

ABSOLUTE SOLUTIONS INC.

UNIVERSAL ACCESS FUND RTP
SITE VALIDATION & ACCEPTANCE
REPORT - PARLUKEN

15 February 2021

EXECUTIVE SUMMARY

This report illustrates the KPIs for Single Site Verification and displays issues that need urgent attention in the Acceptance Test Procedure section. Lastly, it contains recommendations which must be implemented to archive better service performance and telecommunications standards.

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SINGLE SITE VERIFICATION

SITE RF PARAMETERS

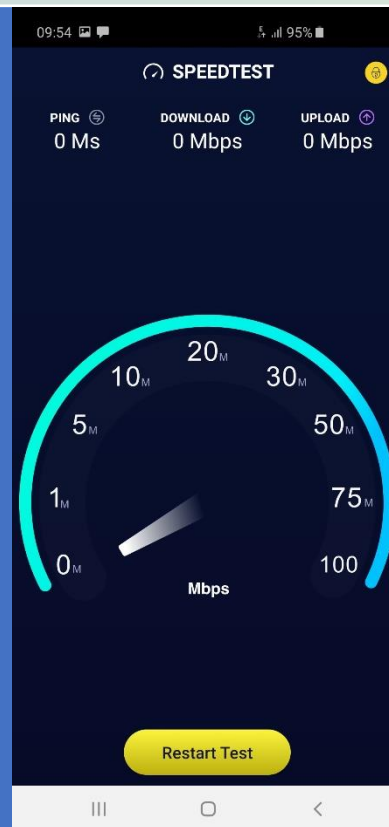
Site Name	Cell Name	Latitude	Longitude	Antenna Height	Antenna Type	BCCH	CI	MCC	MNC	BSIC	LAC	RAC	Frequency Band
UAF_Parluken	UAF_Parluken_S1	5.115833	-8.213611	28m	Omni	63	2201	618	1	18	1000	5	900 MHz

CALL QUALITY TEST (CQT)

RAN		VOICE CQT					SMS CQT		DATA CQT			
RxLev	RxQual	Voice Quality Score	Call Setup Time	Call Setup Success Rate	Call Failure Rate	Call Drop Rate	SMS Success Rate	SMS Failure Rate	Data Setup Success Rate	Data Failure Rate	Download Throughput	Upload Throughput
-69 dBm	0	1.929	14.074 s	100%	0%	0%	100%	0%	0%	100%	0 Kbps	0 Kbps

