Streaming Audio on watchOS 6

Hernan Eguiluz, watchOS Frameworks Engineer
Supported Technologies

Application

AVFoundation

URLSession

Network
Supported Technologies

AVFoundation  URLSession  Network
Supported Technologies

Application

AVFoundation
URLSession
Network

HLS Content Metadata
Supported Technologies

- AVFoundation
- URLSession
- Network

HLS Content Metadata
HLS Audio Content
Supported Technologies

- AVFoundation
- URLSession
- Network
Supported Technologies

- AVFoundation
- URLSession
- Network

Audio Stream Metadata
Supported Technologies

- AVFoundation
- URLSession
- Network

- Audio Stream Metadata
- Audio Stream Content
Supported Technologies

Application

AVFoundation  URLSession  Network
API Additions
API Additions

NEW

Network
# API Additions

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# API Additions

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### API Additions

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Background Modes

Background Modes specifies that the app provides specific background services and must be allowed to continue running while in the background. These keys should be used sparingly and only by apps providing the indicated services. Where alternatives for serving in the background exist, those alternatives should be used instead.
API Usage
```
let session: URLSession = URLSession(configuration: .default, delegate: nil, delegateQueue: .main)

var request = URLRequest(url: serverURL, cachePolicy: .useProtocolCachePolicy, timeoutInterval: timeout)

session.downloadTask(with: request, completionHandler: { ... })
```
do {
    try AVAudioSession.sharedInstance().setCategory(.playback, mode: .default,
    policy: .longForm, options: [])
} catch {
    ...
}

AVAudioSession.sharedInstance().activate(options: [], completionHandler: {
    // The audio route picker may be displayed before the completionHandler
    // is called
})
To play audio, connect Bluetooth headphones to your Apple Watch.

Connect a Device
```swift
var streamTask: URLSessionStreamTask?
if let streamTask = URLSession.shared.streamTask(withHostName: host,
    port: port) {
    streamTask.resume()
}
```
API Usage

```swift
var streamTask: URLSessionStreamTask?
if let streamTask = URLSession.shared.streamTask(withHostName: host, port: port) {
    streamTask.resume()
}

var connection: NWConnection? = NWConnection()
var connectionQueue: DispatchQueue = ...

if let connection = connection {
    connection.stateUpdateHandler( ... )
    connection.start( ... )
}
```
let player: AVQueuePlayer = AVQueuePlayer(...)

player.preroll(atRate: 1.0, completionHandler: { ... })

player.play()
Best Practices
WatchKit
Check hardware support

```swift
if WKInterfaceDevice.current().supportsAudioStreaming {
    // Your application can use audio streaming
} else {
    // Your application can only use local audio playback
}
```
Best Practices
WatchKit

Check hardware support

```swift
if WKInterfaceDevice.current().supportsAudioStreaming {
    // Your application can use audio streaming
} else {
    // Your application can only use local audio playback
}
```

watchOS 6 deprecates WKAudioFile* classes
Best Practices
Networking
Best Practices

Networking

Caching
Best Practices

Networking

Caching

Network requests
Best Practices

Networking

Caching

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Audio quality
Best Practices

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More Information

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More Information

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