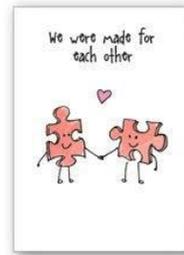
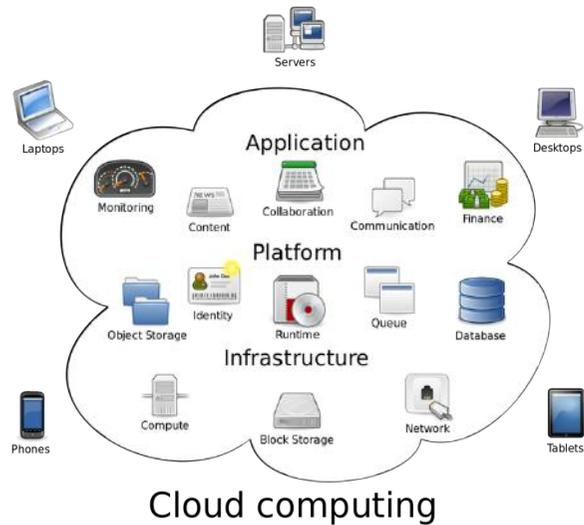


# Cloud and SME: Made For Each Other



**One Technology and One Business Segment** are like *'Made For Each Other'*, i.e. Cloud and SME (Small and Medium Enterprises). One's USP (Unique Selling Proposition) addresses the Challenges of Other absolutely as if conceived & done by design, though it has happened incidentally.

Cloud has matured and still evolving in terms of continued newer and better proposition. SME is growing and will continue to grow in more than one respect as major contributor to GDP, providing employment opportunities, facilitating balanced Geo growth, ... However, 'Scale' continues to be one of the concerns in the growth of SME, it is mostly to deal with mindset, ability to 'Let Go', capability to invest, human capital growth, adoption of technology appropriately, building formal ecosystem, structured engagements with Government, ...

In today's World, appropriate & timely adoption of Technology is like must. This is among one of the key differentiators for organisations to address current challenges, conceive & execute Matured & Measured Growth, achieve all-round Diversification, and stay relevant in business scenario.

Sometime by people with vested interest and many times by perception and/or lack of understanding, FUD (Fear, Uncertainty, and Doubt) gets generated and floats around about any new evolution, innovation, and concept. Cloud is no exception; however, it is important & critical to bring those discussions to the table and address them timely, sufficiently, & appropriately.

‘Cloud’ is one revolution in modern era that is here to stay and address one of the key concerns of SME, i.e. adoption of Technology appropriately. It may be interesting and appropriate to look @ some of these characteristics as below.

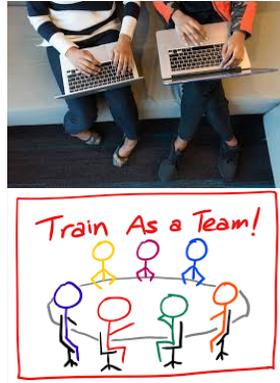
Somewhere the volume may find success mantra coming true.

Let’s looks @ some of similarities and possibly points of adversary.

SN	Feature	Cloud	SME	Remarks
1	<b>Business Model</b> 	Opex <sup>1</sup> , No Capex <sup>1</sup>	SMEs have typical Capex investment challenges for IT, as they still don’t consider IT as strategic to their business and their priority is always to invest in their core business first.	Capital for core business itself is a real challenge for all, more so more SME. Cloud is like 100% Opex based with the option to even optimize the spend linked to business activities.
2	<b>Cost</b> 	Cloud based system takes away pretty much all Infrastructure Investments in backend systems. Users need to invest in Front-end systems and peripherals.	Perfect for SME. Tough for SME to size appropriate back-end infra requirements, sustain & maintain it as desired & required for more than one reasons.	Sizing optimal infrastructure cost and then maintaining & sustaining over years is one of the key challenges for SME, size matters.
3	<b>Elasticity &amp; Scalability</b> 	Cloud offers On-Demand Resource allocation & release in real time. Cloud allows horizontal and vertical scalability.	SME may need IT resources for peak load real occasionally. SME may even want to upscale or downscale the same periodically, aligned with business scenario.	It is one of the natural characteristics of Cloud, both automatically & by design. Cloud shall provision such resources in planned/ unplanned situation and charge user appropriately.
4	<b>Updates and Upgrade</b> 	CSP <sup>2</sup> keeps all installed components all-round up-to-date in larger interest of their BAU (Business As Usual). CSPs do offer various techno-commercial modules for users to select & decide.	SME mostly lacks required skillsets and technical manpower to keep track of required changes and implement. Among the key reasons, is their location of operations.	Required changes like patches, update, upgrade, and ensure compatible version of various components across stacks.

