

# Things to Consider When

# Moving to the Cloud

---

**Pete Massiello**

PeteM@peteandi.com



# In This Session

Let's discuss what you need to think about with moving to the cloud. It's not as easy as just moving your workload from one machine to another.



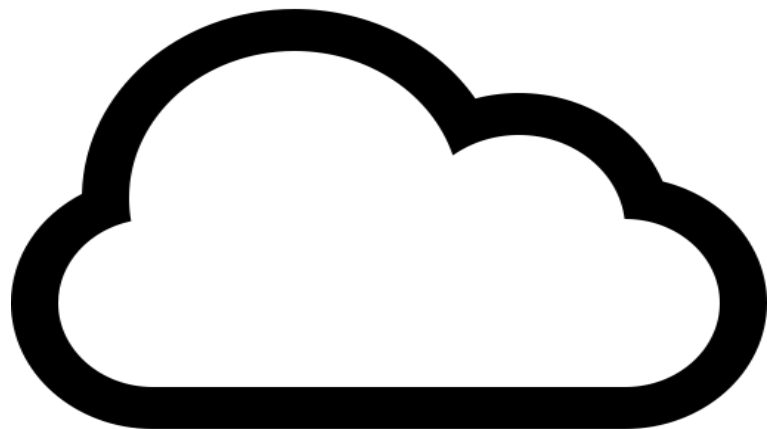


# Steps to the Cloud

# Why Are You Moving to the Cloud?

## Are you moving to the cloud?

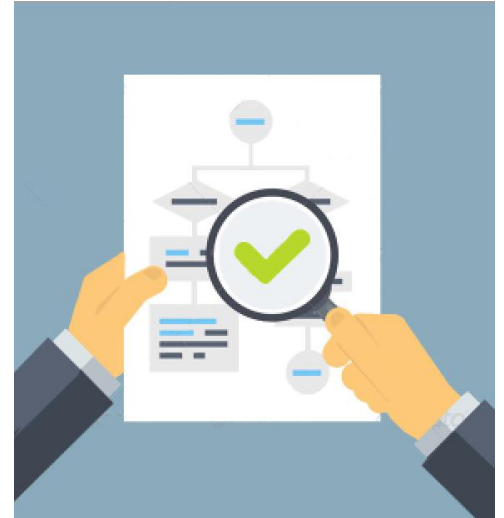
- For Business reasons
- Expandability
- Geographic Separation
- Second location
- Because my CEO read it in the paper



# Build a Business Case

Include overall migration strategy and specific information to show:

- Current state of your environment
- Clear cost analysis, service levels, and business impact
- Outlined project plan: tasks, durations, resources, costs, and risks



**80%**

Of surveyed companies use new technologies to support new innovative business initiatives.

# Options Moving to the Cloud

Every cloud migration involves trade-offs. Understanding your priorities up front shapes which provider, model, and pace is right for you.

**Good**

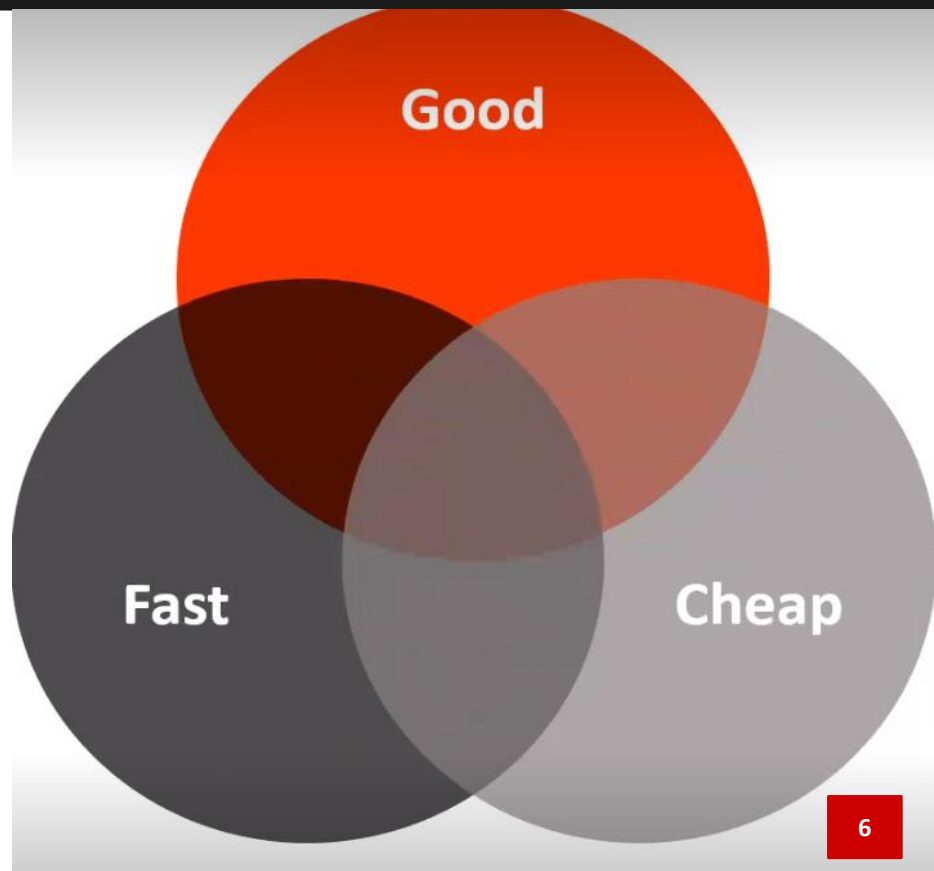
Quality service with SLAs and reliability guarantees

