

Cnario TM Suite 4.0.0

Installation Guide

July 2025

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Introduction

Cnario Suite is an all-in-one solution that allows content creation, editing, distribution, scheduling, monitoring, and control of an entire Digital Signage system - where one control station can support thousands of players and canvases. Cnario Suite consists of the following components:

- <u>Cnario Server</u> Our new Transfer Module Mechanism. The new mechanism is based on Client/Server approach. A new WCF service will be the communicator module that is responsible for transferring data to and from the Database. Three Services will be installed -DTS (Data Transfer Service), FHS (File Hashing Service), and TMS (Transfer Module Service).
- <u>Cnario Messenger</u> A comprehensive toolkit for content creation and management (CMS). It also provides full network administration including content distribution and monitoring.
- <u>Cnario Player</u> Is responsible for the playback engine operation and for the monitoring and controlling inputs sent to the Control Center application.
- <u>Cnario LivePlayer</u> Is responsible for the playback engine operations and monitoring of the different LivePlayers (Windows, Android, LG WebOS, Samsung Tizen, Brightsign).
- <u>Chainmail Gateway</u> a server component, once installed, operates as a service, and enables unlimited scalability, redundancy and high efficiency of file transfer and caching.
 - <u>Chainmail Gateway Client –</u> a user interface tool for management and configuration of gateway instances, locally or remotely.





Cnario Suite Download

Please use the following links to download Cnario Suite 4.0.0 from YCD Download Center:

- Cnario Server
- Cnario Messenger
- Cnario Player
- CM Gateway
- CM Gateway Client
- Cnario Android LivePlayer
- Cnario Windows LivePlayer (64bit)
- Cnario Windows LivePlayer (32bit)
- Cnario Brightsign LivePlayer

The Current Version is Cnario Suite 4.0.0 (build 68).

Cnario Suite 4.0.0 was developed and tested with Windows 10, Windows 11 and Windows Server (Cnario Server & Messenger, please note that Cnario Player was not tested on Windows Server) as the only supported operating systems and with hardware components that support DirectX 11.1 or newer.

If upgrading a Windows 7 or 10 installation or installing on a new machine, please contact support@ycdmultimedia.com with your specific version of windows for further details.

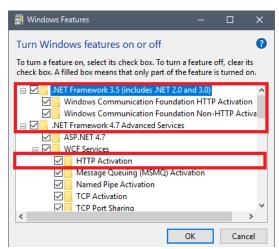




Cnario Suite Pre-Installation Requirements

For brand new installations and existing systems of the Cnario Server:

- Make sure you are running as Administrator with full permissions.
- Make sure you get the latest Windows updates installed (prior to Cnario SW installation).
- Make sure .Net 3.5 SP1 (includes 2.0 and 3.0) and the latest .Net is installed in Windows features (prior to Cnario SW installation).¹
- Make sure .Net 4.7.2 is installed.
- Make sure Web Sockets protocol feature is installed (prior to Cnario SW installation).
- Make sure HTTP activation feature is installed (prior to Cnario SW installation).²



- Make sure you get the latest GPU Driver updates installed (prior to Cnario SW installation).
- Make sure Windows firewall is turned off (during SW installation).
- Make sure that the Region & Language Settings on both Messenger and Server are identical³.
- If you are using Windows Server 2012 R2 OS, install Desktop Experience Features is mandatory prior to Cnario SW installation.
- Use Cnario Suite Installation Files (Cnario Server must be installed prior to Cnario Messenger).
- When setting up a single instance Messenger (CMS) station, begin with the Cnario Server installation, which will also install the SQL Database setup as well.
- When setting up a Player, only the Cnario Player installation file is required.

³ Player Region & Language settings should preferably be identical – if multiple languages are required, all relevant language packs must be installed on the Server and Player PC's and for some languages Non-Unicode language must be defined locally on the player to properly present all characters.



¹ Only required when installing on a Windows Server OS.

² Only required when installing on a Windows Server OS.

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- Make sure all relevant Ports (8008, 8009, 8010 by default) are open to communication between the Server, Messengers, and Players.
- If using a Virtual Machine for Messenger, make sure full DirectX and Direct 3D elements are available, as well as assigned GPU. Otherwise, the Preview feature will be unavailable on Messenger.

