NS Music Server Software User Guide

(V1.0)

CelAudio (Beijing) Technology Co., Ltd.

Table of Contents

CelAudio Software Ecosystem Overview

nManager

CelAudio’ s multi-functional **user interface App**.
nManager supports both Android and iOS platforms, enabling comprehensive management and control of NS music servers, NR routers and NA wireless access points. Featuring a consistent interface design across all product lines, it significantly reduces the operational complexity of streaming audio systems.

CelPlayer

CelAudio’ s proprietary **music playback player.**
CelPlayer is factory-integrated into all **NS Series** music servers, engineered exclusively for sonic refinement and low-latency playback.

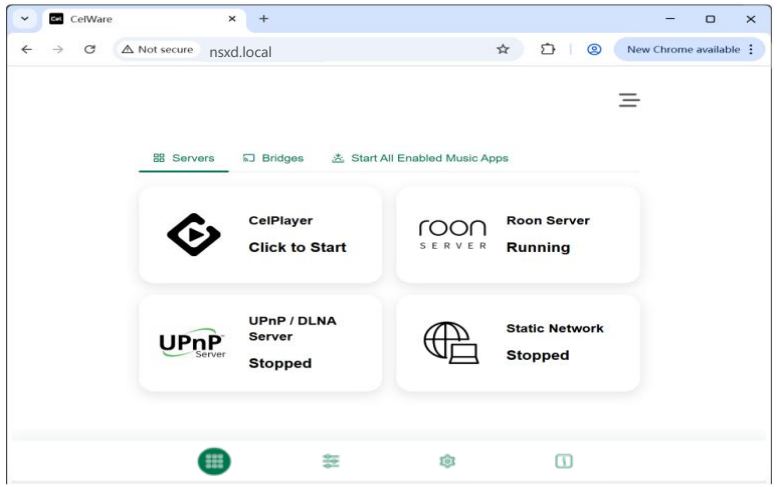
CelMusperOS

CelAudio’ s **proprietary OS** for HiFi devices.
CelMusperOS adheres to the LFS (Linux From Scratch) philosophy, engineered from the ground up as a purpose-built Linux distribution dedicated solely to audio applications. Minimalist and lean, its kernel is deeply optimized for music playback and high-fidelity networking. **Pre-installed on all NS Music Servers, NR Network Switches and NA Wireless Access Points.**

nManager Installation

PC System

Compatible with Windows, macOS and Linux desktop systems, **no installation required.**
Ensure the device is properly connected via Ethernet and powered on, then visit **http://<hostname>.local**. For NSXD, the factory default address is http://nsxd.local to enter the device configuration interface.
If the hostname is customized, use the new name accordingly. For instance, if the hostname is set to "audioroom", access http://audioroom.local .



Note1
System initialization takes 1–2 minutes. If the page is unreachable, wait and retry. Persistent access failure indicates a network issue.
Note2
Recommended browsers: Edge, Chrome, Safari. Other browsers may result in incomplete or unstable functionality.

Andriod System

- Official Website: http://www.celaudio.com/download-en.html
- Scan the QR code to install

iOS System

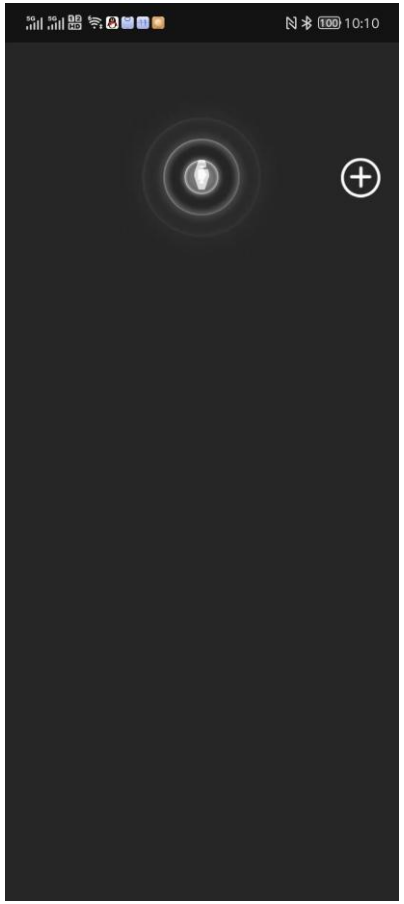
- Official Website: http://www.celaudio.com/download-en.html
- Search for and download nManager from the App Store
- Scan the QR code to install

Device Discovery

- Access the device via nManager or a web browser. Although the layout varies slightly between the two entry methods, all functions and operations remain identical.
- This instruction manual uses nManager as an example to demonstrate its functions and operations.

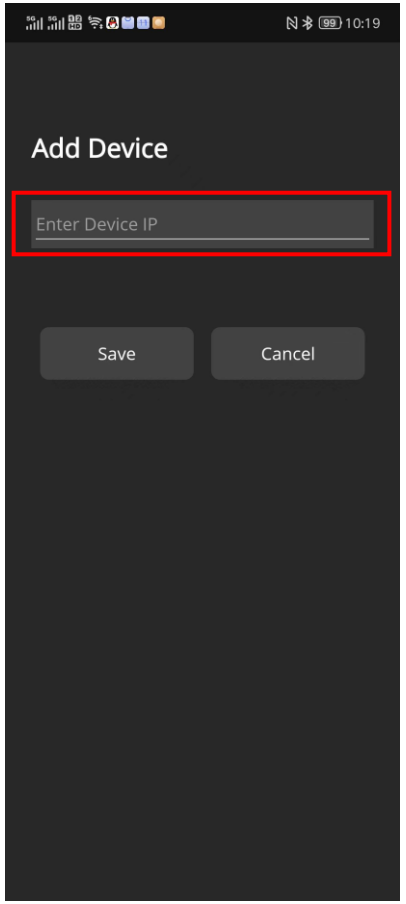
nManager

1 Click the icon to open the nManager



2 Automatically search for devices

3 List the searched devices; click the button ⊕ on the upper right side of the screen to enter the page for manually adding devices

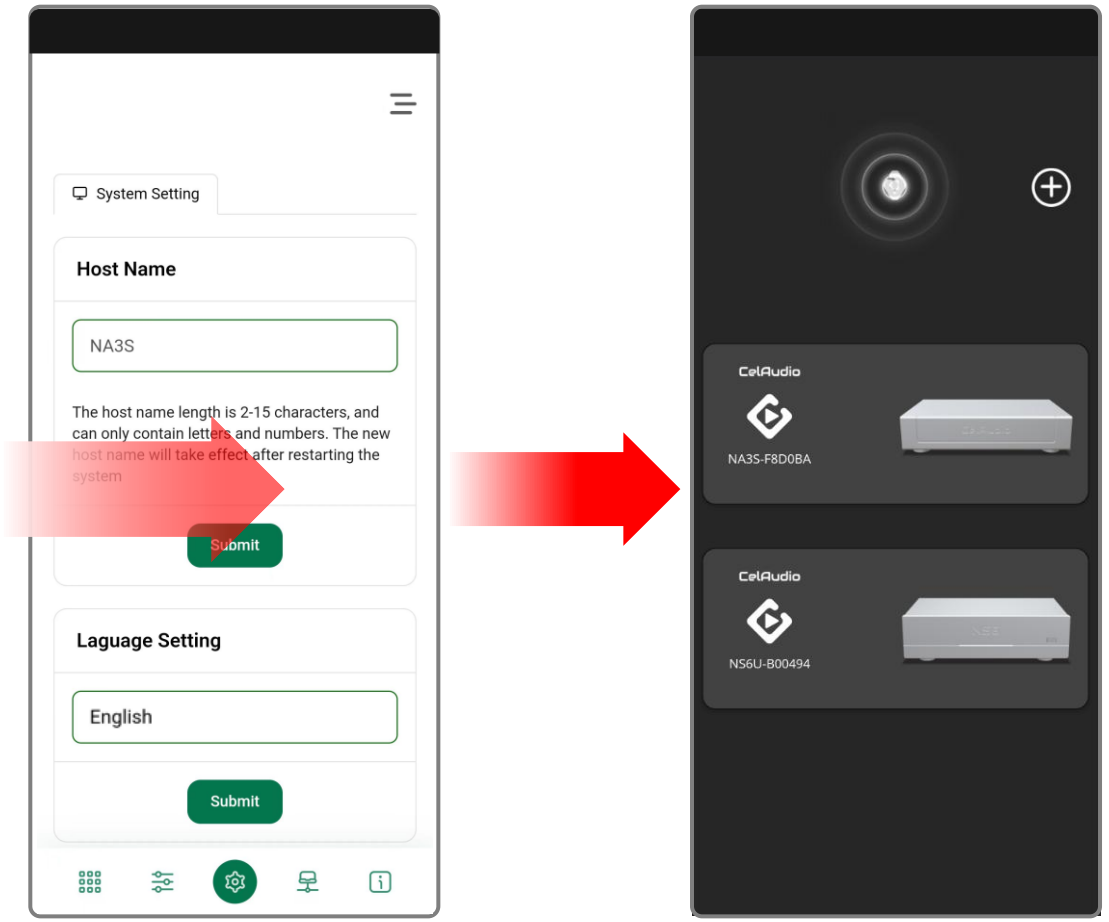


4 Enter the IP address , click "Save" , and complete the manual addition of the device

5 Manually added devices can be deleted by clicking the icon ⊗ in the upper right corner of the device box

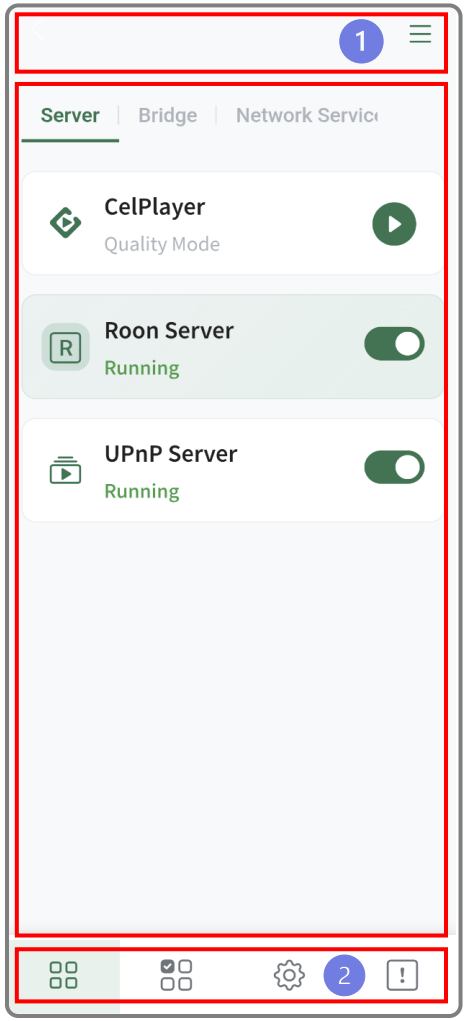
nManager Gesture Shortcut

From any interface, swipe right from the screen edge to return to the device discovery page, enabling rapid switching between managed devices.



