



IDM-AP-100	IDM-VM-100
IDM-AP-500	IDM-VM-500
IDM-AP-1000	IDM-VM-1000
IDM-AP-1500	IDM-VM-1500

iCOMPEL Deployment Manager (IDM) v3.1.0

User Manual v3.1.0



**Customer
Support
Information**

Order toll-free in the U.S.: Call 877-877-BBOX (outside U.S. call 724-746-5500)
FREE technical support 24 hours a day, 7 days a week: Call 724-746-5500 or fax 724-746-0746
www.blackbox.com • info@blackbox.com

Trademarks Used in this Manual

Black Box and the Double Diamond logo are registered trademarks of BB Technologies, Inc.

Any other trademarks mentioned in this manual are acknowledged to be the property of the trademark owners.

We're here to help! If you have any questions about your application or our products, contact Black Box Tech Support at **877-877-2269** or go to **blackbox.com** and click on "Talk to Black Box." You'll be live with one of our technical experts in less than 60 seconds.

Federal Communications Commission and Industry Canada Radio Frequency Interference Statements

This equipment generates, uses, and can radiate radio-frequency energy, and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio communication. It has been tested and found to comply with the limits for a Class A computing device in accordance with the specifications in Subpart B of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be necessary to correct the interference.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This digital apparatus does not exceed the Class A limits for radio noise emission from digital apparatus set out in the Radio Interference Regulation of Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique publié par Industrie Canada.

Disclaimer:

Black Box Network Services shall not be liable for damages of any kind, including, but not limited to, punitive, consequential or cost of cover damages, resulting from any errors in the product information or specifications set forth in this document and Black Box Network Services may revise this document at any time without notice.

Instrucciones de Seguridad

(Normas Oficiales Mexicanas Electrical Safety Statement)

1. Todas las instrucciones de seguridad y operación deberán ser leídas antes de que el aparato eléctrico sea operado.
2. Las instrucciones de seguridad y operación deberán ser guardadas para referencia futura.
3. Todas las advertencias en el aparato eléctrico y en sus instrucciones de operación deben ser respetadas.
4. Todas las instrucciones de operación y uso deben ser seguidas.
5. El aparato eléctrico no deberá ser usado cerca del agua—por ejemplo, cerca de la tina de baño, lavabo, sótano mojado o cerca de una alberca, etc.
6. El aparato eléctrico debe ser usado únicamente con carritos o pedestales que sean recomendados por el fabricante.
7. El aparato eléctrico debe ser montado a la pared o al techo sólo como sea recomendado por el fabricante.
8. Servicio—El usuario no debe intentar dar servicio al equipo eléctrico más allá de lo descrito en las instrucciones de operación. Todo otro servicio deberá ser referido a personal de servicio calificado.
9. El aparato eléctrico debe ser situado de tal manera que su posición no interfiera su uso. La colocación del aparato eléctrico sobre una cama, sofá, alfombra o superficie similar puede bloquea la ventilación, no se debe colocar en libreros o gabinetes que impidan el flujo de aire por los orificios de ventilación.
10. El equipo eléctrico debe ser situado fuera del alcance de fuentes de calor como radiadores, registros de calor, estufas u otros aparatos (incluyendo amplificadores) que producen calor.
11. El aparato eléctrico deberá ser conectado a una fuente de poder sólo del tipo descrito en el instructivo de operación, o como se indique en el aparato.
12. Precaución debe ser tomada de tal manera que la tierra física y la polarización del equipo no sea eliminada.
13. Los cables de la fuente de poder deben ser guiados de tal manera que no sean pisados ni pellizcados por objetos colocados sobre o contra ellos, poniendo particular atención a los contactos y receptáculos donde salen del aparato.
14. El equipo eléctrico debe ser limpiado únicamente de acuerdo a las recomendaciones del fabricante.
15. En caso de existir, una antena externa deberá ser localizada lejos de las líneas de energía.
16. El cable de corriente deberá ser desconectado del cuando el equipo no sea usado por un largo periodo de tiempo.
17. Cuidado debe ser tomado de tal manera que objetos líquidos no sean derramados sobre la cubierta u orificios de ventilación.
18. Servicio por personal calificado deberá ser provisto cuando:
 - A: El cable de poder o el contacto ha sido dañado; u
 - B: Objetos han caído o líquido ha sido derramado dentro del aparato; o
 - C: El aparato ha sido expuesto a la lluvia; o
 - D: El aparato parece no operar normalmente o muestra un cambio en su desempeño; o
 - E: El aparato ha sido tirado o su cubierta ha sido dañada.

iCOMPEL Deployment Manager (IDM)

User Guide

V3.1.0

Copyright © 2016. Black Box Corporation. All Rights Reserved.

The iCOMPEL Deployment Manager (IDM) is a Web appliance designed to monitor and remotely manage multiple Black Box digital signage appliances. It allows remote configuration, provides monitoring, maintenance, and media playout audit reports on groups of iCOMPEL appliances over user-defined periods.

Copyright © 2016. Black Box Corporation. All Rights Reserved.

All rights reserved. No parts of this work may be reproduced in any form or by any means - graphic, electronic, or mechanical, including photocopying, recording, taping, or information storage and retrieval systems - without the written permission of the publisher.

Products that are referred to in this document may be either trademarks and/or registered trademarks of the respective owners. The publisher and the author make no claim to these trademarks.

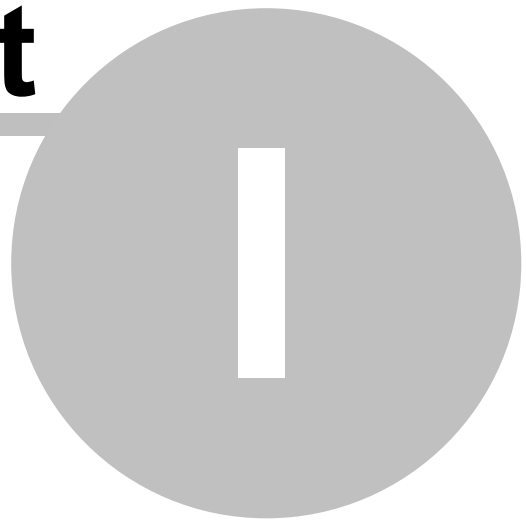
While every precaution has been taken in the preparation of this document, the publisher and the author assume no responsibility for errors or omissions, or for damages resulting from the use of information contained in this document or from the use of programs and source code that may accompany it. In no event shall the publisher and the author be liable for any loss of profit or any other commercial damage caused or alleged to have been caused directly or indirectly by this document.

Table of Contents

Part I	Getting Started with Your Digital Signage Network	6
1.1	The Parts of a DSM Network	6
1.1.1	Standalone Display	7
1.1.2	Multiple Displays	8
1.1.3	Enterprise Signage Network	9
1.2	Managing and Monitoring	10
1.2.1	Example Network Structure	11
1.2.2	Example Network Monitoring	12
1.3	What to Do First	14
1.4	Use Cases and Common Tasks	16
1.4.1	Configuring Player Reporting	16
1.4.2	Adding Players to Your Organization	17
1.4.3	Structuring Your Organization Using Folders	18
1.4.4	Donating Player Set Up to a Folder	19
1.4.5	Customizing the Player View	20
1.4.6	Responding to Alarms	21
Part II	Managing and Monitoring the Network	25
2.1	Home – Managing and Monitoring the Network	25
2.1.1	Players – Understanding the Display	26
2.1.2	Players – Accessing Detailed Status	28
2.1.3	Players – Using Remote Setup	28
2.1.4	Summary	31
2.1.5	Thumbnails	31
2.1.6	Map View	32
2.1.7	Manage	33
2.1.8	Media Audit Reports	34
2.2	Organization – Configuring Alarms	35
2.2.1	Configuring Alarms	35
2.2.2	Configuring Email Notifications	36
2.2.3	Configuring Operating Hours	37
2.3	System – Configuring Users, Players, and Alarms	38
2.3.1	Adding and Modifying Users	39
2.3.2	Organization Permissions	40
2.3.3	Adding and Deleting Players	41
2.3.4	Setting Up Alarms	42
Part III	Configuring and Maintaining the IDM	45
3.1	Status – Monitoring the DSM	45
3.2	Setup – Setting Up the DSM	46
3.2.1	Date and Time	47

3.2.2	Email Settings	48
3.2.3	Network	49
3.2.4	Security	49
3.2.5	Scheduled Jobs	52
3.2.6	Feature Keys.....	
3.3	Setup – Maintaining the IDM.....	52
3.3.1	Backup/Restore Database	52
3.3.2	Software Update	53
3.3.3	Reboot	54
3.3.4	Support Snap Shot	55
3.4	Help – Configuring User Interface Preferences	55
Part IV	Reference	58
4.1	Players Summary Columns	58
4.2	Alarms	59
4.3	User Permissions	63
	IDM Programming Interfaces.....	66
Part V	Glossary	
	Index	67

Part



Getting Started with
Your Digital Signage
Network

1 Getting Started with Your Digital Signage Network

Here is the information you need to get started with creating and managing a **digital signage network** using the iCOMPEL Deployment Manager (IDM).

A **Digital signage network** is simply a set of systems connected together to provide integrated management of numerous display screens. The purpose of the IDM is to provide you with the means to set up, monitor, and control such a network.

Before you begin using the IDM, you should familiarize yourself with its key concepts and understand how to perform some common tasks. To help with this, you will find the following orientation material useful:

- [The Parts of an IDM Network](#)^[7] – Explains the concepts of the IDM network and illustrates its constituent parts.
- [Managing and Monitoring](#)^[10] – Describes how you use IDM to structure your network and ensure its smooth operation.
- [What to Do First](#)^[14] – Takes you step-by-step through the tasks you need to take to set up your network.
- [Use Cases and Common Tasks](#)^[16] – Provides step-by-step examples of some tasks you are likely to perform regularly.

Note: Refer to the [Glossary](#)^[66] for definitions of IDM concepts and terminology.

If you are already familiar with the IDM product, you might want to refer to detailed information about it immediately. That detail is provided in these subject areas:

- [Managing and Monitoring the Network](#)^[25]
- [Configuring and Maintaining the IDM](#)^[45]
- [Reference](#)^[58]

1.1 The Parts of an IDM Network

To assist your understanding of the parts that make up a IDM network, it is useful to start by describing a very simple arrangement with a standalone display. Building on that, further illustrations add the extra features that become increasingly relevant as the network grows more distributed and more sophisticated.

Work through the description of these examples in turn:

- [Standalone Display](#)^[7]
- [Multiple Displays](#)^[8]
- [Enterprise Signage Network](#)^[9]

1.1.1 Standalone Display

The following diagram illustrates the simplest situation with a single display controlled by an individual. You might conceive of this as a screen displaying information in the foyer of a school:



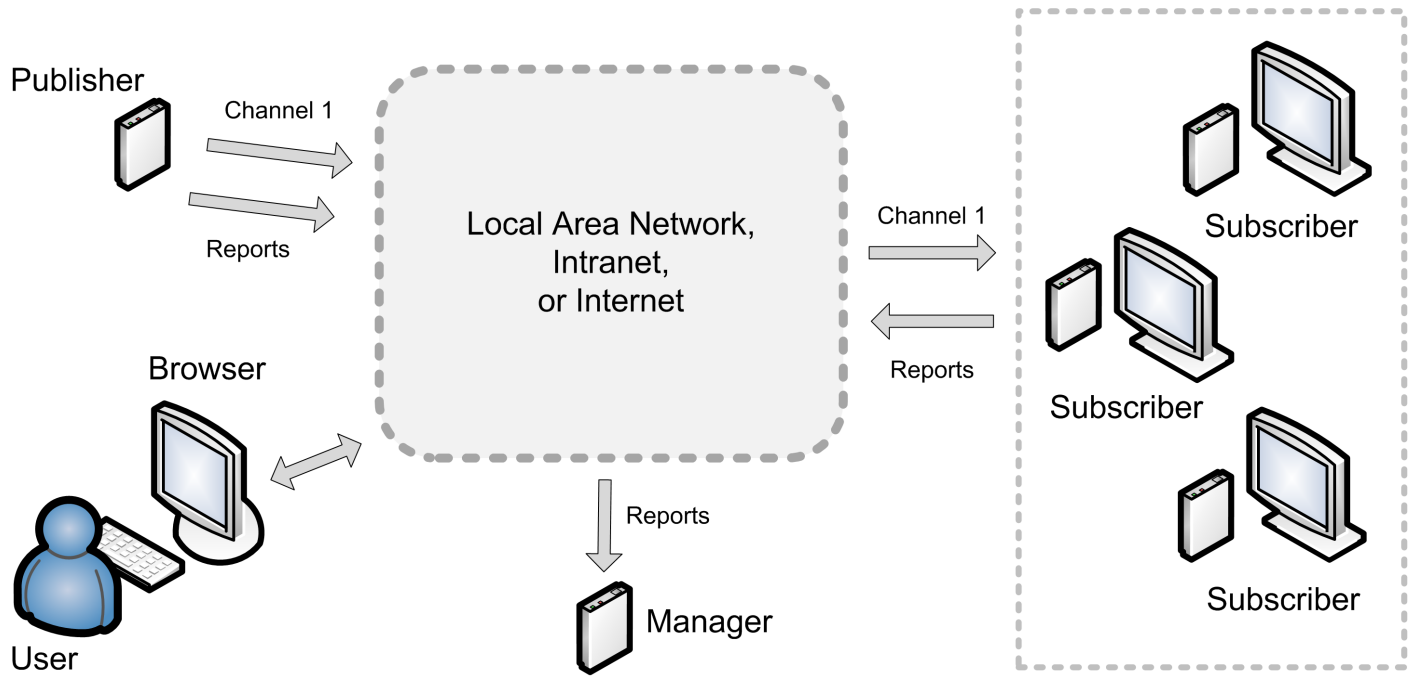
Note the significance of the highlighted features in that scenario:

- **User** – The person controlling the screen content and its operation (that is, you).
- **Browser** – You exercise control through a web browser (such as Mozilla Firefox or Microsoft Internet Explorer). This remains the case for even the largest digital signage network.
- **Local area network, Intranet, or Internet** – In principle, you do not need to be physically close to the screen's location. This becomes more significant as the size of the network increases.
- **Player** – **Player** is the generic term for the appliance that runs the screen. Specifically, the player is the iCOMPEL appliance. The appliance has to be physically attached to the screen.
- **Display Screen** – The equipment that displays the content you have defined. You configure the player to display various media on selected areas of the screen at chosen times.

As you might expect, additional features are needed to support a network that includes [Multiple Displays](#)⁸.

1.1.2 Multiple Displays

The following diagram illustrates a more fully-featured situation where a user controls several players and their screens. You might conceive of this as a set of screens displaying sales information on the floors of a shop. In practice, the number of players would be much higher, which is why it is desirable – and soon necessary – to add further components to the network:



You can see that certain features are the same: the user, the browser, and the network. Note now the significance of the additional features, discussed clockwise as they appear:

- **Publisher** – A **Publisher** is a player that you configure to provide content to other players. This enables you to display consistent content on several screens and means you only need update it in one place.
- **Channel** – A **Channel** refers to both the content it contains and its originating publisher. The **Channel Name** (in this case 'Channel 1') identifies the channel and is often just the name of the publisher player.
- **Reports** – The status messages sent by the players in the network are known as **Reports**. As the user, you rely on reports to keep up-to-date with the status of individual players and of the network as a whole.
- **Subscriber** – A **Subscriber** is a player that you configure to accept content from a publisher. In the diagram, Channel 1 provides the content for all the subscribers players and their screens. All players still send separate reports. Subscriber and Publisher are referred to as **Roles** (the only other role is **Standalone**, which is the role of the player in the first diagram).
- **Manager** – **Manager** is the generic term for the appliance that manages the digital signage network. Specifically, the manager is the iCOMPEL Deployment Manager (IDM). Players send reports to the IDM over the network for processing. As with the players, you access the Manager through your browser. So long as you can make a network connection to the Manager, it can be located anywhere.

