



Configuring RentalPoint Web Services

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Configuring RentalPoint Web Services

1. What is RentalPoint Web Services?

RentalPoint Web Services, or RPWS, is an online tool that technicians use to view their upcoming assignments. Technicians can accept or decline assignments. Techs can also enter working hours and personal information such as primary and secondary skills. Changes to your data are updated in real-time. The webpage is hosted on your server and uses IIS (Internet Information Services) and the RPWS service to communicate directly with your RP database.

RPWS must first be configured before it can be used by your technicians in the field.

2. How to Configure Your Server

First you'll need to do some work on your server. This involves downloading and installing files that RPWS requires, then configuring the server roles and IIS.

2.1 Download and Install .NET Framework 4.5.1

Ensure you have the .NET Framework 4.5.1 (or later) installed

- See how to check <https://msdn.microsoft.com/en-CA/library/hh925568%28v=vs.110%29.aspx>
- If needed, you can use the MS Web Installer which automatically determines which files you need for your operating system. <http://www.microsoft.com/en-gb/download/details.aspx?id=40773>

2.2 Download and Install IIS

The IIS installation process depends on the operating system of your server. For easy installation we've included a few useful links.

For Windows 7

<http://www.iis.net/learn/install/installing-iis-7/installing-iis-on-windows-vista-and-windows-7>

For Windows 8 & Windows 10

<http://www.howtogeek.com/112455/how-to-install-iis-8-on-windows-8/>

For Windows Server 2008 R2

<https://community.landesk.com/support/docs/DOC-6797>

For Windows Server 2012 R2


<http://www.iis.net/learn/install/installing-iis-85/installing-iis-85-on-windows-server-2012-r2>



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2.3 Download and Install RPWS Files

Login to the RP downloads area (<http://rentp.com/updates/login.php>) and download **RPWS_Install_Files.zip**. Unzip the files to C:\inetpub\wwwroot**RPCrewWebpage**.

 RPCrewWebpage is a suggested default name; you can use any folder name that you choose. Be sure to remember it for future steps as you will use it in your link path.

2.4 Update ASP .NET Mappings

Run the **command prompt** as an Administrator. Type the following command in the command prompt and hit <enter>.

 The command is different for 32-bit and 64-bit operating systems, please ensure you run the correct command.

32-bit

```
%windir%\Microsoft.NET\Framework\v4.0.30319\aspnet_regiis.exe -i
```

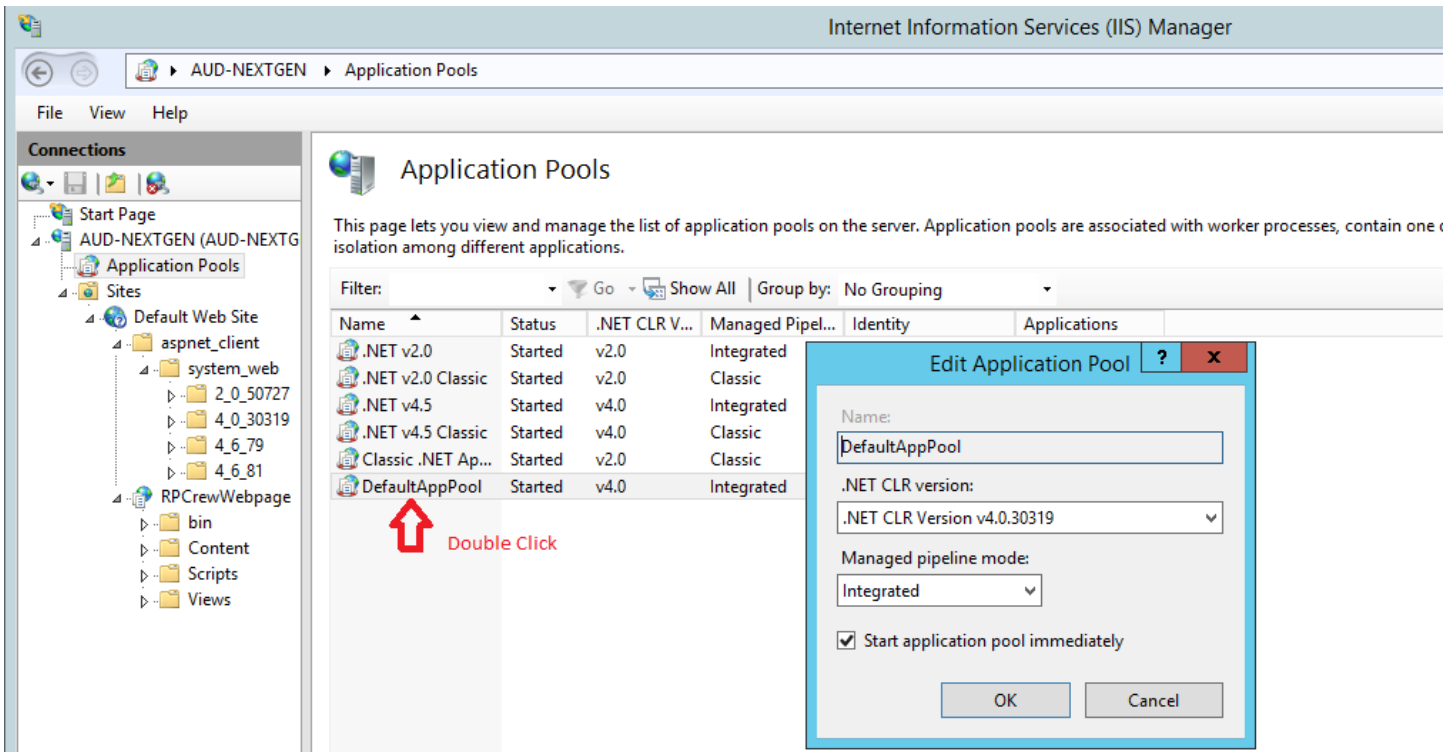
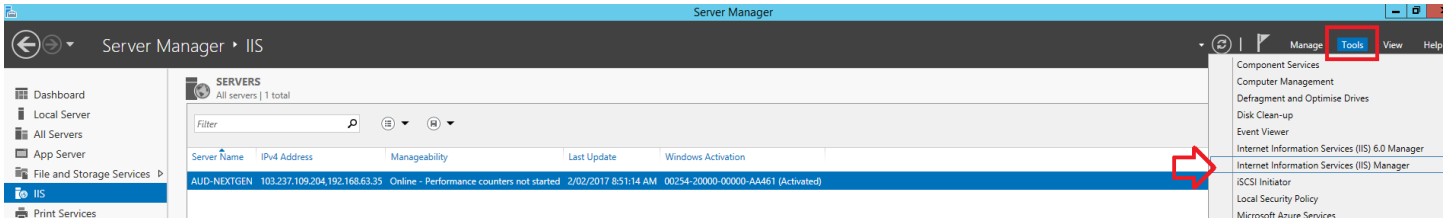
64-bit

```
%windir%\Microsoft.NET\Framework64\v4.0.30319\aspnet_regiis.exe -i
```

