

Product Tips

Integrating Microsoft Teams with Carbonite Code

ROSS

Introduction

Organizations increasingly rely on Microsoft Teams for collaboration and remote engagement. Whether it's hybrid events, internal meetings, or external presentations, Teams has become a hub for communication. With Carbonite Code, operators can now bring Teams directly into their live production workflows. This integration allows Corporate and AV teams to leverage familiar collaboration tools while delivering professional broadcast output.

What Teams Provides

When enabled, Microsoft Teams can output NDI (Network Device Interface) streams. These streams appear on the local network and can be treated as regular NDI video sources inside Carbonite Code. Specifically, Teams generates:

- Individual Participant Feeds: Each camera/avatar is available as a unique NDI stream, paired with that participant's independent audio.
- Active Speaker Feed: A dynamic feed that automatically switches video to the current dominant speaker. This feed includes all meeting audio except for the local Teams client on the Carbonite Code machine.
- Shared Screen Feed: A dedicated feed for content shared in the meeting (e.g., slides, demos, documents).

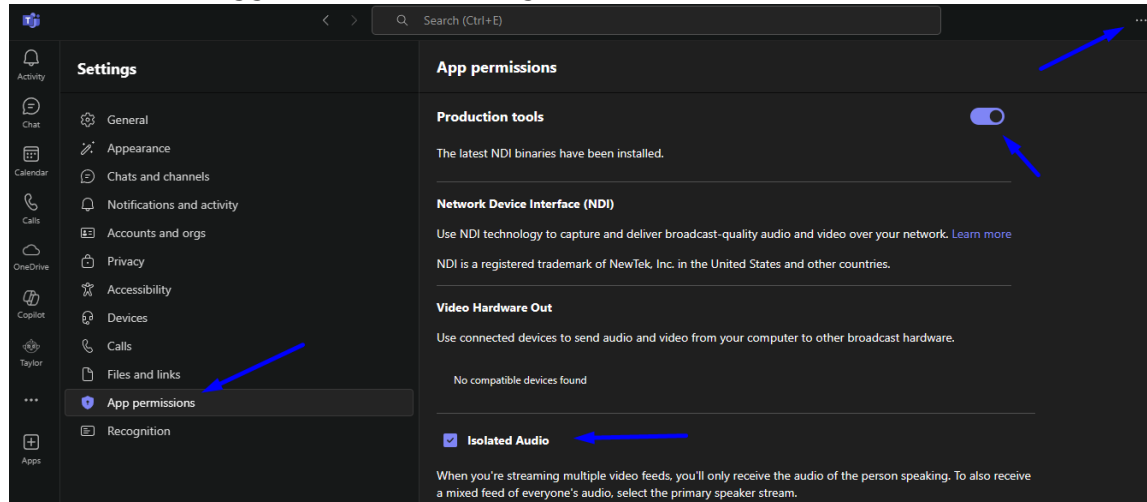
This unlocks flexibility for operators to mix between direct participant feeds, rely on the Active Speaker feed for ad hoc Q&A, or capture screen-sharing content seamlessly.

Configuring Microsoft Teams for NDI

To access these streams, Teams must be configured to enable NDI broadcast. This requires:

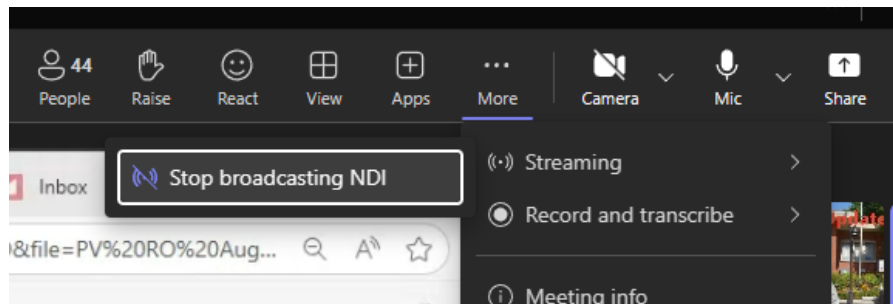
1. Enable NDI in Settings

- In Teams, click the 3-dot menu → Settings → App Permissions → Production Tools.
- Enable the toggle for NDI streaming.



2. Start Broadcasting in an Active Meeting

- Once in a meeting, select More → Streaming → Start broadcasting (NDI).
- Teams will immediately generate NDI streams for participants, Active Speaker, and Shared Screen.



3. Teams Version Requirements

- This process is based on the New Teams client (version 25212.2204.3869.2204, last checked Sept 1, 2025).
- Ensure you are running the latest Teams desktop client to access NDI features.