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5	Technical Manpower 	Cloud adoption require fewer technical people, esp wrt. different skillsets.	SME's challenge to hire & retain many technical persons of different skills, and keeping them up-to-date in sync with rapidly evolving tools & technologies.	Infrastructure and Platform level surely, and even application and other IT components.
6	Security 	BAU (Business As Usual), CSP build, maintain and enhance security of their infrastructure and systems by design & proactively in line with their Business requirements and Risk Mitigation Plan. CSP do so in line with their business objective and regulatory & compliance requirement of the Country. Cyber Security is among the larger challenges in modern days.	SME face two challenges (a) knowing & deciding their Security requirements and (b) procurement, implementation, and sustaining the Infrastructure & Systems secured. All of this in real time scenario. SME can decide and select through guided techno-commercial engagement process. For SME, understanding subject like Cyber Security may be a rock-solid challenge.	CSP offers different level of Security provisions to each customer basis their requirements and affordability. However, users can always choose their Security levels basis business needs. The vulnerabilities are too high these days. CSP can offer BAU @ an incremental cost as desired/ required.
7	Performance 	Cloud based solutions are tested to deliver High Performance for real-life requirements under various business scenarios, esp considering rare & peak load.	SME typically has the challenge to size and invest in optimal ICT <sup>3</sup> infrastructure across layers <sup>4</sup> . Conceptualizing, building, and sustaining for peak load is like unaffordable for SME.	Users can choose CSP appropriately per their business requirements and budgets, as there may be different CSP with different investments and business model.
8	High Availability (HA) 	CSP invests in building High Performance capability & environment, and offer to end-users per their requirements and affordability.	SME can identify their requirements through consultative process with CSP per their requirements and affordability.	End-users can change their HA requirements per available options. Such options continue to evolve and available to choose from CSP.
9	Backup 	CSP offers online state-of-the-art technology Backup options, unlike traditional storage device-based backup. CSP offers Backup in different packages such that organisation can choose per their business requirements.	Again, so well suited for SME, as it can be achieved most optimally in terms of cost & technology.	Backup are taken by organisation. However, testing them periodically, recovering data fully from backup when required & desired, other challenges are attached with Backup. These challenges exist even for large organisations.

SN	Feature	Cloud	SME	Remarks
10	Business Continuity Plan (BCP)/ Disaster Recovery Systems (DRS) 	CSP offers BCP/ DRS in line with ever-growing business requirements and technological advancement. CSP offers in different techno-commercial package such that organisation can choose per their business requirements.	With Cloud, SME can certainly understand, review, and subscribe for such services to protect their business interest.	In most cases, SME do not even think of BCP/ DRS for many reasons.
11	Technology Obsolescence 	CSP keep their entire infrastructure and investments technologically up-to-date in their own endeavor and business interest.	For SME, this is a very natural challenge to keep their ICT infrastructure updated for more than one reasons. Cost, Skill, Ability, ... are among the key reasons.	Even medium-to-large organisation find it a challenge to keep their IT Systems across layers updated. Overtime, organisation often are in significant gap between their deployment & current versions.
12	Portfolio 	CSP offers pretty much anything & everything on Cloud today, and portfolio across stack is growing by the day. CSP offers comprehensive portfolio like [IaaS, PaaS, SaaS, CaaS, DaaS, OA/PEaaS,] <sup>5</sup> . CSP offers all these SLA <sup>6</sup> based portfolio, which are clearly quantifiable and measurable.	Some of the solutions that SME mostly not even think of, Cloud based solutions can help SME decide and adopt various solutions through a roadmap-led approach.	Team's Productivity Enhancement Tools, Process-automation, Electricity, anything and everything can simply be billed basis metering.
13	Template based Standard Implementation 	Cloud Solutions mostly focus on and expect standard implementation of products and solutions. Organisation level requirements are addressed fully, however organisation are expected to follow pre-defined template with full business functionality n requirements incl regulatory and others.	Considering the size, complexity of business, and other considerations, SME shall be able to adopt & implement template-based solution with appropriate configuration.	Such application-led solutions meet all requirements of business in terms processes, functional, workflows, ... with certain discipline to follow standard templates for documents (Purchase Order, Invoice, ...), reports, .... SME can be best addressed through their respective cluster/ Trade Bodies.

