Why the Cloud is Perfect for DR

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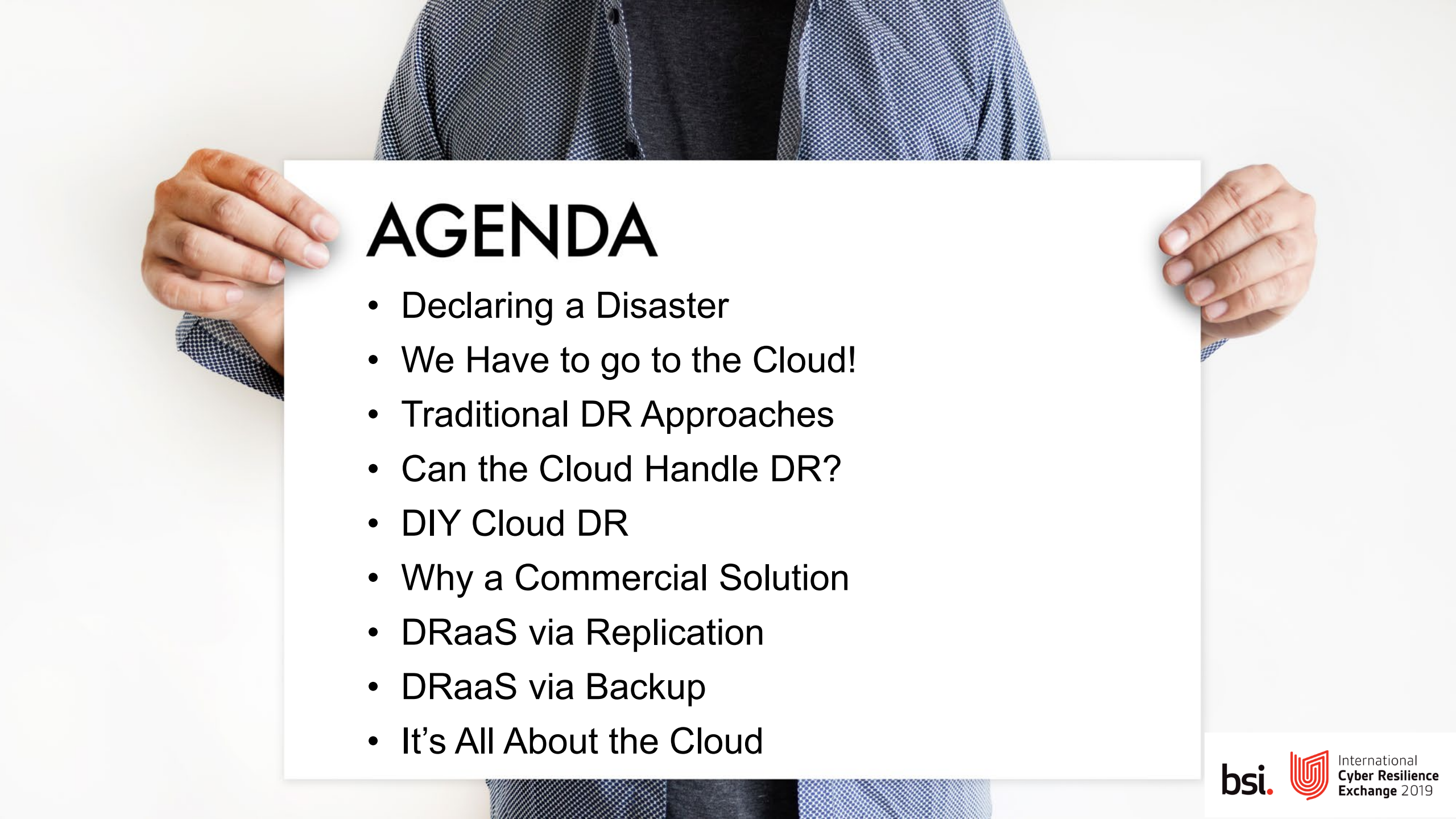


