© Developer Discover Distribute Account Q Search by keywords or tags **Developer Forums Using the Multicast Special Entitlement** This thread has been locked. Questions are automatically locked after two months of inactivity, or sooner if deemed necessary by a moderator. Greetings All I've received a number of requests for help from folks who've been granted access to the multicast special entitlement (com.apple.developer.networking.multicast) but are having problems actually enabling it in their project. I wrote up some instructions for doing this and I'm sharing them here for the benefit of all. **©** 622 There are actually two processes involved here: • In the new process you add the Multicast Networking capability to your App ID and then create a provisioning profile based on that. • In the old process you add extra entitlements to the provisioning profile's allowlist in an Additional Entitlements step. Each process is covered in a follow-up post below. Note Almost everyone should be using the new process, but I've left the old process post in place just in case. If you have follow-up questions about this, please put them in a new thread here on DevForums and tag it with both Network and Entitlements. Share and Enjoy Quinn "The Eskimo!" @ Developer Technical Support @ Apple let myEmail = "eskimo" + "1" + "@apple.com" Change history: • 30 Sep 2020 — First posted. 6 Oct 2020 — Made minor tweaks to the No Additional Entitlements Page section. • 8 Oct 2020 — Expanded to cover the new process. Asked 4 months ago by eskimo Entitlements Network Reply to this question **Apple Recommended Answer New Process** To use the multicast special entitlement (com.apple.developer.networking.multicast) you must enable the Multicast Networking capability on your App ID, then manually create a provisioning profile that allows that entitlement, then configure your app's target to use that profile, then actually enable the entitlement in your code signature. The following sections described each of those steps in detail. IMPORTANT These instructions assume you're building a typical app using Xcode. This will switch your app to use manual code signing. Special entitlements are not compatible with automatic code signing. Note These instructions were written for Xcode 12.0, iOS 14.0, and the developer web site at the time of publication. **Preparatory Work** Before getting started, you must prepare the ground: 1. Make sure you have permission to create App IDs and provisioning profiles. If not, you'll need to coordinate with the folks on your team who do. See App Store Connect Help > Role permissions for more information about roles and permissions. 2. Go to the Account page on the developer web site. 3. Pull down the menu at the top right and confirm that you're logged in to the right team. **Configure Your App ID** If your app already has an explicit App ID, enable the Multicast Networking capability on it. To do this: 1. Edit your App ID's capabilities using the process described in Developer Account Help > Enable app capabilities. 2. On the Edit Your App ID Configuration page, scroll to the bottom to the Additional Capabilities section. 3. Enable the Multicast Networking capability. If you don't see that capability, see No Multicast Networking Capability 4. Click Save. If your app does not already have an explicit App ID, create one for it. See Developer Account Help > Register an App ID for instructions. As part of this process, you'll have the option to enable the Multicast Networking capability in much the same way as step 3 above. **Create a Provisioning Profile** Once you've configured your App ID you must either create or update your profile to use it: • If you app does not currently have a configuration profile, follow the instructions in Developer Account Help > Create a development provisioning profile. • If it does, regenerate and download your profile using the instructions in Developer Account Help > Edit, download, or delete provisioning profiles. Note If you see an Additional Entitlements page or popup, ignore it (leave it set to Default). This is part of the old process and you don't need it when using the new one. Once you have this profile downloaded on your Mac, proceed to the next step. **Configure Your Target** To configure your app's target to use the profile: 1. Locate the dowloaded profile in the Finder. 2. Drop it on to Xcode. 3. In the project editor, select your target on the left. 4. Switch to the Signing & Capabilities tab. 5. Disable "Automatically manage signing". 6. Select your profile from the Provisioning Profile popup. **Enable the Entitlement** To enable the entitlement in your app: 1. In your app's entitlements file, add a com.apple.developer.networking.multicast entry with a Boolean value of true. 2. Build your app for the device (not the simulator!). 3. In Terminal, run the following command to confirm that your app was signed with the entitlement: % codesign -d --entitlements :- /path/to/your.app | grep -A 1 "com.apple.developer.networking.multicast" <key>com.apple.developer.networking.multicast</key> <true/> 4. Still in Terminal, run the following command to confirm that your profile allows use of the entitlement: % security cms -D -i /path/to/your.app/embedded.mobileprovision | grep -A 1 "com.apple.developer.networking.multicast" <key>com.apple.developer.networking.multicast</key> <true/> No Multicast Networking Capability If, in step 3 of Configure Your App ID, you don't see the Multicast Networking capability, check the following: • That you're not set up to use the old process, as described in the Old Process post below. If you are, follow those instructions instead. • That you're logged in to the right team (step 3 of *Preparatory Work*). This is the most common cause of this problem. If this doesn't help, wait a few days and try again. It can take time for this access to propagate through our systems. If you still can't get it working, run through the process again taking a screen shot at each step. Then get back in touch with us by replying to the email that notified you of your request's approval, making sure to include your follow-up number in the response. Posted 4 months ago by eskimo 🕯 📋 Replies **Old Process** To use the multicast special entitlement (com.apple.developer.networking.multicast) you must manually create a provisioning profile that allows that entitlement, then configure your app's target to use that profile, then actually enable the entitlement. The following sections described each of those steps in detail. IMPORTANT These instructions assume you're building a typical app using Xcode. This will switch your app to use manual code signing. Special entitlements are not compatible with automatic code signing. Note These instructions were written for Xcode 12.0, iOS 14.0, and the developer web site at the time of publication. **Preparatory Work** Before creating your profile, you must prepare the ground: 1. Make sure you have permission to create provisioning profiles. If not, you'll need to coordinate with the folks on your team who do. See App Store Connect Help > Role permissions for more information about roles and permissions. 2. Go to the Account page on the developer web site. 3. Pull down the menu at the top right and confirm that you're logged in to the right team. 4. If your app does not already have an explicit App ID, create one for it. See Developer Account Help > Register an App ID for instructions. **Create a Provisioning Profile**

