AGENDA

- ➢ **Why?**

- ➢ **Factors**

- ➢ **Conclusion**

WHY NOW & WHAT'S THE RUSH?

- Cloud maturity
- Enabler for innovation
- Available choices (flexibility)
- Process improvement
- Improved security
- Seamless integration of automation up/down stream (smart manufacturing)
- End-to-end data analytics
- Use of AI/ML where applicable
- Increased collaboration through the supply chain
- Focusing on your core competencies and leveraging services/technology more efficiently
- Cost efficiencies
- Attracting skilled resources

Factors – Business Strategy

- **NO! seriously – it all starts here!**
  - Stakeholders
  - Executive buy-in
  - Setting the right objectives/outcomes
  - Budget (overall, department level)
  - Initiatives
  - Organization WIDE
  - Milestones, celebrating successes and not hiding failures (learn from them!)

Factors – Security posture

- **Remember – it's a shared responsibility!**

- Sub-factors here include:

  - Having documented and understood security best practices

  - How do network routes work

  - Workload segmentation

  - Roles/responsibilities

  - Access control

  - IP protection

  - Encryption areas

  - Protection of data in flight and at rest – data life-cycle

- Monitoring

- Reacting to a breach

- Playbooks

- Leveraging the platforms security features

- Independent assertions

- CSO (& security experts)

- Auto rejection/flagging of in-securely deployed assets

- DO NOT treat this as 'fix it as you find it'*

Factors – Choosing a platform

- Private

- Public

- Hybrid

- Multi-platform

- A decision **not** to be made lightly
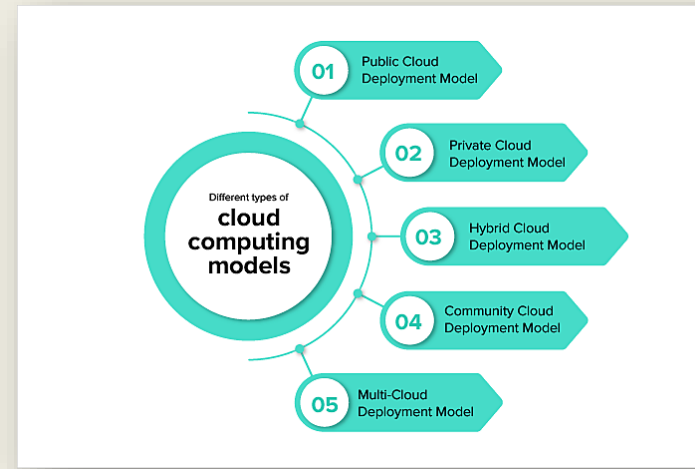
Factors – Resources for execution

- "It's not going to paint itself!"

- Do not treat this as an IT *only* project – think partnership

- Reduce 'cognitive load' (Think chapters/guilds cross-departments)

- Fluency in:

  - Platform

  - open-source that you pick/use

  - Automation framework

- Building needed skills & adopting published best practices
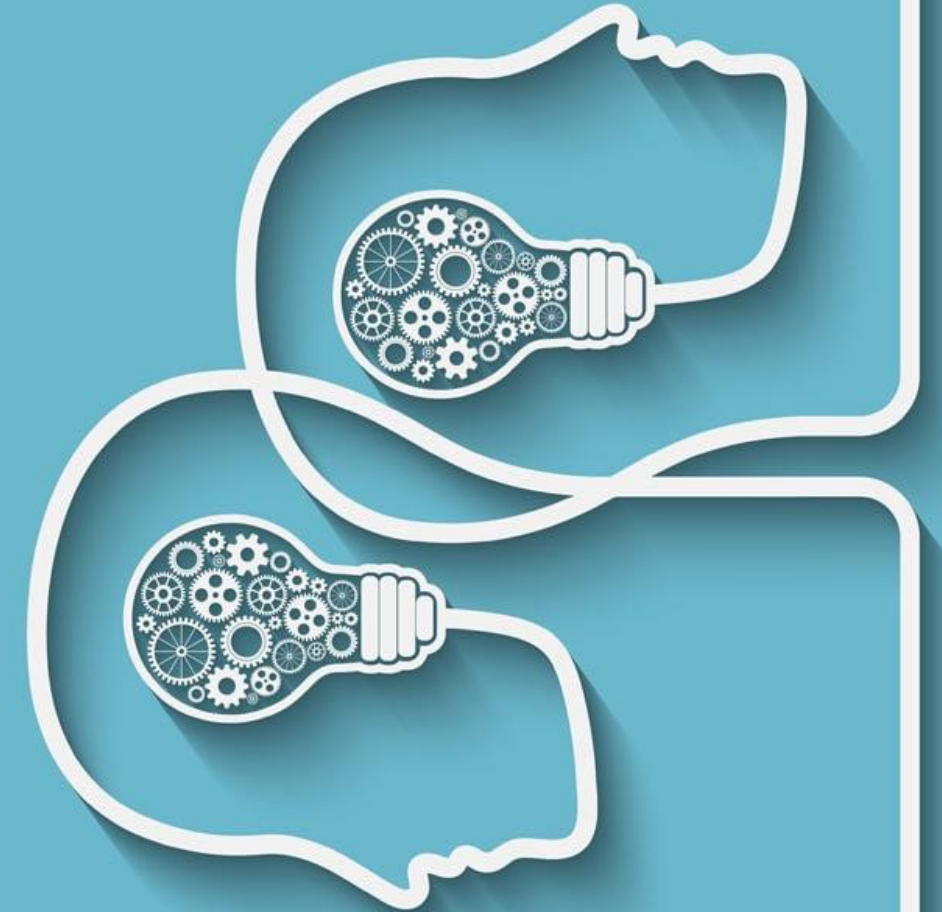
Factors – Automate

- Automate everything*

- Leverage best practices

- Open-source frameworks are great!

- Standardize on automation frameworks

- Enforce automation standards

- Share automation

Factors – Start small

- Resist the urge to 'make all things better' at once!

- Try the end-to-end with a small YET representative 'application'

- Litmus test for all the other factors that will be in place (when you finally declare success)

Factors – Costs

- Budget
- Be vigilant and judicious in usage
- Understand ALL the costs
  - E.g. Machine, storage, services, network
- Monitor, monitor, monitor
- Cut costs via automation

- Do not over-rotate!

Factors – Culture

- Truly adopting cloud to be transformational WILL be a culture change in the organization – accept & encourage

- Encourage Openness, learning and adoption of best practices

    - Open-source usage

    - Code openly

    - No NIH syndromes

- Sharing

    - Code

    - Best practices

- Grass roots to 'best way'

- Experimentation allowance

- Fail FAST!

Factors – vendor applications

- SaaS/managed provider/deploying to your cloud
- **Deploying to your 'platform'**
  - Experience
  - Fit - security architecture and platform?
  - Scalability, HA, DR
  - Data flow, data-lifecycle, storage (in flight and rest)
  - Level of automation
  - Upgrade procedures
  - SLA, RPO/RTO
  - Compliance/governance aspects
  - Monitoring/alerting in product
- **SaaS**
  - TENANCY
  - Platform of choice vs. you pick the platform

- Internal vendor - Roles and responsibilities
- Compliance and standards (e.g. SOC 2 type I or ii
- Outage notifications, dashboards, penalties/cost structure
- Insight into monitoring ability
- Encryption keys
- Level of automation (specially if single tenancy)

Conclusion