



Arc Enterprise **CUPS Server**

User Guide

Version 5.1

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The equipment complies with all the relevant conditions if used in accordance with the manual.

Section 1: Introduction	1 - 1
1.1 The Product	1 - 1
1.2 About the User Guide	1 - 2
1.3 Inside The User Guide	1 - 2
1.3.1 Getting Started	1 - 2
1.3.2 Initialising Arc CUPS Server	1 - 2
1.3.3 Working With Arc CUPS Server	1 - 2
Section 2: Getting Started	2 - 1
2.1 Client Support	2 - 1
2.2 Keep Alive Processing	2 - 1
2.3 Interface	2 - 1
2.3.1 Activity	2 - 2
2.3.2 Server Status	2 - 2
2.3.3 Status Bar	2 - 2
2.4 Using Menu Bar Options	2 - 3
Section 3: Initialising Arc CUPS Server	3 - 1
3.1 Preferences	3 - 1
3.1.1 General	3 - 1
3.1.2 CUPS Server	3 - 2
3.1.3 Logging	3 - 3
3.1.3.1 Logging Levels	3 - 4
3.1.3.2 Logging Files	3 - 4
Section 4: Working with Arc CUPS Server	4 - 1
4.1 Connect to Services	4 - 1
4.2 Start /Stop Services for Arc CUPS Server	4 - 1
4.3 Closing the Arc CUPS Server	4 - 1
4.4 Getting Help	4 - 2
Section 5: Glossary	5 - 1
List of Figures	1 - 1
List of Tables	1 - 1



Section 1: Introduction

Welcome to the Arc CUPS (Cisco Unified Presence Server) Server User Guide. The CUPS Server application is a part of the Arc Enterprise suite. This Server application acts as a medium for collecting the presence information from the native CUPS server and make it available within the Arc Enterprise Operator Console environment.

Please note that TLS security is not currently supported. This will be available at a later date.

1.1 The Product

The new Arc CUPS server will connect directly to the Cisco CUPS server using SIP SIMPLE protocol extensions. The Arc Console Operator Attendant will then connect directly to the Arc CUPS server to manage presence status procurement.

A pre-requisite for running the Arc CUPS Server will be using Microsoft dot net framework 2 Service Pack 1. This will be automatically installed if not present prior to the installation.

Based on directives and guidelines from Cisco, the following figure provides an overview of the network and how the Arc CUPS Server will be situated within the network environment.

