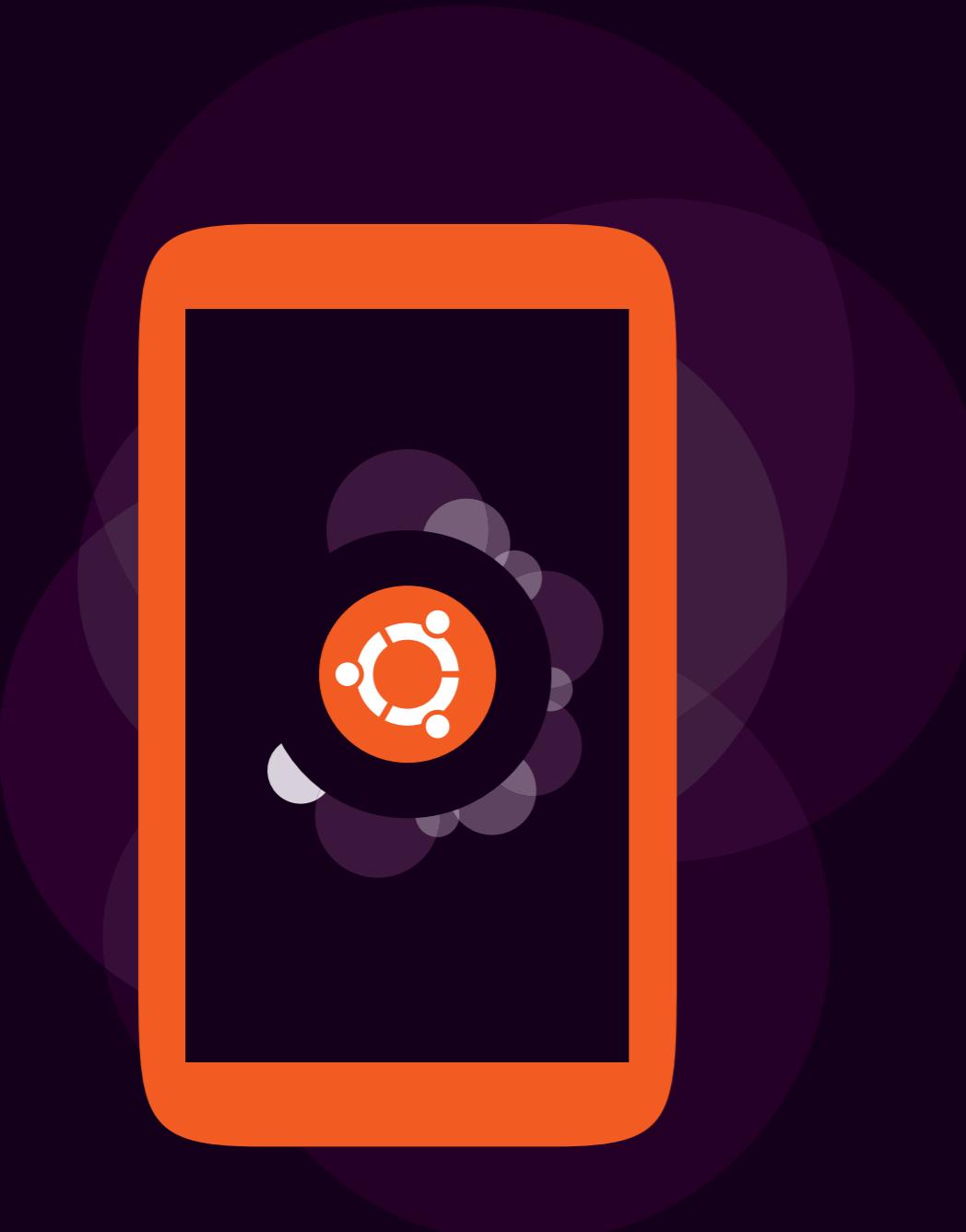


ubuntu

Perfectly distilled for
the phone industry



A stylized icon of a smartphone with an orange frame and a black screen. On the screen is the white Ubuntu logo (a circle with three dots). The phone is set against a dark background with several overlapping purple circles of varying sizes.

A potent new force in mobile

'There's a gap in the market.'

How often have we heard that
in a launch campaign?

Ewan Macleod, Founder and Editor of Mobile Industry Review says "The market is hungry for something better than today's polarised mobile phone OS choice. At one end, you have iOS with its glossy, photo-realistic finishes and complexity. At the other end sits Windows Phone, which is flat, over-simplified and gets boring quickly. Meanwhile, Android offers a scattered, fragmented experience that is often frustrating and fails to make full use of many devices' capabilities."

