Technical Training Guide

HP Access Control Technical Training Guide

Version 18.4

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Training Objectives

The purpose of this training is to provide you with all the information and best practices to install HP Access Control (HP AC) Enterprise as a demo on a computer / virtual machine or install the solution as a POC in a customer's environment.

How to use this training

This course leverages the HP AC whitepapers and manuals maintained in HP's online system. When HP makes an update to the documents contained in these links, the PDF referenced in this document is automatically updated. This means most of this training is updated through updating the whitepapers.

These documents are created by knowledgeable HP engineers who work on HP AC escalations. The support tickets they resolve provide a basis for the content of the whitepapers. If you will take time to learn the contents of the whitepapers you will be prepared to answer most of the questions you receive regarding HP AC.

Each section has a short introduction identifying the objectives/purpose of that section. You will be directed to the whitepaper for certain content and then back to this training guide for additional information and video links that help clarify the items that are being discussed.

Please follow the guide as it has been outlined when you are first going through the training. Skipping a section or not reading a whitepaper may impede the learning process and cost you more time. After you have completed the training, feel free to use this guide to quickly locate resources which may help you in your HP AC efforts.

Task 1: Installing HP AC

Preparation / Objectives

The instructions included in this training prepare you to install HP AC on any of the supported operating systems.

For the purposes of this training, we will install HP AC on a Windows 2016 Standard Server operating system on a virtual machine. For another windows version or to use a dedicated SQL server instance, please use the referenced documentation to complete the setup

> NOTE: This training is using Windows Server 2016 Standard. If you are installing on a different operating system, please refer to the specific information for your system in the documentation. Windows Firewall and User Account Control have both been turned off on our system prior to installation.

In this task we'll be using the HP AC Enterprise Administrator Guide, the HP AC and SQL Installer package document and the zip file containing MS SQL Express Edition, all of which are included in the HP AC download files. These documents provide the information necessary to install HP AC on your chosen server operating system.

The HP Access Control Enterprise Administrator Guide v16.2:
http://h10032.www1.hp.com/ctg/Manual/c05641610

The HP AC and SQL Installer package.pdf file is included with the zip file that contains MS SQL Express.

Videos that accompany this section:

Prerequisite checker: https://vimeo.com/292206552/4797a03594

Installing the .Net 3.5 framework on Server 2016: https://vimeo.com/275151464/be1d7980d1

SQL Express Installation and configuration: https://vimeo.com/292206135/6d5f67b45a

Installing HP AC: https://vimeo.com/292206022/81e914dbef

Install SQL Server Express

If you have an existing instance of MS SQL that you will be connecting to, you need to have the username and password to complete the next steps for setup and can skip to the next section.

Note: If you plan to use SQL Reporting Services for Job Accounting in HPAC, go to Task 9, Section 1 to install the required version of SQL Server Express.

Steps to install SQL Server Express:

1. Read the HP AC and SQL Installer package .pdf file to review the information necessary to complete the MS SQL Express Edition Installation. In this version, we launch the .bat file to complete install.

2. Double click the SQL Express.bat file.

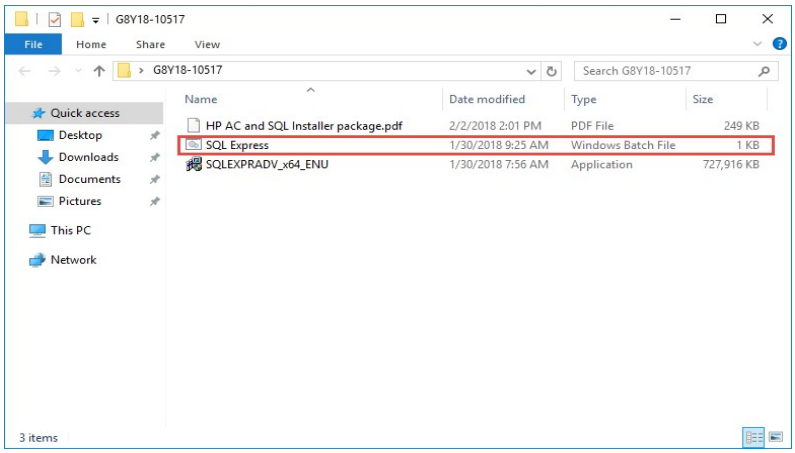


Figure 1: File explorer showing the SQL Express.bat file

3. Type your selected system account (sa) password in the command prompt window and press Enter to continue with the installation.

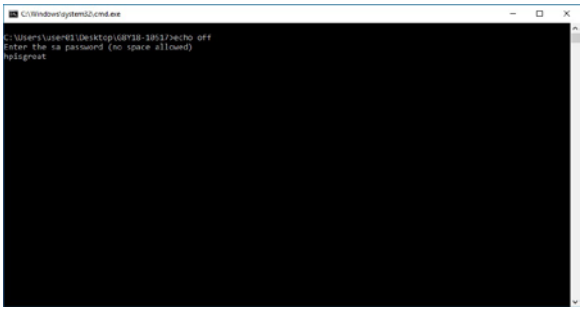


Figure 2: Prompt shown by launching the SQL Express.bat file

4. Record your sa password for use with the HP AC installation as it will be required to complete the setup.

The batch file will complete the setup for MS SQL on the selected server. Some SQL screens will display on the desktop, but no further user interaction is required. As a best practice, it is always good to reboot your operating system between installations to keep services running smoothly and reduce the possibility of conflicts.

Install HP AC Enterprise

Note: HP AC requires .Net 2.0 and 3.5 and IIS to be installed and handles the installation automatically. The automatic installation of the .Net 2.0 and 3.5 features and IIS are only available through Windows Update. An active internet connection is therefore required.

Steps to install the HP AC Enterprise:

1. Open the HP Access Control Enterprise Administrator Guide referenced in the preparation section.
2. Read Chapter 1 and 2 and make sure your system meets the requirements specified. Continue to the next step once you are satisfied that your environment meets those requirements.
3. Follow the steps to install HP AC Enterprise in section 3.2.

Task 2: Configuring HP AC Enterprise Settings

Preparation

To complete this task, you need to have a successfully installed instance of HP AC. There should be a shortcut to the HP AC Configuration utility on your desktop. At the end of this task, you will have configured the necessary settings to be able to configure a printer with the HP AC client in the next task.

In this task we'll be using the HP AC Enterprise Administrator's guide.

http://h10032.www1.hp.com/ctg/Manual/c05641610

Videos that accompany this section:

Configuring certificates:
https://vimeo.com/275341091/3f2d39e694

HP AC Setting Tile: https://vimeo.com/275705112/6d9c27a252

HP AC tiles familiarization

The purpose of this task is to familiarize you with the HP AC tiles. The tiles provide all the administrator functions for HP AC Enterprise, so take some time to become familiar with all their functionality.

1. Open the HP AC Enterprise Administrator's guide and read section 4.1.
2. Read this without opening the HP AC Configuration utility. This will familiarize you with the interface.

HP AC initial settings

When HP AC is installed for the first time the, there will be several grey and orange tiles (see Figure 3). The tiles in orange show that additional configuration is required to have a successful implementation.

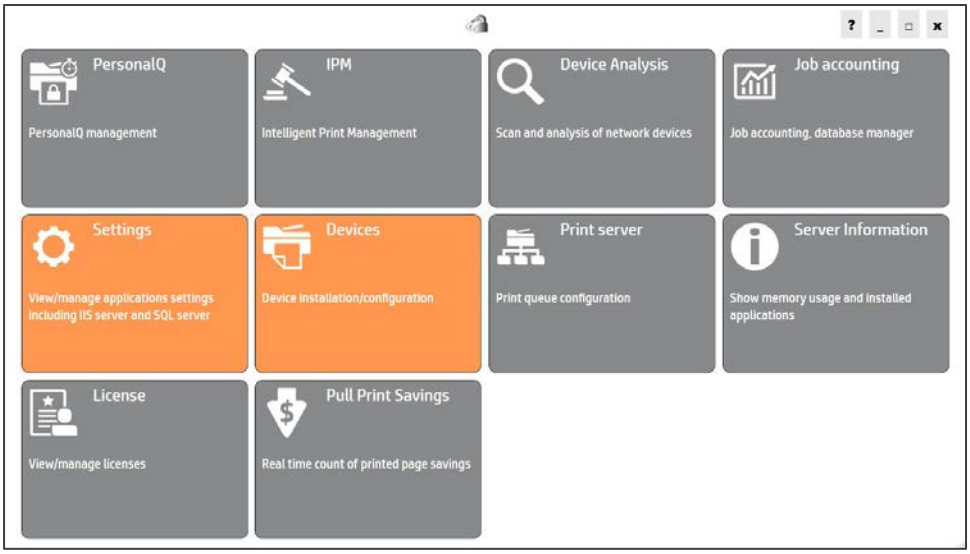


Figure 3: HP AC Configuration Utility

Steps for HP AC initial settings:

1. Open the HP AC Enterprise Administrator's guide and follow the steps in section 4.2 to finalize your configuration settings.
2. Remember to press the **Update** button when making any changes to the Pull Print Enterprise tab, and before moving to another tab or tile, or your settings will not be saved. Read till you reach section 4.2.1.

Task 3 – Configuring Authentication and Storage

Preparation

To complete this task, you need to have successfully installed HP AC Enterprise. This is the largest request we receive when configuring HP AC. Therefore, we will change the storage to use a MS SQL Database and configure Card Authentication.

In this task, we'll be using the HP AC Enterprise Administrator's guide.

http://h10032.www1.hp.com/ctg/Manual/c05641610

Configure Authentication and storage

Steps to configure Authentication and storage:

1. Download and review the HP AC Enterprise Administrator guide and review Chapter 5 on Authentication through section 5.3.2.
2. You need to get your MS SQL server name and password before you can enable SQL Data Storage. To do this, navigate to the **Settings** tile and choose the **Database** tab. Then, copy the Server name in the Database configuration section.

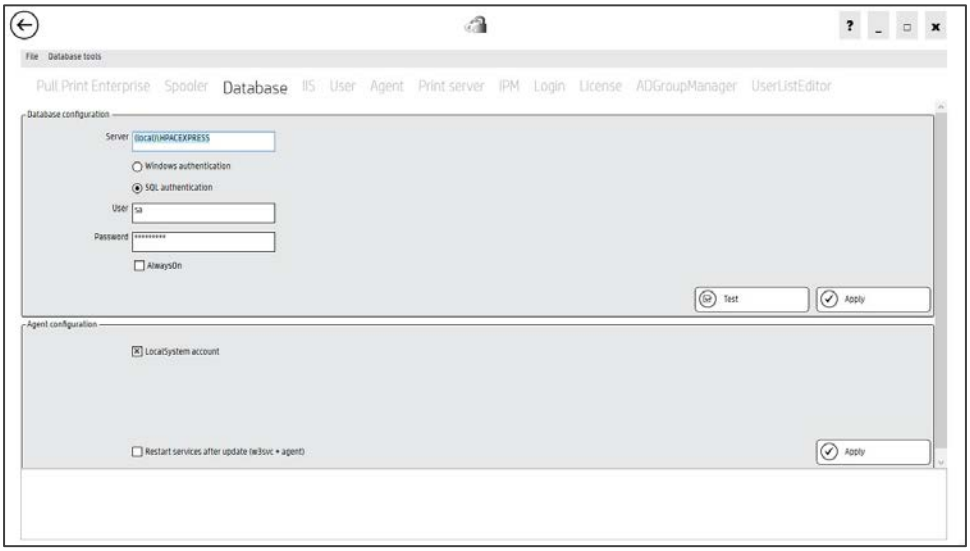


Figure 4: Database tab with the server name selected

3. Follow the steps in section 5.3.1 to choose Card Only as the Device Authentication method and choose SQL Server for Data Storage.
4. Type a unique Database name (e.g. HPACIRM) and paste your copied value into the Data Storage Server name field.
5. Choose the SQL authentication radio button
    a. User: sa
    b. Password: sa password you set in the SQL Installation.

6. Press the Test connection button to make sure it is available, and then click the **Update** button to save your settings.

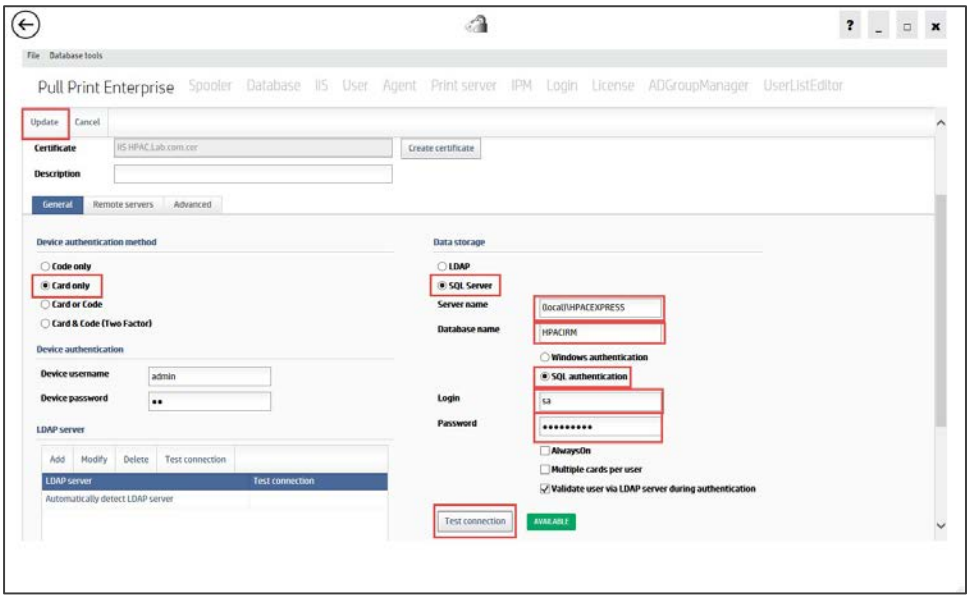


Figure 5: Settings configured properly for SQL Server authentication.

7. Section 5.3.2 discusses the LDAP settings. Review those settings and adjust, as necessary, to your environment.

Task 4 – Creating a pull printer queue (on client)

Preparation

To complete this task, you need to have successfully installed HP AC Enterprise. You will need a supported client operating system (OS) as specified in the HP AC Administrator guide, that is joined to the same domain as your HP AC server. This is assuming that you have administrator rights on the computer you are using. At the end of this task, you will have a client with a pull print queue enabled and you will be able to submit jobs to the HP AC queue. We will follow the process to create both an IPP and an LPR queue

In this task we'll be using the HP AC Enterprise Administrator's guide, the HP FutureSmart 4 Administrative Password Security Features whitepaper, and the Secure by Default whitepaper.

HP AC Enterprise Administrator's guide:

http://h10032.www1.hp.com/ctg/Manual/c05641610

The latest HP Universal Print Driver (UPD) PCL 6 version:

http://www.hp.com/go/upd

Videos that accompany this section:

Configure pull print drivers:
https://vimeo.com/275680171/58169ba158

Create a Pull Print Queue (IPP)

Steps to create a Pull Print Queue:

1. Download or open the HP AC Enterprise Administrator's guide and read section 8.1 for an overview of creating pull print queues.
2. Follow the steps in section 8.1.2, titled Adding a printer to use Internet Printing Protocol (IPP), through step 4, then return to this guide.
3. If the latest HP Universal Print Driver (UPD) is installed on your computer, select that UPD and follow the instructions to complete the installation then continue to step 4. If not, follow the steps below:
4. Instead of selecting a printer driver from the list of installed drivers, use an INF from the latest HP UPD. Download the latest HP UPD from the link above and double-click the installer to run the file.
5. In the WinZip Self-Extractor dialog box, click to clear or uncheck the **When done unzipping open: .\install.exe**.

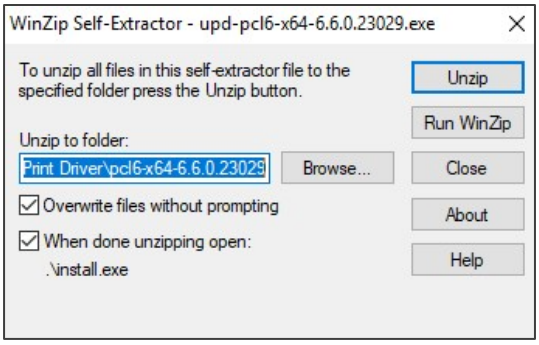


Figure 6: Self-Extractor for HP UPD

This action creates a folder in the following location: C:\HP Universal Print Driver.

