

## SDN and NFV - Affirmed Networks

Glen Hunt, Current Analysis, Inc.

### Corporate Basics

- **Founded:** 2010
- **Funding:** Total of \$163 million in three rounds from multiple investors; \$51 million in Series C on June 5, 2013
- **HQ:** Acton, MA

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### Perspective

#### *Analyst Assessment*

Affirmed Networks helps operators by providing virtualized network solutions that reduce network complexity and cost, scale efficiently, and accelerate time-to-market for new services to gain a competitive advantage. The company has grown significantly since its inception in 2010, and is leveraging its early foray into mobile core virtualization and NFV technologies to garner customer traction, the most notable win being its selection by AT&T as a Domain 2.0 supplier. Additional announced deals with other Tier 1 operators include: Telus, Vodafone, Saudi Telecom, Etisalat, and LGU+. The company is backed by \$163 million, secured through three rounds of venture funding. Affirmed, which has 320 employees located in 14 countries, reports 40 deployments of its Mobile Content Cloud (MCC) vEPC solution and 40+ trials with mobile and fixed operators.

#### *Rating*



**Challenger:** A new player challenging the status quo of an established industry segment. **Explorer:** A player exploring market reaction to a new kind of business model. **Transformer:** A player or ecosystem initiative seeking to expose and exploit an entirely new segment or revenue opportunity. **Game-Changer:** A highly disruptive new force set to redefine the segment's value chain and status quo.

# Current Analysis

## Value Proposition and Opportunity

- **Mobile Operator Challenges:** Mobile operators are facing challenges to provide greater subscriber bandwidth and service agility, while also facing consumer price pressure.
- **Mobile Network Agility:** Operators need more agile solutions that address time-to-market and provide the ability to leverage applications across multiple infrastructures, including legacy networks.
- **5G Readiness:** Operators are facing the requirement to support emerging 5G and IoT services and need a scalable future-proof mobile core platform that can adapt, without a 'forklift upgrade.'
- **Robust Ecosystem:** Operators need to leverage an ecosystem capable of assisting with the ongoing network transformation and provide a wealth of innovation and a practical means to implement and deploy new revenue generating services.

## Product/Solution Characteristics

- **Mobile Content Cloud (MCC):** MCC provides mobile operators with an end-to-end, fully virtualized mobile core solution (vEPC) to address service agility/automation, reduce costs, and improve time-to-service.
  - **Monitoring and Analytics:** MCC includes an embedded virtual probe (vProbe) and analytics which can be deployed as part of any gateway function (i.e., MME/SGSN, GGSN/PGW, ePDG/TWAG) to improve network visibility.
  - **Service Lifecycle Management:** MCC supports end-to-end service configuration and deployment across both legacy and virtualized environments (i.e., onboarding a new enterprise or MVNO customer).
  - **Support for ALL 'G' Networks:** MCC provides an easy migration to a 5G next generation core network with its '5Gready core' that supports CUPS architecture with distributed user planes, network slicing, self-probing VNFs, and service automation across both legacy and virtualized environments.
  - **Partner Ecosystem:** MCC is NFVI agnostic and is integrated with key industry players such as Intel, Dell EMC, HPE, VMware, Juniper, Red Hat, Canonical, and IBM, which helps drive innovation and provide the best performance on any NFVI architecture. The company has deployed on all major hypervisor/OpenStack solutions.
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## Products

- **Mobile Content Cloud (MCC):** MCC provides a complete, consolidated evolved packet core (EPC) solution that runs together on a single, virtual network function (VNF) instance for better performance, scalability, and cost effectiveness. 3GPP-compliant functions include MME/SGSN, SGW, GGSN/PGW, ePDG, TWAG, CSGN (NB-IoT), SCEF (IoT), PCRF, AAA, and HSS.
  - **IoT Solutions Suite:** Affirmed's IoT offering provides comprehensive network support for 2G/3G, LTE, LTE-M, and NB-IoT services. Affirmed's IoT solutions support high mobility/bandwidth to low-mobility/bandwidth applications.
  - **DPI and Value-Added Services:** Provides integrated deep packet inspection (DPI) and media and content services such as web and video optimization, content filtering, and security services such as subscriber firewall and NAT.
  - **Workflow Orchestration:** A services chaining framework provides subscriber classification and functions chaining, allowing operators to construct services in minutes instead of months as is typical in legacy silo architectures.
  - **Affirmed Service Automation Platform (ASAP):** A service orchestration platform that provides configuration management across multi-vendor virtual and physical network elements and network-wide service instances; automates service creation, provisioning, and instantiation of network functions; and supports standard network element interfaces including SOAP, REST, NETCONF/YANG, and CLI.
  - **Virtualized WiFi Gateway:** Includes Trusted WLAN Access Point/Gateway (TWAP/TWAG) and evolved Packet Data Gateway (ePDG) functions enabling virtualized operators to extend their network's reach and deliver services such as WiFi calling through secure access to trusted and untrusted networks.
  - **Intelligent vProbe and Analytics:** Affirmed's vProbe co-located with MCC functions (i.e., MME/SGSN, SGW, PGW, GGSN, WiFi) reduces hardware costs, network complexity, and the performance issues typically associated with legacy probe solutions, while providing real-time network analytics.
  - **VNF Management:** The VNF manager allows operators to create, provision, and instantiate virtual functions in place of traditional network appliances. VNFs can be created per service and data is routed via an optimized processing path across the network using network slicing, which offers security, efficient transport, optimized core network processing, and appropriate service quality.
  - **Element Management:** MCC provides simplified, centralized provisioning and management of MCC functions and services and is integrated with the OA&M layer to provide visibility and control across the network.
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## Success Metrics

- **Key Partners:** HPE, EMC, VMWare, Dell EMC, Juniper, Red Hat, Canonical, and IBM.
- **Key Customers:** 40 MCC deployments and 40 active trials. Customers include: AT&T, Vodafone, Cubic Telecom, Transatel, Aire, Telus, Saudi Telecom, LG U+, Ukkoverkot, Elephant Talk, TNS, Fogg Mobile, Etisalat, and DIGITALK.
- **Domain 2.0 Participant:** Affirmed participates in AT&T's highly visible Domain 2.0 supplier program, which provides industry visibility and close alignment with operators' virtualization initiatives.
- **Strong Financial Backing:** Affirmed has attracted strong financial backing, with \$163 million through three rounds of venture funding, from leading strategic firms, including: Charles River Ventures, Matrix Partners, Bessemer Venture Partners, KCK Group, Lightspeed Venture Partners, T-Venture, and Vodafone Ventures.

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## Competitive Targets

- Cisco, Ericsson, Huawei, Nokia

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This report is tagged to the following vendor(s): Affirmed

This report is tagged to the following content areas: Service: Service Provider Infrastructure, SDN & NFV Market: IP Services Infrastructure, SDN & NFV, Service Provider Solutions & Strategies Branch: IMS, Market Disruptors, Market Disruptors

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