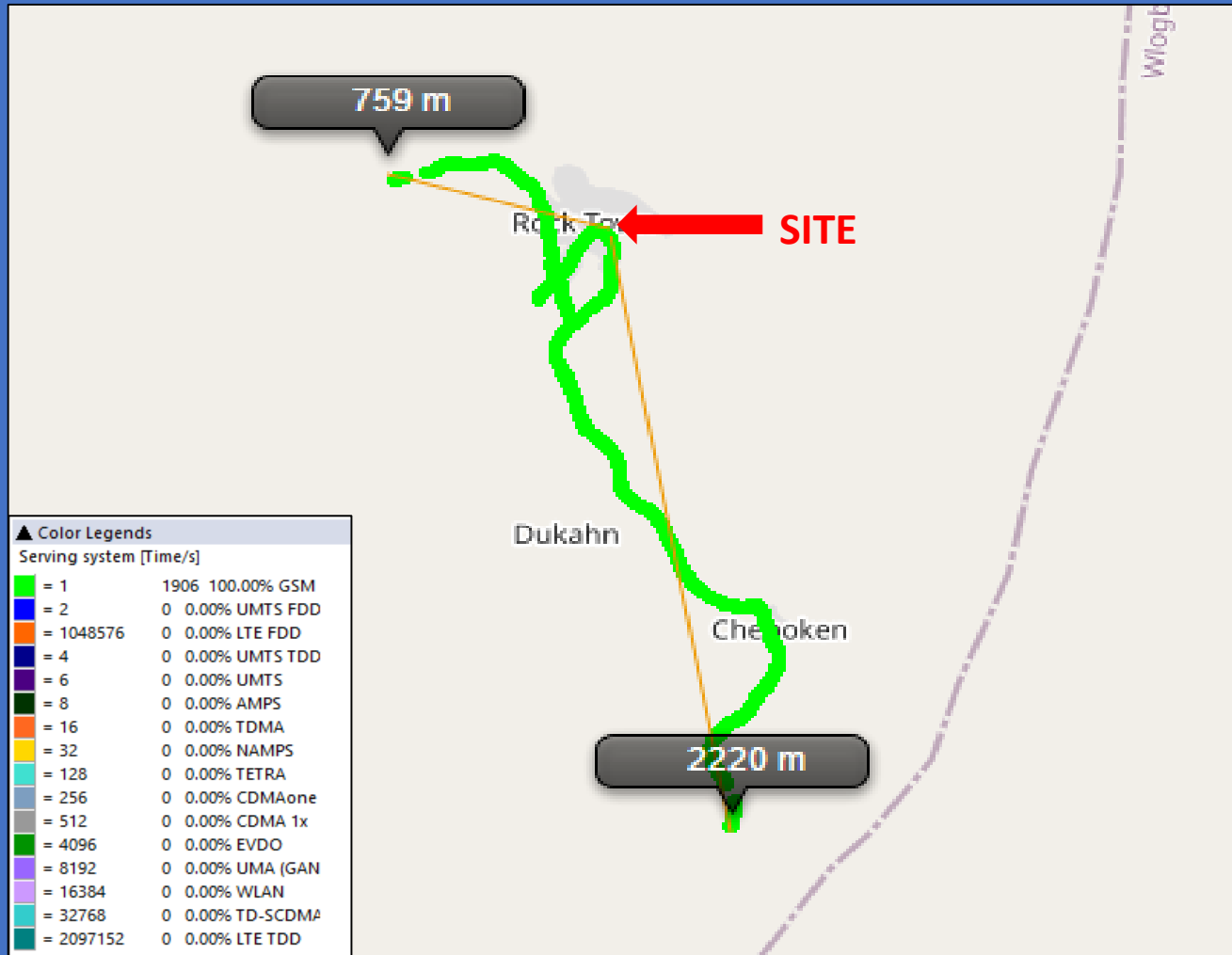
SPEED TEST RESULT

Ping: 0 ms
DL: 0 Mbps
UL: 0 Mbps



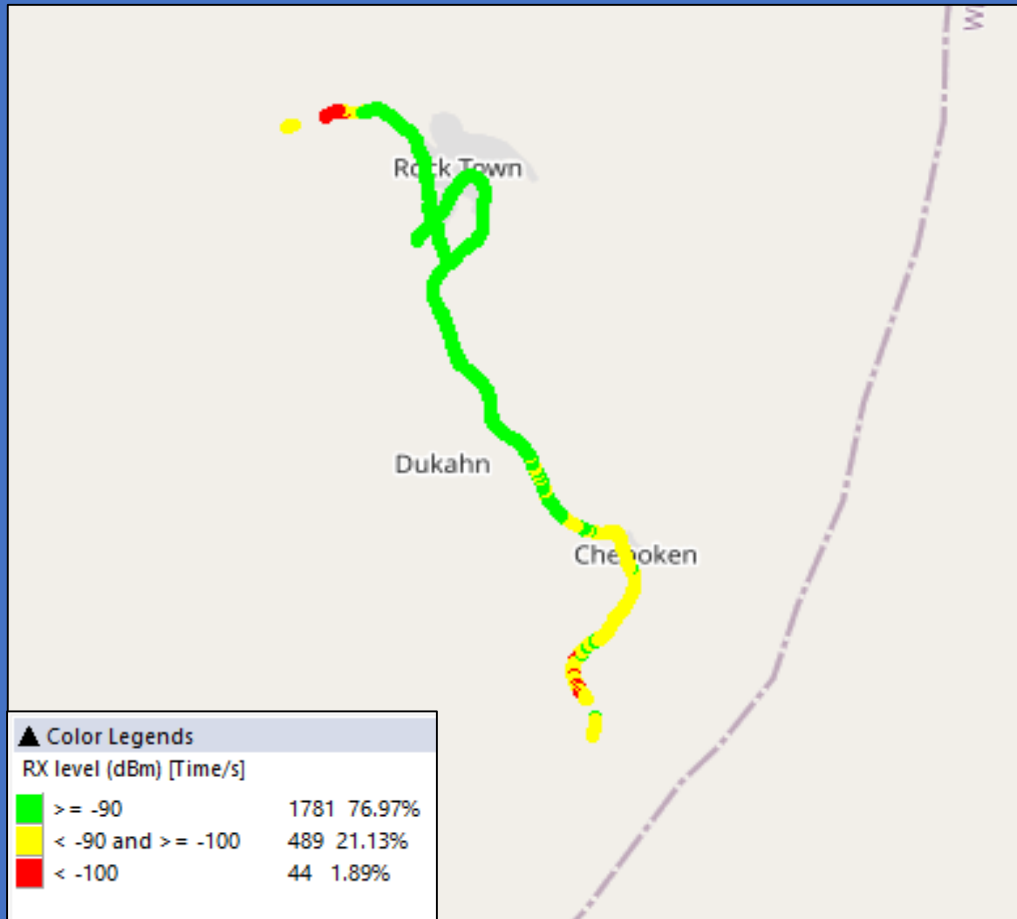
DRIVE TEST (DT)

The site coverage radius is about maximum 2.2 km with 100% in 2G network.

