

CATATAN :

1. Potensi Hambatan dari PEMDA & tanah negara — sewa lahan utk menggelar kabel & menara telko;
2. Sektor TIK/ICT/Telekomunikasi masih bercampur dgn Gedung/Gudang & Transportasi shg tidak langsung tampak korelasinya sbg Infrastruktur Ekonomi Digital
3. Perlu panduan skema kerjasama global antara raksasa digital global dgn pemain nasional; otherwise ada ancaman disrupsi & kerentanan mid-term & long-term — Trend dominasi global oleh raksasa platform;
4. Saat ini adalah masa transisi/re-positioning para pelaku di ketiga layer D—N—A; dgn isu domestik vs global (*cross-border vs borderless*); Pemerintah step-in utk kendalikan disrupsi menjadi transformasi;

Pemerhati Telekomunikasi

1. Bagaimana **tren investasi** teknologi informasi di Indonesia dibandingkan negara lain?]

Jawab:

tetap tinggi dibanding sektor lain, tiga besar .. namun masih bercampur dgn pergudangan dan transportasi di BKPM ... sedangkan di BPS dilaporkan pada sektor “Infokom”... Dibandingkan negara lain yang lebih baik, ada perbedaan perlakuan & *timing*; disana sektor ICT/TIK/Telekomunikasi ini mendapat perlakuan khusus sesuai perannya sejak masuk millenium ketiga or Tahun 2000—internet booming—istilah IT diubah mjd ICT—saat ini IoT & IoE, BIG Data, AI, dst... indonesia baru sibuk lagi sekarang...

2. Apa saja **kendala investasi** teknologi digital di Indonesia?

Jawab:

Perlu melihat peta pelaku investasi di lingkup nasional dan global; Ada 2 pelaku investasi besar di sektor telekomunikasi/TIK/ICT ini, yaitu Operators Telko (NetCo) dan Platform Digital (APPS—semua sektor);

Network operators yang saat ini sdg berupaya keras mengatasi perang tarif yg amat menurunkan kemampuan investasi; di saat tuntutan deployment teknologi baru 5G;

Platform Digital, decacorn (Glokal) & Raksasa Digital global berlomba menguasai pasar digital Indonesia.... Dari luar Indonesia atau dari dalam negeri...?? Kalau dibolehkan dari luar sana, bisa jadi akan minim investasi.... Maka, perlu segera dibuat bbrp model kerjasama antara pemain nasional dengan pemain global.

3. Bagaimana **mendorong transformasi digital** untuk mendorong pertumbuhan ekonomi?

Jawab:

Yg perlu transformasi itu di ketiga sisi, yaitu (1) Pemerintahan (Pusat & Daerah), dan (2) dunia usaha/industri, serta (3) masyarakat;

Ada inisiatif SPBE Perpres 95 thn 2018, OSS, Satu Data, Perlu segera ada *planning*; Ada inisiatif Making Indonesia 4.0 — juga perlu segera ada tahapan pelaksanaan, bukan hanya konsep & cita-cita;

Ada inisiatif Smart-Cities — inipun perlu ada *planning* terpadu nasional, mana yg common mana yg customized per Kota;

4. Bagaimana **mewujudkan visi Indonesia 4.0** sebagai 10 kekuatan ekonomi dunia pada 2030?

Jawab:

Visi itu kan baru cita-cita; maka perlu segera dibuat Planning Pelaksanaan atau tahapan pelaksanaan.... Buat check-List apa saja detail rencana aksi & jadwalnya; peta pelaku & SOP Koordinasi; ... review cepat, apa benar 7 sektor di Making Indonesia 4.0 itu sudah disimulasi akan membuat Indonesia unggul. Kenapa Pariwisata tidak termasuk?? Karena pandemi?... mungkin justru di situasi ini, Indonesia bisa menawarkan kawasan khusus, Gunung & Pantai utk isolasi mandiri dgn udara segar & pemandangan alam bagi orang-2 berduit dari negara lain.... "Indonesia sebagai Kawasan isolasi mandiri"...

