

Proposal of MDM Management Framework for BYOD use of Large Companies

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Abstract

Result of the confirmation of the analytical data security assessment project of Samsung control items, large companies, learned that there is a difference in the level of implementing the management policy to the characteristics of the business of the department and affiliated companies. It is intended to provide a management framework of MDM [1] security solutions for the application of this information, to prevent the outflow of internal assets in BYOD [2]. Currently, research and functional evaluation of MDM security solutions is the major. However, when introducing the MDM solutions, research management framework to reflect the characteristics of the amplifier section of the department and affiliates in the large companies, considering the technical and policy is not presented, so far the hard way are. Therefore, management framework that can be with the data collected during the analysis of the questionnaire Samsung security management existing items, to understand the need for MDM security solutions for each department and affiliated companies, to make effective use of this I will try to offer.

Keywords: BYOD; MDM; Security; Solution

1. Introduction

1.1. Background

BYOD also be used to work the personal portable terminal to the social phenomenon typical of (Consumerization) IT consumers of to make the business of IT goods privately owned (Bring Your Own Device) trend has attracted attention. By leveraging the business mobile terminal that is personalized, without restrictions of time and place, allows business support easily, BYOD favorite company to provide the convenience and efficiency of business operations, and enterprise security require the management of equipment of individual employees for.

The alternative for enterprise information security, MDM (Mobile Device Management) technology [3], have their advantages and disadvantages. Among them, by enabling the setting of a flexible security policy according to the situation of the enterprise and to provide a method of controlling various devices, not only to maintain strong security, MDM is lost / stolen to prevent the outflow of mobile content due, manage only the data area of work-related, which minimizes the concern of personal information leakage.

Therefore, we have introduced the MDM solution to simultaneously solve the problem of protection of personal information and security issues business many companies along the BYOD trend, but measures to apply to fit business MDM to apply the MDM, and it is possible to balance the efficiency of operations and corporate convenience of individuals,

formulate a security policy, I shall explore how to manage the equipment long term, continuous wax.

In addition, it prevents the waste of equipment resources, put the maximum efficiency effectively if you do not reflect Run the security evaluation project of Samsung control base, the introduction of security solutions such as MDM characteristic data of guessable business it'd be. It was decided to provide this MDM management framework.

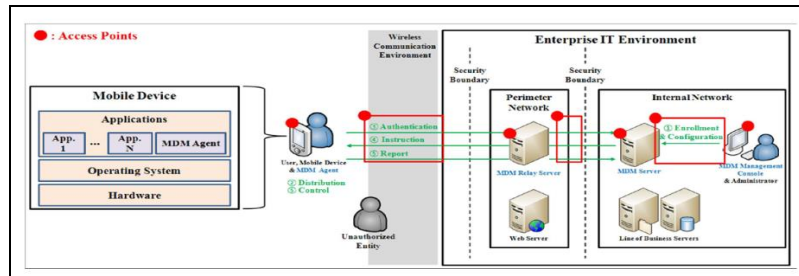


Figure 1. MDM Structures Utilizing BYOD

1.2. Present Condition

According to the press release of the survey and Council sign Gartner in the IT field, Summit 2012 management "Gartner Security & Risk Protection of Personal Information, such as security and due to BYOD in (Gartner Security & Risk Management Summit2012) '[4], human resources, legal, network, marketing , stressed the importance of BYOD, security policy in various fields such as business, it also said the MDM and security way for BYOD, 20 companies more than has been developing MDM, to sell the product are.

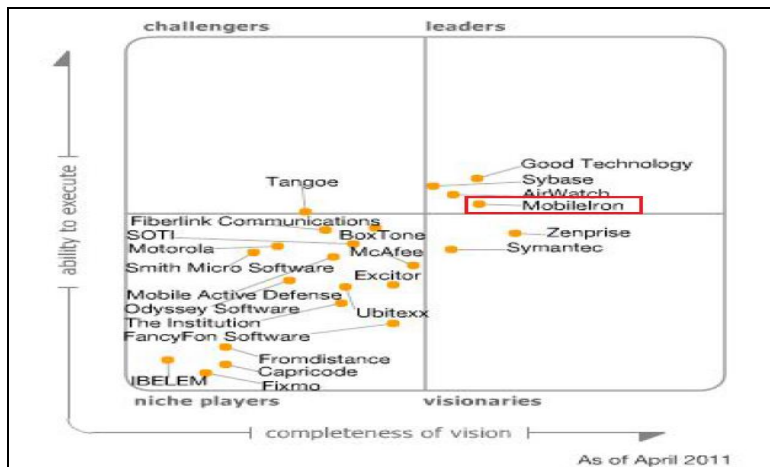


Figure 2. Gartner 2011.4.
 "Magic Quadrant for Mobile Device Management Software"

Demand for MDM solutions companies to increase, MDM market is showing a tendency to increase continuously until 2012-2009. The license revenue of MDM international market in 2011, has grown 128 percent compared to 2010, through enhancements such as content management functionality of the application, the rate of increase of 145% is expected in 2012 [5].

