



2022 SWCRS Traffic and Linking Survey Synopsis

Issued: May 8, 2022

WQVS960
Tucson GMRS Association, Inc

INTRODUCTION

The SWCRS distributed a user survey on April 5, 2022 to a targeted mailing list audience of users located within Arizona and New Mexico. Links to the survey were also posted on the Tucson GMRS Facebook and Twitter accounts for public visibility. The mailing list as directed consisted of 985 users, and a total of 145 responses were recorded over a 2 week period.

For the purposes of this synopsis, it's assumed that most users are located in Arizona and New Mexico. The purpose of the survey was to help answer the following charge questions:

1. Is the network too busy with traffic?
2. Should the current link arrangement be reconfigured?
3. Do users have access to means to selectively control the repeater systems remotely (DTMF)?
4. Should the system continue to provide an open Zello channel for users?

DATA COLLECTED

Tabular data and charts representing the data collected is attached to the end of this document, along with a blank survey form for reference purposes.

USER SEGMENTS

Based on responses scoring the level of traffic on the system, users have been grouped into the following segments to measure sentiments within each of the following groups of users:

1. Light Traffic - users who gave a traffic score of less than 4 on question 1, feeling that the amount of traffic is too light.
2. Good Traffic - users who gave a traffic score equal to or between 4 and 6 on question 1, feeling that the amount of traffic on the system is “about right”.
3. High Traffic - users who gave a traffic score higher than 6 on question 1, feeling that there is too much traffic on the system

USER COMMENTS

The following is a list of major or recurring comments within each user segment. As these cannot be readily assessed mathematically, comments were read, interpreted, and similar concerns consolidated into the following list. We appreciate everyone who took the time to fill out this portion of the survey, and while not all comments are included here, all have been read and taken to heart.

Light Traffic Users

1. **Many comments:** The current level of traffic and interference is not a concern
2. **Many comments:** Enjoying the system.
3. System needs more nets and activities on the air
4. One or two users hog the system way too much with the same lengthy traffic and the same conversations. This holds up the link.

Good Traffic Users

1. **Many comments:** Traffic is acceptable now, but if things pick up the link should be re-arranged, or set up to accommodate multiple conversations somehow.
2. **Many comments:** Too much channel congestion in the Phoenix area with redundant traffic. More variety is needed.
3. **Many comments:** Requests for additional repeaters in underserved coverage areas, both linked and standalone.
4. **Many comments:** Enjoying the system as is.
5. Coordination between the linked and local Phoenix machines is causing grief for some, as there is reported coverage overlap on travel-tone repeaters.

Heavy Traffic Users

1. **Many comments:** Phoenix area has too much channel congestion with redundant traffic. More variety is needed.
2. **Many comments:** Link should be split or default to unlinked so it's not tied up all the time; there's too much traffic.
3. **Many comments:** Don't unlink the rural areas as there won't be enough people to talk to.
4. **Many comments:** Enjoying the linked system, even though it could use some tweaks.
5. Users should be better trained, rules on the durations of QSO's should be better enforced as the same couple users frequently tie up the system with idle chatter.
6. Too many radio checks and kerchunks.
7. Traffic is OK during the day, but too heavy in the evenings - consider falling back to smaller linked zones in the evenings.

SURVEY CONCLUSIONS

The following is a list of conclusions drawn as a result of the survey's input.

1. **Question:** Is the network too busy with traffic?

A majority of users on the system fall into the "Good Traffic" segment, which feel that traffic levels are acceptable. In the comments, there is consensus amongst all segments that even if it's not a problem today, at some point in the future there will be too much traffic and the system's linked coverage areas should be re-arranged. All segments of users noted that there are issues with a small handful of users casually ignoring the rules on QSO durations throughout the day or otherwise hogging the system too much.

Action: Traffic levels are acceptable today but will be too high in the future, a better means to enforce or manage or control rag-chewing during prime hours should be implemented.

