 FakeAV: Designed as FakeFlash/FakePlaye GGtracker: Designed Penetho: Designed a external media and i 3. Benign (1500 apps) 	to take over a used to display ads Kemoge, Shuane 60 apps) o be distributed	ser's Android and to comp et also is desi in the guise o		vare is a hybri ersonal inform er a user's de	id of botnet nation. vice.					ging.			
	er: Designed as a d for SMS fraud as a fake service infected docum	a fake Flash a (sends SMS r e (hacktool fo ents.	app in order to d messages to a pa or Android device	irect users to emium-rate r	a website (a number) and	fter successi d information	fully installed n stealing.	l).		o infect the u	ser's computer	via infected email at	tachment, fake up
 2015 GooglePlay ma 2016 GooglePlay ma Ficheros de datos pcap files – the netw .csv files - the list of 	s work traffic of bo	oopular and to oth the malwoork traffic fea	op free new) are and benign (enign)							
Descarga de los f https://www.unb.ca/cic/o Referencias adicio Arash Habibi Lashkari, Ar 15th International Confer	datasets/android onales sobi ndi Fitriah A. Kad	d-adware.htm re el conj	unto de da nzalez, Kenneth I	on Mbah and		bani, "Towar	ds a Networl	c-Based Fram	ework for A	ndroid Malwa	re Detection an	nd Characterization", I	n the proceeding
# Instalamos graphviz !pip install graphviz Requirement already s import pandas as pd import numpy as np from sklearn.model_se from sklearn.preproce from sklearn.metrics from pandas import Da	satisfied: grap election import essing import I	t train_test	t_split r				\lib\site-p	ackages (0.	20.1)				
<pre>import warnings # Ignoramos algunos w warnings.filterwarning Funciones aux # Construcción de una</pre>	varnings que se ngs('ignore', d ciliares	category=Use	erWarning, mes	ompleto									
<pre>strat = test_set[val_set, test_set</pre>	ify] if strations is et = train_tester = train_test	fy else None st_split(state=rstate stratify els _split(andom_states st_set) rep_pred, y T preparation:	e, shuffle=shu se None =rstate, shuff _prep, metric) on:", metric(y_pred) ", metric(y_pred)	ffle, strati le=shuffle, : _pred, y, av	stratify=s	ghted'))	ed'))						
df = pd.read_csv('dat 2. Visualizació df.head(10) duration total_fpack	n del con	junto d	e datos		min_bpktl	max_fpktl	max_bpktl	mean_fpktl	mean	_idle max_id	le std_idle F	FNEPD Init_Win_byt	es_forward Init_
 1 1020586 1 80794 2 998 3 189868 4 110577 5 261876 6 14 7 29675 8 806635 9 56620 	668 1 3 9 4 7 2 1 4 3	1 0 9 1 6 6 1 0	1448 6200 528 1423 1618 883 104 0 71 213	75 52 52 52 52 52 52 52 52 52 52 52 52	52 124 -1 52 52 52 -1 213 -1 52	679 75 83 706 331 730 52 71 83 592	1390 124 -1 1390 1005 477 -1 213 -1 667	160.888889 132.000000 231.142857 52.000000		0.0 0.0 0.0 0.0 0.0 0.0 0.0	1 0.0 1 0.0 1 0.0 1 0.0 1 0.0 1 0.0 1 0.0 1 0.0 1 0.0 1 0.0	2 2 4 2 2 2 3 3 2 5	4194240 0 101888 4194240 155136 4194240 5824 0 107008 128512
df.info() <class #="" 'pandas.core.f="" (total="" 0="" 631955="" 8="" column="" columns="" data="" duration<="" en="" rangeindex:="" td=""><td>ntries, 0 to 63 30 columns): Non-1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></class>	ntries, 0 to 63 30 columns): Non-1												
<pre>1 total_fpackets 2 total_bpackets 3 total_fpktl 4 total_bpktl 5 min_fpktl 6 min_bpktl 7 max_fpktl 8 max_bpktl 9 mean_fpktl</pre>	63199 63199 63199 63199 63199 63199	55 non-null	int64 int64 int64 int64 int64 int64 int64 float64										