2. On the left, click Profiles.

3. Click the add (+) button at the top.

To configure your app's target to use the profile:

1. Locate the dowloaded profile in the Finder.

To create a provisioning profile that allows the multicast special entitlement: 1. In the Account page on the developer web site, navigate to the Certificates, Identifiers & Profiles section.

4. Select iOS App Development and click Continue (you can repeat this process for a distribution profile later on). 5. Select your App ID and click Continue. 6. Select the certificates and devices as you would for any other profile. 7. You'll now find yourself on the Additional Entitlements page. Select Multicast Networking from the popup and click

Continue. If you don't see the Additional Entitlements page, see No Additional Entitlements Page below. 8. Give the profile a name and click Continue. 9. Click Download. **Configure Your Target**

2. Drop it on to Xcode. 3. In the project editor, select your target on the left. 4. Switch to the Signing & Capabilities tab. 5. Disable "Automatically manage signing". 6. Select your profile from the Provisioning Profile popup.

Enable the Entitlement To enable the entitlement in your app: 1. In your app's entitlements file, add a com.apple.developer.networking.multicast entry with a Boolean value of true. 2. Build your app for the device (not the simulator!).

% codesign -d --entitlements :- /path/to/your.app | grep -A 1 "com.apple.developer.networking.multicast" <key>com.apple.developer.networking.multicast</key> <true/> 4. Still in Terminal, run the following command to confirm that your profile allows use of the entitlement:

3. In Terminal, run the following command to confirm that your app was signed with the entitlement:

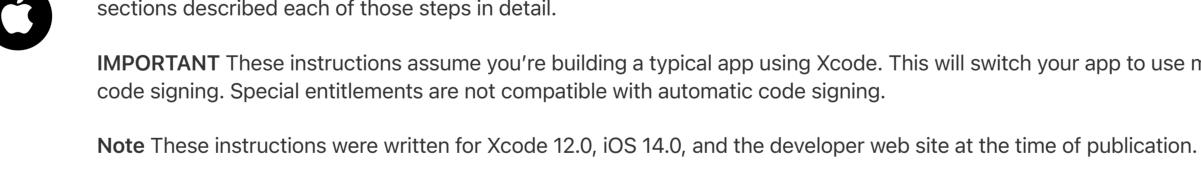
% security cms -D -i /path/to/your.app/embedded.mobileprovision | grep -A 1 "com.apple.developer.networking.multicast" <key>com.apple.developer.networking.multicast</key> <true/>

If, in step 7 of Create a Provisioning Profile, you don't see the Additional Entitlements page, check the following: • That you're not set up to use the new process, as described in the New Process post above. If you are, follow those instructions instead.

