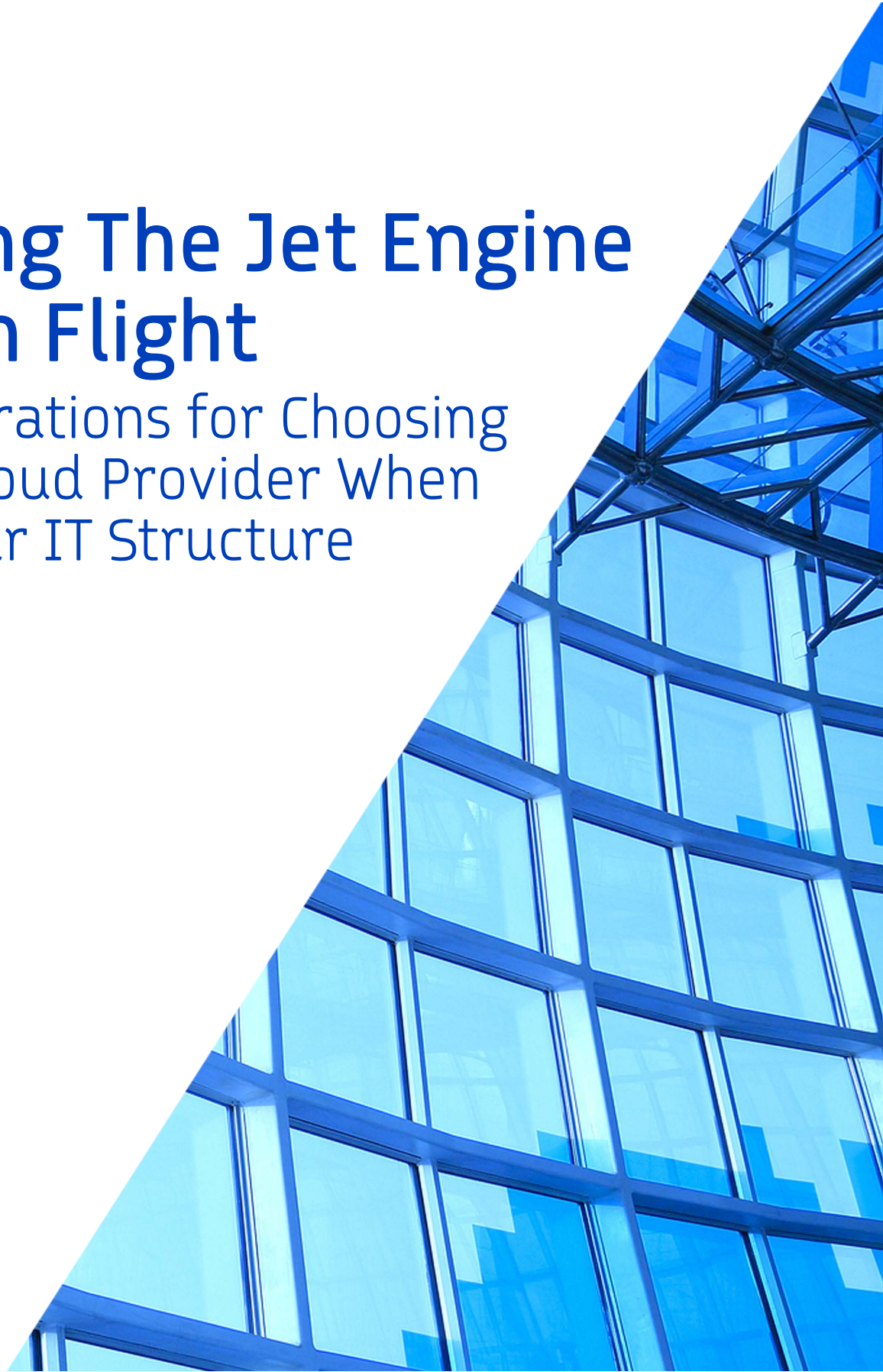




Changing The Jet Engine While In Flight

10 Considerations for Choosing
the Best Cloud Provider When
Moving Your IT Structure



Changing The Jet Engine While In Flight

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Introduction

Imagine you're on a cross-country airline flight, quietly enjoying your novel and thinking about a cup of coffee. Suddenly the captain comes on the intercom and announces quite calmly, "Good afternoon, ladies and gentlemen. Thanks for flying with us today. We wanted to let you know that, prior to take-off, the ground crew notified us that our engines are defective and need to be replaced. You may have noticed the billowing black smoke coming from the wing. Normally we do engine maintenance in the hangar, but due to our tight schedule, we've decided to replace the engines in flight."

"At various times you may see crew members crawling on the wing as they remove and replace the engines. Please note we may periodically have to interrupt cabin service due to a sudden unplanned loss of altitude. Assuming the engines restart, any loss of altitude should be temporary. Just in case, the 'fasten seatbelt' light will be on for the duration of the flight."

