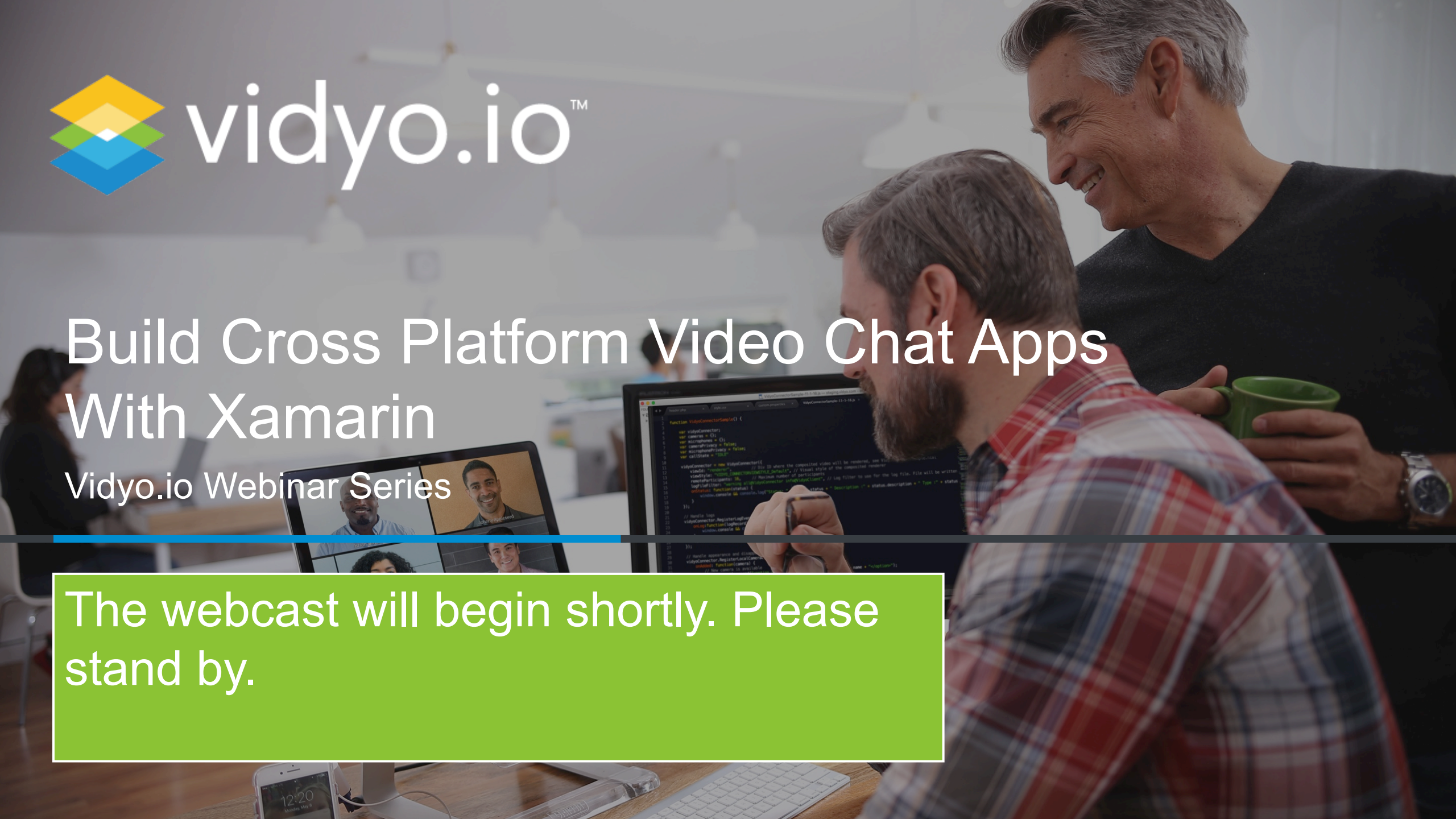

Build Cross Platform Video Chat Apps With Xamarin

Vidyo.io Webinar Series

The webcast will begin shortly. Please stand by.

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Build Cross Platform Video Chat Apps With Xamarin

Vidyo.io Webinar Series

Philip Futernik

Senior Software Engineer

November 15, 2017

Upcoming Webinar

Vidyo.io Getting Started Webinar Series: Topic: Recording Your Video Chat

December 14 @ 2:00pm ET (11:00am PT)

Presented by:

Sachin Hegde

We will email you an invitation next week!

