Warner Media C-Band Transition

Frequently Asked Questions
Revision E — April 26, 2022

Frequently asked questions

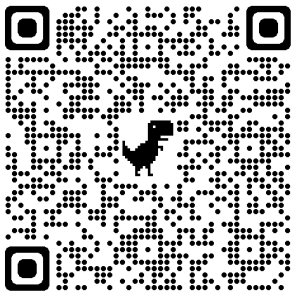## Introduction

Detailed step-by-step guides to install, configure, and activate the new Harmonic XOS IRDs are available at https://www.harmonicinc.com/documentation/warner-media/

⚠ Each IRD is licensed for a a particular set of channels you are authorized to receive and output formats you are licensed for.

Please take note of the programs assigned to each XOS IRD. This will determine which RF cable(s) needs to be wired to each unit.

You can look up the channels and output formats an XOS has been licensed by entering its serial number at the following location:

https://apex-prod.harmonicinc.com:8088/ords/prod/hrm/r/warnermediac-bandtransitionserialinquiry/home?session=12120101496480

New channel mapping

Galaxy 30 V Transponder 20 (Connect to IRD RF Port 1)	
NBA	TruTV-East
TNT-East	HLN
TOON-East	CNNe
CNN	TCM-East
TBS-East	

| Galaxy 30 H Transponder 21 (available in June 2022) (Connect to IRD RF Port 2)	
TNT-West	CNNi
TOON-West	BOOM
TBS-West	TCM CANADA
TruTV-West	WPCH

Galaxy 15/33 V Transponder 18 (Connect to IRD RF Port 3)	
HBO East	ActionMAX East
HBO 2 East	HBO Comedy East
HBO Signature East	HBO Zone East
HBO Family East	ThrillerMAX East
HBO Latino East	MovieMAX East
Cinemax East	MAX Latino East
MoreMAX East	

Galaxy 15/33 H Transponder 19 (Connect to IRD RF Port 4)	
HBO West	ActionMAX West
HBO 2 West	HBO Comedy West
HBO Signature West	HBO Zone West
HBO Family West	ThrillerMAX West
HBO Latino West	5StarMAX East
Cinemax West	OuterMAX East
MoreMAX West	

What is the transition timeline?

> ⚠ This timeline is subject to change.
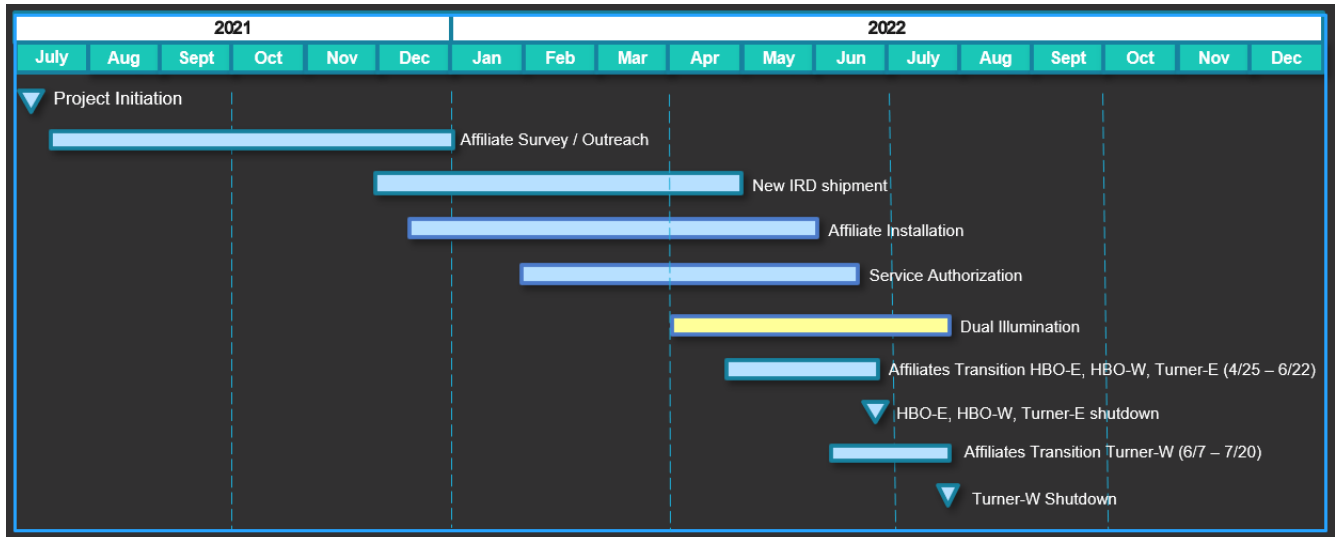
Refer to the timeline above for the overall transition plan (updated April 25, 2022)

