

Quickstart Examples SC

localhost:3000/quickstart/?roomName=testroom

Twilio tools INFO Debug roshan

Video Quick Start More Examples Leave Room

IronMan1

ironMan1



2 Issues: 2 | ⚡

```
{"type": "heartbeat"}  
2024-06-19T09:08:16.604Z debug index.js:23788  
[TwilioConnection #1: ws://global.vss.twilio.com/signaling] Incoming:  
{"type": "heartbeat"}  
2024-06-19T09:08:16.707Z debug index.js:23788  
ws://global.vss.twilio.com/signaling Outgoing:  
{"type": "heartbeat"}  
2024-06-19T09:08:17.267Z info [connect index.js:23788  
#1 event  
↳ {elapsedTime: 22563, group: 'quality', level: 'info',  
name: 'active-ice-reporter', timestamp: 1716780097267, ...}  
2024-06-19T09:08:20.704Z debug index.js:23788  
[TwilioConnection #1: ws://global.vss.twilio.com/signaling] Incoming:  
{"type": "heartbeat"}  
2024-06-19T09:08:21.589Z debug index.js:23788  
ws://global.vss.twilio.com/signaling Outgoing:  
{"type": "heartbeat"}  
2024-06-19T09:08:24.804Z debug index.js:23788  
[TwilioConnection #1: ws://global.vss.twilio.com/signaling] Incoming:  
{"type": "heartbeat"}  
2024-06-19T09:08:26.391Z debug index.js:23788  
[TwilioConnection #1: ws://global.vss.twilio.com/signaling] Outgoing:  
{"type": "heartbeat"}  
2024-06-19T09:08:27.269Z info [connect index.js:23788  
#1 event  
↳ {elapsedTime: 32565, group: 'quality', level: 'info',  
name: 'stats-report', timestamp: 171678107269, ...}  
2024-06-19T09:08:27.269Z info [connect index.js:23788  
#1 event  
↳ {elapsedTime: 32565, group: 'quality', level: 'info',  
name: 'active-ice-candidate-pair', timestamp: 1716780107269, ...}  
2024-06-19T09:08:28.904Z debug index.js:23788  
[TwilioConnection #1: ws://global.vss.twilio.com/signaling] Incoming:  
{"type": "heartbeat"}  
2024-06-19T09:08:31.195Z debug index.js:23788  
[TwilioConnection #1: ws://global.vss.twilio.com/signaling] Outgoing:  
{"type": "heartbeat"}  
>
```

Bandwidth Constraints

```
'use strict';

var Video = require('twilio-video');

/**
 * Connect to a Room with the given bandwidth constraints.
 * @param {string} token - Token for joining the Room
 * @param {string} roomName - Room name
 * @param {?number} maxAudioBitrate - Max audio bitrate (bps)
 * @param {?number} maxVideoBitrate - Max video bitrate (bps)
 * @returns {CancelablePromise<Room>}
 */
function connectWithBandwidthConstraints(token, roomName, maxAudioBitrate, maxVideoBitrate) {
  return Video.connect(token, {
    maxAudioBitrate,
    maxVideoBitrate,
    name: roomName
  });
}

/**
 * Update the bandwidth constraints of a Room.
 * @param {Room} room - The Room whose bandwidth constraints have changed
 * @param {?number} maxAudioBitrate - Max audio bitrate (bps)
 * @param {?number} maxVideoBitrate - Max video bitrate (bps)
 */
function updateBandwidthConstraints(room, maxAudioBitrate, maxVideoBitrate) {
  room.localParticipant.setParameters({
    maxAudioBitrate,
    maxVideoBitrate
  });
}

exports.connectWithBandwidthConstraints = connectWithBandwidthConstraints;
exports.updateBandwidthConstraints = updateBandwidthConstraints;

```

Participant's Media

Select Bandwidth Constraints

Max Audio Bitrate (bps)

No limit

Max Video Bitrate (bps)

No limit

Disconnect from Room

Console Output:

```
42 Issues: 39 3 0
2965-40db-531-65b4ca6d11", "enabled": true, "id": "MT4c47b3b70593ab862903d3b8e12f1", "name": "a827ecdc-fcf9-46c6-948d-91ccfc0259", "state": "connected", "media_warnings": []}, "participants": [{"sid": "PA9f295de98ccbc508d6535e271565b7", "identity": "Jolly Bobo Liberty", "tracks": [{"revision": 1, "state": "created"}, {"revision": 2, "state": "updated"}, {"revision": 3, "state": "published"}, {"revision": 4, "state": "subscribed"}, {"revision": 5, "state": "unpublished"}], "published": [{"revision": 1, "tracks": [{"kind": "audio", "priority": "standard", "id": "0b403c15-90e4-4ec2-99a8-3d95267ef0c", "enabled": true, "sid": "MT4c47b3b70593ab862903d3b8e12f1", "name": "bc27afee-c723-4d9c-a6de-81a7d1b38dfb30", "state": "ready"}, {"kind": "video", "priority": "standard", "id": "7e095b40-2965-40db-531-65b4ca6d11", "enabled": true, "sid": "MT4c47b3b70593ab862903d3b8e12f1", "name": "a827ecdc-fcf9-46c6-948d-91ccfc0259", "state": "ready"}]}, {"type": "heartbeat"}], "timestamp": 16878173904, "type": "heartbeat"}]2024-06-19T09:09:25.062Z debug [TwilioConnection #1: ws://global.vss.twilio.com/signaling] Incoming: {"type": "heartbeat"}2024-06-19T09:09:28.124Z debug [TwilioConnection #1: ws://global.vss.twilio.com/signaling] Outgoing: {"type": "heartbeat"}2024-06-19T09:09:29.310Z debug [TwilioConnection #2: ws://global.vss.twilio.com/signaling] Incoming: {"type": "heartbeat"}2024-06-19T09:09:29.822Z debug [TwilioConnection #2: ws://global.vss.twilio.com/signaling] Outgoing: {"type": "heartbeat"}2024-06-19T09:09:30.002Z debug [TwilioConnection #2: ws://global.vss.twilio.com/signaling] Outgoing: {"type": "heartbeat"}2024-06-19T09:09:32.124Z debug [TwilioConnection #2: ws://global.vss.twilio.com/signaling] Incoming: {"type": "heartbeat"}2024-06-19T09:09:33.904Z info [connect index.js:26961 #1 event] > [elapsedTime: 21063, group: 'quality', level: 'info', name: 'stats-report', timestamp: 171678173904, ...]2024-06-19T09:09:34.624Z debug [index.js:26961 #1 event] > [TwilioConnection #1: ws://global.vss.twilio.com/signaling] Outgoing: {"type": "heartbeat"}2024-06-19T09:09:34.989Z debug [TwilioConnection #2: ws://global.vss.twilio.com/signaling] Outgoing: {"type": "heartbeat"}2024-06-19T09:09:34.999Z info [connect index.js:26961 #2 event] > [elapsedTime: 12542, group: 'quality', level: 'info', name: 'stats-report', timestamp: 171678173909, ...]2024-06-19T09:09:34.999Z info [connect index.js:26961 #2 event] > [TwilioConnection #2: ws://global.vss.twilio.com/signaling] Outgoing: {"type": "heartbeat"}2024-06-19T09:09:36.124Z debug [index.js:26961 #2 event] > [TwilioConnection #2: ws://global.vss.twilio.com/signaling] Incoming: {"type": "heartbeat"}2024-06-19T09:09:37.510Z debug [index.js:26961 #2 event] > [TwilioConnection #1: ws://global.vss.twilio.com/signaling] Incoming: {"type": "heartbeat"}2024-06-19T09:09:39.425Z debug [index.js:26961 #1 event] > [TwilioConnection #1: ws://global.vss.twilio.com/signaling] Outgoing: {"type": "heartbeat"}2024-06-19T09:09:39.464Z debug [index.js:26961 #1 event] > [TwilioConnection #2: ws://global.vss.twilio.com/signaling] Outgoing: {"type": "heartbeat"}2024-06-19T09:09:40.324Z debug [index.js:26961 #2 event] > [TwilioConnection #2: ws://global.vss.twilio.com/signaling] Incoming: {"type": "heartbeat"}>
```

Bandwidth Constraints

```
'use strict';

var Video = require('twilio-video');

/**
 * Connect to a Room with the given bandwidth constraints.
 * @param {string} token - Token for joining the Room
 * @param {string} roomName - Room name
 * @param {?number} maxAudioBitrate - Max audio bitrate (bps)
 * @param {?number} maxVideoBitrate - Max video bitrate (bps)
 * @returns {CancelablePromise<Room>}
 */
function connectWithBandwidthConstraints(token, roomName, maxAudioBitrate, maxVideoBitrate) {
  return Video.connect(token, {
    maxAudioBitrate,
    maxVideoBitrate,
    name: roomName
  });
}

/**
 * Update the bandwidth constraints of a Room.
 * @param {Room} room - The Room whose bandwidth constraints have changed
 * @param {?number} maxAudioBitrate - Max audio bitrate (bps)
 * @param {?number} maxVideoBitrate - Max video bitrate (bps)
 */
function updateBandwidthConstraints(room, maxAudioBitrate, maxVideoBitrate) {
  room.localParticipant.setParameters({
    maxAudioBitrate,
    maxVideoBitrate
  });
}

exports.connectWithBandwidthConstraints = connectWithBandwidthConstraints;
exports.updateBandwidthConstraints = updateBandwidthConstraints;

```

Participant's Media

Select Bandwidth Constraints

Max Audio Bitrate (bps)

16000

Max Video Bitrate (bps)

No limit

Disconnect from Room

Console Output:

```
42 Issues: 39 3 0
2965-40db-531-65b4ca6d11", "enabled": true, "id": "MT4c47b3b70593ab862903d3b8e12f1", "name": "a827ecdc-fcf9-46c6-948d-91ccfc0259", "state": "connected", "media_warnings": []}, "participants": [{"sid": "PA9f295de98ccbc508d6535e271565b7", "identity": "Jolly Bobo Liberty", "tracks": [{"revision": 1, "state": "created"}, {"revision": 2, "state": "updated"}, {"revision": 3, "state": "published"}, {"revision": 4, "state": "subscribed"}, {"revision": 5, "state": "unpublished"}], "published": [{"revision": 1, "tracks": [{"kind": "audio", "priority": "standard", "id": "0b403c15-90e4-4ec2-99a8-3d95267ef0c", "enabled": true, "sid": "MT4c47b3b70593ab862903d3b8e12f1", "name": "bc27afee-c723-4d9c-a6de-81a7d1b38dfb30", "state": "ready"}, {"kind": "video", "priority": "standard", "id": "7e095b40-2965-40db-531-65b4ca6d11", "enabled": true, "sid": "MT4c47b3b70593ab862903d3b8e12f1", "name": "a827ecdc-fcf9-46c6-948d-91ccfc0259", "state": "ready"}]}, {"type": "heartbeat"}], "timestamp": 16878173904, "type": "heartbeat"}]2024-06-19T09:09:33.102Z debug [TwilioConnection #1: ws://global.vss.twilio.com/signaling] Incoming: {"type": "heartbeat"}2024-06-19T09:09:33.904Z info [connect index.js:26961 #1 event] > [elapsedTime: 21063, group: 'quality', level: 'info', name: 'stats-report', timestamp: 171678173904, ...]2024-06-19T09:09:34.624Z debug [index.js:26961 #1 event] > [TwilioConnection #1: ws://global.vss.twilio.com/signaling] Outgoing: {"type": "heartbeat"}2024-06-19T09:09:34.989Z debug [TwilioConnection #2: ws://global.vss.twilio.com/signaling] Outgoing: {"type": "heartbeat"}2024-06-19T09:09:34.999Z info [connect index.js:26961 #2 event] > [elapsedTime: 12542, group: 'quality', level: 'info', name: 'stats-report', timestamp: 171678173909, ...]2024-06-19T09:09:34.999Z info [connect index.js:26961 #2 event] > [TwilioConnection #2: ws://global.vss.twilio.com/signaling] Outgoing: {"type": "heartbeat"}2024-06-19T09:09:36.124Z debug [index.js:26961 #2 event] > [TwilioConnection #2: ws://global.vss.twilio.com/signaling] Incoming: {"type": "heartbeat"}2024-06-19T09:09:37.510Z debug [index.js:26961 #2 event] > [TwilioConnection #1: ws://global.vss.twilio.com/signaling] Incoming: {"type": "heartbeat"}2024-06-19T09:09:39.425Z debug [index.js:26961 #1 event] > [TwilioConnection #1: ws://global.vss.twilio.com/signaling] Outgoing: {"type": "heartbeat"}2024-06-19T09:09:39.464Z debug [index.js:26961 #1 event] > [TwilioConnection #2: ws://global.vss.twilio.com/signaling] Outgoing: {"type": "heartbeat"}2024-06-19T09:09:40.324Z debug [index.js:26961 #2 event] > [TwilioConnection #2: ws://global.vss.twilio.com/signaling] Incoming: {"type": "heartbeat"}>
```

