

Application Note

Manage Complex Data in Martello iQ

Overview

Data visualization is one of the most important features of a monitoring system, but visualizing the health of your applications and devices is not enough. To effectively monitor your network, you need to be able to visualize data in a meaningful context.

Martello iQ provides two ways to consolidate and organize data from your other monitoring systems and cloud platforms:

- Boards
- Business services

This application note explains how you can use boards to provide context for your data, provide targeted data for different users, and manage alerts. For information about how to use business services to visualize and manage data, see the Resources section at the end of this document.

Understanding Boards

Martello iQ boards are a way to group components from one or more monitoring systems or cloud platforms. Boards are flexible and allow you to model your IT environment in the way that best fits your needs. For example, if you have multiple sites or multiple data centers, you can create a board for each location. You can also create boards for business units, or for different types of users. You can create a single board or you can create sub-boards within a higher-level board.

Whether your boards reflect your corporate structure or are organized in some other way, a best practice is to create boards that reflect the most important aspects of your organization, so that the disruptions or failures that would be most critical to your business are easy to monitor. The more critical a component is, the more important it is that you can see and fix it easily. The following sections describe some effective ways that you can use boards.

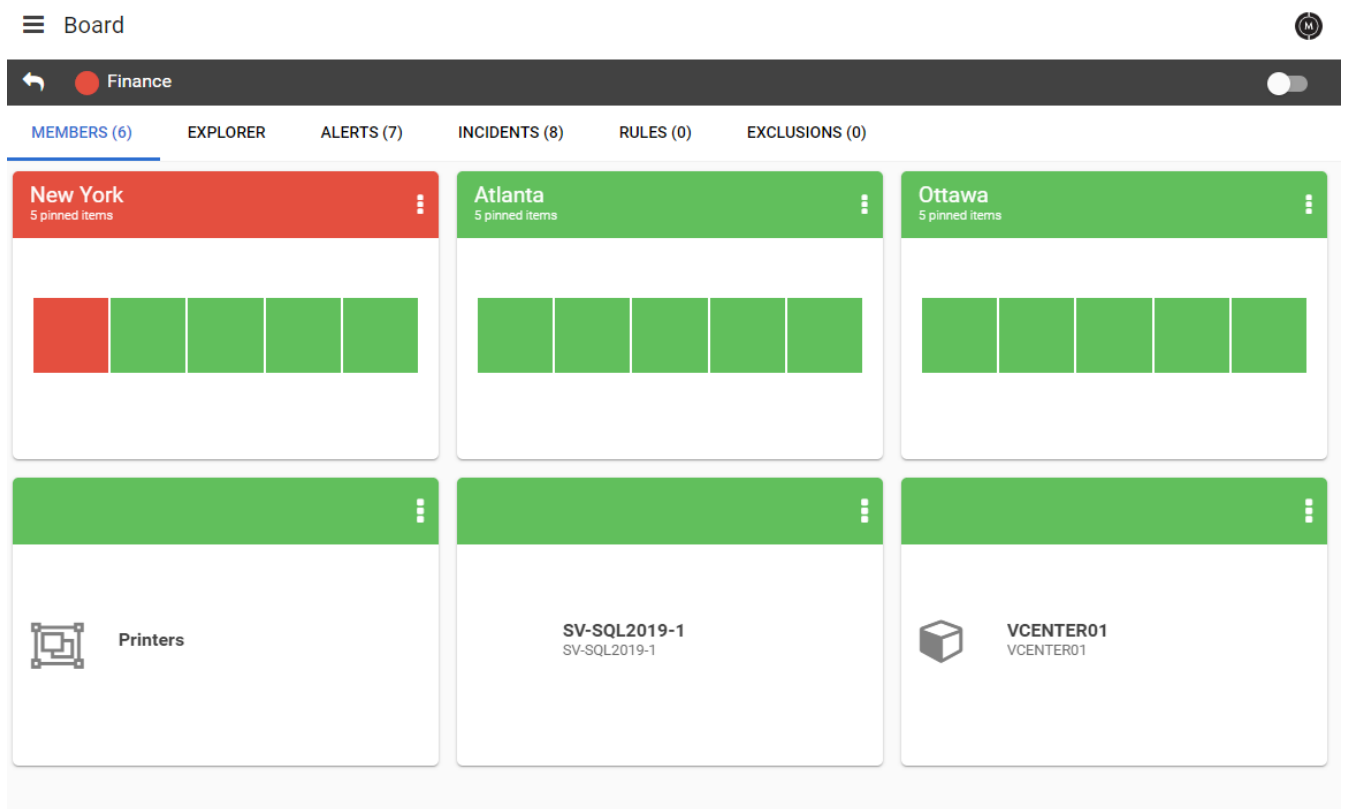


Manage Complex Data

Visualize Relationships

Boards provide context for the data from your monitoring systems and cloud platforms. They allow you to see relationships between components, and they also allow you to map relationships between components and different aspects of your business, such as your locations, customers, or business units. For example, you can create boards that reflect your corporate structure, with a board for each department. These boards provide a consolidated view of the network components that each department depends on. The following image shows an example of a board for the Finance department, with sub-boards for offices in three different locations.

Board for the Finance Department



Depending on your needs, each location can contain its own sub-boards. The following image shows an example of the sub-boards created for the Ottawa Finance department.

Manage Complex Data

Sub-boards for the Ottawa Finance Department

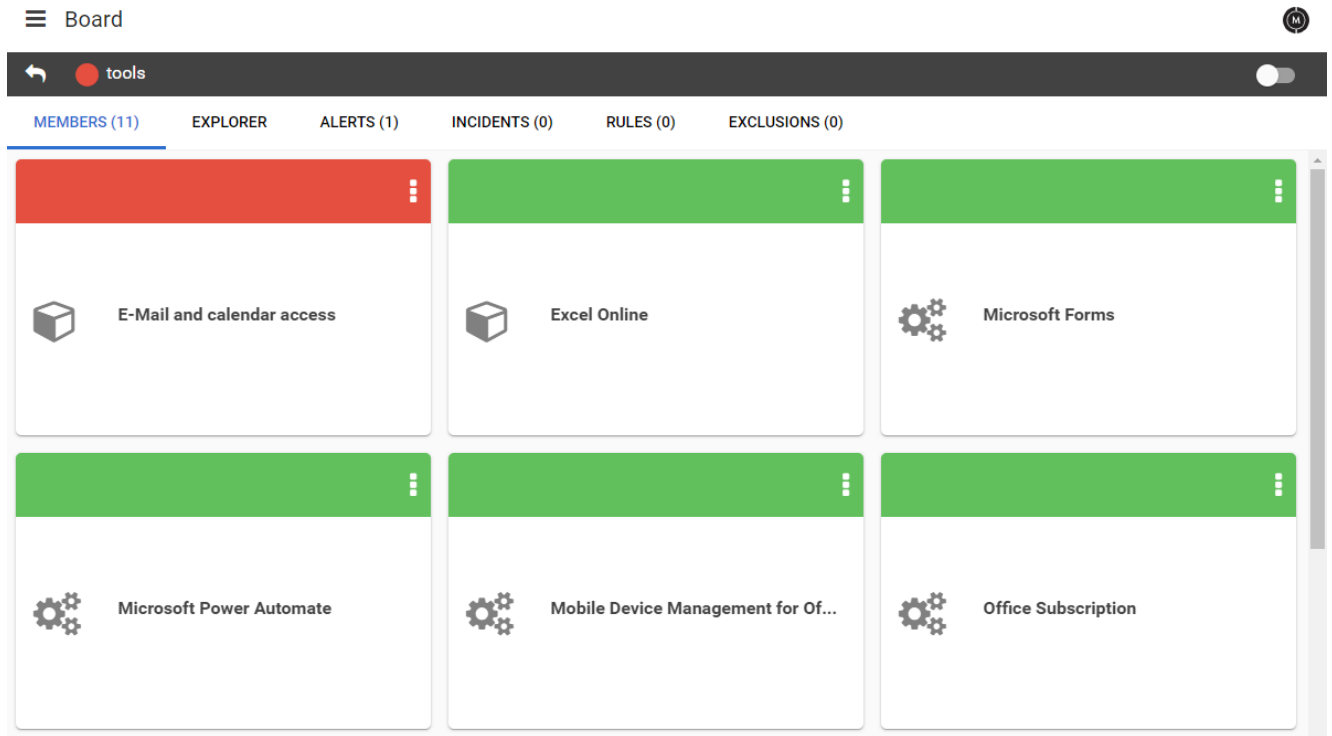
The screenshot shows a dashboard interface for the Ottawa Finance Department. At the top, there is a 'Board' header with a menu icon and a user profile icon. Below this is a dark navigation bar with a back arrow, a green circle labeled 'Ottawa', and a toggle switch. The main navigation bar includes tabs for 'MEMBERS (5)', 'EXPLORER', 'ALERTS (3)', 'INCIDENTS (0)', 'RULES (0)', and 'EXCLUSIONS (0)'. The dashboard content is organized into a grid of sub-boards. The first sub-board is titled 'tools' and contains 11 pinned items, represented by a grid of green squares. The other sub-boards are labeled with server versions: 10.20.6.1, 10.20.6.5, 10.20.6.6, and 10.20.6.7, each accompanied by a small cube icon.

