

Surviving Clouds

*Vendor Hype or Path to
the Future?*



infrastructure &
cloud transformation



Where we are going...

- Characteristics of the operational methodology
- Underlying economics
- 2 Non-economic effects



“The problem with the world today is that there are too many people talking shite, and not enough people being smacked in the gob”

Billy Connolly 1991



- Enable refocus of IT organisations from a traditional technology platform bias, to one directly supporting business differentiation and business outcomes;
- Reduce capital and operational cost of IT platforms and services;
- Maximise investment dollars;
- Increase capability, connectivity, capacity and agility.



...the education world is changing and IT teams must be
prepared to change to be part of it.

Be the experts in the USE of technology

NOT in the support of technology

Take Aways

Exorcise the must-do-it-ourselves culture.

Shared services is evolving and growing.

Seek out ways you can contribute to,
and utilise this capability.

Use shared services to let go...

Focus on the needs and the services.

O. S. S. M.

On demand

Scalable

Self service

Metered



Economic drivers -

- Supply side economics of scale
- Demand side aggregation (statistics of scale)
- Multi-tenancy



Economics of scale:

- Power (electricity)
- Infrastructure labour
- Security, resilience/reliability
- Buyer power



Statistics of scale: Utilitisation



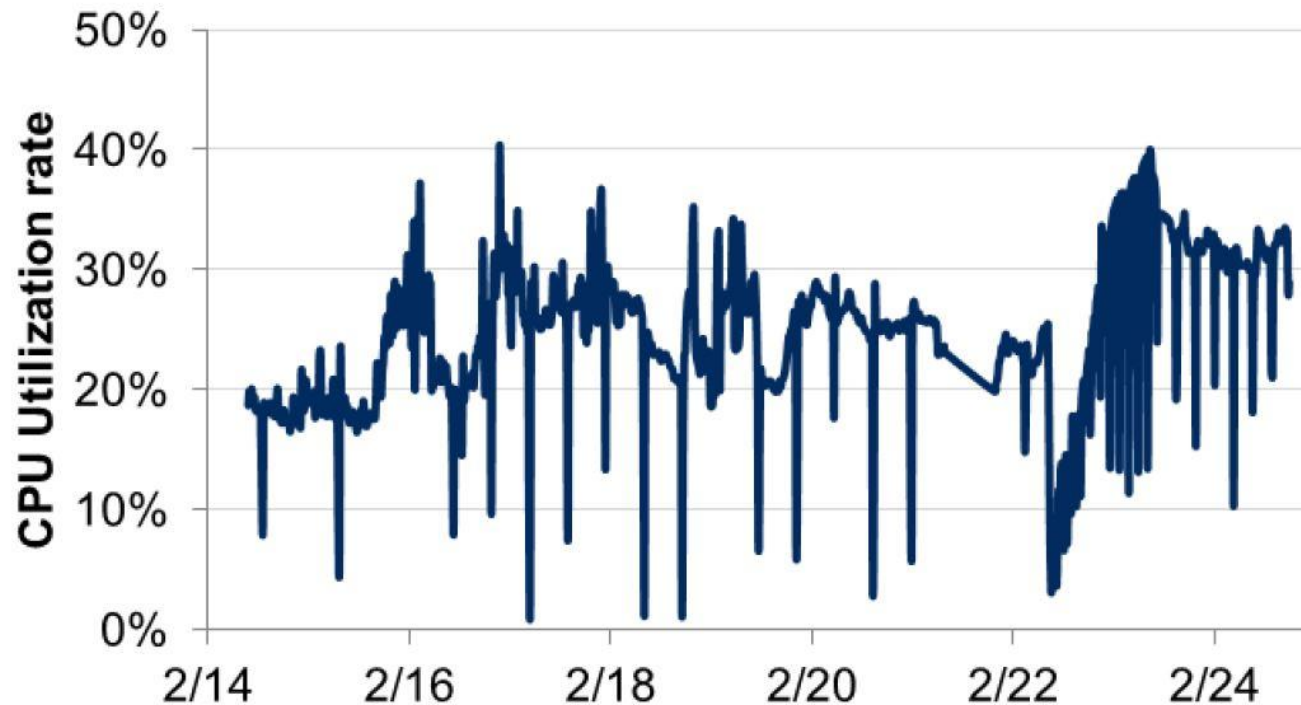
Statistics of scale

$$Cv(N) \propto 1/\sqrt{N}$$



Randomness

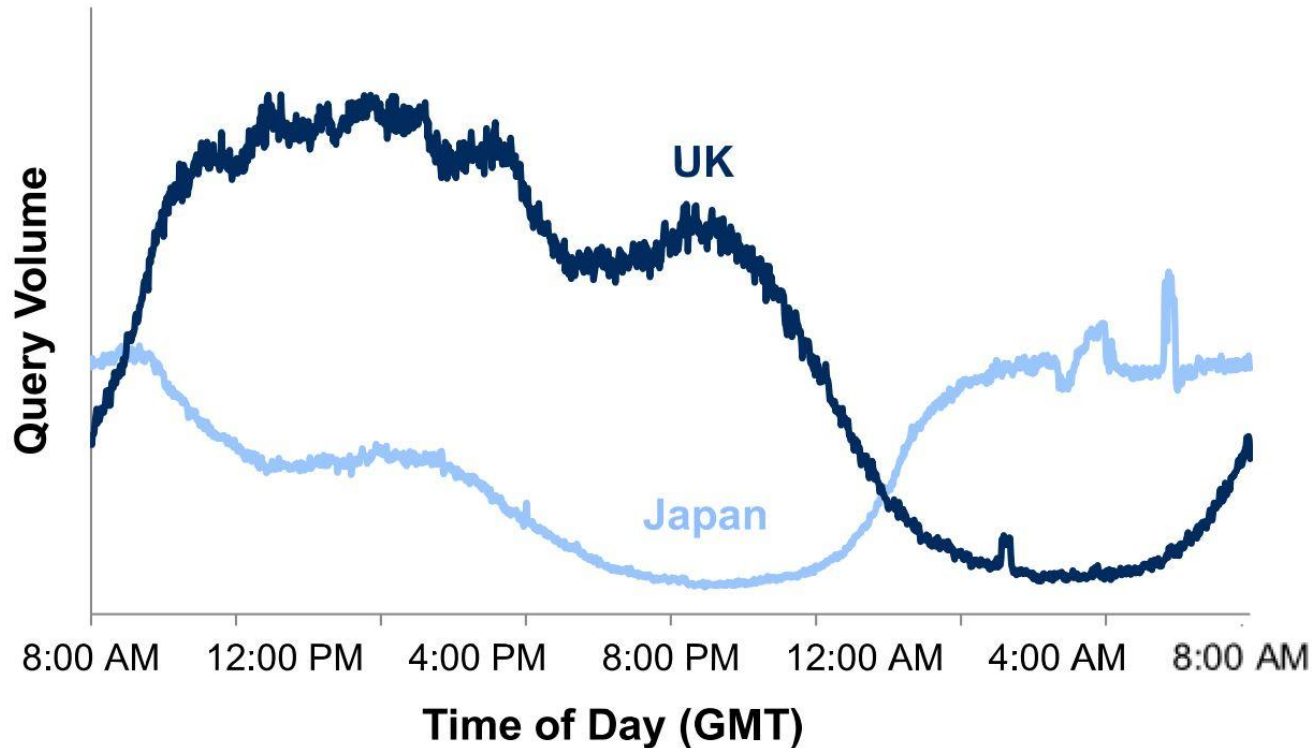
FIG. 6: RANDOM VARIABILITY (EXCHANGE SERVER)



Source: Microsoft.