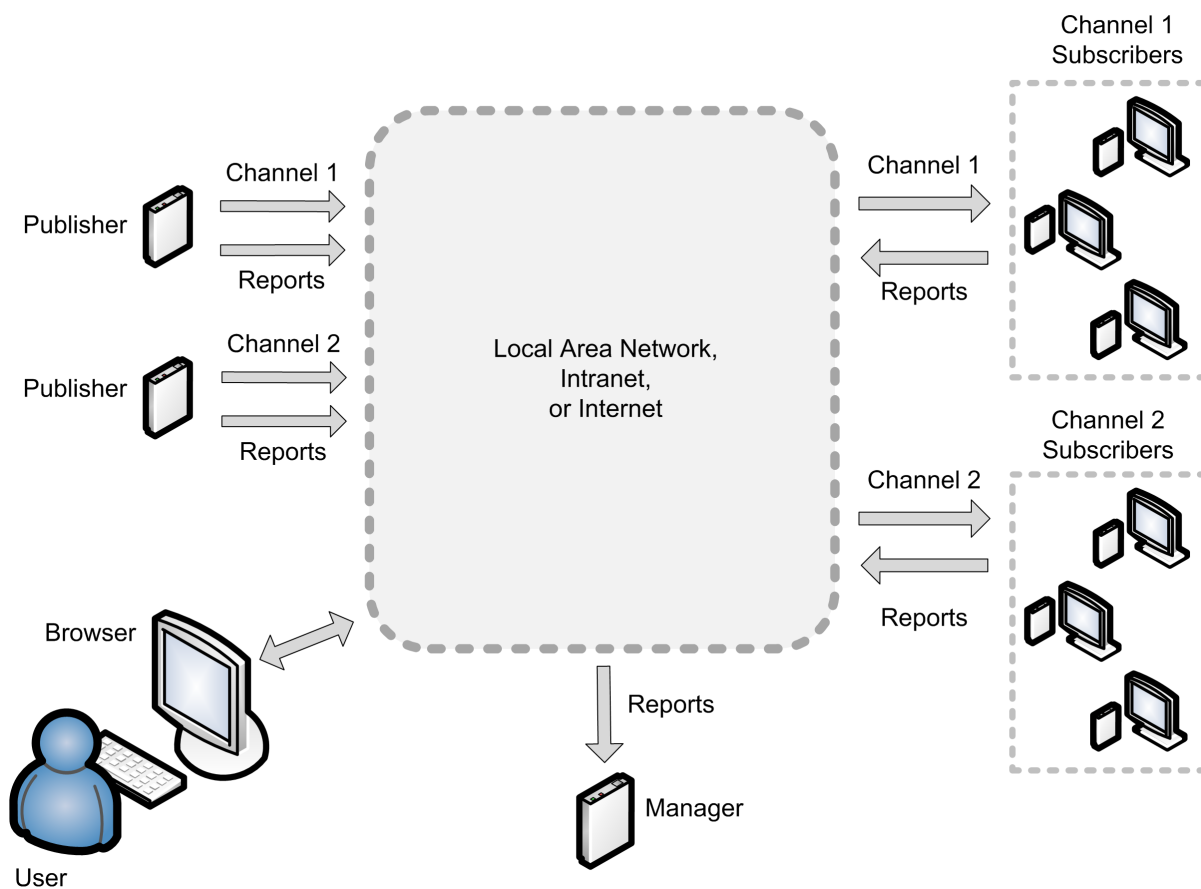
One final, but highly significant, feature is not illustrated but only implied: security. The IDM may be on one site and the players on another, each protected by a firewall. The IDM and the player can communicate using a number of protocols but for the highest security you might use the VPN option. The secure VPN pipe allows the player to send reports through its local firewall to the IDM behind its firewall. In turn, the IDM also uses VPN to communicate with the player.

IDM continues to support you as your signage network grows to encompass multiple players, relying on multiple channels, and distributed over several sites. The parts described already come together so that you can build a true [Enterprise Signage Network](#)⁹.

1.1.3 Enterprise Signage Network

IDM becomes vital when your signage network grows to several hundred or more players and their screens. The quantity and variety of content you need to manage and distribute grows accordingly. That scenario is of a truly enterprise-wide signage network with a priority on efficient and effective management and monitoring.

Once again, it is useful to envision the key components in a condensed and summarized form. The following diagram shows how the individual network features we have discussed so far combine to provide an enterprise signage network infrastructure. You might conceive of this as a country-wide business with sites in different cities, maintaining a resilient network of players displaying various streams of content, and all under centralized control:



Notice how the by-now familiar IDM network components operate in combination:

- At the center, you monitor the whole network through your web browser interface to the IDM.
- Multiple publisher players provide content over multiple channels. You configure as many as you need to serve the needs of the business.
- Multiple subscriber players display content from whichever channel you designate appropriate to their function. For example, the content could be subject-based if the display is for a particular department or could be locale-based if the display is for a particular city.

- How you group the subscriber players is up to you: there may be several hundred you manage for a common purpose.
- All players send reports for processing by the IDM. Thereby, you can keep track of your network's operations at whatever level of detail you wish.

Having understood the background terms and concepts, the next step is to consider what IDM provides for [Managing and Monitoring](#)^[10] your network.

1.2 Managing and Monitoring

As your digital signage network grows in size and complexity, a range of IDM features support your ability to easily manage and monitor operations. In particular, IDM provides a structural view of the network that you can customize to match business needs and to arrange players into manageable groups.

When you first access the IDM, it immediately guides you to set up an **Organization**. IDM regards the Organization as the root of, and identifier for, the whole network. You choose the name you want to give your Organization (it is likely you will want to use the name of your company or institution). IDM uses the Organization as the starting point for your network's structure.

The other key structural component in the IDM view of the network is the **folder**. The concept is parallel to that of folders on a disk drive: they allow you to collect items together in an identifiable group. In the case of IDM, those items are the players that run your digital signage screens. IDM lets you create as many folders as you need to structure your network.

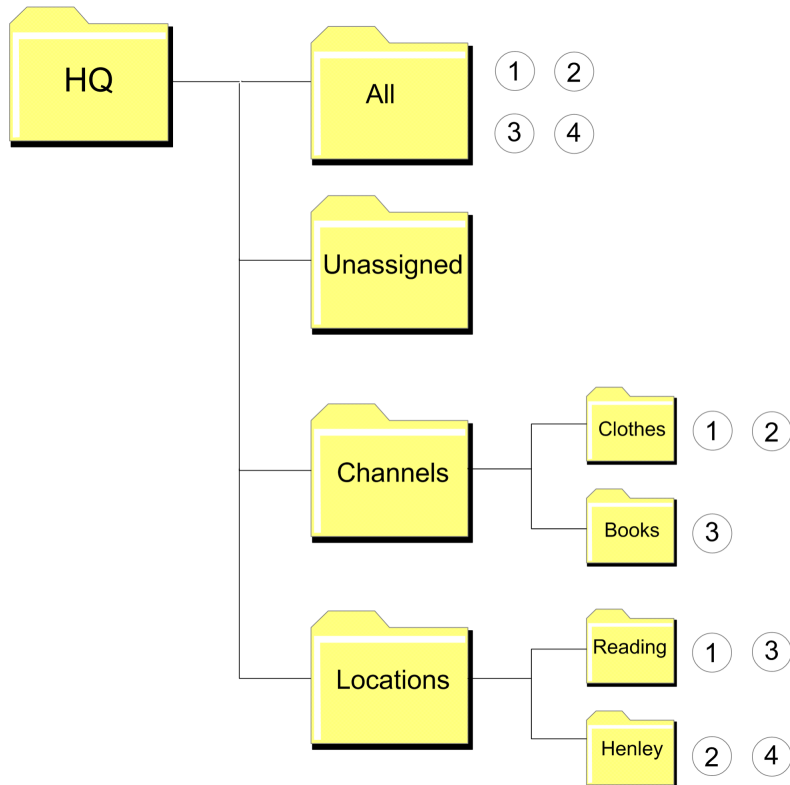
To facilitate later operations, IDM automatically creates two folders when you first set up your organization:

- **All** – This folder lists all of the player in your network (including those in the **Unassigned** folder).
- **Unassigned** – This folder lists any players you have not assigned to one of the folders you create.

To understand how these components help you structure and so more easily manage your network, see [Example Network Structure](#)^[11].

1.2.1 Example Network Structure

The following diagram contains a schematic image of how the IDM displays a view of an Organization (called **HQ**) structured with folders. Individual players are shown by numbered circles (there are four). You might conceive of this as a very-much simplified view of the signage network you are managing for a chain store:



You can see that the Organization, **HQ**, contains the ever-present **All** and **Unassigned** folders. The IDM lists all of the players in the **All** folder but lists none in the **Unassigned** folder. No players are listed in **Unassigned** because you have assigned them to your newly-created folders:

- **Channels** – This folder contains two subfolders, **Clothes** and **Books**. You have assigned players 1 and 2 to **Clothes** and player 3 to **Books**.
- **Locations** – This folder contains two subfolders, **Reading** and **Henley**. You have assigned players 1 and 3 to **Reading** and players 2 and 4 to **Henley**.

This structure allows you to view your players through two perspectives:

- Through **Channels** to view players according to the content they display (in this example, in the **Clothes** and **Book** departments).
- Through **Locations** to view players according to where the store is sited (in this example, in **Reading** or **Henley**).

This shows how IDM allows you to customize folders according to specific characteristics. You use folders to group your players for easier management and monitoring. So, grouping players under **Channels** helps in checking that particular content is consistent and is being delivered smoothly. Grouping them under **Locations** helps in checking that all of the players in a particular store are operating correctly. Even more powerfully, the IDM **Remote Setup** feature allows you to reconfigure a player by moving it from one folder to another (for example, you can change player 2 so that it has a 'Books' set up by dragging it from the **Clothes** folder and dropping it into the **Books** folder).




Having grouped your players into a meaningful structure, you will want to monitor them in a precise and timely fashion. [Example Network Monitoring](#)^[12] expands the **HQ** Organization example to illustrate how IDM helps you do that.

1.2.2 Example Network Monitoring

The reports that individual players send to the IDM are instrumental for effective network monitoring. Reports contain a wide range of diagnostic data about the player and indicators of its operational status. The IDM processes that information and compares the values with the boundary parameters you have specified. If any value falls outside of those boundaries, the IDM warns you by raising an **Alarm** specific to that condition.

The IDM supports an extensive suite of alarms covering very many aspects of player performance and behavior. You can select which alarms IDM observes or ignores and you can configure individual alarms to match your exact requirements. This allows you to establish a monitoring regime to your desired degree of detail. On that basis, IDM continuously updates its display of player, folder, and Organization status.

To display the current status, IDM uses a system of icons to represent alarm states. The icons are:

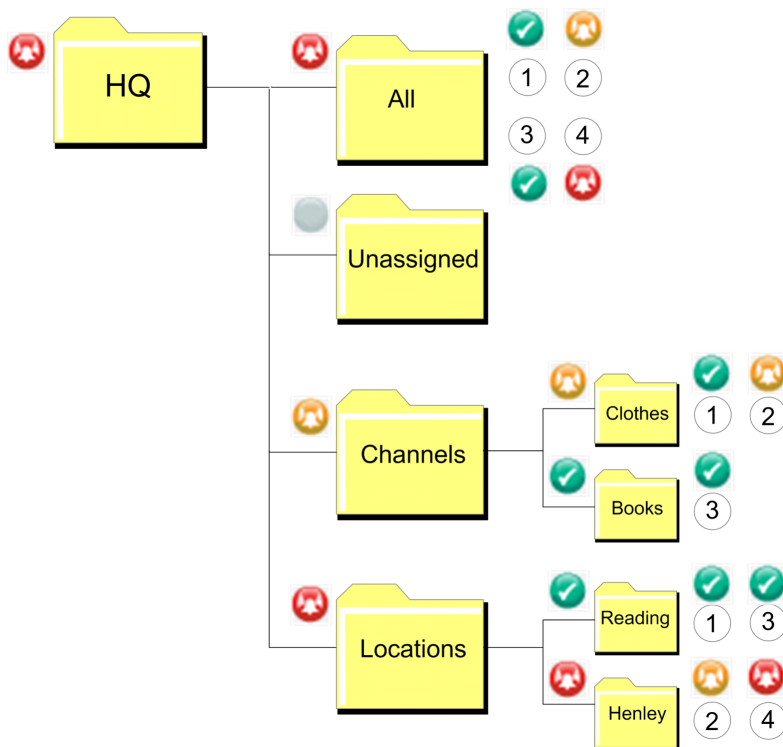
-  – No alarms
-  – Alarm is raised
-  – You have acknowledged the alarm

The sequence of actual alarm states is very simple:

1. IDM raises an alarm when a player reports out-of-parameter data.
2. IDM only lowers the alarm when the player reports that the data is within parameters again.

IDM offers the intermediate 'acknowledged' state as an assistance to your system-monitoring workflow. The **Acknowledge Alarm** procedure simply provides you with a means to record and track alarms: it does not alter how or when IDM raises or lowers alarms. ([Responding to Alarms](#)^[21] describes how to use the Acknowledge Alarm procedure.)

The following diagram contains the schematic image of the example **HQ** Organization, but now showing how alarm states ripple up through the Organization to show detailed and overall status:



Notice how you can monitor the status of your network at various levels of detail:

- Player level – Players 1 and 3 have no problems. You have acknowledged a Player 2 alarm, but the problem is not yet resolved. Player 4 has an unacknowledged alarm.
- Folder level – The folder icon shows the worst-case status within it (for example, both the **Henley** and **Locations** status is 🚨).
- Organization level – The Organization icon shows the worst-case status within it. (This is matched by that for the **All** folder.)

In addition, the 🟡 icon indicates that a folder has no players within it. Here, this indicates that there are no **Unassigned** players.

You will find the the alarms statuses are vital for rapid problem solving and troubleshooting. In the scenarios above, you might arrive at some basic conclusions:

1. Players 1 and 3 are running without issues, suggesting all is well at the Reading location.
2. Henley is creating alarms on all players (a current alarm on Player 4 and a recent one on Player 2). This implies a store-wide issue, perhaps related to network connectivity.
3. However, you would need to check the specific alarms raised to eliminate a coincidence of player-specific issues. For example, Player 4 may have been accidentally switched off or has suffered from overheating.

Having understood the key IDM concepts, refer now to [What to Do First](#)^[14] to understand the steps you take to create a real network.

1.3 What to Do First

When you access your IDM for the first time, you must complete certain essential set-up steps. Those steps configure the IDM with the two fundamental features it needs to begin building a signage network:

- The Organization.
- The basic IDM user accounts.

After your IDM is up on your network, take the steps described below to set it up.

Security: It is strongly recommended that you change the **remote** account password from the factory default as soon as possible. Also change the IDM master password and check that the security services configuration matches your requirements (see [Security](#)^[49] for details).

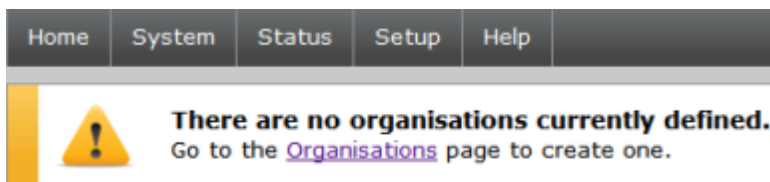
Step 1: Connect to the IDM through a browser

The IDM prompts you for your login details. Use these factory settings:

Username: remote

Password: 9999

IDM displays this screen:



Step 2: Complete the basic Organization set up

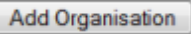
Click the [Organizations](#) link and IDM displays the **Add Organization** screen.

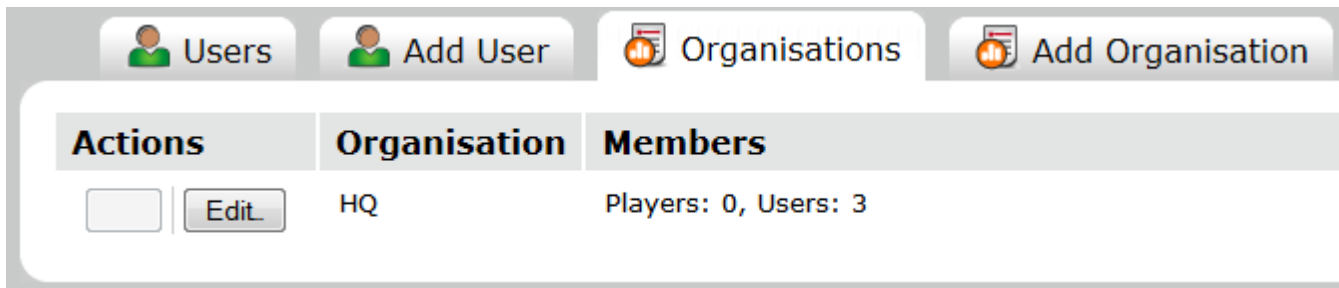
You must complete ALL of the fields listed on the **Add Organization** screen:

- **Organization** – Enter a name for your organization (you can change this later if you wish).
- **Organization Admin, organization Viewer, Reporter** – Complete the usernames and passwords for all three accounts. You need separate accounts to restrict the permissions to just those needed for each function: **Organization Admin** for administering the players in the organization, **Organization Viewer** for monitoring player status, and **Reporter** for players to report in to the organization.

You must compose the username from any of these components:

- Lower case letters (a-z).
- Numbers (0-9) (not permitted as the first character of the username).
- Underscore (_) (two underscores not permitted as the beginning of the username).

