

IT NEXT

FOR THE NEXT GENERATION OF CIOs



**AND YOU THOUGHT
EXPERIENCE IS ENOUGH?**

98% CIOs say

training

is equally important for preparing nexgen
IT managers for CIO's role.

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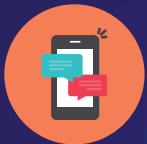
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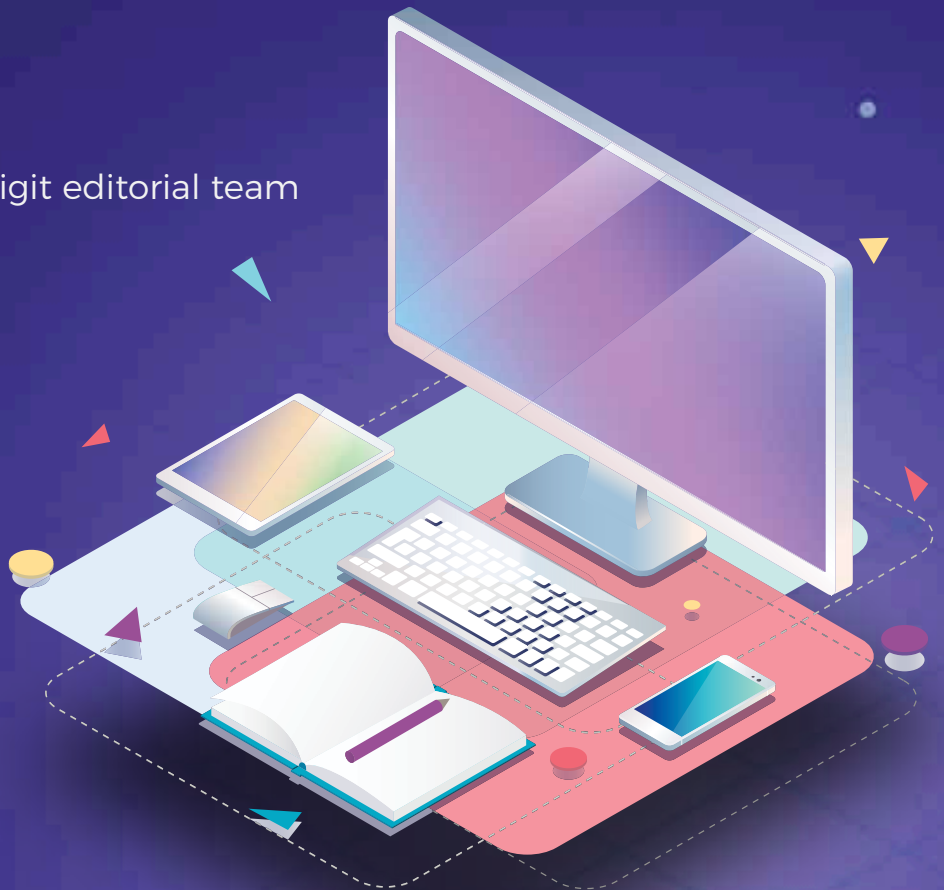


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Training & The CIO



What the CIOs of today expect you to be trained are not on technology, or strategy or soft skills, but all of that and more.

They expect you to be 'trained' for being a CIO. They want their successors should be better prepared—simply because the expectation from them by the top management is going to be more.

Shyamanuja Das

Can you train to be a CIO? Going by what the survey that is presented in this issue's cover story, CIOs unequivocally answer, 'yes'.

I hope you will read the story to know details but here is something I would like to reveal. What the CIOs of today expect you to be trained are not on technology, or strategy or soft skills, but all of that and more. They expect you to be 'trained' for being a CIO. They want their successors should be better prepared—simply because the expectation from them by the top management is going to be more. While you should be sensitized to this new reality, the onus of investing time, money and efforts on this training lies significantly with the organizations you work in.

Going by what the CIOs say, most think that an integrated intensive training program for next generation managers is more effective than any of the individual skills programs. However, it is easier said than done. Creating such programs for the entire IT staff is neither required nor viable. So, what do CIOs do?

When I spoke to a few veteran CIOs, they added one more dimension. They all agreed that a program for a 'batch' is not just unviable, it would be ineffective too. In fact, one CIO proposed a model of training, where it is for an extended period and includes not just classroom training and workshops but solving real-life issues and interacting with organizational staff by physically visiting different locations. The ideas also included formally making them interact with their peers from other organizations.

All these ideas are good. But how do they select who to impart those training? While the survey itself did not ask the questions, my conversations reveal that most reject the idea of focusing on the No 2 or No 3. They say catching them early is a better idea. IT will not just be more effective, it would be easier to retain them and prepare, even after the 'intensive' program.

But how do they identify whom to select? One CIO pointed me to our very own NEXT100. So, not surprisingly many CIOs—and this is what the survey reveals—expect NEXT100 to create programs for preparing the winners for CIO roles and about one-fourth of them are ready to bear the cost of that.

We are humbled by this confidence shown on us. We have created the NEXT100 program for the community and would be happy to make it even more useful for the community. But before we get into the actionable, we would like to hear your viewpoints.

Write to me at shyamanuja.das@9dot9.in. I would love to know your viewpoints. ■

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THE TRAINING IMPERATIVE

Can you be trained to be CIOs – is not
a rhetorical question anymore

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IT NEXT

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Capturing the Earth's hidden beauties through my journey is truly pleasurable



Finding Solace In Driving

NEXT100 Winner 2019 **Anand Raut**, Deputy General Manager - IT, Kalpataru, shares his immense passion for driving and how it helps him both personally and professionally...

"Never drive faster than your guardian angel can fly"
– Jinx Schwartz



Anand Raut

Anand Raut is Deputy General Manager - IT at Kalpataru. He has been a NEXT100 winner in 2019. He was associated with Travelex, Axis Bank, Mahindra & Mahindra,

A for Apple, B for Bat, C for Cat....
Well...for me, ABC has always been A for Accelerator, B for Brake and C for Clutch.

As a child, I was always inquisitive about driving and used to observe elders in my family while they drove. Probably I had picked up the basics while in school and just waited for my 18th birthday to get the driving license.

The first vehicle I ever drove on public roads was the legendary Yamaha RX100 bike owned by my father – sometime in Sep-2000.

The longest I have driven in a day is from Mumbai to Kumbhalgarh in Rajasthan, over 800 km of fun-filled drive covering National Highway, parts of the Golden quadrilateral, State Highways as well as last mile arterial roads. Not to mention separately, the destination is as beautiful as the drive.

And while I love to drive on any road and climatic conditions, my all-time favorite has been driving to Mahabaleshwar in winters. That's the time when the nature there is at her best.

Drives are the best when I have my wife Sonali as my co-driver and navigator. We both have a dream of doing a pan-India drive - explore every State and Union Territory of our beautiful country – and while we travel, savor the local cuisine too.

Driving is like meditation to me. It makes me feel energetic, positive and focused. Every drive teaches me to be more patient, it helps me connect to myself and the people with whom I travel. Cheers to the journey covering over 3 lac km so far (drive and ride put together) and many more to come. ■

As told to Dipanjan Mitra, Team ITNEXT

Snapshot

etc. He completed his PG MBA in Marketing from Atharva School of Business and BE in Automobile from M.H. Saboo Siddik College of Engineering.



Motoring along gives me a sense of self-satisfaction and immense internal peace

The Incurable Wanderlust

NEXT100 2019 Winner **Utpal Banerjee**, Assistant General Manager, HGS, shares his immense passion for travelling and photography...

"Life is a journey, not a destination"

– **Ralph Waldo Emerson**

Travel and Photography are passions that go hand-in-hand with my wanderlust and complement each other well. Growing up in a family that moved places due to my dad's transferable job, sowed the seeds of wanderlust in me from a very early age. Later, my professional endeavors took me to several cities in different states. The insatiable desire to travel also helped develop an eye for detail and capture frames which caught the eye. I must acknowledge the fact that travelling instilled an interest in photography as it was important to capture the moments/frames that caught my interest.

I have always believed that "Happiness is found along the way, not at the end of the road". This passion for travel was kindled at a

very young age along with an inquisitive liking for automobiles. This gave rise to numerous road travels which I undertook and continue to embark on whenever my schedule allows me to venture out.

The most memorable road trip to this date was my motorcycle ride to Himachal and Ladakh, a 2-week sojourn through the Himalayas that took me to Khardungla Pass at 18,380 feet and the magnificent Pangong Tso Lake. The diverse landscape of the Himalayan terrain ignites myriad questions on the diversity of nature, in the mind of the traveler. This trip taught me the finer nuances of planning and execution as it involved travel through un-inhabited terrain for several days, with limited support facilities. This was a phenomenal experience and had a long-lasting therapeutic effect on the mind.

It went on to help me immensely in execution of my professional endeavors as well.

The basics of travelling and photography have certain aspects in common like planning for a destination (frame), selecting the path to be taken (exposure, aperture) and finally taking the journey (shot). My pictures have always helped me relive the moments of travel that I made.

Travelling, especially road trips serve as a rejuvenator and helps one to escape from the dull monotony of everyday life. The rich experience we get from travelling enlightens and broadens the horizons of one's mind. Our Country is one of the few places on Earth that has the beauty of the scary heights of Siachen and the vast expanse of the sea at Kanyakumari. The rural landscapes of the country and the natural beauty that we experience during road travel are a treat to our eyes.

The ensuing pandemic has forced us to remain locked indoors and helped lot of us find time to pursue interests and hobbies. ■

As told to Dipanjan Mitra, Team ITNEXT



Utpal Banerjee

Utpal Banerjee is Assistant General Manager at HGS. He has been a NEXT100 winner in 2019. He had been associated with Quattro, Genpact, GECIS, etc.

Snapshot

He completed his PGDBM from Symbiosis Institute of Management Studies and Diploma (Hons.) in Systems Management & IT from NIIT.



THE TRAINING IMPERATIVE

Can you be trained to be CIOs – is not
a rhetorical question anymore

By IT NEXT

Training and certification are as old as IT. They have always been critical requirements among enterprise IT professionals. With technology changing so fast, the rush for training – especially in newer areas like machine learning, data science, and cloud technologies – has only accelerated in recent years.

However, this ‘training’ has been chiefly about new technologies, standards, and regulations.