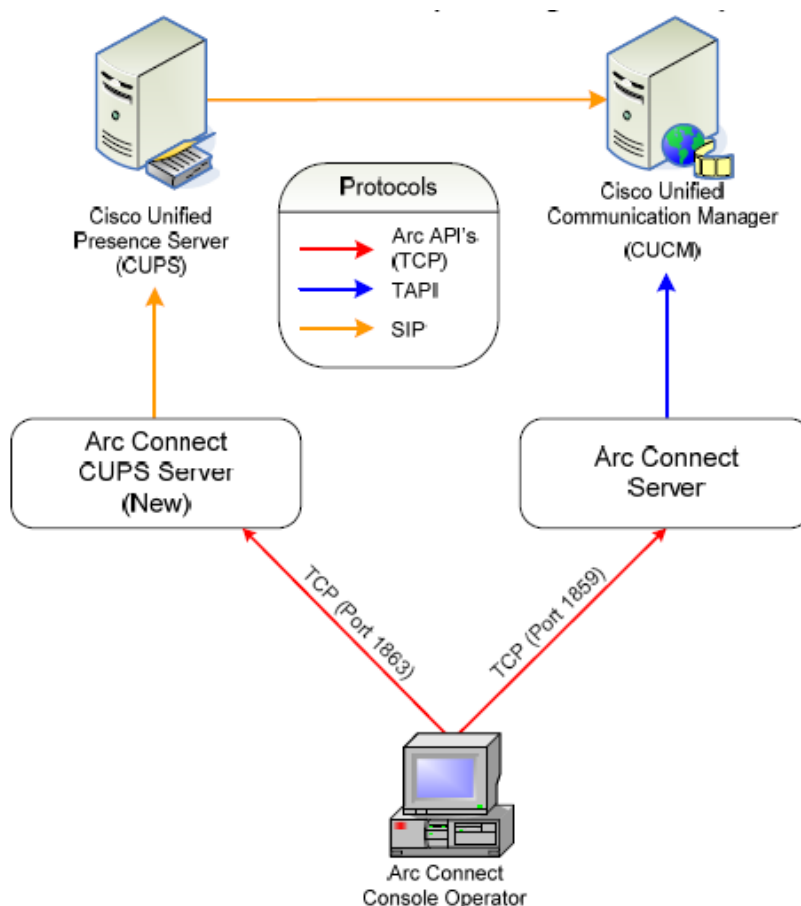


Figure 1 - 1: Arc Connect Connectivity overview (API's)



1.2 About the User Guide

The purpose of this User Guide is to provide information on the set up of the application, how to initialise it and working on it.

It gives information on how the Arc CUPS Server application is configured to work with the CUPS Server and provide the presence information to the Arc Enterprise Console Operator Attendant. Also the User Guide contains information on setting the preferences for the CUPS Server.

It is assumed that the users have a working knowledge of Microsoft Windows 2003 Network.

1.3 Inside The User Guide

The user guide contains the following sections,

1.3.1 Getting Started

This section explains the architecture of the Arc CUPS Server application. It gives an introduction to the functions of the application and also instructions on how to use them. The users are given a description of the support it provides to the CUPS and the Arc environment. It also outlines the interface, describing its functionality.

1.3.2 Initialising Arc CUPS Server

In this section, the user is given instruction on setting the preferences for the CUPS Server application. It defines the functions to be set in the preferences, so that the application works according to the user's requirement.

1.3.3 Working With Arc CUPS Server

This section provides information on how to start and stop the CUPS Server and getting help

Section 2: Getting Started

The CUPS Server acts as a mediator Server, which collects information from the Cisco Unified Presence Server and provides the information to the Arc Console Operator Attendant(s) directly.

Arc CUPS Server uses NT Service Architecture and performs the following key features.

2.1 Client Support

The CUPS Server will communicate with a TCP/IP socket allowing the Client application to connect and request status information and change settings online.

Client applications like Console Connect and others will only be able to modify contacts that have NOT been included in the source field mappings of CUPS contacts.

2.2 Keep Alive Processing

The Arc CUPS Server uses **Keep Alive Processing** to test the validity of the network connection with the Cisco Unified Presence Server. If **Keep Alive Processing** fails, then the CUPS Server tries to reconnect with the Cisco Unified Presence Server.

The application will wait for a response from the other side after sending a small packet of data over a network connection. The data-receiving application will pick up the request and simply respond back. If any leg of the packet sending the process fails, the connection is identified as broken. The CUPS Server tries to reconnect the connection with CT Server on failure of a Keep Alive request.

2.3 Interface

The interface provides an overview of the total activity in the Arc Console. It is divided into the following sections.

- Sessions
- User Activity
- Server Status
- Comms
- Status Bar

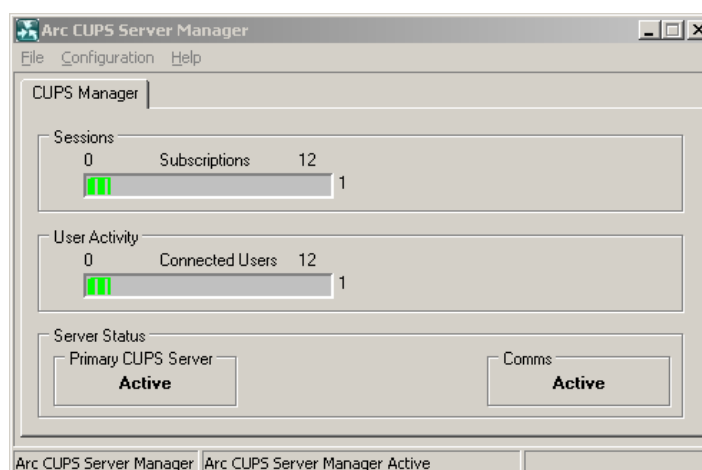


Figure 2 - 1: Arc CUPS Server Manager



2.3.1 Activity

This section is divided into four parts as described in the following table, Table 2.1. It allows the users to know the statistics for the sources and synchronizations.

