VNC Automotive
Connectivity that moves

DHCP Server

Cobalt Cube®

Contents

1 Introduction

The Cobalt Cube software incorporates a DHCP (Dynamic Host Configuration Protocol) server feature, which dynamically assigns IP addresses and other network configuration parameters to devices on a network. This DHCP server operates as a central entity within the Cobalt Cube environment, streamlining network management processes.

Note: The DHCP Server implementation described in this document applies to wired Ethernet networking only on the Cobalt Cube. Wireless networking is excluded.

DHCP server eliminates the need for manual IP address configuration by automatically assigning addresses from a predefined pool to client devices connected via the Ethernet port. Users have the flexibility to enable or disable it as needed, ensuring compatibility with various network configurations and deployment scenarios. The DHCP server feature within Cobalt Cube provides a convenient solution for automating IP address assignment and simplifying network administration.

Note: It is important to note that enabling the DHCP server on the Cobalt Cube while connected to a network with an existing DHCP server may lead to network conflicts and issues. Therefore, it is recommended to disable the DHCP server when the Cobalt Cube is plugged into a router or network that already has a DHCP server running.

Note: Additionally, when the DHCP server is enabled, client devices connected to the Cobalt Cube via Ethernet port must be configured to receive IP addresses dynamically using DHCP client mode rather than static IP mode

2 Hardware Requirements

- Cobalt Cube unit
- Client device with Ethernet connectivity
- CAT5 Ethernet cable

3 How to use

The DHCP server functionality can be enabled or disabled through either the Cobalt Cube admin settings or via an activation code. A reboot is required for the changes to take effect.

3.1 Default Configuration

- Default IP Range: 192.168.1.2 - 192.168.1.254
- Default Host IP Address: 192.168.1.1
- Default Gateway Address: 192.168.1.1
- Default Subnet Mask: 255.255.255.0

Note: The Subnet Mask is automatically calculated based on the IP range. Users can override this value if required.

Figure 1: DHCP Server default settings

3.2 Customisation

The DHCP server allows the user to customise various parameters such as IP range, DHCP Server IP address (i.e. that associated with the Cobalt Cube), Gateway and Subnet mask to meet their specific network requirements. These parameters can be customised through the Cobalt Cube admin settings. This allows flexibility in tailoring the DHCP server to specific network requirements.

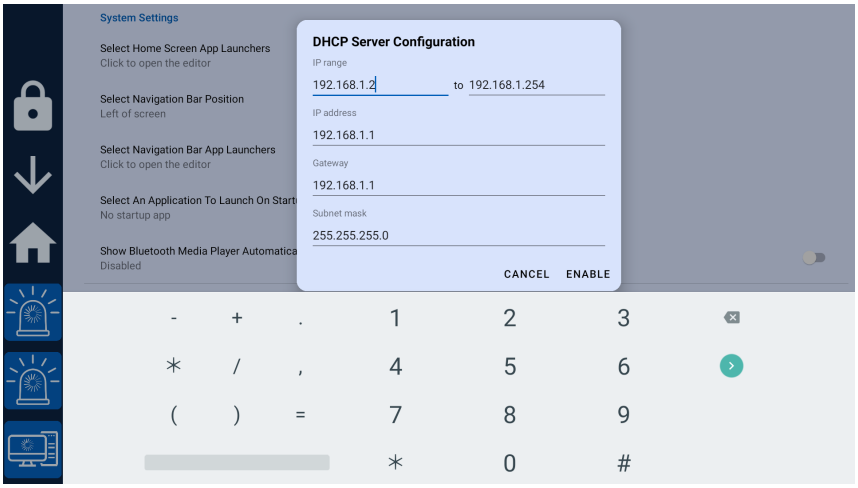


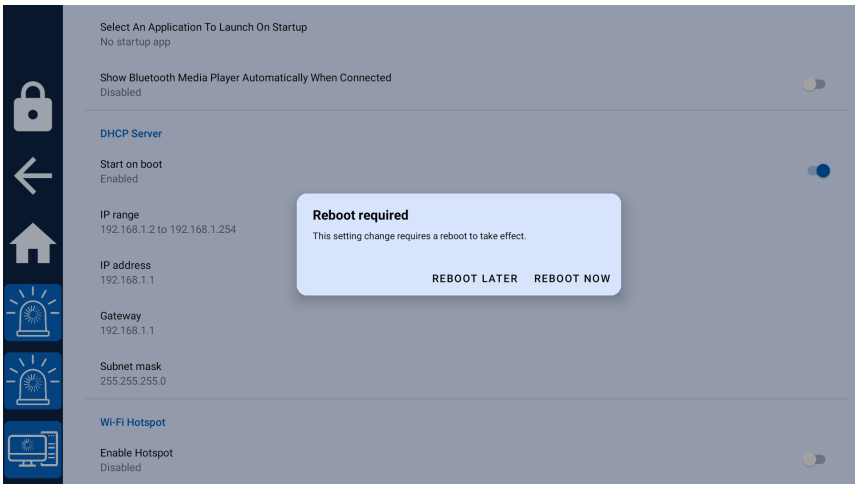
Figure 2: DHCP Server settings

3.3 Compatibility

By default, the DHCP Server is disabled to ensure compatibility with existing customer setups.

4 Configuration Steps

1. Access the Cobalt Cube admin settings to enable or disable the DHCP server.
2. If customisation is required, adjust the IP range (and other network parameters if required) through the admin settings menu. (see Figure 2)
3. Reboot the Cobalt Cube for the changes to take effect.



5 Troubleshooting

- If the DHCP server is not functioning as expected, ensure that the settings are correctly configured and that the device has been rebooted after enabling/disabling the DHCP server.

Let’s discuss your project

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