AGENDA

- Declaring a Disaster
- We Have to go to the Cloud!
- Traditional DR Approaches
- Can the Cloud Handle DR?
- DIY Cloud DR
- Why a Commercial Solution
- DRaaS via Replication
- DRaaS via Backup
- It’s All About the Cloud

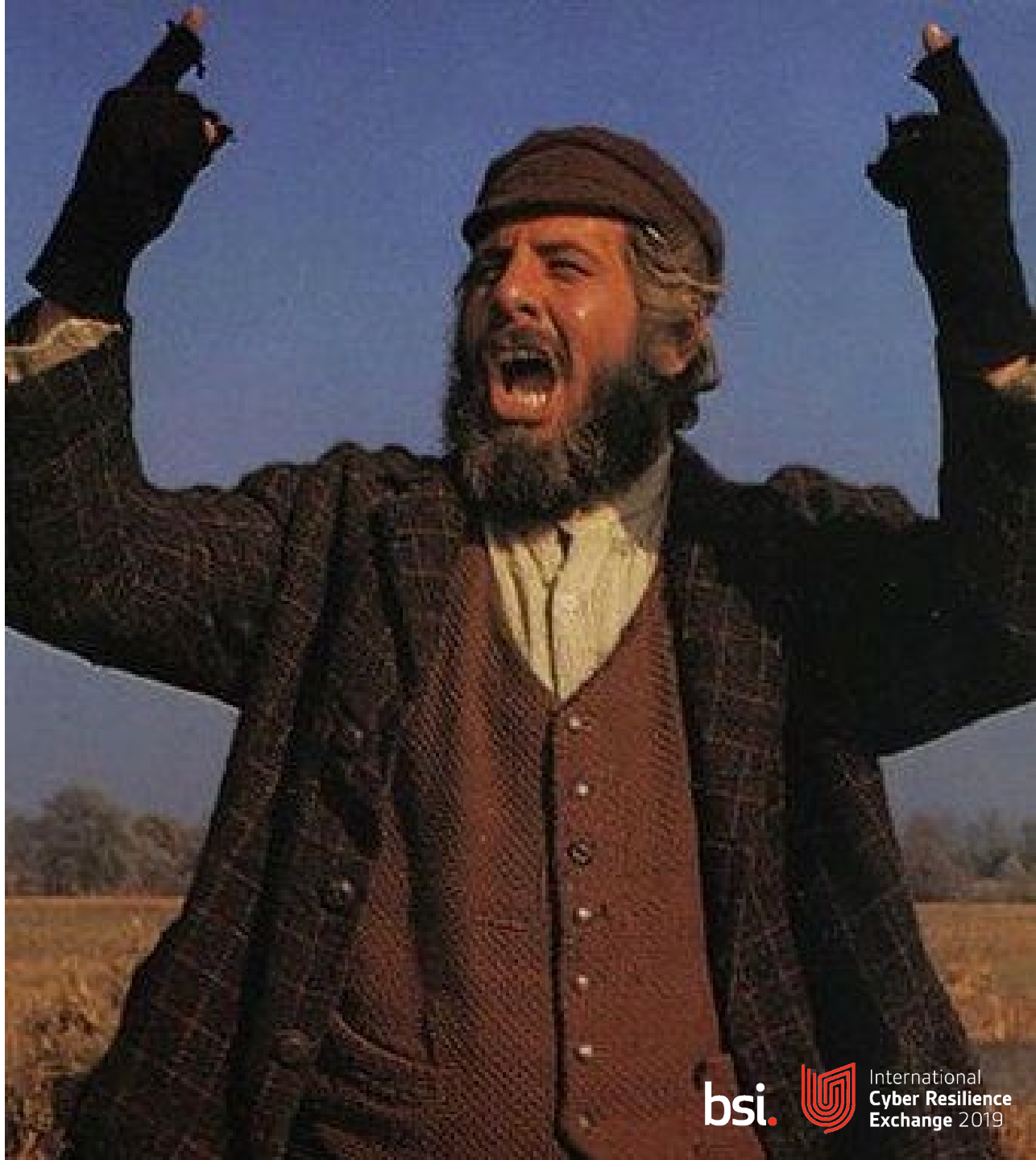
Declaring a Disaster

- Disasters are always unexpected
  - Natural disasters
  - Datacenter fires
  - Ransomware attacks
- Prepare for the unexpected
  - Loss of hardware
  - Loss of people
- Keys to success
  - Automation
  - Testing

We Have to go to the Cloud!

