Embedded Software Development - Recent Developments

by Satya K Vivek | July 14, 2022

There has been a rapid growth in embedded software development in recent years. Worldwide, numerous industries are seeking intelligent solutions to manage their day-to-day operations, processes, and business challenges. Hence a significant increase in demand for embedded software and system is an obvious consequence.

More and more businesses will go for gadgets/devices having embedded software that can easily be connected with other machines/systems. Here, it would be worthwhile to briefly elaborate on some important recent developments specific to the sector of embedded software.

- In the recent past, there has been a dramatic surge in the number of organizations adopting IoT (Internet on Things). This has boosted the development of the embedded software industry in a big way. It is expected that there shall be a huge rise in revenues generated by this sector, during the next five years.
- The Covid-19 pandemic led to a sudden and quick increase in demand for various medical devices. These devices help us to keep track of some important, basic medical readings, from the comfort of our homes. And its embedded software that makes these devices work in a reliable way.
- Over the last two years, there is a significant rise in the usage of intelligent automobiles. These automobiles perfectly guide drivers by providing details

Gadgeon Systems Inc.

regarding the most convenient and safe routes, weather alerts etc. Quite a few gadgets need to be deployed in these vehicles to make it a reality and embedded software is present in all such devices.

- Consumer expectations for embedded software devices have now undergone a major change. People are looking at things like seamless interactions and slender displays. The concerned businesses promptly made a note of these changing user preferences and have started manufacturing products accordingly. Thus, a major chunk of embedded software gadgets/ devices now available are sleeker and easier to operate, compared to their predecessors.
- The circumstances resulting from the pandemic have compelled businesses to permit their employees to work from remote locations. Though pandemic severity has now lessened, many companies are still preferring to continue the "work from home" model.

Hence, many professionals are still providing services from distant places, and this includes developers of embedded solutions, as well. Many Internet-based tools like PlatformIO and GitHub are making things simpler for these profiles. Developers can make use of these tools for bringing out perfect embedded software solutions.

There has been an alarming upsurge in the incidence of cybercrimes. Several businesses, institutions, and medical facilities have been seriously affected by these attacks. Many experts are of the opinion that when the usage of 5G becomes more common, there will be an escalation in instances of breaches of cyber security.

One of the ways this can be combated is by incorporating embedded software that specifically address the cyber threats. And many organizations and businesses are already opting for these embedded software solutions to enhance the security of their online operations.

The requirements and preferences of modern-day users have become more complex than ever before. This is in the sense that people now aren't content with just slim devices and classy displays. They are also seeking high speed while navigating and transacting through the Internet. Here again, sellers and providers are depending on embedded technologies, in direct response to the above user demand.

Gadgeon Systems Inc.