

# PILOT PROJECT

BIG DATA - FOR THE MEASUREMENT OF THE SOCIETY  
OF THE INFORMATION - COLOMBIA



MINTIC

vive **digital**  
para la gente



# Stakeholders



**MinTIC**

Ministerio de Tecnologías  
de la Información y las Comunicaciones

**Ministerio de Tecnologías  
de la Información y Comunicaciones (MinTIC)**  
Coordinador, punto focal Colombia, articulador.

## **National Administrative Department of statistics (DANE)**

articulador, technological ally in providing data  
processing and infrastructure (data center).



**DANE**

INFORMACIÓN  
ESTRATÉGICA

**Claro**

**Comunicacion Celular S.A. Comcel – Claro**  
networks and mobile and fixed services provider  
information.



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# Description of the processes involved

- ✓ Extended invitation to the three main network providers of mobile and fixed services in the country (TIGO, MOVISTAR, CLARO), only CLARO commits to the project.
- ✓ Considering that it will be require to work with sensitive information from the data provider's commercial strategy, it was necessary to sign a non-disclosure agreement (NDA)
- ✓ The second processing model was chosen, in which MinTIC and DANE had to process the information, DANE offered to provide the required technological infrastructure.
- ✓ After several delays we begin with the calculation of indicators in collaboration with all entities involved DANE, CLARO and MINTIC.

# Resources

## **Staff:**

*10 people of the three agencies were involved and actively participated in the development of the project. With the support of ITU advisers*

## **Time:**

The total duration of the project was 1 year and 2 months

## **IT infrastructure:**

used 4 virtual nodes with the following specifications:

