Read a CSEC document that was first acquired by Edward Snowden

COLIN FREEZE

The Globe and Mail

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The Globe is making available a copy of a leaked CSEC presentation, in collaboration with Brazil-based American journalist Glenn Greenwald

AND THEY SAID TO THE TITANS: « WATCH OUT OLYMPIANS IN THE HOUSE! »

CSEC – Advanced Network Tradecraft SD Conference June 2012

Overall Classification: TOP SECRET//SI

OLYMPIA & THE CASE STUDY



CSEC's Network Knowledge Engine

Various data sources Chained enrichments Automated analysis

Brazilian Ministry of Mines and Energy (MME)

New target to develop Limited access/target knowledge

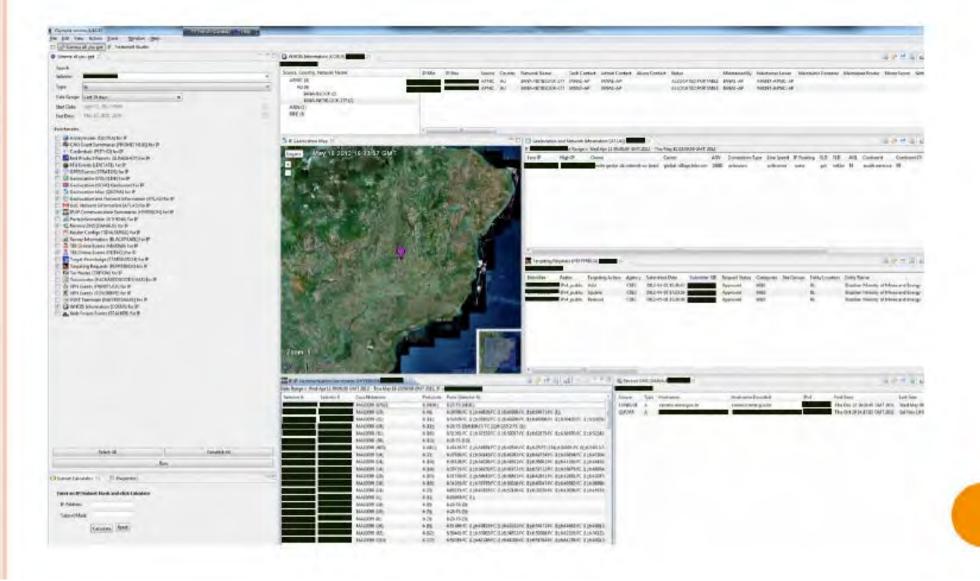
QUESTIONS

• How can I use the information available in SIGINT data sources to learn about the target?

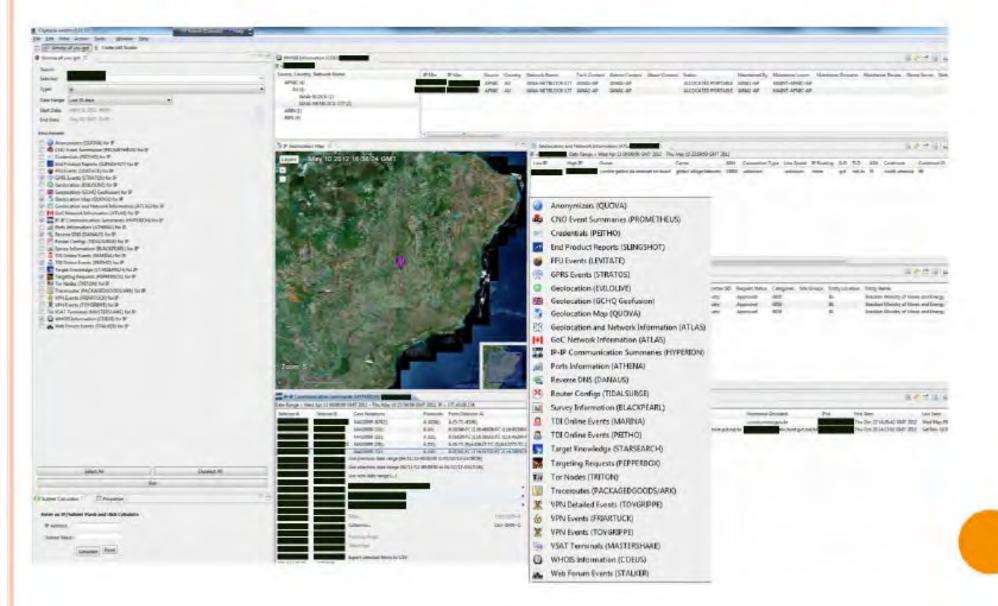
o What can I find that would help me inform access development efforts?

