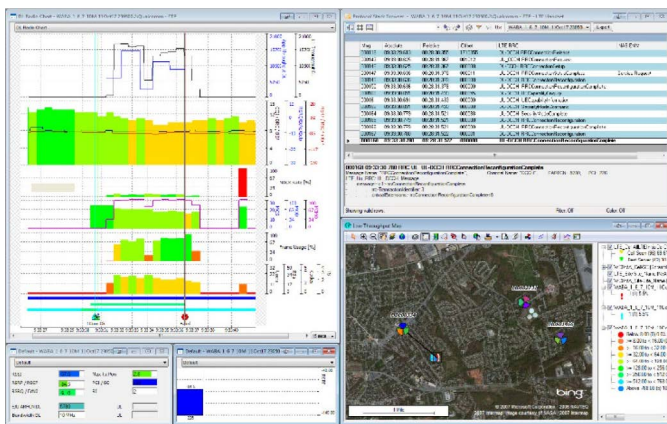


actix analyzer: squeeze more capacity from LTE-Advanced-Pro and accelerate 5G-NSA-NR rollout and acceptance



As you embark on your journey to 5G, one of the initial steps is to upgrade your radio infrastructure to enable the latest radio technologies.

Actix Analyzer, with its new LTE-5G-NSA license, provides the vendor-independent view of technology upgrades and KPIs required for accurate reporting – whether your first step is to deploy 5G-NSA-NR using a 3GPP-defined non-standalone (NSA) option or maximize the LTE-Advanced-Pro network.

Actix Analyzer ensures more capacity and faster 5G-NSA-NR rollouts with the following capabilities:

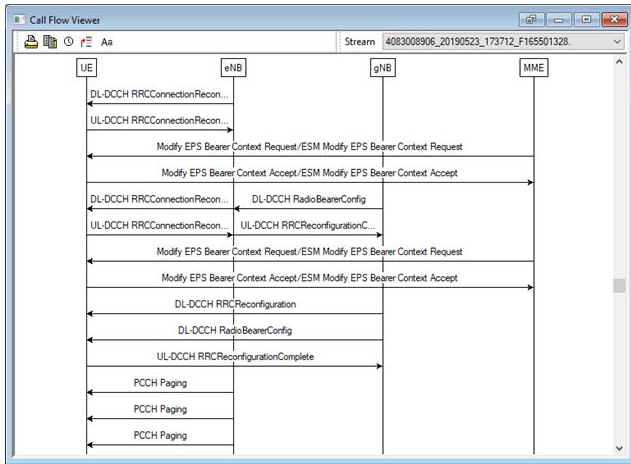
- **3GPP RRC releases:** support for latest RRC layer signaling releases, including Rel.15 and Rel.16.
- **Carrier aggregation:** increasing the number of available carriers and ensuring the full channel bandwidth is optimized to squeeze more from your existing investment

- **License-Assisted Access (LAA):** aggregating licensed with unlicensed bands, enabling higher throughput in key hotspots or the ability to offload traffic to unlicensed bands
- **Massive MIMO:** optimizing radio conditions to maximize the transmission scheme, enabling multi-layer transmission
- **Initial 5G-NSA-NR scanner measurements:** comparing scanner and UE measurements to give a more accurate view of signal strength – a key check once spectrum has been awarded
- **UE support:** support for RRC signaling, voice/data task testing and chipset support for all major vendors, providing Actix Analyzer's LTE-5G-NSA license option with an accurate view of UE performance
- **Beam analysis in mmWave:** identification and analysis down to the level of individual beam performance, verifying antenna performance in 5G-NSA-NR
- **KPI reporting:** enables custom report templates to be designed, leveraging the solution's full configuration layer

Actix Analyzer's capabilities have been essential to the success of many of the first 5G-NSA-NR network launches worldwide and continue to be used post-launch to ensure subscribers' first 5G experience is positive. From GSM/CDMA through to 5G-NSA-NR, the solution helps operators verify network performance and identify issues that affect service quality and customer experience.

