

The 9 Pillars of Enterprise Mobility

Building a framework that benefits IT, users and the business

An Enterprise Mobility Program (EMP) focuses on policies, processes and enabling technologies that align mobility capabilities with corporate business goals. Properly implemented and supported, EMP initiatives can create an environment where IT has the control and confidence to allow users to choose the devices and work locations that maximize their productivity.

The EMP Framework:

The EMP Framework comprises nine key pillars. These pillars align to an organization's business, security, governance and IT architecture goals, and define the parameters of the EMP. It is important that the EMP Framework aligns to the standards and objectives of the overall Enterprise Architecture Framework, which outlines technologies and process structure for an IT strategy. It must also conform to the mandates of an enterprise's Security Framework.

The following diagram demonstrates how the pillars relate to and feed into one another. A properly executed EMP creates a dynamic environment, which requires ongoing effort to keep the EMP optimized to business goals.

1. User Segmentation

Defines user groups with common needs, device requirements and policies.

The information developed in the user segmentation model will drive the development of the entire EMP. The user segmentation model classifies and segments users by job function, criticality of mobile devices to performing the job, eligibility to participate in BYOD, permitted devices, applications that should or can be accessed, security requirements, applicable policies and end user agreement.

2. Policies

Define the handling and management of the device in the environment.

Policies cover the full lifecycle of the user device within the enterprise environment including: acceptable use; financial guidelines on purchase, usage charges and compensation; obligations for device maintenance, reporting loss and device replacement; back up procedures for personal data; BYOD eligibility; corporate application access and applications permitted on the device; and support.

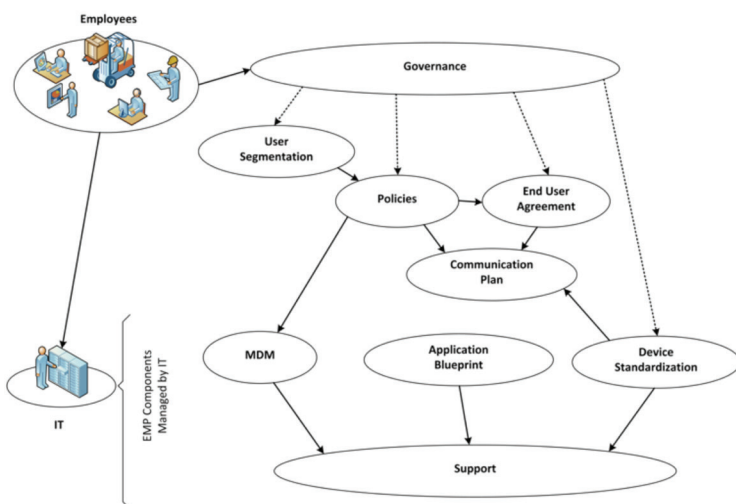


Figure 1: EMP Pillars



3. End User Agreement

A formal agreement between the enterprise and end users that documents financial, legal and business responsibilities for both BYOD and corporate devices.

As the legal manifestation of the policies, the end user agreement should be developed in partnership with Human Resources and Legal. It should recognize and acknowledge differences in user experience that may be caused by organizational policies that limit the use of the device. The agreement should also outline device monitoring practices and how data like location will be used. In addition, users must understand the rationale behind requests for e-discovery as well as personal data backup responsibilities in the event that device has to be wiped as a result of cause, loss or accident.

4. Governance

The policies and processes that business owners will use to manage the ongoing evolution of the EMP.

Governance provides business and IT owners with control over the EMP's evolution in accordance with enterprise strategy and business goals. Governance should include processes, Responsibility Assignment Matrix documentation and role descriptions for governance membership. Other Governance elements include a Charter (responsibilities, reporting structure), Communication Plan and Business Case Template.

5. Mobile Device Management (MDM) and Compliance Tools

MDM facilitates device management by enforcing mobility policies on mobile devices.

The MDM platform functionality includes device enrolment, device policy, compliance reporting, usage/policy compliance monitoring, and in some cases, Mobile Application Management (MAM). Some MDM providers offer security by combining OS security features with their own tools. This approach maintains the native device experience, which requires less user training and better user acceptance.

Other MDMs leverage containerization to provide full control of application capabilities and enable separation of corporate and personal data. While this approach offers more control over the device, it can also create restrictions in device usability, mobile device performance and battery life.

The MDM can also extend security beyond the device to the corporate wired and wireless networks by using APIs on identity and access control policy platforms such as Cisco's Identity Services Engine.

6. Support

The plans and mechanisms that will support mobile users and applications.

