Integrating Akka.NET with SignalR

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Overview

- Overview of SignalR
- Integration diagram
- Install and configure SignalR
- Add some JavaScript SignalR functions
- IGameEventsPusher
- Create a SignalR Hub
- SignalR bridge actor

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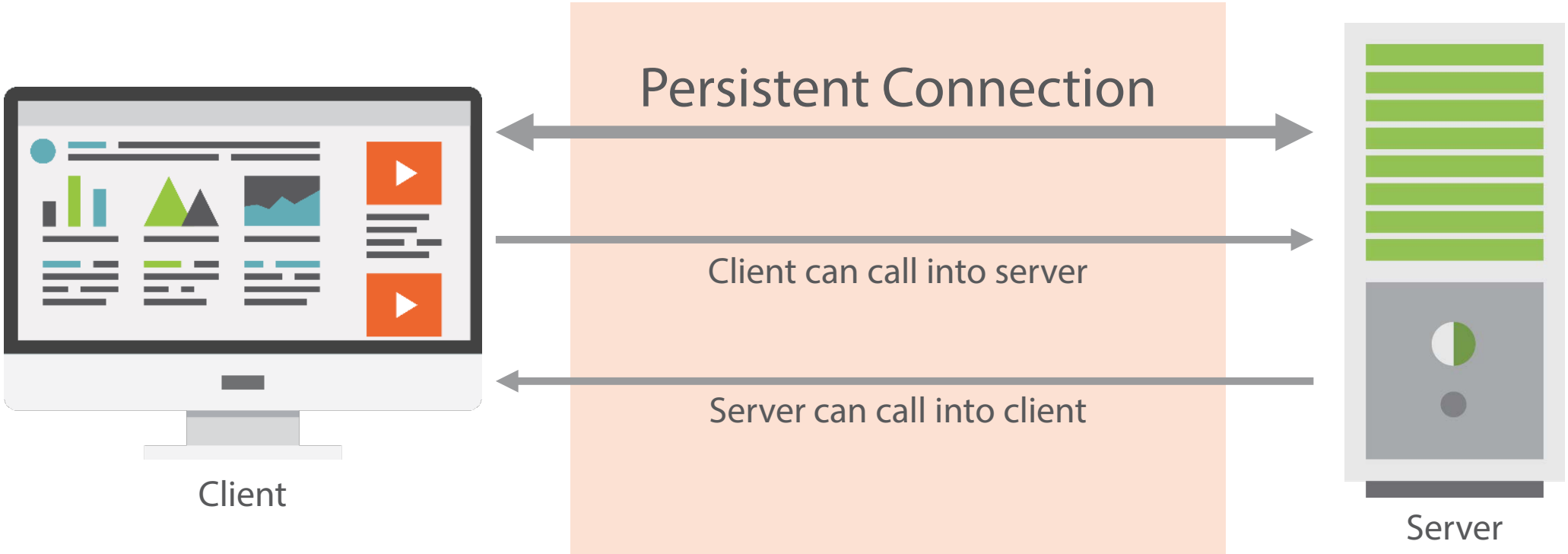
Overview of SignalR



Network transport mechanism abstracted

e.g. Web Sockets, Server Sent Events, etc.