For existing systems (SW update/upgrade):

- Backup Messenger and Server Tree.dat file.
- Backup existing SQL Database (using SQL Server Management Studio is recommended).
- Backup your Media folder, if the system is being migrated to a new hardware, make sure that the items in the Media folder retain the same file path.
- Upgrade all Players (Clients) first Before upgrading Server and Messenger (CMS).
- If necessary, you may send Player Upgrade Patch from Messenger to target Players to perform remote SW updated/upgrade, for more information please contact YCD support.

Notes:

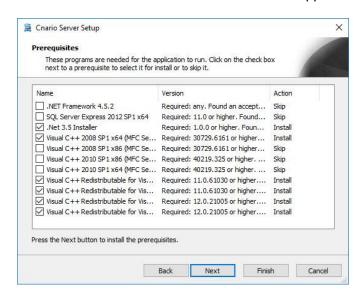
 For specific user permissions and process privileges please refer to 'Cnario Products IT Requirements' section.





Installing Cnario Server

- 1. Launch **Cnario Server** installation file, 'Cnario Server Setup 1.4.exe'. If the Prerequisites Wizard appears (see screenshot below), then it will proceed to install the prerequisites required for Cnario Server to operate. If this menu does not appear, then please proceed to step #3.
- 2. Click Next and follow the instructions that appear to install the required prerequisites.



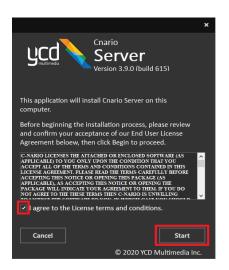
- 3. The Prerequisites Wizard will check for missing applications on the server OS prior to Server installation.
- 4. If SQL Server needs to be installed and you are unfamiliar with the process, please contact your IT administrator.⁴
- 5. Make sure to click OK or Finish on all menus. The Cnario Server installation will continue after the Prerequisites Wizard has completed.

⁴ If SQL Server is remotely installed, "SQLCMD" utility is required to be installed or present (as part of other Microsoft utilities like SQL Management Studio) on server machine.





6. The next dialogue box describes the features that will be installed during this process. Go ahead and click Next when ready.





- 7. Next, choose **Windows Authentication** or specify the credentials that will be used to log into the SQL database.
- 8. In **Server Name**, enter the name of the SQL instance. Click on 'Test Connection' to test connectivity to the SQL database. If the connection is unsuccessful, double check the Server Name. See notes for additional information.





Notes:

- If the SQL database server is installed locally (on the same machine as the Cnario Server), leave the default Server Name: (local)\sqlexpress or (local), depending on how the SQL Server instance was named.
- If the SQL database is installed on another computer, replace "(local)" with the IP address of the other computer. For example, replace "(local)\sqlexpress" with "150.50.60.70\sqlexpress".
- Do not proceed until you have a successful connection test. Contact your IT administrator for further assistance.

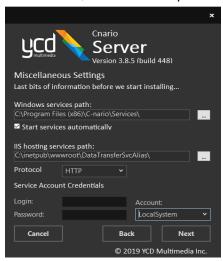




9. If you would like the Cnario Server to send you notifications and alerts, add applicable SMTP settings.⁵



10. For the Services Account Credentials, YCD recommends using **Local System**. If you think you should be using a specific user, choose **User** and enter the appropriate credentials. If you are uncertain which to use, choose Local System. For **Local System**, leave Login and Password fields empty.





- 11. Choose Next and the installation will begin. When it has completed, click on Finish, and move on to Installing Cnario Messenger.
- 12. Ready to Install

⁵ At this point in time, SSL\TLS connection is not possible to define.