- A lot of push to go there
- Need successful first project
  - Creates momentum
  - Must meet technical goals
  - Save money
- DR often seen as great test case
- Why is that?

Traditional DR Approaches



Ignore it

- We'll just use our tape backups
  - *My bank did this for years…*
- DR is expensive
- Very common to ignore
- What about an actual DR system? Actual responses:
  - "We don't have the budget"
  - "I'll probably be dead anyway"
  - "If it happens I'll just quit"

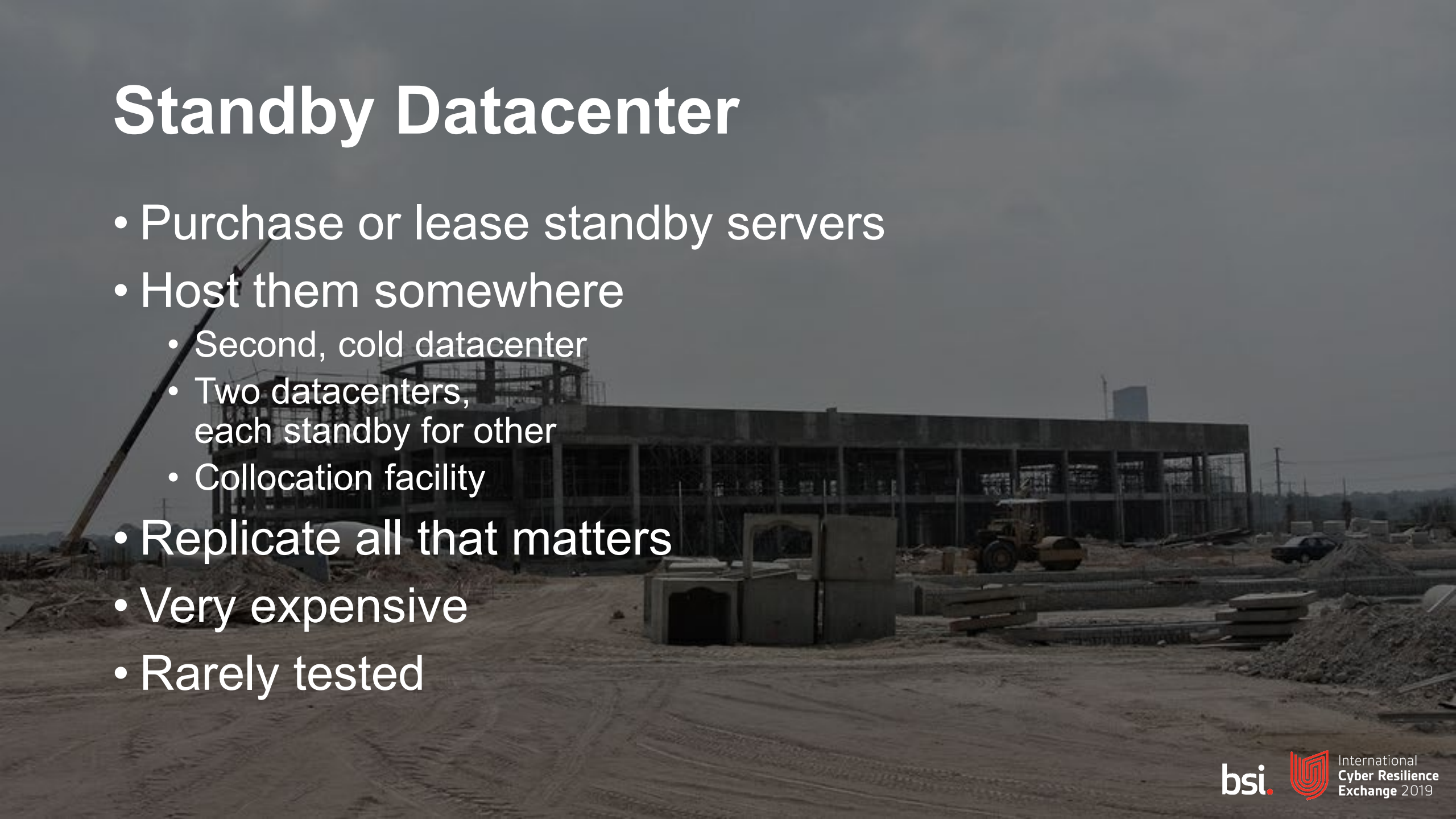
DR?

