



Mobile Device and Application Strategy



Right Technology, Right Design, Right Price



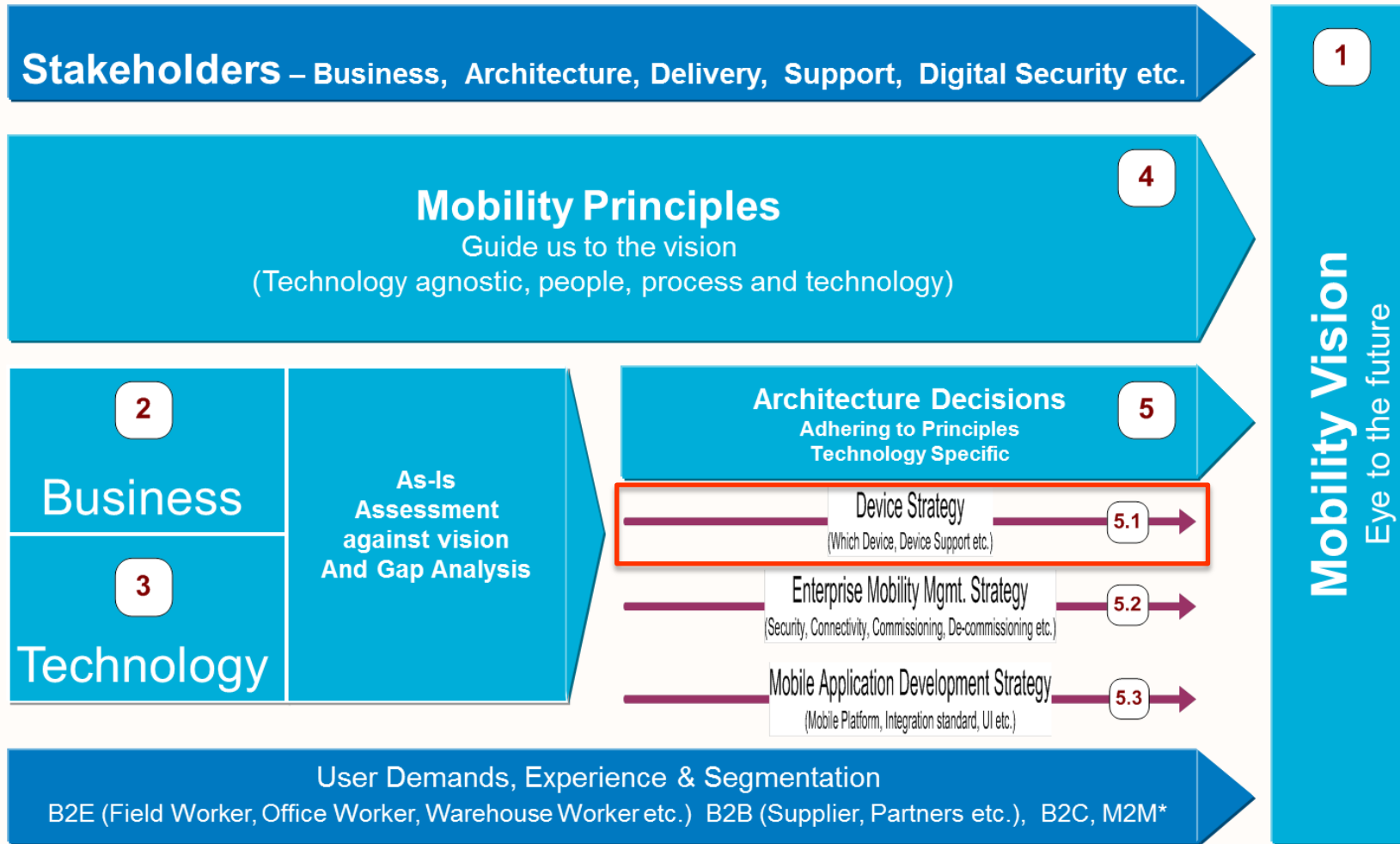
Agenda

- 1 Mobility Strategy Methodology
- 2 Mobile Device Strategy
- 3 Mobile Application Development
- 4 Q &A



