SIGNALS NZ USER GROUP

The Numbers
2024

Thanks Ken,

For those of you who don't know me, my name is Alex Lumsdon, and I will be presenting the 2024 regional signal asset numbers.

Those of you who are not aware of what the numbers are… each year we engage with our Road Controlling Authorities to identify the number of signal assets on their network, whilst understanding what their key focuses are for 2025 which helps draw a picture across the country in terms of challenges and potential areas of focus for RCAS, Contractors, Suppliers and Consultants alike.

Just want to say a massive thank you to the RCAs for taking the time out in their busy schedules to deliver the numbers for their respective regions.

RCA Signal Assets

New Zealand	2023								2024							
	Signal	Midblock Crossings	SCATS	VC6	ELV	Fibre	4G Cellular/ Radio	Raised Safety Platforms	Signal	Midblock Crossings	SCATS	VC6	ELV	Fibre	4G Cellular/ Radio	Raised Safety Platforms
North Island																
Region																
Whangarei District Council (WDC)	33	8				11	22		38	8	38	33	0	9	24	
Auckland Transport Operations Centre (ATOC)	1009		1009	125	3	564	133	30	1045		1045	198	3	599	136	35
Hamilton City Council (HCC)	127	47	127	55	20	47	52	20	138	82	138	70	32	49	55	32
Tauranga City Council (TCC)	79		79	24	19	9	46	1	79	33	107	42	44			1
Gisborne District Council (GDC)									1							
Hastings District Council (HDC)									18							
Napier City Council (NCC)									17		17					
New Plymouth District Council (NPDC)	26		24	7	0	2		1	27		25	8	0	2		1
Palmerston North City Council (PNCC)	40		32		0	32			40		38	0	0	32		
Whanganui District Council (WD)	14		12	12	0	11		0	14		12	12		11	0	
Wellington Transport Operations Centre (WTOC)	31		31	4	0	4			23		23	17	0	4	0	
Wellington City Council (WCC)	121		121	4	0	40	0		93	28	121	14	0	63	0	0
Upper Hutt City Council (UHCC)	4		4	1	0	1			4		4	1	0	1	0	0
Porirua City Council (PCC)	4		4	1	0		1		4		4	1	0	1	1	0
Hutt City Council (HCC)	24		24	0	0				24		24	0	0			0
Kapiti Coast District Council (KCDC)	5		5	0	0				11		11	0	0	0	0	1
South Island																
Region																
Nelson City Council / Tasman District (NCC_TDC)	23		23		0	4	0		23		23		0	4	0	0
Christchurch City Council (CCC)	320		320	137	20	70	117	1	326		326	148	24	82	115	12
Christchurch (NZTA)	62		62	8	3			1	62		62	8	3			1
Ashburton District Council	7		7	5	4			2	7	0	7	5	4			2
Timaru District Council (TDC)	19		17	14	1	1		0	19	0	17	14	1	1		0
Waitaki District Council (Oamaru)	8		8	1	0				8		8	1	0			
Dunedin City Council (DCC)	86		86	13	0	18	7	1	86	7	86	21	0	22	7	1
Queenstown Lakes and District Council (QLDC)	13		13	5	2	1		1	14	7	14	6	5	1		1
Invercargill City Council (ICC)	40		40	12	0			0	40		40	12				0

Shown above are the latest signal asset numbers for New Zealand Regions in 2023 and 2024.

Rather than going through each region individually, I have avoided information overloading and presented the asset numbers on the slide shown above, including the previous asset numbers for the previous year. The numbers will be available on the SNUG website following the conference if anyone wants to look at them in more detail.

Increase/decrease from 2023 numbers (%)