10 mean_bpktl 11 std_fpktl 12 std_bpktl 13 total_fiat 14 total_biat 15 min_fiat 16 min_biat 17 max_fiat 18 max_biat 19 mean_fiat	63199 63199 63199 63199 63199 63199	55 non-null 55 non-null 55 non-null 55 non-null 55 non-null 55 non-null 55 non-null 55 non-null 55 non-null	float64 float64 int64 int64 int64 int64 int64										
20 mean_biat 21 std_fiat 22 std_biat 23 fpsh_cnt 24 bpsh_cnt 25 furg_cnt 26 burg_cnt 27 total_fhlen 28 total_bhlen	63199 63199 63199 63199 63199	55 non-null 55 non-null 55 non-null 55 non-null 55 non-null 55 non-null 55 non-null 55 non-null 55 non-null	float64 float64 int64 int64 int64 int64										
29 fPktsPerSecond 30 bPktsPerSecond 31 flowPktsPerSecon 32 flowBytesPerSeco 33 min_flowpktl 34 max_flowpktl 35 mean_flowpktl 36 std_flowpktl	63199 63199 ond 63199 63199 63199 63199	55 non-null 55 non-null 55 non-null 55 non-null 55 non-null 55 non-null 55 non-null 55 non-null	float64 float64 float64 float64 int64 int64 float64										
37 min_flowiat 38 max_flowiat 39 mean_flowiat 40 std_flowiat 41 flow_fin 42 flow_syn 43 flow_rst 44 flow_psh 45 flow_ack 46 flow_urg	63199 63199 63199 63199 63199 63199	55 non-null	int64 float64 float64 int64 int64 int64 int64										
47 flow_cwr 48 flow_ece 49 downUpRatio 50 avgPacketSize 51 fAvgSegmentSize 52 fHeaderBytes 53 fAvgBytesPerBulk 54 fAvgPacketsPerBu 55 fAvgBulkRate	63199 63199 63199 63199 63199 41k 63199	55 non-null 55 non-null 55 non-null 55 non-null 55 non-null 55 non-null 55 non-null 55 non-null 55 non-null	int64 float64 float64 float64 int64 int64										
56 bVarianceDataByt 57 bAvgSegmentSize 58 bAvgBytesPerBulk 59 bAvgPacketsPerBu 60 bAvgBulkRate 61 sflow_fpacket 62 sflow_fbytes 63 sflow_bpacket 64 sflow_bbytes	63199 63199 63199 63199 63199 63199 63199	55 non-null	float64 int64 int64 int64 int64 int64 int64 int64										
65 min_active 66 mean_active 67 max_active 68 std_active 69 min_idle 70 mean_idle 71 max_idle 72 std_idle 73 FFNEPD	63199 63199 63199 63199 63199 63199	55 non-null	int64 float64 int64 float64 int64 float64 int64 int64										
74 Init_Win_bytes_f 75 Init_Win_bytes_b 76 RRT_samples_clnt 77 Act_data_pkt_for 78 min_seg_size_for 79 calss dtypes: float64(24), memory usage: 385.7+	Forward 63199 backward 63199 rward 63199 rward 63199 63199 int64(55), obj	55 non-null 55 non-null 55 non-null 55 non-null 55 non-null 55 non-null	int64 int64 int64 int64										
asware 155	1597 5613 1745 int64												
<pre># Copiamos el conjunt X = df.copy() X['calss'] = X['calss # Calculamos correlac corr_matrix = X.corr(corr_matrix["calss"].</pre>	to de datos y (s'].factorize())[0]		de salida d	numérica	para calcu	lar correla	ciones					
calss flow_fin min_seg_size_forward Init_Win_bytes_forwar std_fpktl furg_cnt burg_cnt	1.000000 0.286175 0.258352 d 0.129425 0.123758 NaN												
flow_urg flow_cwr flow_ece Name: calss, Length: X.corr()	NaN NaN 80, dtype: flo	oat64 tal_fpackets	X.000.00000000000	200 M C 100 M	0.2000.0000.0000.0000	E0000000000000000000000000000000000000	20000000000000000	52905420 A 0022500420		100000000000000000000000000000000000000	5290,710,000,000,000	max_idle std_idle	200090000000000
