



INTEGRATION GUIDE

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M3 HOUSING

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M3Central Integration Guide

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Overview of M3Central

M3Central is a web based system with two modes. The Diagnostics mode gives non-technical staff at housing providers the ability to diagnose repairs and accurately allocate Schedule of Rates items. The Reporting mode gives tenants the ability to report repairs online. Each mode can be run standalone or together.

M3Surveyor is an optional add-on for the Diagnostics mode that works offline. It is primarily used for void property surveys, but can also be used to create a schedule of works for any purpose.

M3Central is designed to be portable across multiple devices, including mobiles and tablets. This enables on-site diagnosis of repairs. The system is highly customisable to ensure each organisation can tailor the content to their specific requirements.

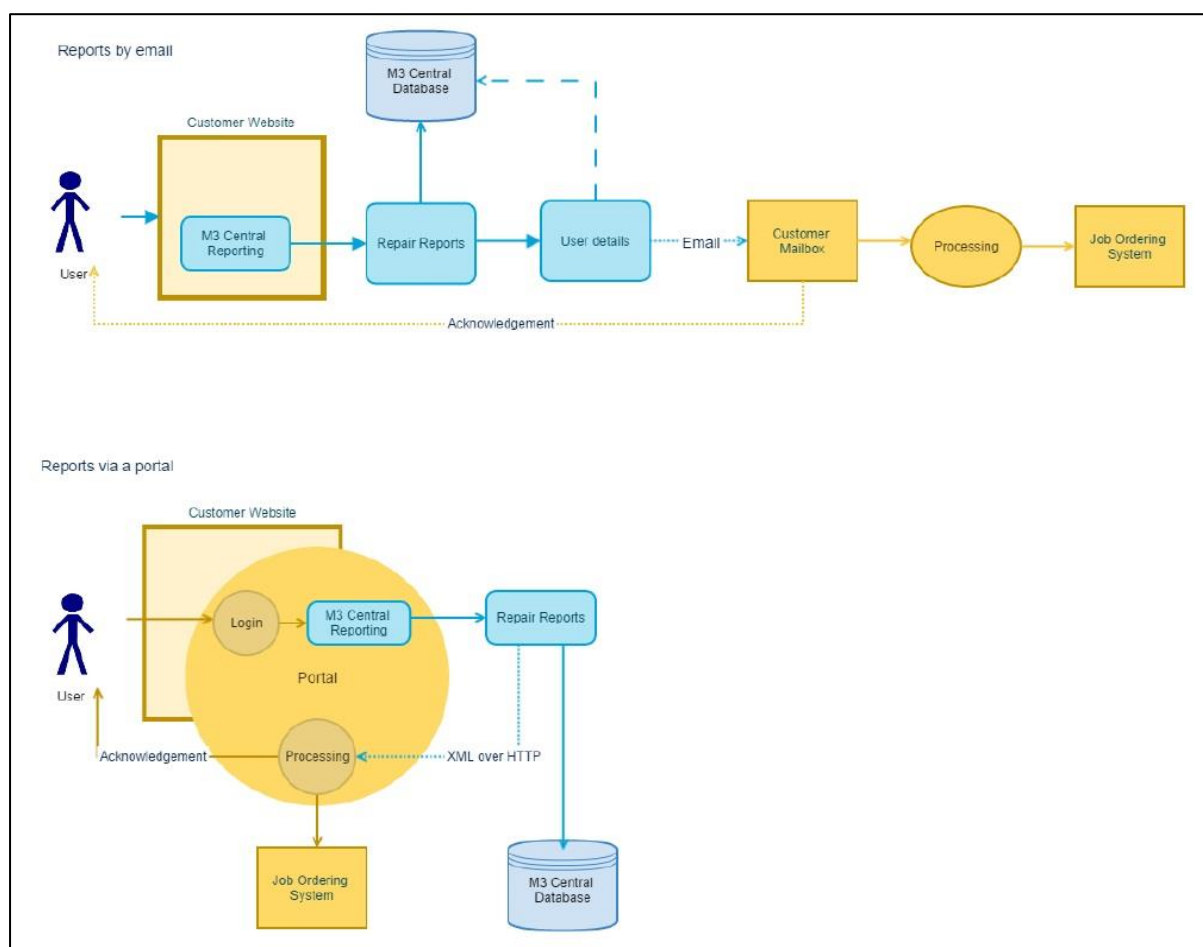
Visit the M3 website to try out M3Central and view a video demo:

<https://www.m3h.co.uk/try>

This document is intended to assist with implementation of M3Central, especially when integrating M3Central with other systems.