**Fast**

Rapid migration timeline to meet business deadlines

**Cheap**

Cost-optimized approach — but usually requires trade-offs



# Are You Aware of Costs You Aren't Thinking About?

## Costs you need to think about:

- Electric usage
- Air conditioning (A/C)
- UPS and/or Generator
- Computer room
- New hardware



# Engage Your Stakeholders

- Moving application(s) to a new platform must be carefully managed, so migration is not perceived as:
  - Business risk
  - Security risk
  - Loss of internal control
  - Change for change's sake
- **Conduct requirement workshops with technical & business stakeholders**



# Ramp Up Operational Readiness

- Avoid misalignment of intent and actions
- Look in-depth at how the cloud will impact the business:
  - Rethink how business units consume IT
  - Evaluate how staff can be retooled to deliver innovative projects
  - Think about the service levels and management support your organization will need
  - Understand how your external customers interact and use IT services

# Know All Data Governance & Regulatory Requirements

- Analyze requirements carefully to ensure provider and solutions support:
  - Security, compliance, and data governance purposes
  - Geographic (country) regulatory requirements
- For example:
  - PCI, SSAE 16 (SOC 1)
  - HIPAA, FINRA, GLBA, PCI-DSS, SOX



# Staff Considerations

- Your Staff:
  - Supplement
  - Retirement
  - Managed Service Provider
- Skills needed:
  - Monitoring
  - Hardware-only cloud provider management



# Location

- **Redundancy, Redundancy, Redundancy**
  - Access
  - Hours
  - Security
  - Distance
  - Helping Hands



# Configuration

- Hardware compatibility:

- Current hardware
- Cloud hardware
- Tape drive compatibility
- Modems
- Local printers
- Consoles

- Cloud vs. Hosting:

- Moving to the cloud or just hosting?
- Cloud comes in increments

- Analysis:

- Analyze your source system
- Understand your workload
- What happens when I go over?

# IBM i OS Compatibility Matrix

[ibm.com/systems/support/i/planning/upgrade/osmapping.html](http://ibm.com/systems/support/i/planning/upgrade/osmapping.html)