total_fpackets total_bpackets total_fpkt		0.004837 1.000000 0.924622 0.425756 0.904007	0.004011 0.924622 1.000000 0.156780 0.997268	0.001673 0.425756 0.156780 1.000000 0.090082	0.003518 0.904007 0.997268 0.090082 1.000000	-0.064100 -0.018958 -0.017667 -0.003099 -0.014926	-0.027231 0.005252 0.006912 0.000803 0.005966	0.008761 0.024685 0.018170 0.021278 0.012560	0.042925 0.086255 0.086886 0.022088 0.079905	0.022409	0.001614 0.000922 0.000335	0.002267	0.016089 -0.000493 0.001657
Init_Win_bytes_backward RRT_samples_clnt Act_data_pkt_forward min_seg_size_forward	d 0.029712 t 0.003785 d 0.004838	 0.059224 0.902713 0.999866 0.018198	0.058435 0.997580 0.924746 0.015124	 0.015991 0.088422 0.425789 0.005477	0.053134 0.999616 0.904129 0.012139	-0.268444 -0.016659 -0.018947 -0.686154	 0.038319 0.006156 0.005264 -0.189824	 0.429893 0.015727 0.024705 -0.074763	 0.593143 0.084280 0.086278 0.217989	-0.017595	0.026959 0.000893 0.001617 0.077943	0.001560 0.015200 0.002269 0.017233	-0.000437 0.000734
# Se puede llegar a v	rix["calss"] >	0.05]	0000 000			-0.271343	0.027032	-0.040019	0.073212	-0.211892			
mean_bpkt	n 1.000000 tl 0.042925 tl 0.025117 tl 0.039350	0.004837 0.086255 0.139142 0.010172	0.151761 0.002331	0.001673 0.022088 0.018954 0.011416	0.003518 0.079905 0.146437 -0.003162	-0.064100 -0.277317 -0.280648 -0.245792	-0.027231 0.275923 0.465208 0.052877	0.008761 0.492194 0.342392 0.817873	0.042925 1.000000 0.895712 0.564243	-0.043746 -0.018358 -0.096195 0.259588	0.998901 0.035413 0.018533 0.031418	0.0999458 0.0475 0.038732 0.1275 0.021519 0.1149 0.033978 0.0968	82 0.016532 48 -0.044916 49 -0.045442 44 -0.020885
total_fiat min_fiat max_fiat	t 0.048743 t 0.943898 t 0.841692 t 0.943438 t 0.918036	0.020324 0.002190 -0.001975 -0.000420 -0.001970	0.001718 -0.002172 -0.000714	-0.000746	0.007768 0.001546 -0.001820 -0.000548 -0.001907	-0.049879 -0.040046 -0.046977	0.035371 -0.031218 -0.036619 -0.032630 -0.036056	0.534532 -0.029233 -0.052289 -0.032606 -0.048712	0.941626 -0.005961 -0.035963 -0.009878 -0.032412	0.051756 -0.048869 -0.053811 -0.049032 -0.052892	0.943668 0.843330 0.944412	0.943339 0.0152 0.842512 -0.0053 0.943971 0.0125	89 0.015316 57 0.017756
std_flowpkt min_flowiat max_flowiat mean_flowiat flow_fin	0.036942 0.841666 1 0.999457 1 0.949299 1 0.068154	0.087741 -0.001972 0.002273 -0.002050 0.005461	0.087307 -0.002169 0.001623 -0.002292 0.004894	0.024298 -0.000744 0.000611 -0.000748 -0.001464	0.080666 -0.001816 0.001458 -0.001972 0.005112	-0.262968 -0.039980 -0.061004 -0.044032 -0.408271	0.338513 -0.036623 -0.028758 -0.035728 -0.155843	0.631466 -0.052221 0.005240 -0.048943 -0.126824	0.911584 -0.035917 0.038796 -0.031180 0.035163	0.095976 -0.053744 -0.043865 -0.054610 -0.356749	0.030013 0.843311 0.999602 0.950940 0.071426	0.033100 0.1202 0.842493 -0.0053 1.000000 0.0433 0.950117 -0.0023 0.071654 0.0173	57 -0.035737 88 0.015323 09 0.013884 80 0.016349 88 0.048678
flow_rst bVarianceDataBytes bAvgSegmentSize		0.045730 -0.004097 0.012731 0.139151 0.002195	-0.004343 0.006942 0.151778	0.004947 0.018949	0.039253 -0.003732 0.002038 0.146457 0.001410	-0.098533 -0.184458 -0.280510	0.010317 -0.063549 0.027897 0.465396 -0.028861	0.388110 -0.106686 0.428040 0.342137 0.001318	0.537187 -0.040593 0.900543 0.895560 0.033057	-0.043379 -0.121735 0.019958 -0.096229 -0.044135	0.002382 0.039000 0.018527	2 -0.002685 -0.0090 0 0.041333 0.0946 7 0.021512 0.1149	04 0.028905 13 -0.030463 16 -0.045430