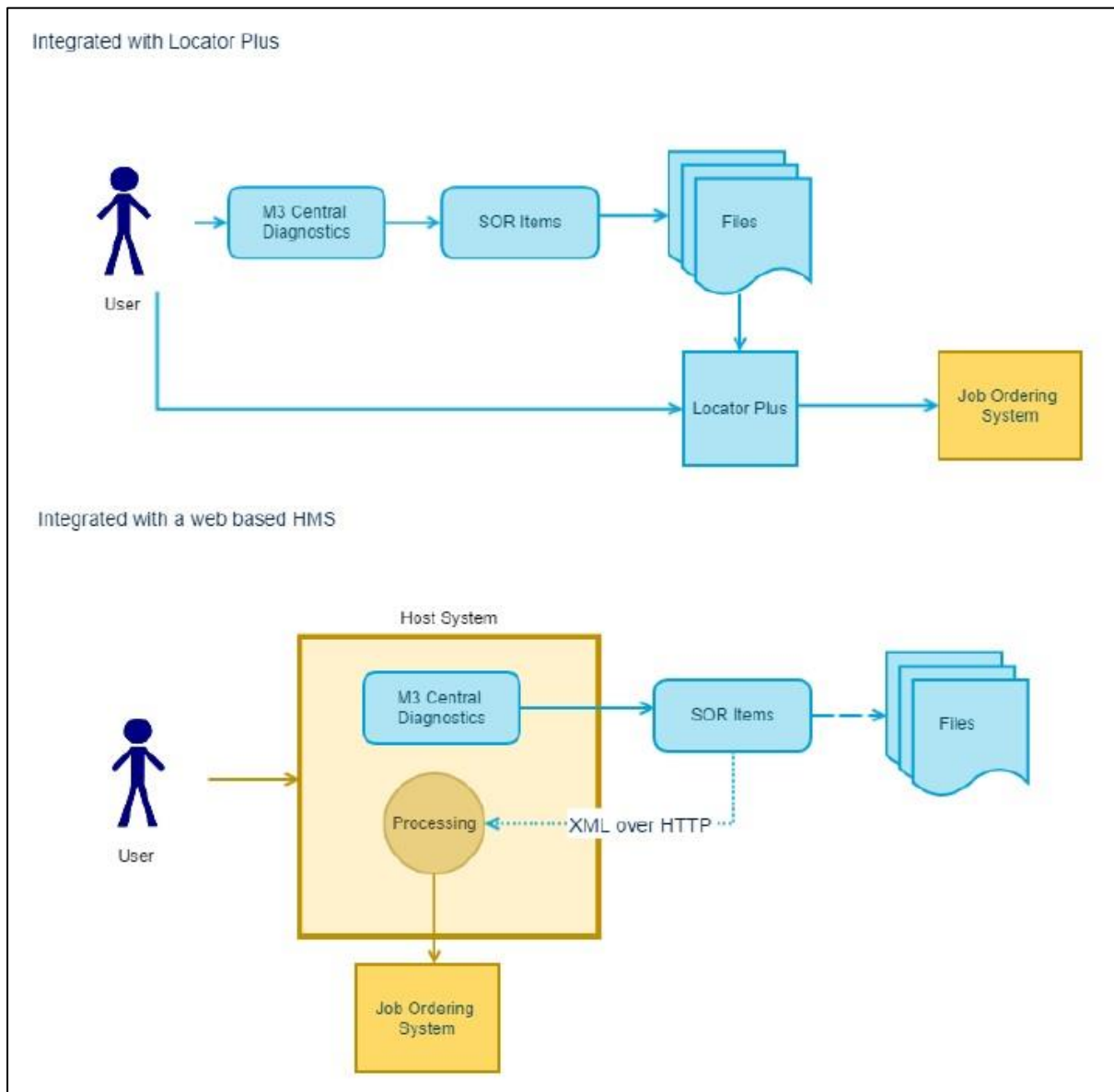
Reporting mode integration

The schematic below provides a simple overview of how M3Central Reporting integrates with other systems.



Diagnostics mode integration

The schematic below provides a simple overview of how M3Central Diagnostics integrates with other systems.