6. Click the Have Disk... button on the Add Printer Wizard.

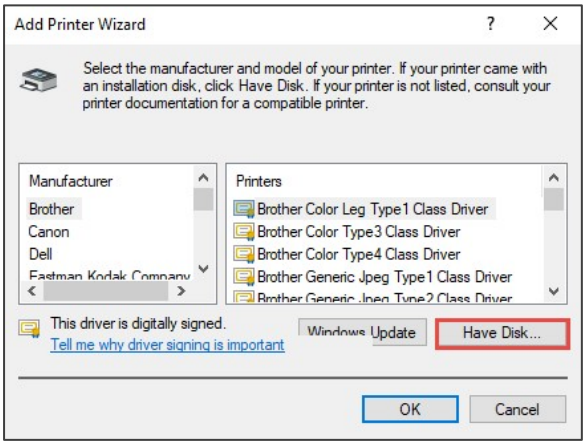


Figure 7: Add Printer Wizard driver selection dialog box

7. Browse to the folder containing the .inf files for the HP Universal Print Driver you extracted, select one of the .inf files, and click the Open button.

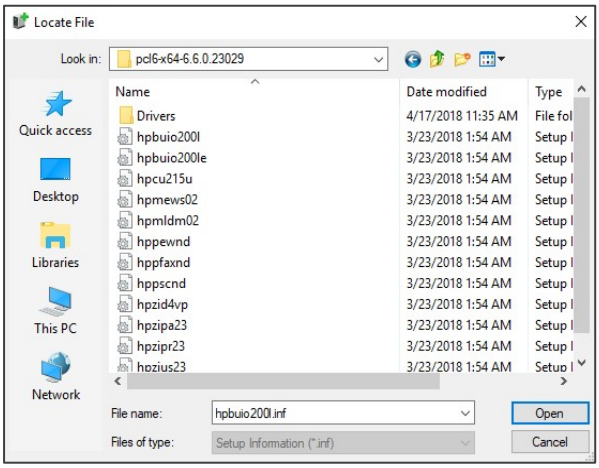


Figure 8: File location of the HP UPD .inf files.

8. Click the OK button to close the Install from Disk dialog box.

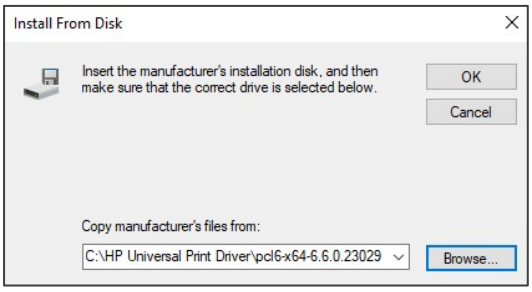


Figure 9: Install From Disk dialog box with file selected.

9. Select the HP Universal Printing PCL 6 option from the list of printers and click OK to continue.

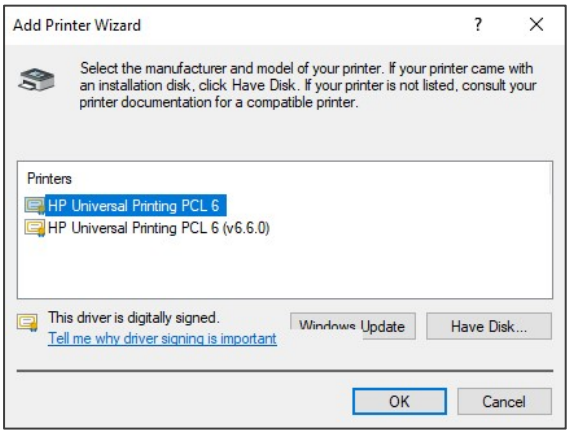


Figure 10: HP Universal Print Driver PCL 6 selection in the Add Printer Wizard.

10. Complete the remaining steps to install the printer and print a test page before you close the installer.
11. Open the HP AC Configuration utility to the PersonalQ tile and open the personal queue you created. You should see your print job in this queue.

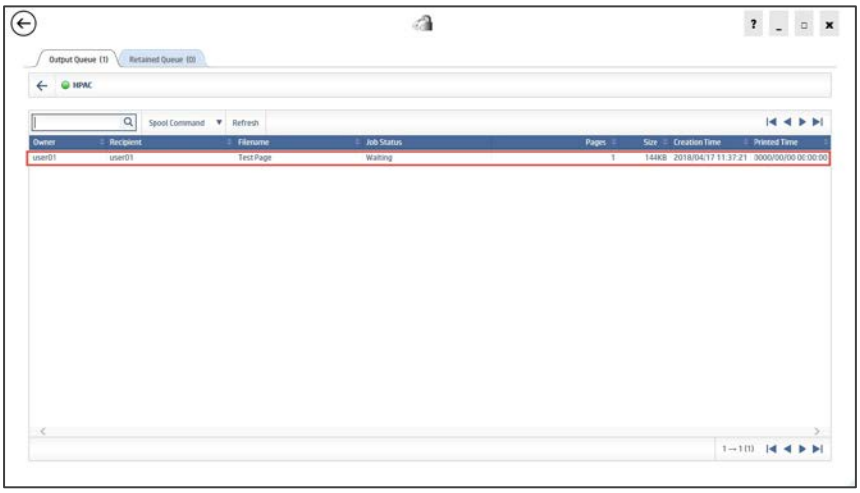


Figure 11: HP AC PersonalQ with files waiting for release.

Create a Pull Print Queue (LPR)

Steps to create LPR Pull Print Queue:

1. Download or open the HP AC Enterprise Administrator's guide and read section 8.1 for an overview of creating pull print queues.
2. Follow the steps in section 8.1.3, titled *Adding a printer to use Line Printer Remote (LPR)* protocol, through step 13, then return to this guide.
3. Select the Print test page checkbox.
4. Click **Finish**.

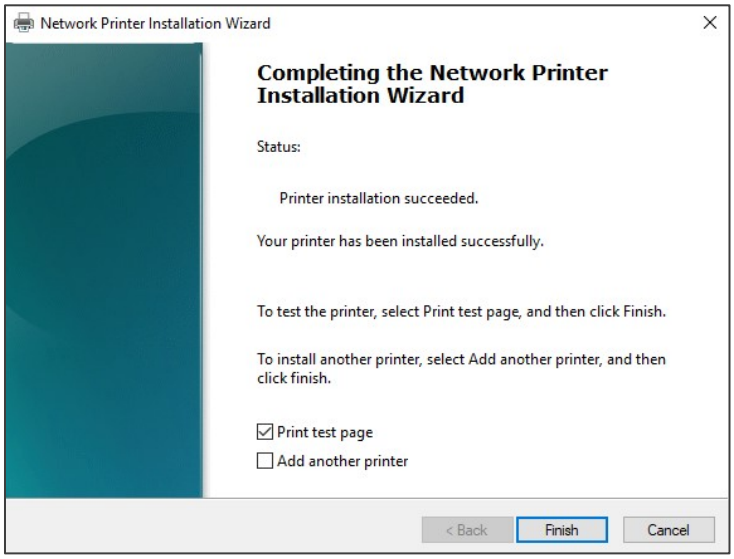


Figure 12: Network Printer Installation Wizard finish dialog box.

5. Open the HP AC Configuration utility to the PersonalQ tile and open the personal queue you created. You should see your new print job in this queue.

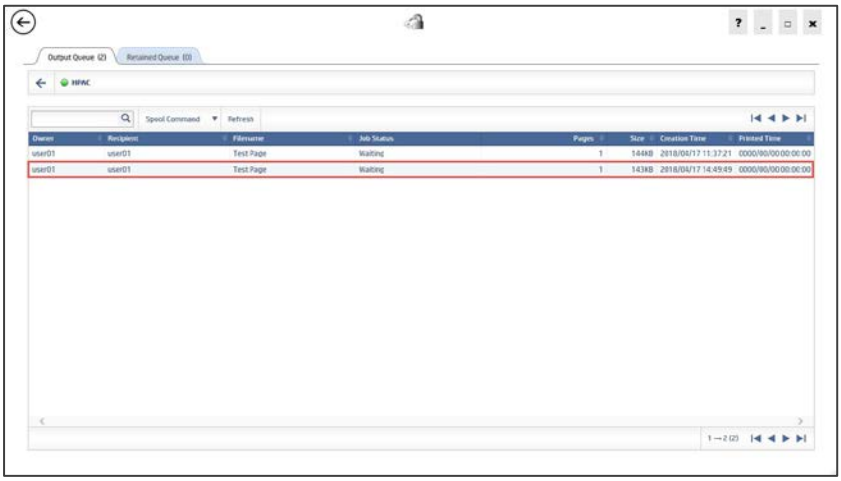


Figure 13: PersonalQ with multiple test pages ready to be released.

Task 5 – Configuring a printer

Preparation

To complete this task, you need to have a successfully installed instance of HP AC. There should be a shortcut to the HP AC Configuration utility on your desktop. You should have configured your storage method and authentication settings before deploying the workflow to the printer so the correct configuration is applied when you install the client on the printer. This guide also assumes you are using an HP Enterprise MFP for installing HP AC. For other printers, follow the specified instructions for those printers in the associated documents.

At the end of this task you should have successfully installed the HP AC print client on a printer. We will be using the Google Chrome browser to launch the HP Embedded Web Server (EWS) and complete the pre and post configuration requirements. You should reset the printer to factory defaults using the EWS or you should perform a partial clean on the printer before completing these steps.

NOTE: This process shows how to configure one printer to work with HP AC. If you have a large fleet of printers you should follow best practices as outlined in the HP AC Enterprise Administrator's guide.

In this task we'll be using the HP AC Enterprise Administrator's guide, the HP FutureSmart 4 Administrative Password Security Features whitepaper, and the Secure by Default whitepaper.

HP AC Enterprise Administrator's guide:

http://h10032.www1.hp.com/ctg/Manual/c05641610

HP FutureSmart 4 Administrative Password Security Features whitepaper:

http://h10032.www1.hp.com/ctg/Manual/c05429015

HP Secure by Default whitepaper:

http://h10032.www1.hp.com/ctg/Manual/c05818654

Videos that accompany this section:

Configure devices: https://vimeo.com/275679899/d904dacc82

Check print queue on printer:
https://vimeo.com/275690212/7c99bb9d5a

Configure the EWS Password

You must configure your printer EWS password before you can install the HP AC print client. This includes setting the EWS password, making sure your printer has an IP address on the same network as your HP AC server, and that you have configured the EWS password in your HP AC server.

Steps to configure an EWS password:

1. Download or open the HP AC Enterprise Administrator's guide and read section 4.2.1 on adding devices to the HP AC Configuration utility and section to section 5.7 on *Configuring Devices*. These sections detail the importance of the EWS password in the configuration process and the steps required to install the device. This is a read only task. Configuration will take place in the next Task Step.
2. Download and read the HP FutureSmart 4 Administrative Password Security Features whitepaper from the link above.
3. Log into the printer EWS by typing the IP address of your printer into a web browser and bypassing the SSL certificate error.

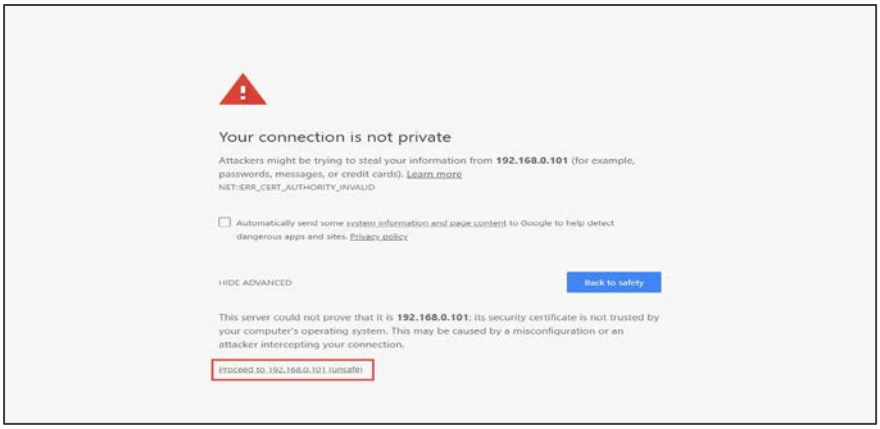


Figure 14: Bypassing the SSL error in a browser.

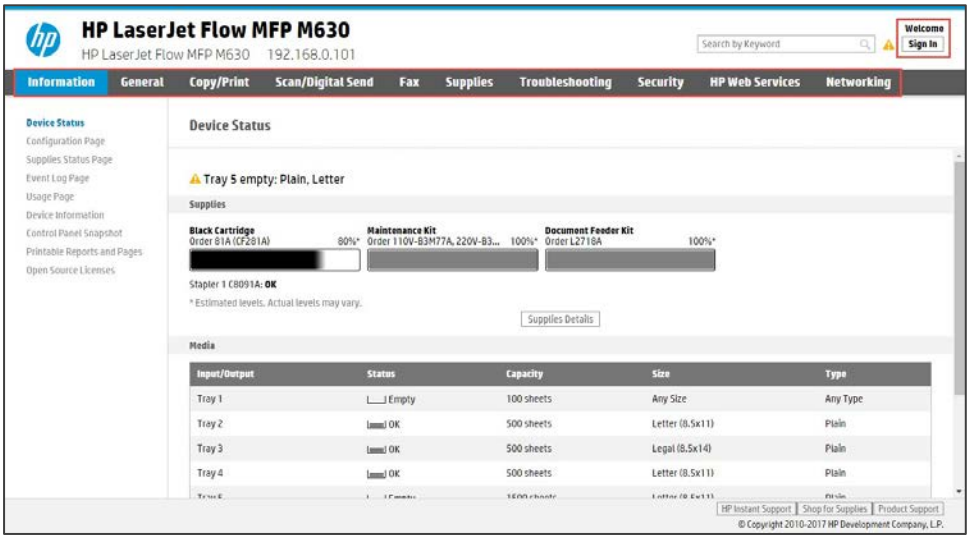


Figure 15: EWS when no default EWS password is set.

NOTE: If a password is not set on the EWS, you will be able to see the entire menu structure on the EWS and for the Authenticated user will display "Welcome" and the Authentication button will have Sign In as its text.

4. If the password is not set, follow the instructions in the HP FutureSmart 4 Administrative Password Security Features whitepaper to set the password to the same one you set in the HP AC Configuration utility in the previous task.
5. Once the password is set, the authenticated user will be set to Administrator and the Authentication button text will change to Sign Out.

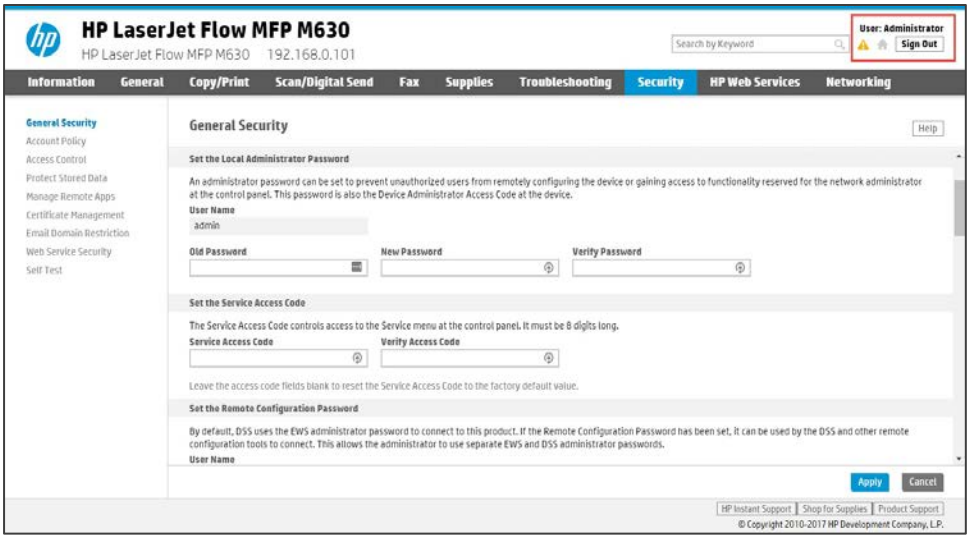


Figure 16: EWS with a password set and the Administrator account authenticated.

