Deloitte.

Cloud
The Bedrock of Digital Transformation

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Content

Foreword

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Lowell McAdam, former CEO of Verizon Communications, once said "cloud is the third wave of digital revolution". The first and second waves focused on automation of business processes and offerings respectively. Cloud is not just about automation, but it is about force multiplication and acceleration of digital transformation. Enterprises and governments have increasingly recognised the power of cloud and are adopting it to ride the wave of digital transformation.

Globally, the CxO fraternity has developed an increased interest to understand how cloud can be harnessed to improve the technology landscape of organisations and enhance process efficiencies, be it finance, human capital, or supply chain processes.

Cloud has captured a CEO's mindshare with its innate capabilities to revitalise and revive antiquated applications and technology stacks. New-age ways of cloud-based modernisation techniques are infusing life into legacy application architectures, thereby bolstering business cases related to migration of existing applications to cloud. Applications born in cloud also known as cloud natives are yielding benefits, such as cost efficiencies, flexibility, reusability, experience improvement, and enhanced security.

Large-scale end-to-end supply chain processes are enhanced with the infusion of cloud-based technologies and data hosting capabilities. Cloud is energising all the six steps of a traditional supply chain – plan, develop, source, make, deliver, and support. Cloud-enabled AI, industrial IoT, and blockchain are changing the way synchronised planning is managed by firms wherein, algorithm based futuristic forecasting is replacing rudimentary history-based forecasting and smart contracts on cloud are eliminating the need for tedious manual reconciliation and approval processes. Additionally, cloud is enabling firms to store data chunks and harness massive compute capabilities to fuel innovation in product development and automate order processing. Cloud based smart factories are predicting, preventing manufacturing failures while cloud-based solutions are helping in better understanding the customer and keeping him/her connected 24x7.

But this wave of cloud has its own fair share of setbacks and slowdowns especially, related to lack of quality cloud talent crises. The pandemic has compounded this crisis and short-term band-aid fixes to solve it have rather complicated it further. It has become an unsurmountable task for firms to acquire, nourish, and retain cloud talent. To solve this crisis, it is important for firms to engage and invest in long-term capability development of its cloud talent, create a talent retention architecture, and have a robust communication plan.

In this paper, CII and Deloitte have put together broad range of views on the success of cloud as a bedrock of digital transformation and the challenges concomitant with this success. I hope you find these views engaging and insightful.

Foreword

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"Cloud" has become increasingly well known, enabling organisations to access computing resources on an as-needed basis at its core and it's clear that there's tremendous value enabled by adopting cloud. Rather than investing in data centres, servers, and software applications, cloud offers will pay-as-you-go pricing. Implementation of Cloud Adoption Framework would guide fast-growth companies to enterprise organizations, offer a collection of cloud resources, best practices, tutorials, and enablement tools.

This framework would help organizations define a robust cloud strategy, plan for successful workload migration, and ensure complete manageability of cloud environments. Providing customers with a methodology to leverage, Cloud differentiators and built-in efficiencies that best facilitate their transition to the cloud. So, where a company begins its cloud transformation journey, the entry point - the frequency of iterations along that journey - will depend on the context, and the emphasis of the cloud transformation engine will vary over time.

Introduction

Marc Benioff, the founder of Salesforce, once said "if someone asks me what cloud computing is, I try not to get bogged down with definitions. I tell them that, simply put, cloud computing is a better way to run your business"[1]. Cloud helps businesses to run in a better way because it helps them transform digitally.

In the past two years of the pandemic, organisations and the governments worldwide have recognised the power of cloud and taken a conscious decision to adopt it in some form or the other. Per Gartner[2], "The ongoing pandemic and the surge in digital services are making cloud the centerpiece of new digital experiences - In 2022, global cloud revenue is estimated to total US$474 billion, which is up from US$408 billion in 2021".

In some cases, organisations are moving their legacy applications and software to cloud while in other organisations are adopting the cloud in the native way of developing new applications for the future. By going towards cloud these organisations are re-inventing themselves from traditional businesses into disruptive market forces. This leap to cloud is helping firms to open new opportunities to boost their efficiencies with scale and agility, gaining greater customer insights, improving security, and innovating at a faster speed while reducing costs.

There are also organisations and governments that are moving their foundational processes related to finance, sales & marketing, human capital, procurement, and supply chain to the cloud. In supply chain, cloud has helped generate unprecedented amount of data at every stage and is helping the businesses to generate critical insights. It has provided vast amounts of computing at the hands of supply chain leaders, thereby helping them to manage service levels, costs and build resilience at every juncture of the chain.

Not every step of the supply chain has been touched by the cloud; reduction of supply chain related carbon footprint is one such territory to be explored further for cloud enabled digitisation.