Bandwidth Constraints

```
'use strict';

var Video = require('twilio-video');

/**
 * Connect to a Room with the given bandwidth constraints.
 * @param {string} token - Token for joining the Room
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 * @param {?number} maxAudioBitrate - Max audio bitrate (bps)
 * @param {?number} maxVideoBitrate - Max video bitrate (bps)
 * @returns {CancelablePromise<Room>}
 */
function connectWithBandwidthConstraints(token, roomName, maxAudioBitrate, maxVideoBitrate) {
  return Video.connect(token, {
    maxAudioBitrate,
    maxVideoBitrate,
    name: roomName
  });
}

/**
 * Update the bandwidth constraints of a Room.
 * @param {Room} room - The Room whose bandwidth constraints have changed
 * @param {?number} maxAudioBitrate - Max audio bitrate (bps)
 * @param {?number} maxVideoBitrate - Max video bitrate (bps)
 */
function updateBandwidthConstraints(room, maxAudioBitrate, maxVideoBitrate) {
  room.localParticipant.setParameters({
    maxAudioBitrate,
    maxVideoBitrate
  });
}

exports.connectWithBandwidthConstraints = connectWithBandwidthConstraints;
exports.updateBandwidthConstraints = updateBandwidthConstraints;

```

Participant's Media

Select Bandwidth Constraints

Max Audio Bitrate (bps)

Max Video Bitrate (bps)

Disconnect from Room

Console Output:

```
42 Issues: 39 3 ⓘ Default levels ▾
[{"type": "heartbeat"}]
2024-06-19T09:09:43.903Z info [connect] index.js:26961
[TwilioConnection #1: wss://global.vss.twilio.com/signaling] Incoming: {"type": "heartbeat"}
2024-06-19T09:09:43.904Z info [connect] index.js:26961
[TwilioConnection #1: wss://global.vss.twilio.com/signaling] Outgoing: {"type": "heartbeat"}
2024-06-19T09:09:44.324Z debug index.js:26961
[TwilioConnection #2: wss://global.vss.twilio.com/signaling] Incoming: {"type": "heartbeat"}
2024-06-19T09:09:44.325Z debug index.js:26961
[TwilioConnection #2: wss://global.vss.twilio.com/signaling] Outgoing: {"type": "heartbeat"}
2024-06-19T09:09:44.420Z debug index.js:26961
[TwilioConnection #1: wss://global.vss.twilio.com/signaling] Incoming: {"type": "heartbeat"}
2024-06-19T09:09:44.421Z debug index.js:26961
[TwilioConnection #1: wss://global.vss.twilio.com/signaling] Outgoing: {"type": "heartbeat"}
2024-06-19T09:09:44.820Z debug index.js:26961
[TwilioConnection #2: wss://global.vss.twilio.com/signaling] Incoming: {"type": "heartbeat"}
2024-06-19T09:09:44.821Z debug index.js:26961
[TwilioConnection #2: wss://global.vss.twilio.com/signaling] Outgoing: {"type": "heartbeat"}>
```

Bandwidth Constraints

```
'use strict';

var Video = require('twilio-video');

/**
 * Connect to a Room with the given bandwidth constraints.
 * @param {string} token - Token for joining the Room
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function connectWithBandwidthConstraints(token, roomName, maxAudioBitrate, maxVideoBitrate) {
  return Video.connect(token, {
    maxAudioBitrate,
    maxVideoBitrate,
    name: roomName
  });
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function updateBandwidthConstraints(room, maxAudioBitrate, maxVideoBitrate) {
  room.localParticipant.setParameters({
    maxAudioBitrate,
    maxVideoBitrate
  });
}

exports.connectWithBandwidthConstraints = connectWithBandwidthConstraints;
exports.updateBandwidthConstraints = updateBandwidthConstraints;

```

Participant's Media

Select Bandwidth Constraints

Max Audio Bitrate (bps)

Max Video Bitrate (bps)

Disconnect from Room

Console Output:

```
42 Issues: 39 3 ⓘ Default levels ▾
[{"type": "heartbeat"}]
2024-06-19T09:09:48.425Z debug index.js:26961
[TwilioConnection #1: wss://global.vss.twilio.com/signaling] Incoming: {"type": "heartbeat"}
2024-06-19T09:09:48.426Z debug index.js:26961
[TwilioConnection #1: wss://global.vss.twilio.com/signaling] Outgoing: {"type": "heartbeat"}
2024-06-19T09:09:49.026Z debug index.js:26961
[TwilioConnection #2: wss://global.vss.twilio.com/signaling] Incoming: {"type": "heartbeat"}
2024-06-19T09:09:49.027Z debug index.js:26961
[TwilioConnection #2: wss://global.vss.twilio.com/signaling] Outgoing: {"type": "heartbeat"}
2024-06-19T09:09:49.712Z debug index.js:26961
[TwilioConnection #1: wss://global.vss.twilio.com/signaling] Incoming: {"type": "heartbeat"}
2024-06-19T09:09:52.425Z debug index.js:26961
[TwilioConnection #2: wss://global.vss.twilio.com/signaling] Incoming: {"type": "heartbeat"}
2024-06-19T09:09:53.810Z debug index.js:26961
[TwilioConnection #1: wss://global.vss.twilio.com/signaling] Incoming: {"type": "heartbeat"}
2024-06-19T09:09:53.830Z debug index.js:26961
[TwilioConnection #1: wss://global.vss.twilio.com/signaling] Outgoing: {"type": "heartbeat"}
2024-06-19T09:09:53.904Z info [connect] index.js:26961
[TwilioConnection #1: wss://global.vss.twilio.com/signaling] Incoming: {"type": "heartbeat"}>
```

Bandwidth Constraints

```
'use strict';

var Video = require('twilio-video');

/**
 * Connect to a Room with the given bandwidth constraints.
 * @param {string} token - Token for joining the Room
 * @param {string} roomName - Room name
 * @param {?number} maxAudioBitrate - Max audio bitrate (bps)
 * @param {?number} maxVideoBitrate - Max video bitrate (bps)
 * @returns {CancelablePromise<Room>}
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function connectWithBandwidthConstraints(token, roomName, maxAudioBitrate, maxVideoBitrate) {
  return Video.connect(token, {
    maxAudioBitrate,
    maxVideoBitrate,
    name: roomName
  });
}

/**
 * Update the bandwidth constraints of a Room.
 * @param {Room} room - The Room whose bandwidth constraints have changed
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 * @param {?number} maxVideoBitrate - Max video bitrate (bps)
 */
function updateBandwidthConstraints(room, maxAudioBitrate, maxVideoBitrate) {
  room.localParticipant.setParameters({
    maxAudioBitrate,
    maxVideoBitrate
  });
}

exports.connectWithBandwidthConstraints = connectWithBandwidthConstraints;
exports.updateBandwidthConstraints = updateBandwidthConstraints;

```

Participant's Media

Select Bandwidth Constraints

Max Audio Bitrate (bps)

Max Video Bitrate (bps)

Disconnect from Room

Console Output (Partial):

```
42 Issues: 39 3 ⓘ
("type": "heartbeat")
2024-06-19T09:09:53.010Z debug index.js:26961 [TwilioConnection #1: wss://global.vss.twilio.com/signaling] Incoming: ("type": "heartbeat")
2024-06-19T09:09:53.330Z debug index.js:26961 [TwilioConnection #1: wss://global.vss.twilio.com/signaling] Outgoing: ("type": "heartbeat")
2024-06-19T09:09:53.904Z info [connect index.js:26961 #1: event {"elapsedTime": 41063, group: "quality", level: "info", > name: "stats-report", timestamp: 171678193904, ...}
2024-06-19T09:09:54.007Z debug index.js:26961 [TwilioConnection #2: wss://global.vss.twilio.com/signaling] Incoming: ("type": "heartbeat")
2024-06-19T09:09:54.910Z info [connect index.js:26961 #2: event {"elapsedTime": 32543, group: "quality", level: "info", > name: "stats-report", timestamp: 171678194904, ...}
2024-06-19T09:09:54.910Z info [connect index.js:26961 #2: event {"elapsedTime": 32543, group: "quality", level: "info", > name: "active-ice-candidate-pair", timestamp: 171678014910, ...}
2024-06-19T09:09:55.525Z debug index.js:26961 [TwilioConnection #2: wss://global.vss.twilio.com/signaling] Incoming: ("type": "heartbeat")
2024-06-19T09:09:58.632Z debug index.js:26961 [TwilioConnection #1: wss://global.vss.twilio.com/signaling] Outgoing: ("type": "heartbeat")
2024-06-19T09:09:58.688Z debug index.js:26961 [TwilioConnection #2: wss://global.vss.twilio.com/signaling] Outgoing: ("type": "heartbeat")
2024-06-19T09:10:00.628Z debug index.js:26961 [TwilioConnection #2: wss://global.vss.twilio.com/signaling] Incoming: ("type": "heartbeat")
```

Bandwidth Constraints

```
'use strict';

var Video = require('twilio-video');

/**
 * Connect to a Room with the given bandwidth constraints.
 * @param {string} token - Token for joining the Room
 * @param {string} roomName - Room name
 * @param {?number} maxAudioBitrate - Max audio bitrate (bps)
 * @param {?number} maxVideoBitrate - Max video bitrate (bps)
 * @returns {CancelablePromise<Room>}
 */
function connectWithBandwidthConstraints(token, roomName, maxAudioBitrate, maxVideoBitrate) {
  return Video.connect(token, {
    maxAudioBitrate,
    maxVideoBitrate,
    name: roomName
  });
}

/**
 * Update the bandwidth constraints of a Room.
 * @param {Room} room - The Room whose bandwidth constraints have changed
 * @param {?number} maxAudioBitrate - Max audio bitrate (bps)
 * @param {?number} maxVideoBitrate - Max video bitrate (bps)
 */
function updateBandwidthConstraints(room, maxAudioBitrate, maxVideoBitrate) {
  room.localParticipant.setParameters({
    maxAudioBitrate,
    maxVideoBitrate
  });
}

exports.connectWithBandwidthConstraints = connectWithBandwidthConstraints;
exports.updateBandwidthConstraints = updateBandwidthConstraints;

```

Participant's Media

Select Bandwidth Constraints

Max Audio Bitrate (bps)

Max Video Bitrate (bps)

Disconnect from Room

Console Output (Partial):

```
42 Issues: 39 3 ⓘ
("type": "heartbeat")
2024-06-19T09:10:00.628Z debug index.js:26961 [TwilioConnection #2: wss://global.vss.twilio.com/signaling] Incoming: ("type": "heartbeat")
2024-06-19T09:10:01.758Z debug index.js:26961 [RemoteVideoTrack #4: RTCTrackId=ac10a0998905e47d1b38db30] Dimensions changed: > {width: 480, height: 360}
2024-06-19T09:10:01.911Z debug index.js:26961 [TwilioConnection #1: wss://global.vss.twilio.com/signaling] Incoming: ("type": "heartbeat")
2024-06-19T09:10:03.434Z debug index.js:26961 [TwilioConnection #1: wss://global.vss.twilio.com/signaling] Outgoing: ("type": "heartbeat")
2024-06-19T09:10:03.804Z debug index.js:26961 [TwilioConnection #2: wss://global.vss.twilio.com/signaling] Outgoing: ("type": "heartbeat")
2024-06-19T09:10:03.904Z info [connect index.js:26961 #1: event {"elapsedTime": 51063, group: "quality", level: "info", > name: "stats-report", timestamp: 17167823904, ...}
2024-06-19T09:10:03.904Z info [connect index.js:26961 #1: event {"elapsedTime": 51063, group: "quality", level: "info", > name: "active-ice-candidate-pair", timestamp: 17167823904, ...}
2024-06-19T09:10:04.725Z debug index.js:26961 [TwilioConnection #2: wss://global.vss.twilio.com/signaling] Incoming: ("type": "heartbeat")
2024-06-19T09:10:04.989Z info [connect index.js:26961 #2: event {"elapsedTime": 42542, group: "quality", level: "info", > name: "stats-report", timestamp: 17167824904, ...}
2024-06-19T09:10:06.011Z debug index.js:26961 [TwilioConnection #1: wss://global.vss.twilio.com/signaling] Incoming: ("type": "heartbeat")
2024-06-19T09:10:06.740Z debug [RemoteVideoTrack #4: RTCTrackId=ac10a0998905e47d1b38db30] > {width: 320, height: 240}
```

