

Game Development Technologies on Windows

Romuald Zdebskiy

Games Lead for Central & Eastern Europe

Microsoft

@zdebskiy



Content

1. How serious is game development?
2. Windows Platform ecosystem
3. Key game development technologies on Windows
4. How to use platform features to grow rating
5. How to grow monetization
6. How to grow your performance in Windows Store

How Serious is Game Development?



85% of Win Store IAP purchases

75% of all revenue of Apple AppStore +70% YoY Growth

90% of all Google Play revenue +100% YoY Growth

are generated by Games

<https://blogs.windows.com/buildingapps/2016/02/04/windows-store-trends-february-2016/>

<https://www.idc.com/getdoc.jsp?containerId=prUS25451415>

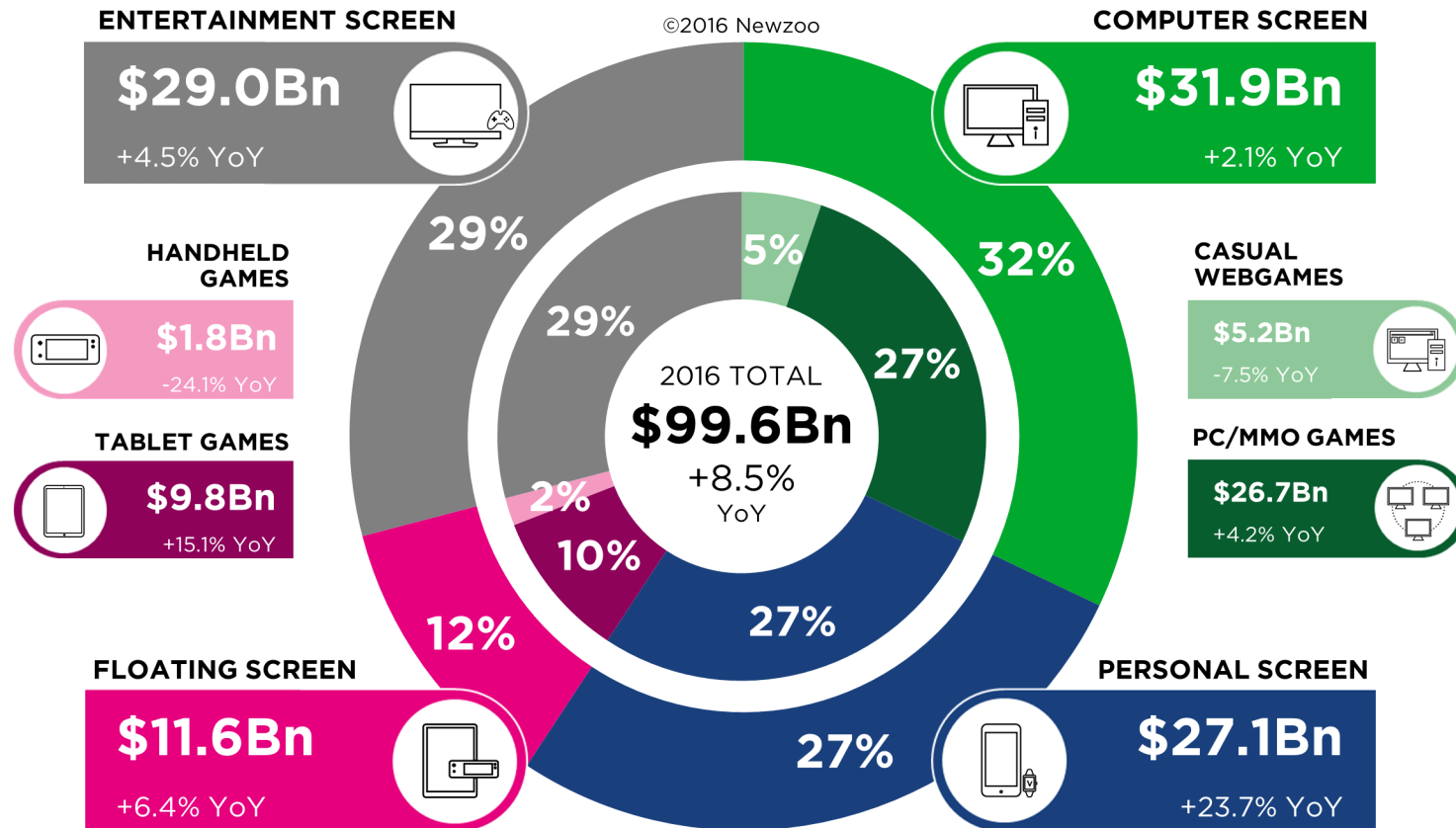
<http://www.newzoo.com/in-the-press/android-becoming-best-platform-mobile-gaming-read-httpwallstcheatsheet-comtechnologyhow-android-becoming-best-platform-mobile-gaming-htmlaviewallixzz3d0qtitrw/>



newzoo

2016 GLOBAL GAMES MARKET

PER SCREEN & SEGMENT WITH YEAR-ON-YEAR GROWTH RATES



In 2016, mobile games will generate

\$36.9Bn

or **37%** of the global market.

Source: ©Newzoo | Q2 2016 Update | Global Games Market Report Premium
newzoo.com/globalreportpremium/