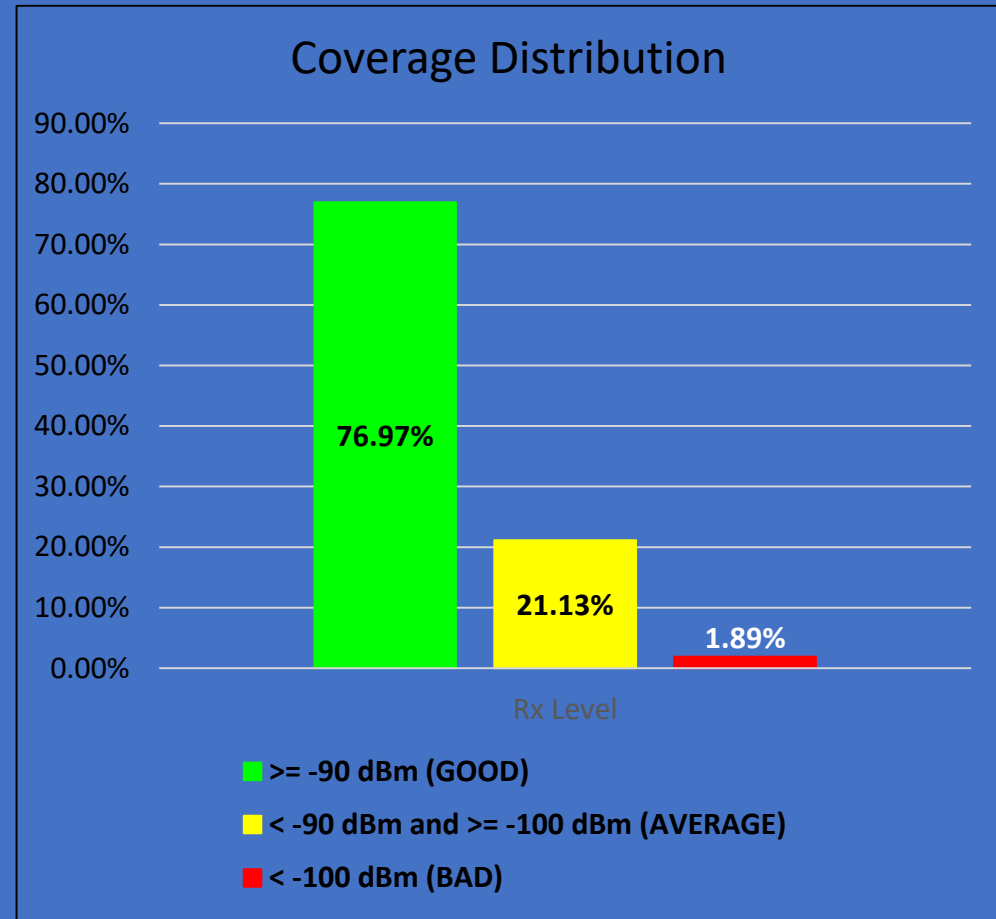


DRIVE TEST (DT)

GSM coverage of the site is normal.