Setup procedure

M3Central comes with a standard set of repair problems, advice and messages for users and includes built in support for the M3NHF Schedule of Rates. You can deploy M3Central immediately, or use the tools provided to customise it to your organisations specific requirements.

After purchasing M3Central the person nominated as your organisations primary contact will be sent an email with a link to M3Central Reporting, Diagnostics or both (depending on your subscription). The email will also include the login details for the M3Central control panel. Refer to the *M3Central User Guide* for more information on the control panel.

M3Central will usually be displayed inside an iframe, so it does not need to be branded with your organisation's logo. M3 can make any desired changes to fonts or colours to bring the look and feel of M3Central in line with the hosting website.

Technical queries regarding implementation can be answered by emailing helpdesk@m3h.co.uk, or by calling +44 (0)208 274 4010.

Integration with other systems

M3Central has an API that allows other systems to integrate it into their workflow. Some suppliers have built in integration with M3Central and provide configuration tools to set this up. To determine the current level of integration with your housing management system it is best to contact the supplier of the system you are using.

XML over HTTP

The key parameter is called **returnurl**. The returnurl tells M3Central to POST reports in XML format to a predefined URL. M3Central requires that the values for this parameter are defined in advance and are referenced by an alias. So a returnurl for M3Central might look like this:

<https://m3central.net/index.cfm?ID=439354&returnurl=example>

where 'example' is the alias for:

<https://example.com>

Refer to the *M3Central User Guide* for more information on how to add or remove a returnurl.

Session IDs

Session IDs can be appended to the returnurl. So the following link:

<https://m3central.net/index.cfm?ID=439354&returnurl=example&userid=1234&sessionid=567>

would send information to:

<https://example.com?sessionid=567>

The way this works can be modified for integration with specific systems.

Post Message

M3Central is displayed in an iFrame. The repair information can be POSTed from the iFrame to the host page. This allows data to be sent from one client to another. The key parameter is called **wpm**, and needs to be included in the URL to enable this integration method:

<https://m3central.net/index.cfm?ID=439354&wpm=1>

Script in the host page can send data back to your server. This approach is increasingly being supported by housing management system suppliers, and it is often quite straightforward to configure modern CRM systems to receive and process this data.

The data is sent in JSON format.

Reporting mode output example

```
{ "category": "baths",  
  "repair area": "Taps",  
  "problem": "Taps",  
  "item": "Tap leaking, dripping, stiff or loose",  
  "sorcodes": "631321",  
  "comment": "Upstairs bathroom" }
```

Diagnostics mode output example

```
{ "SLOTS": 0,  
  "UID": 1.0,  
  "CODE": 101901,  
  "UNIT": "LM",  
  "DESCRIPTION": "Fracture: Remove any applied finish and cut out bricks as necessary to either side of fracture, one face only, stitch in new bricks, bed and point to match existing in cement lime mortar (1:1:6), make good any applied finishes and remove waste and debris (measured over mean general line of fracture).",  
  "QUANTITY": 1,  
  "RATE": 76.82,  
  "PRIORITY": "R",  
  "JOBTITLE": "WALL: REPAIR FRACTURE",  
  "COMMENT": "" }
```

Redirects (Reporting mode)

Redirects only apply to M3Central Reporting subscribers. You can redirect the user's browser to the returnurl after data has been posted. So the following link:

<https://m3central.net/index.cfm?ID=439354&returnurl=example&userid=1234&redirect=1>

would first send repair requests to <https://example.com> and then display <https://example.com> (so it does a POST and a GET)

Since M3Central is making AJAX calls, you may find that redirects are failing because the browser is blocking calls to another domain. You can avoid this by setting a header like this:

Access-Control-Allow-Origin: https://m3central.net/

There is more information about how to handle cross origin requests in the Cross Origin Resource Sharing (CORS) documentation.

Alternatively, you can add the parameters **redirect=1** and **decor= 1**. That will display an acknowledgement and provide a link for the user to the **returnurl**. Because the user has initiated the redirect, the cross-origin restrictions do not apply.

If you use the decor option, you can also have a different URL for the redirect. You pass this URL using the **redirecturl** parameter. The value for the redirecturl must be an alias. Refer to the *M3Central User Guide* for more information on creating an alias.

Debugging

If you are having issues setting up the connection with M3Central you can pass a **showerror=1** parameter to get more information.

This will display any error information and response from the remote server. If you use showerror, the redirect parameter should be omitted or set to 0.