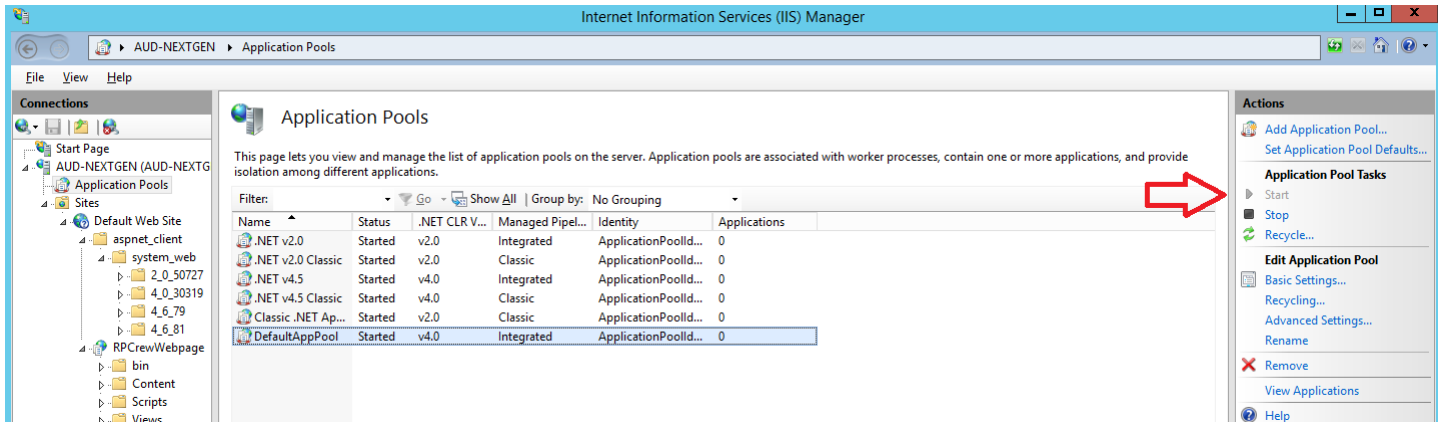
2.5 Configure Default Application Pool

Open **Server Manager** and navigate to the **DefaultAppPool**. Ensure that your settings are the same as the screenshot.

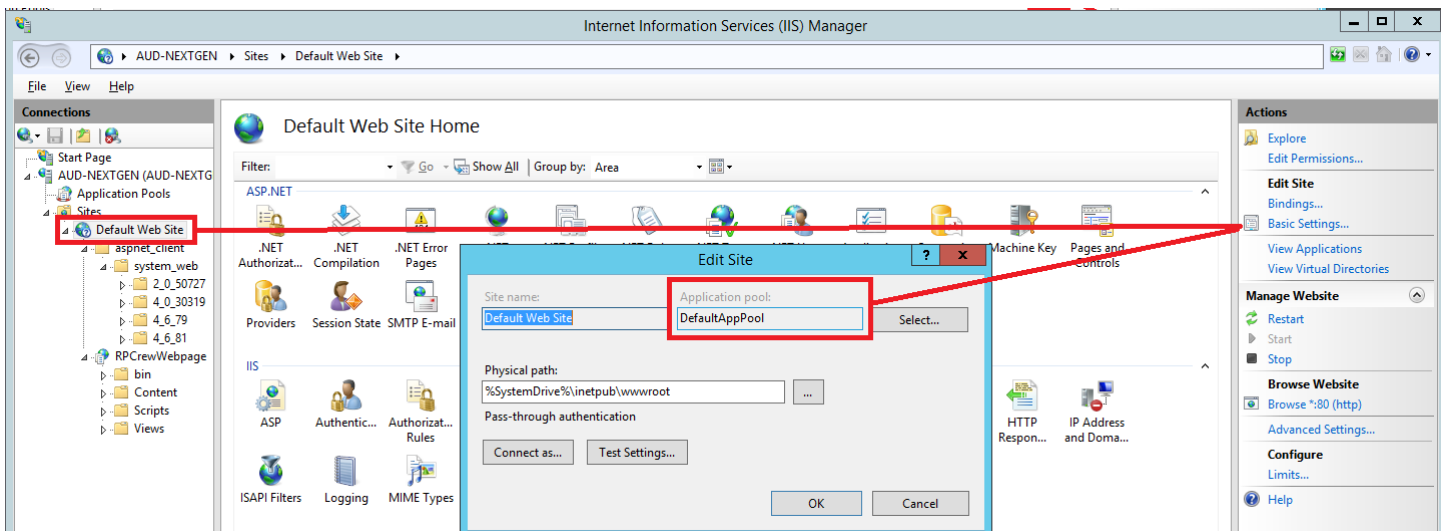
- To Open IIS Manager from Search Box in Windows 7, 8, 10 Click Start then type 'inetmgr' in the search box.



Ensure that the DefaultAppPool service is **Started**. If it's not started simply right click and select Start.

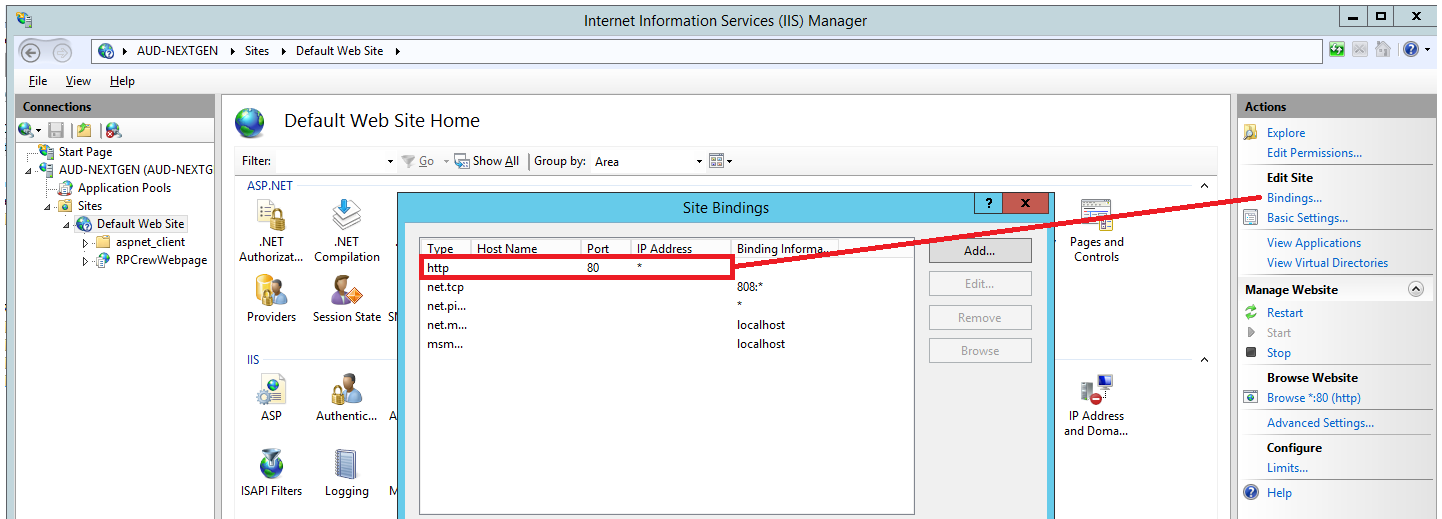


Now highlight Default Web Site and click **Basic Settings**. Ensure the **Application pool** for your website is set to **DefaultAppPool**.



