THE *Open* GROUP
Making standards work®

Cloud Buyers' Decision Tree

A Proposal for Discussion

A White Paper by:

The Cloud Business Artifacts Project of
The Open Group Cloud Computing Work Group, led by:

Mark Skilton
Global Director, Applications Outsourcing, Capgemini
Cloud Work Group Steering Committee and CBA Co-Chair

Penelope Gordon
Business Architect, 1Plug Corporation
Cloud Work Group Steering Committee and CBA Co-Chair

July 2010

This White Paper embodies a consensus view of members of The Open Group. It does not necessarily represent the view of any particular Open Group member.

Table of Contents

Executive Summary

This White Paper describes a Decision Tree that could be used to help you discover where Cloud opportunities and solutions might fit in your organization. It is put forward for discussion, with the intention that this discussion, and validation in the field, will result in a practical tool for use by enterprises.

In reverse mode, this Decision Tree can be used to quickly identify the types of business situations for which a particular type of Cloud offering will deliver the most value.

Because there are likely to be exceptions to the principles on which this tool is based, it should not be used as the sole source of guidance on Cloud fit. And because this tool only considers a granular set of business requirements at a particular point in time, several iterations for each of numerous business situations would be required to generate appropriate input to a corporate-level Cloud adoption strategy.

This Decision Tree White Paper describes:

- Ten decision nodes and the navigation through the nodes based on whether the response to each node is "yes" or "no

- The possible path through the nodes and fit recommendations for each path

- Solution considerations which refine and moderate the fit recommendations

The Tree is visually summarized in Figure 1, and is described in the following sections. Figure 1 is a simplification; explanatory text accompanies each decision node.
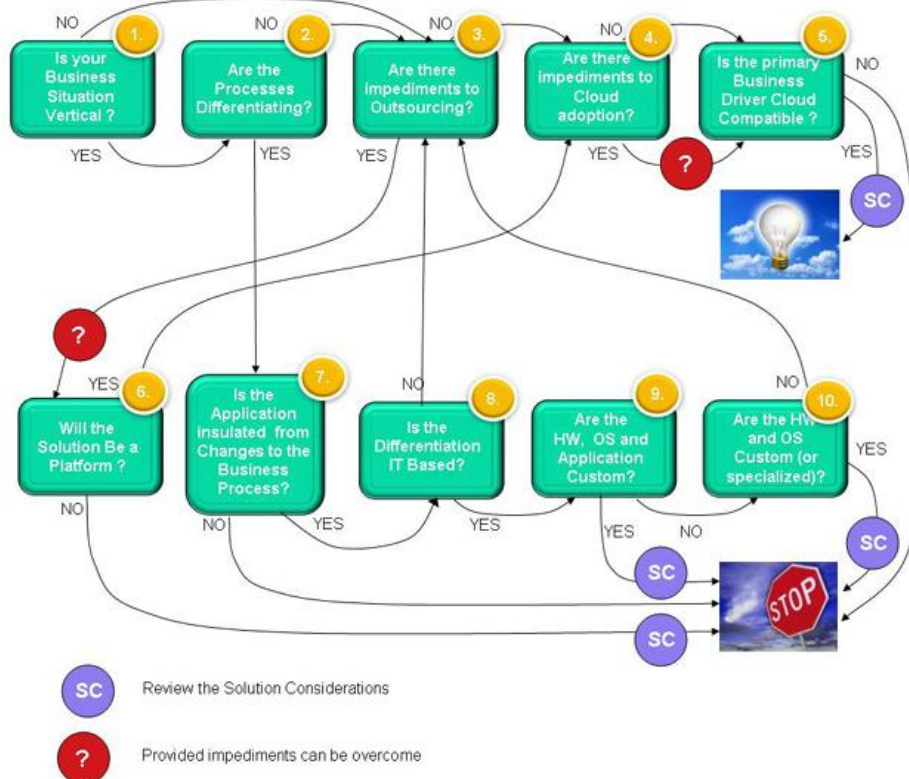

Figure 1: Summary of the Cloud Buyers' Decision Tree

Introduction

This White Paper describes a Decision Tree that could be used to help you discover where Cloud opportunities and solutions might fit in your organization. It is put forward for discussion, with the intention that this discussion, and validation in the field, will result in a practical tool for use by enterprises.

Your business situation is either a problem or an opportunity for which you are seeking a solution that includes IT enablement. This Tree presupposes that the current and/or future state of the IT resources for your business situation does and/or will not meet requirements.

If you are a Cloud seller, then use this Decision Tree in reverse to determine for which business situations your proposed offering would be a good fit.

Because there are likely to be exceptions to the principles on which this tool is based, it should not be used as the sole source of guidance on Cloud fit. And because this tool only considers a granular set of business requirements at a particular point in time, several iterations for each of numerous business situations would be required to generate appropriate input to a corporate-level Cloud adoption strategy.

Depending on your objectives, respond either on the basis of your as-is or to-be state. Start with the first decision node – 1. Is Your Business Situation Vertical? – and then navigate through the other decision nodes as instructed based on your yes/no decisions. Or, if you are a Cloud seller, identify the paths which end in fit recommendations which are compatible with your offering, and follow those paths up to gain an understating of the associated business situations.

The Questions

Question 1: Is your Business Situation Vertical?
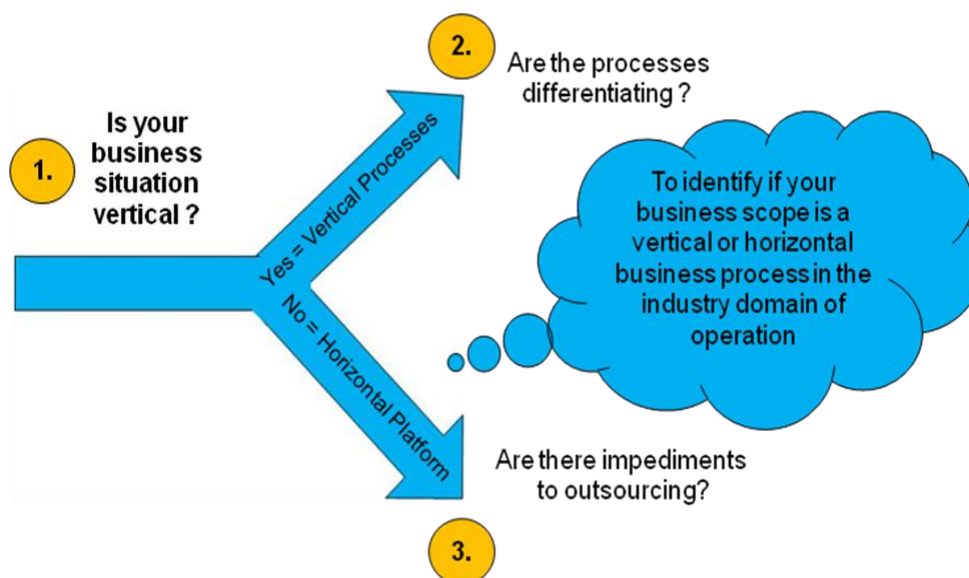
Figure 2: Decision Process for Question 1

Objective

To identify whether your business scope is a vertical or horizontal business process in the industry domain of operation.