You can also pass a **showdata=1** parameter. This will display the remote server's response for a successful connection. This is intended solely for debugging connections. The section above on [Redirects \(Reporting mode\)](#) provides more information on displaying your message to the user.

URL parameters

The only required URL parameter is ID. All others are optional.

Parameter	Parameter value	Applicable mode	Explanation
ID	Account number	Both	Required
hc	1	Both	Turns on Reporting mode. Only required for accounts that are enabled for both Reporting and Diagnostics modes.
restart	1	Both	Reloads data and other resources. Useful when switching from Diagnostic to Reporting mode or vice versa.
profile	An alias for the profile to load	Both	Loads the profile attached to the specified alias.
returnurl	An alias for the URL to which data should be posted.	Both	If the returnurl parameter is present, M3Central will not ask the user for personal details or send reports via email.
sessionid	A value that will identify a session on the remote server.	Both	M3Central will append the sessionid to the returnurl.
redirect	1	Reporting	Redirects the user's browser to the returnurl after data has been posted.
decor	1	Reporting	After data has been posted the user is presented with confirmation and a link. Must be used with redirect and redirecturl.
showdata	1	Both	Displays any available error information about a connection to another server or the server's response. Refer to the Debugging section for more information.
showerror	1	Both	Use this to get more information about a connection failure. Refer to the Debugging section for more information.

Parameter	Parameter value	Applicable mode	Explanation
sor	NHF51 NHF61 NHF62 NHF_ROS61 NHF_FMSOR2	Diagnostics	This parameter will override the default SOR. M3NHF Schedule: NHF51 = vs 5.1 NHF61 = vs 6.1 NHF62 = vs 6.2 NHF_ROS61 = Repairs Ordering Schedule version 6.1 NHF_FMSOR2 = Facilities Management Schedule
userid	A user id set in the M3Central Control Panel	Diagnostics	Passing a userid avoids being prompted for it when a user wants to save or open a file. Refer to the <i>M3Central User Guide</i> for more information.
load	Loads any available extensions.	Diagnostics	This will load M3Surveyor. You must be licensed to use M3Surveyor.
nobreak	1	Both	Stops M3Central from breaking out of an iframe to full screen when displayed on smaller screen.
lang	cym	Reporting	Displays the M3Central interface in Welsh.
setmail	A valid email address	Both	Only relevant where reports are returned by email. This parameter allows you to provide an alternative email address to which a report will be sent. It is often used by groups who are using one account for all their members.
accessonly	1	Both	This parameter will prompt the user for access details. It does not ask for personal information, so it can be used when M3Central is integrated with a portal.
wpm	1	Both	If M3Central is running in an iframe, this will post the data in JSON format to the host page. You will need to configure the page to receive the data.

XML payload (Reporting mode)

M3Central Reporting will generate an XML that looks like this:

```
<?xml version="1.0" encoding="UTF-8"?>
<ROOT>
<ENVELOPE DATETIME="02:18 PM Wednesday, March 5, 2014">
<DYNKEYS>
<KEY NAME="hc" VALUE="1"/>
<KEY NAME="returnurl" VALUE="example"/>
<KEY NAME="ID" VALUE="276678"/>
<KEY NAME="USERID" VALUE="1234"/>
</DYNKEYS>

<CUSTOMER ID=" false"/>

<REPAIRS ID="8395443">
<REPAIR SEQUENCE="1">
<CATEGORY>Baths</CATEGORY>
<REPAIRAREA>Panels</REPAIRAREA>
<PROBLEM>Bath panels</PROBLEM>
<ITEM>Side panel broken</ITEM>
<SORCODE>388007</SORCODE>
<LOCATION>Bathroom or Shower Room</LOCATION>
<COMMENTS/>
</REPAIR>
</REPAIRS>

<PHOTOGRAPHS>
<PHOTO>
<LINK>https://www.m3central.net/photos/528452012-05-2415.43.40.jpg</LINK>
<CAPTION/>
</PHOTO>
</PHOTOGRAPHS>
```

DYNKEYS element

The DYNKEYS element contains parameters that have been passed to M3Central:

```
<DYNKEYS>
<KEY NAME="ID" VALUE="439354"/>
<KEY NAME="returnurl" VALUE="example"/>
<KEY NAME="userid" VALUE="1234"/>
</DYNKEYS>
```

This allows arbitrary values to be passed to M3Central and later retrieved so that the repair requests are passed back to the right session on your system.