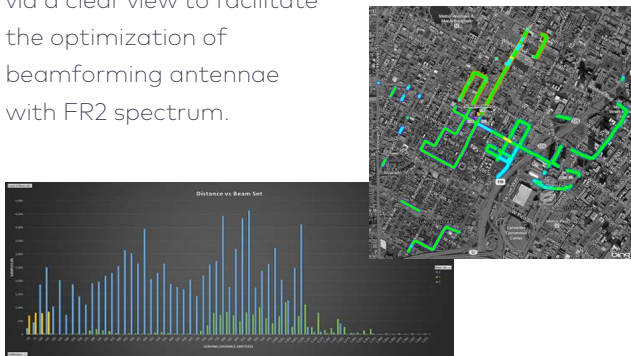
5G-NSA-NR rollout

Actix Analyzer facilitates faster site acceptance and optimization by visualizing the 5G-NSA-NR signals received by the UE and highlighting key performance indicators (KPIs) such as RACH success rate and throughput for EN-DC. The unique call flow viewer highlights LTE, NR RRC and SIP signaling flow during call setup and mobility testing.



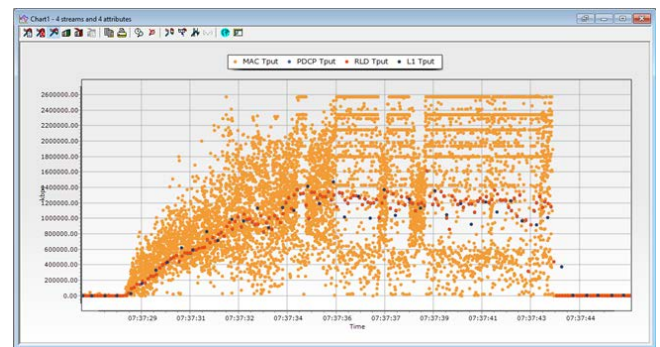
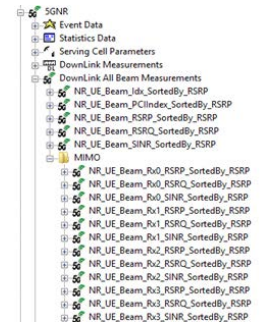
mmWave beam analysis

Actix Analyzer presents individual beam measurements via a clear view to facilitate the optimization of beamforming antennae with FR2 spectrum.



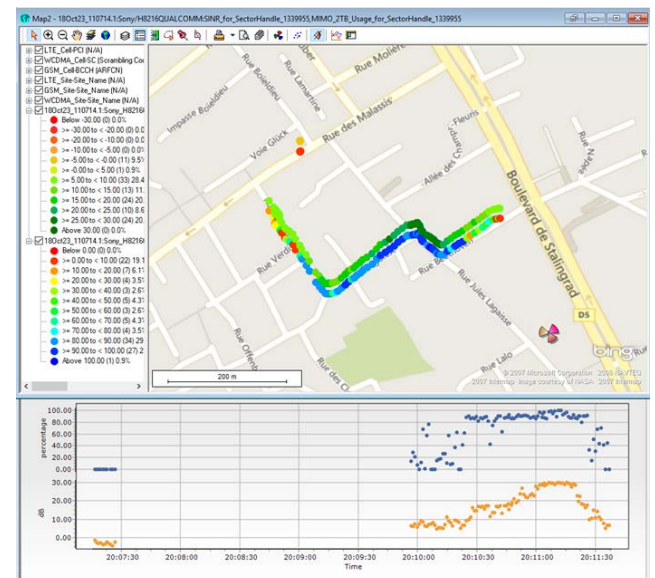
Layer 1 – Layer 3 view

During deployment of any new technology, the focus typically starts at the radio level and 5G-NSA-NR is no different. Actix Analyzer provides all relevant measurements down to the unique radio path using a standard notation, allowing report templates and analysis queries to be designed, and providing throughput measurements at the L1, MAC, RLC, PDCP and application layers.



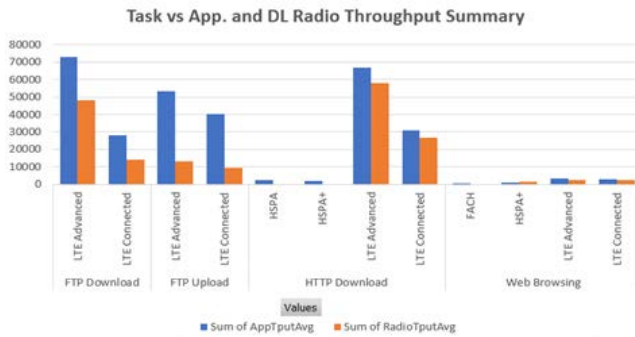
Massive MIMO

Whether deployed for diversity or multiplexing modes, Actix Analyzer can be used to verify the MIMO multi-layer usage (transmission purposes and scheme, rank indicator, CQI measurements) correlated with the radio conditions impacting it, as measured by RSRP and SINR.