Bandwidth Constraints

```
'use strict';

var Video = require('twilio-video');

/**
 * Connect to a Room with the given bandwidth constraints.
 * @param {string} token - Token for joining the Room
 * @param {string} roomName - Room name
 * @param {?number} maxAudioBitrate - Max audio bitrate (bps)
 * @param {?number} maxVideoBitrate - Max video bitrate (bps)
 * @returns {CancelablePromise<Room>}
 */
function connectWithBandwidthConstraints(token, roomName, maxAudioBitrate, maxVideoBitrate) {
  return Video.connect(token, {
    maxAudioBitrate,
    maxVideoBitrate,
    name: roomName
  });
}

/**
 * Update the bandwidth constraints of a Room.
 * @param {Room} room - The Room whose bandwidth constraints have changed
 * @param {?number} maxAudioBitrate - Max audio bitrate (bps)
 * @param {?number} maxVideoBitrate - Max video bitrate (bps)
 */
function updateBandwidthConstraints(room, maxAudioBitrate, maxVideoBitrate) {
  room.localParticipant.setParameters({
    maxAudioBitrate,
    maxVideoBitrate
  });
}

exports.connectWithBandwidthConstraints = connectWithBandwidthConstraints;
exports.updateBandwidthConstraints = updateBandwidthConstraints;

```

Participant's Media

Select Bandwidth Constraints

Max Audio Bitrate (bps)

Max Video Bitrate (bps)

Disconnect from Room

Console Output (Partial):

```
42 Issues: 39 3 | ⚡ Default levels ▾
("type": "heartbeat")
2024-06-19T09:18:03.610Z debug [TwilioConnection #2] ws://global.vss.twilio.com/signaling Outgoing: ("type": "heartbeat")
2024-06-19T09:18:03.904Z info [connect] index.js:26961
#1 event
#1 {elapsedTime: 51063, group: 'quality', level: 'info', name: 'stats-report', timestamp: 171678263904, ...}
2024-06-19T09:18:03.904Z info [connect] index.js:26961
#1 event
#1 {elapsedTime: 51063, group: 'quality', level: 'info', name: 'active-ice-candidate-pair', timestamp: 171678263904, ...}
2024-06-19T09:18:04.989Z debug [TwilioConnection #2] ws://global.vss.twilio.com/signaling Incoming: ("type": "heartbeat")
2024-06-19T09:18:04.989Z info [connect] index.js:26961
#2 event
#2 {elapsedTime: 42542, group: 'quality', level: 'info', name: 'stats-report', timestamp: 171678264000, ...}
2024-06-19T09:18:04.989Z debug [TwilioConnection #2] ws://global.vss.twilio.com/signaling Incoming: ("type": "heartbeat")
2024-06-19T09:18:04.989Z info [connect] index.js:26961
#2 event
#2 {elapsedTime: 42542, group: 'quality', level: 'info', name: 'active-ice-candidate-pair', timestamp: 171678264000, ...}
2024-06-19T09:18:04.989Z debug [TwilioConnection #2] ws://global.vss.twilio.com/signaling Incoming: ("type": "heartbeat")
2024-06-19T09:18:06.740Z debug [RemoteVideoTrack #4] index.js:26961
MTs732625ac10a0896905e47d1b38fb30 Dimensions changed: > {width: 320, height: 240}
2024-06-19T09:18:06.740Z debug [TwilioConnection #1] ws://global.vss.twilio.com/signaling Outgoing: ("type": "heartbeat")
2024-06-19T09:18:08.411Z debug [TwilioConnection #2] ws://global.vss.twilio.com/signaling Outgoing: ("type": "heartbeat")
2024-06-19T09:18:08.725Z debug [TwilioConnection #2] ws://global.vss.twilio.com/signaling Incoming: ("type": "heartbeat")
2024-06-19T09:18:08.725Z debug [TwilioConnection #2] ws://global.vss.twilio.com/signaling Incoming: ("type": "heartbeat")
2024-06-19T09:18:09.011Z debug [TwilioConnection #1] ws://global.vss.twilio.com/signaling Incoming: ("type": "heartbeat")
```

Bandwidth Constraints

```
'use strict';

var Video = require('twilio-video');

/**
 * Connect to a Room with the given bandwidth constraints.
 * @param {string} token - Token for joining the Room
 * @param {string} roomName - Room name
 * @param {?number} maxAudioBitrate - Max audio bitrate (bps)
 * @param {?number} maxVideoBitrate - Max video bitrate (bps)
 * @returns {CancelablePromise<Room>}
 */
function connectWithBandwidthConstraints(token, roomName, maxAudioBitrate, maxVideoBitrate) {
  return Video.connect(token, {
    maxAudioBitrate,
    maxVideoBitrate,
    name: roomName
  });
}

/**
 * Update the bandwidth constraints of a Room.
 * @param {Room} room - The Room whose bandwidth constraints have changed
 * @param {?number} maxAudioBitrate - Max audio bitrate (bps)
 * @param {?number} maxVideoBitrate - Max video bitrate (bps)
 */
function updateBandwidthConstraints(room, maxAudioBitrate, maxVideoBitrate) {
  room.localParticipant.setParameters({
    maxAudioBitrate,
    maxVideoBitrate
  });
}

exports.connectWithBandwidthConstraints = connectWithBandwidthConstraints;
exports.updateBandwidthConstraints = updateBandwidthConstraints;

```

Participant's Media

Select Bandwidth Constraints

Max Audio Bitrate (bps)

Max Video Bitrate (bps)

Disconnect from Room

Console Output (Partial):

```
42 Issues: 39 3 | ⚡ Default levels ▾
("type": "heartbeat")
2024-06-19T09:18:08.411Z debug [TwilioConnection #2] ws://global.vss.twilio.com/signaling Outgoing: ("type": "heartbeat")
2024-06-19T09:18:08.725Z debug [TwilioConnection #2] ws://global.vss.twilio.com/signaling Incoming: ("type": "heartbeat")
2024-06-19T09:18:10.011Z debug [TwilioConnection #1] ws://global.vss.twilio.com/signaling Incoming: ("type": "heartbeat")
2024-06-19T09:18:12.726Z debug [TwilioConnection #2] ws://global.vss.twilio.com/signaling Incoming: ("type": "heartbeat")
2024-06-19T09:18:13.037Z debug [TwilioConnection #1] ws://global.vss.twilio.com/signaling Outgoing: ("type": "heartbeat")
2024-06-19T09:18:13.212Z debug [TwilioConnection #2] ws://global.vss.twilio.com/signaling Outgoing: ("type": "heartbeat")
2024-06-19T09:18:13.983Z info [connect] index.js:26961
#1 event
#1 {elapsedTime: 61062, group: 'quality', level: 'info', name: 'stats-report', timestamp: 171678213903, ...}
2024-06-19T09:18:14.111Z debug [index.js:26961]
#1 event
#1 {elapsedTime: 52546, group: 'quality', level: 'info', name: 'stats-report', timestamp: 171678214913, ...}
2024-06-19T09:18:14.914Z info [connect] index.js:26961
#2 event
#2 {elapsedTime: 52547, group: 'quality', level: 'info', name: 'active-ice-candidate-pair', timestamp: 171678214914, ...}
2024-06-19T09:18:16.825Z debug [TwilioConnection #2] ws://global.vss.twilio.com/signaling Incoming: ("type": "heartbeat")
```

Local Video Snapshot

```
'use strict';

var Video = require('twilio-video');

/**
 * Display local video in the given HTMLVideoElement.
 * @param {HTMLVideoElement} video
 * @returns {Promise<void>}
 */
function displayLocalVideo(video) {
  return Video.createLocalVideoTrack().then(function(localTrack) {
    localTrack.attach(video);
    return localTrack;
  });
}

/**
 * Take snapshot of the local video from the HTMLVideoElement attached
 * in the HTMLCanvasElement.
 * @param {HTMLVideoElement} video
 * @param {LocalVideoTrack} localVideoTrack
 * @param {HTMLCanvasElement|HTMLImageElement} snapshot
 */
function takeLocalVideoSnapshot(video, localVideoTrack, snapshot) {
  if (window.ImageCapture) {
    const imageCapture = new ImageCapture(localVideoTrack.mediaStream);
    imageCapture.takePhoto().then(function(blob) {
      snapshot.src = URL.createObjectURL(blob);
    });
  } else {
    snapshot.getContext('2d').drawImage(video, 0, 0);
  }
}

module.exports.displayLocalVideo = displayLocalVideo;
module.exports.takeLocalVideoSnapshot = takeLocalVideoSnapshot;
```

Local Video

Take Snapshot

Snapshot

Console output:

```
2024-06-19T09:18:33.426Z info index.js:25844 [createLocalTracks #1] Call to getUserMedia successful; got tracks: > [MediaStreamTrack]
2024-06-19T09:18:33.428Z debug index.js:25844 [LocalVideoTrack #1: undefined] Initializing
2024-06-19T09:18:33.429Z debug index.js:25844 [LocalVideoTrack #1: eea07452-8a5f-49d2-bcca-ccccc289c1b8] Attempting to attach to element: <video id="videoinputpreview" autoplay playsinline></video>
2024-06-19T09:18:33.512Z debug index.js:25844 [LocalVideoTrack #1: eea07452-8a5f-49d2-bcca-ccccc289c1b8] Dimensions: > {width: 640, height: 480}
2024-06-19T09:18:33.512Z debug index.js:25844 [LocalVideoTrack #1: eea07452-8a5f-49d2-bcca-ccccc289c1b8] Started
```

localhost:3000/mediadevices

```
/* eslint-disable no-console */
'use strict';

var Video = require('twilio-video');

/**
 * Get the list of available media devices of the given kind.
 * @param {Array<MediaDeviceInfo>} deviceInfos
 * @param {string} kind - One of 'audioinput', 'audiooutput'.
 * @returns {Array<MediaDeviceInfo>} - Only those media devices
 */
function getDevicesOfKind(deviceInfos, kind) {
  return deviceInfos.filter(function(deviceInfo) {
    return deviceInfo.kind === kind;
  });
}

/**
 * Apply the selected audio output device.
 * @param {string} deviceId
 * @param {HTMLAudioElement} audio
 * @returns {Promise<void>}
 */
function applyAudioOutputDeviceSelection(deviceId, audio) {
  return typeof audio.setSinkId === 'function'
    ? audio.setSinkId(deviceId)
    : Promise.reject('This browser does not support setting an audio output device');
}

/**
 * Apply the selected input device.
 * @param {string} deviceId
 * @param {'audio' | 'video'} kind
 * @returns {Promise<LocalTrack>} - The created or restarted LocalTrack
 */
function applyInputDeviceSelection(deviceId, localTrack, kind) {
  var constraints = { deviceId: { exact: deviceId } };
  if (localTrack) {
    return localTrack.restart(constraints).then(function() {
      return localTrack;
    });
  }
}
```

Select Media Devices

Audio Input

Default - realme Buds T300 (Bluetooth)

Apply

Video Input

FaceTime HD Camera (3A71:F4B5)

Apply

Audio Output

Default - realme Buds T300 (Bluetooth)

Apply

Disconnect

Join room:

Console output:

```
2024-06-19T09:11:22.761Z debug index.js:26315 [LocalVideoDevice #1: eea07452-8a5f-49d2-bcca-ccccc289c1b8] MediaStreamTrack: > {kind: "video", id: "43f994e0-c870-4c84-9ad-812a190a0767", label: "FaceTime HD Camera (3A71:F4B5)", enabled: true, muted: false, ...}
2024-06-19T09:11:22.762Z debug index.js:26315 [LocalVideoDevice #1: aef2f758a-4778-42fc-aid3-ed5cc6bb7529] ICE connection state is "connected"
2024-06-19T09:11:22.762Z debug index.js:26315 [LocalVideoDevice #1: aef2f758a-4778-42fc-aid3-ed5cc6bb7529] Attempting to attach to element: <video id="videoinputpreview" autoplay playsinline></video>
2024-06-19T09:11:22.784Z debug index.js:26315 [PeerConnectionV2 #1: 97442469-063e-4ff7-9c08-fdc6272c609] ICE connection state is "connected"
2024-06-19T09:11:22.784Z debug index.js:26315 [PeerConnectionV2 #1: 97442469-063e-4ff7-9c08-fdc6272c609] ICE gathering state is "complete"
2024-06-19T09:11:22.784Z debug index.js:26315 [PeerConnection #1: 97442469-063e-4ff7-9c08-fdc6272c609] Outgoing: {"body": {"session": "fe1e0850d575aba1068262c3c6c8a7808e0360bd954dc1610801763c22ee080801095572fd780fd84fdf81061818d", "connection": "aef2f758a-4778-42fc-aid3-ed5cc6bb7529", "version": "2", "peerConnections": [{"ice": {"candidates": [{"id": "42469-063e-4ff7-9c8b-7fd6272c609"}, {"participant": "aef2f758a-4778-42fc-aid3-ed5cc6bb7529"}], "kind": "video", "name": "aef2f758a-4778-42fc-a1d3-ed5cc6bb7529"}, {"priority": "standard", "enabled": true, "id": "89175705-56ef-4ac5-85ae-904ee57ad", "kind": "audio", "name": "90ce5e82-e3e4-4453-a75a-dec941d9737e", "priority": "standard"}]}, {"type": "msg"}]
2024-06-19T09:11:22.833Z debug index.js:26315 [LocalVideoTrack #2: aef2f758a-4778-42fc-aid3-ed5cc6bb7529] Dimensions: > {width: 640, height: 480}
2024-06-19T09:11:22.833Z debug index.js:26315 [LocalVideoTrack #2: aef2f758a-4778-42fc-aid3-ed5cc6bb7529] Started
2024-06-19T09:11:22.944Z info index.js:26315 [LocalAudioTrack #1: 9bce5e82-e3e4-4453-a75a-dec941d9737e] Re-acquired the MediaStreamTrack
2024-06-19T09:11:22.944Z debug index.js:26315 [LocalAudioTrack #1: 9bce5e82-e3e4-4453-a75a-dec941d9737e] MediaStreamTrack
```

