

OrgPublisher 9 Thin Client Implementation Guide

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Introduction

The purpose of this document is to cover the topics specifically pertaining to OrgPublisher EChart Thin Client. Important considerations are discussed and configuration changes are covered.

For EChart server implementation and Web server setup refer to the separate document, *OrgPublisher_9_EChart_Server_Setup.pdf* located on <http://www.aquire.com/support/>

Unlike OrgPublisher EChart Rich Client, Thin Client does not require an ActiveX control. Not requiring an ActiveX control makes deploying the Thin Client published chart easier from a rollout perspective. However, not using an ActiveX control means that the Web server that serves the Thin Client chart is doing more work. Thus, Thin Client often requires more server resources.

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OrgPublisher Thin Client Architecture

Figure 1 shows the recommended architecture for Thin Client. Dual load balanced Web servers are shown. In this configuration, the OrgPublisher Web Administration Server is used to access the source charts on a Web server. The data source can be either a database or a text file.

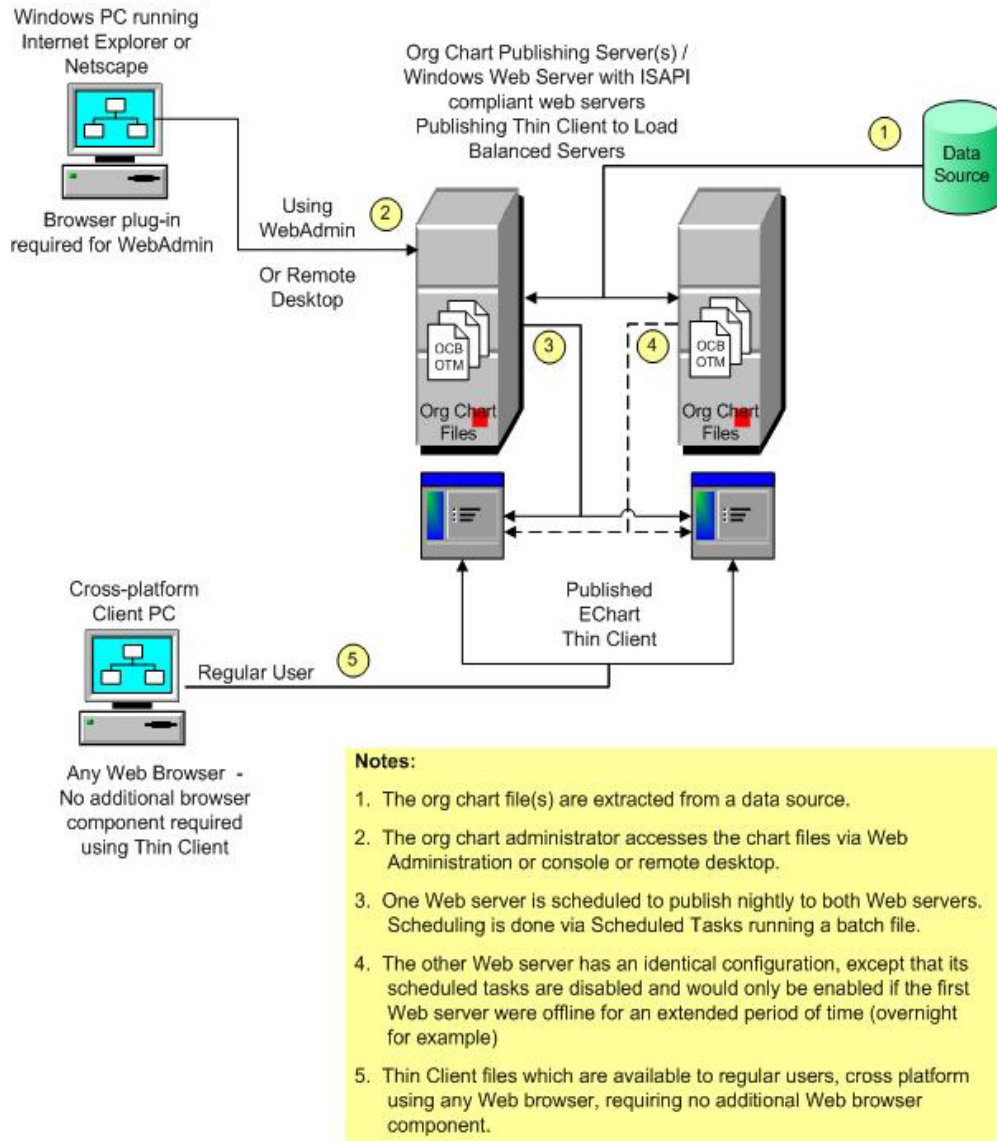


Figure 1.