The launch of a phone version of Ubuntu brings to market a new and strikingly beautiful user experience that scales smartly from the phone to the desktop, where Ubuntu is already a famous alternative to Windows 8.

Macleod comments: "From what I've seen, Ubuntu offers a far more sophisticated, feature-rich, yet user-friendly experience that takes full advantage of modern phone hardware and brings extraordinary features like PC convergence, 'edge magic' and a personalised live welcome screen – truly stunning. We are seeing the birth of the next generation mobile user interface."



ONE PLATFORM, MULTIPLE DEVICES

Bringing the much-loved, crisp and clean performance of Ubuntu to the mobile domain meets demand for a beautiful experience on entry-level smartphones. And on the high end, Ubuntu is creating a new category of superphones that converge the phone and desktop into a single, ultra-portable device.

The quality and depth of the core experience in this new offering make Ubuntu a serious contender from day one in a fast-moving and fast-changing market, although it takes time to build a compelling app collection for any platform. Ubuntu reuses the Linux drivers available for the majority of today's phone hardware, so industry can leverage its existing investment in Android and deliver Ubuntu's coherent and neatly designed new experience to what is currently a highly fragmented ecosystem.

Ubuntu supports native apps for slick transitions and effects, and it also has industry-leading web and HTML5 app support, ensuring a large amount of cross-platform app coverage at the start. Developers already know and support Ubuntu – game ISVs like Warner Bros, Electronic Arts, Valve and Unity Technologies have all targeted the platform as a credible alternative to Windows 8 on the PC – and the Ubuntu phone is specifically optimised for gaming.

The promise of a single OS for all device form factors – desktop, TV and phone – is really unique to Ubuntu. "We don't just have common UI elements – we really have one OS for all form factors" said Rick Spencer, who leads the team that delivers Ubuntu on a metronomic six month cadence across the entire computing spectrum, from handhelds to supercomputers.

One common platform across all these devices has great appeal – not least for enterprise users, who relish the opportunity to combine the phone with the thin client or desktop in one highly secure device. They will be able to manage their Ubuntu smartphones using exactly the same tools they use for Ubuntu on the server, desktop and cloud.

In short, Ubuntu is making an attractive pitch to become your new favourite platform for phones – offering a designer experience at the low end of the market, and a game-changing convergence of PCs and phones at the high end.



A PROVEN PLATFORM IN THE PC INDUSTRY

Most people know something about Ubuntu – it's the most famous Linux operating system. But many are still surprised at its sheer global presence, with more than 20 million users and deep engagement with the PC industry.

Dell, HP, Lenovo and ASUS all ship Ubuntu to diverse global markets. Ubuntu is being adopted by governments at an accelerating pace – Brazil, China, France, Germany, India, Spain and the US are all seeing rapid growth as public bodies recognise Ubuntu's security and cost benefits. Almost 10% of the world's PCs will ship with Ubuntu pre-installed by 2014.

All of which makes Ubuntu easily the world's third largest desktop OS – and one that's gaining ground on its bigger rivals.

What's more, all of this has been achieved from a standing start in 2004, when Ubuntu was first created as the easiest-to-use open source desktop.



"Ubuntu is well-established in terms of design excellence, community participation and partner adoption. That ecosystem is a natural fit for mobile devices."

Mark Shuttleworth, founder of Ubuntu

More than
20 million desktop
users today and
growing...



From desktop to mobile

On the desktop, Ubuntu's development continues apace – and 2012 was a milestone year. Ubuntu 12.04 LTS proved to be the most popular release yet, with millions of downloads, and plaudits won from many corners. ZDNet, for example said it was "an excellent, stable and extremely end-user friendly desktop operating system." The April launch followed an intense period of development to redesign Ubuntu for a world of seamless transitions between phones, tablets and PCs, with a new interface providing more room for the content that matters to users, from web pages and documents to photos and movies.

"Ubuntu is well established in terms of design excellence, community participation and partner adoption. That ecosystem is a natural fit for mobile devices," explains Mark Shuttleworth, the founder of Ubuntu. "We've already launched our first mobile solution to the market in Ubuntu for Android, which gives users a full PC desktop on an Android phone, when they connect it to a monitor and keyboard. The next step is a full mobile experience in pure Ubuntu."