localhost:3000/mediadevices

```

/* eslint-disable no-console */
'use strict';

var Video = require('twilio-video');

/**
 * Get the list of available media devices of the given kind.
 * @param {Array<MediaDeviceInfo>} deviceInfos
 * @param {string} kind - One of 'audioinput', 'audiooutput', ...
 * @returns {Array<MediaDeviceInfo>} - Only those media devices
 */
function getDevicesOfKind(deviceInfos, kind) {
  return deviceInfos.filter(function(deviceInfo) {
    return deviceInfo.kind === kind;
  });
}

/**
 * Apply the selected audio output device.
 * @param {string} deviceId
 * @param {HTMLAudioElement} audio
 * @returns {Promise<void>}
 */
function applyAudioOutputDeviceSelection(deviceId, audio) {
  return typeof audio.setSinkId === 'function'
    ? audio.setSinkId(deviceId)
    : Promise.reject('This browser does not support setting an audio output device');
}

/**
 * Apply the selected input device.
 * @param {string} deviceId
 * @param {LocalTrack} localTrack - LocalAudioTrack or LocalVideoTrack
 * @param {'audio' | 'video'} kind
 * @returns {Promise<LocalTrack>} - The created or restarted LocalTrack
 */
function applyInputDeviceSelection(deviceId, localTrack, kind) {
  var constraints = { deviceId: { exact: deviceId } };
  if (localTrack) {
    return localTrack.restart(constraints).then(function() {
      return localTrack;
    });
  }
}

function applyDeviceSelection(deviceId, localTrack, kind) {
  var constraints = { deviceId: { exact: deviceId } };
  if (localTrack) {
    return localTrack.restart(constraints).then(function() {
      return localTrack;
    });
  }

  return kind === 'audio'
    ? Video.createLocalAudioTrack(constraints)
    : Video.createLocalVideoTrack(constraints);
}

/**
 * Ensure that media permissions are obtained.
 * @returns {Promise<void>}
 */

```

Select Media Devices

Audio Input

Default - realme Buds T300 (Bluetooth)

Apply

Video Input

FaceTime HD Camera (3A71:F4B5)

Apply

Audio Output

Default - realme Buds T300 (Bluetooth)

Apply

Disconnect

Join room:

RM7898e0360bd954dcca16b6e08176c3c2

localhost:3000/mediadevices

```

2024-06-19T09:11:22,761Z debug index.js:26315
[LocalVideoTrack #2: af2f758a-4778-42fc-aid3-ed5cc6b87529] MediaStreamTrack:
  > 0a-9add-812a190a767, label: 'FaceTime HD Camera (3A71:F4B5)'
  > 1c24deb058a*, enabled: true, muted: false, ...
2024-06-19T09:11:22,762Z debug index.js:26315
[LocalVideoTrack #2: af2f758a-4778-42fc-aid3-ed5cc6b87529] Initializing
2024-06-19T09:11:22,763Z debug index.js:26315
[LocalVideoTrack #2: af2f758a-4778-42fc-aid3-ed5cc6b87529] Attempting to attach to element:
  <video id="videoinputpreview" autoplay playsinline>
    </video>
2024-06-19T09:11:22,784Z debug index.js:26315
[PeerConnectionV2 #1: 97442469-063e-4ff7-9c8e-7fd6272c6b99] ICE connection state is "connected"
2024-06-19T09:11:22,784Z debug index.js:26315
[PeerConnectionV2 #1: 97442469-063e-4ff7-9c8e-7fd6272c6b99] ICE gathering state is "complete"
2024-06-19T09:11:22,784Z debug index.js:26315
[TwilioConnection #1: wss://global.vss.twilio.com/signaling] Outgoing:
  ("body": {"session": "afef10850d5d75ab01682623:c6c8a7808e0360bd954cc10b6e08176c3:c22ee48001095572fd78dfdb4fdf81061818d8c049ded3a104048c8f134el5a3", "version": "1", "type": "update", "constraints": [{"peer_connections": [{"ice": "trickle", "revision": "1"}, {"id": "97442469-063e-4ff7-9c8e-7fd6272c6b99"}], "participant": "0a-9add-812a190a767", "revision": "3", "tracks": [{"enabled": true, "id": "479dadff-8201-4ac7-7798-1c24deb058a", "kind": "video", "name": "af2f758a-4778-42fc-aid3-ed5cc6b87529", "priority": "standard"}, {"enabled": true, "id": "8915705-56ef-4ac5-85ae-9bce5eb2-e3e4-4453-75a8-dec941d9737e", "kind": "audio", "name": "90ce5eb2-e3e4-4453-75a8-dec941d9737e", "priority": "standard"}]}, "type": "msg"}
2024-06-19T09:11:22,833Z debug index.js:26315
[LocalVideoTrack #2: af2f758a-4778-42fc-aid3-ed5cc6b87529] Dimensions: > {width: 640, height: 480}
2024-06-19T09:11:22,833Z debug index.js:26315
[LocalVideoTrack #2: af2f758a-4778-42fc-aid3-ed5cc6b87529] Started
2024-06-19T09:11:22,944Z info index.js:26315
[LocalAudioTrack #1: 9bce5eb2-e3e4-4453-a75a-dec941d9737e] Re-acquired the MediaStreamTrack
2024-06-19T09:11:22,944Z debug index.js:26315
[LocalAudioTrack #1: 9bce5eb2-e3e4-4453-a75a-dec941d9737e] MediaStreamTrack:

```

localhost:3000/mediadevices

```

/* eslint-disable no-console */
'use strict';

var Video = require('twilio-video');

/**
 * Get the list of available media devices of the given kind.
 * @param {Array<MediaDeviceInfo>} deviceInfos
 * @param {string} kind - One of 'audioinput', 'audiooutput', ...
 * @returns {Array<MediaDeviceInfo>} - Only those media devices
 */
function getDevicesOfKind(deviceInfos, kind) {
  return deviceInfos.filter(function(deviceInfo) {
    return deviceInfo.kind === kind;
  });
}

/**
 * Apply the selected audio output device.
 * @param {string} deviceId
 * @param {HTMLAudioElement} audio
 * @returns {Promise<void>}
 */
function applyAudioOutputDeviceSelection(deviceId, audio) {
  return typeof audio.setSinkId === 'function'
    ? audio.setSinkId(deviceId)
    : Promise.reject('This browser does not support setting an audio output device');
}

/**
 * Apply the selected input device.
 * @param {string} deviceId
 * @param {LocalTrack} localTrack - LocalAudioTrack or LocalVideoTrack
 * @param {'audio' | 'video'} kind
 * @returns {Promise<LocalTrack>} - The created or restarted LocalTrack
 */
function applyInputDeviceSelection(deviceId, localTrack, kind) {
  var constraints = { deviceId: { exact: deviceId } };
  if (localTrack) {
    return localTrack.restart(constraints).then(function() {
      return localTrack;
    });
  }
}

function applyDeviceSelection(deviceId, localTrack, kind) {
  var constraints = { deviceId: { exact: deviceId } };
  if (localTrack) {
    return localTrack.restart(constraints).then(function() {
      return localTrack;
    });
  }

  return kind === 'audio'
    ? Video.createLocalAudioTrack(constraints)
    : Video.createLocalVideoTrack(constraints);
}

/**
 * Ensure that media permissions are obtained.
 * @returns {Promise<void>}
 */

```

Select Media Devices

Audio Input

Default - realme Buds T300 (Bluetooth)

Apply

Video Input

FaceTime HD Camera (3A71:F4B5)

Apply

Audio Output

Default - realme Buds T300 (Bluetooth)

Apply

Disconnect

Join room:

RM7898e0360bd954dcca16b6e08176c3c2

Please join the above Room from another device/browser using [QuickStart App](#) to see media input device changes taking effect.

localhost:3000/mediadevices

```

2024-06-19T09:11:22,761Z debug index.js:26315
[LocalVideoTrack #2: af2f758a-4778-42fc-aid3-ed5cc6b87529] MediaStreamTrack:
  > 0a-9add-812a190a767, label: 'FaceTime HD Camera (3A71:F4B5)'
  > 1c24deb058a*, enabled: true, muted: false, ...
2024-06-19T09:11:22,762Z debug index.js:26315
[LocalVideoTrack #2: af2f758a-4778-42fc-aid3-ed5cc6b87529] Initializing
2024-06-19T09:11:22,763Z debug index.js:26315
[LocalVideoTrack #2: af2f758a-4778-42fc-aid3-ed5cc6b87529] Attempting to attach to element:
  <video id="videoinputpreview" autoplay playsinline>
    </video>
2024-06-19T09:11:22,784Z debug index.js:26315
[PeerConnectionV2 #1: 97442469-063e-4ff7-9c8e-7fd6272c6b99] ICE connection state is "connected"
2024-06-19T09:11:22,784Z debug index.js:26315
[PeerConnectionV2 #1: 97442469-063e-4ff7-9c8e-7fd6272c6b99] ICE gathering state is "complete"
2024-06-19T09:11:22,784Z debug index.js:26315
[TwilioConnection #1: wss://global.vss.twilio.com/signaling] Outgoing:
  ("body": {"session": "afef10850d5d75ab01682623:c6c8a7808e0360bd954cc10b6e08176c3:c22ee48001095572fd78dfdb4fdf81061818d8c049ded3a104048c8f134el5a3", "version": "1", "type": "update", "constraints": [{"peer_connections": [{"ice": "trickle", "revision": "1"}, {"id": "97442469-063e-4ff7-9c8e-7fd6272c6b99"}], "participant": "0a-9add-812a190a767", "revision": "3", "tracks": [{"enabled": true, "id": "479dadff-8201-4ac7-7798-1c24deb058a", "kind": "video", "name": "af2f758a-4778-42fc-aid3-ed5cc6b87529", "priority": "standard"}, {"enabled": true, "id": "8915705-56ef-4ac5-85ae-90ce5eb2-e3e4-4453-75a8-dec941d9737e", "kind": "audio", "name": "90ce5eb2-e3e4-4453-75a8-dec941d9737e", "priority": "standard"}]}, "type": "msg"}
2024-06-19T09:11:22,833Z debug index.js:26315
[LocalVideoTrack #2: af2f758a-4778-42fc-aid3-ed5cc6b87529] Dimensions: > {width: 640, height: 480}
2024-06-19T09:11:22,833Z debug index.js:26315
[LocalVideoTrack #2: af2f758a-4778-42fc-aid3-ed5cc6b87529] Started
2024-06-19T09:11:22,944Z info index.js:26315
[LocalAudioTrack #1: 9bce5eb2-e3e4-4453-a75a-dec941d9737e] Re-acquired the MediaStreamTrack
2024-06-19T09:11:22,944Z debug index.js:26315
[LocalAudioTrack #1: 9bce5eb2-e3e4-4453-a75a-dec941d9737e] MediaStreamTrack:

```

Codec Preferences

```
'use strict';

var Video = require('twilio-video');

/** 
 * Connect to a Room with the given codec preferences.
 * @param {string} token - Token for joining the Room
 * @param {string} roomName - Room name
 * @param {Array<AudioCodeName>} preferredAudioCodecs - Preferred audio codecs
 * @param {Array<VideoCodeName>} preferredVideoCodecs - Preferred video codecs
 * @returns {CancelablePromise<Room>}
 */
function connectWithPreferredCodecs(token, roomName, preferred) {
  return Video.connect(token, {
    preferredAudioCodecs: preferredAudioCodecs,
    preferredVideoCodecs: preferredVideoCodecs,
    name: roomName
  });
}

exports.connectWithPreferredCodecs = connectWithPreferredCodecs
```

Participant's Media

Select Codec Preferences

Preferred Audio Codec: ISAC

Selected Audio Codec: opus

Preferred Video Codec: H264

Selected Video Codec: H264

[Disconnect from Room](#)

