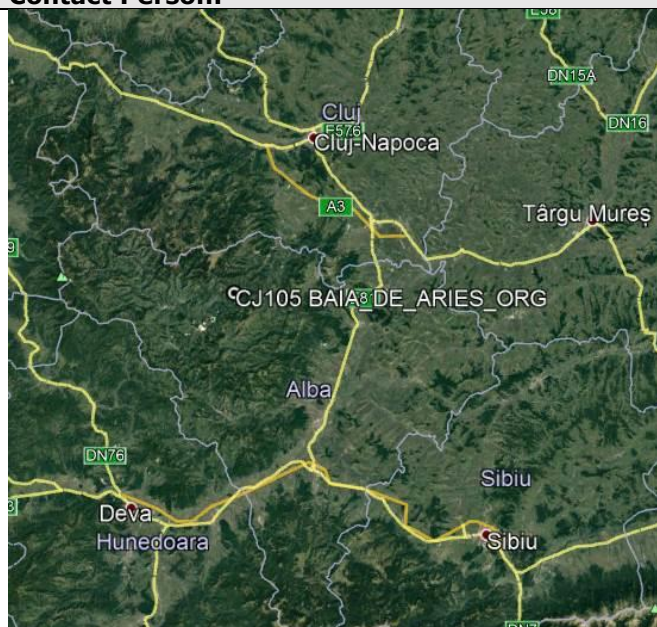




SITE SURVEY REPORT Ericsson

1. GENERAL INFORMATION

Site name:	BAIA_DE_ARIES_ORG
Site number (code):	CJ105
Site address (city;street;no.; building; entrance):	Sat Apahida In Trupul Pasune Sub Tibaie-Podas - Langa Drumul Jucului
Site area:	ALBA
Site survey team:	ATS
Checked by:	Luca Valentin
Date of site survey:	08.02.2018
Type of Site (urban, rooftop):	Greenfield
Lesser:	-
Contact Person:	-



Other Remarks:	Cheile au fost luate de la DEVA. Necesara cheie de Orange (lacat negru) si S10 la Minishelter. Accesul se face din satul Sartas. Ultimii 1000m pana la site, sunt impracticabili. Drumul este din pamant pe traseul cu rosu de mai sus. Drumul nu este accesibil cu masina pana la site deoarece este stricat. Se poate ajunge cu caruta sau tractorul. In caz de vreme nefavorabila (ploaie sau ninsoare) nu se poate ajunge in apropiere de site cu masina. Necesara 4x4 pentru a ajunge in apropiere de site pe vreme favorabila.(Nu se poate ajunge cu masina pana la site, in nicio situatie)
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2. ROOFTOP (Building information)

GPS coordinates:	N
	E
Building height:	m
Existent tripod:	Yes ☐ NO ☐



Total height:	
Use of crane for materials transportation:	Yes ☐ NO ☒
Other Remarks:	

3. GREEN FIELD (Specific data information)

GPS coordinates:	N 46° 23' 49.4" E 23° 17' 37.5"
Tower:	Yes ☒ NO ☐
Tower type:	☒ Heavy lattice tower – 50m (ORANGE) ☐ Polygonal Monopole – 30m (or more) ☐ Monopole lattice tower-30m ☐ Guyed tower on shelter-30m
Antenna Metallic Structure:	New "H" Yes ☐ NO ☒ Upgrade existing "H" Yes ☐ NO ☒ Atypical Structure Yes ☐ NO ☒
RRU Metallic Structure:	New RRU Support Yes ☐ NO ☒ Atypical Structure Yes ☐ NO ☒
Mini - shelter require:	Yes ☐ NO ☒
Mini - shelter frame standard adaptor solution:	Yes ☐ NO ☒
In case Non Standard Mini-shelter frame solution, dimensions are requested:	N/A
Non standard mini - shelter frame profile	N/A
RRU to Antenna/Combiner Jumper length (type: DIN7/16 Male –N Male):	12x3m;
Antenna to Combiner -> Jumper length (type: DIN7/16 Male – DIN7/16 Male):	4x2m;
FO cable length between BB to RRU	9x60m
DC cable length between PP to RRU	9x60m
Type and length of DC power for RRU Cu 2x6 mm ² (L<30m):	-
Type and length of DC power for RRU Cu 2X10 mm ² if needed(30m<L<60m):	Type Cu 2x10mm ² / 9x60m
Type and length of DC power for RRU Cu 2X16 mm ² if needed(60m<L<90m):	-
Type and length of DC power for RRU Cu 2X25 mm ² if needed(L>90m):	-
Combo Box required:	Yes ☐ NO ☒ ; Length of cable: m
Connection patch length from CB to RRU (FO&DC)	-
Outdoor CB existing breakers type	16A ☐ 25A ☐ Oth. ☐ 32A
PDU existing breakers availability (63A in PP)	Yes ☐ NO ☐
DC cable length from PP to new PDU	N/A
PP Type / producer plus picture on the bottom	-