Time of Day

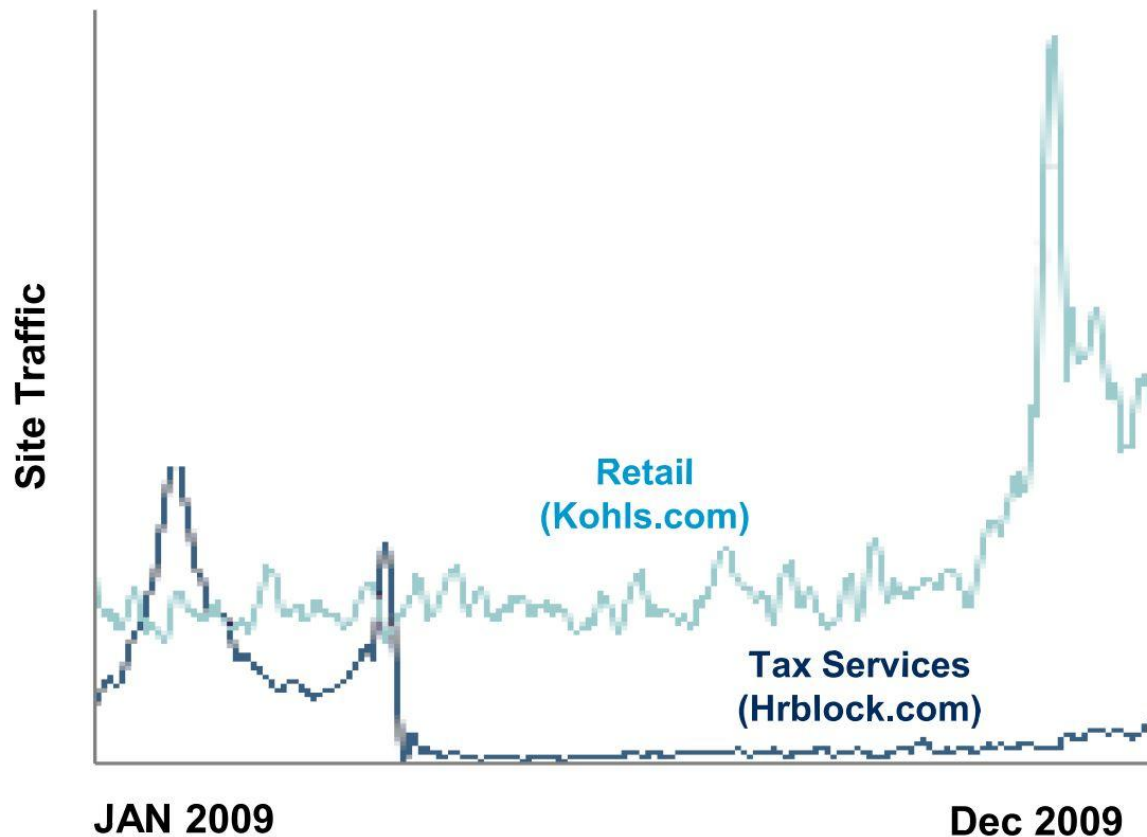
FIG. 7: TIME-OF-DAY PATTERNS FOR SEARCH



Source: Bing Search volume over 24-hour period.