• Can I automate the analytical process and/or reuse analytics designed for other purposes?

OLYMPIA AT A GLANCE



OLYMPIA AT A GLANCE



OLYMPIA - AUTOMATION

		IQ View Design
		Steps
	WAY) Date Range MSISDN way) do opthing)	FASCIA PCS Events (SEDB): Date Range, MSSDN FASCIA PCS Events (SEDB): Date Range, TMSI FASCIA PCS Events (SEDB): DNR Selector, Date Range FASCIA PSTN Events (SEDB): Date Range, TTU E164 FTU Events (LEVITATE): Date Range, Free Text FTU Events (LEVITATE): Date Range, IP Range FTU Events (DANAUS): Domsin Forward DNS (DANAUS): Hostname
🖀 Phone Number Query 📃 🔤	322	Geolocation (EVILOLIVE): IP
Step native Network Registration (GNDE): ITU E164 Enable cache?	Network Registration (GNDB): ITU E.164	Geolocation (GCHQ Geofusion): IP Range Geolocation and Network Information (ATLAS): Date Range, IP Ran Geolocation and Network Information (QUOVA): ASN Geolocation Map (QUOVA): Date Range, IP Range GoC Network Information (ATLAS): IP Range
Parameter Mapping Recult		GPRS Events (STRATOS): Date Range, IP
* Field Name Parameter Name Parameter Type Required	Bab. Press	GPRS Events (STRATOS): Date Range, IP_2 GPRS Events (STRATOS): Date Range, LAIC
1 phoneNumber ItuE164 yes Last Seen Original Selector City Original Selector Country Original Selector Identity Cet Fields	sution 1 Soft rows Tradecraft Navigetor Output	GPRS Events (STRATOS): Date Range, TDI GPRS Events (STRATOS): DNR Selector, Date Range GSM cells (OCTSKYWARD): LAIC GSM cells (OCTSKYWARD): LAIC GSM cells (OCTSKYWARD): Mcc PI-IP Communication Summaries (HYPERSON): Date Range, IP Rang Mobile Network Operator (GNDB): IMSI Mobile Network Operator (GNDB): LAIC Network Registration (GNDB): LAIC Network Registration (GNDB): ITU E.164
OK Gencel		Open IP Ranges Den IP Ranges Den Book (TWINSERPENT): DNR Selector Den Book (TWINSERPENT): Free Text

Numerous enrichment and data manipulation nodes Drag and drop each node Create links between nodes Hit the *Play* button