The Ottawa location contains sub-boards for the servers that host its tools, as well as a sub-board for the tools that the department depends on, such as:

- **Hosted applications:**
 - Excel
 - Visio
 - Word
 - Project
 - Email and calendars
 - Voicemail
- **Services:**
 - MS Forms
 - SharePoint Online
 - Mobile device management
 - Licensing and renewal information for the MS Office subscription

Manage Complex Data

The Tools Sub-board for the Ottawa Finance Department



In this example, all of the tools are monitored by Office 365. The servers are monitored by PRTG. Martello iQ integrates with both Office 365 and PRTG to consolidate data about the components that support the Finance department. This allows you to quickly identify the business locations and business processes that are impacted when issues occur in your network.

You can display the overall health state of the board—as well as the health states of each of the related components—using either NOC mode or non-NOC mode.

- **Non-NOC mode**—Shows the overall health status of the board, as well as the health state of the individual components pinned to the board.
- **NOC mode**—The colour that indicates the overall health status displays as the background of the board or business service.

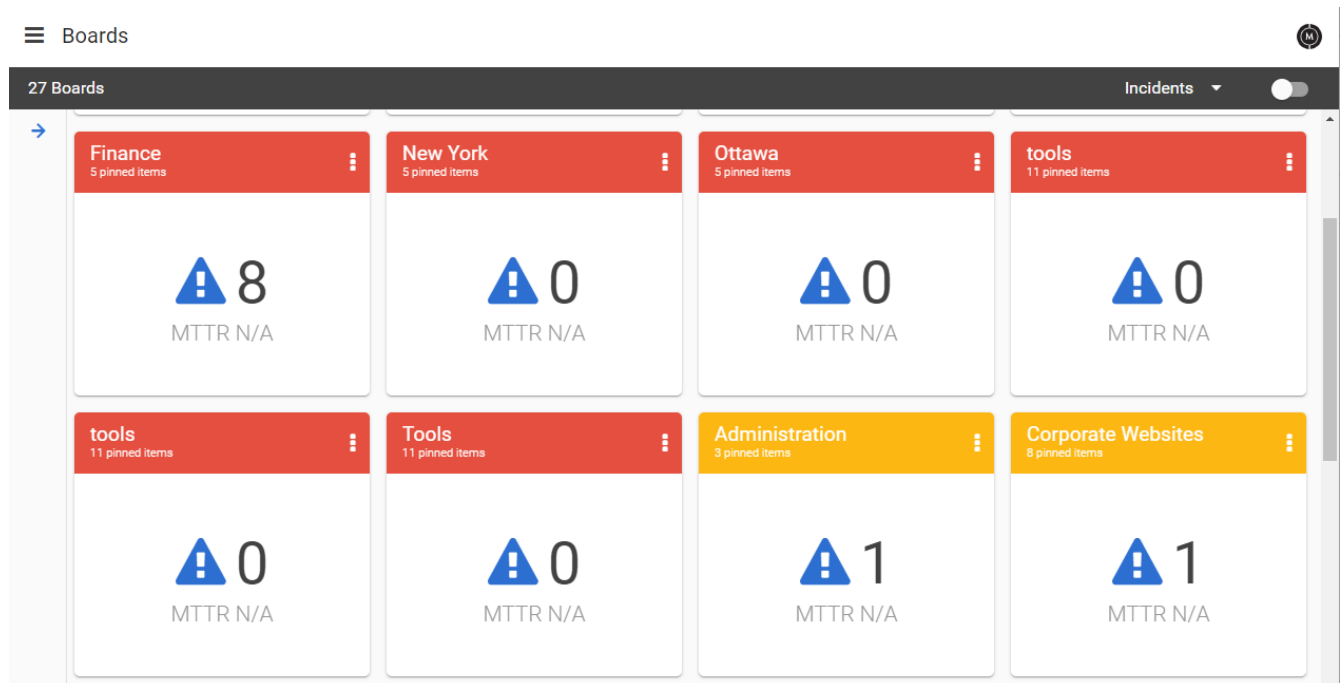
Manage Complex Data

In addition, you can choose how you want to visualize the health of the objects on the board. The following options are available:

- **Pie chart**—Displays the health status of individual objects within the board, shown in pie chart form.
- **Heat map**—In non-NOC mode, displays tiles of colour that indicate the health status of individual objects within the board, as well as the overall health status of the board. In NOC mode, the background colour indicates the health status of the board as a whole.
- **Alerts**—Displays the total number of alerts for all the board objects, plus the Mean Time To Resolution (MTTR).
- **Incidents**—Displays the total number of incidents related to the components.
- **Uptime**—Displays the uptime percentage of the board, calculated over the last 7 days.

The option you choose applies to all the boards that you have configured. The following image is an example of the Incidents view in non-NOC mode.

Boards Shown in the Incidents View

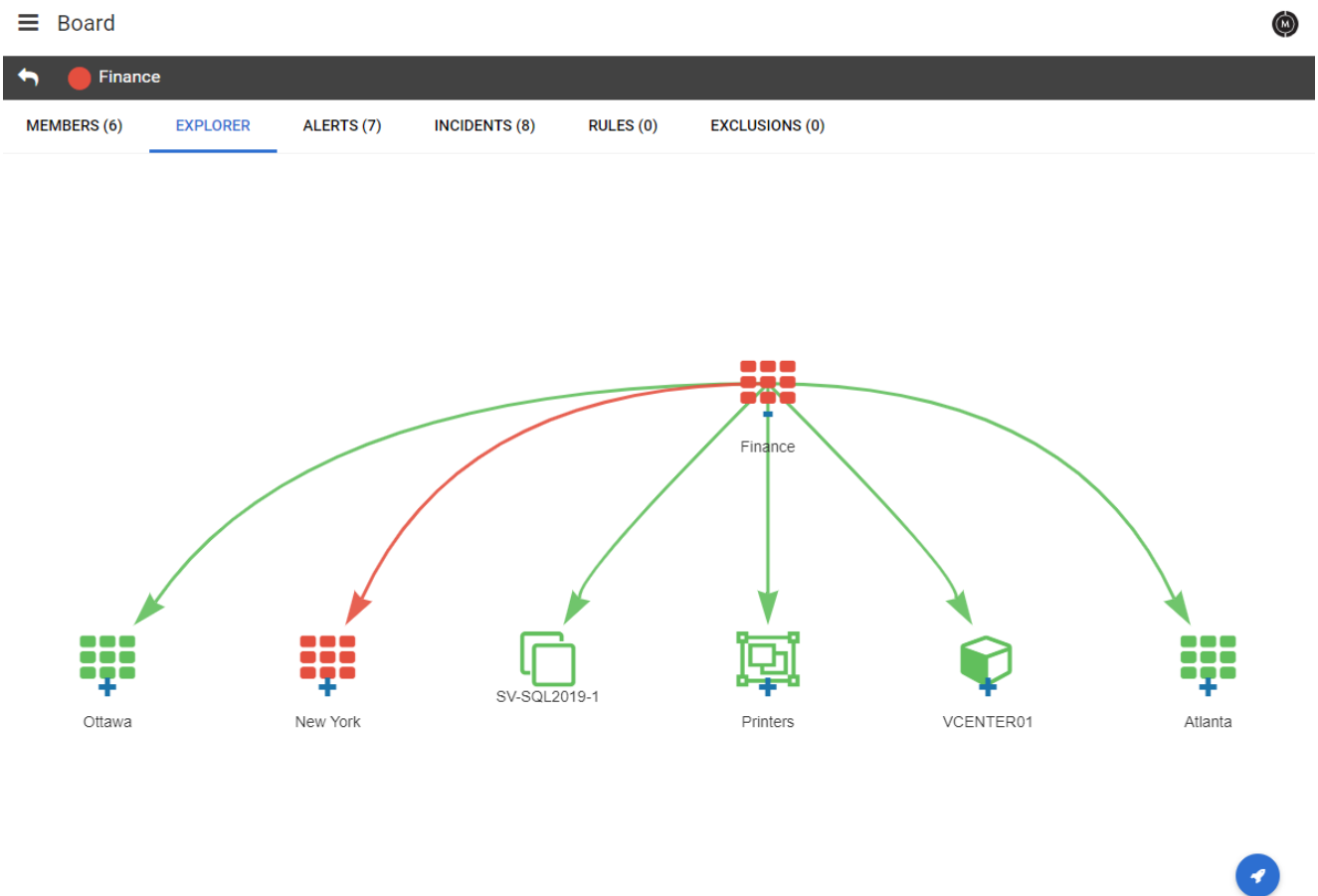


Manage Complex Data