Add the device to the HP AC Configuration utility and deploy the client

You should have the HP EWS password set to the value you set in the HP AC Configuration utility before you complete this step. This will help the configuration process to move forward more quickly.

Steps to add the device to HP AC Configuration utility and deploy the client:

1. Review the steps in section 4.2.1 of the HP AC Enterprise Administrator guide. and then follow section 4.2.1.1 to add an individual device to the HP AC Configuration utility.
2. With the printer in your list, jump to section 5.7 to review the Configuring Devices section. When you reach section 5.7.1, follow the steps for Deploying Workflows to install the agent and configure the HP AC client on the printer with Pull Printing and Authentication.

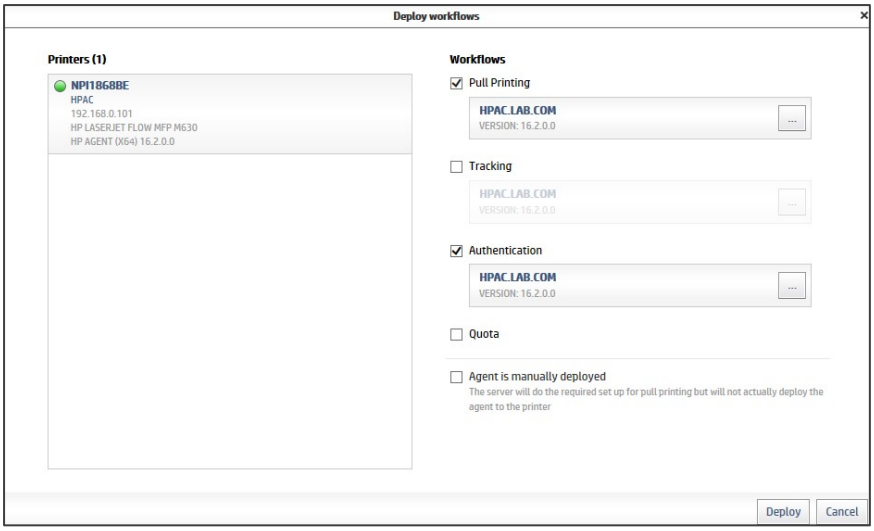


Figure 17: HP AC Deployment options selected for the POC deployment

3. During the deployment process, there are several possible failures that can occur. One of the common failures is a mismatch between the printer EWS administrator password and the EWS password specified in the HP AC Configuration utility. If you receive an error, review the message and take the appropriate steps to resolve the condition to complete the installation.

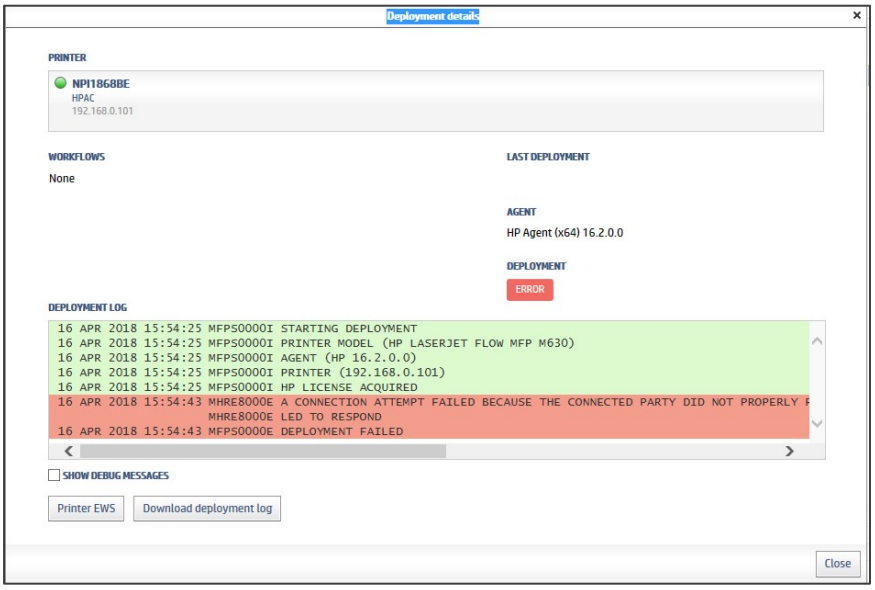


Figure 18: Error which occurs when you have Secure by Default on the printer.

4. Finish following the steps in section 5.7.1 to set the Access Control method for the HP AC Secure Pull Print button to use the HP AC server for authentication.

Task 6 – Enrolling, authenticating, and retrieving

Preparation

To complete this task, you need to have successfully installed HP AC Enterprise and you should have configured HP AC for Card authentication or Card + Code authentication methods. You should have deployed the agent to the printer. You must also have a print job waiting in the print queue. You should be using a standard HID proximity card or HID iClass fob for authentication. If you need to configure a different type of card, please review section 5.3.3 of the HP AC Administrator guide for supported card types and how to configure them.

In this task we'll be using the HP AC Enterprise Administrator's guide.

http://h10032.www1.hp.com/ctg/Manual/c05641610

Videos that accompany this section:

Enrolling your card: https://vimeo.com/267308521/529779d37d

Secure Pull Printing: https://vimeo.com/267699858/639b66367f

Enroll the card at the device

The easiest way to get cards enrolled with HP AC is to let users perform this function for themselves. This straightforward process typically takes users less than 5 minutes at the control panel of an HP Enterprise MFP.

Steps to enroll the card at the device:

1. Read section 5.8, Enrolling a card at the device, in the HP AC Enterprise Administrator's guide.
2. Follow the steps in section 5.8.1 for enrolling your card on the MFP.

Authenticate without your card

You can still authenticate at the control panel of the printer if you leave your proximity card at your desk. Follow these steps to authenticate the printer without your card:

1. Touch the HP AC Secure Pull Print icon on the control panel of your printer.

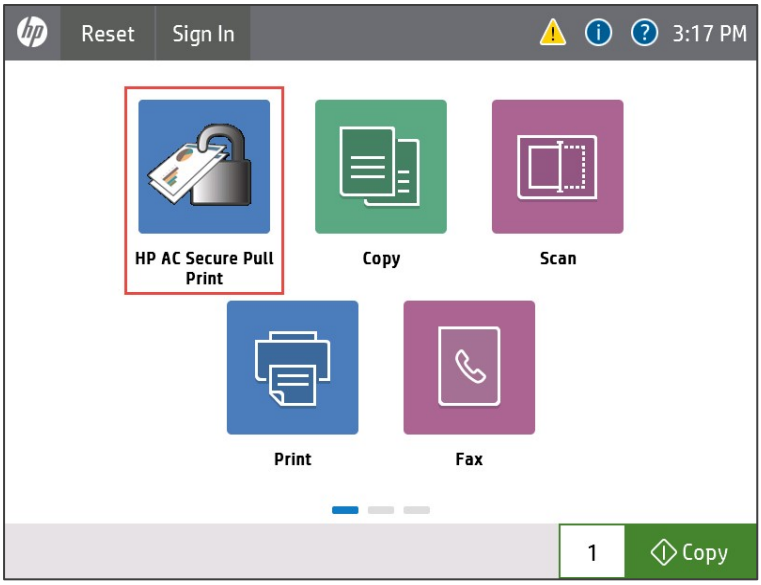


Figure 19: HP Enterprise MFP with HP AC Secure Print button

2. Press OK to enter your network credentials instead of presenting your card.

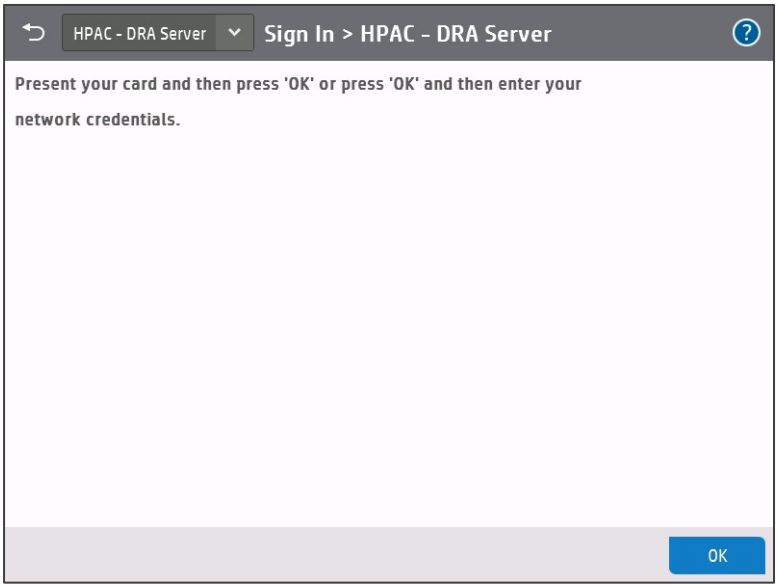


Figure 20: HP AC Sign In screen

3. Enter your network credentials then touch the OK button to complete your authentication.

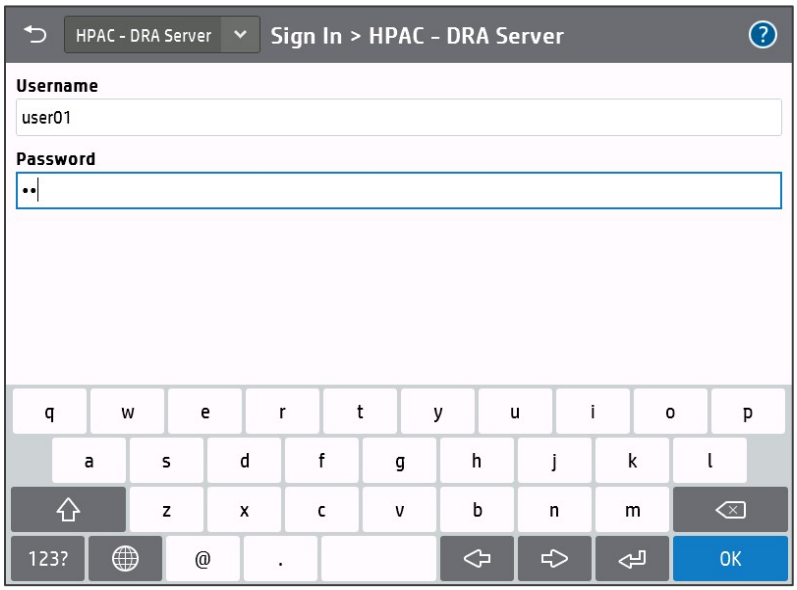


Figure 21: HP AC authentication screen

Retrieve your printouts

One of the main reasons to install HP AC in your environment is to start using pull printing. When you can authenticate on the MFP, you can now start pull printing.

Steps to retrieve your printouts:

1. Go to your Windows client (Windows 10) and send a print job to your HP AC server using one of the pull print drivers you have set up.
2. Read section 6.7.3, Pull Printing from HP multi-function printers, in the HP AC Enterprise Administrator's guide.
3. Follow the steps outlined in section 6.7.3 and print out one of your print jobs.
4. Check your print jobs to make sure you have retrieved the jobs you sent. Congratulations you have just completed your first pull print with HP AC.

Task 7 – Intelligent Print Management

Preparation

To complete this task, you need to have successfully installed HP AC Enterprise. You should also have a Pull Print queue established on your Windows® client.

Intelligent Print Management (IPM) helps you change users printing behaviors. This is done by notifying users of the result of their printing behaviors such as printing on a single side of each page or printing in color versus monochrome. If configured appropriately, users can continue with the print process as they have specified, or they can apply your IPM rules to reduce the cost of printing. Alternately, you can strictly enforce each policy and notify the user of the change you have made or just make the changes without notifying users that you have applied a printing policy to their document.

Installing and configuring IPM by strictly following the HP AC Enterprise Administrator's guide can be somewhat confusing since the tasks may refer to

In this task we'll be using the HP AC Enterprise Administrator's guide.

http://h10032.www1.hp.com/ctg/Manual/c05641610

Videos that accompany this section:

IPM Server Configuration:
https://vimeo.com/275697851/51f3255657

IPM Client Configuration:
https://vimeo.com/275700094/90cdc74eac

Create rules in the HP AC Configuration Utility

You need to have printing rules. These rules can either be enforced completely without user's having the opportunity to change the outcome, or you can prompt them to accept or reject the action along with providing cost associated with the print job. For this task we will create a rule that encourages users to duplex jobs with more than one page and use Economode when printing.

Steps to create rules in the HP AC Configuration Utility:

1. Read the Introduction to IPM, section 10.1, in the HP AC Enterprise Administrator's guide to discover the purpose of IPM.
2. Follow the steps in 10.3 to create an IPM rule that meets the following criteria:

   If a print job has more than one page, force the job to duplex and print in Economode. Prompt the user and allow them to select which rules they want to enforce.

3. Test functionality using the IPM tile to see if your rule will be enabled.
4. Compare your work with Appendix A and the rules we have configured and tested.

Configure pricing in the HP AC Configuration Utility

You need to configure some pricing information in the IPM tab of the settings tile to show the price of a print job to your users.

Steps to configure pricing in the HP AC Configuration Utility:

1. Read section 10.2.4 of the HP AC Enterprise Administrator's guide. Pay attention to the note before the steps begin. This is how we would set it up in a classroom or demo environment.
2. Copy the Marketing values from step 3 to your HP AC instance, give the profile a name, and click the Apply button.

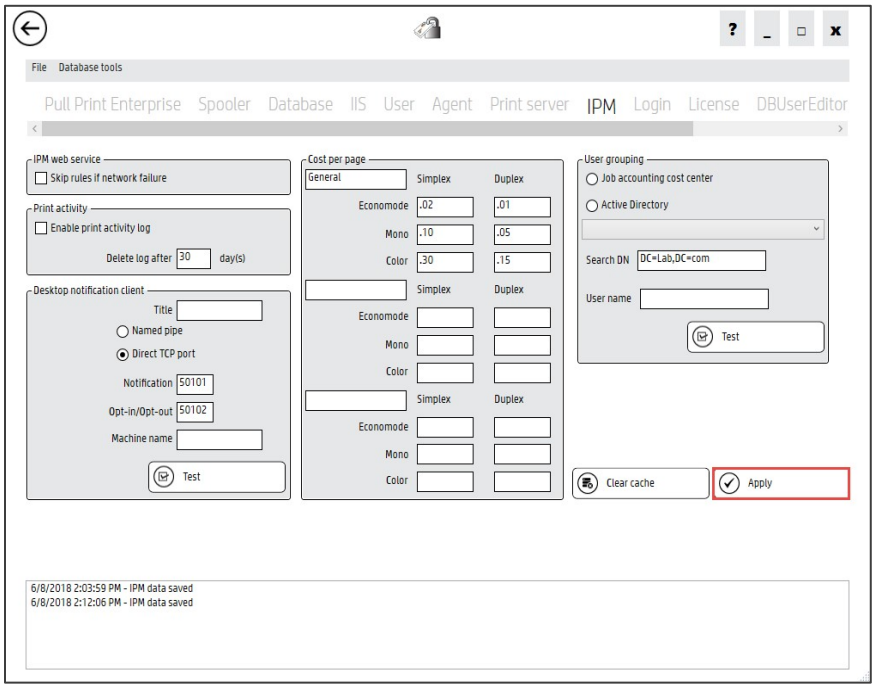


Figure 22: HP AC Settings IPM Configuration

Install the HP AC Print Client

The HP AC print client facilitates communication between the HP AC server and users' computers to help with functions such as encryption, print delegation and IPM for rules-based printing. The

steps below should be installed on a computer or virtual image running a client OS such as Window 10 which is what we will use.

Steps to install the HP AC Print Client:

1. Review section 8.1.6 in the HP AC Enterprise Administrator's guide for information on the HP AC Enterprise Print Client.
2. Follow the steps in section 8.1.6 to install the print client for the correct OS architecture for your client. Make sure you select IPM in the Configuration Screen at a minimum to ensure we can receive our IPM notifications.
3. On my client, I choose to reboot the computer and waited until the Windows Firewall Message appeared to allow access to the PullPrint Client and allowed an exception through the Domain networks firewall setting.