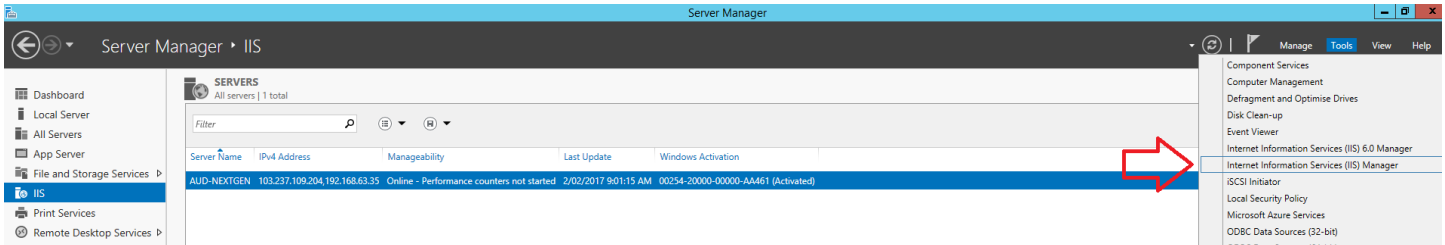
2.6 Configure Bindings

Click **Bindings ...** and ensure the settings are the same as the screenshot.

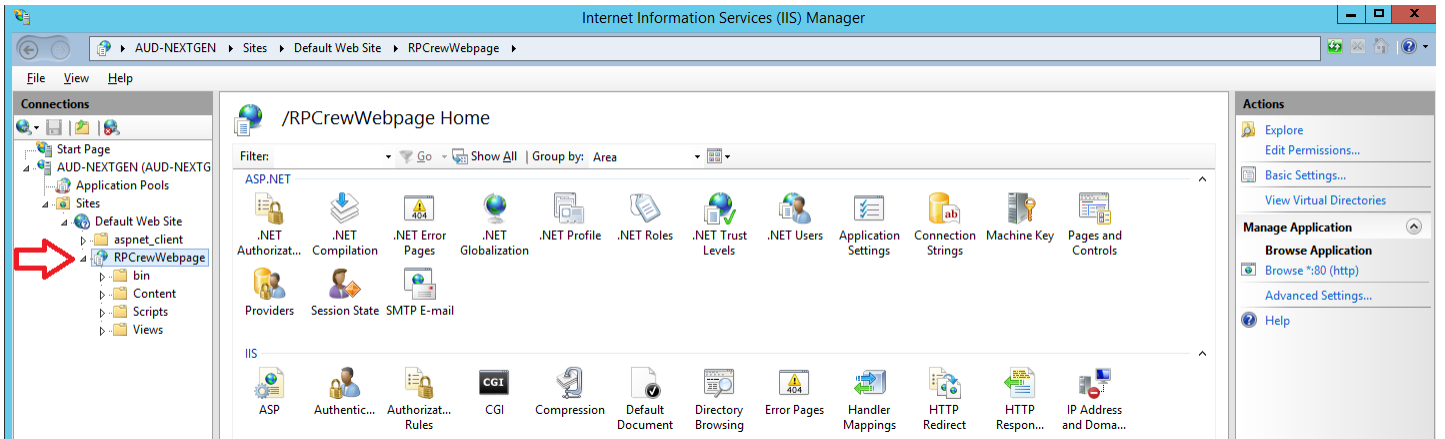


2.7 Configure RPWS as an Application

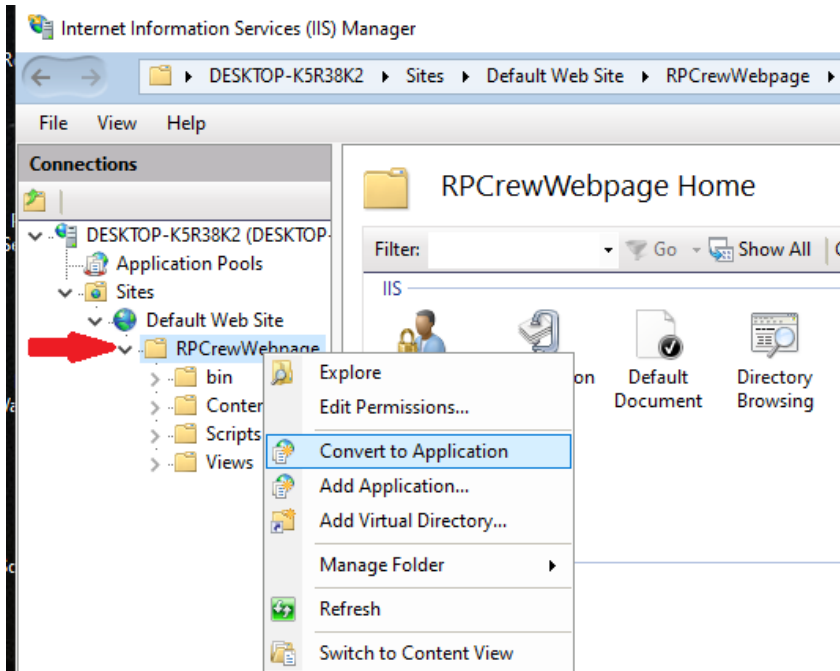
In **Server Manager** navigate to **RPCrewWebpage**. The icon should look like this : 



If your icon is the same, it means that the RPWS service is correctly configured as an application, you don't need to change anything.

