

计算机引论-2020 级 5 班-202000300125-贾星宇

原文：

The Windows Subsystem for Linux might soon include Android support, too

Microsoft already has the Windows Subsystem for Linux, so why not Android, too?

RON AMADEO - 12/1/2020, 12:48 AM

Microsoft's "Your Phone" app can display Android apps via remote desktop, but soon we might have native Android apps.

If the release of the Surface Duo wasn't enough of a sign that Microsoft is cozying up to Android more, how about this? A report from Windows Central claims that Microsoft is working on building Android app support into Windows 10.

The effort is codenamed "Project Latte," and according to the report, it would "allow app developers to bring their Android apps to Windows 10 with little to no code changes." The Android-on-Windows apps would be packaged as an MSIX file and would be distributed through the Windows Store.

A lot of the hard work for this is already done, thanks to the Windows Subsystem for Linux (WSL) that already ships in Windows 10. WSL is a virtualized Linux kernel in Windows, making it easy to run developer-centric Linux tools through the Windows command line. Microsoft is also testing support for Linux GUI apps in WSL, and GPU acceleration. Android, which runs the Linux kernel, is expected to plug into the WSL for app support, so Microsoft mainly needs to implement a version of the Android Runtime (ART), which already runs on

Linux, is open source, and has x86 compatibility. Unofficially, it is already possible to run Android apps on WSL with Anbox, a project meant to run Android apps on full GNU/Linux.

Microsoft wouldn't be the first to build Android app support into some other OS. Google does it in house with Chrome OS, allowing the company's Web-focused laptops to run all your favorite phone apps. For also-ran OS developers, Android apps are often seen as a solution to fixing the app gap. Blackberry tried to stay afloat in the OS wars by building Android support into Blackberry 10, but it eventually gave up and just started producing real Android devices before quitting the market. Samsung's "Android-killer" Tizen OS has an "application compatibility layer" that runs Android apps on the Linux-based OS. Jolla's Sailfish OS, an OS billed as the spiritual successor to Nokia's MeeGo OS, also supports Android apps.

Microsoft also thought this was a great idea in 2015, when the now-canceled "Project Astoria" was supposed to bring Android support to Windows 10 Mobile. The next company to take a swing at this ball will be Huawei, which, after the US' export ban, wants to develop its own "Harmony OS" for smartphones with Android app support (after running them through a special compiler).

The disadvantages of non-Google Android are well-known at this point. Android-on-Windows won't have access to the Play Store or Google Play Services, which many apps depend on for things like Google-issued sign-on, push notifications, maps APIs, and a million other things. Windows would basically count as an Android fork. For apps written for the non-Google ecosystem, though, you'd be able to easily run your favorite apps, assuming a browser version of them is not more preferable.

The report says Microsoft is "hoping to announce Project Latte next year and could ship as part of the fall 2021 release of Windows 10."

翻译：

针对 Linux 的子系统可能很快也会包括 Android 的支持。

微软已经有了针对 Linux 的 Windows 子系统, 那么为什么 Android 没有呢?

RON AMADEO – 12/1/2020,12:48AM

微软的“Your Phone”应用程序可以显示 Android 的应用程序通过远程桌面。但很快我们可能会有原生的安卓应用程序支持。

如果 Surface Duo 的发布不足以成为微软对 Android 更加友好的标志, 那这个怎么样呢? 一份来自 Windows Central 的报告声明, 微软正在努力的再 Windows10 中创建 Android 应用程序的支持。

这项工作的代号是“Project Lattle”, 而且通过这个报告, 他可能“允许应用程序开发人员把他们的 Android 应用程序带到 Windows10 上, 而且有很少的代码更改。”这种 Android-on-Windows 的应用程序将被打包为一种 MSIX 文件而且将通过 Windows 应用商店分发。

多亏了早已经在 Windows10 中发布的 Windows Subsystem for Linux (WSL), 大多数为此付出的艰苦工作已经完成了。WSL 是在 Windows 中的一种虚拟化的 Linux 内核, 使得通过 Windows 命令行运行以开发人员为中心的 Linux 工具变得很容易。微软还测试了在 WSL 里的对 Linux GUI 应用程序以及 GPU 加速的支持。运行 Linux 内核的 Android 预计将插入 WSL 以获得应用支持, 因此微软主要需要实现 Android 运行时的一个版本 (ART), 这个版本早已经在 Linux 中运行了而且是开源的, 且具有 x86 的兼容性。不正式地说, 他早已经有

可能用安卓的在拥有着 Anbox 的 WSL 的应用程序上运行了，Anbox 是一个旨在完整的 GNU/Linux 上运行 Android 应用程序的项目。

微软不会是第一个将 Android 应用程序支持植入其他操作系统的公司。谷歌通过 chrome 操作系统在内部实现了这一点而且允许公司专注于网络的笔记本电脑运行你喜欢的手机应用程序。对于同样运行操作系统的开发者来说，Android 应用通常被视为一种填补应用差距的解决方案。黑莓尝试着去通过在黑莓 10 中建立安卓系统的支持来维持在操作系统中的战争的地位，但他最终放弃了而且仅仅在它退出市场前开始了生产真正的安卓设备。三星的“Android-killer”Tizen 系统拥有着“应用程序兼容性层”，在基于 Linux 的操作系统上运行 Android 应用程序。Jolla 的 sailfish 系统，一个被誉为诺基亚 MeeGo 操作系统精神继承者的操作系统，也支持 Android 应用程序。

微软在 2015 年也认为这是一个伟大的主意，当时被取消的“Astoria 项目”被认为时为 Windows 10 Mobile 带来的 Android 支持。另一个在这场舞会上大展拳脚的公司将会是华为，在美国出口禁令之后，华为希望开发自己的“鸿蒙系统”向带有安卓应用程序支持的智能手机提供支持（在运行了他们的特殊的编译器之后）。

对于非谷歌的安卓系统的不利之处在这一点上也是众所周知的。在 Windows 上的安卓系统将无法访问 Play Store 服务，比如 Google 发布的登录、推送通知、地图 APIs 和其他上百万的事情。Windows 基本上可以看作安卓的分支。不过，对于为非谷歌生态系统编写的应用程序，你可以轻松运行你喜欢的程序，假设他们的浏览器版本不是更好的选择。

报告声明，微软“希望在明年宣布 Latte 项目并且可能作为 Windows 10 2021 年秋季发行的一部分来发布”。

原文网址：

<https://arstechnica.com/gadgets/2020/11/report-microsoft-is-again-planning-android-app-support-for-windows-10/>