What do you know about Telecom Domain Testing?

If we have to point out one technology or sector that has revolutionized our lives in more ways than one, then it has to be the telecom sector or the technologies enabling it. In fact, the very essence of modern living is the ability to communicate or transact using digital devices from any part of the globe. And advancements in telecom services have been instrumental in making the world a global village and driving enterprises and entities to embrace digital transformation. Since the telecom domain envelops a number of services, namely, Voice over Internet Protocol (VoIP), routing, switching, or broadband access, its quality has to be top-notch at all times. Also, since software applications are at the heart of most telecom devices or networks and are instrumental for their smooth functioning, software testing for telecom is a critical requirement.

What is telecom domain testing and why is it important?

Telecom domain testing is about testing the telecommunications software that forms a part and drives operations in several industry verticals, such as technology, media, eCommerce, banking and finance, insurance, logistics, healthcare, and hospitality, among others. Further, the telecom sector comprises different elements, such as broadband communication, Voice

over Internet Protocol (VoIP), the Internet of Things (IoT), television transmission, mobility, cloud computing, and others.

To ensure the smooth functioning of the above across domains, hardware configurations, and networks, [telecommunication software testing](#) should be made an integral part of the SDLC. Software testing for communications industry is imperative to provide crucial services to clients spread across geographies and verticals.

Further, telecom companies need to keep themselves updated with the latest technological breakthroughs and disrupt the market with innovative products or services. And to ensure customer retention or break into new customer segments, they need to streamline their services across platforms. This may include streamlining the billing systems, increasing interoperability, strengthening durability, and enforcing security. It is only through telecom domain testing that telcos can accelerate the delivery of quality services, disrupt the system, and augment the revenue stream.

Why is domain knowledge critical for telecom application testing services?

With the advent of 5G services, the telecom sector is poised to take a big leap in terms of increased bandwidth, downloads at lightning speeds, and the potential to transform the entire digital ecosystem. The data transmission speed every individual and entity is used to at present is going to be transformational and strategic. The increased bandwidth would need augmentation of the capacity of software applications and the accompanying hardware to levels that are commensurate with the requirements of 5G technology. This technology is expected to connect virtually everything, namely, computers, objects, and devices.

According to a study by Juniper Research, 5G services are expected to generate a revenue of $357 billion by 2025, a monumental leap from $5 billion in 2020. Also, revenue accrued from the implementation of 5G services globally would be 44% thanks to the rapid migration of people subscribing to 4G services to 5G services. The gradual introduction of 5G would revolutionize sectors and technologies such as robotics, automation, AI, mixed reality, and others. Thus, with the growing need for [5G application testing](#), the traditional role of an analyst will not be adequate. What is needed are testers with domain knowledge who can leverage business use cases to deliver quality. The other benefits of possessing core domain knowledge in telecom include:

- Minimize the training period and give the telecom company the extra leverage to deliver quality services
- Testers should have sound knowledge of the workflow and be capable of identifying bottlenecks
- Testers can work toward improving the UI in addition to discovering bugs
- Testers will be aware of the defect triage and know which aspect to deal with first

Testing a range of telecom services

The smooth functioning of the telecom sector is crucial to keeping the wheels of the economy moving. Any deficiency in such services can lead to a cascading impact on various services. For example, glitches in the software applications running on the telecom network can bring a lot of sectors to a standstill. These may include BFSI, logistics, defense, media and entertainment, railways, airlines, healthcare, manufacturing, and others. Also, as several components running the telecom industry, such as switches, routers, and others, have software applications at their core, [software testing for telecom](#) has become crucial.

Conclusion

With the rollout of 5G services and the greater convergence of various services based on telecom, the testing services for communications sector are going to be critical in delivering quality outcomes, superior user experiences and achieving higher revenues.

Resource

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