newzoo



newzoo

2015-2019 GLOBAL GAMES MARKET

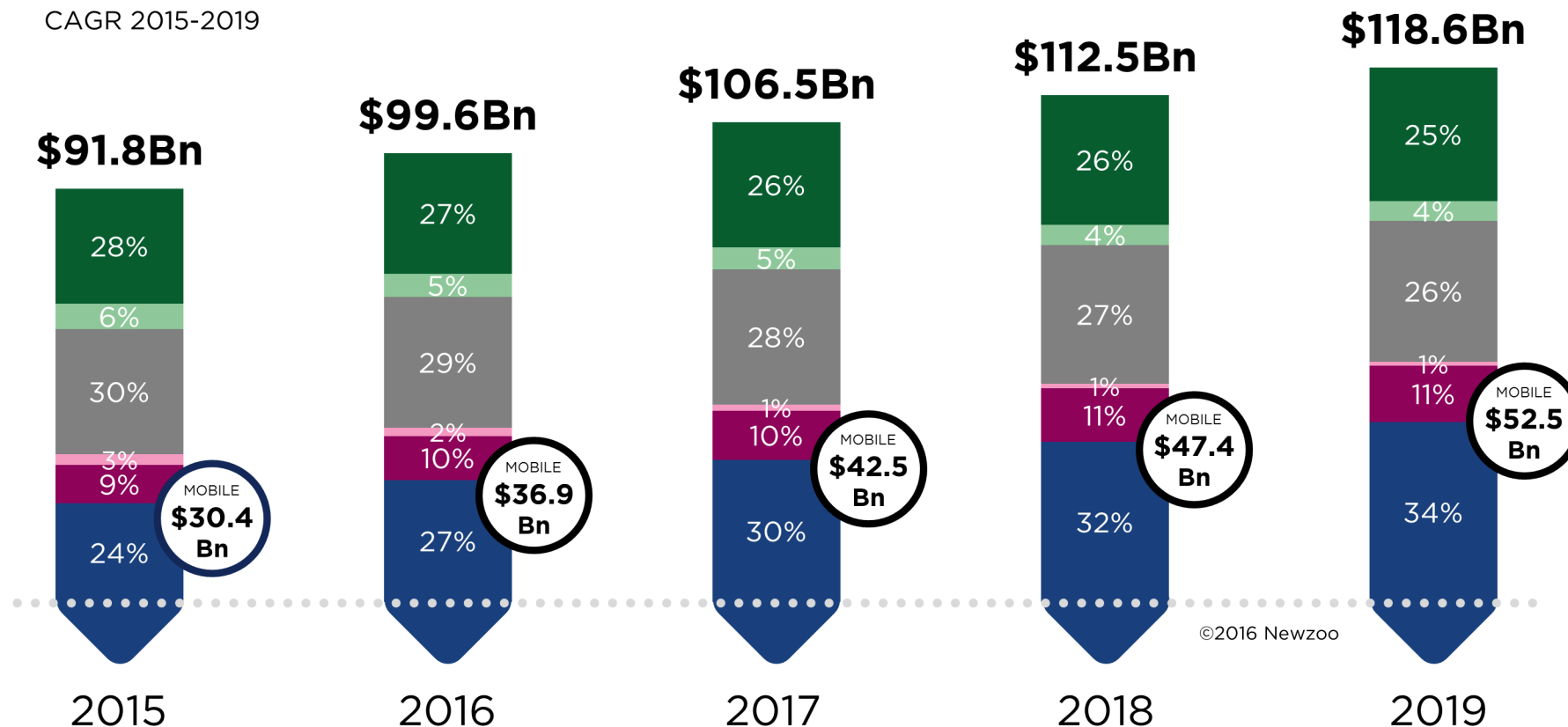
FORECAST PER SEGMENT TOWARD 2019

TOTAL MARKET

+6.6%

CAGR 2015-2019

Smartphone Tablet Handheld TV/Console Casual Webgames PC/MMO



©2016 Newzoo

Source: ©Newzoo | Q2 2016 Update | Global Games Market Report Premium

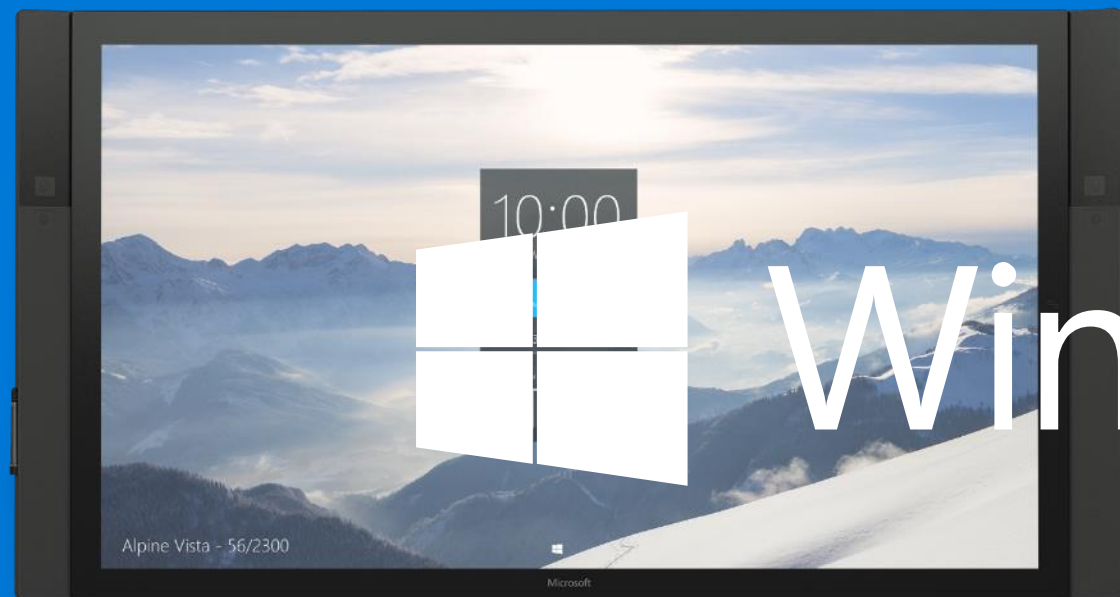
newzoo.com/globalreportpremium/

newzoo

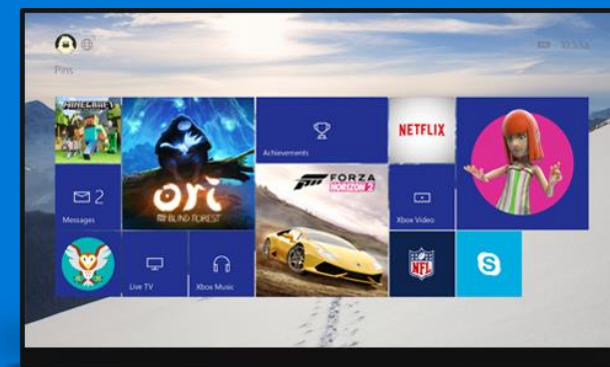
<https://newzoo.com/insights/articles/global-games-market-reaches-99-6-billion-2016-mobile-generating-37/>

Windows Platform ecosystem





Windows 10

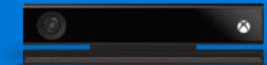
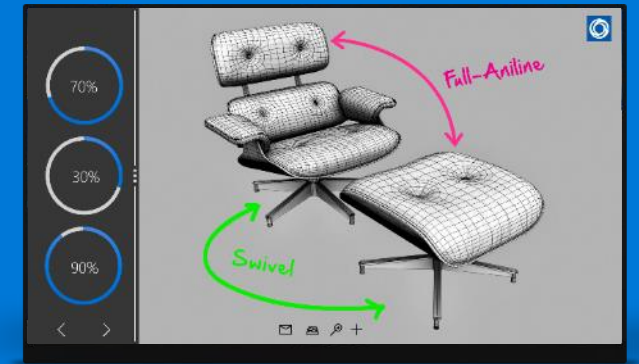
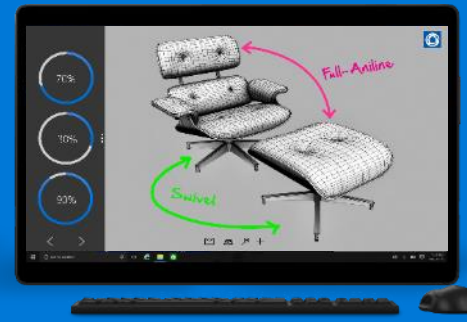
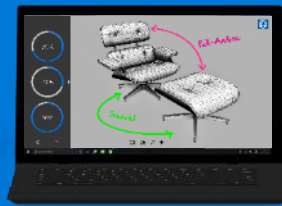
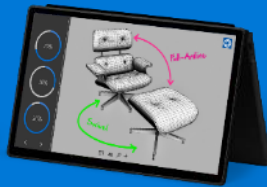
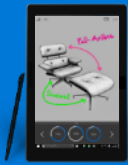


One Platform
One Store
One Experience



Access to all the audience

Universal Windows Platform (UWP) Apps





Windows 10

Windows 10 devices

Free upgrade during the first
year

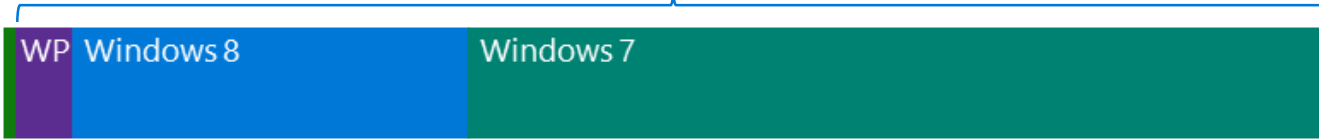
300 million

Windows 10 devices to date

New monetization opportunities

One big audience on the one platform globally

Free upgrade*



Windows 10 Success

145% growth vs Win 7

Monetization per device 4.5
higher than Win 8

Global Reach

Windows Store on 242 markets

100+ languages

100+ mobile carriers



*For GA + 1 year for qualified devices

Shared Purchases

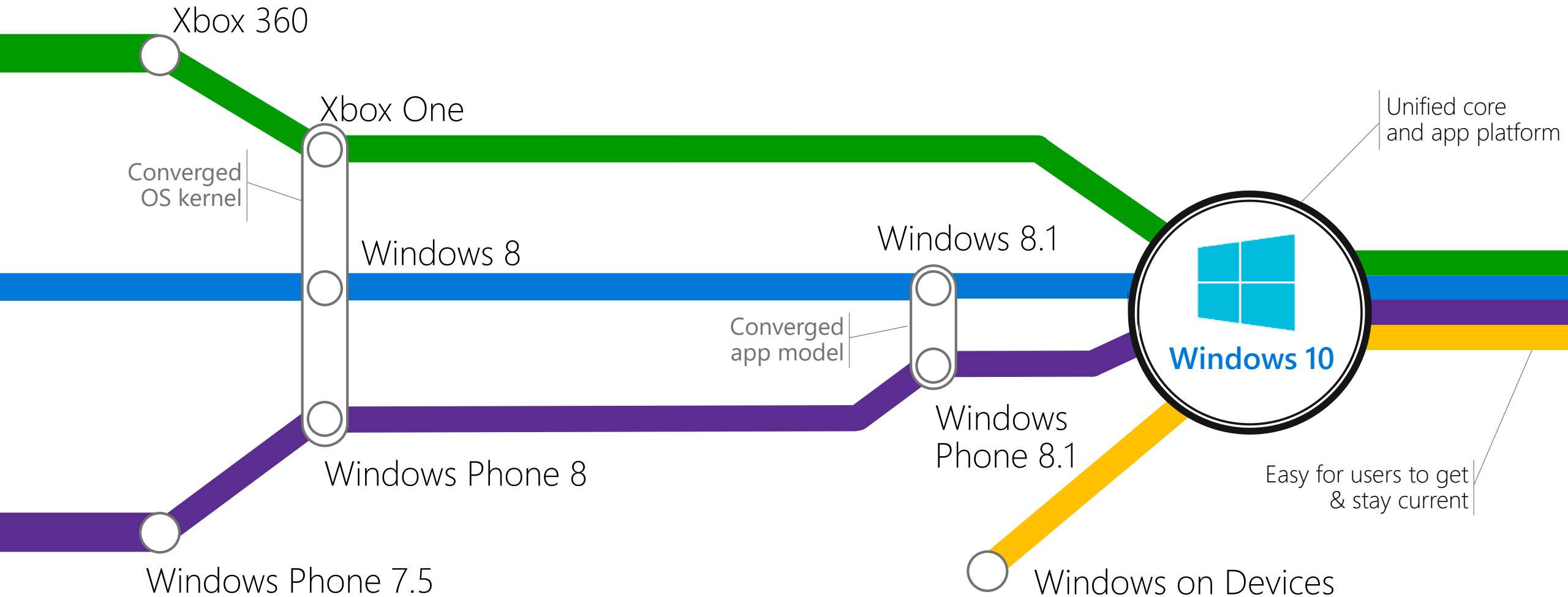
- Shared in-app purchases
 - Game currency
 - Artefacts, mana, weapon, power ups, etc.
- Shared game (paid) purchase
 - Buy once – play both on Windows and Windows Phone
- Configure in Windows Store Developer Dashboard

Connected Gameplay

Start on the one device (tablet) – continue on the other (smartphone)



Our Windows convergence is almost complete



One project type to rule them all...



