

WHITE PAPER

EVOLUTION



CUSTOMER LOYALTY: A FUNCTION IN NEED OF EVOLUTION

The Telecommunications Industry has been experiencing a huge shift over the past 5 years. New subscriber growth has slowed, profits have been challenged through price wars, reducing monthly ARPU at the same time that the cost to serve and consumer demand for connectivity speeds and volume of data consumption continues has increased.

Mobile, Fixed Line, Broadband and Media/TV convergence or partnerships have driven an increase in the products and services available to the consumers while IoT and new types of devices are driving the trend for an individual to use and pay for multiple lines simultaneously. No longer can the industry treat or charge customers at the SIM card level. Today, it's all about how you engage customers at a household level.

Effective customer engagement requires a deeper understanding of their preferences, profile and user-requirements in order to capture their interest in products and services and to remain loyal to your brand. Traditional models of batch-based, below-the-line campaigns and static, transactional points-based solutions must give way to a set of new, highly engaging, offer and loyalty programs that are built for a generation of demanding, social media-empowered digital natives.

At Evolving Systems, we believe the future of Campaign and Loyalty Management is underpinned by the acceleration of technology-led change and the rise of this digital consumer and that the following key pillars will define how brands continue to drive customer loyalty in this always-on, connected world:

- ❖ **Intelligent Customer Engagement** – A focus on customer engagement has become a priority for any business operating on a digital platform. In the Loyalty sphere, this is critical in keeping customers satisfied and maintaining a long term, active relationship with the brand. The digital channel allows us to engage customers in real-time at the 'moment of truth', no matter where they are, with gamified mechanics to keep them excited and satisfied.
- ❖ **Deeper Insight through Analytics** – The amount of data available to brands, continues to grow at an exponential pace as consumers use digital channels to interact and transact, thereby leaving digital footprints that provide insight on the entire customer journey from initial awareness through to post-purchase satisfaction. For CVM Campaign and Loyalty programs, this data will form the basis for personalization, reward relevance and designing superior customer experiences.
- ❖ **More choice through an open partner ecosystem** – The walled garden approach of traditional rewards programs is giving way to a more open ecosystem of partners where loyal customers can 'spend' their credits with a host of different partners. The digital channel has opened the opportunity to integrate with physical and digital partners at a global scale. This trend of openness is here to stay, and will remain a key element for brands to remain relevant and secure ongoing engagement within their loyalty programs.

- ❖ **Catering to always-on and omni-channel** – Customer Value, Retention and Rewards Programs are having to adapt to an always-on consumer who is channel agnostic, expecting the brand to engage on email, app, or twitter, or SMS in real-time. This is both a challenge and an opportunity to engage with customers in a highly relevant and timely manner. The biggest challenge is to provide a meaningful cross-channel experience at the right level of frequency.

DEFINING EVOLUTION: WHAT DOES NEXT GENERATION LOYALTY LOOK LIKE?

Evolving Systems works in partnership with Telecommunications Operators around the globe to consult, ideate, and install and support its Next-Generation Customer Engagement Platform – EVOLUTION as a Managed Service, running advanced Customer Value Management Strategies and Loyalty Programs from a consolidated and powerful engine that automates decisioning and provides a consistent and profitable customer experience. The advantages of partnering with Evolving Systems to deploy the Evolution Platform include:



Evolving believes that the introduction of eSIM, IoT and 5G over the coming years is set to increase the number of connected devices on mobile networks by up to 4 times. More and more importance will be placed on the Individual who will use devices more and more to manage their lifestyle. As a result, it's vital for today's operators to be prepared to provide advanced personalization, services, and most importantly a seamless customer experience in all Value Management and Loyalty activities.

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knowledge of behaviors from across the multiple uses of data connectivity to access an **ever-increasing quantity of content.**



Evolution leverages advanced technologies that has driven a switch from batch-based Campaign Management System approaches into **truly real-time Best Offer Decisioning and Workflow-based Customer Engagement** using powerful event streaming processes.

