

# **Change in the Air: Economics of Cloud**

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# Why does scale matter?

- ✓ Supply side economies
- ✓ Demand side economies

# Supply Side Economies of Scale

## DATA CENTER PROJECTS (LAST 12 MO.)

- Cost of hardware
- Cost of labor
- Cost of power

Company	Location	DC Cost (\$M)	DC Size* (MW)
NSA (July '09)	Camp Williams, UT	\$2,000	130
Apple (May '09)	Maiden, NC	\$1,000	65
Social Security Admin (Feb '09)	Baltimore, MD	\$400	27
Facebook (Feb '10)	Princeville, OR	\$215	15
Internet Villages (July '09)	Annandale, Scotland	\$1,600	107
Lockerbie Data Centers (Dec '09)	Lockerbie, Scotland	\$1,500	100
Next Generation Data (Mar '10)	Wales, UK	\$301	20

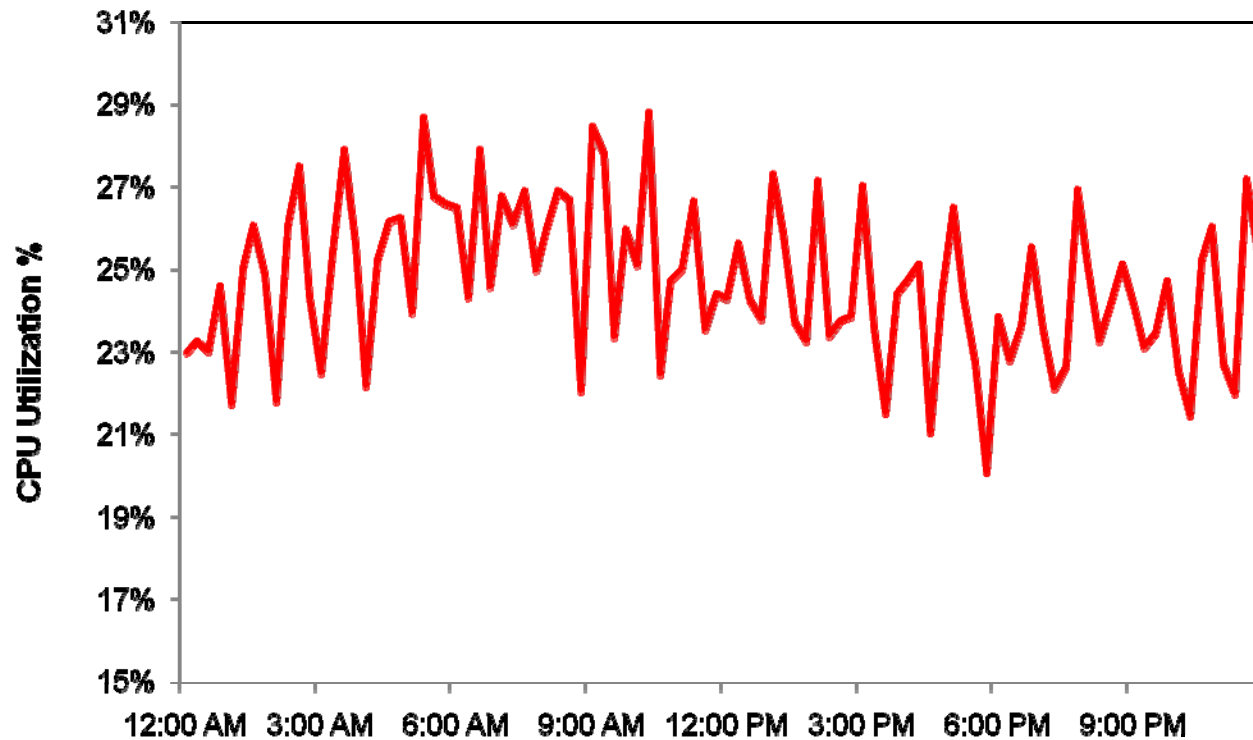
*Source: Company press releases*

*\* Estimates based on \$15M/MW build out cost*

# Demand Side Economies of Scale

Variability: Random Usage Patterns

## EXAMPLE LOB APPLICATION SERVER LOAD

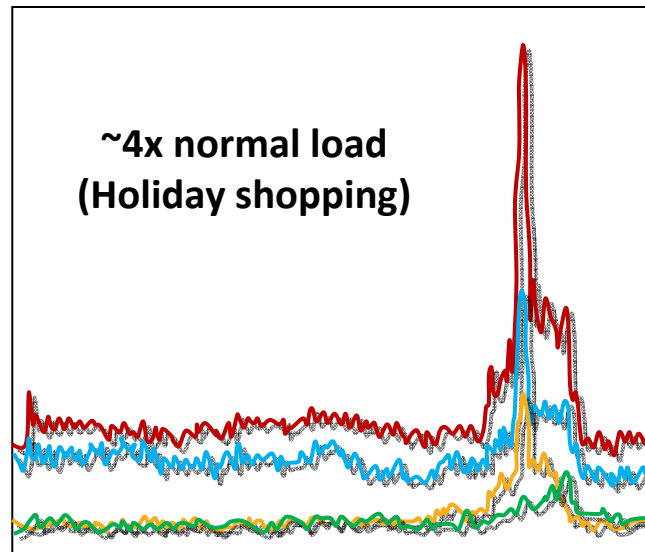




# Demand Side Economies of Scale

Variability: Seasonality