REPAIRS element

The REPAIRS element contains the repair requests made by the user:

```
<REPAIRS ID="8395443">
<REPAIR SEQUENCE="1">
<CATEGORY>Baths</CATEGORY>
<REPAIRAREA>Panels</REPAIRAREA>
<PROBLEM>Bath panels</PROBLEM>
<ITEM>Side panel broken</ITEM>
<SORCODE>388007</SORCODE>
<LOCATION>Bathroom or Shower Room</LOCATION>
<COMMENTS/>
</REPAIR>
</REPAIRS>
```

SORCODE may be absent if you have elected for no schedule of rates codes to be returned.

LOCATION is only present if you have elected to make this option available to users.

There is no limit on the number of repair requests that a user may make.

PHOTOGRAPHS element

The PHOTOGRAPHS element is present only if you have chosen to make this option available to users, and the user has uploaded photographs of their repair problem.

```
<PHOTOGRAPHS>
<PHOTO>
<LINK>https://www.m3central.net/photos/528452012-05-2415.43.40.jpg</LINK>
<CAPTION/>
</PHOTO>
</PHOTOGRAPHS>
```

ACCESS element

The ACCESS element is present only if you have used the **accessonly=1** parameter. This prompts the user for access details but not for their personal information. The user must also have completed one or more fields on the user information form.

```
<ACCESS>
<NOTE>Please avoid school run</NOTE>
<NOTE>Access to my home is not necessary</NOTE>
<IN>Monday AM</IN>
<IN>Friday PM</IN>
</ACCESS>
```

XML payload (Diagnostics mode)

M3Central Diagnostics will generate an XML that looks like this:

```
<?xml version="1.0" encoding="UTF-8"?>
<SORFILE>
<DATETIME>Wednesday, March 5, 2014 12:54 PM</DATETIME>
<DYNKEYS>
<KEY NAME="restart" VALUE="1"/>
<KEY NAME="HC" VALUE="0"/>
```

```
<KEY NAME="returnurl" VALUE="testlocal"/>
<KEY NAME="REDIRECT" VALUE="0"/>
<KEY NAME="ID" VALUE="439354"/>
<KEY NAME="showdata" VALUE="1"/>
</DYNKEYS>
<NHFSOR>
<ITEM HEADING="Waste Pipework and Fittings" SUBJECT="Soil/Waste Pipe
Blockages" TRADE="Plumbing" VER="NHF61">
<CODE>620513</CODE><PRIORITY>E</PRIORITY><JOBTITLE><![CDATA[WC
PAN: CLEAR BLOCKAGE INCLUDING REMOVE]]></JOBTITLE><DESCRIPTION>
<![CDATA[WC Pan: Clear blockage to wc pan including remove refix pan, remake all
joints, flush out and test, remove, refix any access panels etc, remove debris on
completion, make good any finishes
disturbed.]]></DESCRIPTION><UNIT>NO</UNIT><RATE>32.63</RATE><QUANT
ITY>1</QUANTITY><COMMENT/><UID>1</UID><SLOTS>0</SLOTS>
</ITEM>
</NHFSOR>
</SORFILE>
```

DYNKEYS element

The DYNKEYS element contains parameters that have been passed to M3Central:

```
<DYNKEYS>
<KEY NAME="ID" VALUE="439354"/>
<KEY NAME="returnurl" VALUE="example"/>
<KEY NAME="userid" VALUE="1234"/>
</DYNKEYS>
```

This allows arbitrary values to be passed to M3Central and later retrieved so that the repair requests are passed back to the right session on your system.

NHFSOR element

In Diagnostics mode the REPAIRS element is replaced by the NHFSOR element. This element contains all the schedule of rates items selected by the user, including any changes to quantity or comments they may have added.

The element can hold items from any schedule of rates, but each item is always presented in the same format with the following elements:

- CODE
- PRIORITY
- JOBTITLE
- DESCRIPTION
- UNIT (of measure)
- RATE

Variations between schedules means that some elements may not be populated. Currently it is not possible to upload photographs in Diagnostics mode, so there is no PHOTOGRAPHS element.

UID is used internally for backwards compatibility with other systems.

SLOTS can hold a standard minute value for the job expressed as a user defined unit which defaults to 15 minutes. This would only apply if you have set up standard minute values, otherwise the value is always 0. The value may also be 0 for items in the schedule of rates that do not have a rate (the M3NHF Schedule of Rates includes items that are used to order works under service contracts which do not have a rate).