13. Server Installation Done & Cnario Configuration Icon created on the desktop.



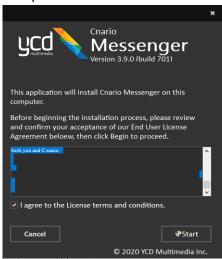
14. Server Configuration

- a. "Server URL": during the installation, the default value is set on "HTTP", however when selecting "HTTPS", Server services will communicate with Messenger over a secured HTTP tunnel. To complete the SSL configuration, the following manual settings should be made at the IIS level after the setup:
 - i. Check for SSL certificate.
 - ii. Add as https binding to Cnario Server on port for example 444 using your SSL certificate.
 - iii. Add an inbound firewall rule for port 443 (or other).
- b. A separate configuration is required for Web Messenger inbound access.
- 15. You can now browse to http://localhost/CnarioMessenger or https://localhost/CnarioMessenger



Installing Cnario Messenger⁶

- 1. Double click the Cnario Messenger installer file, 'Cnario Messenger Setup 4.0.0.exe'.
- 2. Accept the EULA



- 3. Select the appropriate destination folder for the installation or simply leave at default and click **Next**.
 - a. YCD recommends using the default destination folder, however you can select another folder.



- 4. Select either the 64- or 32-bit version (based on your Windows version).
 - a. When using Messenger on a 64-Bit Windows PC, YCD recommends using 64 Bit installation.

⁶ Cnario Messenger can only be installed if it has a Cnario Server and a MSSQL Server to connect to.

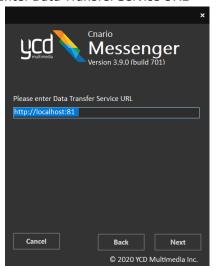




5. Server Connection – Enter the server connection parameters and test connection.



6. Enter Data Transfer Service URL





7. Ready to Install



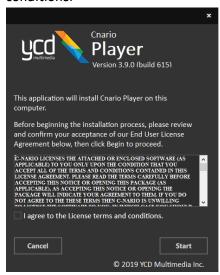
8. Finish Installation





Installing Cnario Player

- 1. Double click the Cnario Player installer file, 'Cnario Player Setup 4.0.0.exe'.
- 2. Click on Start to begin the installation process once you have agreed to the terms and conditions.



3. Select destination folder for installation. If you are unsure, leave it at the default, and click Next.



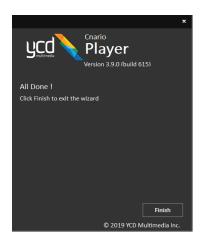
4. Next, select either the 64- or 32-bit version (based on your Windows version). Unless instructed otherwise, leave the 'Launch application at logon' and 'Create Default Display Device' checked. Click Next to proceed.





- 5. Click on Install to begin the installation. Note that prerequisites will be automatically installed, along with system files, during this process.
- 6. Finish installation process.





Notes:

• The Gateway and its Client are to be installed on separate workstations\servers\VM. Installation instructions are trivial, and configuration support is done on a per-case basis. For more information, please contact YCD Support.



Installing the various Cnario LivePlayer

There are a few types of Cnario LivePlayer, each has a slightly different installation method, here we will detail the default method for each supported player type (<u>Windows</u>, <u>Android</u>, <u>LG WebOS</u>, <u>Samsung Tizen</u>, <u>Brightsign</u>).

Windows LivePlayer

- 1. Copy the Windows LivePlayer installation to the media player
- 2. Run the installer, during the installation:
 - a. Configure the "Live Player URL" For example: https://<yourServerDNS>/
 - b. Set Customer ID as 1
 - i. Will be used in future versions
 - c. Set the "Player ID Type"
 - Defines what method the player will use to identify itself with the server, a unique
 ID
 - d. Enable or Disable cache
 - e. For interactivity purposes, configure if "Show cursor" or not



- 3. Wait for the installation to finish
- 4. Run the "LivePlayer" application
- 5. You should see a YCD logo with a QR code at the bottom right of the screen
- 6. Now you should **Import Live Players**

Android LivePlayer

f.

- 1. Copy the APK to the Android device
- 2. Run the APK installer
 - a. You might be asked to allow "installation from unknown sources"
- 3. Run the YCD LivePlayer application
- 4. Type in your server address in the "RAMP Server Address" section
- 5. Leave the "Customer ID" field with the value 1
- 6. Click Play





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7. Now you should **Import LivePlayers**

LG - WebOS LivePlayer

Using the remote, please follow these steps, it is assumed that you have installed Cnario version 4.0.0.