NS Music Server Configuration Interface

Upon initial launch on a new device, nManager defaults to: CelPlayer disabled, all other music apps active.



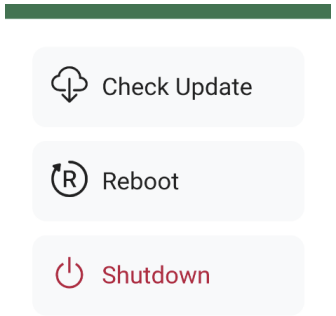
Top menu bar

Function Panel

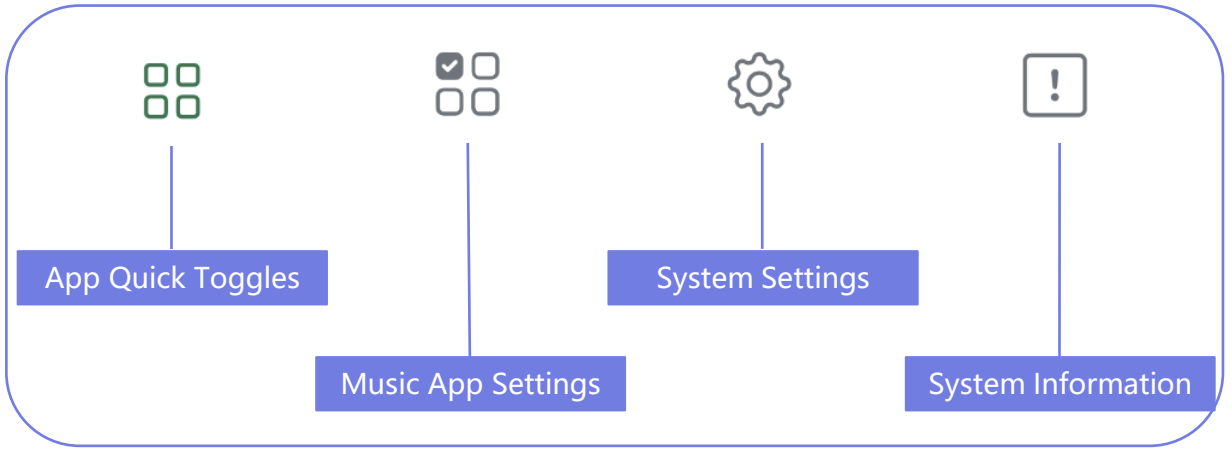
Bottom Navigation

1

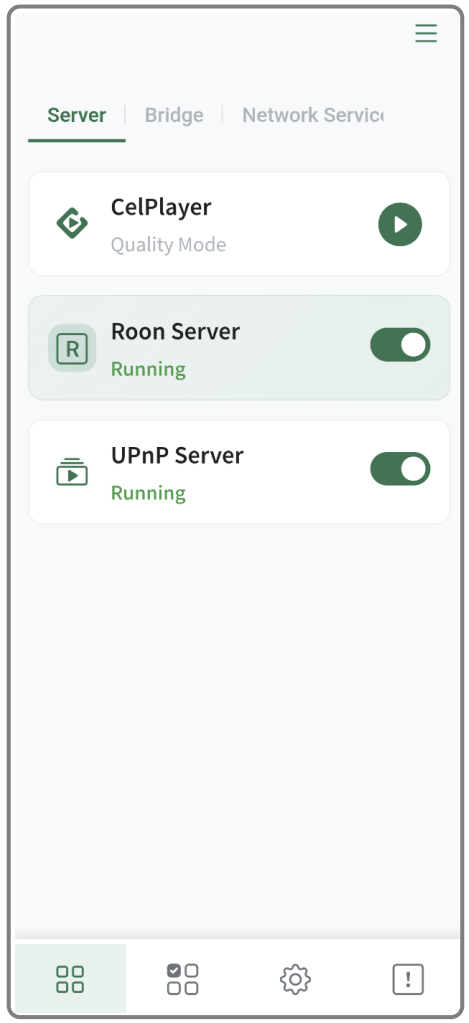
- Click the shortcut icon in the top menu bar to display options: Check Updates,Reboot,Shutdown
- **Check Update:** Verifies and installs firmware upgrades. See "CelMusperOS Upgrade" for details.
- It is recommended to use the top menu for routine system restarts and shutdowns



2 The bottom Navigation comprises four icons, each representing a dedicated menu item. Selected icons appear green, while inactive icons are grey. The four icons correspond to the following functions:



Application Quick Toggles-Server



Sonic Philosophy: Minimal background processing yields superior audio purity. Dedicated app toggle pages enable users to conveniently disable unused services, reducing interference and optimizing sonic performance.

CelPalyer

- CelPlayer is CelAudio’ s proprietary built-in music management and playback engine. Featuring ultra-low audio routing latency and outstanding sonic performance, highly recommended for use
- When CelPlayer is in playback mode, all Server and Bridge services are automatically disabled to deliver elevated audio reproduction quality. Upon exit, all services will automatically restore to their prior configured states for effortless operation
- For usage tutorials, please refer to the official video:
  https://space.bilibili.com/182879874/lists/5270435?type=season

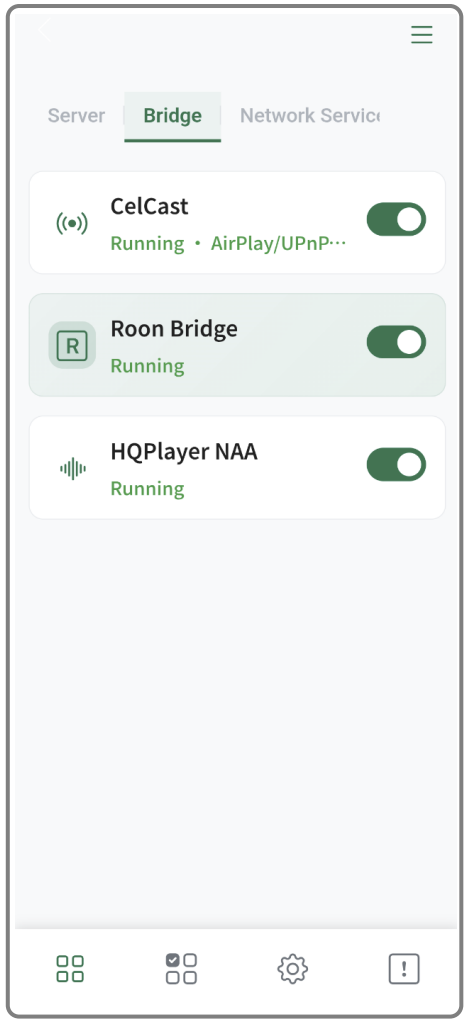
Roon Server

- Enable / Disable Roon Server service

UPnP Server

- Enable / Disable UPnP Server service

Application Quick Toggles-Bridge



CelCast

- CelAudio’ s proprietary streaming receiver supports UPnP, AirPlay 1/2, QPlay 2 and QPlay 3. It enables cross-protocol playback with new-stream priority takeover

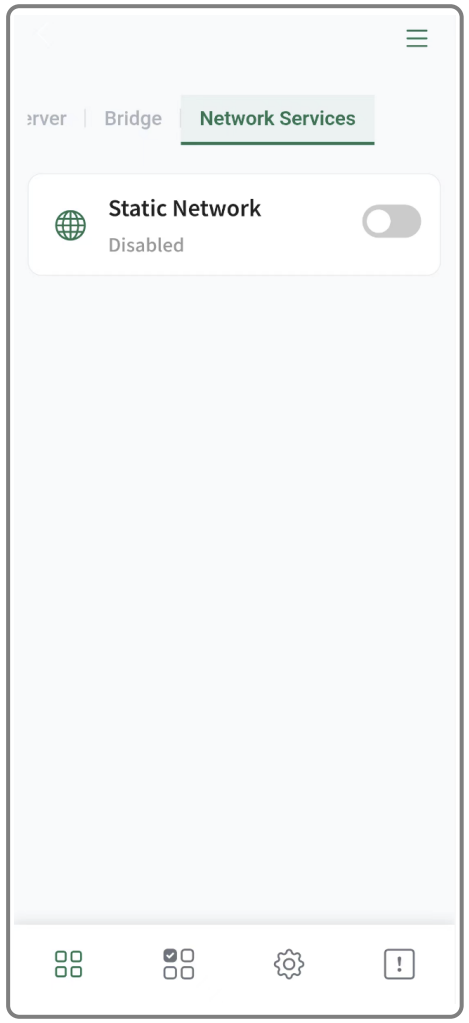
Roon Bridge

- Enable/Disable the Roon Bridge service. When enabled, it receives audio streams from the Roon Server