max_active min_idle mean_idle	e 0.998911 e 0.999465 e 0.997952 e 0.998901 e 0.999458	0.002580 0.003261 0.001258 0.001614 0.002267	0.002592 0.000610 0.000922	0.000919	0.001724 0.002409 0.000544 0.000812 0.001452	-0.061083 -0.058793 -0.059748	-0.028800 -0.028773 -0.028867 -0.028819 -0.028800	0.003287 0.005583 0.001028 0.002983 0.005244	0.035932 0.039286 0.032544 0.035413 0.038732	-0.043954 -0.043762 -0.044117 -0.043962 -0.043786	0.999743	0.999998 0.0434 0.998762 -0.0057 0.999601 0.0167	30 0.013858 76 0.012279 44 0.012852
Init_Win_bytes_forward Init_Win_bytes_backward min_seg_size_forward calss 28 rows × 80 columns	d 0.029712	0.050201 0.059224 0.018198 0.018377	0.058435 0.015124	0.005477	0.043571 0.053134 0.012139 0.019838	-0.268444 -0.686154	0.007284 0.038319 -0.189824 0.027032	0.409109 0.429893 -0.074763 -0.040019	0.586742 0.593143 0.217989 0.073212	-0.075007 -0.030004 -0.524024 -0.211892	0.023865 0.026959 0.077943 0.066348	0.029512 0.0973 0.079324 0.0488	16 -0.052507 03 0.052177
3. División del	nto de datos												
# Dividimos el conjun train_set, val_set, t	move labels(+	et, 'calss'; t_set, 'cals) ss') tos ón son algoritmo	-						-			
<pre>train_set, val_set, t X_train, y_train = re X_val, y_val = remove X_test, y_test = remo</pre>	e_labels(val_so ove_labels(test	les de decisió											
X_train, y_train = re X_val, y_val = remove X_test, y_test = remove 4. Escalando e Es importante comprend ejercicio se va a realizar e incluso llegar a afectar al scaler = RobustScaler X_train_scaled = scale X_test_scaled = scale	e_labels(val_se ove_labels(test el conjunto der que los árbo escalado al conj d rendimiento de er.fit_transform(X_	les de decisió junto de dato el modelo. orm(X_train) _test))										
<pre>train_set, val_set, t X_train, y_train = re X_val, y_val = remove X_test, y_test = remove 4. Escalando e Es importante comprend ejercicio se va a realizar e incluso llegar a afectar al scaler = RobustScaler X_train_scaled = scale X_test_scaled = scale X_val_scaled = scale # Transformación a un X_train_scaled = Data X_train_scaled = Data X_train_scaled.head(1)</pre>	e_labels(val_sove_labels(testove_lab	les de decisión junto de dato junto de dato junto de dato junto de modelo. orm(X_train) _test) val) Pandas _scaled, co.	lumns=X_train. total_fpktl tot -0.310056	al_bpktl min .556886 0.3	n_ fpktl min 375000 4.9	_ bpktl max 924528 -0.0	27100 2.2	250000 -0.	n_fpktl 032895 115132	0.000000	0.000000 0.0	ax_idle std_idle FFI 000000 0.0 000000 0.0	NEPD Init_Win_l 0.0 0.0
<pre>train_set, val_set, t X_train, y_train = re X_val, y_val = remove X_test, y_test = remove 4. Escalando e Es importante comprend ejercicio se va a realizar e incluso llegar a afectar al scaler = RobustScaler X_train_scaled = scale X_test_scaled = scale X_val_scaled = scale # Transformación a un X_train_scaled = Data X_train_scaled.head(1) duration tota 508881 -0.013646</pre>	e_labels(val_sove_labels(test) el conjunto der que los árbonescalado al conjunto der rendimiento de el conjunto der que los árbonescalado al conjunto der que los árbonescalado al conjunto der rendimiento de el conjunto der que los árbonescalado al conjunto der rendimiento de el conjunto der que los árbonescalado al conjunto der