

# WinRT: sviluppare per Windows 8

Daniele Bochicchio

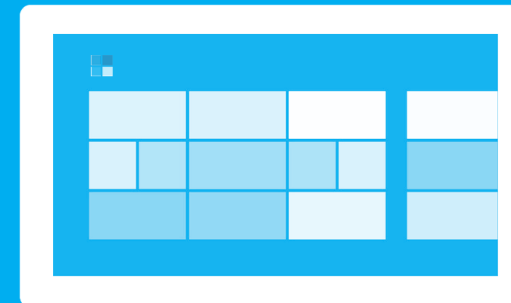
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<http://blogs.aspitalia.com/daniele/>

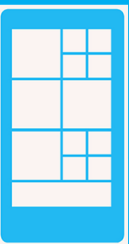


#aspilive



WINDOWS  
&  
WINDOWS  
PHONE

8



12/12/12 14:30  
#ASPILIVE

# Agenda

- Windows Store apps
- WinRT
- VS 2012
- Tile e notifiche
- Background task
- Contracts

# Windows 8 Experience

## UX “Fast and fluid”

UI responsiva, fluidità

## Immersive e full-screen

Focuses attention on your apps

## Touch-first, con supporto totale a mouse e tastiera

Consente di farvi usare al meglio l'input che preferite

## Le app funzionano insieme

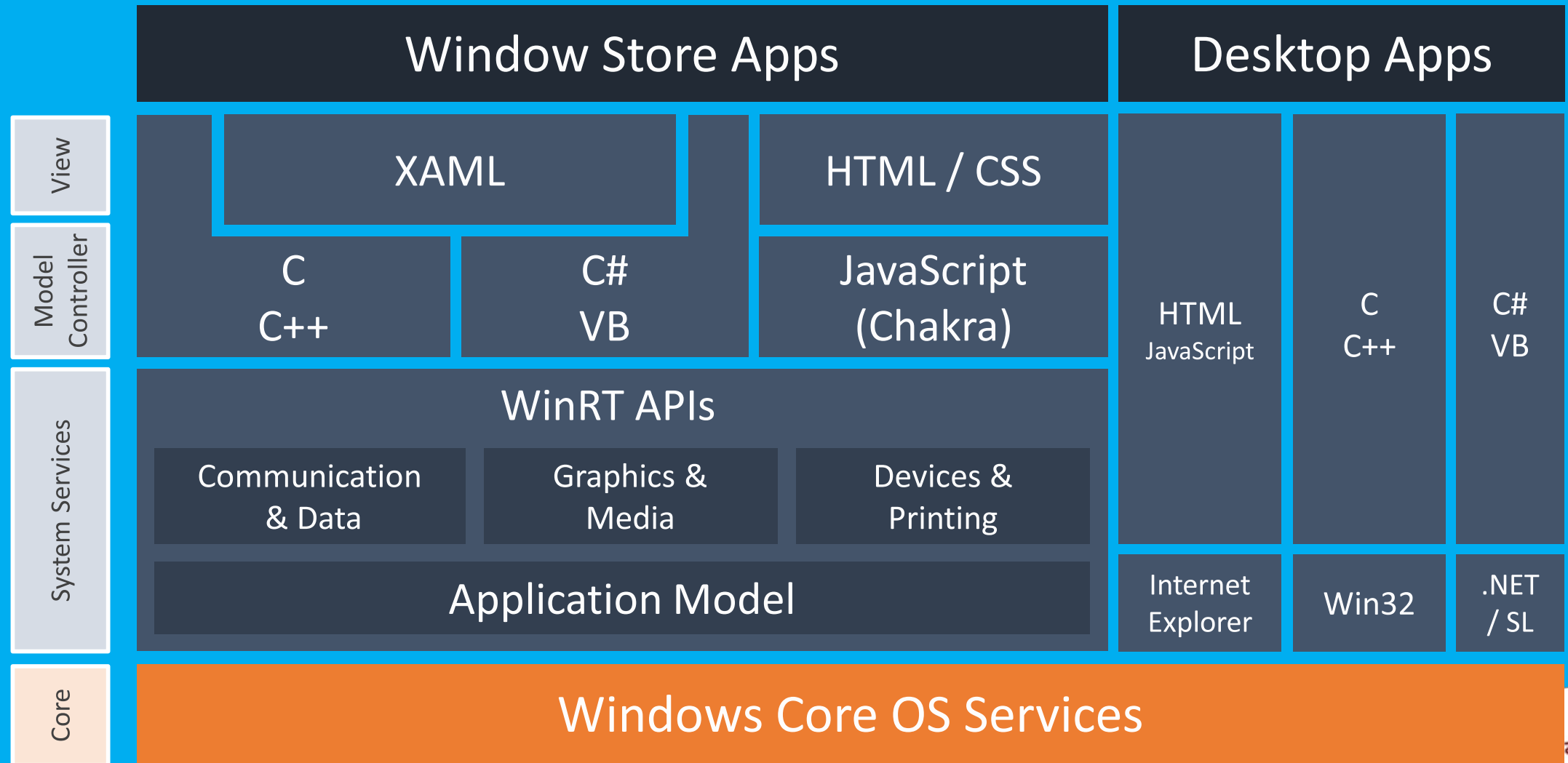
Sono collegate tra di loro e con la cloud

