



AQUILA WORKSHOP II

PRIVATE SET INTERSECTION

executed with **AQUILA©** software

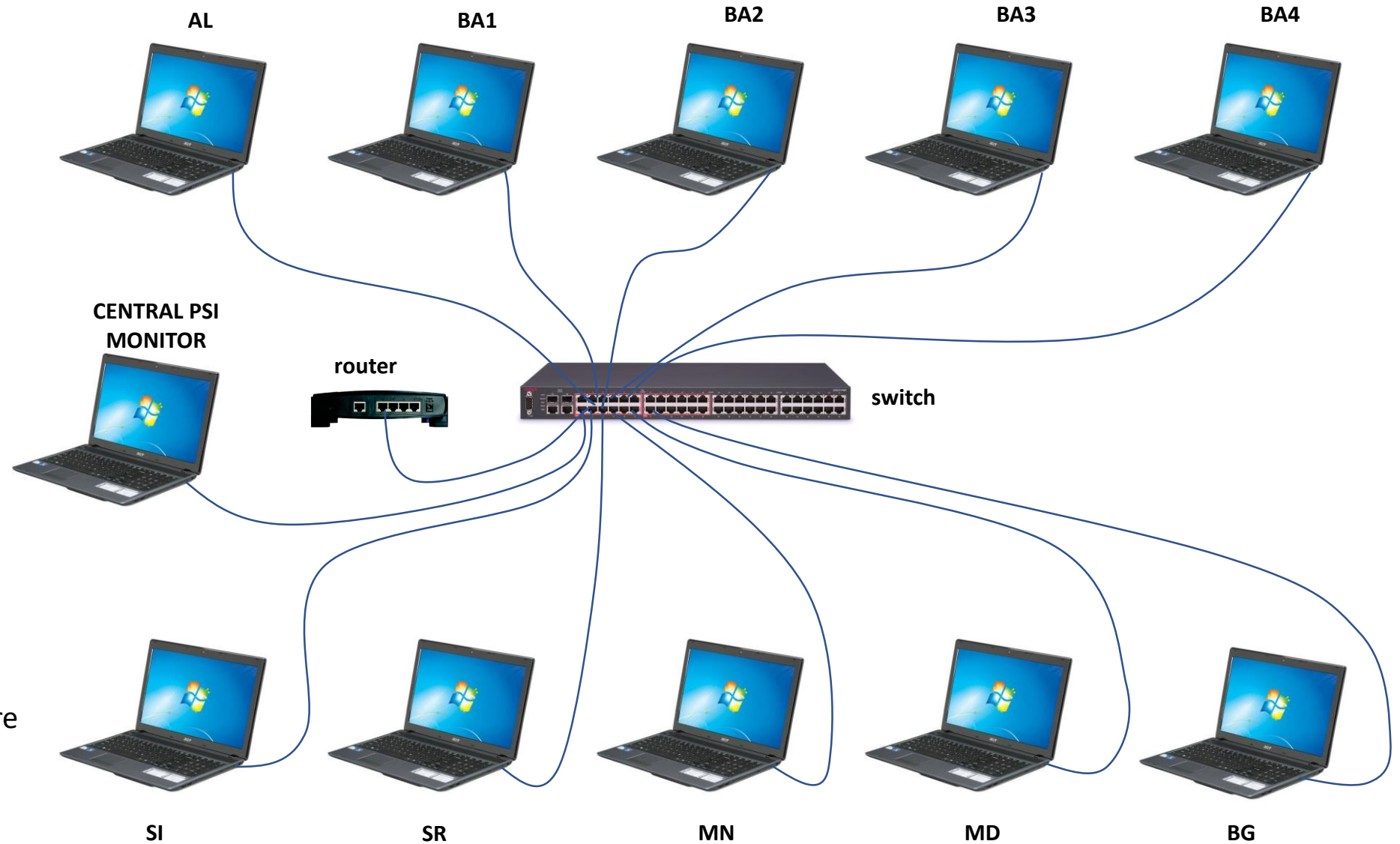
Ljubljana, September 5, 2018



With the financial support of the European Union

AD HOC NETWORK SETUP AND PSI PROCEDURE EXECUTION

- 1) LAN setup
- 2) AQUILA installation package:
 - Python
 - Aquila Application
- 3) AQUILA starts on server
 - **Central PSI Monitor** is running
- 4) AQUILA starts on participant computers (clients)
 - **Country PSI Servers** are running
 - Source file uploaded to the application
 - ICAO transliteration
 - Characters clean-up
 - Permutations created
 - RSA keys are generated
 - **Country PSI Monitors** are running and ready
- 5) **Central PSI Monitor** starts PSI procedure all-to-all
- 6) Country PSI Monitors store results of PSI procedure

