

MATRIX	Troubleshooting Guide: Digital Product	
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PURPOSE

Use this document to troubleshoot Matrix Digital Products. The intended users are Matrix (Johnson) Customer Tech Support Representatives & Field Service Techs, but distribution is free.

Instructions for any task directed here can be found in the relevant console service manual or will be specified within the guide.

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- Always ensure the latest software version has been installed on the console. **See Software Box Instructions (under Software Information).**
- Cycling power is recommended as the first attempt to fix most common issues. Always reboot the machine after any changes have been made to the console configuration or network connection.
- **Service mode** is accessible by typing “**enter3001enter**” into the console keypad.
- In order for Matrix consoles to connect to and work with our Digital products, it is essential that the consoles are configured with the following information:
 - DAPI Environment
 - Frame Serial Number
 - Console Serial Number
 - Facility ID
 - Correct date, time & time zone
- All digital products require a stable internet connection via either WiFi or Ethernet in order for the consoles to communicate data with our servers and API's.

NOTE:

Screenshots in this document are taken from a 7xi console running v1.6.7.11 software. Service mode layout may vary depending on console type and software version, but all settings will be available within the Manager, Service or Engineering modes as outlined in the console service manuals.

Read & understand the General Troubleshooting section above.

Given a problem description, link to the topic that appears most fitting from the ToC on the first page or Find (ctrl-f) by keyword.

Follow the steps outlined in each topic.

After each corrective action is taken, re-evaluate if the failure has been resolved. Some indications have a straightforward order of attempts, and not all steps are always necessary if a lower-level fix resolves the issue.

If the failure you're attempting to resolve isn't described by this document, or the corrective action is attempted and doesn't resolve the issue, you may need to escalate this case by consulting with your regional Digital Product Advisor.

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ASSET MANAGEMENT

I DO NOT SEE MY CUSTOMER'S MACHINE IN ASSET MANAGEMENT

[ToC](#)

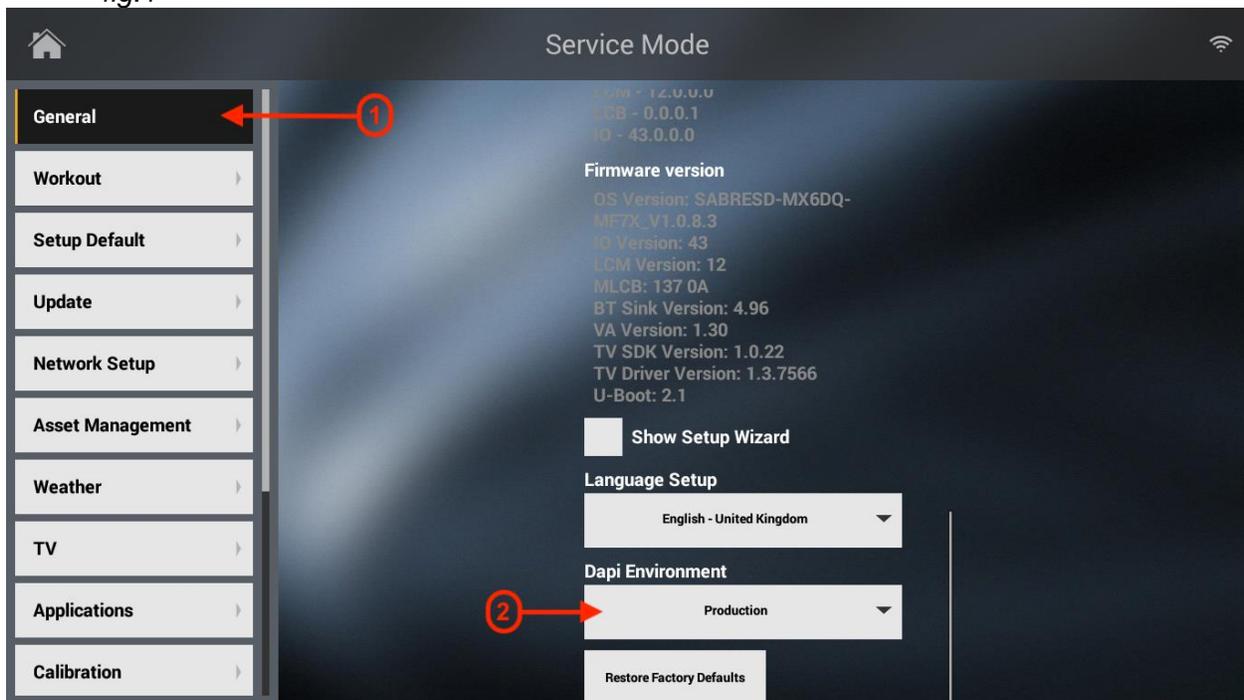
Step 1 - Verify that the console is connected to the facility's network.