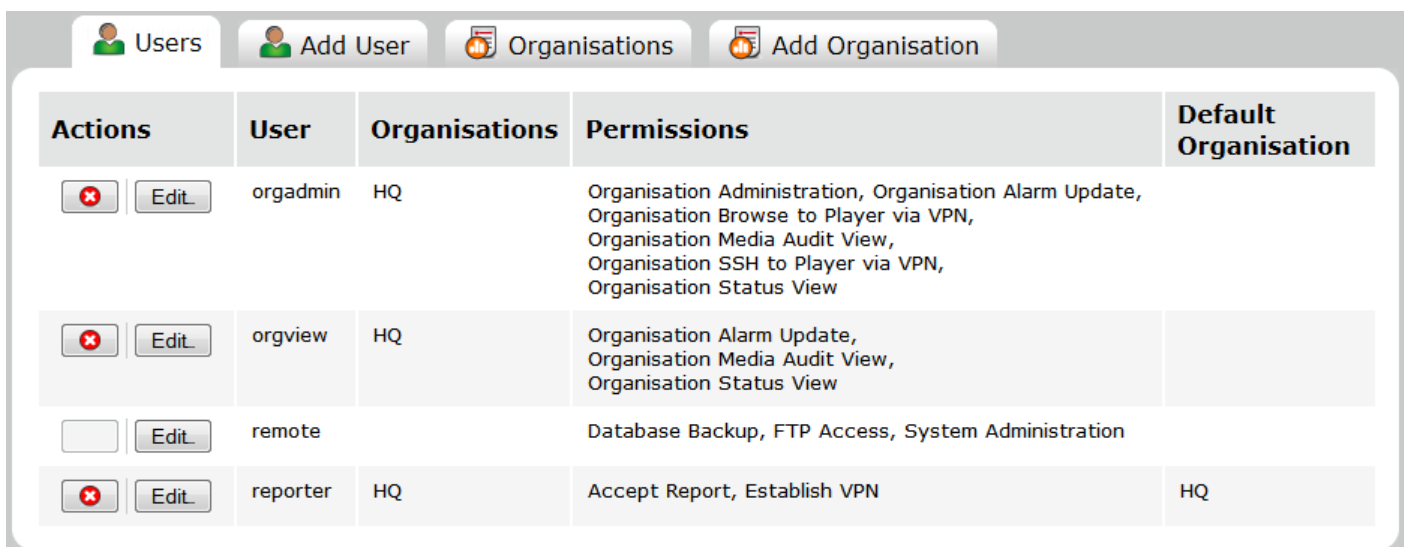
When you are certain you have completed all of the information, click the  button. IDM displays this screen:











In this example, the Organization name is **HQ**. The **Members** column reflects that the Organization has no players but has the three user accounts you configured in this step.

Step 3: Check user permissions


Click the **Users** tab to examine the default user permissions. IDM displays this screen:



Actions	User	Organisations	Permissions	Default Organisation
 	orgadmin	HQ	Organisation Administration, Organisation Alarm Update, Organisation Browse to Player via VPN, Organisation Media Audit View, Organisation SSH to Player via VPN, Organisation Status View	
 	orgview	HQ	Organisation Alarm Update, Organisation Media Audit View, Organisation Status View	
 	remote		Database Backup, FTP Access, System Administration	
 	reporter	HQ	Accept Report, Establish VPN	HQ

That screen lists details of the basic user accounts you set up in step 2. In particular, note the following:

- **User** – This column lists the usernames you provided for each of the accounts (in this example, **orgadmin**, **orgview**, and **reporter**). The **remote** user is the default IDM system account.
- **Permissions** – This column lists the permissions specifying what each account can and cannot do. Notice that the **organization Admin** account (in this example, username **orgadmin**) allows you to administer your organization and the **remote** account allows you to administer your IDM system.
- **Default organization** – By default, this applies only to the **Reporter** account (username **reporter**). Notice that this account has only the **Accept Report** and **Establish VPN** permissions. Those features allow the account to operate as the destination for player reports sent to the IDM. The **Default organization** configuration allows you to automatically add players to your network (rather than manually).

This default configuration is enough to allow you to start building your network. However, if you want to change what each user can do, click its  button and change the settings. You can also add further users by clicking the **Add User** tab.

Note: It is crucial that the user account you log in on has the right permissions. IDM displays certain menu options only if you have the correct permissions. In general, you need the **System Administration** permission to perform tasks related to the IDM system and the **organization Administration** permission to perform tasks related to your organization. ([User Permissions](#)^[53] provides more details.)

Step 4: Connect to the IDM on the Organization Admin account

To enable you to manage and monitor your network, you need to access the IDM on an account with Organization permissions. To do so, close down your browser to clear your current session on the IDM. Start your browser again and connect to the IDM on the **Organization Admin** account. Alternatively, configure another user account with the required Organization permissions and use that account instead.

Now that you have set up the IDM fundamentals, you might want to understand the steps involved in some common signage network tasks. [Uses Cases and Common Tasks](#)^[16] explains how to perform many of the tasks you need to further develop and manage your network.

Alternatively, you may wish to refer to detailed information about the whole IDM user interface. That detail is provided in these subject areas:

- [Managing and Monitoring the Network](#)^[25]
- [Configuring and Maintaining the IDM](#)^[45]
- [Reference](#)^[58]

1.4 Use Cases and Common Tasks

You will find that you need to perform some IDM management and monitoring tasks on a regular basis. To assist you perform such tasks, here is a selection provided with step-by-step instructions:

- [Configuring Player Reporting](#)^[16]
- [Adding Players to Your organization](#)^[17]
- [Structuring Your organization Using Folders](#)^[18]
- [Donating Player Set Up to a Folder](#)^[19]
- [customizing the Player View](#)^[20]
- [Responding to Alarms](#)^[21]

1.4.1 Configuring Player Reporting

Configuring players to report to your IDM fulfils two purposes:

- It provides the regular status updates necessary for you to monitor the
- network. It is the simplest way to add players to your Organization.

You configure a player to send reports using its **Setup> System> Reporting and Remote Setup** options (refer to the NTB documentation for details). The player needs to know the following about your IDM:

- Its name or IP address.
- Its **Reporter** user account username and password.

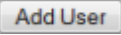
When you configure the player, you must also specify whether to use HTTP, HTTPS, or VPN to send reports. The choice depends on the level of security required for communications between the player and your IDM. Using HTTPS or VPN also enables other interactions between the player and the IDM (for example, remote management). For best security and highest degree of interaction use VPN.

[Adding Players to Your organization](#) ¹⁷ describes how to automatically add players to your organization when they first report.

1.4.2 Adding Players to Your Organization

As noted in [Configuring Player Reporting](#) ¹⁶, the IDM can automatically add players to your organization when they first send a report.

Configuring the IDM to do so was part of the start up process described in [What to Do First](#) ¹⁴. However, if needed, you can configure the IDM to automatically add players by following these steps:

1. Connect to the IDM using an account that has the **System Administration** permission.
2. Select **System** and click **Users**.
3. Click the **Add User** tab.
4. Configure the user with these options:
 - **Default Player organization:** select the **Unknown players will be added to organization** radio button (and your Organisation's name).
 - **Organisations:** check the box next to your Organisation's name.
 - **Permissions:** check only the **Accept Reports** and **Establish VPN** boxes.
5. Click the  button.
6. On the player's **Reporting and Remote Setup** page, configure it to report using the username and password of that IDM user.

Now, when the player sends a report, the IDM adds it to your organization. In the first instance, IDM places the player in your Organisation's **All** and **Unassigned** folders.

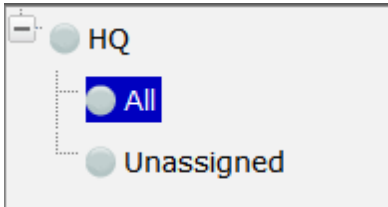
You can also add players manually and this is explained in [Adding and Deleting Players](#) ⁴¹.

[Structuring Your organization Using Folders](#) ¹⁸ explains how to add further folders to group and so more easily manage the players in your organization.

1.4.3 Structuring Your Organization Using Folders


To follow the steps here, you must access the IDM through an account with the **organization Administration** permission.

When you first set up your organization (called **HQ** in this example), the **Home > Summary > Players** folder structure pane looks like this:



That folder structure contains only the default items:

- The organization folder (**HQ**) – The starting point for the organization, named when you started to use the IDM.
- The **All** folder – Generic folder listing all the players in your network.
- The **Unassigned** folder – Generic folder listing all the players in your network not allocated to your own folders.


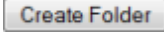

As there are no players in your organization yet, IDM flags all three with the 'no player' icon .





When you start to add players, IDM lists their details in both the **All** and the **Unassigned** folders. As the number of players increases, you can create a structure of additional folders with which to group players for easier management. Creating this structure is a two-stage process:

- Adding folder
- Allocating players to the folder

Adding a Folder:

To add a folder, follow these steps when on the **Home > Summary > Players** page:

1. Click on the organization folder.
2. Click the  button.
3. Click the  button
4. Enter a name for the folder in the **Add Folder** field.
5. Click the  button.

IDM displays the new folder in the folder structure pane. In the manage pane, buttons next to the folder allow you to delete , copy , move , or rename  it.

To add a subfolder, follow the same steps but start in the folder you want to be the parent. Repeat that process to create as deep a structure as you require.


Allocating Players to a Folder:

The most direct way to allocate a player to a folder is to use drag-and-drop. Use your mouse to drag the player from the **Home > Summary > Players** table and drop it onto the target folder.

IDM offers two ways to allocate players to folders using drag-and-drop:

- Move the player from the **All** folder to one of your folders – This allows you to allocate the player to more than one folder. You do this to monitor the same players in different folder views (for example, one folder to view players subscribing to a channel and another to view players according to their location).
- Move the player from one to another of your folders – This removes the player from the first folder and places it in the second. You do this to allocate players to an exclusive view.

A related feature of IDM allows you to configure a folder (and, if desired, all the player's within it) with one player's characteristics (the player is said to **Donate** its characteristics). [Donating Player Configuration to a Folder](#)^[19] describes how to do that.

If you want to allocate a number of players to, or delete a number of players from, a folder at one time, use the folder management features of the  option (see [Manage](#)^[33]).

1.4.4 Donating Player Set Up to a Folder


To follow the steps here, you must access the IDM through an account with the **organization Administration** permission.

Grouping players in folders allows you to more easily manage them. IDM enhances this facility by allowing you to see the same players in different folder views. You can configure each folder with the view you want by donating the relevant characteristics from a suitable player.


For example, you might select a subscriber player to donate its channel set up. When you allocate other players to that folder, IDM automatically configures them to subscribe to the same channel. Then, viewing that folder provides you with a focus on the performance of that channel and the players subscribed to it.

To donate a player set up to a folder, you need to perform steps both on the player and on the IDM.

Take these steps on the player (refer to the NTB documentation for details):

1. Open its **Setup > System> Reporting and Remote Setup** page.
2. In **Reporting Settings**, configure the player to report status to the IDM using VPN.
3. Click the **Remote Setup** tab
4. Check the **Enable Remote Setup for this Player** box.
5. Check the boxes next to the **Categories** you want the player to donate.
6. Click the  button.

Take these steps on the IDM:


1. Create the folder you want to configure (see [Structuring Your organization Using Folders](#)^[18]).
2. Allocate the player to that folder.
3. Click on the folder and click the  button.
4. Click the [Ready](#) link in the player's **Remote Setup** column to select the categories to donate.

IDM displays the **Donate Remote Setup** screen (the categories listed are those you selected in step 5 on the player). In this example, the only category selected was **Channel** (so this will donate the player's channel set up):

Donate	Category	Setup Time
<input checked="" type="checkbox"/>	Channel	Today 11:40:14

Donate Remote Setup

To donate the categories you require, check the relevant boxes on the **Donate Remote Setup** screen and click the **Donate Remote Setup** button.

IDM now displays the remote setup icon () next to the folder's name. That indicates that if you add players to the folder, IDM will reconfigure them accordingly. This provides you with a rapid method for configuring numerous players to a standard set up.

[Players – Using Remote Setup](#) ²⁸ provides more information about remote setup.

1.4.5 Customizing the Player View

To follow the steps here, you must access the IDM through an account with the **organization Administration** permission.

The IDM **Home > Summary > Players** page displays information about each player in your organization. IDM arranges the information in a multi-column table, which you can customise to include only the specific details you want.

Here is an example of a simple table displaying information for a player with the serial number 31421:

<div>Select Displayed Columns</div> <input type="checkbox"/> Only Alarms							
Name	Serial	Report Date	Version	Alarms	Role	Remote Setup	Chan Last Connect
31421	31421	Today 10:22:02	9.1.0	No Alarms	Subscriber	Ready	Today 09:47:36

You can give the player a more meaningful name (or modify an existing one) by following these steps:

1. Click the link in the **Name** or **Serial** column. IDM displays the **Detailed Status** page.
2. Enter the name in the **Name** field.
3. Click the **Save** button.
4. Select **Home > Summary** to return to the **Players** page.

To change the columns displayed, click the Select Displayed Columns button and check or uncheck the relevant boxes:

Displayed Columns

☒ Alarms

☐ CPU Fan Speed

☐ CPU °C

☐ Chan ID

☐ Chan Last Connect

☐ Chan Name

☐ Chan Next Connect

☐ Chan Size

☐ Chan Transferred

☐ Chan Transferred %

☐ Data Disk % Used

☐ Data Disk Free

☐ Data Disk Size

☐ Data Disk Used

☒ Disk °C

☒ Model

☒ Name

☒ Remote Setup

☒ Report Date

☒ Role

☒ Serial

☐ State

☐ System Disk % Used

☐ System Disk Free

☐ System Disk Size

☐ System Disk Used

☐ System Fan Speed

☐ System °C

☐ Up Since

☒ VPN

☒ Version

Note: Although IDM changes the columns displayed as you click the boxes, the information may only be updated when the player next reports. Not all players can provide all of the information listed.

[Players Summary Columns](#)^[58] list all of the column names and describes the information they contain.


1.4.6 Responding to Alarms


As described in [Example Network Monitoring](#)^[12], IDM displays alarms if the data reported by players falls outside of the parameters you have specified. (For details on configuring alarms, see [organization – Configuring Alarms](#)^[35])

In outline, the alarm process follows this sequence:

1. IDM raises an alarm. You decide what action, if any, is needed.
2. Optionally, you acknowledge the alarm with a reason (usually the action in response to the alarm). Note that you cannot lower an alarm manually.
3. IDM lowers the alarm when the alarm condition no longer applies.

To clarify the procedure you follow, including the steps you take to acknowledge an alarm, here is a worked example (the alarm is **Report Overdue**):

1. IDM reports the alarm in the player's **Alarms** column (and displays the  icon next to the relevant folders plus here in the optional **State** column):

Name	Serial	Report Date	Version	Alarms	Disk °C	State
31421	31421	Today 11:33:48	9.1.0	Report Overdue is unacknowledged	33.0°C	

2. You decide the player needs to be manually inspected. You click on the [Report Overdue](#) link and IDM displays the player's **Alarms** tab:

General Alarms Channel Rem		
Alarm	Raised	
Channel Manager Initialising	Observed	
CPU Overheat	Observed	
Data Disk Free Space	Observed	
Disk Overheat	Observed	
Publisher Duplicate Channel	Observed	
Publisher Error	Observed	
Publisher Inactive Channel Is Incomplete	Observed	
Publisher Transfer Late	Observed	
Remote Setup Update Late	Observed	
Report Overdue	Observed	Today 11:39:34

3. Click on the [Report Overdue](#) link and IDM displays the **Acknowledge Alarm** screen:

Alarm	Raised	Acknowledged
Report Overdue	Today 11:39:34	

Reason:

4. You enter a description of your response to the alarm in the **Reason** field and click the button. IDM displays the **Alarm Acknowledged** screen (note the bar color has changed to 'acknowledged'):

Alarm	Raised	Acknowledged
Report Overdue	Today 11:39:34	Today 11:41:22

Reason:

You can **Update** your acknowledgement reason or **Delete** it and enter a new one.

