



WHY

RADCOM

RADCOM

# INTRODUCTION

**RADCOM** is the leading expert in cloud-native, containerized, and automated service assurance solutions with AI-driven insights for complete network visibility. **RADCOM's** solution supports operators in their transition to virtualization and 5G, delivering dynamic, on-demand service assurance and network troubleshooting for real time customer and service insights. **RADCOM's** solution for 5G, **RADCOM ACE** is explicitly designed for telecom operators and delivers **A**utomated, **C**ontainerized, and **E**nd-to-end network visibility.

With over 30 years of deep network understanding, **RADCOM** has extensive experience with leading telecom operators globally. **RADCOM** offers the most advanced 5G portfolio for large scale networks, providing operators with a smart, efficient and on-demand approach to network monitoring that meets the challenges of assuring the customer experience in the 5G era.



Full support for standalone (SA) 5G;

- Service-Based Interfaces (SBI) deciphering
- Complex CUPS correlation
- Auto-service discovery



Cloud-agnostic (public, private and hybrid cloud deployments)



Utilizes AI-driven insights for automated anomaly detection and root cause analysis



30 years of deep network understanding, through extensive experience with leading telecom operators worldwide



Fully containerized solution with a microservices architecture for efficient scaling, high availability and resilience



Disruptive, risk-free and predictable commercial model

# RADCOM GLOBAL PRESENCE

## ABOUT RADCOM



Founded:  
1991



30 years  
of telecom experience



Publicly traded  
on NASDAQ (RDCM) since 1997

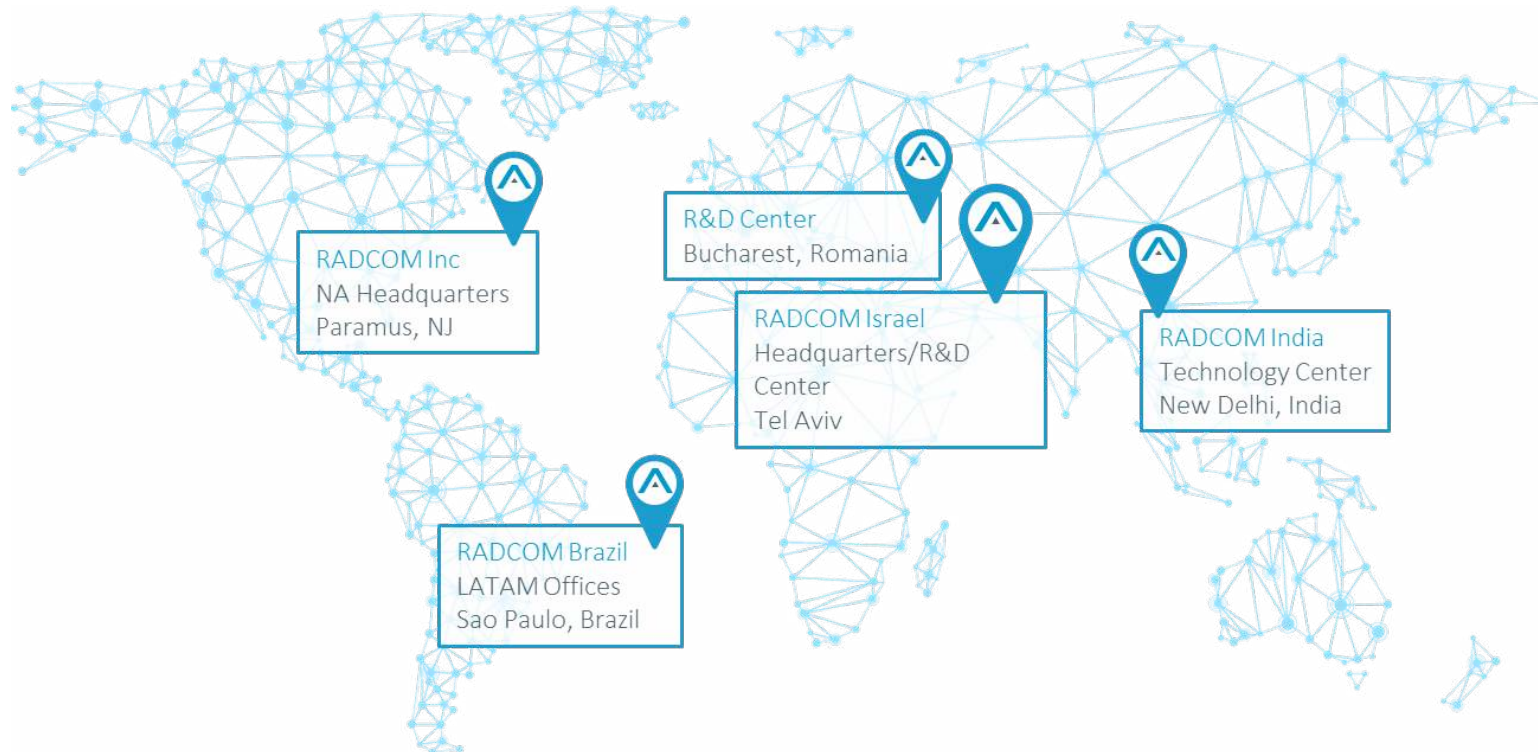
Rakuten  