I don't need no stinking DR!

(my apologies to Bogey)

Standby Datacenter

- Purchase or lease standby servers
- Host them somewhere
  - Second, cold datacenter
  - Two datacenters, each standby for other
  - Collocation facility
- Replicate all that matters
- Very expensive
- Rarely tested



DR Service Provider

- Many companies with option to same datacenter
  - Like a gym membership or “unlimited” data plan
- Less expensive than own DC
- Oversubscription risk

Using the Cloud for DR

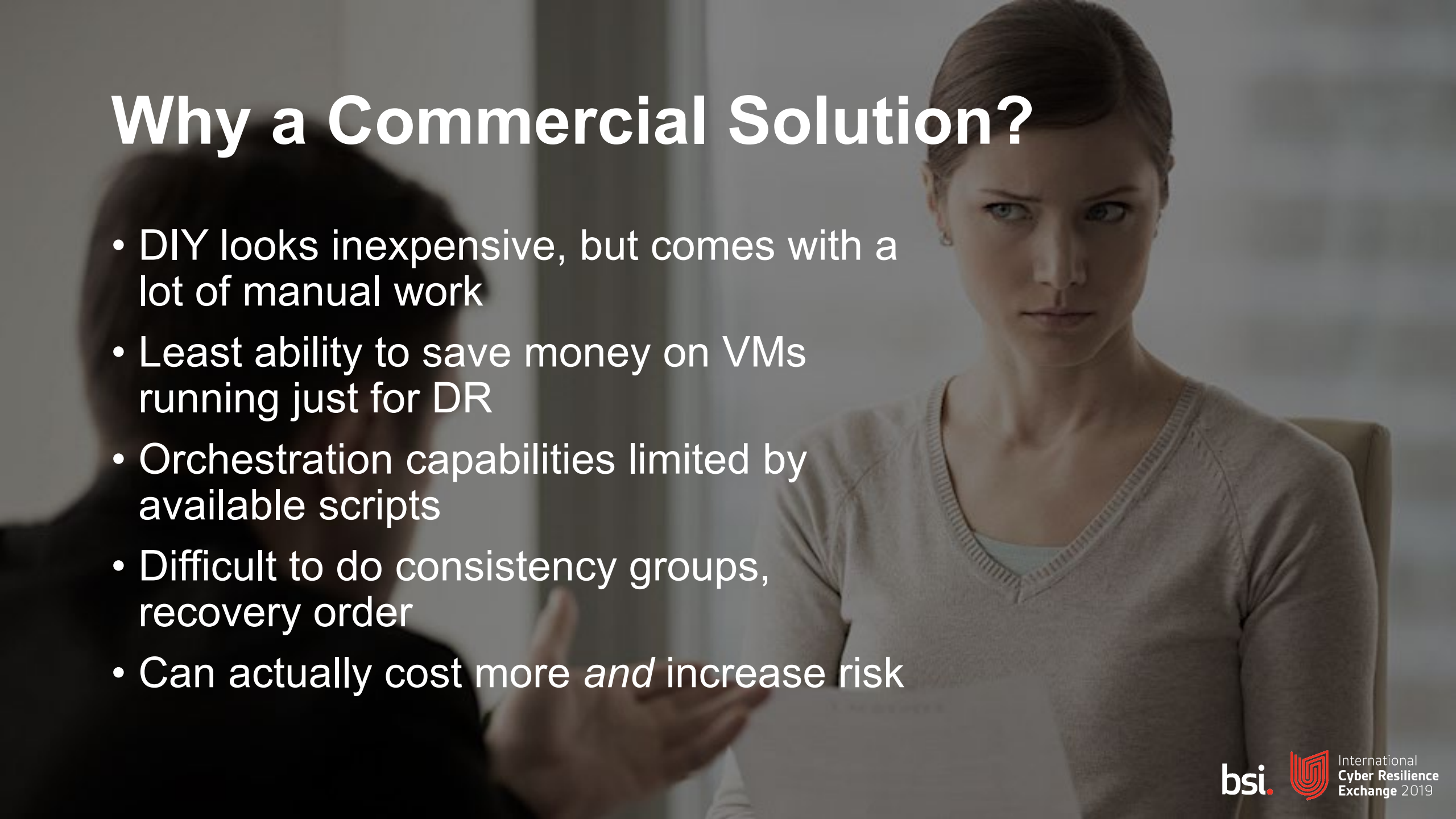
Can the Cloud Handle DR?

