

Cloud Computing and Open Source Software at IVK

1. Introduction

Cloud computing and open source software are two hot topics in today’s IT industry. They are very attractive and enticing technologies because they promise low costs, ease of use, flexibility, and many other benefits. Because of these features many companies quickly adopt, with goals such as cutting their IT budget or decreasing their operating expenses. However there are many “hidden” costs and unforeseen issues that can arise with using these technologies, such as service outages, security, and compatibility issues. Therefore we should carefully analyze these options and proceed with caution. The chart below highlights the pros and cons of each technology:

2. Evaluation:

	Open Source Software	Cloud Computing
Pros	<ul style="list-style-type: none"> • Free or low cost • Flexible • Reliable • “Try before you buy” 	<ul style="list-style-type: none"> • Cheaper (than on-site) • Facilitates collaboration • Facilitates data mining • Application hosting • “Pay as you go”
Cons	<ul style="list-style-type: none"> • Security issues • Licensing restrictions • Lack of formal support 	<ul style="list-style-type: none"> • Security • Reliability • Data regulations/privacy

Given the pros and cons identified in the chart above **the following arguments can be made:**

	Open Source Software	Cloud Computing
For	Using OSS at IVK can lower our software costs throughout the company. With experienced programmers, it is possible to customize software to meet our business needs at IVK. Certain OSS may be useful for a business unit or specific purpose.	Cloud computing enables IVK to outsource its IT infrastructure to reduce costs. We can host applications in the cloud and make our systems available to IVK employees and customers anytime and anywhere there is internet access, increasing collaboration amongst our business units and productivity.
Against	Although OSS is free or very cheap, it may lack the functionality and security we need and modifications/customization will likely require great expertise. The source code is also available to anyone, creating potential security issues. Licensing restrictions may not allow modification.	We have to be careful with what vendor we choose to ensure that they provide adequate security for our data and systems. Also, if the cloud service goes down, IVK’s business will come to a halt. There are legal regulations for data privacy. We have to ensure that customer and company data is kept safe and confidential.

3. Recommendation:

Based on the evaluation above, I recommend that IVK pursue a mixed approach of implementing both open source software and cloud computing. There are aspects of both technologies that can provide great benefits and capabilities for IVK, such as replacing applications and systems and services hosted on the cloud. However there are parts that provide unnecessary risks, such as customer’s financial data on the cloud, and service outages. My plan below aims to capture the benefits of both technologies, while mitigating the risks.

	Steps	Time
1.	Examine business units to see what applications and systems could be replaced by OSS <ul style="list-style-type: none"> • Apache’s Open Office could replace MS Office, lowering cuts • Most OSS are free or low cost, so we can test and sample before we implement 	2 months
2.	Create a team to further research cloud computing and what systems/ services would be best on the cloud <ul style="list-style-type: none"> • Cloud computing can host applications and systems, lowering IT operating costs 	3 months
3.	Explore Linux OS as potential replacement for Windows <ul style="list-style-type: none"> • Linux OS works well in back end processing, such as our IT department • Linux OS is becoming more user friendly, decreasing training costs • Linux OS is free and more companies are adopting it today 	2 months
4.	Phased implementation and adoption of cloud and OSS <ul style="list-style-type: none"> • No need to rush and adopt enterprise wide, test and see what works • Phased approach enables us to compare and track progress and effectiveness • Mitigates risk and streamlines overall process 	4-6 months

Below are the important criteria to consider when thinking about these new technologies. Overall, both score well and offer a high performance to cost trade off. Important to note: Medium scores reflected in cloud computing due to variety of vendors that offer the service. Many charge different rates and offer different features and services. Thus, it is important to analyze cloud computing vendors independently on a case to case basis.

	Open Source Software	Cloud Computing
Cost	Low	Medium
Security	Medium	Medium
Reliability	High	Medium
Flexibility	Medium	High

Sources:

- What Every CEO Needs to Know about the Cloud – Harvard Business Review
- A Managerial Overview of Open Source Software – Business Horizon
- What CFOs Need to Hear about Cloud Computing and Consumer IT – CIO Magazine
- Adventures of an IT Leader- Robert Austin