

Affirmed Content and Security Services

Create | Innovate | Automate

Overview

Affirmed's Content and Security Services solution enables carriers to quickly and easily create, deploy, and manage revenue-generating services for consumers and enterprises. Affirmed's cloud-native technology leverages a microservices architecture, deep packet inspection, and real-time analytics to accelerate service creation, support service agility, and drive down costs.

Benefits

- Deep packet inspection (DPI) intelligently screens traffic for optimized packet treatment
- Simple drag-and-drop interface to create new solutions using predefined microservices
- Real-time analytics to improve service quality and drive service innovation
- Robust security features with granular policy control
- Advanced network slicing capabilities

The Challenge

In the years to come, carriers will need to become more like today's digital-native businesses. In other words, they'll need to fail fast, try new services, and move quickly in order to succeed in delivering new revenue-generating services. So, how do carriers, who historically have struggled to create and deploy new services without complex business cases and lengthy deployment cycles, accelerate and innovate in today's world? With content and security services from Affirmed.

A Complete Content and Security Services Portfolio

Affirmed's Content and Security Services solution features a comprehensive set of microservices-based service components that can be easily orchestrated into new policy-driven services in minutes. Each of these components represents a virtual network function (VNF) rather than a physical network element. This virtualized approach dramatically reduces the cost and complexity of deploying carrier services. The following illustration represents the complete ecosystem of Content and Security Services platform.

Affirmed's services platform brings together Network Function Virtualization (NFV), a rich portfolio of Deep Packet Inspection (DPI) services, service orchestration, and automation to enable real-time analytics, into a powerful solution that helps carriers quickly create, launch, and update new services. The Content and Security Services solution dramatically reduces the operational complexity and cost of service creation while eliminating traditional CapEx costs through NFV technology. The result is faster, cheaper, smarter service creation that can take minutes instead of months.

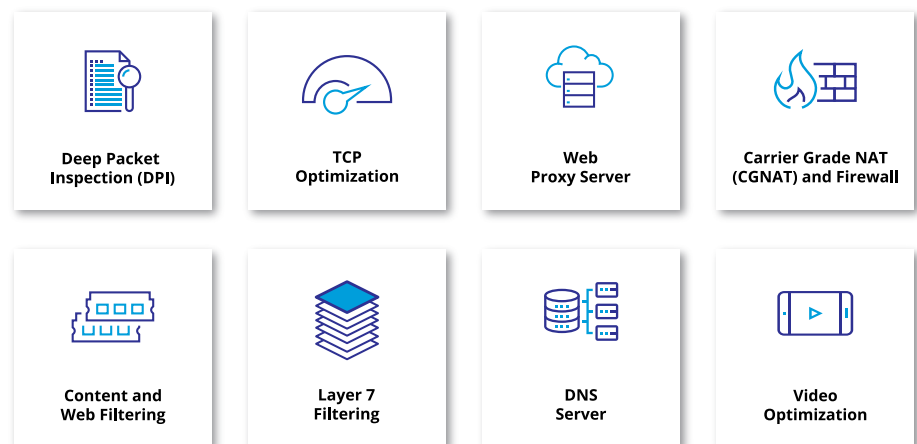


Figure 1. Content and Security Services Ecosystem

Drag, Drop and Done

The Affirmed Content and Security Services solution features dozens of service components that can be chained together through a simple drag-and-drop interface. Even non-programmers can create new telco services in minutes. But the Affirmed solution doesn't stop there. By combining advanced workflow capabilities with Affirmed's vProbe analytics and service automation and orchestration platform, carriers can leverage real-time analytics to discover new service opportunities and create those services automatically in a dynamic fashion. The result is 10X the efficiency and speed over today's manual, appliance-based approach to service creation.

For creating customized services, the Affirmed Content and Security Services solution is a game-changer. The economics

of service creation mean that most carriers can't afford to offer highly personalized services. With Affirmed Content and Security Services, they can now easily define policies at the most granular levels, down to the individual subscriber. This allows carriers to not only create new services and pricing bundles on the fly, but also quickly update or discard them based on their success or failure, with minimal up-front investment.

Affirmed's service creation platform includes a wide variety of web proxy services (see Figure 1) available as pre-configured components within the Content and Security Service environment. These services help improve the user experience, accelerate network performance, and modify services to deliver more value.