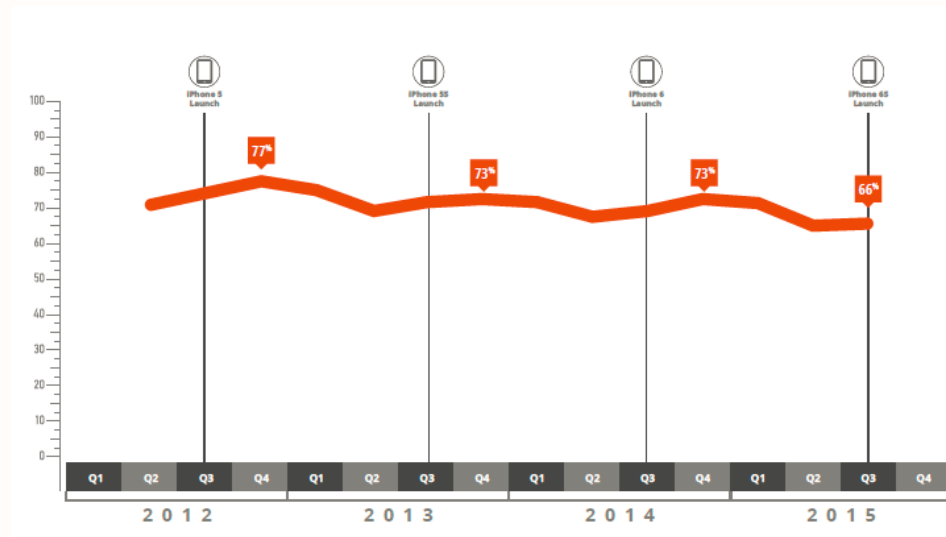
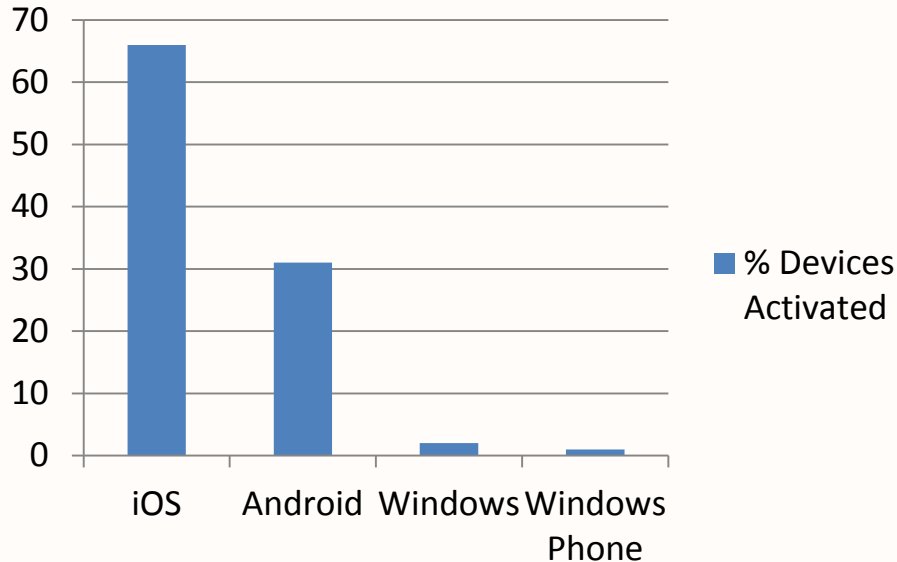
Mobility Strategy Methodology