2. **Question:** Should the current link arrangement be reconfigured? Do users have access to means to selectively control the repeater systems remotely (DTMF)?

As a whole, 38.6% of overall users would like to rearrange the link somehow, of which the majority of those users would prefer to organize the link by state. While this remains the overall minority of users on the system today, it is nonetheless a substantial portion of the user base. Sentiments on how to best accommodate linking varied depending on the segment of users measured as follows:

2022 SWCRS Traffic and Linking Survey Synopsis

Tucson GMRS Association, Inc.

- a. Light Traffic: this is the smallest segment of users on the system, which predominantly preferred that the link be left as-is today.
- b. Good Traffic: this is the largest segment of users on the system. Of the users who feel traffic levels and linking arrangements are appropriate today, 30.5% would prefer to rearrange the link in some way, shape, or form, of which linking by state is the preferable option for this segment of users.
- c. Heavy Traffic: this is the second largest segment of users. 75.8% of users in this group would prefer to rearrange the link in some way, shape, or form; the preferred linking scheme is more or less a tie between either by-state or by-metro.

Action: A modest majority of users today are satisfied with the linking arrangement as it currently stands, however there is a common sentiment between all segments that traffic will continue to pick up as time progresses, and at some point an adjustment will be needed. On the assumption that the current majority segment (Good Traffic) will likely change sentiments as growth continues (transitioning to Heavy Traffic), that the current registration growth rates suggest this will occur sometime this year, plus some small margin for sample size error; the SWCRS will develop plans to rearrange the repeater system into multiple zones while meeting the following criteria based on user's comments:

- d. Rural coverage areas should remain tied to a major service zone to ensure that there is a healthy level of access to activity and persons on the air, both for social and emergency purposes (a repeater with nobody listening will not get you out of trouble).
- e. The vast majority of users have access to DTMF signaling equipment and user selectable linking will be expanded on the repeaters to allow users to dial into the new zones at will. Adjustments in timing and improved educational campaigns for the selectable linking features will also be developed moving forward.
- f. Short-term special linking configurations in support of community events or incidents will remain available through coordination with the admin team.

3. **Question:** Should the system continue to provide an open Zello channel for users?

Across all segments of users, Zello was perceived as a predominantly beneficial element of the system. 22.2% of users actively use Zello with an additional 65.7% being non-users but supportive of its benefits (87.9% of the user base is pro-Zello). 12.1% of users voiced that they prefer to restrict zello access in some way and that it's too open, letting in too much unwanted noise.

2022 SWCRS Traffic and Linking Survey Synopsis

Tucson GMRS Association, Inc.

Zello will continue to remain on the system in its current form and configuration. Users who stated “no opinion” are not included in this distribution.

Action: none needed, however if multiple coverage zones are implemented, multiple Zello gateways for each specific zone should be considered.

- 4. Other Considerations:** Many responses in both the ‘Good Traffic’ and ‘Heavy Traffic’ segments noted that congestion along with frequency and PL coordination conflicts are problematic, specifically mentioning the Phoenix area.

Action: The team will keep this issue in mind in planning future projects and intends not to occupy additional frequencies in this area beyond those readily utilized by the system. Cutting down on traffic and re-arranging the link topology may also help alleviate general spectral demand.