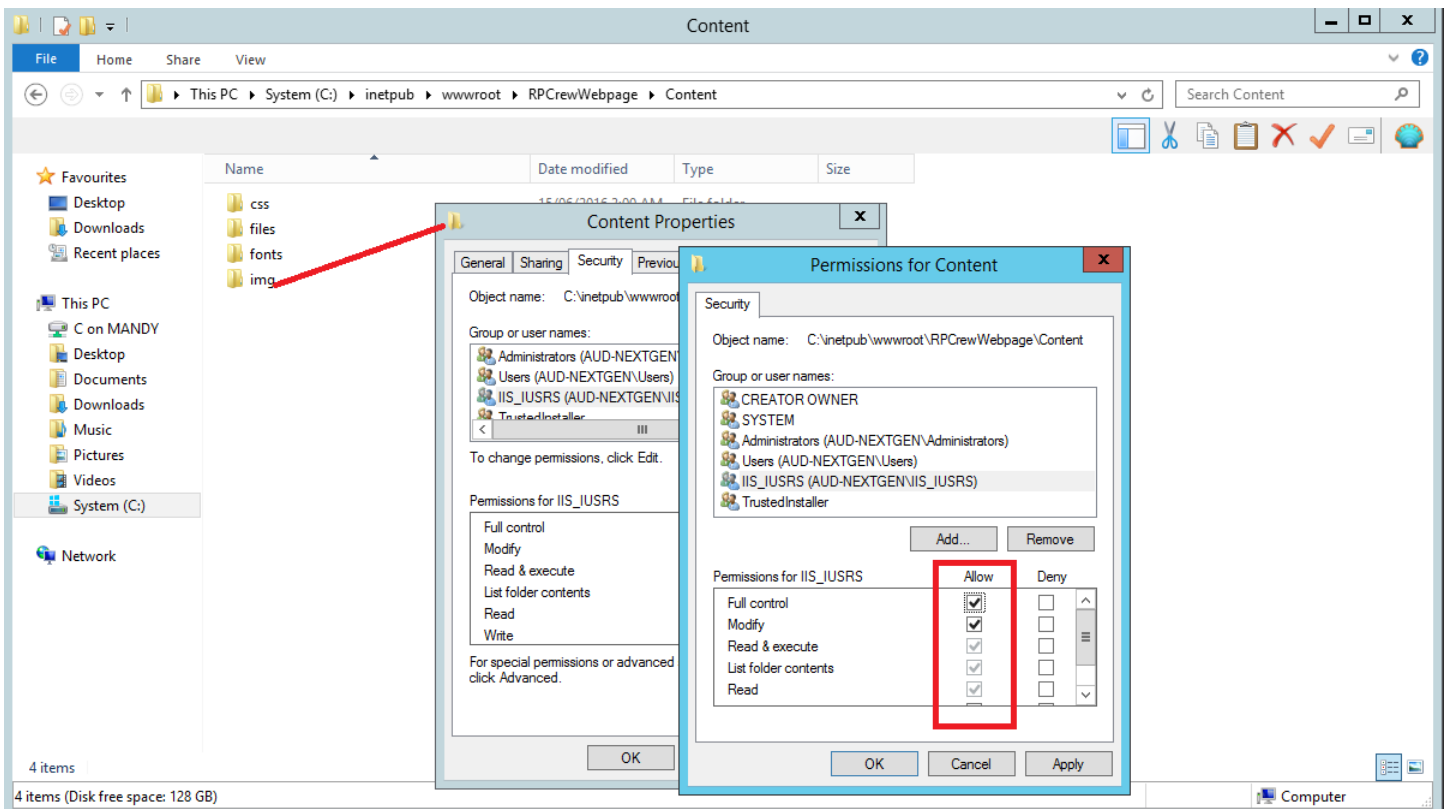


However if the icon is a folder instead (see below), you will need to right click on RPCrewWebpage and select **Convert to Application**.



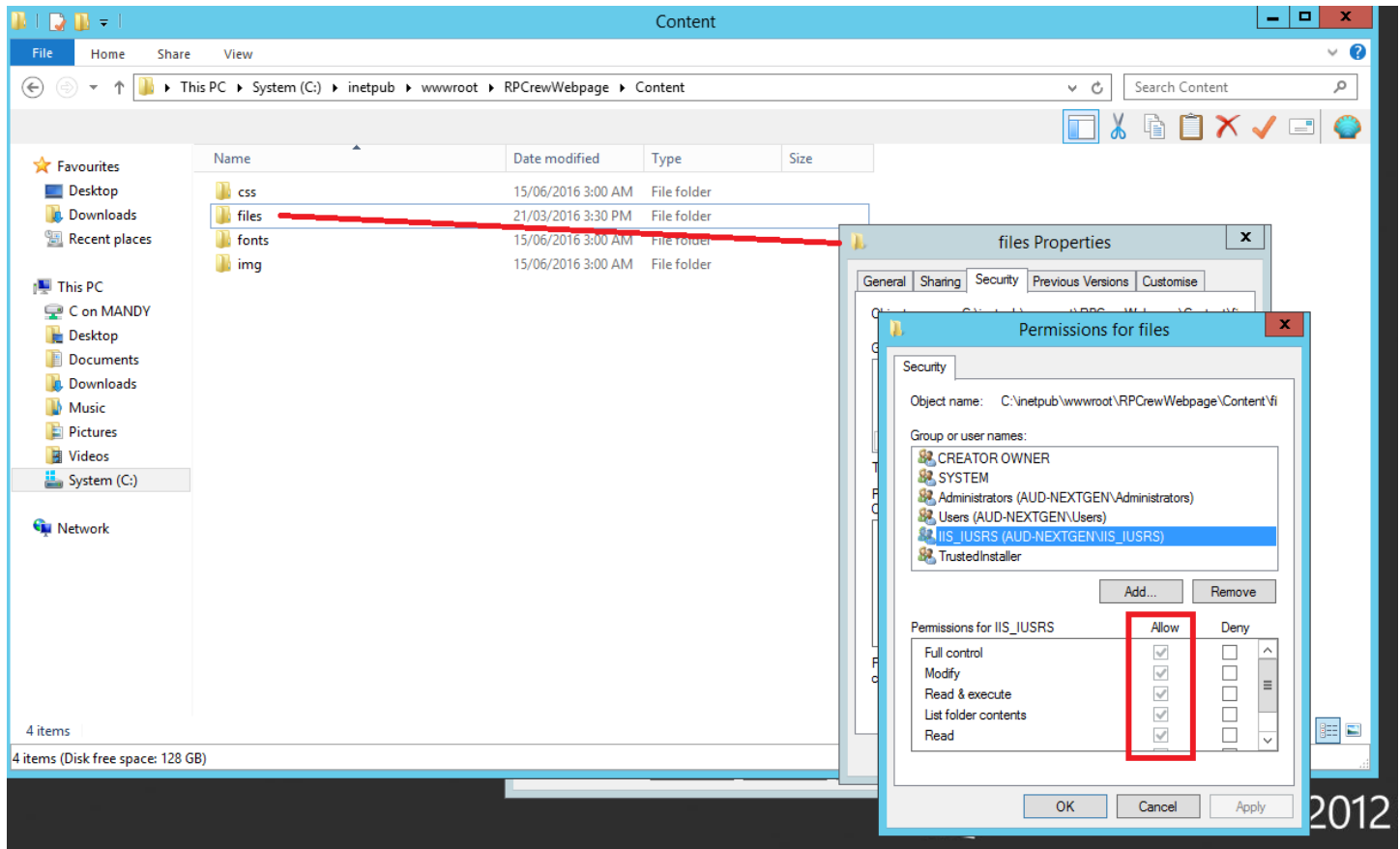
2.8 Enable Permissions to Upload Avatars

The RPWS allows a technician to customize his or her profile by selecting an avatar. You'll need to configure permissions on your server to allow techs to upload an avatar image. Navigate to C:\inetpub\wwwroot\RPCrewWebpage\Content and open the properties for the **img** folder. Ensure you have permissions set as follows:



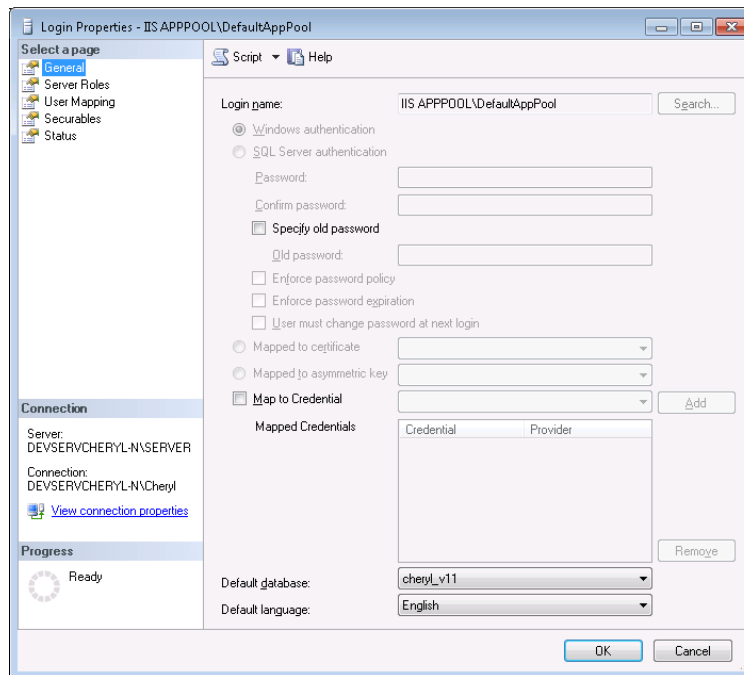
2.9 Enable Permissions to Upload Certificates and Licenses