- On the console in Service Mode, verify that the console is connected to the facility's network.
 - If the machine is connected to the facility's network, continue to the next step.
- If the machine is not connected to the facility's network, connect the machine to the facility's network, return to the home screen, then cycle power on the machine.

Step 2 - Verify that the console is pointed to the Production DAPI Environment.

- On the console in Service Mode, verify that the console is pointed to the Production DAPI Environment (fig.1).
 - If the machine is pointed to the Production DAPI Environment, continue to the next step.
- If the machine is not pointed to the Production DAPI Environment, set the machine to point to the Production DAPI Environment, return to the home screen, then cycle power on the machine.

fig.1



Step 3 - Verify that the console is configured with Asset Management enabled.

- On the console in Service Mode, verify that the console is configured with Asset Management enabled (fig 2).
 - If the Asset Management checkbox is enabled, move to the next step.
- If the Asset Management checkbox is not enabled, enable it, return to the home screen, then cycle power on the machine.

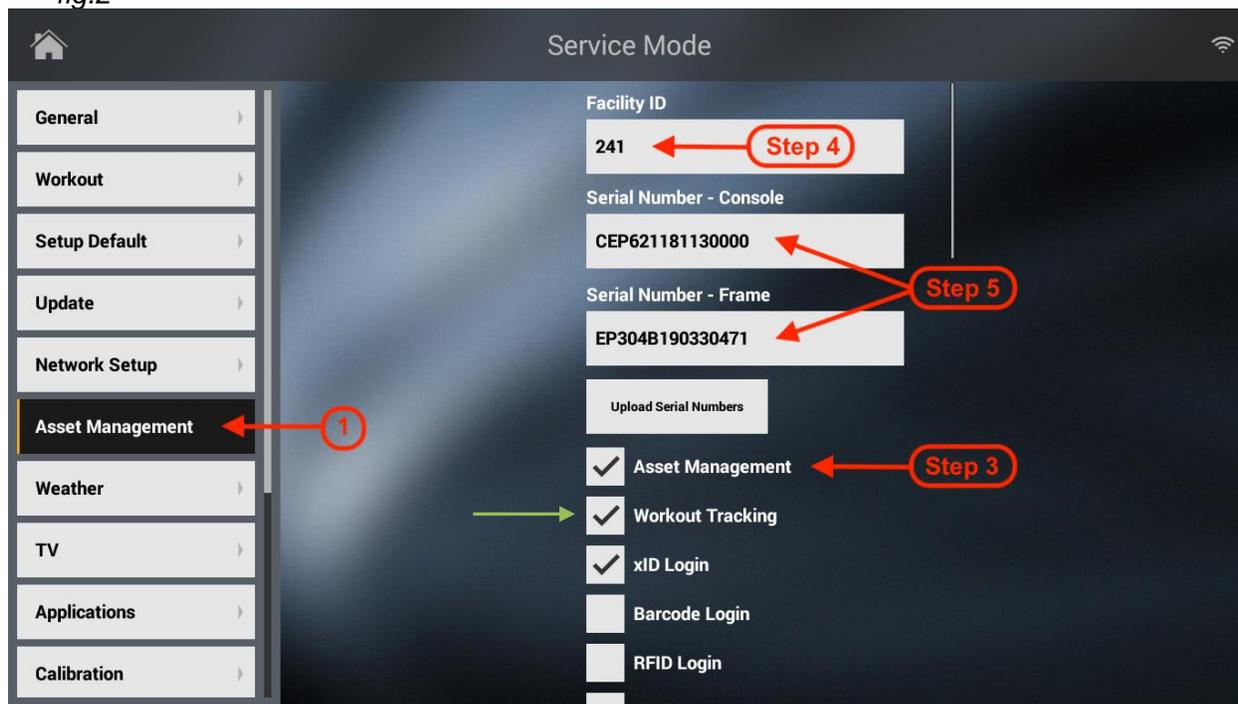
Step 4 - Verify that the console is set to the proper Facility ID.

