

GUARD1 /plus

IP ATTENDANT

Version 2.1

IP Downloader

Version 2.3

Administration Manual

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Contents

Getting Started	1
Installation Overview – IP Attendant	2
Installing IP Attendant	2
Default Configuration:	3
Custom Configuration:	7
Setting your Internet firewall settings	12
Installation Overview – IP Downloader	13
Installing IP Downloader	13
Opening the IP Downloader’s Home Page	13
Configuring your IP Downloader	15
Using the IP Downloader	17
Downloading the PIPE	17
Disconnecting the IP Downloader from the network.....	17
Troubleshooting the IP Downloader	18
Setting the Time Zone on the IP Downloader and PIPE	19
Updating the IP Downloader Firmware	20
Using the IP Attendant	21
How to verify the IP Attendant service is running.....	21
How to view the IP Attendant event log	22
How to modify the IP Attendant configuration.....	24
Troubleshooting the IP Downloader and IP Attendant	25
Retrieving Status Information from the IP Downloader	25

How to determine your Computer Name.....	28
Confirming your Windows firewall settings.....	28

Getting Started

Before you install the IP Attendant and IP Downloader, you need the following information and access rights.

DO NOT PROCEED UNTIL YOU HAVE ALL OF THESE REQUIREMENTS.

Required Information:

- IP address for IP Downloader which includes the following:
 - DHCP environment (Yes or No)
 - If DHCP environment is **No**
 - IP address (Note: The factory default IP address is 192.168.104.104 with a subnet mask of 255.255.255.0)
 - DNS server address
 - Default gateway
 - If DHCP environment is **Yes** , the IP Downloader will be addressable using the network name printed on its label
- IP Address or computer name of the computer running the IP Attendant service
- IP Attendant workstation has one of the following:
 - GUARD1 PLUS version 2.81 or later
 - Access to the GUARD1 PLUS SE version 4.40 or later server share
- Is the computer that you are using to remotely access the IP Downloader connected in the same LAN/WAN or VPN environment as the IP Downloader or is it reachable via the Internet?
- Are you using a proxy server? If so, what is its IP address?
- Are the firewall settings on the IP Attendant workstation controlled by Windows Firewall settings or by group policy?
- Is there an Internet firewall between the IP Downloader and the IP Attendant?

Required Rights:

- If there is a firewall between the IP Downloader and the IP Attendant, you must obtain permission to modify the firewall configuration. Optionally you may enable communication to the IP Downloader for its remote management.
- Local Administrator privileges on the computer running the IP Attendant Service.

Installation Overview – IP Attendant

Installing IP Attendant

The IP Attendant is a service which receives download data from an IP Downloader over HTTP protocol. For a GUARD1 PLUS installation, when PIPE data is received the IP Attendant saves the data to a .DL2 file then alerts the local Attendant to process the data into the database. **NOTE:** the IP Attendant service will run and collect data if the PC is not logged on, but the Attendant requires a user to be logged in. Data will not be processed by the Attendant until a user logs in to the PC.

For a GUARD1 PLUS SE installation, when PIPE data is received the IP Attendant commits the download data to the SQL application database. In a GUARD1 PLUS SE deployment, we recommend that you install the IP Attendant on a server.

There are two configuration options for the IP Attendant service: default and custom. We recommend that you use the default configuration unless your IT administrator requires a custom passphrase or port number.

Prior to installing the IP Attendant, the workstation must meet these minimum requirements:

- Operating System
 - Windows XP with Service Pack 3 (32 bit only)
 - Microsoft Vista with Service Pack 2 (32 and 64 bit)
 - Microsoft Windows 7 (32 and 64 bit)
 - Server 2003 with Service Pack 2 (32 bit only)
 - Server 2008 with Service Pack 2 (32 and 64 bit)
 - Server 2008 R2
- GUARD1 PLUS Program
 - GUARD1 PLUS version 2.81 or later
 - or
 - Able to access the GUARD1 PLUS SE version 4.40 or later server share
- Port 50150 must be open on the Internet's firewall if there is an Internet firewall between the IP Downloader and the IP Attendant (to add this port see the following section entitled "Setting your Internet firewall settings").
- Microsoft .NET version 3.5 must be installed. If it is not installed, run setup.exe from the "Microsoft .NET Framework 3.5" folder on the IP Attendant CD. You can also install it from the web page that automatically appears during the IP Attendant's installation. IP Attendant software will not install until Microsoft .NET version 3.5 is installed.

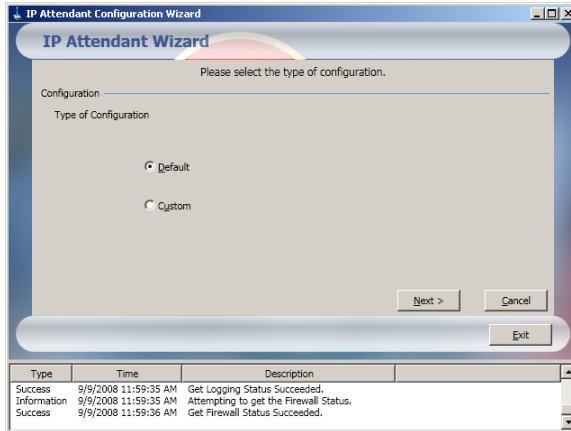
Default Configuration:

A default configuration of the IP Attendant sets these parameters:

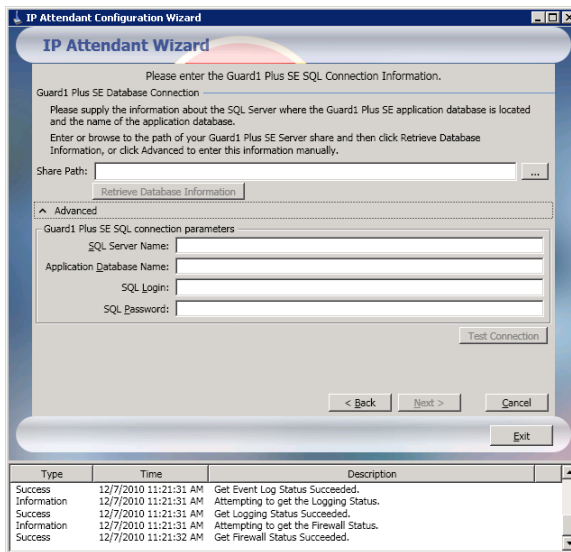
- Event log is enabled
- Passphrase is set to the system default (blank)
- Port 50150 is opened on your Windows Firewall
- The Tks IPAttendant service will run under the local system account
- The Tks IPAttendant service will launch automatically at startup. For GUARD1 PLUS deployments, the Attendant will also launch automatically at startup.

