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Using the Multicast Networking Additional Capability



11k

that.

There are actually two processes involved here: • In the new process you add the Multicast Networking additional capability to your App ID and then create a provisioning profile based on

• In the old process you add this additional capability to your *provisioning profile* 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 there's still a few old process folks

around. It also makes a good reference for folks who are using different additional capabilities, ones that require the old process.

Finally, since I wrote these instructions Apple has published official documentation about this process, in the form of Developer Account Help >

Quinn "The Eskimo!" @ Developer Technical Support @ Apple let myEmail = "eskimo" + "1" + "@" + "apple.com"

Adopt an Explicit App ID To determine whether your app already has an explicit App ID:

differently on the Mac). To force this switch for a macOS target, add the Custom Network Protocol capability. Don't forget to remove this at the end.

3. Enable the Multicast Networking additional capability. If you don't see that capability, see No Multicast Networking Additional Capability below. 4. Click Save and confirm that save.

- **Enable the Entitlement** The next step is to enable the entitlement in your project:
 - <key>com.apple.developer.networking.multicast</key> <true/>

Personal VPN works well for this. Don't forget to remove this at the end.

provisioning profile. Yay!

No Multicast Networking Additional Capability

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

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

4. Still in Terminal, run the second command below to confirm that your profile allows use of the entitlement.

% codesign -d --entitlements - /path/to/your.app | grep -A 2 "com.apple.developer.networking.multicast"

email that notified you of your request's approval, making sure to include your follow-up number in the response. Posted 2 years ago by (2 eskimo) Add a Comment

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

Note These instructions were written for Xcode 12.0, iOS 14.0, and the developer web site at the time of publication. **Preparatory Work**

Additional capabilities issued via the old process are not compatible with automatic code signing.

Store Connect Help > Role permissions for more information about roles and permissions. 2. Go to the Account page on the developer web site.

Replies

1. Locate the dowloaded profile in the Finder. 2. Drop it on to Xcode.

Enable the Entitlement

3 4

5

1 2

3

4

8. Give the profile a name and click Continue.

2. On the left, click Profiles.

9. Click Download.

described each of those steps in detail.

Before creating your profile, you must prepare the ground:

To enable the entitlement in your app: 2. Build your app for the device (not the simulator!).

No Additional Entitlements Page

New Process

Before getting started, you must prepare the ground:

Preparatory Work

App ID will 'stick'.

[Value]

Agreement.

[Bool] true

Configure Your App ID

end.

Enable the Entitlement The next step is to enable the entitlement in your project: 1. In your app's <code>.entitlements</code> file, add a <code>com.apple.developer.networking.multicast</code> entry with a Boolean value of true.

Add a Comment

Developer Forums **Platforms Topics & Technologies** Resources **Programs** iOS

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

Posted 2 years ago by (2) eskimo (1)

These instructions were written for Xcode 13.2.1, running on macOS 12.1, and the developer web site at the time of posting. Mac Note This basic process also works for macOS additional capabilities. However, there are a few points where the process differs, and I've called them out with Mac-specific notes like this one. The most important of these is that the Multicast Networking additional capability is not applicable on the Mac. macOS does not implement local network privacy. These Mac-specific notes are here to help you work with other additional capabilities, ones that are supported on the Mac. You will need to adjust the instructions accordingly, for example, replace com.apple.developer.networking.multicast with the entitlement associated with the additional capability you're using.

Once you have an explicit App ID, it's time to enable the Multicast Networking additional capability on it. To do this: 1. On the developer web site, 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, switch to the Additional Capabilities tab.

[Key] com.apple.developer.networking.multicast [Value] [Bool] true % security cms -D -i /path/to/your.app/embedded.mobileprovision | grep -A 1 "com.apple.developer.networking.multicast"

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

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

- 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" 1 2
- 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. • 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 day 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 2 years ago by (2 eskimo (1)

These instructions assume you're building a typical app using Xcode with automatic code signing. Additional capabilities issued via the new

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1. Make sure you have permission to create App IDs and provisioning profiles. If not, coordinate with the folks on your team who do. See App

- 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. Adopt an Explicit App ID
 - 3. Enable the Multicast Networking additional capability. If you don't see that capability, see No Multicast Networking Additional Capability below. 4. Click Save and confirm that save.

Once you have an explicit App ID, it's time to enable the Multicast Networking additional capability on it. To do this:

2. On the Edit Your App ID Configuration page, switch to the Additional Capabilities tab.

<key>com.apple.developer.networking.multicast</key> <true/> Mac Note For a Mac app use /path/to/your.app/Contents/embedded.provisionprofile as the path in the second command. For

Accessibility Documentation Apple Developer Program

iPadOS Accessories Curriculum Apple Developer Enterprise Program macOS **App Extensions Downloads** App Store Small Business Program tvOS App Store Forums MFi Program watchOS Audio & Video Videos **News Partner Program** Video Partner Program Augmented Reality Tools Support Security Bounty Program Business Swift Support Articles Security Research Device Program Design SwiftUI Contact Us Distribution SF Symbols **Bug Reporting Events** Education App Accelerators Swift Playgrounds System Status Fonts TestFlight App Store Awards Games Account Apple Design Awards Health & Fitness Apple Developer Apple Developer Academies In-App Purchase **App Store Connect Entrepreneur Camp** Localization Certificates, IDs, & Profiles Tech Talks Maps & Location Feedback Assistant WWDC Machine Learning Security Safari & Web News and Updates

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. Reference > Provisioning with managed capabilities. Share and Enjoy Change history: 30 Sep 2020 — First posted. 6 Oct 2020 — Made minor tweaks to the No Additional Entitlements Page section.