A survey that 9.9 Group did recently among CIOs reveals that they expect the next line of enterprise IT managers to be ‘trained’ to be CIOs. As many as 98% of CIOs agree that training is

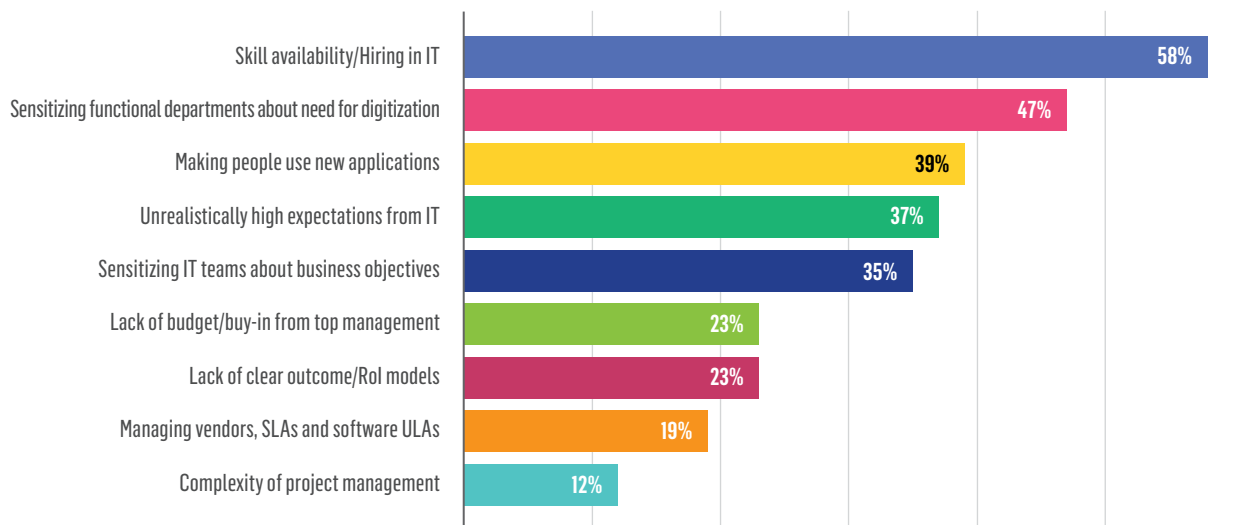
essential to become a successful CIO. While about three-fourths of those surveyed (77%) put training as equally important as experience, as many as 21% say training is more critical. Think about it – only 2% think experience is enough to be a CIO.

We present the findings of the survey, conducted in August 2021.

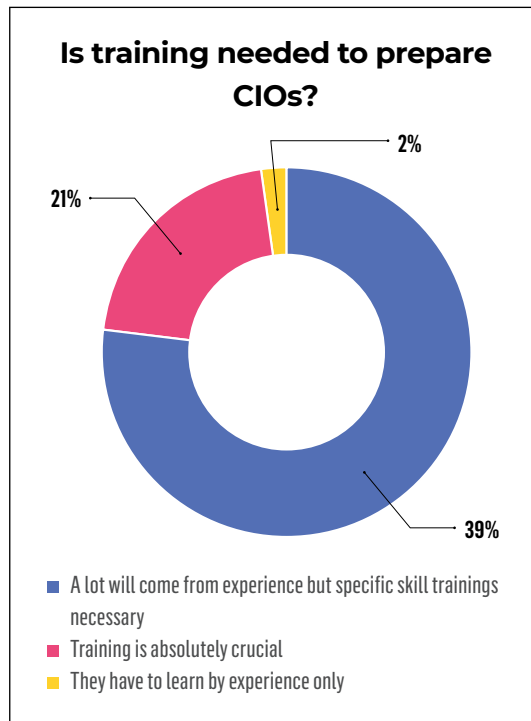
Most important challenges for CIOs

If you thought why we are doing so much fuss about training, putting it on the cover, even though technical training and certifications are a regular

What are the most important management challenges that you have as a CIO?



Over half of the respondents to 9.9 Group's recent CIO survey cite skill availability/hiring in IT as the top management challenge



The majority of CIOs surveyed opined the growing need for specialized skill training along with experience to become a CIO

part of enterprise IT professionals, this finding will provide you with the reason.

Skills for Indian CIOs are not a challenge; it is a challenge.

Surprising as it may sound, as many as one in five say yes. And three-fourth says it is essential, along with experience. Experience does matter—but sorry, it is not enough.

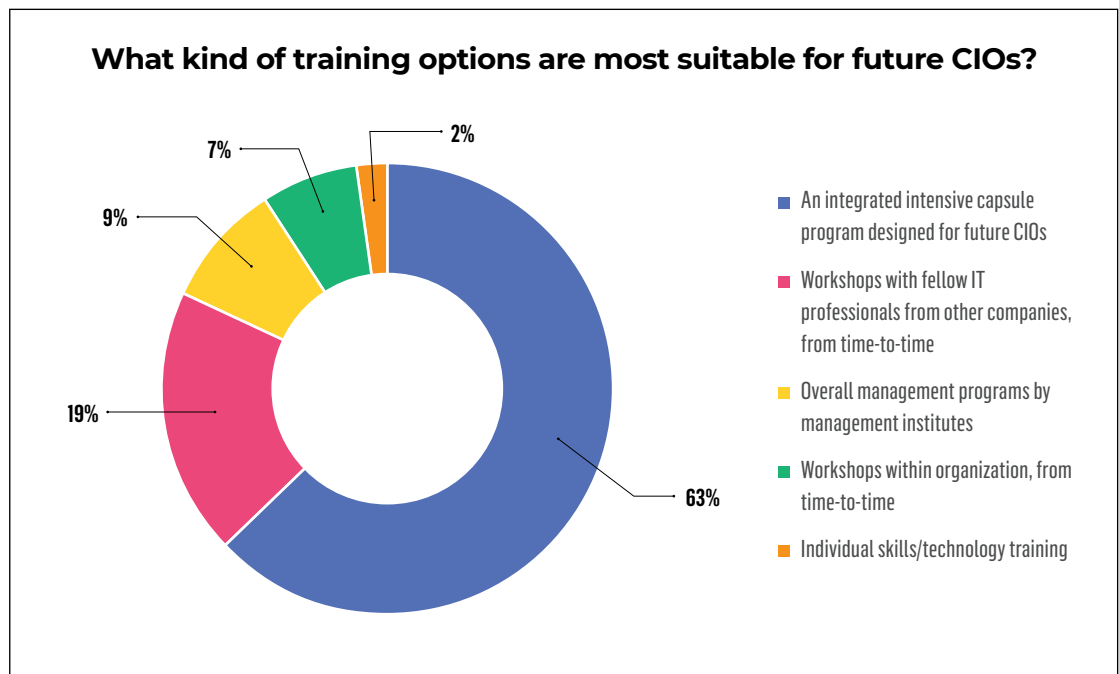
The next logical question: what kind of training?

This is where it gets more surprising – and exciting. While almost three-fourth of CIOs said specific skill training ‘will help’ when explicitly asked what kind of training is most suitable, nearly two in three CIOs said an intensive capsule program designed specifically for future CIOs could best fulfill the training need.

Let that sink in – no specific technology, no specific strategy training, no specific leadership training, and no specific soft skills, they are clear that a customized training designed that integrates all this (and probably more, as we have not explicitly asked for that), is best suited to prepare them to be CIOs. Call it a CIO course.

And almost one in five says training workshops with a peer group from other companies will help them. So, for HR guys, it is not sufficient for 2-3 days ‘leadership’ or ‘skill’ training. That may help them improve on that aspect, but such training is not an alternative to open training with other organizations.

Food for thought?



Types of training programs that can help prepare future CIOs

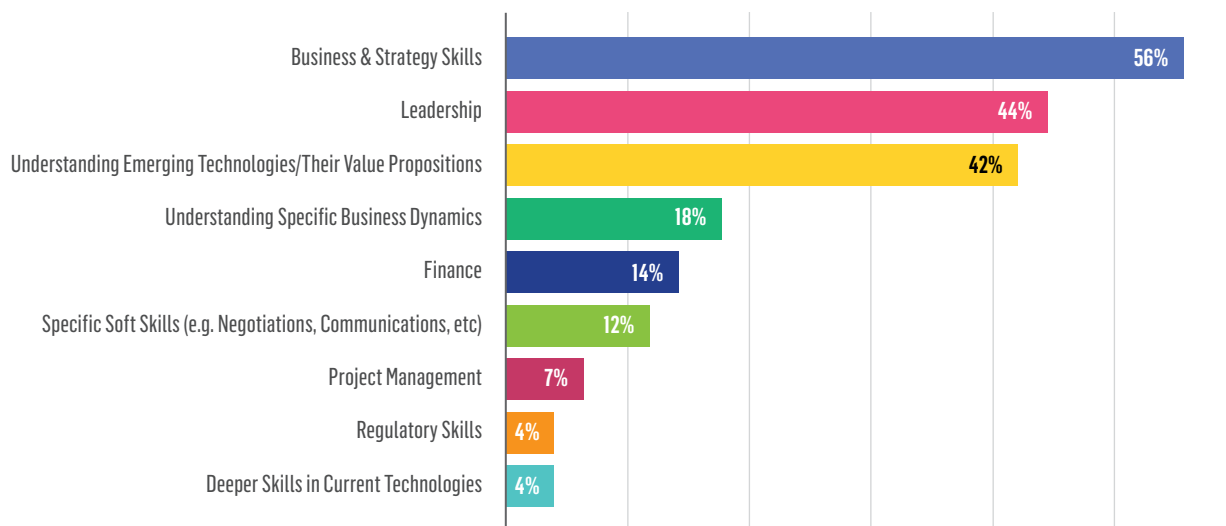
Will you be a little more specific?

We also asked what specific training is needed today for the immediate next levels (CIO -1, CIO -2). Not surprisingly, strategy leads is first, followed by leadership and emerging technologies holding a strong third.

What about the long-term?

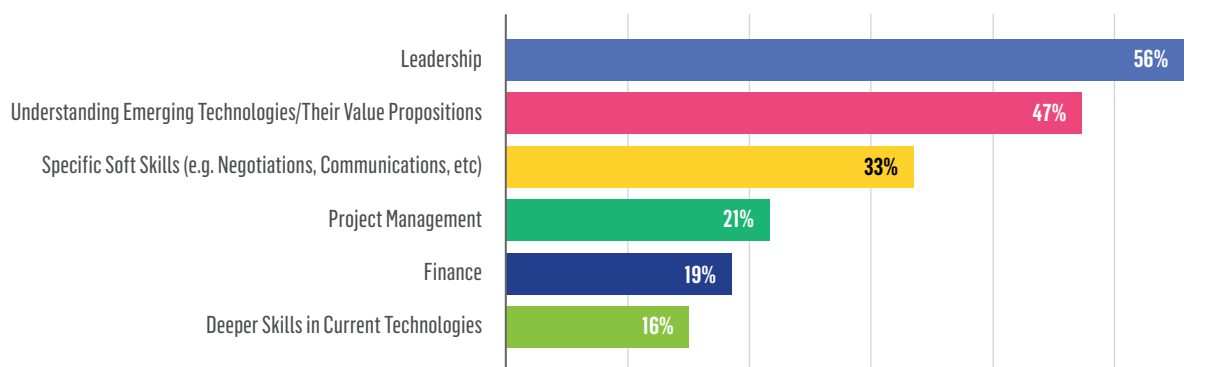
What about the following levels beyond the top three levels? After all, they are the guys who execute the strategy, get things done. Surprisingly, leadership is the top training need, feel CIOs. Maybe, it is an introductory leadership training.

