

Section C3 of Exhibit 5.3.1

List of core network elements

Part 1: Voice Core Elements

Element	Name	State	Location	Latitude	Longitude	Station	Manufacturer	Model
MSS	MSS01ALV	RJ	Rio de Janeiro	22° 59' 43" S	43° 22' 54"	ALV	NOKIA	OpenMSS
MSS	MSS07NIT	RJ	Niterói	22°53' 31" S	43° 07' 12"	NRI	NOKIA	DX-200
MSS	MSS06ALV	RJ	Rio de Janeiro	22° 59' 43" S	43° 22' 54"	ALV	NOKIA	DX-200
MSS	MSS08CID	RJ	Rio de Janeiro	22° 54' 37" S	43° 12' 05"	CID	NOKIA	DX-200
MSS	MSS09NOI	RJ	Nova Iguaçu	22° 58' 31" S	43° 19' 45"	NOI	NOKIA	DX-200
MSS	MSS24CPR	MG	Belo Horizonte	19° 54' 41" S	43° 58' 14"	CPR	NOKIA	DX-200
MSS	MSS25CPT	MG	Belo Horizonte	19° 54' 41" S	43° 58' 14"	CPR	NOKIA	DX-200
MSS	MSS26CPS	MG	Belo Horizonte	19° 54' 41" S	43° 58' 14"	CPR	NOKIA	DX-200
MSS	MSS27STZ	MG	Belo Horizonte	19° 16' 25" S	43° 12' 41"	STZ	NOKIA	DX-200
MSS	MSS28BAR	MG	Belo Horizonte	19° 55' 55" S	43° 58' 01"	BAR	NOKIA	OpenMSS
MSS	MSS33BDA	BA	Salvador	12°58'15,5" S	38°26'18,1"	BDA	NOKIA	DX-200
MSS	MSS34ITA	BA	Salvador	12° 59'48,6" S	38°28'00"	ITA	NOKIA	DX-200
MSS	MSS35ITG	BA	Salvador	12° 59'48,6" S	38°28'00"	ITA	NOKIA	DX-200
MSS	MSS48TBU	PB	João Pessoa	07° 07'02"S	34° 49' 38"	TMB	NOKIA	DX-200
MSS	MSS52RCE	PE	Recife	07° 07'02"S	34° 49' 38"	TMB	NOKIA	DX-200
MSS	MSS53NBO	PE	Recife	08° 03' 07" S	34° 53' 27"	NBV	NOKIA	DX-200
MSS	MSS54BOV	PE	Recife	08° 6' 48,9"S	34° 53'49,5"	BVG	NOKIA	DX-200
MSS	MSS61NTL	RN	Natal	05° 47' 22" S	35° 12' 06"	TRL	NOKIA	DX-200
MSC	MSC64FLA	CE	Fortaleza	03° 44'11,1"S	38° 30'8,8"	ALD	NOKIA	DX-200
MSC	MSC65ALD	CE	Fortaleza	03° 44'11,1"S	38° 30'8,8"	ALD	NOKIA	DX-200
MSS	MSS66FOR	CE	Fortaleza	03° 43' 48" S	38° 31' 33"	FLZ	NOKIA	DX-200
MSS	MSS67FLZ	CE	Fortaleza	03° 43' 48" S	38° 31' 33"	FLZ	NOKIA	DX-200
MSS	MSS68ALD	CE	Fortaleza	03° 44'11,1"S	38° 30'8,8"	ALD	NOKIA	DX-200
MSS	MSS70TSA	PI	Teresina	05° 05' 21" S	42° 48' 33"	TSA	NOKIA	DX-200
MSS	MSS71SLS	MA	São Luiz	02° 31' 56"N	44° 17' 36"	SLS	NOKIA	DX-200
MSS	MSS73ANL	MA	São Luiz	S 02° 30' 44" S	44° 17' 54"	ANL	NOKIA	OpenMSS
MSS	MSS80BLM	PA	Belém	01° 27' 37"N	48° 28' 07"	BLM	NOKIA	DX-200
MSS	MSS90MNS	AM	Manaus	03° 07' 35"N	60° 01' 12"	MNS	NOKIA	DX-200
MSS	MSS72CTA	PR	Curitiba	25° 26' 53" S	49° 17' 21"	CTA	NOKIA	DX-200
MSS	MSS74CTA	PR	Curitiba	25° 26' 53" S	49° 17' 21"	CTA	NOKIA	OpenMSS
MSS	MSS75FNS	SC	Florianópolis	27° 35' 41" S	48° 32' 56"	FNS	NOKIA	DX-200
MSS	MSS77PAE	RS	Porto Alegre	30° 01' 49" S	51° 13' 38"	PAE	NOKIA	DX-200
MSS	MSS78PAE	RS	Porto Alegre	30° 01' 49" S	51° 13' 38"	PAE	NOKIA	DX-200