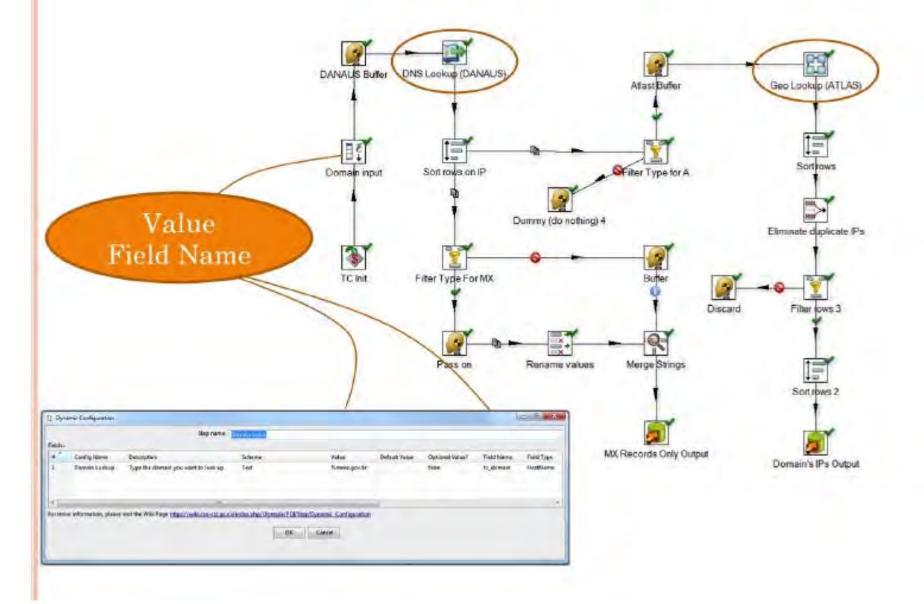
ANALYSIS – CASE STUDY

What we know about the target:

- Domain: @mme.gov.br
- 9 DNR selectors
- Very little collection



ANALYSIS – DETERMINE TARGET'S IPS AND ISPS



ANALYSIS - DETERMINE TARGET'S **IPS AND ISPS**

Mail Servers Output

Response_MX Hostname coneio.mme.gov.br correia2 mme.gov.br

correio.mme.gov.br correio2.mms.gov.br

1P-14

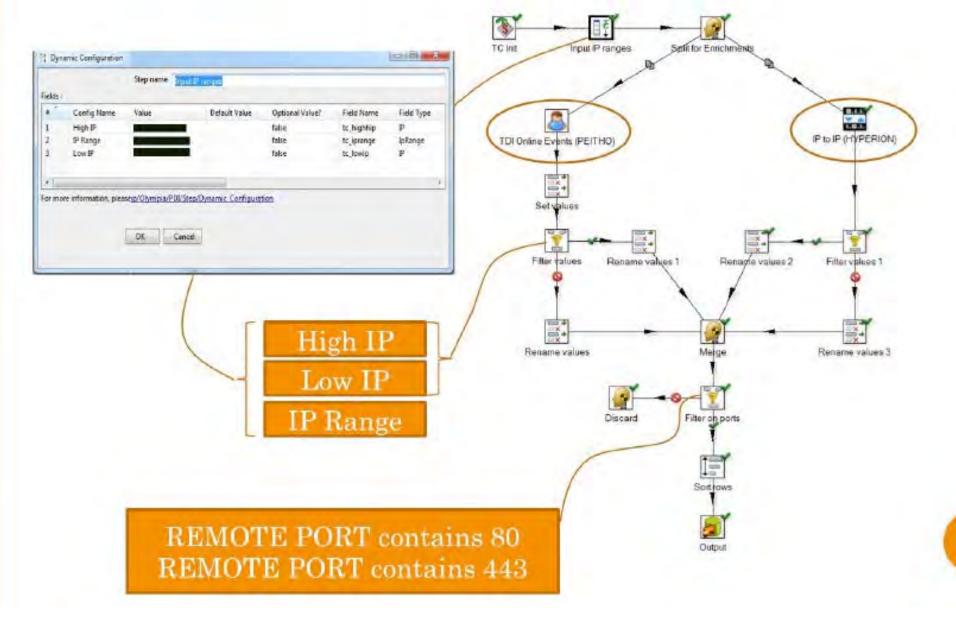
First Seen Last Seen Source EONBLUE Wed Jun 17 05:04:23 GMT 2009 Mon Feb 15 12:40:53 GMT 2010 OUOVA. Mon Jun 21 12:49:09 GMT 2010 Sat Nov 19 01:56:18 GMT 2011