Console Output:

```
42 issues: 39 3
227, name: 'wss://global.vss.twilio.com/signaling' published, ("revision":1, "tracks": [{"id": "PA5b4d4c67abd2a8aeff51c8773b2a736a", "identity": "Zesty Lando Kane"}, {"tracks": [{"kind": "audio", "priority": "standard", "id": "9cab80b5-8b94-4a8c-be51-518c4d3b6a55", "enabled": true, "id": "WT3dc191c8af3139-502b3061dc332d18", "name": "1dd2b19-ecf9-4f69-8af6-de8ad9ea2f7", "state": "ready"}, {"kind": "video", "priority": "standard", "id": "ffad592a-8dbb-4b42-8b3c-fc860ced9fde", "enabled": true, "id": "MTcBaa19253a51b32d7cfdf1ce6d339d5", "name": "1f42d381-b3d-49cf-bfcf-93a-288d162a", "state": "ready}], "revision": 3, "state": "connected", "id": "9cab80b5-8b94-4a8c-be51-518c4d3b6a55", "name": "PA346abed99cfa3b0d7aea2534b4161", "identity": "Kindly Penny Vail"}, {"tracks": [{"revision": 1, "state": "connected"}, {"recording": true, "is_recording": true, "subscribed": true}, {"revision": 0, "tracks": []}], "published": {"revision": 1, "tracks": [{"kind": "audio", "priority": "standard", "id": "9cab80b5-8b94-4a8c-be51-518c4d3b6a55", "enabled": true, "id": "WT3dc191c8af3139-502b3061dc332d18", "name": "1dd2b19-ecf9-4f69-8af6-de8ad9ea2f7", "state": "ready"}, {"kind": "video", "priority": "standard", "id": "ffad592a-8dbb-4b42-8b3c-fc860ced9fde", "enabled": true, "id": "MTcBaa19253a51b32d7cfdf1ce6d339d5", "name": "1f42d381-b3d-49cf-bfcf-93a-288d162a", "state": "ready"}]}], "type": "msg"
2024-06-19T09:13:52.492Z info [connect #1 event: index.js:26205
  {elapsedTime: 21739, group: 'quality', level: 'info', name: 'status-report', timestamp: 1718788432402, -}
2024-06-19T09:13:52.509Z debug [RemoteVideoTrack #3: index.js:26205
  MTcBaa19253a51b32d7cfdf1ce6d339d5] Dimensions:
  > {width: 440, height: 480}
2024-06-19T09:13:52.509Z debug [Connect #1 event: index.js:26205
  MTcBaa19253a51b32d7cfdf1ce6d339d5] Started
2024-06-19T09:13:54.509Z debug [TwilioConnection #2: index.js:26205
  wss://global.vss.twilio.com/signaling] Incoming:
  {"type": "heartbeat"}
2024-06-19T09:13:55.309Z debug [TwilioConnection #1: index.js:26205
  wss://global.vss.twilio.com/signaling] Incoming:
  {"type": "heartbeat"}
2024-06-19T09:13:56.409Z debug [TwilioConnection #1: index.js:26205
  wss://global.vss.twilio.com/signaling] Outgoing:
  {"type": "heartbeat"}
2024-06-19T09:13:56.461Z debug [TwilioConnection #2: index.js:26205
  wss://global.vss.twilio.com/signaling] Outgoing:
  {"type": "heartbeat"}]
```

Codec Preferences

```
'use strict';

var Video = require('twilio-video');

/** 
 * Connect to a Room with the given codec preferences.
 * @param {string} token - Token for joining the Room
 * @param {string} roomName - Room name
 * @param {Array<AudioCodeName>} preferredAudioCodecs - Preferred audio codecs
 * @param {Array<VideoCodeName>} preferredVideoCodecs - Preferred video codecs
 * @returns {CancelablePromise<Room>}
 */
function connectWithPreferredCodecs(token, roomName, preferred) {
  return Video.connect(token, {
    preferredAudioCodecs: preferredAudioCodecs,
    preferredVideoCodecs: preferredVideoCodecs,
    name: roomName
  });
}

exports.connectWithPreferredCodecs = connectWithPreferredCodecs
```

Participant's Media

Select Codec Preferences

Preferred Audio Codec: Opus

Selected Audio Codec: opus

Preferred Video Codec: VP8

Selected Video Codec: VP8

[Disconnect from Room](#)

Console Output:

```
42 issues: 39 3
{"enabled": true, "id": "e9f7236e-cb8f-4ea9-8bd3-48335a07815d", "kind": "video", "name": "de7cbfbf-2e9e-43f2-bcda-2aaa3fad054f", "priority": "standard"}, {"type": "msg"
2024-06-19T09:14:11.007Z debug [TwilioConnection #3: index.js:26205
  wss://global.vss.twilio.com/signaling] Incoming: {"body": {"version": 2, "type": "update", "id": "Me9bf55dcf8f85da99785f41c2253", "participants": [{"id": "PA81868ead4040ef5a0d053a58b3c", "identity": "gnoomious Zelma Minneapolis"}, {"tracks": [{"kind": "audio", "priority": "standard", "id": "7af4d44f-6057-4b1b-81f7-fc12a5a0c4f", "enabled": true, "id": "WfTe15c5c780b0cd5def47f8c3ad4f14", "name": "ed18479-7bee-40f7-85b0-fdb26bf65d5", "state": "ready"}, {"kind": "video", "priority": "standard", "id": "0f77236e-cb8f-4eaa-8bd3-48335a07815d", "enabled": true, "id": "MT1cb7b91c5af0dcfcfc5eb58795e0a33", "name": "de7cbfbf-2e9e-43f2-bcda-2aaa3fad054f", "state": "ready}], "revision": 3, "state": "connected", "id": "7af4d44f-6057-4b1b-81f7-fc12a5a0c4f", "name": "PA346abed99cfa3b0d7aea2534b4161", "identity": "Kindly Penny Vail"}, {"tracks": [{"revision": 1, "state": "connected"}, {"recording": true, "is_recording": true, "subscribed": true}, {"revision": 0, "tracks": []}], "published": {"revision": 1, "tracks": [{"kind": "audio", "priority": "standard", "id": "7af4d44f-6057-4b1b-81f7-fc12a5a0c4f", "enabled": true, "id": "WfTe15c5c780b0cd5def47f8c3ad4f14", "name": "ed18479-7bee-40f7-85b0-fdb26bf65d5", "state": "ready"}, {"kind": "video", "priority": "standard", "id": "0f77236e-cb8f-4eaa-8bd3-48335a07815d", "enabled": true, "id": "MT1cb7b91c5af0dcfcfc5eb58795e0a33", "name": "de7cbfbf-2e9e-43f2-bcda-2aaa3fad054f", "state": "ready"}]}], "type": "msg"
2024-06-19T09:14:11.522Z debug [RemoteVideoTrack #7: index.js:26205
  MT1cb7b91c5af0dcfcfc5eb58795e0a33] Dimensions:
  > {width: 440, height: 480}
2024-06-19T09:14:11.531Z debug [TwilioConnection #1: index.js:26205
  wss://global.vss.twilio.com/signaling] Incoming:
  {"type": "heartbeat"}
2024-06-19T09:14:12.491Z info [connect #1 event: index.js:26205
  {elapsedTime: 41737, group: 'quality', level: 'info', name: 'status-report', timestamp: 1718788452400, -}
2024-06-19T09:14:13.713Z debug [TwilioConnection #3: index.js:26205
  wss://global.vss.twilio.com/signaling] Incoming:
  {"type": "heartbeat"}]
```

Codec Preferences

```
'use strict';

var Video = require('twilio-video');

/*
 * Connect to a Room with the given codec preferences.
 * @param {string} token - Token for joining the Room
 * @param {string} roomName - Room name
 * @param {Array<AudioCodecName>} preferredAudioCodecs - Preferred audio codecs
 * @param {Array<VideoCodecName>} preferredVideoCodecs - Preferred video codecs
 * @returns {CancelablePromise<Room>}
 */
function connectWithPreferredCodecs(token, roomName, preferred) {
  return Video.connect(token, {
    preferredAudioCodecs: preferredAudioCodecs,
    preferredVideoCodecs: preferredVideoCodecs,
    name: roomName
  });
}

exports.connectWithPreferredCodecs = connectWithPreferredCodecs
```

Participant's Media

Select Codec Preferences

Preferred Audio Codec: PCMA
Selected Audio Codec: opus

Preferred Video Codec: VP9
Selected Video Codec: VP8

Disconnect from Room

Console Output:

```
42 issues: 39 | 39 | ⓘ Filter Default levels ▾
42 issues: 39 | 39 | ⓘ Filter Default levels ▾
2024-06-19T09:14:27.242Z debug [TwilioConnection #4: index.js:26295
wss://globalvss.twilio.com/signaling] Incoming: {"body":
{"version":2,"type":"update","id":"Me99f55dcf8f85da99785f4f1c2
255","name":"Me99f55dcf8f85da99785f4f1c2255","participant":"
{"id": "ed92f3ef93ecf8798b51cd85b3
34","name": "roshan","tracks": [{"id": "9c5912a0-62ec-4901-9b2f-
9d34c8005422","priority": "standard"}],"identity": "Jolly
Ulysses Yale","tracks": [{"id": "24651e8-6830-41db-
b8bd-1a1899ef998","priority": "standard","id": "24651e8-6830-41db-1a1899ef998","enabled": true,"id": "Wt7736b14f902116ba6f6116af60a8221
a21","name": "9c5912a0-62ec-4901-9b2f-9d34c8005422","state": "ready"}, {"kind": "audio","priority": "standard","id": "dbc829d-11db-4f3c-
95e6-085422a05cbb","enabled": true,"id": "Wt7ed92f3ef93ecf8798b51cd85b3
34","name": "roshan","tracks": [{"id": "9c5912a0-62ec-4901-9b2f-
9d34c8005422","priority": "standard"}],"identity": "Kindly
Person Val","tracks": [],"revision": 1,"state": "connected"}, {"recording": {"enabled": true,"revision": 6,"is_recording": true,"subscribed": false}, {"tracks": []}], "participants": [{"id": "ed92f3ef93ecf8798b51cd85b3
34","name": "roshan","tracks": [{"id": "9c5912a0-62ec-4901-9b2f-
9d34c8005422","priority": "standard"}],"identity": "Kindly
Person Val"}],"tracks": []}, {"revision": 3,"state": "Connected","medias_warnings": [{"id": "24651e8-6830-41db-
b8bd-1a1899ef998","priority": "standard","id": "24651e8-6830-41db-1a1899ef998","enabled": true,"id": "Wt7736b14f902116ba6f6116af60a8221
a21","name": "9c5912a0-62ec-4901-9b2f-9d34c8005422","state": "ready"}, {"kind": "audio","priority": "standard","id": "dbc829d-11db-4f3c-
95e6-085422a05cbb","enabled": true,"id": "Wt7ed92f3ef93ecf8798b51cd85b3
34","name": "roshan","tracks": [{"id": "9c5912a0-62ec-4901-9b2f-
9d34c8005422","priority": "standard"}],"identity": "Kindly
Person Val"}],"tracks": []}, {"revision": 1,"state": "Connected"}], "participants": [{"id": "ed92f3ef93ecf8798b51cd85b3
34","name": "roshan","tracks": [{"id": "9c5912a0-62ec-4901-9b2f-
9d34c8005422","priority": "standard"}],"identity": "Kindly
Person Val"}]}, {"revision": 3,"state": "Connected","medias_warnings": [{"id": "24651e8-6830-41db-
b8bd-1a1899ef998","priority": "standard","id": "24651e8-6830-41db-1a1899ef998","enabled": true,"id": "Wt7736b14f902116ba6f6116af60a8221
a21","name": "9c5912a0-62ec-4901-9b2f-9d34c8005422","state": "ready"}, {"kind": "audio","priority": "standard","id": "dbc829d-11db-4f3c-
95e6-085422a05cbb","enabled": true,"id": "Wt7ed92f3ef93ecf8798b51cd85b3
34","name": "roshan","tracks": [{"id": "9c5912a0-62ec-4901-9b2f-
9d34c8005422","priority": "standard"}],"identity": "Kindly
Person Val"}],"tracks": []}, {"revision": 1,"state": "Connected"}], "participants": [{"id": "ed92f3ef93ecf8798b51cd85b3
34","name": "roshan","tracks": [{"id": "9c5912a0-62ec-4901-9b2f-
9d34c8005422","priority": "standard"}],"identity": "Kindly
Person Val"}]}, {"revision": 3,"state": "Connected","medias_warnings": [{"id": "24651e8-6830-41db-
b8bd-1a1899ef998","priority": "standard","id": "24651e8-6830-41db-1a1899ef998","enabled": true,"id": "Wt7736b14f902116ba6f6116af60a8221
a21","name": "9c5912a0-62ec-4901-9b2f-9d34c8005422","state": "ready"}, {"kind": "audio","priority": "standard","id": "dbc829d-11db-4f3c-
95e6-085422a05cbb","enabled": true,"id": "Wt7ed92f3ef93ecf8798b51cd85b3
34","name": "roshan","tracks": [{"id": "9c5912a0-62ec-4901-9b2f-
9d34c8005422","priority": "standard"}],"identity": "Kindly
Person Val"}],"tracks": []}, {"revision": 1,"state": "Connected"}], "participants": [{"id": "ed92f3ef93ecf8798b51cd85b3
34","name": "roshan","tracks": [{"id": "9c5912a0-62ec-4901-9b2f-
9d34c8005422","priority": "standard"}],"identity": "Kindly
Person Val"}]}]
```