Secondary Skills may be configured as **Certificate Required**. When a technician adds or modifies a secondary skill, he or she may be required to attach a certificate before saving. You'll need to configure permissions on your server to allow techs to upload certificate or license files. Navigate to C:\inetpub\wwwroot\RPCrewWebpage\Content and open the properties for the **files** folder. Ensure you have permissions set as follows:

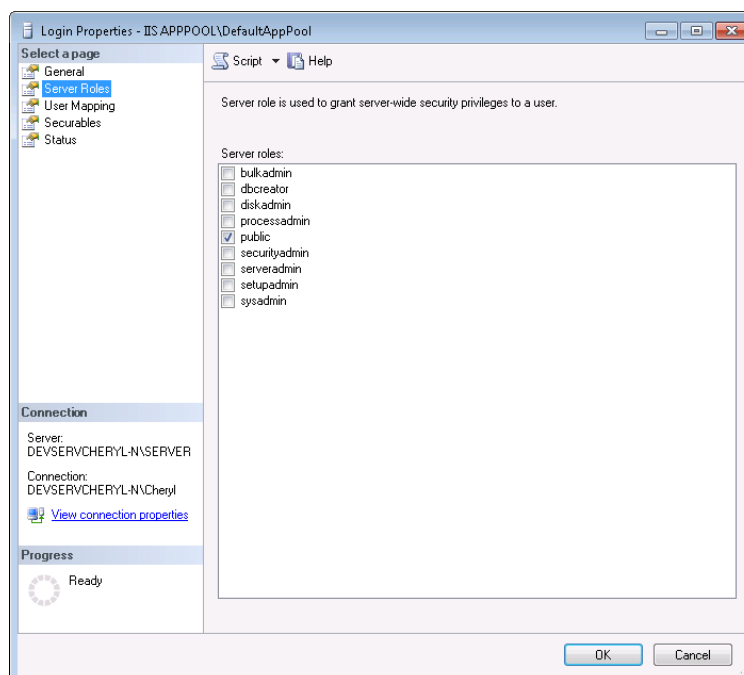


2.10 Enable Database Permissions

In SQL Management Studio configure the IIS APPPOOL\DefaultAppPool user with Windows authentication. Ensure that you set your Default Database and Default Language accordingly.



This user only has the **public** role assigned.

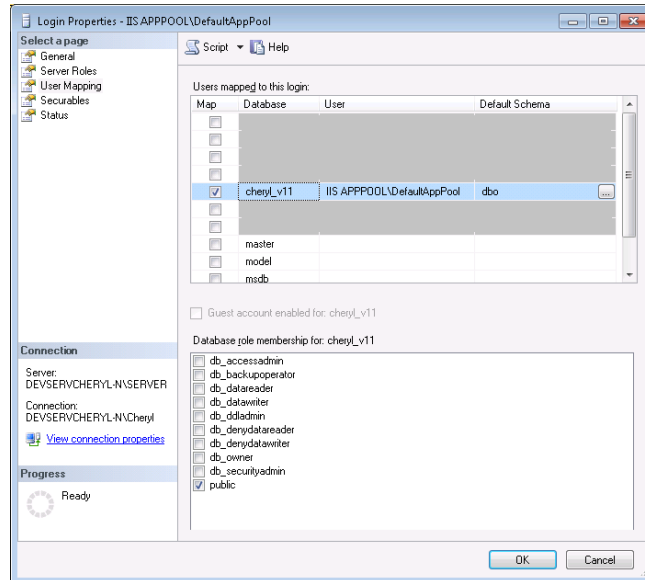




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This user is only mapped to your RP database.

Use the following SQL script to grant the required permissions to this user. Ensure that you enter the appropriate DATABASE (highlighted).



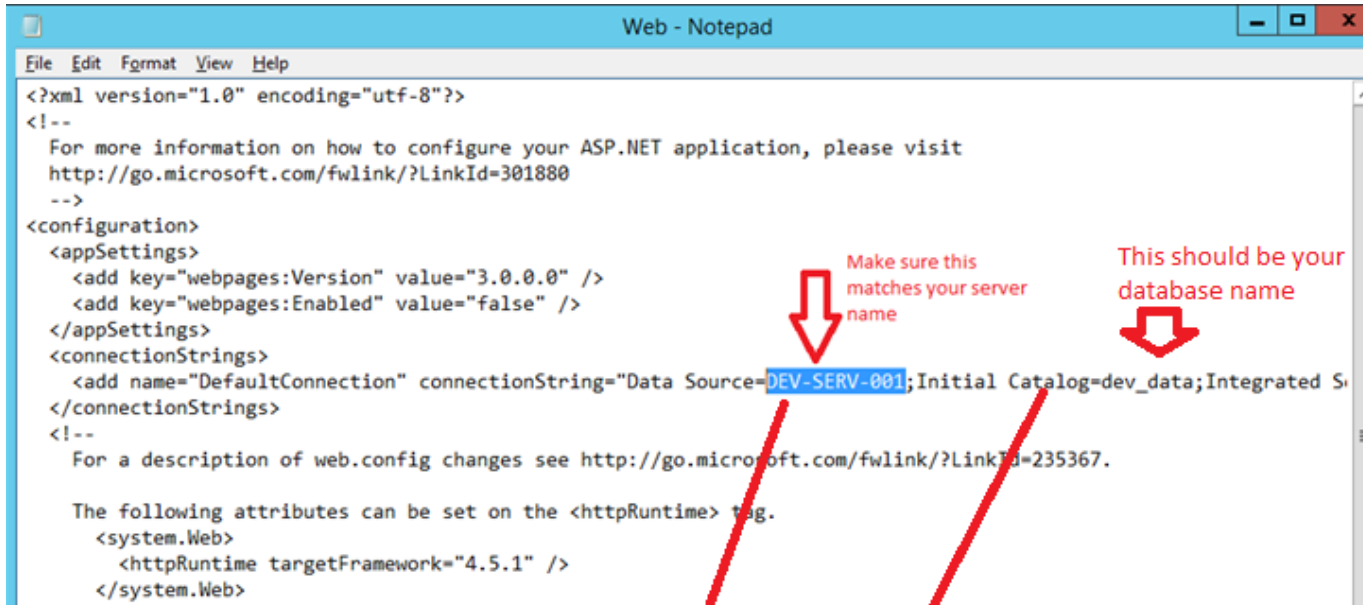
```

DECLARE @USERNAME VARCHAR(50);
DECLARE @DATABASE VARCHAR(50);
SET @USERNAME = '[IIS APPPOOL\DefaultAppPool]';
SET @DATABASE = 'dev_data';
DECLARE @SQLText nvarchar(MAX);
SET @SQLText = '
USE {DATABASE}
GRANT CONNECT TO {USERNAME}
GRANT SELECT ON [dbo].[tblAddTechSkill] TO {USERNAME}
GRANT SELECT ON [dbo].[tblActivityType] TO {USERNAME}
GRANT SELECT ON [dbo].[tblContact] TO {USERNAME}
GRANT SELECT ON [dbo].[tblCultureCode] TO {USERNAME}
GRANT SELECT ON [dbo].[vwRPWebContact] TO {USERNAME}
GRANT SELECT ON [dbo].[tblPayroll] TO {USERNAME}
GRANT DELETE ON [dbo].[tblPayroll] TO {USERNAME}
GRANT SELECT ON [dbo].[tblActivity] TO {USERNAME}
GRANT DELETE ON [dbo].[tblActivity] TO {USERNAME}
GRANT SELECT ON [dbo].[tblContactSecondarySkills] TO {USERNAME}
GRANT DELETE ON [dbo].[tblContactSecondarySkills] TO {USERNAME}
GRANT SELECT ON [dbo].[tblBill] TO {USERNAME}
GRANT DELETE ON [dbo].[tblBill] TO {USERNAME}
GRANT EXECUTE ON [dbo].[Web_CalendarTechnicianEvent] TO {USERNAME}
GRANT EXECUTE ON [dbo].[Web_CalendarTechnicianEventList] TO {USERNAME}
GRANT EXECUTE ON [dbo].[Web_GetPayRoll] TO {USERNAME}
GRANT EXECUTE ON [dbo].[Web_GetPrimarySkills] TO {USERNAME}
GRANT EXECUTE ON [dbo].[Web_GetSecondarySkills] TO {USERNAME}
GRANT EXECUTE ON [dbo].[Web_GetTimeLineItems] TO {USERNAME}
GRANT EXECUTE ON [dbo].[Web_UpdateCalendarActivityEvent] TO {USERNAME}
GRANT EXECUTE ON [dbo].[Web_UpdateCalendarCrewEvent] TO {USERNAME}
GRANT EXECUTE ON [dbo].[Web_UpdateContact] TO {USERNAME}
GRANT EXECUTE ON [dbo].[Web_UpdateExternalPrimarySkill] TO {USERNAME}
GRANT EXECUTE ON [dbo].[Web_UpdateExternalSecondarySkill] TO {USERNAME}
GRANT EXECUTE ON [dbo].[Web_UpdatePayRoll] TO {USERNAME}
GRANT SELECT ON [dbo].[tblSettings] TO {USERNAME}
GRANT EXECUTE ON [dbo].[Web_StartPunchPayroll] TO {USERNAME}
GRANT EXECUTE ON [dbo].[Web_GetProjectManagerBookings] TO {USERNAME}
GRANT EXECUTE ON [dbo].[Web_TechHasStartedPayroll] TO {USERNAME}';
SET @SQLText = REPLACE (@SQLText, '{USERNAME}', @USERNAME)
SET @SQLText = REPLACE (@SQLText, '{DATABASE}', @DATABASE)
EXECUTE (@SQLText)
SET @SQLText = '
USE msdb
GRANT CONNECT TO {USERNAME}
GRANT SELECT ON [dbo].[sysmail_profile] TO {USERNAME}
';
SET @SQLText = REPLACE (@SQLText, '{USERNAME}', @USERNAME)
EXECUTE (@SQLText)

