guavus
a Thales company

Service-IQ

Device Management Analytics (DMA)

Datasheet

Service-IQ Device Management Analytics (DMA)

With the explosion of devices and data, now more than ever Mobile Network Operators (MNOs) require the ability to gain real-time insights into the digital demographics of their networks.

Understanding usage patterns and capabilities of the devices that roam the mobile network is paramount to planning current investments and future upgrades to network infrastructure.

Device Adoption by Manufacturer in **Service-IQ DMA**

Device Demographics

Detailed analytics that illustrate the specifics by categories of devices enable not only the MNO's network planning and operations teams, but it also supports mobile application developers to plan their future enhancements to accommodate the capabilities and limitations of host devices.

Device Adoption Trends

Analytics tied to device change events reveal the subscriber's device churn and adoption trends. Product and marketing teams are enabled with insights that help them understand key indicators for device adoption and align marketing campaigns accordingly.

Key Benefits

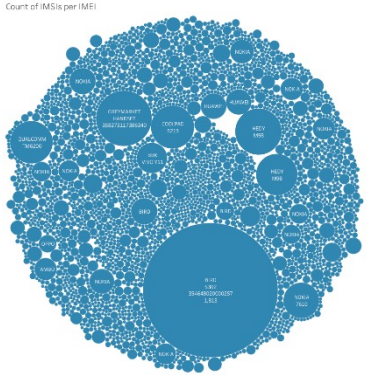
Mobile Device Insights

Device demographics with real-time insights that illustrate device usage patterns, device adoption details and identification of issues related to device compatibility with the network.

Suspicious Behavior Detection

MNO security teams often lack advanced analytics to detect fraudulent behavior that not only negatively impacts the operation of the network but also can reduce its potential profitability.

The ability to detect duplicate IMEI or IMSI information on the network (which may indicate device identity theft) resulting from illegal cloning practices that attempt to steal the identity of otherwise legal subscribers, can ensure the stability of the network for legitimate subscriber usage.



SIM Card Clustering by IMEI in **Service-IQ DMA**

In addition, SIM Porting, which is the act of using a device's SIM in another device it is not intended for, such as a mobile WIFI gateway, can siphon potential ARPU from the MNO by masquerading as a legitimate subscriber's device. Another threat is the use of SIM box devices that host a series of SIM cards (a cluster of SIM cards), that are often stolen or counterfeited. These SIM cards would traditionally exist in separate devices, but instead are grouped together to terminate illegal roaming voice calls.

Integrating these detection capabilities with fraud management programming applications can allow MNOs to orchestrate policy changes to prohibit such fraudulent behaviors.

Key Benefits

Detect Suspicious Behavior

Detect suspicious patterns of behavior on the network and notify revenue assurance and device security teams so they can determine if it is fraudulent activity that can reduce profitability.

Integrate & Automate

Integrate instant notifications with fraud management platforms and trigger closed-loop actions that apply policy configuration changes, preventing those same behaviors from reoccurring.

Featured Analytics & Insights

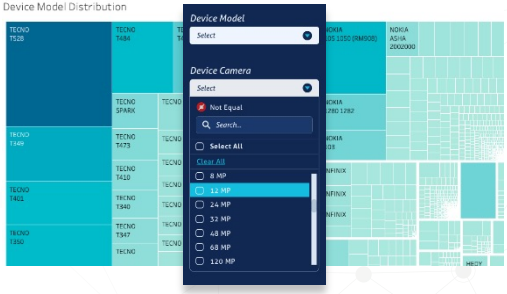
Device Adoption Trends

Service-IQ DMA provides insights into emerging device trends, specifically tracking device adoption patterns. This enables an understanding of which devices - by make, model or other characteristics - exist at a giventime, indicating device connectivity patterns that could represent usage decline. Product teams can leverage these insights to improve device upgrade offerings and help customer care teams reduce potential subscriber churn.

Device Churn by OS in **Service-IQ DMA**

Device Readiness Insights

Service-IQ DMA provides insights into device readiness from a network compatibility perspective. As network planning teams plan the sunset of legacy networks and start to roll out their next generation networks, it is essential to understand device limitations based on radio type, frequency and bands. In addition, as mobile application developers take advantage of new network and device capabilities (e.g., screen resolution, processor speed, memory, etc.), understanding these aspects is critical for successful application adoption.



Device Model Distribution in **Service-IQ DMA**

Key Capabilities

Built for Scale

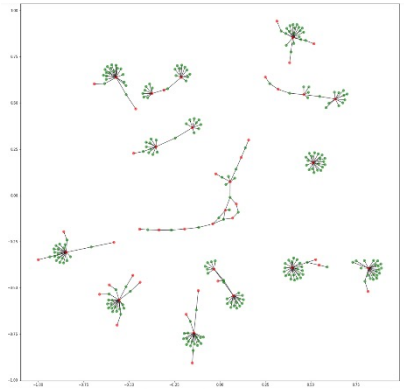
Service-IQ DMA can process data from 100s of millions of mobile devices, allowing MNOs to minimize hardware requirements without sacrificing reporting speed and accuracy. Cloud native architecture with horizontal scaling

Interactive Exploration

Service-IQ DMA analytics insights are available via a series of dashboards and advanced visualization tools that support rich data exploration and analytics functions and allow sharing of insights with the organization.

Suspicious Behavior Measurement & Detection Alerts

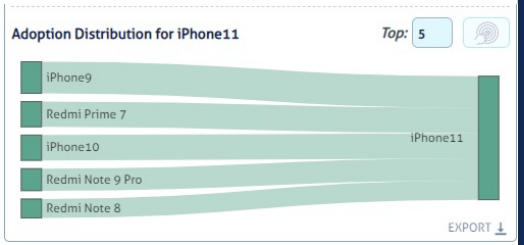
Service-IQ DMA enables MNOs with both measurement and detection capabilities to identify suspicious device behavior. Security and revenue assurance teams gain instant access to actionable insights about potential threats that can reduce profitability and create havoc on the mobile network for legitimate subscribers. Further insights into duplicate IMEI and IMSI identifiers can indicate SIM card counterfeiting or SIM card theft. Moreover, the identification of multi-IMSI per IMEI clusters can also unveil SIM box activity on the network, which drains profitability, since it hides illegal roaming voice calls.



SIM Box Pattern Detection in **Service-IQ DMA**

Device Demographic Statistics

Service-IQ DMA delivers device demographics related to usage, location, characteristics, customer segmentation and supportability of handset features. While the entire organization can benefit from the details on the device population connected to the network, the network planning team can gain further insights to help improve the quality of service for subscribers.



Device Adoption Distribution in **Service-IQ DMA**

Key Capabilities

Leading Integrations

Service-IQ DMA provides turnkey integrated analytics to Thales' **Device Management Center** (DMC) for SIM-based and device-based services. DMC is a market leading product deployed in over 200+ MNOs worldwide.
With DMA as SaaS on AWS, integration with AWS-based DMCs become homogenous.

Moreover, **Service-IQ DMA** integrates with standard CDR and EDR sources which enables more analytics capabilities.

With SaaS deployment on AWS, the customer subscription experience is made seamless with telco grade security compliance

For more information visit us at: www.guavus.com