Decision	Definition	Next Decision	Objective
Yes: Vertical	There are inter-dependencies between your business process, application, platform, and infrastructure layers. For example, your business processes rely on particular applications software. "Vertical" in this context does not refer to "industry vertical" or "geo vertical".	Go to Question 2.	Determine which layers (see Question 6) should be outsourced; and – whether outsourced or in-house – for which layers should Cloud solutions be considered.
No: Horizontal	No inter-dependencies between your business process, application, platform, and infrastructure layers	Go to Question 3.	Determine how much of each solution layer should be outsourced or in-house, and for which of those decisions should Cloud solutions be considered.

Previous Steps

None.

Question 2: Are the Processes Differentiating?
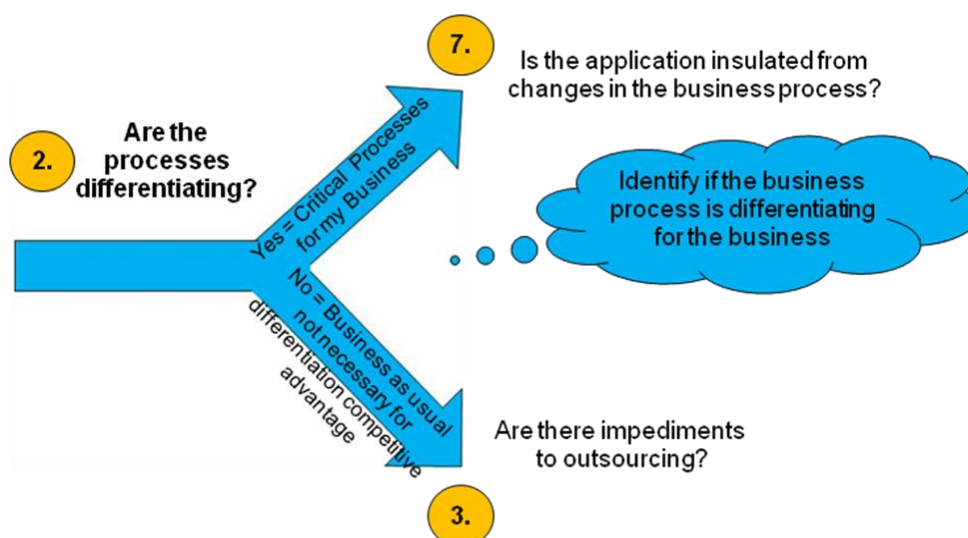
Figure 3: Decision Process for Question 2

Objective

Identify if the Business Process is differentiating for the business. This is to determine whether the business drivers and performance of this process are critical to the competitiveness and cost-effective operation of the enterprise. Differentiating business process are the only processes for which a business case for in-house, custom, dedicated enablement independent of the rest of the business portfolio can be readily made.

Decision	Definition	Next Decision	Objective
Yes: Differentiating	Processes which are integral to a business' competitive advantage.	Go to Question 7.	Keep competitors from adopting.
No: Non-differentiating	Business-as-usual or external compliance processes which are not significant contributors to a business' competitive advantage.	Go to Question 3.	Keep investments to the minimum required and/or market parity.

Previous Steps

Question 1: Is your business situation vertical? Yes

Question 3: Are there Impediments to Outsourcing?
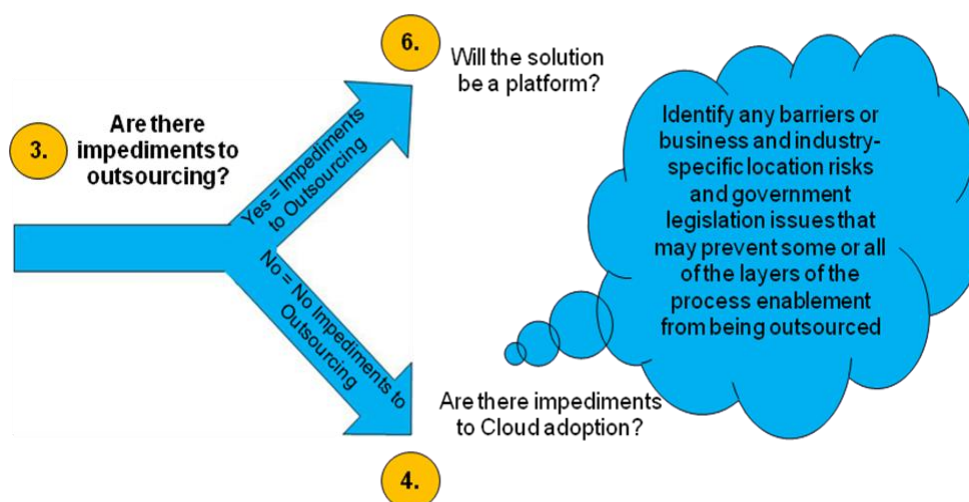
Figure 4: Decision Process for Question 3

Objective

Identify any barriers or business and industry-specific location risks and government legislation issues that may prevent some or all of the layers of the process enablement from being outsourced.