Industry Specific

FIG. 8: INDUSTRY-SPECIFIC VARIABILITY

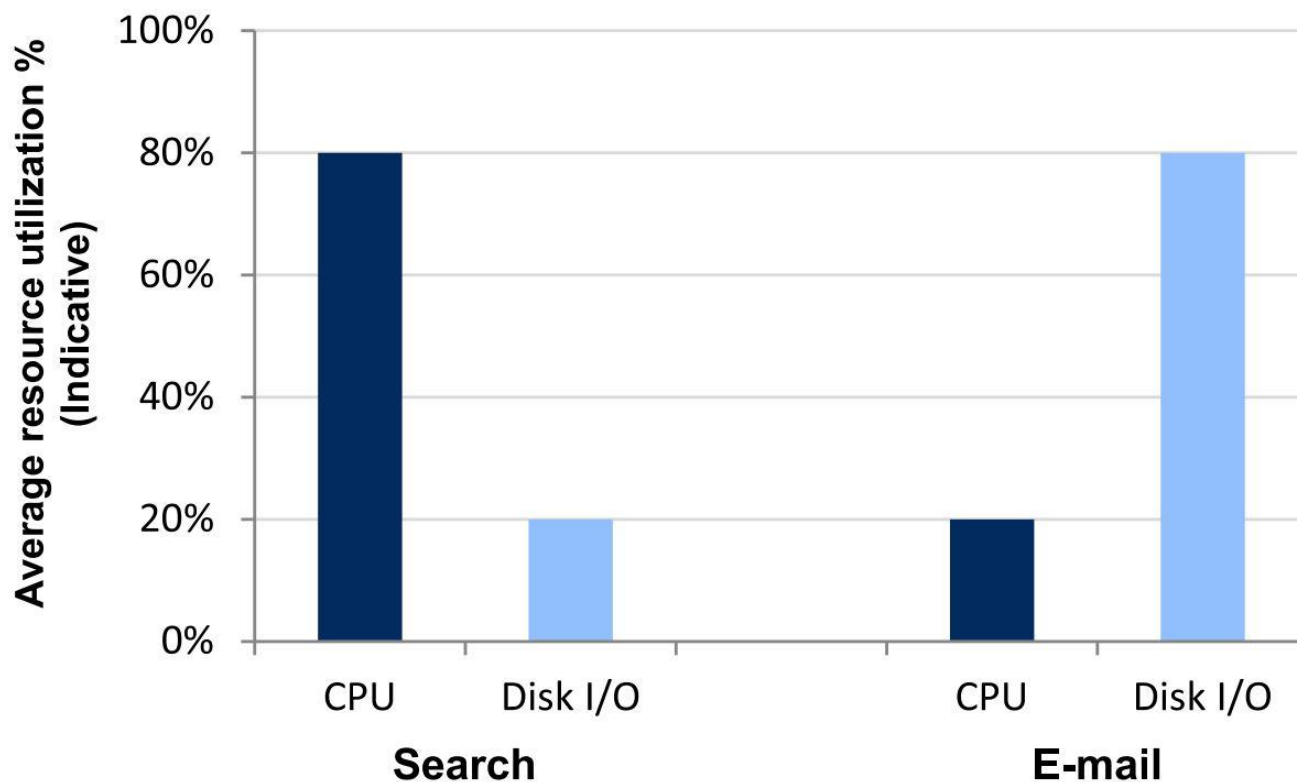


Source: Alexa Internet.



Resource specific

FIG. 9: MULTIRESOURCE VARIABILITY (ILLUSTRATIVE)

