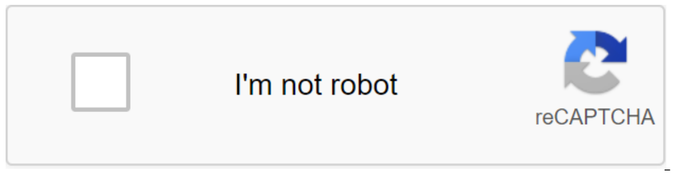
Android rsa key pair example



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Apple Car Keys was announced at WWDC 2020. For those who don't know, Car Keys is a new iOS 14 feature that lets you unlock your car using the iPhone.There's not a ton of support for it yet, but the features are actually kind of cool. You can send the car key through the Messages app and you can limit some car features with a shared key. It also works offline as it is based on NFC. Future iterations may even use different wireless connections to unlock a car with your phone in your pocket. Naturally, Android users will most likely wonder whether there will be an equivalent for the best Android phones. There are many car keys apps already available, Apple's unique approach outpaces the competition. Fortunately, it's not like the Apple Car Keys feature is nothing Android users can't end up with too. Opinion: iPhone 6S getting iOS 14 as galaxy S6 get Android 11. Imagine that. What Makes Apple Car Keys What Makes It Special? For starters, Apple's solution bucks a lot of trends. A lot of smart technology requires a cloud and therefore a constant connection to data. Apple Car Keys don't need these things. NFC technology is available even offline, so you can unlock your car anywhere, even if the underground garage or other places where the connection is spotty. This already makes it better than some car manufacturer solutions because all of them require access to the server. Some other unique features include full support for the Apple Watch, so you don't even need to take your phone out of your pocket if you have a watch too. You also don't need the iOS Car Keys app to make it work - it can either sit in your wallet or just activate once you wave your iPhone over locking your car (as long as it has Apple Car Keys compatibility, of course). Finally, Apple has an API for this and does not rely on apps or services from car manufacturers. Even Android solutions, such as the official Tesla app, require a third-party app to make it all work. The only downside is that the number of Apple Car Keys compatible cars will be limited to a handful of BMW cars at the start. Support needs to improve over time. Apple's solution and execution are very clean. Everything happens on or near your person without any access to the cloud or any special tricks. You just tap your phone or look at the supported car and boom, the car is unlocked. It's hard to criticize it at any level. The good news is that this technology probably won't be limited exclusively to Apple.You can kind of do this with NFC already being a surprisingly reliable platform. You can buy NFC stickers and empty NFC tags on Amazon. From there, you get an app like NFC Tools and you're off to racing. You can switch different settings, add different bits of information, and even make your own commands with something like Tasker.The problem is the barrier to entry as well Tinkering with tags and NFC apps is a bit of a pain if you've never done it before. Those with more experience can very easily create custom unlocking NFC cars using this method, but this requires KeyDuino (Arduino development board with integrated NFC), knowledge of open source code, and some DIY know-how. NFC technology in cars is still pretty new, but it certainly hasn't started with Apple and it certainly won't end with Apple.It it doesn't really cost it for people who don't know this stuff, but the technology is already more accessible. Tesla was one of the first to solve this problem as you can use NFC to unlock Tesla through its app. In other words, this technology is coming whether Apple has brought it or not. The question is whether Android should follow this example of OS integration or app developers should bring it to all of us. It's not about when. NFC is just one of the options many car manufacturers, including the aforementioned above, have apps that allow you to unlock your phone through a network connection. You can also get third-party components that perform more or less the same task, such as MoboKey and Viper SmartStart. Apps and services such as those that use Bluetooth Low Energy or mobile data connection on the server to start your car and do all sorts of other things. At the low end, you can unlock and remotely launch your car. High-end options allow you to turn on the climate control, see the last place you parked, check the diagnosis, and if your car supports it, even leave a parking space and come find you. High-end options are much harder to find and much more expensive to install. Many car manufacturers, including Ford, Chevrolet and Hyundai (via Blue Link) also have apps that allow you to unlock your phone via a network connection. However, NFC is by far the best technology for the manual, standalone method. Just tapping your car in the right place to open is a neat trick and it's easier to pull out your phone than your keys half the time. However, with Bluetooth Low Power especially, we end up just getting in the car and leaving as long as our phones are on us. It's not a wild guess either. There are companies working on this technology right now. The Automotive Communications Consortium is part of the Automotive Communications Consortium, a group of automotive and technology companies. The goal of the group is to standardize the technology in each car, so that everyone gets a similar experience. The group was established back in 2011 with the expressed goal of using modern new technologies such as NFC, Bluetooth, etc. for use in cars. In fact, his press release NFC specifically. The consortium has not spent the last nine years doing nothing. They completed Digital Key Release 2.0 only in May this year - a standardized and secure method for vehicle owners to use their own mobile devices as a digital digital particularly through the NFC. We are relatively confident that Apple Car Keys uses Digital Key Release 2.0 because the specs and usage are so similar. It's likely Apple is using a standardized method for Car Keys, which means that other platforms should get it too. It is likely that Android users will get access to this technology eventually because it is standardization similar to a USB-C or headphone jack. It may not be in the OS for Android users, but it is definitely in the form of an app at the very minimum. The consortium already has a website for app developers to integrate OS-agnostic automotive technologies. More exciting news is Digital Key Release 3.0, which should include support for several connectivity methods such as Bluetooth Low Energy and other connections. It should allow you to unlock your car without even touching your smartphone. The two will simply wirelessly when you are close enough to