Lastly, due to its effulgent and glorious outcomes, cloud has become the mainstay for all businesses but has thereby kindled a crisis for talent. The pandemic has compounded the crisis and short-term band-aid fixes to solve it have rather complicated it further. Organisations are facing an insurmountable obstacle in acquiring, nourishing, and retaining right cloud talent.

This paper seeks to present a broad views on the following:

Growth of cloud in the sphere of digital transformation especially, in sectors such as supply chain

What is fueling the cloud talent crisis and strategies to solve it

How organisations are modernising their application landscape with the help of cloud

Getting to Cloud – Faster, better, and certainly cheaper

The market for moving applications to cloud has always been there and will continue to thrive even further. Per a recent study, cloud migration market is projected to reach US$515.83 billion by 2027, growing at a CAGR of 24.8 percent from 2020 to 2027[3].

In the past few years this migration to cloud has moved beyond the traditional application lift and shift opportunities to redesigning core capabilities in the cloud. Organisations are looking to take full advantage of cloud platform offerings to enhance their existing capabilities. In the post pandemic world, we will see renewed interest in migrations to the cloud, particularly from organisations that need an efficient, cost-effective way to move their rigid yet essential core assets. There would be an upsurge in creative approaches for financially re-engineering the application modernisation business case. These business cases would largely fall in three key bucket areas, which include the following:

- **Operate and transform –** Many organisations will look for arrangements with their system integration partners to modernise their applications to cloud-native platforms in a few years, keeping organisational operating expenses low. This can be done by designing creative operate-to-transform agreements, wherein an organisation's systems get modernised to cloud-native platforms in a few years while operating expenses stay neutral.

- **Value for money –** In the past few years, system integrators have been able to work on creating/improving

their proprietary cloud transition tools, which have simplified the cloud migration process manifolds. This simplification will compel a business case for migrations and modernisations by keeping them cost neutral or even cost effective.

- **Application rationalisation –** Technical debt accrued over the years in the form of monolithic legacy, hard wired applications and assets can be reduced by moving them to cloud and this transition will beget a concomitant estate optimisation exercise to eliminate redundant liabilities and dependencies. Sunsetting a few unhealthy applications or consolidating them with healthy ones can lower costs and thus, would act as a catalyst for the entire application modernisation business case.

These business cases would get support from large cloud hyperscalers (such as AWS, Google Cloud Platform, Microsoft Azure, Oracle Cloud Infrastructure, etc.) in the form of funding for migration to cloud. System Integration (SI) partners might also not hesitate in chiming with some investments provided these investments bring long-term rewards in the short term. Deferment of upfront fees post value realisation or commercial share in some other organisation initiative can be a form of long-term reward for the SI players. For organisations, i.e., clients these arrangements would provide faster access to the value levers of cloud while the hyperscalers would be able to create stickiness for their cloud and thus, host more client workloads in the future.

On ground these business cases would be implemented with the help of new improved tools and techniques that can help revitalise legacy applications including the following:

- **Improved Low Code (LC) platforms –** LC platforms have evolved over the years by becoming more powerful and capable. Using these LC tools from systems designers and application architects can carry out complex tasks and integrations through point-and-click rather than having to write code. LC vendors are making their platforms increasingly intuitive and adding functionalities, such as visual debugging, visual business logic design, user interface templates, etc., to their product roadmap to make them more intuitive for developers and testing community.

LC platforms are proving to be game changers in the space of cloud-based application modernisation and their power cannot be ignored – no wonder NASCCOM predicts India's LC market to touch US$4 billion by 2025[4].

- **New-age code scanning –** Legacy code assessment and business rule extraction for reuse of a legacy code, for the purpose of application modernisation, has been a steep challenge for the past few years, but not anymore. Today, improved mining technologies and approaches make it possible to peer inside legacy code regardless of language and extract its business logic with less effort and high fidelity. New-age enterprise code complexity analysis tools provide features, such as exposure of hidden and convoluted connections

between applications, business rules visualisation, complex business rule extraction that too accompanied with AI/ML features to automate aspects of code extraction process. This code scanning and business rule extraction can help application teams to bolster their modernisation business case by identifying essential business logic and either refactoring the code or replacing the entire application with a microservice.

- **Piecemeal modernisation –** With the help of a new technique called core mapping, a legacy application can be visualised as a connected graph of constituent parts. Application architects can then identify and use these logical subgroupings to divide legacy interfaces, replacing them with modern

Application Programming Interfaces (APIs) and service-based techniques.

