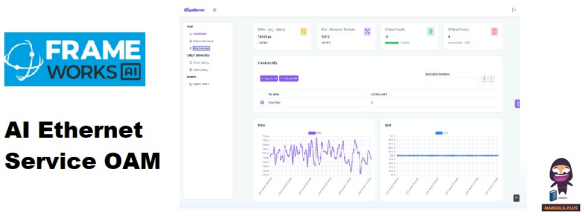
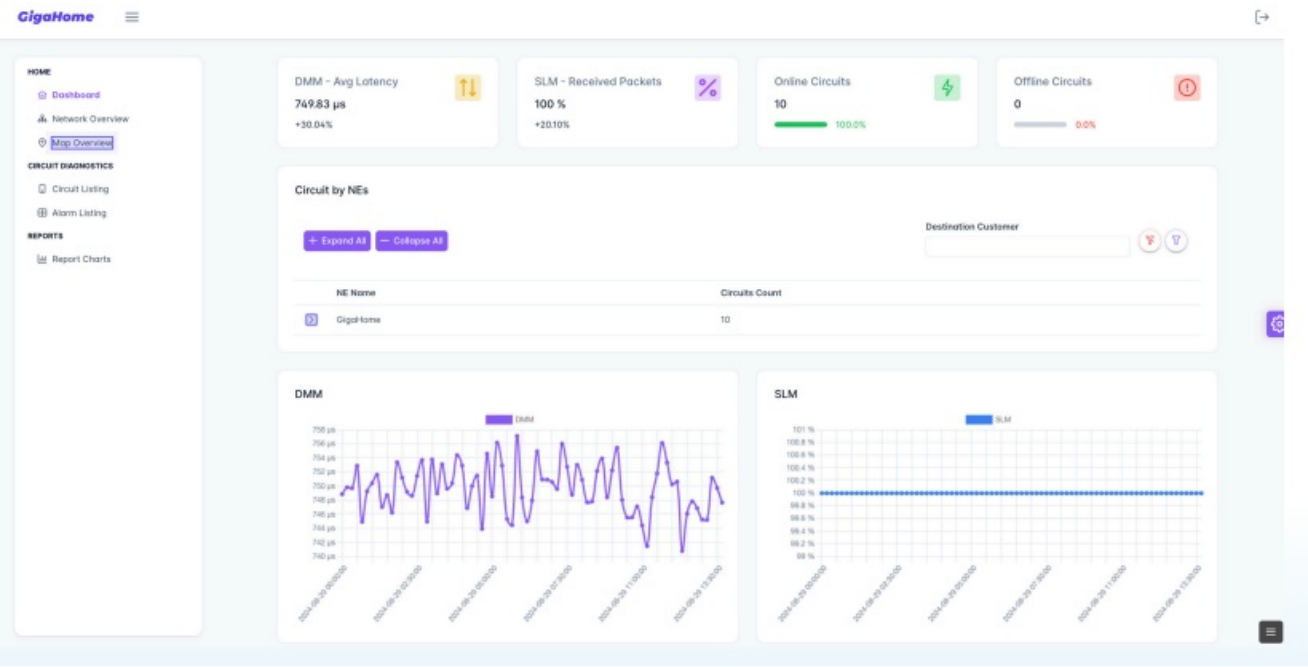


FRAME WORKS AI Ethernet Service OAM User Guide

Contents

FRAME WORKS AI Ethernet Service OAM



Specifications:

- Product Name: Frameworks Ethernet Service OAM
- Manufacturer: GigaHome
- Management Tools: Ethernet Service OAM (SOAM)
- Functions: Connectivity Fault Management (CFM), Performance Monitoring (PM)
- Standards: ITU Y.1731, IEEE 802.1ag, MEF 30.1, MEF 35

Product Usage Instructions

Dashboard Login Instructions:

Upon accessing the Frameworks Ethernet Service OAM, you will need to log in using the unique login information provided to you as a customer.

Navigating the Dashboard:

The Main Dashboard:

The main dashboard provides an overview of your network, highlighting key information.

Map Overview:

In the ‘Map Overview’ section, you can view a bird’s eye perspective of your network. You can zoom in/out and toggle between layers. Hover over connections for more details and click on splice points with layer one privileges for additional information.

