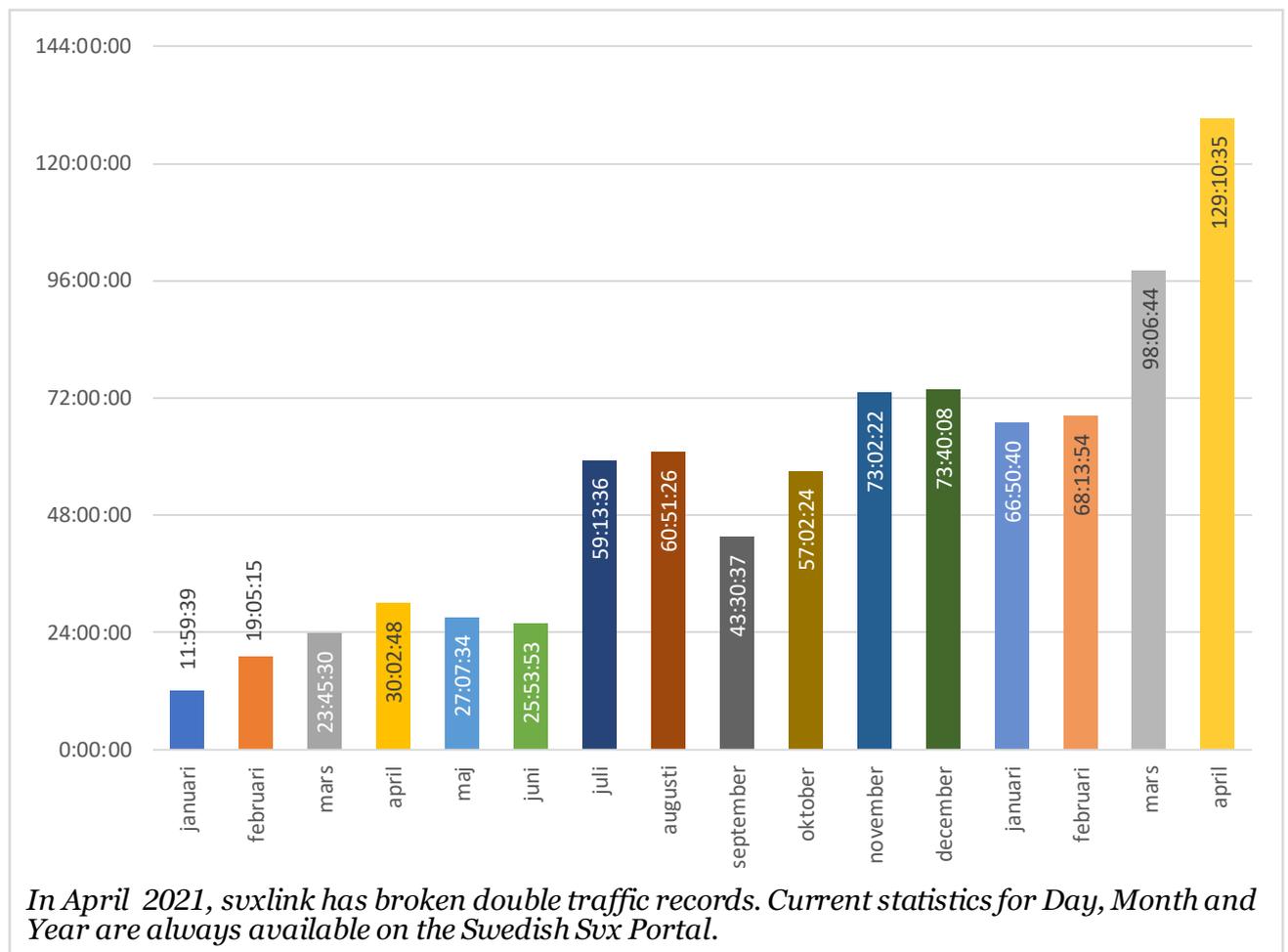


SvxLink towards new heights

SvxLink is a software-based repeater logic that runs in a Raspberry Pi. It is used to bridge multiple repeaters together in a national network of analog repeaters. In April 2021, according to statistics on the Swedish [Svx Portal](#), no less than 129 hours and 10 minutes have been spoken, which is a new record for a single month - about 30 hours more than the previous peak. The [SSA bulletin from SK7SSA](#) on the island of Öland had no less than 44 [check-ins on April 11th](#).