So where exactly is this entire application modernisation leading towards? Well, the destination seems to be cloud native architectures. Organisations are understanding the benefits of modernising their applications to make them cloud native. However, a key question is what is cloud native. The seven key characteristics that define a cloud native application include the following:

01. **Multiple components:** What looks like a single application to the end user is delivered by a set of co-operating services
02. **Loosely coupled:** Locates and communicates with other services dynamically at runtime; and is

independently deployable and replaceable
03. **Elastic and responsive:** Scales-up or scales-down independently enabling automatic scaling on-demand and updated & deployed frequently and independently, with zero downtime
04. **Built on open standards:** Extensively leverages open-source components and community support
05. **Infrastructure agnostic:** Decoupled from infrastructure constraints and free to move as required
06. **Composable:** Designed to be a part of other applications and comprises uniform and discoverable APIs
07. **Resilient:** Runs reliably, securely, and predictably despite transient issues in the cloud involving network, variable loads, and capacity

What makes 'It" cloud native
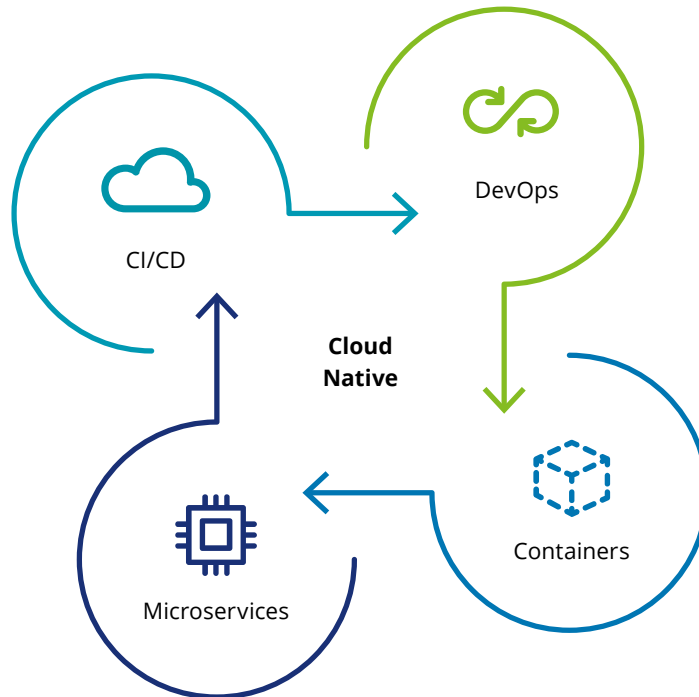
Cloud native applications come with new-age design patterns, such as:

01. Event sourcing: It is a pattern that leverages events as inputs and outputs of transactions. Events can be published and subscribed to by other services and are immutable.

02. Caching: It is a process of storing copies of files in a cache, or temporary storage location, to access them quickly.

03. Load balancing: By distributing network traffic and information flows across multiple servers, a load balancer ensures no single server bears too much demand. This improves application responsiveness and availability.

04. Sharding: It is a method for distributing a single dataset across multiple databases, which can then be stored on multiple machines. This allows for larger datasets to be split in smaller chunks and stored in multiple data nodes, increasing the total storage capacity of the system.

05. Auto scaling: It is a method used in cloud computing that dynamically adjusts the number of computational resources in a server farm—typically measured by the number of active servers—automatically based on the load on the farm.

06. Serverless deployment: Cloud-native development model that allows developers to build and run applications without having to manage servers. Developers can simply package their code in containers for deployment.

These cloud native design patterns help organisations across the world to reap some of the many benefits provided by cloud including:

01. Scalability: Cloud native apps. modify and adapt per business requirements and allow frequent software updates per customer feedback.

02. Cost efficiencies: With open-source systems and tools such as serverless systems that adopt a pay per use model, costs are driven down considerably.

03. Avoid lock-ins: Cloud native avoids vendor lock-in by allowing the usage of services from multiple cloud providers.

04. Experience improvement: These applications help take a mobile-first approach, thereby targeting majority of millennial audience.

05. Flexibility: Cloud native apps. allow organisations to work on multiple cloud platforms, such as public, private, or hybrid without introducing additional requirements.

06. Reusability: These applications use serverless platforms to upload portions of the code saving cost and time for development teams.

07. Ease of troubleshooting: Troubleshooting and tracing the origin of the issue is much easier with entire application being divided into microservices and containers.

