



PC-Duo Web Console Installation Guide

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This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (<http://www.openssl.org>), cryptographic software written by Eric Young (eay@cryptsoft.com), and compression software from the ZLIB project (<http://www.zlib.net/>).

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Scope of This Document

This document includes information about installing and initially configuring the PC-Duo Web Console.

For information about operating or changing configuration settings for the PC-Duo Web Console, please consult the *PC-Duo Web Console Operating Guide*.

For information about installing, configuring and operating the PC-Duo Gateway Server, please consult the *PC-Duo Gateway Administrator Guide*.

For information about installing, configuring and operating the PC-Duo Host application, please consult the *PC-Duo Host Guide*.

For information about installing, configuring and operating the standalone PC-Duo Master application, please consult the *PC-Duo Master Guide*.

For information about installing, configuring and operating the PC-Duo Deployment Tool for mass installation and configuration of the PC-Duo applications, particularly PC-Duo Host, please consult the *PC-Duo Deployment Tool Guide*.

PC-Duo Web Console Overview

PC-Duo Web Console is a component of the Enterprise Edition of the PC-Duo remote desktop solution. It is a web application that runs on Microsoft Internet Information Services (IIS) and works with the PC-Duo Gateway Server. It gives network administrators, IT managers, helpdesk professionals and authorized employees secure web-based access to remote PCs and servers in your corporate network.

The Web Console can be used in conjunction with or instead of the standalone PC-Duo Gateway Administrator and PC-Duo Master applications.

Preparing for Installation

The following sections describe requirements and prerequisites for installing and running the PC-Duo Web Console.

Server Hardware Requirements

The following section describes minimum and recommended specifications for the hardware needed to install and run the PC-Duo Web Console server application:

Scenario	Server Hardware Requirements
Minimum	1 x 2.0 GHz dual-core CPU 2 GB RAM 1024 x748 display
Recommended	2 x 2.0 GHz dual-core CPU 4+ GB RAM 1024 x748 display

Recommended hardware requirements are intended to support a typical PC-Duo environment with 1 to 5 Administrative and Master accounts, and up to 200 remote desktops. Larger environments will likely require even more powerful server hardware and/or multiple Web Console/Gateway Server installations.

Server Software Requirements

The following software must be installed on the server where you install PC-Duo Web Console:

Server Component	Server Software Requirements
OS	Microsoft Windows Server 2008 or Windows Server 2008 R2
Gateway	PC-Duo Gateway Server v12.1.2 or later
Web Console	PC-Duo Web Console v12.1.2 or later Microsoft .NET Framework 4.0 Full Profile Microsoft ASP.NET MVC 3
Database	Microsoft SQL Server Express 2008 R2 Microsoft Windows Installer 4.5 or later (required by SQL Server Express) Microsoft .NET Framework 3.5 SP1 (required by SQL Server Express)
Web Server	Microsoft IIS 7 configured with: ASP.NET Basic Authentication IIS Windows Authentication

IIS Management Console
HTTP Redirection
Static Content

Client Software Requirements

The following software must be installed on the machine used to access the PC-Duo Web Console:

Client	Client Requirements
OS	Windows 7 Windows Vista Windows XP
Web Browser	Internet Explorer 9.x Internet Explorer 8.x

NOTE: We do not support the installation of the PC-Duo Web Console on a server that also runs Windows Server Update Services (WSUS).

NOTE: We also do not support the installation of the PC-Duo Web Console on a domain controller.

Installing PC-Duo Gateway Server

The PC-Duo Gateway Server v12.1.2 (Gateway.msi) must be present and running on the same server as the PC-Duo Web Console (GatewayWeb.msi). You can install the Gateway Server or upgrade from a previous version.

NOTE: You can skip steps 2 and 3 if you are upgrading the Gateway Server from a previous version.