4. EXISTING CONTRACT & CHANGES

Indoor space requires contract change	Yes ☐ No ☒	
Outdoor space requires contract change	Yes ☐ No ☒	
Cable routing requires contract change	Yes ☐ No ☒	
Power cabling requires contract change	Yes ☐ No ☒	



Indoor space requires studies & license change	Yes ☐	No ☒	
Outdoor space requires studies & license change	Yes ☐	No ☒	
Cable routing requires studies & license change	Yes ☐	No ☒	
Power cabling requires studies & license change	Yes ☐	No ☒	

Other Remarks:	
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5. POWER SUPPLY INFORMATION

Power availability:	YES
Voltage-measurements (PLC display):	L1(V) - L2(V) - L3(V) -
Amperage-measurements (PLC display, without A/C):	I1(A) - I2(A) - I3(A) -
Amperage-measurements (PLC display, with A/C):	I1(A) - I2(A) - I3(A) -
Outdoor mini shelter: 32A available breaker in LDB (5x6 mm ² AC Cable)	N/A
1X16A available breakers in indoor Power System	N/A
1X32A available breakers in indoor Power System	N/A
2X63A available breakers in indoor Power System	N/A
Power counter exist:	N/A
Main AC board exist:	N/A
Breaker value in BMPT:	N/A
Surge arrestors existence:	Yes
Type and length of power connection cable for BBU	Cu 2x2.5mm ² - 2m
Type and length of power connection shielded cable Al 6X25 mm ² if needed:	N/A
Type and length of power connection shielded cable Al 6X35 mm ² if needed:	N/A
Type and length of AC power connection cable 5X6 mm ² for mini shelter if needed:	N/A
Type and length of DC power from PSU to PDU Al 2x35 mm ² if needed:	N/A
CB/PDU/2 Sections (if needed):	N/A
CB/PDU/3 Sections (if needed):	N/A
PDU indoor (if needed):	N/A
Boards grounding - secured:	YES
Boards waterproofed:	YES

Other Remarks:	
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6. POWER PLANT and BATTERY INFORMATION

Number of units	Unit 1 ☐	Unit 2 ☐
Type	300A ☐ 600A ☐ Other ☐	300A ☐ 600A ☐ Other ☐
Nr./capacity[A] of rectifier modules	-	-
DC Load Amperage(displayed) [A]	-	-
Battery capacity [Ah]	-	-
Battery type/number	-	-

Other Remarks:	
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7. AIR CONDITIONING INFORMATION

Temperature [°C]	Internal: -	External:-
Number of units	Unit 1 ☐	Unit 2 ☐
Type	Free Cooling ☐ Duct ☐ Split ☐	Free Cooling ☐ Duct ☐ Split ☐



Technical specifications from external unit label		
Cooling capacity [BTU]	9.000 ☐ 12.000 ☐ 18.000 ☐ 24.000 ☐ Other ☐	9.000 ☐ 12.000 ☐ 18.000 ☐ 24.000 ☐ Other ☐
Start meter	Compressor: - Evap. Fan:- Heather: -	Compressor: Evap. Fan: Heather:
Work time meter [h]	Compressor: - Evap. Fan: - Heather: -	Compressor: Evap. Fan: Heather:
Alarms outputs	Very high temp ☐ Very low temp ☐	Very high temp ☐ Very low temp ☐

