

Being Digital: the post-app era

Virtual Assistant Solutions provide better digital transformation

Openstream® Position Paper

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About this document

Mobile apps have unleashed a new revolution in user interaction and pervasive computing. Owing to the pressure of “Consumerization of IT”, Enterprises have taken to extend business systems and capabilities to the mobile. In spite of the incredible demand from user-community, and the promise of new mobile technology, the uptake in the Enterprise has been less than anticipated.

This position paper provides a perspective on this seemingly paradoxical situation, and introduces the beginning of a new *S curve* that is shaking up the digital-strategy of the enterprises: Virtual Assistant Technology.

IT investments in mobility yielded limited results

We are experiencing an unprecedented pace of innovation in the internet, social and mobile technologies, with a strong convergence in the marketplace. With smarter and faster devices loaded with tools and applications, knowledge workers have the potential to create personalized experiences for enhanced productivity. However the scale of adoption thus far, belies the promise. Why?

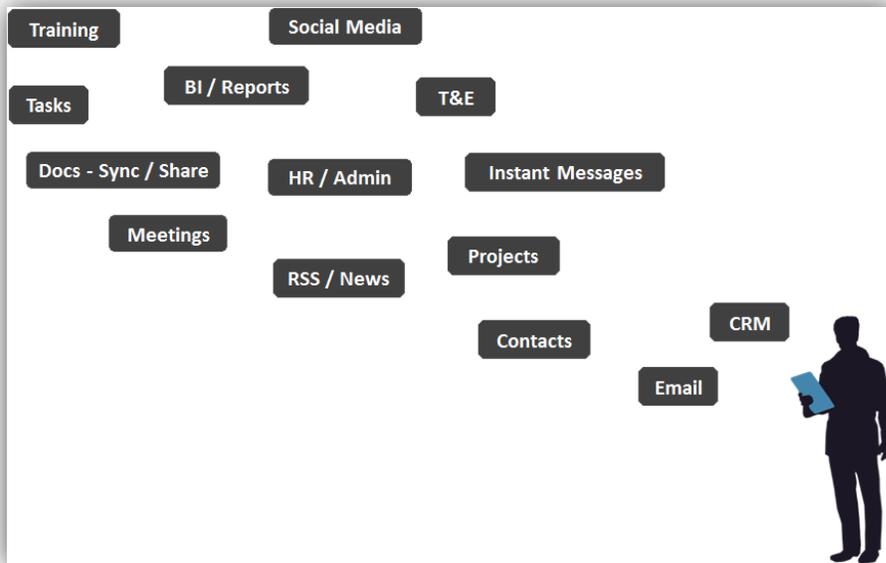


The *doing digital* efforts thus far seem to have largely been focused on, carrying over the legacy processes of back-office applications & information and force-fitting them into the new mobile paradigm, often creating a perception of mobile as yet “another channel”, leaving the potential of transformative and engaging experience to the users yet to be delivered.

While IT focus of leveraging existing investments in applications, web services and other middleware technologies was a good first-step, some of these architectures and services have not been designed to cater to the new interaction capabilities offered by the mobile devices. And so “*doing digital*” falls short when it comes to the user-experience (UX) provided by business systems on mobile devices, leading to the IT investments not yielding the expected productivity gains/returns to the enterprise.

The nature of digital workspaces in the enterprise

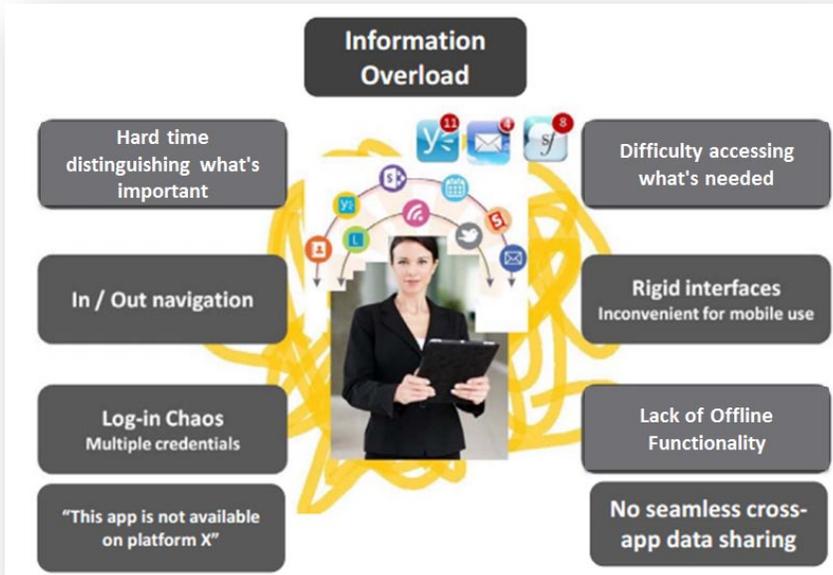
Through the workday, an enterprise user on his/her digital workspace will have to manage various streams of information: Email, contacts, tasks, calendar, CRM, ERP, training, HR systems, digital media, training materials, documents/reports, social media, instant messaging, travel and expense systems and more.