Step	Actions
1	Double-click Gateway.msi and install both the "Gateway Administrator" and "Gateway Server" components.
2	The Gateway Server runs as a Windows Service Account, and by default the account name will be "DOMAIN\RemoteControlGateway". The installer will create this domain account in Active Directory for you. If you are upgrading from a previous version, the account will not be created as it should already exist.
3	If you are not in an Active Directory domain environment, the Gateway Service Account must be created manually in Windows Computer Management. The account does not have to be a local Administrator, but it will require the "Log on as a Service" right. After creating the account, open Computer Management -> Local Security Options -> User Rights Assignment -> Log on as a Service.

Preparing to install the PC-Duo Web Console

PC-Duo Web Console requires several prerequisites to be in place, in addition to PC-Duo Gateway Server:

Step	Actions
1	Install all available Windows Updates on your Windows Server 2008 OS.
2	Confirm that Windows Update has installed .NET Framework v3.5 (SP1) and .NET Framework 4 Client Profile and Extended by checking "Programs and Features" in the Windows Control Panel.
3	Visit the following link to download and install the Microsoft Web Platform Installer: http://www.microsoft.com/web/downloads/platform.aspx .
4	Because SQL Server Express and other components are installed, we recommend upgrading from Windows Update to Microsoft Update.
5	Launch Web Platform Installer 3.0, click "Products" from the top-most section and then begin selecting the below components from the list of items: <ul style="list-style-type: none">• IIS: ASP.NET• IIS: Basic Authentication• IIS: Windows Authentication• IIS: Management Console• IIS: HTTP Redirection• IIS 7 Recommended Configuration• ASP.NET MVC 3 (Visual Studio 2010)• SQL Server 2008 R2 Management Studio Express with SP1• SQL Server Express 2008 R2

6	Click Install and agree to the list of dependencies.
7	Select Windows Integrated Authentication when prompted and click Continue
8	After installation, run the following commands in an elevated command prompt. This ensures that ASP.NET v4 is properly registered with Internet Information Services (IIS) <ul style="list-style-type: none"> • cd "C:\WINDOWS\Microsoft.NET\Framework\v4.0.30319" • aspnet_regiis -i

Configuring SQL Server Express 2008 R2

The next step is to configure the SQL database:

Step	Actions
1	Open SQL Server Management Studio and click Connect on the "Connect to Server" screen.
2	Right-click the server name in the "Object Explorer" pane and click Properties <ul style="list-style-type: none"> • If the server memory is less than 2GB, highlight Memory and assign 512MB for the "Max Server Memory" field. • If the server memory is greater than 2GB, highlight Memory and assign 1024MB for the "Max Server Memory" field.

Installing the PC-Duo Web Console

Step	Actions
1	Double-click GatewayWeb.msi to install the PC-Duo Web Console.
2	When prompted to select a database server, leave the default values as "(local)\SQLEXPRESS" and "Windows authentication credentials of current user" and click Next to continue the installation.
3	When prompted to select a web site authentication method, select one of the following: <ul style="list-style-type: none"> • Basic Authentication – Simplest and most compatible HTTP 1.0 authentication. • Integrated Windows Authentication – Microsoft NTLM or Kerberos V5 authentication for use in environments desiring Single Sign-On capability.
4	Click Next and then Install to continue the installation.
5	Click Finish . Internet Explorer will automatically launch and bring you directly to the PC-Duo Web Console's login prompt (<a href="https://<servername>">https://<servername>). Please read the following section before attempting to log in for the first time.

Logging into the PC-Duo Web Console

The user account credentials (domain\username and password) you supply to log into the PC-Duo Web Console for the first time must meet one of the following criteria:

- The local user account named "Administrator"
- A domain user account that is a member of the Local Administrators group
- A local account that is a member of the local Administrators group – but only if UAC (User Account Control) is disabled

The user account credentials you provide when logging into the Web Console for the first time will automatically become an Administrative account.

Note: If UAC is enabled, local machine accounts that are members of the Local Administrators group do not run as elevated users and therefore do not have the rights that are given to the Local Administrators group. For this reason local machine accounts should not be designated as Administrative account type when UAC is enabled.

Creating New Web Console Accounts

Follow the steps below to create new accounts in the Web Console.