Share Your Screen

```
'use strict';

const Video = require('twilio-video');

/*
 * Create a LocalVideoTrack for your screen. You can then share it
 * with other Participants in the Room.
 * @param {number} height - Desired vertical resolution in pixels
 * @param {number} width - Desired horizontal resolution in pixels
 * @returns {Promise<LocalVideoTrack>}
 */
function createScreenTrack(height, width) {
  if (typeof navigator === 'undefined'
    || !navigator.mediaDevices
    || !navigator.mediaDevices.getDisplayMedia) {
    return Promise.reject(new Error('getDisplayMedia is not supported'));
  }
  return navigator.mediaDevices.getDisplayMedia({
    video: {
      height: height,
      width: width
    }
  }).then(function(stream) {
    return new Video.LocalVideoTrack(stream.getVideoTracks());
  });
}

exports.createScreenTrack = createScreenTrack;
```

Local Screen

Stop Screen Capture

Remote Screen

|| http://localhost:3000 is sharing a window. Stop sharing Hide

Console Output:

```
40 issues: 39 | 39 | ⓘ Filter Default levels ▾
40 issues: 39 | 39 | ⓘ Filter Default levels ▾
2024-06-19T09:14:27.765Z debug [RemoteVideoTrack index.js:26285
#11: Wt7736b14f902116ba6f6116af60a8221] Dimensions:
  > (width: 640, height: 480)
2024-06-19T09:14:27.765Z debug [RemoteVideoTrack index.js:26285
#11: Wt7736b14f902116ba6f6116af60a8221] Started
2024-06-19T09:14:27.765Z debug [TwilioConnection #1: index.js:26295
wss://globalvss.twilio.com/signaling] Incoming:
  {"type": "heartbeat"}
2024-06-19T09:14:30.129Z debug [TwilioConnection #4: index.js:26295
wss://globalvss.twilio.com/signaling] Incoming:
  {"type": "heartbeat"}>
```

Dominant Speaker Detection

```
'use strict';

var Video = require('twilio-video');

/** 
 * Connect to a Room with the Dominant Speaker API enabled
 * This API is available only in Small Group or Group Rooms
 * @param {string} token - Token for joining the Room
 * @returns {CancelablePromise<Room>}
 */
function connectToRoomWithDominantSpeaker(token) {
  return Video.connect(token, {
    dominantSpeaker: true
  });
}

/** 
 * Listen to changes in the dominant speaker and update you
 * @param {Room} room - The Room you just joined
 * @param {function} updateDominantSpeaker - Updates the app
 * @returns {void}
 */
function setupDominantSpeakerUpdates(room, updateDominantSpeaker) {
  room.on('dominantSpeakerChanged', function(participant) {
    console.log('A new RemoteParticipant is now the dominant speaker');
    updateDominantSpeaker(participant);
  });
}

exports.connectToRoomWithDominantSpeaker = connectToRoomWithDominantSpeaker;
exports.setupDominantSpeakerUpdates = setupDominantSpeakerUpdates;
```

Join room:

RM3c2b190c298ac0a4487c690bb304b017

Please join the above Room using the [QuickStart App](#) or connect the below Participants to the Room and unmute only one of them.

Alice	Disconnect	Unmute
Mak	Connect	
Bob	Disconnect	Mute
Charlie	Connect	

Room state is:

Connected

Disconnected

Reconnecting

Create Room

After you have created the Room, please either turn off your internet network for a little while and then turn it back on, or switch between networks. The Twilio Video SDK will try to re-establish connection to the Room, which will transition to the "connecting" state. Once reconnection is complete, the Room will transition back to the "connected" state. You can join other user to the room using button below.

Join Room

Console Output:

```
A new RemoteParticipant is now the dominant speaker: index.js:26
> RemoteParticipant {audioTracks: Map(1), dataTracks: Map(0), ...}
A new RemoteParticipant is now the dominant speaker: index.js:26
> RemoteParticipant {audioTracks: Map(1), dataTracks: Map(0), ...}
A new RemoteParticipant is now the dominant speaker: index.js:26
null
A new RemoteParticipant is now the dominant speaker: index.js:26
null
A new RemoteParticipant is now the dominant speaker: index.js:26
> RemoteParticipant {audioTracks: Map(1), dataTracks: Map(0), ...}
```

Reconnection States and Events

```
'use strict';

/** 
 * Listen to Room reconnection events and update the UI accordingly
 * @param {Room} room - The Room you have joined
 * @param {function} updateRoomState - Updates the app UI with the current state
 * @returns {void}
 */
function setupReconnectionUpdates(room, updateRoomState) {
  room.on('disconnected', (room, error) => {
    if (error.code === 20104) {
      console.log(`Signaling reconnection failed due to timeout`);
    } else if (error.code === 53000) {
      console.log(`Signaling reconnection attempts exhausted`);
    } else if (error.code === 53204) {
      console.log(`Signaling reconnection took too long!`);
    }
    updateRoomState(room.state);
  });

  room.on('reconnected', () => {
    console.log(`Reconnected to the Room!`);
    updateRoomState(room.state);
  });

  room.on('reconnecting', (error) => {
    if (error.code === 53001) {
      console.log(`Reconnecting your signaling connection!`);
    } else if (error.code === 53405) {
      console.log(`Reconnecting your media connection!`);
    }
    updateRoomState(room.state);
  });
}

exports.setupReconnectionUpdates = setupReconnectionUpdates;
```

Room state is:

Connected

Disconnected

Reconnecting

Create Room

After you have created the Room, please either turn off your internet network for a little while and then turn it back on, or switch between networks. The Twilio Video SDK will try to re-establish connection to the Room, which will transition to the "connecting" state. Once reconnection is complete, the Room will transition back to the "connected" state. You can join other user to the room using button below.

Join Room

Console Output:

```
2024-06-19T09:17:36.689Z debug [PeerConnectionV2 #1: index.js:25971
33a0810f-74aa-4bc6-8d9d-987a5b1acea7] Starting ICE gathering
timeout: 15000
2024-06-19T09:17:36.690Z debug [PeerConnectionV2 #1: index.js:25971
33a0810f-74aa-4bc6-8d9d-987a5b1acea7] ICE connection state is
"checking"
2024-06-19T09:17:36.692Z debug [PeerConnectionV2 #1: index.js:25971
33a0810f-74aa-4bc6-8d9d-987a5b1acea7] ICE connection state is
"connected"
2024-06-19T09:17:36.748Z debug [PeerConnectionV2 #1: index.js:25971
33a0810f-74aa-4bc6-8d9d-987a5b1acea7] Clearing ICE gathering
timeout
2024-06-19T09:17:36.812Z debug [PeerConnectionV2 #1: index.js:25971
33a0810f-74aa-4bc6-8d9d-987a5b1acea7] Clearing ICE gathering
timeout
2024-06-19T09:17:36.812Z debug [PeerConnectionV2 #1: index.js:25971
33a0810f-74aa-4bc6-8d9d-987a5b1acea7] Clearing ICE gathering
timeout
2024-06-19T09:17:36.975Z debug [PeerConnectionV2 #1: index.js:25971
33a0810f-74aa-4bc6-8d9d-987a5b1acea7] ICE connection state is
"connected"
2024-06-19T09:17:36.976Z debug [PeerConnectionV2 #1: index.js:25971
33a0810f-74aa-4bc6-8d9d-987a5b1acea7] ICE gathering state is
"connected"
2024-06-19T09:17:36.977Z debug [TwilioConnection #1: index.js:25971
wss://global.vss.twilio.com/signaling] Outgoing: {"body": {
  "session": "9fe10850d5dc75aba1068262623cc68a73fe5393823ac834c3f538a
  8843b75fb21722b5f5d61b30ea9fcfa76d42be4ef6fd502c72673a45c66f8
  3aaftfb", "type": "update", "version": 0, "peer_connections": [{"ice": {
    "connection": "9fe10850d5dc75aba1068262623cc68a73fe5393823ac834c3f538a
    8843b75fb21722b5f5d61b30ea9fcfa76d42be4ef6fd502c72673a45c66f8
    3aaftfb"}, "type": "msg"}], "revision": 1, "id": "33a0810f-74aa-4bc6-8d9d-987a5b1acea7"}, "participant": {
  "revision": 1, "tracks": []}, "type": "msg"}
2024-06-19T09:17:37.224Z debug [TwilioConnection #1: index.js:25971
wss://global.vss.twilio.com/signaling] Incoming: {"body": {
  "version": 0, "peer_connections": [{"ice": {
    "connection": "9fe10850d5dc75aba1068262623cc68a73fe5393823ac834c3f538a
    8843b75fb21722b5f5d61b30ea9fcfa76d42be4ef6fd502c72673a45c66f8
    3aaftfb"}, "type": "recording"}, "type": "msg"}], "revision": 1, "id": "PA21722b5f5d61b30ea9fcfa76d42be4ef6fd502c72673a45c66f8
    3aaftfb", "participants": [{"id": "PA21722b5f5d61b30ea9fcfa76d42be4ef6fd502c72673a45c66f8
    3aaftfb", "identity": "Sunny Penny Indianapolis", "tracks": [
      {"enabled": true, "revision": 1, "id": "PA21722b5f5d61b30ea9fcfa76d42be4ef6fd502c72673a45c66f8
    3aaftfb"}, {"type": "recording"}, {"type": "media_warnings": []}], "state": "connected", "revision": 1, "type": "recording"}, "published": {
    "revision": 0, "tracks": []}, "subscribed": {"revision": 0, "tracks": []}}, "type": "msg"}
2024-06-19T09:17:39.692Z debug [TwilioConnection #1: index.js:25971
wss://global.vss.twilio.com/signaling] Incoming: {"type": "heartbeat"}
```

Reconnection States and Events

```
'use strict';

/**
 * Listen to Room reconnection events and update the UI accordingly
 * @param {Room} room - The Room you have joined
 * @param {function} updateRoomState - Updates the app UI when state changes
 * @returns {void}
 */
function setupReconnectionUpdates(room, updateRoomState) {
  room.on('disconnected', (room_error) => {
    if (error_code === 20104) {
      console.log('Signaling reconnection failed due to exception');
    } else if (error_code === 53000) {
      console.log('Signaling reconnection attempts exhausted');
    } else if (error_code === 53204) {
      console.log('Signaling reconnection took too long!');
    }
    updateRoomState(room.state);
  });

  room.on('reconnected', function() {
    console.log('Reconnected to the Room!');
    updateRoomState(room.state);
  });

  room.on('reconnecting', function(error) {
    if (error_code === 53001) {
      console.log('Reconnecting your signaling connection!');
    } else if (error_code === 53405) {
      console.log('Reconnecting your media connection!');
    }
    updateRoomState(room.state);
  });
}

exports.setupReconnectionUpdates = setupReconnectionUpdates
```

Room state is:

Connected

Disconnected

Reconnecting

[Create Room](#)

After you have created the Room, please either turn off your internet network for a little while and then turn it back on, or switch between networks. The Twilio Video SDK will try to re-establish connection to the Room, which will transition to the "connecting" state. Once reconnection is complete, the Room will transition back to the "connected" state. You can join other user to the room using button below.

