



In 2020, looking back on this decade, what will be the single most impactful technical advancement driving business growth?

Online business and e-Commerce have been growing at a very fast pace during the beginning of the 21st century and at RM5 Software we see this growth continuing strong for the next ten years as well. However, one of the main consumer challenges in e-commerce today, is the fact that consumers have to remember multiple usernames and passwords to various e-services like e-Commerce sites. Furthermore, they need to maintain caution e.g. in providing credit card numbers during payment.

Development in identity management and federation techniques enables the emergence of identity provider business. Identity providers first build a Circle of Trust by partnering with multiple e-Commerce sites. Then they act as a central authentication point for the consumers and federate these users within their Circle of Trust. Successful identity provider operations requires a flexible, easy-to-use and multi-tenant Identity Management software and increased adoption of industry standards, such as SAML, XACML and OpenID. For consumers the emergence of identity providers, means a safer and easier e-Commerce experience, whereas for e-Commerce services identity providers can provide improved customer statistics and buyer behavior data leading to increased customer flow. Already today Google and Facebook act as identity providers as they provide federated identities to various websites.

In the next few years, we will see identity providers also entering the banking business as they will guarantee consumer purchases on e-Commerce sites. This significantly reduces or may even completely eliminate many financial risks like credit card thefts or fraudulent use of credit cards. When identity providers partner with each other, users can transparently move from one Circle of Trust to another with federation. Eventually, this will enable a single online identity for online consumers - and the need to remember only one password. This will result in increased business as e-services providers can syndicate more personalized offerings per customer segments and consumers can finally buy online with trust and convenience.

Does Mobile fall into one of your top 5 priorities for 2012? If so, how will you be attacking it? If not, why not?

Definitely it does. We are looking at RM5 the development of Mobile very closely and we see it as a major identity provider platform for two reasons. First of all, mobile phone is becoming a more important device for day-to-day operations and secondly, mobile operators are in a central place for becoming a real identity provider.

Let us first have a look at the development of Mobile phone during the next few years. Some mobile phone models already carry near field communication (NFC) chip. NFC enables [smartphones](#), PDA devices, or even product tags to establish close range communication and "in the air" transactions and data exchange. The growth in NFC enabled devices will increase NFC based services and eventually NFC devices will challenge many traditional businesses. Potentially NFC enabled device could e.g. replace physical tickets or even cash and credit cards. Furthermore, SIM card based authentication mechanisms enable strong authentication and people can use their mobile device as identification method for both offline and online services.

Secondly, operators are aggressively seeking new services to compensate the reducing mobile voice and data revenues. Mobile operators have today several advantages over the likes of Google and Facebook if they decide to assume the position of an Identity Provider. Although most mobile operators do not have even nearly as many users as Google or Facebook, they can differentiate by the quality of users. By this I mean that mobile operators can guarantee that a user in their network is a real life person. Furthermore, mobile operators maintain accurate and up-to-date customer contact data, such as their home address and they have a direct billing relationship with their customers. With the help of these advantages mobile operators can build their own Circle of Trust networks and federate user information with certified e-Commerce sites efficiently and securely.

A central technological component needed to enable identity provider functionality is identity management. RM5 Software's role in Mobile business is to provide fast-to-deploy identity management software for operators planning to become identity providers.

As you look around the globe, which markets will provide the best opportunities for tech companies in the next five years? Why?

Looking at Mobile and identity provider business, the most interesting geographical markets for

new business opportunities are Asia and Africa. As most of the new internet users in these regions are experiencing the internet through a mobile phone, it is easy to understand that in these regions mobile operators have the biggest opportunity to claim the ownership of an online user identity and build significant business with e-commerce as an identity provider. Alongside with operators embarking the identity provider opportunity, technology companies can seize the opportunity and become part of the identity provider ecosystem - either as a technology provider for operators, e-commerce platforms or consumers.

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