- On the console in Service Mode, verify that the Facility ID is correct (fig.2).
 - If the Facility ID is correct, move to the next step.
- If the Facility ID is not correct, enter the correct Facility ID, return to the home screen, then cycle power on the machine.

Step 5 - Verify the console is configured with the proper Frame and Console Serial Number.

- On the console in Service Mode, verify that the Frame Serial Number and Console Serial Number is correct (fig.2).
 - If the serial numbers are correct, move to the next step.
- If the serial numbers are not correct, enter the correct Frame Serial Number and Console Serial Number, return to the home screen, then cycle power on the machine.

fig.2



Step 6 - Verify that the machine and the facility's network hardware and components are in good working order and not the source of the issue.

- Ensure there are no hardware/component issues. Check the WiFi component, any ethernet cables and ports, network switches, wireless access points, etc.

Step 7 – Determine whether the machine is in the database.

- Contact your [regional digital product advisor](#) to determine if the machine is in the database.

Step 8 - Support steps 1-7 have not resolved the customer's problem.

- Collect the following information
 - Facility ID
 - Frame Serial Number
 - Console Serial Number
 - Console Software Version
 - WiFi MAC Address
 - Ethernet MAC Address
- Submit the information to your [regional digital product advisor](#) for further investigation.

Additional Information

- Communication between machines and Asset Management require that the machines be connected to the internet. Without an internet connection, the machine is unable to communicate with the API.
- JHT technology products can be configured to point to several different environments. When machines are installed at a customer site, they should always be pointed to the Production DAPI Environment (default setting from the factory).
- The Asset Management checkbox in Service Mode determines whether the machine should talk to the Asset Management API or not. If it is not enabled, the machine will not send machine information or usage information to the API and will not appear in Asset Management.
- Facility IDs are critical for Asset Management to be able to identify and categorize machines. Machines with a Facility ID of "0" or no Facility ID at all are suppressed from Asset Management entirely. An incorrect but valid Facility ID will cause the machine to appear in Asset Management under the wrong Facility.

ASSET MANAGEMENT

CUSTOM LOGO/WELCOME SCREENS/AUTOMATED MESSAGES ARE SET UP IN ASSET MANAGEMENT BUT I DON'T SEE THEM ON THE CONSOLE.

[ToC](#)

Step 1 - Determine whether the issue is due to a network communication issue or not.

- On the console, in Service Mode, verify you are able to see the Weather map?
 - When a console presents a Weather map in Service Mode, this means that the console is connected to the network **and** able to communicate with the API. If it is not presenting a Weather map, there is a high probability that there is a network connection issue. Ruling out a network communication issue should be done first before troubleshooting anything else.
- If the Weather map is not being presented, perform steps 2 & 5 to resolve any network issues.
- If the weather map is presented, move to step 3.

Step 2 - Verify that the console is connected to the facility's network.

- On the console in Service Mode, verify that the console is connected to the facility's network.
 - If the machine is connected to the facility's network, continue to the next step.
- If the machine is not connected to the facility's network, connect the machine to the facility's network, then cycle power.

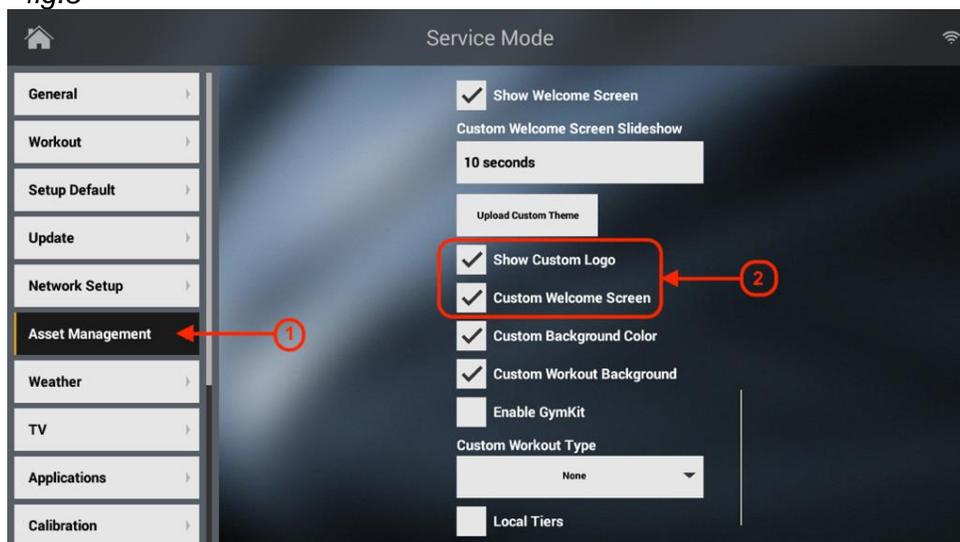
Step 3 – Verify that Asset Management is enabled & configured for the facility

