



Best Practices Guide

On-Premise Deployment

Ver 5.0 (11 APR 2024)



Primary Server Requirements

Deployments for under 1,000 concurrent users can be hosted on one all-inclusive server, in most cases. CPU and system memory should be provisioned based on the expected number of concurrent monitored sessions, according to the following table:

Concurrent Users*	Server Requirements	CPU/RAM Requirements
Up to 100	1 Teramind Master Server (VM)	<ul style="list-style-type: none"> CPU: 4 cores RAM: 8 GB
Up to 500	1 Teramind Master Server (VM)	<ul style="list-style-type: none"> CPU: 8 cores RAM: 16 GB
Up to 1,000	1 Teramind Master Server (VM)	<ul style="list-style-type: none"> CPU: 16 cores RAM: 24 GB
Larger deployments: 1,000 or more concurrent users	1 Teramind Master Server (VM)	<ul style="list-style-type: none"> CPU: 16 cores RAM: 32 GB
	1 Teramind App Server (VM) per 1,000 concurrent users	<ul style="list-style-type: none"> CPU: 16 cores RAM: 24 GB
	1 Teramind BI Server (VM)	<ul style="list-style-type: none"> CPU: 16 cores RAM: 32 GB

*The requirements are applicable for a typical user who works on a single computer with Full HD (1920x1080) screen resolution, doing regular office work. If the users have multiple screens, higher-resolution screens, or have an unusual work pattern (e.g., watching many videos) then the requirements will be higher.

OCR Server Requirements



You need to set up at least one OCR Database Node and one Mining Node for the OCR features to work.




No of Users*	Server Requirements	CPU/RAM Requirements
Less than 200 users	1 OCR Database Node	<ul style="list-style-type: none"> CPU: 4 cores RAM: 8 GB Disk: 100 GB
	1 OCR Mining Node	<ul style="list-style-type: none"> CPU: 16 cores RAM: 16 GB Disk: 50 GB or more
Larger deployments of 200 or more users	1 OCR Database Node	<ul style="list-style-type: none"> CPU: 4 cores RAM: 8 GB Disk: 100 GB
	1 OCR Mining Node per 200 users	<ul style="list-style-type: none"> CPU: 16 cores RAM: 16 GB Disk: 50 GB or more

*The requirements are applicable for a typical user who works on a single computer with Full HD (1920x1080) screen resolution, doing regular office work. If the users have multiple screens, higher-resolution screens, or have an unusual work pattern (e.g., watching many videos) then the requirements will be higher.



You will need to adjust the disk size as you add or remove video recordings over time. See the [Storage Requirements](#) section below for more information.

Storage Requirements

<p>Primary Storage</p>	<p>The Teramind virtual appliance comes with a primary volume of 100 GB. This volume contains the Teramind server application and database. The size of this volume can be increased at a later point in time.</p> <p> Teramind requires the primary volume to be on SSD or equivalently fast storage for deployments above 500 users.</p> <p> BI Classifications needs about 5GB of disk space plus additional disk space equivalent to about 20% of your current DB size. So for example, if you have a database of 100GB the BI deployment will need 20GB+5GB = 25GB space. Check out this KB article to learn how to update your BI classifications.</p>
<p>Storage for Screen Recordings</p>	<p>The simplest way to add storage is from your hypervisor, by simply adding a second volume. If you use Hyper-V, this volume should be a VHDX format (not VHD).</p> <p>Once adding a second volume, additional steps outlined in this article can be followed to finish provisioning a recording volume.</p> <p>You can also use a NAS or any filesystem over NFS. You can contact us for configuration detail.</p> <p> A NAS over NFS is mandatory if you have a multi-server deployment (a deployment that has more than one Teramind App Server). For help with setting up a NAS check out this article on our Knowledge Base.</p> <p>The size of this second volume can be estimated based on the number of sessions that will be recorded. Teramind uses approximately 1.5 GB per 160 hours of screen recording. This can vary due to multiple factors such as number of screens, resolution, framerate, color mode, if audio recording is enabled or not, user's activity level, etc.</p> <p>You can adjust retention policies and recording preferences in the monitoring settings to reduce the storage requirement.</p> <p>This storage is low-access and can be on magnetic / non-SSD media.</p>



To learn how to attach, mount and expand recording volumes please check out [this article](#) on our Knowledge Base.