Hostname IPv4 Country ASN Owner Carrier

Domain's IPs Output

Eype	Hostname	1P:4	IP Ranos	Country	ASN	Dwnar	Carrier	Source	First Seen	Last Seen
A	rist mme gav, br		a miles	brazil	10851	comite gestor do internet no brasil	global village telecom	EONBLUE	Wed Dec 21 04 27 57 GMT 2011	Tue May 08 17:28:22 GMT 201
6	www.mme.gov.bt			brazil	18851	carrite gestor da internet no brasil	global village telecom	EONBLUE	Thu Dec 22 22:09:58 GMT 2011	Set May 05 18:35:58 GMT 2012
	na2.mme.gov.br			brazil	18881	convie gestor de internet no brasil	global village telecom	EONBLUE	Wed Dec 21 04:27:57 GMT 2011	Tue May 08 17-28-22 GMT 201
	srv041.mme.gov.bi			braze	13881	comile gestor de internet no brasil	plobal village telecom	ECINELUE	Wed Dec 21 04:27:57 GMT 2011	Wed Apr 25 9453/02 GMT 201
	correip.mme/gov/br	-		brazili	18881	comite gestor do internet no brasil	plobal village telecom	FONBLUE	Thu Dec 2216/26/42 GMT 2011	Wed May 12 21:01:17 GMT 20
	acessovpr.mme.gor.br			brank	4230	comile gettor da internet no brasil	embratel	QUOVA	Mon aun 21 13:40:09 GMT 2000	Sat Nev 19 01:54:18 GMT 2011
2	nsl.mme.pav.br			brazli	4230	cernite gestor da internet no brasil	embratel	EONBLUE	Tue Sep 14 12:31:44 GMT 2010	Tue Dec 20 15:49:18 GMT 201
	correlo2.mme.gov.br			trati	4230	comite gestor de internet no brasil	embratel	EONBLUE	Tue Sep 14 12-31-54 GMT 2010	Set Dec 17 07:18:16 CMT 2011
	www.mme.gov.br	1		trani	4230	comite gestor do internet no brasil		EONBLUE	Thu Feb 11 19 15 47 GMT 2010	Mon Dec 19 19 40 43 GMT 20
	ns2 mme.gav.be	The second s		trati	4230	comite gestor da internet no brasil		EONELUE	Wed Sep 15 23 11:59 GMT 2010	Tue Dec 20 15:49:18 GMT 205
	triffith mme.gov.hr			brazil	4239	comite gestor da internet no bresil		EONBLUE	Thu Mer 93 19:37-08 GMT 2011	Tue Dec 20 15:4918 GMT 201
	proskemumme.gov.br			brazil	4230	comite gestor de internet no brasil	embratel	QUOVA	Mon Jun 21 13:49:09 GMT 2000	Set Nev 19 02:54:08 GMT 201
	srv041.mine.gov.br			brazii	4230	comite gestor de internet no brasil	embratel.	EONBLUE	Wed Feb 10 12:52:14 GMT 2000	Tue Sep 07 09:24:35 GMT 201
	correso.mane.gov.br			trus	4230	comite gestior de internet no brasil	embratel	EONBLUE	Fri Feb 12 20:14:21 GMT 2010	Sat Dec 17 87:18:16 CMT 2011
÷ .	catalage.minic.gov.fr			brazi	4230	comite gestor de internet no brasil	ambratel	QUOVA	Mon Jun 23 13:49:09 GMT 2000	Sel Nev 19 01:54:18 GMT 201
	correle.mme.gov.br	-		brazii	10954	cumite gestor da internet no brasil	08910	QUOVA	Thu Feb 19 25 37 34 GMT 2009	Sat Nev 19 (0.53/44 GMT 201
	consistente mente goube			Brazil	10954	comite gestor da internet no brasil	impio	QUOVA	Fri Mar 27 14-03-47 GMT 2000	Sat Nev 19 08:53:44 GMT 2011
1	urario-mme.gov.br			brasi	10954	cernite gestor da internet no brasil	LEDIO	QUOVA	Fri Mar 27 14:04:08 GMT 2009	Sat Nov 19 01:53:44 GMT 2011
	tera mme.gov.br	(1		bringili	10954	comite gestor de internet no brasil	repro	QUOVA	Fri Mai 27 14:04:08 GMIT 2009	3et Nov 19 02:33:44 GMT 2021
1	www.mme.gev.br			brack.	6230	comite gestor de internet no brasil	in the stirrer	QUOVA	Tue May 19 11:27:09 GMT 2009	Set New 19 02:52:58 GMT 2011
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	webpec.mme.gov.br			brace	4230	comite gestor do internet no bresil	emboitel	QUONA	Tue May 19 11:27:09 GMT 2009	Set Nov 19 08:52:58 GMT 2011
	prodeens.mme.gov.br			bratil	4230	comite gestor de internet no brasil	embratel	QUOVA	Mon May 03 15:09-41 GMT 2010	Set Nov 19 00:52:58 GMT 2011
È.	urano.mmm.gov.ht	1		brazii	4230	comite gestor da internet no brasil	embratel	QUOVA	Tue May 19 11 27:09 GMT 2009	Set Nov 19 01:52:58 GMT 2011
1	terearmme.gov.br			brazili	4/30	comite gestor da internet no brasil	embratel	QUOWA	Mon Apr 20 11:12:46 GM7 2009	Sat Nov 18 01:52:58 GMT 201
1	correin.mme.gov.br			brizil	4230	comite gestor its internet no brasil	embratel	AVOUD	Tue May 19 11:27:09 GMT 2009	Set Nov 19 03:52:58 GMT 201
ñ.	acessorph.mme.gov.kr	2000		trapi	\$230	comite gestoi da internet no brasil	embratel	-QUOVA	Mon May 03 15:09:41 GMT 2010	Set Nov 19 03:52:58 GMT 2013

