

# DEEP OBSERVABILITY INTO 5G CORE & EDGE

## The Best Networks Rely on the Best Observability

Observability tools reliant on base metrics, events, logs, and traces provide only superficial coverage for network security and performance.

Deep observability adds impartial, real-time, network-level intelligence to amplify 5G network monitoring. This provides better mitigation of security risks, superior user experiences, and reduced operational complexity.

## Physical, Virtual, Cloud

A wide variety of technologies are used to deploy 5G core, edge, and RAN.

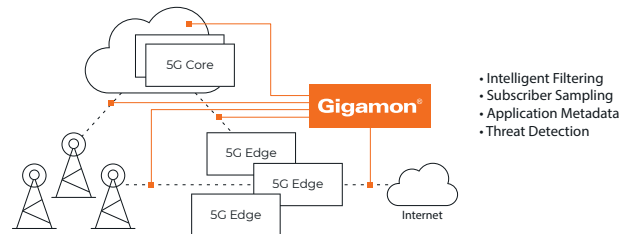
- Pre-packaged solutions, VMs, or containers
- Hosted on-prem, or in public or private cloud
- Distributed locally, remotely, or massively

Gigamon® offers a range of deep observability solutions that work together to fit any specific 5G deployment.

## And Yes, Even Encrypted!

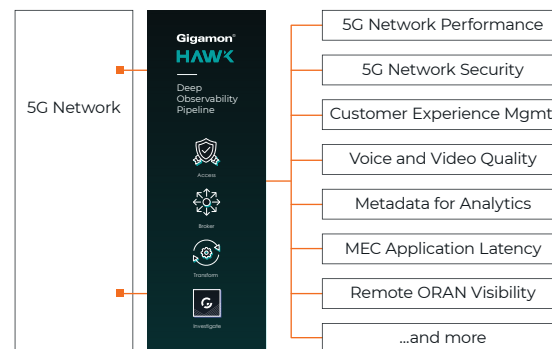
The 5G specification added new levels of security on 5G core, including TLS 1.3 encryption recommended on all service-based interfaces. Gigamon has partnered with 5G infrastructure providers to offer unprecedented visibility into 5G network traffic while keeping the network secure.

## Subscriber-Awareness, CUPS Included



## One Fabric, Any Use Case

The best networks begin with intentional planning. 5G standalone core will unleash new services and new use cases at a blistering pace. Keep up with the speed of service deployment by future-proofing the tool infrastructure with a single deep observability pipeline for the 5G network. New tool deployments, swap-outs, and trials can be done with ease and without disrupting the network by using the Gigamon Hawk deep observability pipeline.



## Ask Us About These 5G Use Cases

- Differentiated visibility by 5G network slice
- Improved performance of 5G core, edge, and RAN
- Growth in security coverage without growing costs
- Gold mining: Turning packet data into 5G subscriber insights
- Encrypted visibility on 5G service-based interfaces
- Transformation of header-less HTTP2 into traditional packets
- Closed loop automation for 5G network optimization
- Deep observability also for:
  - IT, OT, or engineering networks
  - Private 5G
  - New ORAN interfaces
  - Edge computing (MEC)

For a free, no-obligation demo, go to [gigamon.com/lp/free-trial](https://gigamon.com/lp/free-trial)

