Radisys Engage Digital Platform

The Flexible, Reliable Communication Platform as a Service Solution for Network Operators Focused on Creating Differentiated Digital Engagement Services

Today's fixed and wireless networks deliver higher bandwidth, faster speed, and improved processing performance to power real-time applications. Over-the-top (OTT) service providers and many network operators are already deploying CPaaS systems to link the network's power with cloud computing, resulting in a fast-growing telecom API market where service revenues grew 19.55% in 2019 globally. To facilitate network operator's access to the billions of dollars that are up for grabs with these applications, the Radisys Engage Digital Platform is a CPaaS solution which provides network operators with differentiated APIs and SDKs that can propel their service offerings ahead of their competition's voice and messaging focused services.

Global Telecom API Market is estimated to grow from **US$159.36 Billion in 2019** to **US$469.87 Billion by 2025** at 19.7% CAGR. IoT application segment to contribute more than 60%.

SOURCE: Global Telecom API Market report by Reports Intellect, 2019

Better Technologies Bring Better Communication and Digital Engagement Services

Today's digitally powered economy is set to take off. By leveraging the high-bandwidth, low-latency network services, operators use APIs to expose their network services, allowing a vast community of new application developers to create new experiences without telephony infrastructure expertise. These APIs allow applications to exchange information with smartphones, websites, pay systems, M2M/IoT platforms, and messaging programs to provide tailored services to businesses and end-users. Reports Intellect, a market intelligence firm, forecasts double-digit revenue growth of 19.7% (from 2019 to 2025) in the global telecom API market.[1] From growth rates of 6.16% for Payment APIs to 28.24% for Messaging APIs, this new way to create unique services is powered by a communication platform as a service system.
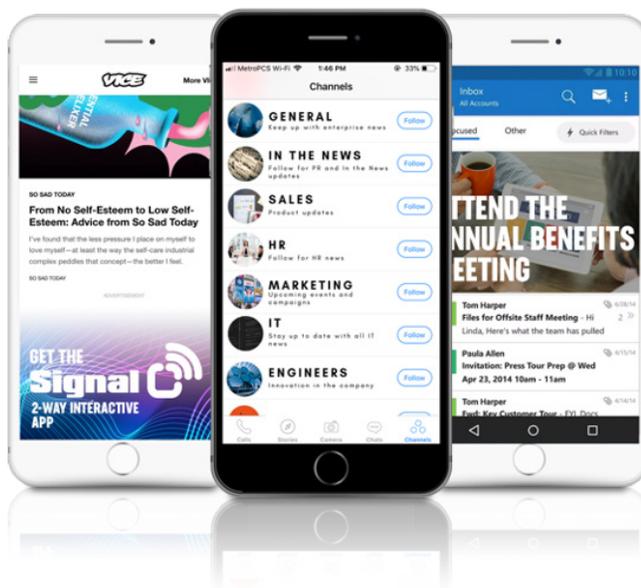
Application providers use cloud based CPaaS platforms to build engaging customer experiences that increase brand loyalty. With the rapid advance in fixed and wireless networks, such as 5G, service providers are in a position to leverage this new programmable communications paradigm to facilitate a new wave of innovation in real-time communications, IoT, Artificial Intelligence, and Multi-access Edge Computing applications.

Radisys believes that the open, API-based communication platform as a service enables network operators to leverage application developers' innovation using programmatic access to fixed and mobile network services. This ability to differentiate service offerings is one of the keys to maximizing the value of network investment. Likewise, this ability to customize applications gives network operators a leg up on the OTT competition; it helps consumers and businesses achieve their full potential as they adapt to the rapidly changing business conditions. Radisys' vision focuses on enabling operators worldwide to facilitate service innovation while reducing network infrastructure investments and operational costs.

Radisys Engage Digital Platform provides a uniform CPaaS platform with developer tools that abstract the complexities of underlying network infrastructure. Rather than relying on just voice-first capabilities, service providers powered by the Engage Digital Platform can open their networks to the innovation of Artificial Intelligence, Speech Analytics, and Computer Vision and create unique applications that will attract and retain consumers and business enterprises. Radisys' Engage Digital Platform empowers service providers to expand into a digital experience provider and expose their network capabilities, service assurance, and local market presence, to the community of software developers globally, estimated at nearly 20M and growing.

