PROXY Pro Server
Installation Guide

Release 11.0 Series

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PROXY Pro Server Overview

The PROXY Pro Server is part of the PROXY Pro RAS Edition of the PROXY Pro Remote Desktop solution from Proxy Networks, Inc. This includes the following individual components:

- PROXY Pro Gateway Server (GWS)
- PROXY Pro Authentication Manager (AM)
- PROXY Pro Web Console (WC)
- PROXY Pro Terminal Client (TC)

These individual components are commonly installed on the same machine as part of the bundle installer. However, it is possible to separate some of these components onto different servers. It is important to note that all 4 of these components share a SQL database. The SQL instance can also be installed on the same server using the bundle installer, which offers to install SQL Express, or you can specify an existing off-box SQL instance instead during the installation. In all configurations, all components must have access to the SQL database in order to function properly. For complete instructions on how to go about de-coupling the components, please see our guide on https://www.proxynetworks.com/documentation.

PROXY Pro Gateway Server (GWS)

The Pro Gateway Server (GWS) is the component that acts as a hub and connection broker between Masters and Hosts. It serves as a central point of security management for remote access activities and facilitates such things as off-LAN access, many-to-one connections, Wake on LAN, screen recording, and more.

PROXY Pro Authentication Manager (AM)

The PROXY Pro Authentication Manager (AM) is the authentication service for the PROXY Pro Server. It manages authentication using Windows accounts by default and can be configured to integrate with EntraID (formerly Azure Active Directory) identity services. (This was previously known as PROXY Pro Identity Manager in v10.X; the name was changed to better reflect the functionality.)

PROXY Pro Web Console (WC)

The PROXY Pro Web Console (WC) provides browser-based management and administration of the Gateway server. This includes the importing of Windows users and groups, the specification of security for managed Hosts, initiation of clientless remote control connections right from the browser, initiation of recordings, central audit logging etc. The Host on Demand is also launched from the landing page of the Web Console initiated when clicking the SHARE button.

PROXY Pro Terminal Client (TC)

The PROXY Pro Terminal Client (TC) is new in v11, and provides browser-based Remote Terminal client support. Users connecting for Remote Terminal in Web Console are seamlessly redirected to this service.

PROXY Pro Server Requirements

The following sections describe requirements and prerequisites for installing and running the PROXY Pro Server:

Minimum Server Hardware Recommendation

The following section describes minimum recommended specifications for the hardware needed to install the PROXY Pro Server. There are a couple of assumptions made when coming up with these recommendations:

1) The chart below assumes all PROXY Server components (GWS, WC, TC, and AM), along with the SQL instance are installed on the same machine.

2) Although the chart below is sizing based on the number of managed Hosts, we assume a relationship to the number of concurrent support sessions.

Scenario	Server Hardware Requirements
Up to 100 Hosts / **(4 support sessions)**	• 2 cores CPU at 2 GHz or faster • 4 GB RAM or more
Up to 1000 Hosts / **(20 support sessions)**	• 4 cores CPU at 2 GHz or faster • 8 GB RAM or more
Up to 5000 Hosts / **(60 support sessions)**	• 8 cores CPU at 2 Ghz or faster • 12 GB RAM or more
Up to 10,000 Hosts / **(100 support sessions)**	• 12 cores CPU at 2 Ghz or faster • 16 GB RAM or more

Server Operating System Requirements

The server components are supported on the following operating systems:

- Microsoft Windows Server 2016 (any edition)
- Microsoft Windows Server 2019 (any edition)
- Microsoft Windows Server 2022 (any edition)
- Microsoft Windows Server 2025 (any edition)

NOTE: PROXY Pro v10.5 Hotfix #1 and later supports installing on "Windows Server Core", also known as "Windows Server (without Desktop Experience)". Previous releases attempted to install components that are not supported on that Server edition.

NOTE: Web Console installation is not supported on a Windows Domain Controller and should not be installed on a machine that also runs Windows Server Update Services (WSUS).

Server Database Requirements

Microsoft SQL Server 2016 or later (any edition) is supported. Note that the bundle installer will offer to install SQL Server Express on the server machine. Optionally you can point to an off-box SQL Server instance.

PROXY Pro Server Installation

The installation process of PROXY Pro Server is driven by a single "bundled" installer, which allows installing all components on a single machine easily. If you intend to install components across multiple servers, it is possible to do so by using the advanced mode options of the installer.

Fresh Install vs. Upgrade

Version 11 of the PROXY Pro server software supports upgrading from any PROXY Pro server v10.X installation. The Server components cannot be upgraded from PROXY Pro v9.