Impediments to outsourcing include:

- Complementary Requirements Profile to in-house differentiating requirements
- Labor contracts
- Long-term leases
- Switching costs
- Fixed assets with depreciation value
- Immature business architecture
- Business culture
- Geographic location sovereignty rules
- Industry Regulation
- Compliance audit rules
- Community relations

Decision	Definition	Next Decision	Objective
Yes: Impediments to Outsourcing	Your business situation includes one or more of the Impediments to Outsourcing, such as long-term labor contracts and enterprise licenses; aspects of your business environment would impede an outsourcing solution.	Public Cloud is not a good fit unless the impediments to outsourcing are addressed. Go to Question 6.	Determine whether a private PaaS (Cloud) is a good fit.
No: No Impediments to Outsourcing	Your business situation does not include any of the Impediments to Outsourcing; your business environment does not have aspects which would impede an outsourcing solution.	Go to Question 4.	Avoid pursuing a public Cloud or other form of outsourcing solution without first having addressed the impediments to doing so.

Previous Steps

Question 1: Is your business situation vertical? No

Question 2: Are the processes differentiating? No

Question 8: Is the differentiation IT-based? No

Question 10: Is the HW & OS custom (or specialized)? No

Question 4: Are there Impediments to Cloud Adoption?
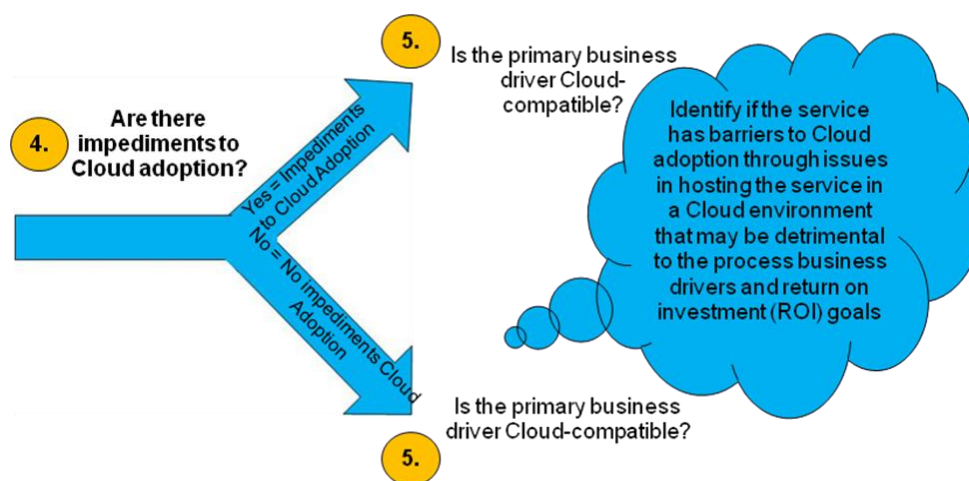
Figure 5: Decision Process for Question 4

Objective

Identify if the service has barriers to Cloud adoption through issues in hosting the service in a Cloud environment that may be detrimental to the process business drivers and return on investment (ROI) goals.

Considerations reviewed after Question 3: Impediments to Outsourcing. These impediments apply to Cloud solutions for various layers, and combinations of in-house (private) and public.

Impediments to Cloud adoption include:

• Custom resources, no transformation planned

• Standard resources, but not adaptable to one-to-many; transformation not practical

• Policy restrictions on resource sharing and/or on control of configuration changes

• Flat requirements profile, no fractional resources

• Too few potential subscribers (not attractive market to providers)

• Entry costs too high

• Service Level Agreement (SLA) performance is not acceptable (9999's level)

• The RPO and RTO performance is not acceptable

Decision	Definition	Next Decision	Objective
Yes: Impediments to Cloud	Your business situation includes one or more of the Impediments to Cloud Adoption, such as a functionally adequate legacy application on fully depreciated custom hardware.	Cloud is not a good fit unless the impediments are addressed. Go to Question 5 to continue assuming that these impediments will be addressed.	Avoid pursuing a Cloud solution without first having addressed the impediments to doing so.

Decision	Definition	Next Decision	Objective
No: No Impediments to Cloud	Your business situation does not include any of the Impediments to Cloud Adoption.	Go to Question 5.	Avoid pursuing a Cloud solution without first having addressed the impediments to doing so.

Previous Steps

Question 3: Are there impediments to outsourcing? No

Question 6: Will the solution be a platform? Yes

Question 5: Is the Primary Business Driver Cloud-Compatible?
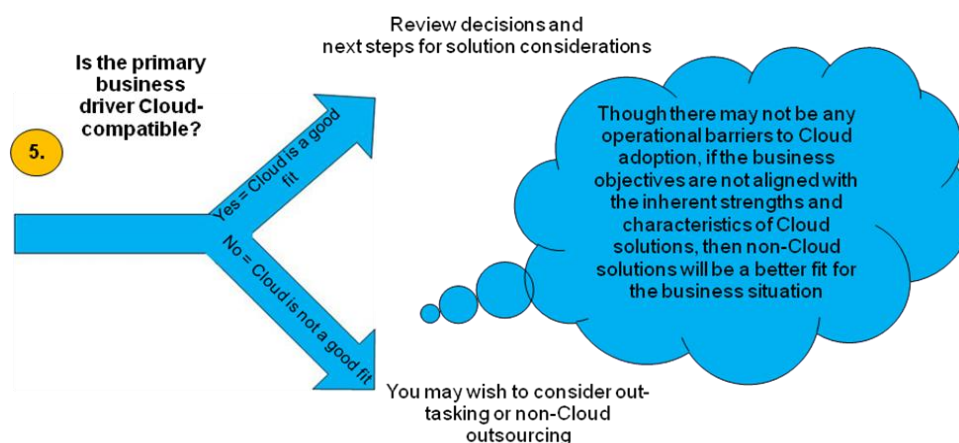
Figure 6: Decision Process for Question 5

Objective

Though there may not be any operational barriers to Cloud adoption, if the business objectives are not aligned with the inherent strengths and characteristics of Cloud solutions, then non-Cloud solutions will be a better fit for the business situation.

Cloud-compatible business drivers include:

- Reduce medium and/or long-term TCO
- Improve cash flow
- Shift from CAPEX to OPEX (private Cloud-incompatible)
- Improve QoS and/or SLAs
- Access to functionality and/or domain expertise
- Scale labor and/or fixed asset capacity up/down
- Become a Cloud provider

Cloud-incompatible business drivers include:

- Cut short-term costs
- Shift from OPEX to CAPEX (public Cloud-incompatible)
- Increase capacity without need for third-party financing
- Change tax situation (recognize depreciation, job creation incentives, …)
- Shift fixed assets (potentially including leases) and/or labor to provider

Decision	Definition	Next Decision	Objective
Yes: Driver is on Compatible List	Cloud strengths match business objectives.	Cloud is a good fit. Review the previously selected Decision Nodes and Solution Considerations to determine which type of Cloud solution is the best fit.	Ensure strategic as well as tactical fit.
No: Driver is on Incompatible List	Cloud strengths do not match business objectives.	Cloud is not a good fit. You may wish to consider out-tasking or non-Cloud outsourcing.	Avoid pursuing a suboptimal IT enablement strategy.

