TheRunnerLane — The Run Tracking System

Typical SOA Systems

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1 Introduction

TheRunnerLane is a (fictitious) well established company specialised in manufacturing and selling running equipment, being the preference of many world top athletes.

Until the last decade, its main revenue came from selling running equipment through the internet. Although the business still leads the market, the CIO proposed to re-think their business by shifting the system into a Service Oriented Architecture (SOA) and to enhance their business by providing a new innovative service on tracking running exercises, as they become more and more influent in sport events.

In a first phase they just considered to support *non-real time* individual running exercises: the clients would insert/upload their running data like distance, duration, route, and so on. The system would perform statistics and deliver monthly reports on the workout performed. Moreover, they allowed to share the workout information with a social network.

As it had a great acceptance rate by the clients and by the critic, TRL's CIO and his IT team intended to go forward and provide real-time support, not only for individual runners, but also for running events like marathons and similar events.

2 TheRunnerLane Run Tracking System

The second phase of the Run Tracking System by TRL, has two target users: the running event participants and the viewers.

For the first sort of users, the system offers the possibility to upload their running statistics, in real time, by using a mobile version of this system, that acquires several metrics like speed, global position, pace, time, or other, and it even informs the runners about their actual status (according to these metrics) whenever they desire. Running statistics/metrics like speed, pace, distance, workout duration and so on, are better viewed by using graphs and other statistical means of showing such information. TRL takes advantage of its SOA design principles to use such statistical services.

As for the geographical position and the route tracked at each moment it is better presented when superimposed over a map. Maps services are used to provide this feature.

By the end of the running event, reports are prepared to each participant, that show their workout results.

For the second user role, the system offers the possibility to watch live video streaming of marathons or similar long-term running sports (when available) and also a schematic view of the participants real-time positions (both over a map or in a list). The viewer may chose each participant to see the associated real-time statistics and metrics.

Moreover, social networking is not left out of the system. People watching the competition *in loco* may participate by sending photos via the mobile version, or uploading it after the event is finished. They may also interact with other users in any part of the world in real time via incorporated chat features, or in discrete time via comments in associated social networks.