	Increase/ decrease % from 2023 numbers							
North Island	Signal	Midblock Crossings	SCATS	VC6	Extra Low Voltage (ELV)	Fibre	4G Cellular/ Radio	Raised Safety Platforms
Region								
Whangarei District Council (WDC)	15%	0%	0%	0%	0%	0%	9%	0%
Auckland Transport Operations Centre (ATOC)	4%	0%	4%	58%	0%	6%	2%	17%
Hamilton City Council (HCC)	9%	74%	9%	27%	60%	4%	6%	60%
Tauranga City Council (TCC)	0%	0%	35%	75%	0%	0%	0%	0%
Gisborne District Council (GDC)	0%	0%	0%	0%	0%	0%	0%	0%
Hastings District Council (HDC)	0%	0%	0%	0%	0%	0%	0%	0%
Napier City Council (NCC)	0%	0%	0%	0%	0%	0%	0%	0%
New Plymouth District Council (NPDC)	4%	0%	4%	14%	0%	0%	0%	0%
Palmerston North City Council (PNCC)	0%	0%	19%	0%	0%	0%	0%	0%
Whanganui District Council (WD)	0%	0%	0%	0%	0%	0%	0%	0%
Wellington Transport Operations Centre (WTOC)	0%	0%	0%	135%	0%	0%	0%	0%
Wellington City Council (WCC)	0%	0%	0%	250%	0%	58%	0%	0%
Upper Hutt City Council (UHCC)	0%	0%	0%	0%	0%	0%	0%	0%
Porirua City Council (PCC)	0%	0%	0%	0%	0%	0%	0%	0%
Hutt City Council (HCC)	0%	0%	0%	0%	0%	0%	0%	0%
Kapiti Coast District Council (KCDC)	120%	0%	120%	0%	0%	0%	0%	0%
South Island	0%	0%	0%	0%	0%	0%	0%	0%
Region	0%	0%	0%	0%	0%	0%	0%	0%
Nelson City Council / Tasman District (NCC_TDC)	0%	0%	0%	0%	0%	0%	0%	0%
Christchurch City Council (CCC)	2%	0%	2%	8%	20%	17%	-2%	110%
Christchurch (NZTA)	0%	0%	0%	0%	0%	0%	0%	0%
Ashburton District Council	0%	0%	0%	0%	0%	0%	0%	0%
Timaru District Council (TDC)	0%	0%	0%	0%	0%	0%	0%	0%
Waitaki District Council (Oamaru)	0%	0%	0%	0%	0%	0%	0%	0%
Dunedin City Council (DCC)	0%	0%	0%	62%	0%	22%	0%	0%
Queenstown Lakes and District Council (QLDC)	8%	0%	8%	20%	150%	0%	0%	0%
Invercargill City Council (ICC)	0%	0%	0%	0%	0%	0%	0%	0%

I have taken some snap shots on key takeaways from the numbers this year when comparing against the previous 2023 numbers.

In the northern regions Whangarei, Auckland and Hamilton are all consistently increasing in terms of signal assets.
Interestingly a larger increase in VC6 compatibility in those northern regions are also noted, with Tauranga taking the lead for percentage increase.
Hamilton are the only region with an increase in Extra Low Voltage sites, when comparing against Auckland and Tauranga.

Central regions have seen an increase in signal assets in New Plymouth and Kapiti Coast.
Kapiti Coast has seen the most growth in the Central Region.
Interestingly all regions in those central region have seen an uptake in VC6 and getting sites on SCATS.

South Island regions have consistently increased from last year's 2023 numbers.
Notable increases for Christchurch are the number of raised safety platforms at signalised intersections, ELV and Fibre signal connections, also there appears to be a decrease in 4G network sites. Projects such as the NZ UP - Wakatipu Transport

Programme Alliance in Queenstown has certainly seen growth in Queenstown-Lakes region.
Again, an increase in VC6 and Extra Low Voltage signals are apparent across the southern regions.