The following are key dates for affiliates activities:

Through end of December 2021

- Affiliate surveys to confirm site requirements.

December 2021 through May 2022

- Shipment of new IRDs.

January through June 2022

- Affiliates install new IRD equipment.
- Remote support provided by Harmonic or Intelsat.

April to July 2022 (Dual Illumination)

- During the timeframes below, both the legacy and new uplinks will be in operation. They allow affiliates to conduct testing and shadow operation to confirm the interoperability with upstream and downstream systems.
  - **HBO & CINEMAX - April 25 through June 22, 2022**
    - Legacy Uplinks
      - East services on G15 Tx11 & G15 Tx 12
      - West services on G30 Tx 16 & G15 Tx 12
    - New HEVC uplinks
      - East services on G15 Tx 18
      - West services on G15 Tx 19
      - In late 2022, G15 will be replaced by G33 at the same orbital slot

- **Turner East - March 21 through June 22, 2022**
  - Legacy Uplink: G30 Tx17 & G30 Tx 15
  - New HEVC uplink: G30 Tx 20

- **Turner West - June 7 through July 20, 2022**
  - Legacy Uplink: G15 Tx15
  - New HEVC uplink: G30 Tx 21

Through the end of July 2022

- Phone and online support on IRD bring up will be provided by Harmonic.
- Once IRDs are configured, **authorization** of new IRDs through the Warner Media Hotline - (212) 512-5666 or (404) 827-2458.
- Once IRDs are authorized, perform validation tests to confirm new IRD outputs are correct.
- Test and confirm functionality with downstream devices.

> ⚠ A maintenance window is recommended if testing is conducted on production equipment.

- Cut-over service to new IRDs once all services and functionalities are verified.
- Decommission legacy IRDs.

Where can I find installation documentation?

Detailed installation guides are available on the Harmonic WarnerMedia Affiliate Documentation Portal:

https://www.harmonicinc.com/documentation/warner-media/

These guides will include the following:

- Full user guide and datasheet for the XOS IRD
- Step-by-step instructions on setting up the new XOS IRD
- Analog Decoder set up instructions
- Racking and wiring instructions

How do I get started?

This section serves as an overview of how to install and configure your new IRD. Please refer to the Quick Start Guide and the full User Guide for the detailed instructions.

The Warner Media XOS IRD comes with the default management IP address of 192.168.1.200. It is recommended that during the initial configuration of the new IRDs, they are built on an isolated network to avoid inadvertent impact to your production equipment. You can use the default IP address to setup the IRD base configurations.

If you would like to change the default IP addresses, refer to the *Warner Media XOS User Guide* for instructions.

If you do plan to migrate the new equipment into your existing IP infrastructure, you can make the subsequent transition to your core network simpler by utilizing your existing IP addressing scheme during this initial configuration step. Please decide if this new WarnerMedia IRD system is an isolated network or if it needs to be integrated into your site's larger network.

> ⚠ When you unpack each carton, pay special attention to any additional items packed within, including the front bezel, the eight ASI adapter cables, power cords/supplies, and critical mounting hardware. Do not discard or recycle cartons without *fully* unpacking them.