Training for CIO -1 and CIO -2 levels



Skills and training the next-in-line CIOs will need for leadership success

Training required for next levels



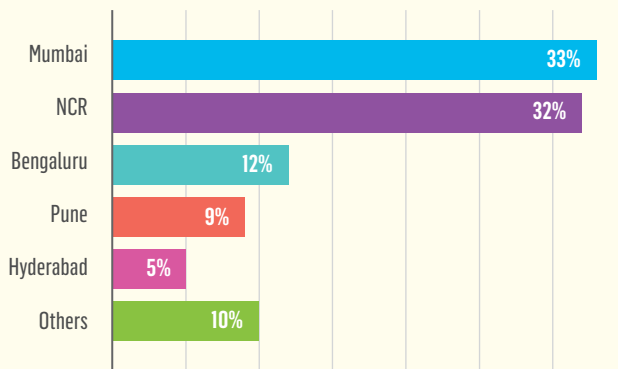
Skills and training needed for the following levels beyond the top three levels

How important is the training of ...

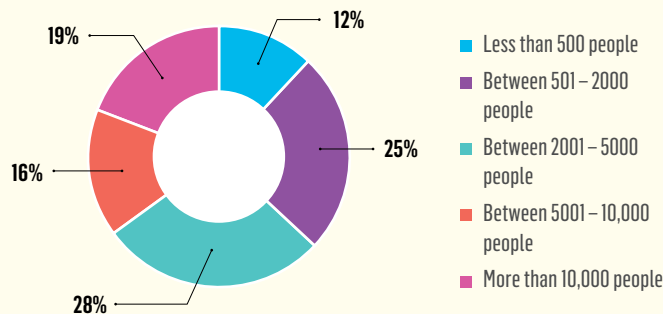


Areas of training rated as being the most important for future CIOs

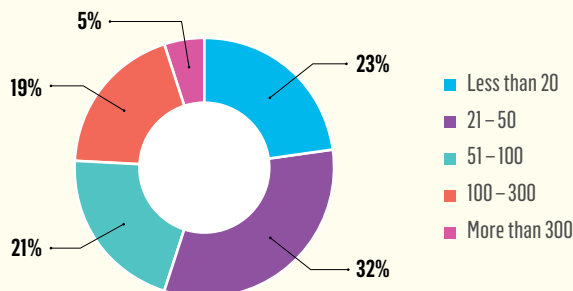
Respondent's primary location



Size of organization



Size of IT team



Profile of Survey Respondents

Technology	% of CIOs who think it to be among top two
Emerging Technologies	51%
Data Analytics/AI	51%
Cloud Technologies	46%
Industry 4.0	33%
Collaboration Technologies	7%
MarTech	2%

Top technology skills to learn for the future

Not so surprisingly, emerging technology training is a strong second.

Yes, we did list business strategy as an option, but few selected that.

Technology areas that are hot for training

Do not be in any confusion. The need for strategy or soft skills training does not dilute the need for technology training. CIOs give 'almost' equal importance to strategy, technology, and soft skills, although their relative importance stands in that order. What gets underlined is that with high scores, all of them are reasonably important.

Tech first...and last

As reiterated by the finding, technology is not a walkover. So, which technologies are most important? Are the answers not too surprising? ■



 22nd **CIO&LEADER** CONFERENCE • SEPTEMBER 3-4, 2021

22nd Annual CIO&Leader Conference **Sets New Benchmark**

The 22nd annual CIO&Leader Conference, the flagship event of the premier CIO community platform, CIO&Leader, from 9.9 Group, was successfully held virtually on 3rd and 4th September 2021. The theme for this year's conference was CIO Gurukul, which stressed on the importance of learning

By IT NEXT



The 22nd annual CIO&Leader Conference, the flagship event of the premier CIO community platform, CIO&Leader, from 9.9 Group, was successfully held virtually on 3rd and 4th September 2021. The theme for this year's conference was CIO Gurukul, which stressed on the importance of learning.

As many as 118 CIOs participated in the conference as Gurus to share their insights and learning with more than 2,400 people

registering for the event. They did that over 39 sessions – keynote, sponsored and editorial – across various formats, such as Master-classes, Fireside Chats, Roundtables, Panel Discussions, and Case Study Workshops.

The event began with participating CIOs and delegates being welcomed by Vikas Gupta, Publisher of CIO&Leader and Director & Co-Founder, 9.9 Group.

The opening keynote themed Rise over Obstacles was delivered by Life Coach Gaur Gopal Das of ISKCON. He also participated in a fireside chat with Rajendran N,

CEO, IFTAS; Rajesh Uppal, CIO, Maruti Suzuki India; and Vikram K, Senior Director, HPE India, who deliberated on Leadership in the Era of Hybrid Work Culture. Harish Manwani, Senior Operating Partner, The Blackstone Group & Former Global COO, Unilever, spoke on Leading in Turbulent Times, in the second keynote delivered on the first day.

The opening keynote on the second day was given by Prakash Iyer, Former Managing Director, Kimberly-Clark Lever, who spoke on The Leaders' Mindset. Sjoerd Marijne, Chief Coach of Indian

Women's National Hockey Team which reached the quarterfinals of Tokyo Olympics 2020, delivered a keynote address on How to Build a World Class Team.

The sponsored sessions on the first day included:

- Visual Data Mining & Machine Learning, Case Study Workshop sponsored by SAS
- An Integrated Security Strategy to Support Business Transformation, Case Study Workshop sponsored by Fortinet
- Technology & Financial Services – A Love/Hate Relationship, Fireside Chat sponsored by Fortinet
- Lessons from Digital Transformation, Fireside Chat sponsored by Tata Communications
- The Post COVID CISO, Fireside Chat sponsored by Fortinet
- Adopt a Holistic Approach to Cyber Security, Masterclass sponsored by Sophos
- Simplify Compliance & Reduce Risk, Masterclass sponsored by Microsoft
- Proactive Threat Hunting to Combat Ransomware, Panel Discussion sponsored by Microsoft
- Accelerate Business Agility & Growth with the Right Hybrid Cloud, Panel Discussion sponsored by IBM
- Cloudizing your IT with Everything as a Service, Panel Discussion sponsored by HPE
- Build IT Agility: Accelerate Infrastructure Transformation, Roundtable sponsored by Tata Communications
- Modernized Data Management for Banking & Financial Industry, Roundtable sponsored by HPE
- Accelerating Digital Transformation with IoT Analytics, Roundtable sponsored by SAS
- Finding Your Path to Modernization, Roundtable sponsored by VMware

- A Core Foundation of Modern Data Strategy: Logical Data Fabric, Talk delivered by Denodo
- Create More Value from Apps & Data – Anywhere, Talk delivered by IBM
- Building an End-to-End Integrated Security Approach, Talk delivered by Microsoft

The sponsored sessions on the second day included:

- Unified Cloud Experience for Smart Business Transformation, Case Study Workshop sponsored by Tata Communications
- AI-powered Service Operation: Your Powerful Ally, Case Study Workshop, sponsored by ServiceNow
- Formulating a Business Optimized Threat Protection Strategy, Case Study Workshop sponsored by Kaspersky
- Build Your Digital Workspace, Masterclass sponsored by Wysetek
- Modernizing IT from Edge to Cloud, Masterclass sponsored by HPE
- AI-powered Service Operation, Panel Discussion sponsored by ServiceNow
- Network & Security: Get the Strategy Right, Panel Discussion sponsored by Tata Communications
- Unlock the Potential of Business Outcome, Panel Discussion sponsored by Aruba
- Exceptional Customer Service Experience, Panel Discussion sponsored by NICE
- Virtual Cloud Network for Intrinsic Security - Spotlight, Roundtable sponsored by VMware
- How Enterprises Can Unleash The Power of Data With The Modern Database Platform, Roundtable sponsored by Mongo DB
- Exploring the Future of Work

with Sixth Sense Networks, Roundtable sponsored by Aruba Editorial sessions included a presentation by Editorial Director Shyamanuja Das on Career & Succession Planning in Enterprise IT, based on a research conducted by CIO&Leader, on 3rd September 2021. A roundtable on the same topic was conducted on the second day of the event, which saw participation of leading CIOs. Invited speakers, veteran ex CXOs and consultants, Vijay Sampath and Akash Jain spoke on Introducing Thick Data Thinking.

Like in last few years, the final part of the program agenda was CIO&Leader Samman, a unique honor CIO&Leader is conferring on veteran CIOs since last three years. Fourteen CIOs, chosen by a jury panel of four former CIOs, received the 3rd CIO&Leader Samman.

The formal end of the event was thanking the CIO gurus for their selfless participation in the program and announcement of Guru Dakshina, as is customary at the end of the education at a Gurukul. Group Editor R Giridhar announced Guru Dakshina.

Director of Sales & Community Engagement, Mahantesh G, thanked the sponsors of making the program a success.

Exciting prizes like Maruti Baleno car, Sony BRAVIA TV, Bose Ear-Pods and Amazon vouchers were announced for delegates based on their levels of participation.

The entire program was supported by Hewlett Packard Enterprise as the lead sponsor together with Aruba & Inflow, powered by Tata Communications and co-powered by AMD & VMware. The associate partners included Kaspersky, Microsoft, IBM, Mongo DB, NICE, SAS, Sophos, Denodo, Fortinet, ServiceNow and Wysetek. ■

Glimpses from the annual 22nd CIO&Leader Conference in pictures



3RD
SEPTEMBER
2021



OPENING
ADDRESS

The two day session was kicked off by a brief but warm welcome by the Publisher of CIO&Leader and Co-Founder of 9.9 Group, Vikas Gupta

Welcome Address

Vikas Gupta, Co-Founder & Publisher



3RD
SEPTEMBER
2021



KEYNOTE
ADDRESS



Rise Over Obstacles

Shri Gaur Gopal Das, Life Coach

Shri Gaur Gopal Das, Life Coach, in his talk on 'Rise over Obstacles' had a heady mix of experience, insight and humor to make his point



3RD
SEPTEMBER
2021



FIRESIDE
CHAT



'Leadership in the Era of Hybrid Work Culture' - in a fireside chat, distinguished panelists, examine the topic from cultural, emotional and technological angles

Leadership in the Era of Hybrid Work Culture

Shri Gaur Gopal Das, Life Coach; Rajendran N, CEO, IFTAS; Rajesh Uppal, CIO, Maruti Suzuki India; Vikram K, Senior Director, HPE India. **Moderator:** Sachin Mhashilkar, Executive Director - B2B Tech, 9.9 Group



3RD
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2021



KEYNOTE
ADDRESS



Leading in Turbulent Times

Harish Manwani, Senior Operating Partner, The Blackstone Group & Former Global COO, Unilever

Expectations from CIOs have never been more than it has been post the pandemic. With businesses going through tough times and the organizations trying to become agile and digital, how do CIOs and IT leaders lead from the front in these turbulent times...Harish Manwani, Senior Operating Partner, The Blackstone Group & Former Global COO, Unilever spoke eloquently on the topic




3RD
SEPTEMBER
2021


KEYNOTE
ADDRESS

Is there something called succession planning in enterprise IT? Editorial Director Shyamanuja Das presented excerpts from a research conducted by CIO&Leader on how CIOs look at next generation leadership and what are they doing for succession planning...