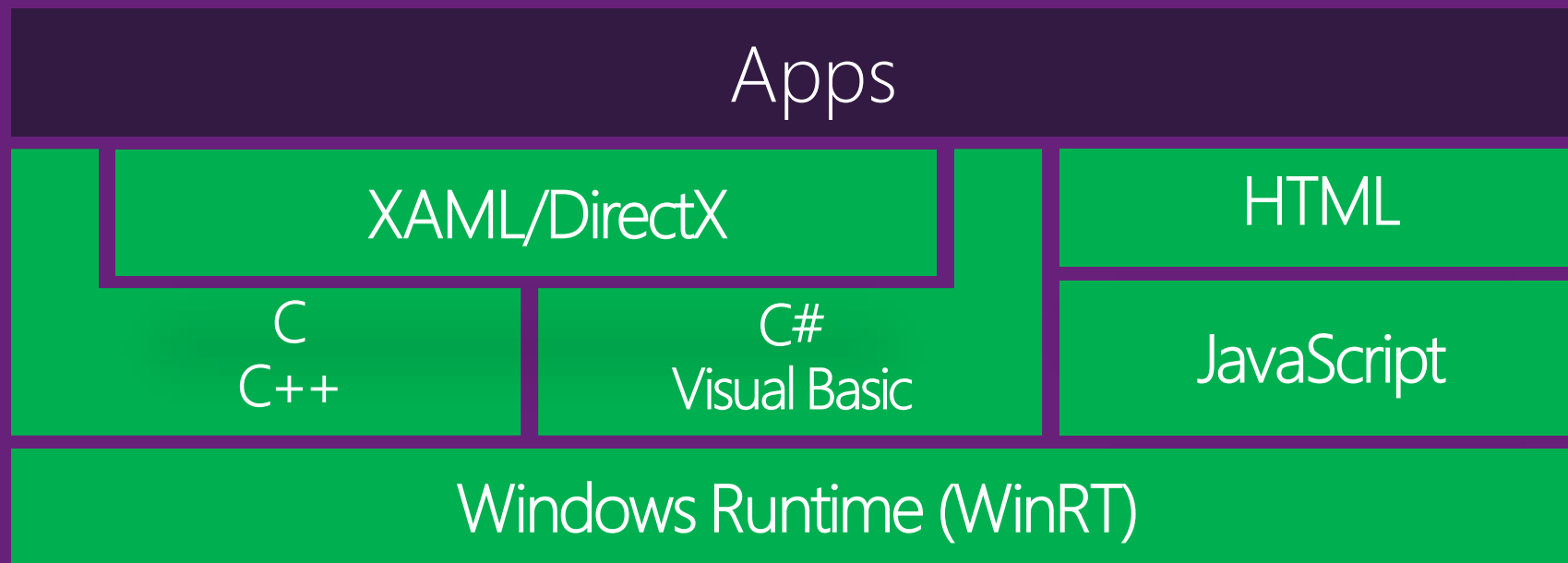
 Windows Phone



 Windows



 XBOX ONE



Universal Windows Platform (UWP)

Win 10 UWP differentiation in Windows Store



Built for Windows 10

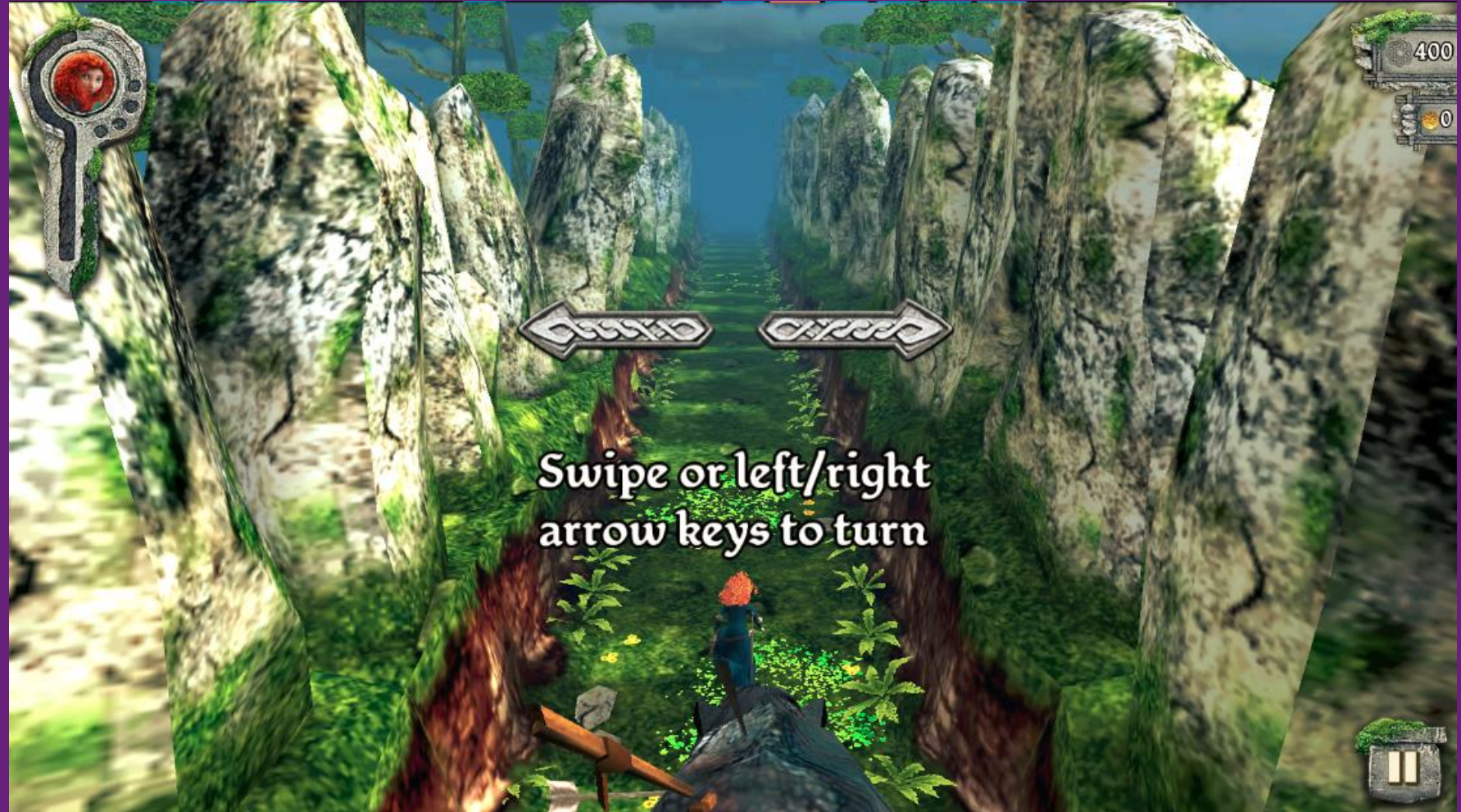


Mobile PC

Don't forget the keyboard



Temple Run: Brave



Key game development technologies on Windows



UWP: DirectX and C++

Microsoft
DirectX 11



0.7 Million
Draw Calls/second

Microsoft
DirectX 12



13.4 Million
Draw Calls/second

DirectX 12 - full power and potential of graphics hardware

Power of DirectX 12

AAA and hardcore games in Windows Store



Rise of the Tomb Raider

Square Enix Ltd.

18+ ★★★★★

 Share


Built for Windows 10



Gears of War: Ultimate Edition for Windows 10

Microsoft Studios

18+ ★★★★★

 Share


Built for Windows 10



Quantum Break

Microsoft Studios

18+ ★★★★★

 Share


Built for Windows 10



Killer Instinct

Microsoft Studios

16+ ★★★★★

 Share

Built for Windows 10

Forza Motorsport 6 Apex

One project type to rule them all...