5. Return to the player **Alarms** tab to see that IDM has updated the entry with your acknowledgement reason:

General Alarms Channel Remote Setup Other						
Alarm		Raised	Acknowledged	Lowered	Acknowledged By	Acknowledge Reason
Channel Manager Initialising	Observed					
CPU Overheat	Observed					
Data Disk Free Space	Observed					
Disk Overheat	Observed					
Publisher Duplicate Channel	Observed					
Publisher Error	Observed					
Publisher Inactive Channel Is Incomplete	Observed					
Publisher Transfer Late	Observed					
Remote Setup Update Late	Observed					
Report Overdue	Observed	Today 11:39:34	Today 11:41:22		orgadmin	Player being checked

6. IDM also updates the player's **Alarms** column (and displays the  icon):

Name	Serial	Report Date	Version	Alarms	Disk °C	State
31421	31421	Today 11:33:48	9.1.0	Report Overdue is acknowledged	33.0°C	

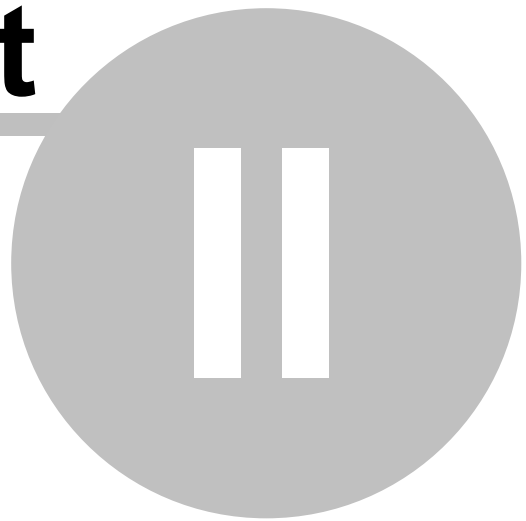
7. IDM lowers the alarm when the alarm condition is corrected (in this case, the player sends a report again):

Name	Serial	Report Date	Version	Alarms	Disk °C	State
31421	31421	Today 11:43:36	9.1.0	No Alarms	33.0°C	

8. IDM retains a record of the alarm on the player's **Alarms** tab:

General Alarms Channel Remote Setup Other						
Alarm		Raised	Acknowledged	Lowered		
Channel Manager Initialising	Observed					
CPU Overheat	Observed					
Data Disk Free Space	Observed					
Disk Overheat	Observed					
Publisher Duplicate Channel	Observed					
Publisher Error	Observed					
Publisher Inactive Channel Is Incomplete	Observed					
Publisher Transfer Late	Observed					
Remote Setup Update Late	Observed					
Report Overdue	Observed	Today 11:52:35	-	Today 12:01:44		

Part



Managing and Monitoring
the Network

2 Managing and Monitoring the Network

[Getting Started with Your Digital Signage Network](#)^[4] explains the key IDM concepts and describes how to accomplish the basic tasks needed to construct a simple digital signage network. However, as your network becomes larger you will need to make more use of and rely on the in-depth management and monitoring features that IDM offers.

At the highest level, those features are grouped around the performance of two activities:

- Managing and monitoring the network.
- Configuring and maintaining the IDM.

The guidance here directs you to the detailed information on the first of those. You can find guidance on the second in [Configuring and Maintaining the IDM](#)^[45]

To support your management and monitoring of the network, IDM features enable you to:


- Structure the view of your organization around folders.
- Move players into, out of, and around your organization.
- Reconfigure players remotely from the IDM.
- Be made aware of potential problem areas by configurable alarms.

IDM offers the following menu options for you to perform those tasks:



Click the menu item for the option you require:

- [Home](#)^[25] – Structuring and monitoring your digital signage network and the players within it. If you are responsible for ensuring the network runs smoothly, **Home** is where you will spend most of your time.
- [Organization](#)^[35] – Configuring how your organization observes or ignores alarms (only available for an account that has the **organization Administration** permission).
- [System](#)^[38] – Manually adding players, configuring IDM user accounts, and setting up alarm defaults (only available for an account that has the **System Administration** permission).

Additionally, you can click  to access online help for each option you are using (see [Help – Configuring User Interface Preferences](#)^[55] for details).

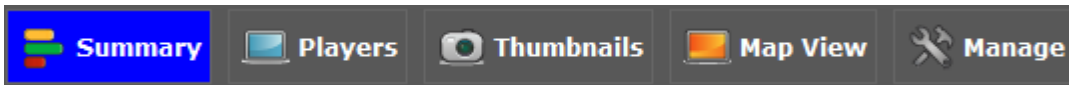
2.1 Home – Managing and Monitoring the Network

Use the **Home > Summary** options to display various views of your digital signage network and to access individual player details. In particular, the **Home > Summary** options provide features that enable you to use it as your central management and monitoring console.

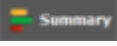
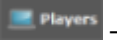
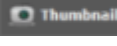
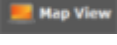

There is also a **Home > Media Audit Reports** page, where you can generate reports on when and how often players display specific content items (see [Media Audit Reports](#)^[34] for details).

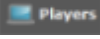

Note: You will only see the **Home> Media Audit Reports** option if you have the **organization Media Audit View** permission.

To support you when managing and monitoring the network, the **Home > Summary** page offers its own set of buttons:



Those buttons provide you with access to these options:

-  **Summary** – Viewing a single image of the overall network state.
-  **Players** – Displaying the folder structure of your organization and a tabular view of player performance environmental metrics. This is likely to be the display you refer to most often. See the guidance below for where to find more information.
-  **Thumbnails** – Viewing images of what is on each player's screen.
-  **Map View** – Viewing players arranged on an image (especially, on a map).
-  **Manage** – Creating and managing folders (and selecting alternative settings for the other **Home > Summary** menu options).


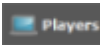
For day-to-day management of your network, the  **Players** view is the most significant. To support you when performing management tasks, it provides a wide range of features. Consequently, it is important to understand the  **Players** options in some detail. To find out more, refer to these topics:

- [Players – Understanding the Display](#)^[26]
- [Players – Accessing Detailed Status](#)^[28]
- [Players – Using Remote Setup](#)^[28]

For a description of the other **Home > Summary** options, refer to these topics:

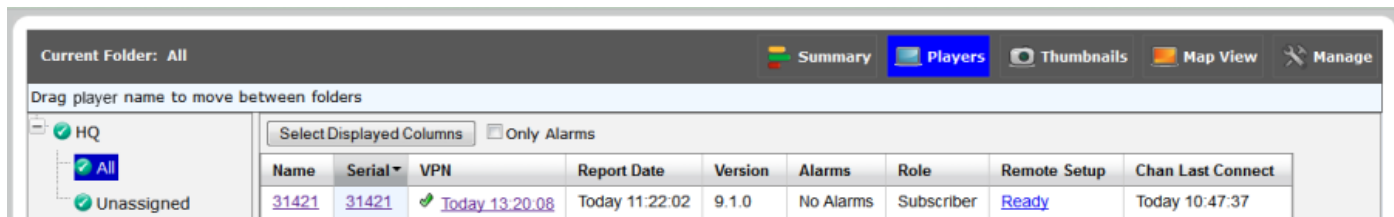
- [Summary](#)^[31]
- [Thumbnails](#)^[31]
- [Map View](#)^[32]
- [Manage](#)^[33]

2.1.1 Players – Understanding the Display

Use the  **Players** options to manage and monitor the players in your network. The  **Players** page displays your Organization's folder structure and provides a tabular view of player performance and environmental metrics. Most significantly for monitoring purposes, IDM flags alarm conditions on this page.

Note: By default, IDM refreshes player information every 30 seconds. You can change the refresh interval on the **Help > UI Options** page but take care as too short an interval may impact IDM performance.

To help you understand the  display, this illustration exhibits the key elements and these are described below:

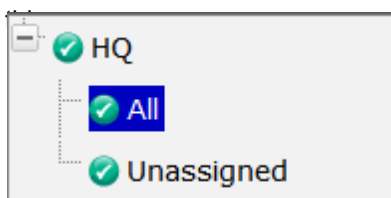


IDM divides the display into panes that show:

- Your Organization and the folders that make up its structure.
- The players in your Organization or in a folder listed in a table.

Organization and Folders:

The Organization and folders pane looks like



This visual summary immediately informs you of your Organization's structure and status:


- The root contains your Organization's name.
- The arrangement indicates the structural hierarchy of folders and subfolders. IDM displays the relevant alarm icon at each level of the hierarchy.

Related tasks you might want to perform:

- Adding or modifying a folder or subfolder (see [Structuring Your Organization Using Folders](#)^[18]).
- Adding, moving, or deleting players to or from folders (see [Structuring Your Organization Using Folders](#)^[18]).
- Dealing with alarms (see [Responding to Alarms](#)^[21]).

Player Listing Table:

A simple example of the table listing the players looks like this:

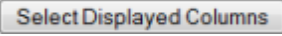
Select Displayed Columns <input type="checkbox"/> Only Alarms								
Name	Serial	VPN	Report Date	Version	Alarms	Role	Remote Setup	Chan Last Connect
31421	31421	 Today 13:20:08	Today 11:22:02	9.1.0	No Alarms	Subscriber	Ready	Today 10:47:37

Although a simple example, that table illustrates the key features that assist you manage your players:

- IDM displays the information you want to see for each player on a separate line.
- Click the link in the **Name** or **Serial** column to access the player's detailed status page (see [Players – Accessing Player Status](#)^[28]).

- If there is a link in the **VPN** column, click it to manage the player remotely.
- If there is a link in the **Alarms** column, click it to respond to the alarm (see [Responding to Alarms](#)^[21]).
- If there is a [Ready](#) link in the **Remote Setup** column, click it to configure donating the player's settings to a folder (see [Players – Using Remote Setup](#)^[28]).

Related tasks you might want to perform:

- Changing the details displayed in the table (click the  button and see [customizing the Player View](#)^[20]).
- Restricting the display to just players with raised or acknowledged alarms (check the **Only Alarms** box).

2.1.2 Players – Accessing Detailed Status

Clicking the link in the **Name** or **Serial** column of the player's table opens the detailed status page for the individual player.

IDM groups the information into five categories. Click the tab appropriate to the details you want to see for the player:

- **General** – Hardware and software versions, current display, up-time, last report received, IP address, environmental metrics (fan speeds and temperatures), and disk-space usage. This page also contains the **Name** field for entering a meaningful name for the player (or modifying an existing one).
- **Alarms** – Current alarm settings and details of recently raised, acknowledged, and lowered alarms.
- **Channel** – Current channel data (player role, channel name, channel ID, connection times, file numbers and size, and pending channel and poll details).
- **Remote Setup** – Current remote setup settings per category (controlling folder, status, and dates of last donation, application, and first report).
- **Other** – Details of any configured local information and RS-232 output item status.

2.1.3 Players – Using Remote Setup

[Donating Player Set Up to a Player](#)^[19] describes the basic steps needed to donate a player's set up to a folder using **Remote Setup**. That simple case demonstrates how **Remote Setup** can be a powerful tool to assist you with managing your network. To see how **Remote Setup** can help you further, you will need to consider more details about its operation.

The aspects of **Remote Setup** described in more detail are:

- [Choosing Player Set Up Categories](#)^[28].
- [Donating Player Set Up – Steps on the Player](#)^[29].
- [Donating Player Set Up – Steps on the IDM](#)^[29].
- [Using the Folder to Set Up Other Players](#)^[30].
- [Viewing and Modifying Folder Configuration](#)^[30].

Choosing Player Set Up Categories:

You can choose to donate player set ups from these categories:

- **Channel** – The currently subscribed channel (not available if the player is a publisher).

- **Date and Time** – Donates only the time method (see [Date and Time](#)^[47] for a description of the time methods). If that is Local System Clock, the actual time on the player is not donated.
- **HTTP Proxy** – Setup of the current HTTP proxy.
- **LDAP** – LDAP configuration.
- **Player** – Player settings.
- **Screen** – Screen settings.
- **Security** – Security settings.
- **Software Update** – Software update settings.
- **Users** – All users defined on the player.

You might take the time and trouble to configure one player with a 'standard' set up. Donating the categories concerned to a folder lets you rapidly disseminate all or part of that set up to a number of other players.

More subtly, with careful configuration within those categories, you can create fine distinctions between folders and the groups of player they contain. For example, you might create a user account on a player specific to a physical location: donating that player's **Users** to a folder allows you to configure all the players at that location site with the same account.

Donating Player Set Up – Steps on the Player:

To donate a player set up to a folder, perform these steps on the player (refer to the NTB documentation for details):

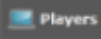
1. Open its **Setup > System> Reporting and Remote Setup** page.
2. In **Reporting Settings**, configure the player to report status to the IDM using VPN.
3. Click the **Remote Setup** tab
4. Check the **Enable Remote Setup for this Player** box.
5. Check the boxes next to the **Categories** you want the player to donate:

Reporting Settings		Status		Remote Setup Settings	
Save Changes					
Remote Setup: <input checked="" type="checkbox"/> Enable Remote Setup for this Player					
Categories:					
<input checked="" type="checkbox"/> Channel	<input checked="" type="checkbox"/> HTTP Proxy	<input checked="" type="checkbox"/> Users	<input checked="" type="checkbox"/> Software Update	<input checked="" type="checkbox"/> Screen	
<input checked="" type="checkbox"/> Player	<input checked="" type="checkbox"/> Date & Time	<input checked="" type="checkbox"/> Security	<input checked="" type="checkbox"/> LDAP		

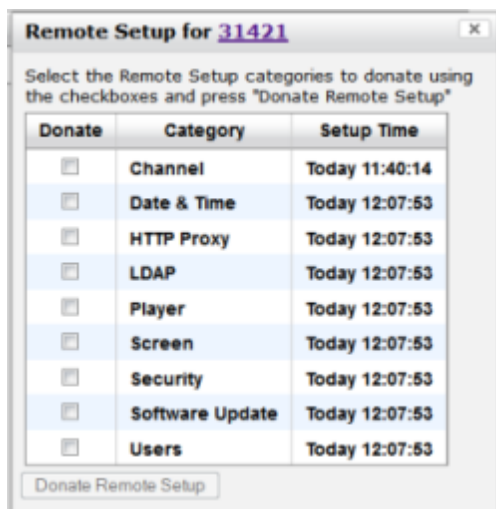
6. Click the **Save Changes** button.

Donating Player Set Up – Steps on the IDM: To

donate a player set up, take these steps on the IDM:

1. Create the folder you want to configure.
2. Allocate the player to that folder.
3. Click on the folder and click the  **Players** button.
4. Click the [Ready](#) link in the player's **Remote Setup** column to select the categories to donate.

IDM displays the **Donate Remote Setup** screen (the categories listed are those you selected in step 5 on the player):



To donate the categories you require, check the relevant boxes and click the [Donate Remote Setup](#) button.

Using the Folder to Set Up Other Players:

Now that you have donated the categories to the folder, you can set up other players with the same categories. You must configure those players to report to the IDM by HTTPS or VPN and enable remote setup for the categories required.

Note: You can see the categories a player will accept by clicking its [Ready](#) link in the **Remote Setup** column.


Use the folder to set up other players by one of these methods:

- Dragging an individual player from the **Home > Summary > Players** view and dropping it on the folder.
- Clicking the folder and using the [Manage](#) page to select and add as many players as required.

When the player receives the set up, it overwrites any existing set up in the same categories. You will need to reboot the player if the new set up includes any of these categories:


- Date and Time
- HTTP Proxy
- LDAP
- Player
- Screen
- Security


Viewing and Modifying Folder Configuration:

You can see if a folder is configured with a donation because IDM displays the remote setup icon () next to its name. IDM also adds this banner to the top of the folder player's list:

Folder has Remote Setup information. [Details](#)

If you click the [Details](#) link, IDM reports the categories configured (in this case, **Channel**):

Remote Setup for current folder			
	Category	Serial	Donated
	Channel	31421	Today 14:04:12

You can remove a category from the folder configuration by clicking its  button.

To add other categories to the configuration, take the same steps you did in **Donating Player Set Up: Steps on the IDM**. Bolded category names indicate one of two things:

- You have not donated them to the folder before.
- Their set up on the donor player is different from the previously donated set up.

2.1.4 Summary


Use the  options to view a high-level picture of the state of the whole network.

When you are on the  page, click  to choose the view you want:

- **Barchart** – Viewing the state as a bar, split into colours to indicate the number of players in each alarm state (green for no alarms, orange for acknowledged alarms, red for unacknowledged alarms).
- **Warboard** – Viewing the state as a lozenge, coloured to indicate the overall state and listing the proportion of players in each alarm state .

Check the relevant radio button and click the  button.

2.1.5 Thumbnails

Use the  option to display small images of what is on each player's screen.

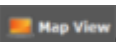
By default, players do not include a thumbnail in their reports. If you want the thumbnail to be sent, you need to configure it in the player's **Reporting and Remote Setup** page.


Here is an example  display:




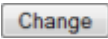
Note: The IDM labels each thumbnail with the player's serial number or name. Click the label to display the player's detailed status (see [Players – Accessing Detailed Status](#)^[28]).

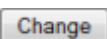

2.1.6 Map View

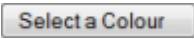
Use the  option to display the players in a folder or in the whole organization as symbols on an image (for example, to show location on a map).

Whether the view is of a folder or of the organization matches what you have selected on the  page.