5. Bagaimana **pengembangan SDM digital** di Indonesia?

Jawab:

Gaya pembinaan SDM digital Indonesia masih parsial/sporadis dan reaktif, belum terencana integratif; masing-masing K/L dan perusahaan membuat Sekolah or Kampus sendiri-sendiri; lantas siapa yang mau pake lulusan Univ/PT; ada pula program kursus singkat DTS (*digital talent scholarship*) yg sebenarnya ini adalah *retooling* (menambah skill pragmatis);

Saatnya mendiknas membuat *piloting* model *Link & Match* pada sektor-sektor prioritas yg dicanangkan utk Making Indonesia 4.0. Dimulai dengan membuat rencana pengembangan sektor-sektor (7-sektor + pariwisata 'khusus'), dari situ bisa dibuat peta kebutuhan SDM, dan kemudian dibuat Kurikulum & sillaby untuk mencetak SDM yg diperlukan.

ALL I BUSINESS PHONE SYSTEM

Top 10 Trends That Will Dominate the Telecom Industry in 2021

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The advent of COVID-19 has changed a lot of things, from the way organizations work and the channels through which they communicate to the solutions they expect from service providers. As the pandemic is expected to continue into 2021, players in the service industry are coming up with new offerings and innovative solutions that make business operations smoother during these challenging times.

The same is the case with the telecom and communication industry, which is the lifeline of businesses of all types. One can safely assume that most of the telecom trends in 2021 will be guided by the challenges and demands created by the ongoing pandemic. Business telephony will be innovating features that support remote working, remote learning, and remote collaboration as these three have now become essential rather than a mere convenience.

So, what does business telephony have in store for companies that are trying to adapt to the new normal? Here are 10 trends that will dominate the telecommunications industry in 2021:

1. Features that ensure remote workflow and collaboration

In the wake of the COVID-19 pandemic, organizations and industries across the globe were forced to reimagine work and ensure business continuity by embracing the remote work model. As we all know by now, the success of remote working depends on two factors – effective communication and collaboration.

With more and more companies opting for remote work, cloud-based telecom providers are stepping up their game by introducing smart features that will enhance internal collaboration among teams. Shared call logs, call comments, tags, etc., are some such features for ensuring smooth and friction-free collaboration between team members and establishing a clear workflow.

Likewise, business telephony has also started offering solutions to support remote work supervision and activity tracking. Call monitoring solutions with features such as real-time dashboards, discreet listening, and performance analysis will give cloud-based phone systems an added advantage in 2021.

2. 5G to go mainstream

One of the most talked-about VoIP market trends of 2021 is the widespread adoption of 5G or the 5th generation technology. Though 5G has been a hot topic in the telecommunication industry for quite some time, the need for reliable connectivity and better bandwidth has become more pronounced in the wake of the pandemic. In the current business landscape of remote working and digital collaborations, 5G deployment is vital, to say the least.

Many global telecom giants, including AT&T, T-Mobile, and Verizon, are getting ready to offer their customers the benefits of 5G. According to reports, 5G frequency auctions were completed in France just a couple of months ago, with local providers including Bouygues Telecom, Orange Free, and SFR committing to a total of 2.8 billion euros.

In addition to enabling faster communications, the 5th-generation wide-area wireless networks are also known for high browsing speed, better mobile broadband connection, and increased network capabilities. All these will enable corporate telephony to serve their customers better and keep us with the fast-paced business landscape. As a natural corollary, production and sales of 5G-enabled communication devices are also expected to grow.

3. Business lines on cell phones

The pandemic and remote working have made organizations, both small and big, rethink the purpose and uses of smartphones. Rather than using desk phones or separate cell phones for office work, professionals and entrepreneurs want their personal phones to double as work phones.

In response to this requirement, business lines for cell phones will be a hot offering of cloud-based communication providers. Many market-leading players, including Ringover, have already come up with business phone lines designed like an app. In addition to enabling businesses to communicate on the go or from virtual offices, it will bolster the seamless transition between all kinds of devices.

4. AI-backed conversational platforms for enhanced customer experience

Artificial Intelligence (AI) is everywhere, and in 2021, it will create a stronger presence in VoIP and cloud-based telephony as well. Automated customer service is an area where AI companies are heavily investing in these days. In addition to customer interactions, the coming year will also see the widespread use of AI in other focal areas such as network optimization, predictive maintenance, and more.