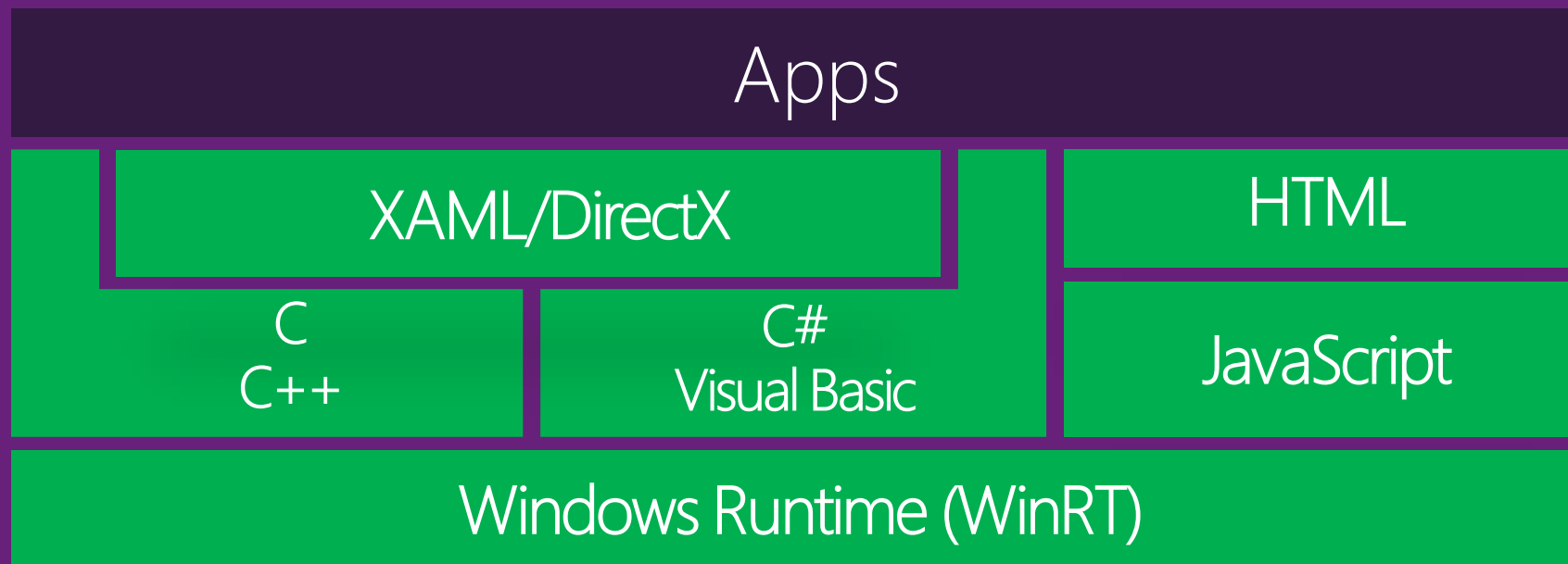
 Windows Phone



 Windows

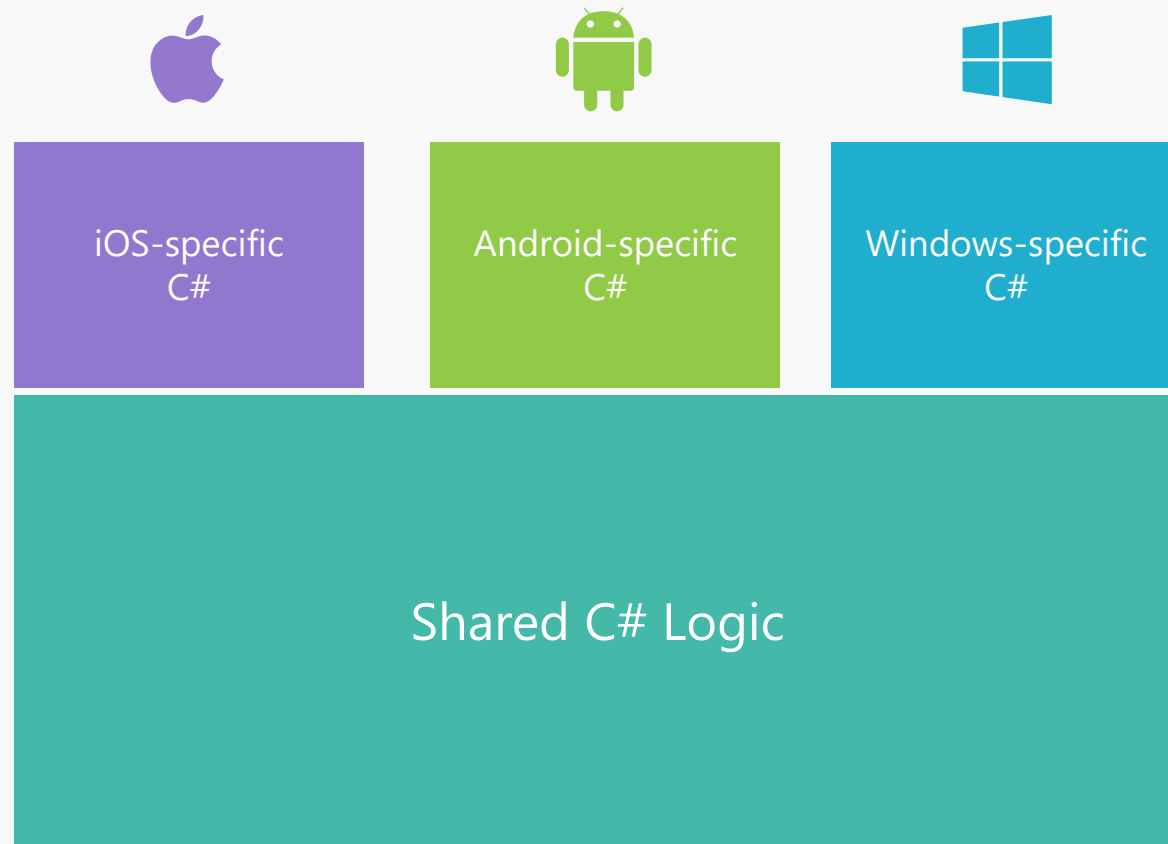


 XBOX ONE



Universal Windows Platform (UWP)