L1 Visibility – Frameworks L1 Cloud Management:

(Under Development) Clicking on an individual splice point\ reveals the ‘Splice Details’ page, offering in-depth data including ownership, operation details, network infrastructure information like temperature and loss.

Network Overview and Topology:

By selecting ‘Circuit Listing,’ you can view the overall network \topology. Explore the main connection and connected ONTs. Clicking on an ONT provides performance statistics specific to that ONT.

FAQ

Q: What standards do the Ethernet Service OAM protocols follow?

A: The protocols follow standards such as ITU Y.1731, IEEE 802.1ag, MEF 30.1 for Connectivity Fault Management (CFM) and ITU Y.1731, MEF 35 for Performance Monitoring (PM).

Introduction

Ethernet OAM (Operations, Administration, and Maintenance) is a set of functions. They manage and monitor networks. They ensure fault detection, performance monitoring, security, diagnostics, and configuration. These tools speed up network recovery in the event of failure. Networks have equipment from various operators and manufacturers. So, we must standardize OAM for consistency and interoperability. Ethernet OAM injects packets into the data stream at layer 2. It uses endpoints to assess network performance. It checks node configuration, frame loss, delay, path, and error rates. Ethernet Service OAM (SOAM) offers management tools to ensure and measure end-to-end performance. It supports endto- end SLAs for standardized Ethernet services. It allows in-service SLA verification. It enables\ network monitoring and troubleshooting from the central office. Ethernet Service OAM protocols have two key functions:

Connectivity Fault Management (CFM)

Detects and isolates network issues. It follows \standards like ITU Y.1731, IEEE 802.1ag, and MEF 30.1.

Performance Monitoring (PM)

It checks network performance from end to end. It follows ITU Y.1731 and MEF 35 guidelines