## Stessa esperienza per PC e device su diverse architetture

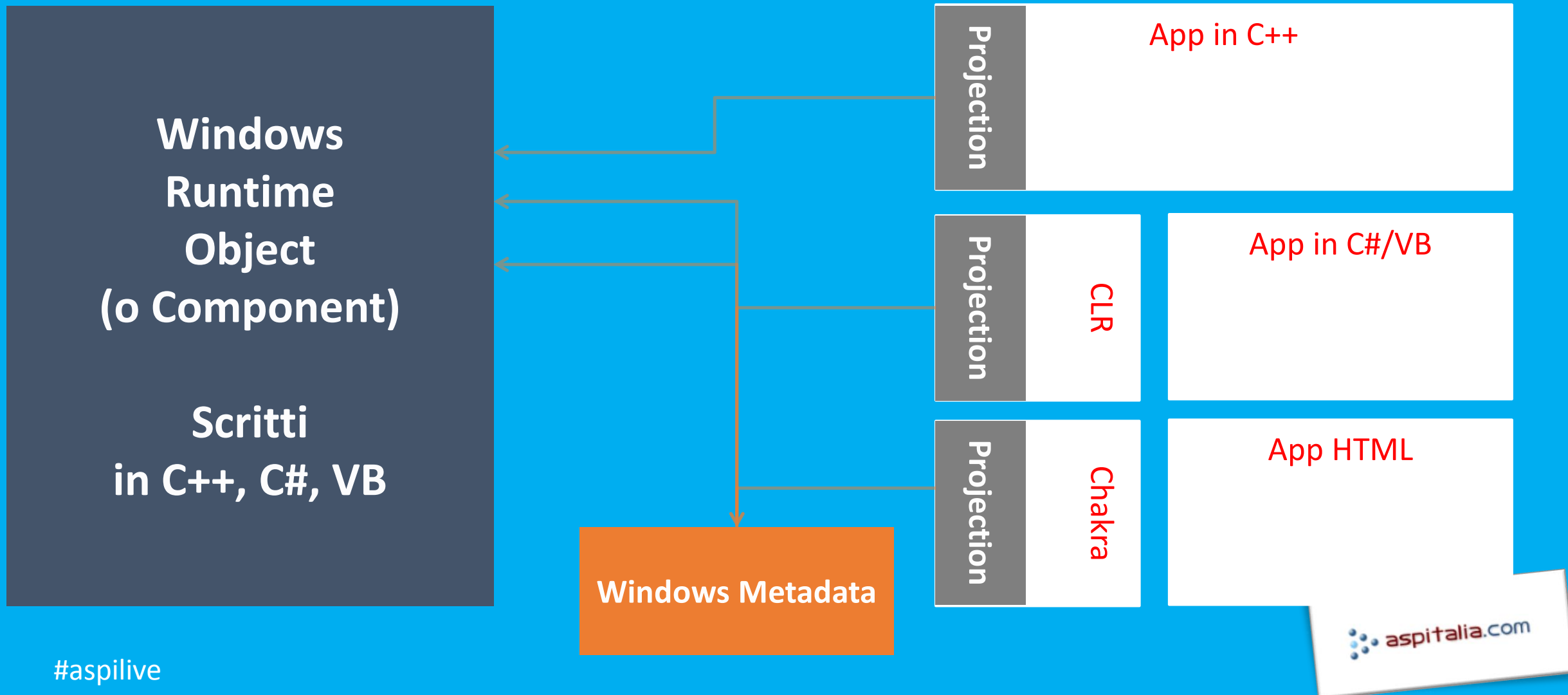
Nuovi form factor per PC, laptop e tablet