Subscriber Experience | Operational Efficiency | Bandwidth Efficiency



Figure 2. Web Proxy Services

Content and Security Services Components

Affirmed's ecosystem of microservices-based components allows operators to build and deploy new revenue-generating and value-added services:

HTTP/S Proxy

The Proxy is a gateway function that sits between an HTTP client and the hosting servers on the Internet. It is used to facilitate more efficient transactions, it speeds up the browsing experience, and provides security to the end user and the network operator.

TCP Optimization

Optimizing the TCP stack for mobile traffic can speed up network performance by 15 to 30 percent. Affirmed's platform features TCP Optimization services that enable faster TCP connections, Available Bit Rate (ABR) optimization, and more.

Video Optimization

The rise of mobile video traffic presents both a challenge and an opportunity for mobile carriers to deliver optimized experiences for a wide range of subscribers. The Affirmed Content and Security Services solution features a rich variety of video optimization services such as ABR shaping, congestion-based optimization, aggregated flow shaping, radio-friendly shaping, policy-based optimization, and Google Quick UDP Internet Connections (QUIC) optimization.

Deep and Shallow Packet Inspection (DPI and SPI)

DPI/SPI services can be chained to provide a variety of capabilities including real-time analytics, heuristics, signature analysis, and subscriber filtering. With signature detection, carriers can look for suspicious/malicious patterns and adapt as patterns change using Affirmed's frequent signature updates. Affirmed's DPI is based on continuously updated heuristic analysis to intelligently screen encrypted traffic for proper packet treatment. With Affirmed's DPI and SPI tools, carriers can easily control traffic routing, quality of service (QoS), allow/block list, and much more.

Content Security

Security has become increasingly important to mobile communications. With Affirmed's services platform, carriers can easily add robust security features to their services, including subscriber firewall, Carrier Grade Network Address Translation (CGNAT), DNS fraud detection, protection against phishing/malware, traffic filtering denial of service protection and more.

DNS Services

Providing DNS Services allows carriers to consolidate standalone DNS appliances. The DNS caching service reduces the amount of DNS message traffic directed at a carrier's DNS servers. The DNS server, combined with a global firewall, provides an extensive set of security protections.

Say “Yes” to New Revenue-Generating Services with Affirmed

Affirmed’s Content and Security Services solution is already deployed in some of the world’s leading mobile networks. And its delivering real value through a new generation of mobile services that reject the idea that carriers can’t compete with OTTs for the revenue opportunities of tomorrow. Here are some of the ways that the Affirmed Content and Security Services solution is changing the mobile playing field with innovative, revenue-generating services:

Zero-Rating/Sponsored Data Services

Data is the new currency of the mobile experience. With sponsored (zero-rated) data services, mobile carriers are creating new opportunities for enterprises to attract and retain subscribers through “free” mobile data plans and promotions.

Advertisements/Banner Insertion

One way that mobile carriers can monetize their services is through targeted advertising. Using a combination of analytics, identity, and ad insertion services, carriers are already using the Content and Security Services platform to deliver highly relevant, targeted advertising through select applications.

Time/Volume-Based Bundles

Flexibility in data plans allows carriers to attract and retain a broader range of subscribers. Service bundles based on off-peak data usage or fixed volumes of data, for example, open new opportunities for traditional mobile carriers as well as MVNOs. This concept can also be extended to data bundles for a specific type of application (e.g., video streaming) or group of applications (e.g., social media, travel services).

Parental Control/Content Filtering

Carriers can become partners in protecting their subscribers from inappropriate content with policy-driven content filtering services. For example, a parental control service can block underage users from “adult” content, while the same type of services can be used by businesses and to block inappropriate content from being viewed on public/shared networks.

Real World Applications

Mobile carriers have a choice: They can shape the future today, or they can adapt to it tomorrow. With Affirmed Networks, carriers have the power to create more revenue opportunities, reduce operational complexity, and optimize their network experience right now with cloud-native, 5G-ready solutions.



Three UK selected Affirmed’s cloud-based solutions for Service Awareness, GILAN services and virtual probe and analytics to enable the transformation of their mobile network.



Turkcell selected Affirmed Networks as the provider of a virtualized GILAN solution and as the system integrator for Turkcell’s network transformation initiative.

Affirmed Networks: Positive Change for Right Now

Mobile carriers have a choice: They can shape the future today, or they can adapt to it tomorrow. With Affirmed Networks, carriers have the power to create more revenue opportunities, reduce operational complexity, and optimize their network experience right now with cloud-native, 5G-ready solutions. Affirmed removes the technical barriers to innovation while unlocking carriers’ imaginations. To learn more about The Affirmed Content and Security Services solution and other virtualized solutions, visit us at affirmednetworks.com.



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