Dashboard Login Instructions

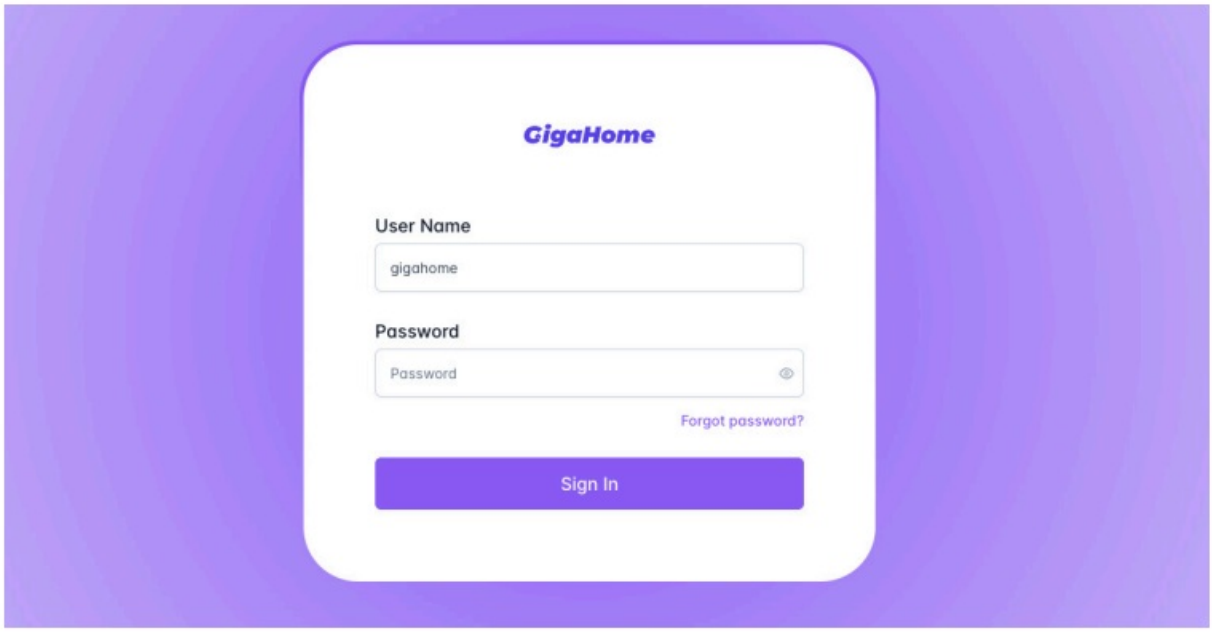
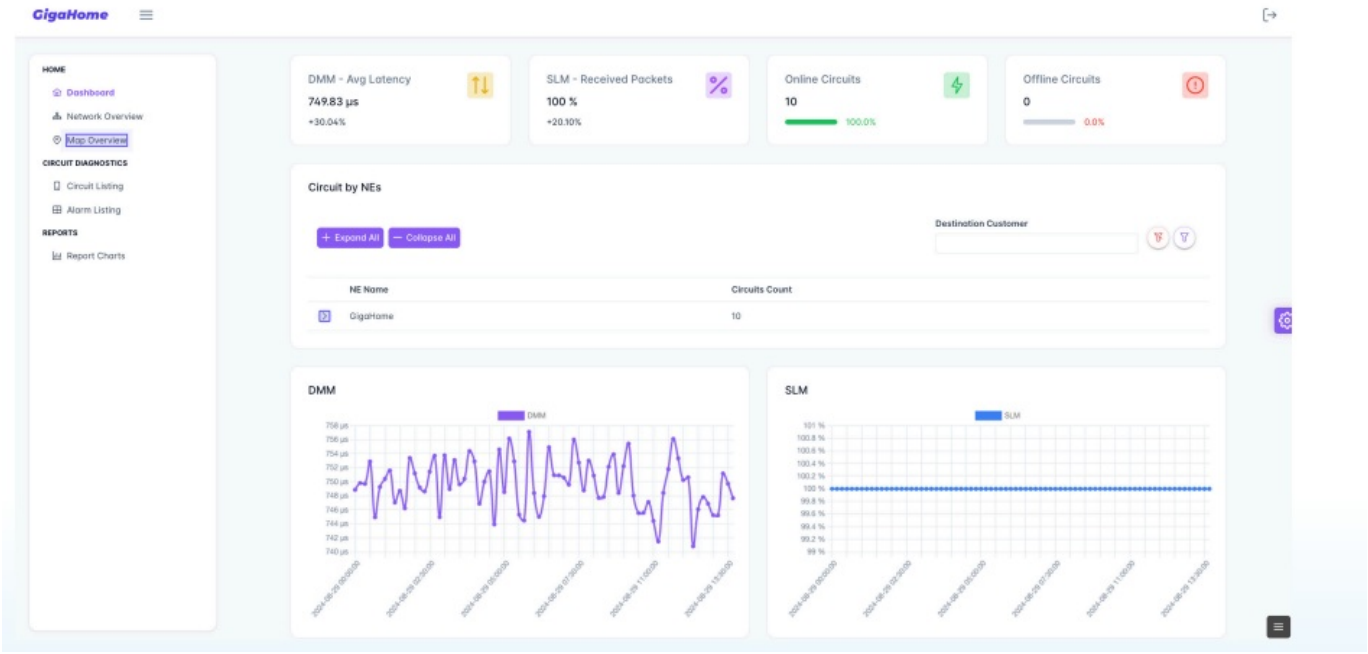


Figure 1. Dashboard Login page from our GigaHome in house demo

Logging into the Dashboard When accessing the Frameworks Ethernet Service OAM,you will be directed to the Login page of the dashboard as seen on figure 1. When you become a customer, you will be provided with your unique login information.