Mobile



vivo



Telefonica



# CUSTOMER REFERENCES



AT&T (North America), 2016, 142M subs (Mobile)

**Scope:** Mobile

**Solution:** Service Assurance,  
Network Troubleshooting

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We selected RADCOM because of its functional strengths, especially in virtualization, scalability, performance and efficiency.

*Susan A. Johnson*  
*Senior Vice President AT&T Global Supply*



Vimplecom (Russia), 2016, 50M subs (Mobile)

**Scope:** Mobile (2G – 4G), Fixed

**Solution:** Service Assurance,  
Network Analytics and Troubleshooting

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VimpelCom is focused on delivering top Quality of Experience to its customers in a highly competitive market... RADCOM's solutions will enable us to do this at scale with automation. Implementing RADCOM's solution enables us to increase the end-to-end customer experience we deliver to our Beeline customers and reduce operational costs.

*Martin Skop,*  
*Chief Technology Officer, VimpleCom (A subsidiary of Veon)*

# CUSTOMER REFERENCES

## Rakuten Mobile

Rakuten (Japan), 2019, Greenfield Virtual Operator

**Scope:** Rakuten (Japan), 2019, 10M subs (Mobile)

**Scope:** 4G and 5G Mobile Network

**Domains:** RAN, PS Core, IMS and RCS

**Solution:** Customer Experience Management,  
Service Assurance, Network Troubleshooting

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Rakuten aims to revolutionize the way a mobile network is operated by focusing on the customer... RADCOM's unique solution enables this on a highly dynamic, fully virtualized network performance and efficiency.

*Tareq Amin,  
Chief Technology Officer, Rakuten Mobile*



## Globe

Hybrid deployments (NFV & Legacy)