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# Windows 8 Platform



# Language projection



# Metro style application APIs

## User Interface

HTML5/CSS	XAML	DirectX	Controls	Data Binding
SVG	Tiles	Input	Accessibility	Printing

## Devices

Geolocation	Portable	Sensors	NFC
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## Communications & Data

Contracts	Local & Cloud Storage		Web
	Notificatio ns	Streams	
Memory Mgmnt	XML	Networkin g	SMS

## Media

Playback	Capture	PlayTo	Visual Effects
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## Fundamentals

Application	Threading/Timers	Memory Management	Authentication	Cryptography	Globalization
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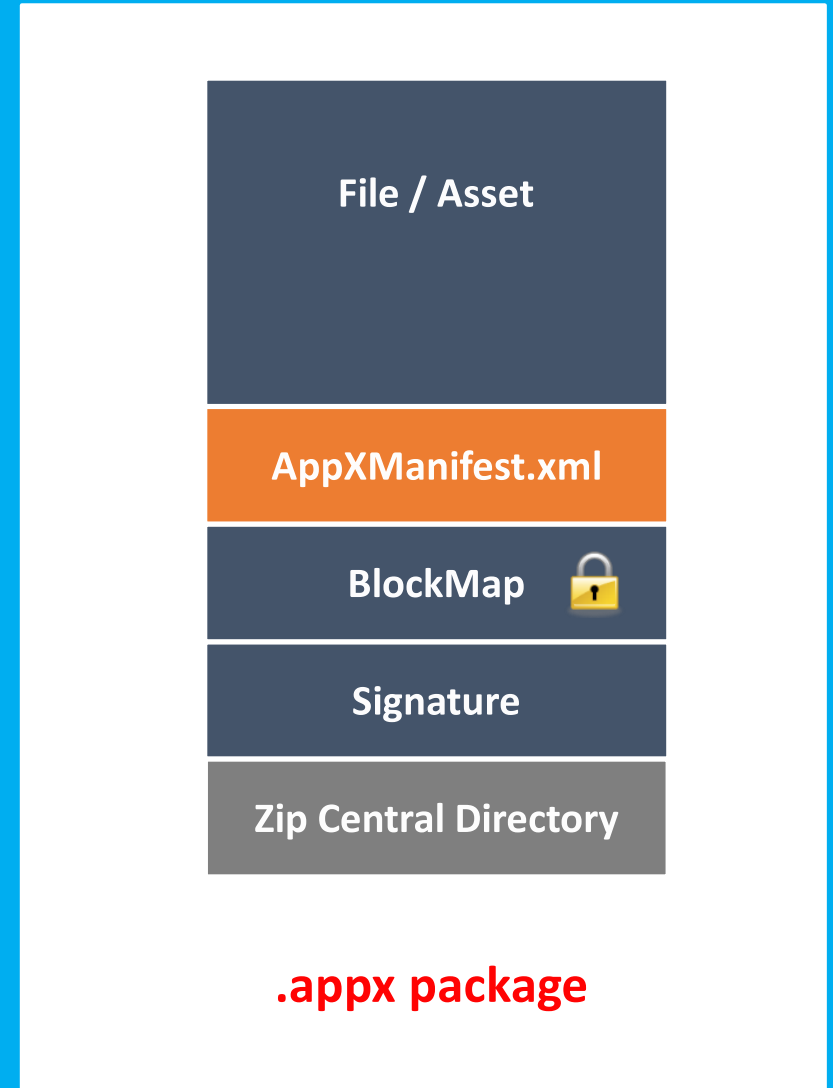
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# Com'è fatto un app package