Career & Succession Planning for CIOs

Shyamanuja Das, Editorial Director -
Enterprise Technology, 9.9 Group


4TH
SEPTEMBER
2021


OPENING
ADDRESS



Welcome Address

Sachin Mhashilkar, Executive Director - B2B Tech, 9.9 Group

A new day, a new beginning. Sachin Mhashilkar, Executive Director - B2B Tech, 9.9 Group welcomes delegates for the second day of the event.



4TH
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KEYNOTE
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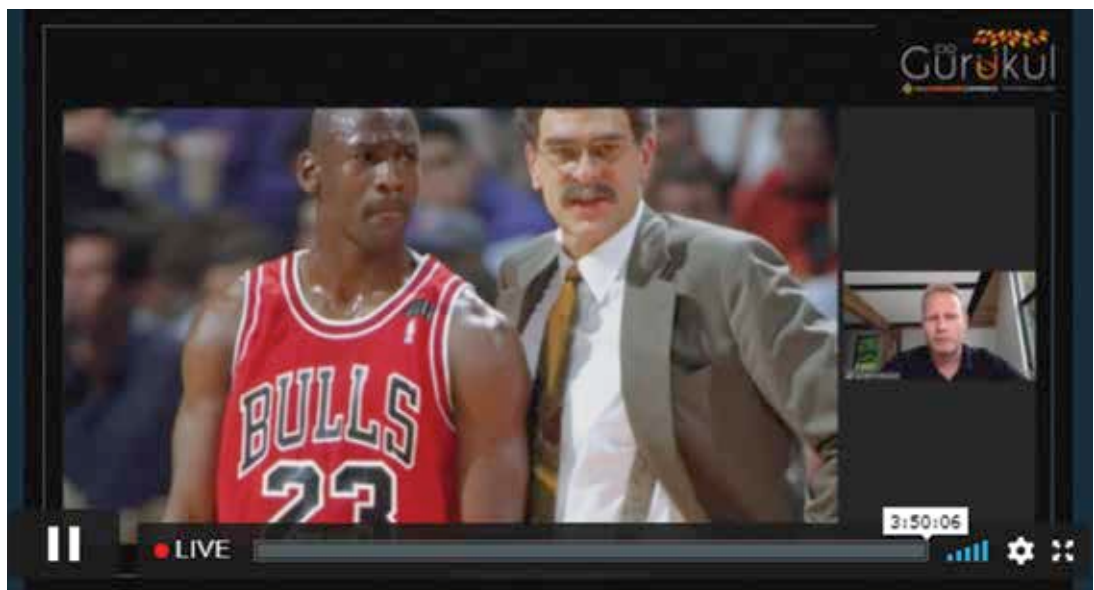
The opening keynote, by Prakash Iyer, Former Managing Director, Kimberly-Clark Lever, on 'The Leaders Mindset', saw one of the highest audience interests. He talked about how do leaders think...

The Leaders Mindset

Prakash Iyer, Former Managing Director, Kimberly-Clark Lever

4TH
SEPTEMBER
2021

KEYNOTE
ADDRESS



How to Build a World Class Team

Sjoerd Marijne, Chief Coach, Indian Women's National Hockey Team, Tokyo Olympics 2020

It was an unprecedented show by the Indian Women's Hockey team at the Tokyo Olympics. The man who helped it reach there, Sjoerd Marijne, Chief Coach of the team, shared some of his recipe on how to build a world class team



4TH
SEPTEMBER
2021

ROUNDTABLE

Even though technology and business issues are discussed in minute details, succession planning in enterprise IT is still an after-thought, if at all. CIO&Leader is committed to create awareness and facilitate collective thinking on this important aspect of a CIO's role. The roundtable saw participation by seven top CIOs.

Career & Succession Planning

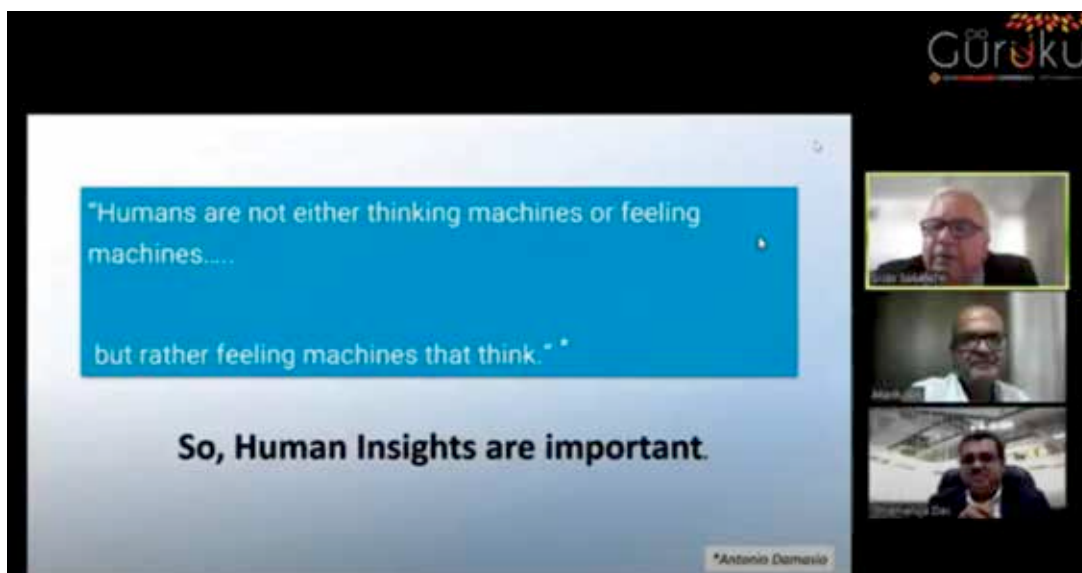
Anjani Kumar, CIO, Strides; Atanu Pramanic, Joint President & CIO, Hindalco; Greesh Jairath, former CIO, ITC Infotech; Rajiv Sikka, CIO, Medanta; Sanjay Prasad, CIO, CESC; Vijay Sethi, Chairman, Mentor Cart & former CIO & Head of HR & CSR, Hero MotoCorp; Vinod Bhat, CIO, Air Vistara. **Moderator:** Shyamanuja Das, Editorial Director - Enterprise Technology, 9.9 Group



4TH
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MASTERCLASS



Introducing Thick Data Thinking

Akash Jain, InfoTech Navigator: Advisor, Mentor, Executive Coach, Writer, Teacher, Trainer; Vijay Sampath, Business Transformation Pioneer. **Moderator:** Shyamanuja Das, Editorial Director - Enterprise Technology, 9.9 Group

You have Big Data. But what is Thick Data? Distinguished panelists, spoke on why organizations must look beyond Big Data and look at the outliers and the qualitative but faint observations to have more accurate insights

The 3rd CIO&Leader Samman Recipients



The 3rd CIO&Leader Samman Jury





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2021



Guru Dakshina

R Giridhar, Group Editor, 9.9 Group

The theme for this year's conference was CIO Gurukul. How can a Gurukul end without the customary Guru Dakshina? R Giridhar, Group Editor, 9.9 Group thanked the CIO gurus by honoring them with Guru Dakshina



4TH
SEPTEMBER
2021

The vote of thanks to the sponsors, who made the event possible, was offered by Mahantesh G, Associate Publisher & Director - Community, 9.9 Group

Vote of Thanks

Mahantesh Godi, Associate Publisher & Director - Community, 9.9 Group



The Shifting Priority Of AI To Excellence-Led Monetization

As much as enterprises are increasing investments in AI, there is a real and persistent struggle to demonstrate business value from AI and realize returns on investment

By Sandeep Sudarshan & Arundeeep Sivaraj

As much as enterprises are increasing investments in AI, there is a real and persistent struggle to demonstrate business value from

AI and realize returns on investment. Centers of Excellence (CoE) or innovation centers for next-generation technologies have played a significant role in creating thought leadership

and bringing about best practices, but there's more to be done in a planned and concerted manner to leverage and monetize AI to its fullest and as such, CoEs have to show more action

and outcome bias and become Centers of Excellence and Monetization (CoEM), as we would like to term it.

A CoEM is a natural extension and enhancement of the CoE. It consists of all the fundamental building blocks of a CoE and takes it a notch further to bring about the monetization bias. A CoEM is designed and built on the same four fundamental pillars as the CoE, and those being:

- Strategy
- People
- Processes; and
- Technology

Strategy

Businesses today are looking to use AI to find answers to their complex problem statements while progressing in their digital transformation journey. A data-driven strategy and decision-making framework become an important aspect in this journey before we can actually get talking about monetizing AI. The strategy function of the

CoEM is one of the most important pillars. It defines the vision and direction of what the enterprise can practically and realistically achieve so that morale and confidence in AI initiatives remain positive.