Name	Description
Active Sources	It displays the number of all the sources that are active and fed in the Configuration Database.
Active Synchronization	This shows the number of active sources that are synchronizing data with the Server.
Online/Offline Success	It displays the collective number of the sources successively synchronizing through MSI and/or Arc Source. The online success synchronization is through MSI. The offline synchronization is through Arc Source.
Online/Offline Failure	It displays the collective number of the sources failed in synchronizing through MSI and/or Arc Source. The online failure synchronization is through MSI. The offline failure synchronization is through Arc Source.

Table 2-1: Activity - Details

2.3.2 Server Status

This section shows the connection status for the **Primary** Cisco Unified Presence Server. There can be four states for the connection between the Cisco Unified Presence Server and the Arc CUPS Server.

States	Explanation
Shutdown	Specified Cisco Unified Presence Server is shutting down.
Active	Cisco Unified Presence Server is connected with Arc CUPS Server and currently being used for Requests and Processes.
Initializing	Specified Cisco Unified Presence Server is initializing.
Not Connected	Specified Cisco Unified Presence Server is not available on Network.
Not Configured	Details for the specified Cisco Unified Presence Server are incomplete.

Table 2 - 2: Server Status Primary - Details

This section shows the connection status for the **Client communication socket status**. There can be four states for the connection between the Cisco Unified Presence Server and the Arc CUPS Server.

States	Explanation
Shutdown	Shutting down.
Initializing	Initializing
Active	Active (listening).
Not Active	Inactive (not running).

Table 2 - 3: Comms - Details

2.3.3 Status Bar

It has two parts; the first part is the name of the application, **Arc CUPS Server**. The second part is the connection status for the CUPS Server, e.g. **Active**.

2.4 Using Menu Bar Options

Arc CUPS Server menu bar provides the user a quick way for work around. The following menu options are available in Arc CUPS Server.

Control Name	Explanation
File	
Connect	After the CUPS Server application starts, it will automatically connect to Arc CUPS Server Services using the information given during the installation. If CUPS Sever could not find the services or it has been stopped, then the Status bar will show a Status Not Connected . Use this option to Connect the CUPs Server again.
Service Manager	Services for the CUPS Server can be started / stopped from this sub menu option.
Exit	Use this option to exit the CUPS Server application.
Configuration	
Preferences	Click to set preferences for the CUPS Server to work accordingly.
Help	
Contents	This will open the Help File for Arc CUPS Server application.
Keyword Search	This will let you find a Keyword in Help File.
About	This option opens the About Box for Arc CUPS Server.

Table 2 - 4: Menu Bar - Options



Section 3: Initialising Arc CUPS Server

The users are allowed to set preferences in the Arc CUPS Server. They can select options in the given tabs according to their requirements. Select the **Configuration > Preferences** on the Menu bar. This will open the window, Preferences that consists of three tabs for discrete modifications.

3.1 Preferences

It provides the facility of viewing/updating **Defaults** for Arc CUPS Server. It is recommended that before making any changes in this section, consult your Network/System Administrator.

3.1.1 General

This tab allows users to enter the information for the **CUPS Server**.