Other Remarks:	
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8. NEW INSTALLATION INFORMATION

Common: number of buss with free holes	N/A
Common: Available space on the existing cable tray	YES
Indoor equipment: Existing space for ILP mounting	N/A
Indoor equipment: Existing space for Radio Indoor equipment mounting	N/A
Indoor equipment: Existing space for Indoor Concentrator equipment mounting	N/A
Indoor equipment: Existing space for DC PDU mounting	N/A
Indoor equipment: Available holes in FIMO	N/A
Outdoor equipment: Existing space on the existing base frame for mini shelter mounting	YES
Outdoor equipment: Existing outdoor transmission cabinet	YES
Outdoor equipment: Existing space for outdoor Concentrator mounting (proposal)	N/A
Outdoor equipment: Existing space for RRU mounting (proposal)	YES

Other Remarks:	
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9. EXISTING TELECOM EQUIPMENT & INFRASTRUCTURE

a. General information

Equipment type:	Indoor ☐	Outdoor ☒	Minishelter
Number of RF antennas:	2 Telekom, 3 Orange, 1 STS		
Number of MW links	1 Telekom, 2 Orange, 1 STS		
Nr. of existing RBS cabinets	0		
MW existing RL cabinet	Indoor ☐	Outdoor ☒	Minishelter
Power cabinet exist (BBS):	Yes ☐	No ☒	
Existing cable ladder availability:	Yes ☒	No ☐	
Existing cable entry availability:	Yes ☒	No ☐	
Air condition existence & operation	Yes ☒	No ☐	



Grounding protection existence:	Yes ☒	No ☐	
Lightning protection existence:	Yes ☒	No ☐	
Installation of RF & IF cables requires special machinery (e.g. crane)	Yes ☐	No ☒	

b. Existing Masts

	Height	Length	poles/mast	Cell_id on the mast	installation readiness
1					
2					
3					
4					

c. Existing Antenna Poles

	Height	Length	Cell_id	Corner/Tower	Obstacles	installation readiness
1	46.1m	1x3m	RF U,K		No	Yes
2	46.1m	1x3m	RF V,L		No	Yes
3						
4						
5						

d. Existing MW Poles

	Height	Length	Hop id	Corner/Tower	Far end	Obstacles	installation readiness
1	+38.0m						
2							
3							
4							
5							
6							

Remarks:	
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10. ANALYSIS LOADING DATA

