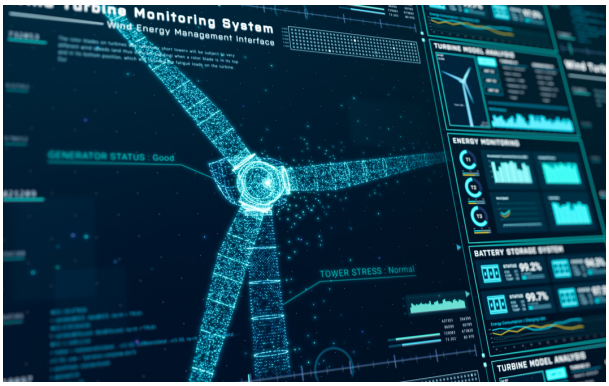
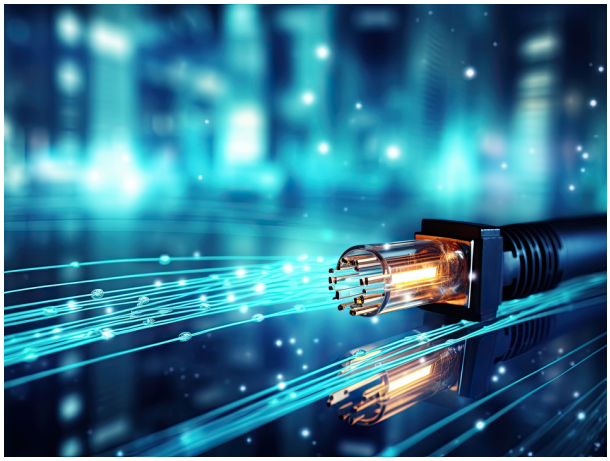
TWELVE POSSIBLE USE CASES FOR AI IN TELECOM; IT COULD SAVE ON ENERGY TOO!

The telecom industry is evolving rapidly, and the effective integration of Artificial Intelligence (AI) has become a key factor in staying competitive. AI can play a crucial role by enhancing various aspects of operations and services. It can enhance efficiency, reliability, and the customer experience by optimizing networks, providing proactive maintenance, improving customer support, enhancing security, and facilitating data-driven decision-making. Below, we discuss twelve possible use-cases for AI in telecom. Are you ready for the future of AI?





1. **Zero-touch Networks Could Put a Lid on Opex Growth.** AI can play an important role in developing totally autonomous networks that won't need employees to handle routine operational tasks – an important consideration as it becomes increasingly challenging to find and retain skilled workers.

2. **It Could Be Sort of Like if Einstein Managed Your Network.** AI could add a whole new level of intelligence to telecom networks by analyzing data in real-time and changing network parameters as needed to enable networks to use network resources more efficiently and forestall network congestion.

3. **Reducing Energy Consumption is Good for the Planet and Saves Costs.** One European operator expects AI to reduce energy consumption on the company's wireless network by as much as 40%.

4. **Where Should We Deploy Next?** Making deployment decisions could be improved and made easier by using AI to analyze demographic, usage, and other data. Service providers would be able to easily identify neighborhoods and communities where current speeds, latency, and other parameters need improvement.

5. **Taking Proactive Maintenance and Network Resiliency to a Whole New Level.** By using AI to analyze data from network elements, service providers will be able to predict potential network failures before they occur. Potentially the network will fix itself before issues impact customers. One North American service provider was able to detect network issues 120x faster by adding AI and machine learning.

6. **It's Kind of Like Waze Navigation for Telecom Networks.** Waze is considerably more sophisticated than traditional navigation software in telling drivers the best route. AI should do the same thing for telecom network traffic routing. By analyzing real-time network data, AI can redirect traffic to the most efficient paths, thereby preventing network congestion and improving latency and the user experience. This approach also can be used to adjust the amount of bandwidth that a network can support to accommodate peak periods.

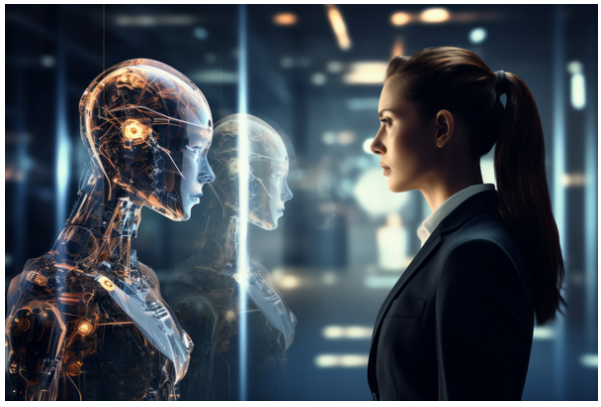
7. **Securing Networks Could be So Much Easier.** AI can play an extremely valuable role by detecting and mitigating cybersecurity threats on telecom networks. This capability stems from AI's ability to analyze huge amounts of network data to identify unusual patterns, potential attacks, and vulnerabilities. The upshot is that it should be a welcome alternative to keeping up with an endless stream of CISA alerts and mitigations.

8. **Broadband Mapping is an Enormous Task That Could Also be Easier.** Broadband mapping is crucial for ensuring equitable access to high-speed internet. By utilizing AI, stakeholders will gain the most accurate information about broadband availability down to the census block level.

9. **A Pesky Wireless Network Problem Solved.** By analyzing all the data and knowing how wireless works, AI could be used to mitigate interference on wireless networks by identifying patterns or abnormalities. This would allow for prompt action to address and mitigate the problem before it affects network performance.

10. **Staving Off Potential Wireless Spectrum Shortages.** Ensuring that sufficient spectrum is available to meet consumer demand is a daunting task. But it could be made easier by using AI to analyze how various spectrum bands are being used and to use that information to gauge future spectrum needs. The FCC has been exploring this possibility with the goal of identifying future spectrum opportunities to support the wireless industry.

11. Improved Personalization. Today's content recommendation engines could be substantially improved by using AI to analyze user behavior and preferences more deeply in comparison with today's technology. In so doing, AI can recommend and deliver content, advertisements, and services that are most relevant to individual users.



12. **Getting Rid of Robocalls and Robotexts, At Last?** AI could protect consumers from robocalls and robotexts through fraud detection techniques that use algorithms and voice biometrics.

The upshot is that AI is not just a technological advancement; it's a tool that empowers individuals within the telecom industry to work more efficiently, make informed decisions, provide targeted interventions, and stay ahead in a rapidly evolving landscape. Embracing AI technologies is essential for staying agile and meeting the evolving demands of today's marketplace.

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