Radisys' Communications and Digital Engagement Platform as a Service Solution

Today's services networks, which have stringent performance level guarantees and reach closer to the user or business edge, can create leading, differentiated services. Radisys' Engage Digital Platform solution is a real-time communication and digital engagement platform based on carrier-proven technologies deployed in more than 150 mobile networks globally. The platform provides rich APIs to enable developers to add these capabilities easily to applications and business workflows. It also leverages plug and play SDKs for Android and iOS platforms and can provide turnkey enterprise communications and media-based applications. These capabilities reside on a white-label platform to allow network operators to offer brand-focused messaging.

Radisys' CPaaS system powers voice and video processing for real-time communication applications, such as VoIP, UC and VoLTE, audio and video mixing, speech recognition, and advanced media features like biometric authentication and real-time video-based security services. With both cloud-based and on-premises deployment options, network operators can leverage cloud processing economies without security concerns and regulatory hurdles.

These inherent capabilities provide a platform that allows service providers to have services deployed in weeks to start attracting new subscribers and business clients. The proven market-leading technology leverages integrated DevOps methodology that can increase the velocity of new services.

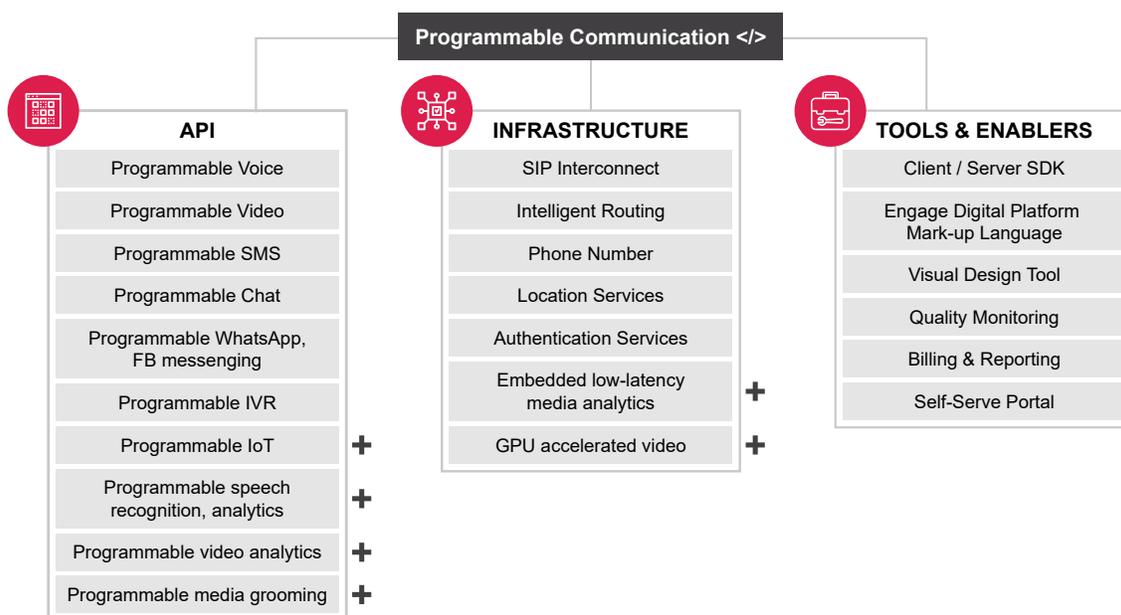**The Radisys CPaaS solution offers unique benefits:**

- ✔ Engineered and optimized for latency-sensitive edge applications like AR/VR, computer vision, IoT, and Security/Surveillance services.

- ✔ Built with web-scale and telco-compliance mandates to provide horizontal scale and performance-backing SLAs.

- ✔ Field-proven building block wrappers facilitate rapid time-to-market for new services and broad developer community reach.