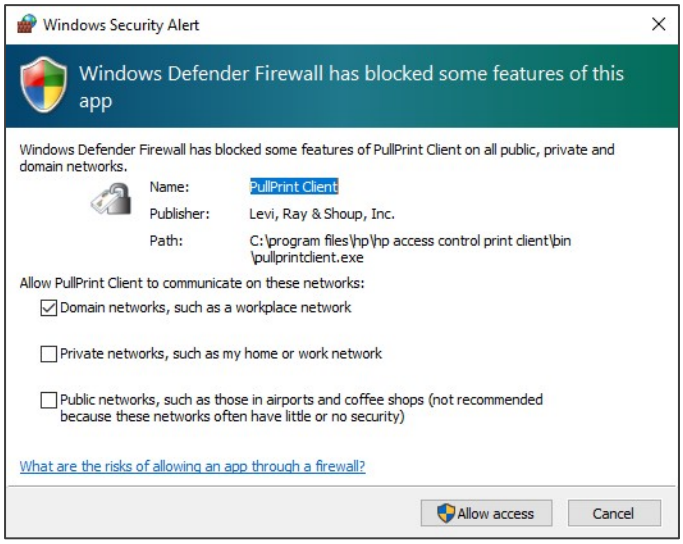


Figure 23: Windows Security Alert pop up

4. Send a print to your HP AC Pull Printer using the LPR printer port to verify your IPM notifications. Compare your results with those in Appendix B.

Task 8 – Job Accounting

Preparation

To complete this task, you need to have successfully installed HP AC Enterprise.

In this task we'll be using the HP AC Enterprise Administrator's guide.

http://h10032.www1.hp.com/ctg/Manual/c05641610

Videos that accompany this section:

Job Accounting Configuration:

https://vimeo.com/293034052/6ae7b01fc4

Getting Started

When logging in to HP ACJA for the first time, use the credentials below. The password is case sensitive:

User name: Admin

Password: Admin

Read section 12.4 of the HP AC Administrators Guide then follow the steps in Sections 12.4.1 and 12.4.2 to log in and view the information page.

Customizing Reports and Group Organization

Steps to customize reports and group organization:

1. Read section 12.5.8 of the HP AC Administrators Guide for information on Group Organization then follow these steps to configure JA to group users by the Active Directory Property "Department".
2. Log in to HP ACJA then go to Administration > Active Directory > Group Organization.

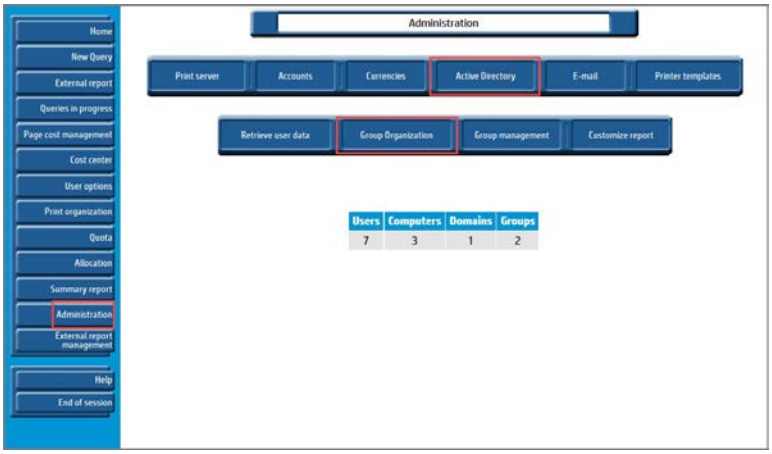


Figure 24: Job Accounting window

3. Select the radio button for Active Directory Property and input department in the adjacent field, then click the button.

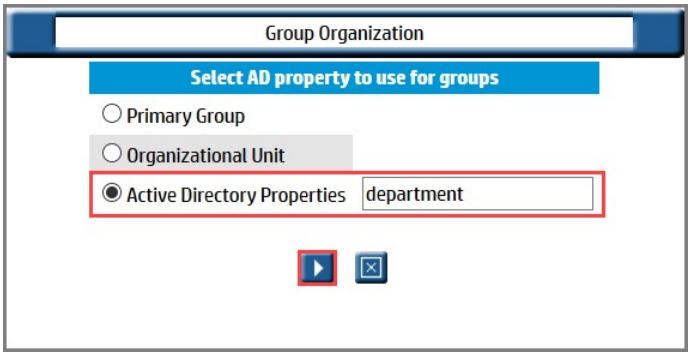


Figure 25: Job Accounting group selection

Email

Steps to configure email :

1. Read section 12.5.13 of the HP AC Administrators Guide for information on email in HP ACJA, and then follow the steps in section 12.5.14 to create an email address.
2. Read section 12.5.17, and then follow the steps in section 12.5.17.1to create a distribution list.
3. Read section 12.5.18, and then follow the steps in section 12.5.18.1to configure the email server.

Performing a Query

Note that in a POC environment, it is likely that there will be no data in JA, so the resulting reports may not be very useful.

Steps to perform a query

1. Read sections 12.11 through 12.11.2.1.7 of the HP AC Administrators Guide for information on the various types of queries available in HP ACJA, and then follow these steps to perform queries based on user and group.
2. Go to the New Query tab of HP ACJA and fill the radio button for Total number of pages printed for top n, select users then click the button to start the query.

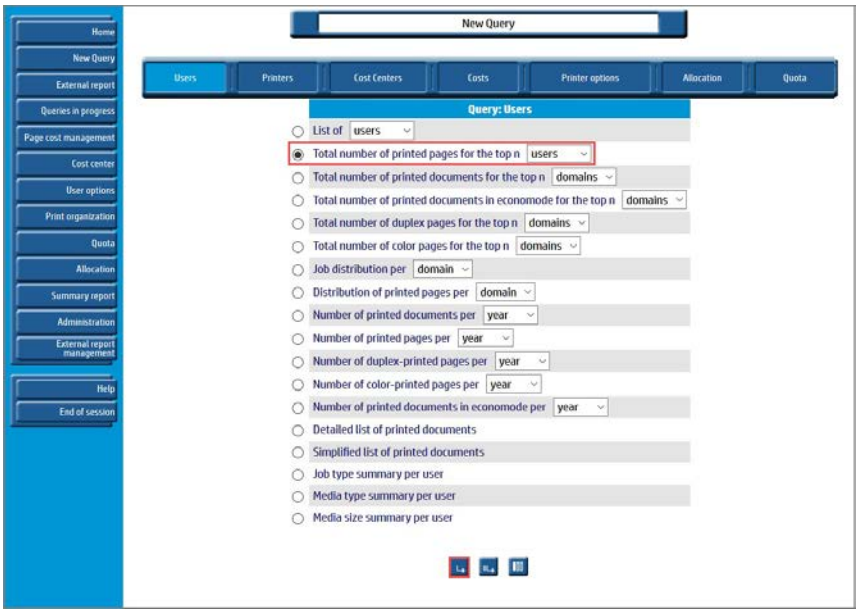
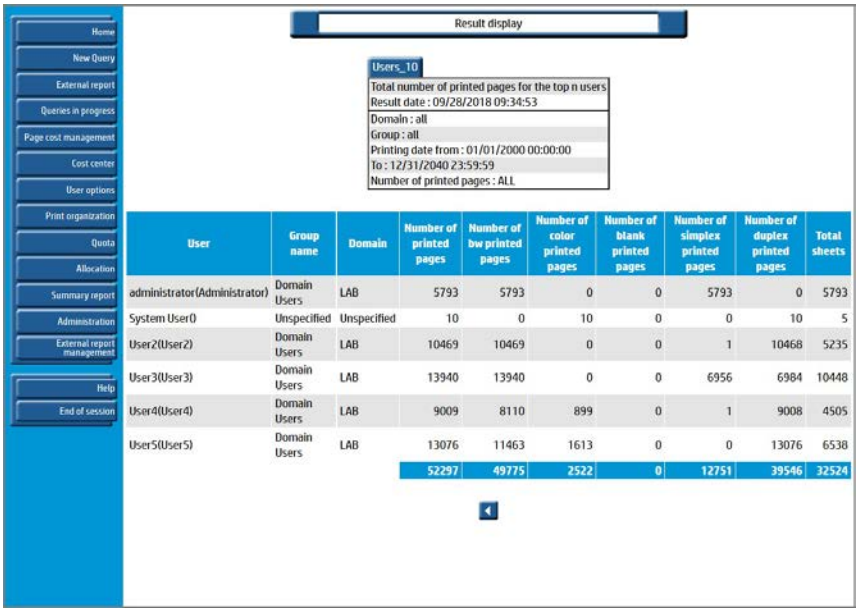


Figure 26: Job Accounting report selection

3. On the following screen, click the button to view the results of the query.



User	Group name	Domain	Number of printed pages	Number of bw printed pages	Number of color printed pages	Number of blank printed pages	Number of simplex printed pages	Number of duplex printed pages	Total sheets
administrator(Administrator)	Domain Users	LAB	5793	5793	0	0	5793	0	5793
System User()	Unspecified	Unspecified	10	0	10	0	0	10	5
User2(User2)	Domain Users	LAB	10469	10469	0	0	1	10468	5235
User3(User3)	Domain Users	LAB	13940	13940	0	0	6956	6984	10448
User4(User4)	Domain Users	LAB	9009	8110	899	0	1	9008	4505
User5(User5)	Domain Users	LAB	13076	11463	1613	0	0	13076	6538
			52297	49775	2522	0	12751	39546	32524

Figure 27: Job Accounting report result

4. Repeat steps 2-3 using groups instead of users.

Task 9 – HPAC Job Accounting with SQL Server Reporting Services (SSRS) (Optional)

Preparation

Task 9 contains two sections. Section 1 covers the installation of SQL Server 2016 SP2 with Advanced Services prior to installing HPAC. Use this if you have not yet installed HPAC and know you want to use SSRS for HPAC Job Accounting. Section 2 covers the installation of SQL Server 2016 SP2 with Advanced Services (*Note: SSRS 2017 can also be used but requires a license to function beyond a 180-day trial period*) when HPAC and its included version of SQL Server are already installed. For this demonstration, we have already acquired the installation media from microsoft.com. You must have an internet connection during the installation.

In this task we'll be using the HP AC Enterprise Administrator's guide.

http://h10032.www1.hp.com/ctg/Manual/c05641610

Videos that accompany this section:

Job Accounting Configuration:
https://vimeo.com/293034052/6ae7b01fc4

Job Accounting Reports with SQL Server Reporting Services:
https://vimeo.com/292207962/e03d477047

Section 1 – Installing SQL Server 2016 SP2 with Advanced Services Before HPAC

Use this section to install and configure SQL Server 2016 SP2 with Advanced Services to use SSRS prior to installing HPAC.

1. Run SQLEXPRADV_x64_ENU.exe and extract installation files to the directory of your choosing.

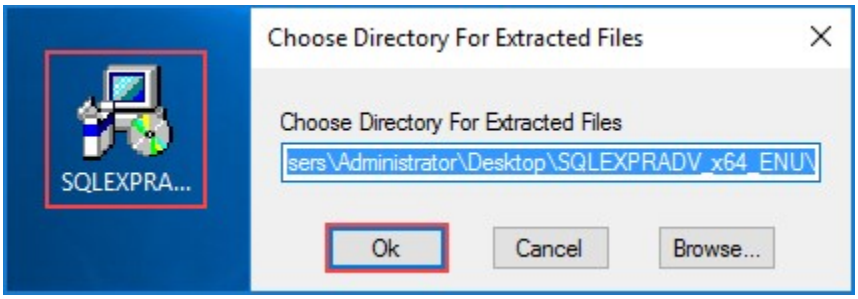


Figure 28: SQL Server file extraction

2. Click **New SQL Server stand-alone installation** or add features to an existing installation.

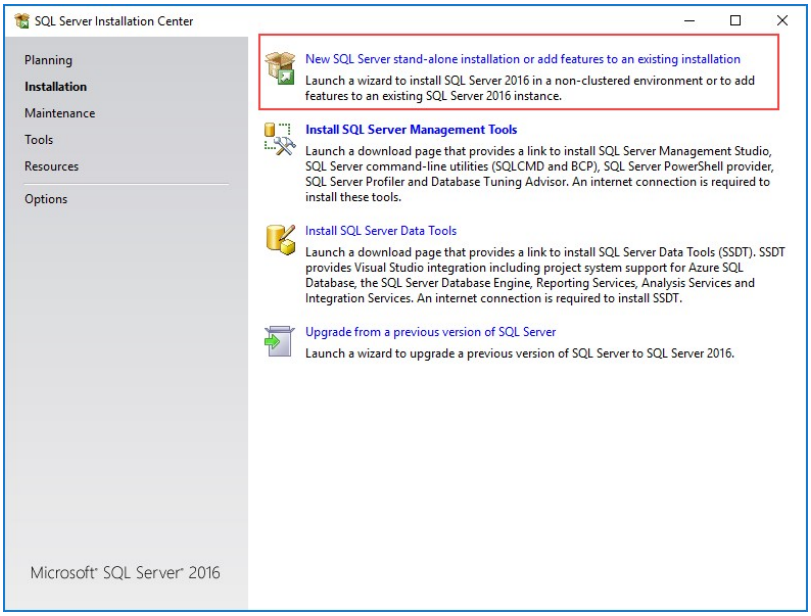


Figure 29: SQL Server Installation center

3. Accept the license terms and click **Next**.

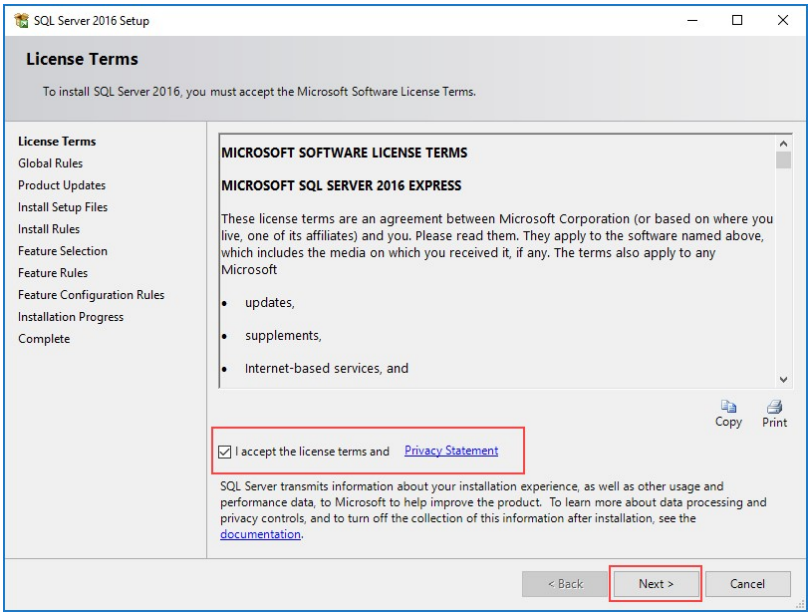


Figure 30: SQL Server License Terms

4. Leave the default services and features selected and click **Next**.

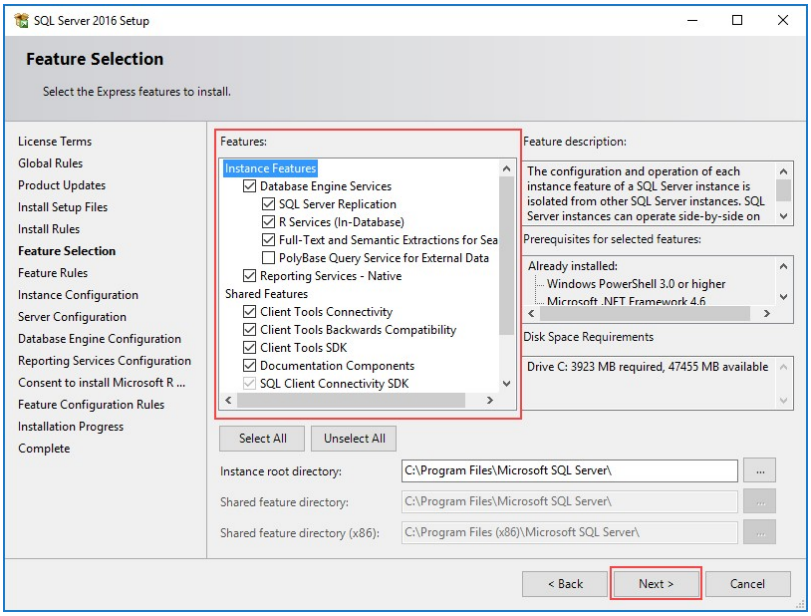


Figure 31: SQL Server Feature Selection

5. Provide an Instance Name and Instance ID, this demonstration will use HPACExpress, then click **Next**.

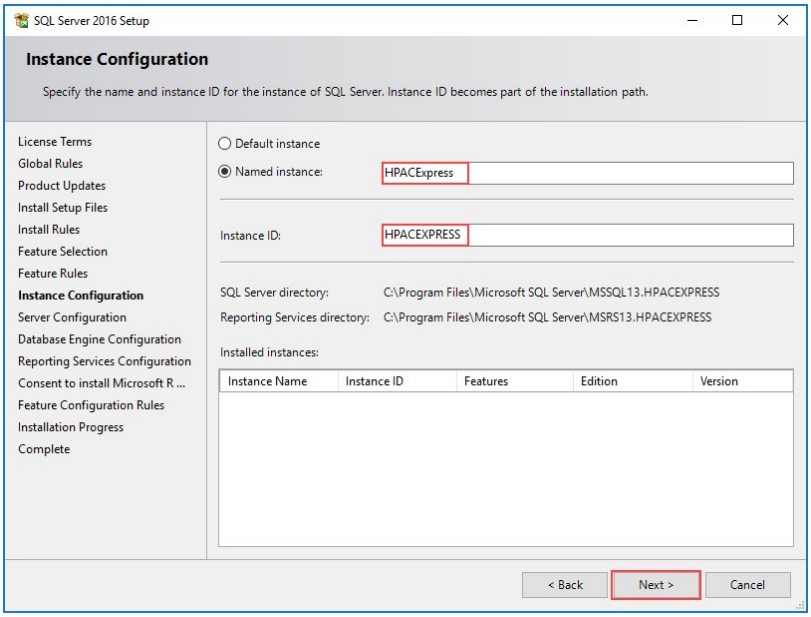


Figure 32: SQL Server Instance Configuration

6. Leave the default settings and click **Next**.

Note: Abide by and security policies your organization may have regarding service accounts. If unsure, consult your organizations security officer.