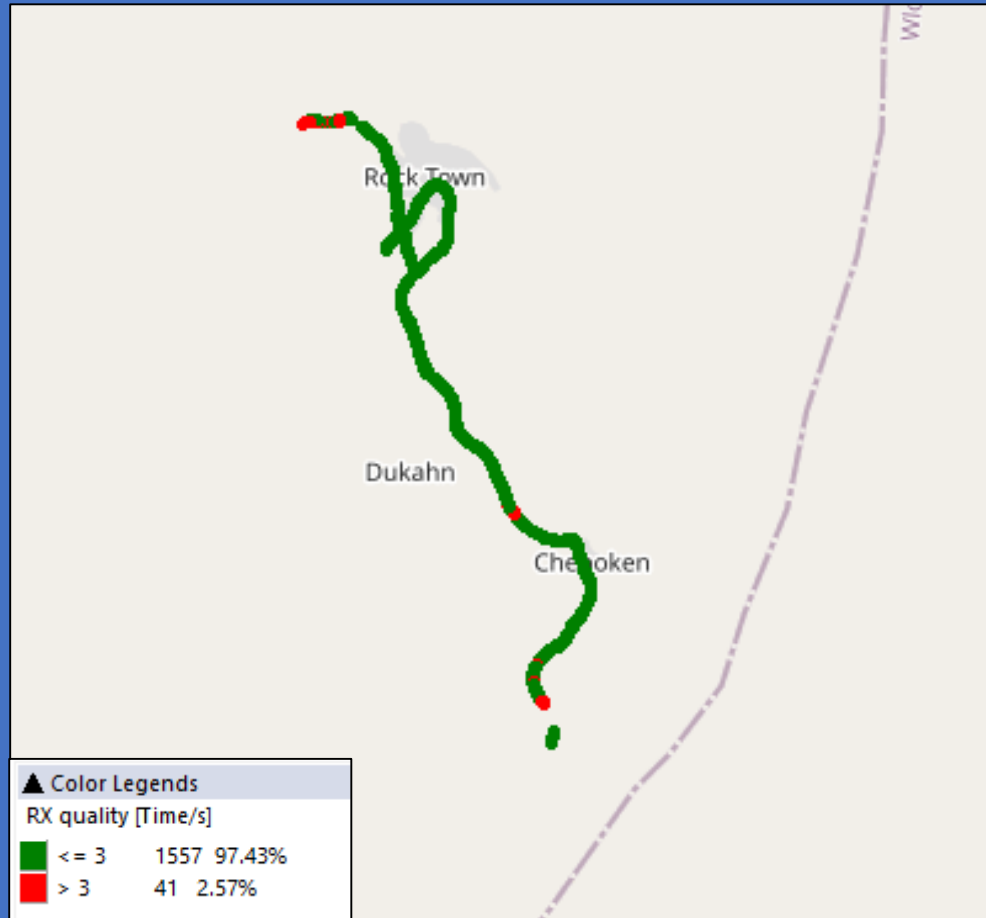


GSM Coverage Distribution

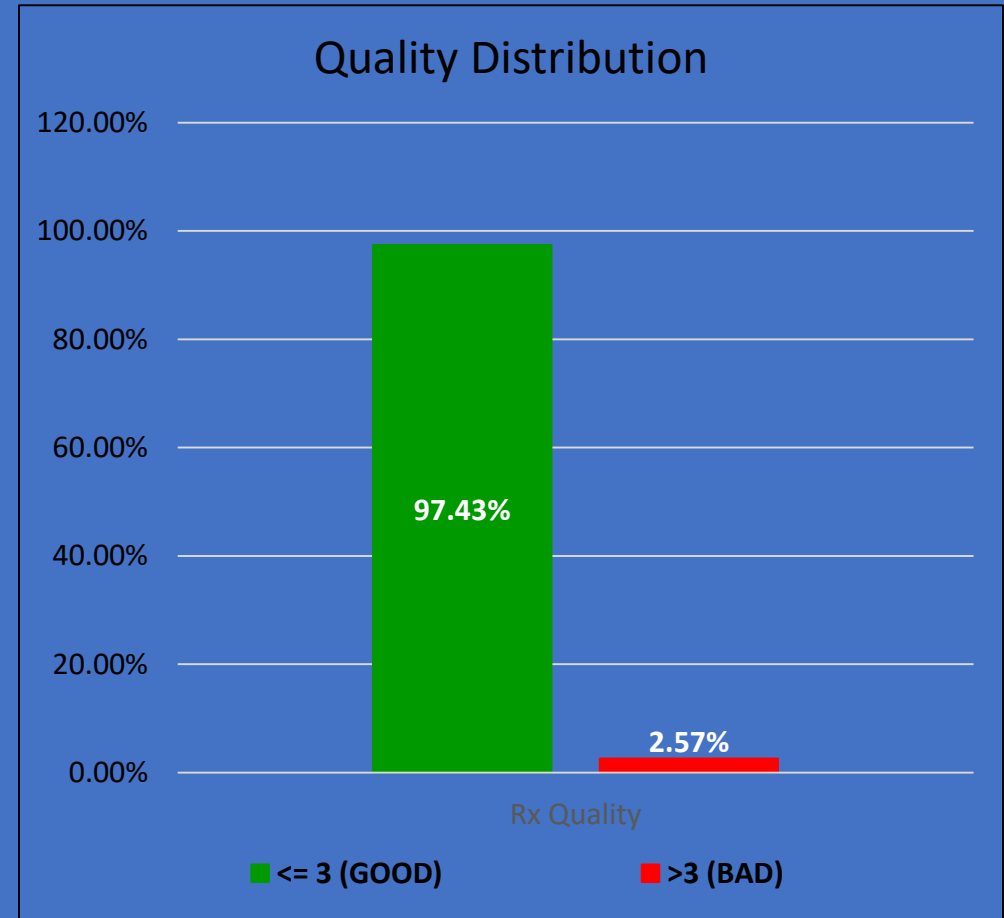


DRIVE TEST (DT)

The site signal quality is normal.