● target.com      ● walmart.com  
● toysrus.com    ● barnesandnoble.com

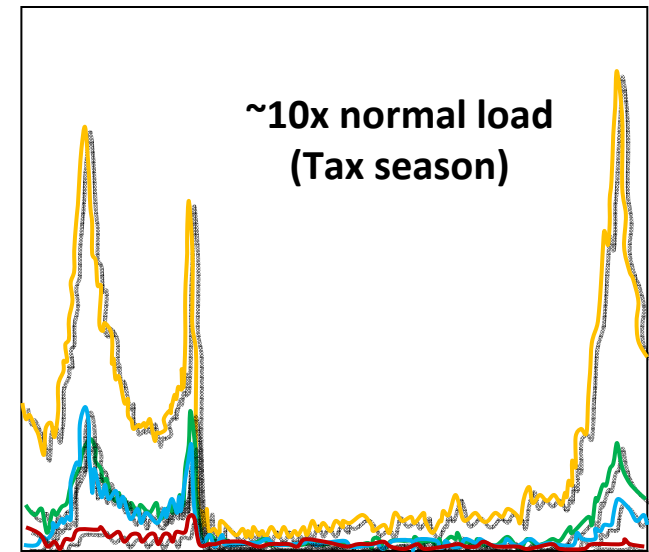


Jan 2009

Jan 2010

Source: Alexa

● turbotax.com      ● taxcut.com  
● hrblock.com      ● taxact.com



Jan 2009

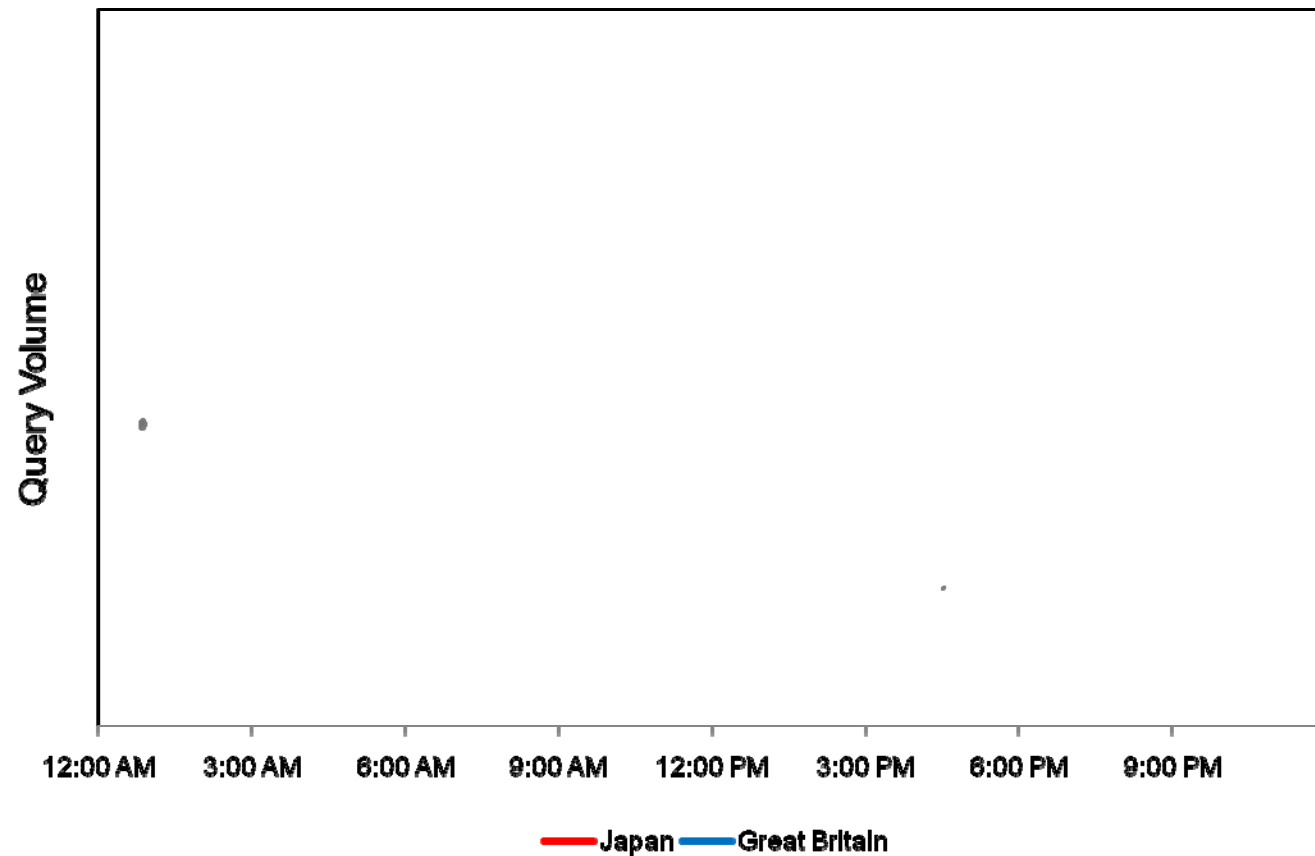
Jan 2010

Source: Alexa

# Demand Side Economies of Scale

Variability: Time of Day