- On the console in Service Mode, verify that:
 - Asset Management checkbox is enabled.
 - Verify that the proper facility ID is entered.
 - Frame & Console Serial number are entered correctly.
 - If the Asset Management details above are correct, move to the next step.
- If the Asset Management details (fig.2) are not correct, correct them, return to the home screen, then cycle power on the machine.

Step 4 – Configure “Custom Logo” & “Custom Welcome” Screens

- On the console in Service Mode, verify that the "Show Custom Logo" and "Custom Welcome Screen" checkboxes are enabled (fig.3).
 - If the checkboxes are enabled, move to the next step.
- If the checkboxes are not enabled, enable them, return to the home screen, then cycle power on the machine.

fig.3



Step 5 - Verify that the machine and the facility's network hardware and components are in good working order and not the source of the issue.

- Ensure there are no hardware/component issues. Check the WiFi component, any ethernet cables and ports, network switches, wireless access points, etc.

Step 6 - Support steps 1-5 have not resolved the customer's problem.

- Collect the following information
 - Facility ID
 - Frame Serial Number
 - Console Serial Number
 - Console Software Version
 - WiFi MAC Address
 - Ethernet MAC Address
- Having adequate information to troubleshoot the issue is critical. Do not submit a support request without including all of the information outlined in step 6.
- Submit the information to your [regional digital product advisor](#) for further investigation.

Additional Information

- Communication between machines and Asset Management require that the machines be connected to the internet. Without an internet connection, the machine is unable to communicate with the API.
- The Asset Management checkbox in Service Mode determines whether the machine should talk to the Asset Management API or not. If it is not enabled, the machine will not send machine information or usage information to the API and will not appear in Asset Management.
- The "Show Custom Logo" and "Custom Welcome Screen" checkboxes in Service Mode determine whether the machine should display a custom logo and/or custom welcome screen or not. If they are not enabled, the machine will not present the custom logo and/or the custom welcome screen.
- Faulty network hardware and components can prevent communication from the machine to the network, and thus the API. Ensuring the machine can communicate with the API is the primary goal of this step so those things can be ruled out before escalating the issue to the digital product support Team.

WORKOUT TRACKING NETWORK

I GET AN ERROR WHEN TRYING TO REGISTER A NEW xID ACCOUNT

[ToC](#)

Step 1 - Determine whether the error is due to a network communication issue or not.

- On the console, did the "processing" indicator display for a while before presenting the error?
- If the "processing" indicator displayed for a while before presenting the error, the registration request "timed out". Perform Level 1 Support Step 2 and Step 9.
- If the error presented itself immediately, move to the next step.

Step 2 - Verify that the console is connected to the facility's network.

- On the console in Service Mode, verify that the console is connected to the facility's network.
- If the machine is connected to the facility's network, continue to the next step.
- If the machine is not connected to the facility's network, connect the machine to the facility's network, then return to the home screen and attempt to register an account again.

Step 3 - Verify that the console is configured with Workout Tracking enabled.

- On the console in Service Mode, verify that the Workout Tracking checkbox is enabled. [See fig.2](#)
- If the Workout Tracking checkbox is enabled, move to the next step.
- If the Workout Tracking checkbox is not enabled, enable it, then return to the home screen and attempt to register an account again.

Step 4 - Verify that the requested xID is between 10 and 14 digits.

- On the console when registering a new xID account, verify that the requested xID is between 10 and 14 digits.
- If the requested xID is between 10 and 14 digits, move on to the next step.
- If the requested xID is not between 10 and 14 digits, edit the requested xID to conform to those requirements and try to register the account again.

Step 5 - Verify that the requested Date of Birth makes the exerciser's age over 17.