**Globe** (APAC), 2011, 66M subs (Mobile)

**Scope:** Mobile and Fixed Broadband

**Solution:** Service Assurance, Network Troubleshooting,  
Customer Care, LBS, Roaming and Big Data

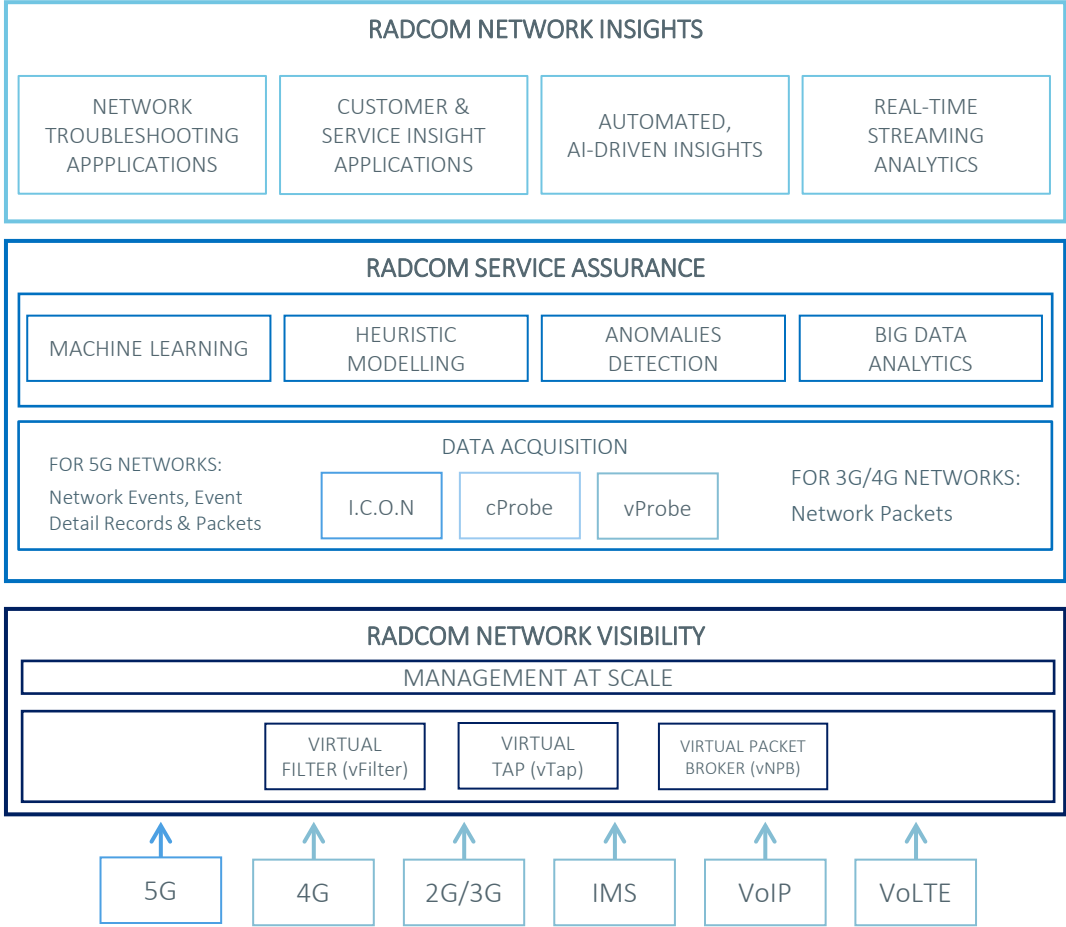
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RADCOM will enable Globe to smoothly and reliably transition to NFV, while assuring customer experience is transparent and guaranteeing Quality of Service.

*James Lim,  
Globe Vice President for Network Technology Group, Globe Telecom*

# SOLUTION OVERVIEW

RADCOM's solution includes RADCOM ACE (5G Service Assurance and AI-driven Insights) and RADCOM Network Visibility working together to provide an end-to-end view of the network.



**RADCOM Network Insights:** Provides a smart end-to-end view of the service quality and customer experience for 5G SA and NSA, enhanced by AI-driven insights.

**RADCOM Service Assurance:** A fully containerized assurance solution that smartly collects and correlates data via multiple sources (network events, Event Detail Records and network packets) for full visibility into the 5G core.

**RADCOM Network Visibility** Provides advanced packet broker capabilities for smart traffic distribution, filtering, and load balancing across multiple clouds and domains.

# SOLUTION ARCHITECTURE: RADCOM ACE

RADCOM ACE provides a closed-loop approach to automated assurance for Standalone (SA) 5G by seamlessly integrating with Kubernetes. Being Service-Based Architecture (SBA) ready, the solution supports advanced 5G assurance capabilities such as complex Control and User Plane Separation (CUPS) correlation, new CUPS protocol decoding and the Packet Forwarding Control Protocol. RADCOM ACE uses streaming analytics to deliver automated real-time network intelligence given to the operators' orchestration to detect, analyze, and resolve issues automatically. RADCOM ACE provides end-to-end network troubleshooting from the KPI level down to the session/packet level, critical when rolling out new network architectures.