08. Enhanced security: Enable multiple layers of security, such as multi factor authentication, restricted access, etc.
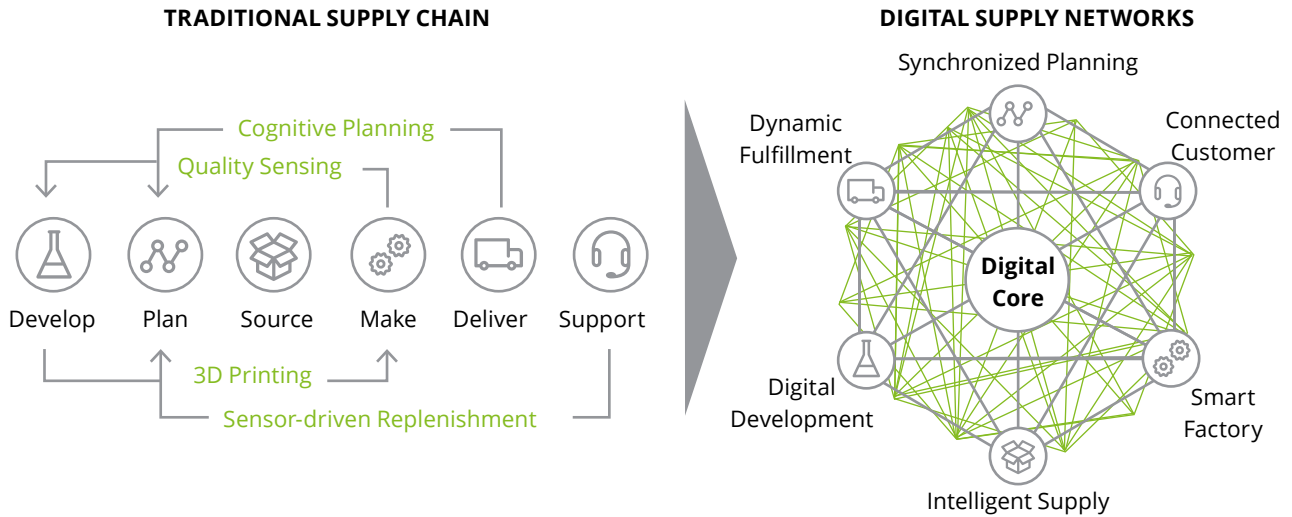
Case study
A leading Indian bank replaced its legacy monolithic middleware application, serving approximately five crore transactions per annum across various lending products, with an agile, fast, and modern microservices-based cloud native architecture solution to support the growing volume of transactions and provide better customer experience, with faster turnaround and efficiency. The new-age cloud-based application uses modern decoupled microservices and API-based plug and play architecture to support the ever-growing volume of financial transactions the bank witnesses daily.

Responsive supply chain with cloud

Over the years supply chains have evolved to become digital supply networks. This shift from linear, sequential supply chain to an interconnected system of supply operations could lay the foundation for how companies compete in the future.

TRADITIONAL SUPPLY CHAIN

Cognitive Planning
Quality Sensing

Develop · Plan · Source · Make · Deliver · Support

3D Printing
Sensor-driven Replenishment

DIGITAL SUPPLY NETWORKS

Synchronized Planning

Dynamic Fulfillment

Connected Customer

Digital Core

Digital Development

Smart Factory

Intelligent Supply

Cloud has had a transformational impact across all six dimensions of a digital supply network, i.e., synchronised planning, connected customer, smart factory, intelligent supply, digital development, and dynamic fulfilment. Let's analyse how cloud has played a transformative role at each stage:

01. Synchronised planning:
Synchronised planning generally describes a state in which a constant flow of data, from the entire supply network, enables organisations to accurately plan production to match actual demand. Cloud enabled technologies such as Artificial Intelligence (AI), Internet of Things (IoT), Blockchain have helped or can further help organisations to gain an early competitive advantage in this phase of supply chain planning.

- **Artificial Intelligence:** Cloud enabled AI allows supply chain monitoring systems to learn complex patterns, collapsing tactical planning along with automating decision making. This enables organisations to move from traditional history-based forecasting to futuristic reorder and demand planning.

- **Internet of Things:** IoT enables organisations to gain full network visibility with the help of massive data stored on the cloud, which is generated based on connecting assets, systems, and processes across the digital supply network. This flow of data can enable organisations to move away from forecasting and instead rely on real-time information flow from node to node across the network.

- **Blockchain:** Using smart contracts on cloud, orders can be placed with vendors automatically. As downstream utilisation data shows an upcoming spike in demand, the system would automatically shift capacity and procure necessary

materials. Also, with the help of blockchain's inherent distributed ledger, the need for approvals and reconciliation would be eliminated.

The above technologies are powering cloud-enabled Software as a Service (SaaS) solutions to help organisations in taking trade-off decisions, designing multi-echelon inventory strategies, and improving accuracy of daily, short-term and long-term supply demand forecasts.