> ⚠ For C-band satellite antenna LNB/L-band (950-1450MHz currently) signal distribution, use only RG-6 [18 AWG] coaxial cable rated for up to 1450 MHz/1.5GHz. "Quad shielded" performs best. Appropriate cable often indicates that it is "sweep tested to 2150MHz, 2.2 or 3GHz" and is also used for DBS satellite antenna installs. RG-11 is sometimes used to get equivalent performance over a longer cable length. Some are cable are specified for burial while most are not.
> As the Galaxy 14/30 and Galaxy 15/33 antenna system is optimized for advanced satellite modulation, and with future advanced satellite modulation changes planned by Warner Media and IntelSat, inadequate cables (**DO NOT** use RG-59), cheap passive splitters, and poorly installed fittings can all compromise clean signal acquisition by the XOS IRD.

Make sure to do the following:

1. Securely install each IRD per the installation instructions. The best practice is to provision 1RU spacing, especially if your facility has marginal cooling.

    > ⚠ a. **Do not apply or connect power to XOS severs initially. Please follow the steps per the Quick Start Guide.**
    > b. Note the channels designated for each XOS IRD (each unit is licensed for a particular set of Turner/HBO channels).

2. Cable all the equipment including RF feeds from your G14/30 and/or G15/33 Dish to the XOS IRDs per the Quick Start Guide.

    > ⚠ The management GigE port is No. 1 (left-most) of four Ethernet ports that are together beneath the ASI card and left of the VGA connector.

3. Power on IRD 1 and configure it as described in the Quick Start Guide.
4. Power on and complete the configuration and test of remaining IRDs as necessary.
5. Test IRD 1 for video as described in the Quick Start Guide.

6. Repeat these steps for any remaining IRDs.

Where do I get help?

For Affiliate Survey, IRD fulfillment, IRD installation and initial configuration support:

Harmonic Professional Services
Phone: (408) 490-6601, 7 a.m. to 4 p.m. Pacific Time, Monday through Friday
Email: WM-CBAND-HELP@harmonicinc.com

For general inquiries on the C-band transition project, existing WM services, IRD activation requests:

WarnerMedia Hotline
Phone: (212) 512-5666 or (404) 827-2458
Email: hotline@warnermedia.com

Enable remote connectivity for support

To quickly assist you in resolving issues during the transition, as well as after you have put the new IRDs into production operation, Harmonic recommends enabling remote access to the XOS IRD. Please refer to the steps listed below.

> ⓘ The Harmonic Transition Support team and the Technical Assistance Center (TAC) utilize remote assistance software to aid in the diagnosis of all product lines.

To start a remote, real-time assistance session, please follow these steps:

1. Contact the Harmonic Transition Support team by phone or by email to request remote assistance.
2. Download TeamViewer.
   a. Get TeamViewer here: https://get.teamviewer.com/fkhjg6a.
   b. Open the executable file on the PC/Mac you want us to access.
   c. Click **OK** to start the TeamViewer client.
3. Provide the ID and password to our support team, enabling the support engineer to connect remotely.

What about service authorization and testing?

- During the dual-illumination period, once your IRDs have been installed and configured, call the WarnerMedia Hotline to authorize services.

  > WarnerMedia Hotline
  > Phone: (212) 512-5666 or (404) 827-2458
  > Email: hotline@warnermedia.com

- IRD authorization occurs over-the-air.
- Once authorized, verify IRD output, then interop testing with downstream devices.
  - If you need to use your production equipment as part of interop testing, we recommend the testing be conducted during maintenance windows.
- Confirm all channels, formats and interfaces are fully functional.

What about the cut-over services?

- Once all services and interfaces have been validated, you should plan to cut over services to the new IRDs.
- We recommended the legacy equipment be left running, or retained in cold-standby mode for a period of time, if still within the dual-illumination period.
- At the end of dual-illumination, the legacy IRDs can be decommissioned.