L'**App Manifest** contiene le info necessarie al deploy dell'app

Il **Blockmap** contiene l'hash di tutti i file dentro il package

La **Signature** convalida l'integrità del package



# App manifest e capabilities

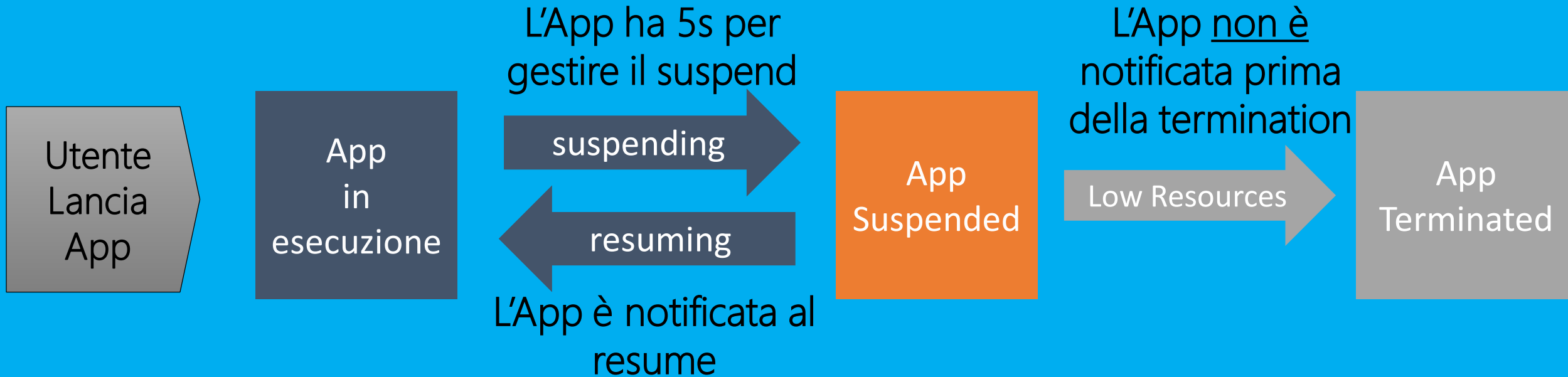
- Dichiarare esplicitamente le capabilities dell'app
  - Accesso ai file (music/pictures/videos/documents libraries, removable storage)
  - Accesso ai devices (webcam, microphone, location, sms, proximity) (possibilità di estenderlo a nuovi tipi di device)
  - Network e identity (internet, private network, credentials)
  - Associazione di tipi di file
  - Contracts (search, share, etc.)
- Si trovano nel file appxmanifest.xml
- Visual Studio ha un editor visuale per gestirli



# demo 01

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# Ciclo di vita del processo



# App data vs. User data

## App data

Settings

Files

Session State

Local Cache

## User data

Documents

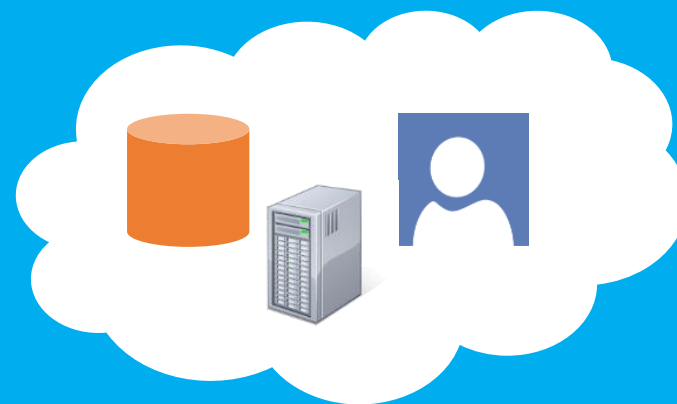
Photos

Music

Videos

# Roaming

L'App usa i dati normalmente



I dati sono in sync  
per l'account Microsoft

# Tile 101

La tile fa da launcher per l'app

La tile statica è definita nel manifest

Due dimensioni



Square (1x1)