- What you need
  - Quickly restore
  - Significant compute, storage, and network resources
  - Available at moment's notice
  - Don't want to pay until then
- Public cloud the only way
  - Immediately-available, unlimited, pay-by-the-hour-and-GB resources
  - No regional constraints
- But *how* do you use the cloud?

DIY Cloud DR

- Run traditional replication software in VMs in the cloud
- Pros
  - Disguised as inexpensive
- Cons
  - Second protection system
  - Target VMs running 24x7
  - Target storage is block
  - Incompatibility VM tech
  - Usually requires significant planning, scripting, manual work

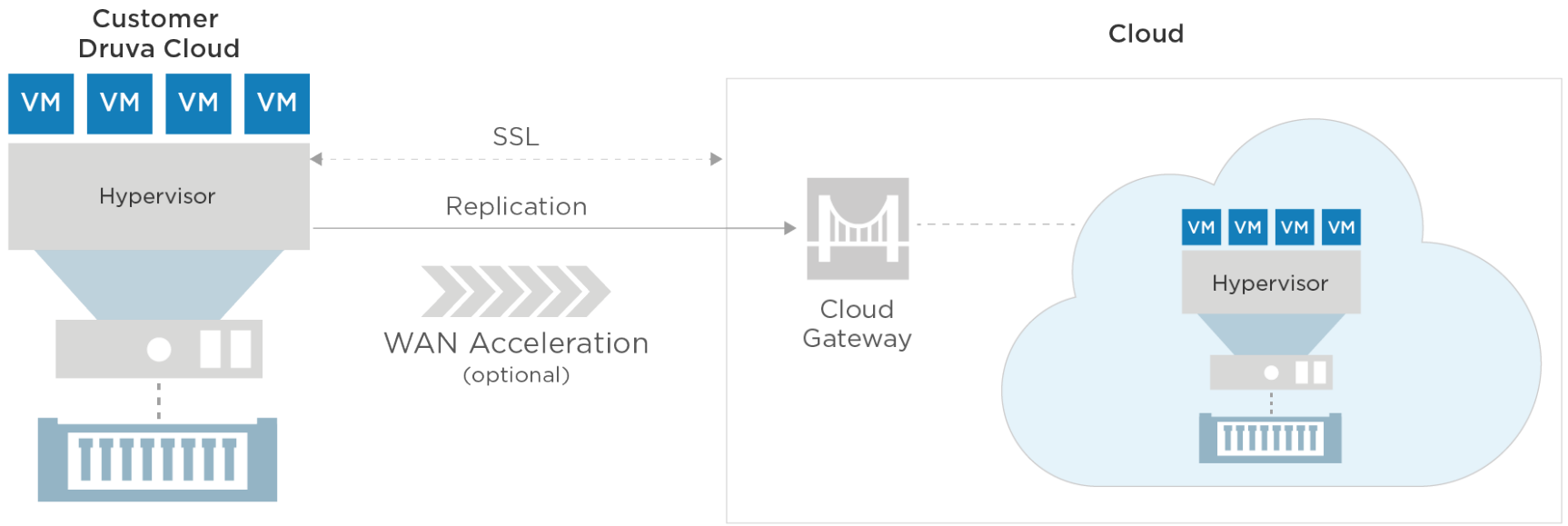
Why a Commercial Solution?