We strongly believe that based on our experience running Customer Value and Loyalty Programs gained with more than **60 operators** worldwide delivering the automation of truly real-time, centralized decisioning of best offers for each individual customer will empower operators to generate between **3% and 5% incremental revenue increases**, measured through KPI analysis and leading to a rapid payback of the project.



Data Ingestion, streaming and real-time campaign orchestration is managed with Kafka. Using direct integration to the Evolution platform Kafka Connect delivers an optimal integration in terms of Time, Compatibility and Cost.

Evolution uses Elastic Search and Kibana for its advanced Customer and Campaign Analytics. Elastic enables analyzing the viewing behavior of customers, the technology choice providing a future-proof solution when considering the Value Management of customers at Account and ARPA Level rather than the Subscriber ID and ARPU level.



The Evolution platform features advanced capability for incorporating Predictive Analysis and Machine Learning into its approach. For instance, it can utilize real-time revenue predictions as well as propensity in it's ranking of all offers for each customer. The Value model predicts future revenue in real-time and ensures the avoidance of revenue cannibalization with any offer price and the Propensity model learns from the customer behavior in viewing and selecting offers, updating the score automatically based on this behavior.

The new Evolution Platform is highly scalable. The distributed architecture and default High Availability design allows new servers and new data streams to be added to the platform in the future without the need for costly migrations. For example, one Evolution customer with 30Million subscribers sends and processes CDR/EDR data to Evolution's Trigger Engine, which is processing the data at speeds of 50,000 Transactions per Second!



Evolving Systems' Evolution deployments can be leveraged, which will significantly shorten the time required for legal procedures and due-diligence, such that we can rapidly start new projects without delays.

Evolving Systems is also able to offer specific Expert Marketing Services to support the platform users goals. Experience has taught us that successful revenue generation through CVM requires a combination of People, Process and Platform, and Evolving is able to offer all 3 elements.



Our team of Telecommunications professionals have several hundreds of years' experience in CVM and Loyalty in telecommunications and have created more than 30 different Digital Engagement Programs. As optional additions in the future, we can work in partnership to provide more than only software and campaign configuration, and could assist with services to help define and manage the CVM strategy and roadmap.

THE FUNCTIONAL ADVANTAGES OF AN EVOLVED LOYALTY PLATFORM

The Evolution platform provides a powerful environment to configure and operate rich Customer Journeys, a variety of Campaigns, Customer Interactions, Offer Schemes and Loyalty Programs. Primarily designed to answer Telco's Digital Engagement needs it can accommodate any type of customer and any type of use case.

The platform provides operators with the foundations to achieve yet unmatched Artificial Intelligence based on smart data and operational predictive analytics functions enabling to improve efficiency and maximize revenues, all the while reducing time and effort to execute 100's of micro-segmented engagements and offers.

Gathering all knowhow acquired by Evolving in the CVML space, the Evolution platform is widely used to operate the most innovative large-scale loyalty programs, it provides unique mechanics enabling gamification, optimization and personalization across a variety of channels. It can engage with customers at all stage of their lifecycle, providing interactive dialogue and smart recommendations thru all available traditional and digital channels.

The platform seamlessly integrates within the operator IT, either on premises or on private cloud. It can be operated or managed as a service depending on the needs.

The drawing below represents the platform architecture, key components and major integration interfaces.