ANALYSIS – DISCOVER TARGET'S PROXY



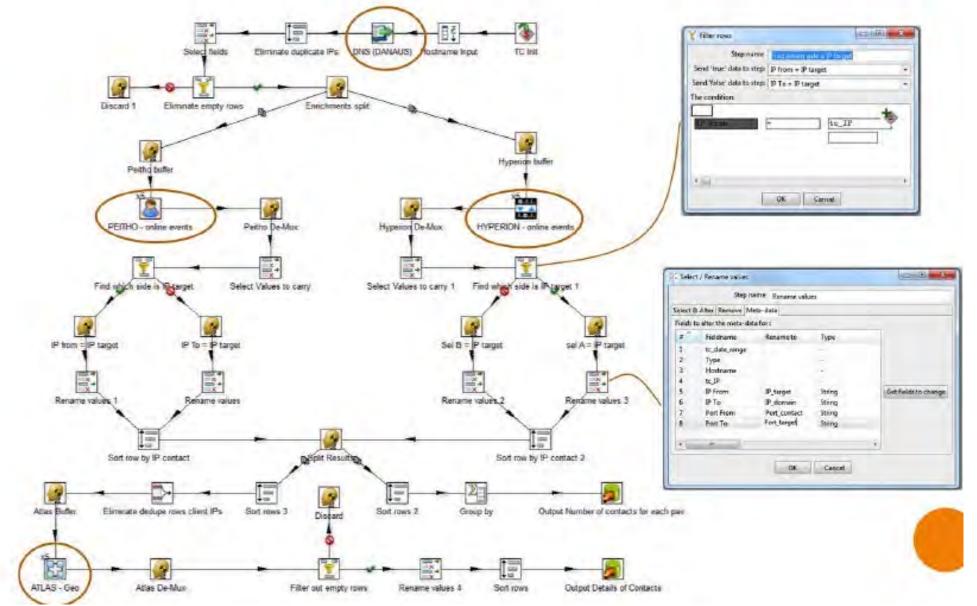
ANALYSIS – DISCOVER TARGET'S PROXY

	entity_IP	Proxy Outp	remote_port	entity_port
			6:443:TS (1);	6:47367:FC (1);
Entity IP :			6:443:TS (1);	6:27973:FC (1);
Liferty II .	sity if .		6:443:TS (1);	6:48329:FC (1);
			6:443:TS (2);	5:47950:FC (1);6:483
			6:443:TS (2);	6:54695:FC (1);6:435
Damata ID anadama			6:443:TS (4);	6:31670:FC (1);6:343
Remote IP : various			6:443:TS (5);	6:1263:FC (1);6:4115
			6:443:FS (12);	6:48927:TC (1);6:489
Remote Port : 443			6:443:TS (179);6:8	30:16:26704:FC (1);6:267
			6:443:TS (1);	6:11217:FC (1);
Entity Part: various			6:443:TS (165);	6:12946:FC (1);6:152
			6:443:TS (1);	6:60657:FC (1);
			6:443:TS (1);	6:45811:FC (1);
	4		in any real sector of	The summer to the later same