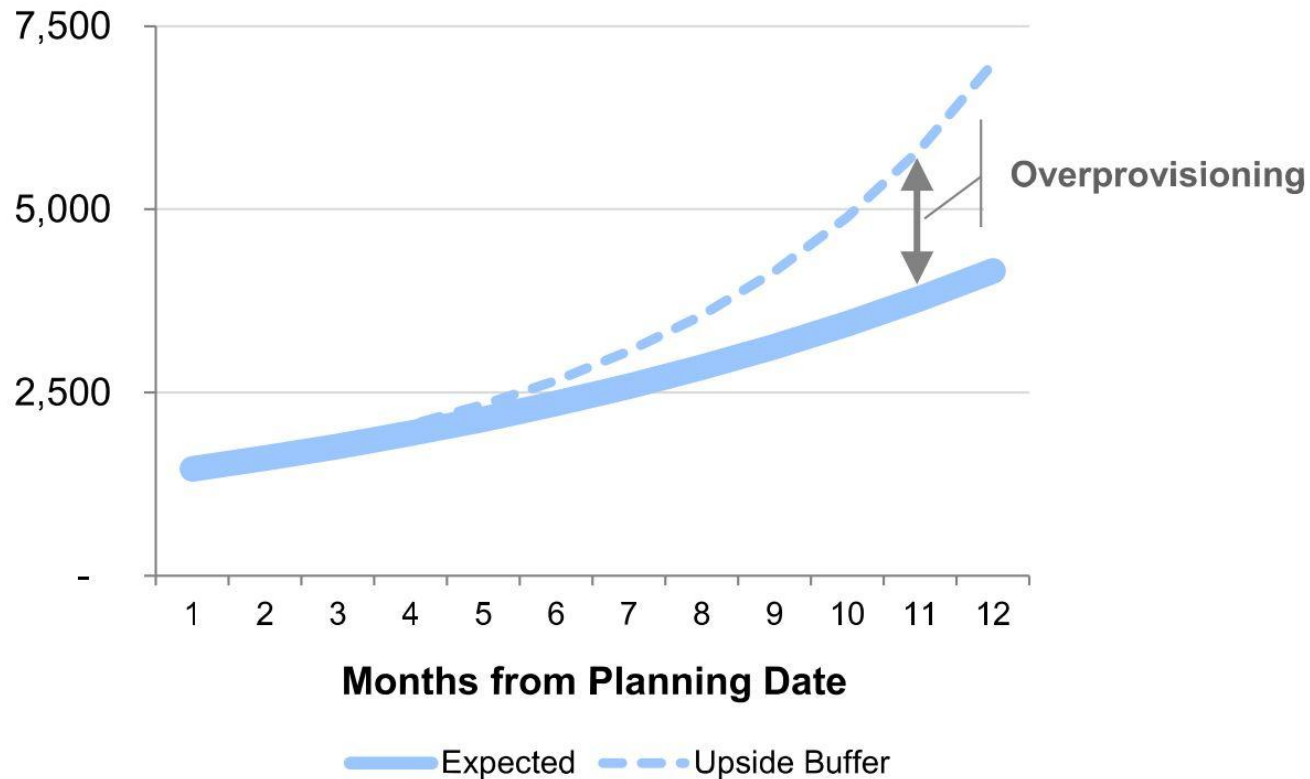


Source: Microsoft.