Customise the display when on the  page by clicking . You can then:

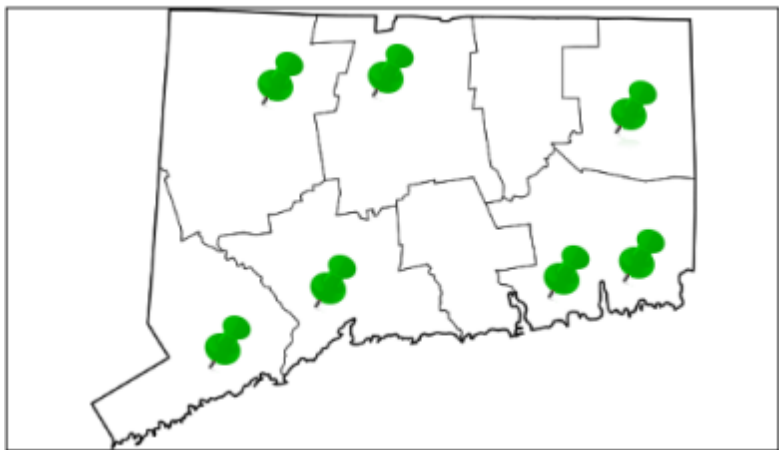
- Relocate a player symbol by dragging and dropping.
- Resize the size of the display area by dragging its edges.
- Access further customizing features by clicking the  button.

Configure the following customisations through the  button and click the  button to enable them:

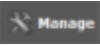
Background	<div>Select the radio button for the option you want:<ul style="list-style-type: none">• Use an image – Navigate to the location of the image and select it. Select the appropriate formatting radio button.• Use Solid color – Click the  button to specify a different color.</div>
Item Display	<div>Select the radio button for the option you want:<ul style="list-style-type: none">• Display the Folder Name or Player name / serial numberDisplay a Pin icon In both cases, the color changes according to the player's current alarm state.</div>

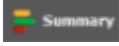
When you have completed any changes, click **Map View** again to finish your editing session.

Here is a map view with players displayed as pin icons on a map background (a green pin means IDM has no alarms raised for that player):




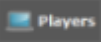
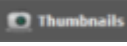
2.1.7 Manage

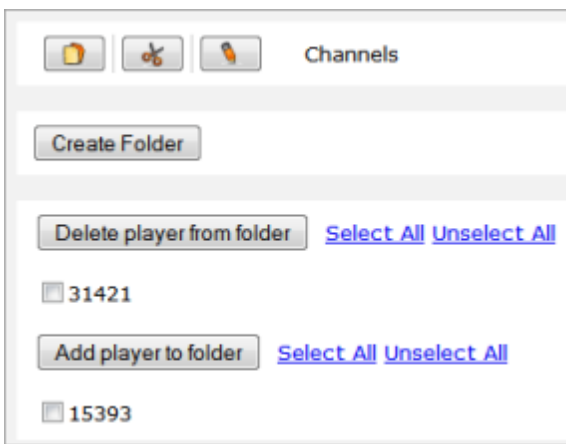
Use the  button to access the configuration options for other of the **Home > Summary** pages. The configuration options vary depending on which of the **Home > Summary** pages you are on:

 – Selecting Barchart or Warboard view (see [Summary](#)^[31]).

 and  – Configuring folders and adding or deleting players (see below).


 – Setting up and modifying the view's background image and player symbols (see [Map View](#)^[32]).

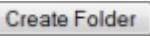
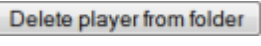
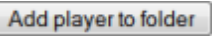
When you click  in either the  or  views, it offers the same options, as shown in this example:



That example shows:

- An existing folder (**Channels**).
- A player that is already allocated to that folder (**31421**).
- A player that is also in the organization but is not allocated to this folder (**15393**).

 allows you to perform these actions:

- Copy, move, or rename the **Channels** folder.
- Create a new folder by clicking the  button.
- Delete players from the **Channels** folder by either checking the individual player's box or by clicking [Select All](#) and clicking the  button.
- Add players to the **Channels** folder by either checking the individual player's box or by clicking [Select All](#) and clicking the  button.

2.1.8 Media Audit Reports

Use the **Home > Media Audit Reports** options to generate reports on when and how often players display specific content items.

Note: To see the **Media Audit Reports** option, you must have the **organization Media Audit View** permission

On the player, you have to:

- Enable media reporting for each item in each zone you want reported.
- Configure the player to include media auditing in the reports it sends the IDM.

Refer to the NTB documentation for details.

On the IDM, generate the report by selecting from the following options and clicking the **Fetch Report** button:

Type	Choose how verbose you want the report to be: <ul style="list-style-type: none"> • Summary – Brief report. • Listing – Detailed report.
For	Choose the focus of the report: <ul style="list-style-type: none"> • Player – Reports on the items enabled on a player. Select the player from the drop-down. • Channel – Reports on the items enabled on a channel. Select the channel from the drop-down.
Period	Use the From and Until settings to specify the duration you want reported.
Output	Check the as a csv file box if you want the report in a spreadsheet format. Your browser will prompt you to either open the file or save it. Note: If you do not check the box, IDM offers the CSV file option again in the on-screen display.

Here is an example of a summary media audit report containing a month's worth of statistics for selected zones in a playlist called **Hotel**:

From: 2012-01-24 09:49:03 Until: 2012-02-23 09:49:03 Query returned: 9 records in 1 page. View results as csv file				
<< first < prev 1 next > last >>				
Media Name	Times Played	Total Duration	First Start	Last End
control/ad_hoc/hotelc1002.txt	8474	16948	2012-02-22 10:34:48+00:00	2012-02-23 09:48:13+00:00
control/ad_hoc/hotelc1003.txt	8475	0	2012-02-22 10:34:44+00:00	2012-02-23 09:48:17+00:00
control/layout/hotel_files/image_qr_code_zone_F_1002.png	9279	37146	2012-02-22 10:34:40+00:00	2012-02-23 09:48:11+00:00
media/Hotel/Common/logo.jpg	9279	37146	2012-02-22 10:34:45+00:00	2012-02-23 09:48:16+00:00
media/Hotel/MAIN_Slides/hotel_main_01.png	3345	16725	2012-02-22 10:34:39+00:00	2012-02-23 09:48:12+00:00
media/Hotel/MAIN_Slides/hotel_main_02.png	3345	16725	2012-02-22 10:34:44+00:00	2012-02-23 09:48:17+00:00
media/Hotel/MAIN_Slides/hotel_main_03.png	3344	16720	2012-02-22 10:34:49+00:00	2012-02-23 09:47:57+00:00
media/Hotel/MAIN_Slides/hotel_main_04.png	3344	16720	2012-02-22 10:34:54+00:00	2012-02-23 09:48:02+00:00
media/Hotel/MAIN_Slides/hotel_main_05.png	3344	16720	2012-02-22 10:34:59+00:00	2012-02-23 09:48:07+00:00

2.2 organization – Configuring Alarms

Use the **organization** options to configure alarms for monitoring the players in your organization and to specify times when the IDM does not raise alarms.

By default, IDM observes all alarms (except **Software Version**). However, a user with the **System Administration** permission can change those defaults at the system level. Before configuring your organization alarms, check the system-level alarm defaults with your system administrator or by going to **System > Alarm Configuration**. You can then configure each organization alarm in relationship to the system-level default.

Note: If you are satisfied with all of the system-level defaults you need do nothing more to set up your Organisation's alarms.

Select the menu item for the option you require:

- [Alarm Configuration](#)^[35] – Configuring specific behaviour for each alarm in your organization.
- [Email Configuration](#)^[36] – Configuring the optional reporting of alarms by email.
- [Operating Hours Configuration](#)^[37] – Specifying the times during which the IDM does not raise alarms.

2.2.1 Configuring Alarms

Refer to [Alarms](#)^[59] for background and reference information on all of the alarms.

Use the **Alarm Configuration** options to configure alarms for your organization. You only need to do this if you want IDM to treat alarms differently than the system defaults ([Setting Up Alarms](#)^[42] describes how to set up the system defaults).

Note: You can only configure alarms for your organization if you have the **Alarm Configuration** permission enabled (see the **System > Organisations > Edit** page).

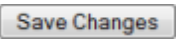
IDM groups alarms into categories according to their applicability. Click the tab appropriate to the alarms you want to set up:

- **Software**
- **Hardware**
- **Publisher**
- **Subscriber**

For each alarm, choose the radio button that describes the behaviour you want to set:

Inherit Alarm Use	Default. IDM treats the alarm as set up by the system default.
Ignore Alarm	IDM ignores the alarm for your organization (this overrides the system default).
Observe Alarm	IDM raises the alarm for your organization (this overrides the system default)

In addition, many alarms offer an **Override Default Alarm Settings** option. Check this box if you want to further customise your alarm settings.

To enable any changes, you must click the  button.

2.2.2 Configuring Email Notifications

Use the **Email Configuration** options to set up and test the reporting of alarms by email.


Note: You can only configure alarm email notifications if you have the **Alarm Email** permission enabled (see the **System > Organisations > Edit** page).

Before configuring email reporting, you must first set up the IDM global email profile. Do this using the IDM **Setup > System Setup > Email Configuration** options (as described in [Email Settings](#)^[48]) (requires the **System Administration** permission).

Click the tab for the option you require:

- **Configure** – Configuring the email delivery and format parameters
- **Test** – Sending a test email
- **Alarms** – Selecting which alarms trigger an email

Configure:

To configure email notifications, enter the following details and click the  button:

Send Email Notifications	Select No to disable and Yes to enable notifications by email.
Recipient	Address to send the email.
From	Address to indicate sender of the email.
Subject Prefix	String used to begin the subject line.
Message Header	Material to include prior to the alarm report.
Message Footer	Material to include after the alarm report..
Language	Language used in the subject line and in alarm names
Custom SMTP Headers	Enter any additional headers needed in the SMTP header format.
Time Style	Select the time display format you want: <ul style="list-style-type: none"> • Hour Minute • Hour Minute Second • Locale Specific
Time Separator	Enter a character to separate the time-display values.
Date Style	Select the date display format you want: <ul style="list-style-type: none"> • Year Month Day • Day Month Year • Month Day Year • Locale Specific

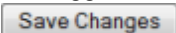
	Check the box if you want the last five days displayed by name not number.
Date Separator	Enter a character to separate the date-display values.
Month Style	Select the month display format you want: <ul style="list-style-type: none"> • Numeric • Full Name • Abbreviated Name

Test:

To test the email configuration, click the  button. The SMTP server will report if the test succeeds or return an error message if it fails.

Note: A successfully sent email does not necessarily mean successful receipt by the recipient. For example, emails can be lost in transit or quarantined by a recipient's spam filter.

Alarms:

Check or uncheck the boxes to select which alarms trigger an email and whether it is when the alarm is raised, lowered, or both. To enable a change, you must click the  button.

2.2.3 Configuring Operating Hours

Use the **Operating Hours Configuration** options to create rules defining your Organisation's operating and non-operating hours.

IDM does not raise alarms during your Organisation's non-operating hours. You may want to do this for when alarm reporting is irrelevant (for example, if your signage is in a store and it is closed).

Note: IDM does not lower already raised alarms when non-operating hours begin.

Click the tab for the option you require:

- **Operating Hours Rules** – Displaying and editing the current operating hours rules.
- **Add Rule** – Setting up new operating hours rules.

Operating Hours Rules:

Here is an example operating hours rules display:


Actions	Operating Hours Rule
 	From 09:00 until 17:00, Mon-Fri Within operating hours Indefinitely
 	From 17:00 until 09:00, Mon-Fri Outside of operating hours Indefinitely
 	All Day, Sat, Sun Outside of operating hours Indefinitely

Those rules indicate that:

- Operating hours are always between 9:00 and 17:00 on Monday to Friday (the IDM reports alarms).
- Non-operating hours are always between 17:00 and 9:00 on Monday to Friday and all day Saturday and Sunday (the IDM does not report alarms).

Click the  button to open a dialogue to modify a rule. Click the  button to delete a rule.

Add Rule:

To add a new rule, complete the following options and click the  button:

Applicability	Select the radio button to indicate when the rule applies: <ul style="list-style-type: none"> • This rule applies indefinitely – The rule applies always. • This rules during the time period – The rule applies only during the dates and times you define with the From and To drop-down menus.
Effect	Select the radio button to define whether the rule creates operating hours or non-operating hours: <ul style="list-style-type: none"> • The organization is within operating hours while this rule is in effect. • The organization is outside operating hours while this rule is in
Days	Check the boxes against the days to which the rule applies.
Time	Select the radio button to define during which part of the day the rule applies: <ul style="list-style-type: none"> • All day – Applies for the whole day. • Between – Applies during the time you define with the drop-down menus.

2.3 System – Configuring Users, Players, and Alarms

Use the **System** options to manage the IDM user accounts, manage the players in your organization, and configure the system alarm defaults.

Select the menu item for the option you require:

- [Users](#)^[39] – Viewing, modifying, and adding user accounts.
- [Organisations](#)^[40] – Viewing and modifying organization permissions.

- [Players](#)^[41] – Listing, adding, and deleting players.
- [Alarm Configuration](#)^[42] – Configuring the system alarm defaults.

Note: If you select **Users** or **Organisations**, IDM displays a page containing the tabs for both sets of options (the relevant tab first in each case). This is because between them those options control all of the IDM system permissions.

2.3.1 Adding and Modifying Users

Use the **Users** options to view, modify, and add IDM user accounts and their permissions.





Note: The **Organisations** tabs also appear on this page. Refer to [organization Permissions](#)^[40] for details.

Click the tab for the option you require:

- **Users** – Viewing, modifying, and deleting user accounts.
- **Add User** – Adding new users and selecting their permissions.

Users:

Each user is listed on a row with these features:

Actions	<p>Click the button that matches the action you want to take:</p> <p> – Delete the user (note that you cannot delete the current user account).</p> <p> – Edit the user details.</p> <p>Besides displaying the user's name and organization, the  dialogue allows you to modify:</p> <ul style="list-style-type: none"> • Default User organization – Whether the user can add a reporting but unknown player to the organization (also needs Accept Report permission). • Permissions – Adding or removing the user's permissions (see User Permissions^[63] for details). • Password – Resetting the user's password. <p>To enable any changes, you must click the  button.</p>
User	The user's username.
Organisations	The user's organization.
Permissions	Lists the user's permissions.
Default organization	A name in this column means the user can add reporting but unknown players to the organization. A blank column means the user cannot do so.

Add User:

To add a user, enter the following details and click the  button:

Username	Unique name for the user. You can compose the username from any of these components:
-----------------	--

	<ul style="list-style-type: none"> • Lower case letters (a-z) • Numbers (0-9) (not permitted as the first character of the username). • Underscore (_) (two underscores not permitted as the beginning of the username).
Password Password Confirm	Password for this user account, repeated in the Password Confirm field.
Default Player organization	Select the appropriate radio button: <ul style="list-style-type: none"> • Unknown players will be ignored – If a player that has not been added to the organization sends a report to the user it is ignored. • Unknown players will be added to organization – If a player that has not been added to the organization sends a report to the user, it is automatically added to the organization. The user also needs the Accept Report permission.
Organisations	Name of the user's organization.
Permissions	Check the boxes for the permissions you want to assign the user (see User Permissions ^[63] for details).

2.3.2 organization Permissions

Use the **Organisations** options to view and modify the organization permissions and other operational parameters.


Note: The **Users** tabs also appear on this page. Refer to [Adding and Modifying Users](#)^[39] for details.


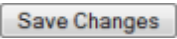
Click the tab for the option you require:

- **Organisations** – Viewing and modifying the organization name, minimum reporting interval, permissions, and default data retention periods.
- **Add Organisations** – Establishing a new organization and its initial user accounts (only if permitted by license).

Organisations:

The organization details are listed on a row with these features:

- **Actions** – Click the  button to modify the organization permissions and other parameters (see below for details).
- **organization** – The name of the organization.
- **Members** – The number of players and users in the organization.

The  dialogue allows you to modify the following (to enable any changes, you must click the  button):

organization Name	The organization name (two underscores are not permitted as the beginning of the username).
Minimum Reporting Interval	Select the appropriate radio button: <ul style="list-style-type: none"> • A 60 second reporting interval will be applied to the players belonging to this organization –Default. Prevents players reporting to the IDM more often than 60 seconds.

	<ul style="list-style-type: none"> • A minimum interval of time between reports will be applied to players reporting to this organization – Enter a different minimum interval between player reports. Take care with the interval you choose. Long intervals may be insufficiently informative. Short intervals may impact player and IDM performance because of processing overhead.
Alarm Acknowledgement	Default: enabled. If disabled, users cannot acknowledge alarm reports.
Alarm Configuration	Default: enabled. If disabled, users cannot set up organization alarms differently from the system defaults.
Alarm Email	Default: enabled. If disabled, users cannot set up email notification of alarms.
RS232 Reporting	Default: enabled. If disabled, players cannot report their RS-232 information.
Thumbnail Reporting	Default: enabled. If disabled, players cannot return their screen thumbnails in reports.
Maximum Players	Select the appropriate radio button: <ul style="list-style-type: none"> • Unlimited – Default. Other than defined by license, no limit on the number of players that can report to the organization. • Limited – Within the maximum defined by license, specify the number of players that can report to the organization.
Reports Data Retention Period	Default: 90 days. You can specify a different period to retain data. Only relevant if you enable automatic database pruning (see Scheduled Jobs ^[52]).
Media Audit Events Retention Period	Default: 90 days. You can specify a different period to retain events. Only relevant if you enable automatic database pruning (see Scheduled Jobs ^[52]).