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EChart Thin Client Server Requirements

EChart Thin Client utilizes the server rather than individual user workstations to process the org chart. The EChart Thin Client server hardware requirements can vary depending on a number of factors, such as number of records charted, number of custom fields, concurrent users, whether the servers are dedicated to only this function or not, and so on. Therefore, it really depends on the parameters of the specific environment. Ultimately, load testing in the working environment will determine the final configuration.

The following matrix contains recommendations that can serve as a starting point for estimating hardware requirements for Thin Client.

EChart Thin Client Number of Records	Dual Load Balanced Servers Processor	GHz	Memory	Dedicated vs Shared Server Memory
Up to 1,000	P4	2	512MB	1GB
1,001 to 5,000	P4	2.5 – 3	1GB	1.5GB
5,001 to 15,000	P4	3	1GB	1.5GB
15,001 to 25,000	Dual P4	3	2GB	2GB
25,000 and up	Dual P4 Hyper Threaded	3	2GB	2GB

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EChart Thin Client Org Chart Authentication

Org chart authentication is accomplished via the EChart Thin Client publishing option. EChart publishing offers security options at the chart and field level. Field level security is covered in a later section.

Chart security options control authentication methods. The options are:

- Unsecured – All users can view the entire chart.
- Microsoft® Active Directory authentication
 - When a user accesses the chart a prompt appears asking for the user ID and password of the logged in user.
 - The credentials are entered and the operating system is queried to determine the domain user ID of the user of that computer.
 - The formats for the **User ID** field are:
 - **User ID only**
 - **Domain/User ID**
 - **Domain.company.com/User ID**
 - The user is then placed in the chart at the starting point defined by the publishing definition.
 - This option requires that there be a custom field containing the Windows® Domain user ID in the input data file.
- **System user ID/Box Linkage**
 - The server grants access to the chart to any user ID on the user machine. ***This is not a secure setting.*** The chart opens at the user's box. This option requires that there be a custom field containing the user ID of the computer.
 - This option is not secure because it uses whatever ID is logged on to the computer. It can be a local computer account, which could be created by anyone with appropriate access to the computer.
- **Chart authentication**
 - The server prompts each user for a user ID and password in order to open the OrgPublisher EChart. The user IDs and passwords are contained or present in the input file record and selected in the *Publishing Wizard* when activating this security type.
 - This method requires a custom field containing the value of the user ID, and another custom field containing a password value. This

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password can be randomly generated and fed into the chart data by an external program.

- **Reverse Proxy**
 - The user ID is supplied in an HTTP header. When a user accesses the chart URL, a reverse proxy Web server intercepts the request and, through an authentication program/method, supplies the appropriate user ID as a variable in the HTTP header and sends it to the original destination.
 - The EChart uses this variable value provided in the header to perform a lookup in a specified custom field containing the user IDs.
 - An alternate option allows the variable to be passed as a cookie.

In addition to chart security options, ECharts also control the starting point in the org chart. Options are:

- Top of chart
- Supervisors Box
- User's Box
- A box ID specified by a particular custom field

Finally, the **Allow users to drill up from starting box** check box allows users to navigate to levels above their box in the chart.

Clear the check box if you *do not* want users to navigate above their own chart level.

EChart - Field Level Security – Also known as Role Based Security

EChart security also provides Field level security. Field level security allows, or disallows, users to view information based on whether or not they are a member of a particular group.

For example, if you have a chart with salary information, you may want only members of the "HR" group to be able to see the salaries. In OrgPublisher, you define a group called HR, which is based on criteria which queries the chart data and defines who should be a member of HR. When you authenticate to and view a chart, if you are a member of the HR group, you are able to see the Salary field.

Note: *Style Level security, which controls whether or not you can see certain styles, is not available in Thin Client.*

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Configuring Automatic Microsoft Active Directory Authentication

EChart Thin Client Security allows you to control authentication into the chart as well as field level security. With Thin Client security, by default, you must login manually to access the chart, even when using Microsoft® Active Directory authentication.