[Join Room](#)

Console Output:

```
timeout: 30000
2024-06-19T09:17:52.514Z debug [TwilioConnection #1: index.js:25971]
wss://global.vss.twilio.com/signaling Outgoing: {"body":
  {"session": "0fe10850d5c75ab10682c63cc6ca873f5e393823ac834c3f58ba8843975f21222b5f5d061b30a9df8fa76d420be4ef6f0d5027c673a145c66f9
  "start": "true", "type": "update", "version": 2, "peer_connection": "1", "candidates": [{"id": "A2172725f5dd61b8386a9fc87e76d420b", "label": "1", "name": "A2172725f5dd61b8386a9fc87e76d420b", "type": "host", "uri": "rtcp://A2172725f5dd61b8386a9fc87e76d420b.twilio.com:443", "xmtmap": "1"}, {"id": "A2172725f5dd61b8386a9fc87e76d420b", "label": "2", "name": "A2172725f5dd61b8386a9fc87e76d420b", "type": "host", "uri": "rtcp://A2172725f5dd61b8386a9fc87e76d420b.twilio.com:443", "xmtmap": "2"}], "options": {"track_id": "twilio-video-fingerprint", "track_label": "twilio-video", "track_name": "twilio-video-fingerprint", "track_type": "audio", "track_xmtmap": "1", "track_xmtmap2": "2"}, "xmtmap": "1", "xmtmap2": "2"}, "method": "POST", "path": "/v1/rooms/1", "query": {"version": "1"}, "raw": "POST /v1/rooms/1 HTTP/1.1\r\nHost: wss://global.vss.twilio.com:443\r\nUser-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/118.0.5938.122 Safari/537.36\r\nAccept: application/json, text/plain, */*\r\nAccept-Encoding: gzip, deflate, br\r\nContent-Type: application/json\r\nContent-Length: 342\r\nConnection: keep-alive\r\n\r\n{\r\n  \"options\": {\r\n    \"track_id\": \"twilio-video-fingerprint\", \"track_label\": \"twilio-video\", \"track_name\": \"twilio-video-fingerprint\", \"track_type\": \"audio\", \"track_xmtmap\": \"1\", \"track_xmtmap2\": \"2\"\r\n  },\r\n  \"xmtmap\": \"1\", \"xmtmap2\": \"2\"\r\n}\r\n", "status": 201, "statusText": "Created", "url": "https://wss://global.vss.twilio.com/v1/rooms/1"}}, "response": "HTTP/1.1 201 Created\r\nContent-Type: application/json\r\nContent-Length: 342\r\n\r\n{\r\n  \"room\": {\r\n    \"id\": \"1\", \"label\": \"1\", \"name\": \"A2172725f5dd61b8386a9fc87e76d420b\", \"type\": \"host\", \"uri\": \"rtcp://A2172725f5dd61b8386a9fc87e76d420b.twilio.com:443\", \"xmtmap\": \"1\"},\r\n    \"options\": {\r\n      \"track_id\": \"twilio-video-fingerprint\", \"track_label\": \"twilio-video\", \"track_name\": \"twilio-video-fingerprint\", \"track_type\": \"audio\", \"track_xmtmap\": \"1\", \"track_xmtmap2\": \"2\"\r\n    },\r\n    \"xmtmap\": \"1\", \"xmtmap2\": \"2\"\r\n  }\r\n}\r\n", "time": 30000}
```

Reconnection States and Events

```
'use strict';

/**
 * Listen to Room reconnection events and update the UI accordingly
 * @param {Room} room - The Room you have joined
 * @param {function} updateRoomState - Updates the app UI when state changes
 * @returns {void}
 */
function setupReconnectionUpdates(room, updateRoomState) {
  room.on('disconnected', (room_error) => {
    if (error_code === 20104) {
      console.log('Signaling reconnection failed due to exception');
    } else if (error_code === 53000) {
      console.log('Signaling reconnection attempts exhausted');
    } else if (error_code === 53204) {
      console.log('Signaling reconnection took too long!');
    }
    updateRoomState(room.state);
  });

  room.on('reconnected', function() {
    console.log('Reconnected to the Room!');
    updateRoomState(room.state);
  });

  room.on('reconnecting', function(error) {
    if (error_code === 53001) {
      console.log('Reconnecting your signaling connection!');
    } else if (error_code === 53405) {
      console.log('Reconnecting your media connection!');
    }
    updateRoomState(room.state);
  });
}

exports.setupReconnectionUpdates = setupReconnectionUpdates
```

Room state is:

Connected

Disconnected

Reconnecting

[Create Room](#)

After you have created the Room, please either turn off your internet network for a little while and then turn it back on, or switch between networks. The Twilio Video SDK will try to re-establish connection to the Room, which will transition to the "connecting" state. Once reconnection is complete, the Room will transition back to the "connected" state. You can join other user to the room using button below.

[Join Room](#)

Console Output:

```
2024-06-19T09:18:03.048Z debug [PeerConnectionV2 #1: index.js:25971]
33a8010f-74aa-4bc6-8d9d-987a5b1acea7 Starting ICE gathering
timeout: 15000
2024-06-19T09:18:03.049Z debug [PeerConnectionV2 #1: index.js:25971]
33a8010f-74aa-4bc6-8d9d-987a5b1acea7 An ICE restart was in progress and has now completed
2024-06-19T09:18:03.049Z debug [PeerConnectionV2 #1: index.js:25971]
33a8010f-74aa-4bc6-8d9d-987a5b1acea7 Clearing ICE gathering
timeout: 15000
2024-06-19T09:18:03.049Z debug [PeerConnectionV2 #1: index.js:25971]
33a8010f-74aa-4bc6-8d9d-987a5b1acea7 Clearing ICE gathering
timeout: 15000
2024-06-19T09:18:03.172Z debug [PeerConnectionV2 #1: index.js:25971]
33a8010f-74aa-4bc6-8d9d-987a5b1acea7 Clearing ICE gathering
timeout: 15000
2024-06-19T09:18:03.173Z debug [PeerConnectionV2 #1: index.js:25971]
33a8010f-74aa-4bc6-8d9d-987a5b1acea7 Clearing ICE gathering
timeout: 15000
2024-06-19T09:18:03.246Z debug [PeerConnectionV2 #1: index.js:25971]
33a8010f-74aa-4bc6-8d9d-987a5b1acea7 Clearing ICE gathering
timeout: 15000
2024-06-19T09:18:03.564Z debug [PeerConnectionV2 #1: index.js:25971]
33a8010f-74aa-4bc6-8d9d-987a5b1acea7 Clearing ICE gathering
timeout: 15000
2024-06-19T09:18:03.565Z debug [PeerConnectionV2 #1: index.js:25971]
33a8010f-74aa-4bc6-8d9d-987a5b1acea7 ICE gathering state is "complete"
2024-06-19T09:18:03.565Z debug [TwilioConnection #8: index.js:25971]
wss://global.vss.twilio.com/signaling Outgoing: {"body":
  {"session": "0fe10850d5c75ab10682c63cc6ca873f5e393823ac834c3f58ba8843975f21222b5f5d061b30a9df8fa76d420be4ef6f0d5027c673a145c66f9
  "start": "true", "type": "update", "version": 3, "peer_connections": [{"id": "A2172725f5dd61b8386a9fc87e76d420b", "label": "1", "name": "A2172725f5dd61b8386a9fc87e76d420b", "type": "host", "uri": "rtcp://A2172725f5dd61b8386a9fc87e76d420b.twilio.com:443", "xmtmap": "1"}, {"id": "A2172725f5dd61b8386a9fc87e76d420b", "label": "2", "name": "A2172725f5dd61b8386a9fc87e76d420b", "type": "host", "uri": "rtcp://A2172725f5dd61b8386a9fc87e76d420b.twilio.com:443", "xmtmap": "2"}], "options": {"track_id": "twilio-video-fingerprint", "track_label": "twilio-video", "track_name": "twilio-video-fingerprint", "track_type": "audio", "track_xmtmap": "1"}, "xmtmap": "1"}, "method": "POST", "path": "/v1/rooms/1", "query": {"version": "1"}, "raw": "POST /v1/rooms/1 HTTP/1.1\r\nHost: wss://global.vss.twilio.com:443\r\nUser-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/118.0.5938.122 Safari/537.36\r\nAccept: application/json, text/plain, */*\r\nAccept-Encoding: gzip, deflate, br\r\nContent-Type: application/json\r\nContent-Length: 342\r\nConnection: keep-alive\r\n\r\n{
  "options": {
    "track_id": "twilio-video-fingerprint", "track_label": "twilio-video", "track_name": "twilio-video-fingerprint", "track_type": "audio", "track_xmtmap": "1"
  },
  "xmtmap": "1"
}
", "status": 201, "statusText": "Created", "url": "https://wss://global.vss.twilio.com/v1/rooms/1"}}, "response": "HTTP/1.1 201 Created\r\nContent-Type: application/json\r\nContent-Length: 342\r\n\r\n{
  \"room\": {
    \"id\": \"1\", \"label\": \"1\", \"name\": \"A2172725f5dd61b8386a9fc87e76d420b\", \"type\": \"host\", \"uri\": \"rtcp://A2172725f5dd61b8386a9fc87e76d420b.twilio.com:443\", \"xmtmap\": \"1\"}
  }
}\r\n", "time": 30000}
```

Reconnection States and Events

```
'use strict';

/**
 * Listen to Room reconnection events and update the UI accordingly
 * @param {Room} room - The Room you have joined
 * @param {function} updateRoomState - Updates the app UI when state changes
 * @returns {void}
 */
function setupReconnectionUpdates(room, updateRoomState) {
  room.on('disconnected', (room_error) => {
    if (error.code === 20104) {
      console.log(`Signaling reconnection failed due to exception ${error.message}`);
    } else if (error.code === 53000) {
      console.log(`Signaling reconnection attempts exhausted`);
    } else if (error.code === 53204) {
      console.log(`Signaling reconnection took too long!`);
    }
    updateRoomState(room.state);
  });

  room.on('reconnected', function() {
    console.log(`Reconnected to the Room!`);
    updateRoomState(room.state);
  });

  room.on('reconnecting', function(error) {
    if (error.code === 53001) {
      console.log(`Reconnecting your signaling connection!`);
    } else if (error.code === 53405) {
      console.log(`Reconnecting your media connection!`);
    }
    updateRoomState(room.state);
  });
}

exports.setupReconnectionUpdates = setupReconnectionUpdates
```

Room state is:

- Connected**
- Disconnected**
- Reconnecting**

Create Room

After you have created the Room, please either turn off your internet network for a little while and then turn it back on, or switch between networks. The Twilio Video SDK will try to re-establish connection to the Room, which will transition to the "connecting" state. Once reconnection is complete, the Room will transition back to the "connected" state. You can join other user to the room using button below.

Leave Room



The browser window shows the Twilio Video SDK's handling of reconnection states. It includes a code snippet for setting up reconnection updates, a list of possible states (Connected, Disconnected, Reconnecting), and a "Create Room" button. Below the button is a paragraph explaining how to trigger reconnection by turning off the internet. At the bottom is a "Leave Room" button and a video feed of a person's face.

Network Quality

Join Room:
RM3a0e12cd6f989da79625e966465132a

After creating the Room with the desired verbosity levels, please join the above Room using the [QuickStart App](#) or connect the below Participants to the Room. You can also change the verbosity levels and observe the change in the verbosity of the reported Network Quality stats.

Participant	Action
Alice	Disconnect
Bob	Connect
Mak	Connect
Charlie	Connect

NQ Level (You): 5



The browser window shows the Twilio Video SDK's handling of network quality reporting. It includes a code snippet for connecting with network quality enabled, a "Join Room" input field with a specific room ID, a paragraph about joining the room, and a table for connecting participants named Alice, Bob, Mak, and Charlie. Below the table is a "NQ Level (You): 5" input field and a video feed of a person's face.

Enabling and Disabling Tracks

```
'use strict';

/**
 * Mute/unmute your media in a Room.
 * @param {Room} room - The Room you have joined
 * @param {'audio' | 'video'} kind - The type of media you want to mute/unmute
 * @param {'mute' | 'unmute'} action - Whether you want to mute/unmute
 */
function muteOrUnmuteYourMedia(room, kind, action) {
  const publications = kind === 'audio'
    ? room.localParticipant.audioTracks
    : room.localParticipant.videoTracks;

  publications.forEach(function(publication) {
    if (action === 'mute') {
      publication.track.disable();
    } else {
      publication.track.enable();
    }
  });
}

/**
 * Mute your audio in a Room.
 * @param {Room} room - The Room you have joined
 * @returns {void}
 */
function muteYourAudio(room) {
  muteOrUnmuteYourMedia(room, 'audio', 'mute');
}

/**
 * Mute your video in a Room.
 * @param {Room} room - The Room you have joined
 * @returns {void}
 */
function muteYourVideo(room) {
  muteOrUnmuteYourMedia(room, 'video', 'mute');
}
```

Local Media Controls

[Enable Audio](#) [Disable Video](#)