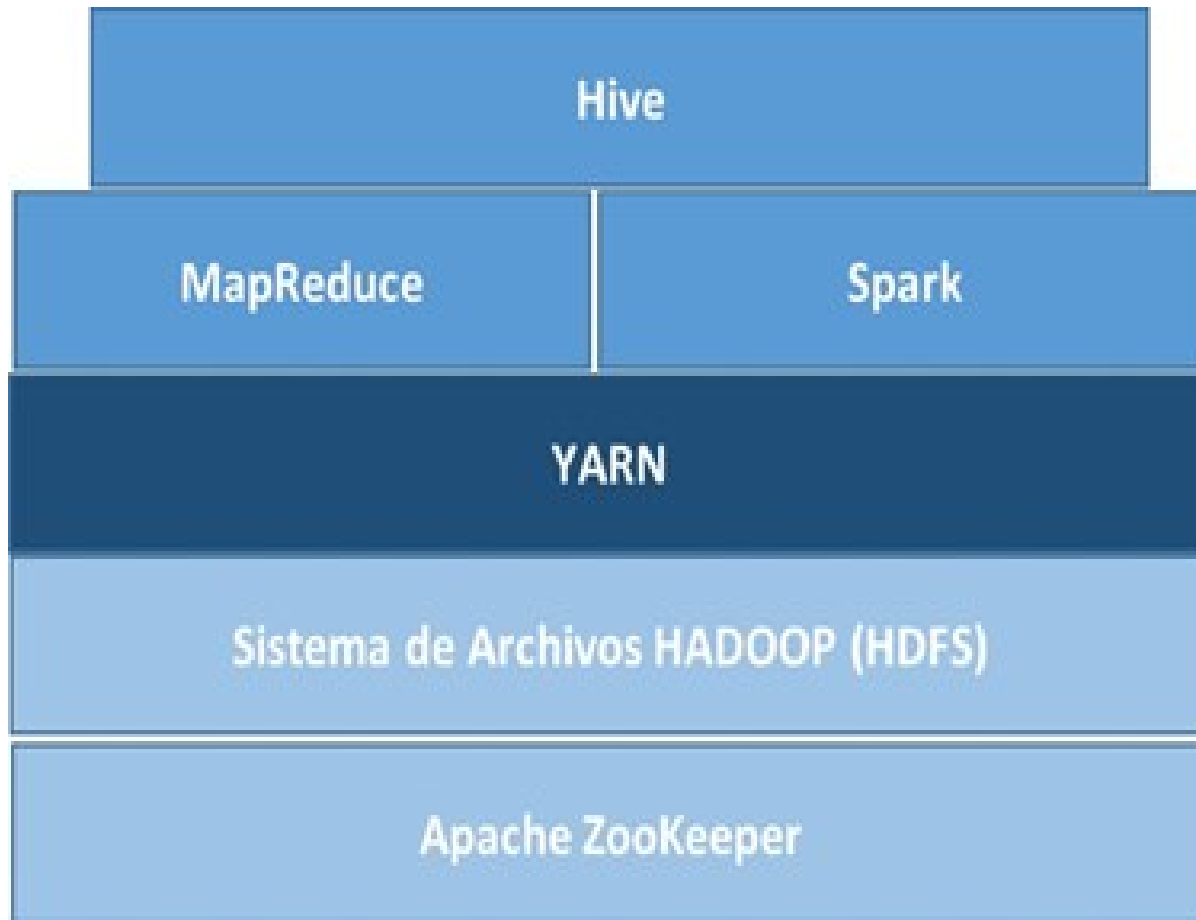
Hard drive features: 5 TB memory

RAM: 24 GB

CPU: 8 cores x 86

Intel operating system: Oracle Linux

# Resources



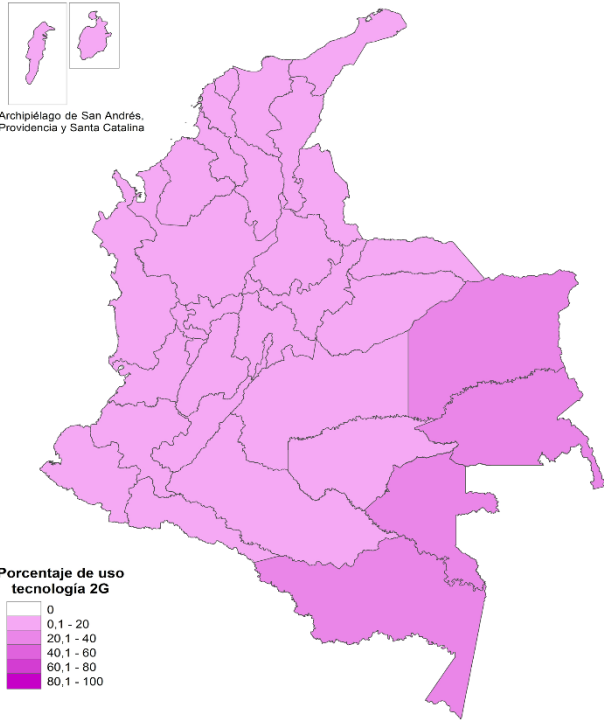
# Challenges

- ✓ Commitment from the data providers
- ✓ Delays not covered (for example, the signing of a confidentiality agreement)
- ✓ Limited resources, both in infrastructure and qualified staff
- ✓ Reprocesses in the calculation of indicators

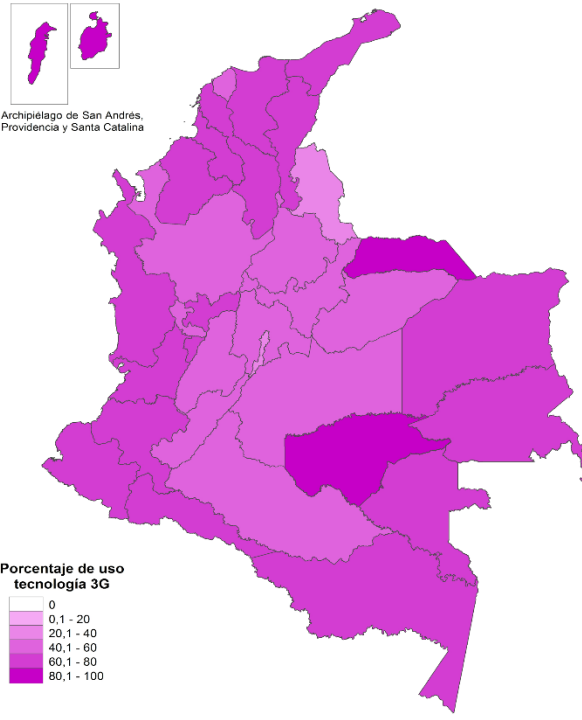
# Results

## BD04: USAGE OF MOBILE-CELLULAR NETWORKS FOR NON-IP RELATED ACTIVITIES, BY TECHNOLOGY

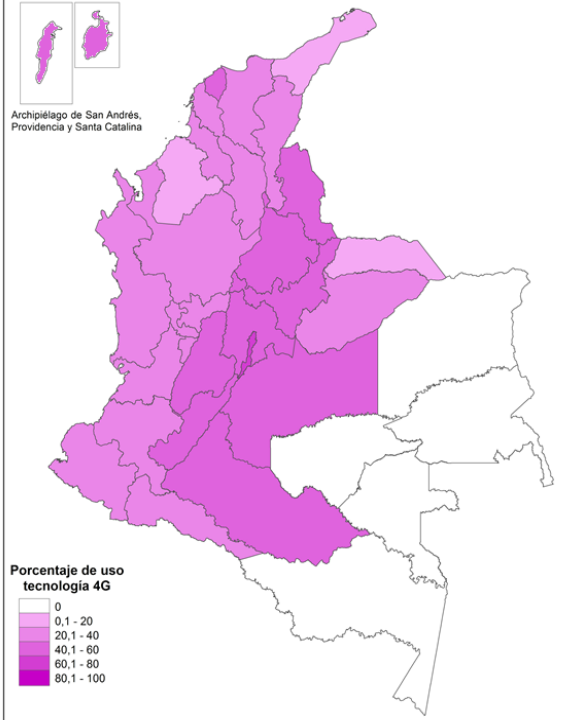
Porcentaje de uso de la tecnología 2G por departamento