| Servers  | IBM i 6.1 <sub>1</sub> | IBM i 7.1 <sub>1</sub> | IBM i 7.2 <sub>1</sub> | IBM i 7.3 | IBM i 7.4 | IBM i 7.5 |
|--|------------------------|------------------------|------------------------|-----------|-----------|-----------|
| <b>Power10</b><br>E1080, future scale-out  |                        |                        |                        | ✓         | ✓         | ✓         |
| <b>Power9</b><br>S914, S922 (VIOS only), H922 (VIOS only), S924, H924, E980<br>S922 Entry (single native I/O partition only) |                        | ✓<br>4                 | ✓                      | ✓         | ✓         | ✓         |
| <b>Power8</b><br>S814, S822 (VIOS only), S824, E870, E870C, E880, E880C<br>S812 (no IBM i 7.1, native I/O only)              |                        | ✓                      | ✓                      | ✓         | ✓         |           |
| <b>Power7/7+</b><br>710, 720, 730, 740, 750 (VIOS only), 760 (VIOS only), 770, 780, 795                                      | ✓                      | ✓                      | ✓                      | ✓         |           |           |
| <b>Power7 BladeCenter</b> PS700/701/702/703/704 (all VIOS only)<br><b>Power7/7+ Flex</b> p260/270/460 (all VIOS only)        | ✓                      | ✓                      | ✓                      |           |           |           |
| <b>Power6+</b> 520, 550, 560, 570, JS23/43 (VIOS only)<br><b>Power6</b> 520, 550, 570, 595, JS12/22 (VIOS only)              | ✓                      | ✓                      | ✓<br>3                 |           |           |           |
| <b>Power5/5+</b><br>515, 520, 525, 550, 570, 595   | ✓                      | ✓                      |                        |           |           |           |
| 800, 810, 825, 870, 890  | ✓                      |                        |                        |           |           |           |

1 – IBM i 6.1, 7.1, and 7.2: refer to [IBM i Release Lifecycle](#) for extended support information

2 – Virtual client only

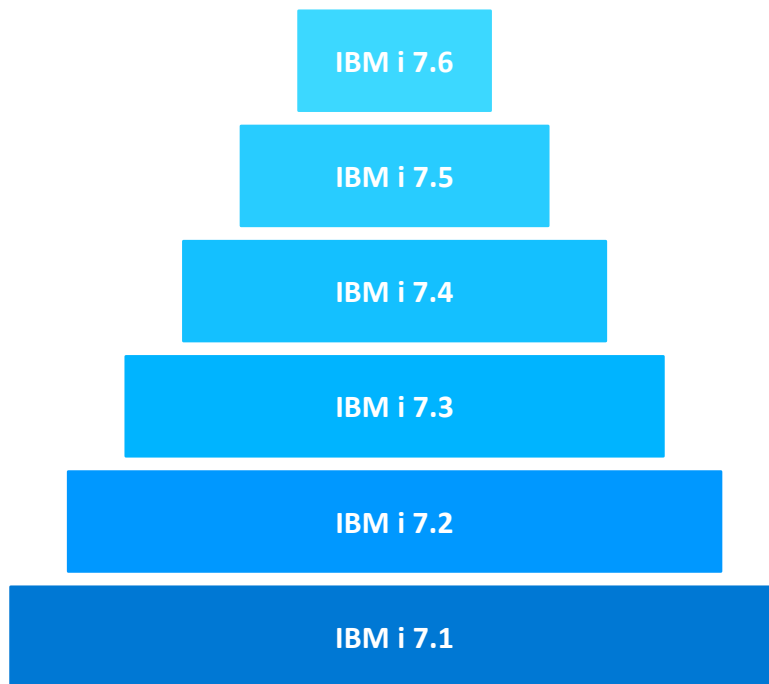
3 – no IOP or HSL support

<https://www.ibm.com/support/pages/node/6023368>

# OS Levels

## IBM i release in cloud and yours

- Easy when the Same
- Migration issues
- Compatibility
- 3rd Party application dependencies
- PTFs



# What Are You Moving?

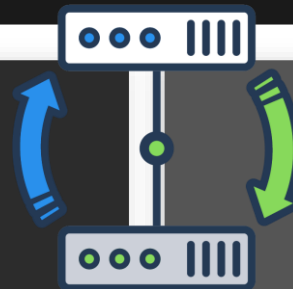
**Production**

**Test**

**High  
Availability**

**Disaster  
Recovery**

**New Workload**



# How Will You Get Your Data to the Cloud?



# Migration

- Plan how many times
- Repetitive
- Tapes & VTL issues
- Encryption
- FTP
- Save and Restore
- Migrate while Active
- Replication