MSS	MSS82BSA	DF	Brasília	15° 45' 47" S	47° 53' 24"	BSA	NOKIA	DX-200
MSS	MSS85GNA	GO	Goiânia	16° 39' 25" S	49° 14' 52"	GNA	NOKIA	DX-200
MSS	MSS86GNA	GO	Goiânia	16° 39' 25" S	49° 14' 52"	GNA	NOKIA	DX-200
MSS	MSS92CBA	MT	Cuiabá	15° 37' 52"	56° 03' 15"	CBA	NOKIA	DX-200
MSS	MSS94CPE	MS	Campo Grande	20° 26' 33"	54° 35' 42"	CPE	NOKIA	DX-200
MSS	MSS11BRS	SP	São Paulo	23°32'35,88" S	46°37'8,52"	BRS	NOKIA	DX-200
MSS	MSS12GUA	SP	São Paulo	23 31' 17" S	46o 43' 52"	GUA	NOKIA	DX-200
MSS	MSS13GPA	SP	São Paulo	23 31' 17" S	46o 43' 52"	GUA	NOKIA	DX-200
MSS	MSS14BRA	SP	São Paulo	23°32'35,88" S	46°37'8,52"	BRS	NOKIA	DX-200
MSS	MSS15SPO	SP	São Paulo	23 31' 17" S	46o 43' 52"	GUA	NOKIA	DX-200
MSS	MSS16SPO	SP	São Paulo	23 31' 17" S	46o 43' 52"	GUA	NOKIA	DX-200
MGW	MGW02BDA	BA	Salvador	12°58'15,5" S	38°26'18,1"	BDA	NOKIA	IPA2800
MGW	MGW03BDA	BA	Salvador	12°58'15,5" S	38°26'18,1"	BDA	NOKIA	IPA2800
MGW	MGW04BDA	BA	Salvador	12°58'15,5" S	38°26'18,1"	BDA	NOKIA	OpenMGW
MGW	MGW01GGU	SE	Aracajú	10° 56'14,0" S	37°03' 48,0"	GGU	NOKIA	IPA2800
MGW	MGW01ITA	BA	Salvador	12° 59'48,6" S	38°28'00"	ITA	NOKIA	IPA2800
MGW	MGW03ITA	BA	Salvador	12° 59'48,6" S	38°28'00"	ITA	NOKIA	IPA2800
MGW	MGW02ITA	BA	Salvador	12° 59'48,6" S	38°28'00"	ITA	NOKIA	IPA2800
MGW	MGW02ITB	BA	Itabuna	14°46'50"S	39°15'42"	ITB	NOKIA	IPA2800
MGW	MGW01FSA	BA	Feira de Santana	12o15'22"S	38o57'07"	FSA	NOKIA	IPA2800
MGW	MGW02JFA	MG	Juiz de Fora	21° 45' 23"S	43° 21' 01"	JFA	NOKIA	IPA2800
MGW	MGW01DVL	MG	Divinópolis	20° 10' 50"S	44° 58' 23"	DVL	NOKIA	IPA2800

MGW	MGW02DVL	MG	Divinópolis	20° 10' 50" S	44° 58' 23"	DVL	NOKIA	OpenMGW
MGW	MGW01CRP	ES	Carapina	20° 12' 56" S	40° 16' 04"	CRP	NOKIA	IPA2800
MGW	MGW03JFA	MG	Juiz de Fora	21° 45' 23" S	43° 21' 01"	JFA	NOKIA	OpenMGW
MGW	MGW01ULA	MG	Uberlândia	18° 52' 1,8" S	48° 16' 0,2"	ULA	NOKIA	IPA2800
MGW	MGW02ULA	MG	Uberlândia	18° 52' 1,8" S	48° 16' 0,2"	ULA	NOKIA	IPA2800
MGW	MGW01SBE	MG	Belo Horizonte	19° 56' 40" S	43° 56' 52"	SBE	NOKIA	IPA2800
MGW	MGW03ULA	MG	Uberlândia	18° 52' 1,8" S	48° 16' 0,2"	ULA	NOKIA	OpenMGW
MGW	MGW01BAR	MG	Belo Horizonte	19 55 55 S	43° 58' 01"	BAR	NOKIA	IPA2800
MGW	MGW01MCL	MG	Montes Claros	16° 43' 25"	43° 51' 56"	MCL	NOKIA	IPA2800
MGW	MGW01GVS	MG	Governador Valadares	18° 43' 22"	41° 59' 13"	GVS	NOKIA	IPA2800
MGW	MGW02SBE	MG	Belo Horizonte	19° 56' 40" S	43° 56' 52"	SBE	NOKIA	IPA2800
MGW	MGW03CPT	MG	Belo Horizonte	19° 54' 41" S	43° 58' 14"	CPR	NOKIA	OpenMGW