However, with OrgPublisher V7 and later, if you don't want this prompt, you can:

1. Verify the Web server is running IIS – this does not work with Apache™.
2. Turn off **Anonymous access** to the Web folder so the Web server knows the identity of the clients.
3. Verify that **Integrated Windows Authentication** is checked.
4. Set **IIS Application Protection** to low.

Thin Client Security Tokens

Once you have logged in to a secure chart, a security token is generated. This token remains aware of who is logged in. It monitors chart activity and if there is no activity for 10 minutes, the token times out, causing the user to re-authenticate to the chart. The default inactivity time-out of 10 minutes can be changed through a registry entry.

To modify the default inactivity time-out, you must edit the client computer's registry. Create a **DWORD** value called **LoginExpires** in the following key.

HKEY_LOCAL_MACHINE\Software\Aquire\OrgPublisher9\ThinServer

The value is a decimal number specifying the number of minutes before timing out.

Thin Client Printing

Thin Client printing is accomplished via a PDF file which can be printed. This option publishes to a PDF document for easy emailing and printing. It does require the free Adobe® Acrobat® Reader® Version 9, to view the output.

The PDF publishing option publishes in Book Style only. Use the *Print Preview* window in OrgPublisher to control the Book Style output of the PDF file. In the *Print Preview* window, click **Settings**. In the *Settings* dialog, you can control the appearance of the printout, including enabling or disabling the **Print Index**, **Group Icon Legend**, **Page Number Circles**, **Zoom each page**, **Header and Footer**, etc.

A PDF “printer” must exist during PDF publishing. If a “PDF printer” does not exist, one is created temporarily prior to publishing, and then deleted after publishing is complete. This extra process takes extra time.

If the “PDF printer” exists, then publishing PDF occurs at normal speed.

This PDF printer can be permanently created using the program **PDFDRV.EXE**, which is installed during the installation of OrgPublisher.

Publishing in PDF Format:

- In order to print from Thin Client, the PDF printer must exist. Choosing the OrgPublisher Custom Installation (Web Administration Server) portion of the installation program creates this printer by default.
- If you are publishing to an IIS server that does not have OrgPublisher installed and you want to print Thin Client, you must copy **PDFDRV.EXE** to the Web server and execute it so that the Web server can print from Thin Client.
- By default, printing is limited to 500 records. Attempting to print more than 500 records generates a new HTML page with an error message.

The default number of records that can be printed can be changed through a registry entry. The maximum number of records that can be printed is approximately 2000 records. If you set this number higher than 2000, you may get an error when trying to print. This limitation is due to the PDF driver.

To modify the default print limit you must edit the client registry. Create a **DWORD** value called **PrintLimit** in the following key.

HKEY_LOCAL_MACHINE\Software\Aquire\OrgPublisher9\ThinServer

The value is a decimal number equal to the number of records you wish to allow to be printed.

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- If you click the print button and nothing happens, make sure that you have **Read and execute permissions** assigned to the folder where the **pdfui250.dll** file is located.

Troubleshooting EChart Thin Client - Log Files

ECharts log activity when published and accessed using EChart security.

The log file is found in the published charts folder and is the same name as the file that is published. When the Web service is restarted, the next access to the EChart creates a new log file.

The previous log file is renamed to preserve past information. This can occur up to 9 times. After that, each log file is cycled through the 9 backup files and the 10th file is then lost.

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Searching Thin Client Charts

The default search field in Thin Client charts is **Last Name**. This default can be changed with a registry setting on the server. To modify the default search field, create a **DWORD** value called **DefaultSearchIndex** in the following key.

HKEY_LOCAL_MACHINE\Software\Aquire\OrgPublisher9\ThinServer

The value is a decimal number equal to the appropriate field.

The values to use are:

AllFields = 1001

AllStandardFields = 1002

AllCustomFields = 1003

PosTypeField = 1004

StatusField = 1005

RelationshipField = 1006

GroupField = 1007

PersonIdField = 1009

To make the default search field a custom field, the value for the registry key must correlate to the field value (any fields greater than field 19 equal 1000+ the field number. For example, if the custom field sequence number you want is 22, the registry key is 1022.).

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Customizing EChart Thin Client

OrgPublisher Thin Client charts are dynamic HTML versions of org charts. You can customize the HTML pages to more closely match the look and feel of your Web site, as well as what information is displayed, by linking to your custom style sheet.