As you return your tray table and seat back to their full and upright position and contemplate your Twilight Zone moment ("There's a man on the wing of the plane!"), you consider perhaps changing the jet engines in mid-flight is not a good idea. Perhaps they should have changed the engines while you were still on the ground.

Piloting your IT infrastructure shares much of the same complexity as piloting a large jet aircraft. Both involve complex equipment and high service expectations. In either case, any loss of critical function may incur severe consequences.

How to Put Your Applications into the Cloud - Without Doing a Nosedive

Unfortunately, transitioning from traditional legacy IT models to a flexible and efficient cloud architecture is a lot like changing jet engines in flight. You rely on your IT assets to continuously power your business operations. If you shut them down in mid-air, it can create a sudden and terrifying loss of altitude. Unfortunately, it's also not realistic to put your business in the hangar. You need a better option.

Technology decision makers just like you face the same dilemma every day. The cloud offers compelling advantages for many business and industry verticals, but figuring out how to get there isn't always easy.

Clearly, you need better answers. Fortunately, it's possible to leverage the cloud without risking an IT nosedive. The answer is knowing what to look for and demand from your cloud solution provider.

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10 Key Considerations for Choosing the Best Cloud Provider

When you look for a vendor to be your cloud provider, you should pay attention to key considerations and be aware of how they are delivered to you. When a jet engine is replaced, you can be sure that the airline knows how that engine will work with the rest of the plane's mechanical system. For the same reason, you need to know how your cloud provider will work with the rest of your technology infrastructure. Here are the 10 key considerations that you should require when choosing the best cloud provider.

“Insist on a reputable vendor with the physical security and contingency plans you require and that allows you to deploy security solutions to safeguard your information based on the data protection obligations that apply to your business”

- **Network Latency and Performance** - In air travel, a late arrival means wasted time and missed connections. In the same way, excessive network latency can stall your performance and ground your applications. To avoid this, insist on a provider that utilizes Layer 2 networks with < 1ms latency between servers. This helps ensure consistent, reliable application performance in your data center and the cloud. More importantly, server location will be transparent to your customer.
- **Security** - If your application involves sensitive healthcare, financial or other proprietary information, cloud data security is a critical requirement for compliance and your business. Where will your data actually be stored? Can your provider deliver appropriate logical and physical security? How robust are their backup and failover options? Are they a vendor you know and trust? Make sure your cloud vendor is ready to meet your needs. Insist on a reputable vendor with the physical security and contingency plans you require and that allows you to deploy security solutions to safeguard your information based on the data protection obligations that apply to your business.
- **Meaningful Service Level Agreement** - If you're an airline traveler, you understand that an on-time departure doesn't mean pulling back from the gate and then sitting on the tarmac for an hour. In the same way, your provider should start measuring your service uptime the day you become a customer, not in a predetermined time window of their choosing. In addition, the benchmark for success should be 100% uptime with <1ms latency. Insist on a vendor with the resources and experience to deliver the performance you need. A service level agreement is great, but it's even better if you never have to put it to the test.
- **Flexible Deployment and Network Connectivity Options** - Flexibility is one of the great advantages of the cloud. Unfortunately, a poorly-planned or under-provisioned cloud provider can arbitrarily restrict your options. Insist on a provider that can deliver public and private cloud options along with public internet, VPN, MPLS, and private line network connections. In addition, look for a vendor that allows you to use your applications. If an airline asked you to leave your luggage behind and buy new clothes on the other end, you'd probably find a different carrier. By the same token, some cloud providers require you to ditch applications you know and trust and rebuild them to fit their world. That's great if you want all new applications, but if you have things you can't easily replace, find a vendor who can allow you to work with your existing application, virtualization and interface technologies. Flexible options for cloud configuration, interfaces and connectivity mean the cloud will adapt to fit your business, not the other way around.

“To avoid compromising your business, insist on a provider that doesn’t compromise on their hardware and software infrastructure.”