Account Performing the Install

The account used to perform this installation needs to be a machine administrator in order to install the software and a Domain Administrator to set the SPNs correctly. If SPNs are not established at install time, a domain administrator can fix them later by running the CheckSPNs tool on the Gateway Server machine. This account should be designated a SQL administrator as well if you choose to install to an off-box SQL Server.

Service Accounts Specified/Created During the Install

The accounts specified during the installation process for the various PROXY services should be domain accounts but should not have administrative rights. These services were specifically designed to run with a minimal set of privileges and do not require administrative privileges to function properly. For security purposes, we recommend that the Console and Gateway Server accounts be separate accounts and not used for anything else. The default account names used will be DOMAIN\RemoteControlConsole, used by the Web Console, Terminal Client and Authentication Manager, and DOMAIN\RemoteControlGateway, used by the Gateway service.

Domain/Non-Domain and Multi-Server Install Options

We support both domain and non-domain installation of the server. When installing in a domain environment, it's recommend that the service accounts be "Domain Users", but machine-local accounts (as members of "Users") can be used as well.

The PROXY Pro software components can be installed on a single machine or spread across up to 3 machines: (off-box SQL, Gateway Server, web applications WC, TC, and AM).

The web applications Web Console (WC), Terminal Client (TC) and Authentication Manager (AM) must be installed on the same machine. The Gateway Server (GWS) can be optionally put on a separate machine, and the SQL Server should either be a separate machine managed by your DBA, or you can use SQL Express on the same machine as the web applications.

NOTE*:* Although you can choose to point to an existing off-box SQL Instance, manual database creation of the PROXY database is not recommended. However, "Advanced Installation" can be run to set up the database only. Once the database is setup, log files can be moved as appropriate by your DBA.

Redistributables Needed for Installation

The provided installation folder contains the PROXY Pro installers and redistributable components that you are most likely to need. Optional components, specifically the .NET Framework 4.8 and SQL Server 2019 Express, are not included in the main distribution. These components are automatically downloaded if needed at installation time.

If the machine you are installing on has no, or limited, internet connectivity, or if there are any concerns about downloading the redistributable software at installation time, a Redistributables.ZIP file is available from the PROXY Pro Downloads site (https://products.proxynetworks.com/downloads/). The contents of that ZIP can be placed in the "PROXYProServer" folder along with the required installers. If these files are present in the folder, they will be detected (by exact file size and file name) and the download will be skipped.

Installation Steps (for Quick / New Install)

Step	Actions
1	Begin installation by double-clicking on **PROXYProServerProducts.exe**
2	If .NET Framework v4.8 is not already installed, you will be prompted to install it, and then the system will prompt to reboot. After the restart, login as the same user, and the installation will resume. If Framework v4.8 is installed, this step does not occur.

3	Select "New Installation (quick mode)" You will have the option to choose between installing SQL Express locally on this machine or to use an existing database server. If a SQL instance named "SQLEXPRESS" already exists on the machine, the "Use existing…" option will be selected for you. If you select "Use existing…" you will be prompted for the instance name. You can also browse for it if you do not know what it is or it is not found by default. The default database name to be created is "RemoteControlGatewayDb". If SQL Express is installed, the user account doing the installation is given administrative rights on the SQL instance. When using an existing SQL instance, either Windows Authentication (as the console user) or SQL authentication is supported, and you will be prompted for these credentials.
4	Read and accept the license agreement.
5	Enter the user account information under which the Authentication Manager service will run (default account is RemoteControlConsole). If this account does not already exist, you will be prompted to create it. NOTE: A domain user account is recommended in a domain environment. If a local account is specified instead of a domain account, only local accounts can be imported to the Web Console's "Accounts" tab once installed. Utilizing a local service account will not be a problem if you plan to use EntraID or will not be importing local Active Directory accounts.
6	Enter the user account information under which the Web Console and Web Applications (Terminal Client) services will run (default account is RemoteControlConsole). If this account does not already exist, you will be prompted to create it.
7	Enter the user account information under which the Gateway Server service will run (default account is RemoteControlGateway). If this account does not already exist, you will be prompted to create it. NOTE: A domain user account is recommended in a domain environment. When using Host v10.4 or later, this is less important, as the Host <-> Gateway relationships should be the new "TLS Security" relationship. With older Hosts, or an untrusted SSL certificate, a machine local account will result in a "Shared Secret" relationship, whereas a domain account will result in "Windows Authentication" when available.
8	Enter the server license or select the 14 day trial. Note that PROXY v11 requires different license keys than the v10.X series did.
9	Enter the fully qualified domain name that will be used to access the PROXY Pro services on this machine. The AM requires that it be accessed by the same name (and port) both internally and externally if also exposed to the internet. That DNS name is what needs to be entered here and should match what is on the SSL certificate to be used on this server. The Web Console and Gateway Server can have different names and ports if desired, but this is an advanced configuration choice not handled by the "quick" installation.