02. Digital development: Product innovation and development is one important stage that has seen unprecedented digital transformation coming at the back of cloud computing. Taking Life Sciences Health Care (LSHC) as an example, per a recent Deloitte research[5], cloud has the capability to reduce research cycle time in this sector by 13-18 percent and lead to overall cost savings of 12-15 percent. Per the same research most of the organisations are leveraging cloud mainly in three key variants:

- **Cloud ecosystem infrastructure** to store chunks of data and harness massive compute capabilities that come with cloud.

  Cloud's network effect
  A scalable cloud ecosystem allows hospitals to share real-world data across their internal and external public/private networks to accelerate the entire ecosystem's ability to target novel diseases. This is largely cloud's network effect with one key data set, i.e., cloud's ability to increase the value of a product or a service as more and more people start using the product/service.

- **Advanced cloud services** to use analytics, AI/ML capabilities of cloud for expediting data analysis and

product development.

  Future prediction
  Organisations are exploring AI to better manage clinical trial data. Some are also using cloud AI services to coordinate and accelerate recruiting and matching patients with clinical trial sites to analyse existing drugs in the market, screen drugs for other diseases and potentially detect future disease outbreaks before they occur.

- **Cloud enabled data platforms** to share/exchange data across teams and communities irrespective of their physical locations.

  Data management
  Taking example of the Life Sciences Health Care (LSHC) industry, laboratory data until now was being stored on local hard drives, flash drives, SANs creating challenges with respect to searchability, security, and capacity. Cloud is helping LSHC organisations to ingest, process, transform, analyse scores of data records. Data lakes on cloud are being used for sharing data across health domains and with regulators.

  Data storage
  Life science researchers are tapping into the computational scale-up/scale-down models of cloud to compute petabytes of data by paying for only the additional capacity being used. Also, this data is safely stored with encryptions and masking in the cloud storage buckets and pushed to cloud archives in case of seldom usage.

03. Dynamic fulfilment: Digital fulfilment uses integrated technology and automated order processing to improve the efficiency of logistics' operations and speed up the supply chain. The integration of a digital

solution also provides business owners with the necessary data and analytics to improve the entire customer experience. Digital fulfilment is enabled by a variety of Industry 4.0 technologies each resting on loads of data; this data must seamlessly integrate a variety of networks, i.e., suppliers and distributors, sales and logistics and formats, i.e., structured and unstructured to produce actionable insights on systems that can act. Cloud is the only option to provide massive computational power to drive this data flow and store this humongous amount of information.

04. **Connected customer:** Customer connectivity is a supply chain's ability to digitally sense, motivate, and serve consumers, giving them exactly what they want at any time and any place and is largely driven by three types of customer data: sentiment, behaviour and social.

Automotive industry
Auto Original Equipment Manufacturers (OEMs) are leveraging cloud to continuously focus on all the three types of customer data, which includes:

Sentiment data – Use of cloud powered sentiment analysis tools to scan media coverage on their organisations

Behaviour data – Use of cloud in connected cars to measure driver's behaviour parameters and generate alarms or automate insurance processes

Social data – Use of cloud enabled social Customer Relationship Management (CRMs) and loyalty solutions to understand customer patterns, and drive customer reward programmes and sales

Consumer products industry
With cloud-built e-commerce and direct-to-consumer platforms generating vast amount of data on consumer behaviour and preferences, organisations can understand what are consumers considering and how to better target them with ads, outreach, and purchases.

05. **Smart factory:** Smart manufacturing is the 4th industrial revolution and is gaining heavy traction across the globe where machines, sensors, wearables, Supervisory Control and Data Acquisition (SCADA) systems, etc., are getting connected through Industrial IoT (IIoT) and generating data stored on cloud for further analysis related to preventive, predictive maintenance, hyper automation, anywhere operations, etc.

Cloud is powering the following:

- Wearables and voice recognition to help factory workers capture asset inspection and Environmental, Health and Safety (EH&S) data

- High compute processing for product quality inspections

- Advanced ML to optimise production and improve yield and asset reliability

- Digital twins to simulate operations mainly based on massive compute capacity

06. Intelligent supply: Cloud is enabling strategic sourcing to become predictive, transactional procurement to become automated, and supplier management to become proactive.

- **Predictive strategic sourcing –** Executives in this domain of strategic sourcing are using cloud enablers to:
  - Categorise and manage spend in real time and predict demand using cloud enabled AI/ML.
  - Generate new supply chain insights using pattern recognition

algorithms to rapidly categorise unstructured spend, cost, contract, and supplier data.

- **Automated transaction processing –** Cloud driven:
  - Optimal Character Recognition (OCR) is used to read unstructured documents and extract important data, such as pricing tables, payment terms, etc., thereby reducing manual intervention.
  - Technologies are used to automatically sense material demand and requisition replenishment deliveries from suppliers and auto trigger secure payments.