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Poll Time!

How do you prefer to learn a new API?

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Getting Started Series:

Build Cross Platform Video Chat Apps With Xamarin

Philip Futernik

Senior Software Engineer

November 16, 2017

Xamarin Overview

System for Cross-Platform Development

Cross Platform

- Share application logic
- Average 75% code shared

Targets

- Build for multiple OSs
- Primarily used for mobile

IDE

- Visual Studio (Windows)
- Visual Studio for Mac

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Xamarin Overview

App Types

Xamarin.Android

- XML based UI builder
- AndroidManifest.xml:
  - assign permissions, Android versions, etc
- Activity life cycle methods:
  - OnCreate, OnStart, OnResume, etc

Xamarin.iOS

- Storyboard UI builder
- Entitlements.plist, Info.plist, app delegate
- View Controller life cycle methods:
  - ViewDidLoad, ViewWillAppear, ViewDidAppear, etc

Xamarin.Forms

- Allows devs to easily create native UI layouts that can be shared across iOS and Android
- Includes more than 40 controls and layouts, which are mapped to native controls at runtime
- Life cycle methods:
  - OnStart, OnSleep, OnResume

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Which flavor of Xamarin to use?

Either way, you'll get fully native apps with shared business logic

Xamarin.Forms

- Apps that require little platform specific functionality
- Code sharing is more important than custom UI
- Developers comfortable with XAML

Xamarin.iOS / Xamarin.Android

- Apps with interactions that require native behavior
- Apps that use many platform specific APIs
- Apps where custom UI is more important than code sharing

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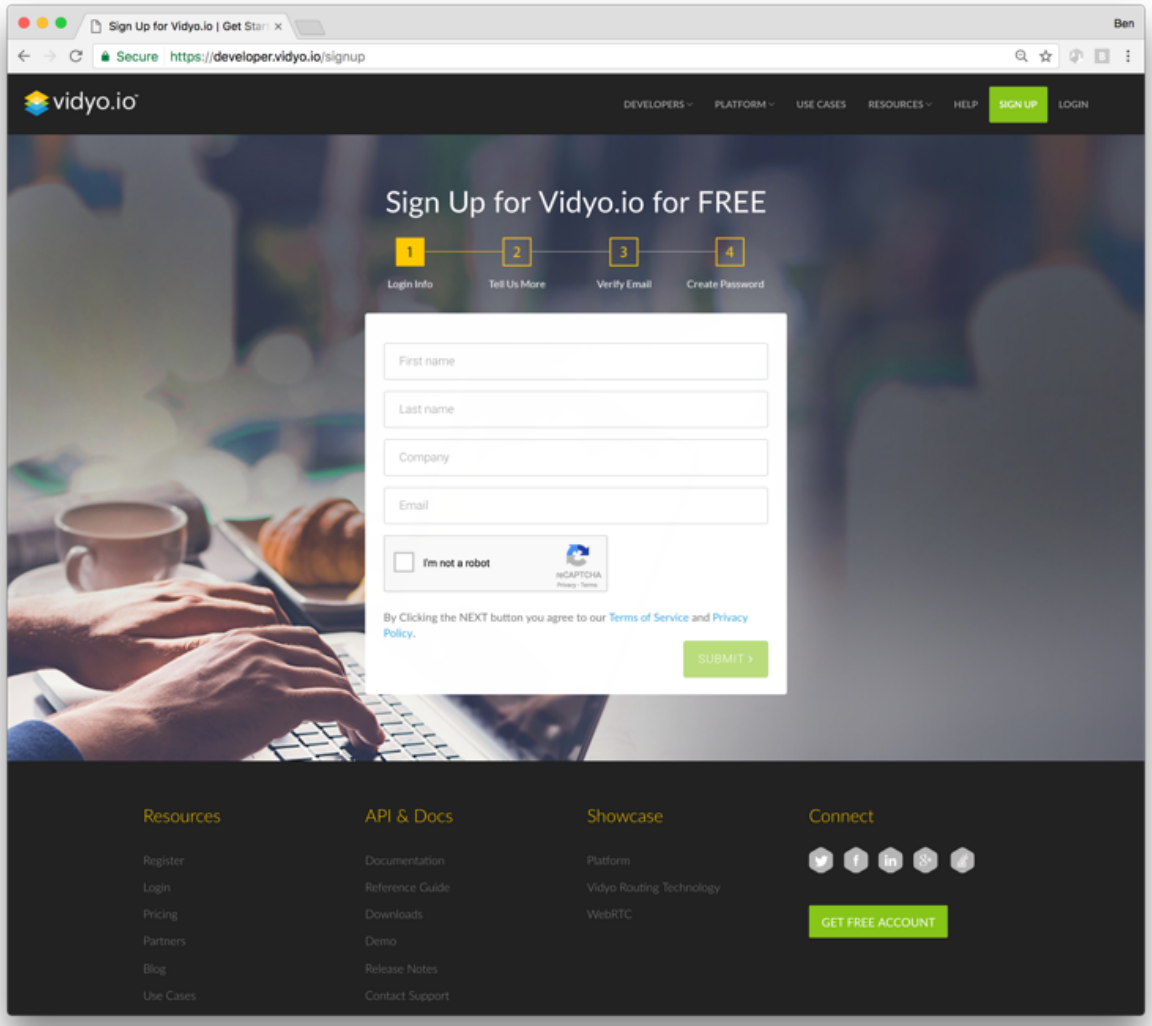
Get started with free vidyo.io account