Correlating various data sources (network events, event detail records (EDRs), and packets) from the RAN to the core, **RADCOM ACE** delivers AI-driven insights and automated root cause analysis for 5G. Proactively ensuring the customer experience and service quality with a range of telecom specific AI-driven use cases. Built with microservices-based components enables the solution to be distributed, cloud-efficient, and dynamic. The solution continuously adapts using a full CICD implementation that is critical as 5G and cloud infrastructures evolve.



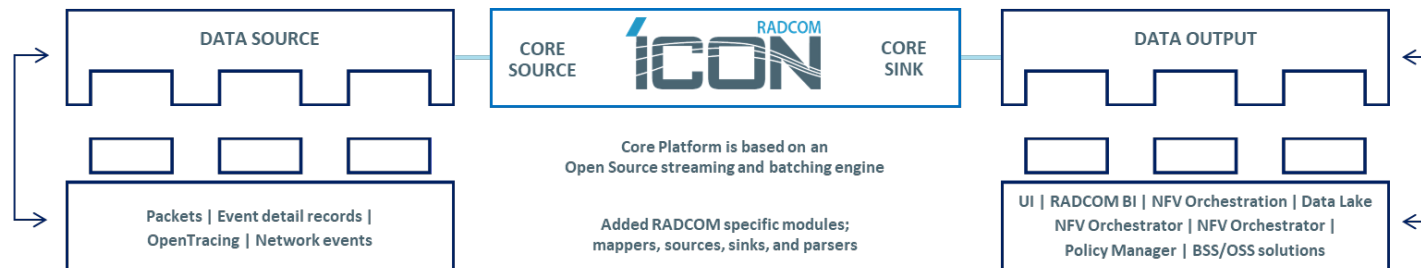
For more information visit: <https://www.radcom.com/radcom-ace>

# SOLUTION ARCHITECTURE: RADCOM SERVICE ASSURANCE

**RADCOM Service Assurance** efficiently collects data from multiple sources (network events, event detail records (EDRs) and packets) and smartly correlates them into RADCOM Network Insights, driven by AI.

RADCOM Service Assurance delivers **Service-Based Architecture (SBA)** readiness for both Service-Based Interfaces (SBI) and non-SBI, supporting complex **Control and User Plane Separation (CUPS)**. This offers the ability to decipher **encrypted traffic** by collecting and combining multiple data sources and event types and processing the data using AI and machine learning for advanced insights. RADCOM Service Assurance captures packet-based data via **Containerized Probes (cProbes)** and network events via its patented **RADCOM I.C.O.N.**

**RADCOM I.C.O.N** is a smart, stateless, and containerized node. RADCOM I.C.O.N monitors, correlates, processes and analyzes multiple types of network events. RADCOM I.C.O.N combines front-end probe functionality with complex-back end processing into one standalone monitoring cluster delivering full network visibility in 5G from the RAN to the network core. Both RADCOM cProbe and RADCOM I.C.O.N allow for an extremely high throughput that can handle the correlation of an unlimited amount of data, which will be crucial for monitoring in 5G.





# SOLUTION ARCHITECTURE: RADCOM NETWORK INSIGHTS

As part of RADCOM ACE, RADCOM Network Insights takes the data which has been collected and analyzed by RADCOM Service Assurance and applies cutting edge AI and machine learning techniques to provide automated anomaly detection and root cause analysis to rapidly resolve customer-impacting issues proactively.

RADCOM Network Insights covers a wide range of use cases that provide the operator with an end-to-end understanding of the service quality and customer experience. Also, RADCOM Network Insights offers next-generation tools for network optimization and root-cause analysis, such as call tracing and in-depth packet analysis.