Support for corporate mobile devices is probably already in place and is relatively straightforward. However, the introduction of BYOD introduces challenges to the support organization as a result of the proliferation of many types of devices in the environment. The enterprise must create a clear delineation between the device support issues that IT will address and the ones that must be handled directly by the user.

7. Application Blueprint

Determines how (and which) mobile applications will be delivered to user devices.

Many users demand BYOD precisely because they want access to applications that they feel will make them more productive. However, there are applications that are not suitable for a corporate environment. As a result, a comprehensive EMP must have a strategy for approving and managing applications on devices that have access to corporate data. There are two types of applications requiring management:

1. "Consumer" applications including Facebook, LinkedIn, Citrix, Good for Enterprise etc. that cover both personal and business use and can deliver value to both the corporation and the user. In this scenario an enterprise will require an MDM or MAM solution to manage which applications are permitted on the device. The goal is to carefully balance corporate data risk with user freedom to self-select his/her preferred productivity tools. If there are too many restrictions on key applications, a device may not be deemed suitable for personal use.
2. Proprietary or custom applications that are developed specifically to support key business processes, to create new revenue opportunities or to gain competitive advantage. These are the applications that can deliver the greatest benefit to the organization.

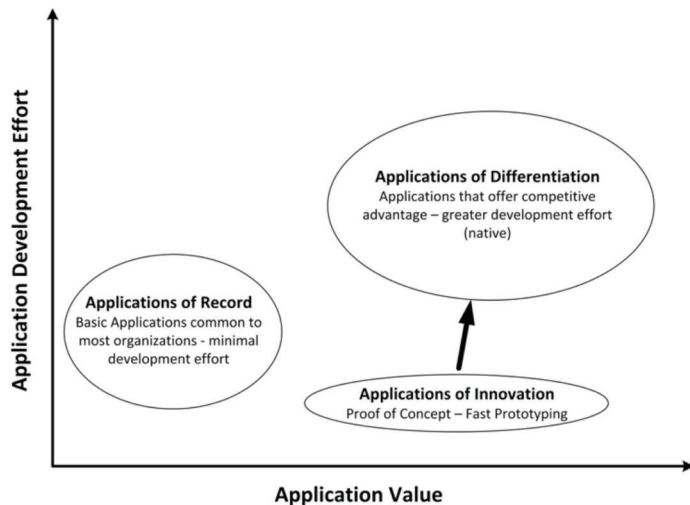


Figure 2: EMP Pillars

An Application Strategy Model (illustrated above) can be used to categorize and prioritize mobile applications. Applications of Innovation are used to test, develop and refine new applications with the goal of determining the validity of an application and the process it supports. If the concept's value warrants it, the prototype transitions to a production application and becomes an Application of Differentiation.

Applications of Differentiation are unique to an organization and enable new revenue opportunities, new customer benefits or cost reduction. In this scenario, IT plays a critical role in delivering business value by applying new IT capabilities creatively to drive strategic advantage.

Applications of Record are common to all businesses and are necessary to run fundamental business processes. Mobilizing these applications can increase productivity or reduce costs, but does not differentiate an organization from its competitors; therefore, a minimalist approach should be taken to developing these applications.

Application Distribution

With an approved application strategy, enterprises require a simple mechanism for distributing applications to users based on device type and job function. Mobile Application Management (MAM) platforms offer a custom Enterprise App Store or Catalog that enables provisioning and access control for both internally-developed and commercially-available mobile applications based on device and job. Features of MAM include:

- App delivery (Enterprise App Store)
- App updating
- App performance monitoring
- User authentication
- Crash log reporting
- User and group access control
- App version management
- App configuration management
- Push services
- Reporting and tracking
- Usage analytics
- Event management
- App wrapping

The use of MAM can enable an enterprise to enhance the security and user experience of application distribution and management significantly. MAM functionality can be provided by leading MDMs such as MobileIron, Zenprise and AirWatch, as well as dedicated MAM platform vendors such as Apperian.

8. Communication Plan

Provides users with current information on policies and their responsibilities as outlined in the EMP.

To ensure that employees are aware of BYOD policies, user obligations, eligibility, security requirements and options for support, there must be a communications plan in place. As the EMP evolves over time, the communication plan must evolve concurrently so that the information remains up-to-date with the program.

9. Device Standardization

Defines which devices will be supported by the BYOD program.

Device standardization is an important consideration for any EMP. While Apple, BlackBerry and Windows Phone device options are limited and their operating systems standard and contained, Android OS and its device ecosystem is extremely fragmented. Samsung, LG, Motorola, HTC and Sony are among the most popular manufacturers that license Android for use with their smartphones and tablets. Each manufacturer has its own custom user interface for the OS, resulting in a varied look and feel between devices. In addition, there have been eight versions of the Android operating system to date, of which three have the highest usage. In total, there are several hundred distinct devices using Android currently; more than thirty Android devices are presently available in Canada alone.

