Cloud Computing Readiness Checklist.

Macquarie Cloud Services
How should this guide be used?

Moving your IT systems to the cloud offers many benefits including reduced costs, flexibility, increased efficiency, and in many cases, better performance and security. But preparing to make use of cloud computing also requires proper preparation. SaaS, PaaS, and IaaS all present several key differences in terms of security, performance, reliability, and management. This guide will help you assess your readiness to transition to cloud computing and identify any areas that need to be re-evaluated.

After reading through these checklists and determining your company’s current cloud computing readiness, you’ll have the tools you need to start preparing for your transition.

If you have further questions or want to learn more about cloud computing and how to most effectively use it, contact Macquarie Cloud Services on 1800 004 943 or visit macquariecloudservices.com.
Will my company benefit from transitioning services to the cloud?

Although most companies will benefit from transitioning some or all of their IT services into the cloud, not all will. Start with these questions to help determine whether your company should transition to cloud computing.

What is your company’s current IT infrastructure expenditure?

Is cloud computing likely to reduce costs?

How much does usage fluctuate over time?

Would your company benefit from a more elastic solution?

Does your company need to add applications or functionality but can’t make a large capital expenditure for additional IT infrastructure?

Is your IT department able to effectively provide maintenance and security, and maximise efficiency for your IT infrastructure?

Will your company benefit strategically or financially from a reduction in IT focus?

Does your company need to secure sensitive data on proprietary servers?

Will the increased accessibility of the cloud improve your company’s performance?

What are the benefits of cloud computing?

Cloud computing is widely used by businesses ranging from international corporations to local companies. The reasons for this popularity are numerous. Cloud computing offers many benefits, including:

- Reduced cost
- Increased company focus
- Flexibility
- Greater reliability
Use these questions to get a brief overview of your company’s current cloud computing readiness and to identify areas that need to be addressed.

Do you currently have a Cloud Adoption Strategy or, even better, an Application Hosting Decision Framework?

What is the extent of your company’s current IT usage?

How quickly would you like to transition to the cloud?

Have you prepared a cost-benefit analysis of the transition?

Do you have a team capable of managing the transition?

Do you store sensitive data?

Are you prepared to transition data securely?

Do you plan to use IaaS, PaaS, or SaaS?

Will the increased accessibility of the cloud improve your company’s performance?
Security concerns.

Security is a key concern in using cloud computing technology. This checklist will help you identify key considerations for safely transitioning and securing data.

**Outlining the security plan.**

Have you made an outline of your top security goals and concerns?

What types of assets will be managed by the system?

Have key assets been listed and rated based on their sensitivity?

How are assets currently managed and how will this change when transitioned to the cloud?

Has the right cloud delivery model been assigned based on the assets’ sensitivity?

Has the network topology been mapped?

**Enumerating safeguards and vulnerabilities.**

Have the security controls been enumerated, verified, and evaluated?

Will all sensitive data stored in the cloud be encrypted?

Are remote connections to the cloud properly encrypted?

Have you evaluated the security risk of the server’s physical location?

Are the servers housed in guarded and locked rooms?

Have all vulnerabilities been identified and addressed?

Are staff properly trained on the new security protocols?

**Complying with regulations.**

Have you reviewed your cloud vendor’s security policies?

Do they comply with PCI DSS, SOX, GLBA, HIPAA or other regulations your data may be subject to?

Have you drafted any contracts or agreements with your vendor to bridge compliance gaps?
Personnel considerations.

A company’s staff must be properly prepared for the cloud computing transition in order to ensure that it does not interfere negatively with day to day operations. Use these questions to make sure your team is ready.

Preparing your cloud adoption team.

Who will be heading the effort to move systems to the cloud?

Has a team been assembled to plan and execute cloud adoption?

Who are the key human resource assets for the plan?

Is management in full support of the adoption strategy?

Do you need to bring on additional staff or consultants to help adopt cloud computing technology?

Training the staff.

How will using cloud computing affect the everyday operations of the company?

Will staff need to learn new skills to function after the transition?

Has a training plan been drafted?

Is there a team in place to train staff on the new technology?

Are staff aware of any changes to security protocol that cloud adoption will bring?

Reconfiguring the IT department.

Do the current IT employees have the expertise to properly maintain the new systems?

Will this change necessitate hiring additional staff?

Will this change make certain staff members redundant and/or unnecessary?
Location considerations.

Moving to cloud computing means your servers will be physically located in another place. This can have ramifications for your IT infrastructure’s speed, security and reliability.

Where is your company based and what regions does it serve?

Where is the cloud computing provider located?

Is the location near your user base (customers or staff)?

Will speed be adversely affected by the server’s location?

Is the location in a politically stable region?

Is the location at risk for natural disasters?

Does the location have reliable power services?

Is the region’s primary language English?

If not, is there a reliable means of computing with the cloud provider’s staff?

Can you visit the data centre where your cloud will be hosted?

Migrating to the cloud can be tricky. Choosing the right location for your cloud can mean success or failure of your cloud migration process.
Reliability considerations.

Ensuring the reliability of your IT infrastructure is a critical step in transitioning to cloud computing. Make sure the cloud will be as reliable as in-house IT infrastructure by going through the following checklist.

**Assessing the cloud provider’s reliability.**

Does your cloud provider have a reputation for reliability?

How long have they been operational?

What is their average uptime over the past three years?

Do they have a reliability guarantee?

Do they use reliability safeguards like backup power sources and redundant servers?

Will they promptly inform you of any planned or unplanned outages?