Wide (2x1)

Si possono aggiornare (Live Tile)



**Matt Berg**  
Congratulations, I'm really excited to celebrate with you all. Thanks for the invi...

Mail

12

**mattberg@live.com**  
RE: Wedding Announcement  
Congratulations, I'm really excited to celebrate with you all. Thanks for the ...



Your order has shipped!  
Thank you.



1



Photos



**Paused**  
Eliza  
Viper Creek Club  
Letters



545 (3 mins) Downtown Seattle  
119 (8 min) Ashway park & ride  
225 (19 min) Eastgate / Overlake  
545 (24 min) Downtown Seattle

Bus stops

1

Baby's first year crucial to bilingual language development - Raising bilingual children is an important goal for many South Texas families. A new study ...



First ever surfboard kickflip recorded in Santa Cruz by

34



Hey, you there?  
Txt me when you're back



**Missed calls**

Karolina Bryant - 10:45 AM  
Aziz Hassouneh - Yesterday 6:32 PM  
Sidney Akers - Thursday 3:21 PM



5

**Investments** ▲ 2.3%  
▲ 03.6 % Roth IRA (TD Ameritrade)  
▲ 11.7 % 401K Fund (Fidelity)  
▼ 01.4 % Investment Portfolio



Make awesome apps  
BUILD conference  
9:00 AM - 11:00 AM

13  
TUESDAY



Seattle to New York (JFK)  
Flight #224, Boeing 737  
8:15 AM (On time)  
Gate 13D

Flights

4

**Top scores**

1st Nail Knocker (46552 points)  
2nd Major Nelson (46006 points)  
3rd r0nchalant (24092 points)



People

3



# demo 02

Live tiles

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# Notifiche toast

- Le notifiche Toast avvertono l'utente ad app non attiva
- Possono essere utili per attirare l'attenzione dell'utente
- L'utente può decidere di disabilitare le notifiche della vostra app
- Consentono una navigazione contestuale
- Possono essere locali o remote



# Toast Template

Le notifiche Toast usano la stessa architettura delle Tile


First ever surfboard kickflip recorded in Santa Cruz by surfer Zoltan Torkos, collects \$10,000 prize