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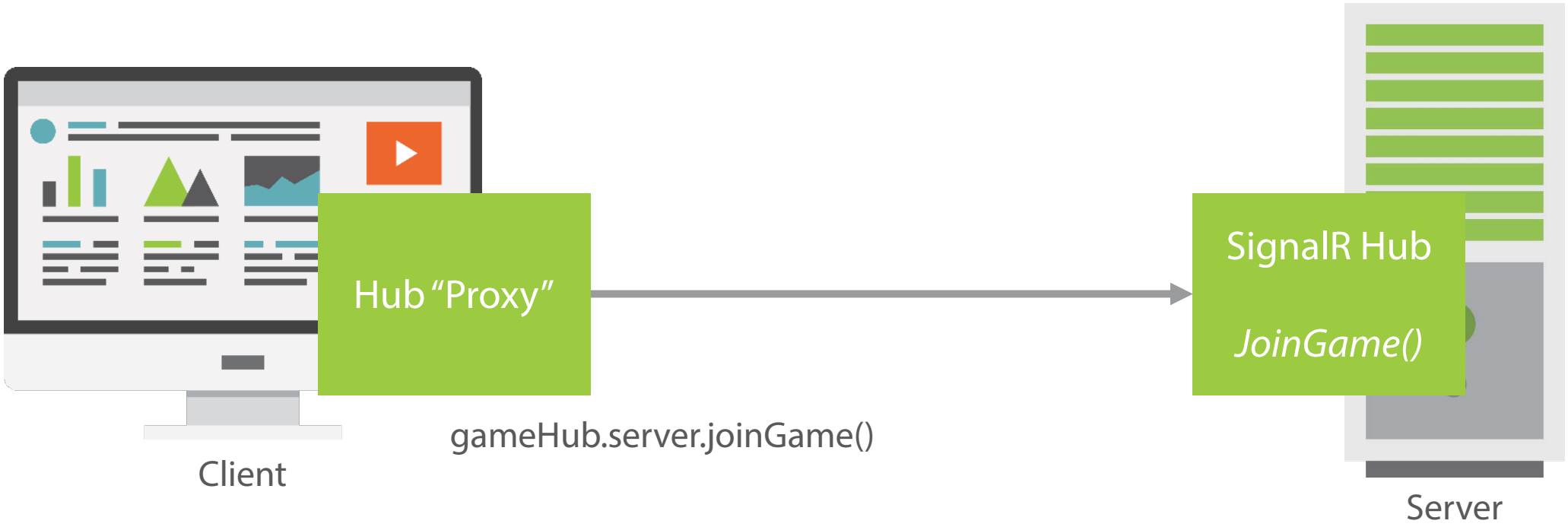
Client Calling a Server Function



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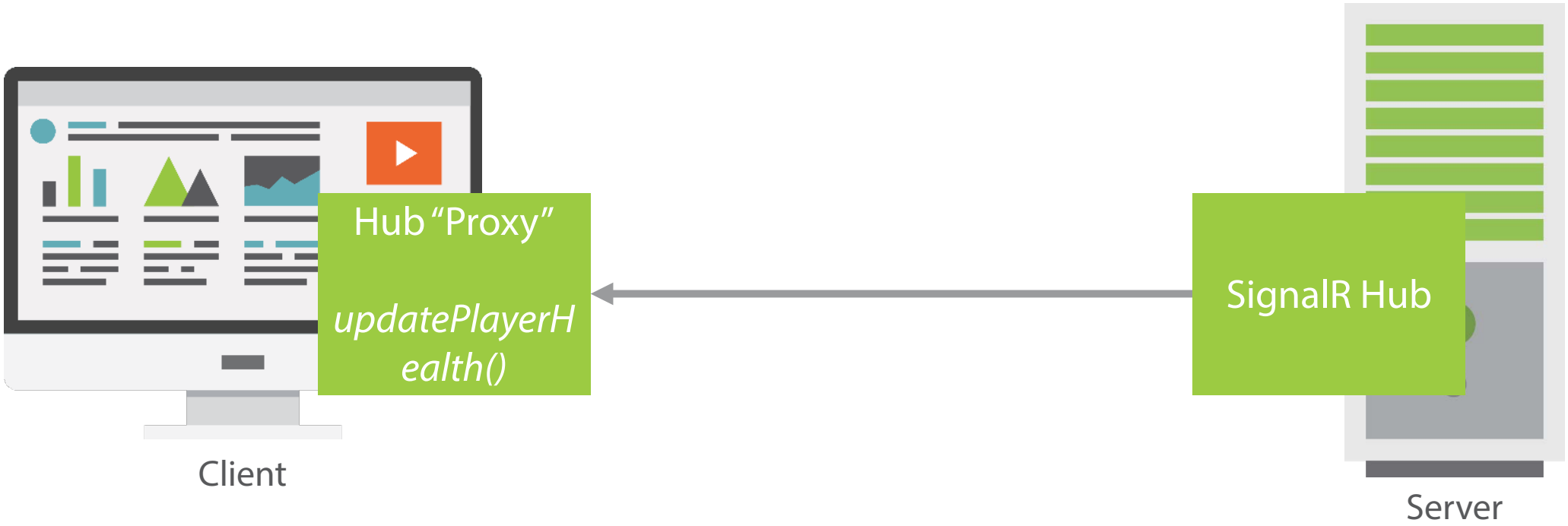
Server Calling a Client Function