LOAD TYPE	DIAMETER (mm)	POSITION (m)	NUMBER
M/W LINK	600	38.0	
M/W LINK			
M/W LINK			
M/W LINK			
M/W LINK			
M/W LINK			

**11. EXISTING LAYOUT(S):
GENERAL VIEW OF STRUCTURE**









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RADIO INFORMATION







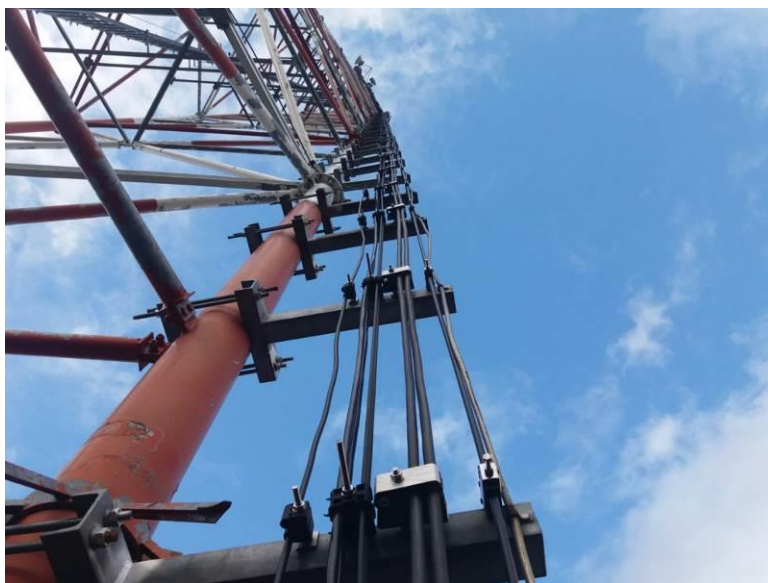
Sectorul 1





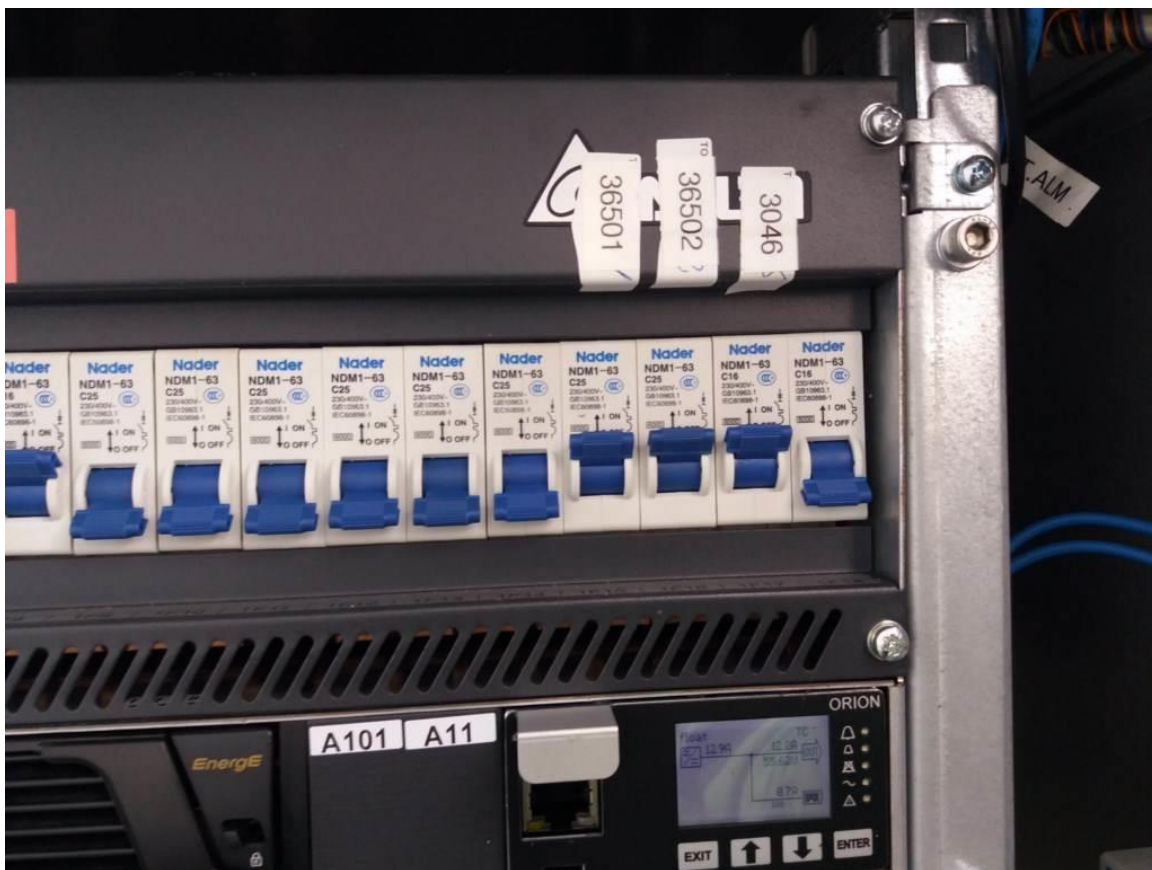


Sectorul 2



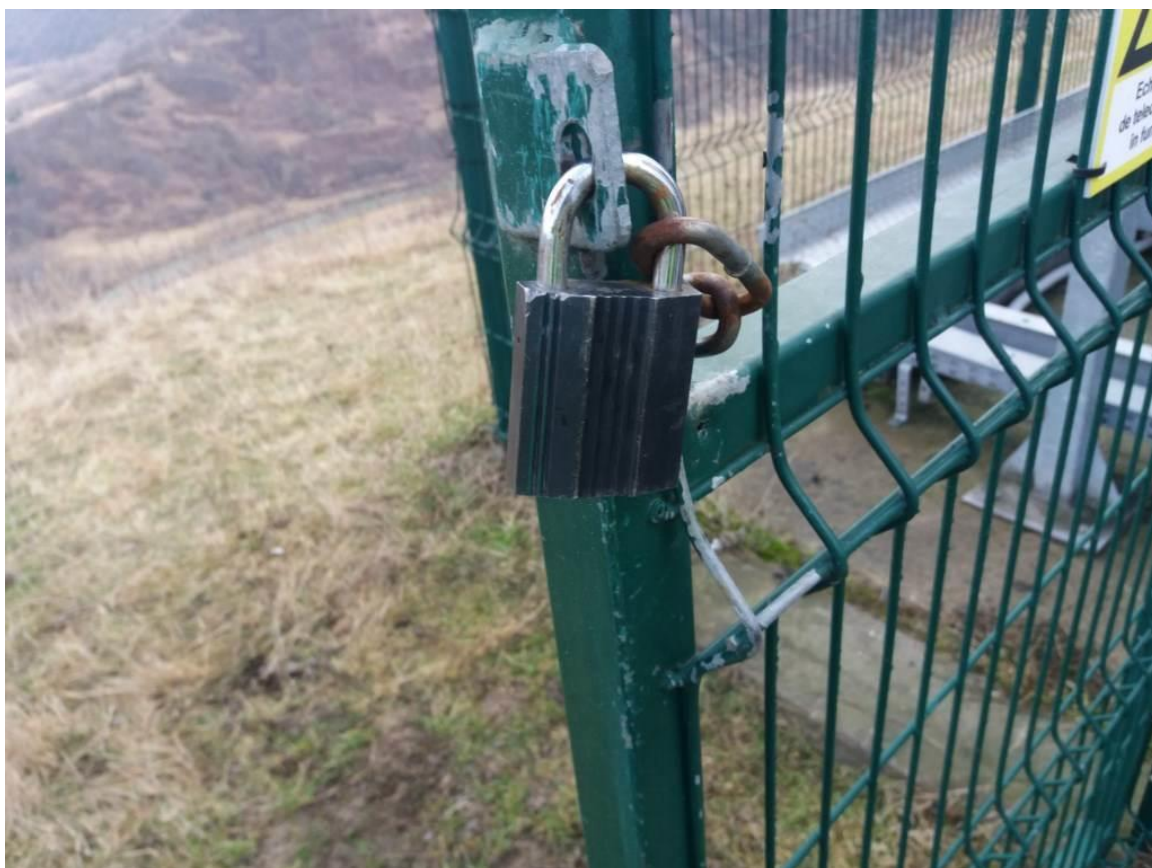








Usa din spatele minishelterului nu se deschide complet





12. PROPOSED INFRASTRUCTURE & EQUIPMENT SOLUTION

a. Indoor cabinets

Dimensions of existing room:	N/A
Space availability for indoor equipment:	N/A
Expansion of existing equipment room:	N/A
Shelter needed:	N/A
Shelter concrete base needed:	N/A
Space availability for new shelter positioning:	N/A
AC power extension/change:	N/A
Main grounding bus bar existence:	N/A
Water proofing of the room needs restoration:	N/A
Internal Lighting restoration:	N/A
Wall painting needed:	N/A
Antistatic floor addition:	N/A
Fire alarm system expansion:	N/A
Air Conditioning (A/C) expansion/replacement:	N/A
Nr./capacity[A] of rectifier modules	N/A
Security Lights board:	N/A
Plastic trays for cables expansion :	N/A
Internal ladder for the feeders availability:	N/A
Cable entry expansion:	N/A
Other Remarks:	-