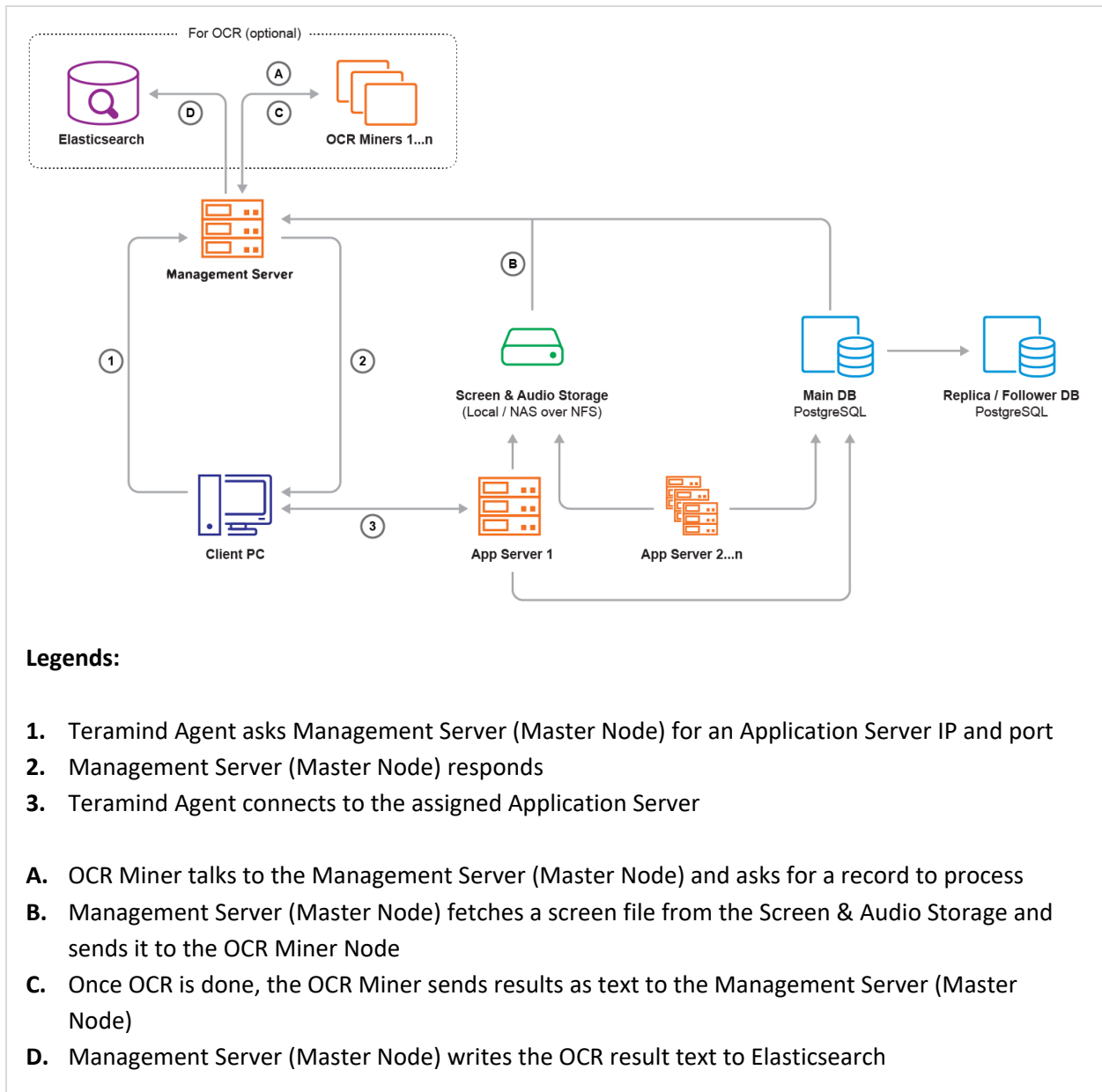
Agent Requirements

Supported Platforms	<ul style="list-style-type: none">• Microsoft Windows 8 and up (64-bit)• Microsoft Windows Server 2012 and up• macOS 14 (Sonoma), macOS 13 (Ventura), macOS 12 (Monterey), macOS 11 (Big Sur), macOS 10.15 (Catalina) and macOS 10.14 (Mojave) * <p><i>* At the moment, Teramind on Mac has limited functionalities. Check out what features are currently supported here.</i></p>
Sessions	<ul style="list-style-type: none">• Stand-alone workstation / server• Terminal server (RDS) *• Application / Session server• Citrix• VMware Horizon <p><i>* Ideally, terminal servers should have a maximum of about 30 users or less depending on the number of screens and monitoring settings. Otherwise, you may have performance impact.</i></p>
Load	Approximately 30 MB - 50 MB memory and 1-3% CPU utilization, depending on user activity.
Visibility	Hidden or revealed desktop agents available.
Deployment	<ul style="list-style-type: none">• Silent MSI• Deployment via Group Policy or SCCM• Dashboard-based silent remote installer
Bandwidth	Approximately 10 KB/s - 20 KB/s upstream depending on user activity level & number of screens. You can configure how much bandwidth is used and when from the settings.
Offline Storage	Teramind features offline recording on the Silent/Hidden Agent. This means that in case of network downtime, the agent will save all data locally, and continue to enforce policy. Once connection is re-established, the agent will upload the data to the server at a throttled pace. The offline storage buffer is configurable in monitoring settings.



Detailed agent specifications can be found on our Knowledge Base [here](#).

Architecture



The **Management Server** (Master Node) serves the admin dashboard, load balances agents, and provides data to the OCR Miner Nodes. Teramind Agent connects to an **Application Server** via an always-on, TLS-encrypted connection, using our own protocol based on Google Protocol Buffers. **OCR Miners** are stateless and work with spot instances.

Contact us at support@teramind.co.