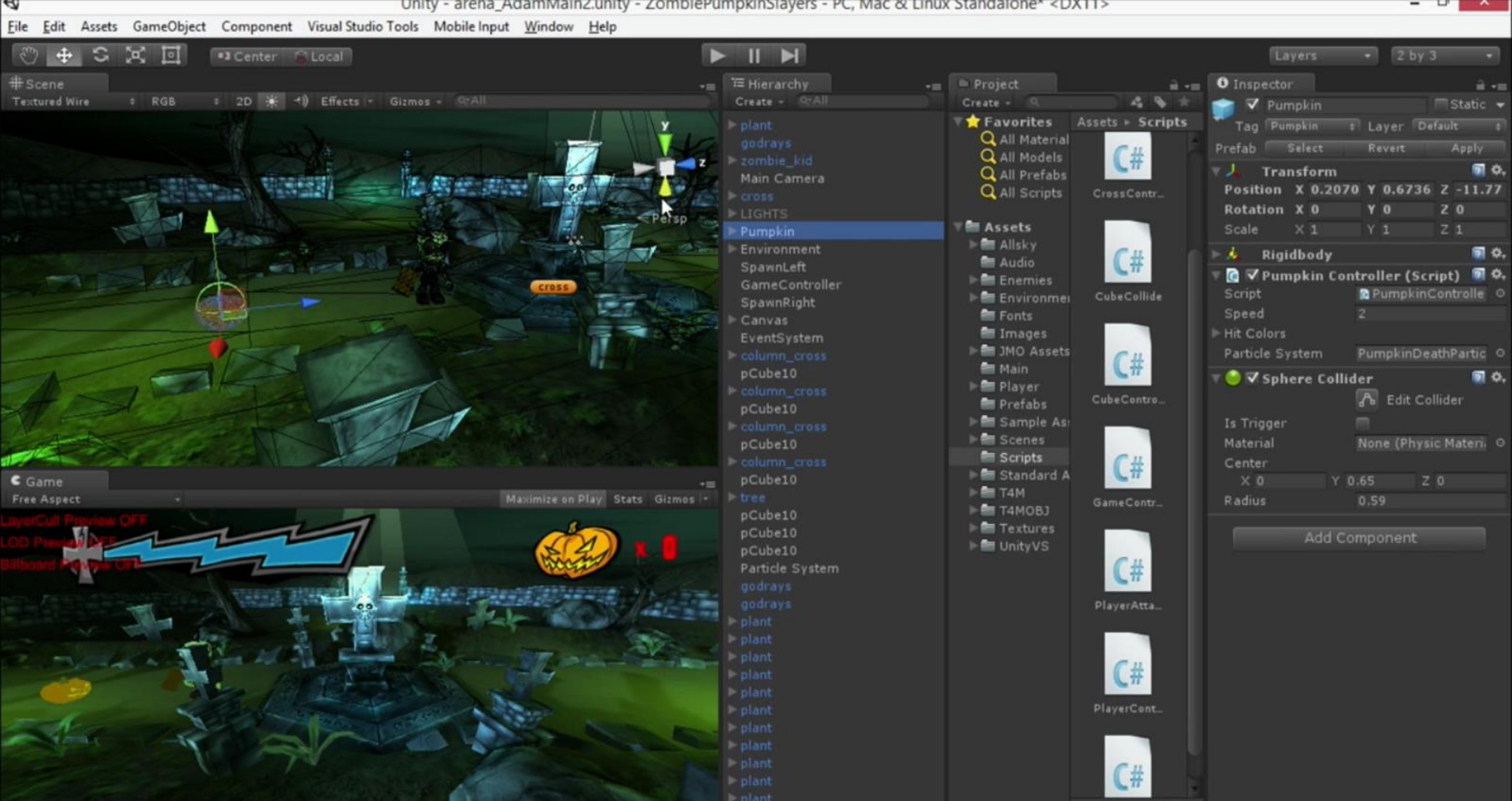
Xamarin's Unique Approach



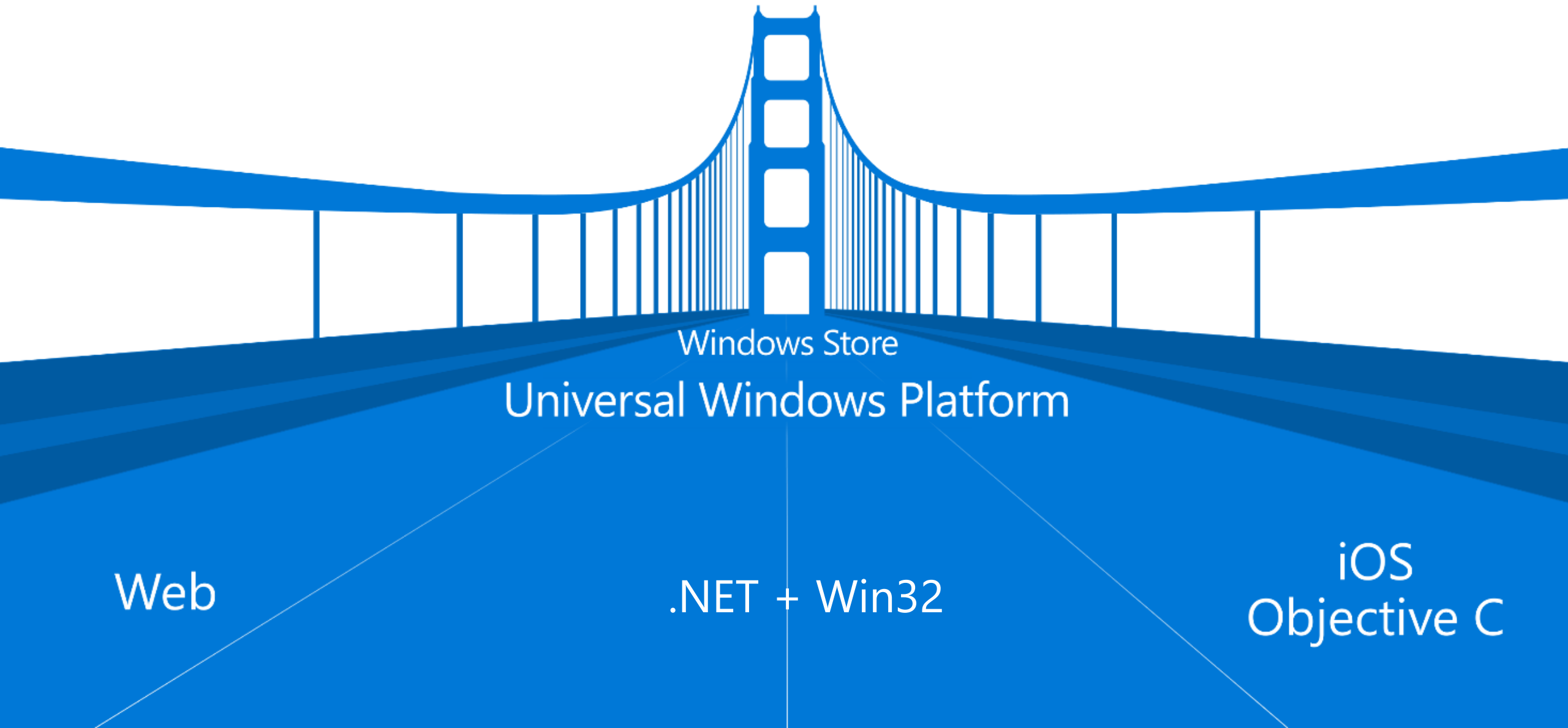
Shared C# codebase • 100% native API access • High performance

Gaming Middleware welcomed on Windows!

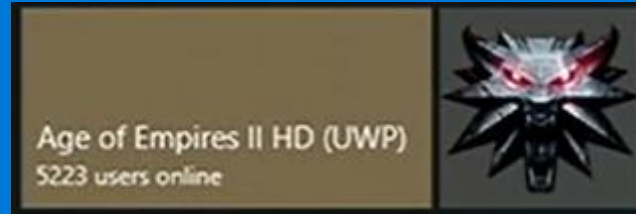




1 Billion
Windows 10 Devices



Win32 Bridge – Project Centennial



iOS Bridge – Project Islandwood

Open sourced and available on GitHub

Published by "king.com"