"Ubuntu is an open source OS renowned for its customizability and stability. To fulfil the various needs of a diverse market and user base, the strategic alliance with Ubuntu is absolutely a win-win cooperation."

Stanley Chang, Product Director, ASUS



Easy for OEMs

A staggering 850 Dell retail outlets in India and 350 in China feature Ubuntu PCs. Some 90% of Dell and Lenovo PCs and more than 50% of HP PCs are certified to run it. In fact, nearly 70% of the PCs shipped by the major IT companies are certified to work with Ubuntu.

One reason for this success is the hardware enablement programme from Canonical, who engage with OEMs to ship the OS. That's a capability Canonical is now extending to the mobile world. In addition to their familiarity with Ubuntu on the desktop, Canonical has taken steps to ease the adoption of Ubuntu in the phone market. For example, the reuse of Android drivers and board support packages (BSPs) means handset makers who currently produce Android phones can easily add Ubuntu to existing product roadmaps.

What's more, Ubuntu enables OEMs to offer a truly converged device experience, turning a mobile device into a full PC. Despite the obvious similarities between WinPhone 8 and Windows 8, they are still different versions of the OS. And while some Android devices have included a "webtop", neither Android or Chrome OS support the range of desktop apps that Ubuntu enjoys.

So Ubuntu – a single OS that provides both phone and desktop interfaces – offers something that's both genuinely unique and attractive to enterprise markets. Given Ubuntu's PC pedigree, the smartphone incarnation promises to be a game-changer that's popular with industry.



GAMING GOES MOBILE WITH UBUNTU

Today, more and more of the biggest gaming ISVs and game engine providers are supporting Ubuntu alongside Windows on the PC. Games run up to 15% faster on Ubuntu, and the platform is considered more open.

Ubuntu's phone SDK enables high quality 3D graphical rendering using the full capabilities of OpenGL ES graphics acceleration in the hardware, for the best zombie-crushing, alien-splattering gaming action possible.

Electronics Arts (EA) has already published games in the Ubuntu Software Centre, while Valve has announced that the world's favourite game delivery system, Steam, is on its way to Ubuntu. Meanwhile, the Humble Indie Bundle brings great games to Ubuntu every month, such as the recent Warner Brothers game, Bastion.

With all these leading players in the gaming industry investing in Ubuntu on the desktop, it's just a short step to extend their success with Ubuntu to the mobile domain.



"Games run up to 15% faster
on Ubuntu"

Mark Shuttleworth, founder of Ubuntu



THE PEOPLE WHO DESIGN UBUNTU

Inventing the Ubuntu family of interfaces has been the work of a London-based design team at Canonical, with the help of hundreds of contributors around the world, over several years. We spotlight the team leaders and their insights into the design.



Ivo Weevers,
Head of Design

What's Ivo's role?

Having worked in design in multiple industries, focusing on software development, phone and web app design, Ivo is responsible for all design work at Canonical, from products to brand materials.

What Ivo says:

"Ubuntu has always been a great platform with a passionate audience of technology professionals. Now, it is gaining much wider appeal, with millions of users around the world. The new interface we've built scales beautifully from the desktop, where we are famous, to the new mobile world. Users who have tested it during the development process love it, so we are very excited to make it generally available."



Mika Meskanen,
Lead Phone User
Experience Designer

What's Mika's role?

As the guardian of all the design know-how around the Ubuntu phone experience, Mika is a master of one-handed interface and experience design. He leads much of the edge magic design, bringing a new coherence to a key area of innovation in the industry.

What Mika says:

"When people first try Ubuntu on phones, it's like imaginary light bulbs going off in their heads. You can see them thinking: 'Aaah - this is a much better way to do things'. They go on a journey of discovery and find it extraordinarily satisfying."



Ivanka Majic,
Head of Platform
Interaction Design

What's Ivanka's role?

For the past three years Ivanka, who holds degrees in Human Centered Systems and Engineering has been a key driver in setting up the Ubuntu platform design team. She now helps to ensure that the UI designs are aligned with the engineering work.

What Ivanka says:

"We've been considering Ubuntu across platforms, right from the outset. To see that vision realised and looking so beautiful is a joy!"



Marcus Haslam,
Head of Brand and
Visual Design

What's Marcus's role?

Marcus joined the Ubuntu team as senior visual designer to establish a new direction for the platform four years ago. He is responsible for Ubuntu's visual signature – our guru for all things artistic, and brings a playful zen clarity to the work.

