

Application Notes

Rev 02

AN47 –Managing Spares in IMS – Creation, Deployment & Replacement

Introduction

IMS uses the concept of spares which enables you to hold surplus IPC units on the farm and have them ready to swap out for non-functioning units in the field.

Spares may be used for quick replacements but if the battery of a device is at the end of its life it is preferable to replace the battery rather than swap out the unit. This means that no changes to IMS are generally required.

It is important that any Spare IPCs are configured with the correct Channel and Farm ID for use on the target site, the Deploy feature in IMS will attempt to achieve this.

This guide covers:

- Creating new spares in IMS
- Using IMS to Deploy the IPCs (configure their correct Channel and Farm ID) (also apply to any IPCs that have returned from servicing/repair)
- Confirming the spares are ready for use on the site (also apply to any IPCs that have returned from servicing/repair)
- Replacing an IPC in IMS (also apply to any IPCs that have returned from servicing/repair)

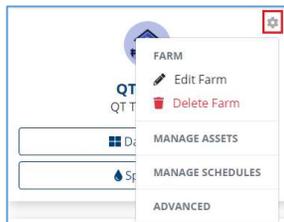
This process can be done on a smartphone if internet access is available.

Our online documentation can also be found at www.waterinsight.co.nz.

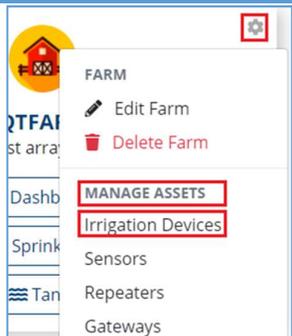
Firmware Requirement for Deploy Feature

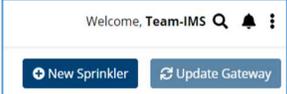
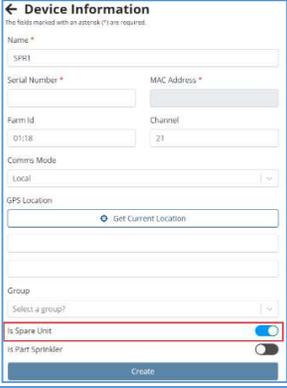
- INC Firmware version 5.06 or greater is required

The features described in this document are accessed from the **Farm Settings menu** (cog in top right corner of the farm card).



Create IPCs as Spares in IMS

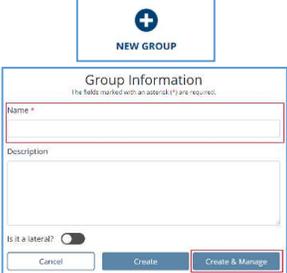
Step	Process	Note
1.	<ul style="list-style-type: none"> - Login to your IMS account - Open the Farm Settings menu - Select Manage Assets > Irrigation Devices 	

Step	Process	Note
2.	- Select the Add Sprinkler button	
3.	<ul style="list-style-type: none"> - Give the spare a Name like SP01 (must be 5 characters or less) - Enter the serial number of the IPC - The Farm ID and Channel will already be populated with your site configuration - Click to turn on the slider control Is a Spare unit - Select Create to add the device to IMS <p>Repeat from step 2 if there are more IPCs to add as spares</p>	
4.	<p>When all spares have been added</p> <ul style="list-style-type: none"> - Select Update Gateway 	

Any Spares will show as pink dots positioned around your defined farm centre. Their status does not affect the overall status of the site in the dashboard (e.g. it won't show up as out of contact).

Create a Spares Group and Adding IPCs to the Group

Using a group is very useful for easily managing your Spares. If one does not already exist, create a Spares group and add your spares to it.

Step	Process	Note
1.	- Select Groups at the top of the screen	
2.	<p>If there is NOT an existing spares group then create one, otherwise skip to step 3</p> <ul style="list-style-type: none"> - Select New Group - Name the group Spares - Select Create & Manage 	
3.	- Select the Manage in a List option	
4.	- Scroll or use the filter option to display newly added IPCs and select each of them (e.g. filter on SP, then select SP1 & SP2)	

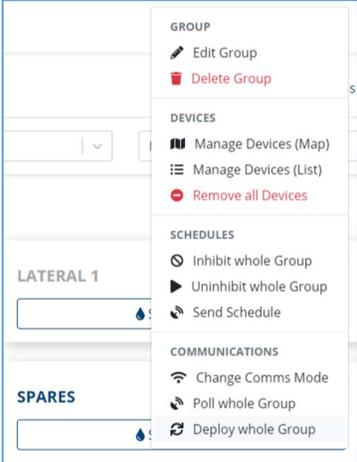
Deploying IPCs

The Deploy feature will attempt to configure your IPCs with the correct channel and farm ID for use on your site using the IMS gateway. IPCs can be deployed as a group or selected individually.

- Before running the deployment process for IPCs
- Place them in the sun, near to the IMS gateway
 - Remove the storage magnets

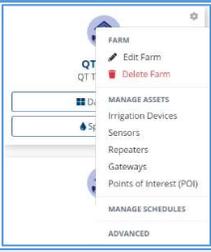
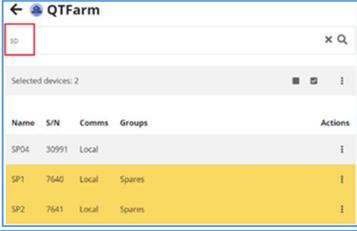
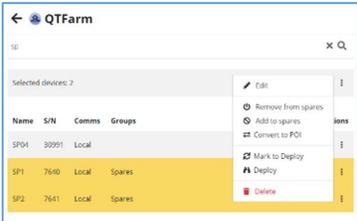
If the IPCs have been in storage for some time, they may need a day or two of sun to charge before they will communicate and be able to be deployed.