Is the cloud provider regularly assessed by a third party auditor?

Does the cloud provider offer comprehensive support?

Will your in-house IT team be responsible for support?

**Making a continuity plan.**

Do you have a backup system if the cloud goes down for any reason?

Is there a contingency plan to continue mission-critical functions if the cloud can’t be accessed?

Will you store copies of your data in-house?

Is your data safe-harboured with a third party who can protect against data loss?
Performance considerations.

One of the primary concerns when moving to the cloud is how it will affect performance. In many cases speed can be improved when using cloud computing solutions. Answer the following questions to make sure your performance is not adversely affected by a transition to the cloud.

Is the cloud provider's hardware sufficient to handle your workload?

Will you be using dedicated hardware?

What steps will the cloud provider take to ensure consistent performance?

Does the cloud provider make any performance guarantees?

Will the cloud solution offer the same or better performance compared to an in-house solution?

Will you be using the public or private cloud?
Financial considerations.

Most companies can save considerably when moving systems and applications into the cloud. Use this checklist to help you consider the total financial impact of the move.

Cloud provider fees.
What are the initial set-up fees?
How complex is the pricing model? Is it transparent?
Can the provider increase fees at regular intervals?
Are there fees you can’t specify? (e.g. inter VM Traffic, volumes, iOPS, etc.)

Migration costs.
Will there be additional human resource costs associated with the transition?
Will there be additional hardware costs associated with the transition?
What will be the cost of an outage during migration?

Planning the financial impact.
Is your company moving to the cloud to take advantage of reduced overhead?
How will the transition costs and provider fees be offset by potential savings?
How will moving to the cloud affect your IT costs?
Have you drafted a cost-benefit analysis for the move?
How will your company finance the transition?
What to do with your IT hardware that has not reached end of life?
Legal considerations.

Although often overlooked, legal considerations are extremely important when moving to the cloud. Use this checklist to make sure the transition is made legally.

**Understanding the legal agreement with your cloud provider.**

Have you read the cloud provider’s service level agreement (SLA)?

How does the SLA affect your data’s property rights?

Do you have the full legal rights to the data you will be moving to the cloud?

Is the cloud provider’s privacy policy compatible with your company’s?

Does the cloud provider have the right to access your data?

If hosted in another country, which law applies to you?

**Complying with regulations.**

Is your data subject to any government or industry specific regulations?

Does the cloud provider comply with those regulations?

Who is legally responsible for your data’s security?

Are you able to audit your cloud provider’s compliance with regulations?

**Terminating service.**

What are the terms of cancellation?

What will happen to your data after the service is terminated?
### Appendix.

#### Candidate services for cloud computing form template.

<table>
<thead>
<tr>
<th>Service</th>
<th>Function</th>
<th>Is it mission critical?</th>
<th>Does it need to be secure?</th>
<th>How will the company benefit from transitioning to cloud?</th>
<th>Transition date goal</th>
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Cloud transition impact analysis worksheet.

Complete one for each service.

1. Asset or service to be transitioned: .................................................................

2. Is this a mission critical service? .................................................................

3. Briefly describe its role in your organisation: ..............................................

4. What are the initial set up fees and migration costs? ......................................

5. a) What is the direct annual financial cost of operating it in-house? ......................

    b) What is the annual financial cost of operating it in the cloud? .........................

    c) Net direct annual financial impact of moving to cloud (a – b): ......................

6. a) What is the estimated cost per minute of downtime for this service? ..................

    b) What is the current annual downtime operating this service in-house? ..............

    c) What is the estimated annual downtime operating this service in the cloud? ......

    d) Net downtime financial impact ((b – c) x a): ............................................

7. How will employee performance be affected by the transition?* .........................

8. How will data security be affected by the transition?* ......................................

9. How will service reliability be affected by the transition?* .................................

10. How will application performance be affected by the transition?* ......................

*Rating from -5 to 5, -5 being much worse and 5 being much better
Once all of the initial prep work has been completed, it’s time to prepare for the actual migration of applications, systems, and data into the cloud. Answer the following questions to ensure the process goes smoothly.

**Preparing software, solutions and data.**

Has a list of the transitioning services been compiled?

Are the required services and software ready for the migration?

Has a transition toolkit been created? (The transition toolkit should allow for installation and validation).

Have cloud resources been properly allocated for each asset?

Have all necessary platform, license, and storage dependencies been accounted for?

Has all transitioning data been backed up?

Have you calculated the time/downtime required to migrate?

Do you migrate/move applications or rebuild from scratch?

**Testing the migration.**

Have you tested each component before migrating the next?

Has each user facing application been tested from the user portal?

Are the services and applications performing as expected?
About Macquarie Cloud Services.

Managed servers, Private clouds, Hybrid clouds, and Virtual Data Centres. Our team know them all, back to front and inside out. And make sense of them for you. Cloud can seem complex. But not when you’ve got us behind you. Everyone talks about the cloud. But we make it a reality.

We are Australia’s specialists in cloud services for business and government. We create flexible, fully-certified hybrid IT solutions, built on industry-standard platforms and backed by government-approved accreditation. We’re proudly Australian, with powerful data centres based in Sydney and Canberra. All supported by a team of passionate and experienced cloud specialists.

We’ll listen, think, throw ideas around and then attack the whiteboard until we’ve nailed the best answer for you. We’ve built our business on bringing smart minds together with a can-do attitude. It’s a good feeling when our customers call us ‘part of our team’. That’s why we exist.

Want to learn more? Macquarie Cloud Services provides comprehensive cloud computing solutions for businesses.