HQPlayer NAA

- Enable/Disable the HQPlayer NAA service. When enabled, it receives audio streams from HQPlayer

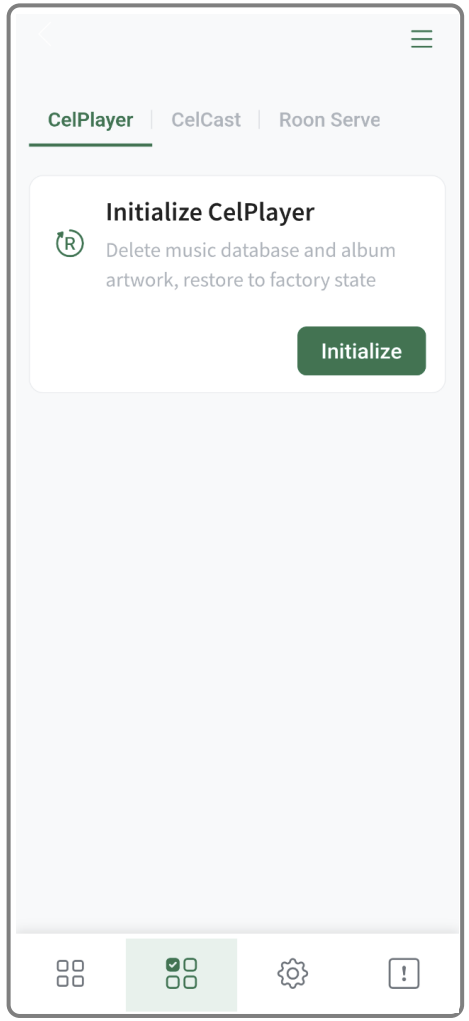
Application Quick Toggles-Network Services



Static Network

- When enabled, the music server will be assigned a static IP address, and the device's DHCP process will be disabled to optimize audio performance
- To activate this function, you must first configure the correct IP address in Network Settings. See "System Settings - Network" for details

Music Application Settings-CelPlayer

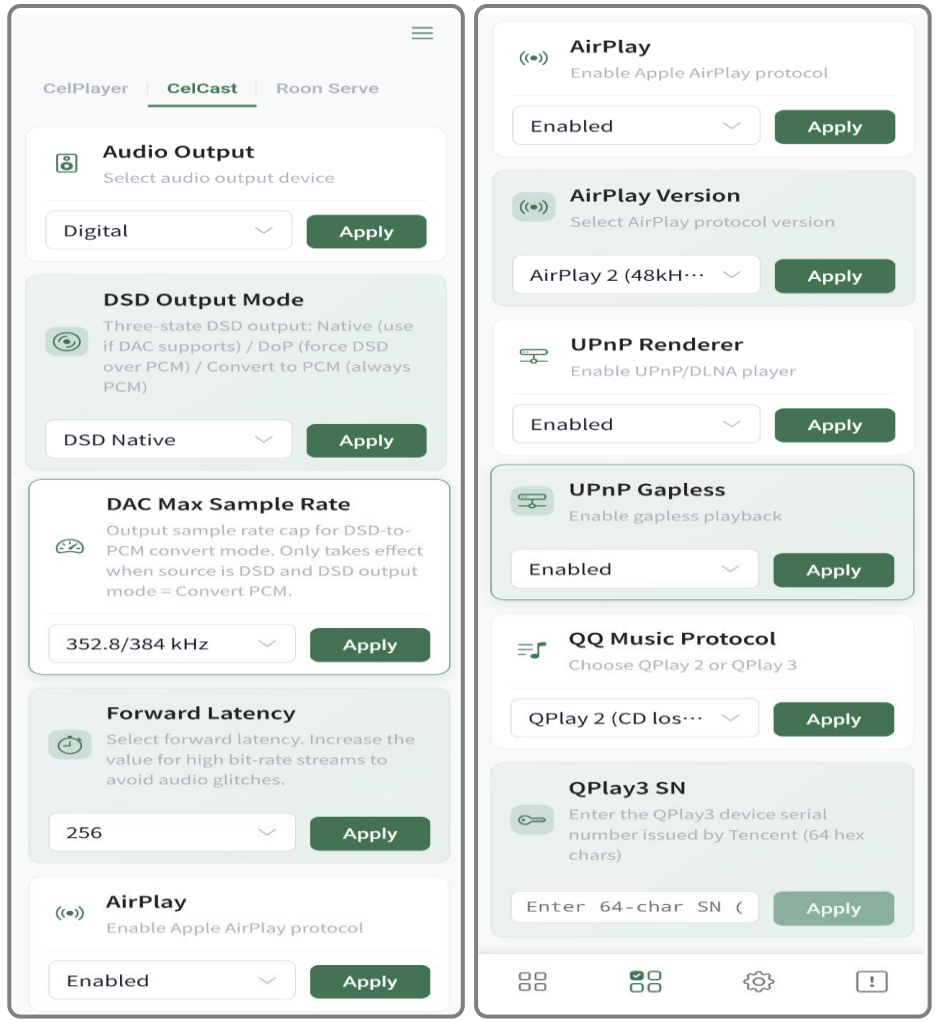


Initialize CelPlayer

CelPlayer requires database initialization in the following three scenarios:

- When upgrading from CelWare 4.x to CelMusperOS 5.x
- When the database becomes corrupted due to unexpected power loss, preventing CelPlayer from launching
- When the database grows excessively large and becomes difficult to repair, requiring a full reset

Music Application Settings-CelCast



Audio Output

- Select the output DAC; only one DAC can be used at a time with CelCast

DSD Output Mode

- Select the DSD output mode, including Native DSD, DoP and Convert PCM

DAC Max SR

- When configuring DSD-to-PCM conversion, most DACs have a PCM sampling rate limit. Manually set the maximum PCM rate supported by your DAC for proper DSD conversion and playback

Forward Latency

- Lower routing latency generally delivers better sound quality, yet may cause audio popping for high-bitrate streams. Please select a suitable latency based on your listening preference and audio bitrate

AirPlay

- Select whether to enable AirPlay and the version according to actual needs

UPnP Renderer

- Enable or disable the UPnP Renderer as required, and configure seamless playback according to your actual needs

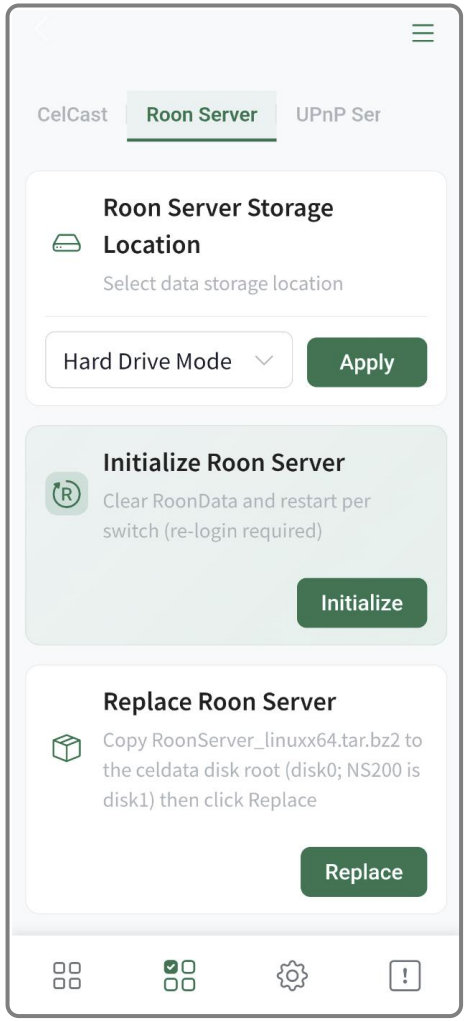
QQ Music Protocol

- QPlay supported versions vary across platforms. Please select the matching version for your mobile system.Actual compatibility follows the official QQ Music APP specification released by Tencent.QPlay 3.0 is backward compatible with QPlay 2.0
- To enable QPlay 3.0, please contact Celaudio Service to apply for an officially authorized Tencent SN license

Music Application Settings-UPnP Renderer Guide

- Music App Settings - CelCast - UPnP Renderer" Enabled
- UPnP Renderer works with multiple streaming platforms: Qobuz/Tidal via Bubble UPnP/mConnect, NetEase Cloud Music and QQ Music via their official apps. On PC, JRiver, foobar2000 and similar software can stream music to CelMusperOS
- How to stream music to CelMusperOS, please refer to the user guide of third-party software

Music Application Settings-Roon Server



Roon Server Storage Location

- **Memory Mode** runs Roon Server loaded into system memory; otherwise, it operates in **Hard Drive Mode**
- Memory Mode is default for better sound quality
- If Roon APP prompts a server upgrade, switch to Storage Mode first, then revert to Memory Mode after updating

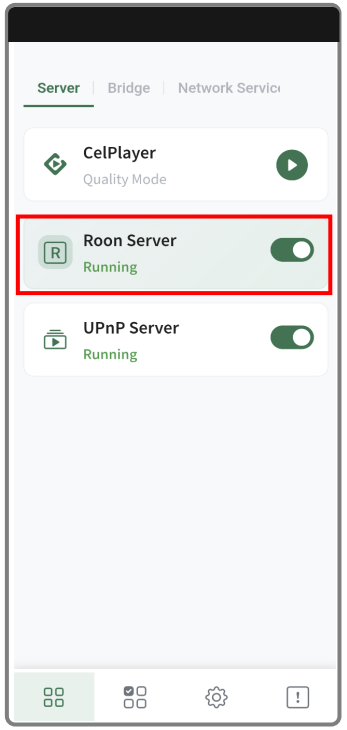
Initialize Roon Server

- After prolonged operation or version upgrades, Roon Server may malfunction. Resetting Roon Server can resolve such issues
- **This operation will clear the Roon Server database**

