



5G: What vendors won't tell you about Release 16

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John Giere of Enea Openwave

5G is nearly here. According to a recent study we conducted, says John Giere, President of **Enea Openwave**, [one third of mobile operators are planning to deploy 5G standalone](#) (SA) within 18 months to two years.

5G coverage for many areas of the world is still nascent, but demand for 5G clearly is building steadily with [nearly one half of US and UK enterprises already making plans for it](#), according to another recent poll. These preparations and the anticipation surrounding 5G is a testament to many exciting business and lifestyle opportunities the technology will enable. 5G offers much faster speeds, of course, but it is much more than 4G on steroids. Rather, 5G offers enterprises and operators alike a tantalising opportunity to drive revenue based on new and innovative use cases for a diverse range of sectors.

What's different now?

As well as cool, new, innovative use cases, 5G will also signal a new era of freedom for operators. 3GPP, the global governing body in charge of cellular standards, is preparing to launch [Release 16](#) later this year. As well as detailing numerous technical enhancements, it also signals an important shift in the approach to data management which will allow operators for the first time to mix and match vendor equipment.

Release 16 mandates a clear split between 5G data and 5G functions. Network functions will share a single database that links to a Network Data Layer comprised of structured and unstructured data. Added to this are new rules that allow operators to opt for best-of-breed solutions rather than the traditional vendor lock-ins that have characterised investments in previous iterations of the cellular standard. For operators, this means unprecedented freedom and the flexibility to select vendors on a domain level or for single network functions.

The opportunity for operators

Both in terms of cost efficiencies and monetisation, this is good news for operators. The presence of a 5G Network Data Layer that is open and cloud-native simplifies problems to do with data siloes and monetisation by collapsing all the siloes into the one common repository. From there, network

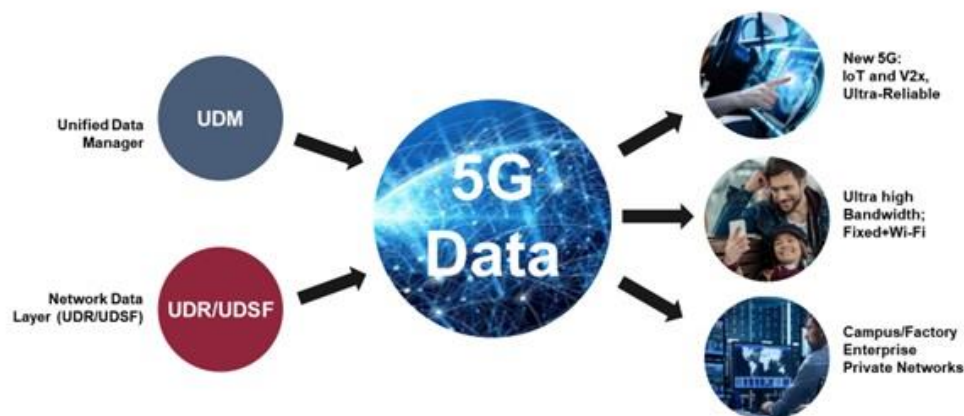
providers can securely store and access data from the core to the edge for any application and any data type. It's a highly disruptive prospect that threatens to unseat the "ownership" that large vendors currently have of operator networks.

5G's best kept secret

It's little surprise, then, that vendors are reticent to talk about this aspect of Release 16. While the large vendors have been quick to explain Release 16's latest updates as they relate to the technology and use case enhancements (MIMO, IIoT, URLLC, network slicing and many more), they have been oddly quiet on the advantages of a common Network Data Layer.

Operators have been trapped by all-encompassing multi-million dollar network management contracts from a handful of large vendors. Vendors' actions over the years have enjoyed the benefits of "vendor lock-in" where operators become almost totally dependent on them, but this has stifled innovation and, arguably, hampered operators' ability to fully monetise 4G. The long negotiating period before the finalisation of Release 16 was even more drawn out than usual, thanks at least in part to blocking and delaying measures from certain major vendors. The global Covid-19 pandemic further slowed progress.

Managing Data is Key to 5G success



All that changes now. With a common network data layer mandated by Release 16, operators can experience the benefits of 5G standalone faster. Through a carrier-class data layer, data siloes caused by vendor lock-ins in HLR/HSS, PCRFs with proprietary interfaces and locked schema can be eliminated, allowing operators to take full advantage of the benefits of 5G without being beholden to any large vendor.

The giant leap for 5G

Release 16's small but significant update to the common network data layer policy enables the radical simplification of data management. It is a giant leap for mobile operators because it accelerates the commercialisation of 5G.

The ability to pool operations reduces running costs while also enabling network providers to launch features faster. A common network data layer, open and cloud native, supports the vision of 5G as providing seamless high-value services that can be activated on demand for any user or entity, including network-slicing, value-added network enablers, mix-and-match service components configured on demand to create service differentiators and global access to home location-based personalised services.

Operators will welcome the changes that Release 16 ushers in from the way data is handled to the monetisation opportunities it brings. While Release 16 is an important step in the right direction,

there is still more that can be done to smooth the path to 5G. 3GPP must go further with standardisation, for instance, but for now, with Release 16 operators are finally beginning to take back control.

No wonder some vendors aren't happy.

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