InMage

Leveraging Cloudbursting To Drive Down IT Costs

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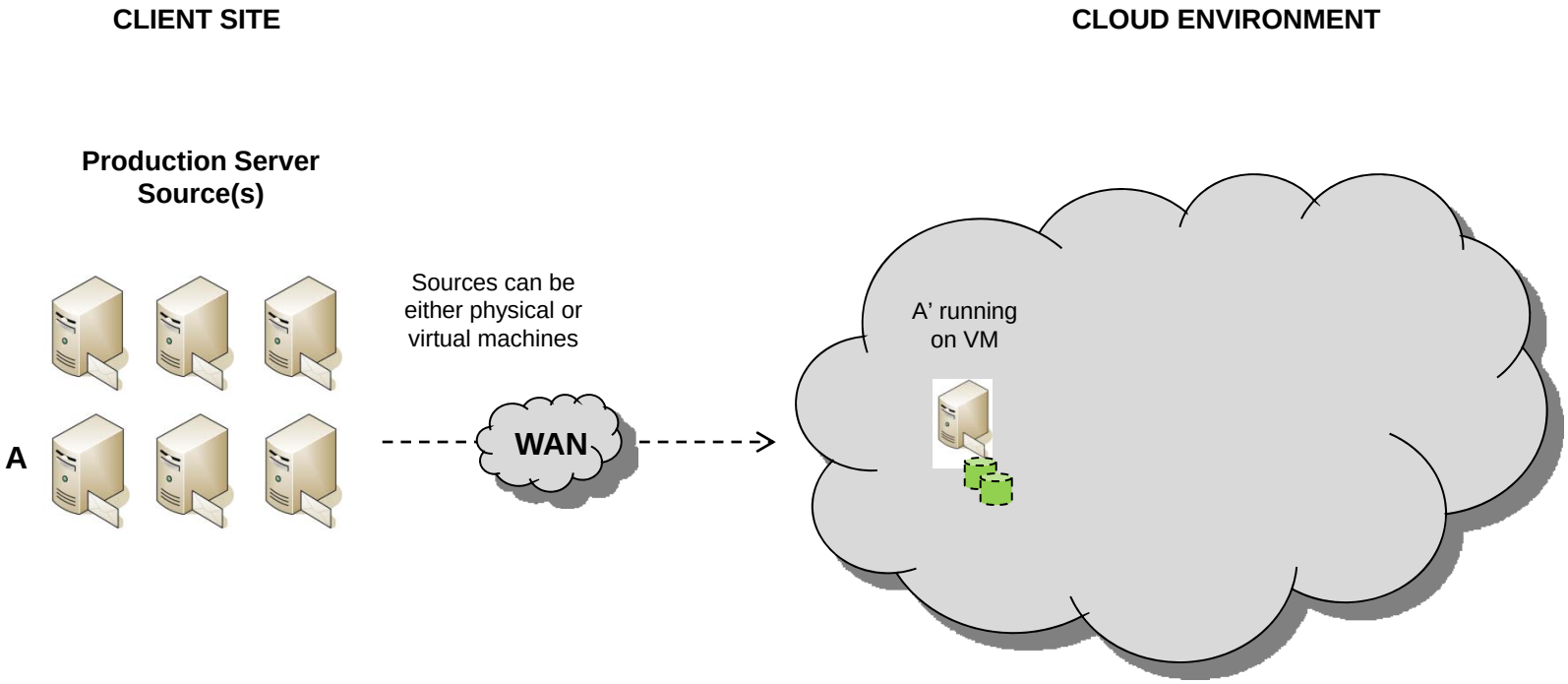
Defining The Cloud

- Provides easy access to IT services on demand
- Makes all IT infrastructure management issues transparent
- Massively scalable and dynamically elastic
- Utility driven (pay as you go)
- Accessible via Internet (public) or VPN (private)
- Enables multi-tenancy

What Is Cloudbursting?



Re-create infrastructure services at cloud sites on demand

Foundation For Cloudbursting

- **Virtual machines hosted/provisioned on demand**
  - Must support the right virtual server/OS platforms
- **Asynchronous replication**
  - Combined with some ability to create snapshots
  - How you get the data there
- **Recovery automation**
  - Simplifies associated administrative operations
- **The right “pay as you go” licensing model**
  - Enables easy scale up/scale down of resource utilization

“Enterprise” Cloudbursting

- **Secure, resilient and scalable**
  - Ability to encrypt data in-flight, enterprise-class
  - Able to handle high data growth rates, large data sets
  - Non-disruptive IT elasticity
- **Flexible deployment options**
  - Support for any storage architecture (DAS, SAN, NAS)
  - Can accommodate any application
- **Management capabilities**
  - Make “cloudbursting” easy to use
  - Easy access to needed copies of production data
  - Automated application failover/failback
- **Technologies to keep data transmission costs low**
  - WAN optimization, among others