What Marcus says:

"It was a pleasure and a challenge to create something coherent, beautiful, distinctive and functional. We searched very widely for inspiration, using mood boards to get the right look and feel. We didn't just launch straight into designing screens, there was a huge amount of preparatory work, looking at everything from font characteristics to the more organic elements of the interface. And we still use those mood boards to check our designs."



Pat McGowan,
Director of Engineering
Product Development

What's Pat's role?

With 20 years in the internet, software and hardware engineering industry, Pat looks after the Ubuntu product engineering teams. Based in the US, Pat ensures that the design concepts and technologies are turned into a great product.

What Pat says:

"Ubuntu's smartphone implementation is fully native. Whereas Android uses virtual machine technology and Firefox runs inside the browser, our native approach enables us to work directly with and squeeze the best performance from hardware such as the graphics processor."



Oren Horev,
Lead Tablet User
Experience Designer

What's Oren's role?

Starting in industrial design, Oren quickly followed his passion for technology and gained a Master's degree in interactive design, before providing consultancy to leading brands. He now leads the design work on Ubuntu for tablets.

What Oren says:

"I love the fluidity in the UI. It comes out in many ways, such as new progressive gestures that move away from the idea that the finger is a stylus. People can simply flow their finger across the screen, without having to tap. It is simply delightful."

DESIGNING FOR CONVERGENCE

Apple's iPhone was launched in 2007. Five years on, smartphone interface design has advanced only incrementally, with nearly all devices featuring two or three buttons and using the screen in a similar way. It's time for something new.

"We aimed to set the stage for the next generation of mobile devices with the handset interface of Ubuntu. We use the screen edges in a smart way, something never perfected until now," explains Ivo Weevers, Head of Design for Ubuntu. "Ubuntu uses every edge of the screen to give its users a natural and fast way to direct the device and the application. Instead of cluttering the interface with controls, the screen is kept clear to provide totally immersive experiences."

The convergence requirement also challenged designers to invent new ways to address legacy functionality that was not compatible with a touch-centric world, such as the desktop application menu.

"The application menu dates to the earliest stages of GUI design and development, and it was one part we needed to re-invent" says Oren Horev, who shaped the new "Head-Up Display" to provide a fast voice, touch and type-friendly command system for apps. "The HUD gives developers amazing depth of functionality for their app, even on lightweight handheld devices".