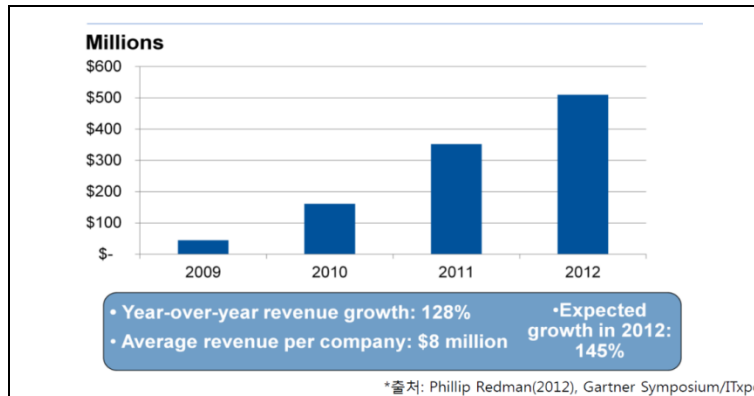


Figure 3. MDM Global Licensing Revenue

2. Main Discourse

Examine policy, a technical considerations for solution application, please check the matters to be taken into account if the company is to introduce a solution.

2.1. Problem

In preparation for the information leakage of companies, and therefore get the management of personal equipment, BYOD policy of the company, management of the wrong policies of the company is able to induce the infringement of personal privacy. Also, limit or physically mobile phone use, some companies has placed differentiation for use in business applications according to the user, but this is likely to drop the effect of mobile operating environment gives but I exist. In addition, large companies such as Samsung, introduced the MDM solution to not have to reflect the characteristics of the business sector and related companies, but the situation becomes an apparatus idle occurs.

Thus, according to the procedure of security guide, to support the management functions of equipment and improvement of security of enterprise mobile device to the MDM is a device management solution that can manage mobile content flexibly, companies, policy manager this I introduce to. Further, MDM management framework that reflects the characteristics of the operations is required.

2.2. Considerations

The BYOD upon application, taking into account the need for various scenarios to minimize the inconvenience of the need for policies for data loss prevention business, it is necessary to develop a security policy. In addition, BYOD policies depending on the nature of the business enterprise, considering the security level and corporate economics of BYOD and efficiency of mobile business is required.

Therefore, it is necessary in accordance with the importance of the information to clarify the BYOD managed initially by considering the responsibilities and duties and access to subdivide the user to apply data management policies and equipment accordingly. Apply from the management level of the minimum that are required in the second, to increase the security level in stages, minimizing the reluctance of users for personal device management. To consider applying the security policy limited to the application of the relevant companies relating to major business data scenarios that can be at the end, to be applied by dividing for business and personal use of BYOD.

Is based on the securing of trust with employees of adopters according to the situation of the enterprise, mobile device management tool in order to apply the management policy of flexible equipment and security that can be accessed corporate data from mobile devices, personal it is necessary.

First, in consideration of the introduction of the MDM solution is extended to be able to apply the policy function based such as access system linkage, to the position of the user, security guides company that is applied when accessing corporate data through personal devices I share with the user in advance. Then, set the evaluation criteria in order to be carried out in public evaluation of management functions with enough time, to ensure the trust of users. In addition, by controlling resistance minimization of individual equipment and infringement of personal privacy through the prior consent procedures and the protection of personal information related to fully explain the need for device management solution introduced in advance, to induce participation voluntarily it provides a method of or to compensate.

The matters to be taken into account when companies to introduce MDM, the possibility that the company has developed specialized in the MDM, provides a wealth of features to incorporate a lot of customer requirements also exist, but basically because it is a MDM companies on the basis of competitiveness that has as an IT solutions from other vendors, added MDM function, stage to consider the features of the company MDM is required [6].

