



MantisNet and Red Hat offer 5G real-time network visibility

“MantisNet’s Tawon CVF is designed to provide granular and performant visibility into 5G networks. With Tawon CVF, operators can fully instrument these containerized environments to gain insight into all network function communications, as well as the underlying infrastructure, across any and all network function vendors present.”

Kevin Fecher
Co-Founder and President,
MantisNet

MantisNet Tawon CVF: Full visibility for cloud-native networks

MantisNet Tawon Containerized Visibility Fabric (CVF) provides platform teams with full visibility into containerized environments and has been specifically tailored to address 5G mobile networks. Tawon uses a lightweight microservices-based framework and Extended Berkeley Packet Filter (eBPF) technology to help mobile network operators establish granular visibility into containerized resources, from the core to the far edge, while keeping resource usage as low as possible.

Tawon offers more than previous visibility solutions that have been focused singularly on packet capture, which is resource intensive in cloud-native networks. While still able to capture packets anywhere in the network, Tawon provides users the ability to implement a scalable and performant solution that introspects the messaging that is core to how these distributed computing systems operate.

Tawon is built for performance and does not require a point of presence on every single pod (just 1 agent per node). It is standardized across the board and does not require a complete replication of the production network using resource heavy packet processing. Platform teams can benefit from Tawon’s visibility approach, which is based on cloud-native principles.

Vendor-agnostic, end-to-end 5G visibility

Visibility into containerized infrastructure and network function messaging is critical for operators maintaining 5G networks. Tawon has been designed to address the specific challenges of 5G environments to ensure end-to-end visibility. MantisNet works alongside Red Hat to integrate Tawon as a Red Hat® OpenShift® certified container image and Kubernetes operator with operational support system (OSS) capability for cloud-native network functions (CNFs).

Minimize resource tax

Tawon is designed to inspect messages and extract metadata to allow for full visibility at scale while minimizing the effect on production resources. By keeping this resource tax low, Tawon helps operators deploy solutions exactly where they are needed, without requiring extensive resource planning and associated costs.

Monitor 5G system calls and 5G infrastructure

Tawon uses eBPF to get at the underlying messages that are critical to how both the overlying applications and the underlying infrastructure operate. This allows Tawon to correlate the relationship between applications or network functions (NFs) and the applications or NFs’ relationship to the underlying orchestration, container, network, compute, and memory resources.

Monitor vendor NFs from a single solution

Tawon provides visibility into present network vendors. By using Tawon, network operators can establish end-to-end visibility in environments:

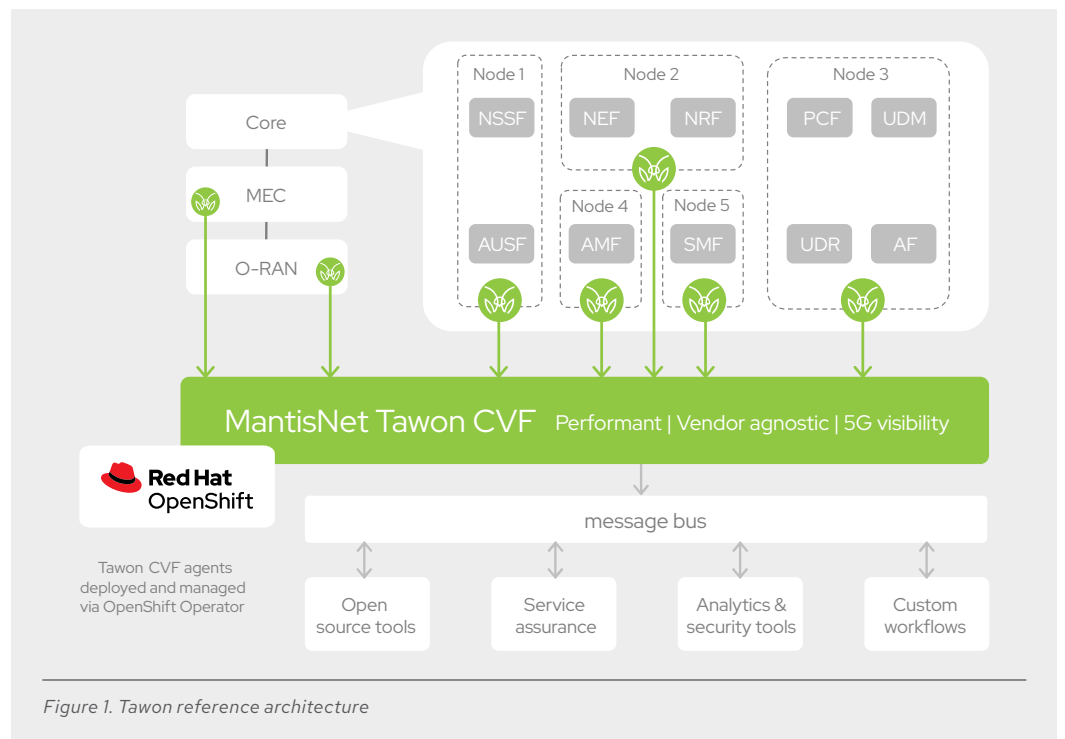
1. Where multiple vendors are being used and a common visibility strategy is desired.
2. In monolithic systems, where a third-party visibility solution can be used to audit a single vendor.

A cloud-native, single solution tool

Tawon provides access and visibility into the inner workings of cloud-native, microservices-based environments. In addition to packet capture, Tawon allows users to extract a variety of data sets (metadata) from the environment to help maintain visibility while minimizing the effect of the solution on production resources.




Examples of available datasets include:

- ▶ Extracted and decoded protocol-specific informational elements.
- ▶ Correlated flow statistics and counters.
- ▶ Remotely and programmatically captured packet traffic.
- ▶ Link, interface, process, containers, and topology descriptors.
- ▶ Plaintext payloads from encrypted messages.



About Red Hat

Red Hat helps customers standardize across environments, develop cloud-native applications, and integrate, automate, secure, and manage complex environments with [award-winning](#) support, training, and consulting services.

 facebook.com/redhatinc
 @RedHat
 linkedin.com/company/red-hat

North America
 1 888 REDHAT1
 www.redhat.com

**Europe, Middle East,
and Africa**
 00800 7334 2835
 europe@redhat.com

Asia Pacific
 +65 6490 4200
 apac@redhat.com

Latin America
 +54 11 4329 7300
 info-latam@redhat.com