



Extending the Android technology stack to allow OEMs and ODMs to deliver next-generation Cloud-enabled devices and systems. These devices can deliver larger market share and higher profitability within the next-generation Cloud economy.

Solutions for OEMs and Manufacturers

ZeroDesktop helps OEMs and ODMs deliver powerful and differentiated devices using Android as its core technology. With purpose-built subsystems, software stacks and infrastructure, the MiiPC Application Platform Extender extends the Android technology to accelerate market impact and revenue while minimizing internal resources.

In today's challenging market environment, product development cycles are compressed, differentiation is difficult, and profits are often short-lived, especially for manufacturers other than Apple, Google, and Samsung. These tech giants set very high expectations for customers and make it difficult to find sustainable market niches. Some organizations see Android as a solution, but finding skilled developers or partners is expensive and avoiding commoditization is difficult. And more importantly, building connections to the Cloud often requires solutions well beyond the device, an area often quite new to device manufacturers.

By itself, Android is a powerful but complex and diffuse set of technologies initially built as an alternative to the iOS operating system. While Google focused primarily on delivering a functional and secure Smartphone platform, partners were given reign to develop extensions and new capabilities. The largest vendors are able to build deep expertise and experience, yet the cost to play in the ecosystem continues to rise. And as product cycles collapse further, the equation seems even less favorable.

ZeroDesktop was founded to deliver Cloud-capable systems that focus on providing next-generation offerings for individuals, families, and businesses. With a combination of Android and Cloud

technologies ZeroDesktop and its customers are leapfrogging existing market offerings, bringing new devices and services to market using far fewer resources much faster than was previously possible. By using the MiiPC Application Platform Extender (MiiPC APE), partners take advantage of leading edge capabilities like multiuser Android and Cloud-based remote device management while maintaining low- or no-post sale touch. And when used in combination with the ZeroDesktop Cloud Services Platform, partners are building their own Cloud-integrated service offerings to "wow" customers and deliver their own unique offerings. Together with ZeroDesktop, partners have an unparalleled opportunity for increased market success and profitability.

As a proof point and an example of available reference designs, ZeroDesktop launched the MiiPC on Kickstarter earlier during 2013. With this as a "proof-of-concept" for a shared Android PC in the market, OEMs have an example of the types of breakthrough opportunities possible when using MiiPC APE as a core part of their Android strategy.

The MiiPC Application Platform Extender (MiiPC APE) extends vanilla Android to provide high-levels of differentiation. It is ideal for OEMs and ODMs looking to leverage the Android ecosystem and deliver next-generation Android-based devices and systems for market advantage.

MiiPC APE offers an integrated set of capabilities that easily accelerate Android-based product delivery. Purpose-built to extend Android in substantive ways, partners can easily differentiate their offerings while needing few internal resources.

- **MiiPC APE extends Android to drive market differentiation**

ZeroDesktop extends the latest Android technology stack to deliver new capabilities. Rather than productizing "vanilla" Android or building expensive expertise in-house, ZeroDesktop capabilities allow manufacturers and OEMs to take advantage of a far broader and more compelling set of capabilities and business opportunities.

- **MiiPC APE enables multiuser and remotely managed Android devices**

Out of the box, Android is a single-user relatively unmanaged OS. MiiPC APE delivers unique multiuser, remote device management & monitoring, and powerful parental control capabilities that allow you to deliver a desktop device that can be managed and monitored from within a home, a school, an office, or from a remote location. A wide variety of use cases are now possible, opening up a broad set of business and product opportunities.

- **MiiPC APE ensures continued low or no post-sale touch for OEMs and ODMs**

The MiiPC APE technologies were architected for a "ship and forget" model. OEM and ODMs used to having little to no contact with end-users or partners after a sales can continue to operate using that model. For those looking for new or broader opportunities, the larger set of ZeroDesktop offerings can create a fully integrated Cloud experience that can rival or supplement those provided by leaders like Apple and Google.

MiiPC APE Technology Overview

Leveraging and deploying complex Android technologies is much more than just incorporating code or compiling a library. These technologies can create training and QA issues for engineering and new product features can introduce support calls and documentation needs. Recognizing these issues, ZeroDesktop takes on-going care to ensure that MiiPC APE is built for seamless integration and a low- or no-touch model post sale.