Candy Crush Saga
★★★★★
Owned



Papa Pear Saga
★★★★★
Free*



Candy Crush Soda
Saga
★★★★★
Owned

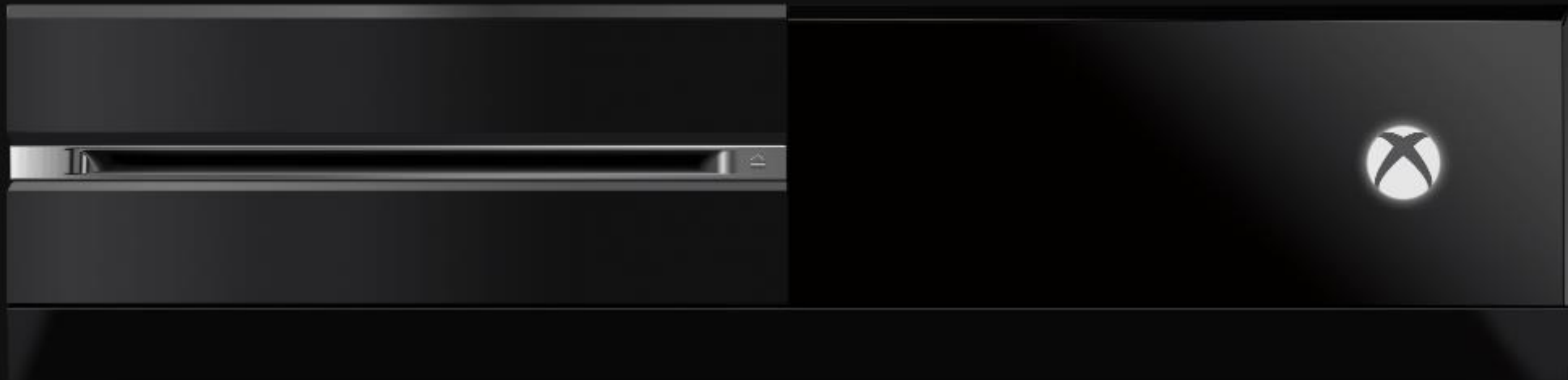


GameInsight



ID@XBOX

INDEPENDENT DEVELOPERS PUBLISHING
PROGRAM FOR XBOX ONE



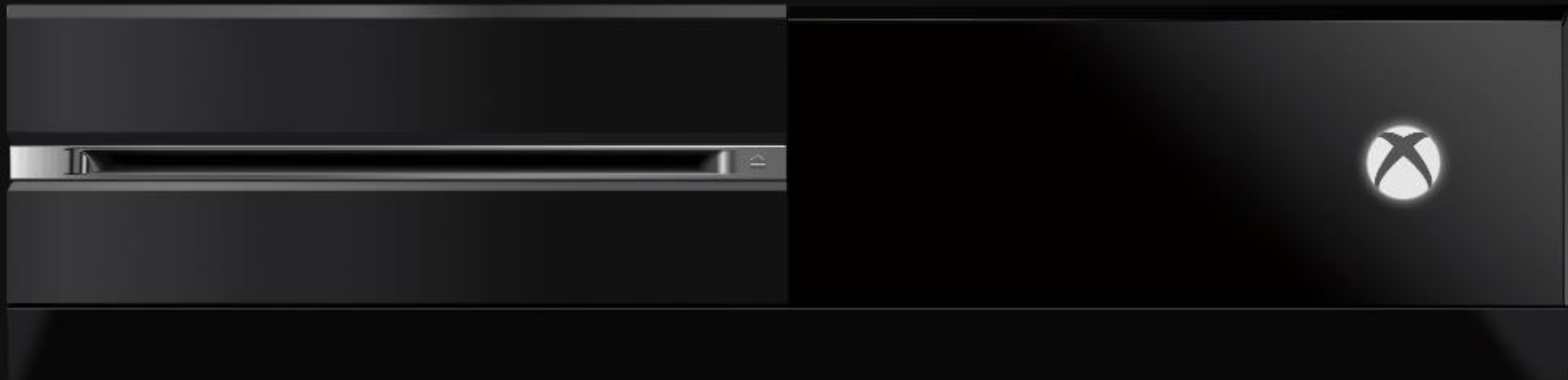
xbox.com/dev

Developer Paths to Success on Windows Devices



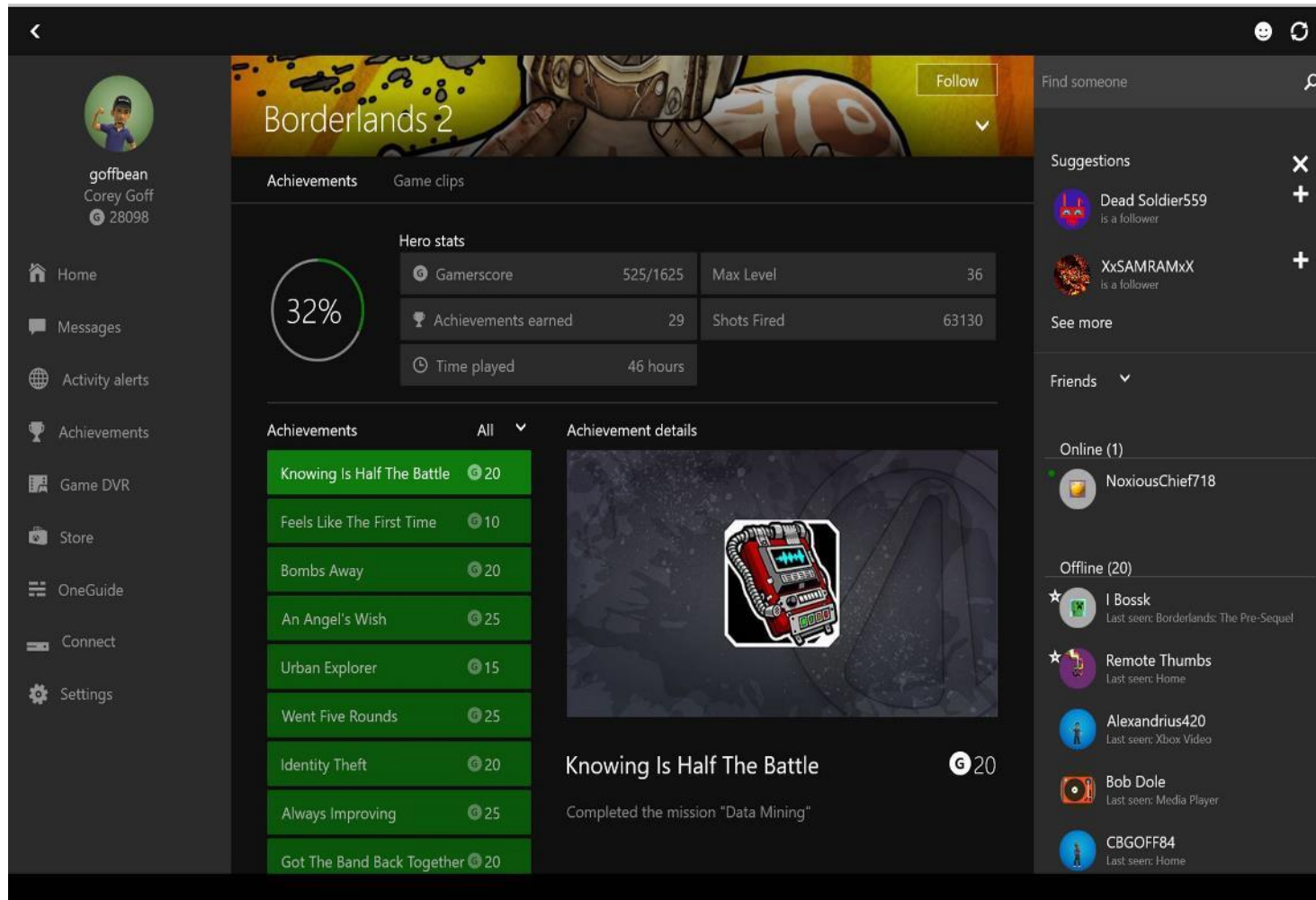
XBOX One Developer mode

Preview available on retail devices!



<https://msdn.microsoft.com/en-us/windows/uwp/xbox-apps/devkit-activation>

Xbox App



Console Experience on Windows

Get Social with Your Games

Stay connected with your gaming community regardless of device you are on

Share your status, activities, achievement

Capture and Share Game Play

Game DVR. Capture in-game-play video, share with your friends



Xbox One - Windows 10

Connected Gameplay

Start on the one device (tablet) – continue on the other (smartphone)





Microsoft Azure

Platform Services

Security & Management

- Portal
- Active Directory
- Multi-Factor Authentication
- Automation
- Key Vault
- Store / Marketplace
- VM Image Gallery & VM Depot

Compute

- Cloud Services
- Service Fabric
- Batch
- Remote App

Web and Mobile

- Web Apps
- API Apps
- API Management
- Mobile Apps
- Logic Apps
- Notification Hubs

Developer Services

- Visual Studio
- Azure SDK
- Team Project
- Application Insights

Hybrid Operations

- Azure AD Connect Health
- AD Privileged Identity Management
- Backup
- Operational Insights
- Import/Export
- Site Recovery
- StorSimple

Integration

- Storage Queues
- Biztalk Services
- Hybrid Connections
- Service Bus

Analytics & IoT

- HDInsight
- Machine Learning
- Data Factory
- Event Hubs
- Stream Analytics
- Mobile Engagement

Data

- SQL Database
- SQL Data Warehouse
- Redis Cache
- Search
- DocumentDB
- Tables

Media & CDN

- Media Services
- Content Delivery Network (CDN)

Infrastructure Services

Compute

- Virtual Machines
- Containers

Storage

- BLOB Storage
- Azure Files
- Premium Storage

Networking

- Virtual Network
- Load Balancer
- DNS
- Express Route
- Traffic Manager
- VPN Gateway
- Application Gateway

Datacenter Infrastructure (30 Regions)



Azure momentum

>120 **k**

NEW AZURE CUSTOMER
SUBSCRIPTIONS/MONTH

>1.4 **Million**

SQL DATABASES IN AZURE

2 **Trillion**

MESSAGES PER WEEK
PROCESSED BY AZURE IOT

5 **Million**

ORGANIZATIONS USING
AZURE ACTIVE DIRECTORY

>4 **Million**

DEVELOPER REGISTERED WITH
VISUAL STUDIO TEAM SERVICES

>40**%**

REVENUE FROM
START-UPS AND ISVS

Games on Azure



<https://msdn.microsoft.com/en-us/age-of-ascent-msdn.aspx>

<http://news.microsoft.com/features/game-developers-use-microsoft-azure-as-secret-sauce-for-scale-and-growth-2>