Step	Actions
1	From the PC-Duo Web Console, click Accounts and then click Import New Account .
2	Select the location where the account resides. This is either the local computer name or the name of the domain if the computer is joined to a domain.
3	Enter the account name (or part of) to import.
4	Click CheckNames to verify the account or group name entered. If more than one account name, a list will be provided to choose from.
5	Click Next .
6	Select an account type for the user and click Next . <ul style="list-style-type: none">For an Administrative account, the account must meet the criteria specified above in the "Login" section.For a Master account, select a default Host Group that this account will be able to access (i.e. "All Hosts").For a Personal account, choose the single Host that this account will be able to access.
7	Click Save . New accounts will now appear on the Accounts page where they can be viewed or managed.

Overview and Setup of Web Console Accounts

Every account specified in the PC-Duo Web Console will be assigned one of the following three account types: Administrative users, Master users, or Personal users. This assignment happens *after* the user credentials have been authenticated by the Gateway Server, and so it considers the actual access rights that they have on the Gateway system:

- **Administrative Accounts** are users who are expected to have administrative control over the Gateway Server, including the ability to view & modify Gateway Server settings and to configure access rights.
- **Master Accounts** are users who do not have administrative control over the Gateway Server, but may have broad rights to access Hosts and Groups
- **Personal Accounts** are users who are allowed to connect to exactly *one* Host workstation.

Account types can be added, modified or deleted by Administrative account users on the **Accounts** page in the Web Console.

Optimizing PC-Duo Web Console

The following are some general guidelines for managing the performance, security and other aspects of the PC-Duo Web Console and Gateway Server.

Scalability

The PC-Duo Gateway Server is capable of facilitating connectivity to hundreds and even thousands of remote Host machines, whether they reside inside or outside of the LAN. Note, however, that Gateway Server connections with Hosts outside the LAN (called reverse connections) use up much more resource than those within the LAN.

Security

PC-Duo software uses the Windows Security Model for authentication. This allows you to robustly define who (by either local or domain accounts) has the ability to connect to the Gateway Server, which Hosts they can access and what functional rights they have during the connection. Available with the SSL and TCP/IP protocols, the Gateway Server can be configured to only accept incoming connections from a list of IP address ranges that you define. This is a mechanism that can prevent network intrusion attempts, as each PC-Duo user must first be able to communicate with the Gateway Server before credentials may be passed for authentication.

Performance

If latency is a factor in your environment, this can affect remote access but fortunately PC-Duo comes with mechanisms which allow you to hand-configure a number of variables so that PC-Duo delivers the optimal performance overall, suited for your particular environment. The screen capture variables that can be adjusted include the remote Host's overall image quality or color depth, the frequency in which PC-Duo captures a remote Host's screen data, along with the amount of bandwidth that is transmitted during a connection. These screen capture settings are configured on the Host-side and can automatically be applied during the installation of the Host. Please see the PC-Duo Host manual for complete details on these settings, and the PC-Duo Deployment Tool manual will explain how to create a custom Host installation package containing these and any other Host settings.

Bandwidth Utilization

The PC-Duo Host can be configured to utilize a specific amount of bandwidth, ranging as low as 20KB/sec up to 199KB/sec, and by default this value is "Unlimited". To set this value, open the PC-Duo Host Control Panel to the "Screen" tab, click the radio button for "Prefer User Mode Screen Capture" and then click the "Configure" button. Then, select "Custom" from the profile drop-down and you will then be able to utilize the slider bar at the bottom to set a specific bandwidth value.

The PC-Duo Gateway can be configured to over-ride the aforementioned Host-side screen capture settings for recordings only.

Storage

The PC-Duo Gateway is capable of performing screen recordings of Host machines. By default, the screen recording files will be stored locally on the server running your PC-Duo Gateway Server in the proprietary .PrxRec format, within the Gateway's installation directory. The path to which the recordings are saved can be adjusted. When you log into your PC-Duo Gateway through your web browser, click "Configuration" and then "Gateway Settings" and within the "Recording" section, you may specify a path of your choosing. Individual recording files may be selected for export to WMV format.