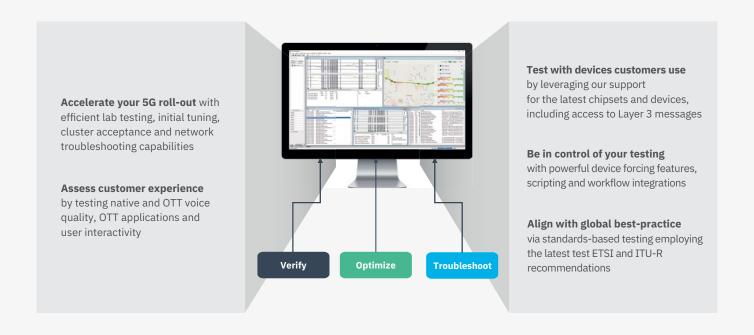


# Verify, optimize, and troubleshoot your mobile network with TEMS™ Investigation

TEMS™ Investigation is a powerful drive testing solution for initial tuning, 5G site acceptance, software upgrade verification, new feature validation, network troubleshooting and more. Through our partnerships with device and chipset vendors we support the latest technologies, features and smartphones your customers are using. This means you can not only reliably test and improve your subscriber quality of experience, but you can also accelerate your 5G roll-out and gain a competitive edge.





## TEMS Investigation use cases

#### Network initial tuning and rollout acceptance

Simplify pre-launch performance assessments with pre-defined test sequences.

When you are rolling out a new 5G network, a new technology overlay, or expanding your network coverage footprint, you need to assess your pre-launch performance. TEMS Investigation provides you with a complete set of predefined test sequences to simplify your on-site tests. It supports multiple devices, all network technologies and the ability to use scanners for detailed RF measurements to meet your field test needs.



#### **Network troubleshooting and optimization**

Deliver a winning subscriber experience across the latest devices and major OTT apps.

The quality of a subscriber's experience relies on your ability to identify and solve network problems quickly and reliably. TEMS Investigation's in-depth testing capabilities, including application and network testing, provide the insights you need to optimize your subscriber experience. Working with the latest smartphones (including the iPhone), chipsets, mobile OSes, and supporting all major OTT applications, TEMS Investigation has your future covered.



#### Network services testing and acceptance

Leverage in-depth UX testing to confidently roll-out new services such as 5G VoNR.

Launching a new network service, such as VoNR or NB-IoT, poses new network testing challenges you need to solve. Using TEMS Investigation, you can perform audio and video quality measurements (sQLEAR, POLQA, PEVQS), as well as testing popular social applications such as YouTube, Facebook and WhatsApp. When combined with your layer 1-3 tests, you have everything you need to successfully roll-out new network services.





## User experience testing

#### Accurately measure QoE for all native and OTT applications and services

Your network needs to successfully support a vast array of services, everything from simple text messages to services characterized by demanding requirements such as high bandwidth (e.g. 4K video streaming) or very low latency (e.g. e-gaming). TEMS Investigation's user experience testing capabilities enable you to understand and improve the user experience for all applications and services. It includes solutions for native and OTT voice services, OTT applications, and interactive services such as mobile gaming.



#### Take a generic OTT testing approach

These days, app and service performance is critical to satisfaction subscribers. However, it is not feasible to validate the performance of the thousands of apps and services available to ensure they are all performing well. A generic OTT testing approach, as employed by TEMS Investigation, provides a practical and cost-effective approach which closely mimics real apps and services. It delivers trustworthy results that are highly correlated to real-world testing, providing you with confidence that the network will deliver the expected user experience across all apps and services.



## A few TEMS Investigation highlights



#### **Extensive device support**

Agreements with all the leading handset manufacturers including Apple, Samsung, OnePlus, Xiaomi, Sony and more enable Infovista to support full logging capability across a vast array of devices.



### Support for multiple scanners

Support for PCTEL and Rohde & Schwarz scanners provides device independent RF measurements across multiple channels/bands/technologies and advanced capabilities such as mobile blind scan.



#### Comprehensive chipset support

Agreements with major chipset vendors including Qualcomm, Samsung, Huawei, and MediaTek means faster time to market for new devices and highly accurate Layer 3 message decoding.



#### **Device monitoring**

5G test cases are resource intensive and smartphones often respond by CPU throttling to protect themselves, negatively impacting test results. TEMS Investigation generates alarms to warn users of performance affecting device conditions so mitigating action can be taken.



#### On-device measurement

Measurements performed on handsets provide the closest alignment to actual end-user experience. TEMS Investigation can control applications installed on test phones to perform voice and data test scenarios.



#### Service control designer

TEMS Investigation features a drag-and-drop service control designer for flexible and efficient creation of test scripts to automate and simplify data collection and service testing.



## Part of the Infovista TEMS Suite for mobile network testing

The TEMS Suite is our portfolio of solutions that allow you to address every aspect of testing and troubleshooting your network from a subscriber's perspective, whether it be just 5G or a combination of multiple technologies. If you are looking to verify the performance of new 5G sites, walk test strategic indoor locations, benchmark your network performance against your competitors, or any one of numerous other network testing use cases, TEMS has a solution to meet your needs.

- TEMS Cloud manage your network test projects with real-time control and analytics
- TEMS Investigation perform drive tests to verify, optimize and troubleshoot all your mobile network technologies
- TEMS Pocket walk test indoor locations and drone test hard-to-reach places
- TEMS Paragon streamline your mobile network benchmarking campaigns
- **TEMS Sense** proactively monitor your wireless network services end-to-end with active testing
- TEMS SSV automate site acceptance for faster
   5G roll-outs with fewer personnel
- **TEMS Discovery** turn your network test data into analytics and actionable insights for optimization





## About Infovista

Infovista is the global leader in network lifecycle automation (NLA) for the next-gen networks era. With its unique NLA approach, Infovista allows communications service providers (CSPs) and enterprises to improve their network performance and customer experience, optimize their productivity, and reduce their costs, while maximizing return on their investments. Spanning the entire network lifecycle, Infovista's products and solutions leverage an open, integrated, cloud native portfolio that automates tasks, flows, analytics, and decisions to the greatest extent possible. More than 1,000 customers, including 400 Mobile Network Operators, around the world rely on Infovista to plan, design, deploy, test, operate, support, optimize, evolve, report on and monetize their networks.



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