Growth

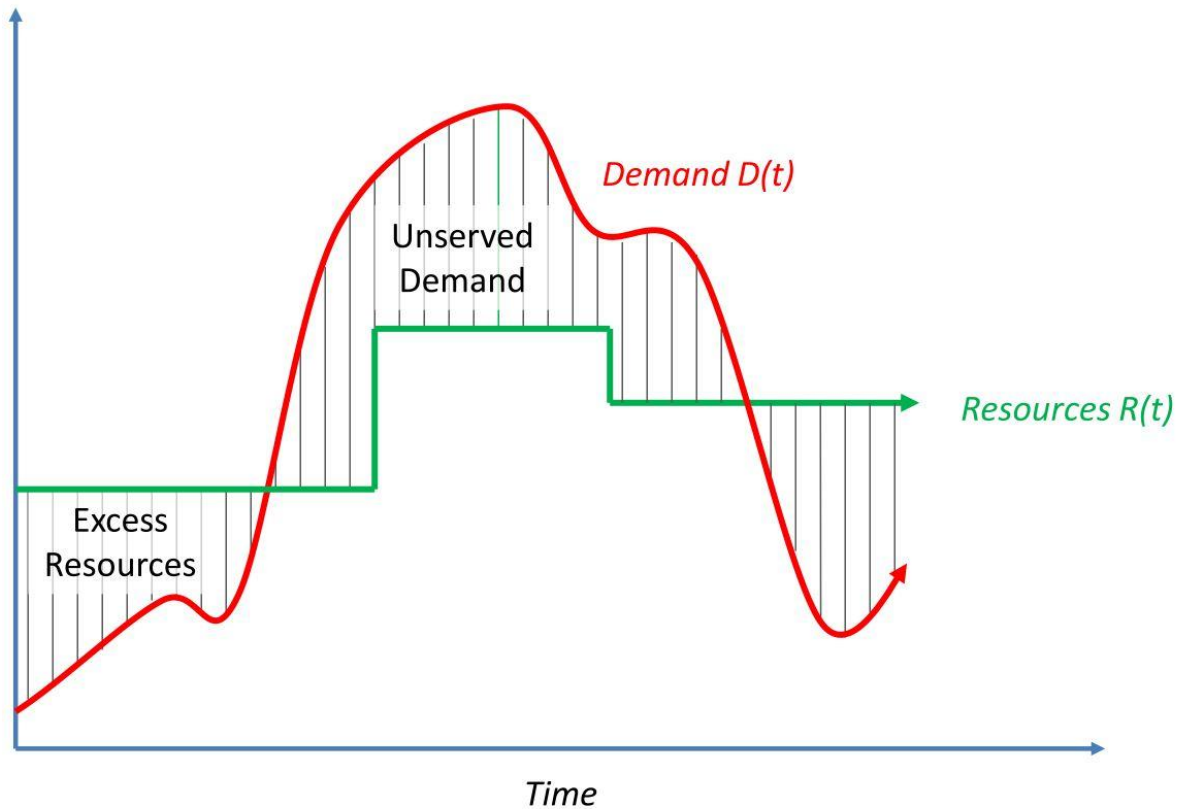
FIG.10: UNCERTAIN GROWTH PATTERNS



Source: Microsoft.



Growth (another view)