2.3.3 Adding and Deleting Players

Use the **Players** options to list and modify the players in, and manually add players to, your organization.




Note: You can add players automatically by using the **Default Player organization** setting on the **Accept Report** account (see [Adding Players to Your organization](#) ^[17]).

Click the tab for the option you require:

- **Players** – Listing and modifying players
- **Add Players** – Adding players

Players:

Each player is listed on a row with these features:

Actions	Click the button that matches the action you want to take: <div>  – Delete the player.  – Edit the player details. The  dialogue: </div>
----------------	---

	<ul style="list-style-type: none"> • Lists the player's serial number and the organization to which it belongs. • Allows you to add, modify, or clear the player's name. • Configure whether or not the IDM accepts the player's reports. <p>To enable any changes, you must click the Save Changes button.</p>
organization	Displays the name of the organization to which the player belongs.
Name	Displays the player's name (if configured). If you did not configure it with a name, IDM displays the player's serial number.
Serial	Displays the player's serial number.
Properties	Indicates that the IDM accepts reports from the player. If not, this field is left blank.

Add Players:

To add a player, enter the following details and click the **Add Player** button:

Serial Number	Enter the player's serial number.
organization	IDM adds the player to the named organization.
Name	If you wish to refer to the player by a meaningful name, enter it here. You can also name a player on its Detailed Status page (see customizing the Player View [20] for details).
Accept Reports	Check the Accept Reports from this Player box for IDM to accept the player's reports.

2.3.4 Setting Up Alarms

Refer to [Alarms](#) [59] for background and reference information on all of the alarms.

Use the **Alarm Configuration** options to set up the default alarms for the IDM system, which will be used unless you override them elsewhere. If required, you can override those defaults by using the **organization > Alarm Configuration** options (as described in [organization – Configuring Alarms](#) [35]).

IDM groups alarms into categories according to their applicability. Click the tab appropriate to the alarms you want to set up:

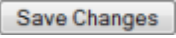
- **Software**
- **Hardware**
- **Publisher**
- **Subscriber**

For each alarm, choose the radio button that describes the behaviour you want:

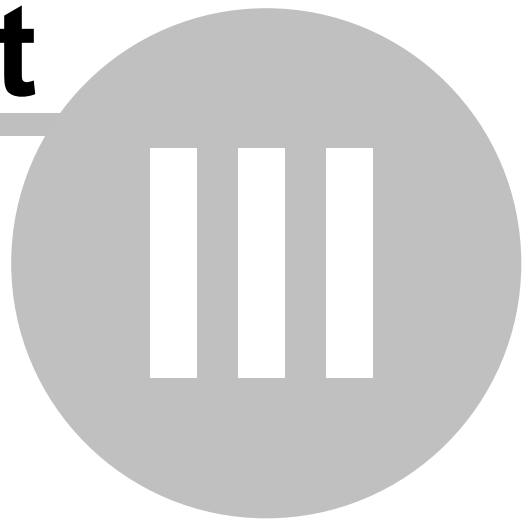
- **Ignore Alarm** – IDM ignores this alarm.
- **Observe Alarm** – IDM monitors the condition and raises an alarm according to the defined parameter.

You can set up parameters for most alarms. The IDM offers defaults but you can modify those to best suit the needs of your network.

Note: By default, IDM observes all alarms (except **Software Version**).

To enable any changes, you must click the  button.

Part



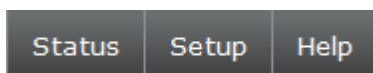
Configuring and
Maintaining the IDM

3 Configuring and Maintaining the IDM

Typically, the majority of your day-to-day activities will be focussed on managing and monitoring the players in your digital signage network. However, for your network to operate smoothly, efficiently, and securely the IDM needs to provide the necessary infrastructure. You also need to configure and maintain the IDM so that it provides its high-level of service.

As far as possible, the IDM is ready-configured with default settings that should allow it to operate successfully immediately. However, you will need to review and if necessary modify those settings to match the needs of your signage network.

IDM offers the following menu options to support those tasks:



Click the menu or submenu item for the option you require:

- [Status](#)^[45] – Viewing IDM environmental performance (temperature, uptime, network and other metrics).
- [Setup > System Setup](#)^[46] – Setting up the IDM time, email, network, and security configurations and managing the software licensing.
- [Setup > Maintenance and Troubleshooting](#)^[52] – Performing backup, update, reboot, and support activities.
- [Help](#)^[55] – Choosing your preferred time format display and accessing the online help.

3.1 Status – Monitoring the IDM

Use the **Status** options to monitor the environmental performance of your IDM.

Select the tab for the option you require:

- **°C 24 Hours** – Viewing disk and CPU temperatures from the last 24 hours.
- **°C 30 Days** – Viewing disk and CPU temperatures from the last 30 days.
- **Status** – Viewing uptime, temperature, Ethernet, and memory metrics.
- **Hardware** – Viewing IDM processor specification and memory capacity.

°C 24 Hours:

Illustrates disk and CPU temperatures from the previous 24 hours on separate graphs. Green lines indicate the safe temperature range and red where the temperature is too high.

Beneath each graph, notes indicate the maximum temperature during the period and the shut down temperature. IDM shuts itself down if the disk temperature exceeds 50°C for more than 5 minutes.

°C 30 Days:

As above except covering the previous 30 days.

Status:

The display contains the following information:

IDM Uptime Disk	How long the IDM has been running since its last restart
Temperature CPU	Current disk temperature
Temperature MB	Current CPU temperature
Temperature Case	Current motherboard temperature
Fan Speed	Speed of system cooling fan (in RPM)
Ethernet Receive	Total inbound network traffic (in bytes and packets) and number of errors
Ethernet Transmit	Total outbound network traffic (in bytes and packets) and number of errors
System Disk	How much system disk space used of how much available
Data Disk	How much data disk space used of how much available

Hardware:

The display contains the following information:

CPU	Make, model, and speed of IDM processor
Available Memory	Amount of IDM main memory
CMOS Signature	Signifier value (support may request this value)

3.2 Setup – Setting Up the IDM

Use the **Setup > System Setup** options to configure and check the operational features of your IDM.

Select the menu item for the option you require:

- [Date and Time](#)^[47] – Specifying time source and time zone.
- [Email Settings](#)^[48] – Setting up and testing the global email profile.
- [Network](#)^[49] – Setting up and testing the network connection.
- [Security](#)^[49] – Configuring firewall and secure access services.
- [Scheduled Jobs](#)^[52] – Enabling automatic deletion of old audit events and reports from the database.
- [Licensing](#)^[52] – Checking and adding license features.

3.2.1 Date and Time

Use the **Date and Time** options to configure the time source and time zone for your IDM.

Click the tab for the option you require:

- **Settings** – Configuring the time source and time zone.
- **Status** – Checking current Network Time Protocol (NTP) characteristics.

Settings:

To configure the time settings, complete the following options then click the **Save Changes** button and reboot the IDM:

Date and Time Settings	Choose the time method to use: <ul style="list-style-type: none"> • Network Time Protocol (NTP) – Best for accuracy but requires the IDM to have a network connection to an external NTP server. • Windows Compatible Network Time Protocol – Use if the NTP server is a local Windows server. • Local System Clock – The IDM internal clock. Only use if the IDM cannot access an NTP server. Without an external reference, the local system clock may drift.
Time Zone Setting	Select the time zone for the IDM to use.
Local System Clock Settings	If you chose the Local System Clock method, IDM activates this display. The values shown are those current when you opened the Date and Time page. Adjust the date and time to those required.
Network Time Protocol (NTP) Settings	If you chose one of the NTP methods, you must enter the URL of at least one NTP server (three are recommended).

Note: The IDM will only synchronise to NTP server time if the NTP time and the local system time are within a few minutes of each other. If the difference is greater, reboot the IDM to synchronise times again.

Status:

Not displayed if you have chosen Local System Clock. Shows the latest characteristics of the designated NTP servers, as in this example:



Server	IP address	Offset	Jitter	Status	Last event
Network Time Server (NTP) 1	82.94.245.2	0.017ms	5.441ms	Active time source	sys_peer
Network Time Server (NTP) 2	192.168.1.254	-5.700ms	2.029ms	candidate	sys_peer

3.2.2 Email Settings

Use the **Email Settings** options to configure and test the IDM global email profile.

If you want to enable email notifications of alarms for your organization, you must configure these settings first. You can then configure specific alarm emails on the **organization > Email Configuration** page.

Click the tab for the option you require:

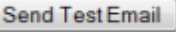
- **Configure** – Detailing the email profile parameters.
- **Test** – Sending a test email to ensure the profile works.
- **Status** – Checking email status and errors.

Configure:

To configure the email settings, complete the following options and click the  button:

Send Email Notifications	Select No to disable and Yes to enable IDM email.
SMTP Server	Specify the SMTP server address and port number to use.
Authentication	If the SMTP server requires authentication, enter the Username and Password required
TLS	Specify if you need to use Transport Layer Security: <ul style="list-style-type: none">• No – Send email without TLS• If Available – Send email and use TLS if it is available• Yes – Only send email with TLS

Test:

To test the email settings, complete the **Recipient** and **From** fields with the relevant email addresses and click the  button. The SMTP server will report if the test succeeds or return an error message if it fails.

Note: A successfully sent email does not necessarily mean successful receipt by the recipient. For example, emails can be lost in transit or quarantined by a recipient's spam filter.

Status:

Displays information about the latest email state including any error messages.

3.2.3 Network

Use the **Network** options to configure, check, and test the IDM network connection.

Click the tab for the options you require:

- **Ethernet** – Configuring IP address and DNS settings.
- **Network Status** – Checking current IP address and DNS values.
- **Tests** – Running ping, trace, or DNS lookup tests against a host (for example, an email server).

Ethernet:


To configure the network, complete the following information then click the  button and reboot the IDM:

Ethernet Settings	<p>Type:</p> <ul style="list-style-type: none"> • DHCP – Select if the IDM will obtain its IP address from a DHCP server on your network. If the IDM cannot find a DHCP server, it defaults to an IP address of 169.254.1.1. • Static – Select if you are specifying an IP address for the IDM. Enter it in the IP Address field. <p>Host Name – Optional. For ease of reference, enter a name for the IDM. Only available if your DHCP server supports this feature.</p> <p>IP Address – If you selected Static IP addressing, enter the IP address for the IDM.</p> <p>Netmask – If you selected Static IP addressing, specify the address range for the IDM subnet.</p> <p>Default Gateway – Enter the gateway IP address if the IDM uses one.</p>
DNS Settings	<p>DNS Search Path – If required, enter the path needed to reach the Domain Name Server (DNS).</p> <p>DNS Nameserver – Enter the IP addresses of up to three DNS nameservers.</p>

Network Status:

Displays the current network address values.

Tests:

In each case, start the test by entering the host's name or IP address and clicking the  button.

Ping Host	Ping the host.
Trace Route	Trace the route to the host. This can take a few minutes to complete.
DNS Lookup	See the host's details held on the DNS.

3.2.4 Security

Use the **Security** options to configure the IDM firewall and other security services and to monitor firewall activity.




Caution: The IDM comes ready-prepared with default firewall and other security service settings to protect against unauthorised access. Do not change the security settings unless you have a good working knowledge of IP networking and network security. Incorrect configuration can block all access to the IDM.

The IDM firewall protects it against unwanted and potentially malicious traffic. However, the IDM also needs to accept your management login and communications from players in the digital signage network. To allow and protect such access, the IDM supports a variety of secure services:

- **VPN** – Virtual Private Network. Allows the IDM and the players to communicate over an encrypted path through their respective firewalls.
- **HTTP/HTTPS** – Hypertext Transfer Protocol and Hypertext Transfer Protocol Secure. HTTP encrypts passwords but HTTPS is more secure because it also encrypts content.
- **FTP** – File Transfer Protocol. FTP access is controlled by password. Passwords are not encrypted. Use FTP for copying over backups and software updates.
- **SSH** – Secure Shell. Only used to access the deepest levels of the IDM for occasional support and maintenance purposes. Access is by the Master Password.

You can configure each of those to match the specific security needs of your network or to conform to corporate policy on port numbering.


Click the tab for the option you require:

- **Firewall**  – Examining and configuring the firewall and other security services settings.
- **Master Password**  – Changing the IDM master password.
- **Firewall Status**  – Monitoring the detailed firewall activity report.

Firewall:

The **Firewall** tab allows you to examine and configure the firewall and other security service settings.

Caution: The IDM comes ready-prepared with default firewall and other security service settings to protect against unauthorised access. Do not change the security settings unless you have a good working knowledge of IP networking and network security. Incorrect configuration can block all access to the IDM.

To change your security settings, complete the relevant options then click  button and reboot the the IDM:

Firewall Service Settings	<p>IP Address Filtering – Default: Disabled. Check this box to prevent any access to the IDM except from the Allowed IP Addresses.</p> <p>Allowed IP Addresses – Enter the IP addresses that can access the IDM, not forgetting to include your own. To allow more than eight IP addresses, specify a range using the standard syntax (for example, entering 192.168.1.0/24 allows access for all IP addresses between 192.168.1.0 and 192.168.1.255).</p>
VPN Service Settings	<p>Service State – Default: Enabled. Uncheck this box to disable VPN access.</p> <p>VPN Port Range – Default: 1194. Modify if you want your IDM to accept VPN connections through a different port.</p>
HTTP Service Settings	<p>Supported Protocols – Default: HTTP and HTTPS. Select either HTTP or HTTPS to restrict access to that protocol. You cannot manage the IDM without either HTTP or HTTPS enabled.</p> <p>HTTP Ports – Default: 80. Modify or add if you want your IDM to accept HTTP connections through different ports.</p> <p>HTTPS Ports – Default: 443. Modify or add if you want your IDM to accept HTTP connections through different ports.</p>

FTP Service Settings	<p>Service State – Default: Enabled. Uncheck this box to disable FTP access.</p> <p>Supported Protocols – Fixed default: FTP.</p> <p>FTP Ports – Default: 21. Modify or add if you want your IDM to accept FTP connections through a different port.</p> <p>Passive Port Range – Default: 59000-59009. Modify the Low Port and High Port values to specify a different range.</p> <p>Transfer Rate – Default: Limit to 2500 KiB/Second. Modify the Limit to value to specify a different transfer rate.</p>
SSH Service Settings	<p>SSH Ports – Default: 22. Modify or add if you want your IDM to accept FTP connections through a different port.</p>

Master Password:

The **Master Password** tab allows you to change the master password. You need the master password to access the deeper levels of the IDM through SSH.

Note: This is not the same password you use to login to the IDM through a browser.

It may be desirable to change the master password, but you must know the existing one to do so. Please contact your reseller or supplier for the master password.

To enable the new password, you must click the  button and reboot the IDM.

Firewall Status:


The **Firewall Status** tab displays the detailed IDM firewall activity report.

Understanding the information in that report requires a good working knowledge of IP networking and network security. In particular, note these points:

- The **Chain MANAGER-INPUT** section details the rules governing connections made to the IDM on various **Prot** (protocols).
- The IDM checks the IP address of incoming connections against the **Chain MANAGER-INPUT-ADDRESSES** rule set. IDM drops connections from IP addresses disallowed by security settings.
- The IDM checks allowed connections against the **Chain MANAGER-INPUT-PORTS** rule set. IDM drops connections to a port disallowed by the security settings.
- The **Pkts** (packets) and **Bytes** columns show the volume of traffic accepted or rejected by each rule. An unusually high number of packets on a **DROP** line might indicate an attack on the IDM.

3.2.5 Scheduled Jobs

Use the **Scheduled Jobs** option to automatically remove old audit events and reports from the database. By default, this is not enabled.

Check the **Prune Database** box to enable **Scheduled Jobs**. When it is enabled, the IDM daily checks for and deletes old events and reports. The default retention period for both events and reports is 90 days (you can alter these periods going to **System > Organisations** and clicking the  button).

To confirm and initiate the daily clean-up of the database, you must click the  button.

3.2.6 Licensing

Use the **Licensing** options to check on and add to the features licensed on your IDM.

Click the tab for the option you require:

- **Licensing** – Examining a summary of installed licenses.
- **Status** – Seeing all currently licensed features.
- **Add License** – Adding new licenses for additional features.

Note: You must reboot the IDM to activate new license features.

3.3 Setup – Maintaining the IDM

Use the **Setup > Maintenance and Troubleshooting** options to perform housekeeping, update, and support tasks on your IDM.