10	Enter the ports that the Web Console (WC) and (optionally) the Gateway Server will be listening on. Note that it is possible to enter a 2nd port for the WC in the case that internal and external access require it (configured in IIS). The Gateway Server port enables and configures the SSL protocol, but this is not required as the Gateway Server can also be accessed via the WSS protocol on the Web Console port(s).
11	Select the SSL certificate to be used on this machine. This certificate will be selected in IIS for the WC, TC, and AM applications, and is also selected in the GWS. You must have a certificate to select in order to proceed. If a desired certificate is not listed, you can click on the "Launch Wizard" button to generate a new certificate or to import an existing certificate. We strongly recommend that you use a trusted SSL certificate – either from a trusted 3rd party of from a domain CA.
12	Select how you will access the On Demand applications (ClickOnce Master connection window, Host on Demand). A default will be chosen based on the certificate selected. If the certificate was a valid 3rd party trusted certificate, the URL will default to "Web Console Installation". If it was a self-signed certificate, the default will be to download these applications from the cloud. If you later install a 3rd party trusted certificate, you can change this setting in the WC - "On Demand Application Access".
13	Review summary action page and start the install process. One or more system restarts may be required to complete the installation; if so, simply restart the machine when prompted, log in as the same user, and the installation will continue.

PROXY Pro Server Configuration Check

PROXY v10 and later includes a new utility, Server Configuration Check, which is installed along with the Server product and is accessible on the Start menu. This utility does a basic sanity-check of the PROXY configuration and can update entries in the registry and SQL database for consistency and to ensure proper operation. It is recommended to use this utility to make changes like changing the server DNS name, changing IIS port bindings, and selecting a new SSL certificate. If changes like that are made manually (e.g., adjusting IIS port bindings in IIS Manager), you must run Server Configuration Check so that related entries PROXY needs to function properly get updated.

PROXY Pro Web Console Account Management

Each user account imported into your Web Console's **Accounts** tab will be designated as one of the following three account types: **Administrative** users, **Standard** users (previously known as **Master** users), or **Personal** users.

NOTE: The installation process automatically imports the "**BUILTIN\Administrators**" group (machine local Administrators) as an administrative category in the Web Console. Any member of that group can then import other users or groups.

- **Administrative Accounts** are users who are expected to have Full Control/Administration rights, including the ability to view & modify Gateway Server settings, configure access rights for all other users of the Standard and Personal account types, and run usage reports. A user of an administrative account type will see all tabs in the Web Console.

- **Standard Accounts** are users who will need day-to-day access to Host desktops for remote support and remote collaboration. Users of this account type typically do not have administration rights over the Gateway Server. They may be granted a broad level of access to Hosts and Groups, but will see only the Home, Hosts and Recordings tabs.

- **Personal Accounts** are users who log into Web Console for access to a specific Host computer – usually their desktop PC at the office. Personal Accounts are ideal for work-from-home and on-the-road employees, and for guest employees who need access to one and only one Host desktop.

Accounts can be imported, modified, or deleted by Administrative Account Users on the **Accounts** tab in the Web Console. Please see the "**PROXY Pro Web Console Operations Guide**" for more information.

Documentation

Documentation is available at:

- **PROXY Pro Web Console Operations Guide**: https://products.proxynetworks.com/docs/proxy/v110/wc/

- **PROXY Pro Host Guide**: https://products.proxynetworks.com/docs/proxy/v110/host/

- **PROXY Pro Master Guide**: https://products.proxynetworks.com/docs/proxy/v110/master/

- **PROXY Pro Deployment Tool Guide**: https://products.proxynetworks.com/docs/proxy/v110/pdt/

Additional Resources

For additional information on this and other topics, please visit our Documentation page at:
https://proxynetworks.com/documentation

Of particular interest for new installations are the documents:

- PROXY Pro RAS Admin User Quick Start Guide
- PROXY Pro RAS Azure Portal Setup
- PROXY Pro Host Settings Checklist
- PROXY Pro Host Settings Management Tips
- PROXY Pro Host Deployment Tool Quick Start Guide

Additionally, you can find video walk-thrus at
https://www.youtube.com/@Proxynetworks

Of particular interest for new installations are the videos:

- PROXY Pro RAS - First Time Setup Video:
  https://www.youtube.com/watch?v=-Z-Hs6oz5z0

- PROXY Pro Deployment Tool Walk-Through Video:
  https://youtube.com/watch?v=FuuDostjRo0