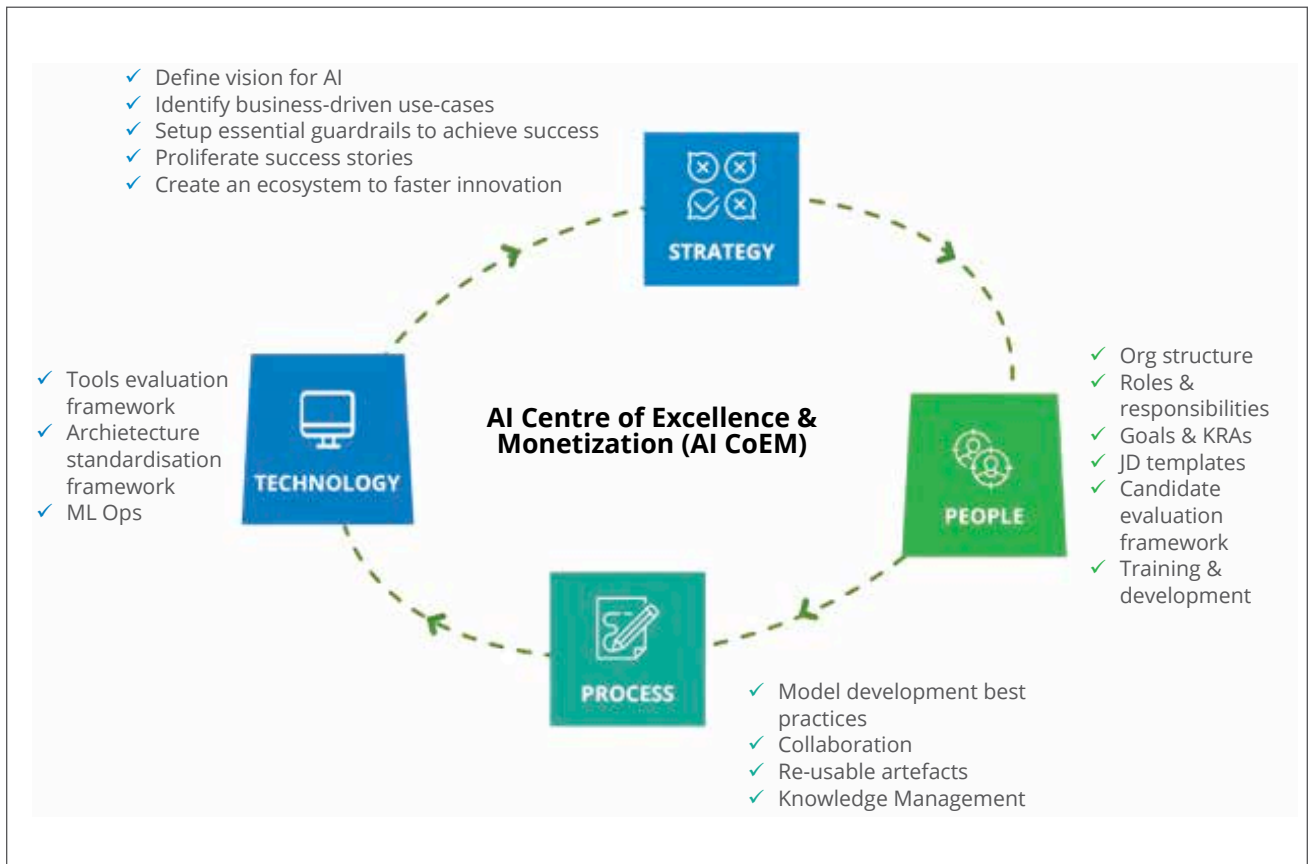
The action and monetization bias comes from the ability of the CoEM to identify and prioritize high-impact use cases where investment needs to be made. This is easier said than done. It often happens that organizations bite off more than they can chew when it comes to finalizing a charter for their AI journey. Choosing the right use cases to work on is a balancing act. As much as the use case(s) needs to be able to positively impact either top line, bottom line, or customer experience, it is also pertinent that organizations pick ones that are realistic to execute. Initial successes, however small, significantly boost the confidence and morale of the teams and leadership in equal measure. Ensure that all small and incremental suc-


cesses are published and celebrated. As much as one would like to do everything on their own, the key to AI success is in creating an ecosystem of partners and academia who can jointly add value to the initiatives.

People

How should the AI CoEM look like? Should all AI competencies be centralized resources or decentralized in multiple departments? What is the role and responsibility of each identified stakeholder in the ecosystem? What are their interdependencies? How can an enterprise keep them motivated and continuously curious? How can we put in place a mechanism to add new stakeholders with the right skills and temperament to ensure sync with the current teams and objectives? These are all critical questions about the people strategy aspect of a CoEM.

Once the answers to these higher-level questions are built into the





The beauty of AI is that the solutions powered by it allow a level of flexibility and self-optimization. Additionally, the technology also provide enriching outcomes by adding more data dimensions and features.

design, ground-level challenges also needed to be addressed, and an important one being - Identifying the right data owners and stewards. This is a highly underrated aspect and raises its ugly head whenever clean, and tightly governed data is needed to push through initiatives. Organizations struggle to make this available since data is stored in multiple places, and due to a lack of proper governance, enabling democratized access is impossible. These cannot be solved just by tooling but needs change management in the people process and mindset.

Process

The next important building block of a CoEM is the process element. More often than not, organizations attempt to fix many problems by throwing more technology and automation at it, and they fail. This is because the underlying process itself is inherently broken. Therefore, if you already have an AI CoE in some shape and form but

not yielding the results and outcome that you were expecting, it might be worthwhile to have a serious relook at existing processes, and if needed, ask fundamental questions on why the organization does things a certain way. When it comes to CoEM, processes lay down a systematic way in which stakeholders who are directly or indirectly associated with the initiative can collaborate better, create more re-usable assets and ensure that all the knowledge, assets, and best practices are stored securely and made accessible on-demand to authenticated and authorized users. The monetization bias comes from the repository of re-usable assets, feature stores, and libraries which allow the culture of 'fail fast, succeed fast'.

Technology

The technology landscape of AI, like many other technology domains, is an ever-evolving one. The high rate of obsolescence of approaches, methodologies, and concepts pose a constant

challenge to an organization's ability to be ahead of the curve and putting the investments in the right basket. The technology strategy within the CoEM should include, as part of its design, the framework for tools and technology evaluation, best practices for architecture standardization, and managing operations of AI solutions in production.

The beauty of AI is that the solutions powered by it allow a level of flexibility and self-optimization. Additionally, the technology also provide enriching outcomes by adding more data dimensions and features. The choice of tools, technology, and framework ensure that the AI solutions remain living, breathing entities and adapt to the evolution of the business. ■

The authors are Sandeep Sudarshan who heads the Business & Solutions Consulting Group in Subex and Arundeeep Sivaraj who is a Director in Subex's Business & Solutions Consulting Group



How Can Green Data Centers Play A Pivotal Role In Future Business Models?

Green data centers are the only option to ensure a safe path for the environment and our digital needs

By Ankit Saraiya

Data center as an infrastructure platform has come a long way in the past few years. Today, India is seen as the hub of several data center projects, with IT giants such as Microsoft, Google, and Amazon announcing substantial investment projects in the space.

Similarly, Indian real-estate companies and infrastructure groups too are leveraging this opportunity to invest in the data center space. Key geographical markets, such as Mumbai, Chennai, Hyderabad, Noida, Bangalore, Pune, and Kolkata are attracting huge investments. This, coupled with the government's vision of making India a data center hub with a targeted investment of INR 3 lakh crore in the next five years, will only make the data center industry that lucrative for foreign and domestic investors.

While the potential and promise of the data center market are huge, a majority of its running cost is electro-mechanical in nature. Power and energy contribute almost 40% of the total cost of running a data center. This is where the green data center's focus emerges, and companies prioritize carbon-neutral data centers over others.

Energy efficiency with environmental awareness approach

A green data center is helpful for storage and data management in which the electrical and mechanical systems are designed and built to offer energy efficiency with little environmental impact.

A green data center offers identical features and abilities as a traditional data center that still consumes energy with environmental consciousness; because of this, green data centers are regarded as eco-friendlier. To put things in perspective, the global green data center market size is expected to reach USD 142.8 billion by 2026, rising at a market growth of 19.7% CAGR during the forecast period, the highest growth amongst all other data center formats.



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While the energy-efficiency attributes are huge today, there is a huge significance to being carbon-neutral, sustainable, and contributing to the environment. By 2025, it is estimated that about 463 exabytes of data will be created daily globally. To put things in perspective, 1 exabyte of data if to be made from a video call, the call would need to last for 2,37,832 years. With data creation getting more prominent, companies are searching for ways to store and process data with

minimal environmental impact. The need to ensure that all servers are up and running to prevent any downtime is critical. Data center components require cooling systems in place for the servers to prevent them from overheating and overall maintenance, electricity charges, water supply, and other utility requirements. These tasks consume a large amount of energy, and therefore it's necessary to ensure sustainable practices are in place.

Positive brand image

From a brand perspective, going green is talked about across numerous industries, and by converting energy-consuming data centers into green data centers, a company can enforce a positive brand image for itself and its data center services. From an ESG compliance and policies perspective, several countries, such as Germany, the UK, and South Korea today require companies to keep their carbon-footprint below a certain level. There is significant regulatory pressure on firms to go green. Such policies are broken down into technology and pollution standards, market instruments (green taxes, trade permits, and ecosystem services), information disclosure, and voluntary policies. Some of the best green data center operators formally document initiatives under their annual reports' environmental, sustainability, and governance (ESG) reports.

An interesting case study to emphasize that the enterprises are serious about their responsibilities while going green is the Microsoft Data Center. Microsoft shared a breakthrough announcement that underwater data centers are reliable, practical, and support sustainable energy usage. In the summer of 2020, the firm reeled up a containerized data center submerged 117 feet underwater back in spring 2018. Consistently cool subsurface of the sea allowed for efficient data center design and increased resistance to corrosion compared to data centers on land. These data centers use heat exchange plumbing that is usu-



ally found in submarines. This could change how data centers talk about going green by having small, containerized data centers closer to customer locations to reduce latency and maintain energy efficiency since they are stored deep in the ocean. This would eliminate the need to construct large data centers on land, translating to a minimum or no requirement for multiple cooling systems, air conditioning, and office complexes traditionally installed in a data center.

Critical strategic points to go green

So, the quintessential question here is - how does one go green, or what's the most efficient way of going about a green data center?

- Start with the basics, opt for renewable power and energy such as solar or wind to fuel your data center energy needs
- Design and build data centers around energy-efficient cooling solutions.
- Use sustainable building materials

for the construction of data centers. One may go one step ahead and leave at least 25% of the land for green space

- Design and build flexible and innovative electro-mechanical solutions for data centers so that an operator can incorporate environmentally friendly solutions
- Perform thorough server virtualization, whereby the means of integrated software the work of several machines can be done by a single computer and processor
- Organizations can deploy several operating systems and applications on a lesser number of servers via virtualization, which reduces overall energy consumption in the data center
- Disruptive technologies such as AI, ML, and data analytics can automate data center processes to save energy, forecast power consumption, analyze data output, monitor various features such as temperature, data center humidity, and cooling process. Although software

integration could be an expensive and time-consuming process, there are benefits such as improved efficiency, reduced costs, and reduced power consumption

To conclude, data centers are here to stay. The increase in digital content consumption, development in AI, ML, 5G, edge computing, cloud storage, and the internet of things will amount to data being generated at huge volumes, fuel the need for data centers.

The need of the hour is for companies to marry the thought of ensuring the highest ROI and being a leader in developing a safer and sustainable environment. With several IT companies ensuring to become carbon-neutral in the next couple of decades, going green is the only way to sustain data center infrastructure. Green data centers are the only option to ensure a safe path for the environment and our digital needs. ■

The author is Director at Techno Electric & Engineering Co



Protecting Supply Chains: The Recipe Against Ransomware

It's not just about implementing the right data solutions though, but also about maintaining and consistently testing them

By Rick Vanover

With this uptick in ransomware attacks targeting supply chains, organizations must implement stronger, layered security strategies to protect against lurking vulnerabilities. The

fact is, cybercriminals have become much less methodical when launching attacks against organizations, oftentimes casting their nets with no specific target in mind, just to see what they can find. As a result, many of the hits against the supply chain are

“accidental” – third-party collateral due to unsecure backdoors uncovered by attackers. Whether the supply chain was the initial target of the attack, or became the attack vector as an opportunistic hit, the approach to ransomware protection is only as effective

as all of its ingredients. That means – effective supplier collaboration and transparency, robust data backup, and improved security maintenance.

The Supply Chain's Ripple Effects

Supply chains are an incredibly complex web of trading partners, commerce transactions, logistics and more. This complexity is compounded by the fact that there are tier-two and -three suppliers within your own supply chain that you may not even know exist but could still impact your business if they are the target of a

laps in security can spoil the bunch. It's within your rights as a business to ask this of your suppliers.