# 5G TAP and Acquisition Methods

Multiple tech layered together, for full hybrid cloud visibility

## Svc Comm Proxy (SCP)

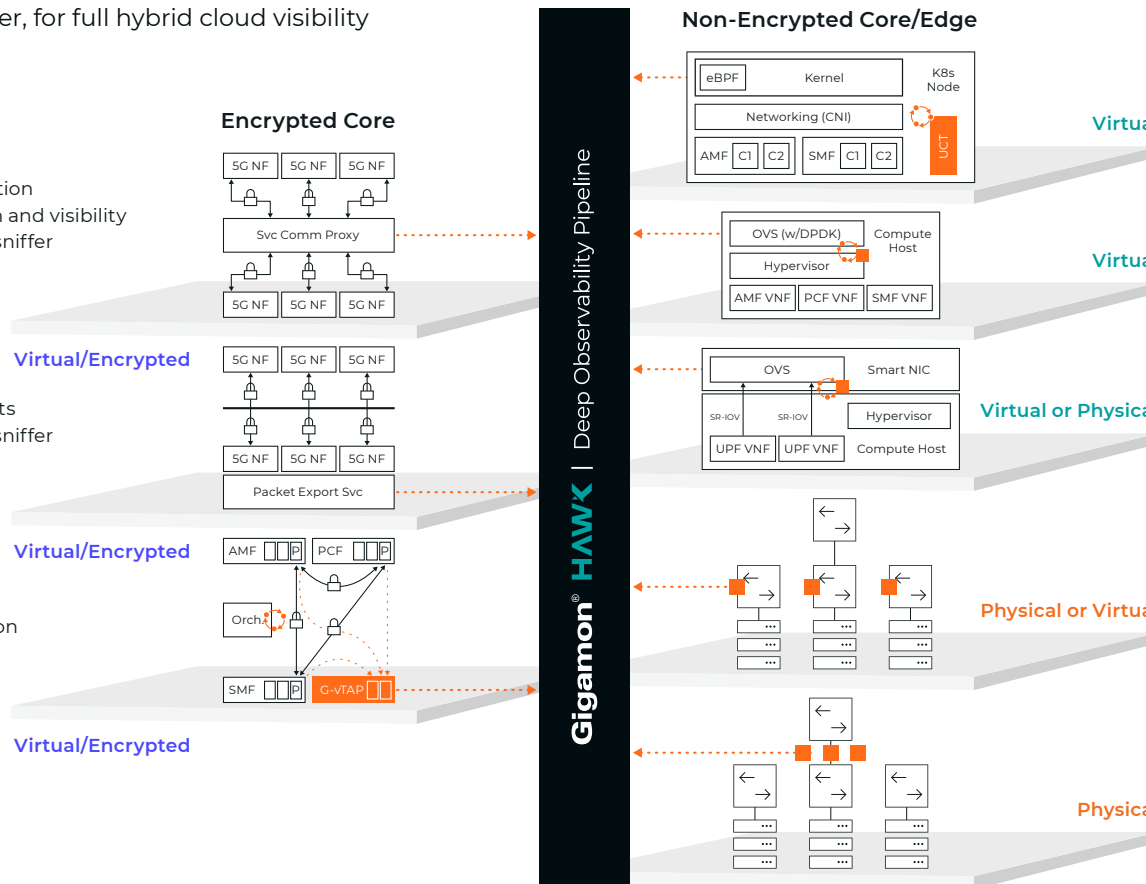
- 3GPP-defined optional function
- Provides overload protection and visibility
- No third-party agent or key sniffer

## Platform Stream

- 5G platform integration
- Transform HTTP2 into packets
- No third-party agent or key sniffer

## Service Mesh

- Containerized
- Istio-Envoy integration
- Automation and orchestration



## Virtual TAP for Containers

- Kubernetes
- High performance
- Ultra-light weight
- Many CNIs supported

## Virtual TAP for VMs

- OpenStack or VMware
- East-West
- DPDK

## Smart NIC Offload

- High performance for user plane
- Hardware mirror
- Tunnel out

## Tunneled SPANs

- Port efficiency
- VM visibility
- Limited East-West visibility

## Classic Splitter TAPs

- North-South
- Tried and true

- 5G Network Performance
- 5G Network Security
- Customer Experience Mgmt.
- Voice and Video Quality

## Advanced Intelligence with GigaSMART

- Extend tool life with Flow Slicing or Subscriber Sampling
- Efficiently balance tool load with 5G & CUPS correlation
- Track & score customer experience with Application Metadata Intelligence
- Remove load from network routers with 1:1 NetFlow generation
- Highly-available threat detection & response with Inline Bypass
- ...and much more

- Metadata for Analytics
- MEC Application Latency
- Remote ORAN Visibility
- ...and more



**Worldwide Headquarters**  
 3300 Olcott Street, Santa Clara, CA 95054 USA  
 +1 (408) 831-4000 | [gigamon.com](http://gigamon.com)

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