- This is by no means surprising, as more and more repeaters are now choosing to join the network, says SM5GXQ Peter. At the time of writing, there are 22 nodes connected, a total of 31 repeaters. At the same time, word is spreading about how fantastically good it sounds and how easy it is to use!



The network is growing

The record for 2020 was recorded in December, 73 hours and 40 minutes. By then, [SK5LW](#) in Eskilstuna had just connected its two repeaters.

During March, there were 5 new repeaters in sm6, which further increased the amount of traffic. But march's peak has also now been crushed.

[SK6JX](#) in Falkenberg has deployed its repeater with SvxLink.

[SK6IF](#) has joined its 4 interconnected repeaters (Bokenäset, Lysekil, Kungshamn and Tanumshede).

In [Sundsvall](#), [SK3BG](#) has activated another repeater [SK3RIN](#), which will be placed on another QTH later.

[SK3LH](#) in Örnsköldsvik has joined. In April [SK4RGL](#) also joined Falun,

On the west coast, two new simplex nodes have been added, [SM6TZL](#) and [SM6UNC](#).

- These clubs are the ones I dare to mention by name right now, says Peter. But work is under way to join the network in several parts of the country.



SA2BLV's card, mounted inside a Ericsson F800 repeater. Raspberry Pi glimpses underneath. Click on the picture to read more about the card.

SA2BLV has already sold out of his first batch of 10 pieces prebuilt interface cards. 10 more will be available soon.

Several locations along the Norrland coast and in the stockholm area are likely to join in the near future. There is interest from several places, for example in Blekinge and Västmanland.

– Although the interface can also be a self-built one, there are advantages to SA2BLV's interface card. It may be placed directly inside an MTR2000 or F800, Peter points out.

– Since the publication of my first [article in QTC](#) last year, interest in joining has started to grow around the country, says Peter. I have now written a sequel, where I go into more detail on how to set up [SvxLink](#) and join the network, he adds.

New daily record too

April 29, 2021 also goes down in history, which was the most active day to date on SvxLink. The previous peak was 06:38:14, from April 18, 2021. But now we write the new record as 07:26:07. This means that overall, 30.98% of that 24 hours have been spoken. That's almost a third of that day!

Configuration

– My upcoming article in QTC will describe how to [install](#), connect and not least configure SvxLink, says Peter. SvxLink is

very flexible and can therefore be adapted to most local conditions.

In addition to a highly capable repeater logic and network connection to the national network, SvxLink also includes several useful modules – which can be added, as needed. Examples include EchoLink, Parrot and Weather.

SvxLink also supports multiple transmitters and receivers on a single repeater. If you have multiple receivers, a so-called Voter can be used to select the receiver that receives the signal best. You can even use one or more RTL-SDR as a receiver, directly in SvxLink. Remote receivers/transmitters can be connected, either via IP networks or radio.

Easy to use

SvxLink makes it possible to connect repeaters to a network, without having to use a digital mode such as DMR. Digital modes require specially adapted radios, while SvxLink allows you to continue using your regular analogue FM radio.

– You don't even need to know anything about SvxLink to use it, Peter points out.

A lot of it is controlled by automatic functionality. There is also no need to create an advanced "code plug" on your radio.

– I basically don't have anything against DMR, I use it myself sometimes, says Peter. But SvxLink is much easier to use.

The network uses Talk Groups to manage the traffic between repeaters, similar to DMR, for example. A talk group is selected with either CTCSS or easiest with DTMF commands.