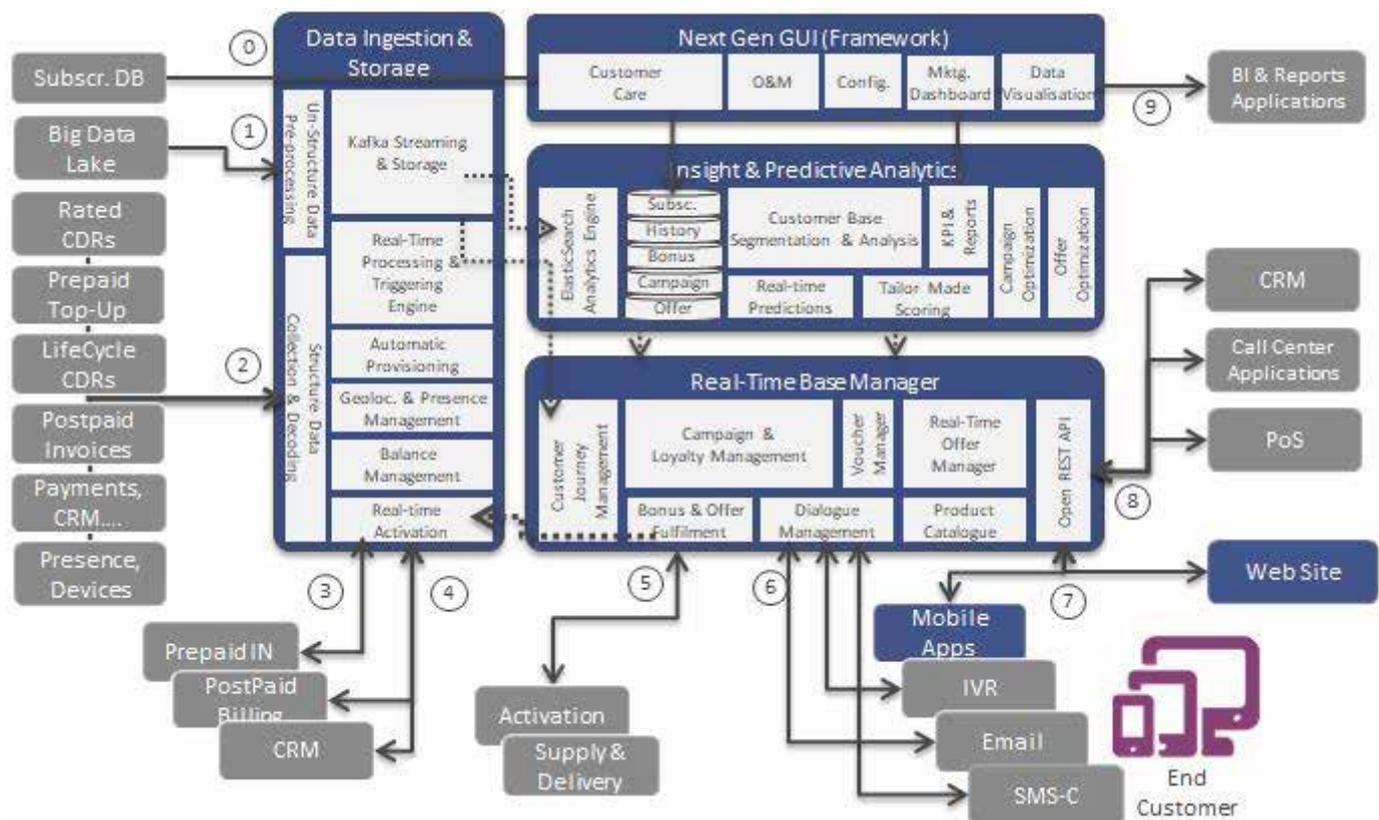


Figure 1: Evolution Platform Overview

EVOLUTION: A UNIQUE APPROACH

Evolution is new, as a true technological leap relying on a modern Big Data technology framework so users can confidently address the needs of the Digital era we are now entering.

The platform's primary evolution is technological and relies on one hand on the adoption of Apache Kafka to stream line massive amount of structured and unstructured data in a high performing, scalable and fault tolerant fashion compared to any other technology available today, and on the other hand on the adoption of ElasticSearch as a No SQL database to be used for data historization, enhanced processing and richer analytics.

The second evolution is functional with the introduction of a brand-new Customer Journey Manager, enabling both to improve user experience and simplify operations on a daily basis as well as to enable building and orchestrating a growing amount of always more complex campaign, loyalty programs and customer engagement models that can be easily cascaded and sequenced with the concept of customer journeys. A brand-new Call Flow Designer comes with it, enabling to graphically configure Target, Campaign, Dialogue and Offer rulesets for instance, as well as to create a variety of templates that can be reused to fasten and simplify configuration and operation of the system.