```

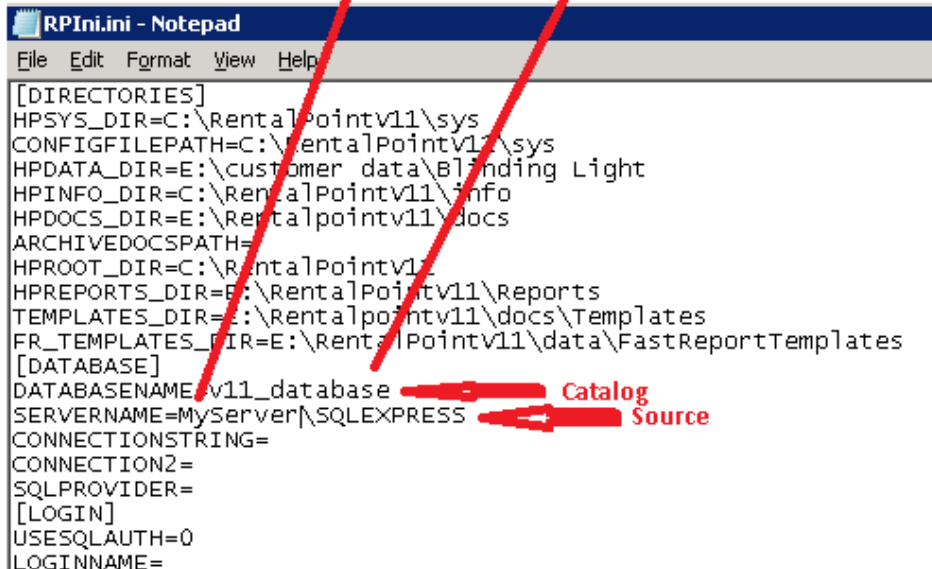
2.11 Update Config File and Test Connection

Navigate to C:\inetpub\wwwroot\RPCrewWebpage and open the **Web.config** file in a text editor (such as Notepad).
Change **Data Source** to your SQL server name.
Change **Initial Catalog** to your RentalPoint database.



```
<?xml version="1.0" encoding="utf-8"?>
<!--
  For more information on how to configure your ASP.NET application, please visit
  http://go.microsoft.com/fwlink/?LinkId=301880
-->
<configuration>
  <appSettings>
    <add key="webpages:Version" value="3.0.0.0" />
    <add key="webpages:Enabled" value="false" />
  </appSettings>
  <connectionStrings>
    <add name="DefaultConnection" connectionString="Data Source=DEV-SERV-001;Initial Catalog=dev_data;Integrated S
  </connectionStrings>
<!--
  For a description of web.config changes see http://go.microsoft.com/fwlink/?LinkId=235367.

  The following attributes can be set on the <httpRuntime> tag.
  <system.Web>
    <httpRuntime targetFramework="4.5.1" />
  </system.Web>
```



```
[DIRECTORIES]
HPSYS_DIR=C:\RentalPointv11\sys
CONFIGFILEPATH=C:\RentalPointv11\sys
HPDATA_DIR=E:\customer data\Blinding Light
HPINFO_DIR=C:\RentalPointv11\info
HPDOCS_DIR=E:\Rentalpointv11\docs
ARCHIVEDOCSPATH=
HPROOT_DIR=C:\RentalPointv11
HPREPORTS_DIR=E:\RentalPointv11\Reports
TEMPLATES_DIR=E:\Rentalpointv11\docs\Templates
FR_TEMPLATES_DIR=E:\RentalPointv11\data\FastReportTemplates
[DATABASE]
DATABASENAME=v11_database
SERVERNAME=MyServer\SQLEXPRESS
CONNECTIONSTRING=
CONNECTION2=
SQLPROVIDER=
[LOGIN]
USESQLAUTH=0
LOGINNAME=
```



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Open a browser and enter <http://localhost/RPCrewWebpage/>. (Or whatever name you used for your directory 2.3 above. A login prompt will display.





See Section 4 'Troubleshooting' if you have problems displaying the login prompt.

A screenshot of the RPWebServices login interface. The title "RPWebServices" is at the top. Below it, the text "Sign in to start your session" is centered. There are two input fields: "User Name" with a person icon and "Password" with a lock icon. Below the password field is a "Remember Me" checkbox with a checkmark. To the right of the checkbox is a blue "Sign In" button. At the bottom, the footer reads "RentalPoint © 2015 RentalPoint. Version 1.001".