MGW	MGW01VGA	MG	Varginha	21° 32' 58" S	45° 21' 48"	VGA	NOKIA	IPA2800
MGW	MGW02VGA	MG	Varginha	21° 32' 58"	45° 21' 48"	VGA	NOKIA	IPA2800
MGW	MGW01STA	MG	Belo Horizonte	19° 16' 25"	43° 12' 41"	STZ	NOKIA	IPA2800
MGW	MGW02BAR	MG	Belo Horizonte	19° 55' 55" S	43° 58' 01"	BAR	NOKIA	IPA2800
MGW	MGW03BAR	MG	Belo Horizonte	19° 55' 55" S	43° 58' 01"	BAR	NOKIA	IPA2800
MGW	MGW04BAR	MG	Belo Horizonte	19° 55' 55" S	43° 58' 01"	BAR	NOKIA	OpenMGW
MGW	MGW02ALD	CE	Fortaleza	03° 44' 11,1" S	38° 30' 8,8"	ALD	NOKIA	IPA2800
MGW	MGW01FLZ	CE	Fortaleza	03° 43' 48" S	38° 31' 33"	FLZ	NOKIA	IPA2800
MGW	MGW02FLZ	CE	Fortaleza	03° 43' 48" S	38° 31' 33"	FLZ	NOKIA	IPA2800
MGW	MGW03FLZ	CE	Fortaleza	03° 43' 48" S	38° 31' 33"	FLZ	NOKIA	OpenMGW
MGW	MGW03ALD	CE	Fortaleza	03° 44' 11,1" S	38° 30' 8,8"	ALD	NOKIA	IPA2800
MGW	MGW05ALD	CE	Fortaleza	03° 44' 11,1" S	38° 30' 8,8"	ALD	NOKIA	OpenMGW
MGW	MGW04ALD	CE	Fortaleza	03° 44' 11,1" S	38° 30' 8,8"	ALD	NOKIA	OpenMGW
MGW	MGW01TSA	PI	Teresina	05° 05' 21" S	42° 48' 33"	TSA	NOKIA	IPA2800
MGW	MGW02TSA	PI	Teresina	05° 05' 21" S	42° 48' 33"	TSA	NOKIA	IPA2800
MGW	MGW03TSA	PI	Teresina	05° 05' 21" S	42° 48' 33"	TSA	NOKIA	OpenMGW
MGW	MGW01SLS	MA	São Luís	02° 31' 56" N	44° 17' 36"	SLS	NOKIA	IPA2800
MGW	MGW02SLS	MA	São Luís	02° 31' 56" N	44° 17' 36"	SLS	NOKIA	IPA2800
MGW	MGW03SLS	MA	São Luís	02° 31' 56" N	44° 17' 36"	SLS	NOKIA	IPA2800
MGW	MGW04SLS	MA	São Luís	02° 31' 56" N	44° 17' 36"	SLS	NOKIA	OpenMGW
MGW	MGW01ANL	MA	São Luís	S 02° 30' 44"	44° 17' 54"	ANL	NOKIA	IPA2800
MGW	MGW01NRI	RJ	Niterói	22° 53' 31" S	43° 07' 12"	NRI	NOKIA	IPA2800
MGW	MGW02NRI	RJ	Niterói	22° 53' 31" S	43° 07' 12"	NRI	NOKIA	IPA2800
MGW	MGW01CBF	RJ	Cabo Frio	22° 52' 47,0" S	42° 1' 4,7"	CBF	NOKIA	IPA2800
MGW	MGW02ALV	RJ	Rio de Janeiro	22° 59' 43" S	43° 22' 54"	ALV	NOKIA	IPA2800
MGW	MGW01VRD	RJ	Volta Redonda	22° 31' 3,4" S	43° 06' 16,2"	VRD	NOKIA	IPA2800
MGW	MGW02VRD	RJ	Volta Redonda	22° 31' 3,4" S	43° 06' 16,2"	VRD	NOKIA	OpenMGW
MGW	MGW02BRB	RJ	Rio de Janeiro	22° 51' 54" S	43° 21' 16"	BRB	NOKIA	IPA2800
MGW	MGW03ALV	RJ	Rio de Janeiro	22° 59' 43" S	43° 22' 54"	ALV	NOKIA	OpenMGW
MGW	MGW01BRB	RJ	Rio de Janeiro	22° 51' 54" S	43° 21' 16"	BRB	NOKIA	IPA2800
MGW	MGW01CID	RJ	Rio de Janeiro	22° 54' 37" S	43° 12' 05"	CID	NOKIA	IPA2800
MGW	MGW02CID	RJ	Rio de Janeiro	22° 54' 37" S	43° 12' 05"	CID	NOKIA	IPA2800
MGW	MGW03CID	RJ	Rio de Janeiro	22° 54' 37" S	43° 12' 05"	CID	NOKIA	OpenMGW
MGW	MGW01NOI	RJ	Nova Iguaçu	22° 58' 31" S	43° 19' 45"	NOI	NOKIA	IPA2800