app2top



185M+
INSTALLS

JoyBits

MOBILE . SOCIAL . CASUAL

Common cloud back-end for games on
Windows, Amazon, Android and iOS

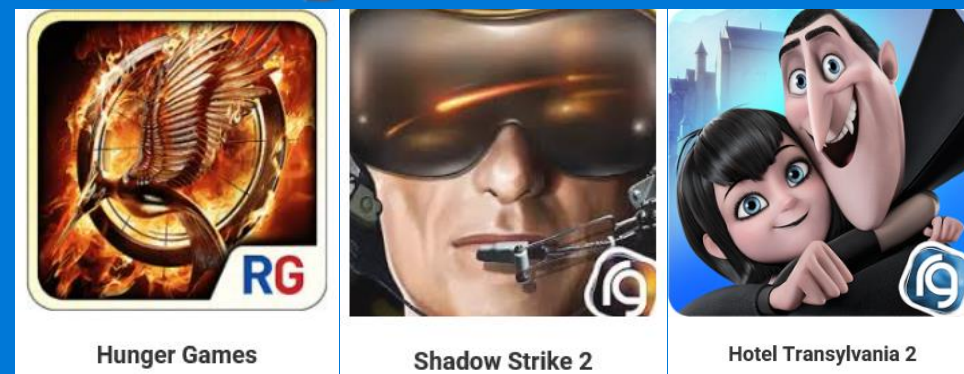
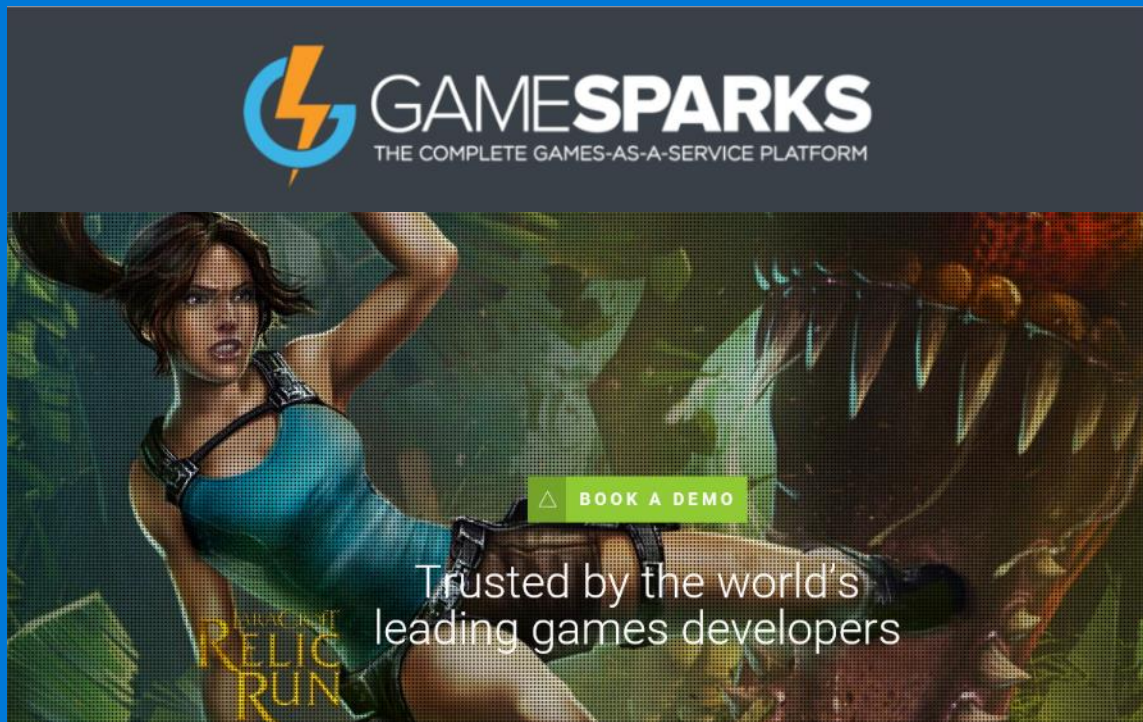
Connected Gameplay



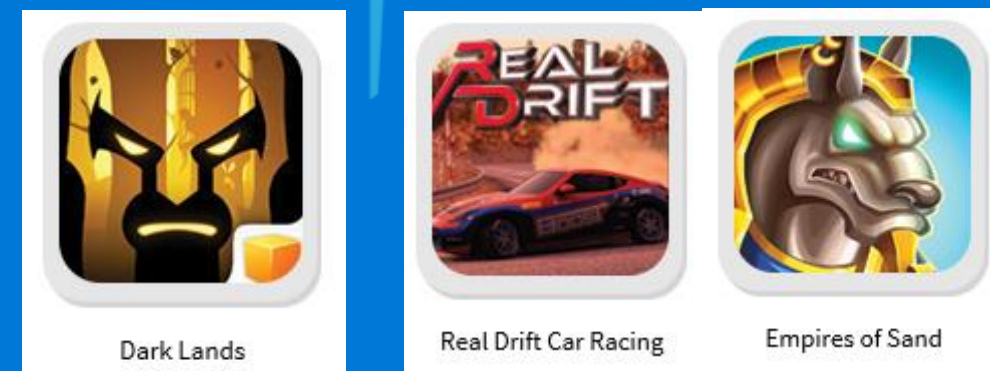
Microsoft Azure

Gaming backend engines on Azure

playblazer



ShepHertz



<https://msdn.microsoft.com/en-us/age-of-ascent-msdn.aspx>

<http://news.microsoft.com/features/game-developers-use-microsoft-azure-as-secret-sauce-for-scale-and-growth-2>

Use platform features to grow rating

Trial for paid games

Try before buy

82%

from top 50 paid apps
use trial mode

Time limit



Bejeweled Live
Electronic Arts

Features constraint



Splemy
FormerDroid

Angry Birds



\$0.99

★★★★★
824 reviews

buy

try



Game Dev Tycoon
Greenheart Games
Pty. Ltd

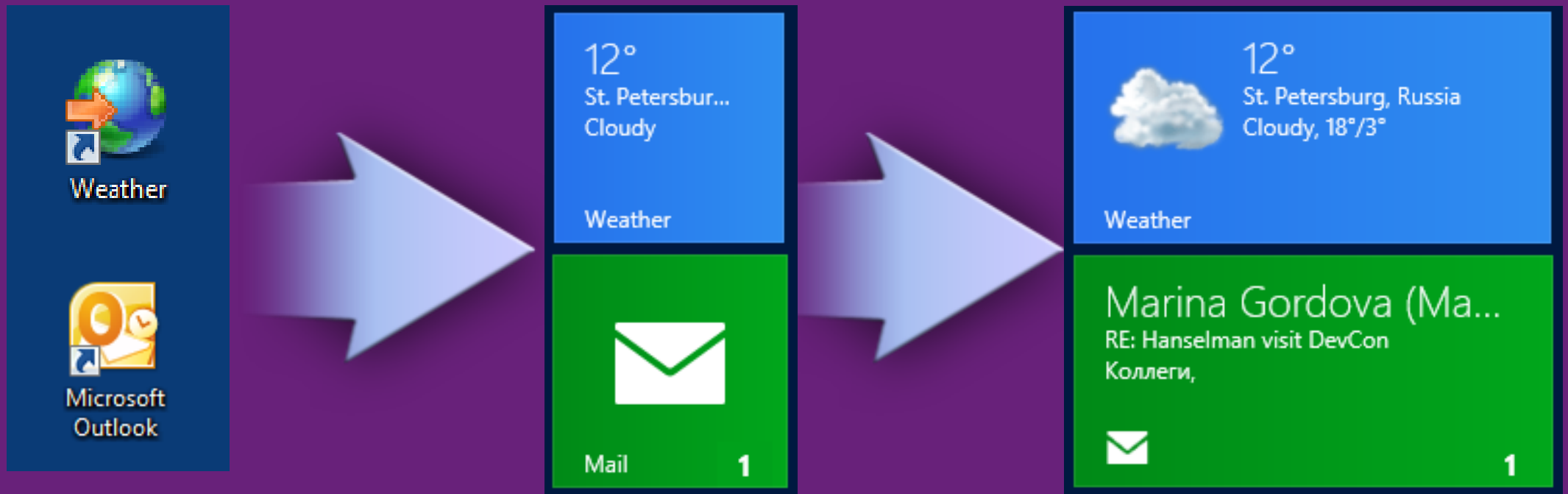


Chimpact
Yippee
Entertainment

```
using Microsoft.Phone.Marketplace;  
private static LicenseInformation _licenseInfo = new LicenseInformation();  
_isTrial = _licenseInfo.IsTrial();
```

```
using Microsoft.Phone.Tasks;  
MarketplaceDetailTask _marketPlaceDetailTask = new MarketplaceDetailTask();  
_marketPlaceDetailTask.Show();
```

Live Tiles Idea



Ensure you support
all
live tile sizes
including large

Remind about ratings when appropriate

игры / стратегии+симуляторы

My Country



Бесплатные



Отзывы: 27248

- There are a lot of organic in Windows Store
- Positive ratings can really help to raise the game in charts and be considered for promotion
- Ratings must be fair (real)
- Remind in the subtle way and only when appropriate

Grow monetization

Windows ad mediation – use multiple ad SDKs



	Windows Phone 8	Windows Phone 8.1 Silverlight	Windows Phone 8.1 XAML
Microsoft Advertising	Y	Y	Y
AdDuplex**	Y	Y	Y
AdMob	Y*	Y*	-
InMobi	Y*	Y*	-
Inneractive	Y*	Y*	-
MobFox	Y*	Y*	-
Smaato	Y*	Y*	Y

* Not available in NuGet today. You can download the DLL from the ad network portal

** AdDuplex is primarily a promotional SDK

Windows Phone

Dashboard Get started

Submit App

Apps

Reports

App downloads

In-app purchases

Financial summary

Crash count

Ad mediation

Promote your app

Account

Windows dashboard

Ad mediation

Ad mediation configuration

Use this section to enter all the required metadata for the ad networks included with your package, and to define the ad request allocation for each ad network. You'll be able to modify these values any time you want after publishing the app, without the need to resubmit the package. [Learn more](#).

Baseline Download config

View/edit Baseline configuration.