Navigating the Dashboard

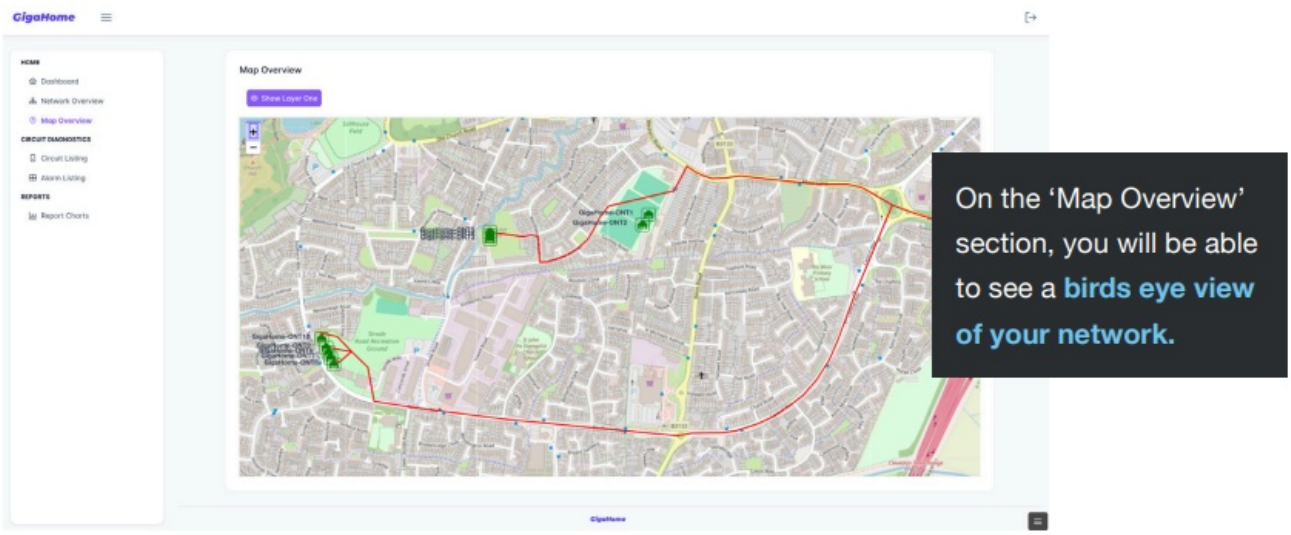
The Main Dashboard

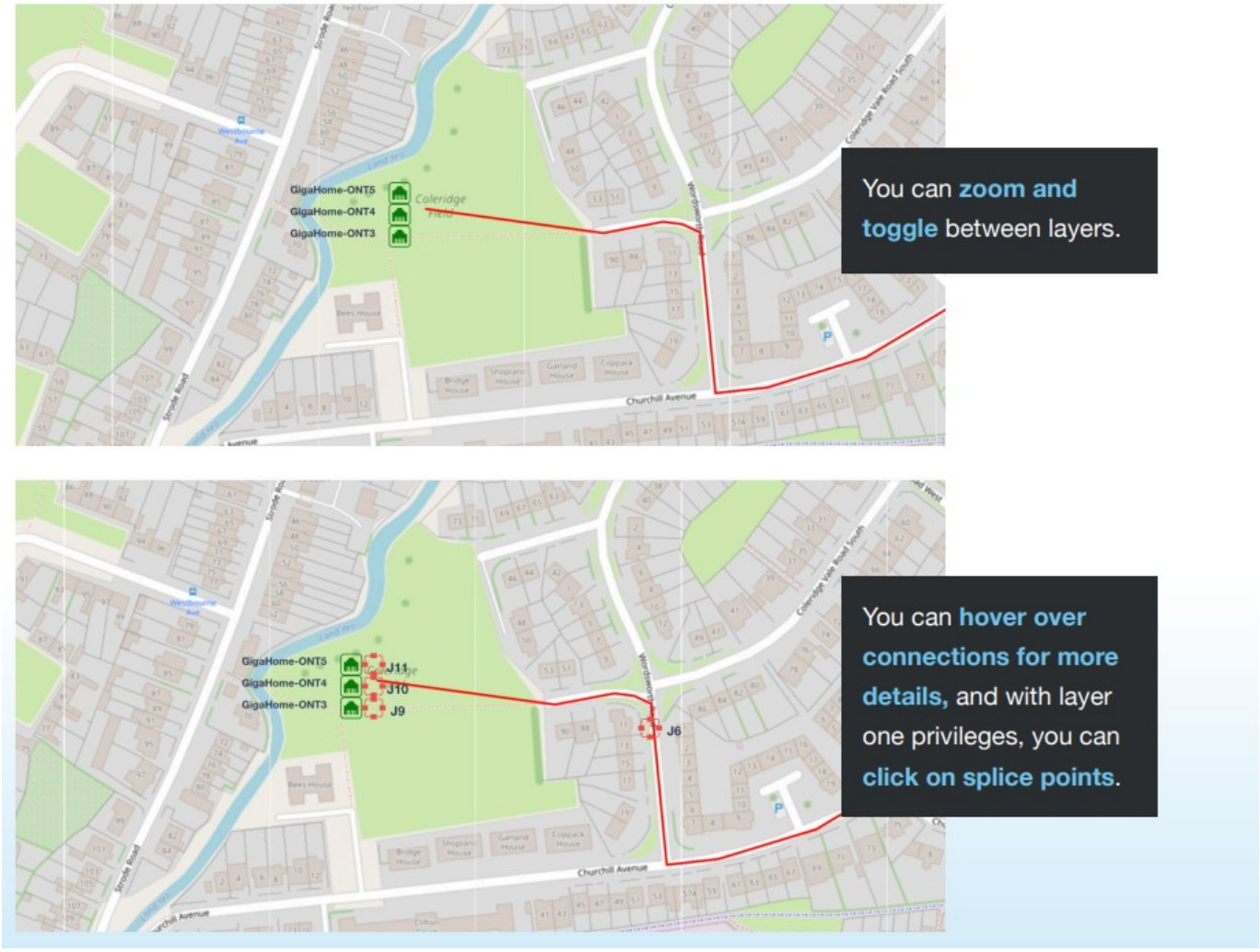


On the main dashboard, you will get an overview of your network outlining:

- DMM Average Latency
- SLM Received Packets
- Online Circuits
- Offline Circuits
- View Circuits by NEs and expand for a better, in depth view