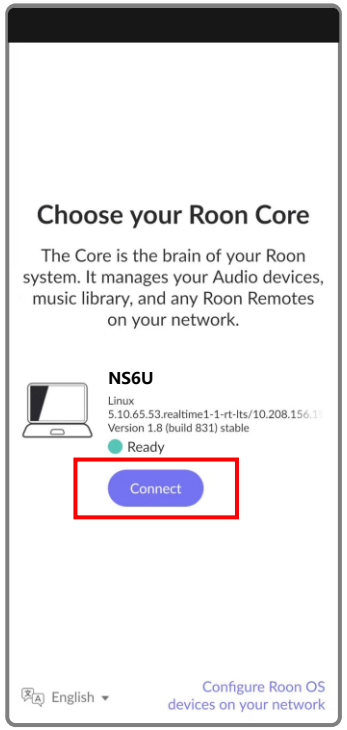
Replace Roon Server

- CelMusperOS comes preinstalled with **Roon 1.8 Legacy** by default; you may switch to other Roon Server versions following on-screen prompts
- For manual updates ,copy RoonServer_linuxx64.tar.bz2 to the root directory of disk0, then click the replace button to update. **Roon requires consistent versions between Server and APP for normal operation**

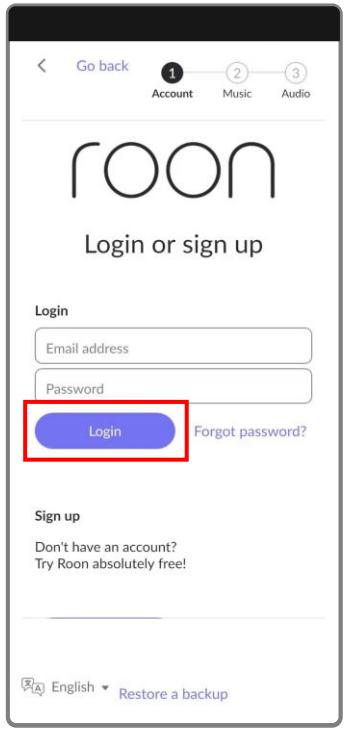
Music Application Settings-Roon Server Initial Configuration(1)



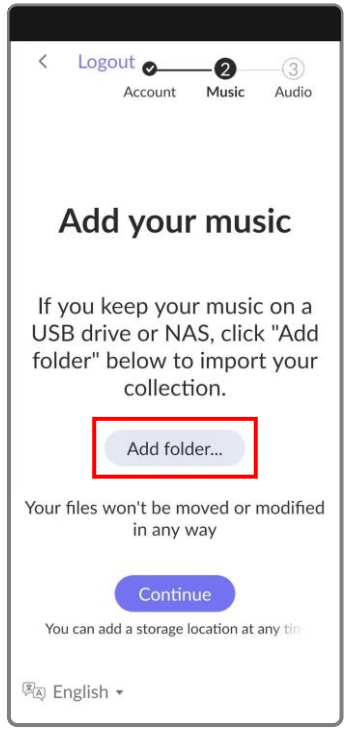
1 nManager Application Quick Toggles– Enable Roon Server



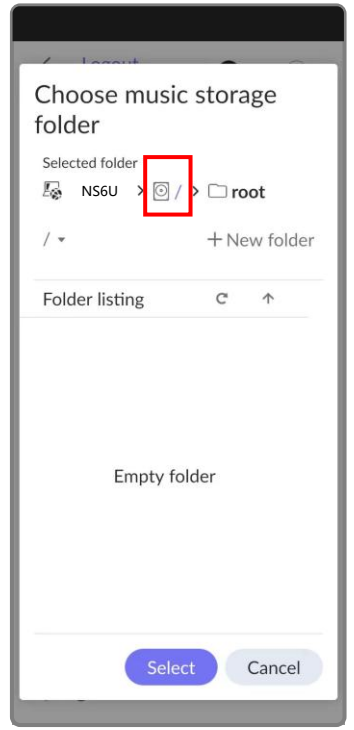
2 Open the Roon APP and go to **Choose Your Roon Core**. Select your device (e.g., NS6U), then tap **Connect**



3 Enter your Roon username and password, then tap **Login**.

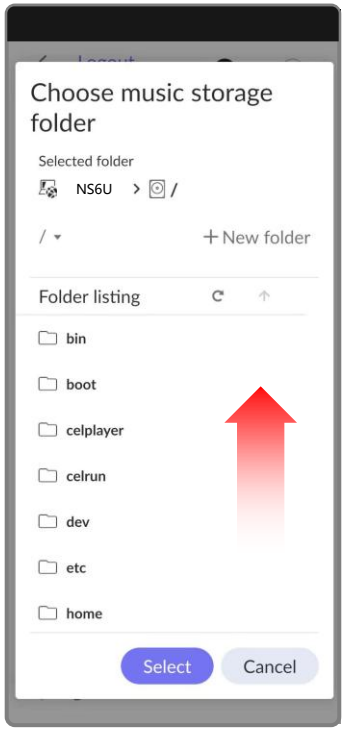


4 Tap “Add folder”

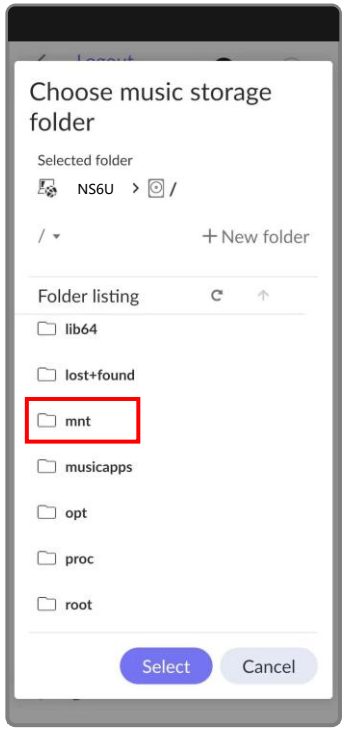


5 Tap “ / ”

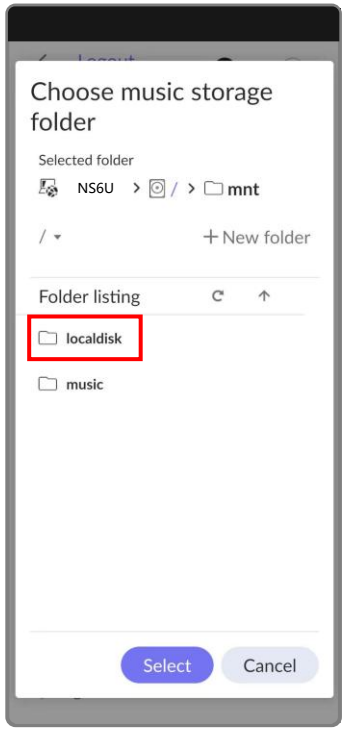
Music Application Settings-Roon Server Initial Configuration(2)



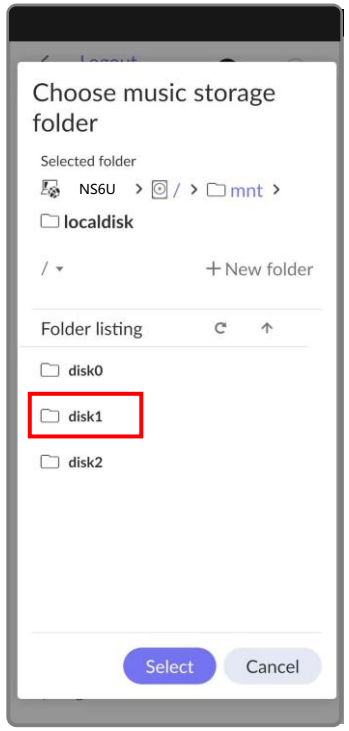
6 Swipe up on the screen



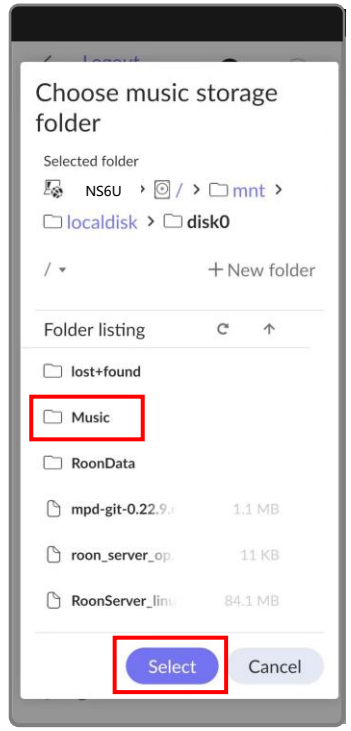
7 Select the **mnt** directory



8 Select the **localdisk** directory



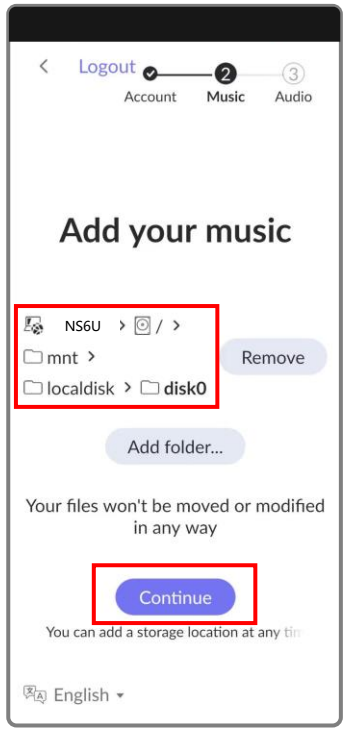
9 Select the designated disk



10 Select the music storage directory, or tap **Select** button

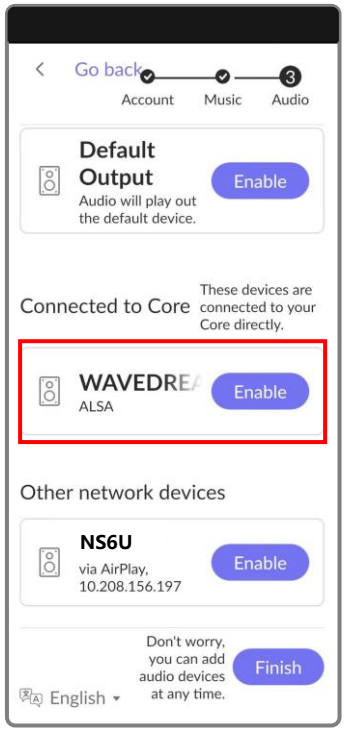
Music Application Settings-Roon Server Initial Configuration(3)

Please select only the directory /mnt/localdisk/diskX (where X denotes the specific disk) or its subdirectories.