Previous Steps

Question 4: Are there impediments to Cloud adoption? No

Question 6: Will the Solution be a Platform?
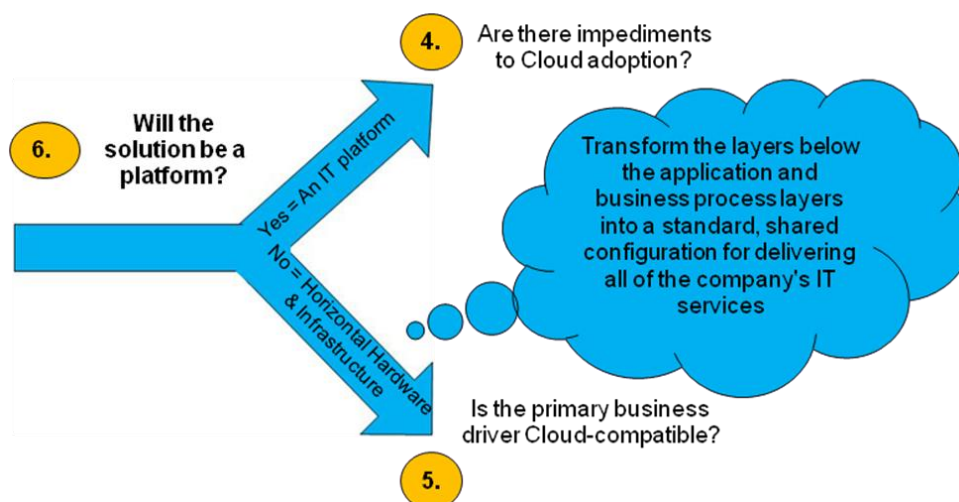
Figure 7: Decision Process for Question 6

Objective

Transform the layers below the application and business process layers into a standard, shared configuration for delivering all of the company's IT services.

Solution stack layers:

- Business Process

- Application

- Middleware

- Hardware and Operating System

- Data Center Infrastructure

Decision	Definition	Next Decision	Objective
Yes: Middleware and HW & OS	An IT platform is comprised of the Middleware and Hardware and Operating System Solution Stack Layers. The Data Center Infrastructure may also be included.	Go to Question 4.	Determine whether private PaaS (Cloud) is a good fit.
No: HW & OS and/or Data Center	Horizontal HW & OS solutions include server farms, storage pools, and on-demand infrastructure. A data center includes network, physical plant, and a Network Operations Center (NOC).	Cloud is not a good fit, but other solutions such as virtualization, appliances, and out-tasking may be a good fit. Review Solution Considerations and consider Question 5.	Increase the yield of in-house IT infrastructure resources.

Previous Steps

Question 3: Are there impediments to outsourcing? Yes

Question 7: Is the Application Insulated from Changes to the Business Process?
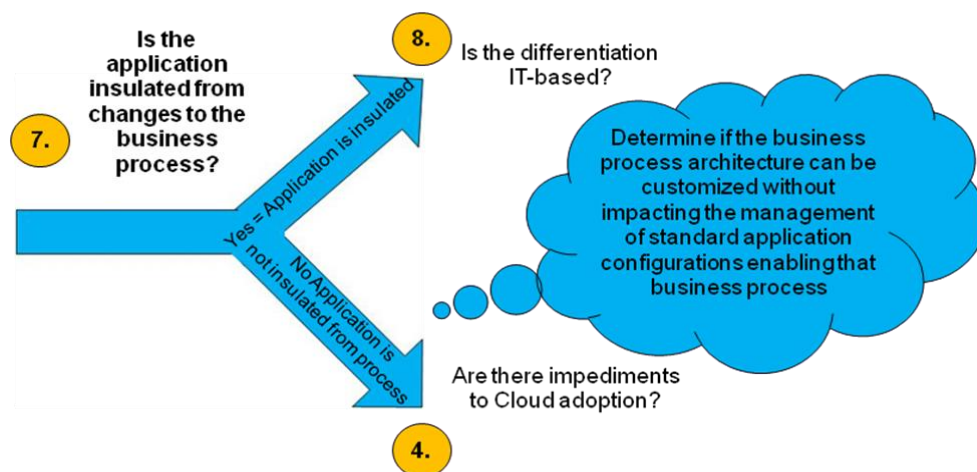
Figure 8: Decision Process for Question 7

Objective

Determine if the business process architecture can be customized without impacting the underlying standard application configuration and its shared IT management timeline, or if the IT configuration can be customized without impacting the execution of the business process with shared resources (especially labor) and using a standard process definition (architecture).

Decision	Definition	Next Decision	Objective
Yes: Application is Insulated	Business process definition is abstracted from the enabling application such that a business person with no knowledge of the application can modify the definition of the business process without impacting the ability of the application administrator to manage and maintain the application efficiently.	Go to Question 8.	With insulation, delivery of the IT layers can be somewhat independent of delivery of the business process layer.

Decision	Definition	Next Decision	Objective
No: Application is not Insulated	A change to the business process definition requires a change to the application, and *vice versa*.	Outsourcing (including public Cloud) is not a good fit, and by itself this business situation cannot support private cloud. To consider private PaaS, go to Question 4.	Avoid inhibiting changes to the differentiation; changes to a Cloud solution are made at the provider's convenience – whether the provider is internal or external. Insulation and control of change management may not be applicable to a process differentiated purely on scale (i.e., differentiation through commoditization). Private PaaS could be a good fit *if* the benefits of a common shared IT platform for this differentiating process and several non-differentiating processes, outweighs the benefits of enabling those non-differentiating processes with a public Cloud or non-Cloud outsourcing solution.