Entitlements Network Add a Comment

each of those steps in detail.

3. Pull down the menu at the top right and confirm that you're logged in to the right team.

process are compatible with manual code signing but I don't cover those details here.

Greetings All I've received a number of requests for help from folks who've been granted access to the multicast 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.

This thread has been locked by a moderator.

Developer Forums

Apple Recommended New Process

Store Connect Help > Role permissions for more information about roles and permissions. 2. Go to the Account page on the developer web site.

1. In Xcode, go to the Signing & Capabilities editor. 2. The Provision Profile field should say Xcode Managed Profile. Click the little info button next to that. In the popup you'll see an App ID field whose value contains a * if you're using a wildcard App ID or your bundle ID if you're using an explicit App ID.

Configure Your App ID

more information about the structure of a bundle, see Placing Content in a Bundle.

• That you're logged in to the right team (step 3 of *Preparatory Work*). This is the most common cause of this problem.

Old Process To use the multicast entitlement (com.apple.developer.networking.multicast) you must manually create a provisioning profile that has

3. Click the add (+) button at the top. 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, or you don't see Multicast Networking listed there, see No Additional Entitlements Page below.

1. In your app's <code>.entitlements</code> file, add a <code>com.apple.developer.networking.multicast</code> entry with a Boolean value of true.

4. Still in Terminal, run the following command to confirm that your profile allows use of the entitlement:

• That you chose to create an iOS App Development profile (step 4 of Create a Provisioning Profile).

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

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

To use the multicast entitlement (com.apple.developer.networking.multicast) first ensure that you have an explicit App ID, then enable the Multicast Networking additional capability on that App ID, and finally enable the entitlement in your project. The following sections described each of those steps in detail.

process are compatible with manual code signing but I don't cover those details here.

Store Connect Help > Role permissions for more information about roles and permissions.

- To determine whether your app already has an explicit App ID: 1. In Xcode, go to the Signing & Capabilities editor. 2. The Provision Profile field should say Xcode Managed Profile. Click the little info button next to that. In the popup you'll see an App ID field
- 2. Switch back to Signing & Capabilities and build your app for the device (not the simulator!). Xcode will then notice that you're using an entitlement that's not in the current provisioning profile's allowlist but is in your App ID's allowlist. It responds to this by rebuilding the

[Key] com.apple.developer.networking.multicast

No Multicast Networking Additional Capability If, in step 3 of Configure Your App ID, you don't see the Multicast Networking additional capability, check the following:

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

• That you're logged in to the right team (step 3 of *Preparatory Work*). This is the most common cause of this problem.

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• 8 Oct 2020 — Expanded to cover the new process. • 17 Mar 2021 — Clarified why I've left the Old Process post in place. Rewrote the New Process post to use automatic code signing. • 11 May 2021 — Renamed everything to better match the terms used by the developer web site for the new process. • 27 Jan 2022 — Updated the New Process section with some Mac-specific notes. Added a link to the official documentation for this process.

Posted 2 years ago by (2) eskimo (1)

To use the multicast entitlement (com.apple.developer.networking.multicast) first ensure that you have an explicit App ID, then enable the Multicast Networking additional capability on that App ID, and finally enable the entitlement in your project. The following sections described These instructions assume you're building a typical app using Xcode with automatic code signing. Additional capabilities issued via the new

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, coordinate with the folks on your team who do. See App

Mac Note For a macOS target the Provision Profile field may say None Required. In that case you definitely don't have an explicit App ID. If you're using a wildcard App ID you must switch to using an explicit one. The easiest way to do this is to add the App Groups capability. Xcode responds to this by creating an explicit App ID for your app. If you have no use for App Groups just remove the capability afterwards; the explicit App ID will 'stick'. Mac Note Adding the App Groups capability won't trigger a switch to an explicit App ID for a macOS target (that's because App Groups work

1. In your app's <code>.entitlements</code> file, add a <code>com.apple.developer.networking.multicast</code> entry with a Boolean value of true. 2. Switch back to Signing & Capabilities and build your app for the device (not the simulator!). Xcode will then notice that you're using an

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Mac Note For a Mac app use /path/to/your.app/Contents/embedded.provisionprofile as the path in the second command. For If, in step 3 of Configure Your App ID, you don't see the Multicast Networking additional 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.

this additional capability, then configure your app's target to use that profile, then actually enable the entitlement. The following sections

IMPORTANT These instructions assume you're building a typical app using Xcode. This will switch your app to use manual code signing.

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** To create a provisioning profile that includes the multicast additional capability: 1. In the Account page on the developer web site, navigate to the Certificates, Identifiers & Profiles section.

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.

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

Add a Comment

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