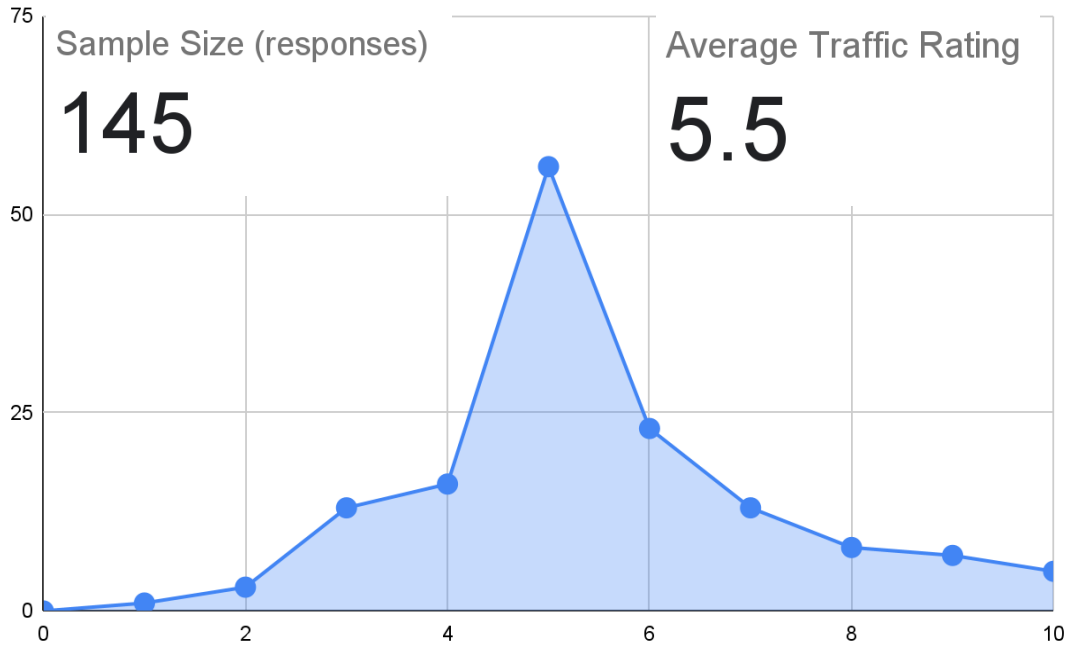
Similar concerns are already being addressed in the Tucson area via the use of voting/simulcasting sites operating on a single frequency, which are also planned for the Albuquerque metro area.

SUPPORTING DATA

User Distribution

Traffic Distribution (Counts)	Rank	Responses
	0	0
	1	1
	2	3
	3	13
	4	16
	5	56
	6	23
	7	13
	8	8
	9	7
	10	5