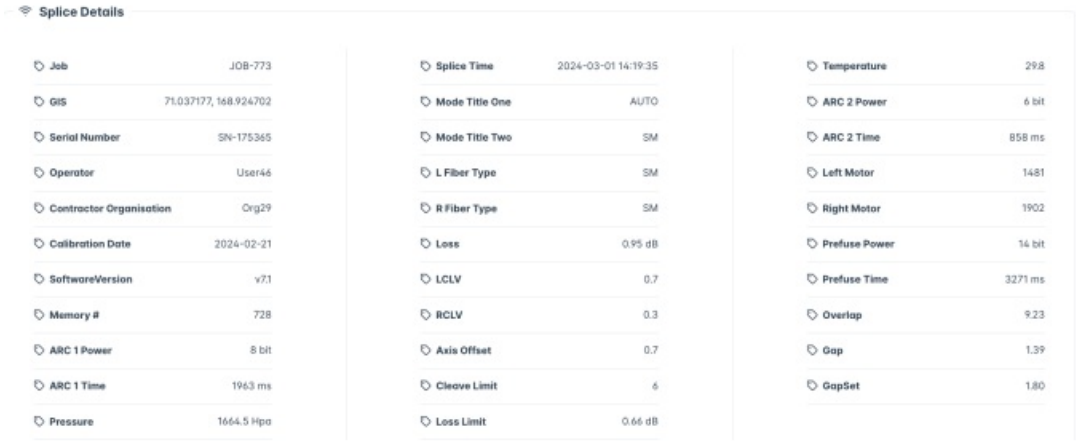
Map Overview





L1 Visibility – Frameworks L1 Cloud Management

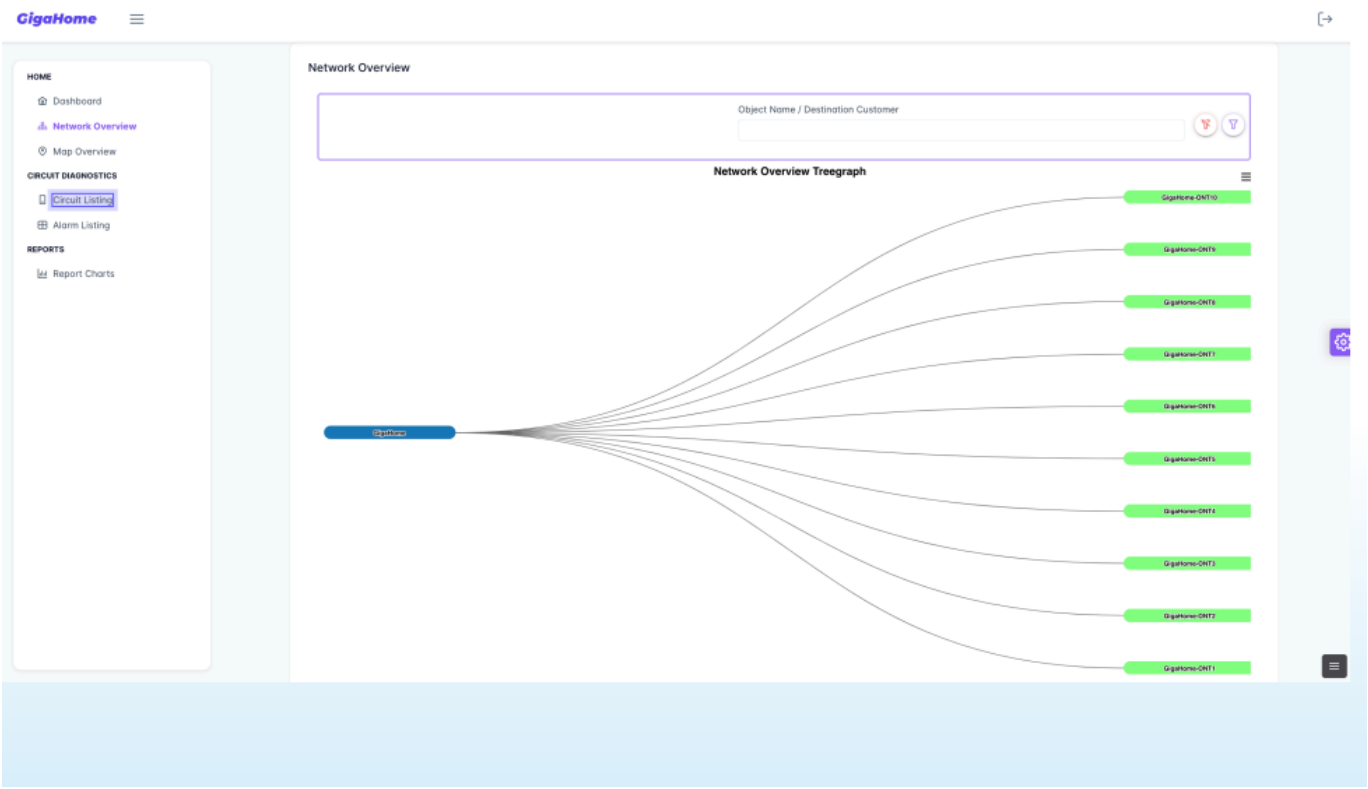
(Under Development) After clicking on and individual splice point you will be presented with the ‘Splice Details’



This gives you a huge amount of detail and data. You can see things like who owns and operates the connection and get information on the network infrastructure itself with details like temperature and loss.