Select the menu item for the option you require:

- **Backup/Restore Database**^[52] – Creating backups and restoring the IDM database with them.
- **Software Update**^[53] – Checking for and performing software updates automatically or manually.
- **Reboot**^[54] – Rebooting the IDM.
- **Support Snap Shot**^[55] – Collecting and examining IDM advanced support information.

3.3.1 Backup/Restore Database

Use the **Backup/Restore Database** options to create a backup of the IDM database that you can use to restore the database in case of problems.

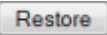
Note: In case of system failure, it is recommended that you save a copy of your backup off of the IDM (as described below).

Click the tab for the option you require:

- **Backups** – Restoring the IDM database from a backup and deleting unwanted backups.
- **Create Backup** – Creating a new database backup.

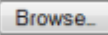
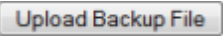
Backups:

This tab provides access to your existing backups on the IDM.

IDM identifies its currently stored backups under the **Filename** column. The filename includes the IDM serial number and a timestamp to uniquely identify the backup. To restore the database, click the  button next to the relevant file.

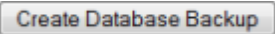
Caution: Only restore the database if you are certain this is what you want to do as it removes all existing data in the database.

If the backup you require is not on the IDM but is one you saved to disk, take these steps to make it available:

1. Click the  button and navigate to the location of the saved file.
2. Select the file.
3. Click the  button.
4. After the file uploads it is listed in the **Filename** column: you can now use it to restore the database.

Delete a backup by clicking the  button next to the relevant file.

Create Backup:

This tab displays the  button. Click the button to create a new backup. After IDM completes the backup, it displays the **Backups** tab again with the new file listed.

To save a copy of the backup off of the IDM, as recommended, the steps to take depend on the browser you are using. Commonly, one or other of these methods will work:

- Left-click the filename: select the **Save** or **Save As** option.
- Right-click the filename: select the **Save Link As** or **Save Target As** option.

3.3.2 Software Update

Use the **Software Update** options to check the latest update status and to configure whether the IDM performs updates automatically or not. Please contact your reseller or supplier for more information on available updates.

Click the tab for the option you require:

- **Update Status** – Checking details of the last update, how the IDM checks for updates, and if any new updates are available.
- **Settings** – Configuring or disabling automatic updating.
- **Manual Update** – Performing a manual update from a downloaded file.

Update Status:

The display contains the following information:

Last Update Messages	Describes the most recent update.
Status	Indicates whether or not the IDM automatically checks for updates.

Last Checked for Updates	Indicates when the IDM last checked for updates.
Update File	Indicates if a new update is available (when you have chosen Check for new updates but do not download or install them).

Settings:

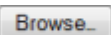
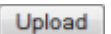
To configure software updating, complete the following options and click the  button:

Update Mode	Choose how you want automatic updating to work: <ul style="list-style-type: none"> • Automatically download and install updates • Check for new updates but do not download or install them • Turn off automatic update
Reboot Allowed	Only activated if you have chosen Automatically download and install updates . Specify the day and time when the IDM can reboot to install an update.
Download Allowed	Not activated if you have chosen Turn off automatic update . Specify the day and a time slot when the IDM can download an update.
Update Server URL	Not activated if you have chosen Turn off automatic update . If different from the default, specify the URL where the IDM checks for updates.
Check Interval	Not activated if you have chosen Turn off automatic update . Specify how often the IDM checks for updates (in hours and minutes).
Authentication	Not activated if you have chosen Turn off automatic update . If the update server requires authentication, enter the details here.

Manual Update:

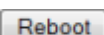
Confirms the version of the software currently installed on the IDM.

If you have manually downloaded an update and wish to install it:

1. Click the  button and navigate to the update file location.
2. Click the  button.
3. Follow the on-screen instructions.

3.3.3 Reboot

Use the **Reboot** option to manually reboot the IDM.

To confirm you want to reboot, select **Yes** from the drop-down and click the  button.

3.3.4 Support Snap Shot

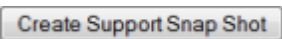
Use the **Support Snap Shot** options to collect and examine details of IDM operations at the deepest levels of the system. You may want to do this if you are experiencing a problem and need to provide support with a snap shot of system internals for diagnosis.

Note: This information is in the form of extensive and verbatim logs, process listings, and kernel messages and is specifically for advanced users, such as systems experts and support staff.

Click the tab for the option you require:



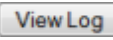
- **Support Snap Shot** – Creating a package of diagnostic system data to send to support.
- **Extras** – Viewing the individual log files, process listings, and the kernel messages list.

Support Snap Shot:

Click the  button for IDM to gather and package the snap shot data. Follow the on-screen instructions to pass this on to support.

Extras:

Support may want you to look at individual pieces of data. Take the action required to access the data of interest:

- Click the relevant  button to generate and view the data described.
- Click the  button to access the logs covering the area described. To open an individual log, click its  button.

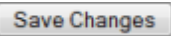
3.4 Help – Configuring User Interface Preferences

Use the **Help** options to configure the IDM user interface, access the online help, and display product information.

Select the menu item for the option you require:

- **UI Options** – Configuring the menu, player status, and date and time display features.
- **Help for this Page** – Accessing help for the IDM option you are using.
- **About** – Displaying information about the IDM hardware and software.

UI Options:

Changes only apply to the current user account. To change the UI display features, select from the following options and click the  button:

Menu Display Mode	Select the menu display mechanism you want: <ul style="list-style-type: none"> • Menu is shown when hovered over – Positioning cursor on the menu name displays its options • Menu will show when clicked – Clicking the menu name displays its options
Player Status Update Interval	Enter in seconds how often the IDM refreshes the player status display.
Time Style	Select the time display format you want:

	<ul style="list-style-type: none"> • Hour Minute • Hour Minute Second • Locale Specific
Time Separator	Enter a character to separate the time-display values.
Date Style	<p>Select the date display format you want:</p> <ul style="list-style-type: none"> • Year Month Day • Day Month Year • Month Day Year • Locale Specific <p>Check the box if you want the last five days displayed by name not number.</p>
Date Separator	Enter a character to separate the date-display values.
Month Style	<p>Select the month display format you want:</p> <ul style="list-style-type: none"> • Numeric • Full Name • Abbreviated Name

Help for this Page:

Displays help specific to the IDM options on the current page.

About:

Displays outline IDM product, support, and license information.

Part



IV

Reference

4 Reference

This reference section contains definitions of key IDM user interface components and provides background guidance in other areas. Consult this information to enhance and complement your understanding of the managing and monitoring tasks described elsewhere.

Choose from the following resources:

- [Players Summary Columns](#)^[58] – Lists and describes all of the data columns you can select for the **Home > Summary > Players** display.
- [Alarms](#)^[59] – Lists and describes all of the alarm names and the states that trigger them.
- [User Permissions](#)^[63] – Lists and describes all of the user account permissions.
- [IDM Programming Interfaces](#)^[64] – Outlines the IDM application programming interfaces.

4.1 Players Summary Columns

You can customise which data the IDM displays in the tabular **Players** view on the **Home > Summary** page. Every time a player reports, the IDM updates the data it displays about that player.

To customise the display, click the [Select Displayed Columns](#) button and check the box against each column you require. You can re-order the columns by dragging and dropping them.

This table lists and describes the columns available (whether a player can report particular items is dependent on model and configuration):

Column Name	Player Information Displayed
Alarms	Raised and acknowledged alarms.
CPU Fan Speed	CPU fan speed in RPM.
CPU °C	CPU temperature in degrees centigrade.
Chan ID	Identifier of the channel to which the player subscribes
Chan Last Connect	The last time the player connected to the channel.
Chan Name	Name of the channel to which the player subscribes.
Chan Next Connect	The next time the player will connect to the channel.
Chan Size	Size of the channel content.
Chan Transferred	Amount of the channel transferred.
Chan Transferred %	Percentage of the channel content transferred.
Data Disk % Used	Percentage of the data disk filled.
Data Disk Free	Amount of free space on the data disk.
Data Disk Size	Size of the data disk.

Column Name	Player Information Displayed
Data Disk Used	Amount of the data disk used.
Disk °C	Disk drive temperature in degrees centigrade.
Model	NTB model description.
Name	Player name (you can set this).
Remote Setup	Whether the player is configured to allow remote setup.
Report Date	Date of last report received.
Role	Player role (standalone, subscriber, or publisher).
Serial	Player serial number.
State	Player status icon (as described in Example Network Monitoring ^[12]).
System Disk % Used	Percentage of the system disk used.
System Disk Free	Amount of free space on the system disk.
System Disk Used	Amount of the system disk used.
System Fan Speed	System fan speed in RPM.
System °C	System temperature in degrees centigrade.
Up Since	Date and time when the player last came up.
VPN	Whether the player is connected by VPN and when that was established.
Version	Version of the software running on the player.

4.2 Alarms

As described in [organization – Configuring Alarms](#)^[35], you can monitor the operation of your digital signage network and the players in it by configuring the IDM alarms.

IDM provides a wide range of alarms, the majority of them controlled by parameters that you can specify. This allows you to establish a monitoring regime to the level of detail you require. You can check the alarm settings on your IDM through these menu options:

- **System > Alarm Configuration** – Default settings (see [Setting Up Alarms](#)^[42])
- **organization > Alarm Configuration** – Your Organisation's settings (see [Configuring Alarms](#)^[35])

IDM groups alarms into categories according to their applicability, as described in the following tables:

- [Software](#)^[60]
- [Hardware](#)^[61]

- [Publishers](#)⁶¹
- [Subscribers](#)⁶²

These tables describe the circumstances under which each alarm is raised or lowered. Where appropriate, guidance notes provide further explanation and advice.

Software:

Alarm Name	Description
Schedule Not Normal	<p>Raised when the player is playing something other than its regular schedule after the period you specify.</p> <p>Lowered when the player begins playing its regular schedule</p> <p>Guidance notes: The circumstances under which this alarm might be raised include:</p> <ul style="list-style-type: none"> • The player has been told to audition or preview • The player has been told to use a Schedule Override <p>You can change the waiting period by using the Override Default Alarm Settings option on the organization > Alarm Configuration > Software page.</p>
Report Overdue	<p>Raised if it has been longer than the period you specify since the player last reported (if within operating hours).</p> <p>Lowered when the player reports.</p> <p>Guidance notes: To prevent this firing too often, specify a period that allows for momentary issues (for example, make the period at least twice as long as the reporting period itself).</p>
Software Version	<p>Raised when the player reports a software version that does not match the one you specify.</p> <p>Lowered when the player reports a software version that matches the one you specify.</p>
Remote Setup Update Late	<p>Raised when the player has not applied remote setup changes within the period you specify.</p> <p>Lowered when the player has applied the remote setup changes.</p>
Data Disk Free Space	<p>Raised when the free space on the player data disk is less than the limit you specify.</p> <p>Lowered when the free space on the player data disk is greater than the limit you specify.</p> <p>Guidance notes: Possible causes for large amounts of data disk space being taken include:</p> <ul style="list-style-type: none"> • Large log files • Large media files (for example, when downloading new media both the old and the new files may need to be stored simultaneously)
System Disk Free Space	<p>Raised when the free space on the player system disk is less than the limit you specify.</p> <p>Lowered when the free space on the player system disk is greater than the limit you specify.</p> <p>Guidance notes: A possible cause for large amounts of system disk space being taken are large log files.</p>

Hardware:

Alarm Name	Description
Disk Overheat	<p>Raised when the player disk temperature safety margin is less than the value you specify.</p> <p>Lowered when the player disk temperature safety margin is greater than the value you specify.</p> <p>Guidance notes: Only applies to models with a hard disk drive. Possible causes of overheating are:</p> <ul style="list-style-type: none"> • Insufficient ventilation around the player . • Problems with player cooling fans.
CPU Overheat	<p>Raised when the player CPU temperature safety margin is less than the value you specify.</p> <p>Lowered when the player CPU temperature safety margin is greater than the value you specify.</p> <p>Guidance notes: Only applies to systems that can report CPU temperature. Possible causes of overheating are:</p> <ul style="list-style-type: none"> • Insufficient ventilation around the player. • Problems with player cooling fans.
System Overheat	<p>Raised when the player system temperature goes above the value you specify.</p> <p>Lowered when the player system temperature drops below the value you specify.</p> <p>Guidance notes: Only applies to systems that can report system temperature. Possible causes of overheating are:</p> <ul style="list-style-type: none"> • Insufficient ventilation around the player. • Problems with player cooling fans.
Slow CPU Fan	<p>Raised when the player CPU fan speed drops below the RPM you specify.</p> <p>Lowered when the player CPU fan speed goes above the RPM you specify.</p> <p>Guidance notes: Only applies to systems with a CPU fan and that can report fan speed. A possible cause is that the fan itself is failing.</p>
Slow System Fan	<p>Raised when the player system fan speed drops below the RPM you specify.</p> <p>Lowered when the player system fan speed goes above the RPM you specify.</p> <p>Guidance notes: Only applies to systems with a system fan and that can report fan speed. A possible cause is that the fan itself is failing.</p>

Publishers:

Alarm Name	Description
Channel Manager Initialising	<p>Raised when the channel manager responsible for either publishing or subscribing is initialising at the time of the report.</p> <p>Lowered when the channel manager reports initialisation complete.</p>

Alarm Name	Description
Publisher Transfer Late	<p>Raised when the publisher has not completed a channel data transfer within the period you specify.</p> <p>Lowered when the publisher reports transfer complete.</p> <p>Guidance notes: To prevent this firing too often, specify a length of time that takes into account the likely amount of data transferring and network performance (including bandwidth and throughput).</p>
Publisher Inactive Channel Is Incomplete	<p>Raised when a multi-channel publisher reports that an inactive channel has not completed publishing.</p> <p>Lowered when the inactive channel reports completion.</p> <p>Guidance notes: It is possible that the administrator on the publisher activated another channel before the inactive channel completed publishing.</p>
Publisher Duplicate Channel	<p>Raised when multiple publishers report publishing a channel of the same name.</p> <p>Lowered when all channel names within an organization are unique.</p> <p>Guidance notes: One cause might be if a publisher is restored from backup and begins to publish an old channel. Identify the responsible publisher and correct its configuration.</p>
Publisher Error	<p>Raised when the publisher experienced an error while trying to publish a channel (details on the publisher).</p> <p>Lowered when the publisher reports publishing the channel without error.</p> <p>Guidance notes: One cause might be a problem with the network connection (for example, that an intermediate FTP server is down).</p>

Subscribers:

Alarm Name	Description
Subscriber Transfer Late	<p>Raised when the subscriber has not completed a channel data transfer within the period you specify.</p> <p>Lowered when the subscriber reports the data transfer complete.</p> <p>Guidance notes: To prevent this firing too often, specify a length of time that takes into account the likely amount of data transferring and network performance (including bandwidth and throughput).</p>
Subscriber Not Using New Channel	<p>Raised when the subscriber has not switched to a new channel within the period you specify.</p> <p>Lowered when the subscriber reports it has switched to the new channel.</p>
Subscriber Activate Late	<p>Raised when the subscriber is late to activate the channel when the publisher has specified an 'Activate After' time.</p> <p>Lowered when the subscriber reports activating the channel.</p> <p>Guidance notes: This might appear as a 'deadline' problem (for example, the 'Activate After' time is 9:00 am and the channel has not activated by 9:10 am). However, it may be caused by a 'slowness' problem (such as flagged by a Subscriber Transfer Late alarm).</p>

Alarm Name	Description
Subscriber Error	<p>Raised when the subscriber experiences an error when trying to subscribe to the channel (details on the subscriber).</p> <p>Lowered when the subscriber reports subscribing to the channel without error.</p>
Subscriber Has No Publisher	<p>Raised when the subscriber's publisher is not reporting to this IDM.</p> <p>Lowered if the subscriber's publisher begins reporting to the IDM.</p> <p>Guidance notes: Typically, this alarm is raised for one of these reasons:</p> <ul style="list-style-type: none"> • The subscriber is configured to use the wrong channel • The publisher has not been configured to report to the IDM <p>It is not a requirement that both the subscriber and its publisher report to the same IDM. If this is a factor in your configuration, consider setting this alarm to Ignore on the organization > Alarm Configuration > Subscriber page.</p>
Subscriber Channel Has Multiple Publishers	<p>Raised when more than one publisher is publishing a channel with the same name as that being subscribed to by a player.</p> <p>Lowered when all publisher channels possess unique names.</p> <p>Guidance notes: One cause might be if a publisher is restored from backup and begins to publish an old channel. Identify the responsible publisher and correct its configuration.</p>

4.3 User Permissions

You can precisely control what users can and cannot do on the IDM by selecting the mix of permissions they are allowed. See [Adding and Modifying Users](#)^[39] for how to configure user permissions.