- **MiiPC APE integrates seamlessly with Android**

The MiiPC APE subsystem requires no integration or on-going development work. The software runs as an application in the Android environment. The subsystem is extensively tested and was used “as is” to produce the MiiPC reference device.

- **MiiPC APE provides a powerful SDK and management capabilities**

The MiiPC APE provides tremendous value “out of the box.” The offering includes many added features: a customizable launcher, cloud-based parental control and monitoring, and family cloud & media sharing capabilities. For those organizations or schools wanting further differentiation, the MiiPC SDK allows customization to take advantage of specific market opportunities.

- **MiiPC APE is Cloud-connected for security and broader content**

ZeroDesktop is committed to supporting the growth and profitability of Service Providers and telco’s around the world. By leveraging the basic technology stack, partners are already building new lines of business, leveraging and expanding existing in-house capabilities, and staving off the exodus of users to other providers.

MiiPC APE Features and Functions

The ZD CSP incorporates a variety of compelling functionality to drive new services, extend existing offerings, and deliver value to users and subscribers across a chosen user population. Each of these functions is extensible and built for global scale and security.

- **Multiuser capability**

MiiPC APE enables multiple users to share a single Android environment. Through the use of secure profiles, Android can now be used in a similar fashion as other desktop operating environments.

- **Remote device management and monitoring**

Using either the web or provided Smartphone apps, administrators can track the usage of the device, apps, and websites. MiiPC APE includes notification capabilities, as well.

**MiiPC is not just a family PC.
It’s an example of taking
Android and adding valuable
and necessary functions that
will allow it to thrive beyond
mobility.**

- **Managed and controlled provisioning**

With this feature, an administrator can set up users with limited or appropriate apps and website access by user and by time of day. Whether used in a family environment or by an IT administrator to create a purpose-built workstation, controlled provisioning allows more safe and secure deployment in a shared environment.

- **Near real-time intervention with Cloud parental and management controls**

Beyond monitoring, MiiPC APE provides the capability for immediate changes to the operating environment, should the situation arise. For example, a child spending too much time on Facebook or an employee streaming video at too high a resolution can be remedied quickly and remotely.

- **Seamless device Cloud activation**

To maintain control over grey market devices and counterfeiting, ZeroDesktop provides an optional Cloud activation service. Depending on the use case, Cloud activation can be coupled with customer support to maintain a closer relationship with the customer or the channel.

- **Optional Cloud content capabilities**

Leveraging other solutions from ZeroDesktop, manufacturers can build a fully integrated Cloud-connected solution. Users can have access to personal Cloud storage transparently and leverage shared and common storage seamlessly. Media streaming capabilities are also easy to implement based on chosen use cases.

The product possibilities are unlimited. Partners are already building a broad set of offerings that range from a straightforward shared desktop PC to Cloud-connected solutions targeting specific vertical applications. Sample Android-based offerings include the following:



MiiPC, the shared family PC with Cloud-based remote parental controls

Recently launched on Kickstarter, The MiiPC shared family PC extends the power of the Android OS with powerful hardware to create a low-cost shared desktop PC. With its unique cloud-based parental controls and multiuser capability, MiiPC offers families and other workgroups a managed, high performance internet-connected experience. A fully-tested reference design is available based on this proven “proof-of-concept” device.



Android All-in-One System

Many providers are looking to provide affordable “Windows alternative” computing solutions that are easier to configure, manage, and use. With the MiiPC APE, partners can leverage Android to deliver an integrated desktop experience with little to no post-sales touch. ZeroDesktop capabilities make this possible with minimal internal resources.



Cloud-Integrated Set-Top Box Blending Cloud Content With Home Entertainment

Android is an excellent platform for building the next-generation of set-top boxes and other smart entertainment devices that demand a powerful embedded OS. With the capabilities of the MiiPC APE blended with the ZeroDesktop Cloud Services Platform, organizations can deliver a fully integrated entertainment experience surpassing those currently available.



Dynamic and remotely controlled Digital Signage

ZeroDesktop provides the basis for an Android-based Digital Signage solution with remote control capability that dynamically pushes display content to any HDMI display device. The system can lower the total cost of ownership using an affordable Android appliance and minimizes on-going operation cost with cloud-based management and control.



Technology to Power the Cloud-enabled Future

ZeroDesktop delivers powerful technology solutions that enable industry players to build next-generation solutions quickly to gain market share and differentiation in the Cloud economy.

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