

DHCPServer

Cobalt Cube[®]

Contents

| 1 | Introduction | 2 |
|---|--|-------------------------|
| 2 | Hardware Requirements | 2 |
| 3 | How to use3.1Default Configuration3.2Customisation3.3Compatibility | 2 2 3 3 |
| 4 | Configuration Steps | 4 |
| 5 | Troubleshooting | 4 |

1

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 admin settings of the Cobalt Cube Home application 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.

| | Select An Application To Launch On Startup No startup app | |
|--------------|--|---|
| | Show Bluetooth Media Player Automatically When Connected Disabled | |
| | DHCP Server | |
| \leftarrow | Start on boot Enabled | • |
| | IP range 192.168.1.2 to 192.168.1.254 | |
| | IP address 192.168.1.1 | |
| -`@ | Gateway 192.168.1.1 | |
| -`` | Subnet mask 255.255.0 | |
| | Wi-Fi Hotspot | |
| | Enable Hotspot Disabled | |

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 admin settings of the Cobalt Cube Home application. This allows flexibility in tailoring the DHCP server to specific network requirements.

| | System S | ettings | | | | | _ | | |
|--------------|--|--------------|-----------------|---------|---|------------------|-------|---|--|
| | Select Home Screen App Launchers | | | DHCI | P Server Configur | ation | - 10 | | |
| ച | Select Navigation Bar Position Left of sorteen Select Navigation Bar App Launchers Click to open the editor Select An Application To Launch On Start | | | 192.1 | 68.1.2 | to 192.168.1.254 | - 11 | | |
| | | | | IP addr | ess 68 1 1 | | - 10 | | |
| | | | | Gatewa | y | | - 11 | | |
| \mathbf{v} | | | | Start | 192.168.1.1 Subnet mask 255.255.255.0 | | | | |
| | No startup app | | Subnet 255.2 | | | | | | |
| | Show Blue Disabled | etooth Media | Player Autor | natica | | CANCEL EF | NABLE | | |
| - | | - | + | | 1 | 2 | 3 | × | |
| | | 4 | , | | 4 | F | c | | |
| -) | | \mathbf{T} | / | , | 4 | Э | 0 | • | |
| | | (|) | = | 7 | 8 | 9 | | |
| | | | | | * | 0 | # | | |

Figure 2: DHCP Server settings

3.3 Compatibility

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

| | Select An Application To Launch On Startup No startup app | |
|--------------|--|--|
| A | Show Bluetooth Media Player Automatically When Connected Disabled | |
| | DHCP Server | |
| \leftarrow | Start on boot Disabled | |
| | Wi-Fi Hotspot | |
| | Enable Hotspot Disabled | |
| <u>`</u> | Password ePElynHkiPKT | |
| | Frequency 5GHz | |
| | Advanced Settings | |
| | Use Custom NTP Server Using default NTP Server. | |
| | | |

4 Configuration Steps

- 1. Access the admin settings of the Cube Home application 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.

| | Select An Application To Launch On Star No startup app | lup | |
|--------------|---|--|---|
| | Show Bluetooth Media Player Automatic Disabled | | |
| | DHCP Server | | |
| \leftarrow | Start on boot Enabled | | • |
| | IP range 192.168.1.2 to 192.168.1.254 | Reboot required This setting change requires a reboot to take effect. | |
| | IP address 192.168.1.1 | REBOOT LATER REBOOT NOW | |
| -`@`- | Gateway 192.168.1.1 | | |
| -``` | Subnet mask 255.255.255.0 | | |
| | Wi-Fi Hotspot | | |
| | Enable Hotspot Disabled | | • |

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

As industry pioneers, we will help you cut through the complexity and deliver ingenious connectivity technology for the vehicles of tomorrow.

Get in contact via:

www.vncautomotive.com technicalsupport@vncautomotive.com

No part of this documentation may be reproduced in any form or by any means or be used to make any derivative work (including translation, transformation or adaptation) without explicit written consent of VNC Automotive.

All information contained in this document is provided in commercial confidence for the sole purpose of use by an authorized user in conjunction with VNC Automotive products. The pages of this document shall not be copied, published, or disclosed wholly or in part to any party without VNC Automotive prior permission in writing, and shall be held in safe custody. These obligations shall not apply to information which is published or becomes known legitimately from some source other than VNC Automotive.