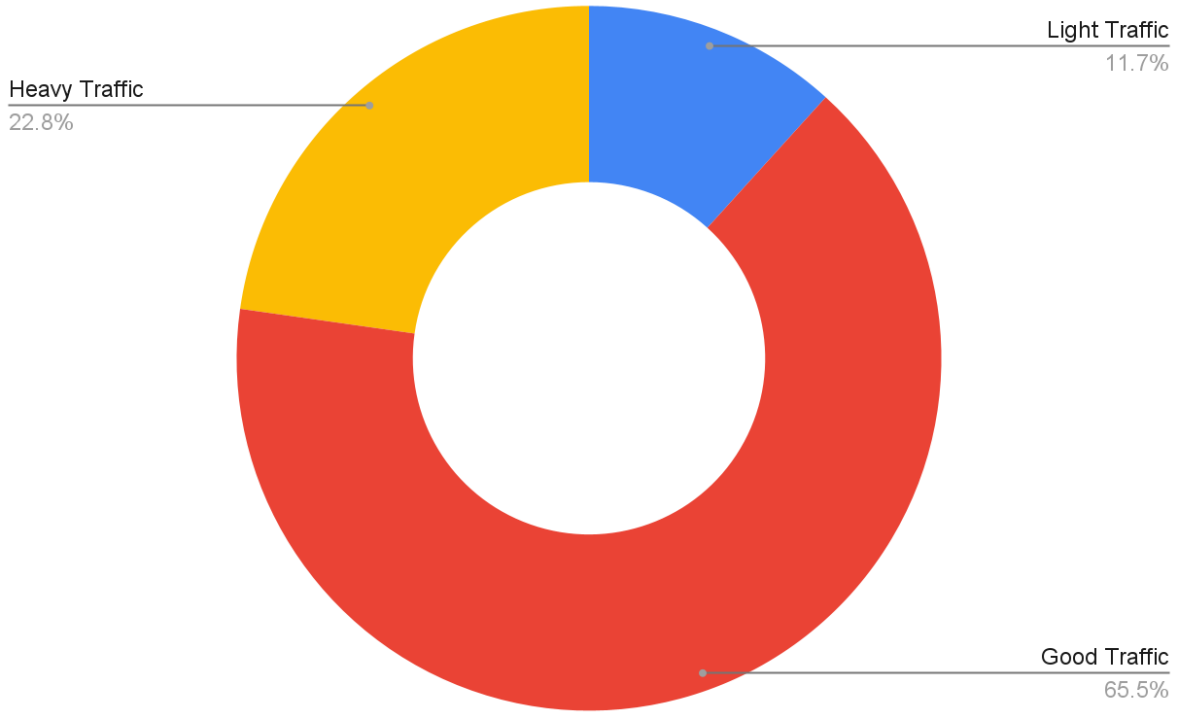
Traffic Assessment - User Distribution



User Segments & General Traffic Sentiment

User Segments	Responses	145
Average Traffic Score	Average	5.5
Light Traffic	Count	17
Good Traffic	Count	95
Heavy Traffic	Count	33

