Worldox Technical and Enterprise Requirements

2020

Worldox Overview

World Software Corporation has been developing their innovative Worldox Document Management System (DMS) since the company was founded in 1988.

With more than 6000 clients in a variety of business sectors – and hundreds of thousands of end-user licenses issued– the Worldox product line is mature and feature-rich. Our philosophy has always been to develop affordable, easy- to-use, and easy-to-maintain DMS solutions with world-class technical support. Judging by market acceptance and brand loyalty, this approach is working for our customers.

The most recent version of Worldox—GX4—not only takes the core software and feature set to a new level, but also addresses key mobility issues affecting remote offices and remote workers.

For more information, please see the *Worldox Deployment Options and Security White Paper*.

Worldox Deployment Options

With this remote-hosting model, *Worldox* is now one product with three different deployment options. Here's a look at how they compare:

- **Worldox Professional**

  Our desktop version - the familiar client/server approach, with Worldox installed on the users' local computers. All Worldox-managed documents are located on one or more networked servers. This is the traditional Worldox deployment method.

- **Worldox Enterprise**

  Enterprise is for larger firms, with multiple locations or high demand for remote access. Enterprise takes advantage of Microsoft's Published App technology and extends it to a new level. The Worldox Enterprise Server architecture allows the Worldox published application to have full communication with their local applications, including MS Office, Outlook and third-party integrations such as case management software.

- **Worldox Cloud**

  The SaaS-hosted cloud: in this model, documents are hosted and managed in our data center. Users have the same rich Worldox experience, regardless of where they are located, for a modest monthly fee.

All deployment models may also deploy a companion product, Worldox Web.

- **Worldox Web** is a companion product to all of the above deployment models. Its purpose is to provide remote access to Worldox documents via a web browser, the Worldox Web Integration Agent or iOS app. It can be set up in a Customer's environment or with Worldox hosting the web interface.

Worldox Technical Requirements

Worldox Professional Requirements

Worldox and Related Technical Requirements

The Worldox Document Management System is installed directly on the computer that you are using as your file server. You will also need to designate a separate workstation-class machine as the Profile and Text Indexer.

File Server Requirements for Worldox

Worldox does not require a dedicated file server. While mapped drives are still supported, using a UNC path is a best practice. It simply needs one (or more) file shares accessible via UNC path with sufficient disk space to hold the documents and the associated databases at each office. (For details about UNC paths, see the Worldox document, *Switching from a Network Drive Installation to a UNC Installation*.)

The Worldox database overhead is approximately 25-35% of the profiled documents. For example, for every 100 MB of documents, Worldox may use up to an additional 35 MB to store and index associated profiles and text.

The Worldox databases must reside on the same resource (share) as the documents. World Software recommends setting aside enough free disk space per managed resource to maintain at least five (5) years of additional documents.

For Microsoft Active Directory integration (Optional) Worldox requires MS Server 2012 R2 or higher. 8.3 filename support is recommended but not required with GX4. For information about SMB support, please see our SMB White Paper available to customers in the Worldox Knowledgebase.

Profile/Text Indexer Workstation Requirements for Worldox

Worldox requires at least one Profile/Text indexer PC per office. Worldox indexers are standard workstation-class PCs. Their local disk requirements are for temporary space only; no permanent data is stored on an indexer. Most of today's off-the-shelf workstations are sufficient to serve as an indexer.

The most indexers one can have would be one per Cabinet provided the Cabinets are on different resources. You can only have one indexer servicing one database at one time. The maximum number of physical indexers you might have would be one per resource. However, using one indexer for all resources really depends upon the size of your data.

Important Note: Your database builds and update times correlate directly to the speed and resources of your indexer PC. If you have large data sets, Worldox Software recommends utilizing a more powerful PC for indexing.

Minimum recommended Profile/Text Indexer workstation specifications are:

- Processor: Core 2 Duo (or higher). A faster processor as well as a multi-core processor will provide maximum performance.
- Memory: 4 Gig of RAM Min
- Operating System: Microsoft Windows 8.1 or 10
- Software: Microsoft Outlook 2013 or 2016 Mail client to allow for email indexing
- Free Local Disk Space: At least 50% of the disk size of the documents being indexed.
- Network Connection: 1 Gbps recommended.