Device Strategy



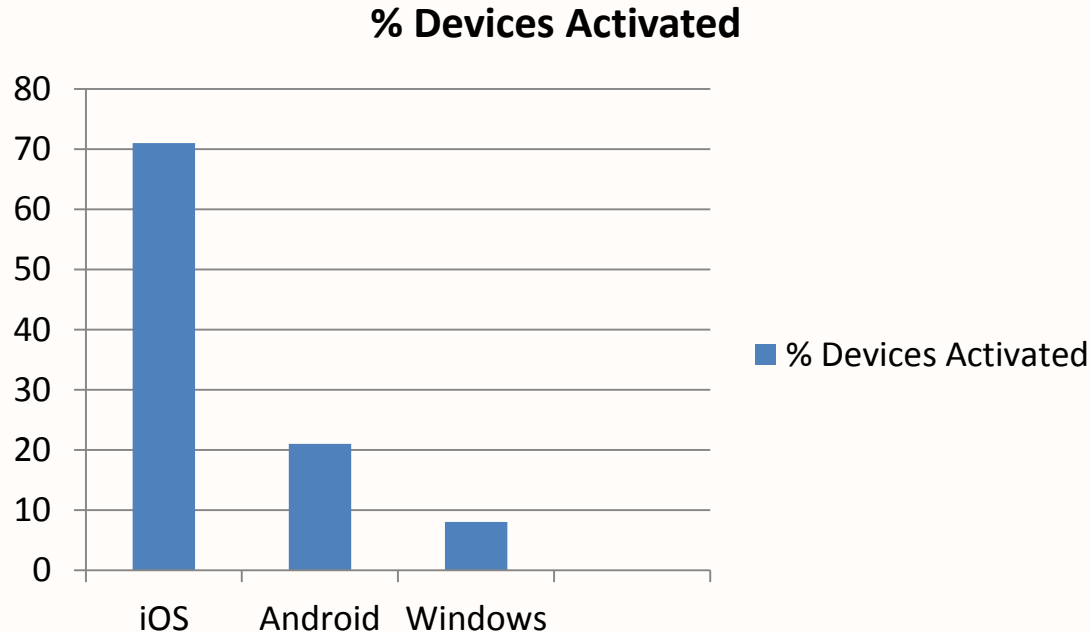
Smart Phone Market- Enterprise

% Devices Activated



- iOS still clear leader, but Android owns 1/3 of the market.
- iOS market share falling gradually
- Many companies are still using Windows Mobile (not counted above)

Tablet Market- Enterprise



- The tablet market today is considerably more fragmented than in the past
- Q1 2015 had 81% iOS. Android and Windows gaining market share
- Windows is rising as a third option with Windows 10
- Does not include Windows 7/8 managed by MS SCCM

Source – Good Technology Mobility Index Report, Q3 2015

Comparison – Mobile OS

	iOS	Android	Windows 10
Peripherals	+++	++	++
OS upgrade control	+	+ (Generic) ++ Samsung Knox	++
Security	+++ One App store, tighter control on Apps	++ (Generic) Easier to root and Jailbreak. Multiple App stores, Common file store +++ (Samsung Knox)	++ Support App/file level security.
Containerisation (COPE)	++ App level controls through API but dependent on app developers.	+++ Application level control supported by OS - Android for Work +++ (Samsung Knox)	++ Win 10 container at App level
Ruggedness	++ Through external cases	+++ Rugged devices available	+++ Built as rugged available
Vendor Choice	+	+++ (Generic) + (Samsung Knox)	+++
Cost	+++	++	++
Connectivity	+++	+++	+++

Comparison – Mobile OS

	iOS	Android	Windows 10
Device Enrolment	+++ DEP/VPP	+ (Needs enrolment) ++ (Samsung Knox)	+ (Needs Enrolment)
Usability	+++ Better App store	+++ Not far behind from iOS	++ Scope for improvement
Personal assistants	++ Siri	++ Google now	+++ Cortana
Developer skillset availability	++ Objective C, Swift	+++ Java	+++ .Net, C#
Availability of pre-packaged Applications	+++ 1.6m Q4 2015	+++ 1.5m Q4 2015	++ 700k Q4 2015
Ease of migration	Enterprise Specific	Enterprise Specific	Enterprise Specific. Usually easier for most organisations.
Desktop/Mobile convergence	+	+	+++ Dock your phone/tablet. One management console, AD integration, shared profiles.