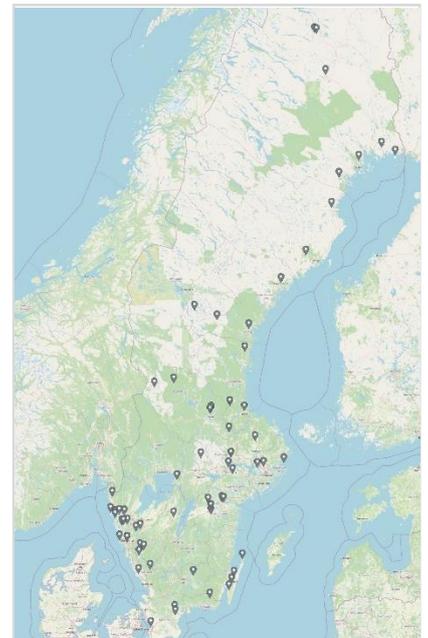
– However, you don't need any of these to use the network, Peter stresses.

– The goal is for part three of the series of articles to arrive just in time for the summer. There I intend to describe how to use SvxLink, says Peter.

Svx Portal

SA2BLV has created the [Svx Portal](#), which can be used to follow which repeaters are connected and what traffic is going on in the network real-time. It also provides statistics on how much the network has been used in the last 24 hours, month and year.

– The Svx Portal is an excellent tool for gaining an in-depth understanding of how the network works, says Peter.



The map on the Svx Portal shows which repeaters are connected, and where there's traffic going on right now.

Öland

Öland's 4 repeaters with a total of 5 frequencies were connected during early summer 2020. The main purpose was primarily for all repeaters on the Island of Öland to be

connected automatically (for this SvXLink talk group 24078 is used). Since then, this has meant a marked increase in of the activity over these repeaters.

Anropssignal	TG#	Aktiv	Övervakade TGs
SA4THA	0	Nej	240 2400 2402 2403 2404 2405 2406 2407 24020 24070 24088 24098 2404106
SA5BJM	0	Nej	240 2405 24020 24070 240582
SA6EAL	0	Nej	240 2406 24061 24063 24070 24097 24098
SA6GDS	0	Nej	240 2406 24061 24063 24097 24098
SJ2W	0	Nej	240 2402 24020 24021 24022 24070 2402100
SK0BO	0	Nej	240 2400 24003
SK0CT-70	0	Nej	240 2400 24001 24002 24003
SK2AZ	0	Nej	240 2402 24020 24021 24022 240211
SK2AZ-L	0	Nej	24020 240211
SK2RIU	0	Nej	240 2402 24020 24021 24022 24033 240210
SK3GK-2	0	Nej	240 2403 24020 24031 24070 240305
SK3GK-70	0	Nej	240 2403 24020 24031 24070 240305
SK3GW	0	Nej	240 2403 24020 24031 24070 2403101
SK3LH	0	Nej	240 2402 2403 24020 24021 24022 24033 24034 240341
SK3RFG	0	Nej	91 240 2403 24022 24033 24070 240301
SK3RIN	0	Nej	240 2402 2403 24021 24033 24070 240306
SK3RKL	0	Nej	240 2403 24022 24033 24034 240341
SK3RQE	0	Nej	240 2403 24020 24033 24070
SK3W	0	Nej	240 2403 24020 24031 24099 2403100
SK4AO	0	Nej	240 2404 24041
SK4EA-L	0	Nej	240 2404 24020 24042
SK4KO	0	Nej	240 2400 2402 2403 2404 2405 2406 2407 24070 240408 2404081
SK4RGL	0	Nej	240 2404 24041 24070
SK5AS	0	Nej	240 2405 24059 24070
SK5BN	0	Nej	91 92 240 2405 24059 24078 240028 240501 240515 240541
SK5LW-2	0	Nej	240515
SK5LW-70	0	Nej	240 2402 2405 24020 24070 240515
SK5RHQ-2	0	Nej	240 240541
SK5RHQ-70	0	Nej	240 2405 24070 240541
SK5RHT-10	0	Nej	2405 24059
SK5RHT-6	0	Nej	240 2405 24051
SK6IF	0	Nej	240 2406 24070 240609 2406087
SK6IF-2K	0	Nej	240 2406 24062 24070 24098 240604 240609
SK6IF-2T	0	Nej	240 2406 24062 24070 240609 2406087
SK6JX	0	Nej	240 2406 24061 24070 24097 24098
SK6QA	0	Nej	240 2406 24062 24070 240603 240604 240605
SK6QA-70	0	Nej	240 2406 24062 24064
SK6RFQ-2	0	Nej	240 2406 24070 240602
SK6RFQ-70	0	Nej	240 2406 24070 240602
SK6RIC-70	0	Nej	240 2406 240617
SK6RKI	0	Nej	240 2406 24062 24070 240602 240620
SK7BQ-R	0	Nej	240 2407 24075 240777
SK7HW	0	Nej	240 2407 24072 24077
SK7JL	0	Nej	91 92 240 924 927 2407 24074 24078 2407151 2407159
SK7RFL	0	Nej	91 92 240 2407 24073 24078 240501 240721 2407151
SK7RN	0	Nej	91 92 240 2407 24073 24078 240501 2407151 2407364
SL6ZAQ	0	Nej	240 2406 24062 24070 240601 240609
SM0SVX	0	Nej	240 2400 24020 24070 24099 2400238
SM2YUW	0	Nej	240 2402 24020 24021 24022 24062 24063 24070 24077 24088 24097 24098 24770 240211
SM3UQO	0	Nej	91 92 235 240 242 244 2402 2403 24033 24070 240306 2403042
SM4FBD	0	Nej	240 2404 2406 24063 24098
SM4JDP	0	Nej	240 2400 2402 2403 2404 2405 2406 2407 24070 240408 2400408 2404081 2404082
SM4KUH	0	Nej	240 2404 24041 2404013
SM5GXQ	0	Nej	91 92 235 240 2407 24078 24098 240501 240602 240620 2405174 2407151
SM6LNU	0	Nej	240 2405 2406 24062 24064 24070 24098 240604
SM6OEQ	0	Nej	240 2406 24061 24062 24063 24067 24070 24088 240603 240604
SM6SXJ	0	Nej	240 2406 2407 24061 24062 24063 24070 24088 24098 240602 240603 240617 240618 240770 240777
SM6TZL	0	Nej	240 2406 24061 24062 24063 24070 24097 24098 240602
SM6VAG	0	Nej	240 2406 24061 24062 24063 24070
SM6ZDO	0	Nej	240 2400 2402 2403 2404 2405 2406 2407 24061 24062 24063 24070 24098 240515 240602 240603 240617 2405174
SM7ECA	0	Nej	240 2406 2407 24061 24062 24063 24070 24078 24098
SM7FLD	0	Nej	240 2407 24075 240770 240777 2407056
SM7XCE	0	Nej	240 2407 24070 24073 24074 24077 24078 24088 24098 2407151