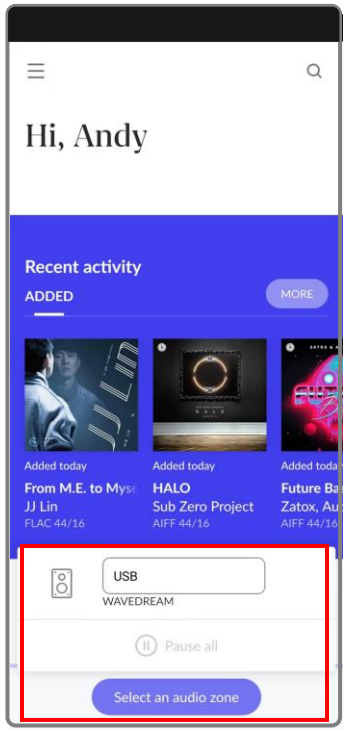


11 Confirm the selected directory as /mnt/localdisk/diskX, where X is your designated disk, then tap **Continue**

12 Configure streaming settings as needed, or tap **No thanks** button



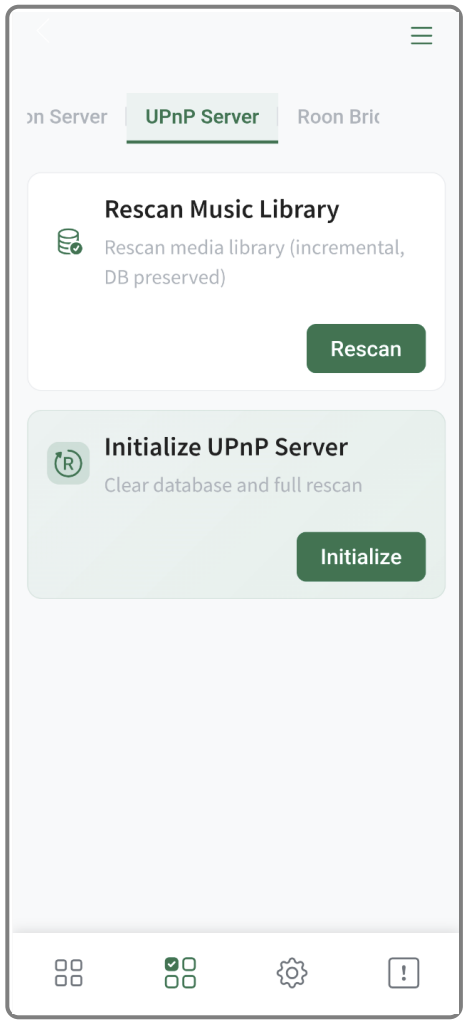
13 Locate the connected decoder and tap **Enable**



14 Tap **Select an audio zone**, then choose your decoder. It is recommended to name the decoder

15 Locate the designated album and **Play now**

Music Application Settings-UPnP Server



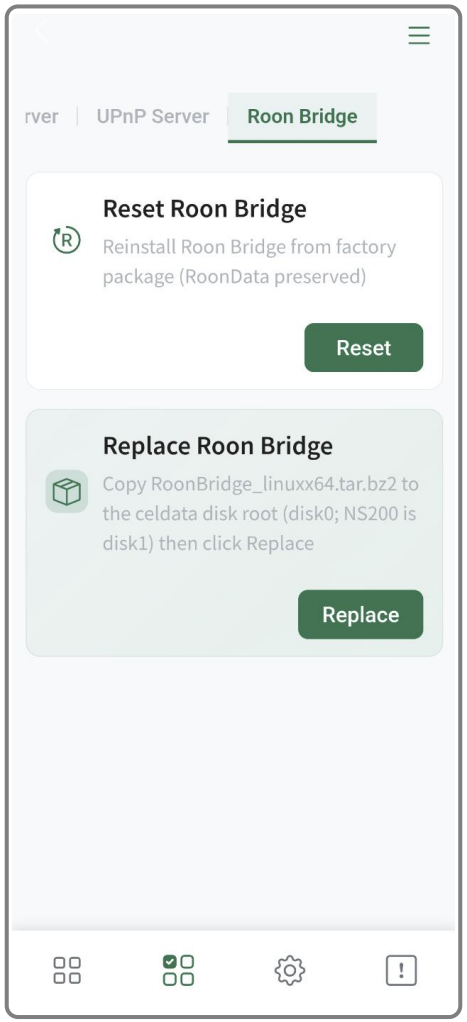
Rescan Music Library

- When UPnP Server is enabled, it automatically scans disk files
- Adding or removing files while UPnP Server is disabled may cause data inconsistency after re-enabling it. Manually tap **Rescan** to refresh the library

Initialize UPnP Server

- If UPnP Server malfunctions, tap the **Initialize** button to reset it
- **Note: This operation will clear the UPnP Server database**

Music Application Settings-Roon Bridge



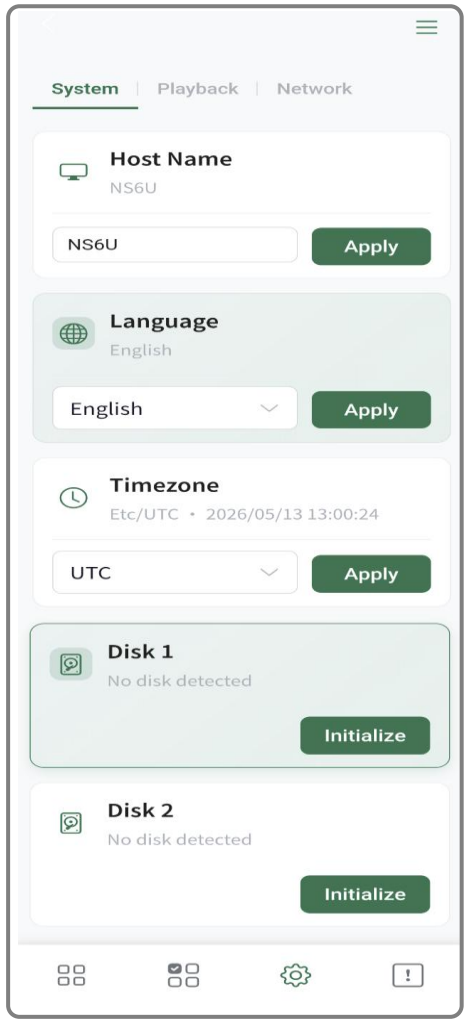
Reset Roon Bridge

- Roon Bridge may perform automatic updates while running. An unexpected shutdown such as a power outage during the update process may cause it to fail to launch. In this case, use the **Reset** button to restore Roon Bridge to its factory version

Replace Roon Bridge

- To manually update Roon Bridge: copy the Linux version of RoonBridge to the root directory of disk0, ensure the file is named **RoonBridge_linuxx64.tar.bz2**, then tap the **Replace** button to complete the update

System Settings-System



Host Name

- The default host name is the device model. When multiple devices of the same model exist on the network, you need to reset the host name
- **Host name changes take effect after a system restart**
- Use the modified name for PC access

Language

- Supports multiple languages, with Chinese as the default

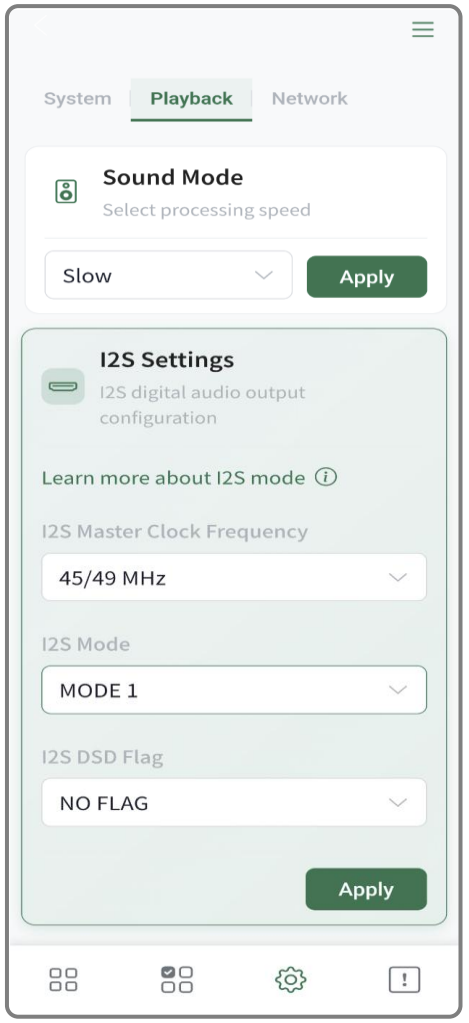
Timezone

- Time zone selection, default to UTC

Initialize Disk

- For newly added drives not previously formatted with CelMusperOS, initialization is mandatory. This will **erase all disk data permanently** and cannot be undone
- Strictly follow the hardware guide for disk numbering to avoid data loss from misoperation
- Disk initialization requires a device reboot and proceeds during system startup. **A slower boot process at this stage is normal**