Expanding Opportunities with Differentiated Engage Digital Platform Portfolio

Capabilities in the Engage Digital Platform toolkit support the full range of communication services, from voice and video calling, messaging, and call routing to robust AI-enabled solutions on 5G networks. The platform can power eCommerce and customer care applications using natural language-based virtual agents; it also is ready for the 5G-driven real-time IoT services like computer vision, biometric authentication, and speech analytics. These capabilities are the leading edge of services that can drive more significant ROI and user stickiness by creating unique network services. These capabilities also distinguish Radisys Engage Digital Platform's offering from other CPaaS concepts rooted in public cloud-based voice and messaging service enablement. As a result, the competition's end customers are limited to OTT communication applications that offer best-effort performance. Customers using services hosted on the Engage Digital Platform have end-to-end service management, which allows a much broader range of services that meet users' expectations.

The Enage Digital Platform API library extends support over other offerings by including programmable modules that power IoT, speech recognition, video analytics, and media grooming. These advanced capabilities provide access to powerful tools that create unique services for customers. Similarly, the Engage Digital Platform system leverages standards-defined protocols to manage infrastructure tasks like optimized connectivity, device authentication, location-based services, and high-quality voice, video, and messaging services. Engage Digital Platform goes beyond other CPaaS systems by supporting on-board low-latency media analytics and GPU-accelerated video processing.

These capabilities on the Radisys CPaaS system bring a new level of creativity and flexibility to the mobile network operator. The powerful tools open doors to consumer and enterprise services that

Programmable Communication </>

API	INFRASTRUCTURE	TOOLS & ENABLERS
Programmable Voice	SIP Interconnect	Client / Server SDK
Programmable Video	Intelligent Routing	Engage Digital Platform Mark-up Language
Programmable SMS	Phone Number	Visual Design Tool
Programmable Chat	Location Services	Quality Monitoring
Programmable WhatsApp, FB messaging	Authentication Services	Billing & Reporting
Programmable IVR	Embedded low-latency media analytics	Self-Serve Portal
Programmable IoT +	GPU accelerated video +	
Programmable speech recognition, analytics +		
Programmable video analytics +		
Programmable media grooming +		

improve customer experience, reducing subscriber churn in cost-competitive markets. It can also create efficient enterprise services that provide intelligent AI-powered customer care services. The Engage Digital Platform can also offer opportunities to create incremental revenue streams for the MNO by providing attention-grabbing advertising services using Engage Digital Platform programmable video and speech capabilities.

## The Flexible Engage Digital Platform Deployment Options

As a software-based service, Radisys provides a CPaaS system that can meet any needs for a service provider and support the full gamut of deployments. The service provider who wants to maintain complete control over the platform can assume full ownership and management on their premises. This approach allows the service provider to support both carrier-core and carrier-edge services. The carrier-core deployed services can enable speech recognition and voice video services. The carrier-edge compute services can power ultra-low latency applications like AR and sound and image analytics that need latency in the 10ms range.

A second deployment option allows the platform provider to host the CPaaS capabilities on public cloud infrastructure. This approach frees the service provider from the day-to-day maintenance and tracking of

the operations of the platform. It allows the network operator to offer SLAs for contracted services that meet the enterprise's demands ranging from on-premise real-time services that need 50ms latency to cloud-based services that can support application latencies up to 100ms.

Another deployment choice provides the service provider with control of the on-premise equipment while using public cloud resources for API management, databases, and portal access. Service providers using this approach can optimize their real-time multimedia services while offloading the control of API and database management services to a provider.

