What is Ubuntu for Phones?
It’s all Ubuntu
One Platform

- **Ubuntu Platform**
- **Unity 8, Qt, Application Services**
- **Shell**
- **Apps**
- **Scopes**
- **Linux Kernel**
Everything you’re familiar with

> Same kernel

> Same platform services*

> Same GNU userland tools

> Same archives

> Same Unity shell*

* Phone and desktop versions current out of sync
Runs on Android hardware

- Apps
- Scopes
- Shell

- Unity 8, QT, Application Services

- Ubuntu Platform
  - Libraries: OpenGL ES, WiFi, Sensors
    (In binary form, from Android)

- Linux Kernel
  - Android Devices Drivers
Adds new technology

> Mir

> Click packages

> Application Confinement

> Lifecycle Management

> Image-based Updates (OTA)
Adds telephony features

- Voice Calling
- SMS/MMS
- Cellular Data
- SIM card management
- Android Container
A better app development story

- Improved Developer Portal
- Created an Ubuntu SDK
- Lots of new platform services
- Simplified packaging
- Faster, easier app store
- Ready for a converged future
Why should you care about new app platforms?
You might think that...

“Android + iOS own the mobile phone market, it’s too late for new platforms to compete”
Previous King of the Hill

> In 2007 Nokia has 51% market share

> In 2004 Symbian had 70%

> In 2010 IDC predicted that Symbian would still be #1 in 2014 with 33% market share

> Predicted Blackberry would be #2

> In 2010 Gartner predicted that Symbian would still be #1 in 2014 with 30% market share
Current king is still new

- In Q4 2010 Android finally passed Symbian
  - Based on quarterly shipments, not phones in use
- Symbian's unit shipments didn't decrease until 2011
- Symbian spent 6 years as #1 mobile phone OS
- Android currently at 4 years as #1
- Apple was never #1
You might think that...

“Android/iOS already does everything I need”
Devices are getting more and more powerful

TRS-80  iPhone 3GS  iPhone 5
Devices are getting more and more powerful

- TRS-80 1977
- iPhone 3GS 2008
- iPhone 5 2013
Devices are getting more and more powerful

**TRS-80**
- 1.7 MHz CPU
- 0.004 MB RAM
- 5 MB Storage

**iPhone 3GS**
- 600 MHz CPU
- 256 MB RAM
- 32 GB Storage

**iPhone 5**
- 1300 MHz CPU
- 1024 MB RAM
- 64 GB Storage
Your use cases haven’t kept up

> You do the same things you did 5 years ago, just bigger and faster

> The current OS designs only support the current use cases

> The OS must provide for use cases that can take advantage of the exponential growth in hardware
You gotta play to win

- Mobile has changed the way people approach and use computers
- Mobile devices now outnumber desktops and laptops
- The future of computing will combine PC and mobile use cases
Why would users want Ubuntu?
A new kind of phone
Innovative, easy to use interface

- **Simple** and intuitive gestures, use the four edges to navigate
- **Right edge** to switch between active apps
- **Left edge** reveals the launcher to quickstart your apps
- **Top edge** for system indicators and messaging
- **Bottom edge** for in-app controls
- **Tip:** full right-to-left swipe to see all running apps
Your content is king

> **Unity** stays out of the way of your apps

> The **Header** component moves out of the way when you scroll down, but reappears immediately when you scroll back up

> The **Bottom Edge** allows apps to make innovative features and controls easily accessible
Customization without Fragmentation

1. Ubuntu is designed to allow for OEM and Operator differentiation, at the default service layer, without fragmentation.

2. Ubuntu enables partners to build their own footprint on Ubuntu devices, creating a rich core OS experience with scopes.

