

## White Paper



### Lean IT Transformation

Reduce Total Cost of Ownership, Guarantee Quality-of-Service and Achieve Business Agility

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#### Abstract

Organizations have made huge investments in IT infrastructure and are continuously spending on maintenance, upgrades and related administration & management. Lean IT Transformation is an approach for creating new cost-effective, agile and flexible IT service models by switching from company-owned IT hardware, software & services to per-use based models. It leverages the latest trends in cloud computing technology and next generation SaaS business models. This approach will help organizations to significantly reduce total cost of ownership, help achieve desired business agility and guarantee quality-of-service through new IT service models. We will illustrate the cost-benefit analysis of lean IT transformation approach in Enterprise Collaboration scenario.

## Overview

The traditional IT has multiple fixed and variable cost components involved. Organizations have invested a large fixed amount for initial infrastructure setup and continue to spend variably for management, monitoring, support for these IT systems to sustain day-to-day business operations.

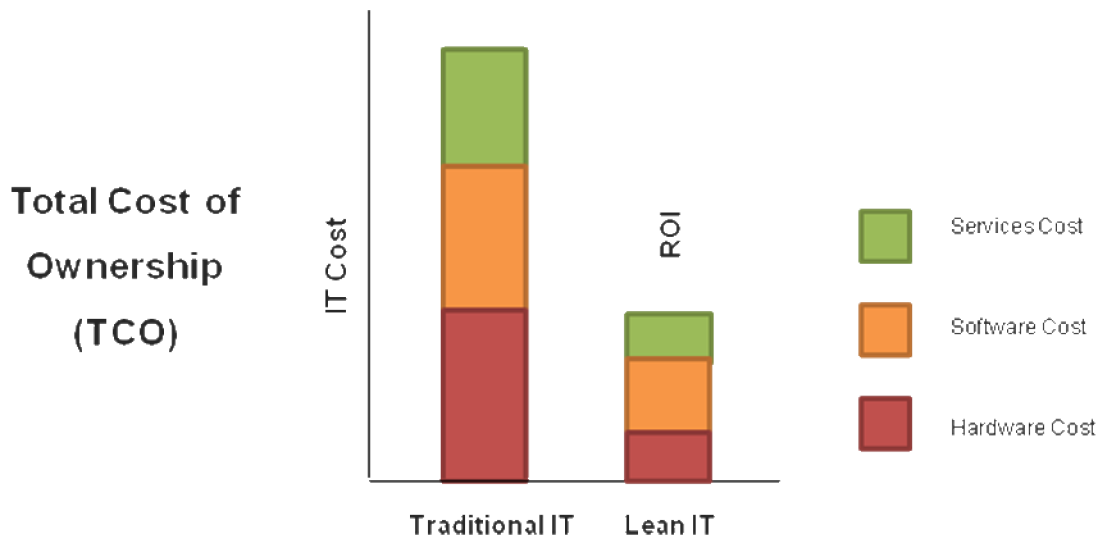


Figure 1: Traditional IT Cost Dimensions

We all have experienced that despite heavy investments by organizations in IT, there is always a huge gap between what businesses expects from IT and what IT can deliver-back to the business. The issue becomes severe when it comes to reducing the time-to-market new products & services or facilitating quick changes in critical business functions related to partners, suppliers or customers.

On the other hand, IT has justified limitations in terms of complexity and heterogeneity of existing IT environment, inflexible legacy though business critical IT systems, software, hardware & vendor lock-in and so on.

The following summarizes the key business expectations, key challenges faced by IT and how the business gets impacted in terms of growth, operations efficiency, customer satisfaction and competitive edge:

Key Business Expectations	Key Challenges faced by IT	Business Impact of IT Constraints
Short time-to-market new products & services	<ul style="list-style-type: none"> <li>Inflexible legacy IT applications</li> <li>Heterogeneous IT environment</li> <li>Disintegrated &amp; redundant IT portfolio</li> </ul>	<ul style="list-style-type: none"> <li>Subdued growth</li> <li>Dim competitive edge</li> <li>Slaughtered market share</li> </ul>
Agility & Flexibility to modify critical business functions related to partners, suppliers, customers	<ul style="list-style-type: none"> <li>Complexity of IT applications</li> <li>Inflexible business processes in IT applications</li> <li>Disintegrated &amp; heterogeneous IT portfolio</li> </ul>	<ul style="list-style-type: none"> <li>Fogged information visibility</li> <li>Inefficient decision making</li> </ul>
Adherence to Service Level Agreements (SLA) – performance, scalability, availability	<ul style="list-style-type: none"> <li>Inflexible IT infrastructure</li> <li>Infrastructure investment lock-in</li> <li>Software lock-in, Hardware lock-in, Vendor lock-in</li> </ul>	<ul style="list-style-type: none"> <li>Inadequate customer satisfaction</li> <li>Loss of customers, business</li> </ul>
Adherence to Operations Level Agreements (OLA) – tickets response time, support, operational issues	<ul style="list-style-type: none"> <li>Availability of resources and skills</li> <li>Inflexible and rigid IT processes</li> <li>Redundant and too many IT assets</li> </ul>	<ul style="list-style-type: none"> <li>Reduced employee satisfaction</li> <li>Reduced employee productivity</li> <li>Inefficiency in business operations</li> </ul>

