The Dawn of
AI-Driven
Business Operations

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![orange™ Business]

Navigating the Future with Smart Networks

Digital assistants are now part of everyday life – and applications are already showing the potential of Artificial Intelligence to extend further into the fabric of our daily lives.

But, as far-reaching as these developments may be, the real revolution is unfolding in the business world: for example, a 'self-driving network' could transform operations in ways we are only beginning to comprehend.

Today, tools like Siri and Alexa have become standard features of household life, used for tasks ranging from playing music to making dinner reservations. All of these tools are driven by Artificial Intelligence (AI) and Machine Learning (ML) and, whether we know (or like) it or not – these technologies have now become an embedded part of our existence. And AI-driven innovation is not slowing down. Google Lens is using AI for image recognition, WhatsApp is using it to allow people with no understanding of each other's language to swap messages – and there are concerns within the teaching profession about the ease with which the technology can be used to generate coursework.

However, AI is rapidly extending beyond web-based tools and into much more sophisticated areas such as autonomous vehicles. Governments ranging from the US and the EU to China and Australia have already licensed self-driving cars, trusting them to make potentially life-and-death decisions as fast (or faster) than a human being, and to get you to your destination quicker.
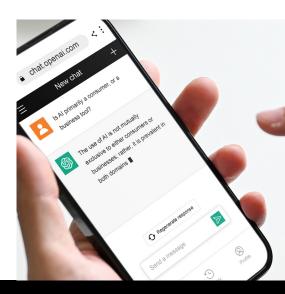
So, in many ways, AI is as good as a human driver: in some ways, it is actually better. For example, it is never under the influence of drugs or alcohol, never falls asleep at the wheel and it carefully predicts and avoids hazardous driving situations. Its proponents claim that, in many ways, AI will help to make our roads safer.
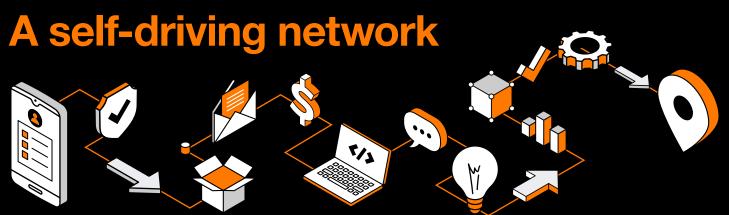
Not just for consumers

Applications like those described above have dominated press coverage but the opportunities (and implications) for the business world are equally huge. I asked ChatGPT whether AI was primarily a consumer, or a business tool and it explained (somewhat tetchily, I thought) that, "the use of AI is not mutually exclusive to either consumers or businesses; rather, it is prevalent in both domains." And it's right!

> **Imagine a business landscape where AI is not just a tool but a trusted advisor.**

This is not science fiction; it's the future of business – and it is much closer than you think. Microsoft has already introduced its co-pilot tool as part of 365 which it claims will 'unleash creativity… unlock productivity… and uplevel skills.' In the near future we will all have to learn to live with AI not merely as a tool, but as a colleague.

A self-driving network

In my own world of networking, I can envisage a self-tuning network where it seems like applications can almost read minds, adjusting themselves automatically as needed

AI will provision and expand your infrastructure in much the same way as a self-driving car takes care of the speed, braking, indicators, and the hundreds of other things that are important in driving.

In this self-driving network, your people won't need to wake up in the middle of the night to respond to an outage or a sudden spike in demand: the AI-enabled infrastructure will sense where the problems are and what needs an upgrade or a fix and will take care of it for you.

You won't need to worry about keeping up with business demands anymore,

about meticulously analysing capacity and resources in different countries against what are often volatile business circumstances or sometimes inaccurate business forecasts. Instead, you can just decide that, for example, your SAP application should be perfectly configured to work for all key users, and AI will make sure all the policies and settings are tuned to serve that goal. It will even be able to investigate the most recent forecasts and ensure that existing resources are sufficient to cope with demand.

And in the event that the network is under-provisioned, the necessary upgrades will be

handled for you. AI will allocate resources appropriately or requisition any additional connections or equipment – purchasing, configuring, and integrating it into your existing infrastructure.

Security is another area where AI has a crucial part to play: cyberterrorists are already using AI to enhance the sophistication of their attacks and we must learn to fight fire with fire. Your security must be five steps ahead of current threats and be ready for the threats that will come next – and only AI can deliver this.

Key Benefits of AI-Enabled Infrastructure

In a nutshell, here are some of the key advantages that a self-driving network could provide to the infrastructure services management.

- **Enhanced User Experience:** AI can optimise network performance and traffic management, adjusting in real-time to usage patterns, ensuring a smooth and responsive experience for all users.

- **Efficient Resource Utilisation:** By allocating and managing network resources based on real-time analysis, AI can reduce waste and enhance performance, leading to more sustainable operations.

- **Compliance and Governance:** Continuous monitoring for compliance and immediate reporting of discrepancies can help businesses adhere to regulations accurately and promptly.

- **Advanced Threat Detection:** AI's ability to correlate events and analyse patterns means anomalies can be detected and contained faster and more accurately than with traditional methods. AI can dynamically adjust security measures based on the evolving threat landscape, ensuring the network's defences are always up to date.

- **Advanced Scalability through Automated Operations:** AI can automate routine and complex tasks such as network configuration, management, and troubleshooting: this could reduce the need for manual intervention and minimise operational errors. It can be trained to carry out autonomous fault detection and correction to ensure high availability and reduce downtime. Historical data can also be leveraged to predict and prevent potential future network issues, as well as forecast resource requirements for capacity planning.

- **Cost Savings:** AI-driven operations can lead to savings in energy, service costs, downtime, and labour, optimising the use of scarce resources.

Enhanced User Experience

Efficient Resource Utilisation

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Advanced Threat Detection

Advanced Scalability through Automated Operations

Cost Savings

Conclusion:

The transformative impact of AI on networking and security is not just about technological advancement; it's about reshaping the business landscape. With AI, businesses can gain a competitive edge in a world where seamless connectivity and safeguarded data are crucial to success.

As we stand on the brink of this new era, the question is not if but how quickly we can adapt to the AI-driven future. The businesses that embrace this change will be the ones leading the charge into a smarter, more efficient, and more secure tomorrow.