- On the console when registering a new xID account, verify that the requested Date of Birth results in an age over 17.
- If the requested Date of Birth results in an age over 17, move on to the next step.
- If the requested Date of Birth results in an age under 17, edit the requested Date of Birth to conform with those requirements and attempt to register the account again.

Step 6 - Verify that the Terms and Conditions checkbox have been checked/agreed to.

- On the console when registering a new xID account, verify that the Terms and Conditions checkbox is enabled.
- If the Terms and Conditions checkbox is enabled, move on to the next step.
- If the Terms and Conditions checkbox is not enabled, enable the checkbox and attempt to register the account again."

Step 7 - Verify that the requested xID is not already associated with an existing account.

- Document the requested xID in preparation to query NetPulse Support and move on to the next step.

Step 8 - Verify that the requested email address is not already associated with an existing account.

- Document the requested Email Address in preparation to query NetPulse Support.
- Send an email to support@netpulse.com asking whether the requested xID and/or Email Address is already associated with an account.
- If NetPulse Support indicates that the xID and/or Email Address are already associated with an account, inform the exerciser that they either already have account or that they must choose a different xID and/or email address and try to register the account again.
- If NetPulse Support indicates that the xID and/or Email Address are not already associated with an account, move on to the next step."

Step 9 - Verify that the machine and the facility's network hardware and components are in good working order and not the source of the issue.

- Send a service technician on site to make sure there are no hardware/component issues. Check the WiFi component, any ethernet cables and ports, network switches, wireless access points, etc.

Step 10 - None of the Level 1 Support Steps resolved the customer's problem.

- Collect the following information;
 - Facility ID
 - Frame Serial Number
 - Console Serial Number
 - Console Software Version
 - WiFi MAC Address
 - Ethernet MAC Address
 - Requested xID
 - Requested Email Address
- Submit the information to your [regional digital product advisor](#) for further investigation.

Additional Information

- When a "processing" indicator presents itself prior to presenting an error, this means that the console is attempting to send a registration request to the API but eventually fails because it cannot communicate with the API over the network. In this case, ruling out a network communication issue should be done first before troubleshooting anything else. By disconnecting everything but the console cable, failed components (i.e. stuck keys, shorted LEDs, bad WiFi board, etc.) no longer cause faults. If the console appears to work as expected with nothing else connected, failure is likely with one of the parts connected to it.
- The Workout Tracking checkbox in Service Mode determines whether the machine should talk to the Workout Tracking API or not. If it is not enabled, the machine will not allow xID account registration, xID login or posting of exercise results to the API.
- NetPulse's API requires that the xID be between 10 and 14 digits. If there are too few or too many digits, NetPulse's API will reject the registration request and an error will be presented.
- NetPulse's API requires that the exerciser be at least 17 years of age. If Date of Birth entered results in the exerciser being under age 17, NetPulse's API will reject the registration request and an error will be presented.
- Netpulse's API requires that the date of birth be entered in MM/DD/YYYY format. Entering a user's DOB in any other format will prevent a successful registration.
- NetPulse's API requires an xID & user email to be unique (i.e. - not already associated with some other exerciser in their database). If the requested xID or email already exists in the NetPulse database, NetPulse's API will reject the registration request and an error will be presented.

I GET AN ERROR WHEN ATTEMPTING TO LOGIN WITH AN xID AND PASSCODE ON THE CONSOLE.**Step 1 - Determine whether the error is due to a network communication issue or not.**

- On the console, did the "processing" indicator display for a while before presenting the error?
- If the "processing" indicator displayed for a while before presenting the error, the registration request "timed out". Perform Level 1 Support Step 2 and Step 9.
- If the error presented itself immediately, move to the next step.

Step 2 - Verify that the console is connected to the facility's network.

- On the console in Service Mode, verify that the console is connected to the facility's network.
- If the machine is connected to the facility's network, continue to the next step.
- If the machine is not connected to the facility's network, connect the machine to the facility's network, then return to the home screen and attempt to register an account again.

Step 3 - Verify that the console is configured with Workout Tracking enabled.

On the console in Service Mode, verify that the Workout Tracking checkbox is enabled *fig.2*

- If the Workout Tracking checkbox is enabled, move to the next step.
- If the Workout Tracking checkbox is not enabled, enable it, then return to the home screen and attempt to register an account again.

Step 4 - Verify that the console is configured with xID Login enabled.