Worldox Indexer as a Service (IaaS) Port

By default, the indexer Service uses port 5009. This port can be changed in the WDCSUSER.INI file located in the Worldox program folder. Change it in the existing [WDINDEX] section.

Workstation Requirements for Worldox Client Software

Worldox will run on virtually any PC that can run Windows 10, 8.1 (Desktop Mode), or newer OS. (Home version OSs are not supported.) Worldox uses around 500 MB of local disk for application and temporary files. Please note the minimum workstation specifications for acceptable performance:

- Processor: Core 2 Duo (or higher)
- Operating System: Microsoft Windows 8.1 or 10
- Memory: Min 4 Gig of RAM or higher

Requirements for Worldox Web 3.0

Worldox Web 3.0 offers access to your firm's documents from a browser. While Worldox Web 3.0 is the companion to GX4, you must use WDU14 code or higher to install Web 3.0. It requires the following infrastructure:

- For the IIS Server, Windows Server 2012 R2 64-bit, 2016 64-bit and 2019 64-bit
- Full time broadband Internet connection
- Static IP address with a corresponding hostname
- Windows 10 (64-bit is required) workstation to serve as a Worldox Proxy Server.

Worldox Web 3.0 Ports

- TCP Port 443 needs to be open for incoming to the Primary Server (If you are not using SSL, this would be port 80, but of course this is not recommended.)
- TCP Port 5007 must be open for incoming to the Primary Server from the Proxy Server.

Worldox Email Engine Requirements

This module was introduced in GX4 with the WDU 14 code update. It is optional and available to active maintenance customers at no charge after they apply the WDU 14 code update. It provides enhanced email capabilities to accommodate the increasing number of messages people receive. This module allows the linking of existing or new folders created in Microsoft Outlook to either Copy or Move the content into Worldox.

The Worldox Email Engine has two components, each with its own system requirements.

Email Service Exchange Agent:
- Windows 10, <u>64-bit only</u>
- .NET Framework 4.7
- Worldox Client installed on Email Service Exchange Agent machine
- Exchange 2013 CU17 or Exchange 2016 CU6, both with EWS

Email Service User Workstation Agent: (All Worldox Users)
- Windows 10, 32-bit or 64-bit OS
- .NET Framework 4.7
- Outlook 2013 32-bit or Outlook 2016, 365 or 2019 32-bit or 64-bit

The Worldox E-Mail Agent is compatible with both on-premises installations of Microsoft Exchange and Exchange hosted Online.

Worldox Enterprise Technical Requirements[1]

- Microsoft Windows Server 2012R2/2016/2019 (Remote Desktop Services) with sufficient Remote Desktop CAL's for the Enterprise users. For large environments, multiple servers are recommended for load balancing and redundancy. These can be virtual machines.
- Worldox Enterprise Client and Server Licenses for the Enterprise users.
- Server or VM for Worldox Enterprise Server software. Please note that the requirements below are for the RDS infrastructure and do not include the Worldox Enterprise Server.

Aside from the specific hardware and software requirements listed below, there is one other essential pre-condition for running *Worldox Enterprise*. **You must currently be running *Worldox Professional*.**

- If your site has earlier Worldox version installed, the first step is to upgrade to *Worldox GX4 Professional*.

- If you are a new customer, you need to install *Worldox Professional* first, and then install *Worldox Enterprise*.

Remote Desktop Servers

Worldox Enterprise can be deployed on Microsoft Windows Server 2012R2/2016/2019. Functionally, these deployments are identical, however there are different considerations for each.

Microsoft Windows Server 2012R2/2016/2019

---

[1] Configuration varies depending on number of users and document volume.

> **REQ:** You can refer to *Sample Scenarios* for more information. However, during your site survey phone call, your Enterprise installation technician will be able to confirm requirements specifically needed for your site.
>
> A Microsoft Remote Desktop CAL for each user or device connecting to Enterprise
>
> A VPN can be used instead of the Domain wildcard certificate. If not using a VPN, a Domain wildcard certificate from a public certification authority is required if users will be connecting in via the Internet.

How Many Remote Desktop Servers Are Needed?

There is no one best answer, as that depends on a complex interaction of hardware capabilities, expected usage patterns and requirements for redundancy and uninterrupted access to Worldox.

As best practice, we recommend:

- Use dedicated servers (machines or virtual) for *Worldox Enterprise*.