Imperfect Capacity



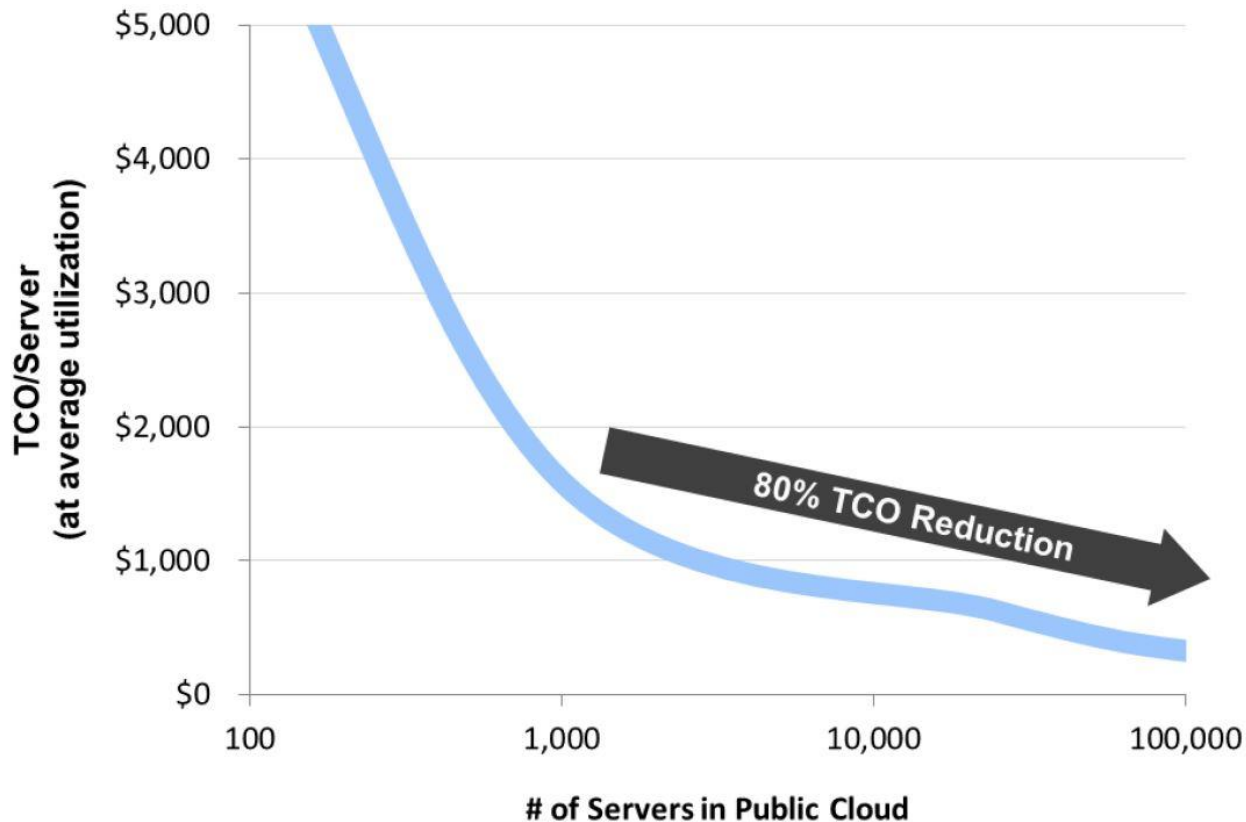
Multi-tenancy

- Amortisation of instance costs across many customers



Combined impact

FIG. 15: ECONOMIES OF SCALE IN THE CLOUD

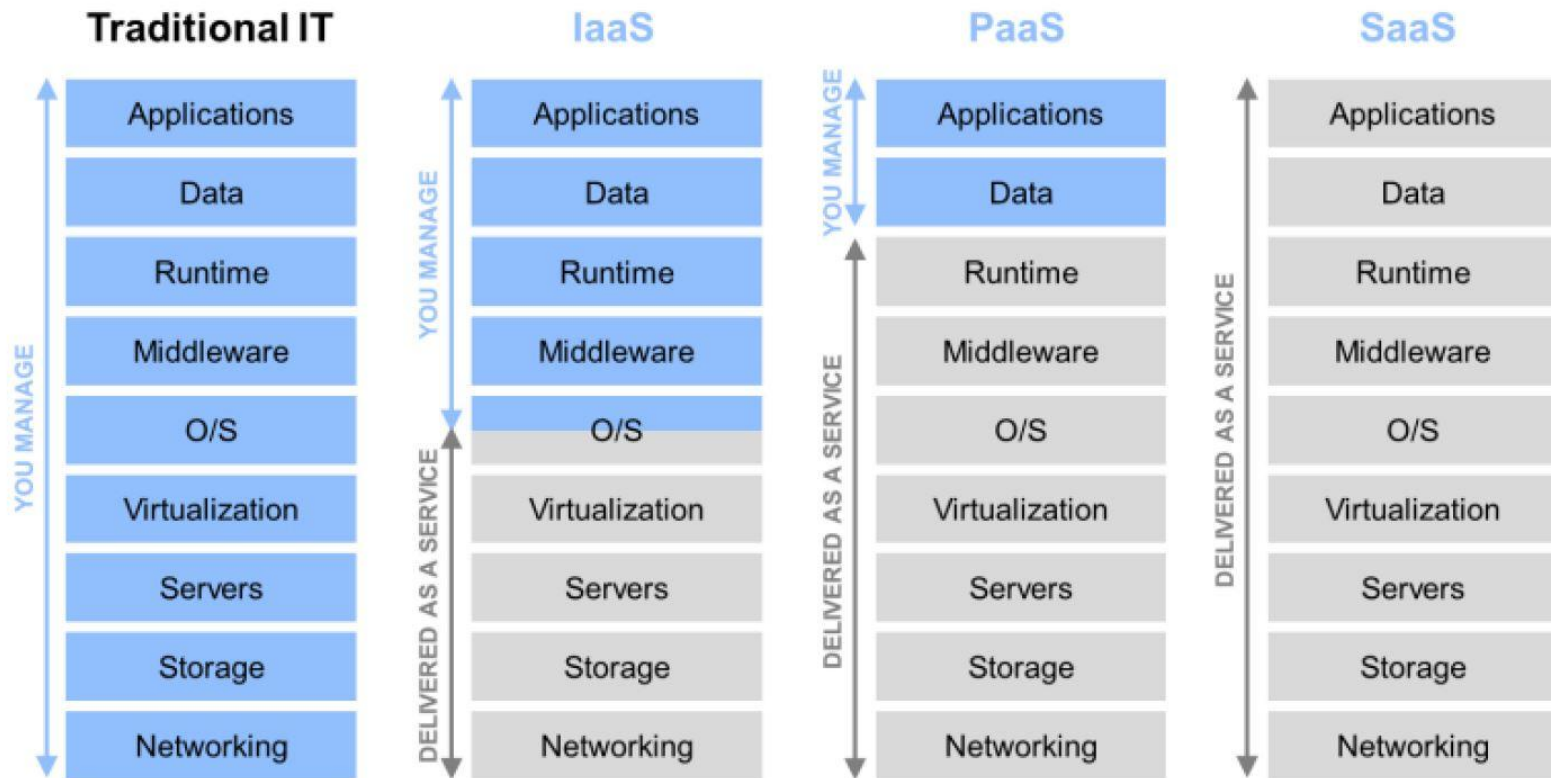


Source: Microsoft.