On the console in Service Mode, verify that the xID Login checkbox is enabled *fig.2*

- If the xID Login checkbox is enabled, move to the next step.
- If the xID Login checkbox is not enabled, enable it, then return to the home screen and attempt to login again.

Step 5 - Verify that the exerciser is entering the correct xID and Passcode.

- In a web browser, go to <http://matrix.netpulse.com> and click "Login as Member".
- Enter the xID and Passcode the exerciser is attempting to use and click the "Sign In" button.
- If login was successful, move to the next step.
- If login was not successful, move to the next step.

Step 6 - Verify that the exerciser's xID and Passcode are what the exerciser thinks they are.

- Document the exerciser's xID and Passcode in preparation to query NetPulse Support.
- Send an email to support@netpulse.com indicating that the xID and Passcode the exerciser is trying to login with fails.
- If the Passcode was incorrect, NetPulse will reset the Passcode and the exerciser should be instructed to attempt to login again.
- If the xID does not exist, NetPulse will inform you of that fact and the exerciser should be notified that the xID they are attempting to login with does not exist.
- If the account was "locked", NetPulse will unlock the account and the exerciser should be instructed to attempt to login again.
- If the xID does exist and the Passcode is correct, move on to Level 1 Support Step Number 8.
- If NetPulse is unable to determine a resolution, move on to Level 1 Support Step Number 8.

Step 7 - Verify that the machine and the facility's network hardware and components are in good working order and not the source of the issue.

- Send a service technician on site to make sure there are no hardware/component issues. Check the WiFi component, any ethernet cables and ports, network switches, wireless access points, etc.

Step 8 - None of the Level 1 Support Steps resolved the customer's problem.

- Collect the following information;
 - Facility ID
 - Frame Serial Number
 - Console Serial Number
 - Console Software Version
 - WiFi MAC Address
 - Ethernet MAC Address
 - Requested xID
 - Requested Email Address

- Submit the information to your [regional digital product advisor](#) for further investigation.

Additional Information

- When a "processing" indicator presents itself prior to presenting an error, this means that the console is attempting to send a login request to the API but eventually fails because it cannot communicate with the API over the network. In this case, ruling out a network communication issue should be done first before troubleshooting anything else.
- Communication between machines and Workout Tracking Network require that the machines be connected to the internet. Without an internet connection, the machine is unable to communicate with the API.
- The Workout Tracking checkbox in Service Mode determines whether the machine should talk to the Workout Tracking API or not. If it is not enabled, the machine will not allow xID account registration, xID login or posting of exercise results to the API.
- The xID Login checkbox in Service Mode determines whether the machine should talk to the NetPulse API for console logins or not. If it is not enabled, the machine will not allow xID account registration, xID login or posting of exercise results to the API.
- Often times, a failed login is caused by the exerciser mistyping their xID or Passcode or forgetting what their xID or Passcode is. Ruling this out by logging in directly with NetPulse is an important step in troubleshooting this kind of issue.
- Sometimes, an xID account can be locked, an xID or Passcode can be wrong or some other issue with the xID account is preventing successful logins. This step leverages NetPulse directly to figure out of this issue is with the xID account itself and whether NetPulse can resolve the issue.
- Faulty network hardware and components can prevent communication from the machine to the network, and thus the API. Ensuring the machine can communicate with the API is the primary goal of this step so those things can be ruled out before escalating the issue to Level 2 Support.
- Having adequate information to troubleshoot the issue is critical. Do not submit a ticket without including all of the information outlined in 1a-1h.

WHEN VIEWING AN INDIVIDUAL WORKOUT IN WORKOUT TRACKING NETWORK, I SEE "CHART HISTORY NOT AVAILABLE" INSTEAD OF A GRAPH OF THE WORKOUT SESSION.**Step 1 - Determine whether the issue is confined to the console model the workout was run on.**

- Run a test workout on a console model that is different from the console model the workout was performed on.
- In Workout Tracking Network, if the "Chart History Not Available" message is displayed for the test workout, move on to the next step.
- In Workout Tracking Network, if the graph for the workout session is displayed, move on to the next step.

Step 2 - None of the Level 1 Support Steps resolved the customer's problem.

- Collect the following information;
 - Facility ID
 - Frame Serial Number
 - Console Serial Number
 - Console Software Version
 - WiFi MAC Address
 - Ethernet MAC Address
 - xID
 - Passcode
 - Date of Workout Missing Graph
- Submit an OLS for the console model & the workout that caused the issue was performed on. including a description of the issue and all of the information listed above.
- If you do not have access to the OLS system, submit the information to your [regional digital product advisor](#) for further investigation.