Porcentaje de uso de la tecnología 3G por departamento



Porcentaje de uso de la tecnología LTE por departamento



# Results

## BD05: NUMBER OF SUBSCRIPTIONS WITH ACCESS TO TECHNOLOGY

	Subscriptions 2G	Subscriptions 3G	Subscriptions LTE
Whole Country	9.254.641	16.532.633	4.536.962



# Results

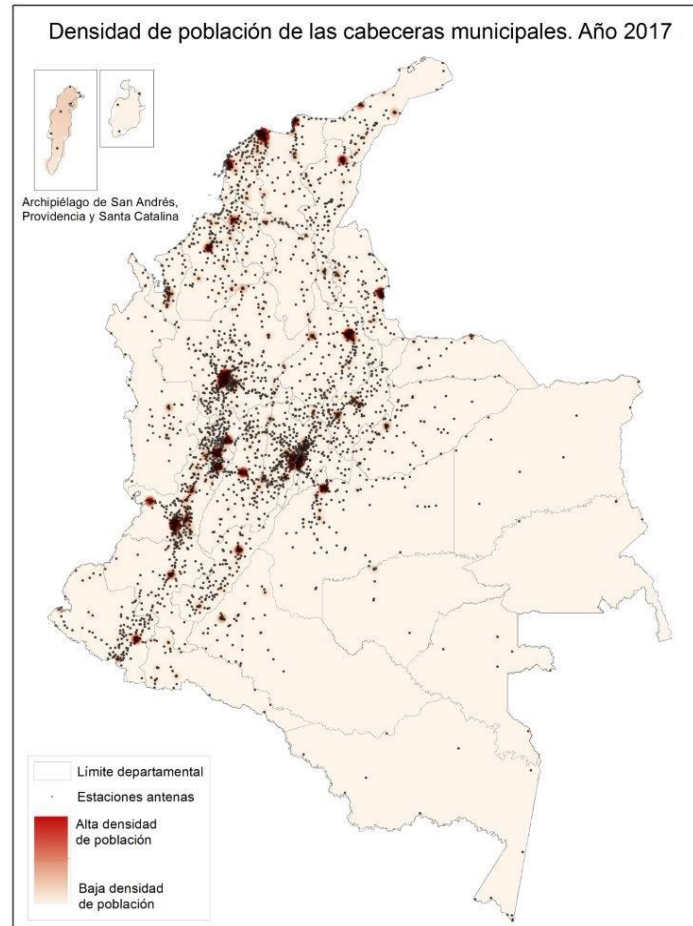
## BD13: INBOUND ROAMING SUBSCRIPTIONS PER FOREIGN TOURIST

Mes	Usuarios de roaming de entrada	Receptivo total de viajeros*	Indicador (%) <sup>17</sup>
Abril - 2017	114.600	507.346	22,6
Mayo - 2017	118.424	460.258	25,7
Junio - 2017	124.408	473.571	26,3

Fuente: Cálculos del DANE - MINTIC con cifras de COMCEL S.A.

# Results

## BD19: DEPLOYMENT OF MOBILE NETWORK INFRASTRUCTURE BY DENSITY POPULATION



# Recommendations

- ✓ Verify legal and administrative requirements of the project and assign a high priority to avoid delays in the schedule.
- ✓ Define a work plan that includes the technical configuration of the datacenter, the preliminary analysis of the data and cleaning, as well as calculation, validation and presentation of the results of the indicators.
- ✓ It is recommended that a team perform the calculation of indicators and other team validate the results obtained.
- ✓ An initial small-scale calculation of the indicators (e.g. for a reduced period or for a small area) and a feedback loop with the data provider can greatly help in streamlining the algorithms.
- ✓ Use ground-truth data to validate the results of the calculations.

# 2017

Ministerio de Tecnologías  
de la Información y las Comunicaciones

Tel: +57(1) 344 34 60

Edif. Murillo Toro Cra. 8a entre calles 12 y 13,  
Bogotá, Colombia - Código Postal 111711

[www.mintic.gov.co](http://www.mintic.gov.co) – [www.vivedigital.gov.co](http://www.vivedigital.gov.co)



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