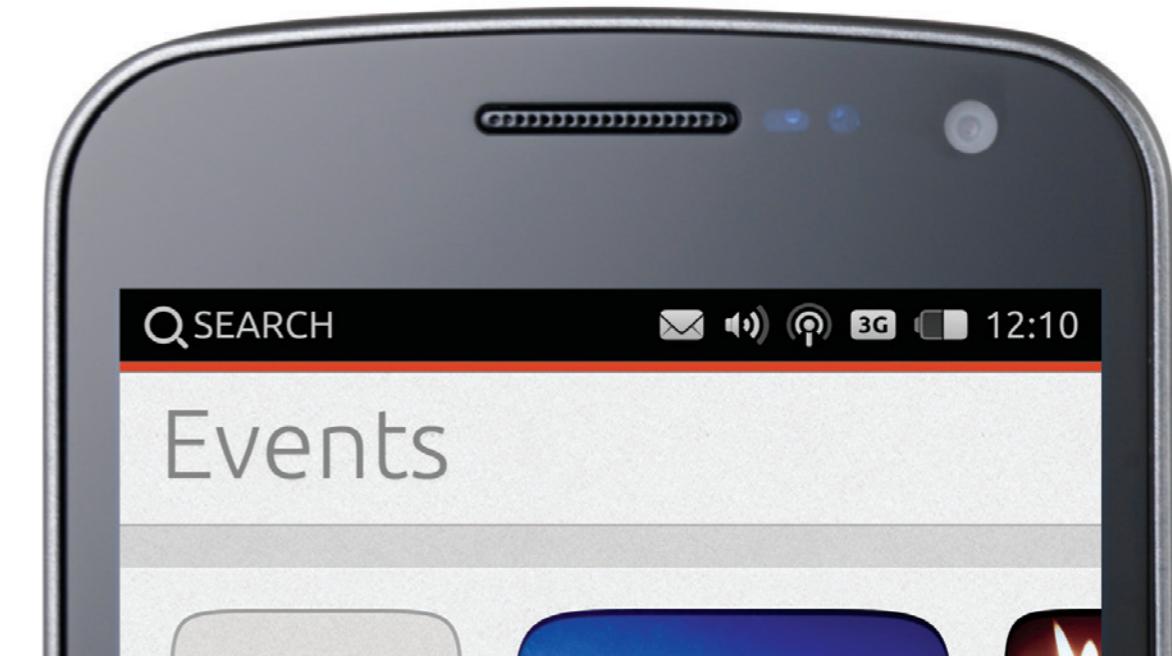
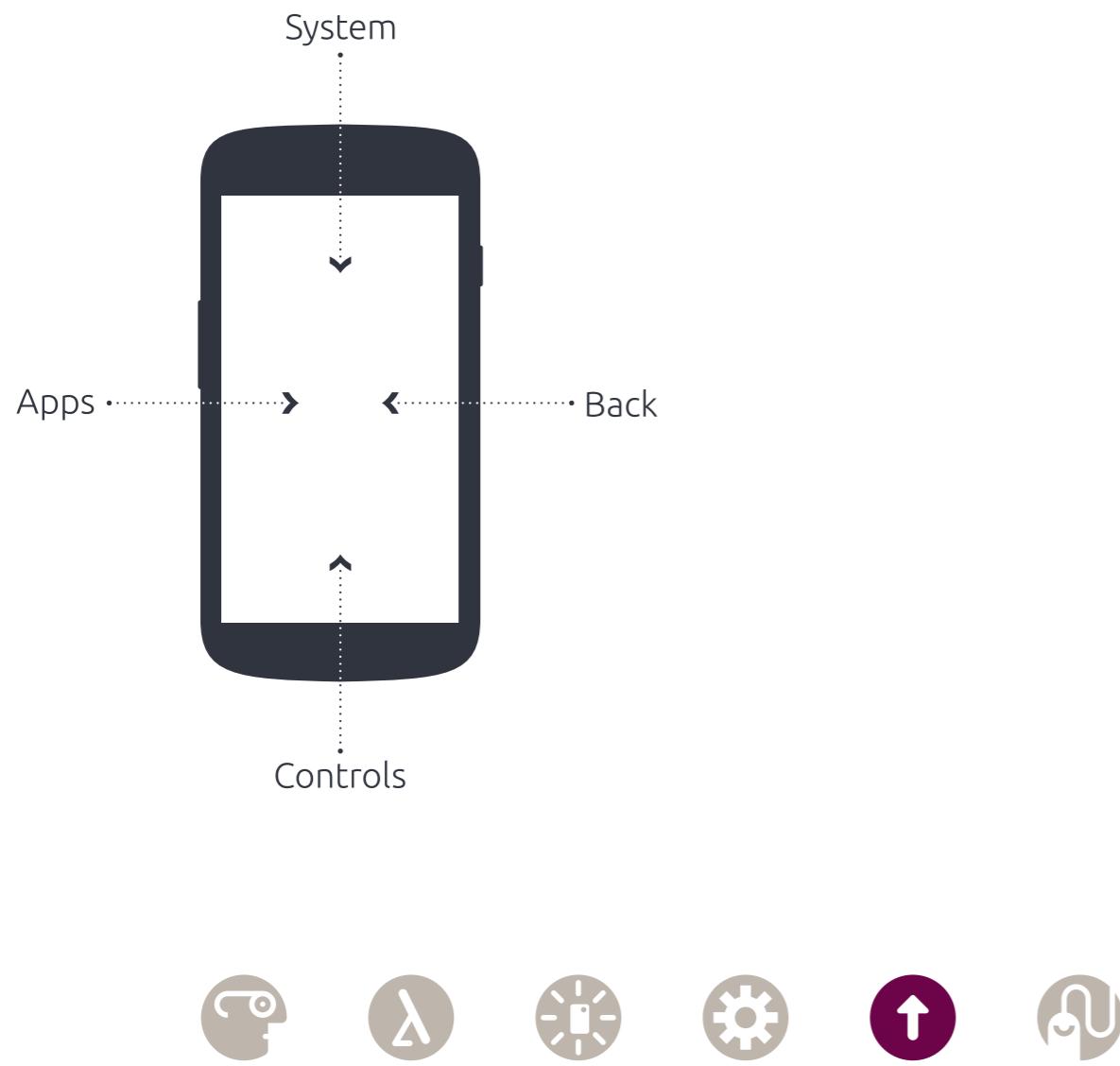
Natural navigation and edge magic

Most people use a few applications often, so the left edge of the phone screen provides fast access to the user's favourite apps. The apps are always there, ready for access with a simple swipe of the thumb; no hunting through pages of application icons.