- DIY looks inexpensive, but comes with a lot of manual work
- Least ability to save money on VMs running just for DR
- Orchestration capabilities limited by available scripts
- Difficult to do consistency groups, recovery order
- Can actually cost more *and* increase risk

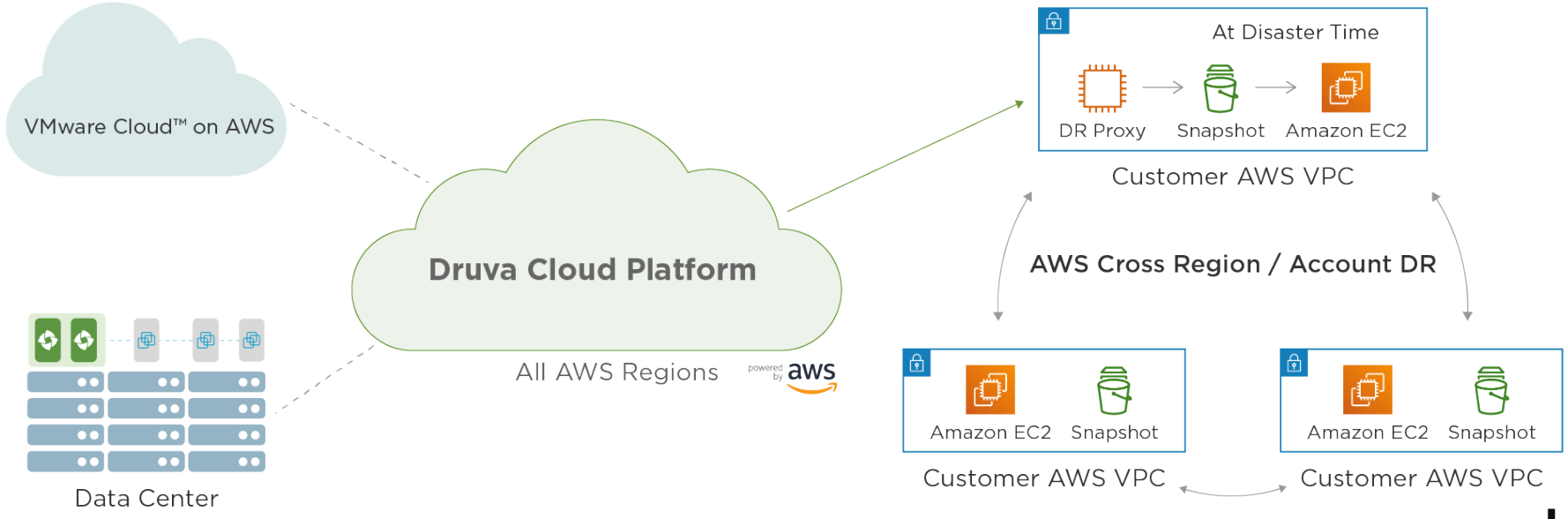
DRaaS via Replication

- Specialty replication software for virtualization and cloud
- Pros
  - Best RPOs and RTOs available
  - Solve incompatibilities, provide automation
- Cons
  - Second protection system
  - Target VMs running 24x7
  - Target storage usually block
  - Second



DRaaS via Backup

- Use cloud-based backup copy to populate DR site
- Pros
  - Single system for backup & DR
  - No need to run target VMs
  - Target copy can be EBS snapshot
- Cons
  - RTOs limited by available tools
  - RPOs limited by backup frequency



It’s All About the Cloud

- Instantiate and scale immediately
- Minimal ongoing costs (if you do it right)
- Ability to easily and repeatedly test declaring a disaster
- It’s a marriage made in …
  the clouds