## CUSTOMER CARE



Improve first call resolution and gain clear, concise customer data to handle service calls efficiently

## GROUP ASSURANCE



Proactively analyze and resolve issues for high importance groups before subscribers become aware of service degradations

## VIDEO STREAMING



Understand the customer experience for encrypted video (such as Amazon Prime, Facebook, Netflix, YouTube and others)

## TETHERING



Identify tethered devices connected to fixed or mobile data networks and understand the quality of service

## VOLTE ASSURANCE



Correlate the end-to-end VoLTE customer experience with network, device, cell and service performance in real-time

## MOBILITY ASSURANCE



Ensure the customer experience for mobility (car and travel) and gain insights for monetization and marketing

## CUSTOMER JOURNEY



Gain an end-to-end view of the customer's journey through the RAN to the Core

## ROAMING ASSURANCE

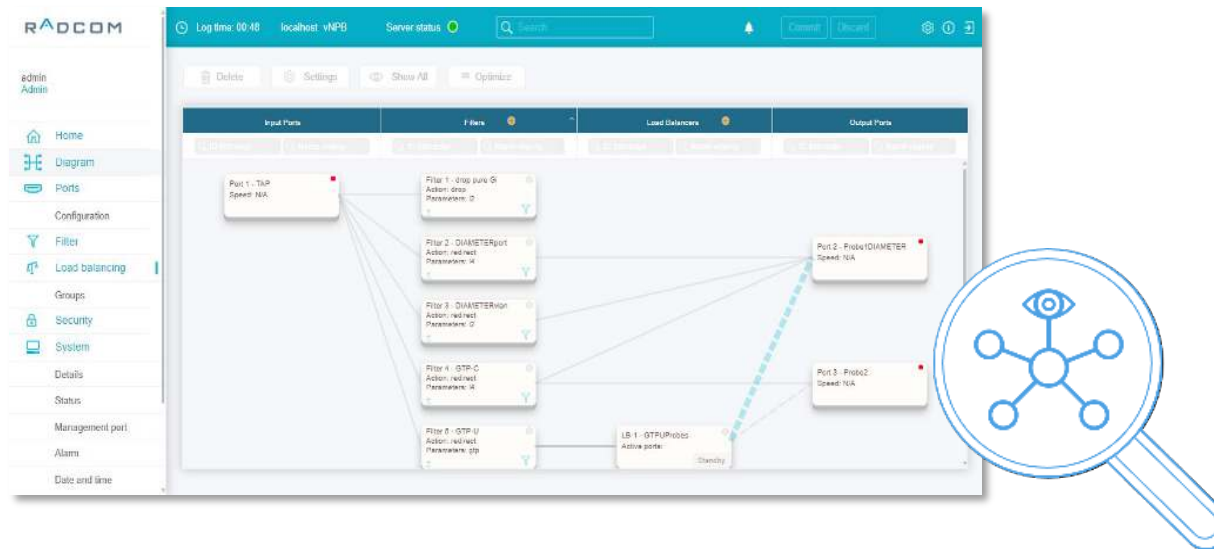


Monitor both inbound and outbound roamers to assure high quality roaming services

[Download our RADCOM Network Insights brochure](#)

# SOLUTION ARCHITECTURE: RADCOM NETWORK VISIBILITY

RADCOM Network Visibility can be delivered together with RADCOM ACE or as a standalone solution for an integrated cloud-native solution. With advanced patented packet broker capabilities that ensure intelligent traffic distribution, smart load balancing, and intelligent sampling for full end-to-end visibility across the network. RADCOM Network Visibility can be instantiated in minutes and managed centrally, scaled via integration with NFV MANO and Orchestration, to provide visibility from the edge to the network core.