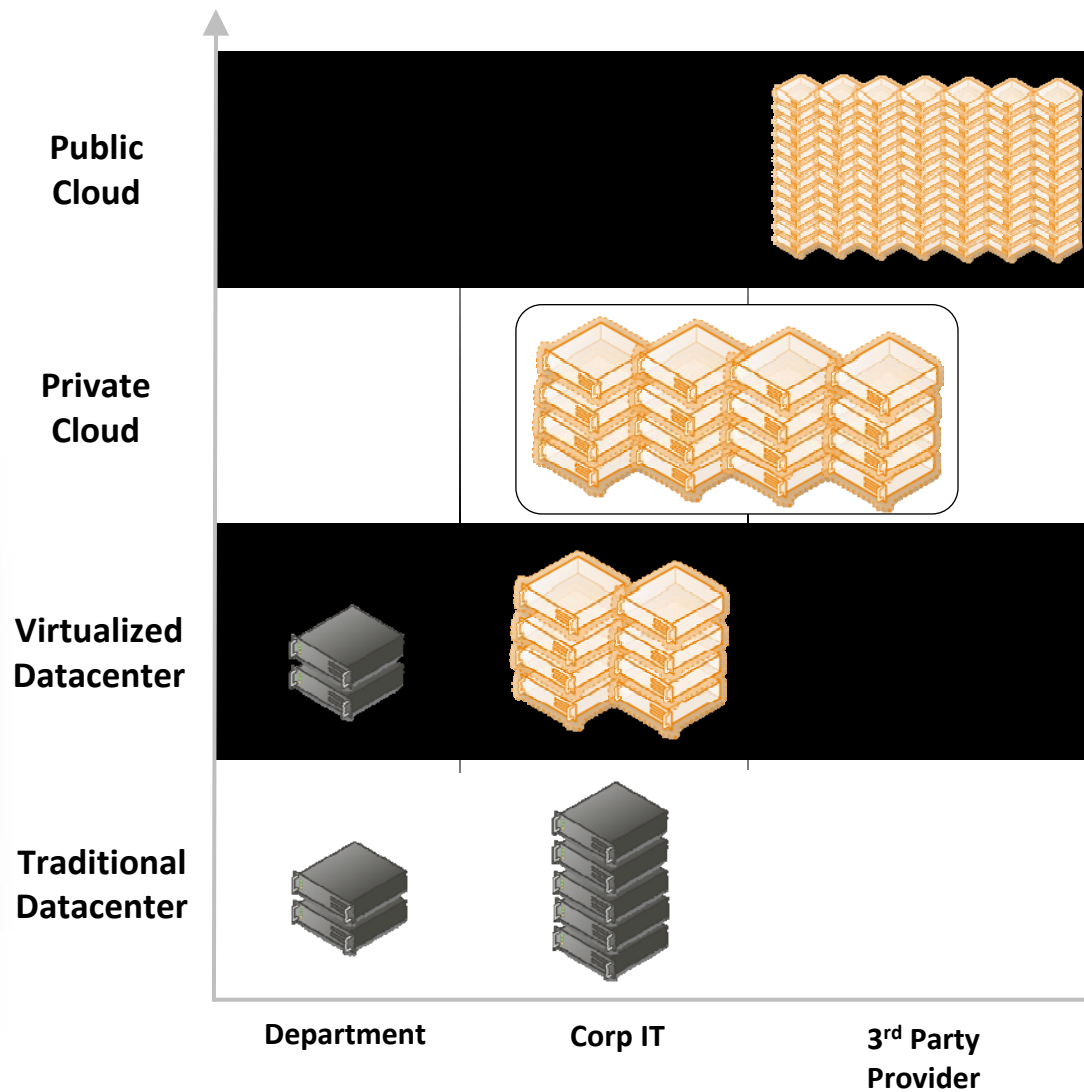
## BING SEARCHES – JAPAN VS. UK



Source: Microsoft

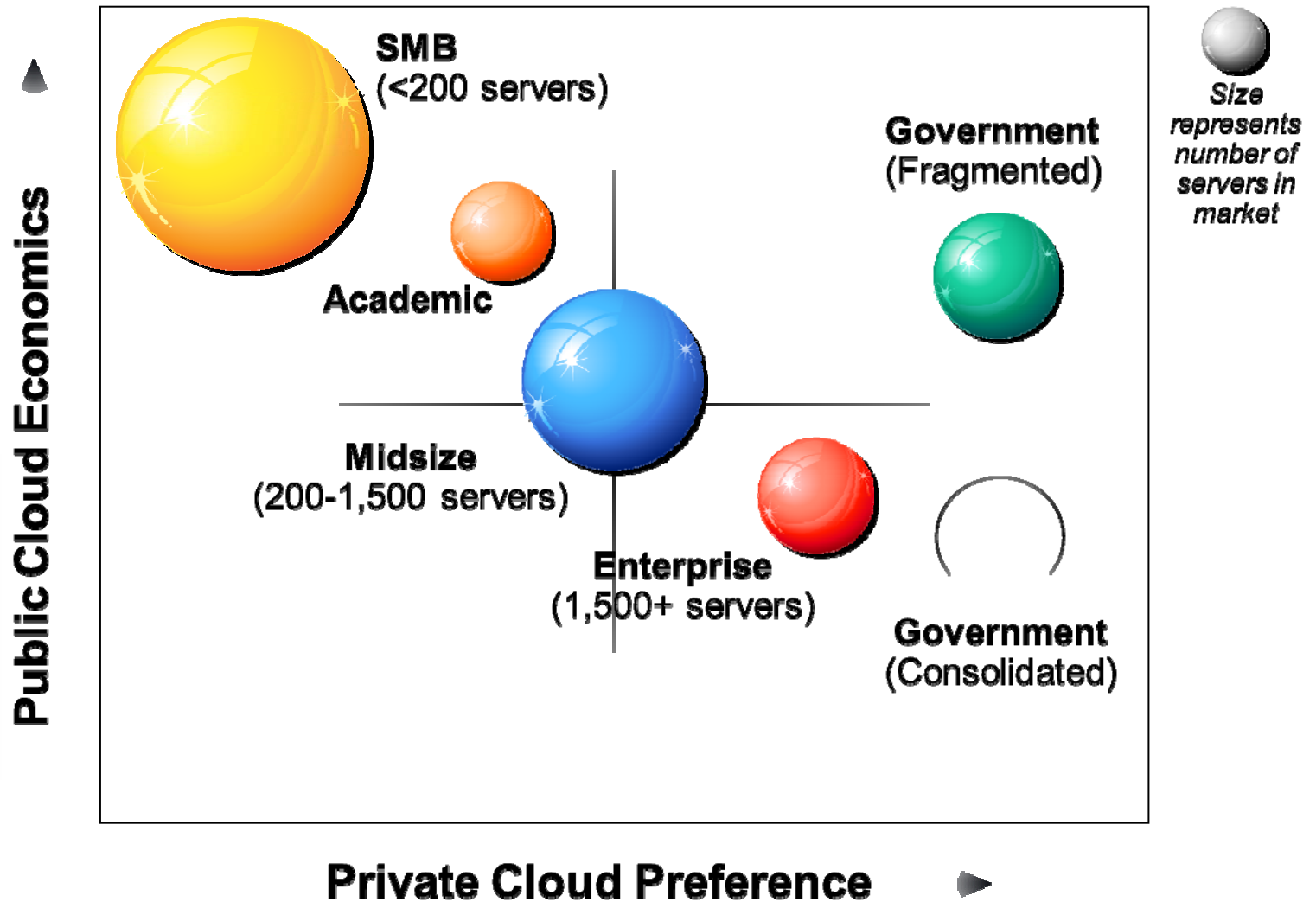
# Public cloud, private cloud

# Public Cloud, Private Cloud



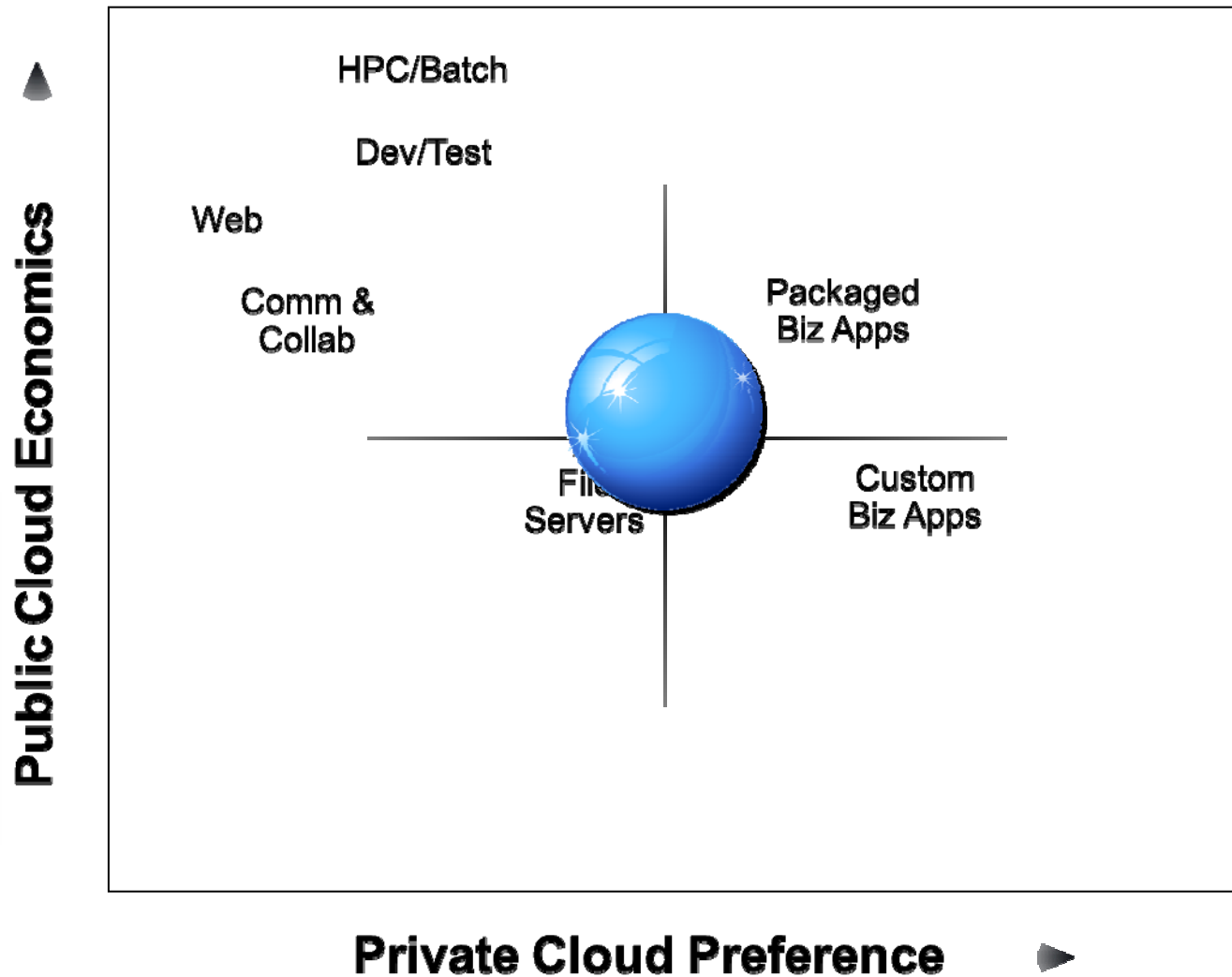


# Public Cloud, Private Cloud



# Public Cloud, Private Cloud

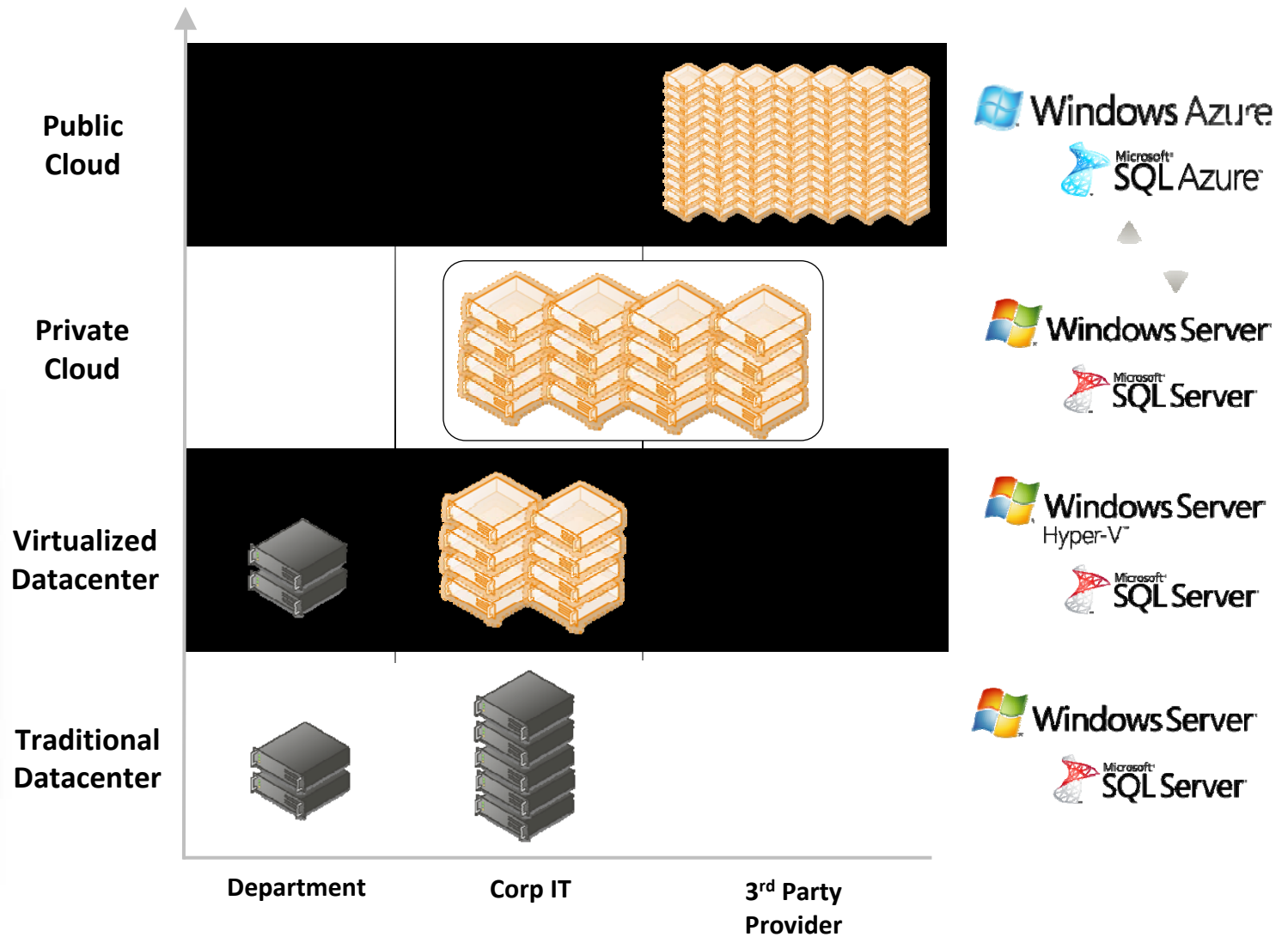
Midsize Company Example



Source: Microsoft

# Public Cloud, Private Cloud

**CLOUD  
LEADERSHIP  
FORUM**  
Produced by IDC & IDG Enterprise





# Takeaways

- ✓ It's about scale
- ✓ Economic forces driving the shift
- ✓ Pace of uptake increasing
- ✓ Hybrid clouds in the interim
- ✓ Consistency matters



**We're all in.**