To install the IP Attendant in the default configuration:

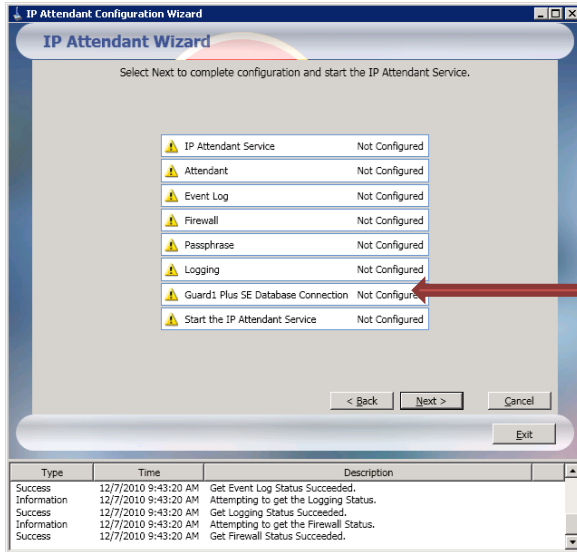
1. Confirm that you are logged in as the Local Administrator or that you are a member of the Local Administrator group.
2. Insert the IP Attendant CD in the CD drive. The installer will launch automatically.
3. If the installer does not begin automatically, click **Start, Run** and browse to the CD drive. Double-click the setup.exe file.
4. Click **Next** at the Welcome screen.
5. Click **Yes** at the License Agreement.
6. Click **Finish** to complete the installation. After several seconds, the IP Attendant Configuration Wizard opens.



7. Select **Default** and click **Next**. If you have a GUARD1 PLUS SE deployment and no SE application is installed on this workstation, the following screen will appear otherwise skip to Step 9.

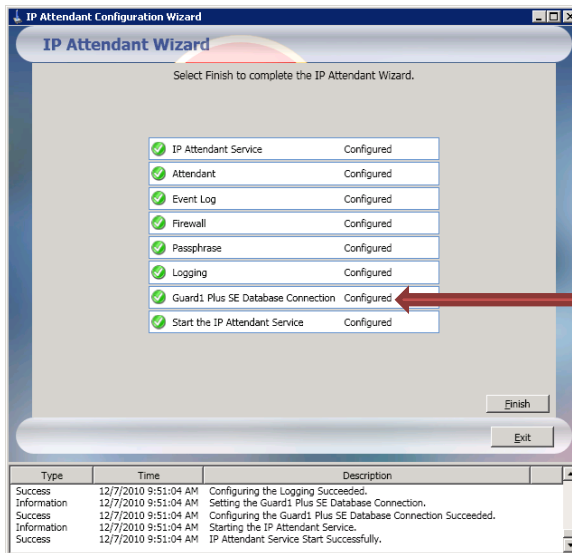


8. Enter the required information either by providing the path to the SE server share and clicking **Retrieve Database Information** or by entering the GUARD1 PLUS SE SQL connection parameters. Click **Next** to continue.



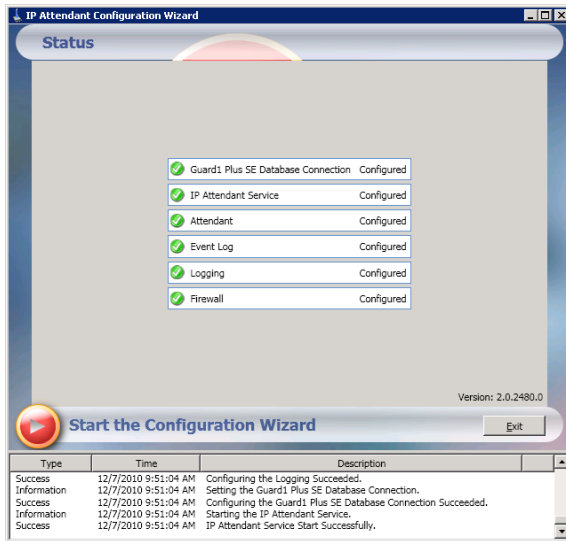
This only appears in an SE deployment.

9. Click **Next**.



This only appears in an SE deployment.

10. Click **Finish**.



11. Click **Exit**.
12. The IP Attendant service is now configured for default operation.

Custom Configuration:

A custom configuration allows you to set a unique passphrase and/or a custom port number.