Previous Steps

Question 2: Are the processes differentiating? Yes

Question 8: Is the Differentiation IT-based?
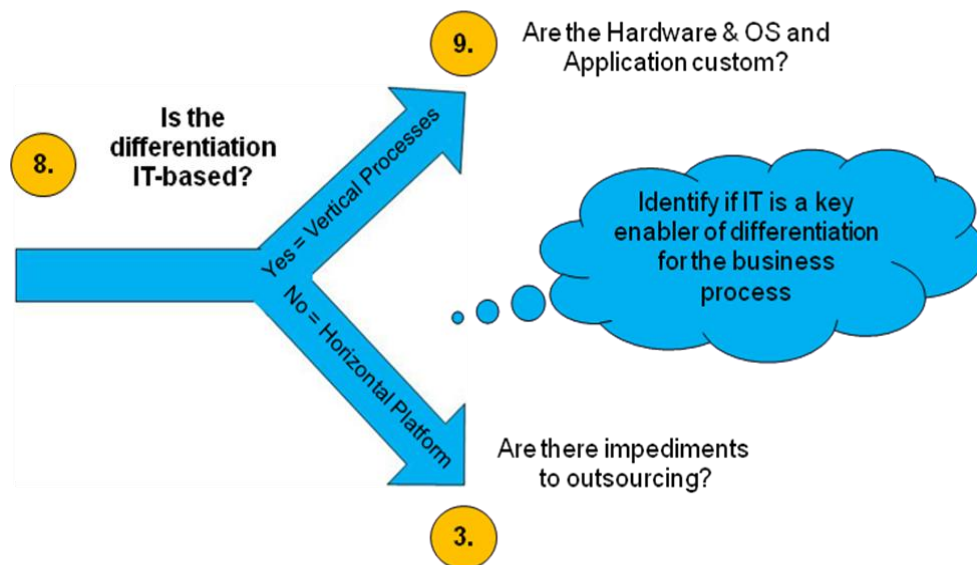
Figure 9: Decision Process for Question 8

Objective

Identify if IT is a key enabler of differentiation for the business process.

Decision	Definition	Next Decision	Objective
Yes: Differentiation is IT-based	IT is integral to the differentiation.	Go to Question 9.	Improve IT enablement without enabling competitors to replicate the IT architecture on which the differentiation is based.
No: Differentiation is not IT-based	IT merely supports the differentiating business process.	Business Process Outsourcing (BPO) is not a good fit. Go to Question 3.	Improve IT enablement without enabling competitors to replicate the business process architecture.

Previous Steps

Question 7: Is the application insulated from changes to the business process? Yes

Question 9. Are the HW & OS and Application Custom?
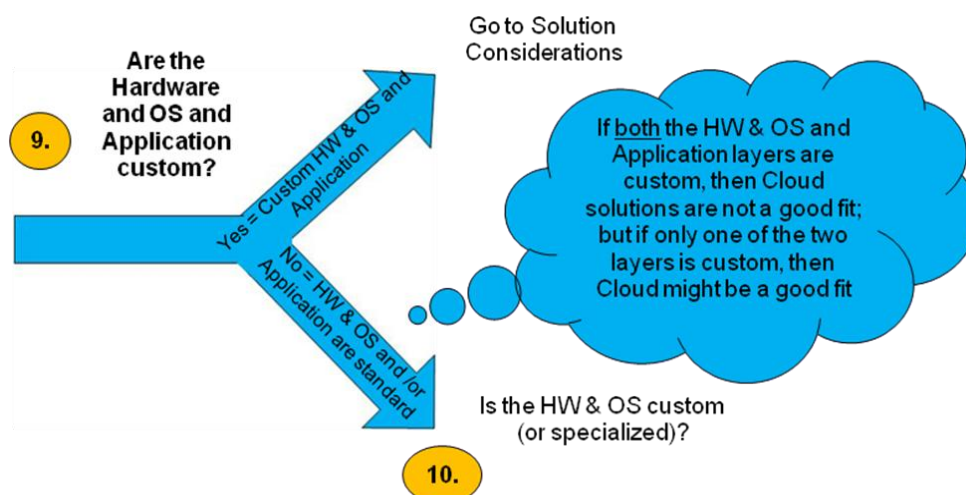
Figure 10: Decision Process for Question 9

Objective

If both the HW & OS and Application layers are custom, then Cloud solutions are not a good fit; but if only one of the two layers is custom, then Cloud might be a good fit.

Examples of custom HW & OS *and* Application:

• Mission Control Weapons System

• Business Intelligence System

Decision	Definition	Next Decision	Objective
Yes: Custom HW & OS and Application	The IT configuration must be managed on a unique timeline.	Cloud and most forms of outsourcing are not a good fit. Go to Solution Considerations.	Legacy IT solutions are often custom, so until a major transformation activity can be justified, Cloud is not a good fit.
No: HW & OS and/or Application are Standard	Either the HW & OS or the Application layer is standard (off-the-shelf).	Go to Question 10.	Investigate the standard IT layer for Cloud fit.

Previous Steps

Question 8: Is the differentiation IT-based? Yes

Question 10: Is the HW & OS Custom (or Specialized)?
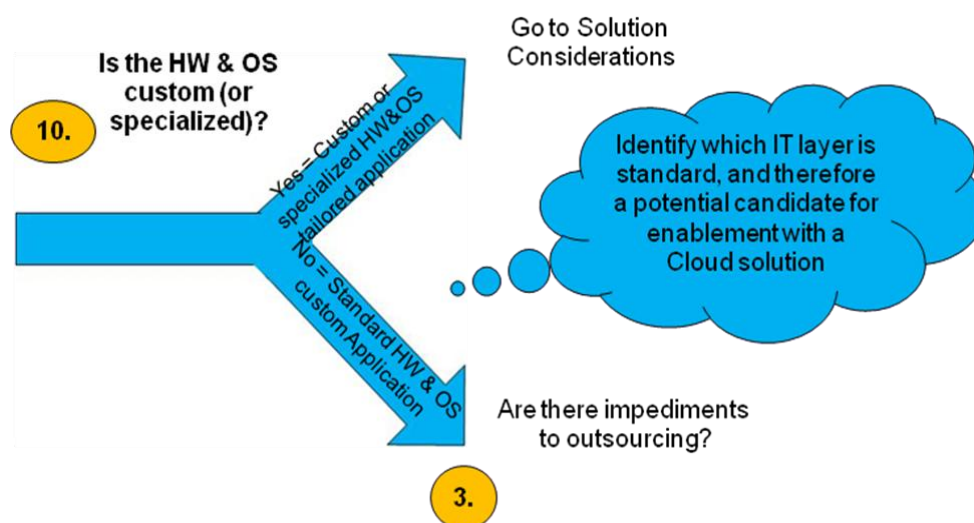
Figure 11: Decision Process for Question 10

Objective

Identify which IT layer is standard, and therefore a potential candidate for enablement with a Cloud solution.