6:443:

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ANALYSIS – DETERMINE IPS MY TARGET COMMUNICATES WITH

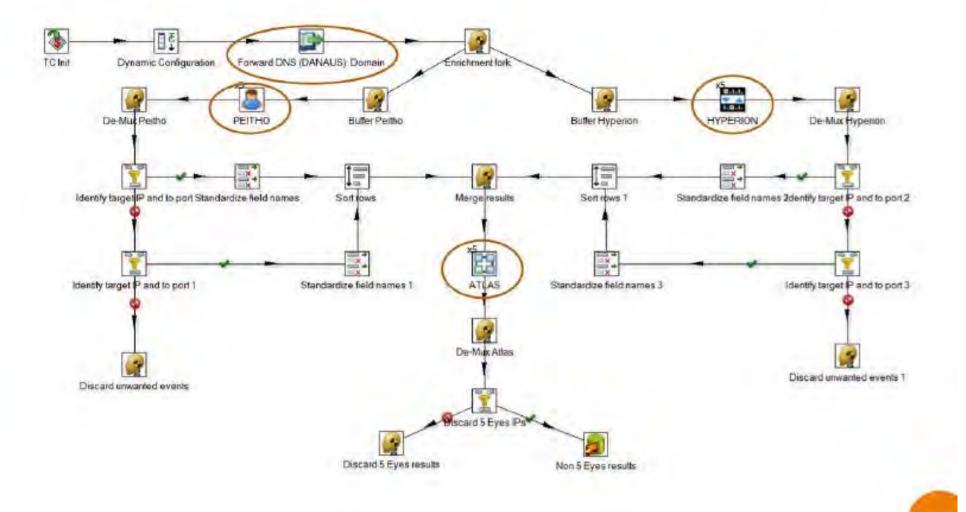


ANALYSIS – DETERMINE IPS MY TARGET COMMUNICATES WITH

Hostname domain	IP domain	IP in contact with domain	Port used by IP domain	Port used by IP contact	Owner of IP roontact	Carrier of IP contact	ASN of IP contact Country of IP contact	IP range for IP contact
correio.mme.gov.br			6:25:15 (1);	6:61951:FC(1);	tse i net noc ip infrastrcture	british telecommunications pic	5400 entres	-
carreio mme gov.cr			6:25:75 (1);	6:63181.FC (1);	tse liket nocip infrastriture	bottsh telecommunications plc	5400 entrea	
correio.mme.gov.br			625:T5 (2);6:25:F5 [1];	6.34291.FC [2]	tate communications	tata communications	6453 cardda	In case of the local division of the local d
corresournme.gov.tx			625:73(1);	6:28151;FC (1);	10	jordan telecommunications con	i 8697 jordan	Income succession in which the
correlo mime goulbr			6:25:75 (1):	6-2990:FC (1);	reassign to lide obw-lide custor	new loxinfo public company limits	9891 thailand	The state of the s
correto mitte gov.br			62555(6);	65007230(1);	internal network	International cata exchange lid	12526 jordan	STORE DRIVE TO AND MANY
correio.mme.gov.br			6:25:75 (1);	6.51934.FC (1);	parsonline	personline	16322 kran	Manager Concerned
correio minte gou br			fc2555(1);	6:2245:5C(1);	dsi home subscribers	sudnet.	25035 sault mabia	-
correio mine gov.br			625:75(1);	61799:FC(1);	dsi home subscribers	saudinet	25009 saudi erabia	-
correio.mme.gov.br			625:15(1);	6-50829:FC(1);	del home subscribers	oudnet	25015 raudi arabra	
correlo.mme.gov.br	Concession of the local division of the loca		6:25:75 (1);	6-22423(FC(1))	saudinet saudi telecom comp	an saud net	25019 saudi arabia	(International Advancements)
correio mme gov.br			05455640	6(25(5)(128);	liveb dedicated hd	web technologies inc.	33613 canada	-
correlo, mme gov.br		-	6:33507:1C	6/25/75 (22);	inveb dedicated hd	web technologies inc.	32613 canada	In succession in the local division of the l
correioumme govubr			62533(4);	6:57773:FC	middle east internet company	liicybena ciyaan	\$4397 saudi arabia	In case of the local division of the local d
www.mme.gov.br	-		6:80:25 (1);	6.54791/TC (1);	adsistervice	sahara net	41176 saudi erabia	-

