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An Overview of COBIT Principals for Bring Your Own Policy Implementation

Dr. Khan Rahat Afreen
Department of Computer Science and Engineering,
Deogiri Institute of Engineering and Management Studies

Abstract: **COBIT is a business framework for management and governance of enterprise IT, provided by ISACA, an international professional association focused on IT Governance. As per ISACA, "COBIT helps IT professionals and enterprise leaders fulfill their IT governance and management responsibilities, particularly in the areas of assurance, security, risk and control, and deliver value to the business." BYO bring your own is a concept where employees can use their own systems, software, technology for the purpose of accomplishing organizational tasks. It is gaining rapid acceptance by the employers although it has a lot of challenges. COBIT can be the answer to the many questions faced while framing organizational policies around BYOD. While implementing BYOD, major challenges faced are not only from its technical implementation aspect but also from policy implementation and monitoring aspect. Companies may lose sensitive data if it resides on employee-owned devices. COBIT documentation provided by ISACA supports many of the essential causes that are a reason for BYOD initiative. The seven enablers provide an effective foundation for any organization to embrace BYOD policy in a well-structured manner.**

***Keywords*: BYOD, COBIT, ISACA, COBIT Enablers.**

I. INTRODUCTION

Since its introduction in 2009 [1], Bring Your Own Device – BYOD concept has been positively considered by organizations from all fields as an alternative for organizational resource provision. Technical comfort level of employee, frequent up gradation of personal devices as compared to organizational systems, and cost cutting are few reasons for ready acceptance of BYOD by organization.

COBIT- Control Objectives for Information and Related Technology, as initially called, is a business framework for management and governance of enterprise IT, provided by ISACA- Information System Audit and Control Association, as initially called [1], an international professional association focused on IT Governance. As per ISACA, "COBIT helps IT professionals and enterprise leaders fulfill their IT governance and management responsibilities, particularly in the areas of assurance, security, risk and control, and deliver value to the business."

Looking at the challenges faced while implementing BYOD, COBIT can be the answer to the many questions faced while framing organizational policies around BYOD. Also there will be some factors which will be interesting to focus if we consider COBIT to support BYOD policy framework of an organization.

There are a lot of issues which are needed to be answered. While implementing BYOD, major challenges faced are not only from its technical implementation aspect but also from policy implementation and monitoring aspect. Some of the issues like device vulnerabilities, malware, specifically for devices like cell phones and tablets [2], [3] can be a result of simple negligence by an individual while handling personally owned devices. To be specific, to implement the BYOD concept efficiently in any organizations, it is as much essential to implement and follow the rules and policies as to provide technical support for the entire concept. It is found that one in three organizations that allowed unrestricted access to corporate resources via personal cell phones faced troubling consequences. One in five companies in the same survey admitted losing business data after personal devices were lost or stolen [4] Employers and employees must enter into a mutual agreement that includes a code of conduct and software licensing guidelines preserving employee privacy as employers will have access to their employee's personal devices and employee device management by employer for example if the device needed to be remotely wiped.

Analysts and technology vendors justify that the money saved by businesses in using their employee's devices is enough to pay for related investments in security and management infrastructure [5]

II. BYOD POLICY IMPLEMENTATION CHALLENGES

COBIT documentation provided by ISACA supports many of the essential causes that are a reason for BYOD initiative. Like in executive summary, ISACA recognizes Achieving operational excellence through the reliable and efficient application of technology as one of the efforts taken by today's enterprises to enhance their business goals.

COBIT makes distinction between governances and management and provides definition and well identified

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responsibilities of both. It gives key five principals for governance and management of enterprise IT

COBIT also gives seven categories of enablers. An enabler is anything that makes something possible, in this case; anything that can help achieve objective of an enterprise. The enablers given by COBIT are:

- Principles, Policies and Frameworks
- Processes
- Organisational Structures
- Culture, Ethics and Behaviour
- Information
- Services, Infrastructure and Applications
- People, Skills and Competencies

The seven enablers provide an effective foundation for any organization to embrace BYOD policy in a well-defined manner

COBIT principals

Right from the executive summary, COBIT documentation provided by ISACA supports many of the essential causes that are a reason for BYOD initiative.

Like in executive summary, ISACA recognizes Achieving operational excellence through the reliable and efficient application of technology as one of the efforts taken by today's enterprises to enhance their business goals. Below is the summary of COBIT Principals and its probable mapping with various BYOD issues.

COBIT 5 Principals	Main Focus	Mapping with BYOD
Principle 1: Meeting Stakeholder Needs	The very purpose of existence of any enterprise and takes care to provide all of the required processes and other enablers to support business value creation through the use of IT	This principal discusses to maintain balance between the realisation of benefits and the optimization of risk and use of resources, which in case of BYOD will be employee technologies and systems added.
Principle 2: Covering the Enterprise End-to-end	Talks about integrating governance of enterprise IT into enterprise governance, considers information and related technologies as an asset	Employees will be carrying this asset into their own devices i.e. an employee asset
Principle 3: Applying a Single, Integrated Framework	From among all available IT related standards and good practices; COBIT 5 provides an overarching framework for governance and management of enterprise IT. Also aligns with relevant standards and practices at higher level	Such alignment will be crucial for systems with varying configurations and specifications brought in by the employees to serve enterprise goals
Principle 4: Enabling a Holistic Approach	This principal introduces COBIT 5's enablers that support the implementation of a comprehensive governance and management system for enterprise IT	*
Principle 5: Separating Governance from Management	The COBIT 5 framework makes a clear distinction between governance and management with a justification that these two disciplines different types of activities, require different organizational structures and serve different purposes	This can be very helpful to lay down policies and procedures of BYOD and to target various issues that arise while implementing BYO concept for any organization

Table 1: COBIT 5 Principals and possible relation with BYOD

* A detailed description is possible with respect to all the COBIT Enablers

It is interesting to note that Principal 2 of COBIT specifies that it considers information and related technologies as an asset. This with reference to BYOD could be an interesting aspect if technology/ systems owned by employee are used to deal enterprise information - an enterprise asset.

The seven enablers on the other hand can basically provide an effective foundation for any organization to embrace BYOD policy in a well-defined manner. COBIT provides guidelines in the area of innovation and emerging technologies. As BYOD concept is still evolving into multiple sub categories like BYOT (Technology), BYOS (System) BYOE (encryption), BYOK (keys), obviously guidelines given by COBIT can be effective for proper implementations and policy Makings. BYOD is basically adopted to fully utilize employee skills, mainly focusing on enhancing employee capabilities. COBIT focuses stake holder's needs having one of three main governance objectives as resource optimization.

III. CONCLUSION

BYOD is still an evolving concept and surprisingly readily adopted by developing countries. The challenges in implementing BYOD include both requirements of efficient technical solution as well as laying down proper policies. Looking into basic principles of COBIT, it can be an effective control infrastructure helping organizations which are interested to embrace BYOD.

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