The Engage Digital Platform is a containerized architecture controlled by Kubernetes, which supports containers on VMs, bare-metal servers, or public cloud platforms. The system uses allocation level orchestration at the API gateway and uses Kubernetes plugins for services provided by virtualized network functions.
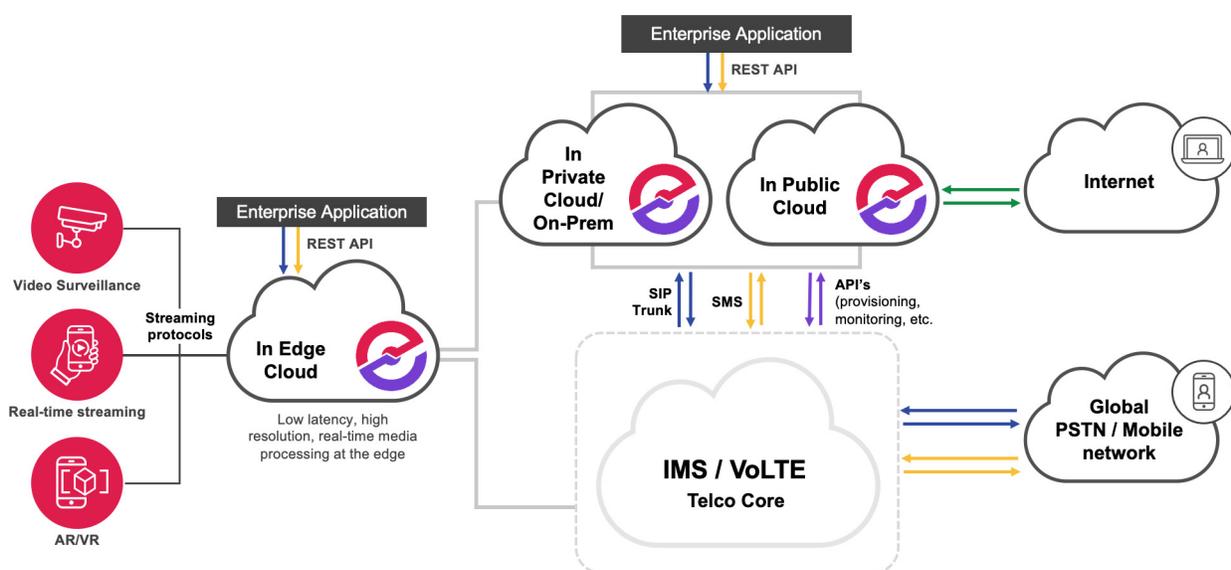
This architecture provides full flexibility to the network operator, allowing them to choose the best approach that meets their business needs. The robust system has no single point of failure. It can leverage the high availability options provided by cloud offerings, including carrier-grade (99.99%) in-service time, to ensure top user experiences.

The Value of the Engage Digital Platform

The Engage Digital Platform offers tremendous value to service providers:

- Providing operators with simple to use APIs and SDKs that can do much more than voice, messaging, and video
- Enabling operators to participate in the fast-growing double-digit global telecom API market and differentiate with IoT, Artificial Intelligence, and Edge Computing applications
- Create a broader reach for services to millions of more developers/Independent Software Vendors (ISVs) than those with telephony expertise.
- Maximize ROI for network infrastructure investments by enabling new services and integration of services in the customer business process

- Create greater stickiness for customers whose applications use Radisys CPaaS capabilities.

- Enable SaaS / recurring revenue model for pay as you grow with the low cost of entry and faster time to market.

- From core to edge, deliver services on demand through cloud-native architecture to optimize

data center infrastructure costs.

- A solution that is white labelable – making the network operator name the focal point for brand development

- With DevOps built-in, service providers enjoy fast time-to-market and can update applications and features without network downtime.

By partnering with Radisys, service providers can get immediate access to a large and growing community of application vendors developing services using the Engage Digital Platform and can contract with them to create custom applications for the service provider.

Summary

The Engage Digital Platform is built on market-proven technologies developed by Radisys to support applications in over 150 operators serving more than 1.7 billion subscribers. The CPaaS platform is the foundation for applications Radisys has launched, including Engage@Work and the AI-powered Engage Video Assistant. The platform provides high-quality and assured service for the applications it hosts. With nearly 30 years of experience delivering large-scale, high-performing, and high-value communications solutions, Radisys is powering service providers with innovative solutions using high-performance, media-rich communications applications that drive better business outcomes.

Why Radisys

- The Radisys Engage solution offers a comprehensive library of APIs, SDKs, and programmable modules that power voice, video, messaging, speech recognition, video analytics, and media grooming capabilities in digital applications across various verticals

- Radisys develops transformative solutions that propel operators toward becoming digital experience providers with integrated apps that promote data consumption

- We offer proven strategies and end-to-end success management support to advance operators' market position

- 30 years of product and operational excellence serving the telecom community

- Our team of experts collaborate with you to introduce a full suite of locally relevant apps and digital capabilities

- Radisys helps ensure operator success with a seamless implementation of a market-specific strategy

Radisys

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