The third evolution is also functional with a significantly enhanced Offer Manager and Catalogue, introducing new Presentation and Scoring Strategies enabling operators to easily implement highly personalized and highly relevant Next Best Offers recommendations. This latest Offer Manager version support both inbound request from 3rdparty applications as well as outbound offer recommendations relying on Campaigns and Journeys. It can be used to promote both telco and non-telco offers, bundles of digital and physical products, from a variety of partners and suppliers across any channel. The solution is not only capable to present the contextually computed Next Best Offer for each individual, but also a smart list of Offers the customer can pick from, trying and learning customer preferences to constantly improve recommendations and customer take up rate.

The fourth evolution delivers a global set of benefits including a state-of-the-industry User Interface, simplified configurations, generalization of templates to ease reusability, better search and filtering functions, expendable analytics and predictive models, improved KPIs and improved reporting capabilities.

In summary, Evolution is designed to provide Evolving Systems' customers with the solid foundations needed to integrate more data sources, more intelligence and more channels in order to efficiently and to more easily orchestrate how they engage with the end customers whenever and wherever it is the most appropriate.

EVOLUTION IN ACTION: CUSTOMER VALUE MANAGEMENT USE CASES

Below-the-line CVM with VEON



Evolving Systems works in partnership as the CVM supplier to the VEON Group. Individual systems are implemented and in use in Bangladesh, Algeria, Kyrgyzstan, Kazakhstan, Georgia, Armenia and Uzbekistan, proving the capability of the solution to support a wide variety of requirements in the different members of a group.

We work closely in partnership with the VEON Group in Amsterdam to drive the roadmap for the operations, which has achieved CVM incremental revenue targets for 2 years in a row.

Digital Gamification through Digital Badges with Orange



A Fully digital program that engages Orange's whole customer base in a challenge and Badge-led program to earn and win rewards from their partner ecosystem. Built on the foundation of a points wallet, Gamification layers added in partnership with Evolving have significantly improved the KPIs of the program in the last 2 years. Last month, Orange and Evolving were shortlisted for the Digital Transformation Award at the 2018 World Communication Awards held in London based on the success of the program achieving a 33% Engaged Customer Base in the program and boosting My Orange downloads by more than 100%

Loyalty as a Revenue Generator with 3 Ireland



3 Plus is a Self-funding Customer Engagement Program design, full of 'money-can't-buy' offers available to all 3 Ireland customers. Such is the success of the clicks and views in the Mobile App and Web Portal, 3 Ireland are in a position whereby the merchants pay them in order to place their offers and boost their take-up by contextually placing them on the front page of the program based on a Best Offer algorithm programmed into the platform by Evolving. The platform supports the location context of proactive notifications & Best Offer Selection, as well as the high-demand volumes when 3 open competitions & presale of event tickets at the 3 arena in Dublin.

Extending Lifetime Value with Tunisie Telecom



Kelma is an Evolving program that is based on Points earn & burn, customers collect points and are able to redeem them into digital vouchers they can use in stores. The Platform provides the full settings for a range of points earning options for different customers, and generates and authenticates the vouchers as they are redeemed. Kelma is significantly important to the strategy of Tunisie Telecom, who attribute 1 additional month's lifetime value per year to the program over the last 7 years.

Brand Category Ownership with Meerkat Movies



Compare the Market is one of the leading online insurance brokers in the United Kingdom. Consumers use Compare the Market to quickly get the best quotes for a variety of insurance products (Home, Car, Life, Travel, Pet...etc) from a variety of suppliers, as well as to get the best offers for loans, mortgages, credit cards, and more. Compare the market work with Evolving Systems on their major loyalty program, Meerkat Movies.



Evolving's Platform is used to manage the program eligibility, voucher generation and is integrated with the ePOS system of every cinema in the United Kingdom. The program incentivizes customers to buy one of the quotes that are presented to them through the Compare the Market channel. Any quote purchased entitles the customer to a year of 2 for 1 cinema tickets on a Tuesday or Wednesday, as well as a variety of discounts at restaurants. The platform has been in place for this program for more than 14 years, originally supporting Orange Wednesdays. 100 Million People have availed the 2-4-1 cinema ticket offers and the system continues to process more than 2 Million vouchers every month. The fact that 80% of the vouchers are generated between 5pm and 8pm on the day demonstrates the API performance of the Platform.