Language support

In addition to English, the M3Central Reporting interface can be viewed in Welsh. You can switch to using Welsh by using the **lang=cym** parameter.

Mobile support

M3 Central has a touch friendly interface and designed to automatically adjust to different screen sizes. By default, M3Central will break out of an iframe to run full screen when it is run on a smaller screen. This ordinarily provides a better user experience. You can use the **nobreak=1** parameter to override this behaviour.

Privacy

By default no user information is stored on the system but you can opt to store users' details if you think this may assist you in tracking repair requests. Refer to the *M3Central User Guide* for more information on how to do this.

M3Central Reporting will only use a cookie to store a user's personal information if the user checked the **Remember me** option on the user information form. This option is not available if they are accessing M3Central via a portal.

You can access the full privacy policy here: <https://www.housecall.co.uk/w3c/privacy.html>

Support

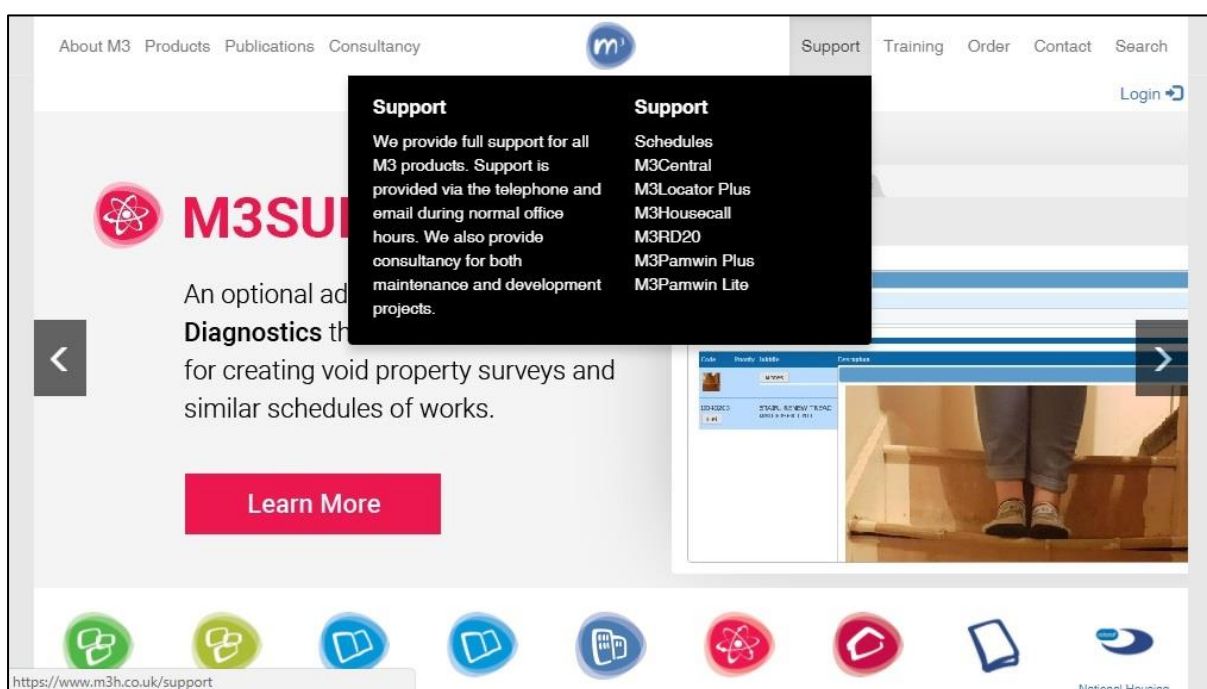
M3 provides full support to M3Central administrators, and staff who use M3Central Diagnostics and M3Surveyor.

Helpdesk

You can contact the M3 helpdesk by emailing helpdesk@m3h.co.uk or by calling the helpline on +44 (0)208 274 4010.

M3 website

You can access M3Central support via the M3 website (www.m3h.co.uk/support/m3central). This page provides answers to a list of frequently asked questions and a link to a contact form where you can raise additional support queries.



M3NHF Schedule of Rates support

For support and advice on the M3NHF Schedule of Rates visit the Schedules support page on the M3 website (www.m3h.co.uk/support/schedules). This page contains a link to a contact form where you can raise technical queries.

Thank you for using M3Central!
