WIDEORBIT

Hardware and Software Requirements

Overview

WideOrbit's WO Media Sales is a client-server-based sales and research application that integrates with WO Traffic. It is capable of handling multiple markets and multiple stations.

WO Media Sales supports configurations from small, single-server setups to multiple server environments. Local users run a thick client and connect directly to a centralized database. Remote users of WO Media Sales are required to connect using a terminal server (for example, MS Terminal Services, RD Web Access, or Citrix). The software does not currently support running directly over VPN or WAN connections. Approved remote connectivity is via Citrix or Terminal Services.

This document outlines the basic requirements for each tier. This is a general document. As part of your implementation, WideOrbit technical staff will provide a detailed hardware recommendation specific to your environment. In addition, future reviews of your environment can be contracted through WideOrbit Professional Services.

Background Info on the WO Media Sales environment

Databases

The Database Server hosts the Firebird or Microsoft SQL Server application. There are three databases used by WO Media Sales:

ONEDOMAIN – The OneDomain database is used to store items such as saved campaigns and station inventory. The database size is dependent upon the number of campaigns saved and the number of stations for which inventory is maintained.

NSIOVERNIGHTS – The NSIOVERNIGHTS database stores and accumulates the Nielsen monthly and daily data.

ONEDOMAIN_SOX – The OneDomain_Sox log contains an audit trail of various operations performed by users and by the application server.

Applications

Two WideOrbit applications, Blackbox and *WO Media Sales Services*, are installed. These systems act as the communication interface among *WO Media Sales*, your traffic system, and WideOrbit's home office (for data and systems updates).

Server Requirements

Please review the specs with your *WO Media Sales* representative to discuss specifics for the markets you are inquiring about. Please ask all questions you have before purchasing hardware.

NOTES FOR ALL ENVIRONMENTS

- Virtual servers may be used.
- If servers are performing functions other than running WideOrbit products, we will not be able to support performance issues until the non-WideOrbit functions are removed.
- WideOrbit recommends clients purchase a hardware vendor maintenance agreement that includes 4-hour, 7x24-response time.
- For server environments with 30 or more stations, performance can be affected by a variety of factors, such as number of stations, number of concurrent users, network architecture, etc. WideOrbit's Technical Team will be able to assist you in designing an appropriate server system for your environment.

Up to 7 Stations/Properties (based on market size) and 30 users

- Single server, dedicated to WO Media Sales usage
- Database Engine: Firebird
- Processor: quad-core CPU, 2.2 GHz or better
- RAM: 16 GB minimum
- Hard drive:
 - Minimum:
 - O/S: 100GB drive
 - Application/Data/Backups: 500GB drive
 - Preferred:
 - O/S: 2 100GB SSD drives in Raid 1
 - Application/Data: 2 500GB drives in Raid 1 or 4 500GB drives set in Raid
 10
 - Backups: 500gb drive
- Operating System: Microsoft Windows Server 2012 or higher; 64-bit

If there are remote users, you must also set up a terminal server. (see below)

8+ Stations/Properties and 30-120 users

Multiple servers are required.

Database server

- Dedicated to WO Media Sales usage
- Database Engine: SQL Server 2012 or higher
- Processor: Dual Quad-Core CPU, 3.5GHz or better
- RAM: 64 GB of RAM minimum
- Hard drives:
 - o O/S: 2 100gb drives in Raid 1
 - o Data: 2 500GB drives in Raid 1 or 4 500GB drives in Raid 10
 - o TempDB: 2 100gb SSD drives in Raid 1
 - o Backups: 500GB drive
- Operating System: Microsoft Windows Server 2012 or higher; 64-bit

Application server

- Dedicated to WO Media Sales usage
- Processor: Quad-Core CPU, 2.2GHz or better
- RAM: 16 GB of RAM minimum
- Hard drives:
 - Minimum:
 - O/S: 100GB drive
 - o Application: 500GB drive
 - o Preferred:
 - o O/S: 2 100gb SSD drives in Raid 1
 - Application: 2 500GB drives in Raid 1
- Operating System: Microsoft Windows Server 2012 or higher; 64-bit

Terminal servers for remote users:

- One Remote Desktop Server for every 50-60 users.
 - Server can scale above 50-60 users but will require additional CPU cores and RAM (200mb RAM per user)
- Operating System: Microsoft Windows Server 2012 Standard or higher; 64-bit
- Processor: Quad-Core CPU, 2.7GHz or better
- RAM: 32gb RAM minimum
- Drive: 120GB drive (single partition)
 - WOMS application takes up 500mb drive space.