Company Division	Explanation
Mobile platform vendors	MDM provides its OS-specific, but there are restrictions on other OS.
Wireless email vendor	A company that provides enterprise wireless e-mail service to e-mail the company in the case of a large proportion of business should be considered.
Wireless Network Management Vendor	On the basis of network management technology to provide the MDM (End-to-End) QoS function is emphasized E2E
Security specialist vendors	Encryption, access control, and I offer MDMD data governance management was emphasized.
Remote support solution vendors	To provide MDM with combined strengths in a central configuration management (Over-the-Air) OTA troubleshooting based on remote support solutions and customer management.
PC management solution vendors	I offer MDM management know-how of the PC life cycle is reflected.
MDM vendor specializing in	Support multiple OS and rich feature is possible to MDM specialist skilled in the art.

Figure 4. MDM vendor Compare Benefits

Then, in order to perform the original function MDM that BYOD management, and verifying that it is provided to faithfully and management across the entire region, the security element based on the viewpoint of life cycle management terminal "All current it is necessary.

Each vendor, we have proposed a lifecycle their system, it is possible to let embodied the life cycle of the terminal management that reflects the characteristics of BOYD

business organization they belong to, to provide MDM functionality that fits it I will confirm whether or not.

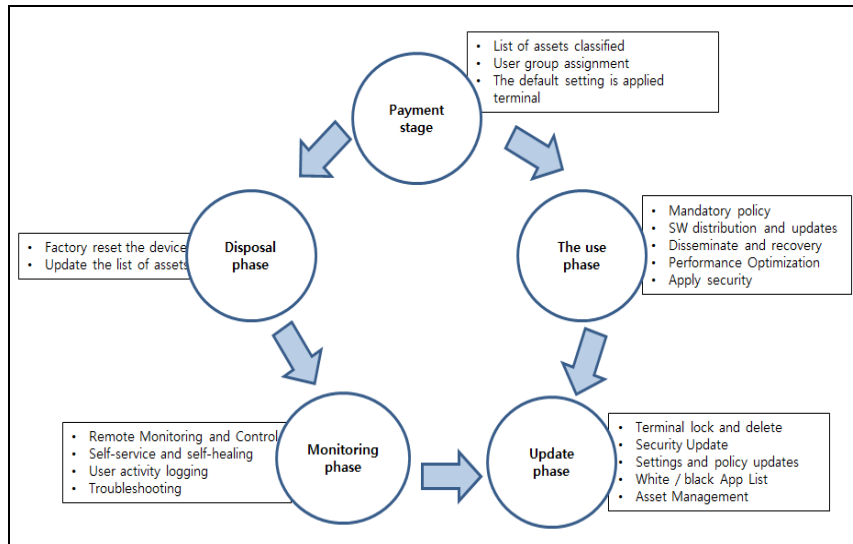


Figure 5. MDM Lifecycle Coverage

2.3. Study how to Manage Improvement

In order to maintain both the potential to induce the infringement of personal privacy by policy management and corporate need the management of personal equipment with the information leakage of company, companies, BYOD policy of the company, in a corporate environment collect materials for creating a Check List for introducing a solution that is appropriate, to minimize the inconvenience through research enterprise BYOD users. Further, based on the data collected with the data that was created, to create a variety of scenarios, introducing the solution, create a metric for each department, and to consider whether to implement.

In addition, introducing MDM security solutions and associated before BYOD need, the more large companies, because the variable exists many evaluation risks that could each variable is caused by, the loss management system to is required. Further, should there is a way that can be analyzed each subsidiary divisions and the possibility of utilization of importance.

The metrics, security guide for creating by classifying platforms, communications environment, groupware introduction, use of internal documents, management, and internal documents destroyed / collection management policy, to comply with this is necessary.

Further, in order to support management functions of the equipment and improved security business in MDM introduce a measure technical, to study the evaluation items and improve the 2factor authentication method for the access control solution I seek measures.

3. Conclusion

When you check the background and current status of MDM implementation, introducing the MDM solution of large companies, said that there is no need to refer to the considerations technical and political. Further, since the division of the sequence is different, it is clarified that the management system can determine the possibility of

utilizing the security risk assessment which can reflect respectively the characteristics of the business is prepared.

Future, proposal management framework of these, it is intended to embody throughout the study. Because on the basis of what has been raised through Samsung existing project, to understand the characteristics of the operations through a survey analysis and variables in policies and equipment introduced to enhance the security system global enterprises to measure this I have a concept of evaluation items. In addition, through the feedback of the actual outcome, and the weighting of the importance of the introduction of security equipment to the characteristics of each business, you are trying to calculate the cost of investment to security for risk management.

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