What's stopping your I&O team from being effective?

What major factors will inhibit Infrastructure and Operations (I&O) groups over the next three to five years from building effective hybrid cloud infrastructures with agile operations, and how can they overcome them?

Key Findings:

I&O culture must adapt from a role of control to one of coordination

Systems of innovation and differentiation may be well suited to hybrid cloud

Governance and Security remain concerns, but can be addressed

More agile processes and models to assess hybrid cloud are needed

Cloud technology is not the gating factor, business alignment is the challenge

Recommendations:

Focus on people and process culture, before technology

Embrace DevOps culture towards elevating I&O maturity and achieving agility

Continue to be aspirational and build on initial cloud successes

Maintain a strategic view on cloud investments and goals, and apply a Balanced Scorecard model for evaluating investments

Use Pace Layer model to evaluate applicability of cloud models to systems

Develop governance and security policies that address the appropriate use of public cloud

Develop charge-back, show-back and funding models that align with a cloud operating model

Refine change, configuration, release, capacity, availability, and continuity management processes toward optimized service level management

Align measures and metrics (KPI) to business outcomes and
service delivery

Analysis:

Cloud is one of the strategic pillars for **Digital
Transformation**, so leading I&O groups will factor the strategic
importance of an effective cloud operating model and cede some
control of the infrastructure to public cloud service providers in
order to gain the agility that hybrid cloud can provide. Public
cloud technology has advanced to address most of the typical
concerns related to security and funding, so technology is rarely
the obstacle. The nexus is applying pressure on many I&O
organizations, and so they will face many challenges from the
other elements of social, mobile and information. Cloud can be a
key leverage point in facing the other elements.

Pace Layer is an effective model to evaluate the suitability of
public cloud services to address the goals for systems of
differentiation or innovation. As the portfolio is analyzed and
certain applications are identified that fit the category of
differentiation or innovation, then the Application Development
(AD) and I&O teams should evaluate public cloud services that
could augment or fulfill to achieve the desired services. Systems
of differentiation or innovation usually lack the stringent
requirements for security, compliance or regulatory which are
often of grave concern with regards to leveraging public cloud,
Pace Layer can help identify opportunities to align or partner
with the business to achieve desired outcomes,

Maturity in advancing the people and processes to address the
desired business outcomes remains a challenge for many I&O
organizations, Many cultures are mired in the role of an agent of

control, with silos operating as fiefdoms, to move from proactive (level 2), to aligned (level 3) and ideally a partner (level 4) with the business requires learning I&O teams that will adapt and embrace DevOps as a culture, and the role of coordinator and Cloud Services Broker (CSB), Agile development is still a major challenge in most enterprise AD organizations, generally practicing some form of water-agile-fall to the detriment of the business. The culture and practices of Agile and DevOps encourage collaboration and foster coordination, which is a key attribute for the aligned and partner to the business Many I&O teams have already progressed with achievements in virtualization and private cloud, and should continue to be aspirational and collaborative in adopting characteristics that advance cloud maturity. That aligned partner can be a trusted advisor and broker (CSB) hybrid cloud services as appropriate to meet the business objectives.

Operating model for the cloud factors in the specific aspects of the business, including finance, governance, sourcing and more, that are related to the cloud. These are the cloud specific aspects that respect and supplement the corporate operating model. A balanced scorecard, along with the pace layer models can greatly augment the common ROI methods for evaluating cloud services. The qualitative aspects of the balanced scorecard can highlight and ascribe value to the maturity advancements and business agility that can be achieved with the appropriate use of hybrid cloud. Measurements and metrics in the scorecard and operating model should reflect and be closely aligned with the desired business outcomes.

Botton line:

I&O culture will be a primary impediment to advancing cloud maturity in the mid-term (3–5 years) and beyond, leading I&O teams will build a culture and processes to align with business, regardless of the models. There are more effective tools, processes and models that can be useful for achieving the desired business outcomes.

Do you think that I&O culture is an impediment now? Was it an impediment in 2014, when this was originally authored?

Do you think that Cloud adoption is or was a catalyst for DevOps?

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PS: I wrote this in 2014, and except for some word-smithing and formatting, left it mostly intact rather than update.