rendimiento de el conjunto der que los árbonescalado al conjunto der rendimiento de el conjunto der que los árbonescalado al conjunto der rendimiento de el conjunto der que los árbonescalado al conjunto der rendimiento de el conjunto de rendimi	les de decisión junto de dato del modelo. orm(X_train) _test) val) Pandas _scaled, contal_bpackets 1.0	lumns=X_train. total_fpktl tot -0.310056	al_bpktl min .556886 0.3 0.000000 6.6 0.000000 6.8 0.724551 0.0 0.000000 6.6 0.868263 0.0	n_fpktl min 375000 4.9 307143 0.0 357143 0.0 35714 8.6 307143 0.0	24528 -0.0 000000 0.9 000000 0.9 000000 0.9 000000 0.9	27100 2.2 18699 0.0 256640 0.0 78591 3.9 18699 0.0 41463 4.1	250000 -0. 250000 1. 2000000 1. 231034 -0. 2000000 1. 263793 0.	032895	0.000000 0.000000 0.000000 0.000000 59.657102	0.000000 0.0 0.000000 0.0 0.000000 0.0 0.000000 0.0 48.116772 47.5	000000 0.0 000000 0.0 000000 0.0 000000 0.0	0.0
<pre>train_set, val_set, t X_train, y_train = re X_val, y_val = remove X_test, y_test = remove 4. Escalando e Es importante comprend ejercicio se va a realizar e incluso llegar a afectar al scaler = RobustScaler X_train_scaled = scale X_val_scaled = scale X_val_scaled = scaler # Transformación a un X_train_scaled = Data X_train_scaled = Data X_train_scaled.head(1) duration tota 508881 -0.013646 208326 -0.013926 107213 -0.013926 466726 -0.000273 230085 -0.013926 472961 34.421927 482372 -0.013805 619993 17.578734 65344 -0.013926 46666 -0.013926</pre>	e_labels(val_sove_labels(test) el conjunto der que los árbonescalado al conjunto der	les de decisión junto de dato del modelo. orm(X_train) _test) val) Pandas _scaled, con tal_bpackets 1.0 0.0 0.0 1.0 0.0 4.0	lumns=X_train. total_fpktl tot -0.310056 0.664804 0.703911 -0.363128 0.664804 1.558659 -0.136872 0.050279 0.703911	al_bpktl min .556886 0.3 0.000000 6.6 0.000000 6.8 0.724551 0.0 0.000000 6.6 0.000000 0.0 0.000000 0.5 0.000000 6.8	n_fpktl min 375000 4.9 307143 0.0 357143 0.0 35714 8.6 307143 0.0 300000 1.0 300000 0.0 353571 0.0 357143 0.0	24528 -0.0 000000 0.9 000000 0.9 000000 1.3 000000 0.0 000000 0.0	27100 2.2 18699 0.0 56640 0.0 78591 3.9 18699 0.0 41463 4.1 00000 0.0 00000 0.0	250000 -0. 250000 1. 2000000 1. 231034 -0. 2000000 1. 2000000 -0. 2000000 0. 2000000 1.	032895 115132 161184 095395 115132 337171	0.000000 0.000000 0.000000 0.000000 59.657102 0.000000 30.549478	0.000000 0.0 0.000000 0.0 0.000000 0.0 0.000000 0.0 48.116772 47.5 0.000000 0.0 24.617883 24.3 0.000000 0.0	000000 0.0 000000 0.0 000000 0.0 000000 0.0 000000 0.0 580946 0.0	0.0 0.0 0.0 0.0 0.0
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train_set, val_set, tain_set, val_set, tain_set, val_set, tain, y_train_tain_tain_set, val_ny_tain_tain_tain_tain_tain_tain_tain_tain	elabels (val se elabels (val se elabels (val se elabels (val se eve labels (val elabels (val elabe		lumns=X_train total_fpktl tot -0.310056 0.664804 0.703911 -0.363128 0.664804 1.558659 30.136872 -0.050279 0.703911 0.505587 0 0.703911 0.505587 0 1.94713 46 185.54980 00 -0.3212 00 0.0000 78 1.94713 46 185.54980 00 -0.3212 00 0.06787 00 113118.04180 er an_state=42) m_state=42) tos con el que se enamiento _train_scaled) escalar n_prep_pred, y, dación caled) escalar caledion	al_bpktl min .556886 0.3 .000000 6.8 .000000 6.8 .724551 0.0 .000000 0.5 .000000 0.5 .000000 0.