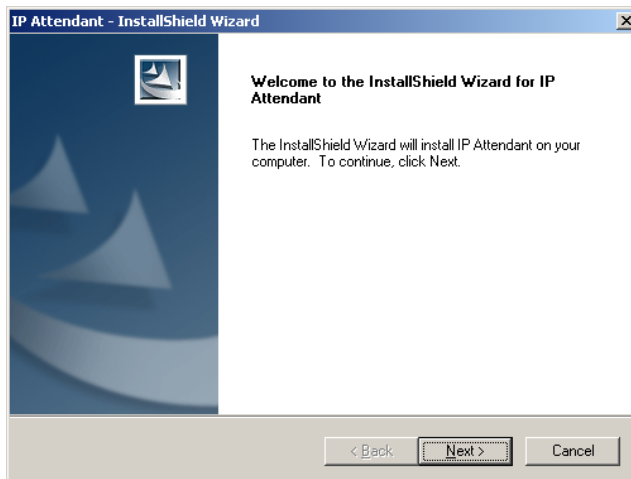
Both the IP Downloader and the IP Attendant have a passphrase which::

- must be the same in order for the IP Attendant to receive the download files from the IP Downloader
- is used to encrypt the download data so the longer the passphrase, the more secure the data encryption will be

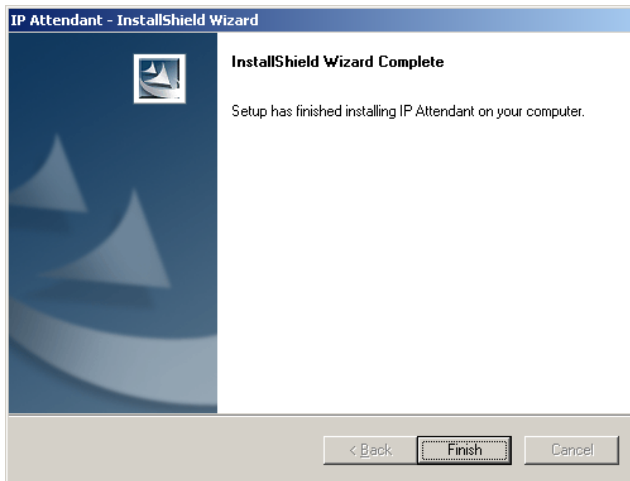
The IP Attendant receives download data from an IP Downloader over HTTP protocol using default port number 50150. You can specify a different port in a custom configuration. **All IP Downloaders configured to use this IP Attendant must use the same port address to transfer the download data.**

To install the IP Attendant using a custom configuration:

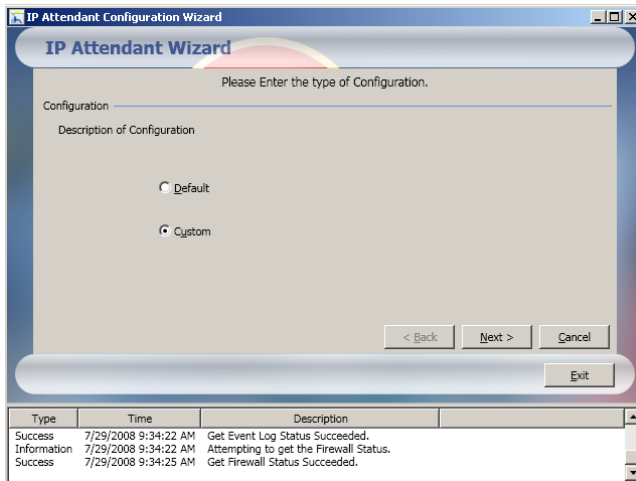
1. Insert the IP Attendant CD in the CD drive. The installer will launch automatically.
2. If the installer does not begin automatically, click **Start, Run** and browse to the CD drive. Double-click the setup.exe file.



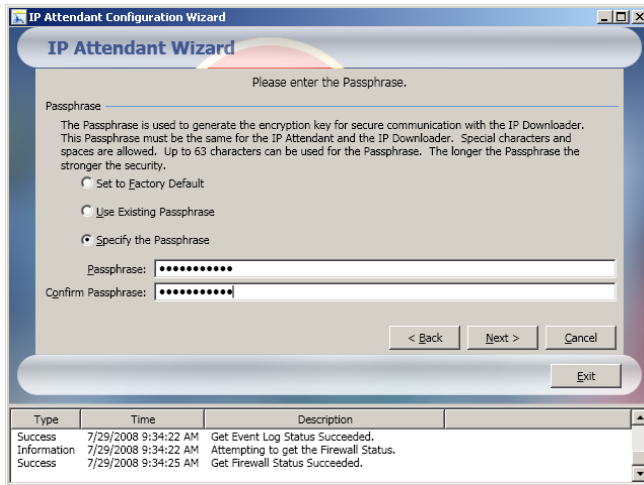
3. Click **Next** at the Welcome screen.
4. Click **Yes** at the License Agreement.



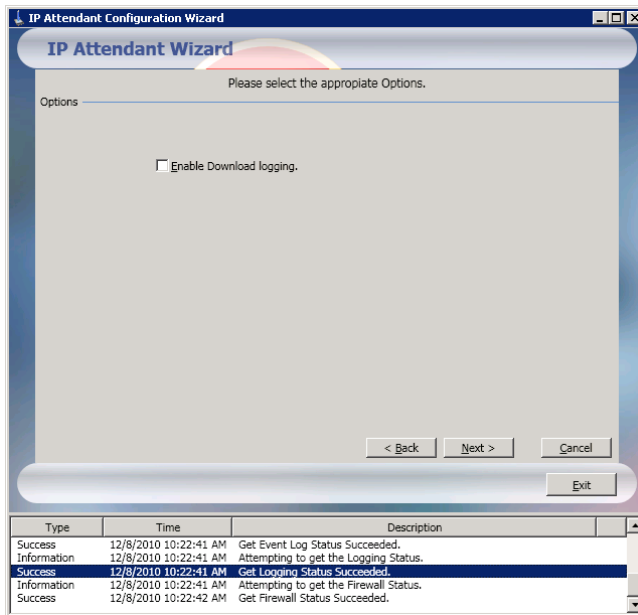
5. Click **Finish** to complete the installation. After several seconds, the IP Attendant Configuration Wizard opens.