Publishing Options

In the publishing definition you have several options:

- JavaScript must be enabled if you want to give end users the ability to close views or search on numeric fields.
- You can enable or disable end users' ability to print charts as PDF.
- There are two options for chart graphics; JPEG and GIF.
 - JPEG provides high text quality and very high photo, gradient, and background image quality.
 - GIF provides very high text quality but lower photo, gradient, and background image quality.
- You can use optimize toolbar and button images by caching static images. If enabled, the **ChartImages** folder (from the **OrgPub9** folder where you installed it) must be copied to the destination Web folder.
- Because there is no input type for tree control in HTML, the *Tree View* is not available in Thin Client charts.
- The search feature is not available in its entirety in Thin Client charts. End users can access a modified *Search View* by clicking the *List View* button in the toolbar.

Note: For additional help with publishing Thin Client Charts, see the following Online Help topics:

- *Publish EChart Thin Client*
- *Publishing in EChart Thin Client Format*
- *Choosing EChart Thin Client Settings*
- *Troubleshooting tips for Published ECharts*

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Modifying the Look and Feel of the Published Chart

Thin Client technology uses a cascading style sheet called **windows.css** to control the look and feel of the thin chart. HTML programming is accomplished via a file called **thinserver.dat**. **Thinserver.dat** is located in the installation folder of OrgPublisher. The cascading style sheet is located in **C:\Program Files\OrgPub9\css**. You can also customize your own cascading style sheet and specify its location in the Thin Client publishing definition.

Below are examples of customizations. There are other examples of modifying these files, which can be found in the SDK at the following Web page location.

<http://www.aquire.com/downloads/Automation.html>

Note: *Support for these types of modifications fall outside the realm of normal Product Support, and are handled by our Professional Services Group on a consulting basis.*

Example 1

Here is an example of how to change the thin client login window gray background to white. Change the BACKGROUND-COLOR parameter value from #E9E9D8 to #FFFFFF: (see highlighted example below)

```
<STYLE TYPE="text/css" MEDIA=screen>
<!--
BODY
{
  MARGIN: 0px;
  MARGIN-LEFT: 0px;
  MARGIN-RIGHT: 0px;
  FONT: 10px Arial, Helvetica, sans-serif;
  COLOR: #000000;
  BACKGROUND-COLOR: #FFFFFF;
}
```

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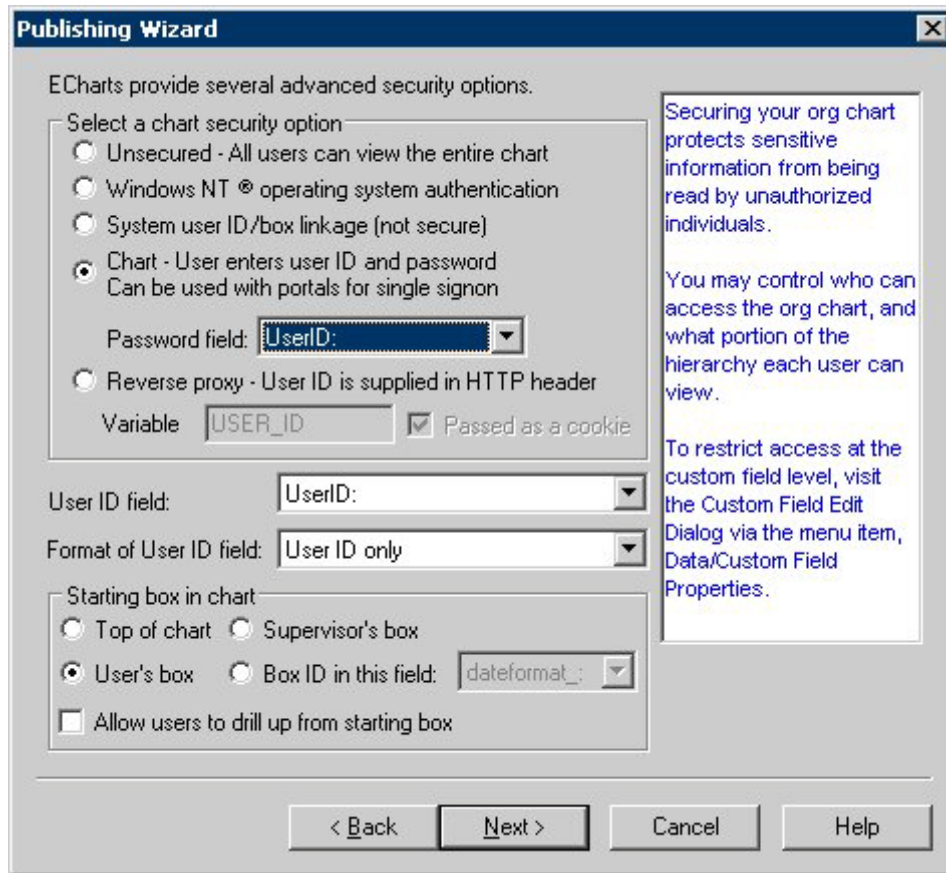