Much like the standardization that is common for desktop and laptop computers, an EMP should consider establishing a list of supported devices and operating system versions. Ideally, this list should be refreshed at least twice a year to account for new devices and OS updates.

When standardizing devices, enterprises must find the right balance. A plan that has too few devices (or which does not support the most popular devices) will not motivate user participation. A plan that offers too many devices as standard can create a fragmented mobility environment, which can be challenging and expensive to manage from both the support and application perspectives.

EMP Benefits: IT, the business, employees and customers

With an EMP in place, enterprise IT can confidently allow mobile devices and applications in the enterprise environment while controlling mobility-related costs and complexity. In a mobile-enabled enterprise, lines of business can create and deliver custom applications for greater corporate agility. Employees can use the devices and applications that let them work how, when and where they are most productive. And customers gain access to more information, better service and deeper engagement.

IT: Reduce Management Costs

Depending on the policies outlined in the EMP, having employees assume provider and plan management costs can reduce the cost burden to the enterprise. IT can further reduce costs by eliminating the need to manage individual usage charges for BYOD program devices.

The Business: Increase Competitive Advantage

With Pillar #7 of the EMP (Application Blueprint) and the associated Application Strategy Model, the business can pursue custom mobile application development and distribution in a more structured way. With custom applications, business processes can be evolved, creating competitive differentiation.

For example, Canadian news agency CTV created the iGateway smartphone app to enable its reporters to shoot, edit and upload HD video footage right from the field, without the delays and complexities associated with elaborate broadcast equipment and satellite trucks. Similarly, Lowe's Home Improvement developed three custom iPhone apps – an Employee app that gives store staff access to key product information, a Store Manager app that allows managers to handle administrative tasks and a Customer app that offers a wealth of home improvement information, including how-to videos, product prices and reviews, store locations and gift card balances.

Employees: Accelerate Responsiveness and Improve Productivity

Outside of the office, most employees rely on their mobile devices for everything – communication, connection, organization and entertainment. So it's only natural that employees expect to be able to move seamlessly from living to working to living with their devices of choice. With an EMP facilitating a structured approach to mobile adoption and enablement, enterprises gain an advantage in employee acquisition, satisfaction and retention.

For mobile-enabled employees, having "the office" at their fingertips (applications and information), lets them address business requests, challenges and opportunities as they arise. It also allows them to work how, when and where they are most productive.

Customers: Enhanced Experiences

Today's customers demand experiences characterized by swift service, accessibility and transparency. Enterprises that implement an EMP can meet that demand more effectively. First, mobile-enabled employees can respond right away, with the right information. Second, customers gain access to mobile applications that allow them to engage more deeply with the enterprise at multiple touch points (communication, sales, purchase, follow up and support).

About the authors

Nigel Perry

Nigel Perry is a Customer Systems Engineering Specialist at TELUS, with over 15 years of experience in the telecommunications service provider industry.

Focusing exclusively on the Mobility portfolio, Nigel works with clients from small businesses to government, assisting them in developing mobility strategies and roadmaps, integrating wireless technology into traditional wired networks, and creating solutions to mobilize workers and applications.

Kerry Haukaas

Kerry Haukaas is a Customer Solution Architect, with more than 30 years of experience in the telecommunications and data communications industry.

Kerry is responsible for developing architectural roadmaps for TELUS customers to ensure that TELUS integrated solutions evolve in line with customers business and technical requirements. The architectural roadmaps encompass the integration and evolution of TELUS's full suite of services in Network, Security, Mobility and IT services.

About TELUS

TELUS is a leading national telecommunications company in Canada, with \$11.2 billion of annual revenue and 13.2 million customer connections including 7.7 million wireless subscribers, 3.3 million wireline network access lines, 1.4 million Internet subscribers and 743,000 TELUS TV® customers. TELUS provides a wide range of communications products and services, including wireless, data, Internet protocol (IP), voice, television, entertainment and video. In support of our philosophy to give where we live, TELUS, our team members and retirees have contributed more than \$300 million to charitable and not-for-profit organizations and volunteered 4.8 million hours of service to local communities since 2000. Fourteen TELUS Community Boards lead TELUS' local philanthropic initiatives. TELUS was honoured to be named the most outstanding philanthropic corporation globally for 2010 by the Association of Fundraising Professionals, becoming the first Canadian company to receive this prestigious international recognition.

To learn more about building a sound mobility strategy that will enable employees to work effectively anytime and anywhere, please contact your TELUS Account Manager.