Mobile Device Strategy

Summary

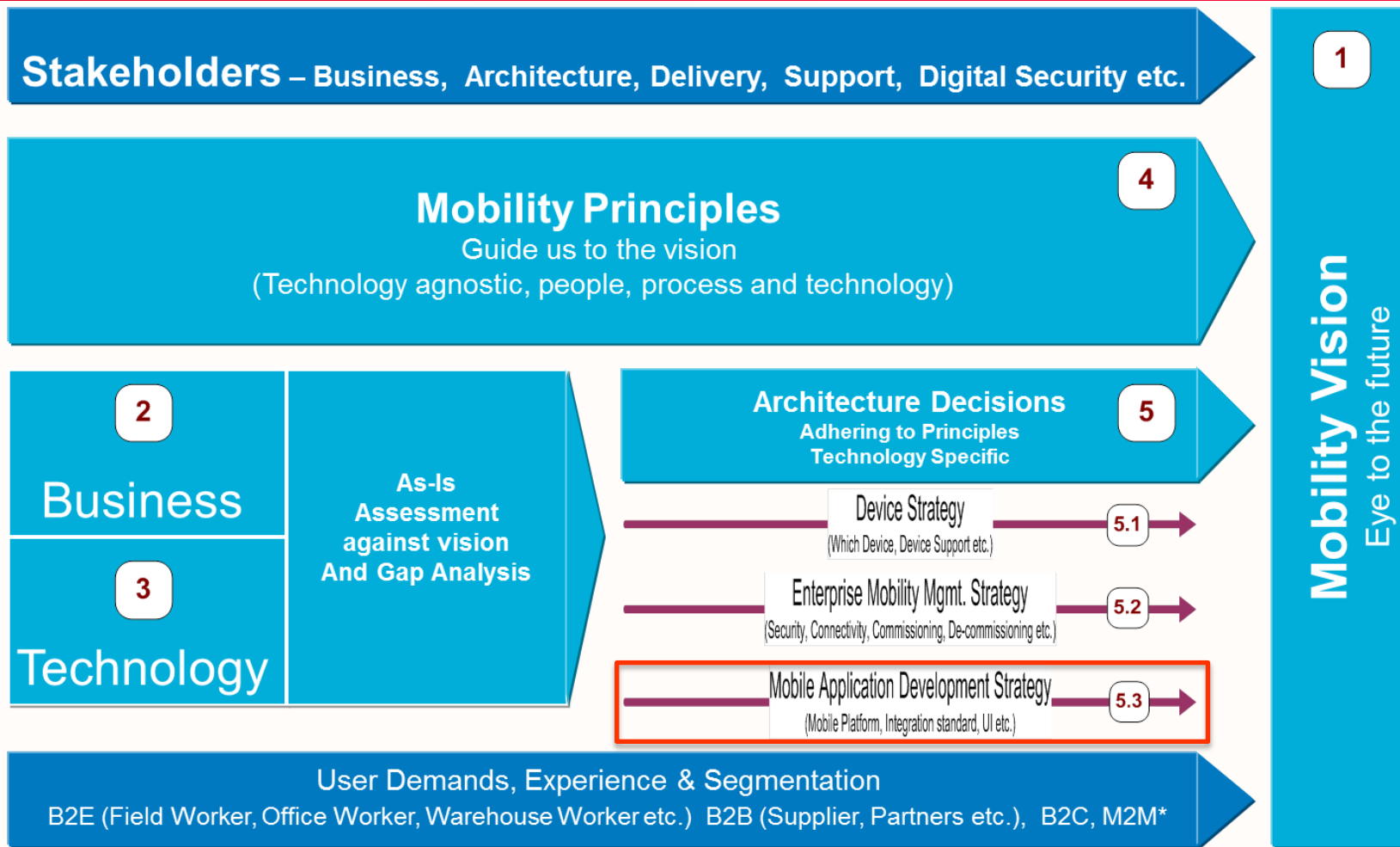
- Aim for single point of work device with companion devices like SmartWatch, SmartGlasses etc.
- iOS is the default choice but OS upgrade is a challenge. DEP and VPP programs show Apple's commitment to Enterprise.
- Android is emerging as a serious contender especially with Android for work or Samsung Knox 2.4. Android is a good option where rugged devices are required.
- Windows 10 is a strong and emerging contender where existing devices and applications are windows based