Network Overview and Topology

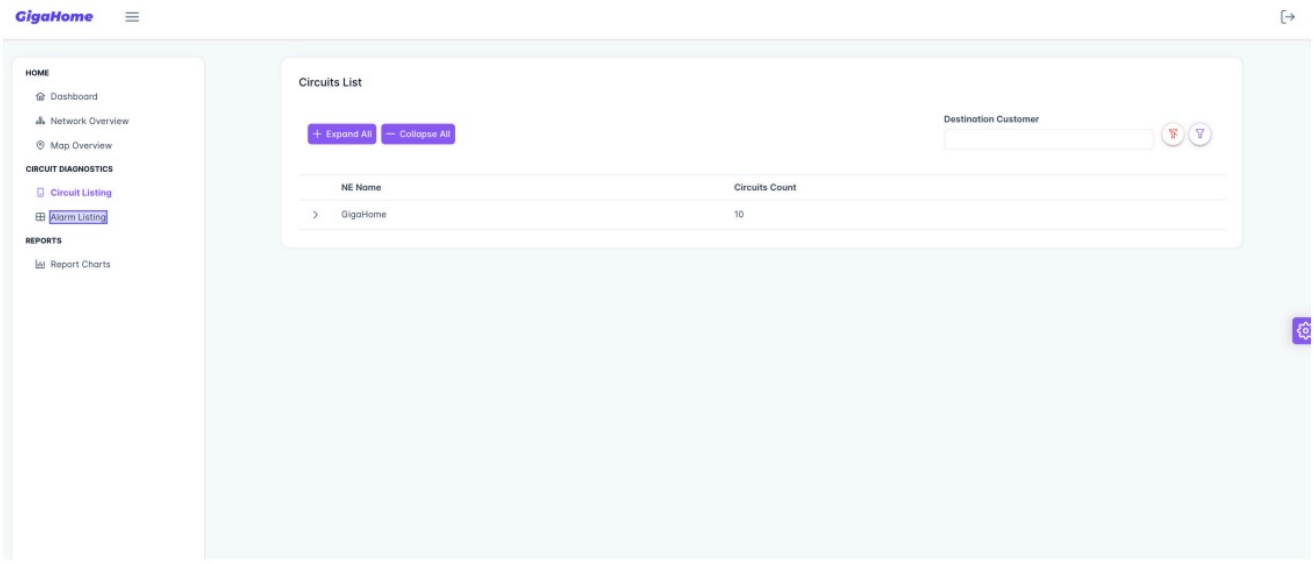
By clicking on ‘Circuit Listing’ you are able to take a broad look at your network topology. As you can see in the picture above we have the main connection and then all the ONT’s coming off of it. From this page you can then take a specific look at each ONT if required by clicking on it, which will then bring up performance statistics for that particular ONT.