Service model variation:

FIG. 17: CAPTURING CLOUD BENEFITS

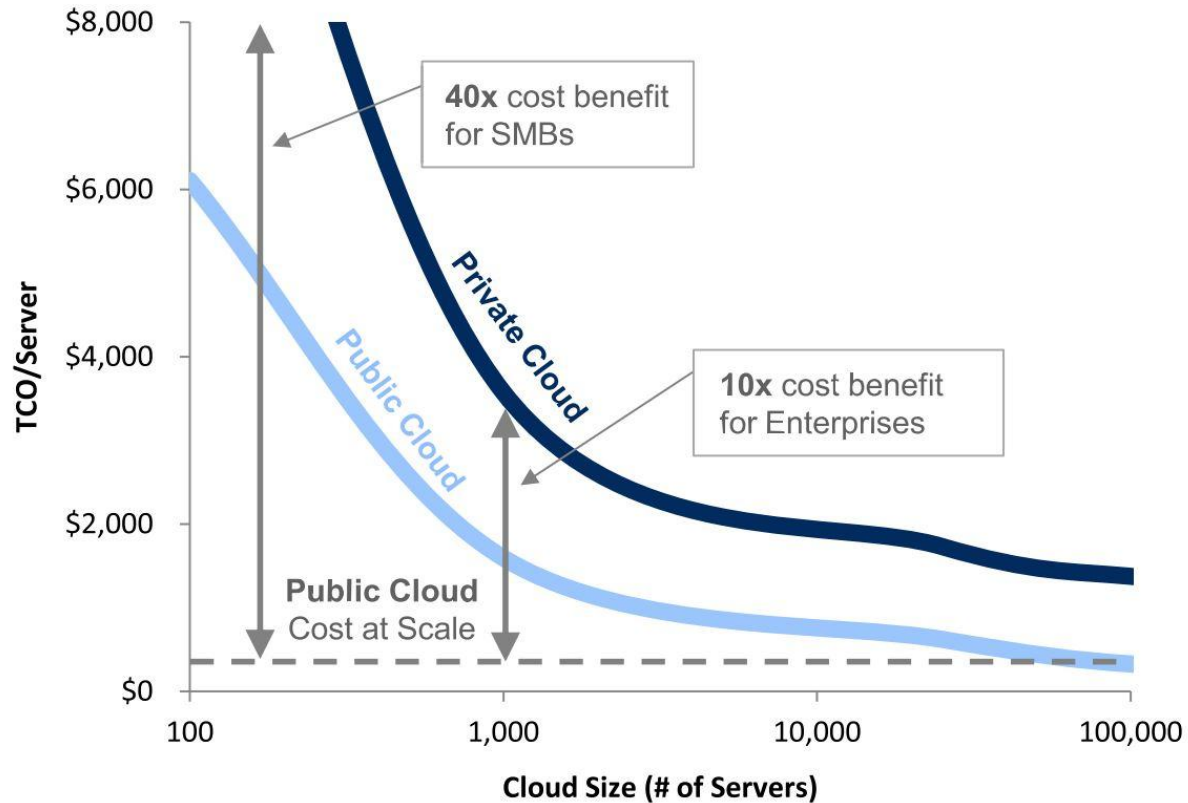


Source: Microsoft.



Deployment model variation:

FIG. 22: COST BENEFIT OF PUBLIC CLOUD



Source: Microsoft.



Innovation

Innovation and the Cost of Failure - Illustrative

