



# How to Achieve Agility and Redundancy in the Hybrid Cloud



# Speakers

Bryan Bond

SR System Admin

eMeter, A Siemens Business

@VMJEDI

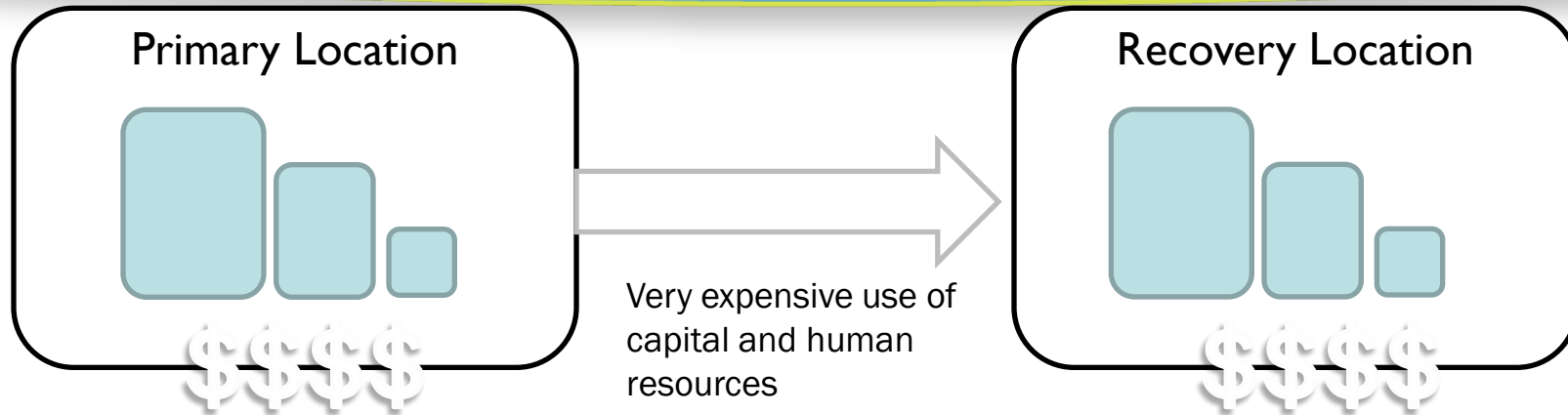
Pat O'Day

Chief Technology Officer

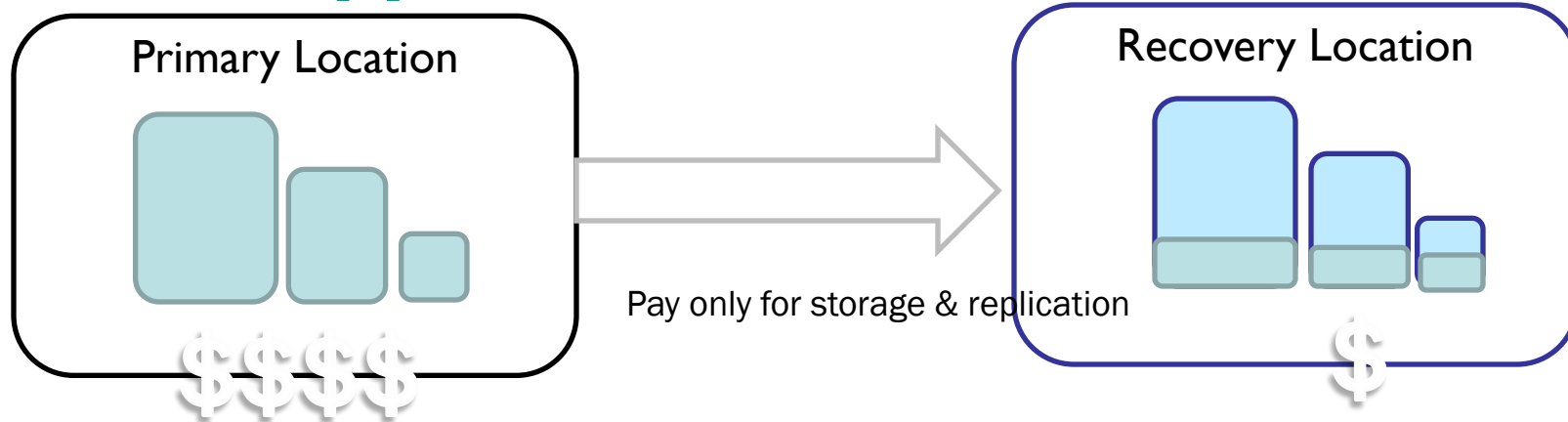
Bluelock

- **RaaS**
- **BaaS**
- **RTO**
- **RPO**
- **Application**
- **Declaration**
- **The Plan**