The right-hand edge is used to access the previous app. If you need to check something quickly, it's easy to launch an app from the left then go back to the previous app with a swipe from the right.

The top edge features the system status icons – time and date, volume, network, messaging, battery. Cleverly, those settings can be accessed directly, without exiting the current app – so the user can quickly change a setting and go straight back.

The bottom edge reveals the controls for the current app when they're needed, leaving more of the screen for the content when they're not. This imaginative use of the screen edges enables Ubuntu users to focus on their content, without being distracted by controls and toolbars.



Vital visuals

Being visually stunning was another key design criterion. The resulting attention to detail is evident throughout the interface. Unique double bezier curves that characterise the Ubuntu font are used on the rounded corners of the icons, for example.

The welcome screen on Ubuntu is like no other. Artists specialising in information visualisation have created dynamic, data-driven infographics that reflect the life of the phone user. The welcome screen is ever-changing and totally unique – just like the owner. “The combination of fluid interaction and control, with this visual excitement, give an experience both sophisticated and user-friendly,” says Weevers.

Coherently converged

Uniquely, Ubuntu has been designed from the ground up to work on all device form factors – desktop, TV, tablet and phone. The result is a coherent and distinctive family of interfaces, each offering a delightful user experience.

“The Ubuntu interfaces are responsive – the same components reflow and rescale in a natural way across the form factor continuum, taking advantage of the characteristics of each device without compromising the common user experience. Users get a real sense of fluidity when using phone, and they retain the agility they need on the desktop when using a mouse. We are proud of achieving a more consistent experience across devices than any other OS,” concludes Weevers.



“Ubuntu phone is just magical. It brings together everything we’ve learned about how people want to use their apps and their information, and it fits perfectly into the Ubuntu family.”

Ivanka Majic, Head of Platform Interaction Design



DEVELOPERS LOVE UBUNTU

Since Ubuntu is an enormously popular platform for Android developers and web developers, there are already many mobile developers who use Ubuntu every day. For them, Ubuntu presents an exciting new target platform with innovative capabilities.

Ubuntu allows for apps with cleaner interfaces that have richer and more substantial functionality. Being a well-known platform with first class tooling for web and native apps makes app development on Ubuntu straightforward.

The web app system that first appeared in Ubuntu 12.10 allows a web developer to adapt their web applications to integrate tightly with the the OS. These web apps run independently of the web browser and take advantage of system services like status icons, notifications, menus and the search function.

But Ubuntu doesn't limit developers to HTML5. Creating native apps is easy, too. QML is an amazing framework, and Ubuntu includes templates, tools and frameworks that provide the basis for a slick, easy development experience for native touch apps that can have their engines written in C or C++ (and still use JavaScript for some of the UI glue that isn't performance critical). With full access to OpenGL, apps can incorporate amazing effects and transitions.

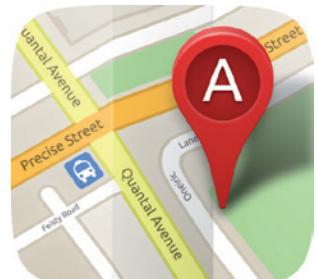


"You can make existing web applications installable on the Ubuntu phone almost instantly, using our web app APIs. And you can create amazing, fast and beautiful native apps with the SDK. Either way, you'll be part of a real revolution – on the smartphone, the PC and the TV."

Oliver Ries, Engineering Director for Ubuntu Technologies and Tools

There's something else really exciting, too. With Ubuntu supporting devices ranging from desktops to mobiles, developers can make their apps available on all devices with very little extra effort. In other words, you can create a single app that is delivered once and can provide interfaces for any or all of the phone, desktop or TV.

Welcome to a new world of converged app development.



“We don’t just have common UI elements – we really have one OS for all form factors.”

Rick Spencer
VP, Ubuntu Engineering



Ten reasons to choose Ubuntu

- A stunning interface and deeply designed experience
- Fast native apps using QT, OpenGL/GLES, alongside the web and HTML5
- Edge magic for multi-tasking and immersive content
- Massive developer community – web and mobile
- Great performance on low-end smartphone hardware
- Full desktop on high-end phone hardware
 - amazing convergence
- Customisation opportunities for operators and OEMs
- Fast enablement – uses standard Android kernel drivers
- Established cloud and management services
- Desktop version already enabled on over 20 million PCs