## Lean IT Transformation

Lean IT Transformation is an attempt to resolve the above problem cost-effectively by creating new IT service models and switching from company-owned IT hardware, software & services to per-use based models. It focuses on reducing the IT infrastructure & related liabilities to reduce total cost of ownership. It focuses on changes in IT services and payment models to achieve desired business agility and flexibility without any software, hardware and vendor lock-in. It also focuses on achieving guaranteed quality-of-services from various service providers. All these themes are realized by leveraging latest trends in cloud computing technology and next generation SaaS IT service models.

The lean IT transformation approach leverages the following key strategies that results in significant business benefits:

Strategy	Business Benefit
Hardware-as-a-Service Datacenter-as-a-Service	<ul style="list-style-type: none"> <li>significant savings in the fixed IT infrastructure cost</li> <li>significant savings in the variable &amp; on-going costs related to upgrades, support, maintenance, monitoring &amp; admin</li> <li>flexibility to choose hardware services provider and reduces hardware / infrastructure lock-in issues</li> </ul>
Software-as-a-Service Platform-as-a-Service	<ul style="list-style-type: none"> <li>significant savings in the fixed software licenses cost</li> <li>significant savings in the variable &amp; on-going costs related to software upgrades, support, maintenance &amp; management</li> <li>flexibility to choose software provider and reduces software and related upgrades lock-in issues</li> </ul>
IT Services Software + Services	<ul style="list-style-type: none"> <li>considerable savings by leveraging shared service models, packaged software + services models and hosted models for custom applications&amp; related services</li> <li>competitive evaluation of different services providers along with stringent penalty clauses can help realizing best in class quality-of-service, business agility and flexibility</li> </ul>
Negotiate Service Provider Service Level Agreements (SLA)	<ul style="list-style-type: none"> <li>guaranteed quality-of-service in terms of performance, scalability and availability</li> <li>stringent penalty clauses &amp; risk-reward models around adherence of pre-negotiated SLA</li> </ul>
Negotiate Service Provider Operations Level Agreements (OLA)	<ul style="list-style-type: none"> <li>guaranteed quality-of-service requirements in terms of support response &amp; resolution duration, terms around upgrade &amp; maintenance of software, hardware and storage</li> <li>stringent penalty clauses &amp; risk-reward models around adherence of pre-negotiated OLA</li> </ul>
Negotiate Service Provider Pricing and Pricing Models	<ul style="list-style-type: none"> <li>considerable savings by leveraging shared service pricing, pay-per-use models, pay-for-capacity, pay-for-storage etc models</li> </ul>

In the next section, we will illustrate the cost-benefit analysis to of adopting lean IT transformation in Enterprise Collaboration scenario.

## Enterprise Collaboration Scenario: Lean IT Transformation

We understand that collaboration is a very wide concept and it goes much beyond emails, messengers and collaboration portals. However, for the purpose of this article, we would limit the definition of enterprise collaboration platform to the following components, which are most widely used in organizations of all the size:

- Email Exchange
- Collaboration Portal
- Messenger or Communicator
- Office Applications like word, excel, power point etc
- Other Tools like white-boards, live meeting, voice conferencing etc

For the purpose of cost-benefit analysis, we would limit our analysis to an Email solution in this scenario. The following is derived based on latest report published by Forrester, Reference [1]:

	On-premise	Google Apps	MS Online
Subscription Cost <sup>#</sup>	~ \$ 00	~ \$ 04	~ \$ 09
Infrastructure Cost	~ \$ 25	~ \$ 04	~ \$ 11
Total Cost	~ \$ 25	~ \$ 08	~ \$ 20

<sup>#</sup>cost per user per month

We learnt that Google hosted email service offer cost of approx \$ 8 per user per month for organizations of any size. It makes the on-premise Email solution completely uneconomical for the organizations with less than 15,000 people. We also noted that the Google hosted solution has only web interface and does not have offline mail client software, which might be required by most organizations.