No Additional Entitlements Page

• That you're logged in to the right team (step 3 of Preparatory Work). This is the most common cause of this problem. • That you chose to create an iOS App Development profile (step 4 of Create a Provisioning Profile). If this doesn't help, wait a few days and try again. It can take time for this access to propagate through our systems. If you still can't get it working, run through the process again taking a screen shot at each step. Then get back in touch with us by replying to the email that notified you of your request's approval, making sure to include your follow-up number in the response.

Posted 4 months ago by eskimo 🕯 📋



configure your app's target to use that profile, then actually enable the entitlement in your code signature. The following sections described each of those steps in detail. IMPORTANT These instructions assume you're building a typical app using Xcode. This will switch your app to use manual code signing. Special entitlements are not compatible with automatic code signing.

New Process

Preparatory Work Before getting started, you must prepare the ground:

To use the multicast special entitlement (com.apple.developer.networking.multicast) you must enable the

Multicast Networking capability on your App ID, then manually create a provisioning profile that allows that entitlement, then

1. Make sure you have permission to create App IDs and provisioning profiles. If not, you'll need to coordinate with the folks on your team who do. See App Store Connect Help > Role permissions for more information about roles and permissions.

2. Go to the Account page on the developer web site. 3. Pull down the menu at the top right and confirm that you're logged in to the right team. **Configure Your App ID**

below.

4. Click Save.

If your app already has an explicit App ID, enable the Multicast Networking capability on it. To do this: 1. Edit your App ID's capabilities using the process described in Developer Account Help > Enable app capabilities. 2. On the Edit Your App ID Configuration page, scroll to the bottom to the Additional Capabilities section.

3. Enable the Multicast Networking capability. If you don't see that capability, see No Multicast Networking Capability

If your app does not already have an explicit App ID, create one for it. See Developer Account Help > Register an App ID for instructions. As part of this process, you'll have the option to enable the Multicast Networking capability in much the same

way as step 3 above. **Create a Provisioning Profile**

Once you've configured your App ID you must either create or update your profile to use it:

development provisioning profile. • If it does, regenerate and download your profile using the instructions in Developer Account Help > Edit, download, or delete provisioning profiles. Note If you see an Additional Entitlements page or popup, ignore it (leave it set to Default). This is part of the old process and you don't need it when using the new one.

• If you app does not currently have a configuration profile, follow the instructions in Developer Account Help > Create a

Configure Your Target To configure your app's target to use the profile: 1. Locate the dowloaded profile in the Finder.

% codesign -d --entitlements :- /path/to/your.app | grep -A 1

Once you have this profile downloaded on your Mac, proceed to the next step.

4. Switch to the Signing & Capabilities tab. 5. Disable "Automatically manage signing". 6. Select your profile from the Provisioning Profile popup. **Enable the Entitlement**

3. In the project editor, select your target on the left.

2. Drop it on to Xcode.

To enable the entitlement in your app: 1. In your app's entitlements file, add a com.apple.developer.networking.multicast entry with a Boolean value of true.

2. Build your app for the device (not the simulator!). 3. In Terminal, run the following command to confirm that your app was signed with the entitlement:

"com.apple.developer.networking.multicast"

<key>com.apple.developer.networking.multicast</key> <true/>

4. Still in Terminal, run the following command to confirm that your profile allows use of the entitlement: % security cms -D -i /path/to/your.app/embedded.mobileprovision | grep -A 1 "com.apple.developer.networking.multicast"

<key>com.apple.developer.networking.multicast</key> <true/>

If, in step 3 of Configure Your App ID, you don't see the Multicast Networking capability, check the following: instructions instead.

No Multicast Networking Capability

Design

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Agreement.

Discover

• That you're not set up to use the old process, as described in the *Old Process* post below. If you are, follow those • That you're logged in to the right team (step 3 of *Preparatory Work*). This is the most common cause of this problem.

If this doesn't help, wait a few days and try again. It can take time for this access to propagate through our systems.

If you still can't get it working, run through the process again taking a screen shot at each step. Then get back in touch with us by replying to the email that notified you of your request's approval, making sure to include your follow-up number in the response.

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Posted 4 months ago by eskimo

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