Cloudbursting Lowers Costs

- **Provision resources on demand as needed**
  - Servers, storage, network
- **Offload most infrastructure management issues**
- **Quickly and easily shut provisioned resources down**
- **Hits OPEX not CAPEX budget**
- **Another major step on the road to true “utility” computing**

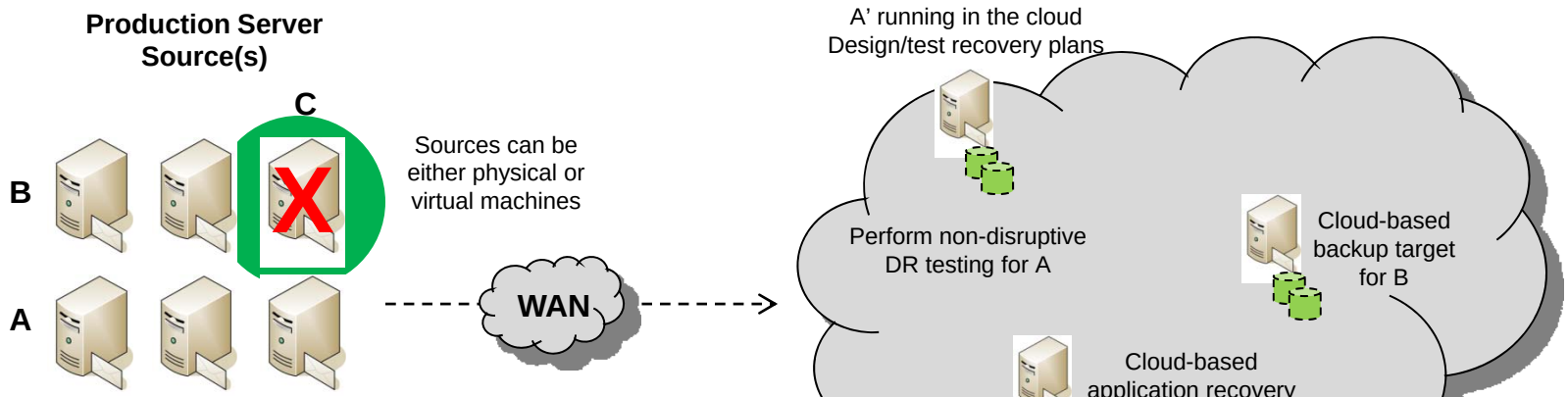
Cloudbursting Use Cases

- **Recovery**
  - Designing/testing server recovery
  - Disaster recovery (DR) plan
  - Non-disruptive DR testing
  - Enable recovery environments to be created on demand
- **Administrative**
  - Maintenance
  - Test applications at scale
  - Development use
  - Reporting/analytics
- **Production**
  - Meet seasonal or unexpected demands without CAPEX
  - Provide integrated workspace services
    - Mail, portal, collaboration, messaging, remote meetings

Recovery Use Cases

CLIENT SITE

CLOUD ENVIRONMENT



Mission-critical server A needs a recovery plan to meet SLA

Need to periodically perform non-disruptive DR testing for "A"