Other Dashboard Pages

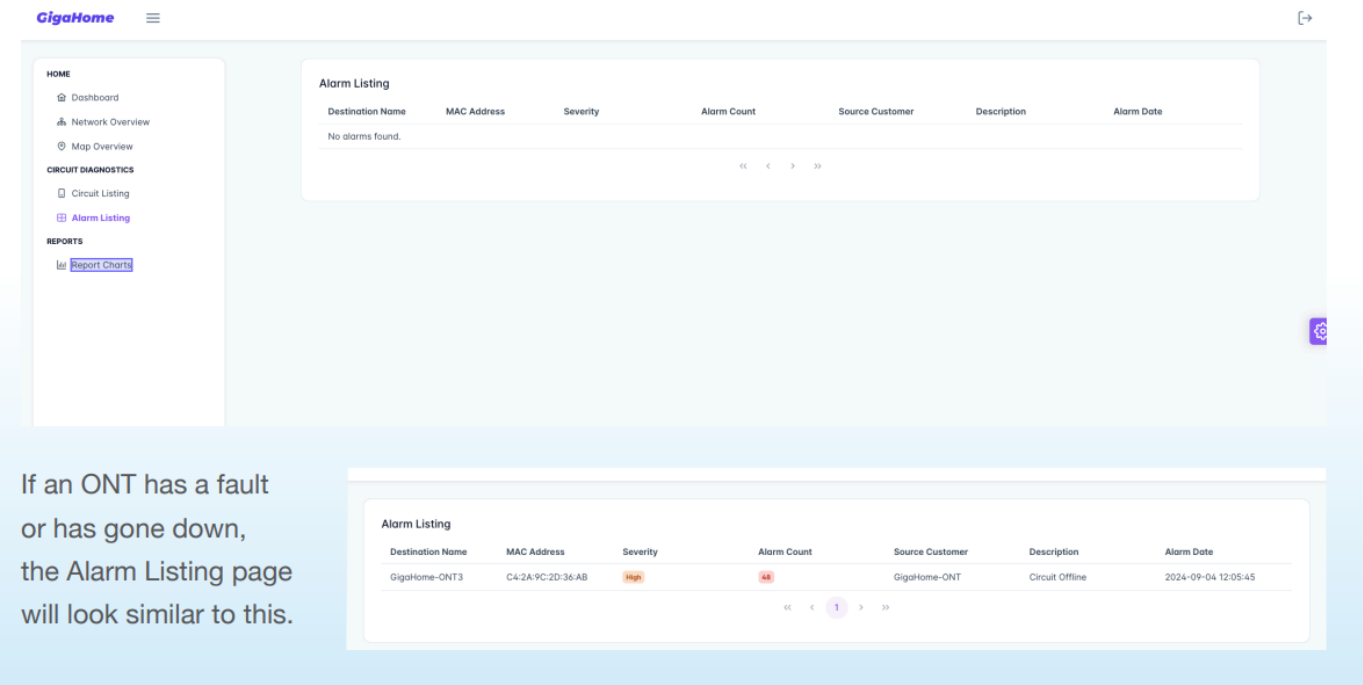
Circuit Listing

Now let's look at some other pages on the dashboard. 'Circuit Listing' gives you a list of circuits for your company with details like Mac address and online/offline.