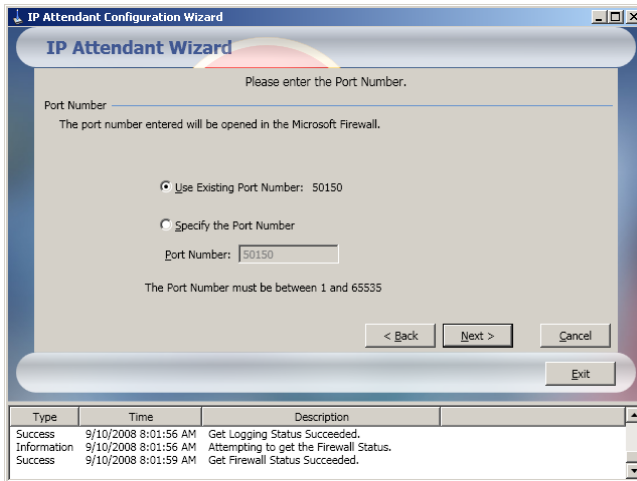
6. Select **Custom** and click **Next**.



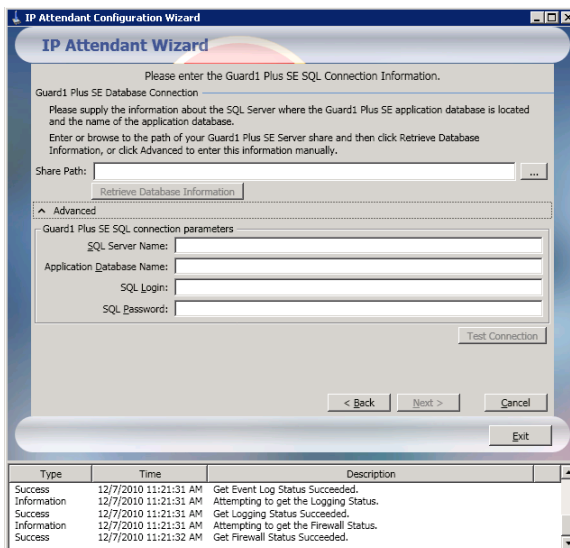
7. Enter your custom passphrase or use the "Factory Default" passphrase and click **Next**. Remember that this passphrase must match the passphrase for each IP Downloader that will be using this IP Attendant.



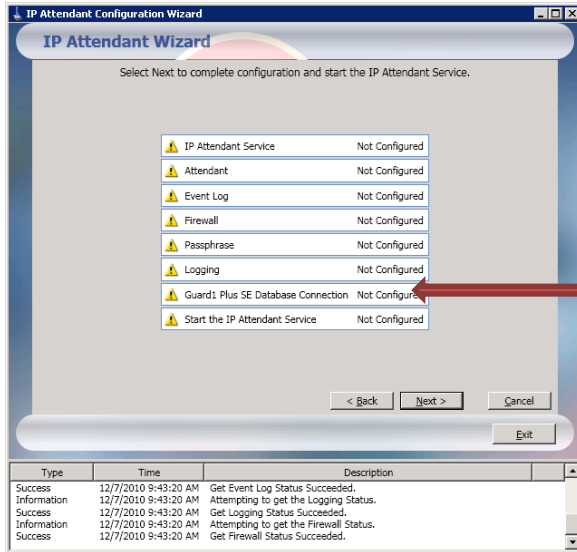
8. Select the desired option and click **Next**.



9. Choose either the existing (default) port number of 50150 or specify an available port number between 1 and 65535 and click **Next**. Record this port number so that you can confirm that this port is open on your firewall(s).
10. If you have a GUARD1 PLUS SE deployment and no SE application is installed on this workstation, the following screen will appear otherwise skip to Step 12.

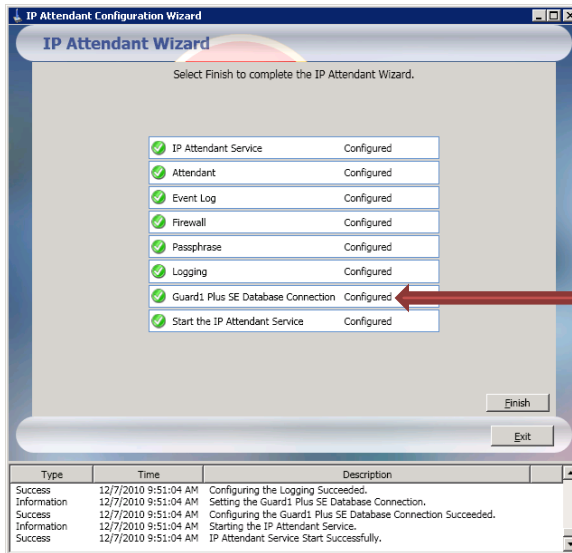


- Enter the required information either by providing the path to the SE server share and clicking **Retrieve Database Information** or by entering the GUARD1 PLUS SE SQL connection parameters. Click **Next** to continue.



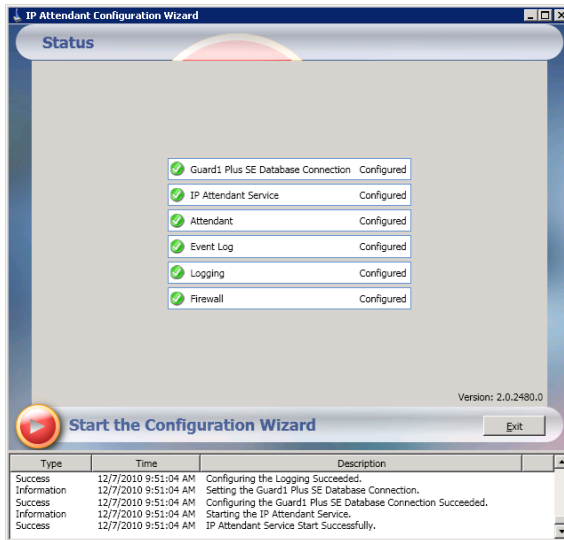
This only appears in an SE deployment.

- Click **Next**.



This only appears in an SE deployment.

13. Click **Finish**.



14. Click **Exit**.

15. The IP Attendant service is now configured for custom operation.

Setting your Internet firewall settings

If the IP Attendant service receives data from the IP Downloader via the Internet, you must configure the perimeter firewall to forward the IP Downloader requests to the IP Attendant port (default port is 50150). The protocol is TCP (HTTP). (If the IP Attendant was installed with a custom configuration, the port number may be different from 50150.)