System Settings-Playback



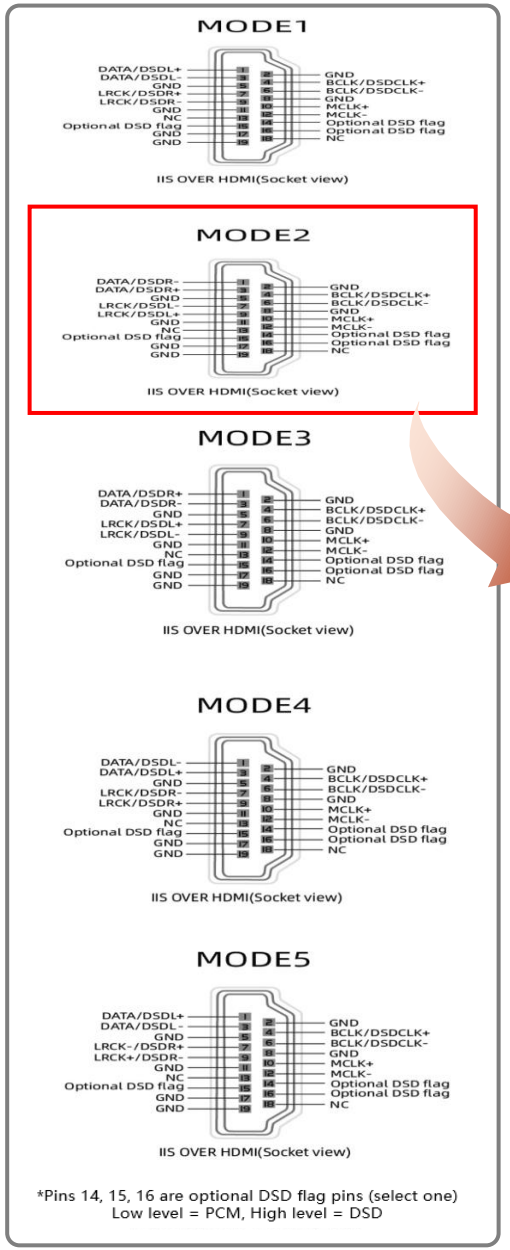
Sound Mode

- Select Sound Mode: Slow, Balanced and Fast
- Tap **Apply** and restart for changes to take effect

I2S Settings

- I2S Master Clock Frequency: Select according to your DAC requirements; some DACs only support 22/24MHz
- I2S Mode and I2S DSD Flag: Configure each setting by referring to the decoder’ s manual or consulting the manufacturer. For usage instructions, see **System Settings - Playback - I2S Mode Guide**

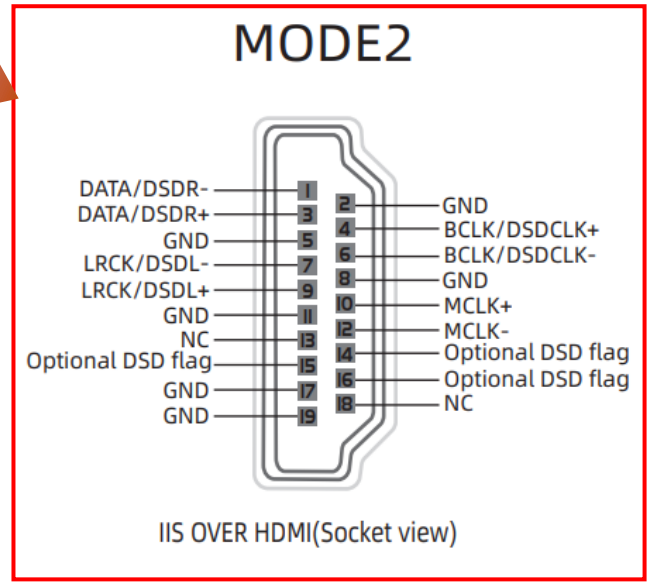
System Settings-Playback-I2S Mode Guide



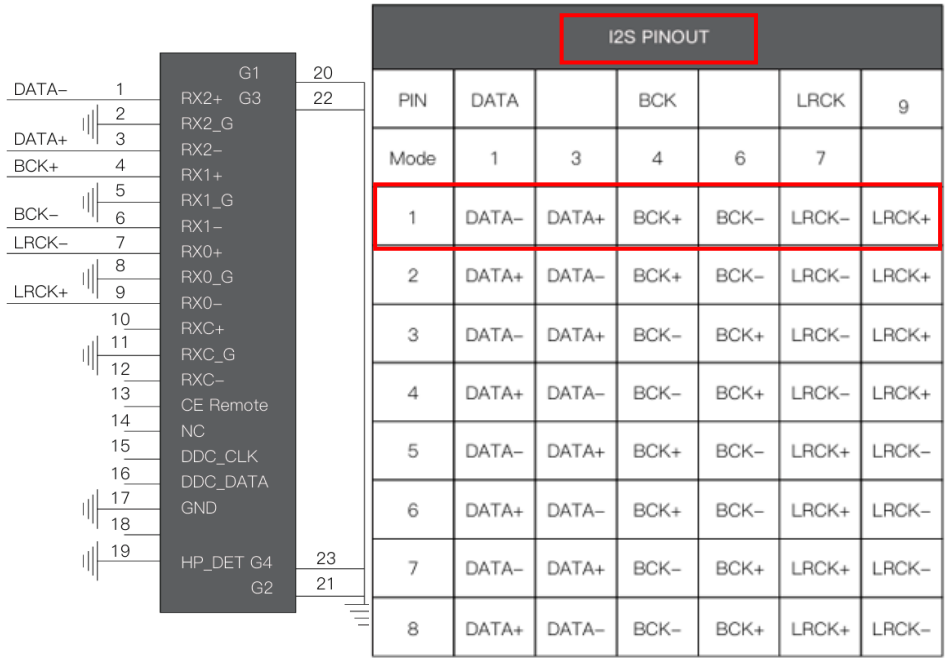
Learn More about i2s Mode

- Tap **Learn More about i2s Mode** to check the I2S pinout for each mode

Take the sophisticated DENAFRIPS TERMINATOR DAC as an example. This DAC supports custom input pin configuration. Its MODE1 pinout specification, as stated in the manual, matches MODE2 of CelMusperOS. Therefore, when DENAFRIPS TERMINATOR is set to MODE1, CelMusperOS shall be configured to MODE2 accordingly.



CelMusperOS MODE 2 Pinout

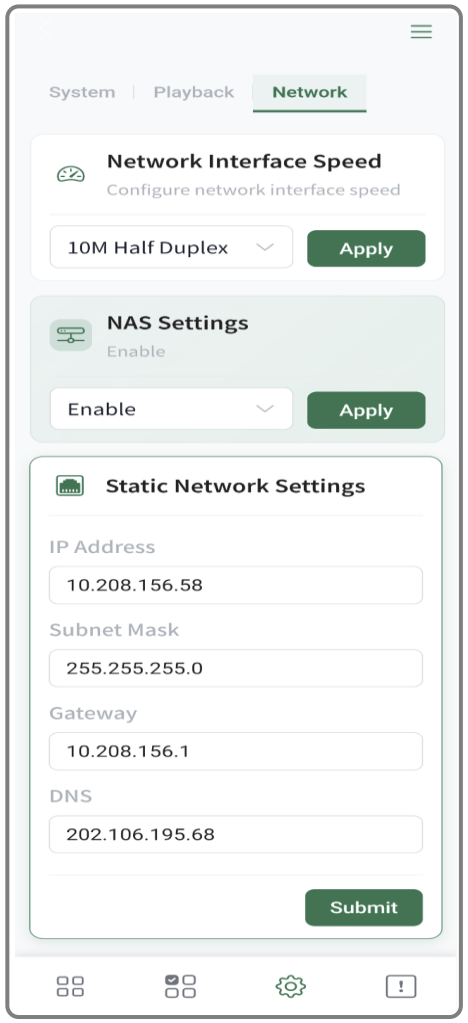


I2S PINOUT

PIN	DATA		BCK		LRCK	9
Mode	1	3	4	6	7	
1	DATA–	DATA+	BCK+	BCK–	LRCK–	LRCK+
2	DATA+	DATA–	BCK+	BCK–	LRCK–	LRCK+
3	DATA–	DATA+	BCK–	BCK+	LRCK–	LRCK+
4	DATA+	DATA–	BCK–	BCK+	LRCK–	LRCK+
5	DATA–	DATA+	BCK+	BCK–	LRCK+	LRCK–
6	DATA+	DATA–	BCK+	BCK–	LRCK+	LRCK–
7	DATA–	DATA+	BCK–	BCK+	LRCK+	LRCK–
8	DATA+	DATA–	BCK–	BCK+	LRCK+	LRCK–

Pinout diagram provided in the DENAFRIPS TERMINATOR DAC manual

System Settings-Network



Network Interface Speed

- Configure network speed and duplex mode. Options include Auto Negotiation, 100M Half-Duplex, and 10M Half-Duplex
- Generally, lower network speed delivers better sound quality