Don't Skimp on Data Backup

Any good business leader knows there are areas and departments where you can safely cut costs without significant risk, and other places to double down when it means protecting your business. Data backup and recovery is one such area where no business should cut costs or corners, especially with the rise in ransomware. While a robust backup and recovery strategy won't alone keep you safe from ran-

your backup and recovery solutions frequently and thoroughly on your own as often as you can to find and resolve risks.

Review & Enhance Your Security Standards and Best Practices

It's no secret the COVID-19 pandemic led to an increased state of urgency for enterprise security – overnight people were thrust into work-from-home scenarios, with little-to-no time for IT departments to prepare. And when you move fast there's a lot of potential for mistakes. From a security perspective, the cloud is still new for many organizations, especially those that moved to the cloud hastily or in a rush out of necessity. For all organizations, regardless of their IT department's cloud sophistication, it's a best practice to revisit all protocols that were adopted as part of the initial cloud migration to ensure they're secure, hardened and cost effective. Especially as security and hyper-scale cloud settings can change at a moment's notice (options, etc.), there's a need to continually monitor, evaluate and implement the latest security standards. It's on IT to identify exposures and vulnerabilities, and surface them up to management to secure C-suite support and budget.

Hackers continue to get more sophisticated, with new trends like ransomware-as-a-service (RaaS) – a consumer-driven offering that multiplies the volume of attackers by lowering the technical skill required to launch a ransomware attack. Like a game of chess, as your opponent (hackers) evolve, so does your defense strategy need to evolve. To prepare, organizations need to follow the right recipe of supply chain transparency, data backup and security maintenance and testing. Failure to do so could result in your business getting its 15 minutes of fame as the next victim of ransomware. ■

The author is Senior Director - Product Strategy at Veeam



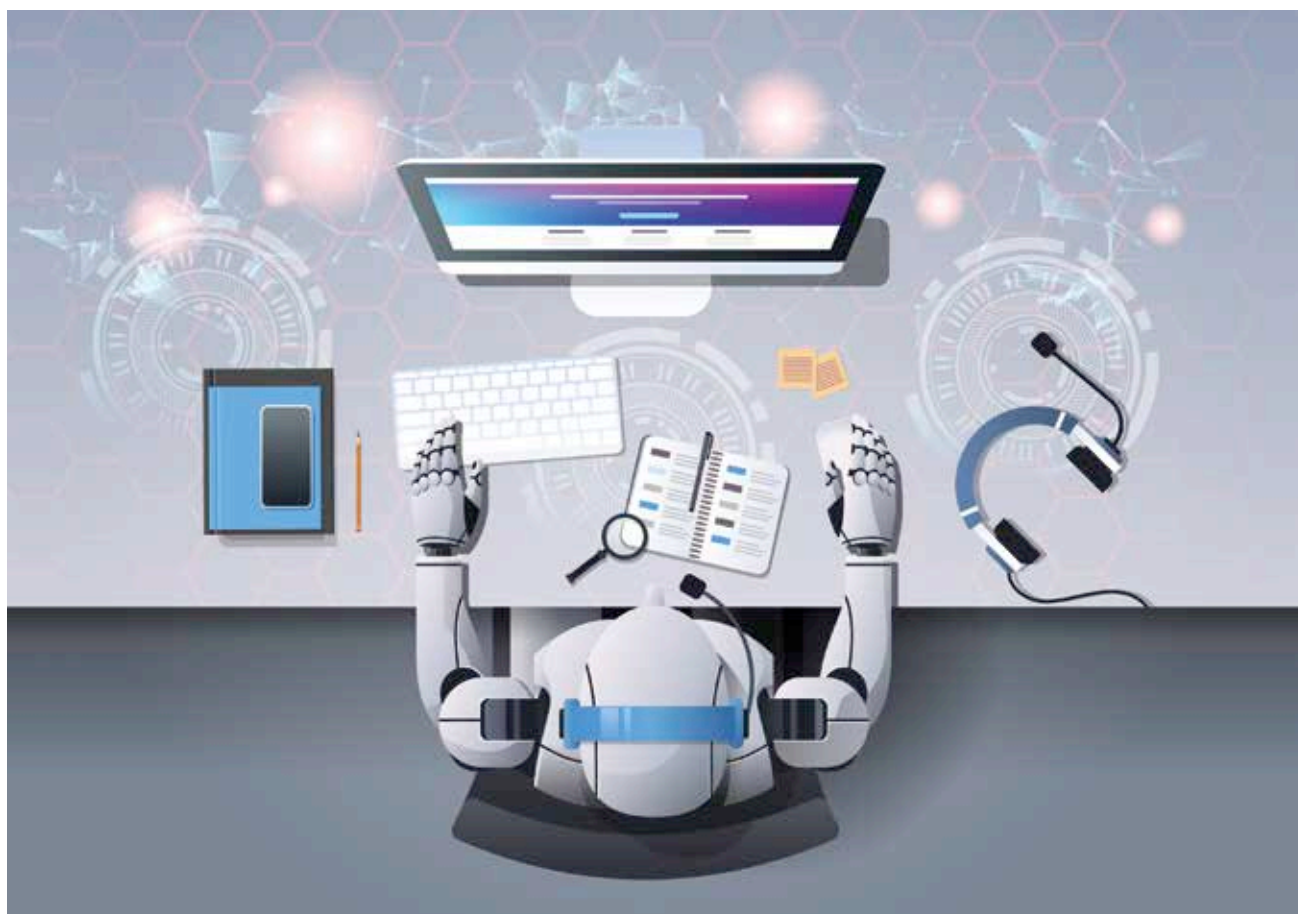
Now is the time to ask about quality standards, security practices, abilities to understand data protection/the transparency into their dependencies and what you could be potentially exposed to based on their business activities

ansomware attack. You may not be the target, but you can still be a victim as their breach extends to their trading partners.

In light of this, it's absolutely fair game – and smart business practice – to ask your suppliers how they are improving security measures and protecting against ransomware attacks. Now is the time to ask about quality standards, security practices, abilities to understand data protection/the transparency into their dependencies and what you could be potentially exposed to based on their business activities. A thorough approach to supply chain management takes into consideration that you're only as secure as your least secure trading partner or supplier. You can do everything perfectly in terms of your own security measures, but one supplier's

ransomware attacks, it will put businesses in a much better position when the inevitable does occur – leaving hackers left with less options when you're able to recover critical data quickly on your own.

It's not just about implementing the right data solutions though, but also about maintaining and consistently testing them. It's critical to consistently test your backups in advance of an attack – because it won't do you any good after the fact. One way to do this is to think like the hackers. There are many different ways to simulate attacks, including hiring professional, ethical hackers who can purposely look at and target your vulnerabilities to find out where you're most at risk – but with no real-world danger of data theft or loss. If you can't hire these simulation actors, it's important to test



Why AI-Driven Digital Transformation Is The Future Of The Collections Industry?

With the ability to integrate different systems and automate daily workflows, it's no wonder AI has become part of many organizations' business objectives

By Sreenivas Gudavalli

In today's fast-paced and consumer-oriented environment, digital transformation is one of the most critical initiatives for firms to continue growing and delivering

value to their customers. With a 30% increase in digital transformation deals since the outbreak of COVID-19, the importance of fostering a digitally enabled business model

can't be understated. However, the credit and collections industry lags behind digital first-movers, despite their long-standing business models. Even though 73% of customers took

action when contacted through digital channels compared to traditional ways, as reported by McKinsey, many collection firms are still working on paper-based systems, even Excel trackers, to communicate with consumers and collections partners.

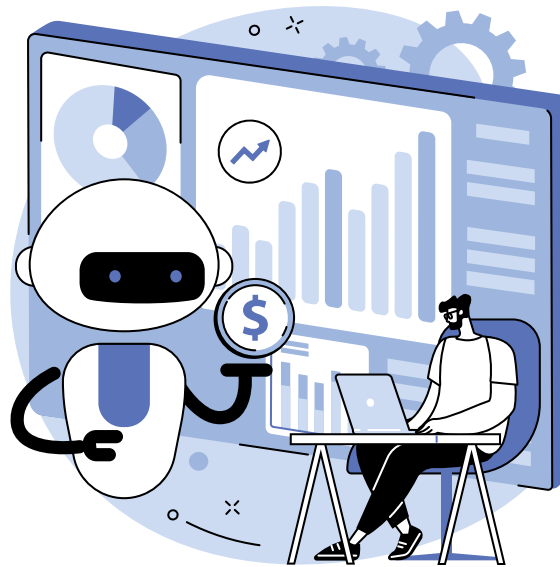
Digital transformation and AI

Considered the 4th Industrial Revolution, digital transformation has helped collections and call centers reimagine their business models, discover new ways to engage with customers, and meet fast-changing regulatory compliance standards while leveraging technology. And Artificial Intelligence (AI) has been recognized as one of the central enablers of digital transformation in several industries, particularly in the collection industry. With the ability to integrate different systems and automate daily workflows, it's no wonder AI has become part of many organizations' business objectives.

For instance, a large collections firm that has grown throughout the past ten years through acquisition is more likely to have dozens of systems that operate independently of one another. These systems could include legal back office and call center management to scoring systems like propensity to pay. To streamline productivity and profit, firms need to unify all this data into a single location on a digital platform with the help of technologies like AI and Machine Learning (ML). The increasing use of AI and ML in lending is ushering in a new era in debt collection, including early delinquency warnings, enhanced techniques of categorizing borrowers, and optimal customer interaction efforts to reduce defaults.

Three ways AI can automate and aid digital transformation

1. Customer data collection and



By leveraging AI to understand the customer better through predictive analytics and insights, it has already become a strategic factor to generate sustained growth and provide a competitive advantage to organizations

consolidation: These tools can analyze massive amounts of data from various sources, exposing new information regarding delinquency risk and how to handle at-risk accounts. The call center sector is moving towards automation technology to improve and raise their client experience by examining, preserving an enormous volume of data, and giving customer-centric solutions. Gartner predicts that by 2020, customers will manage 85% of their relationship with the enterprise without interacting with a human.

2. Tracking/confirmation that regulatory best practices are followed for compliance guarantee: Failing to comply with rules and regulations may lead to the businesses being subject to financial penalization, disrepute, and in extreme

cases, criminal litigation and imprisonment. As firms deal with growing amounts of data and reporting, AI-based tools can significantly help monitor risks, identify conflicts of interest, and fulfill obligations, making the company compliant, processes more effective, benefiting the entire organization.