Examples of custom or specialized HW & OS, tailored application ("yes"):

• Fault-tolerant

• Hard real-time processor and OS

• Special memory (supercomputer)

• Cell processor

Examples of standard HW & OS, custom application ("no"):

• Search engine

• Information broadcast

Decision	Definition	Next Decision	Objective
Yes: Custom or Specialized HW & OS, Tailored Application	The HW and/or OS are specialized, while the Application configuration fully or nearly matches the most typical configuration of that application.	Cloud and most forms of outsourcing are not a good fit. Go to Solution Considerations.	Re-evaluate the requirements necessitating custom HW and/or OS. And if the technology is early stage, then as it matures look for providers to start to support it.
No: Standard HW & OS, Custom Application	The HW & OS but not the Application are configured in a typical fashion.	Go to Question 3.	Rule out Cloud solutions for the Application layer.

Previous Steps

Question 9: Are the HW & OS and Application custom? No

Decision Tree Paths

Path I

Answers

1	Yes	Vertical
2	Yes	Differentiating
7	Yes	Application Insulated
8	Yes	IT-based Differentiationa
9	Yes	Custom HW & OS and Application

Conclusions

Public Cloud Fit	Not Good
Private Cloud Fit	Probably Not Good
Non-Cloud Outsourcing Fit	Not Good

Path II

Answers

1	Yes	Vertical
2	Yes	Differentiating
7	Yes	Application Insulated
8	Yes	IT-based Differentiationa
9	No	Standard HW & OS or Application
10	Yes	Custom (or Specialized) HW & OS

Conclusions

Public Cloud Fit	Not Good
Private Cloud Fit	Probably Not Good
Non-Cloud Outsourcing Fit	Not Good

Path III

Answers

1	Yes	Vertical
2	Yes	Differentiating
7	Yes	Application Insulated
8	Yes	IT-based Differentiationa
9	No	Standard HW & OS or Application
10	No	Standard HW & OS (and Custom Application)
3	Yes	Impediments to Outsourcing
6	Yes	Platform Solution

4	Yes	Impediments to Cloud Adoption

Conclusions

Public Cloud Fit	Not Good
Private Cloud Fit	Not Good
Non-Cloud Outsourcing Fit	Not Good

Path IV

Answers

1	Yes	Vertical
2	Yes	Differentiating
7	Yes	Application Insulated
8	Yes	IT-based Differentiationa
9	No	Standard HW & OS or Application
10	No	Standard HW & OS (and Custom Application)
3	Yes	Impediments to Outsourcing
6	Yes	Platform Solution
4	No	No Impediments to Cloud Adoption
5	Yes	Primary Business Driver is Cloud-compatible

Conclusions

Public Cloud Fit	Not Good
Private Cloud Fit	PaaS Good
Non-Cloud Outsourcing Fit	Not Good

Path V

Answers

1	Yes	Vertical
2	Yes	Differentiating
7	Yes	Application Insulated
8	Yes	IT-based Differentiationa
9	No	Standard HW & OS or Application
10	No	Standard HW & OS (and Custom Application)
3	Yes	Impediments to Outsourcing
6	Yes	Platform Solution
4	No	No Impediments to Cloud Adoption
5	No	Primary Business Driver is not Cloud-compatible

Conclusions

Public Cloud Fit	Not Good
Private Cloud Fit	Not Good

Non-Cloud Outsourcing Fit	Not Good

Path VI

Answers

1	Yes	Vertical
2	Yes	Differentiating
7	Yes	Application Insulated
8	Yes	IT-based Differentiationa
9	No	Standard HW & OS or Application
10	No	Standard HW & OS (and Custom Application)
3	Yes	Impediments to Outsourcing
6	No	Not Platform Solution

Conclusions

Public Cloud Fit	Not Good
Private Cloud Fit	Not Good
Non-Cloud Outsourcing Fit	Not Good

Other Recommendations

Consider in-house HW & OS appliances, out-tasking infrastructure management.

Path VII

Answers

1	Yes	Vertical
2	Yes	Differentiating
7	Yes	Application Insulated
8	Yes	IT-based Differentiationa
9	No	Standard HW & OS or Application
10	No	Standard HW & OS (and Custom Application)
3	No	No Impediments to Outsourcing
4	Yes	Impediments to Cloud Adoption

Conclusions

Public Cloud Fit	Not Good
Private Cloud Fit	Not Good
Non-Cloud Outsourcing Fit	Probably Good

Path VIII

Answers

1	Yes	Vertical

2	Yes	Differentiating
7	Yes	Application Insulated
8	Yes	IT-based Differentiationa
9	No	Standard HW & OS or Application
10	No	Standard HW & OS (and Custom Application)
3	No	No Impediments to Outsourcing
4	No	No Impediments to Cloud Adoption
5	Yes	Primary Business Driver is Cloud-compatible

Conclusions

Public Cloud Fit	IaaS (not SaaS) Good
Private Cloud Fit	Not as Good
Non-Cloud Outsourcing Fit	Not as Good

Path IX

Answers

1	Yes	Vertical
2	Yes	Differentiating
7	Yes	Application Insulated
8	Yes	IT-based Differentiationa
9	No	Standard HW & OS or Application
10	No	Standard HW & OS (and Custom Application)
3	No	No Impediments to Outsourcing
4	No	No Impediments to Cloud Adoption
5	No	Primary Business Driver is not Cloud-compatible

Conclusions

Public Cloud Fit	Not Good
Private Cloud Fit	Not Good
Non-Cloud Outsourcing Fit	Good

Path X

Answers

1	Yes	Vertical
2	Yes	Differentiating
7	Yes	Application Insulated
8	No	Process-based Differentiationa
3	Yes	Impediments to Outsourcing
6	Yes	Platform Solution
4	Yes	Impediments to Cloud Adoption

Conclusions

Public Cloud Fit	Not Good
Private Cloud Fit	Not Good
Non-Cloud Outsourcing Fit	Not Good