Installation Overview – IP Downloader

Installing IP Downloader

When a PIPE is docked, the IP Downloader transfers the PIPE's data to its local memory, clears the PIPE, beeps the PIPE and then forwards the data to the IP Attendant service on the designated computer. In the case of communication failure, the IP Downloader will try resending data every 600 seconds.

An IP Attendant Service can receive data from multiple IP Downloaders. The IP Downloader will be a node in your network environment. To configure the IP Downloader in a DHCP environment, you need to know its network name, which is printed on the label attached to the bottom of the IP Downloader. To configure the IP Downloader in a non-DHCP environment, you need to know its IP address. The default IP address is 192.168.104.104.

Opening the IP Downloader's Home Page

To open the IP Downloader's home page

1. Connect the Ethernet cable to the IP Downloader.
2. Connect the Ethernet cable from the IP Downloader to your LAN/WAN/Internet port.
3. Connect the power supply to the IP Downloader. NOTE: for POE (Power Over Ethernet) downloaders, the Ethernet cable supplies power to the downloader.
4. The IP Downloader may take up to two minutes to acquire its IP address. Wait for the Network LED to be solid green. If this LED is not lit, refer to the troubleshooting section on page 27.
5. On a computer connected to the network, open a Web Browser window.

6. Refer to the table below to determine the appropriate IP Downloader network address to enter in the browser address bar:

Computer's Network Environment	Network Environment for the IP Downloader	IP Downloader's Home Page
Same LAN/WAN/VPN as the IP Downloader	DHCP	<p>Enter the IP Downloader's network name in the browser's address bar.</p> <p>The network name begins with "tk" and can be found on the label attached to the bottom of the IP Downloader. For example: http://tk002223390034</p>
Same LAN/WAN/VPN as the IP Downloader	No DHCP available	<p>Enter http://192.168.104.104 in the browser's address bar.</p> <p>Note 1: The computer used to configure the IP Downloader must have an IP address of 192.168.104.xxx with a subnet mask of 255.255.255.0 to be able to open the IP Downloader's home page.</p> <p>Note 2: You should modify the factory default address upon commissioning to avoid any duplicate IP addresses on the network.</p>
A firewall protecting the IP Downloader is between this computer and the IP Downloader	Not applicable	<p>Enter http://xxx.xxx.xxx.xxx:XXXX (the firewall's outer IP address and the port exposing the IP Downloader Management Web Server) into the browser's address bar.</p> <p>The firewall protecting the IP Downloader must be configured to forward inbound HTTP requests to the internal IP Downloader address on port 5000 in order to enable remote management. Ask your IT administrator to configure port forwarding as described above if remote IP Downloader management is required. If you cannot connect to your IP Downloader contact your IT administrator.</p>

Configuring your IP Downloader

1. From the IP Downloader's home page, click **Manage Downloader**.
2. Enter the **password** (default password is "password") and click **Log in**.
3. Enter the **Contact, Location** and **Time Zone**.
4. For the **Server Host Name**, enter the **computer name** or **IP Address** of the computer running the IP Attendant service. (see the section on "How to determine your Computer Name")
5. If DHCP is enabled, **do not change** the IP address, subnet mask, default gateway and DNS server address unless you wish to assign it a static IP address.
6. If DHCP is not enabled, enter the IP Downloader's **new IP address, subnet mask, default gateway** and **DNS server address**.
7. If needed, modify the **Server IP Port address**. The default port address is **50150**.
8. If communication to the IP Attendant requires crossing a non-transparent proxy server, configure the proxy server URL as follows:

http://10.0.0.1:8080 where 10.0.0.1 is the internal proxy server address and 8080 is the HTTP port
9. Click **Apply** to save the IP Downloader's configuration, then click **OK**.
10. If you want the default passphrase (recommended), leave the **Passphrase** and **Verify Passphrase** fields **blank**.
11. If you are using a custom passphrase, enter the same passphrase in both Passphrase and Verify Passphrase fields and click **Set Passphrase**.
12. Once configured, the IP Downloader will connect to the IP Attendant. Upon successful communication the IP Downloader's System and Network LEDs will turn green. You can now download a PIPE.

IP Downloader. Time Keeping Systems, Incorporated. - Windows Internet Explorer
 http://tks00222339000b/manageDownloader.asp

TimeKeeping
Systems, Incorporated

IP Downloader TKS00222339000B Management

[Home](#)

[Diagnostic](#)

[Activity Log](#)

[PIPE Activity Log](#)

[Manage Downloader](#)

[Manage PIPE](#)

System Memory
Battery Network Download

[Log off](#)

[Change Password](#)

IP Downloader Configuration

Basic Configuration

Contact: Security Department

Location: Security Office

Time zone: (GMT-05:00) Eastern Time (US & Canada)

Server Host Name: mary2008

Advanced Configuration

Server IP Port: 50150

Contact Server Every: 600 seconds

DHCP Enabled:

IP Address: 10.0.0.130

Subnet Mask: 255.255.255.0

Default Gateway: 10.0.0.3

Primary DNS Server: 10.0.0.6

Alternate DNS Server: 10.0.0.13

Proxy Firewall Address:

Apply Cancel

Server Passphrase

Passphrase:

Verify Passphrase:

Done Local intranet 100%

Using the IP Downloader

Downloading the PIPE

Once configured, the IP Downloader will attempt to communicate with the IP Attendant service. Upon successful communication, the IP Downloader's System and Network LEDs will turn green.

How to download a PIPE using an IP Downloader:

1. Verify that the Network and System LEDs are both green.
2. Place the PIPE in the downloader.
3. When you hear the PIPE beep, and/or the Download LED turns green, the PIPE has downloaded its data to the IP Downloader.
4. The PIPE is cleared and you can remove the PIPE from the downloader.
5. While the IP Downloader is sending the download data to the IP Attendant, the System LED is amber.
6. When the IP Downloader has finished sending the download data to the IP Attendant, the System LED is green.
7. If the LEDs do not show that the download was successful, refer to the Troubleshooting section on the next page.