- Go to https://vidyo.io
- Create a free account
- Download SDKs
  - iOS and Android for Xamarin development
- Start building!

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Xamarin + Vidyo.io Important Notes

- Vidyo.io C# bindings:
  - Native C library
    - Android: jar + .so
    - iOS: dylib
  - C# source files

- To render video, Vidyo lib needs a handle to native control
  - Xamarin.iOS / Xamarin.Android : exposed in the UI control
  - Xamarin.Forms : create custom renderer for each platform

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Code Walkthrough

Include vidyo.io SDK

Xamarin.iOS	Xamarin.Android

• VidyoClient-iOSSDK:
  • C# source files
  • libVidyoClient.dylib
  ➢ Build Action: Bundle Resource
	• VidyoClient-AndroidSDK:
	  • C# source files
	  • libVidyoClient.so
	  ➢ Build Action: Android Native Library
	  • vidyoclient.jar
	  ➢ Build Action: Android Java Library

Initialize vidyo.io

Xamarin.iOS	Xamarin.Android
ConnectorPKG.Initialize();	ConnectorPKG.SetApplicationUIContext(this); ConnectorPKG.Initialize();

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Code Walkthrough (cont.)

Create VidyoConnector object

Xamarin.iOS	Xamarin.Android

// videoView is of type UIView
Connector
vc = new Connector(videoView.Handle, Connector.ConnectorViewStyle.ConnectorviewstyleDefault, 15, "warning info@VidyoConnector info@VidyoClient", "", 0);
	// videoView is of type FrameLayout
	Connector
	vc = new Connector(videoView.Handle, Connector.ConnectorViewStyle.ConnectorviewstyleDefault, 15, "warning info@VidyoConnector info@VidyoClient", "", 0);

Render video

Xamarin.iOS / Xamarin.Android
vc. ShowViewAt(videoView.Handle, 0, 0, videoViewWidth, videoViewHeight);

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Code Walkthrough (cont.)

Connect to video chat

Xamarin.iOS / Xamarin.Android

```
vc.Connect("prod.vidyo.io",    // host
                generatedToken, // token
                ”Philip Futernik",  // display name
                ”PhilipRoom",       // resource ID
                this);              // need to inherit Connector.IConnect interface

// Implementation of Connector.IConnect interface:

public void OnSuccess()
{ Console.WriteLine("OnSuccess"); }

public void OnDisconnected(Connector.ConnectorDisconnectReason reason)
{ Console.WriteLine("OnDisconnected: " + reason); }

public void OnFailure(Connector.ConnectorFailReason reason)
{ Console.WriteLine("OnFailure: " + reason); }
```


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Code Walkthrough (cont.)

Disconnect from video chat

Xamarin.iOS / Xamarin.Android

```
vc.Disconnect();
```

Cycle Camera

Xamarin.iOS / Xamarin.Android

```
vc.CycleCamera();
```


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Demo

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Finding Help

Available Resources

- How-To Videos
  - https://vidyo.io/how-to-videos/
- Ready to deploy samples
  - https://developer.vidyo.io/packages
  - https://github.com/vidyo
- Get Help
  - https://support.vidyo.io
  - https://stackoverflow.com/ (Use the “vidyo” tag when asking question)

Please follow us on Twitter

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Thank you!

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Twitter – philnbass

https://vidyo.io

Twitter - @Vidyo_io

LinkedIn – vidyo-io

https://github.com/vidyo

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