3. Unprecedented customization capabilities in comparison to Android and other platforms:
   - user account - own user identity
   - default UX - with scopes and default apps
   - branding and theming - own visual identity
   - backend integration - i.e. carrier billing
Easier, safer permissions system

- No permission grant on app install
- Access granted only when it’s to be used
- Content sharing via **Content Hub** gives granular access control
- Content selection gives implicit access permission without annoying prompts
Ready for a converged future

- Ubuntu designed from the ground up to run across devices and form factors
- The UI and the UX metaphors naturally adapt to different screen sizes
- Ubuntu paves the way for a new category of superphones
- Just dock your device to a monitor and keyboard
You can join us on the desktop today

More than 10 years building the best desktop OS

An active and dedicated community

Over 3500 desktop apps already
Why would developers want Ubuntu?
Easier development languages for apps

- Use QML for easy integration or for resource-demanding applications
- Powerful GUI toolkit and platform integration APIs

- Use HTML5 to use Internet technologies or to port existing apps
- HTML5 UI Toolkit that matches QML
- Cordova API for HTML5 platform access for device integration

- Webapps for remote site integration
Simple, powerful development tools
Faster publishing with no human review
Your Content without an App

- **Scopes are a UI toolkit** to present local or remote content and services in the home screen
- **Users customize their phone** by adding scopes to their home screens
- **Discoverability** of apps, services and content from multiple sources:
  - users can find your content alongside that shipped by the OEM and carrier
  - users can focus on finding content quickly
Customize your content experience

Amazon

7 digital

Vimeo
Established desktop market

The world’s 3rd most popular PC OS

25,000,000 users and still counting

7,000 downloads every day from Windows users

Users in 240 countries Localised in over 80 languages
What does the Ubuntu SDK offer?
QML & HTML5 as first-class, native languages
UI Toolkit scales to screen size & resolution
Conditional layouts
Ubuntu Webview: more than just Webkit

- **Oxide** embeds Chromium browser component in your app
- Enabled **Incognito Mode**
- Use system-wide **User Agent Overrides**
  - Or provide your own
- Share **context** between Webview instances
- **API Compatible** with QtWebkit
Ubuntu Download Manager

> Handles **long-running** downloads in the background

> **Notifies** your app when the download is complete
  > Grants access to the files
  > Re-opens your app if necessary

> Supports **multiple** simultaneous downloads

> Lets the user **pause, resume or retry** downloads
Content Hub

> Lets you **send and receive** files or content from other apps

> **Target** a specific app, or let the user **choose** from a list of apps that support the content type

> Grants your app **permission to access** only the files the user has selected

> Can **share content** without copying to the target app

> Can share links and text too
U1db: The Ubuntu One Database

> Provides **schema-less** (NoSQL) database storage
> Apps can have **multiple** database files
> Simple **index** definition for fast queries
> **Integrates** easily with Qt components
> Provides **device syncing** ability out of the box
  > Not part of the U1 File Sync that was discontinued
Online Accounts

- Stores user **credentials** in a secure, centralized place
- Gives **access** to multiple apps
  - User can **choose** which apps can access which accounts
- Includes providers for **Google**, **Facebook**, **Twitter** and **Ubuntu One**
- Apps can install their own **Account Provider** for other services
Where do I find more developer resources?
Ubuntu 14.04 is here

Developers' favourite free OS is now available on desktop, server and smartphones. Celebrate and write an Ubuntu app today

Get started now
App Design Guides

We want everyone to be able to design and build beautiful and usable apps for Ubuntu on the phone. That's why we made the Ubuntu Design Portal.

Get started

Familiarise yourself with the essentials before designing an app. Design vision.

Global patterns

Follow these patterns to ensure all apps behave consistently. Layout.

What's new

We'll be posting new content and updates regularly so watch this space!

Page stack

We use this when we need to move from a main page to a secondary page.

1. Tap to select photo
2. Full screen view of photo
3. Bottom edge swipe reveals the toolbar
4. Tap on back to return to Events (1)
Ask Ubuntu

Tagged Questions

Writing applications for Ubuntu (including Ubuntu Touch) and questions about the application submission process to the Ubuntu Software Center. This covers both open source and commercial applications.