- **Predictive supplier management –** Cloud is leveraged to:
  - Maintain supplier information in the cloud to measure, analyse, monitor supplier performance and escalate, supplier risks.
  - Conduct virtual/augmented reality-based supplier visits/audits and store video, location related data to enhance checks and balances related to the suppliers.

Case study
A US based biotechnology company produced 50 images for a single sample per day, which were saved in local electronic lab notes (archived every six months). This created a data access and searchability challenge, which they addressed via cloud. In another instance, a US based pharma giant launched its scientific data cloud to make its research data shareable, customisable, and reusable for researchers, data scientists, software engineers, and operations. The platform was designed to enable automated scalable analysis for precision medicine to find treatments suited for individual diseases, such as cancer, and provides a foundation for a long-term data marketplace.

Predictive Strategic Sourcing
Supply base, prices, costs being predicted with precision

Cloud Enabled Supply Chain

Automated Transaction Processing
Automated transactions requiring minimal human intervention

Predictive Supplier Management
Potential supplier risks being monitored in real time
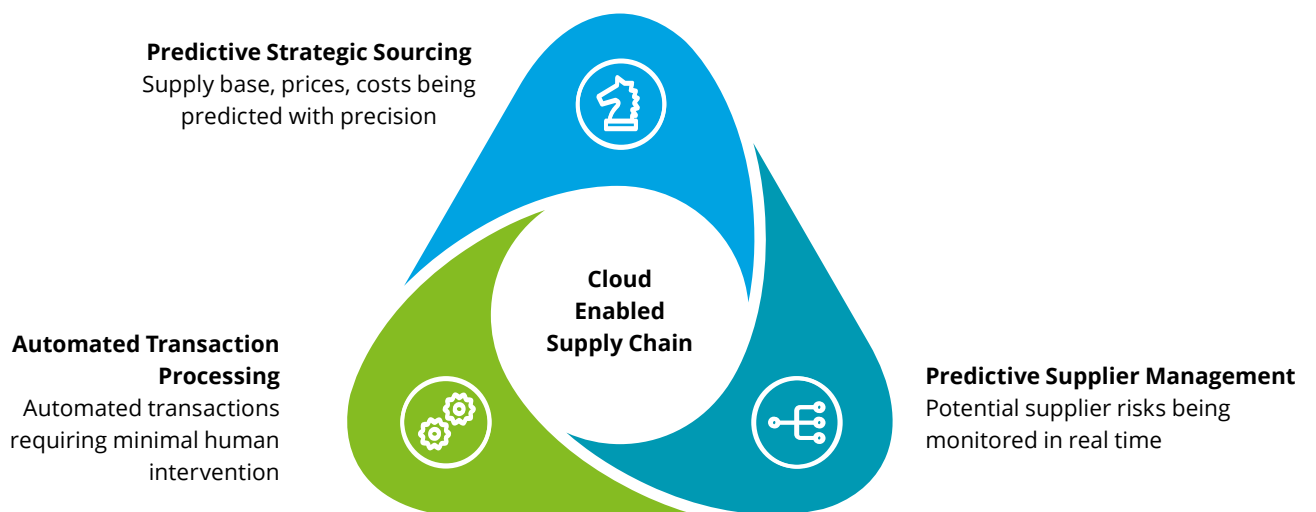
Crossing the talent chasm – A new way

Digital transformation across supply chain and other areas, such as finance, procurement cannot happen without the cloud talent. Young professionals with skills and certifications pertaining to cloud native development, DevOps, cloud enabled AI/ML constitute the engine that fuels the transformation journey for most enterprises in India and abroad. But this engine needs timely maintenance, lubrication, and repair. Cloud skills are one of the most sought-after skills in the talent marketplace and the great resignation has almost kindled a crisis with respect to these skills. Organisations are finding it extremely difficult to acquire, nourish, and retain employees with these skills, i.e., the engine is asking for repairs/refurbishment.

Per a recent NASSCOM report India today ranks 3rd with an available capacity of 6,08,000 (FY2021) cloud professionals across all verticals including technology[6]. However, the demand for cloud solutions is growing exponentially, both in India and worldwide, leading to a higher demand for cloud talent as well. India saw about 3,80,000 job openings for cloud roles in 2020, a 40 percent growth over 2019. The projections for 2025 cloud talent shows a demand of over 2.2 million cloud professionals versus an available talent of 1.5 million.

There are a few key reasons for this talent supply-demand gap, which includes the following:

01. Shift in sector and industry preference: Though technology sector still commands respect amongst Gen-Z millennials, other sectors are fast emerging as top choices. Per a survey conducted by Deloitte India across top 30 engineering colleges (ranked by National Institutional Ranking Framework)[7], 50 percent respondents expressed interest in working for sectors other than technology, such as government and public.