This table lists and describes all of the user permissions:

This Permission...	Allows the User to...
organization Status View	View the status of the players within the organization
Organization Alarm Update	Acknowledge alarms
organization Administratio	Perform administration task on the organization (for example, add or remove players from folders)
organization Browse to Player via VPN	Browse to and manage a player that reports to IDM through a VPN
organization SSH to Player via VPN	Connect by SSH to a player that reports to IDM through a VPN
organization Media Audit View	View the media audit reports players make to the organization

This Permission...	Allows the User to...
Accept Report	Be an account through which players can report to the iCOMPEL Deployment
Establish VPN	Manager (IDM). Be an account through which players can report to the IDM
External Database Reports	through a VPN Connect externally to the IDM database and create reports from it
FTP Access	Login to the iCOMPEL Deployment Manager (IDM) with their username and password through FTP (for example, to fetch logs from or upload system updates to the IDM)
System Administration	Perform system administration tasks on the IDM
Database Backup	Backup and restore the IDM database
API System Administration	Permit API operations in the areas allowed by the System Administration permission
API organization Administration	Permit API operations in the areas allowed by the organization Administration permission
API organization Alarm Update	Permit API operations in the areas allowed by the organization Alarm Update permission
API organization Status View	Permit API operations in the areas allowed by the organization Status View permission

4.4 IDM Programming Interfaces

For advanced users, the IDM provides application programming interfaces (APIs). For example, system integrators may find the APIs useful for implementing bespoke features (such as billing) desirable in a tightly-knit enterprise environment.

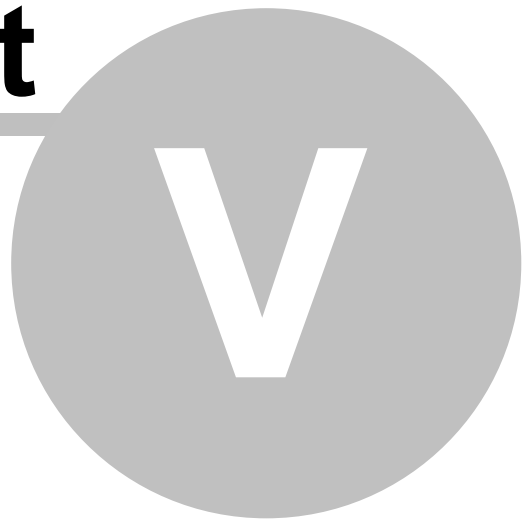
The three APIs are:

- XML API – Read and write access to the IDM (example uses: configure and manage Organisations, users, players, and alarms).
- JSON and JSONP API – Read-only access to the IDM (example uses: obtain information on Organisations and players).
- Database views – Read-only access to the IDM databases.

The *iCOMPEL Deployment Manager (IDM) Technical Reference* manual details the APIs.

For more information, please contact your reseller or supplier.

Part



Glossary

5 Glossary

Term	Definition
Alarms	Notifications that an operating condition is outside of specified parameters. Alarm states are raised, acknowledged, and lowered.
Channel	A source of display content used by subscribers. Also refers to the content it contains.
Channel Name	Identifies the channel.
Digital Signage Network	A set of systems connected together to provide integrated management of numerous display screens.
Donate	The process of applying a player's configuration to a folder that then configures other players.
Folder	A component used to structure the management of a digital signage network. Folders can contain players and other folders.
Manager	A component of the ONELAN Digital Signage Platform. Manager is the generic term for the appliance that manages the digital signage network. Specifically, the manager is the ONELAN iCOMPEL Deployment Manager (IDM) (IDM).
organization	The root of the digital signage network and the name that refers to it as a whole.
Player	A component of the ONELAN Digital Signage Platform. Player is the generic term for the appliance that runs the screen. Specifically, the player is the ONELAN Net-Top-Box (NTB).
Publisher	A player that provides content to other players on channels.
Remote Setup	A feature allowing a player's configuration to be applied to other players through a folder.
Reports	Status messages sent to the manager by the players in the network.
Role	Describes the function of a player: one of standalone, subscriber, or publisher.
Snap Shot	A collection of detailed logging information used for support and problem solving purposes.
Standalone	A player that is neither a subscriber or publisher.
Subscriber	A player that accepts a channel from a publisher.

Index

- A -

- Accept Report permission 14, 16
- Administration permissions 63
- Alarm Configuration (organization) options 35
- Alarm Configuration (System) options 42
- Alarm Configuration permission 35
- Alarm Email permission 36
- Alarms
 - acknowledging 21
 - and operating hours 35, 37
 - basic troubleshooting with 59
 - categories 35, 42
 - clearing 21
 - configuring 35, 59 configuring for organization 35 configuring for system 42 customizing 35, 42
 - defaults 21, 35, 42
 - defined 12
 - displaying only players with 26
 - email notification 40
 - guidance 59
 - hardware 35, 42, 59
 - icons 12
 - ignoring 35, 42
 - inheriting 35
 - levels of applicability 21
 - observing 35, 42
 - overriding 35
 - publisher 35, 42, 59
 - reference 59
 - reporting by email 35, 36
 - responding to 21
 - setting parameters 42
 - setting up for system 42
 - software 35, 42, 59
 - states 12
 - subscriber 35, 42, 59
 - system defaults 35, 42
- All folder 10
- APIs
 - database views 64
 - JSON/JSONP 64
 - XML 64

- B -

- Backup/Restore Database options 52
- Barchart view
 - changing to 31
- Browser 7

- C -

- Channel
 - defined 8
 - multiple 9
- Common tasks
 - listed 16
- Concepts
 - defined 66
- Configuring
 - alarm notifications by email 36
 - alarms 59
 - DNS nameserver 49
 - DNS search path 49
 - IDM 25, 45, 46
 - IDM network 49
 - Ethernet 49
 - firewall 49
 - folders using players 28
 - FTP 49
 - HTTP 49
 - HTTPS 49
 - Media Audit Report 34
 - menu display 55
 - minimum reporting interval 40
 - organization 40
 - player reports 16
 - Remote Setup categories 28
 - security 49
 - SSH 49
 - time and date display 55
 - user interface 55
 - VPN 49
- CPU temperature 45

- D -

- Database
 - backing up and restoring 52
 - IDM events and reports 52

- Database
 - housekeeping 52
 - retention period for reports 40
- Date and Time options 46, 47
- Default organization
 - for adding players 14
- Defaults
 - organization alarms 59
 - system alarms 59
- Digital signage network 6
 - enterprise-wide 9
 - monitoring example 12
 - parts of 6
 - structure example 11
- Disk temperature 45
- Display screen 7
- DNS lookup test 49
- DNS settings
 - nameserver 49
 - search path 49
- Donate 19
 - defined 18
- Dragging and dropping players
- 18 IDM
 - accessing help 55
 - accounts 63
 - administration 63
 - alarm definitions 59
 - APIs 64
 - backing up and restoring database 52
 - changing menu display mode 55
 - configuring 25, 45, 46
 - configuring and testing network 49
 - configuring user interface 55
 - CPU temperature 45
 - database views API 64
 - date and time 47
 - disk temperature 45
 - displaying time and date 55
 - email profile 36, 48
 - events and reports database 52
 - gathering support information 52, 55
 - IP address 49
 - JSON/JSONP API 64
 - logs 55
 - maintaining 25, 45
 - permissions 63
 - player table display 58
 - programming interfaces 64

- rebooting 52, 54
- reference information 58
- security settings 49
- setting up 46
- status 45
- support snap shot 55
- test email 36
- updating software 52, 53
- user accounts on 39
- users 63
- XML API 64

- E -

- Email
 - test 36
 - to notify alarms 36, 40
- Email Configuration options 36
- Email Settings options 46, 48
- Enterprise signage network
 - pictured 9
- Establish VPN permission 14, 16
- Ethernet settings 49

- F -

- Firewall
 - activity report 49
 - and VPN 8
 - communicating through 8
 - settings 49
 - status 49
- Folder
 - adding 18
 - adding players to 18, 33
 - All 10
 - configuring players with 28
 - copying 18, 33
 - creating 18, 33
 - creating subfolder 18
 - customizing 11
 - defined 10
 - deleting 18
 - deleting players from 33
 - donating characteristics 18, 19
 - grouping players with 11
 - in organization 26
 - moving 18, 33
 - moving players between 18

Folder
 renaming 18, 33
 structuring organization 18, 26
 Unassigned 10
 viewing and modifying configuration

FTP
 guidance 49
 settings 49

- G -

Getting started 6
 what to do first 14
 Glossary 66

- H -

Hardware
 alarms defined 59
 configuring alarms for organization 35
 setting up alarms 42
 Help menu 45, 55
 Home menu 25
 Media Audit Reports 25, 34
 Summary page 25
 HTTP
 and reporting 16
 guidance 49
 settings 49
 HTTPS
 and Remote Setup 28
 guidance 49
 settings 49

- I -

Ignoring alarms 35, 42
 Inheriting alarms 35
 Internet 7
 Intranet 7

- J -

JSON/JSONP API 64

- L -

Licensing options 46, 52

Local Area Network 7
 Logs 55

- M -

Maintaining
 IDM 25, 45
 Maintenance and Troubleshooting menu 52
 Manage options 25
 and Map View 32, 33
 and Players 33
 and Summary 31, 33
 and Thumbnails 33
 Manager
 defined 8
 Managing
 network 10, 25
 Map View option 32
 Map View options 25
 Master password 49
 Media Audit Reports 25
 configuring 34
 example content 34
 retention period 40
 Menu options
 Alarm Configuration (organization) 35
 Alarm Configuration (System) 42
 Backup/Restore Database 52
 Date and Time 46, 47
 Email Configuration 36
 Email Settings 46, 48
 Help 45, 55
 Home 25
 Licensing 46, 52
 Maintenance and Troubleshooting 52
 Manage 25, 31, 33
 Map View 25, 32
 Network 46, 49
 Operating Hours Configuration 37
 organization 25
 Organisations 35, 40
 Players 25, 41
 Reboot 54
 Scheduled Jobs 46, 52
 Security 46, 49
 Setup 45, 52
 Software Update 53
 Status 45

- Menu options
 - Summary 25, 31
 - Support Snap Shot 55
 - System 25, 38
 - System Setup 46
 - Thumbnails 25, 31
 - Users 39
- Monitoring
 - network 10, 12, 25
- Multiple displays diagram 8

- N -

- Network
 - managing 10, 25
 - monitoring 10, 12, 25
 - structuring 11
- Network options 46, 49
- Network status 49

- O -

- Observing alarms 35, 42
- Online help 55
- Only Alarms
 - listing players by 26
- Operating hours
 - adding rules 37
 - and alarms 35
 - configuring 37
 - displaying rules 37
 - editing rules 37
- Operating Hours Configuration options
 - 37 organization
 - accounts 39
 - adding players automatically 17
 - alarms 59
 - configuring 40
 - configuring alarms 35
 - Default organization 14
 - defined 10
 - folders 26
 - name 10, 40
 - name format 14
 - non-operating hours 37
 - operating hours 35, 37
 - organization Admin account 14
 - organization Administration permission 14

- organization Viewer account 14
- permissions 40
- Remote account 14
- Reporter account 14
- setup steps described 14
- structuring 18, 26
- user accounts 14
- users 39
- organization Admin account 14
- organization menu 25
- organization Viewer account 14
- Organisations options 35, 40
- Overriding alarms 35

- P -

- Password
 - changing system default 14
 - IDM system 14
 - for user account 39
 - master password 49
 - Remote account 14
- Permissions
 - Accept Report 14, 16
 - Alarm Configuration 35
 - Alarm Email 36
 - defaults 14
 - Establish VPN 14, 16
 - listed and described 63
 - organization 40, 63
 - organization Administration 14
 - reference 63
 - required 14, 63
 - system 63
 - System Administration 14
 - users 39, 63
- Ping test 49
- Player
 - adding 41
 - adding to folder 18, 33
 - adding to organization 14
 - adding to organization automatically 17
 - configuring reporting 16
 - configuring using folders 28
 - controlling several 8
 - customizing player view 20
 - defined 7
 - deleting 41
 - deleting from folder 33

Player

- detailed status 28
- donating characteristics 18, 19, 28
- dragging and dropping 18
- grouping using folders 11
- information about 20, 58
- listed 41
- listed in table 20, 26
- listing by Only Alarms 26 maximum
- number in organization 40 minimum
- reporting interval 40 modifying 41
- moving between folders 18
- name 41
- Only Alarms 26
- players view page 20
- Remote Setup 19, 28
- report 41
- roles 8
- selecting columns for table 20 table
- options listed 20
- table summary columns 58
- tabular view of 26

- Players option 25, 41
 - what is displayed 26

- Players view page
 - customizing 20

- Problem solving
 - with alarms 59

- Programming interfaces 64

- Publisher
 - alarms defined 59
 - configuring alarms for organization 35
 - defined 8
 - setting up alarms 42

- R -

- Reboot option 54
- Rebooting the IDM 54
- Remote account 14
- Remote Setup
 - and HTTPS 28
 - and VPN 28
 - configuration categories 28
 - icon 19, 28

- Report
 - and HTTP 16
 - and VPN 16

- configuring 16
 - media audit 25, 34
 - minimum reporting interval 40
- Reporter account 14, 16
- Reporting interval
 - configuring minimum for organization 40
- Reports
 - accepting from player 41
 - defined 8
 - enabling 41
- Required permissions 14, 63
- Retention period
 - database reports 40
 - media audit events 40
- Roles
 - defined 8
 - Publisher 8
 - Standalone 8
 - Subscriber 8
- RS-232 reporting 40

- S -

- Scheduled Jobs options 52
- Screen 7
- Security
 - and firewall 8
 - and VPN 8
 - firewall 49
 - master password 49
 - services and settings 49
- Security options 46, 49
- Selecting player view columns 20
- Setup menu 45, 52
- Snap shot
 - of support information 52
- Software
 - alarms defined 59
 - configuring alarms for organization 35
 - setting up alarms 42
 - updating 52, 53
- Software Update menu 53
- SSH
 - guidance 49
 - settings 49
- Standalone display
 - pictured 7
- Status

- Status
 - IDM 45
 - firewall 49
 - network 49
 - players detailed 28
- Status menu 45
- Subscriber
 - alarms defined 59
 - configuring alarms for organization 35
 - defined 8
 - setting up alarms 42
- Summary option 25
 - and Manage 31
 - Barchart 31
 - Warboard 31
- Support 55
 - gathering support information 52
 - snap shot 52
- Support Snap Shot options 55
- System
 - alarms defined 59
 - permissions 63
- System menu 25, 38
- System Setup menu 46
- listed 16
- User accounts
 - default permissions 14
 - name format defined 14
 - organization Admin 14
 - organization Viewer 14
 - Remote 14
 - Reporter 14
 - setting up 14
- User guide
 - how to access 55
- Username
 - for user accounts 39
 - format defined 39
- Users
 - adding 39
 - configuring 39
 - deleting 39
 - in organization 39
 - modifying 39
 - on IDM 39
 - password 39
 - permissions 39
 - username 39
- Users option 39

- T -

- Temperature
 - alarms related to 59
 - CPU 45
 - disk 45
- Terms
 - defined 66
- Tests
 - DNS lookup 49
 - email set up 36
 - ping 49
 - trace 49
- Thumbnails option 25
 - display illustrated 31
- Trace test 49
- Troubleshooting
 - with alarms 59

- U -

- Unassigned folder 10
- Use cases

- V -

- VPN
 - and firewall 8
 - and Remote Setup 28
 - and reporting 16
 - guidance 49
 - settings 49

- W -

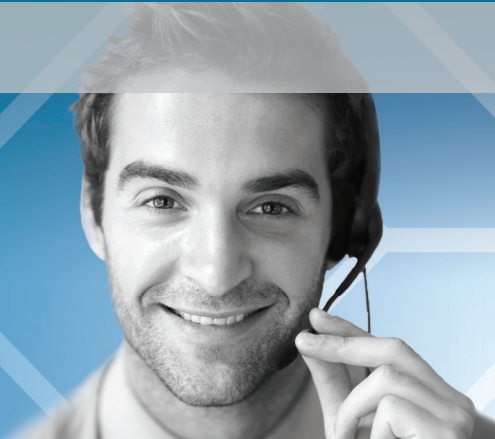
- Warboard view
 - changing to 31
- What to do first 14

- X -

- XML API 64

Black Box Tech Support: FREE! Live. 24/7.

Tech support the
way it should be.



Great tech support is just 60 seconds away at 724-746-5500 or blackbox.com.



About Black Box

Black Box provides an extensive range of networking and infrastructure products. You'll find everything from cabinets and racks and power and surge protection products to media converters and Ethernet switches all supported by free, live 24/7 Tech support available in 60 seconds or less.

© Copyright 2016. Black Box Corporation. All rights reserved. Black Box® and the Double Diamond logo are registered trademarks of BB Technologies, Inc. Any third-party trademarks appearing in this manual are acknowledged to be the property of their respective owners.

ICOMPEL Deployment Manager (IDM) User Manual, version 3.1.0

724-746-5500 | blackbox.com