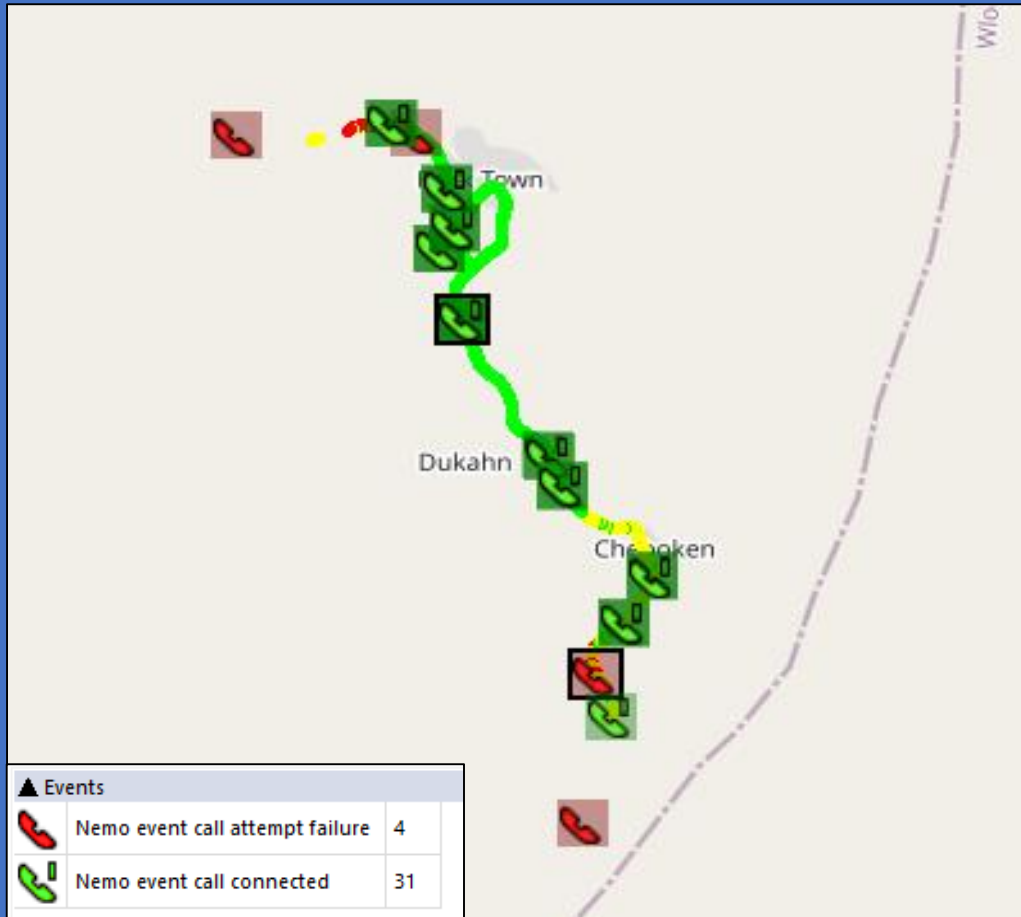


Signal Quality distribution. Bad quality originates from degradation in coverage.



DRIVE TEST (DT)

4 of the 35 calls failed; caused by weak signal level.