Which company built this smartphone?



Enterprise Mobility Strategy

Mobile Application Development



Mobile Application Development

Buy vs Build

- Buy
 - Work Manager
 - CRM Service Manager
 - Rounds
 - Inventory Manager
 - Fiori
- Build
 - SMP based Hybrid Apps
 - SMP based Native Apps

nationalgrid



FOSS



Services we offer

- End to End Build or Quality Assurance
- Rapid Deployment Solutions for Buy applications
- Co innovate for Build Applications
- SAP Fiori and Personas



Offline Mobile App Iceberg



Comparison UI Development Approach

	Native (Mobile Platform)	Hybrid (Mobile platform)
Offline Operation	+++	+++
Heavy Usage (Users or Freq. of use)	+++	++
Multi Channel Support	+	++
Hi Fidelity UI e.g. Games etc.	+++	++
Data Security	+++	+++
Native controls like gyroscope etc.	+++	++
Responsiveness	+++	++
TCO (Cost)	+++	++
Complexity	++	+++
Skillset Availability	++	++
Push Notifications	+++	+++
Ease of Deployment	+	+
App store	+++	+++
MAM Support	+++	+

UI Development Approach

Summary

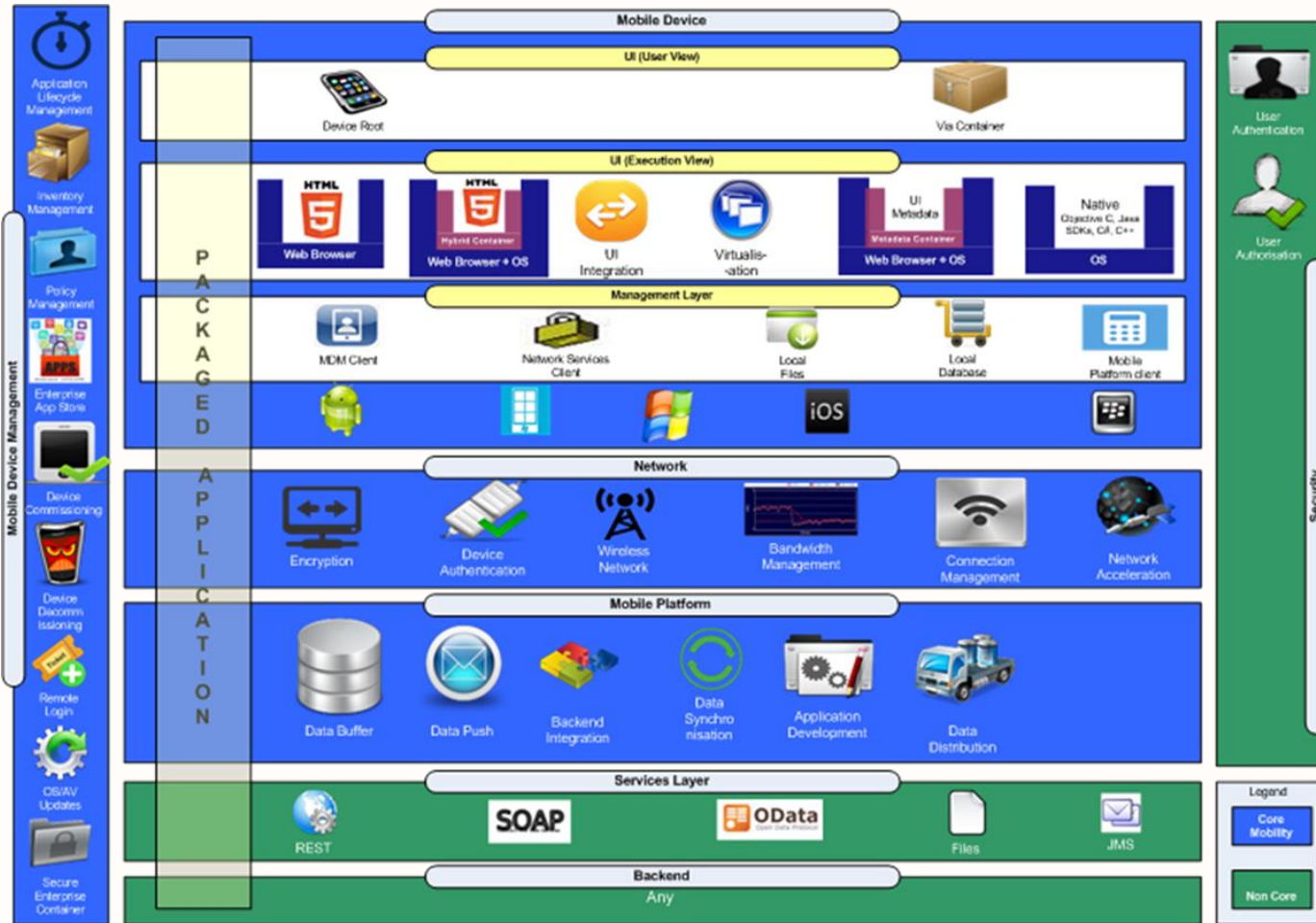
- Most enterprise use cases can be met using Hybrid
- For consumer apps with many expected users go Native
- For heavy usage applications go Native
- If vendor provides a native app as part of a packaged solution – best of both worlds
- To enable BYOD go Hybrid
- If only one target platform and no immediate plans to add others go Native
- For Hi-Fidelity applications go Native
- For heavy native control use go Native

Demo and References

- HTML5 Sencha App vs. native iPhone App side by side (HD) - https://www.youtube.com/watch?v=-61h8UGsi_M
- YouTube HTML5 App vs YouTube Native App - <https://www.youtube.com/watch?v=uB9-K2EzT24>
- Salesforce comparison - https://developer.salesforce.com/page/Native,_HTML5,_or_Hybrid:_Understanding_Your_Mobile_Application_Development_Options

Thank You!
Questions and Answers

Mobility Reference Architecture



Example Use Cases

■ Productivity

- Email
- Calendar
- Expenses request/approval
- Timesheet submit/approval
- Workflow Approval