RPWebServices

Sign in to start your session

User Name 

Password 

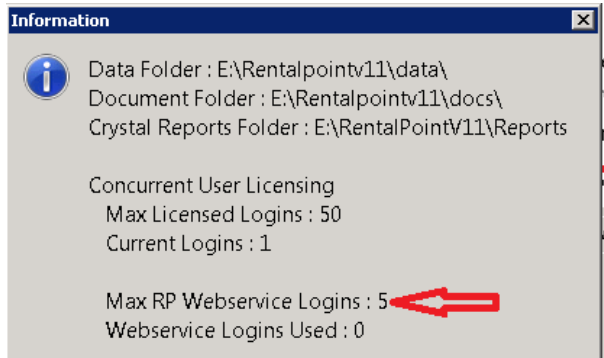
☒ Remember Me **Sign In**

RentalPoint © 2015 RentalPoint. Version 1.001

3. How to Configure RentalPoint



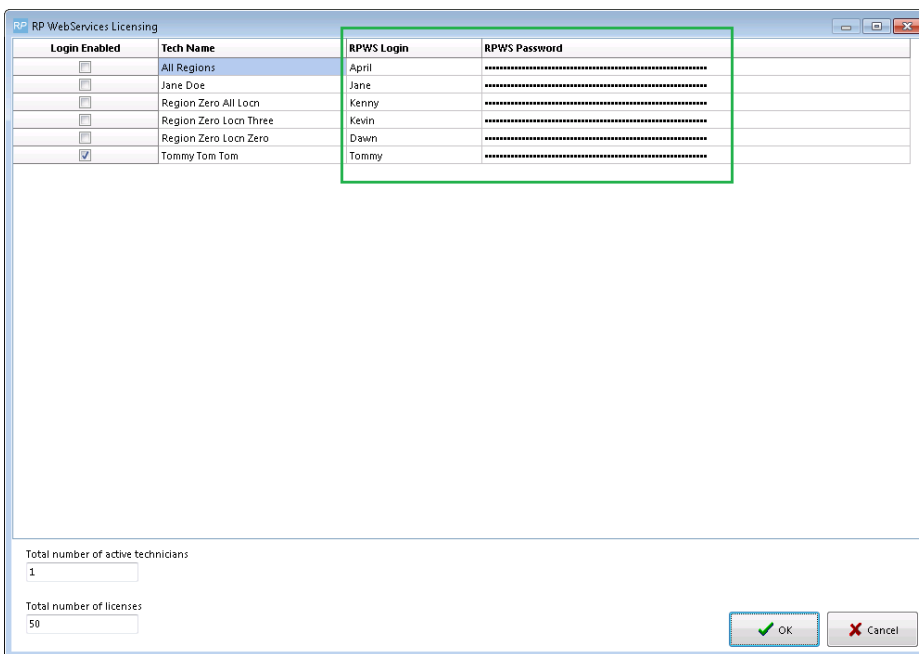
You will need RPWS user licenses to access the RPWS license setup.
Goto help→status off the main Rentalpoint menu



Please contact support@rentp.com if you do not have an RPWS license file.

Launch RentalPoint and from the main menu, go to 'Setup→RP WebServices Licensing'.

- To activate an RPWS login for a technician simply tick the checkbox beside the technician name.
- The info boxes at the bottom of the window will keep track of how many licenses are available and how many are in use.
- Next, enter a User Name and Password. These are the login credentials that the tech will use when accessing RPWS via a browser.

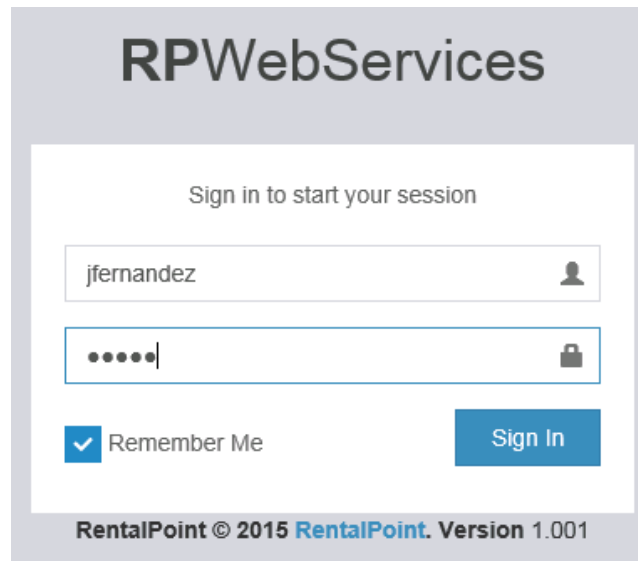


| Login Enabled | Tech Name | RPWS Login | RPWS Password |
|-------------------------------------|------------------------|------------|---------------|
| <input type="checkbox"/> | All Regions | April | |
| <input type="checkbox"/> | Jane Doe | Jane | |
| <input type="checkbox"/> | Region Zero All Locn | Kenny | |
| <input type="checkbox"/> | Region Zero Locn Three | Kevin | |
| <input type="checkbox"/> | Region Zero Locn Zero | Dawn | |
| <input checked="" type="checkbox"/> | Tommy Tom Tom | Tommy | |

Total number of active technicians
1


Total number of licenses
50


OK Cancel



RPWebServices

Sign in to start your session





☒ Remember Me

RentalPoint © 2015 RentalPoint. Version 1.001

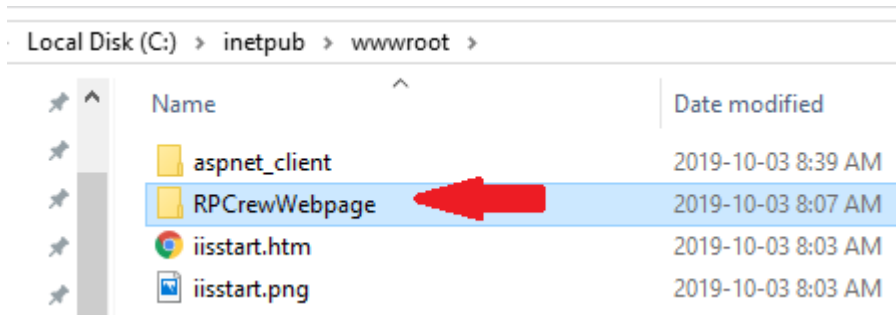
4. Updating RPCrewWeb with new Release

1, Download RPCrewWeb latest release from www.rentp.com using the download password you have been provided or contact support@rentp.com



2. Take a backup of your current RPCrewWebpage installation files

i.e. take a copy of this folder



3. Unzip the new installation file to the RPCrewWebpage folder, overwriting existing files

4. Restart IIS (See full details on restarting IIS below if needed)

How to Reset IIS (Internet Information Services):

NOTE: Resetting IIS will cause ALL websites being hosted on your computer to be unavailable until the reset is complete (which usually only takes a few seconds). This means if anyone is accessing any of your websites during the reset, the site will stop responding for them temporarily, or will require them to log back in once the reset is complete.