SN	Feature	Cloud	SME	Remarks
14	<p>Cost of Maintenance</p> 	<p>SLA based Cloud Services are offered all-inclusive on subscription basis.</p>	<p>Maintenance of ICT Systems is among the biggest challenges of SME, both backend and frontend systems. CSP takes away one of the most critical worries of maintaining back-end system – the critical. This includes Risk factor as well.</p>	<p>Cloud agreements are typical renewed on annual basis and billing happens basis usage. The comprehensive TCO (Total Cost of Ownership) from 3-5 years perspective shall be more cost-effective, not necessarily cheaper.</p>
15	<p>Adoption &amp; Investment commitments</p> 	<p>Cloud based solutions are easy to adopt, implement, &amp; rollout with lesser risk and can be incremental investment plan.</p>	<p>Suits SME well with ease of implementation and may be incremental adoption approach to achieve calculated risk.</p>	<p>On-premise investments are Capex based &amp; long terms with their own challenges.</p>
16	<p>Training for Technical and User teams</p> 	<p>CSP continually run training &amp; capacity building program for their end-users. These training are theme-based and cover technical, business, functional, ... CSP even provide wide-range of self-learning capsule.</p>	<p>True advantageous for SME as anyway they would need fewer technical teams. Further, their teams can continually stay engaged and keep learning about new business challenges and solutions.</p>	<p>Many of these programs are made available @ no cost to end-users, except for certain situations where minimal cost is attached. Skilling and Re-skilling are among the most significant challenges for any organisation these days. Skilling and Re-skilling is required for both technical and business people; actually more for Business Leaders as Technology-led Disruptions are impacting business in more than one ways.</p>
17	<p>Contract Management, i.e. understanding &amp; interpreting metering and billing details, ...</p> 	<p>CSP's standard contracts shall cover on-boarding &amp; exit provisions, monthly consumption-based billing basis metering, utilization pattern &amp; norm, ...</p>	<p>SMEs may find it difficult to understand, interpret, and/or optimize their utilization and manage billing properly. Industry bodies like Nasscom, CII, ... may help. Further, joint teams of CSP-SME-Industry Body joint teams may help address the challenge.</p>	<p>It is critical to bridge &amp; address the perception and/or actual gap for SMEs to feel comfortable about overall business model and execution. For CSPs, they should find their ROI in volumes.</p>

SN	Feature	Cloud	SME	Remarks
18	Perception of dealing with biggies like CSPs. 	CSPs are like aggregators, both Indian and Global. They operate within the Government framework.	SME may operate through their clusters, trade bodies, and similar groups to bring their strength as a larger entity.	Ministry of MSME, Nasscom, CII, ... can surely lend their support in managing the perception and real challenges.
19	Getting stuck with a CSP/ EXIT options 	Portability across CSP is the Industry option. Current contract and New CSP business proposal shall always help build portability plan and execute seamlessly.	It is not the often-business requirement; however, SME can exercise the option when needed.	Ministry of MSME, Nasscom, CII, ... can help build CSP-SME business model to minimize such needs; however, implement seamlessly when needed.
20	Ever-growing Business Compliance, Tax provisions, ... 	CSPs continue to build and offer all this as their portfolio, some mandatory and rest as commercial offering.	SME shall get solution to all their mandatory requirements stipulated by Government & Regulatory. SME can even choose among options from commercial offerings as needed.	Implement Tax Reforms, growing Business Compliances, ... are among challenges for all. CSP offers all this as natural to business. Globally Y2K sometime back, recently GST & proposed Direct Tax in India to name a few.

### In Conclusion

It is worth, all concerned stakeholders make sincere efforts to make this happen, esp when it looks like a fit business case. Any of the stakeholders among Industry body, Cluster, CSPs, SME IT Solution company, ... can take lead role.

Many current SME may consider migrate from on-premise to Cloud as they evaluate expansion and/or Technology revamp.

This is a beginning of new revolution, any and all feedback is welcome to further demystify and make it real in India.

<sup>1</sup> Opex: Operational Expenses, Capex: Capital Expenditure

<sup>2</sup> CSP: Cloud Service Provider

<sup>3</sup> ICT: Information and Communication Technology

<sup>4</sup> Layers: Hardware/ Infrastructure (Server, Storage, Network, Communication, ...), System Software/ Platform (Operating System, Development Platform, Database, Middleware, ...), Application Software (), Productivity Enhancement tools ()

<sup>5</sup> [IaaS, PaaS, SaaS, CaaS, DaaS, OA/PEaaS,]: Infrastructure as a Service, Platform as a Service, Software as a Service, Content as a Service, Data as a Service, Office Automation/ Productivity Enhancement Tools as a Service, ...

<sup>6</sup> SLA: Service Level Agreement