Hostname starting domain IP starting domain IP in contact with starting domain Port used by starting domain Port used by IP contact Owner of IP contact Carrier of IP contact ASN of IP contact Country of IP contact IP range for IP contact

ANALYSIS – IDENTIFY POTENTIAL MAN ON THE SIDE OPERATION AGAINST MY TARGET



ANALYSIS – IDENTIFY POTENTIAL MAN ON THE SIDE OPERATION AGAINST MY TARGET

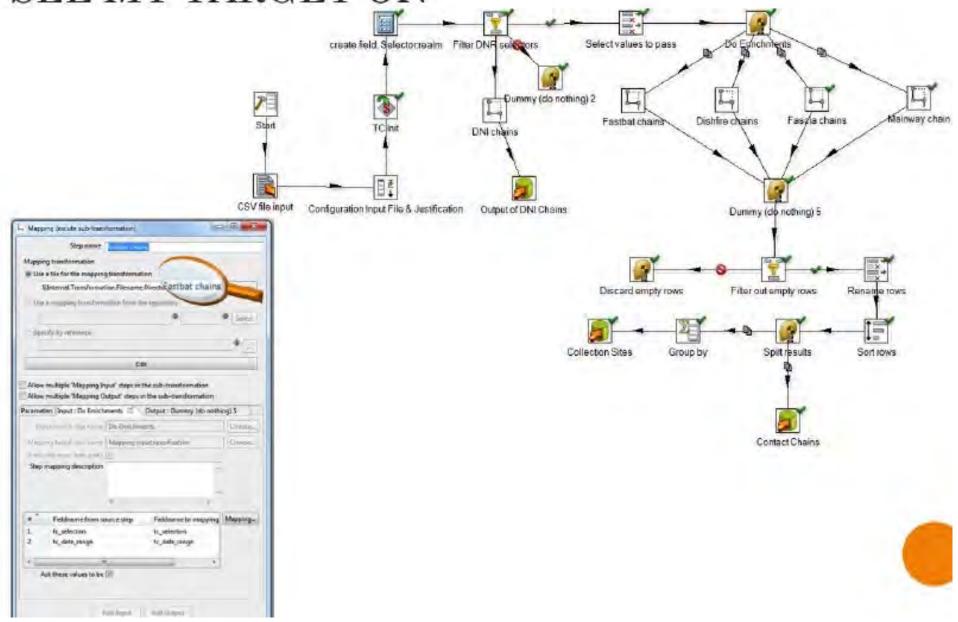
Results target_hostname	target	contact	target_port	contact_port	Case Notations	Country	Digraph
acessovpn.mme.gov.br	1		6:41278:TC (1);	6:80:FS (1);	MA10099 (1);	brazil	br
acessovpn.mme.gov.br			6:30141:TC (1);	6:80:FS (1);	MA10099 (1);	brazil	br

ASN contact	Country contact	#IPs contact
18881	brazil	26
7738	brazil	- 11
26599	brazil	6
19182	brazil	
10429	brazil	2
27717	brazil	
53006	brazil	2
14080	colombia	1
16715	brazil	4
32613	brazil	1
52972	brazil	4
8151	mékica	