- Plan for redundancy; use multiple servers even in low usage, few user scenarios.

Note: While we recommend multiple servers for redundancy, we defer to Microsoft for specific site planning. For more information, please visit:

https://docs.microsoft.com/en-us/windows-server/remote/remote-desktop-services/welcome-to-rds

- When anticipating higher use levels and many users, split the server load to multiple servers *AND* have at least one backup server on hand.

Factors to consider:

1. Total number of users expected to access *Worldox Enterprise*

2. Maximum number of *Worldox Enterprise* users expected at peak load times

3. Access strategy: Will *Worldox Enterprise* be used as a secondary, remote access point for users – from home offices, at client sites, on the road – or will *Enterprise* be the primary Worldox access from all points?

4. Server specifications, capacity, configuration

5. Need for uninterrupted access; if your sole Worldox Remote Desktop Server goes down, what is the impact? If one of multiple Worldox Remote Desktop Servers goes down, can the remaining server(s) handle the load?

Sample Scenarios

Please note that the requirements below are for the RDS infrastructure and do not include the Worldox Enterprise Server, the requirements for which are listed below.

	Conditions	Servers	Detail
A	▪ **5 Worldox users** ▪ Enterprise provides partial access to Worldox, supplementing local network access.	1 or 2	One dedicated Session Host is sufficient to handle the load. To add redundancy and a safety factor, add a second Session Host.
B	▪ **18 Worldox users** ▪ Enterprise provides partial access to Worldox, supplementing local network access.	2	One dedicated Session Host *MAY BE* sufficient to handle the load. To add capacity, add a second server. That second server also serves as backup, adding redundancy and a safety factor.
C	▪ **18 Worldox users** ▪ Enterprise is the sole access point to Worldox.	2 or 3	One dedicated Session Host *MAY NOT BE* sufficient to handle the load. To add capacity, add a second server. That second server also serves as backup, adding redundancy and a safety factor. Given expected higher loads, consider adding a third server.
D	▪ **35 Worldox users** ▪ Mixed access: Enterprise is the sole access point to Worldox for some users and offers remote access to all users.	3	Two dedicated Session Hosts *MAY BE* sufficient to handle the load. To add capacity, add a third server. That third server also serves as backup, adding redundancy and a safety factor.

Dedicated WDSERVER Machine

REQ:	One, dedicated machine (workstation class for small deployments): ▪ Running Windows 10 or a supported Windows Server OS ▪ Minimum 4 gigs RAM ▪ Multi-core processor

Client Machines – WDSAAS Workstations

REQ:	For each workstation: ▪ Running Windows 10 or newer OS ▪ Minimum RAM: 4-6GB ▪ Remote Desktop Client v.7 minimum

Firewall

REQ:	Microsoft Windows Server 2012R2/2016/2019: On the firewall, make sure port 443 is open and routing to the internal IP of the machine that will be designated as the Remote Desktop Gateway. Depending on setup, the gateway role and all other Remote Desktop Services may be on a single machine or split between multiple. Example Hostname to use (ts.domain.com). Please contact Worldox Technical support for clarification on the optimal layout for your given application.
REQ:	If using an SSL certificate, on the Firewall make sure you have Port 5010 open and routing to the internal IP of the WDSERVER machine. If the site is large, also add Port 5011. Example Hostname to use (wdserver.domain.com).
REQ:	The WDSERVER should be able to access port 80 and port 21 for code updates. If necessary, these ports can be limited to accessing the following URLs: wdcrs.wdsaas.com, wdserver.worldox.com, wdserver2.worldox.com.

Bandwidth

REQ:	*Minimum* 1Mbps per user upload *and* download speeds

Consider that bandwidth requirement as a bare minimum. It might be enough at a small office, where *Worldox Enterprise* is used as a secondary, remote access point for users. That bandwidth may not be nearly enough in larger offices with more users and more activity in addition to *Worldox Enterpris*e.

It is difficult to state bandwidth requirements, as what will be an acceptable or optimal at your site depends on a complex interaction of factors, not all strictly Worldox-related:

1. Communication hardware, capacity and configuration used

2. Total number of users, all applications

3. Number of users expected to access *Worldox Enterprise*

4. Number of *Worldox Enterprise* users expected at peak load times

5. Total volume of traffic now (all applications, not including Worldox) at your site, average and peak load

6. Expected DMS usage patterns … will most users be uploading/downloading documents frequently?

7. Average file size of Worldox-managed documents

8. Is this connection also used for video conferencing?

In terms of bandwidth, there are few helpful guidelines available. Microsoft recommends that 128kb be reserved for each user on remote access. However, that recommendation covers screen transfers only. Bandwidth required for *Worldox Enterprise* would clearly have to be much higher, given that Worldox sends and receives much more than just screen data.