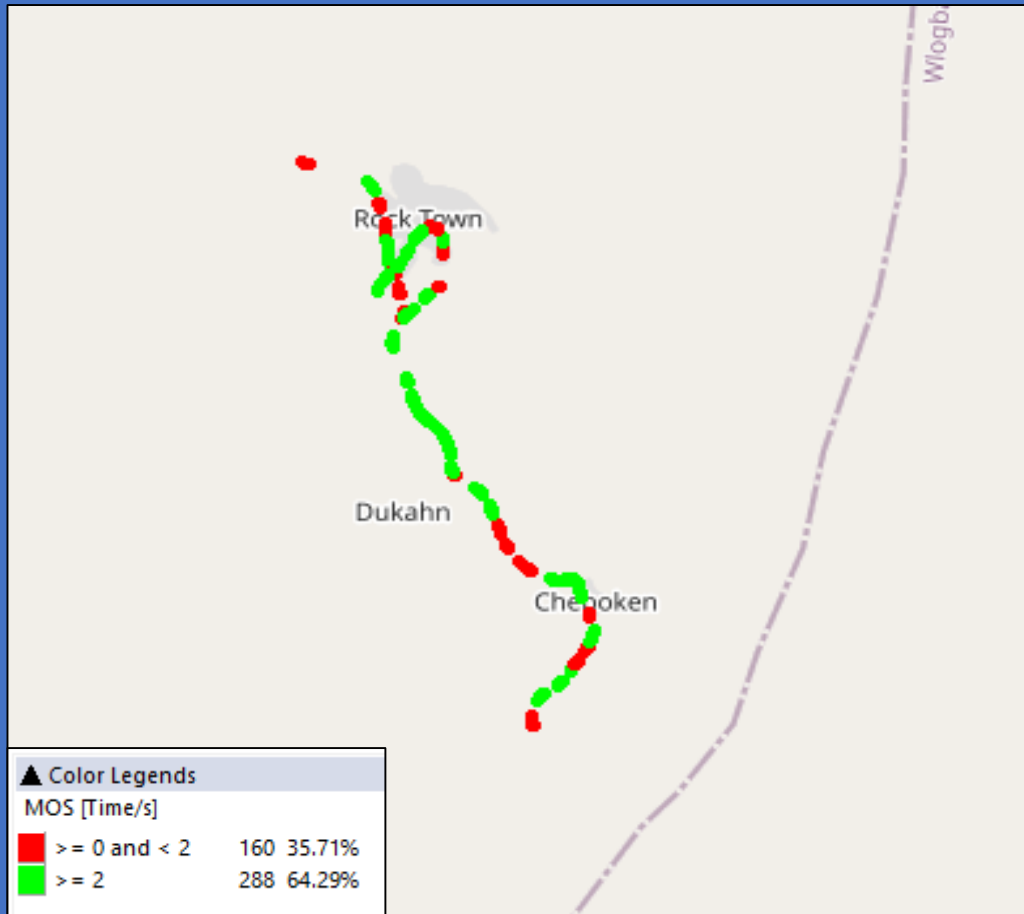


2 calls dropped due to poor coverage.

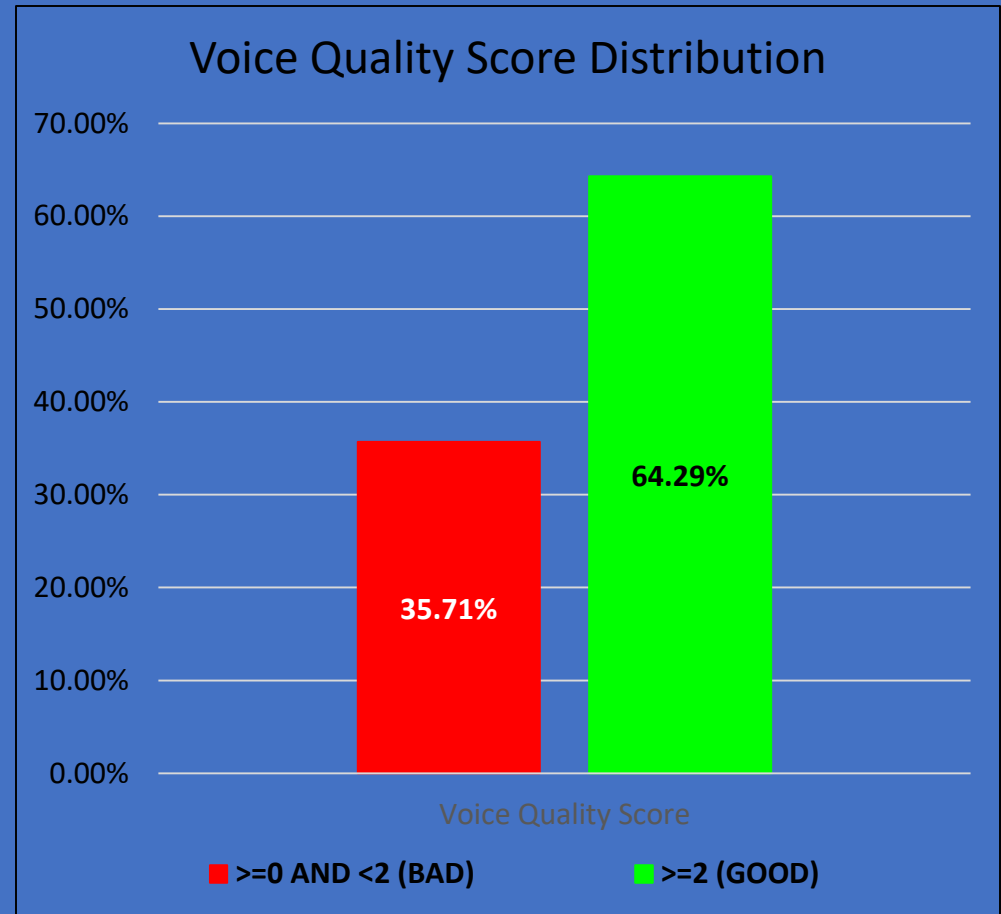


DRIVE TEST (DT)

Voice Quality Score is above acceptable standards for most part of the test.