In addition to seeing health data from different monitoring systems, you can use the board to visualize infrastructure. If you have groups defined in your monitoring systems—such as VMWare groups in PRTG—you can pin the groups to your Martello iQ board and use the board Explorer feature to see the underlying infrastructure. The board Explorer creates a tree diagram that you can expand to see the components in sub-boards and groups. The Explorer also includes a Critical Issue Locator that you can click to immediately view the component that is in a critical state.

The following images show examples of the board Explorer. The first image shows how the Explorer creates a tree diagram of the Finance department board; the second image shows how you can expand the tree diagram to show the sub-boards. The final image shows how the Explorer allows you to see the underlying infrastructure in a VMware group.

Finance Department Board in Explorer View



Manage Complex Data

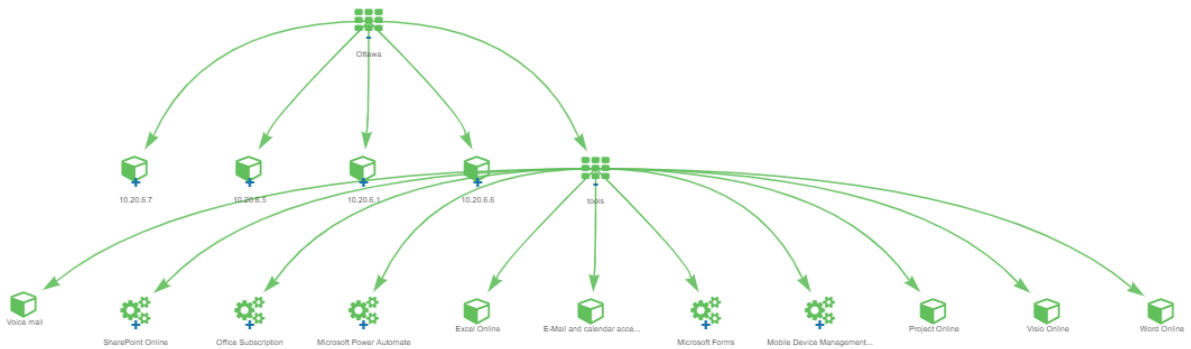
You can expand sub-boards to display the nodes in a tree diagram.