XOS Return Path

For appliances, Harmonic is providing OneCare Portal. The OneCare portal offers the following benefits to XOS customers:

- Product announcements, such as new product version availability.
- Overview of all the products deployed.
- Access to software versions of entitled products.
- An entry point to open and follow support cases.

- Service-Level Agreement (SLA) follow-up when an SLA is in place.
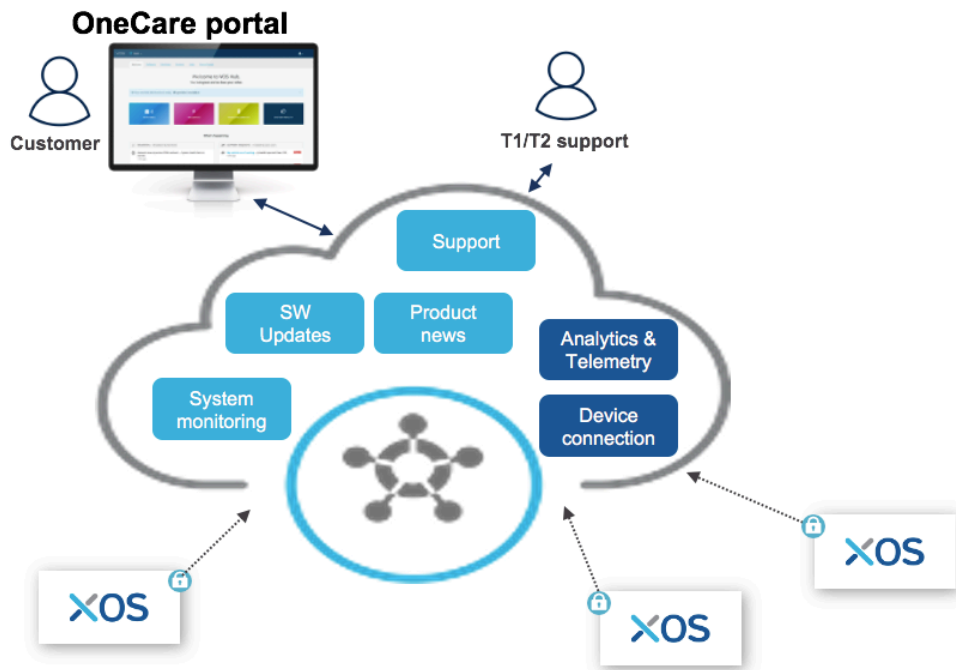
Your XOS is designed to connect to the Harmonic backend running in the cloud. This cloud connectivity is secured and is enabled by default, but you can disable it through the XOS user interface.

XOS connection to the cloud enables system monitoring and enhanced support.

System monitoring

Through the OneCare portal, you can access the list of all XOS devices deployed in the field. All XOS details, such as serial number, MAC address, etc., are available.

You can also add custom labels to each XOS to easily identify devices.

When your XOS is connected to the Harmonic backend, it provides regular health status, enabling you to identify devices in use.

Enhanced support

When your XOS is connected to the Harmonic backend, it allows secure support to connected XOS devices. This connectivity improves support, as the XOS is accessible and you do not need to setup remote access when facing a critical situation.