NAS Settings

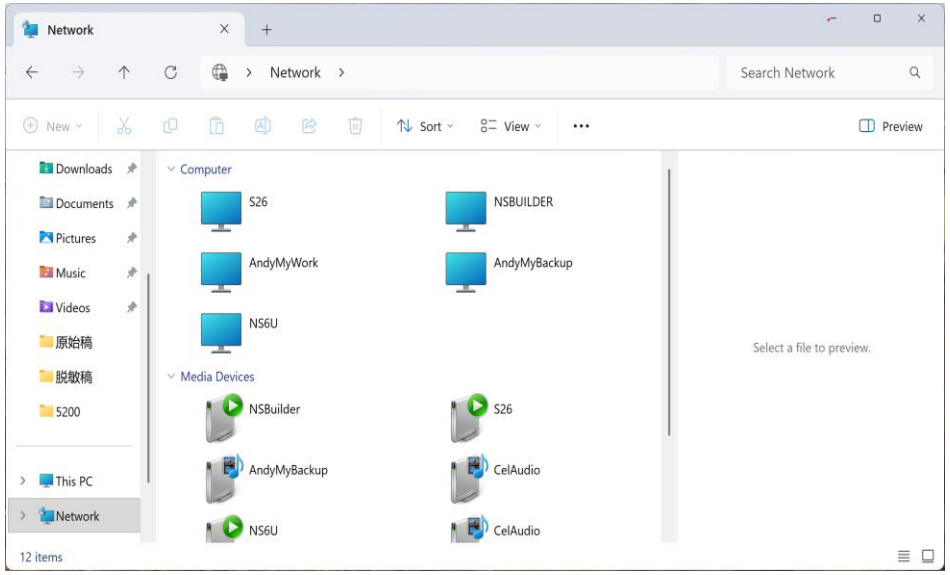
- When NAS is enabled, Samba file sharing is available over the local network
- For NAS usage, refer to **System Settings - Network - Copy Files to Device**

Static Network Settings

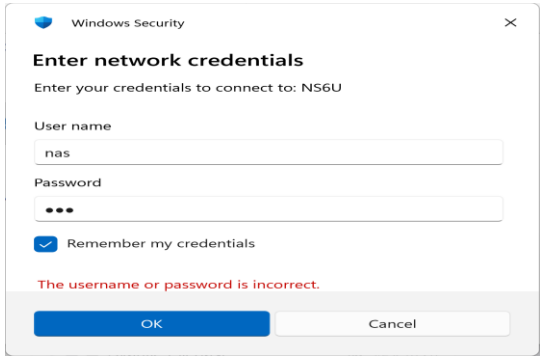
- To use static network mode, fill in the IP address here
- You may use the current IP or manually enter a new one in the input box. Tap **Submit**; the prompt **Settings Succeeded** indicates the static IP has been configured

System Settings-Network-Copy Files to Device

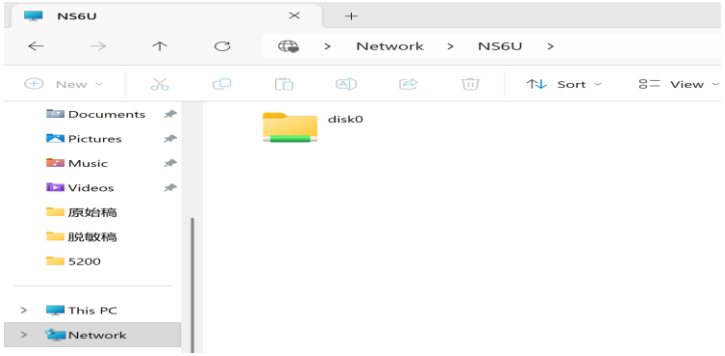
1. NAS service enabled (refer to System Settings – Network - NAS settings)
2. Complete disk initialization (refer to System Settings – System - Initialize Disk)
3. Open Windows File Explorer, click Network, and the device hostname (e.g., NS6U) will be displayed



4. Double-click the device hostname, enter the username and password in the pop-up window. **Username: nas, Password: nas**

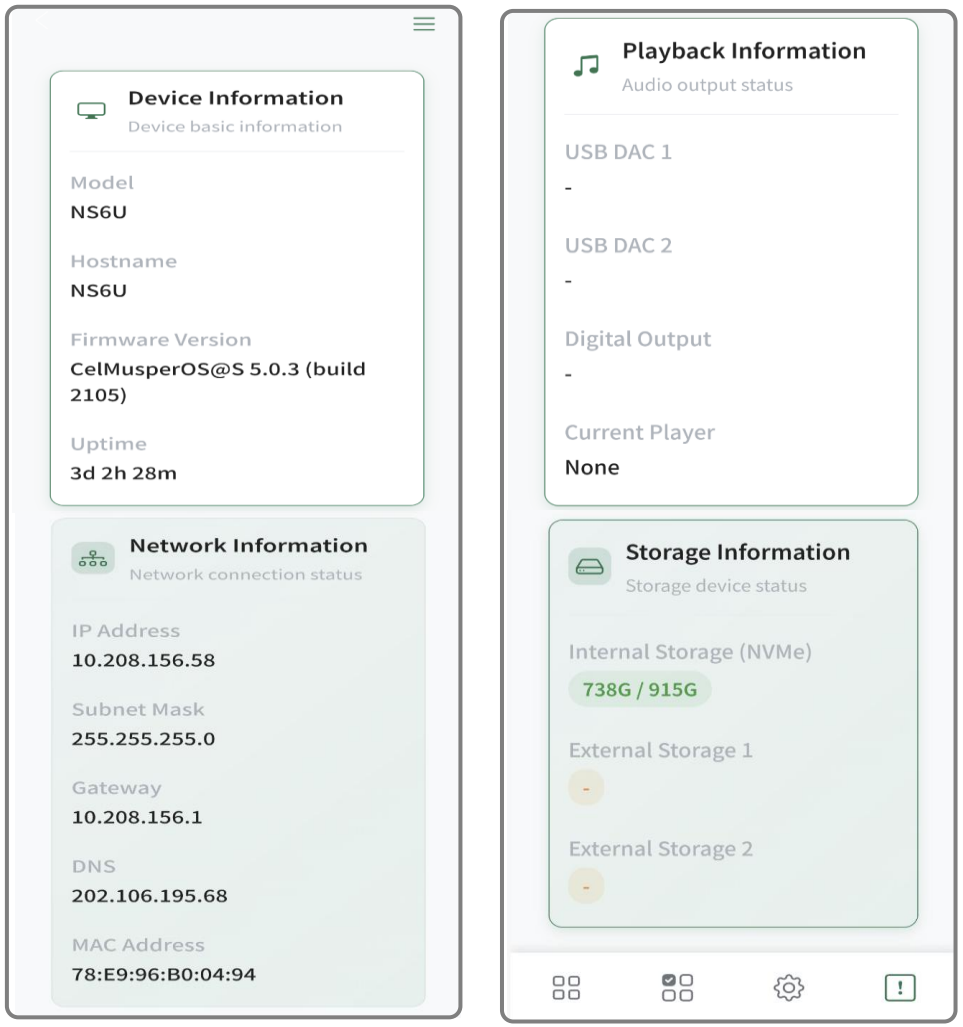


5. Double-click the disk you want to access. The built-in disk is disk0, while disk1 and disk2 are external disks (only inserted external disks will be displayed here; uninserted disks will not appear)



6. Subsequent operations are the same as with a local Windows disk, allowing you to create new directories, copy files, etc.

System Information



Device Information

- Display device model, host name, firmware version and uptime
- Host Name: Defaults to device model, can be modified in **System Settings - System**

Network Information

- Display current network connection status

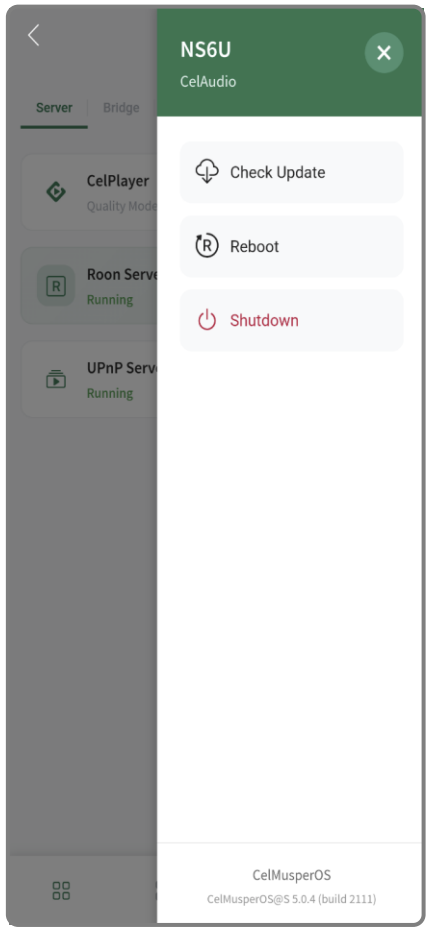
Playback Information

- Display the output device currently connected to the music server and the active playback application

