AZURE OUTAGE — Nov 2025 , Thermal Event

- **Root Cause**
  - ↳ A power sag (temporary drop in voltage) disrupted the data center cooling system, causing all cooling units to go offline
  - ↳ This led to rapid temperature escalation, triggering automatic safety shutdowns of several servers to protect hardware
  - ↳ The shutdown cascaded to dependend services — Virtual Machines, Databases, Storage, AKS etc.
  - ↳ Resources in other AZs relying on affected servers also experienced degraded performance or service loss

- **Lessons Learnt**
  - ↳ Physical Infra dependencies remain a major risk
  - ↳ Automatic thermal shutdowns effectively protected hardware but lacked fast, coordinated failover
  - ↳ Power sags (even of short duration) can cascade into multi service outages

- **Client - Side Design Faults**
  - ↳ Applications relying on Zone specific servers
  - ↳ Many customer operating single zone deployment
  - ↳ Absence of robust monitoring and alerting

AZURE OUTAGE — Oct 2025, Azure Cloud Front
  - ↳ Caused due to some configuration issues in Azure Front door a CDN.

- **Root Cause**
  - ↳ A valid customer configuration change accross two different control plane version produced incompatible metadata
  - ↳ This metadata exposed a latent data plane bug
  - ↳ The bug caused edge server crashes during asynchronous processing
  - ↳ Because crashes were delayed, health check passed, allowing global propagation

- **Lessons learnt**
  - ↳ Global config system are high risk
  - ↳ Async failure are dangerous as they can bypass health-based rollout safeguards
  - ↳ "Last Known Good" can become unsafe if validation misses   ↳ LKG

- **Post Incident Response**
  - ↳ Configuration protection system block further config propagation
  - ↳ Decision not to roll back to LKG (as it was already corrupted)
  - ↳ Problematic configs were manually fixed
  - ↳ Global redeployment of correct LKG