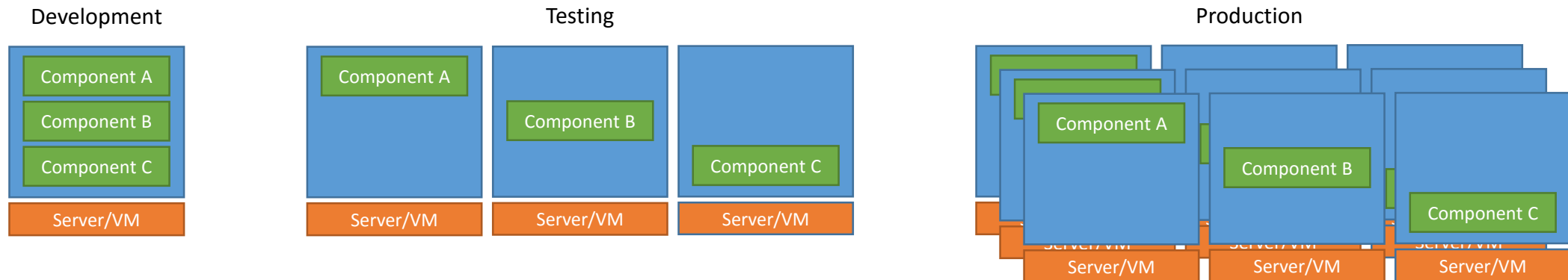# Enterprise Use Cases for "Deployment Flexing" in TOSCA

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Business Drivers/Outcomes

- Ability to vary deployment topologies throughout the service/application lifecycle

- Ability to vary deployment topologies in response to business continuity requirements

- Ability to control administrative sprawl as it applies to service/application definitions

Use Case #1 – SDLC Driven Deployment Flexing

- Services/applications follow software development lifecycles
- As software/applications transition from one lifecycle stage to another, there is a need to adjust application deployment topologies accordingly

Development

Component A
Component B
Component C
Server/VM

Testing

Component A
Server/VM

Component B
Server/VM

Component C
Server/VM

Production

Component A
Server/VM
Server/VM

Component B
Server/VM
Server/VM

Component C
Server/VM
Server/VM

Use Case #2 – Business Continuity Driven Deployment Flexing

- In production, applications may classified based on their business continuity impact...
  - "Wild Tangents" – no impact
  - Emerging – some impact
  - Core – significant impact
  - "Crown Jewels" – CNN moments
- Application's deployment topology may be different depending on classification...
  - Wild Tangents – all components in a single VM
  - Emerging - tiered front end, consolidated backend
  - Core – Tiered per component
  - Crown Jewels – Active/Active tiered deployments with geographic redundancy

Use Case #3 – Template Sprawl

- Application Perspectives
  - Deployment
  - Operation
  - Compliance
  - …
- Different teams are responsible for different perspectives and phases of the application lifecycle
- Enterprise application follow "patterns" in terms of architecture, deployment and operation
- The 80-20 rule…
  - Use one template to cover multiple applications, where possible
  - Use templates across multiple applications
  - All perspective centric templates