MGW	MGW02NOI	RJ	Nova Iguaçu	22° 58' 31" S	43° 19' 45"	NOI	NOKIA	IPA2800
MGW	MGW01TMB	PB	João Pessoa	07° 07' 02" S	34° 49' 38"	TMB	NOKIA	IPA2800
MGW	MGW02TMB	PB	João Pessoa	07° 07' 02" S	34° 49' 38"	TMB	NOKIA	IPA2800
MGW	MGW04NBV	PE	Recife	08° 03' 07" S	34° 53' 27"	NBV	NOKIA	IPA2800
MGW	MGW05NBV	PE	Recife	08° 03' 07" S	34° 53' 27"	NBV	NOKIA	IPA2800
MGW	MGW06NBV	PE	Recife	08° 03' 07" S	34° 53' 27"	NBV	NOKIA	IPA2800
MGW	MGW07NBV	PE	Recife	08° 03' 07" S	34° 53' 27"	NBV	NOKIA	OpenMGW
MGW	MGW02NBV	PE	Recife	08° 03' 07" S	34° 53' 27"	NBV	NOKIA	IPA2800
MGW	MGW01BVG	PE	Recife	08° 6' 48,9" S	34° 53' 49,5"	BVG	NOKIA	IPA2800
MGW	MGW02BVG	PE	Recife	08° 6' 48,9" S	34° 53' 49,5"	BVG	NOKIA	IPA2800
MGW	MGW03BVG	PE	Recife	08° 6' 48,9" S	34° 53' 49,5"	BVG	NOKIA	IPA2800
MGW	MGW01JTC	AL	Maceió	09° 38' 58,3" S	35° 42' 34,8"	JTC	NOKIA	IPA2800
MGW	MGW02TRL	RN	Natal	05° 47' 22" S	35° 12' 06"	TRL	NOKIA	IPA2800
MGW	MGW03TRL	RN	Natal	05° 47' 22" S	35° 12' 06"	TRL	NOKIA	OpenMGW
MGW	MGW01BLM	PA	Belém	01° 27' 37" N	48° 28' 07"	GMA	NOKIA	IPA2800
MGW	MGW02BLM	PA	Belém	01° 26' 43" S	48° 29' 39"	RDO	NOKIA	IPA2800
MGW	MGW03BLM	PA	Belém	01° 27' 37" S	48° 28' 07"	RDO	NOKIA	OpenMGW

MGW	MGW01SRM	PA	Santarém	02°26' 35" S	54° 42' 30"	SEM	NOKIA	IPA2800
MGW	MGW01MBA	PA	Marabá	05° 20' 23" S	49 05'30"	MBA	NOKIA	IPA2800
MGW	MGW01BVA	RR	Boa Vista	02° 49' 05" N	60° 40' 31"	BVA	NOKIA	IPA2800
MGW	MGW02BVA	RR	Boa Vista	02° 49' 05" N	60° 40' 31"	BVA	NOKIA	OpenMGW
MGW	MGW01MPA	AP	Macapá	00° 02' 22" N	51° 03' 31,6"	MPA	NOKIA	IPA2800
MGW	MGW02MPA	AP	Macapá	00° 02' 22" N	51° 03' 31,6"	MPA	NOKIA	OpenMGW
MGW	MGW01MNS	AM	Manaus	03° 07' 35" N	60° 01' 12"	MNS	NOKIA	IPA2800
MGW	MGW02MNS	AM	Manaus	03° 07' 35" N	60° 01' 12"	CEN	NOKIA	IPA2800
MGW	MGW03MNS	AM	Manaus	03° 07' 35" N	60° 01' 12"	MNS	NOKIA	OpenMGW
MGW	MGW01BSA	DF	Brasília	15° 45' 47" S	47° 53' 24"	BSA	NOKIA	IPA2800
MGW	MGW02BSA	DF	Brasília	15° 45' 47" S	47° 53' 24"	BSA	NOKIA	IPA2800
MGW	MGW01GNA	GO	Goiania	16° 39' 25" S	49° 14' 52"	GNA	NOKIA	IPA2800
MGW	MGW02GNA	GO	Goiania	16° 39' 25" S	49° 14' 52"	GNA	NOKIA	IPA2800
MGW	MGW01RVD	GO	Rio Verde	17° 48' 04" S	50° 55' 49"	RVD	NOKIA	IPA2800
MGW	MGW01PMJ	TO	Palmas	10° 11' 03" S	48° 18' 32"	PMJ	NOKIA	IPA2800
MGW	MGW01CBA	MT	Cuiabá	15° 37' 52" S	56° 03' 15"	CBA	NOKIA	IPA2800
MGW	MGW01ROI	MT	Rondonópolis	16° 28' 16" S	54° 38' 05"	ROI	NOKIA	IPA2800
MGW	MGW01PVO	RO	Porto Velho	08° 45' 27" S	63° 54' 00"	PVO	NOKIA	IPA2800