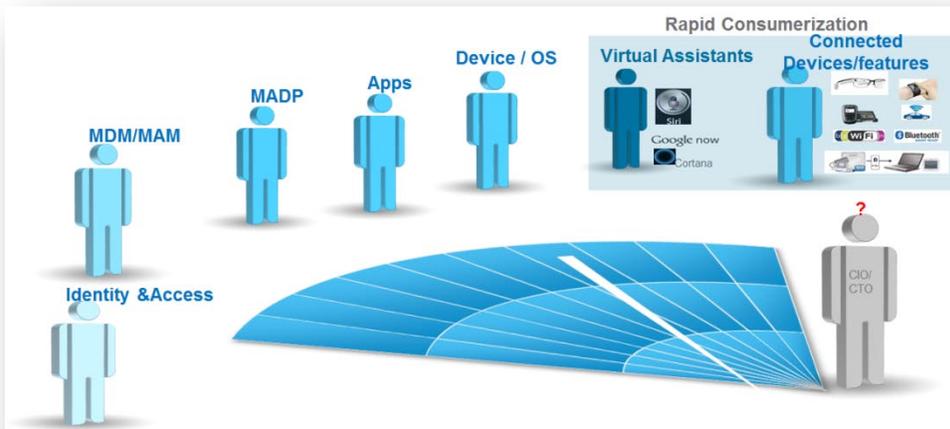
The IT approach has been to deliver “apps” to meet this requirement, but that has created more problems than solutions:

- ***There is an “app” for that?***
 For a typical enterprise user, who needs to check the tasks for the day, plan for meetings, read & respond to emails, access files from intranet portals, apply for leave through HRMS, submit travel expense reports, check customer details on a CRM system, make calls and share through various enterprise social & communication tools and more..(s)he has to juggle 10+ apps throughout the day. Logging in and out of these many apps being another big challenge.
- ***Too many devices/platforms***
 User experience suffers, when these apps are accessed on multiple devices with different operating systems, screen sizes, user interfaces, connectivity type, etc.
- ***Knowing what’s important (from many notifications/alerts)***

Getting alerts from multiple apps through the day demands constant-prioritization, affecting the attention & focus of the user on key tasks.



Meanwhile, the CIO has a different perspective of the problem



- adopting a uniform strategy for Identity and Access Management (IAM) across connected devices
- Mobile and Application Management (MAM) on both enterprise owned and user-owned(BYOD) devices

- managing launch/distribution (MDM) of cross platform apps connecting to various back end systems and tools
- rolling out apps that are visually appealing utilizing the “latest and greatest” features, in other words, keeping up with the “Consumerization of IT”
- ensuring data availability based on roles and needs of the workforce. This involves online and offline availability of data.
- common UI/UX across several departmental apps for stickiness.
- securing the data in case of lost device, employee leaving the job and more
- ensuring scalability & manageability of apps for different departments based on their specific needs.

Indeed, the CIO has a daunting task: to integrate and “play nice” with several disparate toolsets and strategies having significant overlap, making the enterprise digital strategy roadmap a formidable task.

Enter Virtual Assistants Technology: the **real** product of rapid consumerization

While the industry is sorting this out, a significantly disruptive S curve is afoot: Virtual Assistant Technology. Popularized by Google® Now and Apple® Siri, consumers have already entered the post-app era, where smart agents facilitate mobile interactions.