_gameHubContext.Clients.All.updatePlayerHealth()

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“SignalR Across Web and Devices”

by Samidip Basu

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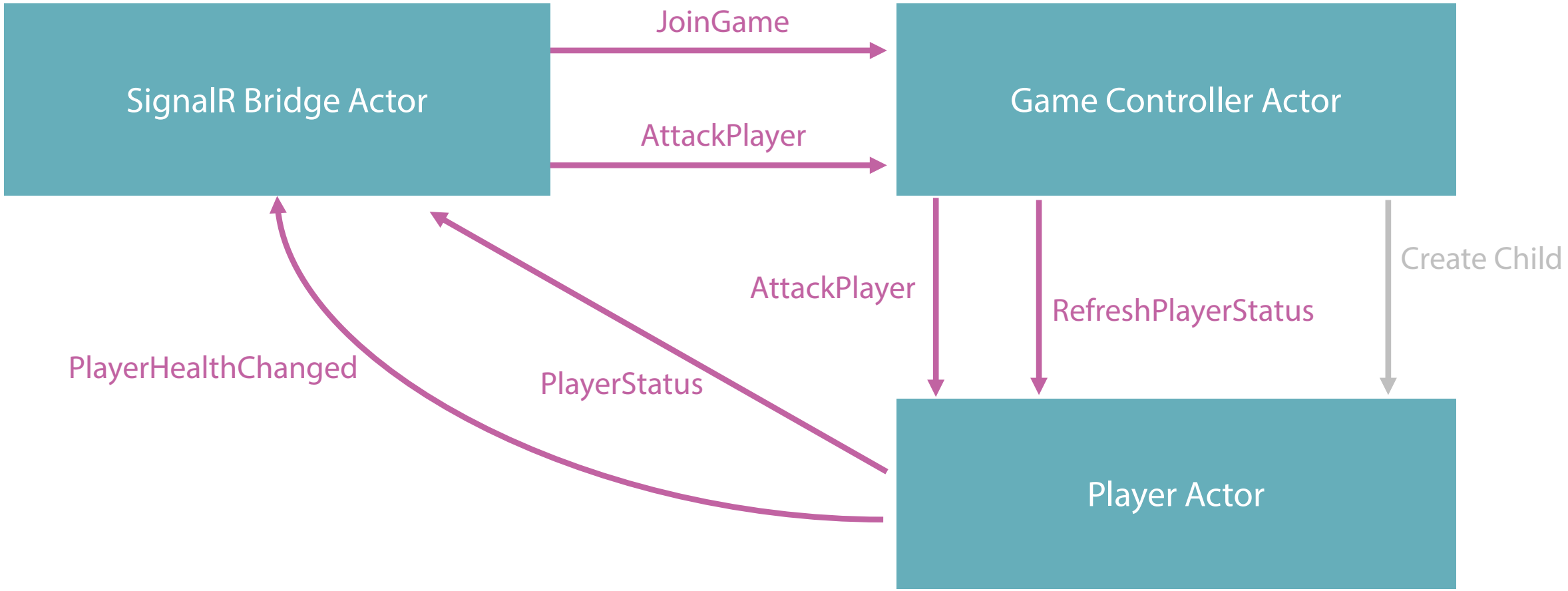
Integrating Akka.NET and SignalR



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The SignalR Bridge Actor is the primary conduit between our actors and the outside world.

Any messages that flow into or out of the actor system, flow through this actor.