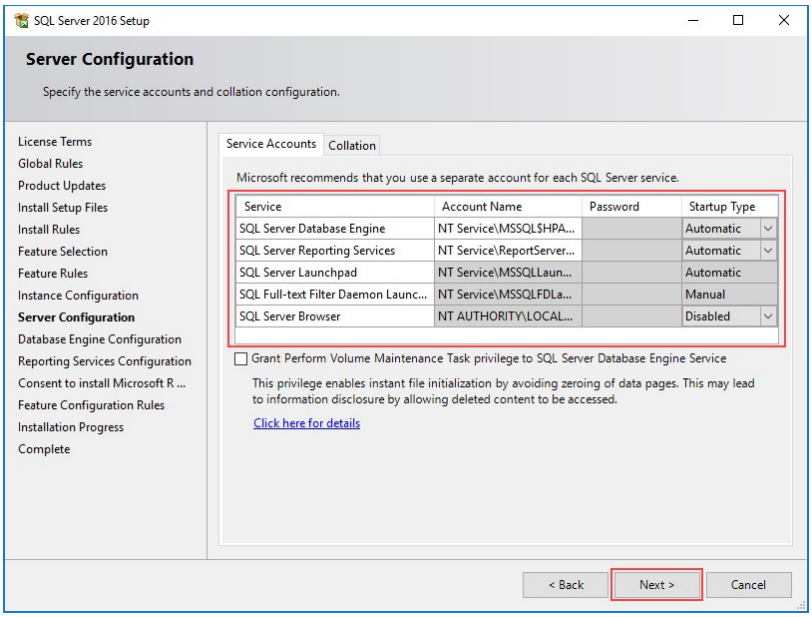


Figure 33: SQL Server Service Accounts

7. Select Mixed Mode (SQL Server authentication and Windows authentication) as the Authentication Mode, choose a password and confirm it, add any additional accounts as needed, then click Next.

Note: Abide by and security policies your organization may have regarding service accounts. If unsure, consult your organizations security officer.

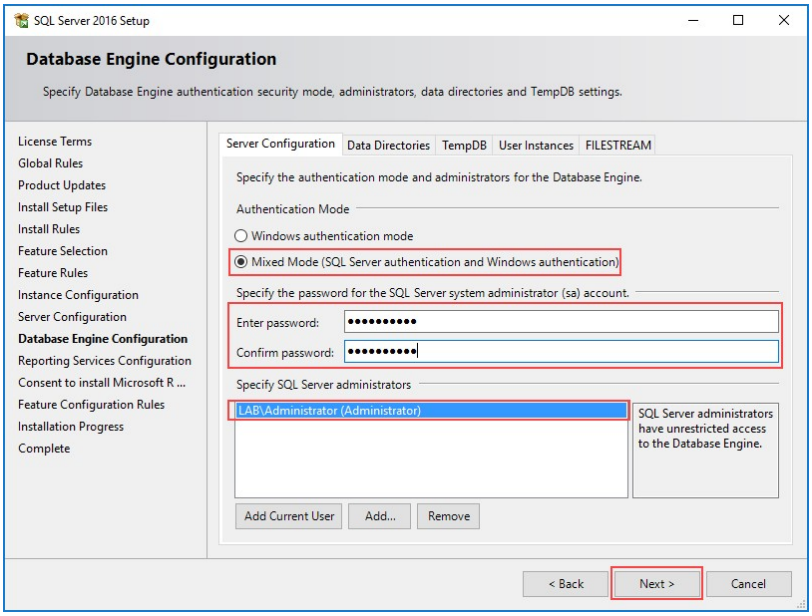


Figure 34: SQL Server Authentication Configuration

8. Select Install and configure then click Next.

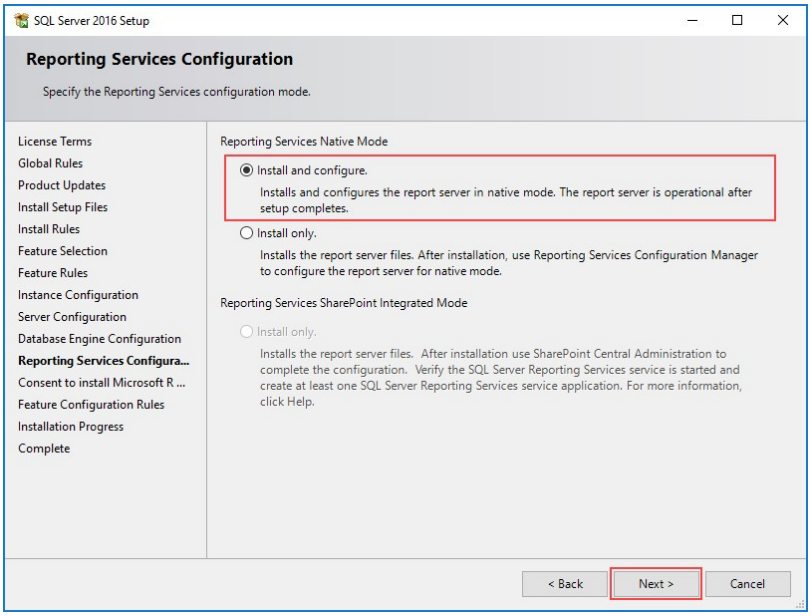


Figure 35: SQL Server Reporting Services Configuration 9.

9. Click **Accept** then **Next**.

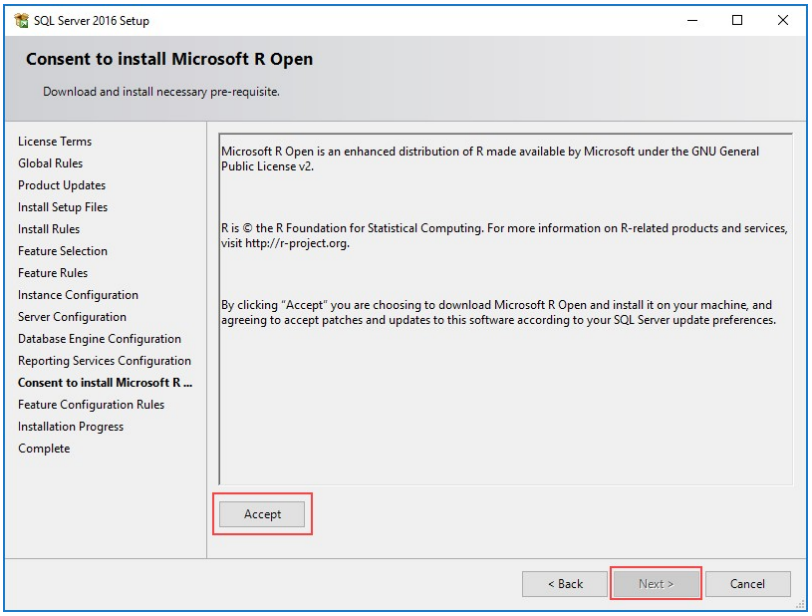


Figure 36: Microsoft R Open Consent

10. Click **OK** to dismiss the Computer restart required dialog then click **Close**.

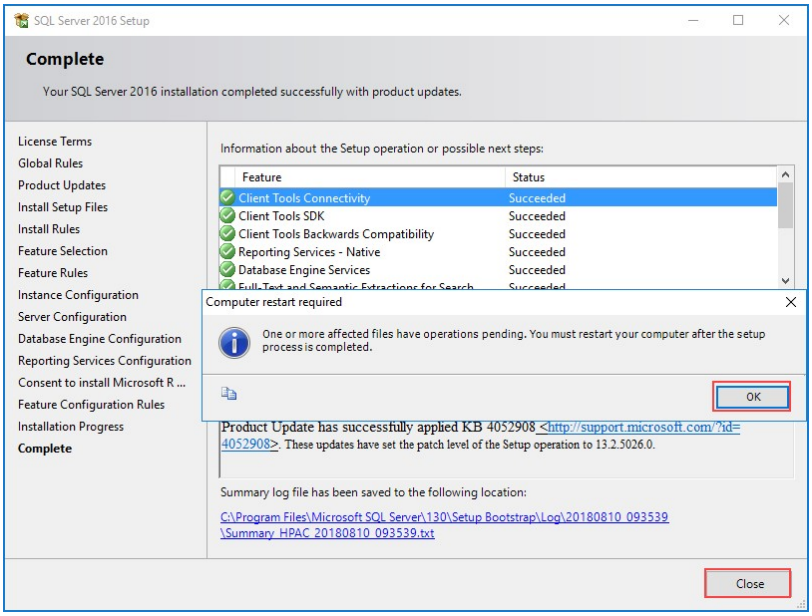


Figure 37: Installation Complete Screen

11. Restart the computer to complete the installation.
12. Refer to Task 1 for instruction on HPAC installation.
13. Open HPAC Configuration Manager then click Settings > Database and click Apply.
14. Go to section 12.19.9 "JA reports in SQL Server Reporting Services" of the HPAC Admin Guide and follow the steps to configure the reporting server for HPAC.

Section 2 – Installing SQL Server 2016 SP2 with Advanced Services After HPAC

Use this section to install and configure SQL Server 2016 SP2 with Advanced Services to use SSRS with a preexisting installation of HPAC

1. Run SQLEXPRADV_x64_ENU.exe and extract installation files to the directory of your choosing.

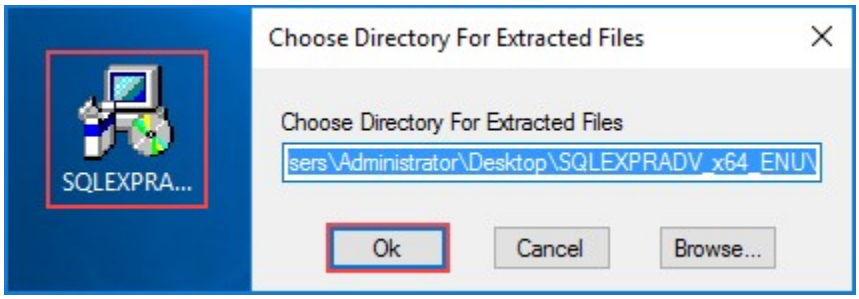


Figure 38: SQL Express Extraction Screen

2. Click **New SQL Server stand-alone installation** or add features to an existing installation.

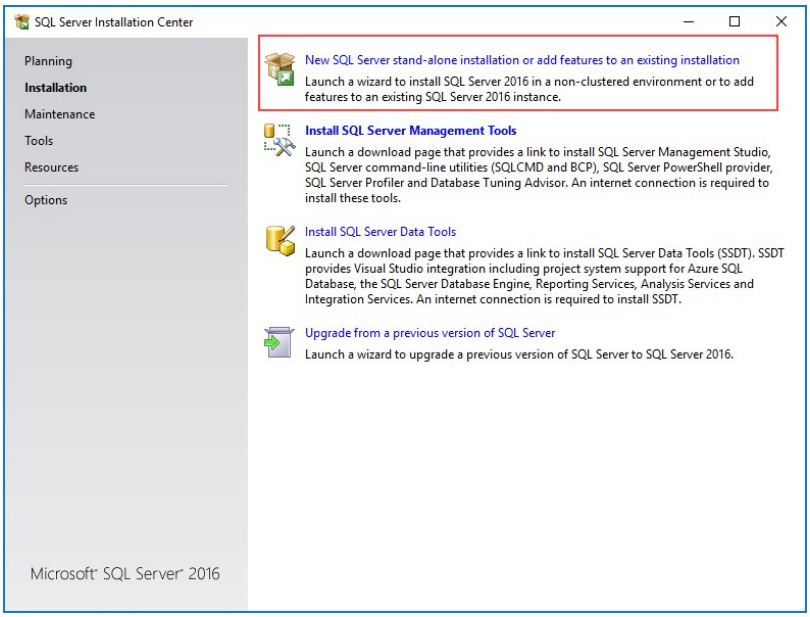


Figure 39: SQL Server Installation Center

3. Accept the license terms and click Next.

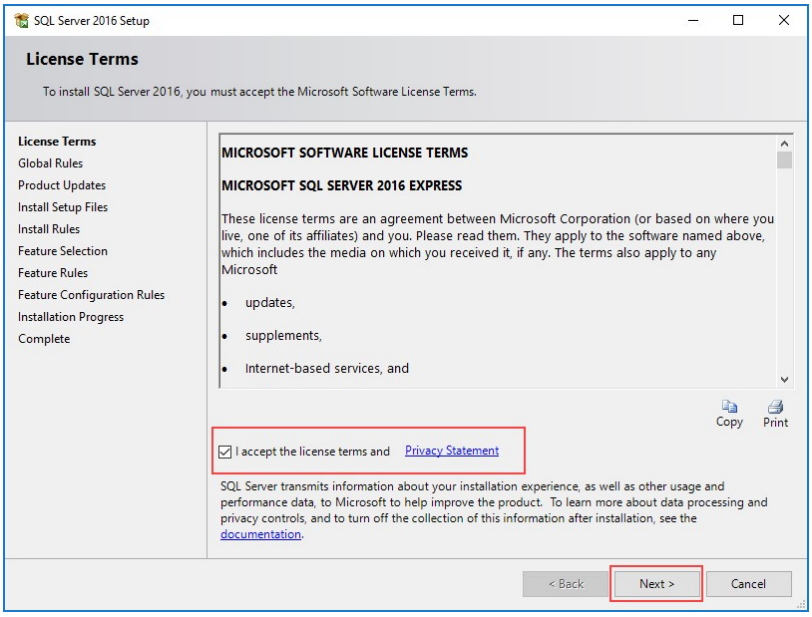


Figure 40: SQL Server License Terms

4. Leave the default services and features selected and click Next.

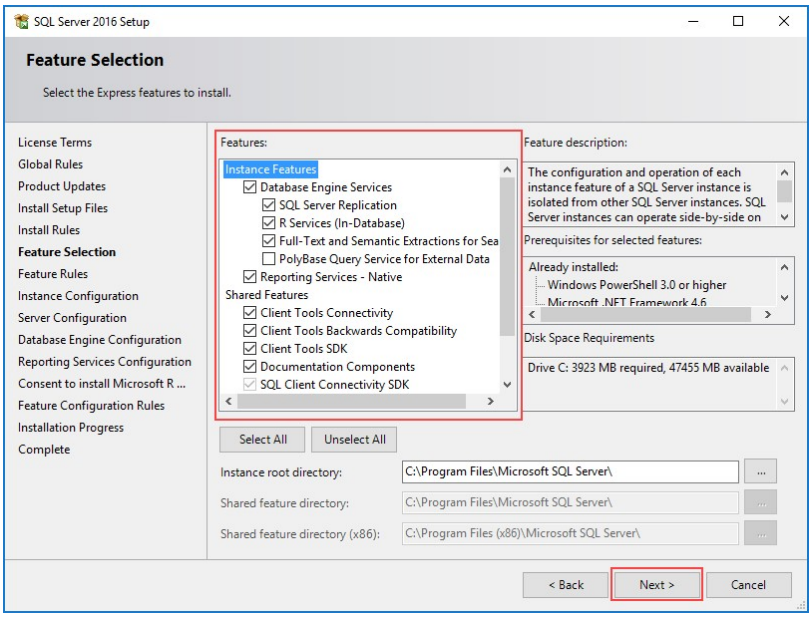


Figure 41: SQL Server Feature Selection

5. Provide an Instance Name and Instance ID, this demonstration will use HPACJA, then click Next.

Note: In the Installed instances: section you should see the existing SQL Server 2017 Express installation that came with HPAC. make note of the Instance Name, as we will use that information later.