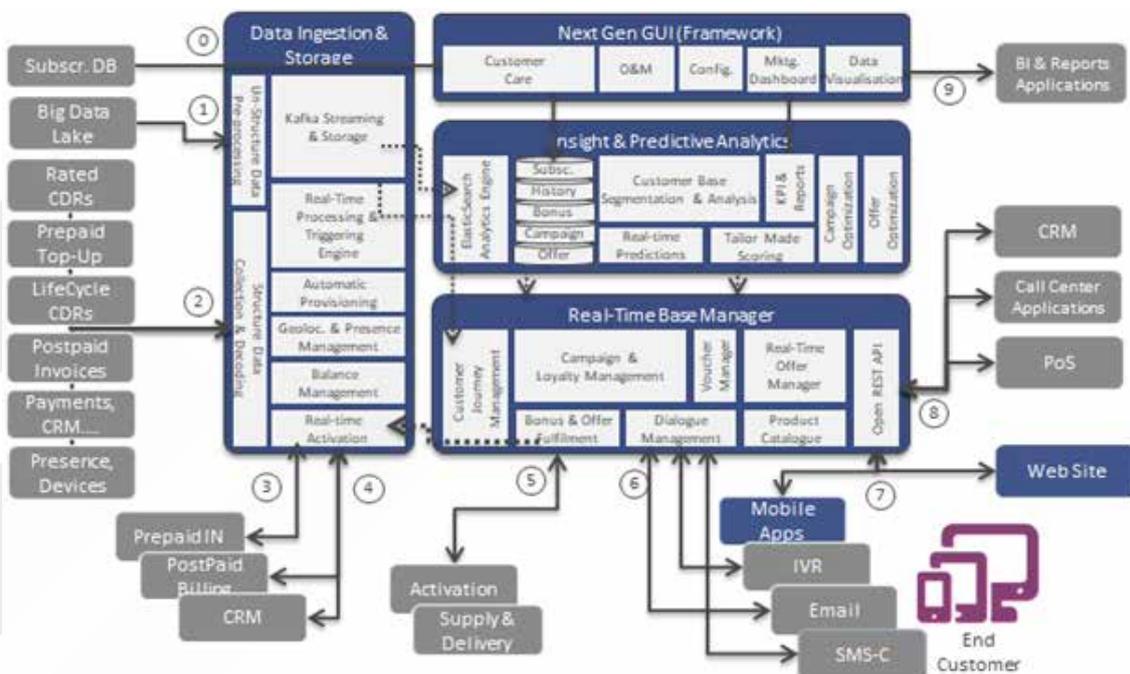


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SUMMARISING THE EVOLUTION ADVANTAGE

Evolution from Evolving Systems provides companies with large, diverse customer bases with the functionality required for a new approach to managing customer relationships:

- ❖ New, modern GUI design accessible from any Web Browser – Cloud Ready Architecture
- ❖ Performance, Scalability & Robustness, with built-in High-Availability
- ❖ Ready to ingest and use a lower level of events (DPI, Location/VLR, PCRF)
- ❖ Real-time for both Prepaid and Post-paid, and can cover Mobile, Fixed, Broadband & TV
- ❖ Inbound & Outbound Customer Engagement in a single platform
- ❖ Offer, Campaign & Loyalty in One Platform (Combined CVM & L)
- ❖ Orchestrating Personalized Customer Journeys across Multiple Campaigns and Offers
- ❖ Powerful Catalogue with Real-Time NBO/A to manage offers on both Telco & Partner products
- ❖ Gamified Loyalty/Engagement mechanics beyond points
- ❖ Live Prescriptive Analytics Dashboards
- ❖ Access to opensource technologies that means no requirement or costs on 3rd party licenses



