The World Is Turning to VoLTE. Are You Prepared?

442 commercially launched LTE or LTE advanced networks in 147 countries. Source: GSMA

111 operators in 52 countries investing in VoLTE deployments, studies or trials. Source: GSMA

83% of operators surveyed say they will deploy Voice over LTE (VoLTE) by 2016. Source: Infonetics

By 2018, 600 million smartphone users worldwide will use VoLTE as their default voice service. Source: Analysys Mason

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VoLTE-capable smartphones will account for 950 million unit shipments by the end of 2020. Source: Research and Markets

Benefits of Implementing VoLTE Roaming

Translating to VoLTE Delivers a Variety of Benefits

- Gain Superior Voice Quality: Our IPX network delivers high levels of quality of service and class of service.
- Reduce Complexity: Use a single radio technology for both voice and data.
- Maintain Control: With IP Multimedia Subsystem (IMS), home operators maintain full control of a roamer’s voice traffic.
- Improve Call Setup Times: Benefit from faster connections between callers.

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Preparing for VoLTE Roaming with Syniverse

Enabling VoLTE is a critical, complex milestone in the industry’s transition to LTE, and it requires testing, resolving and ensuring the quality of a number of new processes among different operator networks around the world.

As a leading IPX solution provider, Syniverse is positioned to support current and future VoLTE roaming implementations. Our IPX platform provides the foundation for global connectivity and critical LTE building elements necessary for mobile network operators to successfully deploy VoLTE roaming whether it be through S8HR or an LBO scenario.

Understanding VoLTE Roaming Architecture

Choosing 8 Home Routing (SHR)

VoLTE calls are served by the visited network provider as an LTE data roaming session the same way Internet traffic is supported, by leveraging the visited network provider’s Evolved Packet Core (EPC).

Advantages
- Offers faster deployment than LBO.
- Uses the same GPRS tunneling protocol (GTP) tunnel as LTE data roaming traffic.
- Uses the same components already in evolved packet core.
- Uses existing transferred account procedures (TAP) and roaming agreement exchange (RAEX).
- Allows operator to use the same data interpreter tariff (IOT) charges with roaming partners without updating roaming agreements for IMS services.

Advantages
- Increases visibility of call information for both the home and visited operator by using IMS.
- Provides the ability to offer lawful intercept and emergency call handling.
- Supports single radio voice call continuity, allowing for a consistent voice call when moving between LTE and circuit-switched networks.
- Supports TAP billing model.

Choosing Local Breakout (LBO)

VoLTE call control and bearer components are served by the visited network provider’s call and process servers designated for IMS, also known as an IMS core. The voice bearer could be handled by the served network market or home market network based on what is negotiated between the two parties.

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Preventing for VoLTE Roaming with Syniverse

“The global reach of Syniverse’s IPX network to nearly every operator that has launched LTE allows us to continue to expand VoLTE coverage and services in additional markets to achieve the overall goals and cover our subscribers demand from their constantly connected devices.”

- Lee KunHee, Senior Manager, Global Roaming Team, LG Uplus