3. It opens the door for ML / intelligent recommendations to engage with consumers to increase the propensity to pay:

AI and ML have the potential to transform how lenders view their borrowers. it helps them:

- To determine which medium is most effective for each consumer segment
- Send customized communication to various consumer segments at the appropriate moment
- Provide additional personal information about clients to help guide conversations

AI may work miracles when combined with a comprehensive transformation strategy. Both lenders and debtors can profit from AI and machine intelligence as debt collection becomes modernized. By leveraging AI to understand the customer better through predictive analytics and insights, it has already become a strategic factor to generate sustained growth and provide a competitive advantage to organizations. Lenders must improve their collection capabilities ahead of time to address and avoid delinquencies, and intelligent use of AI will substantially increase their collection efficiency today and in the future. ■

The author is Senior Vice President & Chief Technology Officer at Provana



How AI And ML Can Accelerate Decarbonization In The Chemical Industry?

With more and more focus on climate change, carbon-neutrality, sustainability, going green, and ESG compliances, chemical companies too will step up and realize that the utilization of tech to drive a fruitful balance between productivity and the environment is the only solution

By Maulik Patel

Industry 4.0 is swiftly making its substantial presence in sectors such as manufacturing, construction, and shipping. Industries and companies are accountable to the environment, to the future generation,

and most importantly, to the people of the geography they operate in. With stricter norms for being carbon-neutral, ESG compliant, green process-driven enterprises have turned to new-age technologies such as Artificial

Intelligence (AI), Internet of Things (IoT), and data analytics to remain compliant and ensure sustainability.

Chemical companies too, have had a long way from being one of the highest carbon producing industries

to announcing 10-year plans of being carbon-neutral or even carbon-zero. To put things in a perspective, industries such as Oil and Natural Gas, Pharmaceuticals, and Chemicals whose core business models are based on producing and processing hydrocarbons have been facing significant challenges to implementing ways to lead the change towards decarbonization. Nonetheless, several companies are now seizing upon the transition to a low-carbon economy as a means to transform not only how they function but also what they offer.

Similarly, several multinational chemical companies have launched transformational initiatives centered upon sustainability. A prominent American chemical giant, for instance, has committed to integrating circular economy principles into its business models; designing 100% of its products and processes using sustainability criteria including the principles of green chemistry; and reducing GHG emissions by 30% by 2030, including sourcing 60% of its electricity from renewable energy.

A transformational shift

While going green, using renewable energy sources is a great leap, one of the most significant contributors to making industries carbon-neutral and accelerating decarbonization has been technology. Decarbonization involves heavy lifting.

Companies pursuing these goals require a transformational shift in the way they operate: From how they source, leverage, consume, and think about energy and feedstocks to how they engage with multiple stakeholders. Moving to this new way also requires a significant financial commitment from investors and governments. With the advancement in technology and tools such as AI, ML, IoT, data analytics, it's pretty streamlined for businesses to lead the transformational journey.

Some of the ways that technology has played a massive role in acceler-

The development of AI, ML, data analytics, and other technologies is happening drastically. However, the adoption of these technologies in the chemical sector has been slow

ating this journey are encapsulated below:

- **Optimized Product cycle using AI and ML:** In the chemical industry, some of the most toxic materials and resources are bundled in the early stages of product development/manufacturing. With effective AI and ML mechanisms and research, companies can opt for manufacturing processes that are cleaner, greener, and sustainable in the long term. In international markets, AI has already made significant breakthroughs. With the invention of cutting-edge processes such as advanced molecules, companies already have started their journey on the decarbonization front.
- **Reduce wastage and maintain high efficiency:** An unintentional event in a Chemical production process often leads to the batch getting wasted and completely scrapped off. A common practice for chemical manufacturers is to avoid inefficiencies and craft consistent batches of products. With the development of AI and ML, the whole production is automated, and product consistency is optimal. This increases efficiency and less wastage of chemical compounds, which would

eventually account for the carbon footprint in the environment.

- **Use of data analytics to check the carbon-out:** Today, companies are accountable to over a dozen environmental and governmental bodies on account of their pollution and carbon- footprint. Today, with the use of Data analytics and sophisticated ML apps, engineers can keep track of the company's carbon output on a real-time basis. A higher output variance triggers an alarm, and the whole manufacturing is stopped before the variance can be addressed. Additionally, there are AI-based tools that predict the carbon flow and out in a production process and suggest alternative means of resources that can reduce carbon production considerably.

- **Evolution and breakthroughs in Research and Innovation:** Chemical industry is a production-heavy industry with much scope for permutations and combinations. With ground-breaking research using AI and predictive analysis AI, ML tools computerized permutations and combinations help in advanced research to recognize molecules, generate formulas and ascertain quantity and mixtures of chemicals. This coupled with AI and ML's ability to process millions of combinations which could lead to a process breakthrough, which will not just be efficient but also help in accelerating decarbonization.

The development of AI, ML, data analytics, and other technologies is happening drastically. However, the adoption of these technologies in the chemical sector has been slow. With more and more focus on climate change, carbon-neutrality, sustainability, going green, and ESG compliances, chemical companies too will step up and realize that the utilization of tech to drive a fruitful balance between productivity and the environment is the only solution. ■

The author is CMD, Meghmani Finechem



5G: Catalyzing A Turnaround

From an enterprise perspective, 5G can leverage high-speed networks for various use cases, enabling them to accelerate their digital transformation efforts

By Rajesh Pathak

The fifth-generation wireless technology is a quantum leap in connectivity and brings three exciting elements for enterprises: high bandwidth, colossal Internet of Things (IoT) connectivity, and ultra-low latency. If you look at the 5G landscape, you will find that it will transform every aspect of our life.

From an enterprise perspective, 5G can leverage high-speed networks for various use cases, enabling them to accelerate their digital transformation efforts. From delivering exceptional quality video – 4K resolution and beyond to the use cases driven by augmented reality, virtual reality, artificial learning, and automation, the opportunities that

5G brings to the table are vast for every sector.

By moving the data nearer to the users, which is intrinsic to the 5G business opportunity, organizations will create unique customer experiences and drive real-time innovation. Some sectors are likely to adopt next-gen wireless early than others. For instance, the manufacturing, health,



and energy sectors are likely to generate tremendous value from 5G, develop new capabilities, and reimagine their products and services at a much faster rate.

Use cases such as remote monitoring and maintenance of infrastructure, cloud robotics, process automation, remote healthcare, and energy distribution with the smart grid are some of the use cases that will drive the adoption of 5G in these sectors.

With 5G, enterprises could also build their private networks with an unlicensed spectrum. It will help them support their unique business needs with greater control, security and flexibility by deploying various network and coverage configurations on different operational sites.

Massive impact on the IoT

With speed at least ten times faster than the current 4G networks, 5G deployments are a natural choice to support the expansion of IoT devices that will communicate and share data at a much faster rate. Concepts such as community parking, drone surveillance, reliable robotic control, smart grid, factory automation, intelligent surveillance, and facial recognition will become mainstream.

5G will enable businesses to deliver new applications and digital experiences to customers and transform the way they manage their operations and supply chains

5G's network slicing capability will be a huge opportunity to reduce downtime for the highest priority applications in the Industrial IoT. It will empower enterprises to provide dedicated, uninterrupted high-speed bandwidth to specific applications and areas needed. Enterprises will have the opportunity to customize their bandwidth need, and Quality of Service (QoS) mandates as per the different types of 5G service or application. For Industrial IoT, which is business-critical, this will be of enormous importance.

5G's ability to support a very high density of devices will power enter-

prises to keep and connect up to a million devices per square kilometer. By processing data from millions of sensors and pieces of equipment, enterprises can identify ambiguities and anomalies at any stage of production or delivery. This can be well-supported by integrating intelligent analytics and machine learning capabilities to identify historical patterns and take pre-emptive measures to control downtime.

Transforming network performance will be critical

Industrial 4.0 is creating millions of new endpoints that need to be unified. The challenge for organizations will be to consistently monitor all these endpoints and systems at a granular level and ensure high performance to support real-time connectivity.

While 5G can strengthen the customer centric-ecosystem to help businesses understand their customers better in real-time and provide personalized, on-demand services, if they lack insights, providing consistent network and service performance can impact the experience big time.

It will be pertinent for enterprises and service providers to manage varied 5G environments, data sets, and next-gen apps intelligently at each level to ensure dynamic performance monitoring.

To summarize, 5G will enable businesses to deliver new applications and digital experiences to customers and transform the way they manage their operations and supply chains. However, organizations need to take a deep dive into their unique business requirements to accomplish their specific goals.

An extensive collaboration approach with technology partners and service providers will ensure quality network performance securely and seamlessly, driving immaculate low latency 5G digital experiences. ■

The author is Country Director - India & SAARC, Accedian



How AI Is Transforming Enterprise Talent Acquisition Strategy

Tech leaders are spearheading the AI/ML initiatives for organizational hiring and retaining exceptional talent. However, over-reliance on automation can be alarming.

By Jatinder Singh

Most enterprises had to implement the remote working model almost instantaneously at an unprecedented scale during the pandemic. The crisis led to constant disruption, and the tectonic shift pushed businesses to adopt a more prolific approach for their hiring and talent development, which was relatively manual and slow to adopt automation and intelligent technology.

During the pandemic, it became almost impossible for organizations and IT leaders to hire promising talent with the traditional approach of multiple rounds of in-person interviews and assessments. While many companies had started experimenting with AI-based recruitment tools, it never took off in a big way.

precious data-driven insights to make machine-driven innovations in talent hiring and development methodologies to attract future workforce.

Growing focus on innovative hiring

There has been a greater realization that organizations can generate tremendous benefits and improve their bottom lines by leveraging the power of data processing. Companies across all sizes and scales are in serious deliberations with their technology leaders to leverage the new-age technologies in an improved way to optimize their recruitment process, improving candidate experience, and hire exceptional talent.

Over the last couple of years, AI and ML-based platforms have seen vast

is a highly complex process that can take many precious hours of recruitment teams'. Leveraging data-led insights and pattern matching algorithms, enterprises with a very high volume of candidates or hiring specialists can save much time and manual effort. These deep-tech models can provide quick and relevant insights in scanning thousands of resumes and ensuring that the shortlisted ones are closer to the job profile. Not only do these tools reduce time to hire, but they also free up a considerable amount of time for recruitment staff to focus on more meaningful tasks such as building relationships with new employees and enhancing their experience. The predictive analytics-based AI models can also envisage outcomes such as the likely tenure in the organization or the probability of accepting an offer letter.

Social media screening: AI-social media screening and monitoring tools enable enterprises to scan public profiles of prospective candidates to analyze their thought processes, interests, and attitudes – something that would otherwise take staggering workforce efforts.

According to CareerBuilder, a global human capital solutions company, seventy percent of employers use social networking sites to examine job candidates. And that review matters: Of those that do social research, 57% have found content that caused them not to hire candidates.

By leveraging AI and ML technology, HR teams can identify specific keywords, objectionable language that helps them decide to pursue a target candidate or not for an opportunity.

Virtual chatbots: A greater focus is also on deploying virtual assistants or chatbots to interact with prospective candidates, answer FAQs, conduct their internal assessment, and schedule a final interview appointment with the candidates. These tools are a catalyst to conduct market analysis, skill mapping and create candidate ranking on the relevant hiring parameters defined by the organization. AI-powered virtual



As the economic outlook improves and digital transformation takes center stage, organizations are looking for new counter forces to thrive in the new normal. For a growing number of organizations, accessing the best-qualified talent in the shortest period is the critical ingredient for success.