02. Changes in pull factor for Gen Z: Working on latest cloud, AI/ML technologies is not enough for the youth of India. An organisation's impact on the community and nation are some of the primary motivators with 83 percent of respondents rating an organisation's mission, vision, and values as a strong motivating factor for joining a firm.

03. Redefining workplace: About 71 percent respondents on the survey indicated working in locations close to their base locations as one of the top factors for employment.

04. Changing perspective of work: Employees are prioritising work-life balance and thus, are moving to organisations that invest in flexi working arrangements, employee personal development, long-term learning and growth.

05. Not being valued: Also, employees are making an exit due to the feeling of not being valued in the firm, thereby compounding industry-wide talent crisis.

06. Short-term fixes: Rather than unearthing root cause of the problem related to attrition, many firms are jumping to well-intentioned quick fixes, such as bumping up emoluments and bonuses, thereby exacerbating and complicating the challenge at hand.

Strategies for solving this crisis

Crisis begets reform is a powerful hypothesis and holds true in this situation as well. Some important strategies that can be deployed for acquiring, nourishing, and retaining cloud talent include the following:

01. Engage cloud workforce: As the workforce and its expectations about work evolve rapidly, employers should start treating employee engagement as the business-critical issue. Measure engagement as the first step of the journey. Annual employee engagement surveys have long been the norm in many organisations. While yearly touchpoints are better than
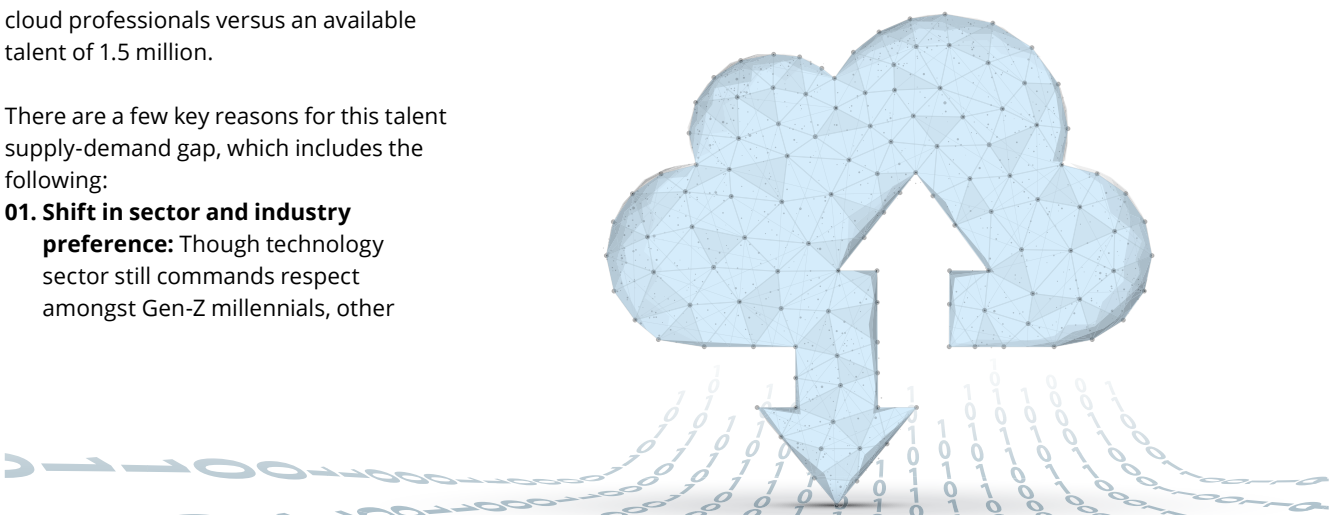
not measuring engagement at all, these surveys leave a lot to be desired. The process can build distrust in the cloud workforce if employees see engagement surveys as a compliance-motivated exercise instead of a genuine desire to respond and improve. To be effective, measuring and managing engagement should be an ongoing, always-listening process that enables organisations to actively hear and respond to their employees in timely and focused ways. This might include using a comprehensive baseline survey, and taking more frequent pulses at least every quarter to dig into the issues.

02. **Define a cloud talent retention architecture:** Loosing cloud talent can be quite expensive and thus, it is imperative for organisations to build a comprehensive cloud talent architecture that primarily comprises four key pillars including the following:

- **Identifying right cloud talent for retention:** Develop a framework to identify at-risk, critical talent which should consist of reviewing several different data points: historical information, predictive analytics, network analysis, cloud job supply and demand; a simple review of historic attrition trends to identify at-risk groups of cloud talent is a good place to start. Secondly, use of predictive analytics can allow companies to zero in on historic attrition trends for key cloud talent groups.