b. Outdoor cabinets

New metal base needed:	No
Dimensions of new metal base:	N/A
Secure of metal base on floor:	Yes
Grounding of base/Earthing for equipments:	Yes
AC power supply availability:	Yes
Needed properly holes on base:	No
Clearances around cabinets:	No
Other Remarks:	-

c. Proposed New Masts

	Height	Length	poles/mast	Cell_id on the mast	Position
1	35.0m	2x3m	RF U, RF K		No
2	35.0m	1x3m	RF V,L		No
3					
4					

d. New Antenna Poles

	Height	Length	Cell_id	Corner/Tower	Obstacles	installation readiness
1	46.1m	1x3m	RF U+Q2,K		No	Yes
2	46.1m	1x3m	RF V+R2,L		No	Yes
3						
4						

e. New MW Poles

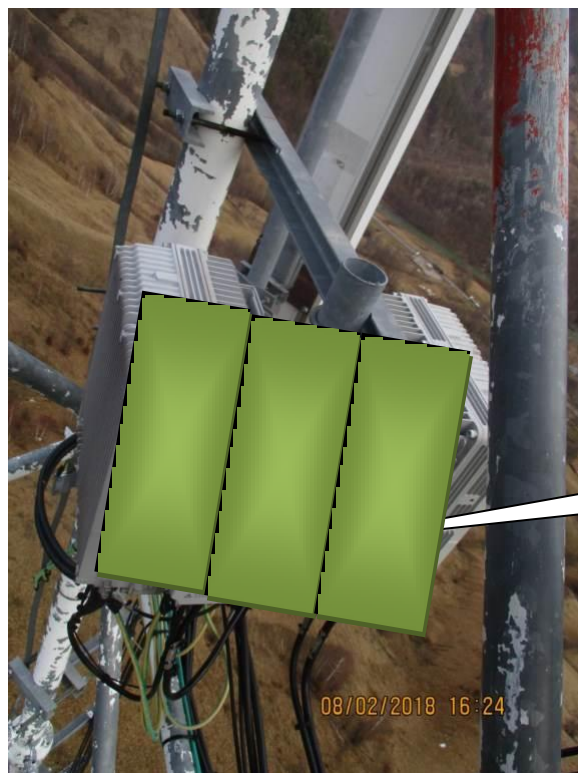
	Height	Length	Hop id	Corner/Tower	Far end	Obstacles	installation readiness
1							
2							
3							



Proposed corrective works:	Reconfigurarea site-ului CJ105 Baia_de_Aries_ORG care sa includa urmatoarele elemente: - Se vor schimba antenele existente cu 2 antene noi 80010666v01 noi pe aceeasi pozitie; - Pe teville antenelor RF se vor instala 2xcombineri noi pentru LTE800 + GSM900; - Pe cei 2 GF1 se vor instala cate; 3xRRU-uri noi (LTE800, GSM900, UMTS2100); - In minishelter Raycap se va instala 1xRBS6601 nou echipat cu 1xBB5216 + BB5212. - RBS6601 se va alimenta din 1x16A din distributie minishelter; - Cele 6xRRU-uri noi se vor alimenta din sigurante eistente din distributie minishelter cu cabluri DC CU2x10mmp – 60m; - Dupa swap, se vor dezinstala RRU-urile ZTE impreuna cu FO/DC + echipamente din minishelter; Lungimi cabluri: Jumperi 1/2" – 12x3m(RRU-uri – Combineri/RF) + 4x2m(Combineri – RF); FO – 6x60m; DC CU2x10mmp – 6x60m; DC CU2x2,5mmp – 2m; * Structurile metalice si echipamentele noi se vor conecta la impamantarea existenta pe site.
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13. PROPOSED SOLUTION LAYOUT(S): PICTURES AND COMMENTS:





3xRRU-uri noi pe
GF1 existent



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14. Detailed site information/Picture:

- Pictures with Metallic existing structure; further reuse to be acknowledge by Telekom;
- Pictures with existing Cable tray to decide if additional feeders can be added/ if case