- 1. Press "Setting"
- 2. Choose "EZ Settings"
- 3. Click on "SI Server"
- 4. Choose "Si Server" settings
- 5. Insert the following address to the "Fully Qualified Domain Name":
 - a. WebOS = 3.x https://<youServerDNS>/ramp/public/WebOS/WebOS3.ipk?CustomerID=1
 - b. WebOS = 4.x https://<youServerDNS>/ramp/public/WebOS/WebOS4.ipk?CustomerID=1
 - c. WebOS \geq 6.x https://<youServerDNS \geq /ramp/public/WebOS/WebOS6.ipk?CustomerID=1
- 6. Choose Application launch mode "Local"
- 7. Choose Application type "IPK"
- 8. Press on Local Application Upgrade "Remote"
- 9. Wait for upgrade confirmation message
- 10. Restart the TV
- 11. You should see a YCD logo with a QR code at the bottom right of the screen
- 12. Now you should **Import LivePlayers**

Samsung - Tizen LivePlayer

Using the remote, please follow these steps, it is assumed that you have installed Cnario version 4.0.0.

- 1. Press the "HOME" button
- 2. Click on "URL Launcher Setting"
- 3. Type the following address:
 - a. Tizen 2.3-4.0: https://<yourServerDNS>/ramp/public/Tizen/2.3-4.0/
 - b. Tizen 6.5-9.0: https://<yourServerDNS>/ramp/public/Tizen/6.5-9.0/
- 4. Click on "Install"
- 5. Restart the TV
- 6. You should see a YCD logo with a QR code at the bottom right of the screen
- 7. Now you should **Import LivePlayers**

Brightsign LivePlayer

Assuming you have <u>downloaded</u> the Brightsign LivePlayer package already.

- Right click on the ZIP file -> Properties -> check the "Unlock" option at the bottom of the window, and click apply
 - a. If you do not see the "Unlock" option, it means it is already unlocked and you can continue
- 2. Extract the entire content of the downloaded ZIP file
- 3. Within the extracted files, browse to ../js/..
- 4. Using notepad (or any other text editor), open the file "localapp.config.js" for editing
- 5. Set the proper "server address" to look like this: 'serverAddress': 'https://<yourServerDNS>',





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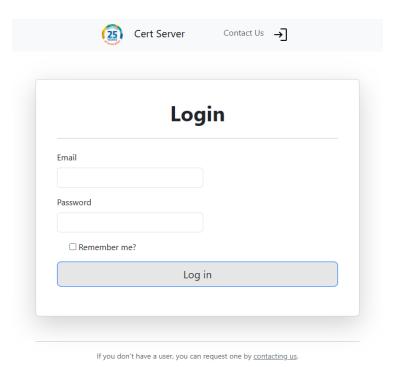
- 6. Save your edits
- 7. Copy the entire extracted folder, along with your updated "*localapp.config.js*" file to the root of your SD card
- 8. Insert SD card to the Brightsign player
- 9. Power on the player
- 10. You should see a YCD logo with a QR code at the bottom right of the screen
- 11. Now you should **Import LivePlayers**



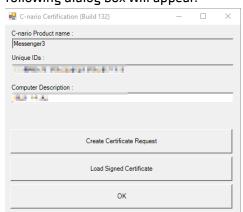


Certifying Cnario

- 1. The first time Cnario **Messenger** or **CnarioConfiguration** or Cnario **Player** is opened, you will be asked for a certificate. Follow the instructions below to generate a request, send it to YCD support, and activate your software.
 - a. If you received a "[CertPortal] New demo activations" email from YCD support, you can follow the instructions there and simply run the Cnario application you installed (Messenger / Player) and continue to configure Chainmail
 - b. **Cert Portal**: If you are a user and have access to the <u>Cert Portal</u> please activate the certification using the following manual <u>link</u>



2. Double click the Cnario application icon (Messenger / Player / CnarioConfiguration). The following dialog box will appear:



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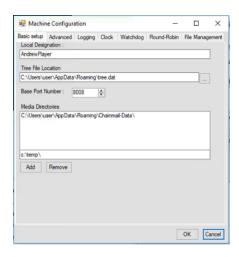
- 3. Enter a computer description (for example: My Company Messenger) and click the Create Certificate Request.
- 4. Choose where to save the certificate request file.
- 5. Activate the request via the <u>Certificate Portal</u>, or, email the request to <u>YCD Support</u>.
 - a. Wait for a response from YCD support with the signed certificate.
- 6. Save the signed certificate on to the machine that is running the Cnario application.
- 7. If the above dialog box does not appear, simply open the Cnario application again.
- 8. Click on Load Signed Certificate and choose the signed certificate file and hit Open to load the certificate.
- 9. A confirmation window will appear, if the certificate was not loaded successfully, please contact YCD Support. Otherwise click OK.
- 10. Congratulations! Your application is certified.
- 11. If Cnario Server, Messenger and Player are certified, please proceed to Configuring Chainmail.





Configuring Chainmail⁷

- 1. Open Cnario Player, then click Cancel or hit ESC to stop the countdown to playback
- 2. Click on Network -> Machine Config.
- 3. Under the Local Designation, note the name of your Player machine (for use in the next section: Configuring the Chainmail Tree).



⁷ If you upgraded a Cnario 3.8 or earlier version, an automatic upgrade of the "Chainmail Tree" and a conversion of the old XML files onto an SQLite file is initiated automatically on the first run of the Cnario application.

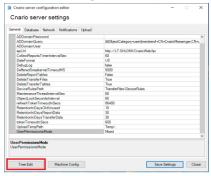




Configuring the Chainmail Tree



1. In CnarioConfiguration, go to Tree Edit



- 2. Click on **Add Node**, and a new node will be created. Select this node, then under **Node Name** enter the name of your **Messenger** machine.
- 3. Select the IP address tab, then enter the IP address of your Messenger machine.
- 4. Repeat steps 2 and 3 for your Player machine.
- Select the Server node, then click on the IP address, and enter the IP of your server machine. Note,
 if your Messenger and Server are installed on the same machine, enter the same IP address for both
 nodes.
- 6. While the Messenger node is selected, click on the **Message Links** tab.
- 7. Under Node to link, select the Server node, then click on Add Message Link
- 8. While the Message Links tab is selected, select the Server node
- 9. Under Node to link, select the Player node, then click on Add Message Link



- 10. Select the Messenger node once more, then click on the File Links tab
- 11. Under **Node to Link** select the **Server** node, then under **Link Type** select **TCP outgoing**, then click on **Add File link**
- 12. Select the Server node once more
- 13. Under **Node to Link** select the **Player** node, then under **Link Type** select **TCP outgoing**, then click on **Add file link**
- 14. Click on OK to continue and distribute your changes to the tree





Import LivePlayers

After you have installed and configured your LivePlayer it is time to import these LivePlayers into Cnario, as new Channels. To do so, please follow these simple steps:

- 1. Login to Cnario Web Interface with a user that has permissions to edit the Cnario Channels
- 2. Move to the "**Network**" tab -
- 3. In the left "Canvases" pane, navigate to see the folder you wish to import the players into
- 4. Hover with the mouse over the folder name
- 5. Click the three dots menu next to the folder name and select "Import Live player Channels"



- 6. In the "Import Live player Channels" pane on the right, mark the LivePlayers you wish to import
- 7. Click the "Import" button at the bottom of the screen
- 8. You are all set, now you just need to deploy some content to these players



IT Requirements

User Account Policy

User Rights Assignment/Adjust memory quotas for a process
 Purpose: Allows the applications to share the memory among them optimally

User Rights Assignment/Debug Programs

Purpose: Allows Cnario Watchdog to shut down and restart its peers

User Rights Assignment/Increase Scheduling Priority

Purpose: Allows CCCore.exe and Cnario Universal Player.exe to set the priority of their time-critical

threads.

User Rights Assignment/Profile Single Process

Purpose: Allows CM Watchdog to log performance data

User Rights Assignment/Profile System Performance

Purpose: Allows CM Watchdog to log performance data

User Rights Assignment/Shut down the system

Purpose: Allows Watchdog to shut down the system restart it if restarting processes does not work

User Rights Assignment/Create global objects

Purpose: Allows CCCore.exe and Cnario Universal Player to create global objects - required for flash

playback under non-administrator user

• Firewall: Allow all processes listed under 'list of processes' below.