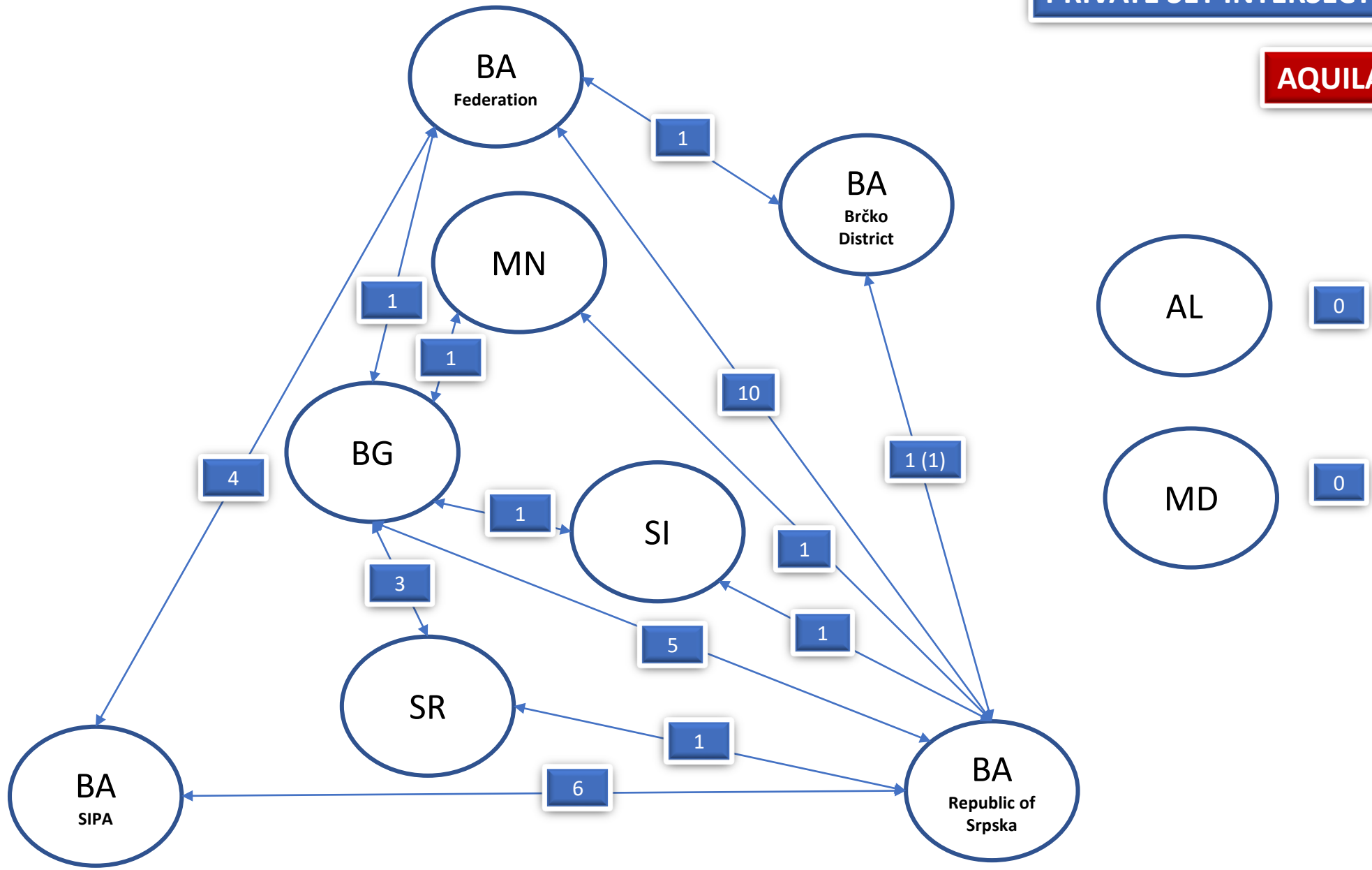


Country/Organisation	RECORDS	PERMUTATIONS	HITS											TOTAL
Albania	32	222		0	0	0	0	0	0	0	0	0	0	0
Bosnia and Herzegovina (SIPA)	19	48	0		0	6	4	1	0	0	0	0	0	11
Bosnia and Herzegovina (Brčko)	6	12	0	0		1	1	0	0	0	0	0	0	2
Bosnia and Herzegovina (Republic of Srpska)	78	606	0	6	1		10	5	0	1	1	1	1	25
Bosnia and Herzegovina (Federation)	54	108	0	4	1	10		1	0	0	0	0	0	16
Bulgaria	33	749	0	1	0	5	1		0	1	3	2		13
Moldova	9	656	0	0	0	0	0	0		0	0	0	0	0
Montenegro	29	118	0	0	0	1	0	1	0		0	0	0	2
Serbia	28	56	0	0	0	1	0	3	0	0		0	0	4
Slovenia	1070	4065	0	0	0	1	0	2	0	0	0		0	3
TOTAL	1358	6640	0	11	2	25	16	13	0	2	4	3	3	76
ELETRONIC IDENTIFIERS			HITS											TOTAL
Albania	70	0		0	0	0	0	0	0	0	0	0	0	0
Bosnia and Herzegovina (SIPA)	6	0	0		0	0	0	0	0	0	0	0	0	0
Bosnia and Herzegovina (Brčko)	5	0	0	0		1	0	0	0	0	0	0	0	1
Bosnia and Herzegovina (Republic of Srpska)	31	0	0	0	1		0	0	0	0	0	0	0	1
Bosnia and Herzegovina (Federation)	5	0	0	0	0	0		0	0	0	0	0	0	0
Bulgaria	42	0	0	0	0	0	0		0	0	0	0	0	0
Moldova	7	0	0	0	0	0	0	0		0	0	0	0	0
Montenegro	11	0	0	0	0	0	0	0	0		0	0	0	0
Serbia	0	0	0	0	0	0	0	0	0	0		0	0	0
Slovenia	211	0	0	0	0	0	0	0	0	0	0		0	0
TOTAL	388	0	0	0	1	1	0	0	0	0	0	0	0	2
GRAND TOTAL	1746	6640	0	11	3	26	16	13	0	2	4	3	3	78

Processing time for PERSONS files: **1:07h**
Processing time for ELECTRONIC IDENTIFIERS files: **0:13h**