MGW	MGW01RBO	AC	Rio Branco	09° 58' 27" S	67° 48' 36"	RBO	NOKIA	IPA2800
MGW	MGW01CPE	MS	Campo Grande	20° 26' 33" S	54° 35' 42"	CPE	NOKIA	IPA2800
MGW	MGW01LDA	PR	Londrina	23° 20' 08" S	51° 10' 52"	LDA	NOKIA	IPA2800
MGW	MGW01MGA	PR	Maringá	23° 23' 15" S	52° 00' 42"	MGA	NOKIA	IPA2800
MGW	MGW01CSC	PR	Cascavel	24° 57' 32" S	53° 27' 23"	CSC	NOKIA	IPA2800
MGW	MGW01CTA	PR	Curitiba	25° 26' 53" S	49° 17' 21"	CTA	NOKIA	IPA2800
MGW	MGW02CTA	PR	Curitiba	25° 26' 53" S	49° 17' 21"	CTA	NOKIA	IPA2800
MGW	MGW01PGO	PR	Ponta Grossa	25° 05' 42" S	50° 09' 43"	PGO	NOKIA	IPA2800
MGW	MGW01FNS	SC	Florianópolis	27° 35' 41" S	48° 32' 56"	FNS	NOKIA	IPA2800
MGW	MGW01BNU	SC	Blumenau	26° 55' 10" S	59° 03' 58"	BNU	NOKIA	IPA2800
MGW	MGW01LGS	SC	Lages	27° 48' 47" S	50° 22' 18"	LGS	NOKIA	IPA2800
MGW	MGW01PAE	RS	Porto Alegre	30° 01' 49" S	51° 13' 38"	PAE	NOKIA	IPA2800
MGW	MGW02PAE	RS	Porto Alegre	30° 01' 49" S	51° 13' 38"	PAE	NOKIA	IPA2800
MGW	MGW01PLT	RS	Pelotas	31° 45' 28" S	52° 20' 03"	PLT	NOKIA	IPA2800
MGW	MGW01CSL	RS	Caxias do Sul	29° 09' 51" S	51° 10' 31"	CSL	NOKIA	IPA2800
MGW	MGW01SMA	RS	Santa Maria	29° 41' 05" S	53° 48' 30"	SMA	NOKIA	IPA2800
MGW	MGW01BRS	SP	São Paulo	23°32'35.88" S	46°37'8.52"	BRS	NOKIA	IPA2800
MGW	MGW03BRS	SP	São Paulo	23°32'35.88" S	46°37'8.52"	BRS	NOKIA	IPA2800
MGW	MGW04BRS	SP	São Paulo	23°32'35.88" S	46°37'8.52"	BRS	NOKIA	IPA2800
MGW	MGW01GUA	SP	São Paulo	23 31' 17" S	460 43' 52"	GUA	NOKIA	IPA2800
MGW	MGW04GUA	SP	São Paulo	23 31' 17" S	460 43' 52"	GUA	NOKIA	IPA2800
MGW	MGW01SJC	SP	São José dos Campos	23° 11' 24.14" S	45° 53' 14.30"	SJC	NOKIA	IPA2800
MGW	MGW01STS	SP	Santos	23° 56' 51.94" S	46° 19' 36.74"	STS	NOKIA	IPA2800
MGW	MGW01CAS	SP	Campinas	22° 53' 4.7" S	47° 06' 51.26"	CPS	NOKIA	IPA2800
MGW	MGW02CAS	SP	Campinas	22° 53' 4.7" S	47° 06' 51.26"	CPS	NOKIA	IPA2800
MGW	MGW02BRS	SP	São Paulo	23°32'35.88" S	46°37'8.52"	BRS	NOKIA	IPA2800
MGW	MGW05BRS	SP	São Paulo	23°32'35.88" S	46°37'8.52"	BRS	NOKIA	OpenMGW
MGW	MGW06BRS	SP	São Paulo	23°32'35.88" S	46°37'8.52"	BRS	NOKIA	OpenMGW
MGW	MGW02GUA	SP	São Paulo	23 31' 17" S	460 43' 52"	GUA	NOKIA	IPA2800
MGW	MGW03GUA	SP	São Paulo	23 31' 17" S	460 43' 52"	GUA	NOKIA	IPA2800
MGW	MGW01BRU	SP	Baurú	22° 19' 18" S	49° 04' 8.79"	BRU	NOKIA	IPA2800
MGW	MGW01SOC	SP	Sorocaba	23°30' 10.8" S	47°27' 41.3"	SOC	NOKIA	IPA2800
MGW	MGW01RPO	SP	Ribeirão Preto	21° 10' 54.1" S	47° 46' 49.4"	RPO	NOKIA	IPA2800
MGW	MGW01SRR	SP	São José do Rio Preto	20° 48' 51.28" S	49° 23' 11.85"	SRR	NOKIA	IPA2800