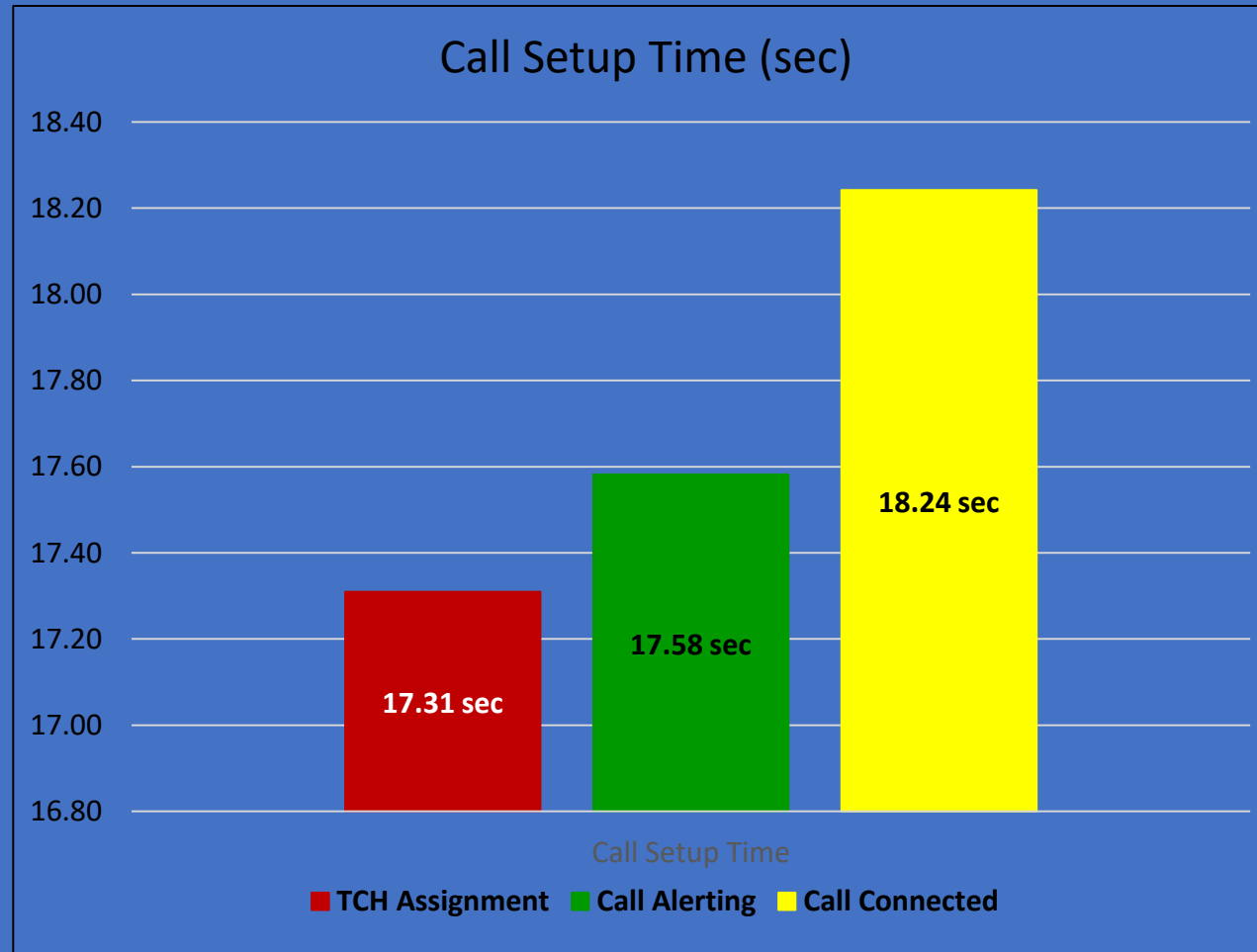


About 64% of the voice calls had good voice quality



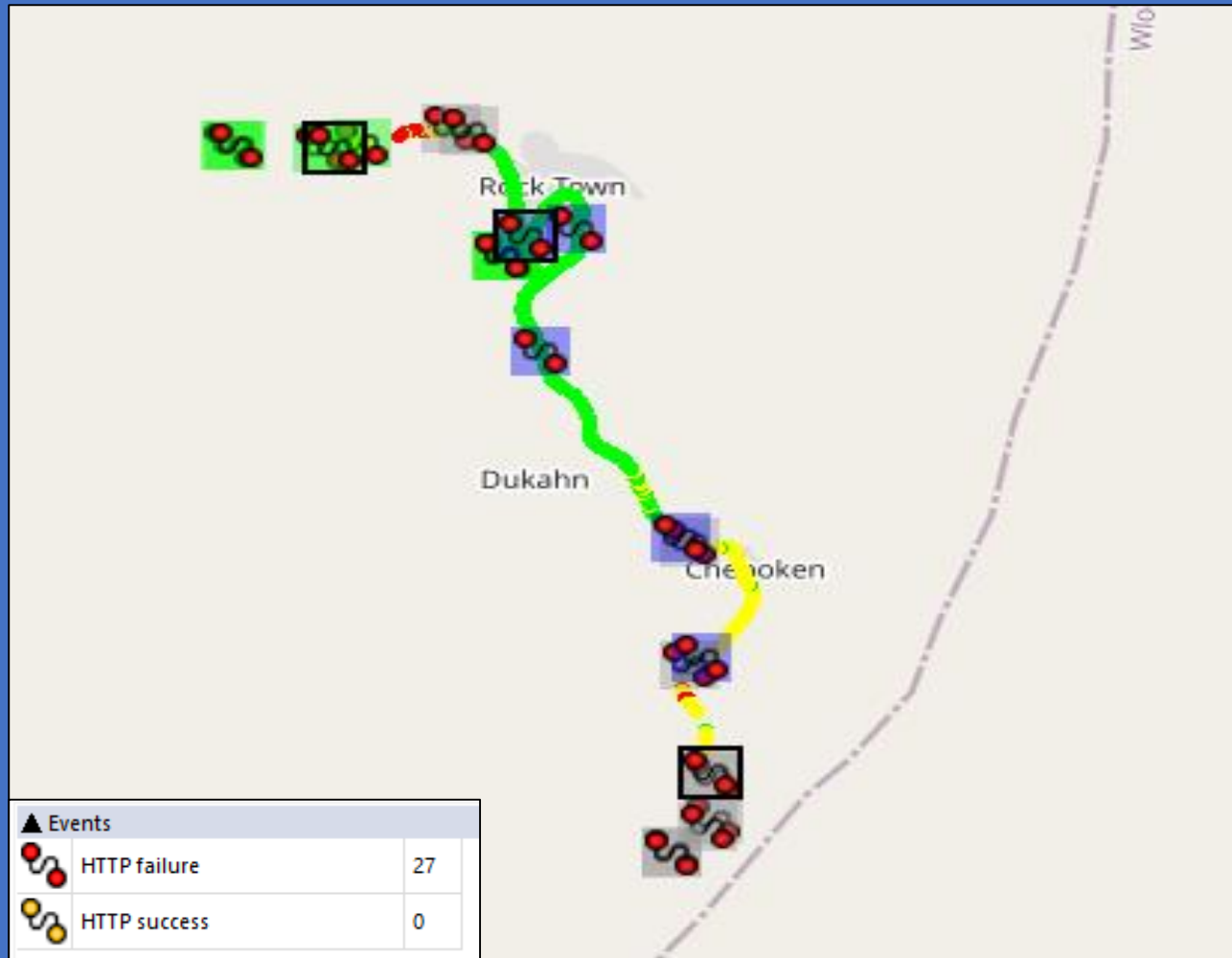
DRIVE TEST (DT)

Average Call Setup Time is more than 2 times the normal (8 sec)



DRIVE TEST (DT)

All 27 browsing attempts failed; Due to no internet connectivity



ACCEPTANCE TEST PROCEDURE

CIVIL WORKS

Gravel in the fence does not meet the 10cm standard.



Plastic is visible in the site.



BTS CABINET

Cables in BTS Cabinet are not arranged properly.



CABLING

IF cable is more than one loop.



Waveguide is not protected with putty and tape.



CABLING

IF cable and other cables on the tower is loosely hanging.



Tape around cables on tower for protection is loosened and not done well.



CABLING

Cables on towers are not in cable holder and are not arranged.



Cables are not properly laid, tie wraps are not cut, and cables are not in cable holder.



CABLING

Equipment on tower is mounted with tie wrap; Bolts and nuts are not fully supporting the equipment.



Jumpers on antennas are not in cable holder and is not properly laid.



CABLING

Jumper cables are bundled on tower; should be properly laid and looped.



Jumpers on antennas are not protected with putty and tape.



CABLING

Cables are laid on the tower resting place; Improper installation.



GROUNDING

All four tower legs are not grounded, and the right cables are not used.



