

## Mobile Connectivity and Security Issues for Cloud Informatic Systems

~ Ph. D. **Cosmin Cătălin Olteanu** (*University of Bucharest, Faculty of Business and Administration, Romania*)

**E-mail:** [contact@olteanucosmin.ro](mailto:contact@olteanucosmin.ro)

**Abstract:** *The main purpose of the paper is to illustrate the importance of new software tools that can be used with mobile devices to make them more secure for the use of day to day business software. Many companies are using mobile applications to access some components to ERP's or CRM's remotely. Even the new come, cloud Informatic Systems are using more remote devices than ever. This is why we need to secure somehow these mobile applications.*

**Key words:** *secure mobile applications, security of mobile devices, ERP's and CRM's mobile components security*



If we walk on the street, or just if we go to the mall, we will see that every one of us is addicted to technology and mobile devices. Today, a mobile phone, called smartphone is more than just a device we use. These devices are now more often, called personal companion. On these devices we have a lot of personal information and many more.

A lot of companies understood the need of users to access from their devices all the information they need through

applications that helps the user to gain easier access to what he needs.

As an effect to that, entrepreneurs have seen the advantage of use of personal devices of employees to some business application in order to have a better business and make more profit.

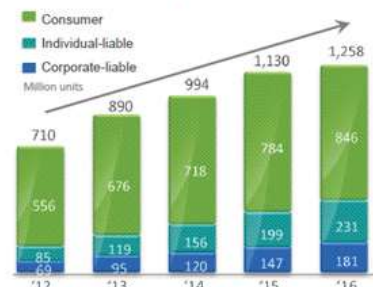
Today almost any provider of ERP's, CRM's and other components of an informatics system, have mobile components for every level of management and users (Fig.1).

Fig. 1 Business Apps and smartphone sales mix

### Enterprise Mobility Drivers

- Proliferation of Mobile Business Apps  
*Email, CRM, ERP, SFA, etc.*
- Consumerization of IT  
*Largely driven by Android*

### Global Smartphone Sales Mix

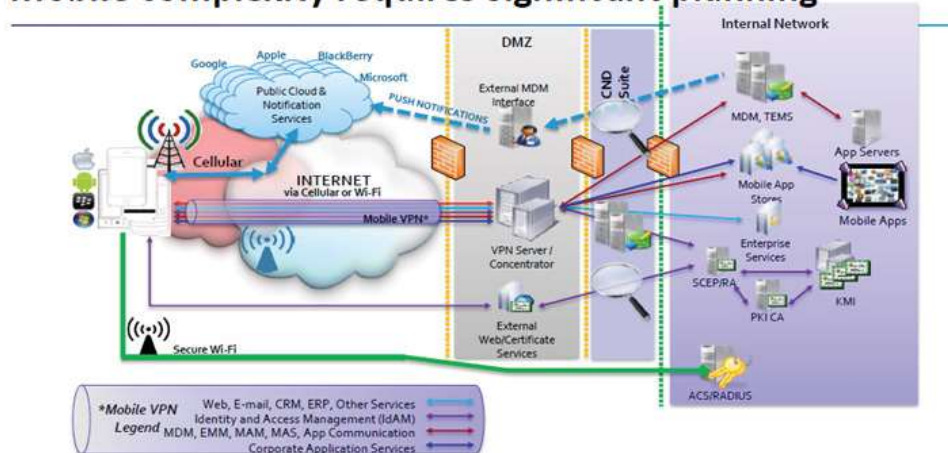


(Source: IDC, 2012)

<http://www.slideshare.net/FedScoop/security-in-the-enterprise-and-governmen-tv1>

Fig 2. Planning on migrating Apps to mobile devices

### Mobile complexity requires significant planning



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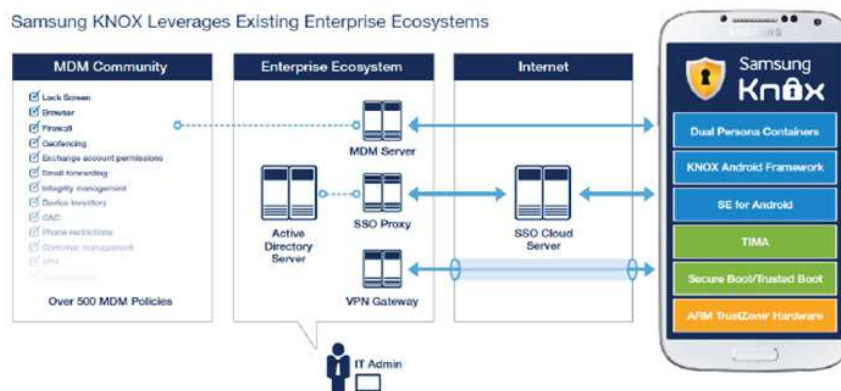


If we are looking on the security journals of mobile applications, we see that a lot of companies are just migrate their applications to mobile devices with just little planning (Fig 2) on this issue.