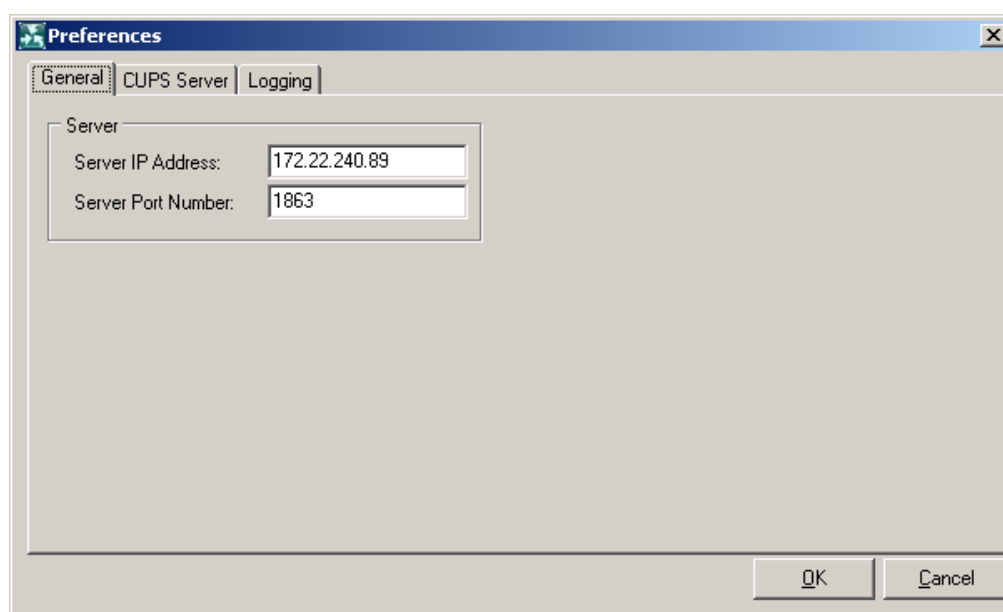


Figure 3 - 1: General tab selected in the CUPS Server preferences

Name	Description
Server IP Server	It is the Name or IP Address of the machine where the CUPS Service is installed. Note: If the server IP Address is left blank, then the Arc CUPS server will use the default NIC card for managing the client.
Server Port Number	It is the Service Port Number used by the CUPS Service.

Table 3 - 1: Preferences - General tab - Details



3.1.2 CUPS Server

This tab is for configuring the settings for the Primary Server and Security.

The CUPS Server is divided into two sections, **Primary Server**, and **Security**.

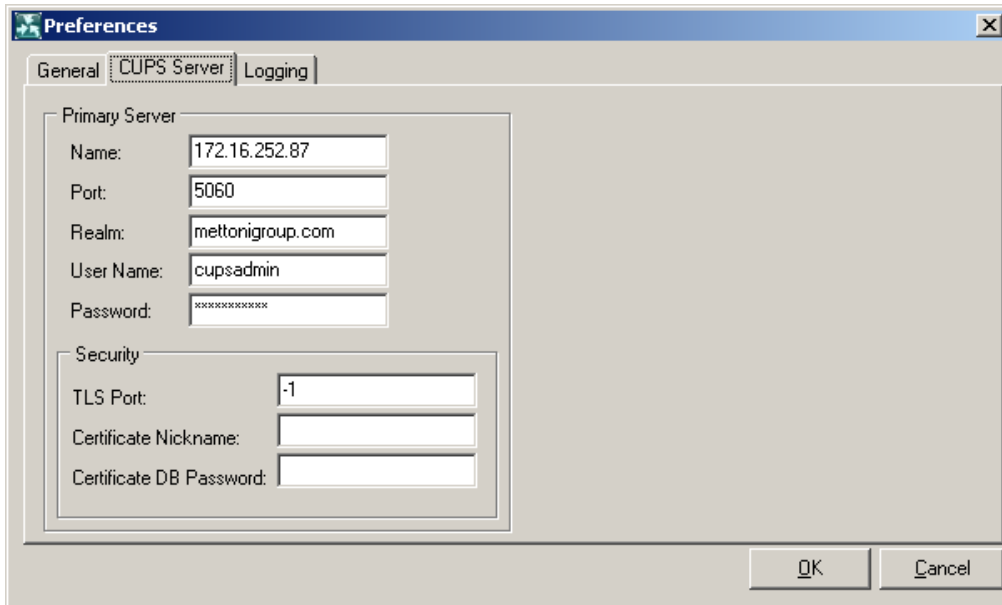


Figure 3 - 2: CUPS Server tab in the Preferences window

Name	Description
Primary Server	
Name	It is the Name or IP Address of the machine where the CUPS Server is installed.
Port	It is the Service Port Number used by the CUPS Server.
Realm	The Realm used to authenticate and manage SIP communication. Note: When the Realm is left blank, then the Arc CUPS server will use the IP Address used to connect to the CUPS server.
User Name	User Profile Name for connecting to the CUPS Server.
Password	User Profile Password for connecting to the CUPS Server. The password will be displayed as encrypted using * characters instead of the keystrokes used.
Security	
TLS Port	Transport Layer Security support required when connecting to the CUPS Server. This setting is set to -1 by default indicating that TLS is switched off. <i>This feature is for future development and currently unsupported in this version.</i>