This connection is secured with a double authentication process, eliminating the need of an unsecured tool like TeamViewer.
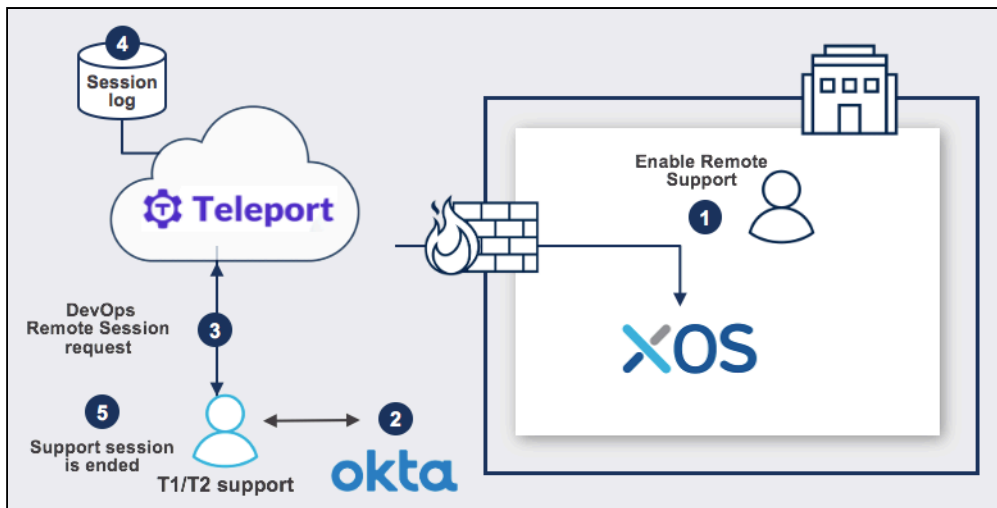
By using TELEPORT, the Harmonic support team can access XOS through RestAPI. When needed, Harmonic support can also access the UI using the BOMGAR application. This allows for more efficient support compared to what is achievable through TeamViewer or other equivalent methods.

As the Harmonic support team has access to the XOS, they are able to collect relevant information without requiring action from you. Collected information is more relevant as it is done by a product expert. This allows for quicker diagnosis and resolution.

This process is used for our VOS360 or Cloud Native Software solution. It is a unified process enabling customer to easily migrate from appliances to a cloud solution.

When your XOS is connected to the Harmonic backend, it provides telemetry and analytics information. This information is extremely useful to quickly diagnose any problems. For example, if RF monitoring parameters are regularly sent to the cloud, it's much easier to check the RF input when a service interruption happens in real time.
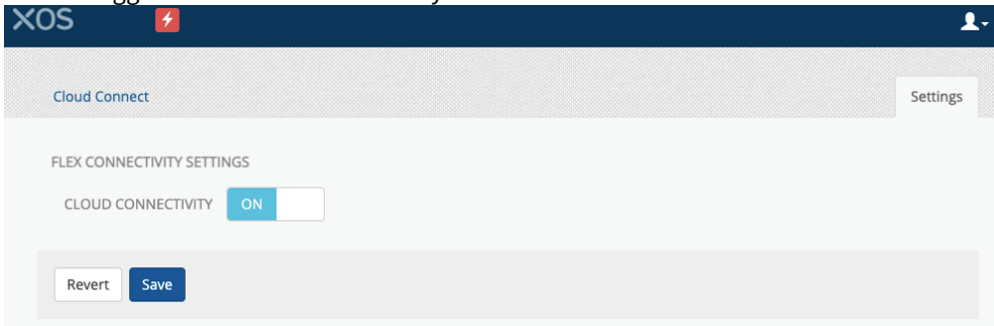
Managing cloud connectivity

By default, the return path from the XOS is enabled, but you have the option to disable it.

To do so, use the following procedure:

1. From the OneCare portal, select **Platform Configuration**.
2. Click **Launch Connectivity Test & Settings**.
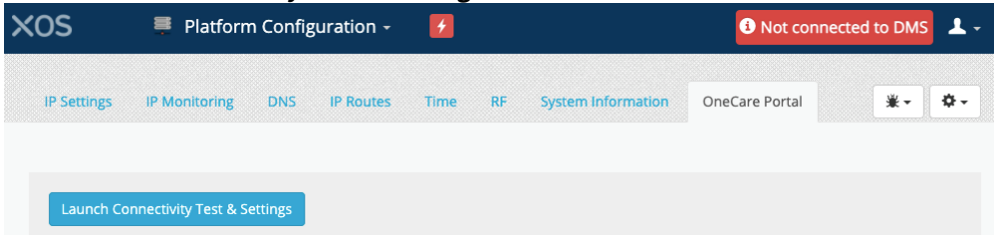
3. Use the toggle to set Cloud Connectivity to **OFF**.

4. Click **Save**.