Network ports required

For Chainmail Communication:

8008- Message link between Master and Player

8009- File link from Master to Player (Forward file link)

8010- File link from Player to Master (Backward file link)

2. For Watchdog and broadcast Communication:

8111- For Watchdog itself

8112- Watchdog for Wolfpack (Used for Multi-Display)

3. Canvas Controller (where applicable):

8222 - 8223 Commands, TCP+UDP

8334 - Clock distribution, UDP

Windows Server

When installing a C-nario product on Windows Server Edition (2012 R2 and above):

- 1. Before commencing installation of the Cnario Product, ensure "Desktop Experience" Feature, "Microsoft.NET Framework" with all its versions and IIS 7 or later are installed on the server.
- 2. In case the DB installation fails due to missing component, make sure SQLCMD is installed. There is an option for remote Data Base installation for installing the Cnario Server. There





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is a need to have SQLCMD installed for the database installation to take place.

If SQL Server or SQL Management Studio is already installed, there is no need for it since our software includes it as part of the server installation.

Here is the link for the utility https://docs.microsoft.com/en-us/sql/tools/sqlcmd-utility?view=sql-server-ver15

List of Processes (Case Sensitive)

- 1. WatchDog.exe
 - i. x64 (c:\program files (x86)\c-nario\c-nario Universal Player)
 - ii. x86 (c:\program files\c-nario\c-nario Universal Player)
- 2. CCCore.exe
 - i. x64 (c:\program files\c-nario\c-nario Universal Player\CCCORE64)
 - ii. x86 (c:\program files\c-nario\c-nario Universal Player\CCCORE)
- 3. C-nario Player.exe
 - i. x64 (c:\program files (x86)\c-nario\c-nario Universal Player)
 - ii. x86 (c:\program files\c-nario\c-nario Universal Player)
- 4. MFslave10.exe (MultiFlash player component)
 - i. x64 (C:\Program Files\C-nario\C-nario Universal Player\CCCore64\Plugins\MultiFlash\MFSlave10.exe)
 - ii. x86 (C:\Program Files (x86)\C-nario\C-nario Universal Player\CCCore\Plugins\MultiFlash\MFSlave10.exe)
- 5. Coherent (HTML5 renderer)
 - i. x64 (C:\Program Files\C-nario\C-nario Universal Player\CCCore64\Plugins\CoherentPn\host\CoherentUl_Host.exe)
 - ii. X86 (C:\Program Files (x86)\C-nario\C-nario Universal Player\CCCore\Plugins\CoherentPn\host\CoherentUl_Host.exe)

Notes

❖ Folder paths shown for C-nario Player. For Messenger, replace "\C-nario Universal Player\" with "\Messenger 3\".

List of Services

- 1. Cnario File Hashing Service.
- 2. Cnario Transfer Module Service.
- 3. Cnario Transfer Queue Manager Service.

List of Folders

Cnario applications require **full control** and **read/write access** to the following folders:

- 1. Tree.dat location:
 - i. Windows 10: C:\Users\<userName>\AppData\Roaming\tree.dat
- 2. Where AutoSystemSetter is being used:





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i. Windows 10: C:\ProgramData\

- 3. Chainmail folder:
 - i. Windows 10 (C:\Users\<userName>\AppData\Roaming\Chainmail-Data)
- 4. Cnario General Access Read and write Folders:
 - i. %ProgramFiles%\C-nario
 - ii. "%ProgramFiles% (x86)\C-nario"
 - iii. "%ProgramFiles%\C-nario"
 - iv. "%SystemDrive%\Temp"
- 5. Cnario products registry key locations:
 - i. X86 (HKEY_LOCAL_MACHINE\SOFTWARE\C-nario)
 - ii. X64 the path used for x86 AND path used for x64 (HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\C-nario)





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YCD Support

Visit: YCD Customer Portal (Support Tickets & Solution Center)

International (EMEA+APAC):

Support: +972-9-9570123 Ext. 231 E-mail: <u>Support@ycdmultimedia.com</u>

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