A Novel Methodology Based on Orthogonal Projections for a Mobile Network Data Set Analysis

Nowadays, networks are at the center of the next industrial revolution. In fact, 5G in a short time will connect people, industries and things, so understanding how the network is performing its critical mission in this new paradigm is a key aspect. Network analytics increases the knowledge of the network and its users, leading the network managers to make smarter, data-driven decisions about the operations that they will execute in the network. In this article, a new methodology is introduced to analyze real data contained in a Call Details Record of a mobile network. With this novel methodology, the extraction of extreme points using the orthogonal projection decrease the complexity of the classification algorithm to obtain key information about network usage. Experimental results show how the proposed methodology selects and classifies network behavior patterns using a simple classification algorithm and how these patterns could be used to find, for instance, anomalies in the network, track human mobility, undertake network planning, detect events in the network, etc.

Fuente de la publicación:

- D. Cortés-Polo, L. I. J. Gil, J. Calle-Cancho and J. González-Sánchez. A Novel Methodology Based on Orthogonal Projections for a Mobile Network Data Set Analysis. *IEEE Access*, vol. 7, pp. 158007-158015, 2019. doi: 10.1109/ACCESS.2019.2949804 [1].

Noticias relacionadas:

- Investigadores de CénitS publican un artículo de impacto donde describen una novedosa metodología para analizar tráfico real de redes móviles [CénitS [2]].

Links
[1] https://doi.org/10.1109/ACCESS.2019.2949804 [2] http://www.cenits.es/noticias/19112019-investigadores-cenits-publican-articulo-impacto-donde-describen-novedosa