Alarm Listing

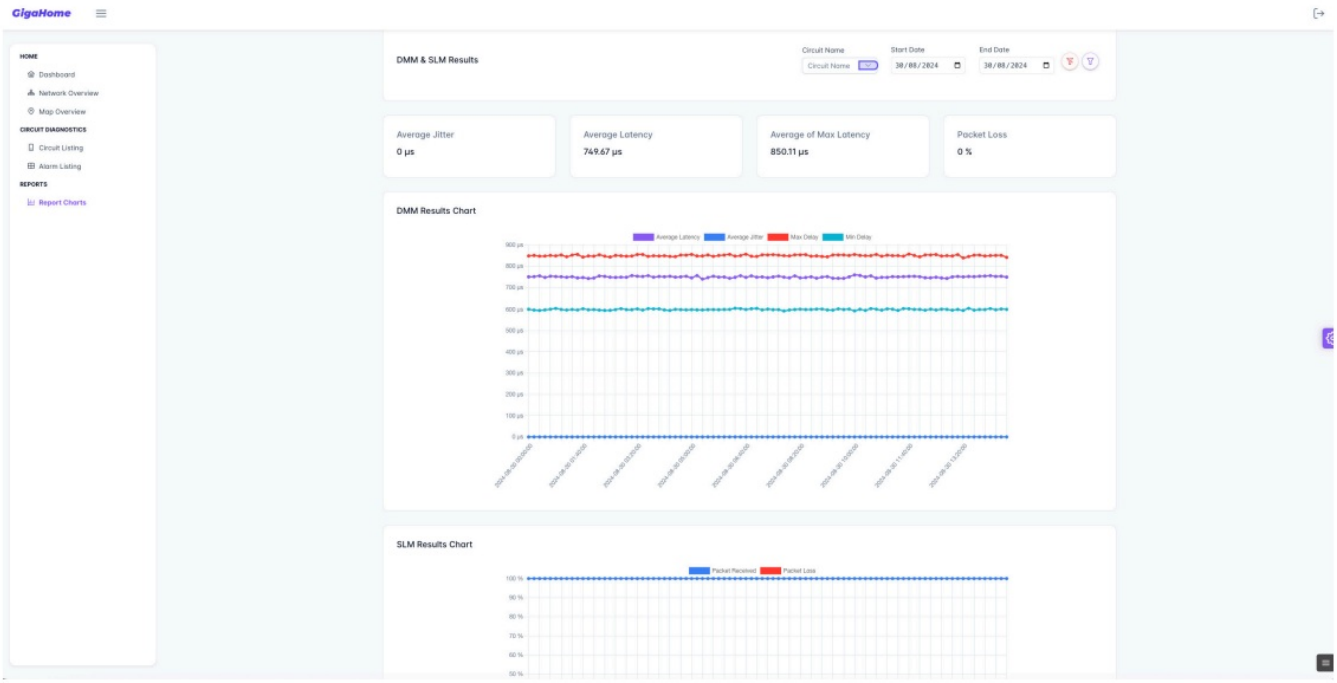
'Alarm Listing' this will give you details of any issues with a connection. Details include things like severity, alarm count and the customer details of who has the issue



Other Dashboard Pages

Report Charts

Finally ‘Report Charts’ is where you are able to access detailed reports in relation to each customer connection. You are able to filter by each individual ONT and then select a date range so you can take a look at connectivity stats within a specific time frame. You are able to filter by each individual ONT and then select a date range so you can take a look at connectivity stats within a specific time frame.

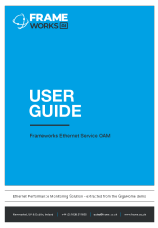


Contact

- Newmarket, UK & Dublin, Ireland
- +44 (0) 1638 311650

- sales@frame.co.uk
- www.frame.co.uk

Documents / Resources

	FRAME WORKS AI Ethernet Service OAM [pdf] User Guide Ethernet Service OAM, Service OAM, OAM

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- Telecom solutions - Frame Communications
- User Manual