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .0000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .000000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .000000000 5.5 .000000000 5.5 .000000000 5.5 .000000000 5.5 .000000000 5.5 .0000000000	### #### #############################	bpkt max	27100 2.2 18699 0.6 56640 0.6 78591 3.9 18699 0.6 61463 4.7 00000 0.6 64228 0.6 79173.00000 0.85524 1.67609 0.00000 0.00000 1.00000 26.24528	250000 -0. 000000 1. 000000 1. 000000 0. 0000000 0. 00000000	032895 115132 161184 095395 115132 337171 050987 000000 161184 927632 fpktl r 0000 3791 1724 6500 7642 4011 0000 5989 0108	0.000000 0.000000 0.000000 0.000000 30.549478 0.000000 0.000000 1.591823 3.210186 0.000000 0.000000 1.000000 1.000000 ar si se esta p	0.000000 0.0 0.000000 0.0 0.000000 0.0 0.000000 0.0 48.116772 47.3 0.000000 0.0 24.617883 24.3 0.000000 0.0 0.000000 0.0 0.303639 0.533388 -0.273026 -0.101974 0.000000 0.898026 4.299342	000000 0.0 00000 0.0 00000 0.0 00000 0.0 00000 0.0 00000 0.0 00000 0.0 00000 0.0 00000 0.0 00000 0.0 00000 0.0 00000 0.0 00000 0.0 00000 0.0 00000 0.0 0000 0.0	0.0 0.0 0.0 0.0 0.0 1.0 1.0 1.0 0.0 0.0
train_set, val_set, t x_train, y_train = re x_val, y_val = remove x_test, y_test = remove 4. Escalando e Es importante comprend ejercicio se va a realizar e incluso llegar a afectar al scaler = RobustScaler X_train_scaled = scale X_train_scaled = scale X_test_scaled = scaler X_train_scaled = scaler # Transformación a un X_train_scaled = Data X_train_	elabels (val se elabels (val se elabels (val se elabels (val se eve labels (val elabels (val elabe		lumns=X_train total_fpktl tot -0.310056 0.664804 0.703911 -0.363128 0.664804 1.558659 30.136872 -0.050279 0.703911 0.505587 0 0.703911 0.505587 0 1.94713 46 185.54980 00 -0.3212 00 0.0000 78 1.94713 46 185.54980 00 -0.3212 00 0.06787 00 113118.04180 er an_state=42) m_state=42) tos con el que se enamiento _train_scaled) escalar n_prep_pred, y, dación caled) escalar caledion	al_bpktl min .556886 0.3 .000000 6.8 .000000 6.8 .724551 0.0 .000000 0.5 .000000 0.5 .000000 0.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .0000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .000000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .00000000 5.5 .000000000 5.5 .000000000 5.5 .000000000 5.5 .000000000 5.5 .000000000 5.5 .0000000000	### #### #############################	bpkt max	27100 2.2 18699 0.6 56640 0.6 78591 3.9 18699 0.6 61463 4.7 00000 0.6 64228 0.6 79173.00000 0.85524 1.67609 0.00000 0.00000 1.00000 26.24528	250000 -0. 000000 1. 000000 1. 000000 0. 0000000 0. 00000000	032895 115132 161184 095395 115132 337171 050987 000000 161184 927632 fpktl r 0000 3791 1724 6500 7642 4011 0000 5989 0108	0.000000 0.000000 0.000000 0.000000 30.549478 0.000000 0.000000 1.591823 3.210186 0.000000 0.000000 1.000000 1.000000 ar si se esta p	0.000000 0.0 0.000000 0.0 0.000000 0.0 0.000000 0.0 48.116772 47.3 0.000000 0.0 24.617883 24.3 0.000000 0.0 0.000000 0.0 0.303639 0.533388 -0.273026 -0.101974 0.000000 0.898026 4.299342	000000 0.0 00000 0.0 00000 0.0 00000 0.0 00000 0.0 00000 0.0 00000 0.0 00000 0.0 00000 0.0 00000 0.0 00000 0.0 00000 0.0 00000 0.0 00000 0.0 00000 0.0 0000 0.0	0.0 0.0 0.0 0.0 0.0 1.0 1.0 1.0 0.0 0.0
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