Optional Tools: Installing the free NDI Tools suite (Studio Monitor, Scan Converter, Remote Caller, etc.) to monitor and test NDI feeds before routing them into Carbonite Code.

Bringing Feeds into Carbonite Code

Carbonite Code treats Teams NDI outputs as standard NDI network sources. To configure:

1. On Carbonite Code, go to Configuration → Inputs → Source → Input Router.
2. Browse the available NDI sources on your network.
3. Select the Teams NDI streams you want to assign as Carbonite inputs.
4. Any of the 30 switcher inputs can be mapped to any Teams stream — no fixed input assignments are required.

This gives operators flexibility to map Active Speaker, Shared Screen, and individual participant feeds anywhere on the panel.



Audio Considerations

Teams Active Speaker feed includes:

- All remote participant audio (what the meeting hears minus the Code Client Audio).
- Excludes the local Carbonite Code client audio and video from the Auto Switching of the Active Speaker.

This ensures:

- No double-loop or echo of the Carbonite Code operator's feed.
- The Active Speaker video never switches to the local Carbonite Code machine camera.
- Local operator audio can be used as a basic talkback system — everyone in the meeting hears it, but it doesn't interfere with production feeds.

Operators may still choose to:

- Take individual participant audio feeds for maximum control (like isolated microphones in a studio).
- Use the Active Speaker feed for quick switching and ad hoc interactions.

This flexibility lets productions balance hands-on control with automation, depending on the type of event.

Example Scenarios

Remote Panelist in a Live Broadcast

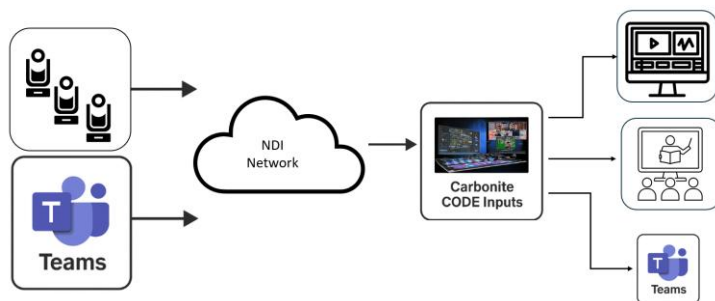
- A panelist joins via Teams. Their camera feed and isolated audio appear as separate NDI inputs.
- Operator can cut between them and other in-room cameras just like any other source.
- Operator can also send back to teams an NDI feed including Video and Audio Content specific for the user – ie using an Aux Bus and an Aux Mix the operator can create a Video Mix Minus and Audio Mix Minus. The Guest will be supplied with a different Video when they are taken Full on Program (thus they won't see themselves) and the Audio will include all of program, minus their own microphone so that they will not be fed an echo.

Shared Slides or Demo

- A presenter shares their screen in Teams. The Shared Screen NDI feed is assigned to a Carbonite input.
- Whenever a member of the meeting Shares a screen, it will always go to this same source. This means that they don't need to setup inputs per contributor – Screen Share will always be the same input making split screens and 2 box effects quick to setup with Memories, Custom Controls or manually operated on the fly!
- The operator can seamlessly switch or key that feed into the program. Build Effects on an ME to include the presenter and the Presentation, or quickly cut between the presentation and other sources as required.

Teams-Only Production

- Even without additional local cameras, operators can use Individual Teams Contributors, Teams Active Speaker and Teams Shared Screen to drive an entire production.
- Multiview layouts, transitions, and graphics from Carbonite Code create a polished broadcast from just Teams participants.



Best Practices & Tips

- Input Naming: Rename Teams NDI sources inside Carbonite Code for clarity (e.g., “CEO Camera,” “Shared Screen”). If more comfortable with “Traditional workflow” relabel the inputs like a regular Camera 1, 2, 3 or REM 1 etc.
- Monitoring: Use NDI Studio Monitor or a DashBoard Custom User interface to view the MultiViewers and Code outputs to verify streams while live switching.
- Latency Awareness: NDI introduces minimal but measurable delay — plan accordingly for IMAG (live screens), NDI HX3 is an efficient codec and is only adding a couple of frames when compared to NDI High bandwidth which is extremely effective when used with MultiViewer outputs and Aux Return Feeds.
- Fallback Strategy: Keep the Active Speaker feed patched as a safety net in case of unexpected participant interactions.

Conclusion

By tapping into Teams’ NDI capabilities, Carbonite Code empowers corporate and AV teams to elevate everyday collaboration into broadcast-quality productions. Whether it’s hybrid meetings, corporate town halls, or virtual events, the integration provides seamless access to participant video, audio, and shared content with the full creative power of a production switcher.