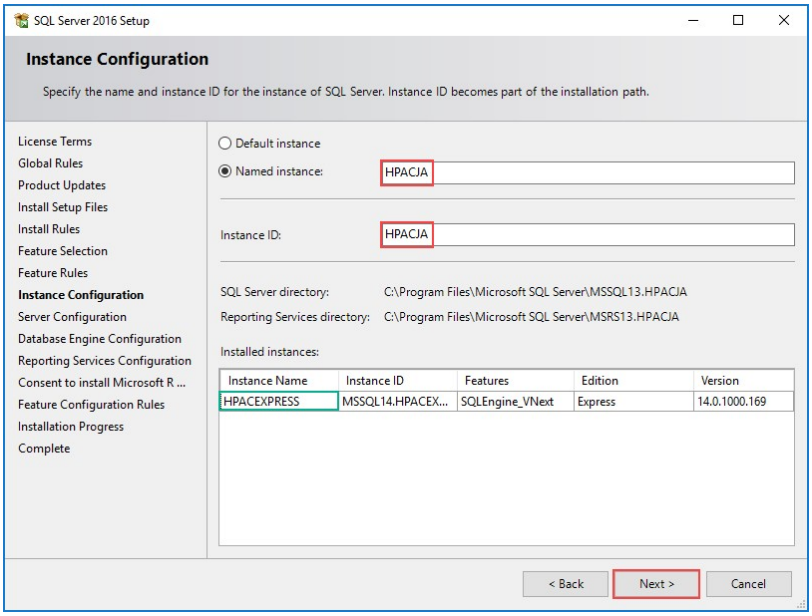


Figure 42: SQL Server Instance Configuration

6. Leave the default settings and click Next.

Note: Abide by and security policies your organization may have regarding service accounts. If unsure, consult your organizations security officer.

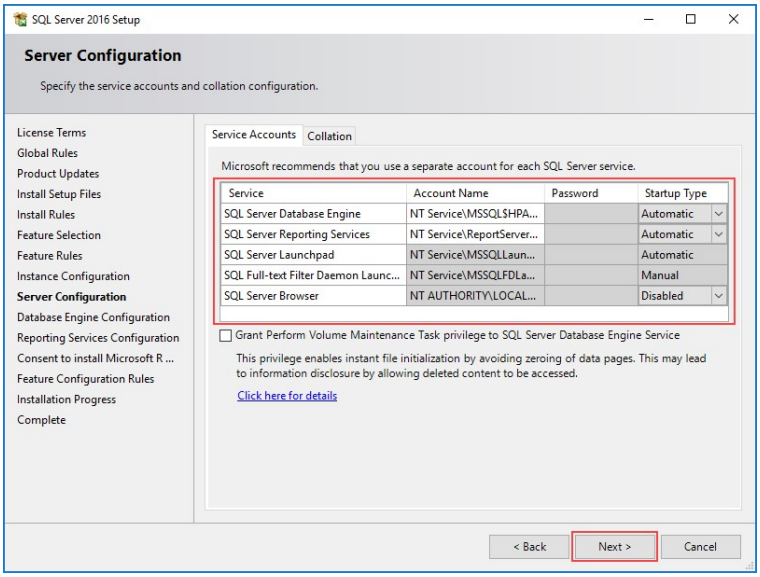


Figure 43: SQL Server Service Accounts

7. Select Mixed Mode (SQL Server authentication and Windows authentication) as the Authentication Mode, choose a password and confirm it, add any additional accounts as needed, then click Next.

Note: Abide by and security policies your organization may have regarding service accounts. If unsure, consult your organizations security officer.

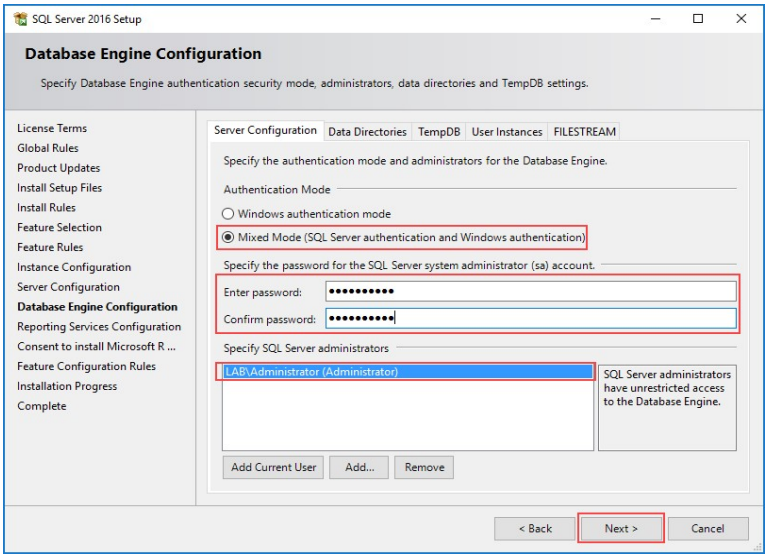


Figure 44: SQL Server Authentication Configuration

8. Select Install and configure then click Next.

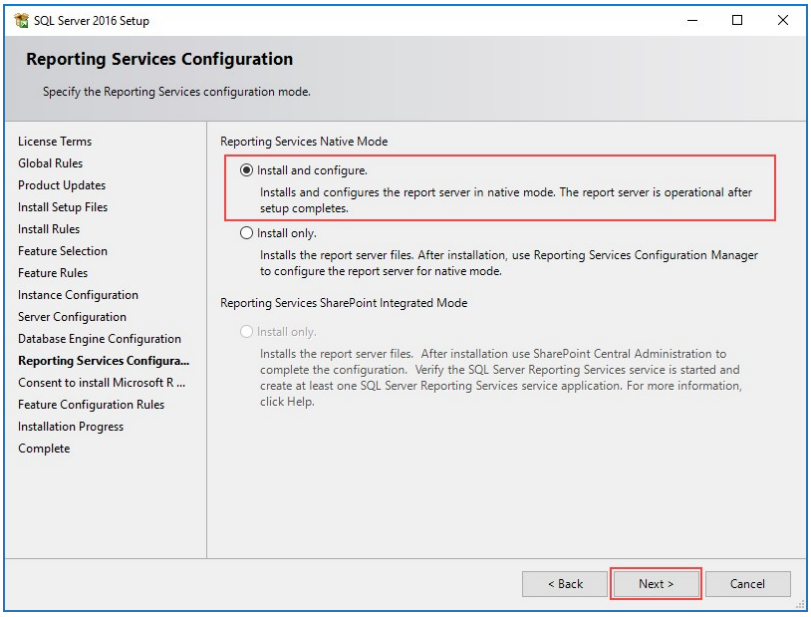


Figure 45: SQL Server Reporting Services Configuration

9. Click Accept then Next.

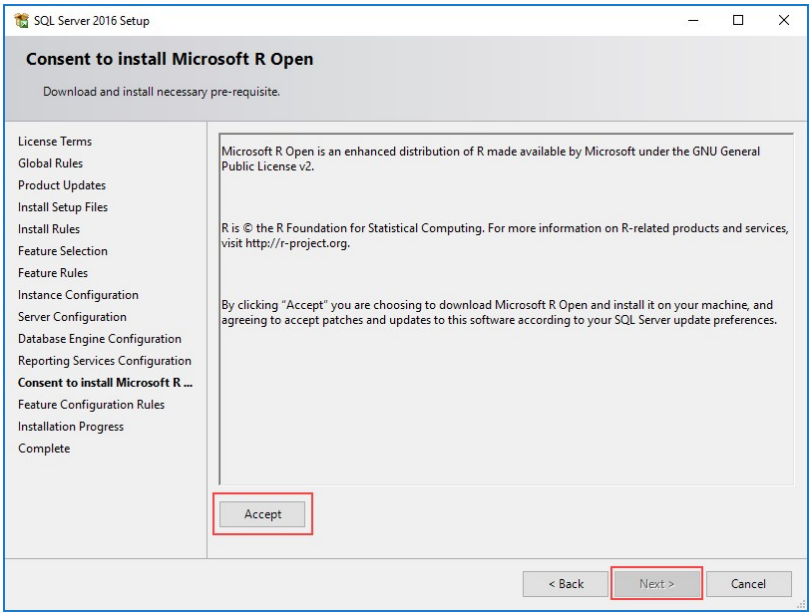


Figure 46: Microsoft R Open Consent

10. Click OK to dismiss the Computer restart required dialog then click Close.

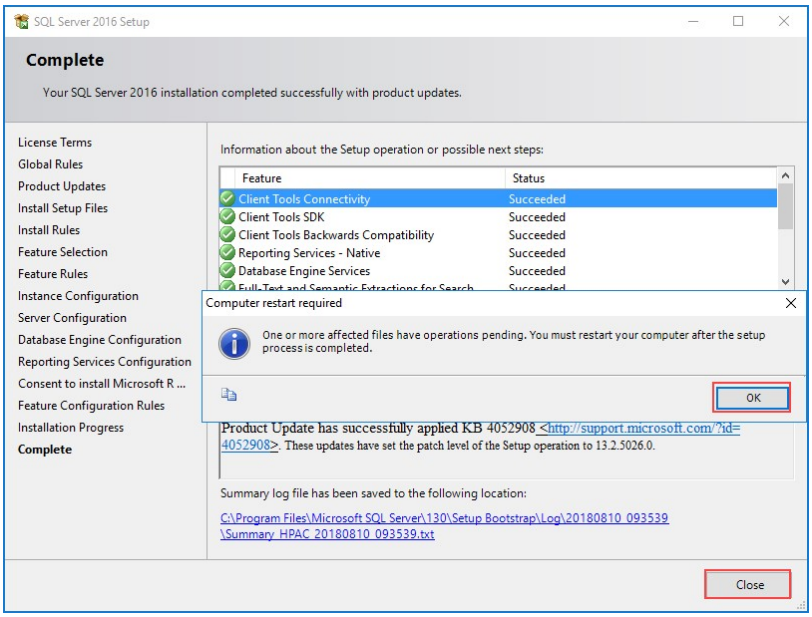


Figure 47: Installation Complete Screen

11. Restart the computer to complete the installation.
12. Go to section 12.19.9 "JA reports in SQL Server Reporting Services" of the HPAC Admin Guide and follow the steps to configure the reporting server for HPAC.

    Note that in Step 4, when creating the Data Source, SQLInstanceName refers to the original SQL instance that was installed alongside HPAC, NOT the instance we just installed.

Task 10 – HPAC MFPsecure (Optional)

Preparation

Once your customer purchases a license for MFPsecure, you will receive access to the MFPsecure Administrator Guide, requirements guides specific to the manufacturer of your MFPs, and the printer agents required to configure the devices. This guide serves as a reference to complete this task once you have received these items. This guide demonstrates MFPsecure using a supported Xerox MFP.

In this task we'll be using the following documents:

HP AC Enterprise Administrator's guide: http://h10032.www1.hp.com/ctg/Manual/c05641610

MFPsecure Administrator Guide – Available from LRS after purchase of MFPsecure license

Videos that accompany this section:

MFPSecure Feature: https://vimeo.com/292207437/bceffc2c97

Section 1 – Installing an Agent

Use this section to install an MFPsecure Agent.

1. Run the .msi bundled with your license and follow the wizard to install the agent on your server.

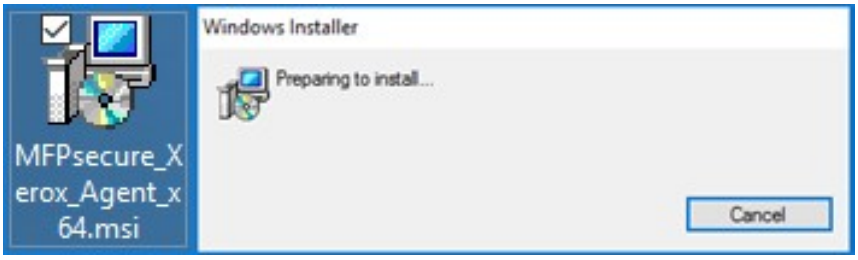


Figure 48: MFPsecure Xerox Agent .msi

2. Open the HP AC Configuration Utility and click the Multi-vendor management tile.

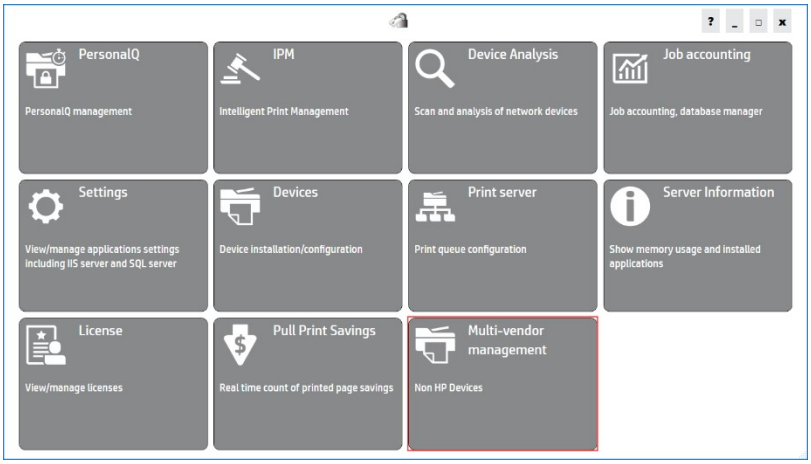


Figure 49: HP AC Configuration Utility

3. Click Admin > Add.

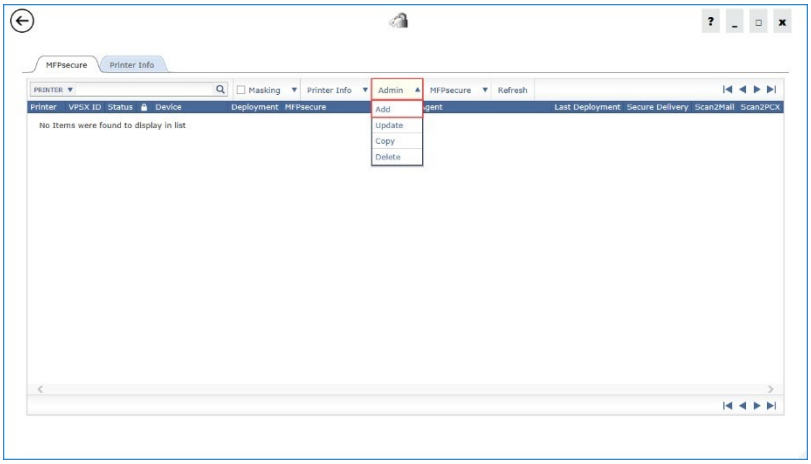


Figure 50: HP AC MFPsecure Tile

4. Enter a Printer Name, IP Address, VPSX ID and COMMType. Fill out the form and those on the remaining tabs to the specification of your device. Click Add when you have finished.