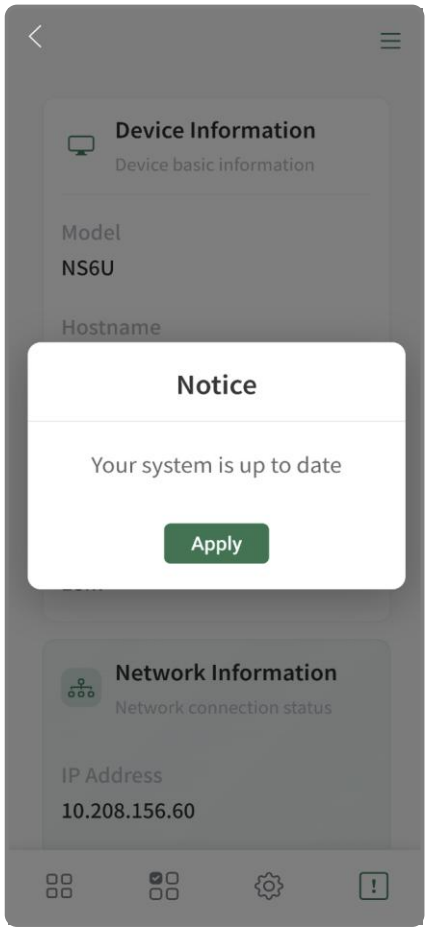
Storage Information

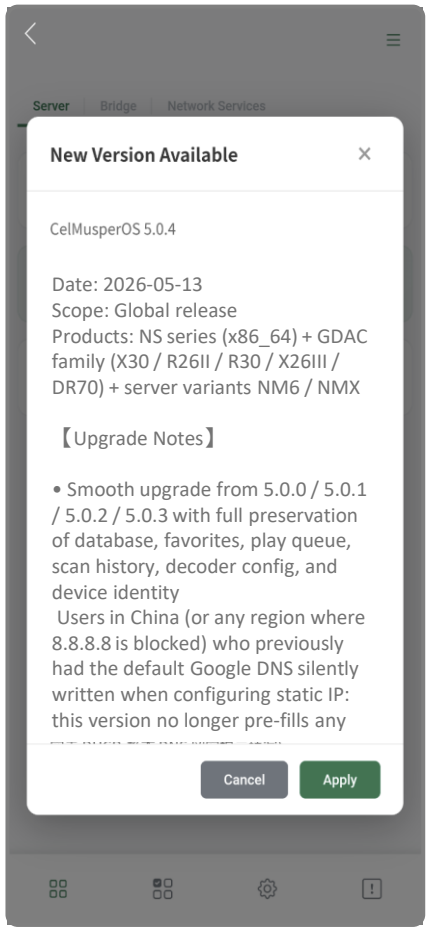
- Display the hard disk space status of the music server

CelMusperOS Upgrade（1）



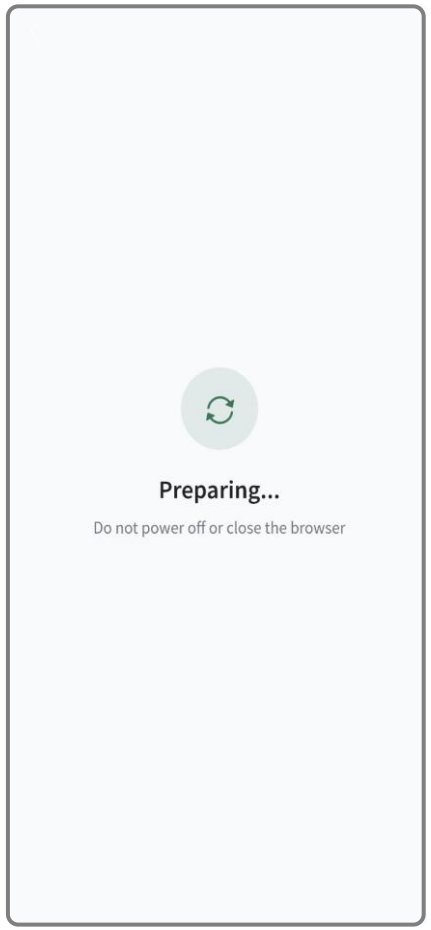
1 Tap **Check Update** to check for new CelMusperOS versions

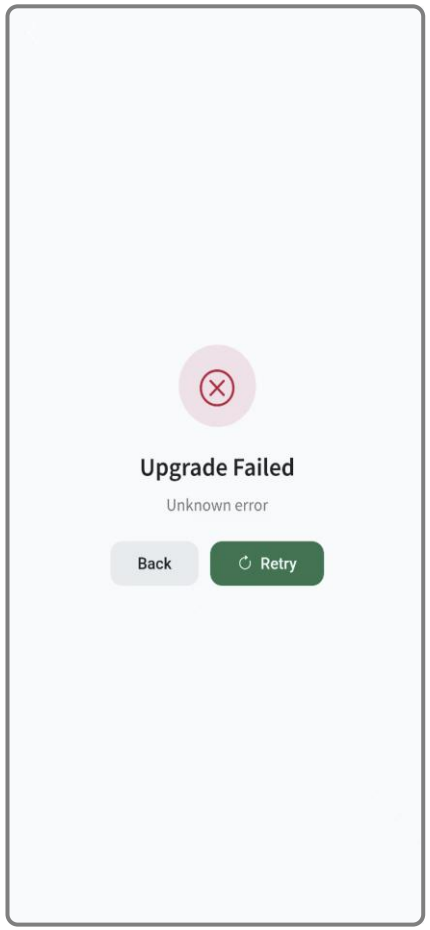




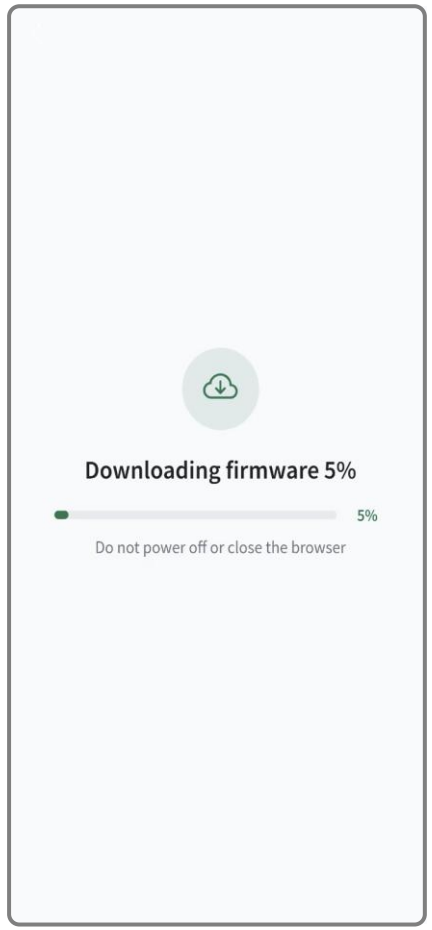
2 No new version will prompt "Your system is up to date", click **Apply**. If a new version exists, click **Apply** to upgrade or **Cancel** to abort

CelMusperOS Upgrade (2)



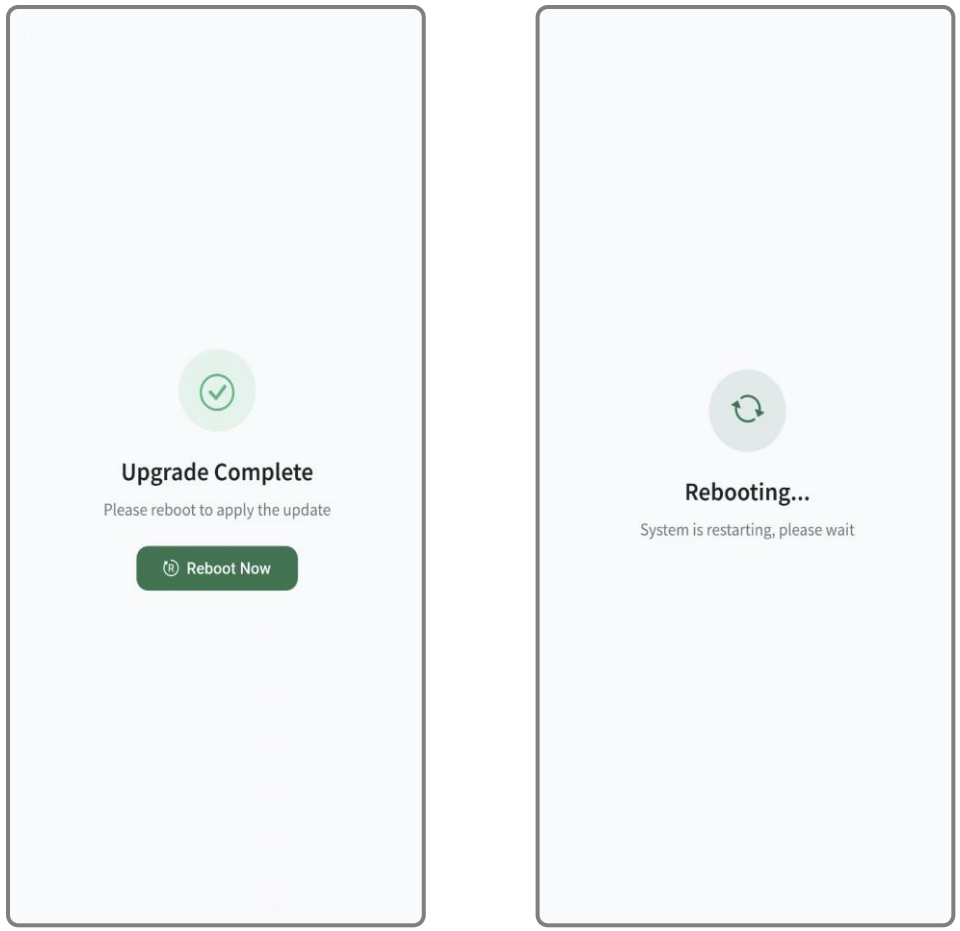


3 Preparing firmware download. Click **Retry** if upgrade failure prompts



4 Wait for full firmware download. No operation required in this step

CelMusperOS Upgrade（3）



5 Click **Reboot Now** after successful firmware upgrade. The new version takes effect after system reboot

谢 谢 观 看

Thanks for watching