- **Provide Managed Services** - The cloud offers flexible, on-demand access to technical capacity, but if you don’t have people to run it, it’s like having a plane without a pilot. Managed services add people and process to the technology so you can effectively manage growth and complexity without requiring additional resources. To make this happen, look for a managed service partner that can deliver OS management, patch management and server monitoring.
- **Use Best-of-Breed Technologies** - A discounted airline ticket sounds great until you realize that means flying on a rusty 707. In the same way, a cheap cloud provider sounds great until you realize that means sticking your mission-critical applications on obsolete and unreliable equipment. To avoid compromising your business, insist on a provider that doesn’t compromise on their hardware and software infrastructure. Look for deployment of best-of-breed technologies, products, and services in their cloud offering. For example, find a vendor that uses well-known brands that you’re already familiar with and trust, such as Cisco, VMware, AlertLogic, EMC and the like.
- **Access To Customer Support** - Given a choice, would you fly in first-class or coach? Most cloud platform providers offer customer support, but there can be huge differences in pricing, quality and your level of comfort. If your service provider puts you on hold or can’t resolve your issues, your anxiety level will go up, and your customer service level will go down. To avoid this, choose a trusted vendor that can provide you with quality support at a reasonable, predictable cost. The vendor should include basic coverage in the pricing of your service agreement, phone support availability in addition to web access, and a robust case management tracking system. This helps ensure technical problems are a brief air pocket – not a business tailspin.
- **Flexible Purchasing Options** - Do you need the equivalent of a sleek corporate jet, or just a cheap, safe seat? Your cloud provider should provide flexible pricing options that fit your budget and meet your IT needs.
 - **Pay-As-You-Go, Pay-For-Use:** If your requirements are uncertain or if you expect spikes, a flexible pay-as-you-go plan is a great option. It’s also a great way to keep costs in line with budget and revenue. A vendor with this flexibility means you can easily scale your business without a large capital outlay and commitment.
 - **Term Commitments:** Are you looking for predictable costs or long-haul solutions? Look for a vendor that offers attractive fixed-rate plans for servers, bandwidth, storage and more. This option provides low cost and reliable, predictable capacity.
- **Scalability** - If you’re moving to the cloud to facilitate growth, the last thing you want to do is choose a vendor you quickly outgrow. Insist on a provider with the infrastructure, tools, process, people and capital resources your growth requirements may demand. This helps ensure your cloud partner focuses on growing your business, not growing theirs.
- **Experience Level** - If you got on the plane and realized your pilot was reading “Flying for Dummies”, you’d be a bit concerned. You want your pilot to be very experienced and trustworthy. In the same way, insist on a cloud provider that knows what they’re doing. Find a trusted partner with an established track record. Your provider should know how to efficiently migrate and support the IT assets you will be using. This ensures you have a provider you can lean on, and not one learning on your dime.

“If you plan your trip wisely, you can leverage cloud advantages without taking on excessive delays, cost or business risk.”

A Safe Journey and a Safe Landing

Migrating your applications to the cloud doesn't have to involve an airsick bag or shrieking terror. If you plan your trip wisely, you can leverage cloud advantages without taking on excessive delays, cost or business risk. While you'll certainly have unique requirements, applying these 10 cloud vendor evaluation guidelines will put you well on your way to a safe and successful cloud migration strategy. With the right partner, you can map a cloud migration path that gives you the flexibility, scalability, reliability and cost savings you need.

Profile Of The XO Compute Product Portfolio

XO Communications offers advanced cloud-based IT infrastructure, content acceleration, and interactive voice solutions for businesses. Through its cloud-based platforms and online portal, XO helps organizations simplify the procurement and management of critical information technology infrastructure, accelerate application and web site performance, and improve interactive communications with customers.

The XO Cloud Compute platform includes the following:

- Carrier-grade infrastructure with Layer-2 VLAN for physical network segregation that provides security and scalability.
- 100% fiber attached persistent storage provides performance and control.
- Robust service level agreements with 100% uptime, <1 ms latency and 24/7 support.
- Flexible public and private cloud deployment options, along with public internet, VPN, MPLS and private line network connectivity.
- Managed services, including OS management, patch management and server monitoring.
- Scalable global presence, with data centers in Atlanta, New York, Washington D.C. Portland, Los Angeles, London and Amsterdam among others.
- Scale-up architecture vs. a scale-out architecture that supports demanding high IOPS applications.
- Flash-enabled SAN storage that gives you high performance, without the cost.
- Configurable Layer-2 VLANs based on Cisco-based switching fabric.
- A best-of-breed, enterprise-grade hardware, networking, and virtualization stack that provides reliability to your enterprise.
- Fully managed intrusion detection system utilizing signature, protocol and anomaly based inspection methods.

“As a result, customers also leverage the proven expertise and core strengths of XO Communications, a trusted provider to more than 50% of companies in the Fortune 500 ”

- Multiple-level security strategy, in which a series of security layers are implemented – Tier III data facility security, firewalls, encryption and 24/7 incident response.
- Cost-effective pay-per-use pricing model means your technology expense won't outpace your capital budget or business.
- World-class team and experience in deep systems integration, cloud and SaaS/laaS operations. As a result, customers also leverage the proven expertise and core strengths of XO Communications, a trusted provider to more than 50% of companies in the Fortune 500

For more information about XO Compute product portfolio, please visit www.xo.com or give us a call at [877-617-2111](tel:877-617-2111).



About Atel Communications

ATEL Communications Inc. focuses on all aspects of business, small, medium, and large. We have been providing telephone systems over the years to a wide variety of businesses. ATEL has become the vendor of choice for numerous cities, school districts, hospitals, and hotels. ATEL Communications reputation for excellence is based on its history of performance and the ability to provide simple solutions for complex communication needs.

To learn more about Atel Communications, visit www.atelcommunications.com or blog.atelcommunications.com. ATEL Communications is also on [Twitter](#), [YouTube](#), [Facebook](#) and [LinkedIn](#).

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