- How to get my software into Ubuntu?
- What is the best way to develop apps for Ubuntu? [closed]
- How can I get started with developing apps for Ubuntu Touch? [closed]
Online Communities

6,300 Members
13,000 Followers

43,000 Likes
facebook.com/ubuntuappdev

#ubuntu-app-devel
#ubuntu-touch
ubuntu-app-devel@lists.ubuntu.com
ubuntu-phone@lists.lists.launchpad.net
What do I do next?
Get the Ubuntu SDK


Installing the SDK

Get started writing Ubuntu Apps and Scopes by installing the Ubuntu SDK

Here's where you learn the exact steps needed to install the Ubuntu SDK, Ubuntu's integrated development environment (IDE) for developing Ubuntu Apps.

The Ubuntu SDK is available for Ubuntu 14.04 (Trusty) onwards.

Adding the SDK Release PPA

Add the SDK Release PPA (https://launchpad.net/~ubuntu-sdk-team/+archive/ppa) as follows, entering your password as prompted:

$ sudo add-apt-repository ppa:ubuntu-sdk-team/ppa

Installing the Ubuntu SDK

Install as follows:

$ sudo apt-get update && sudo apt-get install ubuntu-sdk

Tip: Some people, particularly those running development 14.10 (Utopic) Ubuntu, should ensure all installed packages are updated to the latest available versions with:

$ sudo apt-get update && sudo apt-get dist-upgrade
Write your first app!

http://developer.ubuntu.com/apps/qml/tutorial/building_your_first_qml_app/

Building your first QML app

By David Planella (code by the SDK Team)

In this recipe you will learn how to write a currency converter app for Ubuntu on the phone. You will be using several components from the Ubuntu QML toolkit:SpinBox, units, ItemStyle for theming, Label, ActivityIndicator, Popover, Button, TextField, ListItems.Header and ListItems.Standard

The application will show you how to use the QML declarative language to create a functional user interface and its logic, and to communicate through the network and fetch data from a remote source on the Internet.

In practical terms, you will be writing an application that performs currency conversion between two selected currencies. The rates are fetched using the European Central Bank’s API. Currencies can be changed by pressing the buttons and selecting the currency required from the list.

Requirements

- Ubuntu 14.04 or later – get Ubuntu
- The Ubuntu SDK – install the Ubuntu SDK

The tools

The focus of this tutorial will be on the Ubuntu UI toolkit preview and its components, rather than on the tools. However, it is worth mentioning and giving an overview of the tools you will be using:

Development host

Ubuntu 12.04 (or later) will be used as the host machine for development. At the end of this recipe you will have
Write your first scope!


Unity 8 Scope Example: Openclipart

Scope Example: Openclipart

Here you can get started writing Unity 8 Scopes. We provide an example that searches openclipart.com for images with a query string and implements categorised search results and a set of preview widgets allocated to two different layouts for use in different display situations (narrow and wide).

We provide the source code and discuss all the key points below.

Note: Your development system does not need to run Unity 8 on the desktop to run the example scope.

Before getting started

You may want to read the Unity 8 Scopes Guide first. This provides an overview of key concepts you need to understand when developing scopes, including the flow of events, the scope query and its generated results, the preview and its widgets and layouts, and more.

Install the Ubuntu SDK

See Ubuntu SDK Tutorials for a quick tutorial. You can now create Unity 8 C++ scope projects in the SDK with the Unity Scope Template project type.

Get the example scope source branch

Ensure the bzr package is installed.

$ sudo apt-get install bzr

If you are new to bzr, you need to configure bzr:
Become an Ubuntu Pioneer!

➤ Featured on: developer.ubuntu.com/pioneers/

➤ Free limited-edition Ubuntu Pioneers t-shirt

➤ Open to the first 200 developers who publish an app or scope

➤ Only about 30 slots left!
> **Teach** Ubuntu app development to others:

  > Local Ubuntu Community (LoCo) teams
  > LUGs and other FOSS groups
  > Schools or organizations

> We provide the instruction materials & sample code

http://developer.ubuntu.com/resources/app-dev-training/