The talent leaders and CIOs are working closely to build and implement effective AI-driven workforce management solutions to reduce the months of the entire hiring process for a specific role to a week or two. The collaboration is helping many enterprises get

improvements in training algorithms and incorporating pre-skilled models. According to a survey by Gartner, 23% of organizations that were already piloting or leveraging AI were doing so in the HR and recruiting domain. "Often, organizations demonstrate the use of AI in the HR domain after showing value in other business areas. In the human capital management domain, AI applications dominate in employee- and candidate-facing situations," the survey notes.

Talent sourcing: Finding the right talent from a large pool of applicants

chatbots provide a gamut of benefits that enhance a candidate's overall experience and reduce the unnecessary load on the talent managers.

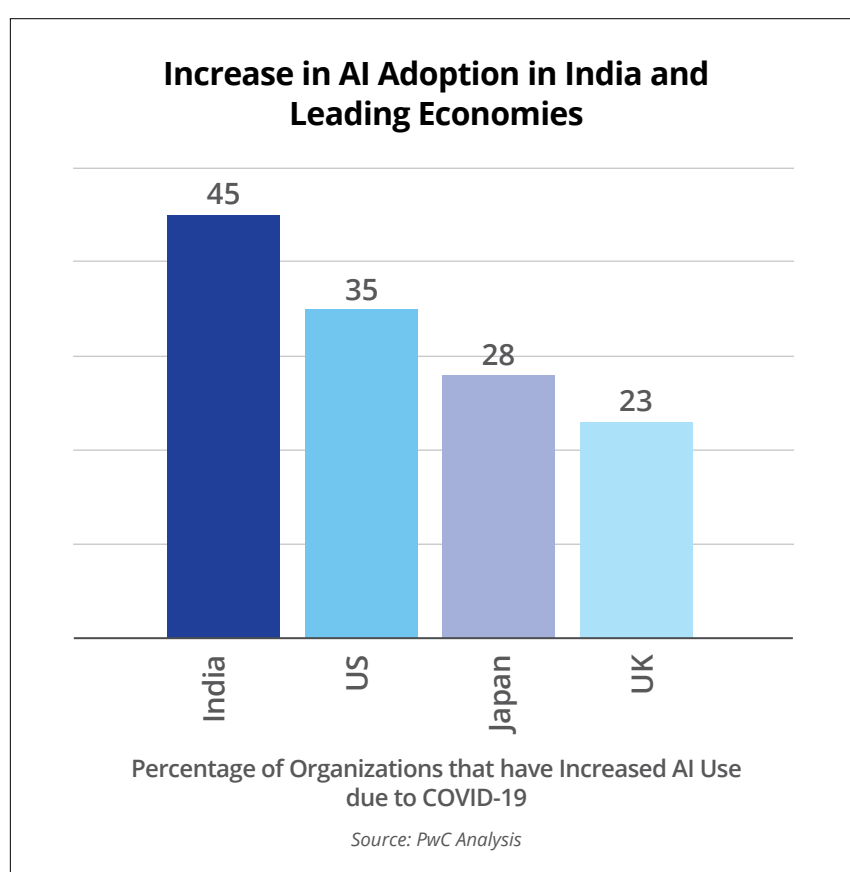
Analyzing video-based interviews: By integrating AI with facial recognition, many tech leaders are experimenting with detailed analysis while interviewing them. These software tools enable HR teams to examine the facial expression when a specific question, such as about his job history, is asked. Along with that, these automated tools also provide a detailed overview of candidate's body language and communication skills, which are otherwise hard to judge in a remote workplace hiring.

Employee onboarding and training: This is one of the significant challenges many IT heads, and recruitment teams face in the hybrid workplace scenario. Providing necessary training and onboarding new employees, especially fresh graduates, requires much effort in a digital-only environment. These AI-powered chatbots enable new employees to quickly get all answers to their queries, making them feel comfortable in the contemporary workplace environment. In addition, customized learning programs can be delivered to different employees tailored to their roles by harnessing a massive amount of data and advanced algorithms.

Overcoming the dangers of bias

One of AI's many advantages is providing end-to-end visibility into the entire hiring and people training roadmap components. However, if you don't have an illustrative data set or an insight-led approach specific to your business needs, these cognitive solutions would not be able to deliver the results you aim at.

While data, considered the new lifeblood of organizations, has been recognized for this massive transformation, it is equally valid that even today, only a few enterprises have exploited this asset efficiently. It takes an enormous amount of relevant data



to achieve the desired outcomes of any AI implementation initiative.

For many years, before the pandemic, the core leadership of most organizations was wary that AI and ML-based algorithms could never replace human assessment skills and sensitivity. Moreover, in its early days, cases of algorithm bias put a serious question mark on the efficacy of such automated tools.

Especially in the IT sector, which is already battling a lack of gender diversity, unplanned AI hiring implementations could carry the same biases prevalent in the industry for ages. A 2018 story by Reuters revealed that Amazon had to scrap an AI-based recruitment tool because the new system could not function in a gender-neutral way. The tool was reportedly downgrading resumes that included words such as women's or women's chess club captain.

The reason could be Amazon's historical and legacy data on which

the AI system was based and the rigid filters in the AI software that the machine was constantly learning. Much improvement has been made in AI systems, with concepts such as Contextual AI helping enterprise talent teams to get a more detailed understanding of people and customize ML patterns.

Nevertheless, HR should partner with internally trained data scientists or external specialists who can oversee the entire initiative to ensure a solid AI recruitment strategy to avoid such embarrassments and the prospects of machines learning unconscious bias. It is critical to test and identify which part of the recruitment process can be automated according to organizational competency and the actual need.

The HR team and IT leaders need to pay close attention to bringing objective intelligence and uniformity rather than having over-dependence upon software-based tools. ■



India: A Strategic Location For The Data Center Industry In APAC

Global data centers are now entering the Indian markets to enhance their business. Data sovereignty laws have also brought large cloud providers to expand their Indian presence

By Nikhil Rathi

Technological transformations across the globe have resulted in the proliferation of gigantic amounts of data, and APAC is set to be a key market driver. Exponential demands from global cloud provid-

ers and media content, e-commerce, logistics, and banking, also supported by the adoption of Big Data and IoT, have created an opportunity for the APAC region as the fastest-growing data center market. No wonder that a recent report from Frost and Sullivan

suggests that the APAC data center market will be the largest by 2025.

With an intense concentration of enterprises, a strategic link to access across APAC, geographic location supported by political stability and business-friendly environments, Singapore

has stood as the crown of data centers in the APAC region for the longest time. However, amid ever-increasing demands, the region has experienced its own set of limitations, particularly in terms of power and space.

Digitalization spurs demand for data centers

The enormous amounts of data open the field to other markets, and India is set to bag this trillion-dollar opportunity. Reports by international property consultants, Knight Frank, have indicated that Mumbai, the financial capital of India, added 56 MW in the first quarter of 2021, clocking the sharpest increase in APAC. The total supply in the city now stands at 753MW.

It would be interesting to analyze what puts it at the heart of the data center market in APAC?

Let's begin with the robust growth in demand, particularly the spurt of data experienced in the pandemic. Home to the second-largest digitally hungry population base in the world, need is naturally fed with data arising from intelligent devices, the effect of social media, the highest number of mobile phones amongst every other nation on the globe.

The COVID-19 chapter adding to the data story, acted as a massive catalyst for enterprise and individual demands. Everything shifted from banking to education, shopping to entertainment to digital tools and platforms almost instantaneously, creating an unprecedented demand for secure and scalable data center capacities. India has also discovered the immense potential in terms of edge data centers. The rollout of 5G and the adoption of AI, IoT, and big-data-based platforms have fueled the rise of Edge data centers.

Favorable policy initiatives

The government of India not very long ago introduced data localization under the Data Protection Act, and in more ways than one, this has established itself as a boon to the nation, particularly to its digital ecosystem.



The data center market in India is likely to grow at a CAGR of 21% and by 2025 reach a capacity of 1078 MW, of which Mumbai and Chennai will be the most significant contributors

These norms increased the presence of cloud service providers within the country while increasing revenues for the growth of the data center industry in India. The Digital India scheme and the Data Center policy (2020) and the start-up India, Aatmanirbhar Bharat, and innovative city initiatives have introduced policy intervention and incentive mechanisms that boost the country's development of data center infrastructures. State governments have announced incentives in the land, technology, special single-window clearances under the ease of doing business plans while also attracting Foreign Direct Investments through tax benefits.

With demands for data center space set to increase to 15-18 million sq. feet across major cities, McKinsey estimates that the sector will double in size by 2025 to contribute US USD 355-435 billion to GDP. Reports by NASSCOM also suggest that while cloud spending in India is estimated to grow at a CAGR of 30% to reach USD 7.1 billion, the Indian data center market investments are expected to grow at a CAGR of 5% (~2x of the global market) to reach about USD 5 billion per annum by 2025.

India is blessed with an unmatched diverse geographic location, favor-

able climate, proximity to other APAC financial hubs, availability of water, fiber connectivity, presence of hyperscalers, availability of skilled labor. Geographically India is diverse. Mumbai has six cable landline stations, and Chennai has three. Chennai has the most potential to come second to Mumbai due to cable landing stations and domestic consumption. Chennai's connectivity to Asian countries through the seven submarine cables is a considerable factor attracting data center investments, making it a preferred disaster recovery location among customers. Other cities exponentially experiencing data center growth are Delhi NCR, Bangalore, and Hyderabad.

The road ahead

The data center market in India is likely to grow at a CAGR of 21% and by 2025 reach a capacity of 1078 MW, of which Mumbai and Chennai will be the most significant contributors. Tier-II and Tier III cities like Pune, Patna, Ahmedabad, Kochi, and Nagpur will see the development of Edge data centers.

While India has come a long way, it is still underserved compared to the demands and needs of its data-hungry population. A report by JLL India has projected that over the next three years, the Indian data center sector would need USD 3.7 billion to meet the industry requirement for six million sq. ft. of development. India is currently at a capacity of 400 MW which is low supply to the demands of the second-largest digital population across the globe.

Global data centers are now entering the Indian markets to enhance their business. Data sovereignty laws have also brought large cloud providers to expand their Indian presence. As India develops into a significant digital ecosystem, it has pulled the world's attention, who, without a blink of an eye, can admit India is a strategic location for data center growth! ■

The author is Founder & CEO, Web Werks



Two times
the revelation



Nagsen Wankhede

Senior Manager - IT, Energy Efficiency Services



AN EMERGING TECH WHICH MY COMPANY IS MOSTLY FOCUSING ON

IoT

MY PEER IN THE IT COMMUNITY

Sanjay Jariya, Deputy Manager - IT & ERP, Power Grid Corporation of India Limited



Sanjay Jariya

Deputy Manager - IT & ERP, Power Grid Corporation of India Limited

MY FAVORITE POLITICIAN

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