Table 3 - 2: CUPS Server tab - Details

Name	Description
Certificate Nickname	Transport Layer Security certificate nick name. Used to identify the correct certificate in the certificate database.
Certificate DB Password	Transport Layer Security certificate database password. Used to access the certificate database. The password will be displayed as encrypted using * characters instead of the keystrokes used.

Table 3 - 2: CUPS Server tab - Details

3.1.3 Logging

The CUPS Server has the ability to keep records of all the events and processes through logging. It is structured to enable the users and support engineers to check the CUPS Server's performance and activity, determine functionality loss and the configuration issues. The names and description of the logging levels are given in the next section

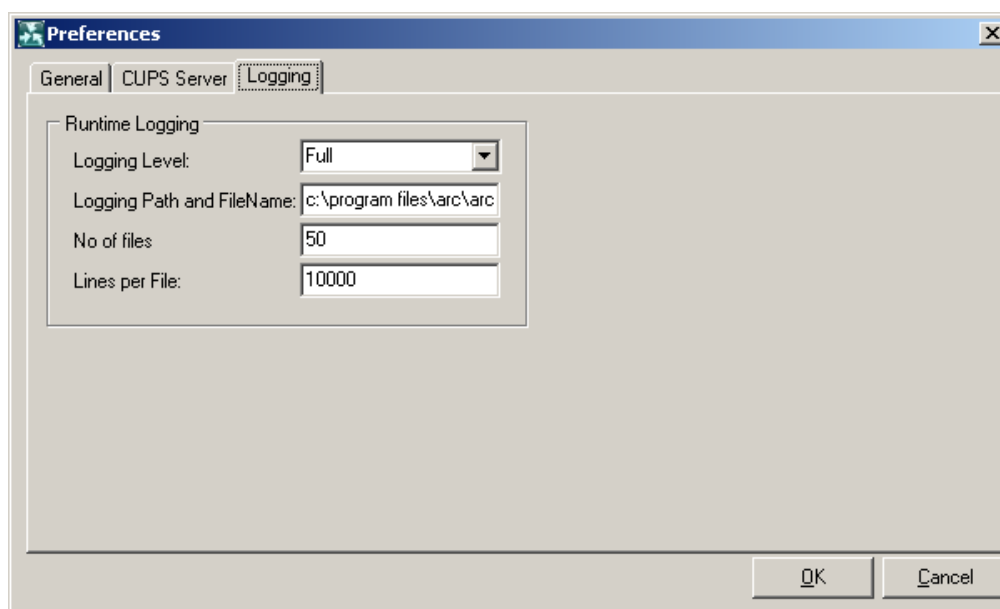


Figure 3 - 3: Logging Levels and Logging File sections

Name	Description
Runtime Logging	
Logging Level	There are four levels of Logging to choose from;- Minimum , Detailed (Default), Advanced and Full .
Logging Path and Filename	Provides a path and file name for the Logging File to be stored.
No of Files	The maximum number of log files that is created by the CUPS Server.
Lines per File	The maximum number of lines each log file will contain. After the log file reaches this number of lines, a new file will be created to log the events.

Table 3 - 3: Logging tab - Details



3.1.3.1 Logging Levels

The CUPs Server application provides the facility to log the activities at four different levels. These levels are:-

- Minimum
- Detailed (Default)
- Advanced
- Full

3.1.3.2 Logging Files

The CUPs Server application uses an advanced technique to keep a record of the activities to a series of log files. Each log file contains a predefined number of lines. The log-files are generated in a sequence. There is control over the number of log-files generated. Once the maximum log-files have been exceeded, the Server will overwrite the first log-file and so on. This enables support engineers to ensure disk space is not exceeded.