- Dedicated to WO Media Sales usage
- Access to DB Server, Application server as well as the WO Traffic Application Server if needed.
- Microsoft documentation: https://docs.microsoft.com/en-us/windows-server/administration/performance-tuning/role/remote-desktop/session-hosts

User Workstation Hardware & Software Recommendations

MINIMUM WORKSTATION REQUIREMENTS:

- Operating System: Windows 10*, Windows 8, or Windows 7
- Processor: 1.8 GHz CPU (dual-core 2.4 GHz for WO Traffic users)
- Memory: 8GB RAM minimum
- Stable internet connection

Note: WO Traffic has higher minimum workstation requirements. Users running both WO Traffic and WO Media Sales should consult the current Hardware and Software Requirements document for WO Traffic.

- Users must have Administrative Access to initially install *WO Media Sales* software. Administrative Access may also be required for major version releases/upgrades.
- User Access Control (UAC) must be disabled to initially install *WO Media Sales* and may also be necessary in some cases to screen-share with support.
- Our system is not compatible with the Mac operating system. However, Macs that have a Remote
 Desktop Connection program installed with compatible hardware should be able to remote to
 Windows Servers that have Terminal Services installed. In this scenario, users would be able to
 access the WO Media Sales software remotely with the correct configuration.
- Surface Pro's require a specific version of WO Media Sales. Please enquire if necessary.

Requirements for all Servers and Workstations

Printing Requirements

A local printer or printer driver must be installed. For remote users, there may be latency when printing locally.

^{*}Display issues may occur if the font is set to anything other than small

Network Requirements

Workstation:

- Access to port(s)
 - o TCP port 6341 (DB server only if Firebird is used)
 - o TCP port 1433 (DB server only if SQL is used)
 - HTTP port 8098 (Application server only)
- 100/1000 Mbps supported
- The software does not currently support running directly over VPN or WAN connections. Approved remote connectivity is via Citrix or Terminal Services.

Server:

- Windows Networking; Connected via 100 Mbps or greater switched network
- Static IP addresses
- Ports that need to be open on all servers:
 - TCP port 3389 (Remote Desktop)
 - TCP port 6341 (DB server only if Firebird is used)
 - TCP port 1433 (DB server only if SQL is used)
 - HTTP port 8098 (Application server only)

Email Requirements

An SMTP server that allows relaying for the WideOrbit servers.

Virus Checking Policy

If Anti-Virus software is used, the software must have the ability to set exclusions. For those clients who have enabled real-time virus scanning, please exclude the following directories from your scans on both servers and workstations:

X:\Data

X:\Program Files\OneDomain

X:\ProgramData\WideOrbit

X:\ProgramData\OneDomain

These directories should still be included in nightly or weekly scans but NOT real-time scans. Including these directories in real-time scans causes dramatically reduced system performance and, in some cases, system lockups and freezes.

Permissions

Shared Folders and User Rights

During initial installation, a folder named ODIShared will be created, which contains data. This folder will be shared over the network with Local Authenticated Users. Users will need full rights to that folder and the following folders on their local machine:

• C:\ProgramData\OneDomain

Please note: The WideOrbit-assigned Windows account used for remote server administration and support must have "Log on as a Service" rights in the group policy.

Trusted Web Sites

Access to these sites should never be limited, as they must communicate with *WO Media Sales* for updates, data, and backups.

- *.odi-files.com
- *.odi-internal.com
- *.onedomain.com
- *.odi-goldengate.com
- *.odi-office.com
- *.share.wideorbit.com
- *ris.womediasales.com

Backups

Clients are responsible for ensuring that reliable backups of *WO Media Sales* databases are performed regularly. Backups should be performed to any removable medium such as an external hard disk. Clients may also wish to consider backing up to another disk drive on the same or other servers within the network for faster recovery in the event the primary disk drive is lost. To enable a rapid restoration to full productivity, it can be valuable to backup other data, programs, or files critical to the efficient operation of the *WO Media Sales* application.

Databases that should be backed up:

- ONEDOMAIN
- NSIOVERNIGHTS
- ONEDOMAIN_SOX

WideOrbit's Professional Services team can assist with planning, data replication, and disaster recovery. For more information, please contact your WideOrbit Account Manager.

Windows Updates

It is the client's responsibility to make sure all servers and workstations are patched with the latest Microsoft updates. When patches are not applied, users will experience degraded performance, especially when terminal servers are in use.

Periodic Database Script Updates

From time to time, database scripts need to be written to apply necessary changes to the environments. We post these scripts to our secure website. Our services on your application server will check the secure site for scripts and download and execute them as needed.

For questions or concerns regarding the information in this document, please contact:

WO Media Sales Support: sales-support@wideorbit.com 415.675.6775, option 2,1 8:00 AM – 8:30 PM ET