Disconnecting the IP Downloader from the network

Once the IP Downloader has communicated successfully to the IP Attendant, the IP Downloader can download a PIPE even if it is not currently connected to a network or system. This is because it stores the download data into its local memory. Once the IP Downloader communicates with the IP Attendant service it will transfer its stored PIPE data.

Troubleshooting the IP Downloader

A remote user can verify that the IP Downloader is operating normally by opening the IP Downloader's Home page and reviewing the Diagnostic and Activity Logs.

1. From your web browser, open the IP Downloader's home page.
2. The Status line should say "Running".

The screenshot shows a web browser window displaying the IP Downloader's home page. The page title is "IP Downloader TKS00222339000B Home". The left sidebar contains navigation links: Home, Diagnostic, Activity Log, PIPE Activity Log, Manage Downloader, and Manage PIPE. Below these are system status indicators for System, Memory, Battery, Network, and Download, along with a Refresh Page button. The main content area is divided into sections: Status, Configuration, IP Configuration, Server Configuration, and Proxy Server.

Status	
Status:	2009-01-28 12:00:46 Running
Current Time:	2009-01-29 14:21:28
Last Error:	2009-01-28 11:50:43 There was no endpoint listening at http://mary2008:50150/Guard1.com/TKS/G1E/DeviceHub/NotificationSink.
Error Count:	36
Start Time:	2009-01-26 14:14:39
Uptime:	3-days 0-hours 6-minutes 49-seconds
IP Downloader Battery Voltage:	3.120V

Configuration	
Contact:	Security Department
Location:	Security Office
Time zone:	(GMT-05:00) Eastern Time (US & Canada)

IP Configuration	
Network Name:	TKS00222339000b.ntks.ezbarcode.com
DHCP Enabled:	Yes
IP Address:	10.0.0.130
Subnet Mask:	255.255.255.0
Default Gateway:	10.0.0.3
Primary DNS Server:	10.0.0.6
Alternate DNS Server:	10.0.0.13

Server Configuration	
PIPE Transfer Mode:	Legacy Mode
Server Address:	http://mary2008:50150/Guard1.com/TKS/G1E/DeviceHub/NotificationSink
Contact Server Every:	600

Proxy Server	
--------------	--

3. If the status is “Communication Fault”, confirm the following:
 - IP Attendant service is running (see page 23).
 - IP Downloader has the correct Server Host Name and port number (Click **Manage Downloader** and enter “**password**” when prompted for the password.)
 - IP Downloader and the IP Attendant have the same passphrase.
 - You can ping the Server Host Name.
4. If all of the above are correct, go to the following for additional information:
 - Click Diagnostic to view the Diagnostic log.
 - Under the section Memory Details, look at the “PIPE Downloads stored” field to see if any downloads are still in the downloader’s memory waiting to be downloaded.
 - Click Activity Log to see which PIPEs have been downloaded at this IP Downloader.

Setting the Time Zone on the IP Downloader and PIPE

The PIPE’s time is reset by the IP Downloader after each successful download to the IP Downloader. The factory default time zone is Greenwich Mean Time (GMT).

To set the time zone on the IP Downloader:

1. From your web browser, go to the IP Downloader’s home page. See the table on page 15 for the address.
2. On the left side of the home page, click **Manage Downloader** and enter the **password** (the default password is “password”). Click **Log In**.
3. Locate the **Time Zone** field under the Configuration section.
4. Select the appropriate time zone for this IP Downloader.
5. Click **Apply** to save the changes.

Updating the IP Downloader Firmware

If new firmware becomes available for the IP Downloader, follow these steps to upload new firmware to your IP Downloader.

1. From your web browser, go to the IP Downloader's home page.
2. On the left side of the home page, click **Manage Downloader** and enter the **password** (the default password is "password"). Click **Log In**.
3. Locate the **Firmware File to Upload** field under the Firmware Update section.
4. Browse to the .bin file that you received from TimeKeeping Systems.
5. Click **Upload Firmware** to load this firmware into your IP Downloader.
6. The Upload process goes through three phases: uploading, programming and verifying.
7. Once verifying has finished, the following message appears in your web browser:



8. Wait until the IP Downloader has restarted successfully — as indicated by solid green System and Network LEDs — and click **Return to IP Downloader Home**.

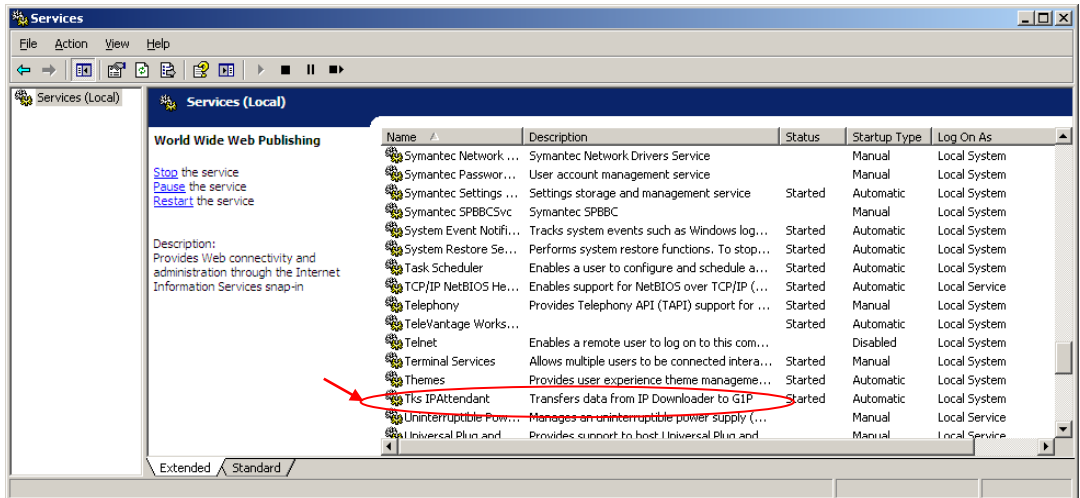
Using the IP Attendant

How to verify the IP Attendant service is running

The IP Attendant service starts automatically every time the computer is restarted. The owner of this service is the local SYSTEM account.