MGW	MGW01PPE	SP	Presidente Prudente	22° 07' 36.10" S	51° 23' 14.93"	PPE	NOKIA	IPA2800

Part 2: Data Core Elements

Element	Station	Location	Latitude	Longitude	Manufacturer	Model
SGSN + MME (Combi)	ALD	Aldeota - CE	03° 44' 11,1" S	38° 30' 8,8"	Nokia	ATCA FlexiPlatform
SGSN + MME (Combi)	ALD	Aldeota - CE	03° 44' 11,1" S	38° 30' 8,8"	Nokia	ATCA FlexiPlatform
SGSN + MME (Combi)	CEN	Centro-CE	03° 43' 48" S	38° 31' 33"	Nokia	ATCA FlexiPlatform
SGSN + MME (Combi)	CEN	Centro-CE	03° 43' 48" S	38° 31' 33"	Nokia	ATCA FlexiPlatform
SGSN + MME (Combi)	BDEA	Bolandeira - BA	3° 44' 11,1"	38° 30' 8,8"	Nokia	ATCA FlexiPlatform
SGSN + MME (Combi)	ITA	Itaigara-BA	12° 59' 48,6" S	38° 28' 00"	Nokia	ATCA FlexiPlatform
SGSN + MME (Combi)	BGU	Bernardo Guimarães - MG	19° 55' 38" S	43° 56' 44"	Nokia	ATCA FlexiPlatform
SGSN + MME (Combi)	BRS	Brás - SP	23° 32' 35,88" S	46° 37' 8,52"	Nokia	ATCA FlexiPlatform
SGSN + MME (Combi)	BRS	Brás - SP	23° 32' 35,88" S	46° 37' 8,52"	Nokia	ATCA FlexiPlatform
SGSN + MME (Combi)	ETCE	Brasília - DF	15° 45' 47" S	47° 53' 24"	Nokia	ATCA FlexiPlatform
SGSN + MME (Combi)	ETCO	Brasília - DF	15° 45' 47" S	47° 53' 24"	Nokia	ATCA FlexiPlatform
SGSN + MME (Combi)	ETCO	Brasília - DF	15° 45' 47" S	47° 53' 24"	Nokia	ATCA FlexiPlatform
SGSN + MME (Combi)	BVG	Boa Viagem - PE	08° 6' 48,9" S	34° 53' 49,5"	Nokia	ATCA FlexiPlatform
SGSN + MME (Combi)	BVG	Boa Viagem - PE	08° 6' 48,9" S	34° 53' 49,5"	Nokia	ATCA FlexiPlatform
SGSN + MME (Combi)	NBV	Boa Vista - PE	08° 03' 07" S	34° 53' 27"	Nokia	ATCA FlexiPlatform
SGSN + MME (Combi)	NBV	Boa Vista - PE	08° 03' 07" S	34° 53' 27"	Nokia	ATCA FlexiPlatform
SGSN + MME (Combi)	BVA	Curitiba - PR	25° 26' 53" S	49° 17' 21"	Nokia	ATCA FlexiPlatform
SGSN + MME (Combi)	GUA	Guaipá - SP	23 31' 17" S	46 43' 52"	Nokia	ATCA FlexiPlatform
SGSN + MME (Combi)	IPA	Ipanema - RJ	22° 59' 1,1"	43° 11' 45,9"	Nokia	ATCA FlexiPlatform
SGSN + MME (Combi)	CIN	Cidade Nova - RJ	22° 54' 37,4"	43° 12' 5"	Nokia	ATCA FlexiPlatform
SGSN + MME (Combi)	CE	Manaus - AM	03° 07' 35" N	60° 01' 12"	Nokia	ATCA FlexiPlatform
SGSN + MME (Combi)	MTZ	Porto Alegre - RS	30° 01' 49" S	51° 13' 38"	Nokia	ATCA FlexiPlatform
SGSN	BGU	Bernardo Guimarães - MG	19° 55' 38" S	43° 56' 44"	Nokia	Nokia DX
SGSN	ETCE	Brasília - DF	15° 45' 47" S	47° 53' 24"	Nokia	Nokia DX
SGSN	BVA	Curitiba - PR	25° 26' 53" S	49° 17' 21"	Nokia	Nokia DX
SGSN	MTZ	Porto Alegre - RS	30° 01' 49" S	51° 13' 38"	Nokia	Nokia DX