The SNMP tab allows you to choose the SNMP version used by your MFP and the MFPsecure Options section of the Advanced tab allows you to input the device username and password.

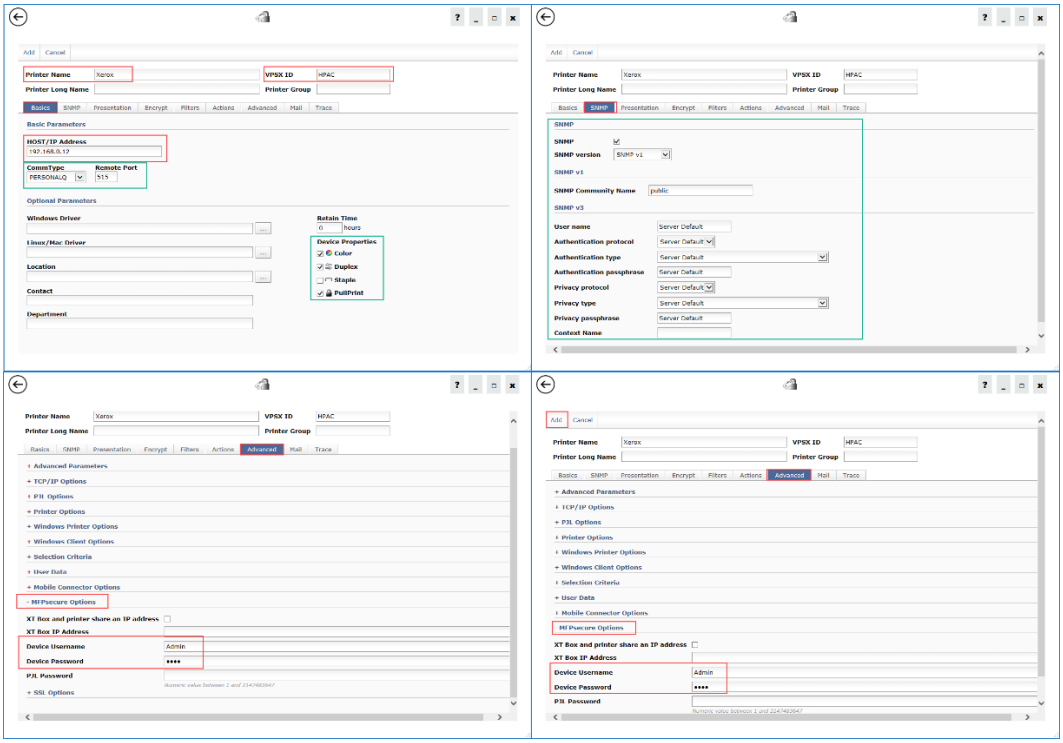


Figure 51: MFPsecure Device Configuration

5. Select the new MFP and click MFPsecure > Deploy Workflows.

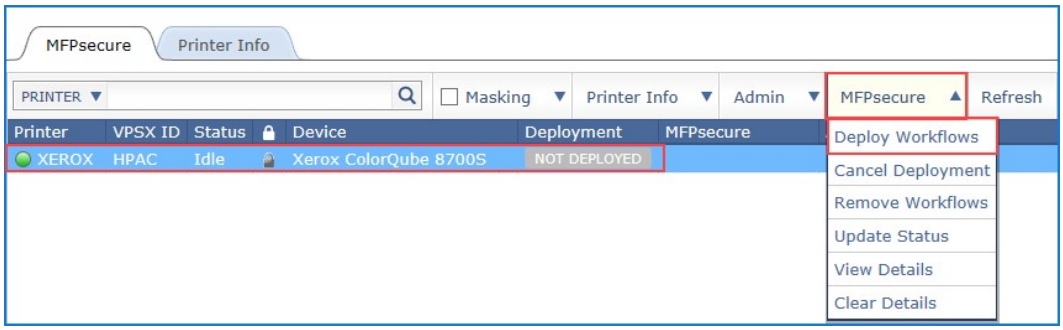


Figure 52: MFPsecure Device Llst

6. Make sure that Secure Delivery is checked click Deploy.

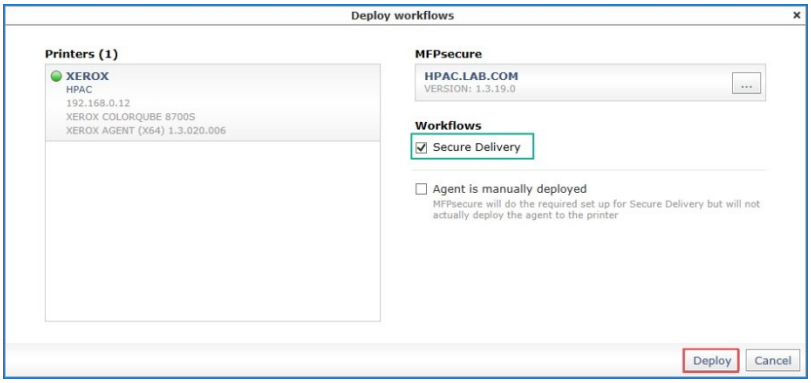


Figure 53: MFPsecure Deploy Workflows

7. Click Close once deployment has completed.

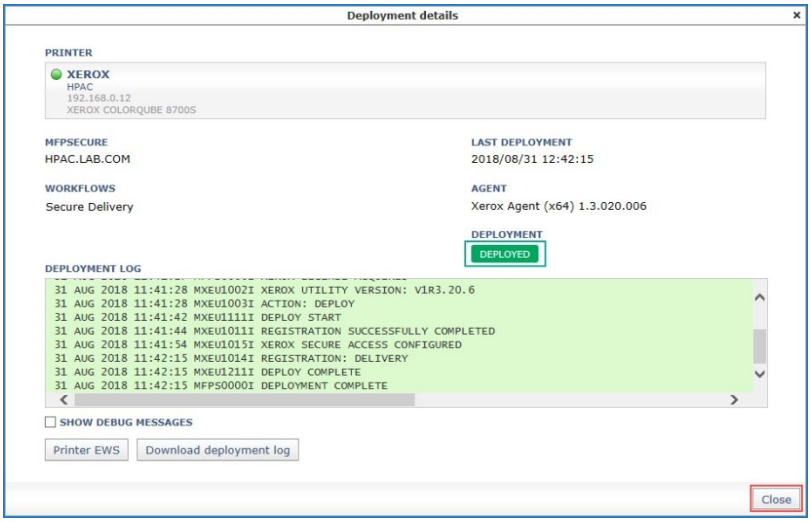


Figure 54: Deployment Complete Screen

8. The deployment process should configure most of the necessary settings. Follow the vendor specific configuration steps in the Administrator Guide to verify and complete the configuration.

Appendix A – IPM rule creation

This is not an exclusive solution for the problem in task 7 but represents one way you can approach the issue.

1. Click to open the IPM tile.

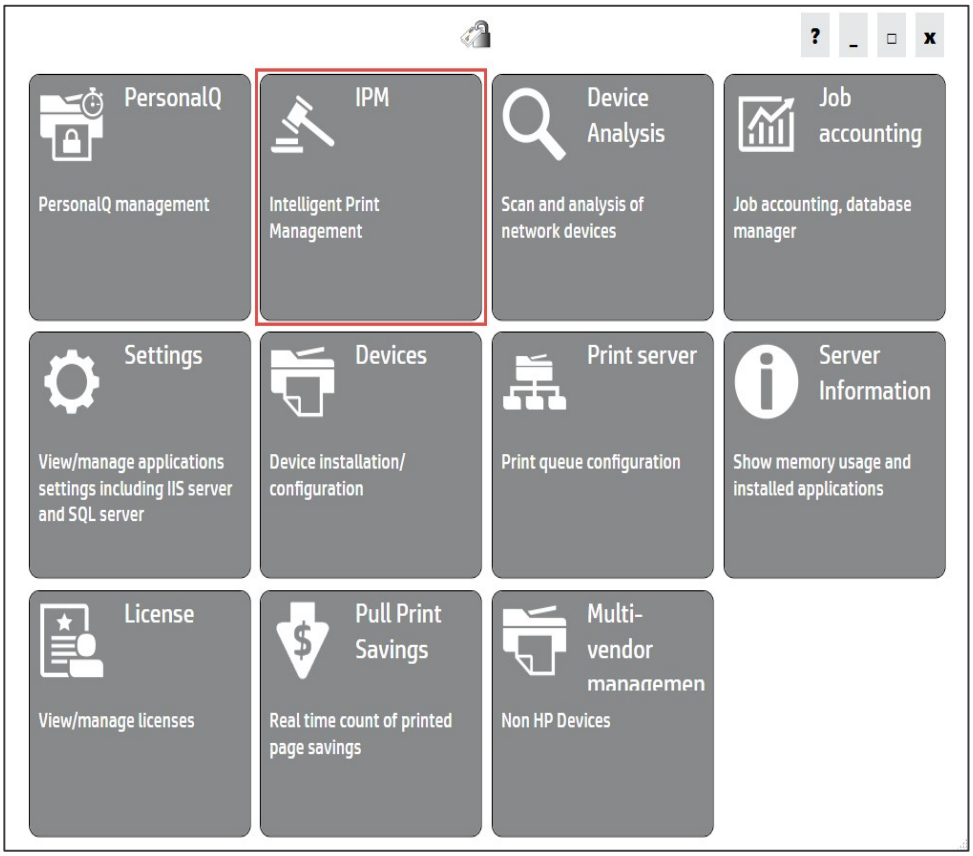


Figure 55: IPM tile on the HP AC Configuration Utility

2. On the Rules tab, type a name for your IPM rule such as Duplex – Econo as in the example here then click the Create button.

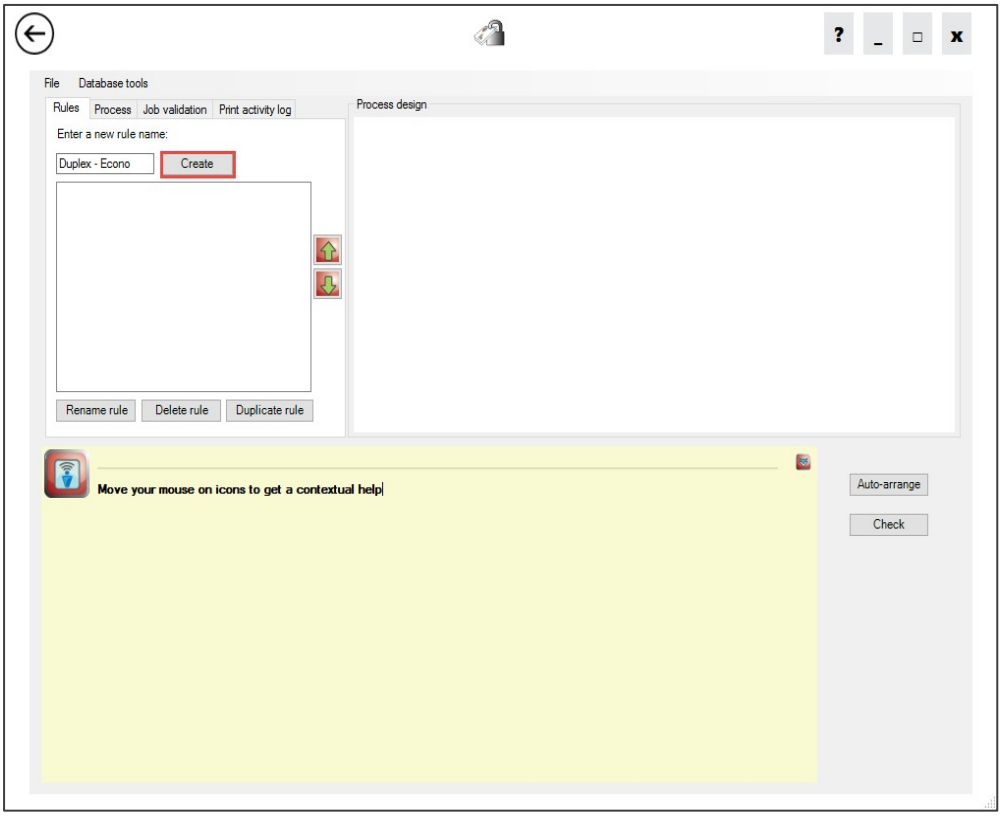


Figure 56: HP AC IPM tile

3. Click the Process tab and drag the following icons to the screen in the order below then click the Auto-arrange button.
    a. The Job properties condition icon
    b. The Duplex action icon
    c. The Economode action icon
    d. The Prompt action icon

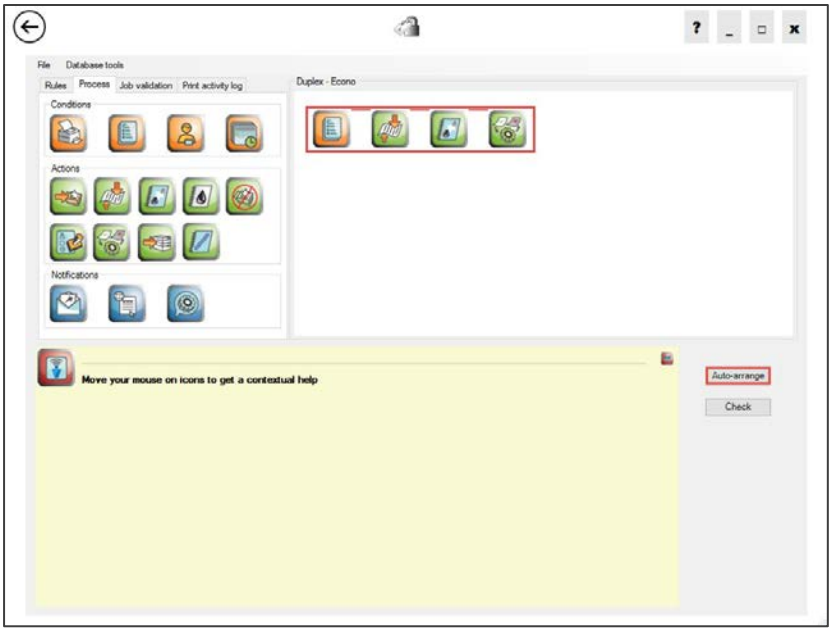


Figure 57: HP AC IPM tile

4. Double-click the Job properties conditions icon to open the Job dialog box.

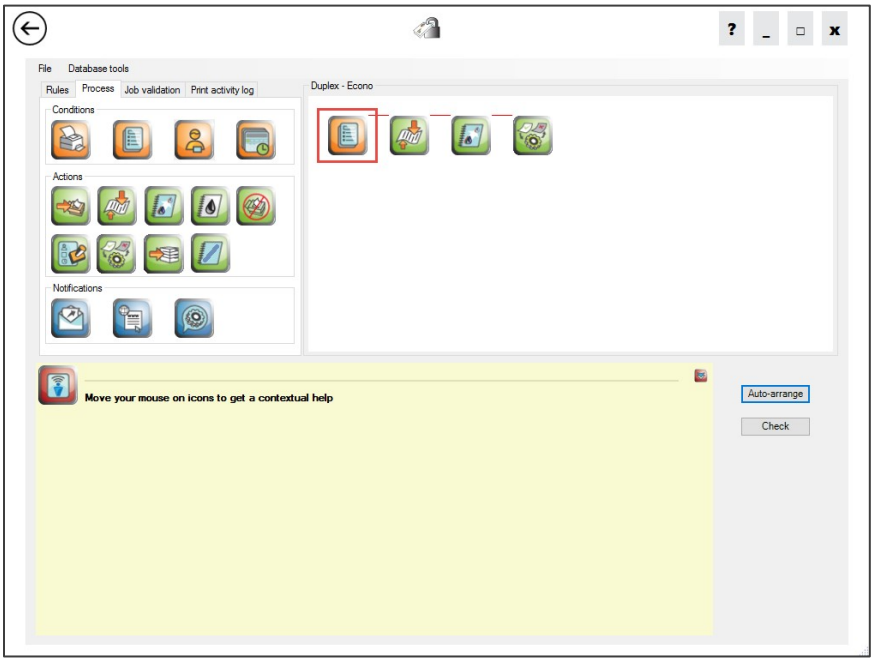


Figure 58: HP AC IPM tile

5. Do the following to configure the Job properties condition:
    a. Check the Number of pages checkbox
    b. Check the Greater than checkbox.

c. Type 1 in the condition textbox.

d. Click the Ok button to save the changes and close the Job dialog box.