To verify that the IP Attendant service is running, follow these steps:

1. Click **Start**, then **Programs**.
2. Click **Administrative Tools**, then **Services**.
3. From the Services window, locate the **Tks IPAttendant** service name and confirm that the service is **Started** and the Startup type is **Automatic** as shown in the figure below.

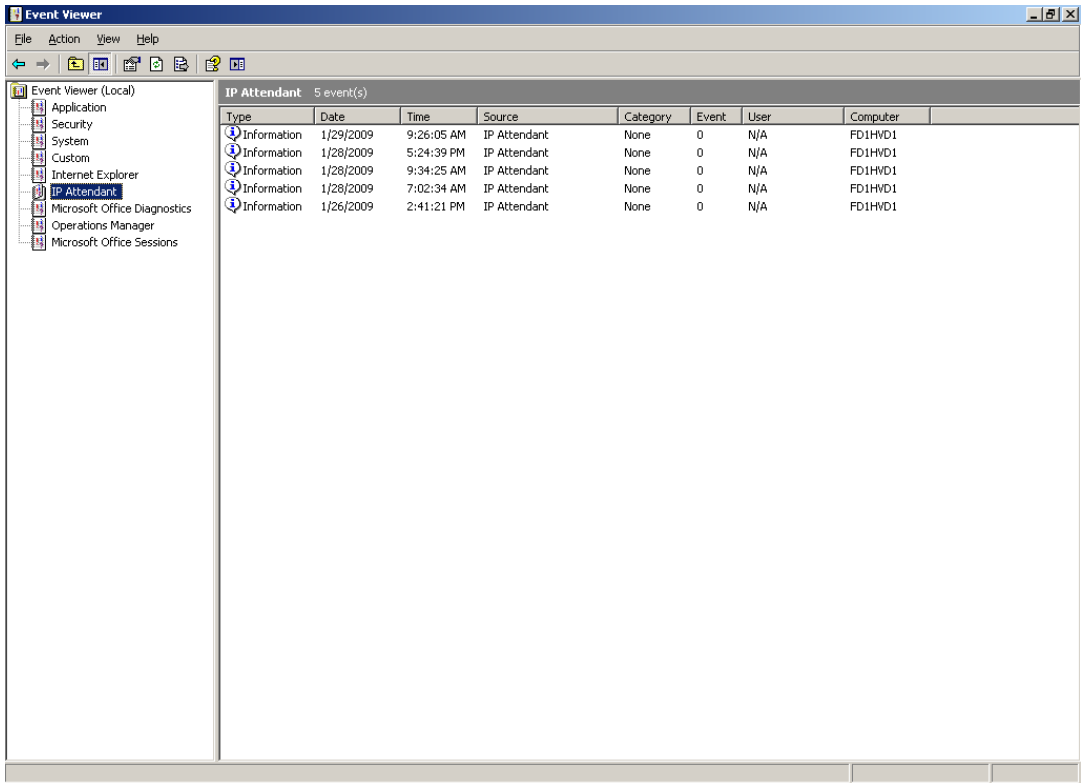


4. To start the service, highlight the **Tks IPAttendant** service, **right-click** and then click **Start**.
5. To change the Startup Type, highlight **Tks IPAttendant** service, **right-click** and then click **Properties**.
6. From the Properties window, change the Startup type to **Automatic** and click **OK**.

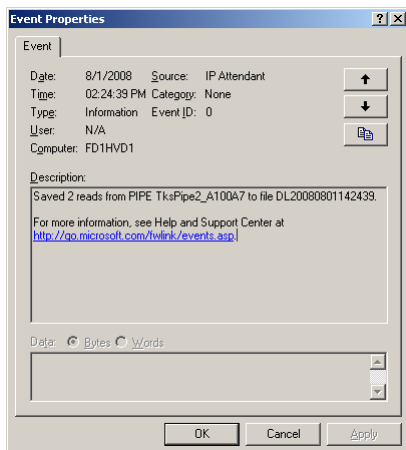
How to view the IP Attendant event log

Each time a download file is processed by the IP Attendant, an entry is made in the event log. To open and filter the Event Viewer, follow these steps:

1. Click **Start, Programs** and then click **Administrative Tools**.
2. Double-click **Event Viewer**.
3. The Application, Security, and System logs are displayed in the Event Viewer window.
4. Click **IP Attendant**.



5. To view the details on any event, double click the event.



6. On the **View** menu, click **Filter**.
7. Click the **Filter** tab (if it is not already selected).
8. Specify the filter options that you want and click **OK**.
9. Only events that match your filter criteria are displayed in the details pane.
10. To return the view to display all log entries, click **Filter** on the **View** menu, and then click **Restore Defaults**.

How to modify the IP Attendant configuration

After the IP Attendant is installed, you may need to change its port number, logging activity, or passphrase.

To change the IP Attendant's configuration:

1. Confirm that you are logged in as the Local Administrator or that your user account is a member of the Local Administrator group.
2. Double-click **My Computer** and navigate to **C:\Program Files\TimeKeeping Systems\IP Attendant**.
3. Double-click the **Tks.IPAttendant.Wizard.exe** file to start the IP Attendant Wizard.
4. Follow the instructions in the wizard to change the configuration settings for the IP Attendant.

Troubleshooting the IP Downloader and IP Attendant

Retrieving Status Information from the IP Downloader

There are five status LEDs on the front of the IP Downloader. You can view the current status of these five LEDs from the IP Downloader's home page by clicking **Refresh Page**.

Refer to the following tables for status indicators and resolutions.