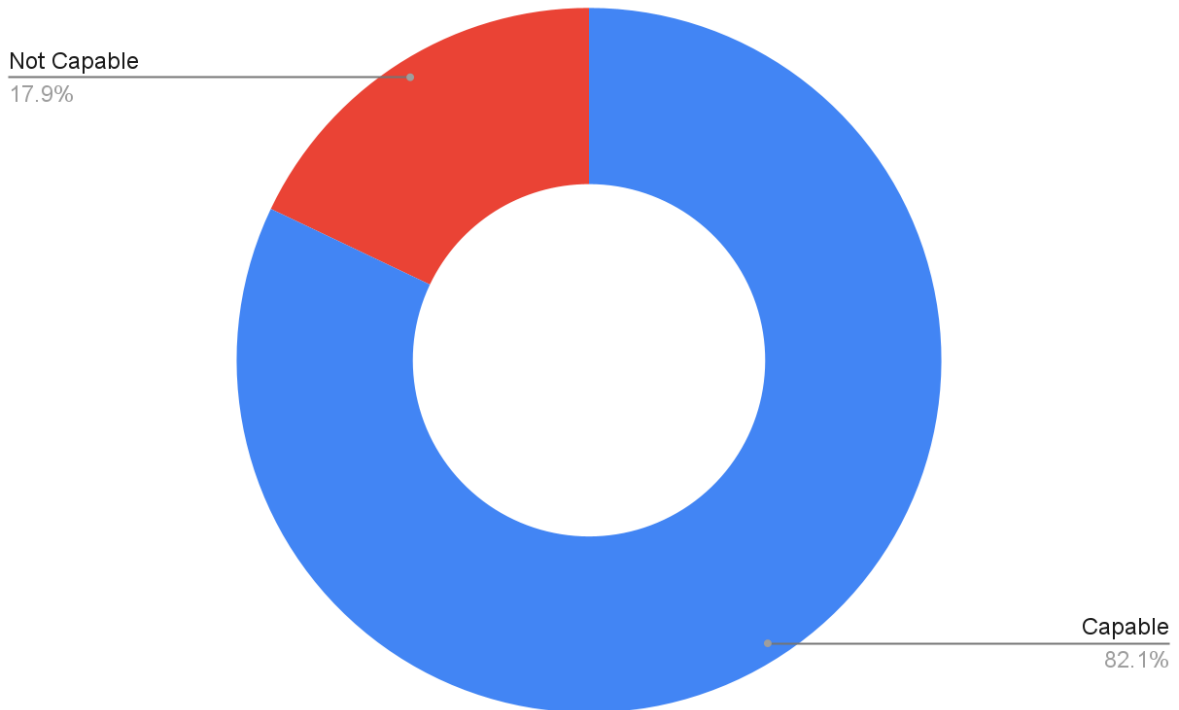
User Segments by Traffic Rating



DTMF Capability

DTMF Capability	Responses	145
Capable	Count	119
Not Capable	Count	26

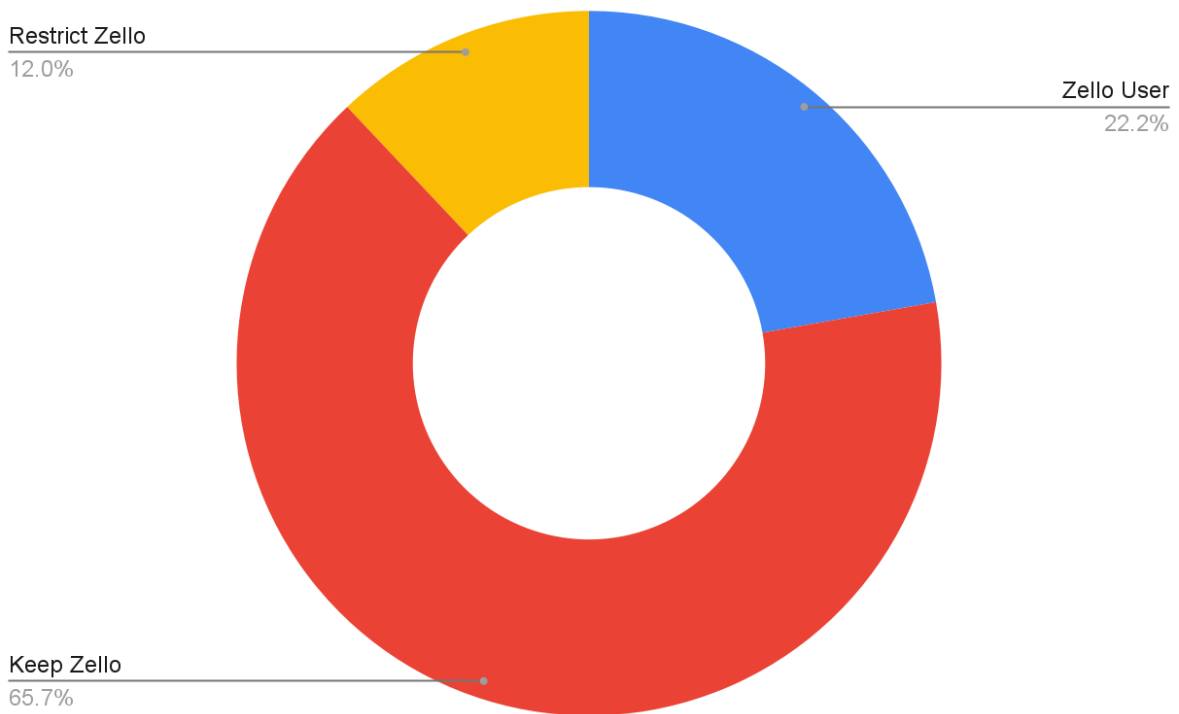
User DTMF Capability



Zello Sentiment

Zello Sentiment	Responses	108	User Segments			DTMF Capability	
			Light Traffic	Good Traffic	Heavy Traffic	Capable	Not Capable
Zello User	Count	24	1	18	5	21	3
Keep Zello	Count	71	13	43	15	57	14
Restrict Zello	Count	13	2	6	5	11	2