Expanded Sub-boards

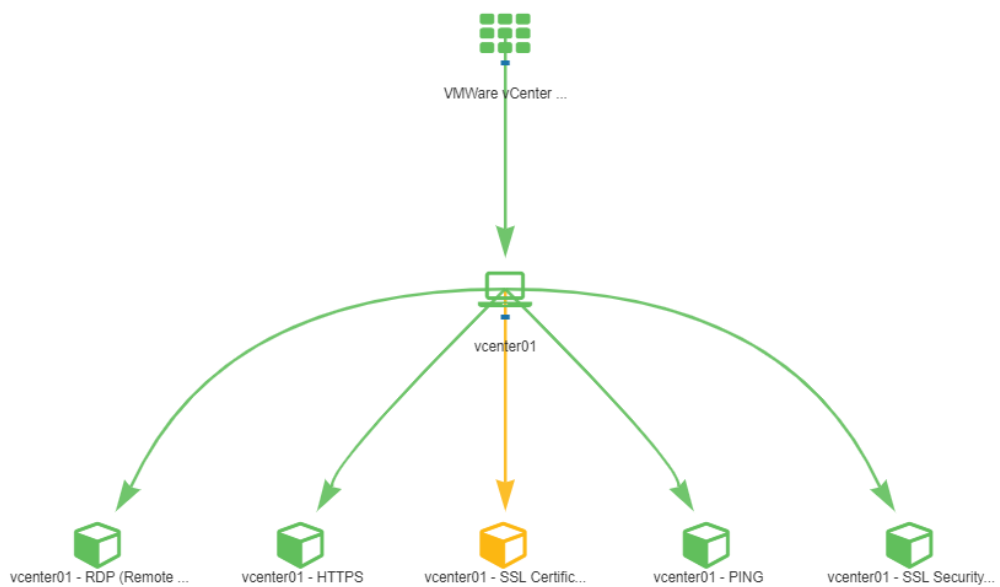
Board

Ottawa

MEMBERS (5) EXPLORER ALERTS (3) INCIDENTS (0) RULES (0) EXCLUSIONS (0)



Underlying Infrastructure in a VMWare Group



Manage Complex Data

When you use the board Explorer, you can change the layout by dragging items to change how they are displayed. You can hover over the item to see its name, and you can click on an object to open the details pane.

User-Specific Data

Boards also provide a way of organizing data to meet the needs of specific users in your organization. You can create custom boards for business users, technical administrators, or service desk operators.

For example, if you want to monitor the health of your SQL server, you can create a board that shows the dependencies between your SQL server and other components in your infrastructure. A board for a SQL administrator could include:

- The SQL server.
- The operating system it's running on.
- The hypervisor that the operating system is deployed on.
- The physical server that hypervisor is deployed on.
- The cluster it belongs to.
- The storage and networking resources that support the clusters.
- The backup SQL server.

You can use the board to see the overall health state of the SQL server, as well as the health states of each of the related components. This board can be a standalone or high-level board, or it can be a sub-board within a higher-level board that you have created for a location, a customer, or a business unit.

Consolidate Alerts

If you have integrated an ITSM system with Martello iQ, you can automate the creation of incidents. When you enable this feature, Martello iQ creates an incident when an alert is raised for a board. Any subsequent alerts for that board are attached to the incident, so that all alerts are consolidated in one incident in your ITSM. If you set up automatic notifications, your support team receives a notification about the incident rather than an overwhelming number of alerts.

By default, Martello iQ resolves all related alerts when the incident is closed.

For information about how to use the incident management features of Martello iQ, see the Resources section at the end of this document.

Manage Complex Data

Implementation

When you create a board, there are three ways to add objects to it:

- **Manually pin components to the board**—Search for components using the search and filter capabilities , then select and add them to the board.
- **Create membership rules**—Martello iQ uses the membership rules to dynamically update dashboards so that they reflect changes to your IT infrastructure. For example, you can create a rule that searches for Microsoft System Center Operations Manager (SCOM) computers in the same IP address range and adds them to your board. You can configure exclusions to the rules.
- **Synch the board with the source system**—Members of the board are determined by the source system. The members of the board and the health state are determined by the source system and are not configurable in Martello iQ. If members are added or deleted in the source system, or if the health state changes in the source system, the board in Martello iQ automatically updates.

When you create a board that is not synched to the source system, you can choose the way that you want the health status reported for the board:

- Worst-case
- Best-case
- Percentage-based

After you create a board, you can choose who you want to share the board with. Sharing is based on user roles. You can also schedule maintenance mode for a board, or manually place a board in maintenance mode when you want to temporarily suppress state changes, notifications and incident automation steps.

Manage Complex Data

Resources

For information about how to configure boards, refer to the *Martello iQ User Guide*.

For a full list of supported integrations, see the *Martello iQ Installation and Upgrade Guide*.

For information about using iQ's incident management features in conjunction with boards, see the *Martello iQ Incident Management Application Note*.

For information about how to use business services in Martello iQ to model the services that you deliver to your internal and external customers, see the *Business Services and SLA Performance Data Application Note*.

All documents are available on the Martello website at:

<https://martellotech.com/documentation/martello-iq/>

About Martello Technologies

Martello Technologies Group Inc. (TSXV: MTLO) is a technology company that provides digital experience monitoring (DEM) solutions. The company develops products and solutions that provide monitoring and analytics on the performance of real-time applications on networks, while giving IT teams and service providers control and visibility of their entire IT infrastructure. Martello's products include unified communications performance analytics software and IT analytics software.

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