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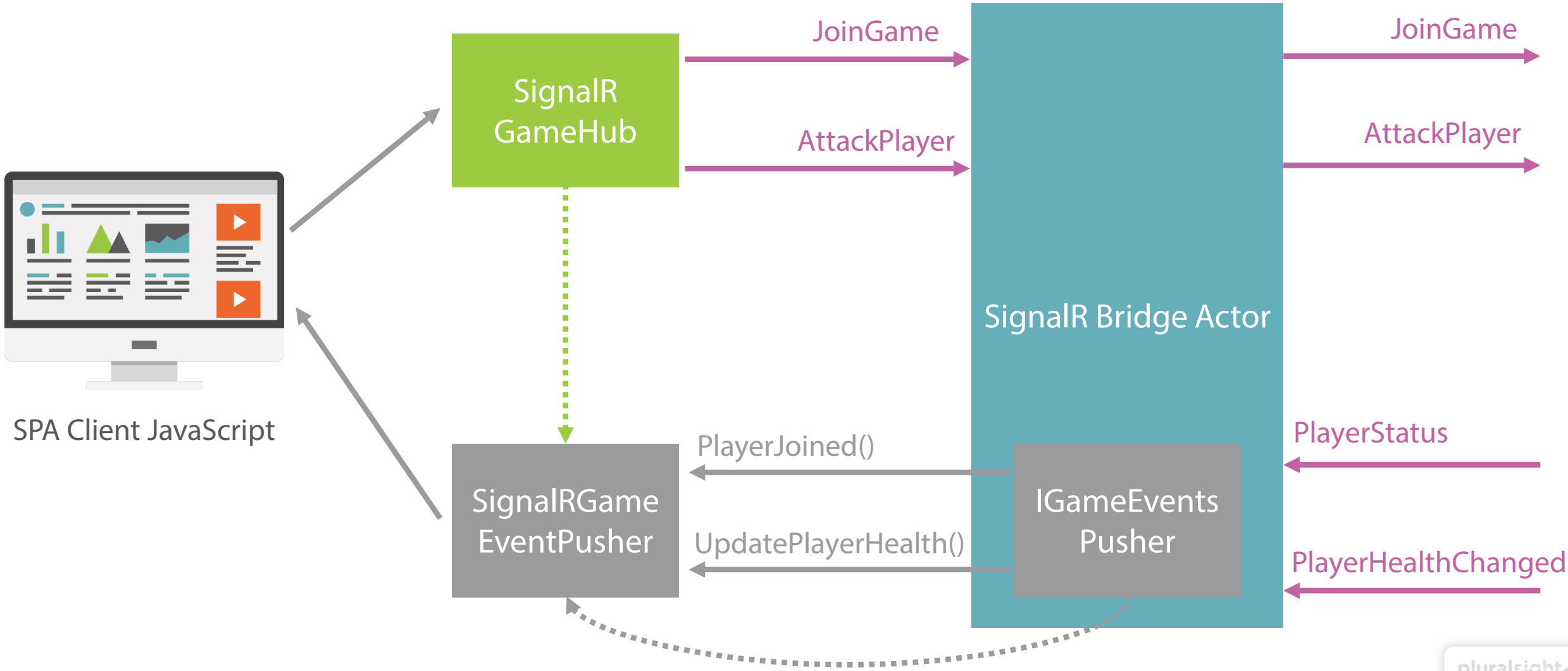

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Installing SignalR

Install from NuGet

Update jQuery

Wire up SignalR in Owin Startup class

Add SignalR bundle

Add scripts to layout

Initialize the game hub proxy the in view

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Creating the IGameEventsPusher Interface

PlayerJoined()

UpdatePlayerHealth()

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Creating the SignalR Bridge Actor

Send JoinGameMessage to controller

Send AttackPlayerMessage to controller

Use IGameEventsPusher to push updates to clients (via SignalR)

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Creating the SignalR GameHub

JoinGame() -> SignalRBridge

Attack() -> SignalRBridge

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Implementing an IGameEventsPusher

Create SignalRGameEventPusher

GlobalHost.ConnectionManager

Implement PlayerJoined()

Implement UpdatePlayerHealth()

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Wiring up the SignalR Bridge Actor

static class GameActorSystem

Add ActorReferences.SignalRBridge

new SignalRGameEventPusher()

Instantiate SignalRBridgeActor

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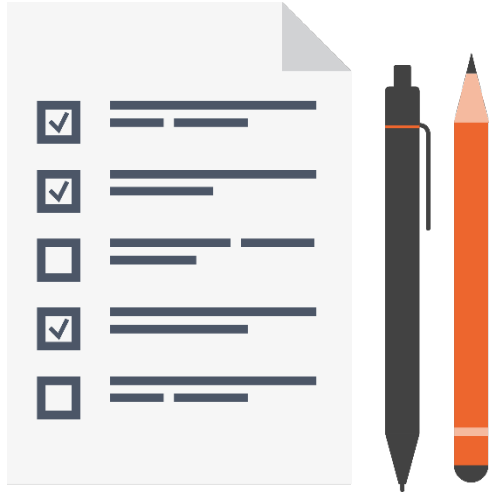
Summary



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Next:

Completing the SPA Web User Interface with Knockout

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