Battery

LED Status	Indication	Resolution
Light out	No PIPE present	Normal operation
Solid green	PIPE Battery OK	Normal operation
Solid yellow	PIPE Battery low	Contact TimeKeeping Systems technical support (support@thepipe.com)
Solid Red	PIPE Battery very low	
Blinking Red	IP Downloader Battery low	

System Communication

LED Status	Indication	Resolution
Solid green	Last system communication successful	Normal operation
Solid yellow	Communication in progress	Normal operation
Solid red	Last system communication failed	<ul style="list-style-type: none"> From the IP Downloader's home page, confirm that the server's name and port number are correct Verify that the IP Attendant service is running View the event logs for the IP Attendant Verify that the same passphrase is used at both the IP Attendant and the IP Downloader Verify that the Internet and/or Windows Firewall settings are configured to receive on default port 50150 or a custom port number (rerun the IP Attendant Wizard to reset the ports: C:\ProgramFiles\TimeKeepingSystems\IPAttendant\Tks.IPAttendant.Wizard.exe)
Blinking Red	No connection to system	<ul style="list-style-type: none"> From the IP Downloader's home page, confirm that the server's name and port number are correct Verify that the IP Attendant service is running View the event logs for the IP Attendant Verify that the same passphrase is used at both the IP Attendant and the IP Downloader

Network Connection

LED Status	Indication	Resolution
Solid green	Connected to network	Normal operation
Solid yellow	Cable not connected	<p>Confirm that the internet cable is securely attached</p> <p>Confirm that it is an active connection</p>
Solid red	Network error	Confirm that you have a good network connection by pinging the downloader
Blinking red	Network not detected	Confirm that you have a good network connection by pinging the downloader

Downloader Memory

LED Status	Indication	Resolution
Light out	Memory is empty	Normal operation
Solid green	Memory contains data	Normal operation
Solid yellow	Memory is over 95% full	Download the IP Downloader
Solid red	Memory full	
Blinking red	Download failed – memory full	Download the IP downloader. After the downloader's memory is cleared, re-insert the PIPE into the IP downloader to download

Download Status

LED Status	Indication	Resolution
Light out	No PIPE present	Normal operation
Solid green	Transfer successful	Normal operation
Solid yellow	Download in progress	Normal operation
Solid red	Download error	Remove the PIPE and re-insert the PIPE into the IP Downloader If the error persists, contact TimeKeeping Systems technical support
Blinking red	System Clock invalid	Connect the IP Downloader to its LAN/WAN/Internet port so that it can communicate with the IP Attendant

How to determine your Computer Name

For Windows XP and Server 2003 operating systems:

1. **Click** (open) **Windows Start** menu, **right click** "**My Computer**" and select **Properties** from the popup menu. The System Properties dialog will appear.
2. Select the "**Computer Name**" tab.

For Windows Vista and Windows 7 operating system:

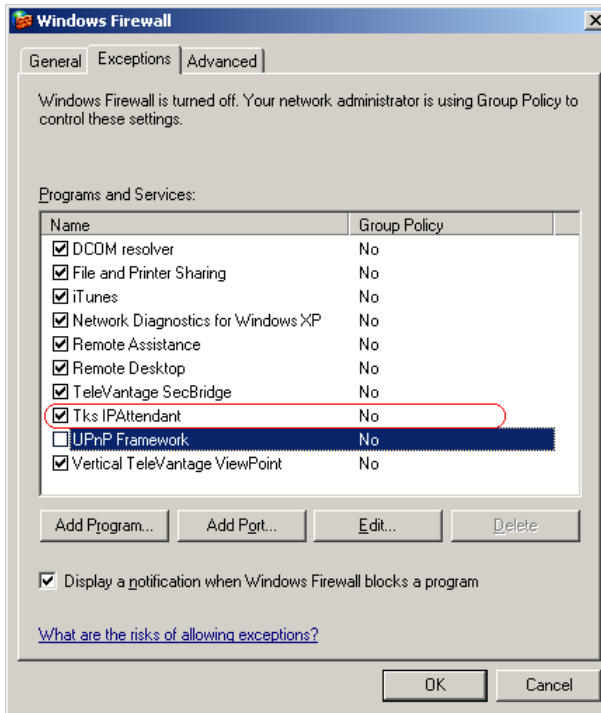
1. **Click** (open) Windows Start menu, **right click** on "**Computer**" and select **Properties** from the popup menu. The System Properties dialog will appear.

Confirming your Windows firewall settings

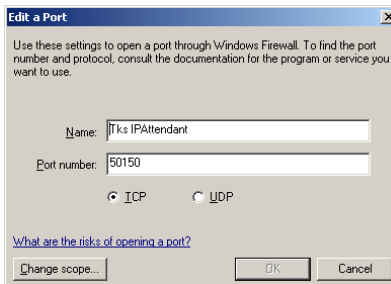
Your workstation's firewall settings are managed either at the workstation or per group policy. If your workstation's firewall settings are managed by group policy or no exceptions are allowed, you must contact your network administrator to open port 50150 (TCP) for the Tks IPAttendant service.

To confirm that the Windows Firewall is configured to receive from port 50150 for the Tks IPAttendant service:

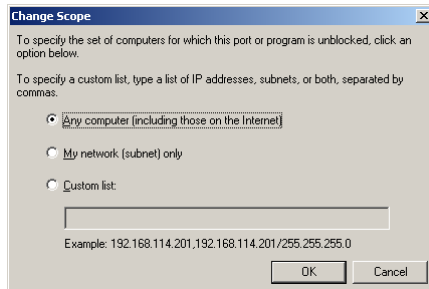
1. Click **Start, Settings,** and **Control Panel.**
2. Click **Windows Firewall** and navigate to the **General** tab.
3. Confirm that "**Don't allow exceptions**" is not checked.
4. Click the **Exceptions** tab and select the Tks IPAttendant.



5. Click **Edit**.



6. If you want to limit access to the IP Attendant to certain computers, click **Change scope**.



7. Enter the IP addresses of the IP Downloaders that can communicate with this IP Attendant service and click **OK**.

ED-99-0045-004