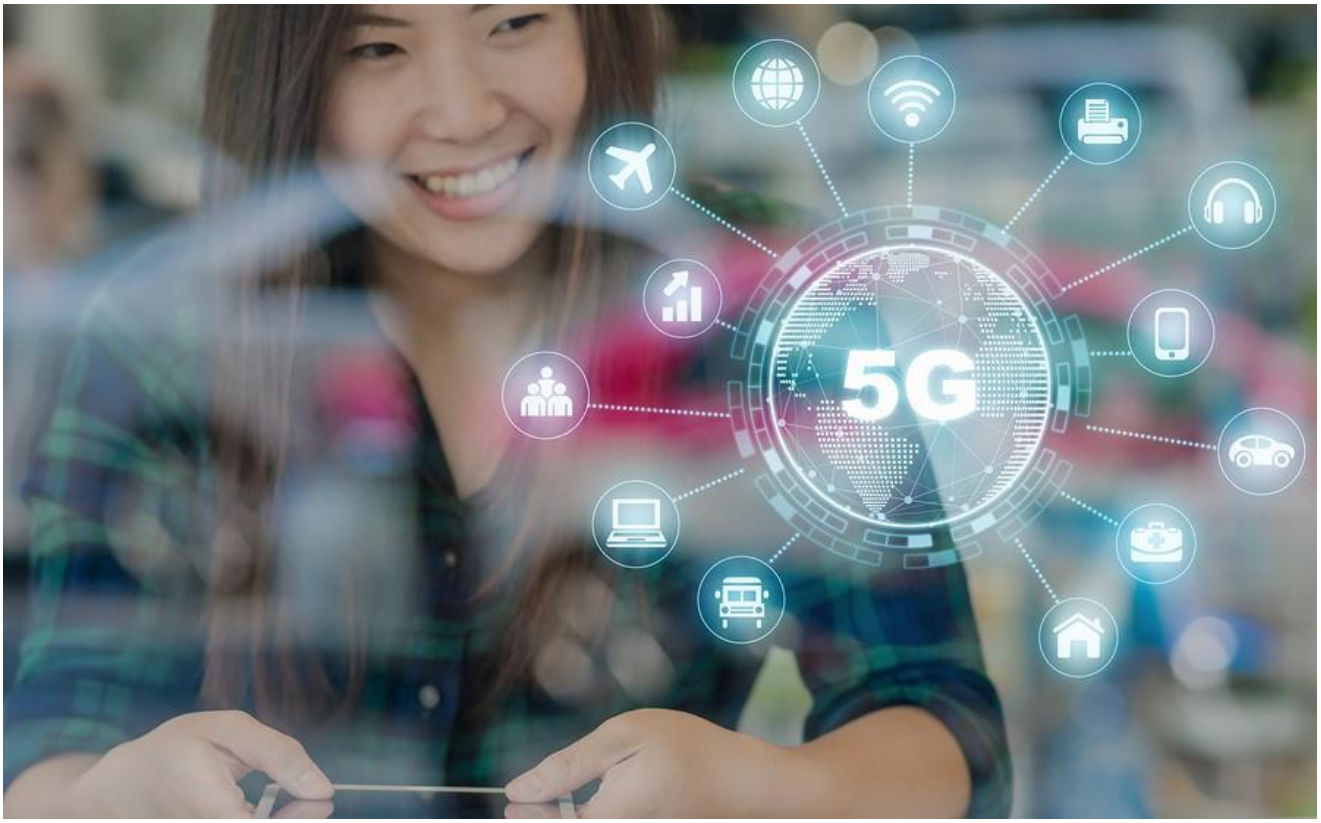
Proactive 5G Cyber-Security to Maximize Opportunity and Minimize Risk



You have seen the headlines, "The 5G Revolution," and, "5G Will Change the World." For years, the tech world has anticipated the approach of the fifth generation of wireless technology with the excitement of a five-year old nearing Christmas. Whether or not you buy into the hype, 5G will impact your business. Understanding and preparing for that impact, particularly in the area of 5G cyber-security, can prove critical.

Consider the evolution of cellular technology over the past 20 years. 3G brought us the mobile internet just after the turn of the century. In the late 2000s, 4G introduced internet speeds hundreds of times faster than 3G, making Snapchat and Uber possible and changing life as we know it. Now, 5G introduces even greater speed, greater capacity and lower latency.

For instance, in numerous speed tests, 5G achieves speeds up to twenty times faster than 4G. That means that files that take minutes to download with 4G can download in seconds with 5G. More importantly, 5G brings significantly reduced latency, or delay. Compared with an average latency of about 50 milliseconds in 4G, 5G standards call for a latency of 1 millisecond.

The prospect of nearly instantaneous response and the ability to connect people and things in an unprecedented way opens the door to incredible innovation. At the same time, rapidly expanding

connections mean increased risk. Businesses must develop concurrent strategies for innovation and the 5G cyber-security that supports that innovation.

