Cloud Consumption & Cost Avoidance
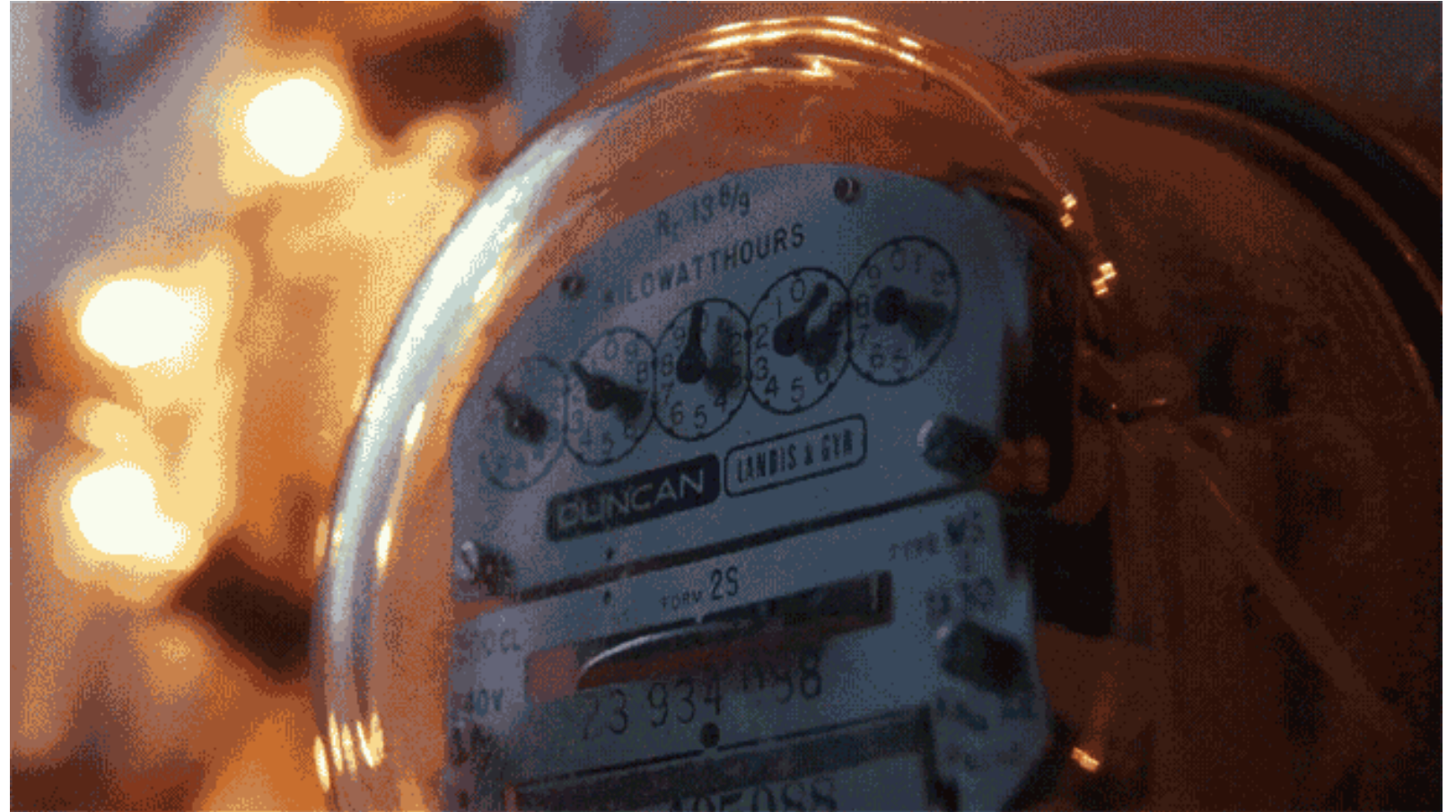
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Hyperscalers

- AWS
- Azure
- GCP
- IBM Cloud – SoftLayer
- VMware Cloud
- Oracle Cloud
- Citrix Cloud
- Alibaba

Consumption

Easy to Scale

- Beliefs that planning, managing, and general governance of deployments are not as necessary as with traditional datacenter deployments
- Cloud sprawl – overprovisioning and underutilization
- Variability of capacity creates operating budget uncertainty
- Consumption patterns are variable
- Without control, risk of low value services and lack of visibility of cloud service costs

Tools

- In-cloud toolsets
- 3rd party – Cloudyn (multi-cloud)
- API's
- Homegrown

Broad Considerations

- Create service tiers within governance centered around cloud-strategic initiatives & objectives
- Lean and agile provisioning – continuous deployment & standards
- Make use of fine granular reporting and metering for chargebacks and showbacks with usage vlaue
- Use API's to identify cost savings, and across the board optimizations & predictive analysis for forecasting

Tactical Considerations

- Create budgets
- Right-size
- Be aware of geo/regional price differences
- Use reserved instances (IaaS)
- Power Off & Pause do not mean no consumption
- Use managed resources (disks, LB's, DNS, etc.)
- Use subscriptions & RBAC
- Get daily reports & real-time alerts
- Use PaaS when acceptable

AWS

- Use CloudWatch
  - System-wide visibility, alerting, monitoring
- Use Trusted Advisor
  - Provision with best practices
- Use Cost Explorer
  - Analyze costs and usage (use resource tags!)
- Use EC2 Spot instances in Spot Market
  - Bid on spare EC2 compute capacity

Azure

- Use Cost Management & Billing
  - EA & more
- Watch your subscription trending
- Use Advisor
- Set EA / subscription spend limits
- Use the cost calculator
- Use Cloudyn
  - Azure = free, AWS & GCP = $

Demo

- Nutanix Beam (no demo)
- Unigma Cost Comparison Tool
- CostStorage.com
- ShareGate Overcast
- AWS
- Azure

Thank you!
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