location.

However, this solution has also three disadvantages:

- a) Data Replication is complex and may cause administration problems
- b) Depending on the volume of transactions processed, Data exchanged could represent a large volume and affect performance and increase communication costs (depending on the solution implemented)
- c) Data situation at the head office (or branches) reflect the last data update

Online

Online deployment adds control to the business processes by providing the most current and global vision of the institution's situation.

All branches or Point of Sales are connected to the Internet and given a secure access to the main application server. Transactions are directly processed on the main server. Stock positions or financial figures reflect the actual situation of the business.

The implementation of such a solution is very advantageous to any business that wants to be in control of its operations. However, it involves a subsequent investment in hardware and system software:

- a) The server should be well dimensioned to cater for the expected number of simultaneous sessions and volume of data
- b) Security is an important matter for such a scenario. Security software should be implemented on the server to control and limit access to the institution's data

Recommended Scenarios

Although all three scenarios are supported by Visual Dolphin and were successfully implemented at different sites, Software Design definitely recommends the Online scenario due to the obvious advantages that such a solution offers.

However, this solution cannot be installed without a good assessment of the technical (hardware, software and communication) platform required to support securely such a deployment.

Technical Platform Requirements

Hardware requirements listed here after are the minimal recommended configuration to support any Deployment Scenario. It is preferable that, prior to any installation and depending on the selected scenario, the existing hardware should be reviewed and the required equipment dimensioned by Software Design's Consultants.

Back Office Server: (minimal configuration required)

	< 10 users, limited volume of data	> 10 users, large volume of data
Processor	Pentium IV 2.0 Ghz	Dual 2.8GHz Xeon
Memory	512 Mbytes RAM	At least 1GB RAM
Hard Disk (SCSI) ¹	40 GB	40 GB
Ethernet Card	100Mbit/s	100Mbit/s
Operating System ²	MS Windows 2000 Server	MS Windows 2000 Server
Database ³	MS SQL Server 2000	MS SQL Server 2000
Reporting	Crystal Reports V 8.5	

(1) It is clear that the size of the disks depends on the volume of data processed

(2) (3) Latest service pack is required

Workstation

Processor	Pentium IV 2.0 Ghz
Memory	128 Mbytes RAM
Hard Disk	40 GB
Ethernet Card	10/100Mbit/s
Operating System	Windows 98, 2000 or XP

Barcode Solution:

The Visual Dolphin System does not need any hardware support to generate Barcodes. There is a tool embedded in the system that will help us produce barcodes.

For the Barcode Reader, the Barcode printer, the cash drawer, and the LCD display, a serial connection is required.



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