Tower legs are not grounded; Grounding cable used on tower legs is 25mm²



GROUNDING

Tower leg wrongly grounded and no cable shoes.



Tower leg not grounded.



GROUNDING

No busbar on tower; The grounding cable is 25mm²;
The tie wrap used is not the proper one.



The grounding cable used is not the standard cable
for tower.



RECOMMENDATION

- Enable or check 2G EDGE parameter settings for internet connectivity.
- Check parameter settings to reduce call setup time to <15 sec.
- Optimized site RF antenna and/or check parameter settings to improve cell coverage radius to 5 km.
- Site need bi-annual maintenance.
- All metal tie wraps need to be changed to rubber tie wraps, to meet telecommunications installation standard.
- All four legs of the tower need to be grounded.
- Grounding cable on the tower need to be changed to 70mm² coated grounding cable.
- Waveguide on the satellite dish and jumper cables on RRUs need proper puttying and taping.
- Cables running on resting place of tower need to properly placed into holders.
- Cables on the tower need cable holders.
- Grounding cables on the fence should be 25mm² or 35mm² coated.
- Grounding test needs to be conducted for grounding system at the site to avoid damage during lightning strike.
- Equipment with tie wrap on it needs proper bracket or else it will fall.
- Increase crushed rocks in the site to atleast 10 cm height to avoid erosion.

Thank You!