■ Collaboration

- IM
- Video Chat
- File sharing
- Voice
- Live Meeting

■ Process Applications

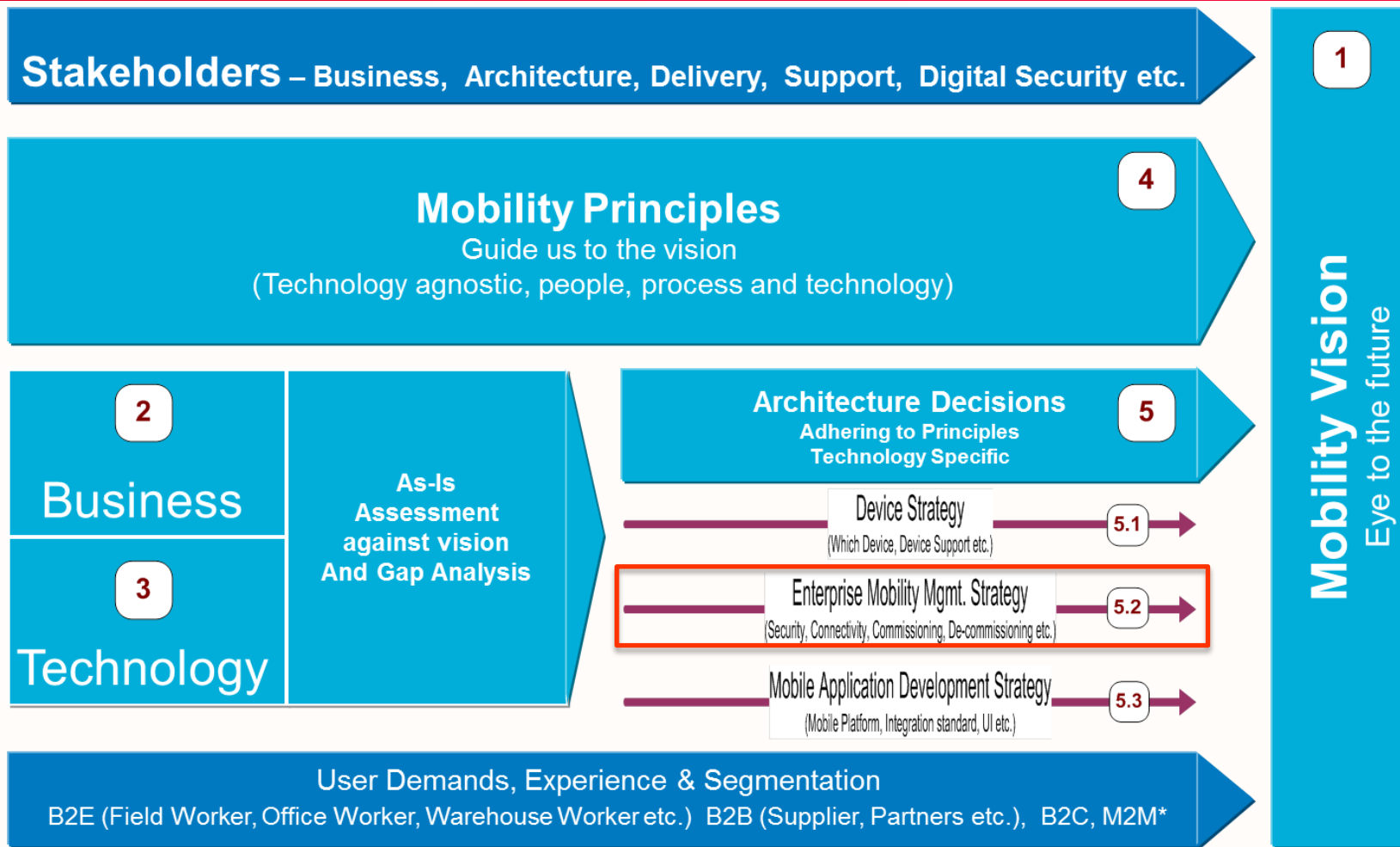
- Work Manager (includes asset management)
- GIS Applications
- Mobile Analytics

■ Work Clearance Management

- Mobile Web
- Intranet
- External Customer portal

Enterprise Mobility Strategy

EMM & BYOD



EMM and BYOD

CO

- Company devices
- Full Company control

COPE

- Company Devices
- Personal Use allowed
- Either by loose MDM policies or Containers (Knox/Android for Work)

BYOD Basic

- All major EMMs or EAS
- Productivity Applications only

BYOD Intermediate

- All major EMMs
- Needs MDM profile
- Process and Custom apps
- Implications on App Architecture

BYOD Advanced

- Self defending apps
- Example O365
- Mocana/Apperian pure MAM
- Implications on Application Architecture