CDR feature description

(for formulas, please check the gnuper package)

Name	Covariate	Description
Distance		
dist2c	distance to capital	The distance between an antenna and the GPS center of the country's capital.
calls_dist_mean	average call distance	The average distance to other antennas that were involved in call interactions with given antenna during the year in kilometers.
sms_dist_mean	average text distance	The average distance to other antennas that were involved in text interactions with given antenna during the year in kilometers.
Interactions		
calls_entropy	entropy of calls	The entropy of calls based on antenna to antenna interactions throughout the whole year.
sms_entropy	entropy of texts	The entropy of texts based on antenna to antenna interactions throughout the whole year.
calls_isolation	isolation of calls	The percentage of antennas that an antenna had call interactions with out of all antennas. The lower this number, the more isolated an antenna is assumed to be in terms of calls.
sms_isolation	isolation of textd	The percentage of antennas that an antenna had SMS interactions with out of all antennas. The lower this number, the more isolated an antenna is assumed to be in terms of texts.
Based on all-time aggregates		
calls_ratio	calls ratio	The ratio of outgoing calls over incoming calls.
sms_ratio	texts ratio	The ratio of outgoing texts over incoming texts.
vol_ratio	call volume ratio	The ratio of call volume from outgoing calls over call volume from incoming calls.
sms2calls_ratio	texts to calls ratio	The ratio of outgoing texts over outgoing calls.
scaled_og_calls	scaled outgoing calls	The number of outgoing calls scaled to a value range between 0 and 1 using the minimum and maximum of outgoing calls of all antennas.
scaled_og_sms	scaled outgoing texts	The number of outgoing texts scaled to a value range between 0 and 1 using the minimum and maximum of outgoing texts of all antennas.
scaled_og_vol	scaled outgoing call volume	The number of outgoing volume scaled to a value range between 0 and 1 using the minimum and maximum of outgoing volume of all antennas.
scaled_ic_calls	scaled incoming calls	The number of incoming calls scaled to a value range between 0 and 1 using the minimum and maximum of incoming calls of all antennas.
scaled_ic_sms	scaled incoming texts	The number of incoming texts scaled to a value range between 0 and 1 using the minimum and maximum of incoming texts of all antennas.
scaled_ic_vol	scaled incoming call volume	The number of incoming volume scaled to a value range between 0 and 1 using the minimum and maximum of incoming volume of all antennas.
active_users	number of active users	The number of active users located at their home antenna.
Based on weekly data		
calls_ratio_var	variance of calls ratios over the weeks of the whole time period	The variance of the weekly ratios of outgoing calls over incoming calls.
sms_ratio_var	variance of texts ratios over the weeks of the whole time period	The variance of the weekly ratios of outgoing texts over incoming texts.
vol_ratio_var	variance of call volume ratios over the weeks of the whole time period	The variance of the weekly ratios of outgoing call minutes over incoming call minutes.

CDR feature description

(for formulas, please check the gnuper package)

Name	Covariate	Description
Based on daily data		
og_calls_week_ratio	outgoing calls week ratio	The percentage of calls being initiated during the weekend.
og_sms_week_ratio	outgoing texts week ratio	The percentage of texts being sent during the weekend.
og_vol_week_ratio	outgoing call volume week ratio	The percentage of minutes from outgoing calls during the weekend.
ic_calls_week_ratio	incoming calls week ratio	The percentage of calls being received during the weekend.
ic_sms_week_ratio	incoming texts week ratio	The percentage of texts being received during the weekend.
ic_vol_week_ratio	incoming call volume week ratio	The percentage of minutes from incoming calls during the weekend.
Based on hourly data		
og_calls_work_ratio	outgoing calls work ratio	The ratio of outgoing calls during 9 am to 5 pm over all outgoing calls.
og_sms_work_ratio	outgoing texts work ratio	The ratio of outgoing texts during 9 am to 5 pm over all outgoing SMS.
og_vol_work_ratio	outgoing call volume work ratio	The ratio of minutes from outgoing calls during 9 am to 5 pm over all outgoing minutes.
ic_calls_work_ratio	incoming calls work ratio	The ratio of incoming calls during 9 am to 5 pm over all incoming calls.
ic_sms_work_ratio	incoming texts work ratio	The ratio of incoming texts during 9 am to 5 pm over all incoming SMS.
ic_vol_work_ratio	incoming call volume work ratio	The ratio of minutes from incoming calls during 9 am to 5 pm over all incoming minutes.
og_calls_peak_ratio	outgoing calls peak ratio	The ratio of calls being initiated between 3 to 5 am (early peak) over calls being initiated between 10 am to 12 pm (late peak)
og_sms_peak_ratio	outgoing texts peak ratio	The ratio of texts being sent between 3 to 5 am (early peak) over sms being sent between 10 am to 12 pm (late peak)
og_vol_peak_ratio	outgoing call volume peak ratio	The ratio of minutes from outgoing calls between 3 to 5 am (early peak) over minutes of outgoing calls between 10 am to 12 pm (late peak)
ic_calls_peak_ratio	incoming calls peak ratio	The ratio of calls being received between 3 to 5 am (early peak) over calls being received between 10 am to 12 pm (late peak)
ic_sms_peak_ratio	incoming texts peak ratio	The ratio of texts being received between 3 to 5 am (early peak) over SMS being received between 10 am to 12 pm (late peak)
ic_vol_peak_ratio	incoming call volume peak ratio	The ratio of minutes from incoming calls between 3 to 5 am (early peak) over minutes of incoming calls between 10 am to 12 pm (late peak)