Figure 2.

Here is a sample URL for using this method.

<http://computername/ECharts/Orgchart.dll?Frame&USERNAME=Ifranklin&PASSWORD=Ifranklin>

Other parameters include:

STYLE = Style selected. Number **0** = the default style (the one it was published with). Styles are numbered **1** to however many there are, as they appear in the style's list.

Example:

http://computername/ECharts/Management_Thin.dll?Frame&STYLE=1

DRILL = Turns drill buttons on or off. **1** = on, **0** = off, **2** = default

Example:

http://computername/ECharts/Management_Thin.dll?Frame&DRILL=0

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BOX_SELECTED = selects the specified box id. If it doesn't exist the top of the chart is displayed.

Example:

http://computername/ECharts/Management_Thin.dll?Frame&BOX_SELECTED=5

LEVELS = Sets the number of levels to be displayed. Number **2** or greater. **0** = default.

Example:

http://computername/ECharts/Management_Thin.dll?Frame&LEVELS=2

TOP = box id

Determines the top box of the chart – useful for unsecured charts.

Example:

http://computername/ECharts/Management_Thin.dll?Frame&TOP=3

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EChart Rich Client / Thin Client Comparison

The Thin Client option is a form of EChart however there are some differences between the Rich Client mode and Thin Client mode in a published chart. The table below outlines these differences.

Feature	Rich Client	Thin Client
Chart Design templates	Yes	Yes
Chart legend	Yes	Yes
Hover Profile	Yes	Yes
Spotlight groups and search results	Yes	Yes
Real-time publishing	Yes	Yes
Multiple viewing levels	Yes	Yes
Displayable views	Yes	No <i>Tree View</i> ; <i>Search View</i> does not have a separate <i>List View</i> as in PluginX
Resizable views	Yes	No
Show/hide views	Yes	Yes
Moveable (docking) views	Yes	No
Printable views (other than <i>Chart View</i>)	Yes	No
Drill-up/Drill-down navigation	Yes	Yes
Hotspot links	Yes	Yes
Smart Links	Yes	Yes
Chart searches (toolbar, <i>Search View</i> , <i>Search</i> dialog)	Yes	Toolbar button opens <i>Search View</i>
Ad hoc or My groups tab in <i>Search View</i>	Yes	No
<i>Group Editor</i> dialog	Yes	No
Saved ad hoc/ My groups queries	Yes	No
Email a group	Yes	No
Quick search from toolbar	Yes	Only the records actually seen
Status bar	Yes	Yes
Zoom factor, zoom to point	Yes	No

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Feature	Rich Client	Thin Client
Copy option	Yes	Browser image copy
Copy query results to clipboard	Yes	Only the records actually seen in the window
Photos in chart	Yes	Yes
Selectable chart styles	Yes	Yes
Logo/watermark support	Yes	No
Print preview	Yes	In PDF viewer only
Print as a book	Yes	PDF document
Print as wall chart	Yes	Browser print
Security validation (Microsoft Active Directory authentication, ID/Box linkage)	Yes	Yes
Automatic/single sign-on security	Yes	Yes, using Windows Microsoft Active Directory® authentication when running IIS with anonymous access disabled
Browser component required (PluginX)	Yes	No
Section 508 accessibility	Yes	No
Access to a UNC path for photo linkage	Yes	No
Support provided for the Apache httpd server	Yes	No
Viewable by Mac® computer and UNIX® operating system users	No	Yes, with JavaScript turned off
Support provided for the Apache httpd server	Yes	No

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