SAE-Gateway	ALD	Aldeota - CE	03° 44' 11,1" S	38° 30' 8,8"	Nokia	ATCA FlexiPlatform
SAE-Gateway	ALD	Aldeota - CE	03° 44' 11,1" S	38° 30' 8,8"	Nokia	ATCA FlexiPlatform
SAE-Gateway Corp	ETCE	Brasília - DF	15° 45' 47" S	47° 53' 24"	Nokia	ATCA FlexiPlatform
SAE-Gateway	ETCE	Brasília - DF	15° 45' 47" S	47° 53' 24"	Nokia	ATCA FlexiPlatform
SAE-Gateway	ETCO	Brasília - DF	15° 47' 19" S	47° 53' 03"	Nokia	ATCA FlexiPlatform
SAE-Gateway Corp	GUA	Guaipá - SP	23 31' 17" S	46 43' 52"	Nokia	ATCA FlexiPlatform
SAE-Gateway	GUA	Guaipá - SP	23 31' 17" S	46 43' 52"	Nokia	ATCA FlexiPlatform
SAE-Gateway	GUA	Guaipá - SP	23 31' 17" S	46 43' 52"	Nokia	ATCA FlexiPlatform
SAE-Gateway Corp	IPA	Ipanema - RJ	22° 59' 1,1"	43° 11' 45,9"	Nokia	ATCA FlexiPlatform
SAE-Gateway	IPA	Ipanema - RJ	22° 59' 1,1"	43° 11' 45,9"	Nokia	ATCA FlexiPlatform
SAE-Gateway	IPA	Ipanema - RJ	22° 59' 1,1"	43° 11' 45,9"	Nokia	ATCA FlexiPlatform
SAE-Gateway	BVG	Boa Viagem - PE	08° 6' 48,9" S	34° 53' 49,5"	Nokia	ATCA FlexiPlatform
SAE-Gateway	BVG	Boa Viagem - PE	08° 6' 48,9" S	34° 53' 49,5"	Nokia	ATCA FlexiPlatform
SAE-Gateway	BVA	Curitiba - PR	25° 26' 53" S	49° 17' 21"	Nokia	ATCA FlexiPlatform
GGSN Corp	BDEA	Bolandeira - BA	3° 44' 11,1"	38° 30' 8,8"	Nokia	ISN Flexi Blade Plataform
GGSN Corp	BVA	Curitiba - PR	25° 26' 53" S	49° 17' 21"	Nokia	ISN Flexi Blade Plataform
GGSN Corp	GUA	Guaipá - SP	23 31' 17" S	46 43' 52"	Nokia	ISN Flexi Blade Plataform
GGSN Corp	IPA	Ipanema - RJ	22° 59' 1,1"	43° 11' 45,9"	Nokia	ISN Flexi Blade Plataform
Border Gateway	BVA	Curitiba - PR	25° 26' 53" S	49° 17' 21"	Nokia	IP Series
Border Gateway	CIN	Cidade Nova - RJ	22° 54' 37,4"	43° 12' 5"	Nokia	IP Series
Border Gateway	IPA	Ipanema - RJ	22° 59' 1,1"	43° 11' 45,9"	Nokia	IP Series
Border Gateway	GUA	Guaipá - SP	23 31' 17" S	46 43' 52"	Nokia	IP Series
Firewall	BDEA	Bolandeira - BA	3° 44' 11,1"	38° 30' 8,8"	Nokia	IP Series
Firewall	BVA	Curitiba - PR	25° 26' 53" S	49° 17' 21"	Nokia	IP Series
Firewall	ETCE	Brasília - DF	15° 45' 47" S	47° 53' 24"	Nokia	IP Series
Firewall	IPA	Ipanema - RJ	22° 59' 1,1"	43° 11' 45,9"	Nokia	IP Series
Firewall Crossbeam	GUA	Guaipá - SP	23 31' 17" S	46 43' 52"	check point	Crossbeam X80
Firewall Crossbeam	IPA	Ipanema - RJ	22° 59' 1,1"	43° 11' 45,9"	check point	Crossbeam X80
Firewall	IPA	Ipanema - RJ	22° 59' 1,1"	43° 11' 45,9"	check point	15600 NG
Firewall	IPA	Ipanema - RJ	22° 59' 1,1"	43° 11' 45,9"	check point	15600 NG
Firewall	GUA	Guaipá - SP	23 31' 17" S	46 43' 52"	check point	15600 NG