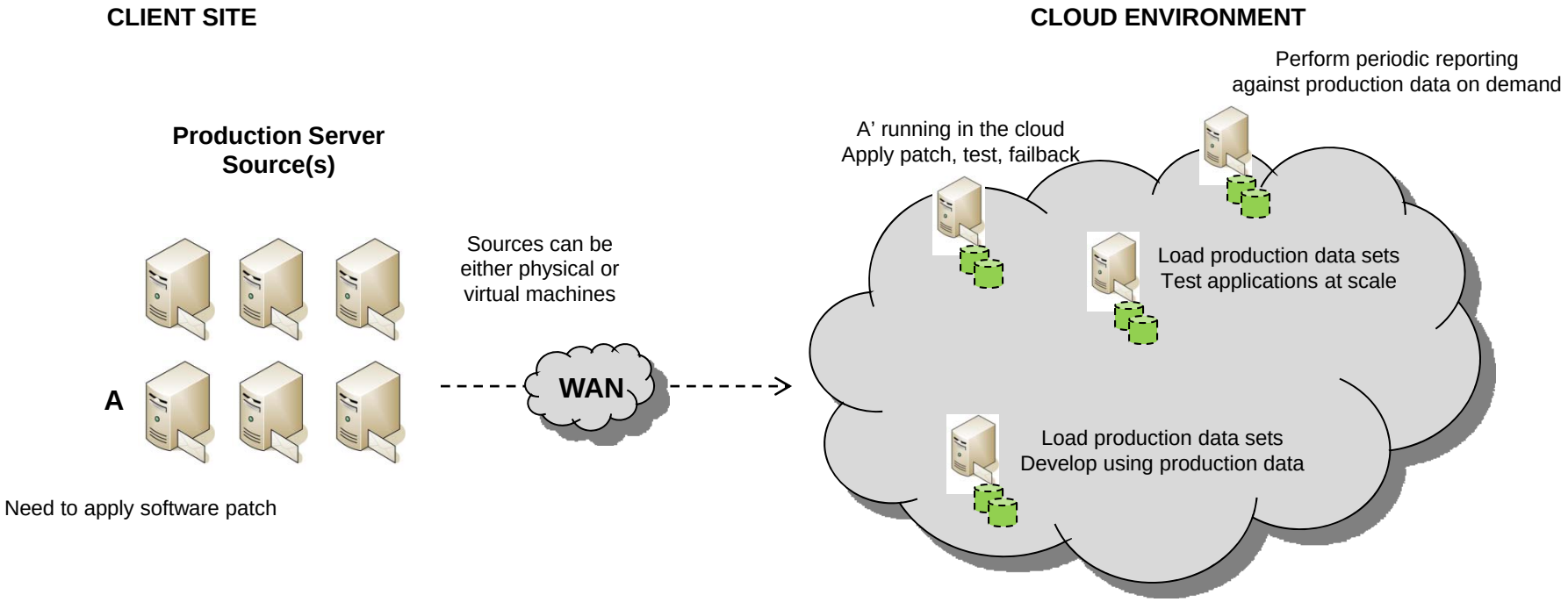
BENEFITS

- Rapidly provision infrastructure for test/dev
- Outsource IT infrastructure management needed to meet varying recovery needs
- Pay only for what you use

ENABLING TECHNOLOGIES

- Continuous data protection
- Bi-directional asynchronous replication
- On demand VM provisioning
- Application failover/failback
- WAN optimization
- Security as necessary
- Application licenses

Ease Daily Administration



BENEFITS

- Perform "no risk" maintenance
- Rapidly provision infrastructure for test/dev
- Outsource IT infrastructure management needed for administrative purposes
- Leverage "cheap cycles" for reporting and analytics

ENABLING TECHNOLOGIES

- Continuous data protection
- Bi-directional asynchronous replication
- On demand VM provisioning
- Application failover/failback
- WAN optimization
- Security as necessary
- Application licenses

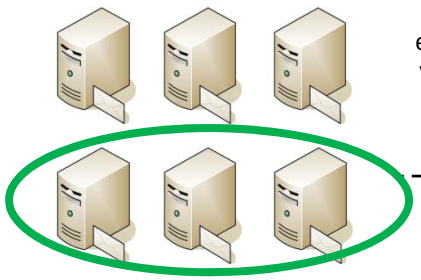
Meeting Seasonal Demand

CLIENT SITE

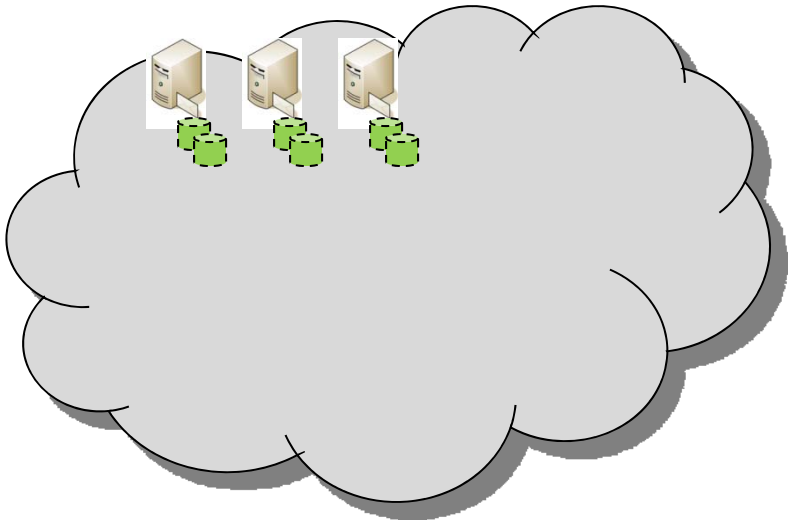
CLOUD ENVIRONMENT

Create another instance of retail application to handle increased seasonal load

Production Server Source(s)



Sources can be either physical or virtual machines



Retail application currently running across 3 Windows Servers

BENEFITS

- Take advantage of increased seasonal demand to increase revenues
- Easy IT elasticity on demand
- Expand performance without CAPEX
- Limited management involvement on additional infrastructure

