

5G and Small Business

New Cyber Readiness Institute/CTIA collaboration asks the questions small business owners need to answer.

Setting the Stage for Awareness and Understanding

What is 5G and why is it an important advancement that can significantly help improve my business?

5G is shorthand for the fifth generation of wireless. But don't let the number scheme fool you, it's an evolutionary step forward from 4G. 5G will provide SMBs up to 100x faster service speed than 4G, connect more smart devices within your business, and enable those devices to respond to each other in near real-time. Coverage and reliability of the link will be better than competing technologies, resulting in fewer base station routers and lower cost of ownership.

Will 5G make my business more secure and protected from cyber attacks?

Yes, not only is 5G faster and more reliable, but it also introduces new security enhancements. A new "home network control" feature will allow your device to have the same security settings while roaming or on a Wi-Fi network as it has on your wireless network. Thanks to 5G's increased computing power, businesses will also be better able to take advantage of cloud computing.

Building upon 4G's protections, 5G will further secure your Internet of Things (IoT) devices through features like enhanced authentication settings and rapid data transfer capabilities. From dash buttons that order supplies to lighting sensors that brighten your store, 5G IoT devices introduce a wide array of new possibilities for your business and enable you to further automate and enhance many of the tasks you do today.

What steps can I take now to be more secure and take advantage of 5G?

We recommend following the Cyber Readiness Institute's program, which includes best practices and guidance around four crucial cybersecurity issues: passwords, product and service updates, phishing, and USBs. Cybersecurity is a team effort, and we encourage you to share these best practices with everyone in your organization:

- Passwords: As my business adopts 5G technology, should we change our password policy? Should individuals change how they select strong passwords?

No. Password policies should be consistent across your entire infrastructure. You and your employees should continue to use strong passwords that are changed on a regular basis.

- Updates: Will 5G require us to update our software?

No. 5G is your connection to many services, but it should not require you to update your software. As always, your mobile device will notify you of updates to your operating system or apps. For 5G IoT devices, the best practice is to turn on automatic updates to stay abreast of any changes.

- Phishing: If we invest in 5G hardware and services, will it reduce the threat from phishing attacks?

There's no single feature that can stop phishing, but 5G can keep your connection more secure. It is still important to stay vigilant against phishing attacks and be mindful of the fact that services like email will always carry some risks. It is a best practice to keep your email security services up to date.

- USBs: How will 5G help our business reduce the use of USBs and securely transfer information from one device to another?

5G enhances the speed of file transfers and significantly reduces the time it takes to access the cloud. Network authentication and the end-to-end encryption of the connection protects files as they are transferred to shared cloud resources make file transfer on 5G easy, fast, and secure. The ability to rapidly transfer information between computers wirelessly is greatly enhanced, which means your business can shift more of its storage to virtual services, such as the cloud.

Managing My Business

Do I need to upgrade my equipment to take full advantage of 5G?

5G rollouts began in 2019 and will continue throughout 2020 and beyond. If your equipment is due for an upgrade, buying a 5G-compatible device would be a good approach to take advantage of the newest features as they are rolled out. In some cases, you can retrofit in the short term with a 5G gateway device that may extend 5G features via Wi-Fi within your business.

How do I let my employees securely use their own mobile devices in a 5G environment?

The enhancements to security that come with 5G can help employees use data in the cloud securely. The new security enhancements along with the use of mobile device application security will provide employees convenient access to cloud-based services while securely separating your company data from other data.

Cloud Security

How does 5G enhance my security when using the cloud?

As your business takes advantage of different aspects of cloud computing, 4G and 5G can best secure your connection to those cloud resources with enhanced Virtual Private Network (VPN) security between your devices and your cloud services. VPN is

a more secure, private channel dedicated to your business and only available to your employees, suppliers, and customers. Since your email is already in the cloud, it may be worth migrating some of your other apps to the cloud as well. Your wireless service provider can customize a program for you on what makes sense from a security perspective to move into the cloud and how best to utilize enhanced security.

Helping Individuals Who Work for Me Be More Secure

Will my colleagues and I be able to do more secure and mobile work in a 5G environment?

5G enhances the security of mobile connections and builds upon the security of 4G. Your service provider can help you set up additional control layers, zoning of communications, and secure network data with VPNs. These considerations all help contribute to an enhanced security environment.

How will 5G improve the security of using my mobile phone both at work and outside of work?

The 5G network makes connecting to your corporate cloud environment more secure due to enhanced connection security when accessing cloud services. That said, there will be no noticeable impact when using your smartphone. The security of 4G and 5G mobile phones paired with your business applications is further enhanced with end-to-end secure connectivity. The additional security measures help secure movement between your corporate Wi-Fi network and the public wireless network.

Practical Impact on My Business Operations

Will 5G impact how I interact with my suppliers and customers?

5G can make interacting with your suppliers and customers fast and secure. Storefronts, orders, billing, status tracking, shipping, and confirmations all benefit from the speed and security of 5G. Faster communication helps keep suppliers up to date on when to refill orders and new 5G security features, including enhanced encryption capabilities, create a safer, trusted transactional relationship with your customers.

How should I talk to my customers and suppliers about 5G?

You can emphasize how enhanced speeds and security of the 5G transition will allow for safer transactions.

How can I help my customers and suppliers leverage 5G to become more secure?

There are several security features built into 5G specifically for enterprises deploying either a standalone 5G or hybrid 5G/Wi-Fi network. If hybrid networks are offered to employees, 5G network security can extend to the Wi-Fi network, a feature called 'home network' control. This allows devices to roam in and out between the Wi-Fi and 5G networks while maintaining the same advanced 5G security credentials, including advanced authentication, encryption, and key management capabilities.

Enterprises can also use a virtual network to which specific security requirements and applications may be applied. These can be implemented enterprise-wide or made invisible to security applications wired directly into the enterprise network.

As 5G continues to evolve, what will the impact be to my organization?

5G is a rapidly evolving technology that is going to increasingly become faster, more secure, and resilient over time. Your organization should be prepared for additional improvements and benefits to come. Today, IT products and services may take days or weeks to set up, but with 5G, establishing services like a VPN will become available on demand.