# Traditional Disaster Recovery



## New Approach



# Which approach is best for me?

- Driving factors:
- RTO/RPO requirements
- BW availability/cost
- How much am I protecting?
- What am I protecting against?
- Need for a third site if primary or secondary unavailable for long periods

# RTO/RPO Requirements

- How long can the application be unavailable?
- How much data can be lost in the recovery window?
- Will there be a performance impact in the recovery site?

# Bandwidth/Throughput considerations

- How big will the pipe need to be?
- Secure Tunnel/PtoP
- How will outage affect BW and access

# How much am I protecting?

- Total data set size at rest
- Rate of Change
- Replication time for ROC
- (RTO/RPO)
- What systems/application are actually critical?



# What am I protecting against?

- People
- Connectivity
- Power
- Physical location
- (Fire, Flood, Earthquake)

# Need for a 3<sup>rd</sup> site?

- If my primary or Secondary location is offline for XXX, what will I do?
- Effort level to secure new site
- Will my solution support Multipoint?
- Can I move rom site to site easily?

# Hybrid solution

- RaaS and BaaS blended approach
- Plan from back to front:
  - What will I need to bring this application online?
  - What infrastructure do I need in place prior to a failure?
- (AD, DNS, SMTP, Monitoring, etc.)

# Hybrid solution

- Define protection levels
- Come up with a number then throw out all but 4
- 1= No one cares
- 2= Probably unique data, but not important/critical to daily business operation
- 3= important/unique data but availability not critical
- 4= we loose money every minute this is down

# Hybrid solution

- 1= No one cares
  - Maybe storage based snapshots for convenience, definitely not copied off site
- 2= Probably unique data, but not important/critical to daily business operation
  - Storage based snapshots, array based replication, offsite BaaS.
  - Less RTO less RPO

- 3= important/unique data but availability not critical
  - Test data, Non critical/time sensitive business data, Data warehousing
  - Storage based backups
  - Array based replication
  - Offsite Backup (BaaS)
- 4= we loose money every minute this is down
  - Source code, customer data, archives, etc.
  - Storage based backups

# How do I do it?

- Look for solutions that meld with current technologies in place
- Look for partners that understand your needs and can adapt to them rather than forcing you into a mold
- Avoid large upfront investments
- Leverage backend solutions wherever possible (array based replication, tools)

# Planning phase

- Do I have all the pieces I need?
- Test to find out
- Keep all protection levels separate, no mixing of types
- Develop the run book as you proceed through the planning phase
- Test, test, test, test



- Who can make a failover declaration?
- What are the declaration parameter?
- How long do I have before I have to make a declaration?
- “I concur”
- “Hold on to your butts”

# Post declaration/failback

- Test failback
- May need a separate run book, not just go backward through the list.
- How long can I operate in recovery site?
- How long to reseed in reverse?
- RTO/RPO expectations on failback

# Montgomery Scott method of engineering

- Do NOT promise what you MIGHT be able to do
- Promise in writing what you are 100% capable of doing
- If you are 75% confident, maybe mention this at time of declaration (reduced RTO/RPO from SLA, etc.)
- If you are below 75%, keep it to yourself.
- Surprise them with more than you promised.

# Key items

- Get RTO/PRO defined based on actual ability to perform
- Fight to keep applications/systems off the top tier of protection
- Get buy in from the top down on all aspects
- Keep run book complete and up to date after each test

➤ @vmjedi

➤ [vmjedi@vmjedi.com](mailto:vmjedi@vmjedi.com)

➤ [www.vmjedi.com](http://www.vmjedi.com)