- **Define a plan for non-financial retention**: Financial retention of

cloud skills may buy some time, but it is not a long-term strategy. Often overlooked are the frequently more affordable and more effective non-financial levers, which can be further classified as programmatic and non-programmatic levers.

– Programmatic levers are generally long-term in nature. For example, implementing 'talent marketplaces' to promote internal mobility, providing more opportunities within the organisation, enhancing capability development through cloud trainings/certifications, deploying gamification to enable employees to earn points and rewards as they move up the capability/certifications ladder, conducting internal hackathons to keep cloud associates motivated and enhance team spirit.

– Non programmatic levers are implemented envisaging a short timeline. For example, understanding the key attrition signals at an organisation, and delivering smaller, more targeted responses.

- **Estimate budgets for financial retention:** Building a budget for financial retention typically involves both a Top - Down and a Bottom - Up assessment. The former relies on market benchmarks to establish a ball-park range based on the size of the cloud transformation. Bottom - Up takes a more targeted view, and requires some assumptions related to both who is eligible for retention, and how much is needed to retain.

Work on a communication plan: A cloud practitioner experiences varying levels of uncertainty at different stages of a job/project. Shaping his/her perception through targeted communications is key to minimise uncertainty and anxiety. This requires tailoring strategy to improve employee experience.

Case study
A global organisation struggled to retain employees beyond a certain leadership level. They promoted who they believed were the 'right' people, but once they took on the new role, they routinely did not meet expectations and would leave shortly thereafter. Using network analysis, they were able to identify the top collaborators, influencers, and knowledge brokers across the organisation. Now this data allows leaders to identify employees with those critical collaboration skills early in their careers, and more pro-actively manage the risk of unwanted attrition.

Financial retention can come in the form of various incentives such as:

Type	One-time bonus	Apportionment	Earn-out
Description	A one-time financial award is provided to individual employees, with vesting typically time-based.	Portion of the bonus is paid later.	A future payment is made based on achievement of agreed upon performance milestones.
Benefit	Simple to design and implement;incentivises individuals to stay through critical transformation milestones	Provides immediate alignment between employee and management	Motivates cloud practitioner to achieve key milestones built-in to the transaction rationale

Conclusion

The rise and rise of cloud probably has just one parallel to it in the form of commercial aviation industry, which saw unfathomable growth post world war II and since then has become an integral part of how we commute on a regular basis. For cloud, it seems a similar inflection point has been the COVID-19 pandemic, which has catapulted this technological phenomenon into an unforeseen growth trajectory. In recent years, cloud has become the fulcrum of digital transformation of businesses mainly due to its ability to enable innovation at scale, generate speed of doing business, and reduce costs.

Through this thought paper we aim to understand this bedrock called cloud and its role in digital transformation as an enabler for migration and modernisation of application estates, in building responsive supply chains, and in creating a talent crisis across the globe.

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About CII

The Confederation of Indian Industry (CII) works to create and sustain an environment conducive to the development of India, partnering Industry, Government and civil society, through advisory and consultative processes.

CII is a non-government, not-for-profit, industry-led and industry-managed organization, with around 9000 members from the private as well as public sectors, including SMEs and MNCs, and an indirect membership of over 300,000 enterprises from 286 national and regional sectoral industry bodies. For more than 125 years, CII has been engaged in shaping India's development journey and works proactively on transforming Indian Industry's engagement in national development. CII charts change by working closely with Government on policy issues, interfacing with thought leaders, and enhancing efficiency, competitiveness and business opportunities for industry through a range of specialized services and strategic global linkages. It also provides a platform for consensus-building and networking on key issues.

Extending its agenda beyond business, CII assists industry to identify and execute corporate citizenship programmes. Partnerships with civil society organizations carry forward corporate initiatives for integrated and inclusive development across diverse domains including affirmative action, livelihoods, diversity management, skill development, empowerment of women, and sustainable development, to name a few. As India completes 75 years of Independence in 2022, it must position itself for global leadership with a long-term vision for India@100 in 2047. The role played by Indian industry will be central to the country's progress and success as a nation. CII, with the Theme for 2022-23 as Beyond India@75: Competitiveness, Growth, Sustainability, Internationalisation has prioritized 7 action points under these 4 sub-themes that will catalyze the journey of the country towards the vision of India@100.

With 62 offices, including 10 Centres of Excellence, in India, and 8 overseas offices in Australia, Egypt, Germany, Indonesia, Singapore, UAE, UK, and USA, as well as institutional partnerships with 350 counterpart organizations in 133 countries, CII serves as a reference point for Indian industry and the international business community.

Confederation of Indian Industry
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