PRIVATE SET INTERSECTION RESULTS

AQUILA II





AQUILA WORKSHOP III

PRIVATE SET INTERSECTION

executed with **AQUILA©** software

Ljubljana, November 13-14, 2018

Country/Organisation	RECORDS	PERMUTATIONS	HITS										TOTAL
PERSONS			Albania	Bosnia and Herzegovina (SIPA)	Bosnia and Herzegovina (Brčko)	Bosnia and Herzegovina (Republic of Srpska)	Bosnia and Herzegovina (Federation)	Bulgaria	Moldova	Montenegro	Serbia	Slovenia	
Albania	48	352						1					1
Bosnia and Herzegovina (SIPA)	59	596		11	11	43	6					5	76
Bosnia and Herzegovina (Brčko)	178	520	11		12	16	6		1			8	54
Bosnia and Herzegovina (Republic of Srpska)	180	1176	11	12		23	8		1			4	59
Bosnia and Herzegovina (Federation)	187	692	43	16	23		14				1	4	101
Bulgaria	149	2604	1	6	6	8	14			1	3	4	43
Moldova	14	28											0
Montenegro	30	100		1	1			1					3
Serbia	15	348					1	3					4
Slovenia	1065	3538			5	8	4	4	4				25
TOTAL	1925	9954	1	76	54	59	101	43	0	3	4	25	366
ELETRONIC IDENTIFIERS			HITS										TOTAL
Albania	124												0
Bosnia and Herzegovina (SIPA)	36	3					1	1			1		3
Bosnia and Herzegovina (Brčko)	0												0
Bosnia and Herzegovina (Republic of Srpska)	32												0
Bosnia and Herzegovina (Federation)	159	1		1									1
Bulgaria	133	1		1									1
Moldova	9												0
Montenegro	22												0
Serbia	32	1		1									1
Slovenia	143												0
TOTAL	690	6	0	3	0	0	1	1	0	0	1	0	6
GRAND TOTAL	2615	9960	1	79	54	59	102	44	0	3	5	25	372

Processing time for PERSONS files: **01:20**

Processing time for ELECTRONIC IDENTIFIERS files: **00:14**

**COMPARISON
OF RESULTS**

COUNTRY	AQUILA II							
	PERSON				ELECTORNIC ID			
	Entities	Permutations	Total hits	Succes rate	Entities	Permutations	Total hits	Succes rate
Albania	32	222	0	0,0%	70	0	0	0,0%
Bosnia and Herzegovina (SIPA)	19	48	11	57,9%	6	0	0	0,0%
Bosnia and Herzegovina (Brčko)	6	12	2	33,3%	5	0	1	20,0%
Bosnia and Herzegovina (Republic of Srpska)	78	606	25	32,1%	31	0	1	3,2%
Bosnia and Herzegovina (Federation)	54	108	16	29,6%	5	0	0	0,0%
Bulgaria	33	749	13	39,4%	42	0	0	0,0%
Moldova	9	656	0	0,0%	7	0	0	0,0%
Montenegro	29	118	2	6,9%	11	0	0	0,0%
Serbia	28	56	4	14,3%	0	0	0	0,0%
Slovenia	1070	4065	3	0,3%	211	0	0	0,0%
TOTAL	1358	6640	76	5,6%	388	0	2	0,5%
UNIQUE HITS			38	2,8%			1	0,3%

COUNTRY	AQUILA III							
	PERSON				ELECTORNIC ID			
	Entities	Permutations	Total hits	Succes rate	Entities	Permutations	Total hits	Succes rate
Albania	48	352	1	2,1%	124	0	0	0,0%
Bosnia and Herzegovina (SIPA)	59	596	76	128,8%	36	3	3	8,3%
Bosnia and Herzegovina (Brčko)	178	520	54	30,3%	0	0	0	0,0%
Bosnia and Herzegovina (Republic of Srpska)	180	1176	59	32,8%	32	0	0	0,0%
Bosnia and Herzegovina (Federation)	187	692	101	54,0%	159	1	1	0,6%
Bulgaria	149	2604	43	28,9%	133	1	1	0,8%
Moldova	14	28	0	0,0%	9	0	0	0,0%
Montenegro	30	100	3	10,0%	22	0	0	0,0%
Serbia	15	348	4	26,7%	32	1	1	3,1%
Slovenia	1065	3538	25	2,3%	143	0	0	0,0%
TOTAL	1925	9954	366	19,0%	690	6	6	0,9%
UNIQUE HITS			183	9,5%			3	0,4%