Zello Sentiments



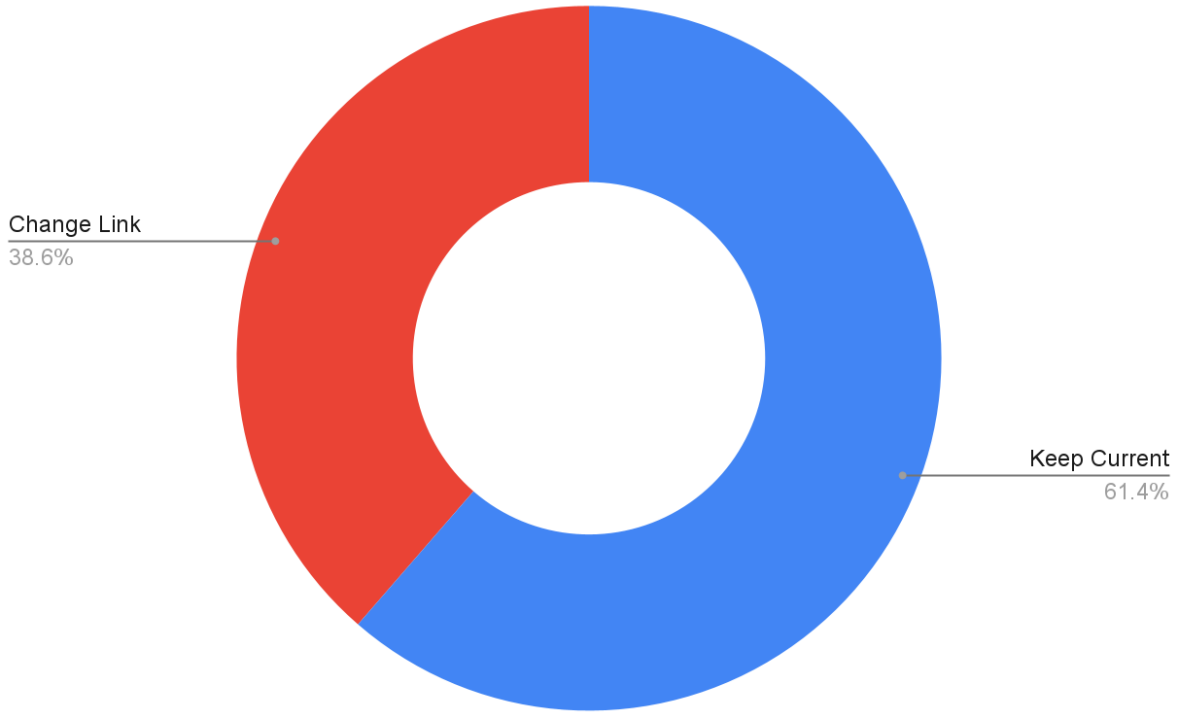
2022 SWCRS Traffic and Linking Survey Synopsis

Tucson GMRS Association, Inc.