Virtual assistants, chatbots, and conversational AI platforms will help business telephony tremendously in reinventing customer relationships. As Gartner has already predicted, more than 85% of customer interactions will be handled and powered without any human interactions, by the start of 2021.

That said, businesses will also find ways to draw a balance and productive collaborations between humans and AI to enhance the customer experience. Identifying the right areas for AI implementation will help companies to free up time and focus on their core operations.

5. Call deflection to offer easy transition between phones and digital channels

Digital channels seem to be a favorite with businesses as well as individuals due to obvious reasons. However, it doesn't mean that phones have had their day. One of the major challenges of telecom service providers has been to find ways to merge the digital

experience with the phone experience. The coming year will see telecom companies addressing this challenge by offering features such as call deflection.

Call deflection— that is, the option to redirect calls to digital channels whenever necessary – will reduce waiting time as well as call volumes to a considerable extent. This will enhance the phone experience for customers while making the transition between telephonic transactions and digital channels faster and smoother.

6. Unified business and marketing tools for seamless data sharing

For the last few years, businesses have been opting for solutions that enable them to have all information in one place. This trend will continue through 2021 with cloud-based solutions offering easy and seamless integration between business/communication tools and business phone systems.

These include tools like CRM, helpdesk, ERP, other business management software for planning and tracking the customer lifecycles and project lifecycles. The multi-functionality of business phone systems and the Internet of Things (IoT) will continue to be a major focus area in 2021 as it has been in this year. Fueled by the remote working model, service providers will also be enhancing unified communication solutions that can be used on connected devices for calls, videoconferences, chats, and more.

7. Cloud-based phone systems to enter the education industry

Cloud-based phone systems have been a preferred choice for several industries including healthcare, hospitality, eCommerce, and professional services. An exception to this has been the education industry where, despite eLearning platforms, traditional communication tools enjoyed the upper hand.

As the pandemic has transformed existing patterns of instruction, the education VoIP market is expected to see exponential growth. Remote learning, which is expected to become the new normal in the coming years, will also provide telecom service providers with opportunities to help educators reach students that have less access to wifi. Needless to say, bridging this gap will serve as a catalyst for innovations and inventions for telecom industry leaders in the coming year and beyond.

8. From legacy technologies to cloud-based and open technologies

One of the main business lessons 2020 taught us is that companies should have the agility to make themselves available to their customers. The ability to respond quickly to challenging situations, on the other hand, will highly depend on the digital maturity of organizations. However, flexibility and agility are hard to come by when companies continue to use legacy technologies.

And that's precisely why the coming year will see more and more companies embracing open source and cloud-based technologies to boost agility. With less dependence on on-site physical hardware, companies will continue to shift to cloud communication technologies throughout 2021 to ensure the continuity of business operations at all times.

9. Added emphasis on digital security

As more and more telecom solution providers are switching to open and cloud technologies, continued focus will be placed on data integrity and cybersecurity. During the pandemic, Zoom became an example of what not to follow, as hackers got a hold of 500,000 passwords. As a result of cases like this, telecom companies are investing heavily in cybersecurity measures, which will continue to take center stage in 2021.

10. Big data to go big

Big data is the new mantra for industries looking for growth and expansion, and the telecom industry is no exception to this. As telecommunication service providers switch to the cloud and facilitate seamless communications through connected devices, there will be a marked increase in the amount of data they create and collect to offer more value to their customers.

In 2021, big data analytics will continue to transform the telecom industry. Finding solutions and technologies that will support their networks in carrying huge amounts of data will be the major focus of all industry-leading companies. At the same time, they will be leveraging data to optimize networks, improve customer services, and above all, build new strategies.

2021 awaits advancements in Telecom to enhance the customer experience

Propelled by the disruptions created by the pandemic as well as disruptive digital technologies, the telecom industry is all geared up for innovations and experiments in the year 2021. From Artificial Intelligence and Machine Learning to 5G, cloud computing, and IoT, corporate telephony will be adopting cutting-edge solutions to improve operations as well as enhance the customer experience.

In a nutshell, the coming year will see the emergence of several new trends while bidding bye to many old ones. The coming year indicates new challenges, but also paves the way for new solutions.

<https://www.ringover.com/blog/telecom-industry-trends-2021>