Path XI

Answers

1	Yes	Vertical
2	Yes	Differentiating
7	Yes	Application Insulated
8	No	Process-based Differentiationa
3	Yes	Impediments to Outsourcing
6	Yes	Platform Solution
4	No	No Impediments to Cloud Adoption
5	Yes	Primary Business Driver is Cloud-compatible

Conclusions

Public Cloud Fit	Not Good
Private Cloud Fit	PaaS Good
Non-Cloud Outsourcing Fit	Not Good

Path XII

Answers

1	Yes	Vertical
2	Yes	Differentiating
7	Yes	Application Insulated
8	No	Process-based Differentiationa
3	Yes	Impediments to Outsourcing
6	Yes	Platform Solution
4	No	No Impediments to Cloud Adoption
5	No	Primary Business Driver is not Cloud-compatible

Conclusions

Public Cloud Fit	Not Good
Private Cloud Fit	Not Good
Non-Cloud Outsourcing Fit	Not Good

Path XIII

Answers

1	Yes	Vertical

2	Yes	Differentiating
7	Yes	Application Insulated
8	No	Process-based Differentiationa
3	Yes	Impediments to Outsourcing
6	No	Not Platform Solution

Conclusions

Public Cloud Fit	Not Good
Private Cloud Fit	Not Good
Non-Cloud Outsourcing Fit	Not Good

Path XIV

Answers

1	Yes	Vertical
2	Yes	Differentiating
7	Yes	Application Insulated
8	No	Process-based Differentiationa
3	No	No Impediments to Outsourcing
4	Yes	Impediments to Cloud Adoption

Conclusions

Public Cloud Fit	Not Good
Private Cloud Fit	Not Good
Non-Cloud Outsourcing Fit	Good

Path XV

Answers

1	Yes	Vertical
2	Yes	Differentiating
7	Yes	Application Insulated
8	No	Process-based Differentiationa
3	No	No Impediments to Outsourcing
4	No	No Impediments to Cloud Adoption
5	Yes	Primary Business Driver is Cloud-compatible

Conclusions

Public Cloud Fit	Good
Private Cloud Fit	Not as Good
Non-Cloud Outsourcing Fit	Not as Good

Path XVI

Answers

1	Yes	Vertical
2	Yes	Differentiating
7	Yes	Application Insulated
8	No	Process-based Differentiationa
3	No	No Impediments to Outsourcing
4	No	No Impediments to Cloud Adoption
5	No	Primary Business Driver is not Cloud-compatible

Conclusions

Public Cloud Fit	Not Good
Private Cloud Fit	Not Good
Non-Cloud Outsourcing Fit	Good

Path XVII

Answers

1	Yes	Vertical
2	Yes	Differentiating
7	No	Application Not Insulated

Conclusions

Public Cloud Fit	Not Good
Private Cloud Fit	Not Good
Non-Cloud Outsourcing Fit	Not Good

Path XVIII

Answers

1	Yes	Vertical
2	No	Not Differentiating
3	Yes	Impediments to Outsourcing
6	Yes	Platform Solution
4	Yes	Impediments to Cloud Adoption

Conclusions

Public Cloud Fit	Not Good
Private Cloud Fit	Not Good
Non-Cloud Outsourcing Fit	Not Good

Path XIX

Answers

1	Yes	Vertical
2	No	Not Differentiating
3	Yes	Impediments to Outsourcing
6	Yes	Platform Solution
4	No	No Impediments to Cloud Adoption
5	Yes	Primary Business Driver is Cloud-compatible

Conclusions

Public Cloud Fit	Not Good
Private Cloud Fit	PaaS Good
Non-Cloud Outsourcing Fit	Not Good

Path XX

Answers

1	Yes	Vertical
2	No	Not Differentiating
3	Yes	Impediments to Outsourcing
6	Yes	Platform Solution
4	No	No Impediments to Cloud Adoption
5	No	Primary Business Driver is not Cloud-compatible

Conclusions

Public Cloud Fit	Not Good
Private Cloud Fit	Not Good
Non-Cloud Outsourcing Fit	Not Good

Path XXI

Answers

1	Yes	Vertical
2	No	Not Differentiating
3	Yes	Impediments to Outsourcing
6	No	Not Platform Solution

Conclusions

Public Cloud Fit	Not Good
Private Cloud Fit	Not Good
Non-Cloud Outsourcing Fit	Not Good

Path XXII

Answers

1	Yes	Vertical
2	No	Not Differentiating
3	No	No Impediments to Outsourcing
4	Yes	Impediments to Cloud Adoption

Conclusions

Public Cloud Fit	Not Good
Private Cloud Fit	Not Good
Non-Cloud Outsourcing Fit	Saas Good

Path XXIII

Answers

1	Yes	Vertical
2	No	Not Differentiating
3	No	No Impediments to Outsourcing
4	No	No Impediments to Cloud Adoption
5	Yes	Primary Business Driver is Cloud-compatible

Conclusions

Public Cloud Fit	Saas Good
Private Cloud Fit	Not Good
Non-Cloud Outsourcing Fit	Not as Good

Path XXIV

Answers

1	Yes	Vertical
2	No	Not Differentiating
3	No	No Impediments to Outsourcing
4	No	No Impediments to Cloud Adoption
5	No	Primary Business Driver is Not Cloud-compatible

Conclusions

Public Cloud Fit	Saas Good
Private Cloud Fit	Not Good
Non-Cloud Outsourcing Fit	Good

Path XXV

Answers

1	No	Horizontal
3	Yes	Impediments to Outsourcing
6	Yes	Platform Solution
4	Yes	Impediments to Cloud Adoption

Conclusions

Public Cloud Fit	Not Good
Private Cloud Fit	Not Good
Non-Cloud Outsourcing Fit	Not Good

Path XXVI

Answers

1	No	Horizontal
3	Yes	Impediments to Outsourcing
6	Yes	Platform Solution
4	No	No Impediments to Cloud Adoption
5	Yes	Primary Business Driver is Cloud-compatible

Conclusions

Public Cloud Fit	Not Good
Private Cloud Fit	PaaS Good
Non-Cloud Outsourcing Fit	Not Good

Path XXVII

Answers

1	No	Horizontal
3	Yes	Impediments to Outsourcing
6	Yes	Platform Solution
4	No	No Impediments to Cloud Adoption
5	No	Primary Business Driver is Not Cloud-compatible

Conclusions

Public Cloud Fit	Not Good
Private Cloud Fit	Not Good
Non-Cloud Outsourcing Fit	Not Good

Path XXVIII

Answers

1	No	Horizontal
3	Yes	Impediments to Outsourcing
6	No	Not Platform Solution

Conclusions

Public Cloud Fit	Not Good
Private Cloud Fit	Not Good
Non-Cloud Outsourcing Fit	Not Good

Other Recommendations

Consider virtualization, application appliances, and out-tasking.