- Distance
- Time
- Replication
- Licenses
- Bandwidth
- Set-up

# Testing

- Who is in charge
- Test Scripts
- Involvement
- Load testing
- Sign-off



# Licenses

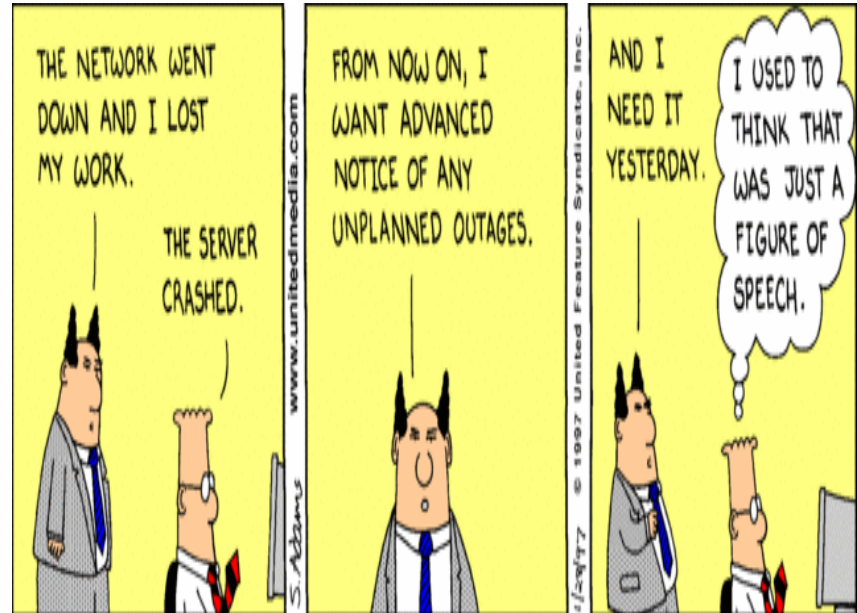
- SWMA & HWMA
- What is included
- 3rd Party application licenses
- Transferability of licenses
- Software ownership
- Different software tier



# Network Outage

⚠ When the network is down, so are you

- Multiple Connections
- Local redundancy
- Redundancy planning



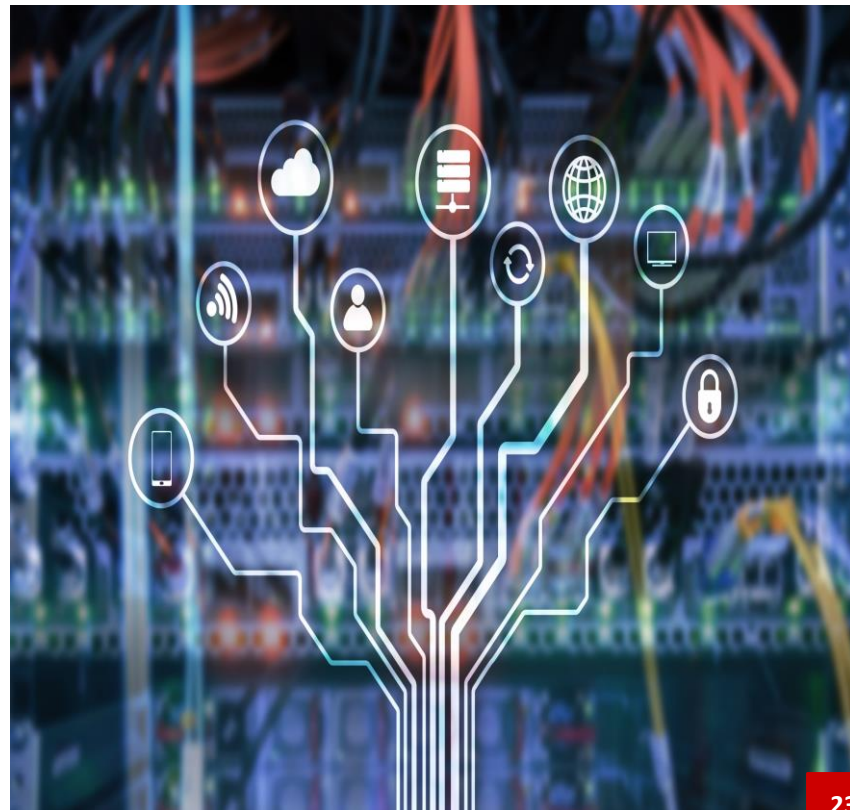
# Go Live

- Back-out Plan
- Performance issues
- Connectivity



# Operational

- Backups once there
- Disaster Recovery
- Network Outage
- **You still own your data**
- PTFs
- OS Upgrades
- Console Access
- Helping Hands
- Termination planning



# Your Turn!

Questions & Discussion



## CONTACT

**Pete Massiello**

petem@peteandi.com

Twitter: PeteM59

Thank you for attending!