So here, our best practice recommendation is simple. Get more bandwidth than you think you need – as much as you can afford. Extra capacity affects speed, which directly correlates to workflow efficiency and user satisfaction.

The Evolution of Worldox Enterprise

Worldox Enterprise takes the core Worldox software and feature set to a new level, at the same time addressing key mobility issues affecting remote offices and remote workers.

With an increasingly mobile workforce and satellite offices more prevalent now than in past years, traditional IT solutions may no longer be good enough. Remote workers expect the same tool set and user experience on the road as they have back in the home office. They also expect speed, virtually instant access and transparent operation.

To some extent, Citrix and the Microsoft remote desktops serve these needs well, offering solutions that allow users to gain access to their full desktops while working from out-of-office locations.

A Critique of Traditional Remote Solutions

Many firms take advantage of these traditional remote solutions. They do work, but are not always ideal:

- The Citrix solution is costly to purchase and maintain.

- All necessary applications must work in the Citrix or MS remote desktop environment, as the published desktop does not allow interaction with locally installed applications.

Another option is web browser-based products which remotely access your documents with Internet interfaces. In fact, our own Worldox Web/Mobile is one such product.

However, browser-based solutions typically offer limited feature sets in comparison to the full desktop products. Also, because of web and HTML limitations, the interface (front-end user experience) is

inherently different and less user-friendly than what users experience in the best desktop applications. All of these factors mean that additional training is required to use the web system, and that business done from remote locations must be done differently than when in the office.

If data access alone is the key requirement, these traditional solutions are more than adequate. However, if workflow efficiency, speed and ease-of-use are priorities, these choices are not good enough. In effect, your remote work force pays significant penalties to use the available tools. Given the heavy use a DMS receives, these shortcomings are unacceptable.

A New Approach

The new idea is quite simple. Citrix and Microsoft utilize the ability to publish single applications over a remote connection. How would Worldox work as a published app? As it turns out very well, but for that same "firewalled-off" interaction mentioned above regarding Citrix and Microsoft operations. Local applications – your local copy of Microsoft Word for example – can neither see nor communicate with this "published" Worldox application. As a result, Worldox would not know about File/Open, Save or Save As actions in Office applications, which means it would no longer function as a core DMS system.

The Enterprise (and Cloud) solution

The solution to local application integration is both simple and revolutionary– our patent-pending communication architecture called "WDSAAS". It features a client-server communication application which allows all locally installed applications to have full communication with the published version of Worldox hosted on a remote server.

The result is that Worldox looks and feels the same, whether used locally or via remote hosting, either in your data center or off-site. To remote workers, it means transparency – one Worldox that always works as expected at the office, in the home office, satellite office or anywhere on the road.

The bonus is that there is no new Worldox version to learn for remote access. It's the same Worldox interface users experience in the home office. That means *no learning curve*.

Worldox Cloud Requirements

- Personal computer or laptop with sufficient memory and speed to run common applications such as Microsoft Office.
- Installed applications suites for daily use such as MS Office.
- A high-speed internet connection with backup connection is recommended.

Worldox Cloud Ports

For Worldox Cloud, no incoming ports are required. However, the following ports are required for outgoing:

- TCP Port 5010 through 5020
- TCP Port 5006
- TCP Port 443

Considerations for both Enterprise and Cloud Deployment Methods

As your documents reside on the server (not locally), a high-speed internet or WAN connection is required. In addition, a backup internet connection is recommended.

Documentation Resources

You can access the latest versions of Worldox installation, administration and user guides by clicking the **Documentation** link on the Worldox Knowledge Base.

https://knowledgebase.worldox.com/

You can register for an account from the main page and World Software will email you a password to gain access.

For more information

For details about Worldox products, please call our Sales Department at (800) 962-6360 or send email to: sales@worldox.com

World Software Corporation

266 Harristown Road, Suite 201
Glen Rock, NJ 07452
201-444-3228