Firewall	GUA	Guaipá - SP	23 31' 17" S	46 43' 52"	check point	15600 NG
DNS	BVA	Curitiba - PR	25° 26' 53" S	49° 17' 21"	Nokia	Infoblox IB
DNS	GUA	Guaipá - SP	23 31' 17" S	46 43' 52"	Nokia	Infoblox IB
DNS	IPA	Ipanema - RJ	22° 59' 1,1"	43° 11' 45,9"	Nokia	Infoblox IB
DNS	CE	Manaus - AM	03° 07' 35" N	60° 01' 12"	Nokia	Infoblox IB
SAE-Gateway Corp	IPA	Ipanema - RJ	22° 59' 1,1"	43° 11' 45,9"	Nokia	CMG
SAE-Gateway Corp	GUA	Guaipá - SP	23 31' 17" S	46 43' 52"	Nokia	CMG
SAE-Gateway	SP	São Paulo - SP	23° 38' 58,752" S	46° 43' 37,398" W	Nokia	CMG
SAE-Gateway	MG	Belo Horizonte - MG	19° 56' 23,704" S	43° 55' 32,034" W	Nokia	CMG
SAE-Gateway	PR	Curitiba - PR	25° 26' 53" S	49° 17' 21"	Nokia	CMG
SAE-Gateway	PE	Recife - PE	08° 03' 07" S	34° 53' 27"	Nokia	CMG
SAE-Gateway	CE	Fortaleza - CE	03° 43' 48" S	38° 31' 33"	Nokia	CMG
SAE-Gateway	DF	Brasília - DF	15° 47' 19" S	47° 53' 03"	Nokia	CMG
SGSN + MME (Combi)	PR	Curitiba - PR	25° 25' 29,614" S	49° 16' 51,773" W	Nokia	Airframe RM 18
SGSN + MME (Combi)	MG	Belo Horizonte - MG	19° 56' 23,704" S	43° 55' 32,034" W	Nokia	Airframe RM 17

Part 3: Subscriber Base Elements

Element	State	Location	Station (Acronym)	Vendor	Model	SW Version
Back-End - One NDS	BA	SDR	BDE	Nokia	SDM	V17
Back-End - One NDS	RJ	RJO	BRB	Nokia	SDM	V17
Back-End - One NDS	SP	SPO	BRS	Nokia	SDM	V17
Front-End HSS	BA	SDR	BDE	Nokia	SDM	V18.5
Front-End HSS	RJ	RJO	BRB	Nokia	SDM	V18.5
Front-End HSS	SP	SPO	BRS	Nokia	SDM	V18.5
Front-End NT-HLR	BA	SDR	BDE	Nokia	SDM	V18.5
Front-End NT-HLR	CE	FLZ	CEN	Nokia	SDM	V18.5
Front-End NT-HLR	DF	BSA	ETCE	Nokia	SDM	V18.5
Front-End NT-HLR	MG	BHE	CPR	Nokia	SDM	V18.5
Front-End NT-HLR	MG	BHE	BAR	Nokia	SDM	V18.5
Front-End NT-HLR	CE	FLZ	ALD	Nokia	SDM	V18.5
Front-End NT-HLR	PE	RCE	BVG	Nokia	SDM	V18.5
Front-End NT-HLR	PR	CTA	CTBV	Nokia	SDM	V18.5
Front-End NT-HLR	RJ	RJO	BRB	Nokia	SDM	V18.5
Front-End NT-HLR	RJ	RJO	CIN	Nokia	SDM	V18.5
Front-End NT-HLR	SP	SPO	GUA	Nokia	SDM	V18.5
Front-End NT-HLR	SP	SPO	BRS	Nokia	SDM	V18.5
Front-End One-EIR	BA	SDR	BDE	Nokia	SDM	V17
Front-End One-EIR	RJ	RJO	BRB	Nokia	SDM	V17
Front-End One-EIR	SP	SPO	BRS	Nokia	SDM	V17
Back-End - One NDS	AM	MNS	CEN	Nokia	SDM	V17
Front-End HSS	AM	MNS	CEN	Nokia	SDM	V18.5
Front-End NT-HLR	AM	MNS	CEN	Nokia	SDM	V18.5
Back-End - One NDS	AM	MNS	PAB	Nokia	SDM	V17
Front-End HSS	AM	MNS	PAB	Nokia	SDM	V18.5
Front-End NT-HLR	AM	MNS	PAB	Nokia	SDM	V18.5
HLR DX R2	DF	BSA	ETCE	Nokia	DX-200	M14.6
HLRDX BCKUP	MG	BHE	STE	Nokia	DX-200	M14.6