- Select a value from the selection box, **No. Of Logging File** to define a maximum number of the log files that should be created by CUPs Server.
- Select a value from the selection box, **Lines Per File** to define the maximum number of lines each log file will contain. After the log file reaches this number of lines, a new file will be created to log the events.

Section 4: Working with Arc CUPS Server

This chapter provides the steps to start the services of the Arc CUPS Server.

4.1 Connect to Services

To Connect the Arc CUPS Server to its Services.

1. Select **File > Connect**
2. Enter the **Server Name** or the **IP Address** of the machine where the Arc CUPS Server has been installed.
3. Enter the **Service Port Number 1861**
4. Click the **Connect** button.
5. The CUPS Server status will change to **Stopped**.



Figure 4 - 1: Service Manager - Arc CUPS Server

4.2 Start /Stop Services for Arc CUPS Server

Services for the Arc CUPS Server can be started/stopped from **File > Service Manager**.

1. A **Green** colour signal shows that the service is running, whereas a **Red** colour shows that the service is stopped.
2. **Start Service** will be highlighted when the service is stopped. Click the **Start Service** button to start the service.
3. **Stop Service** will be highlighted when the service is running. Click the **Stop Service** button to stop the service.
4. Click the **Close** button to close the **Service Manager**.

4.3 Closing the Arc CUPS Server

To close the Arc CUPS Server Application,

1. Select **File > Exit**.
2. If the services are running and you select to close the application, it will still log the events and processes as configured in **Preferences**.



4.4 Getting Help

If a user requires help on any of the areas in Arc CUPS Server, place the cursor or focus on the respective area and press **F1** key. The Help file will open the topic related to that area.

Section 5: Glossary

CUPS	Cisco Unified Presence Server
Comms Debug Feed	The information about the Events and Processes in TCP/IP Communication Layer during communication between the Arc CUPS Server and CUPS client applications.
Comms Error Feed	Information about the Errors occurred in TCP/IP Communication Layer during communication between the Arc CUPS Server and CUPS client applications.
Connection Retries	The number of times Arc CUPS Service will try to connect with the Cisco Unified Presence Server.
CT Server	Arc Connect Computer Telephony Server application in the Call Centre.
Keep Alive retries	The number of times Arc CUPS Service will try to check the sanity of connection with the Cisco Unified Presence Server.
MSI	Multi Session Interface.
MSI Debug Feed	It is the information about the Events and Processes in TCP/IP Communication Layer during communication between the Arc CUPS Server and Cisco Unified Presence Server.
MSI Error Feed	Information about the Errors occurred in TCP/IP Communication Layer during communication between the Arc CUPS Server and Cisco Unified Presence Server.
Processes	A Series of action in Arc CUPS Server that lead to a desired result.
Request	CUPS Clients' call for specific service to be performed by Arc CUPS Server.
TCP/IP Events	Information about the responses being sent to the CUPS Clients Application through TCP/IP Communication Layer at Network Level.
TCP/IP Request	Information about the requests being sent from the CUPS Clients to the Arc CUPS Server, through TCP/IP Communication Layer at Network Level.
Trigger	Signal in Arc CUPS Server that causes the launching of a certain process.
TLS	Transport Layer Security.

Table 5 - 1: Glossary



List of Figures

1 - 1	Arc Connect Connectivity overview (API's)	1 - 1
2 - 1	Arc CUPs Server Manager.....	2 - 1
3 - 1	General tab selected in the CUPS Server preferences	3 - 1
3 - 2	CUPS Server tab in the Preferences window	3 - 2
3 - 3	Logging Levels and Logging File sections.....	3 - 3
4 - 1	Service Manager - Arc CUPs Server	4 - 1



List of Tables

2-1	Activity - Details	2 - 2
2 - 2	Server Status Primary - Details	2 - 2
2 - 3	Comms - Details	2 - 2
2 - 4	Menu Bar - Options	2 - 3
3 - 1	Preferences - General tab - Details	3 - 1
3 - 2	CUPS Server tab - Details.....	3 - 2
3 - 3	Logging tab - Details	3 - 3
5 - 1	Glossary	5 - 1