In order to secure an application now we have some platform that can be a layer

between that application and your smart-phone. That layer secure the data and the connection. Such a platform is called KNOX (Fig 3) and is even used by USA administration at all levels.

Fig. 3 Knox communication

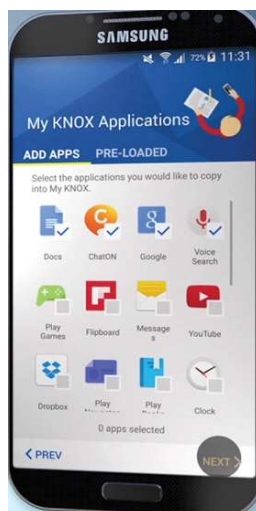


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Knox is present in Google Play from where you can download and install in your device. All you have to do is to create

your account and chose what applications you should allow to run only under KNOX protection.

Fig. 4 Knox layer and applications

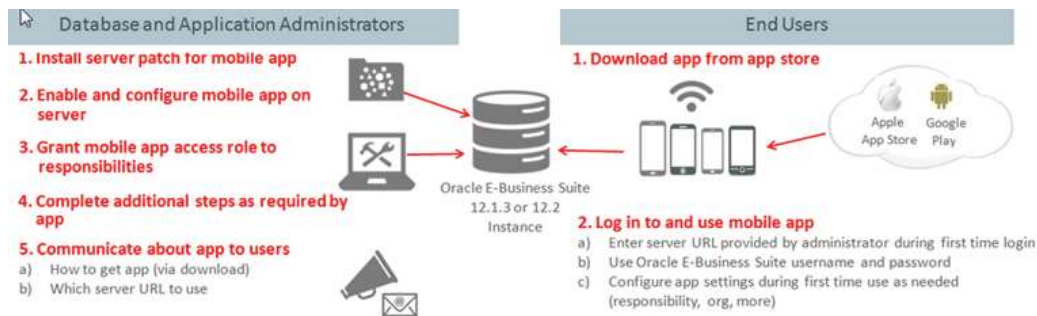




Just by using your application under Knox your data is secure because all data are encrypted.

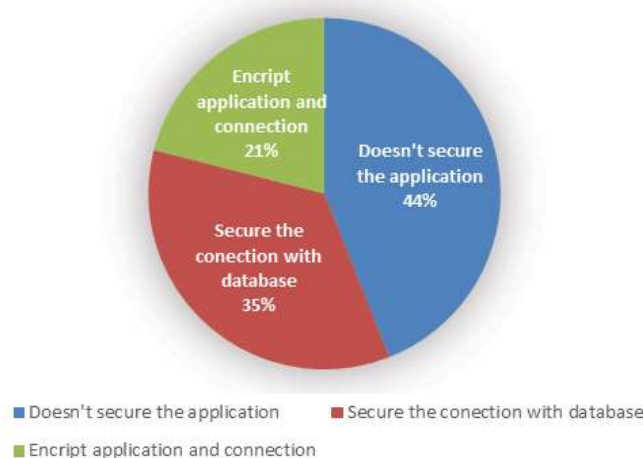
Companies like Oracle is using this solution to some of their employees. One solution is Oracle E-business Suite that was ported on mobile devices (Fig 5).

Fig 5. Instance of Oracle E-business Suite



I have made a survey of 100 software developers entrepreneurs about using secure connections on their Apps and the results are the flowing:

Fig. 6 Secure the mobile application connection and application



The results show us that we use a lot of application on our mobile devices that are insecure and can provide issues of vulnerability of our personal or business data.

Only just 21 % of entrepreneurs realize that security is a big issue and should be taken from start in the planning of apps.

## Conclusions

The users of mobile devices are usually the weak link between Apps and providers. Today we have a lot of threats starting from Mobile User Authenticating Methods, Platform Security Capabilities, Mobile



Malware and Spyware Apps and a lot more. By using platforms like Knox, Mobile Virtual Private Networks, Secure Web Gateways and Mobile data protection, we can add a level

of trust to our mobile companions known as smartphones when we use them for personal use or for business.

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