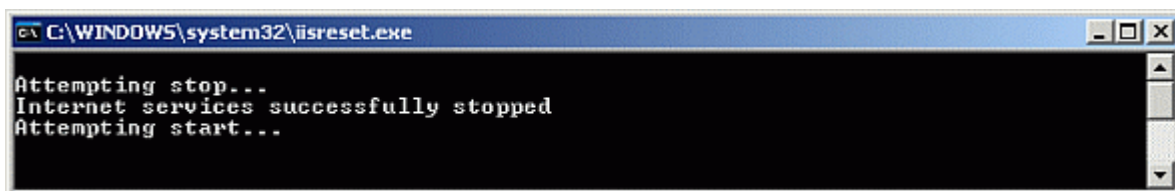
Use the following steps:

1. Click the Windows® **Start** button, and then click **Run**. The **Run** dialog box appears.
2. Type **iisreset** into the **Open** field, and then click **OK**. The following 'Command Prompt' window appears:

A screenshot of a Windows Command Prompt window. The title bar reads 'C:\WINDOWS\system32\iisreset.exe'. The command prompt shows the text 'Attempting stop...' followed by a cursor on a new line.

Important Note: You can optionally include the **/noforce** parameter (**iisreset /noforce**) to help prevent data loss in case the IIS services cannot be stopped within the default one minute time-out period. If you are certain that it is safe to force IIS to restart, you can omit the **/noforce** parameter. However, be aware that you could lose data if you do not include this parameter.

3. In a few seconds, the 'Command Prompt' window will update with the **Internet services successfully stopped - Attempting start** information:

A screenshot of a Windows Command Prompt window. The title bar reads 'C:\WINDOWS\system32\iisreset.exe'. The command prompt shows the text 'Attempting stop...', 'Internet services successfully stopped', and 'Attempting start...' on separate lines.

4. Once **IIS** restarts, this window will close.

- **Note:** In Microsoft® Windows 7, if attempting to reset IIS from the command prompt and the User Account Control (UAC) is enabled, you may receive an "Access Denied" error message. To workaround this issue, click the Windows Start button > "All Programs" > "Accessories" and right-click on Command Prompt and select "Run as Administrator". This will allow you to run the command prompt with elevated permissions and perform the IIS reset successfully.



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5. Troubleshooting

5.1 Localhost Connection

On the machine that you are using to host RPWS, open a browser and type **http://localhost/RPCrewWebpage**. If it fails to load the page then you most likely need to allow the IIS service to broadcast through your firewall.

5.2 LAN Connection

On a different workstation on the same LAN, open a browser and type **http://(Local IP Address of Server Machine)/RPCrewWebpage**. This is testing that another workstations inside your office can talk to RPWS. If this fails, then IIS is probably blocked by the Server Machine firewall or you have the wrong IP address for the server. You need to ensure you are using the local IP address of the server machine and not the external IP address (from a browser window). You can locate the internal IP address, by going to Start – Run – cmd (then press enter). Type **ipconfig** and this will tell you the internal IP address in use by this machine. It should be something like 192.168.x.x or similar.

5.3 WAN Connection

To connect to RPWS from outside the LAN, (ie. Your technicians on site) you may have to allow IIS through a port in the firewall and forward it to the internal IP address of the Server machine. Without doing this the router WILL ignore all communication attempts to RPWS. Once configured you should be able to type **http://(External IP Address of Server Machine)/RPCrewWebpage** from any browser window and see the login page displayed.

5.4 Router Issues

For example:

A router with two Ethernet interfaces:

- WAN (connected to internet) with WAN IP: 37.57.207.XX
 - LAN (connected to local network) with LAN IP: 192.168.21.2
 - Server with connection only to local area network LAN IP: 192.168.21.128
1. Open 80 and 443 on server (443 port only if you are using HTTPS connections)
 2. Add rule to NAT router. Something like “If packet income to WAN on port 80 by protocol TCP then forward this packet to 192.168.21.2 to port 80”
 3. Add rule to router firewall. Something like “If packet income to WAN on port 80 by protocol TCP, then accept this packet” (do not reject)
 4. Add rule to router firewall. Something like “If packet income to LAN from 192.168.21.128 by protocol TCP, then accept this packet” (do not reject)

On most routers (90%) after adding rule 2, rules 3 and 4 are added automatically.


5.5 HTTP Error 500.19 – Internal Server Error: Cannot Add Duplicate Collection Entry

Duplicate collection entries may result in a conflict between the application level configuration and the site level configuration. To fix this you'll simply need to add a **remove** statement to the Web.config file located in the RPCrewWebpage root folder.

HTTP Error 500.19 - Internal Server Error

The requested page cannot be accessed because the related configuration data for the page is invalid.

Detailed Error Information:

| | | | |
|---------------------|--|----------------------|--------------------------------|
| Module | CustomErrorModule | Requested URL | http://localhost:80/rpws_files |
| Notification | SendResponse | Physical Path | C:\inetpub\wwwroot\RPWS_Files |
| Handler | Not yet determined | Logon Method | Not yet determined |
| Error Code | 0x800700b7 | Logon User | Not yet determined |
| Config Error | Cannot add duplicate collection entry of type 'mimeMap' with unique key attribute 'fileExtension' set to '.json' | | |
| Config File | \\?\C:\inetpub\wwwroot\RPWS_Files\web.config  Location of Config file | | |

Config Source:

```

37: <staticContent>
38:   <mimeMap fileExtension=".json" mimeType="application/json" />  Find this line in the file
39: </staticContent>

```

Resolution:

1. Navigate to the Web configuration file outlined in the error information above
2. Add the 'remove' line above the file name that is having the issue

```

<handlers>
  <remove name="ExtensionlessUrlHandler-Integrated-4.0" />
  <remove name="OPTIONSVerbHandler" />
  <remove name="TRACEVerbHandler" />
  <add name="ExtensionlessUrlHandler-Integrated-4.0" path="*" verb="*" type='
</handlers>
<staticContent>
  <remove fileExtension=".json" />
  <mimeMap fileExtension=".json" mimeType="application/json" />
</staticContent>
</system.webServer>

```

<http://blogs.msdn.com/b/chaun/archive/2009/12/04/iis7-error-cannot-add-duplicate-collection-entry-of-type-mimemap-with-unique-key-attribute-fileextension.aspx>

5.6 Error 500.19 – The requested page cannot be accessed because the related configuration data for the page is invalid

HTTP Error 500.19 - Internal Server Error

The requested page cannot be accessed because the related configuration data for the page is invalid.

| Detailed Error Information: | | Requested URL | http://localhost:80/rpws_files |
|-----------------------------|---|---------------|--------------------------------|
| Module | IIS Web Core | Physical Path | C:\inetpub\wwwroot\RPWS_Files |
| Notification | BeginRequest | Logon Method | Not yet determined |
| Handler | Not yet determined | Logon User | Not yet determined |
| Error Code | 0x80070021 | | |
| Config Error | This configuration section cannot be used at this path. This happens when the section is locked at a parent level. Locking is either by default (overrideModeDefault="Deny"), or set explicitly by a location tag with overrideMode="Deny" or the legacy allowOverride="false". | | |
| Config File | \\?\C:\inetpub\wwwroot\RPWS_Files\web.config | | |

| Config Source: | |
|----------------|--|
| 30: | </modules> |
| 31: | <handlers> |
| 32: | <remove name="ExtensionlessUrlHandler-Integrated-4.0" /> |

Resolution:

- Open Server Manager and goto Add Roles / Turn Windows Features on/off (for Windows 7,8,10)
- Check all Application development features except 'CGI'