Leading industry analysts predict that by 2020, 40% of all mobile transactions will be choreographed via Virtual Assistants. (Source: [Top Strategic Predictions for 2016 and Beyond: The Future is a Digital Thing, Oct 02, 2015](#))

Virtual Assistants started off as specialized self-service tools and have evolved into an intelligent front end for Internet searches. Siri, Google® Now, and Microsoft Cortana assistants are some of the consumer friendly assistants that introduced a newer way of interacting with mobile devices for managing personal information and searching for information with voice commands.

Customer care companies took the mantle of taking this forward into the mobile app space, by providing a voice assistant front-end primarily focused in answering simple queries that reduced the load on human agents providing the same services over a phone call or a live chat session. The ROI was clear.

However for enterprise knowledge workers, applying the same “seek & search” approach will not yield expected results. The needs and wants of an enterprise workforce, the challenges they face while away from their desks, such as lack of prioritization and collaboration tools and expected user experience in enterprise context, must form key-criteria in designing and implementing a virtual assistant solution for an enterprise.

Key requirements for an Enterprise Virtual Assistant

In the Enterprise context, a Virtual Assistant is not unlike your very own personal assistant. In real-life, your assistant:

- knows you (personal preferences)
- knows your context (device, location, locale, calendar)
- knows your priorities and delivers only information of importance to you
- alerts you to act on items worthy of your attention
- facilitates natural interaction (multimodal communication)
- ensures privacy & security of information exchanged

And it follows, that Enterprise Virtual Assistant offerings are beyond just a voice command interface. In the enterprise context, they become central to the enterprise digital strategy, providing multimodal interfaces, context management, security management, notifications management, mobile application management, connected device management, and so on across various functions and apps of the enterprise.

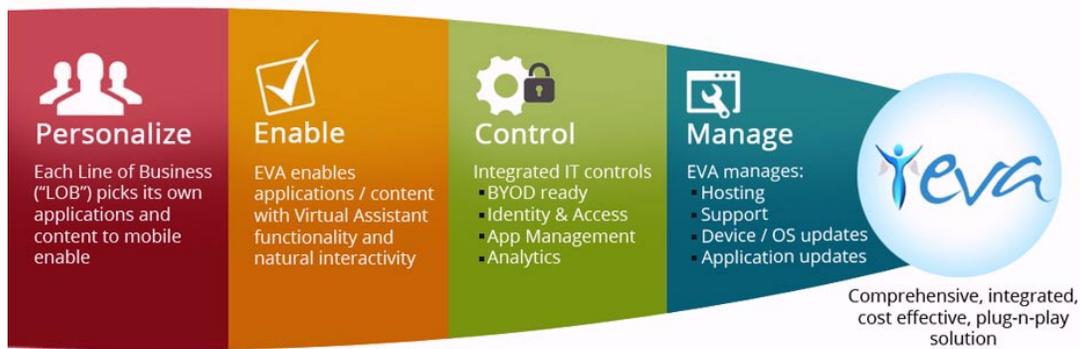
It is easy to see why Enterprise Virtual Assistant solutions help the transformation to “being digital”, and promise better user-engagement & UX in the post-app era.

Openstream EVA™

face of the digital workspace

While there are a billion-plus apps for consumer consumption, research has shown that most are used very sparingly, due to restricted usage of the functionalities of the devices. Offering new interaction capabilities beyond those provided by several apps on devices, Openstream's EVA™ is a transformative solution, to take Enterprises beyond the "app" model, into an Intelligent Assistant Architecture.

EVA improves user-engagement and experience by adapting to the users' preferences & priorities in delivering an "in-the-moment" personalized mobile experience – reducing the effects of information overload and data chaos.



- With over a million mobile users across enterprises, Openstream’s EVA™ delivers multimodal context aware offerings based on open standards, to enable the digital vision of enterprises, one that offers productive & convenient interaction with their business systems.
- EVA (“EVAatars”)-customized avatars for specific industries/roles, have been deployed in Financial Services, Healthcare and Retail spaces, covering a variety of enterprise & consumer use cases and applications



Key EVA modules include:

Smart Dashboard | Attention Stream | Smart Mail | Smart Calendar | Smart Contacts | SmartBox | Smart Reader | Salesforce | Travel & Expense Management | Training | Compliance |

For more information on EVA™ email us at: info@openstream.com | or visit: www.openstream.com