ASN contact	Country contac	t #IPs contact
18881	brazil	15
26599	brazil	9
10429	brazil	7
16735	brazil	5
18479	brazil	3
45774	india	3
7738	brazil	3
19182	brazil	2
27699	brazil	2
13878	brazil	L
14080	colombia	1
16509	brazil	1
17379	brazil	1
28311	brazil	
28670	brazil	1
32613	brazil	1
4808	china	4
53018	braizi	1
53070	brazil	1

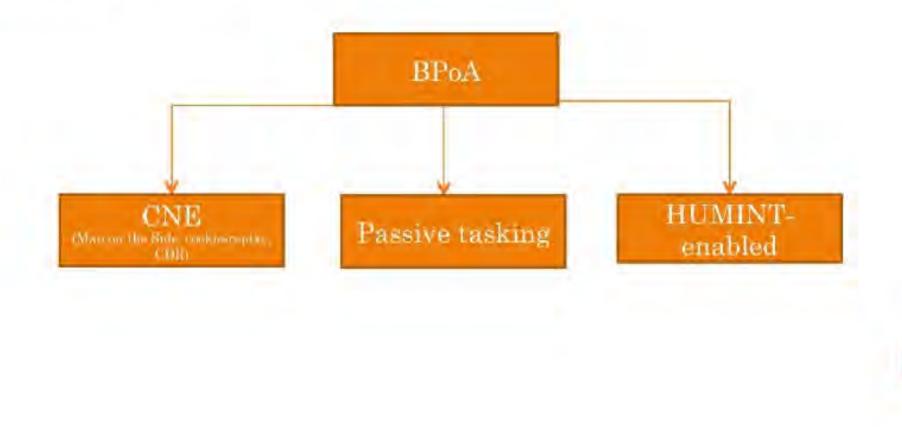
* 189.9L3	2.13			
Source	Туре	Hostname	Hostname Decoded	IPv8
EONBLUE	4	wenternet.br	excentermet.br	-
CONBLUE	8	slaughlin, comuter	algeghtm.com.br	-
ECHELUE.	A	transformation com br	transformations arise consists	-
ECINELUE	A	peopleration.be	geoderstarbr	-
EONELUE	A	molybrai.com.br	molybras.com.lar	-
EGNELIJE	A	fatioiteque edu tr	fatecitaque.edu.in	-
EONINIE	4	abiclos.com.br	abicles.com.br	-
EONELLE.	ă.	kelendretel orgilar	belietskesel org.br	-
CONNELLE	.6	stabilisti consillar	alabhsp.com.br	-
RONFLUE	A	advacc.com/br	advoice.com.lar	
EONELIN	A .	esetaljato.som.lar	metaljato.com.br	-
CONFLUE		surjectore.com.br	gariantone.cars.br	-
EONELUE	A	ateq.com.tr	stag.com.br	-
EONELLIE	A	Ratespress.com.br	flatequeux comite	
EONELUE	4	mhmiagens.com.br	mitriagens.com.br	-
EONBLUE	A	stephondoit.com/tri	stephandoit.com be	-
ECINELLIE	A.	2housements.com.br	2housemeyes.combr	-
EONELUE	A.	Pratiscom be	thats com/br	-
EONBLIE	A	-poline.com.br	galina.com.ltr	-
EONELUE.	4	esport-com do	edpoh.combr	-
EONELUE	A	institutedepvc.org	Hestitute depvic.org	-

ANALYSIS – DISCOVER CONTACTS OF MY TARGET AND COLLECTION SITES I SEE MY TARGET ON



SUMMARY

Based on the information collected, I am better positioned to analyse my target's telecoms environment.



MOVING FORWARD

- I have identified MX servers which have been targeted to passive collection by the Intel analysts, who are assessing the value, provenance, etc. of the traffic generated by the mail servers.
- I am working with TAO to further examine the possibility for a Man on the Side operation.
- Based on the network information gathered, the NAC has started a BPoA analysis on the MME.