Refresh rate* seconds

Determines how often to request a new ad (60-120 seconds). If you provided a value in any ad network portal, you must use the same value here.

Would you like to spread ad requests equally across all your ad networks? Yes

We'll distribute ad requests equally across all your ad networks.

Microsoft Advertising

How do you want to use this ad network? Equal distribution

Partners reduce cost of creating or porting

Gaming middleware



Ads & Payment



GaaS & Web API





Reach and Acquire the Highest Quality Users. Faster.

Vungle, the world's leading in-app video advertising platform, is now on Windows 10





Available on



Windows Phone

Games Platform



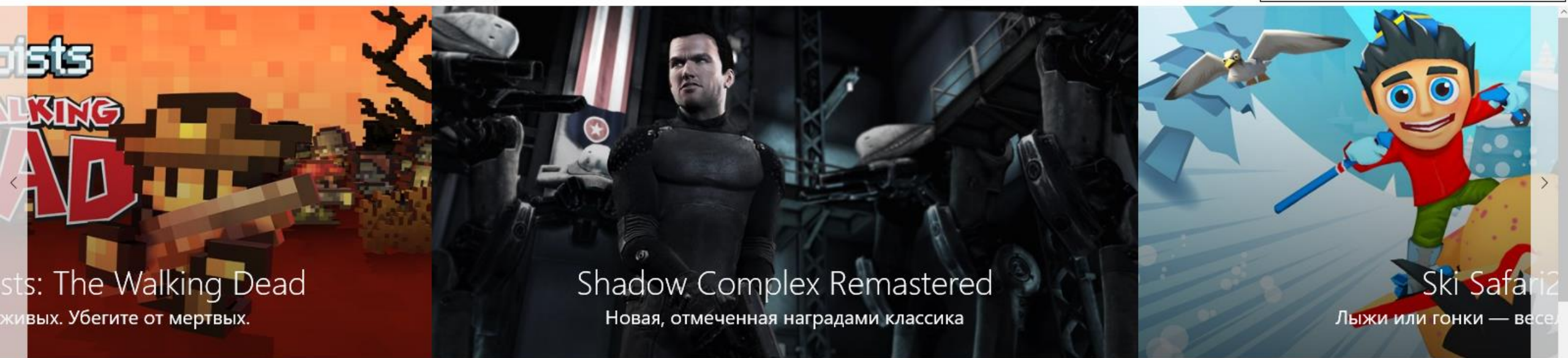
games@vk.com

Grow Performance in Windows Store



Fix the Basics

1. Create an original app. Make sure you own the name, brand, icon and content
2. Make sure your app stands out and has compelling capabilities
3. Build one great app instead of several related apps
4. Make a good first impression with metadata that's compelling and accurate
5. Know and follow the Windows Store certification process and policies
6. Keep a clean record



Top games Featured games

Games we picked for you



Storm of Wars -
Sacred Homeland
★★★★★
Free*



Toon Wars
★★★★★
Free*



The Island:
Castaway®
★★★★★
Free*



Happy Chef
★★★★★
Free*



Medieval Apocalypse
★★★★★
Owned



Halo: Spartan
Assault Lite
★★★★★
Free



Tentacles: Enter the
Mind
★★★★★
Free*



Total Conquest
★★★★★
Free*



Forza Motorsport 6:
Apex (Beta)
★★★★★
Free*

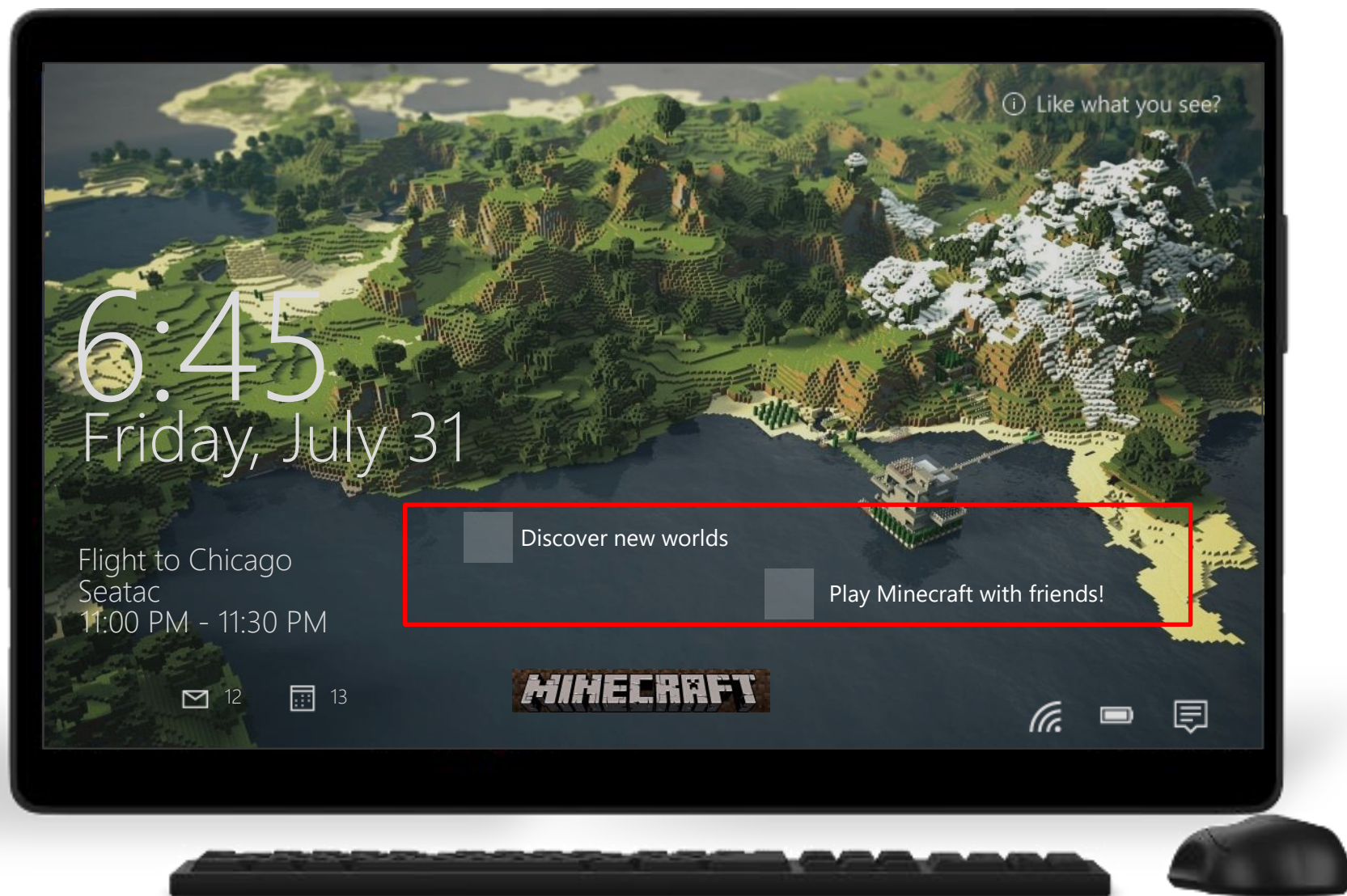


Sudoku
★★★★
Free

Show all

Top free games

Show all



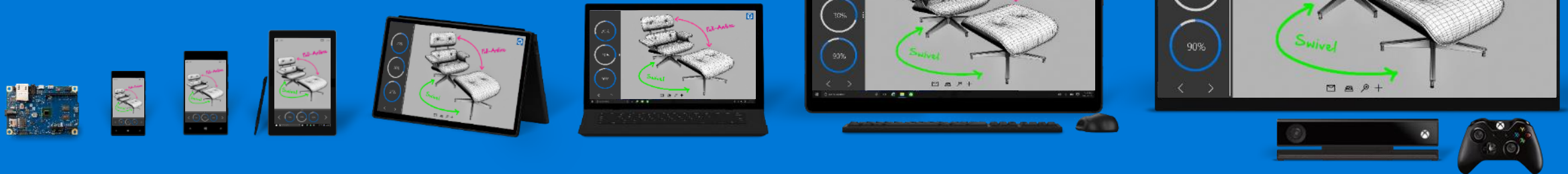
App promotion surface area throughout the OS, begins at the lock screen



App discovery
and promotion
is built into the
Start menu

Live tiles drive
re-engagement

Universal Windows Platform (UWP) Apps





One Core Operating System

One Application Platform

One Gaming Social Network

One Store

One Billion Users



16M

INSTALLS

MILLIONS \$ REVENUE



Windows

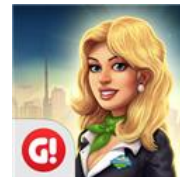


Windows Phone



GameInsight

**\$10 000+ daily revenue
from some titles!**



Game Development Technologies on Windows

Romuald Zdebskiy

Games Lead for Central & Eastern Europe

Microsoft

@zdebskiy