unlock (and maybe even start) a car without your input. In other words, the technology won't stop at NFC, and it should easily come to non-Apple devices as well. Between Bluetooth Low Energy solutions and NFC, you may never need a keychain again. Apple Car Keys is undoubtedly a game-changer for car owners. It's just a lot easier than using keys if you don't have these non-tech login systems. More car manufacturers need to support technology and of course Android is needed as well. However, based on the available information, we see no reason to believe that Android users will not get something like Car Keys in the next year or two. It's not about when. Will you use the equivalent of Apple Car Keys on Android? Let us know in the poll above and end out some of our Apple coverage below: Some real talks about this feat that the Bluebox security team discovered are needed. The first thing to know is that you are probably affected. It's a feat that works on every device that hasn't been fixed with Android 1.6. If you are entrenched and rom'd your phone, you are free to ignore it all. None of this matters to you because there is a completely different set of security issues that comes with root and custom ROMs for you to worry about. If you don't have the infamous Unknown Sources field permission checked in the settings, all this means nothing to you. Go on and feel free to be a bit smug and smug - you deserve this for dodging sideloading all the time in case something like this can happen. If you don't know what that means, ask someone. For the rest of us, read past the break. Read more: IDG News Service. Special thanks to the entire Central Ambassador's team for help with this! All apps on your Android are signed by a cryptographic key. When it's time to update this app, the new version should have the same digital signature as the old one, or it won't re-write. You can't update it, in Words. There are no exceptions, and developers who lose their signature key should create a brand new app that we have to download over and over again. That means starting from scratch. All new downloads, all new reviews and ratings. This is not a trivial matter. System apps - those that came installed on your phone from HTC or Samsung or Google - also have a key. These apps often have full admin access to everything on your phone because they are reliable applications from the manufacturer. But they're still just apps. Still following me? What we're talking about right now, what Bluebox is talking about, is a method to break the Android app and change the code without breaking the cryptographic key. We are jubilant when hackers get around blocked downloaders, and this is the same feat. When you block something, others will find a way if they try hard enough. And when your platform is the most popular on the planet, people try very hard. So someone can take the app system from their phone. Just get him straight. Using this feat, they can edit it to do nasty things - give it a new version number, and pack it back together while keeping the same, valid key signing. Then you can install this app directly above the existing copy, and now you have an app designed for bad things and it has full access to your entire system. All the while the app will look and behave normally - you'll never know something fishy is going on. Yikes. What's going on with that? People at Bluebox told the entire Open Handset Alliance about it back in February. Google and OEMs are responsible for fixing things to prevent this. Samsung has done its part with the Galaxy S4, but any other phone they sell is vulnerable. HTC and One don't make the cut, so all HTC phones are vulnerable. In fact, every phone except the Samsung Touchwiz version of the Galaxy S4 is vulnerable. Google has not yet updated Android to fix this problem. I think they're working on it - see the Issues Chainfire has gone rooting Android 4.3. But Google didn't sit back and ignore it either. The Google Play store has been fixed so no fake apps can be downloaded to Google's servers. This means that any app you download from Google Play is clean - at least where it comes from that particular exploit. But places like Amazon, Slide Me, and of course all those crack APK forums there are wide open, and every app can have a bad JuJu inside it. So is this really a big deal? Yes, it's a huge deal. And at the same time, no, it really isn't. Google will patch how Android updates apps or how they are subscribed. In this cat-and-mouse game, it's Phenomenon. Google releases software, hackers (both good look and bad look) try to use it, and when they do Google changes the code. That is, The software works, and that sort of thing is to be expected when you have enough smart people trying to break in. On the other hand, the phone you have now can't ever see an update to fix it. Hell, it took Samsung almost a year to patch the browser against a feat that could erase all your user data just on some of their phones. If you have a phone that you expect to be upgraded to Android 4.3, you'll probably get fixed. If not, you can only guess. It's bad - very bad. I'm not trying to slag on the people who make our phones, but the truth is the truth. What can I do? Don't download apps outside of Google Play. Don't download apps outside of Google Play. Don't download apps outside of Google Play. In fact, go ahead and turn off unknown resolution sources if you like. Yes. Everything else makes you vulnerable. Some antivirus apps will check if you have unknown sources included if you are unsure. Get into the forums and find out which one everyone is talking about is the best if you need to. Express your displeasure that you don't get the necessary security updates for your phone. Especially if you're still on that two-year (or three-year- Hello Canada!) contract. The root of the phone, and install a ROM that has some sort of fix - the popular ones are likely to be on very soon. So don't panic. But to be proactive and use common sense. Now is a really good time to stop installing hacked apps because people doing hacking are the same people who could put evil code into the app. If you receive any update notifications that come from somewhere other than Google Play, please let someone know. Let us know if you need to. Find out the people who are trying to convey these exploits and give them a large dose of public shame and exposure. Cockroaches hate the light. This will pass as safety scares always do, but another will step in to fill their shoes. That's the nature of the beast. Stay safe, guys. Every week, the Android Central Podcast brings you the latest technology news, analysis and hot takes, with familiar co-hosts and special guests. 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