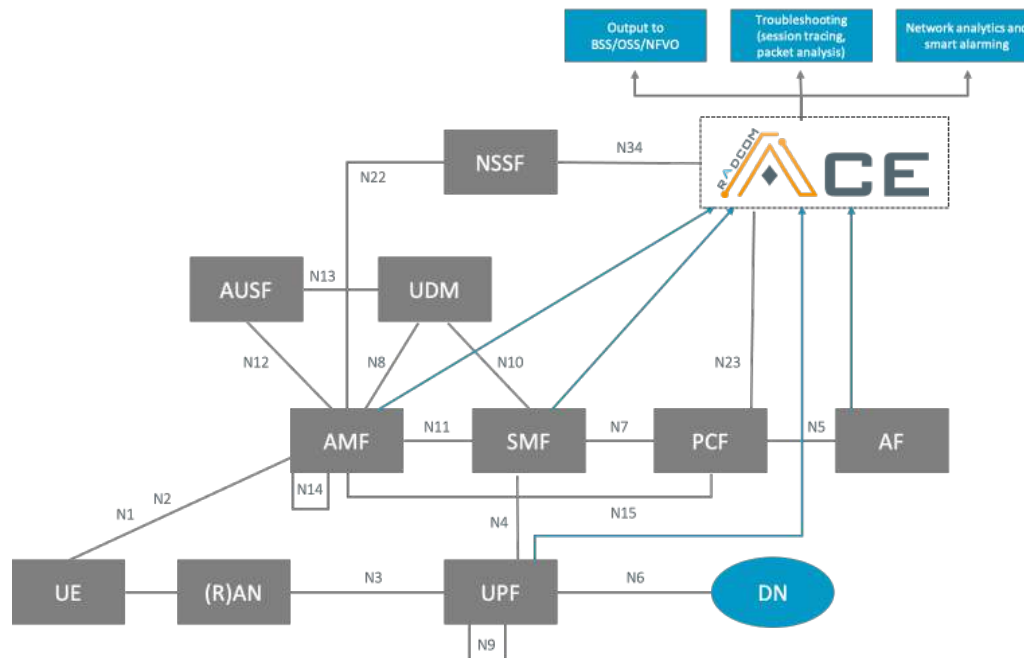


Management of RADCOM Network Visibility is via a centralized web UI, Command-line Interface (CLI), NETCONF/YANG, SNMP and network access control list (ACL).

Management at scale enables the operator to configure a filter rule once and apply to 1000s of vNPB instances.

# RADCOM NWDAF SOLUTION

The Network Data Analytics Function (NWDAF) is a core component to the 5G core and at its most basic is a centralized function for data collection and analytics, enabling closed-loop functionality. RADCOM ACE provides an enhanced NWDAF solution. As well as serving as an **NWDAF**, RADCOM ACE also offers an efficient and cost-effective, containerized service assurance solution. This provides end-to-end network troubleshooting, as well as complete service and customer experience visibility—empowering the operator with an enhanced, more agile NWDAF solution.









[Download our RADCOM NWDAF solution brief](#)

# WORLDWIDE PROFESSIONAL SERVICES AND SUPPORT

RADCOM has a dedicated Professional Services team that uses a native and agile methodology for maximum flexibility. This team brings a vast amount of 5G, NFV and cloud-native deployment experience from operator delivery projects.

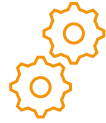
RADCOM Professional Services provides a complete lifecycle of services:

	<b>Solution Design and Implementation</b> Detailed design, testing strategy and implementation planning		<b>Network Monitoring, KPI and Full Scope Validation</b> Learning service structure, analyzing traces, deploying pre-defined KPIs, defining workflows, customizing KPIs
	<b>External Integration</b> NOC, user management, north and southbound		<b>Customized Development and Solution Implementation</b> Agile, flexible and on time
	<b>Integration with Cloud Infrastructure</b> Including orchestration		<b>Additional Services</b> Acceptance testing, training, worldwide knowledge sharing, maintenance and support

Working according to industry best practices, RADCOM Professional Services provides the operator a detailed work plan, prioritizes deliverables and ensures the timely delivery of each project milestone as well as identification and assessment of risks and complete visibility throughout the project lifecycle.

RADCOM operates a worldwide support network to service its global customers, with points of presence in Israel, India (Tier 1/2), Philippines, North America and South America ensuring 24x7 rapid response and support.

# WHY RADCOM



Fully containerized end-to-end solution for service assurance from the RAN to the core



Assuring both Standalone (SA) and Non-Standalone (NSA) 5G using a microservices, stateless architecture



AI-driven insights for real-time analysis and deciphering of encrypted traffic



Empowers operators with real-time intelligence of network performance to assure customers' experience



Over 30 years of expertise and best practices from top-tier deployments



OPEX and CAPEX savings from day one



Risk-free subscription model with a fixed annual spend for any network capacity growth



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