Deploy a whole group

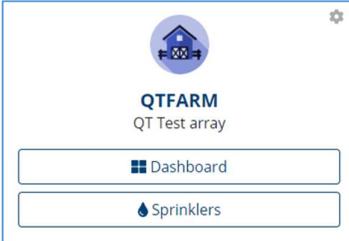
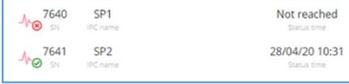
Step	Process	Note
1.	- Select Groups at the top of the screen	
2.	<ul style="list-style-type: none"> - Open the Group Settings  menu for the Spares group - Select Deploy whole Group <p>The INC will scan each selected IPC and attempt to reconfigure it to the desired channel and Farm ID. This process can take up to a minute per IPC, so depending on how many IPCs have been added may take quite a while. Allow 1min per IPC being added before moving to the next step.</p>	 <p>Note: If the site is in the middle of a poll cycle it might take some time for this command to be processed</p>

Deploy individually

If you do not need to configure the whole Spares group (e.g. units returned from service/repair), IPCs can be selected individually for deployment.

Step	Process	Note
1.	<ul style="list-style-type: none"> - Ensure the IPCs have had their magnets removed, are in the sun and are close to the IMS gateway. - Open the Farm Settings menu - Select Manage Assets > Irrigation Devices 	
2.	- Scroll or use the filter option to display newly added IPCs and select each of them (e.g. filter on SP, then select SP1 & SP2)	
3.	<ul style="list-style-type: none"> - Select the more menu  - Select Deploy <p>The INC will scan each selected IPC and attempt to reconfigure it to the desired channel and Farm ID. This process can take up to a minute per IPC, so depending on how many IPCs have been added may take quite a while. Allow 1min per IPC being added before moving to the next step.</p>	 <p>Note: If the site is in the middle of a poll cycle it might take some time for this command to be processed</p>

Confirm IPCs are Ready to be Installed

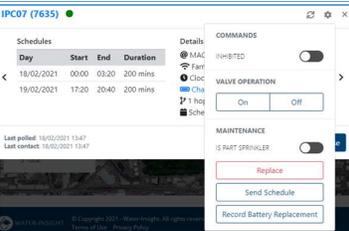
Step	Process	Note
1.	<ul style="list-style-type: none"> From the Home screen select Groups Open the Group Settings menu  for the Spares group Select Poll Whole Group 	 <p>Note: If the site is in the middle of a poll cycle it might take some time for this command to be processed.</p>
2.	<ul style="list-style-type: none"> Wait for the polling completed message (approx. 2min) Repeat step 1 Again, wait for the polling completed message. 	
3.	<ul style="list-style-type: none"> Go back to the Farms view and select Sprinklers on the farm card. Select the list icon  to view the list of IPCs. 	
4.	<p>Scroll or filter the list as needed and check the newly added IPCs. Icons beside the serial number indicate the status of the IPC.</p> <ul style="list-style-type: none"> Green tick – Ready to be installed Red cross – Not ready – has not communicated or battery charge is below 70% <p>The indication will update as communication is achieved with the IPCs (you may need to refresh the page .</p>	 <p>For any IPCs that do not move to a green tick, follow the Deployment Troubleshooting Guide or contact Water-Insight or your irrigation provider</p>

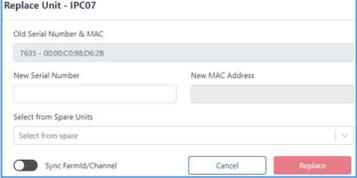
Your Spare IPCs are now ready to be used on site to replace a non-functioning unit.

If they are not to be used immediately the storage magnets can be reinstalled or they can be stored in a position that allows sun to the solar panel to keep the battery charged.

IPC Replacement procedure

The IPC replacement procedure in IMS can be carried out using your smartphone, tablet or PC as long as you have internet access.

Step	Process	Note
1.	<p>Login to your IMS account</p> <ul style="list-style-type: none"> Go to ims.qtech.co.nz Sign in using your e-mail address and password 	
2.	<ul style="list-style-type: none"> Select the Sprinklers button from the farm card Select the IPC you want to replace Select sprinkler on map > open card Select the list icon  to view the list of IPCs and select from list Click the search icon  > enter the name or serial number of the unit to be replaced > select the result to bring up the sprinkler card 	
3.	<ul style="list-style-type: none"> Select the cog icon from the sprinkler card Under the maintenance heading select Replace 	

Step	Process	Note
4.	<ul style="list-style-type: none"> - Select the “new” Spare from the drop down list - Turn off the Sync FarmID/Channel slider if your spare has been confirmed ready for use - as described above - Select the Replace button <p>The old unit being replaced will become the Spare and the “new” Spare will get assigned to the sprinkler.</p> <p>Alternatively, you can enter the serial number of the new IPC and keep the sync FarmID/Channel slider on.</p> <ul style="list-style-type: none"> - The IPC will need to meet the conditions described above in the Deploying IPCs section 	
5.	<p>After two minutes the app will notify you that the device has been replaced.</p> <ul style="list-style-type: none"> - IMS will attempt to schedule, then request the status of the new IPC. - You will see the new device status if you refresh the screen using the refresh icon  <p>If communication with the new unit takes longer than two minutes you may need to send a status request later to confirm it has received it's schedule</p>	

For more information email support@waterinsight.co.nz