**Your flight is delayed**  
Flight #224 originally scheduled to depart at 8:30 AM is now departing at 9:15 AM




**Major Nelson got 46006 points in Checkers and beat your highscore**  
You need 300 more points to beat him




**Make awesome apps.**  
BUILD conference  
9:00 AM - 11:00 AM





Hey, you there? Txt me whan you're back




**Matt Berg**  
Congratulations, I'm really excited to celebrate with you all. Thanks...



**Miguel Saenz commented on your status**  
I love that quote! How have you...



**Jim Corbin**  
RE: Wedding Announcement  
Congratulations, I'm really excited...

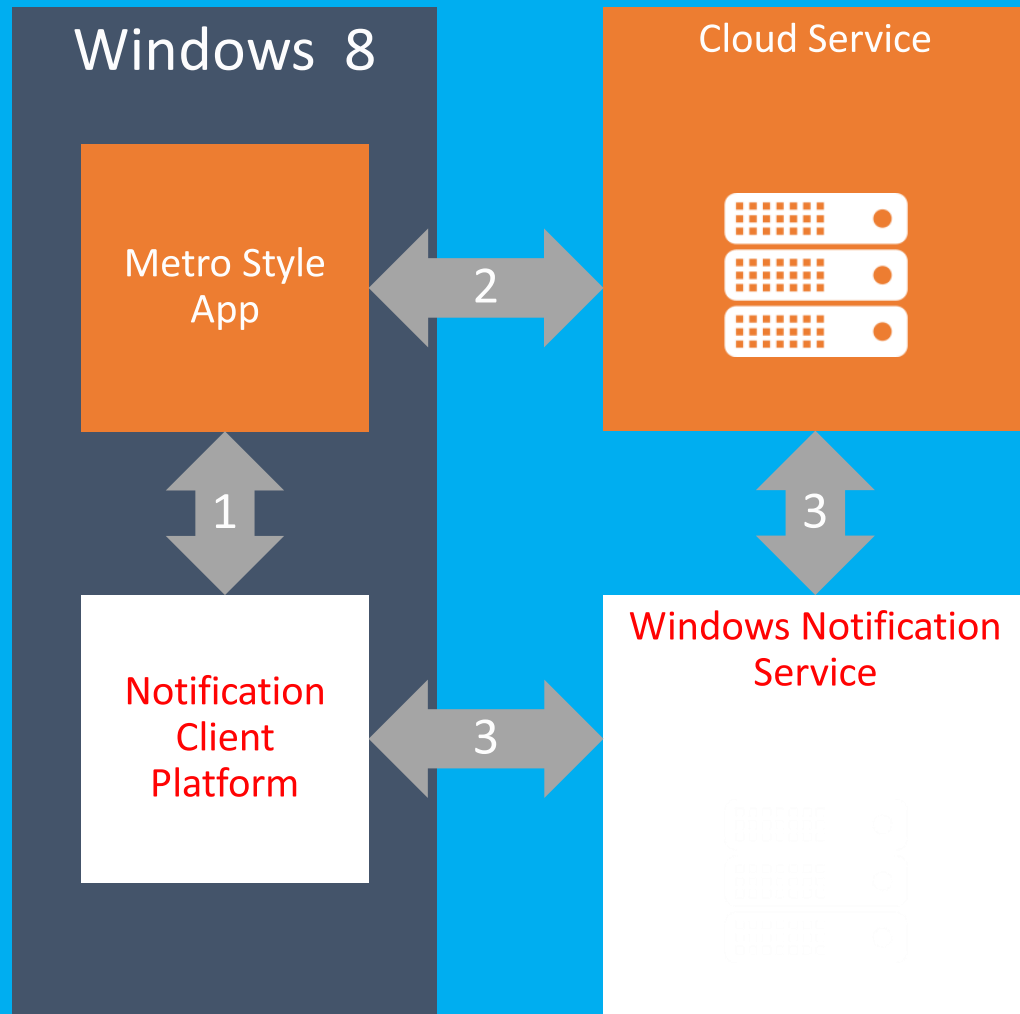


# demo 03

Notifiche Toast

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# Push Notification da remoto



Per fare notifiche push da remoto nella nostra app ci occorre:

1. Richiedere un Channel URI
2. Registrarlo nel nostro server
3. Autenticare e fare Push Notification

# Background task

- Audio in background
- Upload/download in background
- Task generici in background
- Possibilità di tenere l'app aggiornata
- Tile, notifiche, Lock Screen
- Preferire sempre notifiche da remoto se i dati non sono locali (risparmia batteria!)



# Accesso al Lock Screen

App che girano in background

Specifico per app real-time (Mail, IM, VoIP)

Il codice gira ad intervalli

Il codice gira in risposta ad eventi del sistema

11:08

Lunch with Christina  
Coho Kitchen  
12:00 PM - 1:00 PM

Tuesday, September 13



# Contracts

Search	Share	Settings
Play To	App to App Picking	

# demo 04

Contratti

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# Recap

- WinRT ci consente di continuare ad utilizzare il .NET Framework
- Tiles e toast consentono di tenere sempre aggiornato l'utente
- I background task consentono di eseguire codice anche se l'app non è attiva
- L'accesso al lock screen semplifica l'accesso alle informazioni
- I contratti consentono di integrare meglio la nostra app