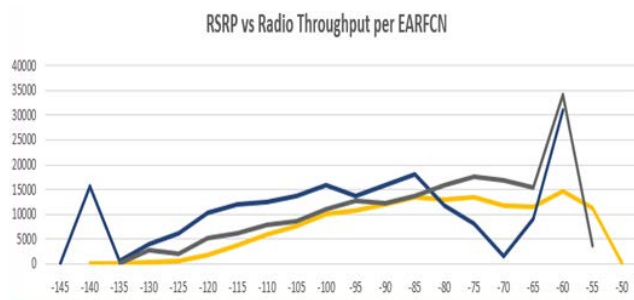


Carrier aggregation

Verifying each carrier when enabling carrier aggregation (CA) is essential to ensuring users maximize the available bandwidth. By isolating periods of traffic when CA is configured and active, and comparing throughputs of CA vs. non-CA, it enables engineers to better optimize the available spectrum.

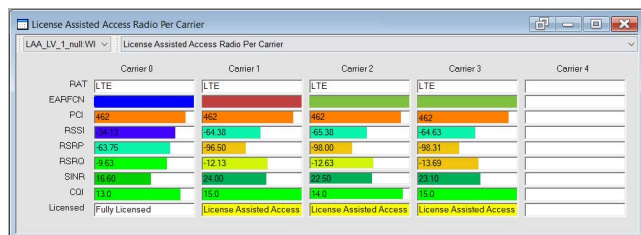


Standard report templates in Actix Analyzer allow analysis down to the carrier-level.



LAA

By employing additional spectrum in the unlicensed band, CSPs benefit from offloading traffic from the licensed LTE band, aggregating the bandwidth and adding extra capacity where needed.



However, enabling the usage is only the start of the LAA story. Actix Analyzer provides detailed insights into how unlicensed carriers are performing from both the perspective of radio performance and data throughput.

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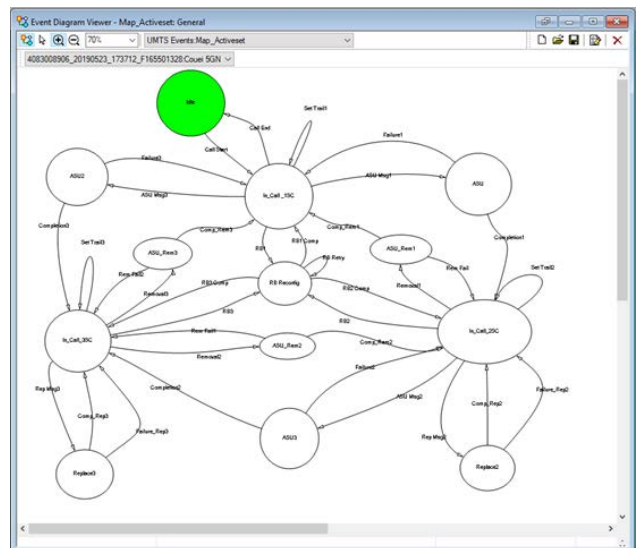
Vendor-agnostic

Actix Analyzer enables CSPs to choose the best data collection tool for their needs – leading the market on the variety of supported format and technology combinations. This provides the key benefit of enabling CSPs to standardize on a single optimization process that supports legacy network measurements whilst in parallel, supporting new technology roll-outs.

Configurability

Actix Analyzer enables expert engineers to define KPIs, events and analysis workflows to streamline the testing of technologies and services, and to share expertise with the broader team.

It also provides a rich user-defined configuration layer, including events, queries, KPIs, screen layouts, filters, report templates and state views.



Why Amdocs

Amdocs is a preferred partner for tier-1 and tier-2 service providers across the globe, with a proven track record supporting projects during all phases of network rollout and acceptance including, but not limited to RAN, transport and core design, provisioning and troubleshooting services, pre/post-launch optimization, triage and NFV-O, for multi-vendor, multi-technology heterogeneous open networks.

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