7 Questions on How the cn**Maestro** Wireless Network Management System Makes Your Life Easier

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The cnMaestro™ management platform is an easy-to-deploy system that enables wireless service providers and enterprises to efficiently manage their network. The cnMaestro platform is free, available in the cloud and deployable on-premises, offering full visibility across the entirety of your network. Emilio DiBenedetto, Cambium Networks' System Manager and expert in Network Management Software Development, describes the basics of cnMaestro and how it makes daily management of your network easier.

What is cnMaestro?

cnMaestro is a platform to help Cambium Networks' customers manage their network and run their business. The vision for cnMaestro is to manage all the devices and give full visibility across the total network. It has a full set of features to manage the entire network, including Point-to-Point (PTP) backhaul links, Point-to-Multipoint (PMP) distribution and Wi-Fi access networks. It allows network managers to monitor, manage and control everything under a single pane of glass.

The cnMaestro Essential platform is available now to all customers. cnMaestro Essential offers a comprehensive set of solutions with cloud hosting and support for many devices at no cost. The cnMaestro PRO professional version will offer a subset of features on a subscription basis. Customers can choose to use cnMaestro either as a cloud solution or they can host it themselves on-premises.

What can be done with cnMaestro that other management methods cannot provide?

cnMaestro presents the network in an easy-to-understand visual presentation and combines that with a great mix of tools to deploy, update and debug wireless networks. The system automatically understands the hierarchy of the network and provides a hierarchical tree so the ranked relationship between devices is visible. Whether a dashboard, tools page or the device tree, relationships between devices are easy to understand. Whether the last mile access point (AP), the subscriber module (SM) or the end customer's home Wi-Fi router, cnMaestro provides insights at every level of the network.

Describe the software upgrade manager and how it is used.

The software upgrade manager allows an operator to easily push software updates to their network. Devices can be updated immediately or scheduled for updates when network usage is typically low. Admins can focus on any point in the network hierarchy and select all the devices that should be included in the update. The user can simply choose a product, PMP for example, and see the software versions that are available to be deployed. A visual will show the distribution of various versions of software currently in use. Any device running older versions would automatically be selected for upgrade and the user can simply push the update. When updating PMP sectors, admins have control over the order of execution. They can even control which device in each sector gets updated first: SMs or APs. So, it clearly allows users to update a large swath of their network with very little effort.

What is the benefit of using the flexible, template-based configuration manager?

Configuration templates enable the network admin to create customized configuration files. cnMaestro provides the flexibility to centrally update individual devices or large portions of the network remotely. The ability to update configuration to large portions of the network in a single step ensures consistency and reduces errors, saving ISPs both time and money.

How does cnMaestro impact the daily business of an operator?

cnMaestro allows network operators to focus on running their business and their operations. They do not need to focus on managing their network or reinventing their own monitoring solution. cnMaestro also includes a number of built-in troubleshooting tools. For example, it can run link tests between APs and SMs or perform spectrum analysis on a managed Wi-Fi router. In the case of a PMP system, geographical maps provide visualizations to help an operator understand their channel planning within the network.

The troubleshooting view provides a graphical end-to-end view and gives status details at each link in the network. For each step in that link, there are a number of remote troubleshooting tools available. For example, running a spectrum analysis, testing network connectivity or performing packet captures can all be done remotely. These processes minimize the need to send an installer to the site.

cnMaestro's cloud solution provides rich functionality, excellent reliability and ease-of-access without the need to maintain and update local servers. It is possible for operators that prefer to host a local instance of cnMaestro to deploy it as a highly available instance.

How can a customer use performance and statistics captured by cnMaestro to make their jobs easier?

A good example of using the performance and statistic views would be when Wireless Internet Service Providers (WISP) deploy cnPilot™ home Wi-Fi solutions. The WISP now has much better visibility to the end-to-end service being provided to that customer.

Network Operators can view the Cambium Networks cnPilot Wi-Fi APs to validate they are getting good throughput and signal levels, even down to the clients that are connected. This fault isolation information helps significantly in troubleshooting service to the end customer, improves maintenance and increases repair dispatch efficiency.

What features do customers most appreciate?

Customers really appreciate the hierarchical tree which ranks the relationship between devices. They value the ability to search for a device and with one click, pull up a dashboard that gives a very complete view of the equipment. Customers also appreciate the ability to update a large number of devices with the bulk upgrade feature. These features really make life easier on a daily basis.