At the SvX Portal you can see in real time which repeaters are connected and which talk groups are being activated right now

– You could actually say that it was a bit of a success from day one, says Peter. Now we also link out our local traffic on DMR, talk group 240721, he adds.

The SSA bulletin from SK7SSA, which is broadcast Sundays at 09:00 over the repeaters on Öland and some others repeats via SvXLink, collects more than 30 check-ins every week.

– On April 11th, we actually had no less than 43 check-ins!

Repeater School

– When we started to introduce SvXLink, we had the fear that many people might find it too complicated to run the radio now. Therefore, during the summer I started a "repeater school", where you could find new information every day. The Repeater School contains both general information for the moderately interested and in-depth information for those who really want to familiarize themselves with all the details.

– But, as said before, you don't really need to know much about SvXLink to use it," says Peter.

"Everyone uses the system according to their own interest and ability."

On SK7RFL.se there are also links to Peter's various slideshows, which through animations describe how the system works in practice.

– The slideshows are ideally suited for an online club meeting.

Newly awakened interest

– I got my callsign in 1975, says Peter. Back then, in the '70s and '80s, there was a lot of traffic across the repeaters. Since then, unfortunately, activity has decreased, slowly but surely.

– It is probably necessary for development to take a leap forward at regular intervals, in order to keep up the interest. After all, that is at the heart of

what amateur radio is all about; development!

Thanks to SvxFLink, many radio amateurs, young and old, have started running repeater traffic again. So what will be the next step?

– It would be interesting to be able to connect several SvxFLink-based networks in different countries with each other, just like at Brandmeister. Or why not put up some nodes of 10m and 6m. But all this still must happen, without it becoming or even being perceived as complicated," concludes Peter.