Path XXIX

Answers

1	No	Horizontal
3	No	No Impediments to Outsourcing
4	Yes	Impediments to Cloud Adoption

Conclusions

Public Cloud Fit	Not Good
Private Cloud Fit	Not Good
Non-Cloud Outsourcing Fit	Good

Path XXX

Answers

1	No	Horizontal
3	No	No Impediments to Outsourcing
4	No	No Impediments to Cloud Adoption
5	Yes	Primary Business Driver is Cloud-compatible

Conclusions

Public Cloud Fit	Good
Private Cloud Fit	Not as Good
Non-Cloud Outsourcing Fit	Not as Good

Path XXXI

Answers

1	No	Horizontal

3	No	No Impediments to Outsourcing
4	No	No Impediments to Cloud Adoption
5	No	Primary Business Driver is Not Cloud-compatible

Conclusions

Public Cloud Fit	Not Good
Private Cloud Fit	Not as Good
Non-Cloud Outsourcing Fit	Good

Solution Considerations

Differentiating, IT Based

Custom or Specialized HW & OS, Tailored Application

Potential good fit:

- Shared data center, IT management, BPM, content, governance, middleware, functional test bed, storage

- Out-task/outsource application management if can use standard application development platform (SOA, mash-ups)

- Appliance with custom add-ons

Not a good fit:

- Not SaaS, IaaS, BPO, infrastructure outsourcing, private infrastructure, or platform Cloud

Custom (or Specialized) HW & OS and Application

Potential good fit:

- Outsourcing: shared data center, IT management, BPM, content, governance, storage

- Appliance with custom add-ons

Not a good fit:

- Public Cloud: SaaS, PaaS, or IaaS

- Private Cloud: private infrastructure or platform Cloud (unless there are a number of business processes in the overall business portfolio which have complementary resource consumption profiles to this process, can be enabled with the same IT resources, and which cannot be enabled significantly more effectively with alternatives)

- Outsourcing: infrastructure outsourcing, application outsourcing, or BPO

- Out-tasking: (depends on cost-sensitivity)

Standard HW & OS, and Custom Application

Potential good fit:

- Shared data center, IT management, BPM, content, governance, functional test bed, storage

- Could be hardware appliance, IaaS, PaaS, infrastructure outsourcing

Not a good fit:

- Not SaaS, application outsourcing, or BPO

Differentiating, IT Supported

SaaS Tests

Is business process definition abstracted from application? If yes, then consider SaaS; if no, then is it time to overhaul the business process, and could the definition be abstracted during that overhaul? If yes, then consider SaaS, if no then not SaaS.

Standard Application

Using standard applications? With or without customizations (such as Advanced Business Application Programming (ABAP) scripts)? Same application suite as other business processes?

Examples

- A SaaS or IaaS solution could be appropriate for a differentiating, IT-supported – or possibly even IT-based – business process if the differentiation is commoditization. For example, there is a well-known PC supplier whose supply chain processes differentiate it from other suppliers. That differentiation is primarily due to the leverage that it has over its suppliers due to the size and frequency of its purchases rather than due to a proprietary supply chain process and/or IT configuration. Even with the ability to replicate that company's SCM processes and IT enablement, potential entrants to its market face formidable barriers to entry. So theoretically a SaaS solution and perhaps even a BPaaS or BPO solution would be an appropriate choice for enabling that company's SCM processes.

- Online universities in India are proliferating. Should the Indian government force the market to be more efficient by requiring the use of a government-subsidized SaaS or IaaS solution? While consolidation on to a Cloud solution might be more efficient from a government standpoint, it might not be attractive to the participating universities. If a university is differentiating its online courses on the basis of content alone, if the course's resource consumption profile is not complementary to the rest of the university's IT portfolio, and if the government subsidized solution meets that university's QoS and financial requirements – including relief for switching costs; then consolidation would likely be very attractive. So the government needs to decide if the consolidation benefits outweigh the costs – including the set-up costs and the unallocated fixed costs prior to reaching breakeven – and the risks (including the risk that fewer than the breakeven number of universities will make use of the Cloud solution).

Other Considerations

Other considerations include:

- Risk (of various types, including trust, information risk, financial risk)
- Regulation, including privacy laws
- Labor contracts
- Enterprise licenses
- Leasing agreements and depreciation schedules
- Volume discounts
- Commonality of the problem and requirements (i.e., are the requirements too unique to allow a seller to make a buck?)
- Customer intimacy

Conclusions

Cloud computing is a major development in the world of IT. It can bring business benefits to many enterprises. It is, however, not always the right solution, and there are several forms of Cloud computing, which have different advantages in different situations. The Cloud Buyers' Decision Tree can help you to determine whether to use Cloud computing, whether a public or private Cloud is appropriate, and whether IaaS, PaaS, or SaaS Cloud offerings would best meet your business and technical requirements.

Acknowledgements

The Open Group acknowledges the following key contributors in the development of this document:

- Tina Abdoulah, IBM
- Chris Harding, The Open Group
- Michael Harkins, IBM
- Ed Harrington, Architecting-the-Enterprise
- Deborah Hawley, The MITRE Corporation
- Pamela Isom, IBM
- Johanna Koester, IBM
- Anish Mohammed, Capgemini
- Rajiv Ranjan, HP
- Nayan Ruparelia, HP

About The Open Group

The Open Group is a vendor-neutral and technology-neutral consortium, whose vision of Boundaryless Information Flow™ will enable access to integrated information within and between enterprises based on open standards and global interoperability. The Open Group works with customers, suppliers, consortia, and other standards bodies. Its role is to capture, understand, and address current and emerging requirements, establish policies, and share best practices; to facilitate interoperability, develop consensus, and evolve and integrate specifications and Open Source technologies; to offer a comprehensive set of services to enhance the operational efficiency of consortia; and to operate the industry's premier certification service, including UNIX® system certification. Further information on The Open Group can be found at www.opengroup.org.