Additional Information

- Graphs of workout sessions rely on "workout snapshots" received from the console to plot the points and paint the graph. For a given workout session, the console should send a "workout snapshot" for each second of the workout session. If the API receives fewer than 85% of the expected "workout snapshots" for a given workout session, it will hold on to all of the information it has about the workout session for 24 hours and wait for more "workout snapshots" to trickle in. After 24 hours, if the API has not received the minimum 85% of "workout snapshots", it will submit the workout to NetPulse without the "workout snapshots". The result is that the statistical rollups will be presented to the exerciser in Workout Tracking Network, but the graph will not be presented and a "Chart History Not Available" message will display in its place.
- Having adequate information to troubleshoot the issue is critical. Do not submit a ticket without including all of the information outlined in step 2.

WHEN A MEMBER SCANS THEIR EGYM RFID TAG, THEY ARE PROMPTED TO PAIR THEIR RFID TAG WITH AN XID ACCOUNT INSTEAD OF LOGGING IN AGAINST EGYM'S SYSTEM AS EXPECTED.**Step 1 - Determine whether the member's eGym RFID tag has been paired with a valid user in eGym's system.**

- Test login with the member's eGym RFID tag on a piece of eGym strength equipment (if available).
- If the member is able to login successfully on the eGym strength equipment, move on to the next step.
- If the member is not able to login successfully on the eGym strength equipment, pair the member's eGym RFID tag with an eGym user per the standard process.

Step 2 - Determine whether the JHT Facility ID is flagged in the database as enabled for eGym.

- Submit a request to your [regional digital product advisor](#) including the Facility ID asking for confirmation that the Facility ID is flagged in the database as enabled for eGym.
- If the Facility ID is flagged in the database as enabled for eGym, move on to the next step.
- If the Facility ID is not flagged in the database as enabled for eGym, R&D Web Data development team will enable it.

Step 3 - Determine whether the eGym Facility is flagged in the eGym database as enabled for Matrix integration.

- Submit a request to support@egym.com asking for confirmation that the Facility is set up for Matrix integration. Include the following information;
 - Matrix Facility ID
 - Facility Name
 - Facility Address
- If the Facility is not set up for Matrix integration in eGym's system, they will set this up.
- If the Facility is already set up for Matrix integration in eGym's system, move on to the next step.

Step 4 - None of the Level 1 Support Steps resolved the customer's problem.

- Collect the following information;
 - Facility ID
 - Member's eGym RFID Tag ID (this can be found on a console in Service Mode > Hardware tab. Scan the RFID tag to view the tag ID in the RFID UID field).
- Submit the information to your [regional digital product advisor](#) for further investigation.

Additional Information

- When a member scans their eGym RFID tag and they are prompted to pair their RFID tag with an xID account instead of logging in against eGym' system as expected, this means three things could potentially be causing the problem. The first thing to check is whether the member's RFID tag is paired with an eGym member in their system.
- If the Member's eGym RFID tag is not the problem, the next thing to check is whether the console is set up with the proper Facility ID and assuming it is, you will want to make sure that it has been flagged in the Matrix database for eGym integration.
- If the Member's RFID tag is indeed paired with an eGym user in their system and the Matrix Facility ID is indeed flagged to enable eGym, then the other possible issue is that eGym has not made the connection in their systems. If none of the three possible resolutions work, then there may be some sort of issue with the integration itself that Product and R&D will need to investigate and fix.
- Having adequate information to troubleshoot the issue is critical. Do not submit a ticket without including all of the information outlined in Step 4.

OTHER

[ToC](#)

MY ISSUE ISN'T FOUND IN THIS DOCUMENT

- TBD: If the issue you are facing is not in this document and cannot be rectified by performing the steps in the [general troubleshooting section](#), please provide the following information to your [regional digital product advisor](#).
 - Facility ID
 - Frame Serial Number
 - Console Serial Number
 - Console Software Version
 - WiFi MAC Address
 - Ethernet MAC Address
 - A clear description of the issue you are facing

CHANGELOG

[ToC](#)

Ver #	Date	Author	Changes
1	1/3/2020	A.Lane	Document posted to Online Remedy.