Business Benefits of 5G

In March, a surgeon in China used 5G and robotics to successfully perform remote brain surgery on a human patient 1,800 miles away. In addition to advancing healthcare, 5G technology holds great promise for the mobile workforce, as well as for industries like manufacturing and retail.

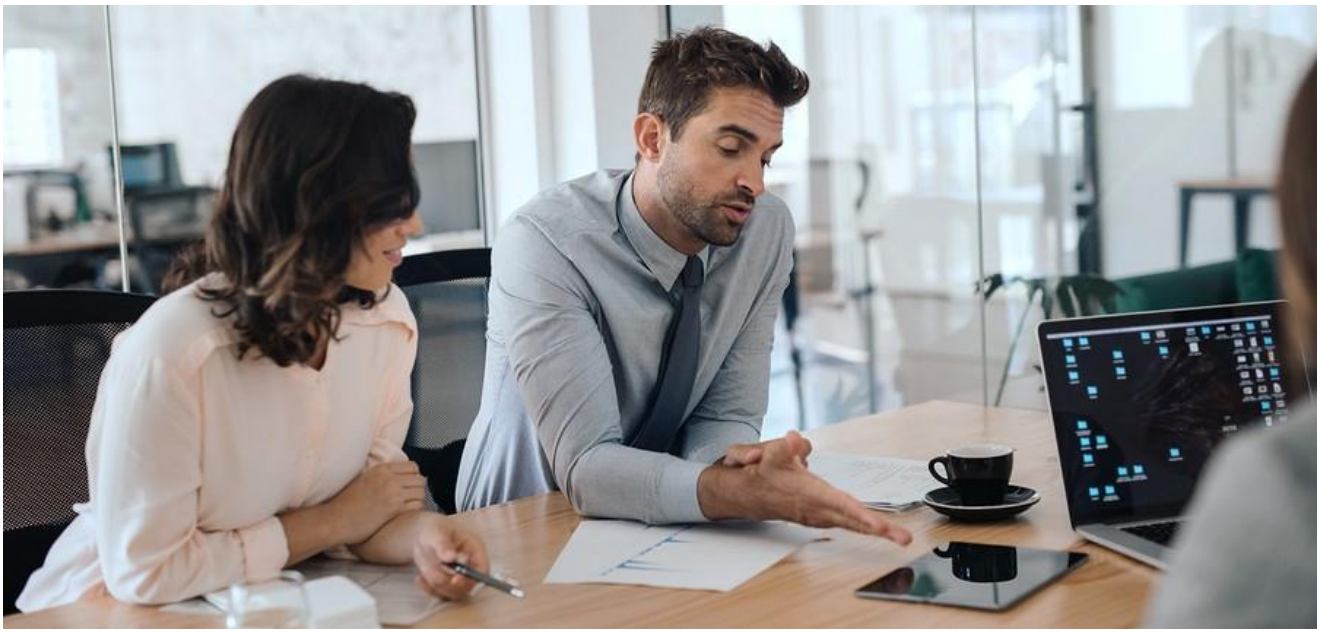
Imagine delivering wireless, virtual reality sales presentations without crossing your fingers for a reliable connection. Envision multiple factory robots completing complex tasks in complete synchronization. With hyper-connectivity and enhanced AR/VR capabilities, 5G provides endless opportunities for innovation and improved customer experience.

5G and the Internet of Things (IoT)

The basis for much of that innovation involves tapping into the power of the IoT, and this is where 5G shines its brightest. 5G networks can accommodate up to 100 times more connected devices than their 4G counterparts. That means incredible advances for the possibilities of the IoT.

Unfortunately, the explosion of new devices connecting to the internet also means that hackers enjoy a greatly increased attack surface. For example, hackers managed to reach the database of a North American casino by accessing the network through an internet-connected fish tank. In fact, a report from Nokia suggests that IoT bots account for 78 percent of malware activity.

Once hackers manage to infect a single IoT device on a network, that device scans the network looking for other vulnerable devices. The infected devices form a botnet capable of conducting a variety of attacks, from denial of service to identity theft. Since the size of the botnet is limited by the number of connected devices, 5G exponentially increases the potential danger.



5G Cyber-Security, Opportunity and Risk

With limited 5G networks already in place and the official launch just months away, businesses cannot afford to delay preparations for the impact of this emerging technology. Those preparations need to take a dual approach of planning possible applications while developing proactive 5G cyber-security.

Plan now to leverage 5G opportunities. Once 5G launches officially in early 2020, the standards and applications will continue to evolve over the next decade. Stay informed about 5G progress and carefully plan your next steps. Communicate with your cloud providers and other vendors. Explore related technologies such as artificial intelligence and edge computing.

At the same time, invest in business cyber-security. 5G substantially increases your attack surface and security risk. If you have not already implemented up-to-date security measures, do not delay any longer. IoT requires robust network security, combined with individual device security. Learn the best practices for cyber-security and make them a priority.

The cloud security experts at eMazzanti can conduct a risk assessment and help you to bring your security practices in readiness for 5G. From monitoring your network to protecting a mobile workforce or securing the factory floor, our trained and certified cyber-security experts help you embrace the future safely.