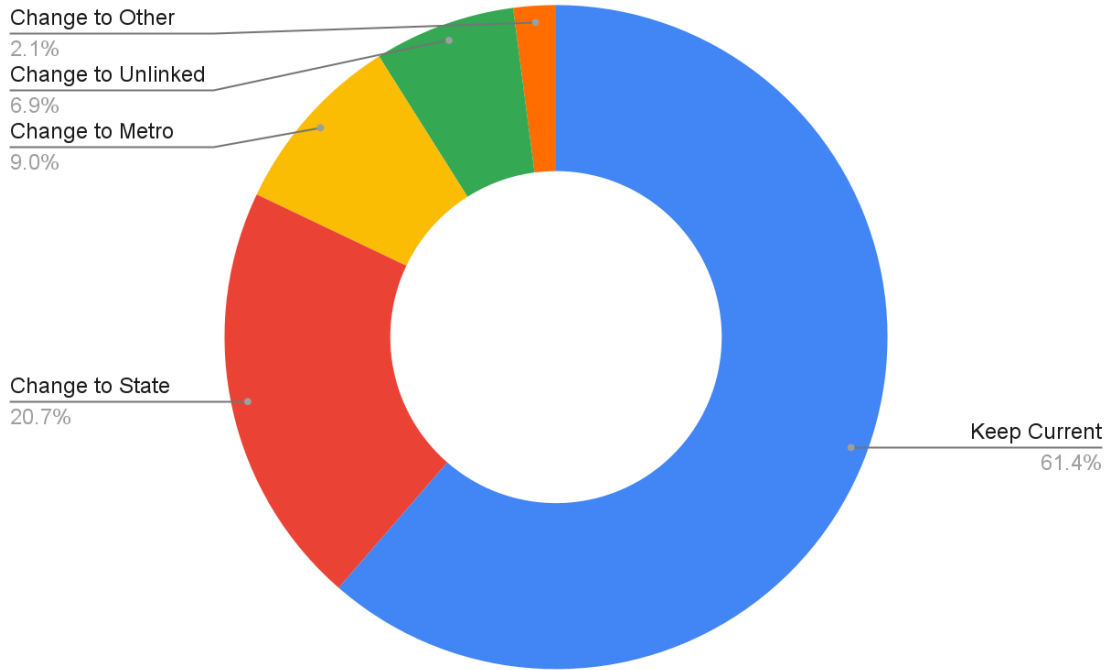
Linking Sentiments

Linking Sentiments (General)	Responses	145	User Segments			DTMF Capability	
			Light Traffic	Good Traffic	Heavy Traffic	Capable	Not Capable
Keep Current	Count	89	15	66	8	70	19
Change Link	Count	56	2	29	25	49	7
Link Sentiment (Detailed)	Responses	145	Light Traffic	Good Traffic	Heavy Traffic	Capable	Not Capable
Keep Current	Count	89	15	66	8	70	19
Change to State	Count	30	2	17	11	25	5
Change to Metro	Count	13	0	4	9	11	2
Change to Unlinked	Count	10	0	6	4	10	0
Change to Other	Count	3	0	2	1	3	0

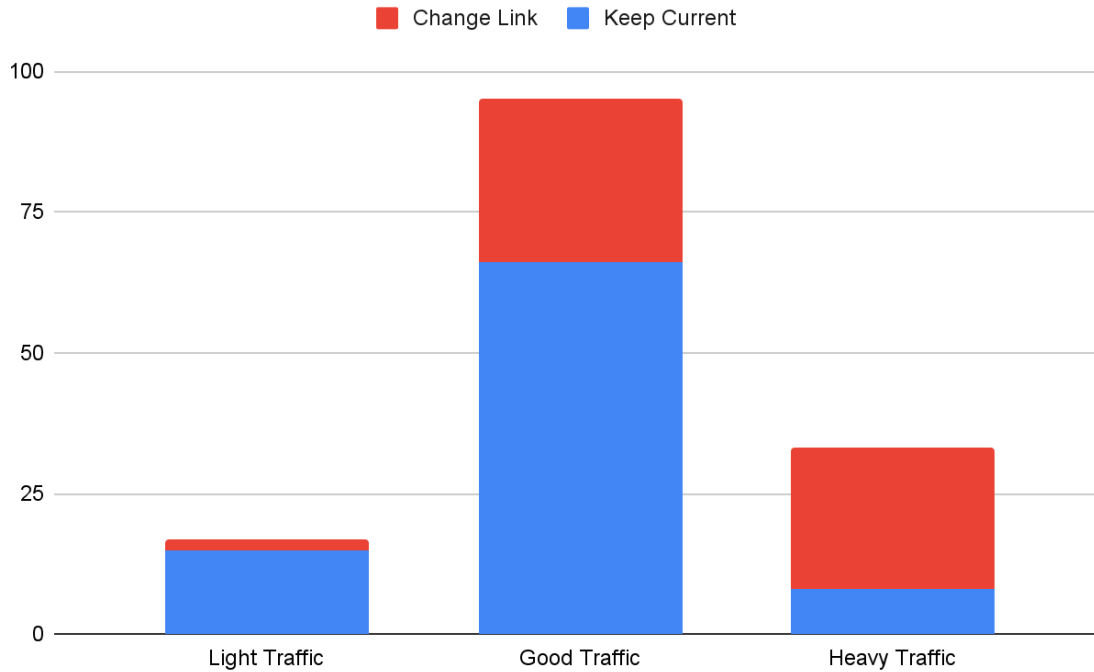
General Link Sentiment



General Link Sentiment - Detailed



Link Sentiment by User Segment



Link Sentiment by User Segment - Detailed