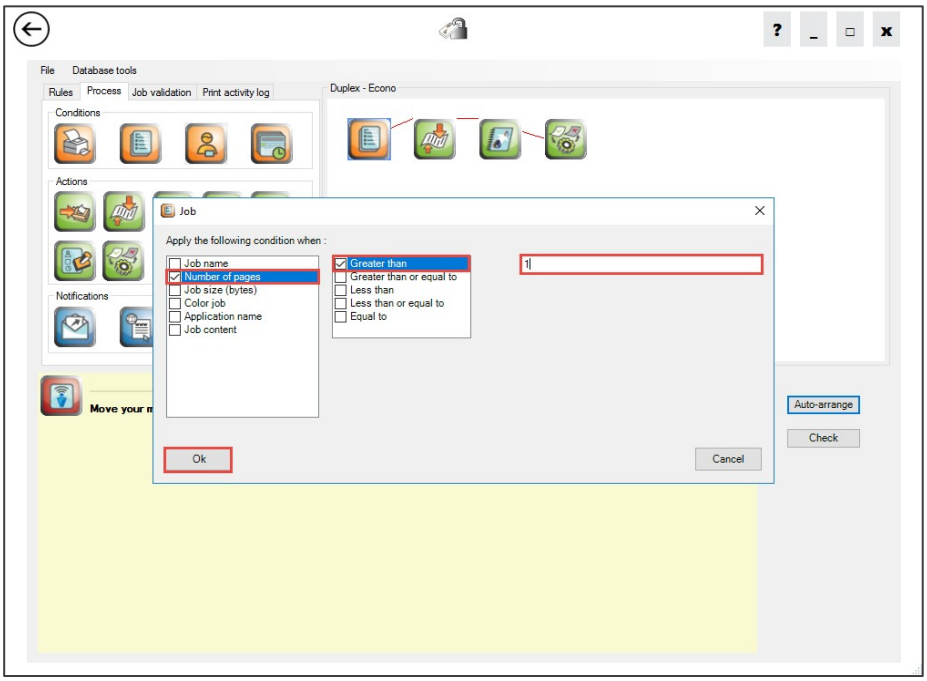


Figure 59: HP AC IPM tile

6. Double-click the Prompt action icon to bring up the properties.

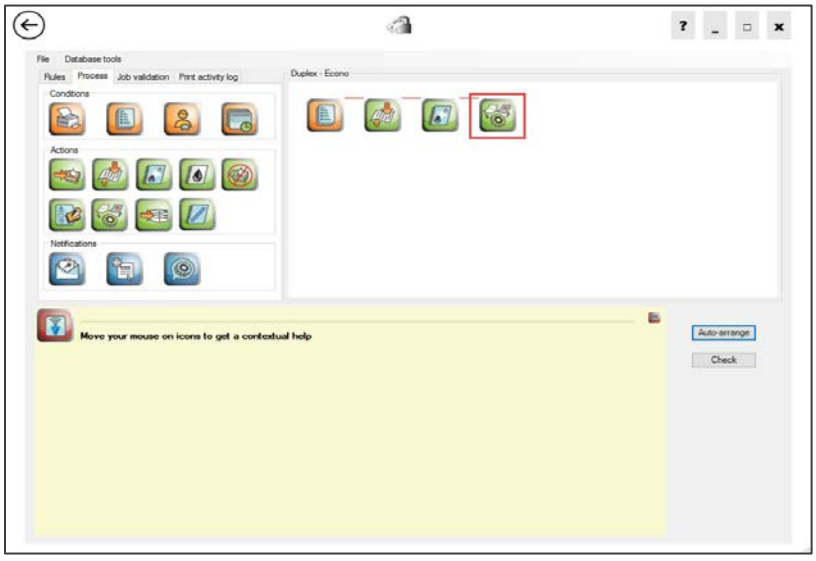


Figure 60: HP AC IPM tile

7. Do the following things to complete the configuration for the Prompt action:
    a. Edit the message if desired (I typically leave it alone)
    b. Adjust the timeout so there is enough time for the user to make an informed decision (for demo purposes I change it to 600 seconds, which is 10 minutes, so I can show what happens as I interact with the options)
    c. Check the Display cost checkbox (this allows users to see what savings are possible given the rule actions)
    d. Check the Display advanced mode checkbox.
    e. Check to select the Economode checkbox
    f. Check to select the Duplex checkbox
    g. Finally, click the Ok button to close the Opt-in/Opt-out dialog box.

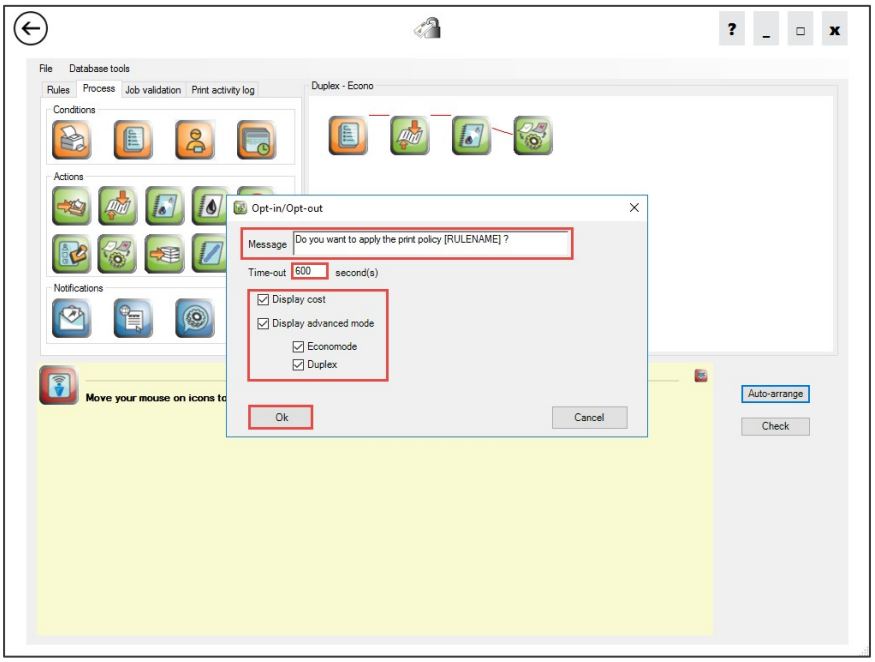


Figure 61: HP AC IPM tile

8. Click the Check button to validate the rule. If everything is set correctly you will receive a Value rule message in the Check dialog box.

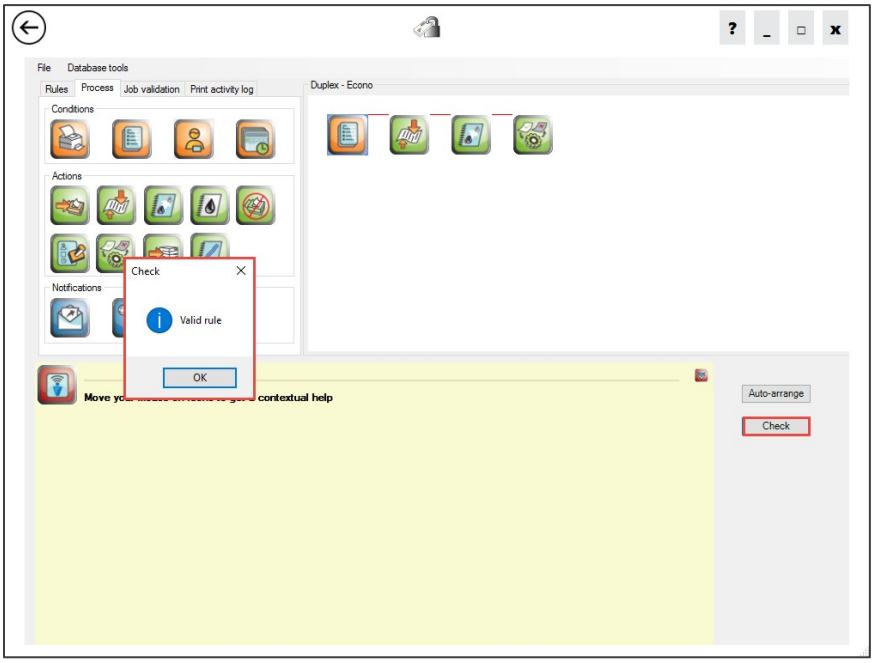


Figure 62: HP AC IPM tile

Note: HP AC will warn you if the rule is not valid and the error causing process step will flash so you can identify which option you need to address to create a valid rule. Correct the issue and then check the rule again to make sure it is valid and stop the incorrect option from flashing.

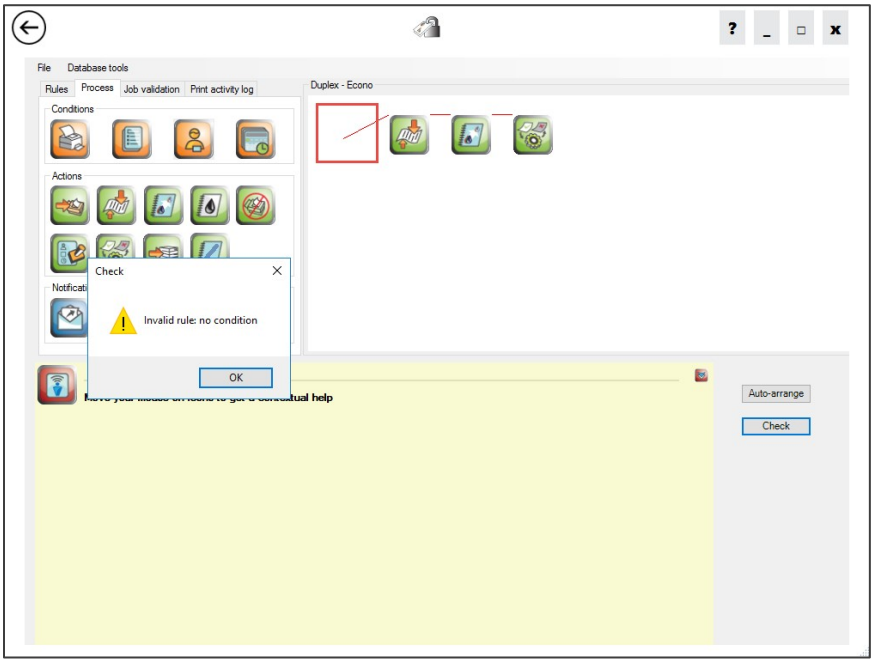


Figure 63: Check dialog box showing Invalid rule error with Job properties conditions flashing off

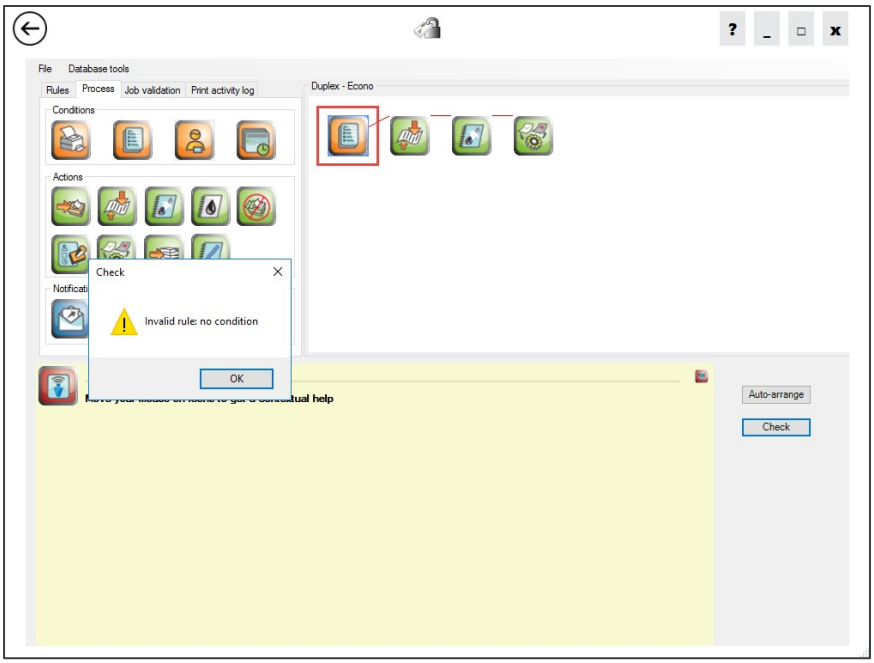


Figure 64: Check dialog box showing Invalid rule error with Job properties conditions flashing on

Appendix B – IPM - Print Client notification

If you followed the guide and created the same rules and costs that we have you should see similar results when you receive the IPM notification using the print client. If your selections are different from ours your dialog boxes should vary accordingly.

1. Send the print job with more than one page to the HP AC LPR printer object you created.

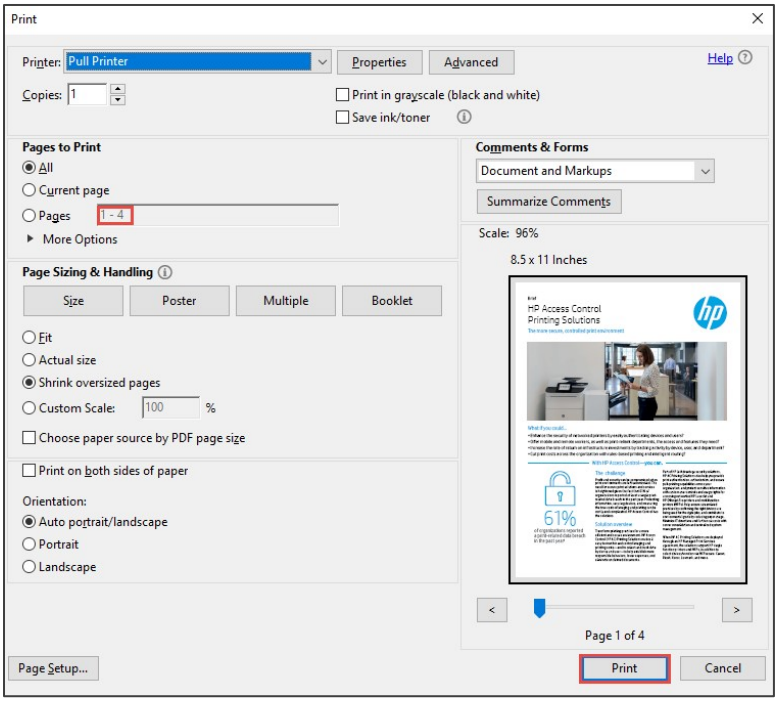


Figure 65: Print dialog box

2. Verify the IPM dialog box appears to notify you of your print policy and cost.

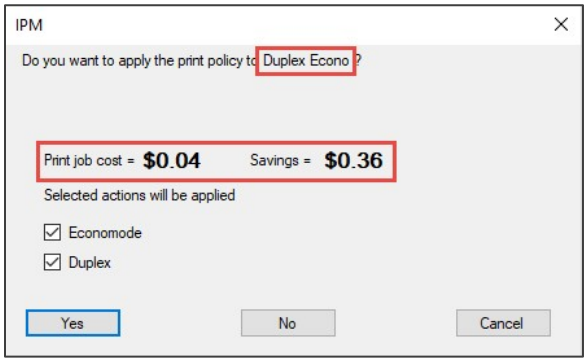


Figure 66: IPM dialog box popup

3. Uncheck some of the options to see the cost of your print job change.

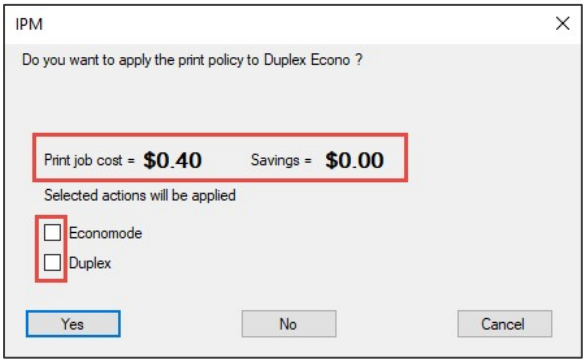


Figure 67: IPM dialog box job cost

The IPM notification from the print client allows your users to make informed decisions when sending documents to the printer. This is a great way to start changing print behaviors inside your company.