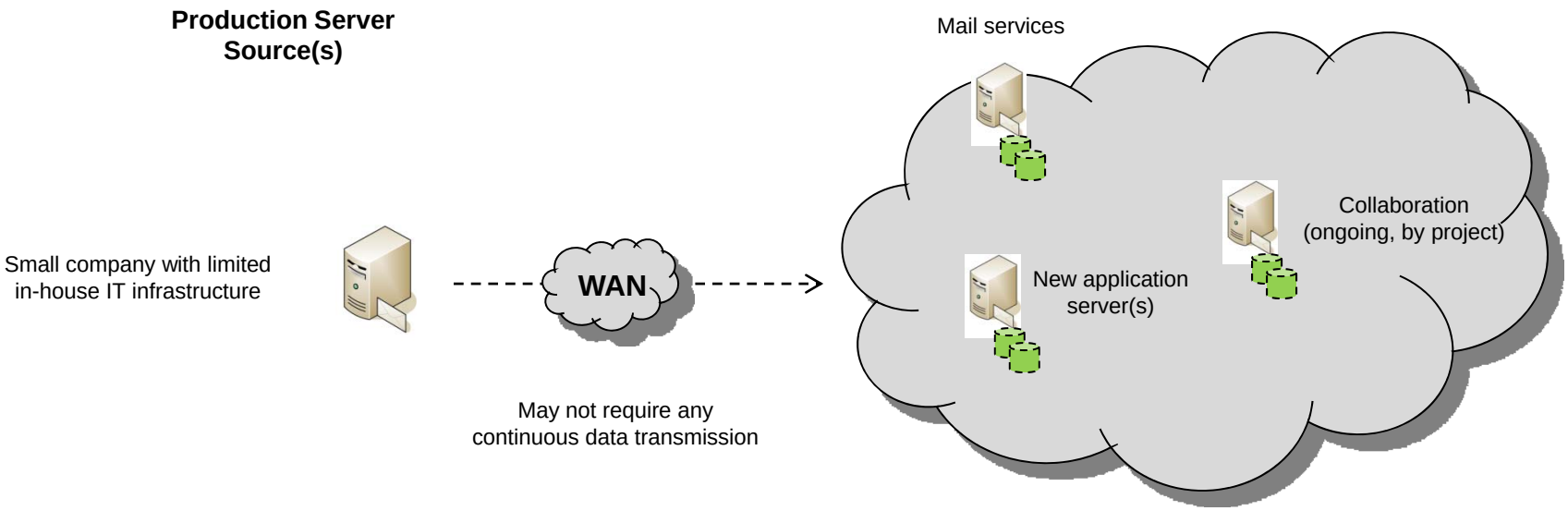
ENABLING TECHNOLOGIES

- Asynchronous replication
- Snapshots at remote site
- On demand VM provisioning
- Security as necessary
- Add'l application licenses

Integrated Workspace Services

CLIENT SITE

CLOUD ENVIRONMENT



BENEFITS

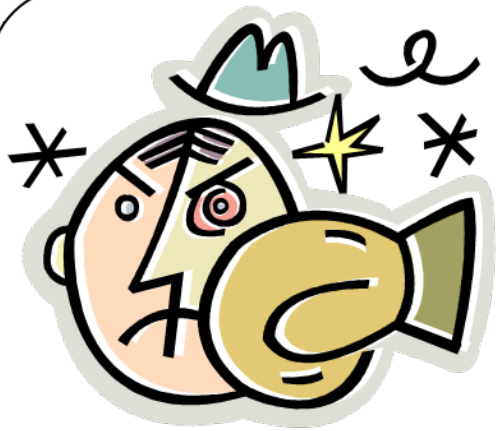
- Rapidly bring services up without CAPEX
- Outsource IT infrastructure management
- Focus on what you do best, not IT

ENABLING TECHNOLOGIES

- On demand VM provisioning
- Security as necessary
- Application licenses

Cloudbursting For Recovery

- **Generating the right recovery point(s)**
  - How much overhead must be incurred?
  - Appl
  - RPO
  - Perf
- **Minimi**
  - It's r
  - Auto
- **Keeping**
  - How many recovery products are required?
  - The "costs" of complexity
- **Storage capacity optimization**
  - Using it to keep storage capacity, network bandwidth costs down



Inflexible Recovery

CDP's 1-2 PUNCH

Eliminate backups

Near zero RPOs

Summary

- **Cloudbursting provides IT elasticity…**
- **…while helping to lower IT infrastructure costs**
- **Recovery and testing are primary current use cases**
- **Certain technologies provide interesting cloud infrastructure capabilities**
- **Cloud provider infrastructure determines ability to support “production” use**