We also found that Microsoft Hosted Exchange solution provided significantly lower costs of approx \$ 20 per user per month for the organizations with less than 30,000 people. In brief, the MS Online offers hosted Exchange, hosted SharePoint and Communicator services on Microsoft cloud platform.

We suggest readers to refer the online cost calculators provided by MS Online and Google Apps offering, Reference [2, 3] to develop a complete business case for the complete enterprise collaboration scenario. We also suggest deriving the y-o-y savings and related cost-benefit analysis for final decision making.

The business benefits for the above scenario sound attractive, but there are multiple challenges in real-life implementation of such solutions for e.g.:

- maturity of existing cloud platforms
- maturity SaaS business models
- maturity of service providers
- level of customization available with software packages
- data security and ownership challenges
- back-end enterprise integration challenges and so on

## Roadmap

We identified the key criteria that can help organizations to prioritize the transformation of existing IT infrastructure & applications on to the cloud based platform. These criteria include - business value of the application, size and complexity of the application, equivalent cloud based offering availability, integration constraints in application migration, data security & ownership constraints, overall usability experience and so on.

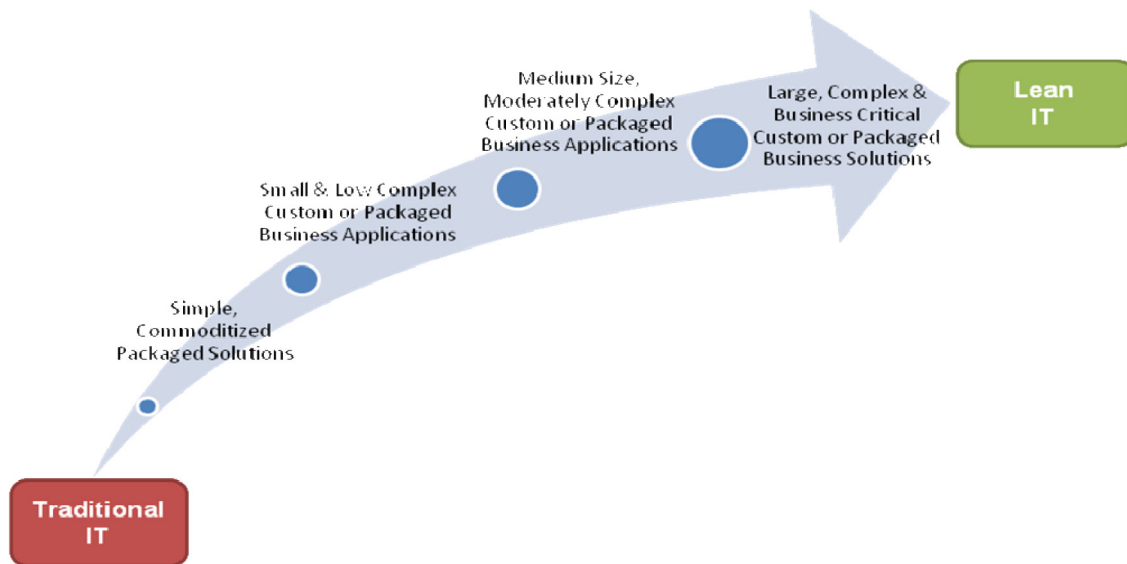


Figure 2: Lean IT Transformation Roadmap

We suggest organizations who are considering cloud based solutions as their next generation IT to undertake lean IT transformation in an iterative manner, by moving the simple & non-business critical applications first to the cloud followed by more complex & business critical applications with a careful, systematic & detailed evaluation of all service providers and their service offerings.

## Conclusion

Lean IT Transformation is a high level approach for next generation IT services suitable for organizations of any size. It promises significant cost savings, desired business agility and guarantees quality-of-service. The current IT trends and various leading analyst reports are showing that organizations have started thinking to move towards lean IT in-parts. There are multiple challenges to realize all the benefits of it and also manage seamless and smooth transition; however for several mature scenarios it is worth taking the risk.

## References

1. Should Your Email Live In The Cloud? A Comparative Cost Analysis  
<http://www.google.com/support/forum/p/Apps%20Partner/thread?tid=1b2b68b25f758a2f&hl=en>
2. Microsoft Hosted Exchange Solution Cost Calculator  
<http://www.microsoft.com/online/exchange-online.mspix>
3. See what you could save with Google Apps for messaging  
[http://www.google.com/apps/intl/en/business/messaging\\_value.html](http://www.google.com/apps/intl/en/business/messaging_value.html)

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