RemoteParticipant View

```
wss://global.vss.twilio.com/signaling] Incoming: {"body": {"version": 2, "type": "media_update", "sid": "WMDf191cb4e0bbcea9ca2d754805e52b", "participant": "id": "MTCff114dcfc08e7f45c4b15a0578", "identity": "Natural Bobby Warsaw", "tracks": [{"kind": "video", "priority": "standard", "id": "318613d-94d2-4ca8-87f3-9e79e66b224", "enabled": true, "sid": "WTT77bf48dfffc38279bb85e62034841ed", "name": "2c8ebfebe-3ef4-4558-b734-6a97a53f1cb9", "state": "ready"}, {"kind": "audio", "priority": "standard", "id": "7779eb6b-7d6c-48e8-958e-51020aa5d80", "enabled": false, "sid": "MTC47c67869cbe4841e8a947f7007c", "name": "ecdd69f2-e0f3-4888-9e29-c59938c8faf", "state": "ready"}], "revision": 4, "state": "connected", "participants": [{"id": "2d854c1b9585e48760631abbd67b9d4a", "identity": "Rowdy Tomy Minneapolis", "tracks": [{"kind": "video", "priority": "standard", "id": "WTT77bf48dfffc38279bb85e62034841ed", "name": "7779eb6b-7d6c-48e8-87f3-9e79e66b224", "enabled": true, "sid": "WTT77bf48dfffc38279bb85e62034841ed", "name": "2c8ebfebe-3ef4-4558-b734-6a97a53f1cb9", "state": "ready"}, {"kind": "audio", "priority": "standard", "id": "7779eb6b-7d6c-48e8-958e-51020aa5d80", "enabled": false, "sid": "MTC47c67869cbe4841e8a947f7007c", "name": "ecdd69f2-e0f3-4888-9e29-c59938c8faf", "state": "ready"}]}, {"type": "msg"}]
```

2024-06-19T09:19:51.010Z debug [TwilioConnection #2: index.js:25995 wss://global.vss.twilio.com/signaling] Outgoing: {"type": "heartbeat"}

2024-06-19T09:19:51.752Z debug [TwilioConnection #1: index.js:25995 wss://global.vss.twilio.com/signaling] Incoming: {"type": "heartbeat"}

2024-06-19T09:19:52.608Z debug [TwilioConnection #2: index.js:25995 wss://global.vss.twilio.com/signaling] Incoming: {"type": "heartbeat"}

2024-06-19T09:19:54.338Z info [connect #1] event index.js:25995 > {elapsedTime: 12388, group: 'quality', level: 'info', name: 'stat s-report'} timestamp: 1718788794338, -> {elapsedTime: 12388, group: 'quality', level: 'info', name: 'active-ice-candidate-pair'} timestamp: 1718788794338, ->

2024-06-19T09:19:55.019Z debug [TwilioConnection #1: index.js:25995 wss://global.vss.twilio.com/signaling] Outgoing: {"type": "heartbeat"}

Remote Participant Reconnection States

```
'use strict';

/**
 * Listen to RemoteParticipant reconnection events and update
 * @param {Room} room - The Room you have joined
 * @param {function} updateRoomState - Updates the app UI when
 * @returns {void}
 */
function handleRemoteParticipantReconnectionUpdates(room, updateRoomState) {
  room.on('participantReconnecting', function(participant) {
    updateParticipantState(participant.state);
  });

  room.on('participantReconnected', function(participant) {
    updateParticipantState(participant.state);
  });
}

/**
 * Listen to LocalParticipant reconnection events and update
 * @param {Room} room - The Room you have joined
 * @param {function} updateRoomState - Updates the app UI when
 * @returns {void}
 */
function handleLocalParticipantReconnectionUpdates(room, updateRoomState) {
  const localParticipant = room.localParticipant;

  localParticipant.on('reconnecting', function() {
    updateParticipantState(localParticipant.state);
  });

  localParticipant.on('reconnected', function() {
    updateParticipantState(localParticipant.state);
  });
}

exports.handleLocalParticipantReconnectionUpdates = handleLocalParticipantReconnectionUpdates;
exports.handleRemoteParticipantReconnectionUpdates = handleRemoteParticipantReconnectionUpdates;
```

Local View

[Simulate Reconnection](#)

State

Connected

Reconnecting

Remote View

```
data.warnings = []; participants: [{"sid": "PA6c3aeac180c07dbf887e9cae6603839", "identity": "Oaken Hanover", "tracks": [{"kind": "audio", "priority": "standard", "id": "b0809caa-333d-41de-930e-e4dc1379-324", "enabled": true, "sid": "Wt01bb1f1ac12b62f2b9b8481fe29216", "name": "00718ccb-9241-4d1b-bafcf3994ddee808", "state": "ready"}, {"kind": "video", "priority": "standard", "id": "c8928a1d-d977-4a6d-8932-1b495a0adace5", "enabled": true, "sid": "Wt7e71leddb8b1e877265e58b3d8a58a5b", "name": "d3100837-4887-4805-be0d", "state": "ready"}], "revision": 1, "state": "connected"}, {"type": "msg"}]
```

2024-06-19T09:20:15.392Z debug [RemoteVideoTrack #4: index.js:25944 Mtdsabfc525d3e2b21bbe6b274d3154a] dimensions: > {width: 640, height: 480}

2024-06-19T09:20:15.392Z debug [RemoteVideoTrack #4: index.js:25944 Mtdsabfc525d3e2b21bbe6b274d3154a] Started

2024-06-19T09:20:15.635Z debug [RemoteVideoTrack #5: index.js:25944 Mte7e1leddb8b1e877265e58b3d8a58a5b] dimensions: > {width: 640, height: 480}

2024-06-19T09:20:15.635Z debug [RemoteVideoTrack #5: index.js:25944 Mte7e1leddb8b1e877265e58b3d8a58a5b] Started

2024-06-19T09:20:16.652Z debug [TwilioConnection #2: index.js:25944 wss://api.vss.twilio.com/signaling] Incoming: {"type": "heartbeat"}

2024-06-19T09:20:18.939Z debug [TwilioConnection #1: index.js:25944 wss://api.vss.twilio.com/signaling] Incoming: {"type": "heartbeat"}

2024-06-19T09:20:19.166Z debug [TwilioConnection #1: index.js:25944 wss://api.vss.twilio.com/signaling] Outgoing: {"type": "heartbeat"}

2024-06-19T09:20:19.431Z debug [TwilioConnection #2: index.js:25944 wss://api.vss.twilio.com/signaling] Outgoing: {"type": "heartbeat"}

Chrome File Edit View History Bookmarks Profiles Tab Window Help

localhost:3000/datatracks/

Twilio tools INFO Debug roshan

Data Tracks

```
'use strict';

var Video = require('twilio-video');

/**
 * Connect to the given Room with a LocalDataTrack.
 * @param {string} token - AccessToken for joining the Room
 * @returns {CancelablePromise<Room>}
 */
async function connectToRoomWithDataTrack(token, roomName) {
  const localDataTrack = new Video.LocalDataTrack({
    name: 'chat',
  });

  const room = await Video.connect(token, {
    name: roomName,
    tracks: [localDataTrack],
  });

  return room;
}

/**
 * Send a chat message using the given LocalDataTrack.
 * @param {LocalDataTrack} dataTrack - The (@link LocalDataTrack)
 * @param {string} message - The message to be sent
 */
function sendChatMessage(dataTrack, message) {
  dataTrack.send(message);
}

/**
 * Receive chat messages from RemoteParticipants in the given Room.
 * @param {Room} room - The Room you are currently in
 * @param {Function} onMessageReceived - Updates UI when a message is received
 */
function receiveChatMessages(room, onMessageReceived) {
  room.participants.forEach(function(participant) {
    participant.dataTracks.forEach(function(publication) {
      publication.on('message', function(message) {
        onMessageReceived(message);
      });
    });
  });
}
```

P1

Disconnect from Room

P2: has connected

P1: hi P2

P2: Hi P1

Message

Submit

P2

Disconnect from Room

P1: hi P2

P2: Hi P1

Message

Submit

Console Output:

```
2024-06-19T09:20:56.283Z info [connect #1 event index.js:26086
  <elapsedTime: 11718, group: 'quality', level: 'info', name: 'stats-report', timestamp: 1718788856283, ->]
2024-06-19T09:20:56.284Z info [connect #1 event index.js:26086
  <elapsedTime: 11719, group: 'quality', level: 'info', name: 'acti-ve-ice-candidate-pair', timestamp: 1718788856284, ->]
2024-06-19T09:20:56.912Z debug [TwilioConnection #1: index.js:26086
  wss://global.vss.twilio.com/signaling] Incoming:
  {"type": "heartbeat"}
2024-06-19T09:20:57.560Z debug [TwilioConnection #2: index.js:26086
  wss://global.vss.twilio.com/signaling] Outgoing:
  {"type": "heartbeat"}
2024-06-19T09:20:59.479Z debug [TwilioConnection #2: index.js:26086
  wss://global.vss.twilio.com/signaling] Incoming:
  {"type": "heartbeat"}
2024-06-19T09:21:00.911Z debug [TwilioConnection #1: index.js:26086
  wss://global.vss.twilio.com/signaling] Incoming:
  {"type": "heartbeat"}
2024-06-19T09:21:00.992Z debug [TwilioConnection #1: index.js:26086
  wss://global.vss.twilio.com/signaling] Outgoing:
  {"type": "heartbeat"}
2024-06-19T09:21:02.356Z debug [TwilioConnection #2: index.js:26086
  wss://global.vss.twilio.com/signaling] Outgoing:
  {"type": "heartbeat"}
2024-06-19T09:21:02.465Z info [connect #2 event index.js:26086
  <elapsedTime: 11287, group: 'quality', level: 'info', name: 'stats-report', timestamp: 1718788862462, ->]
2024-06-19T09:21:02.463Z info [connect #2 event index.js:26086
  <elapsedTime: 11288, group: 'quality', level: 'info', name: 'acti-ve-ice-candidate-pair', timestamp: 1718788862463, ->]
2024-06-19T09:21:03.480Z debug [TwilioConnection #2: index.js:26086
  wss://global.vss.twilio.com/signaling] Incoming:
  {"type": "heartbeat"}
2024-06-19T09:21:05.010Z debug [TwilioConnection #1: index.js:26086
  wss://global.vss.twilio.com/signaling] Incoming:
  {"type": "heartbeat"}
2024-06-19T09:21:06.298Z debug [TwilioConnection #1: index.js:26086
  wss://global.vss.twilio.com/signaling] Outgoing:
  {"type": "heartbeat"}
2024-06-19T09:21:06.292Z info [connect #1 event index.js:26086
  <elapsedTime: 21717, group: 'quality', level: 'info', name: 'stats-report', timestamp: 1718788866292, ->]
```

Chrome File Edit View History Bookmarks Profiles Tab Window Help

localhost:3000/manualrenderhint/

Twilio tools INFO Debug roshan

Video Track Manual Controls

```
'use strict';

var Video = require('twilio-video');

/**
 * Connect to a Room with 'manual' mode. The default mode.
 * @param {string} token - AccessToken for joining the Room
 * @returns {Room}
 */
function joinRoom(token) {
  return Video.connect(token, {
    name: 'my-cool-room',
    bandwidthProfile: {
      video: {
        contentPreferencesMode: 'manual',
        clientTrackSwitchOffControl: 'manual'
      }
    }
  });
}

/**
 * Switch on the RemoteVideoTrack.
 * @param {RemoteVideoTrack} track - The RemoteVideoTrack
 * @returns {RemoteVideoTrack}
 */
function switchOn(track) {
  return track.switchOn();
}

/**
 * Switch off the RemoteVideoTrack.
 * @param {RemoteVideoTrack} track - The RemoteVideoTrack
 * @returns {RemoteVideoTrack}
 */
function switchOff(track) {
  return track.switchOff();
}
```

Switch Off Control: **Switch On** **Switch Off**

Content Preferences: **1280x720**

Remote Video Controls

Switch Off Control: **Switch On** **Switch Off**

Content Preferences: **1280x720**

Remote Video Track

Video Bitrate

Console Output:

```
>
```

Chrome File Edit View History Bookmarks Profiles Tab Window Help

localhost:3000/autorenderhint/

Twilio tools INFO Debug roshan

Video Track Automatic Controls

```
'use strict';

var Video = require('twilio-video');

/**
 * Connect to a Room with 'auto' mode. This is the default
 * @param {string} token - AccessToken for joining the Room
 * @returns {Room}
 */
function joinRoom(token) {
  return Video.connect(token, {
    name: 'my-cool-room',
    bandwidthProfile: {
      video: {
        contentPreferencesMode: 'auto',
        clientTrackSwitchOffControl: 'auto'
      }
    }
  });
}

module.exports.joinRoom = joinRoom;
```

Remote Video Controls

Toggle Visibility:

Video Size:

Remote Video Track



Video Bitrate



14:48:00 14:49:00 14:50:00 14:51:00 14:52:00

600
400
200
0

Chrome File Edit View History Bookmarks Profiles Tab Window Help

localhost:3000/autorenderhint/

Twilio tools INFO Debug roshan

Video Track Automatic Controls

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    }
  });
}

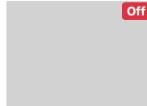
module.exports.joinRoom = joinRoom;
```

Remote Video Controls

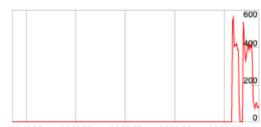
Toggle Visibility:

Video Size:

Remote Video Track



Video Bitrate



14:48:00 14:49:00 14:50:00 14:51:00 14:52:00

600
400
200
0