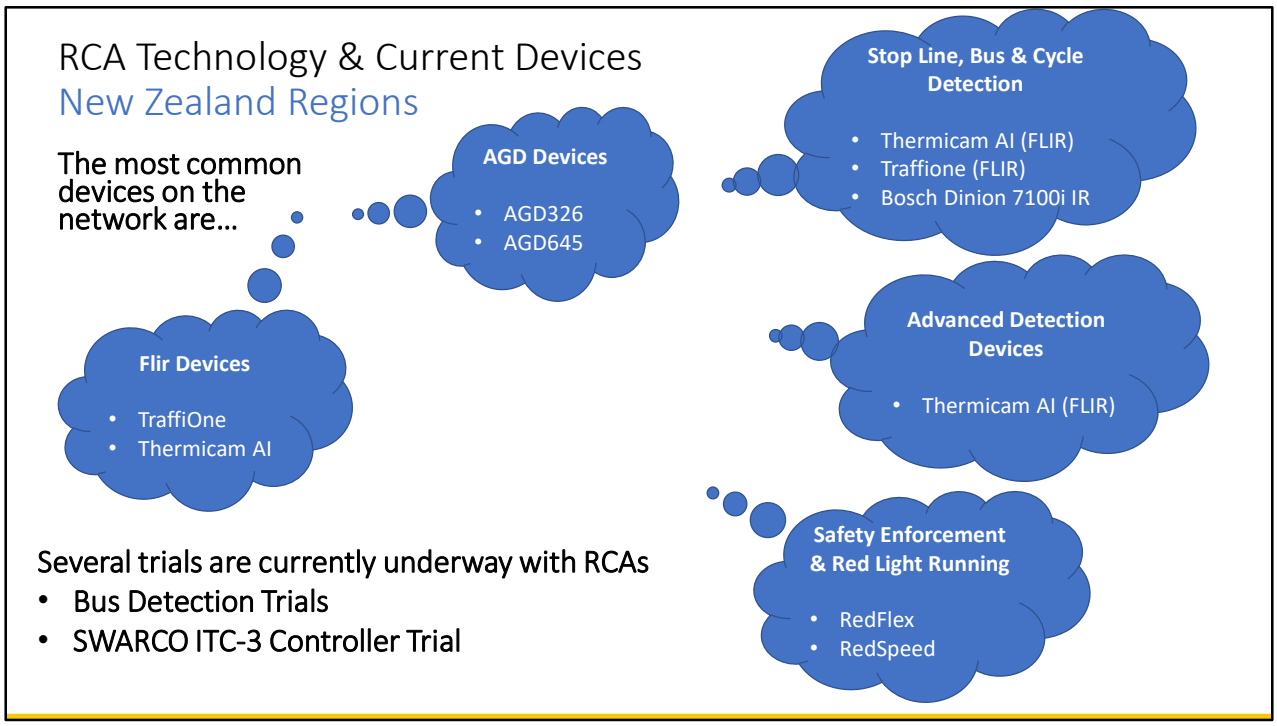
Digital Dashboards for Regional Assets

Some possible improvements in the way we present the signal asset numbers each year could be a digital dashboard as shown above. Here is an example of how we could show the information in the future, making it more meaningful and interactive by region or geographical area.

This could also be something that we could make accessible on the SNUG website.

I also want to try make it less ambiguous for our RCAs and have something which can be easily accessed, with columns and fields already setup to help with data processing and inputs.

Keen to hear what everyone's thoughts are on that and how we can make this more meaningful as a group, but happy to discuss possible improvements to make this component more important.

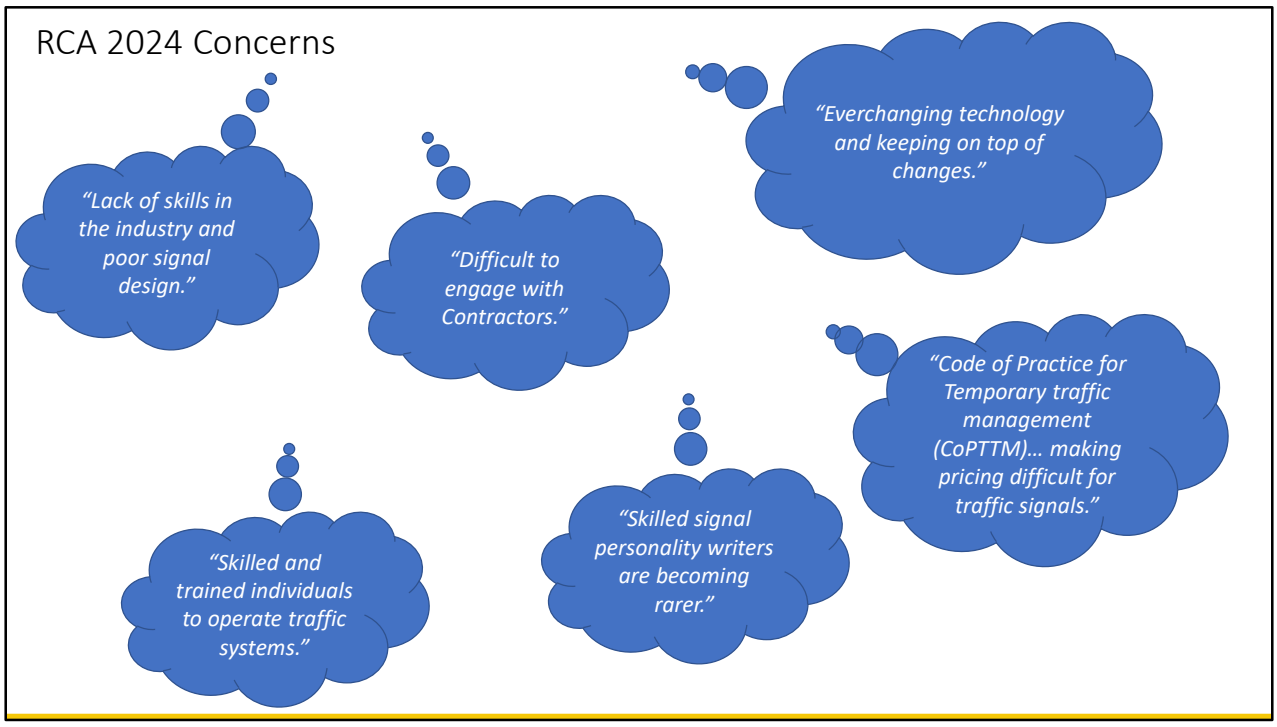


There is a common trend for signal devices and technology across the regions.

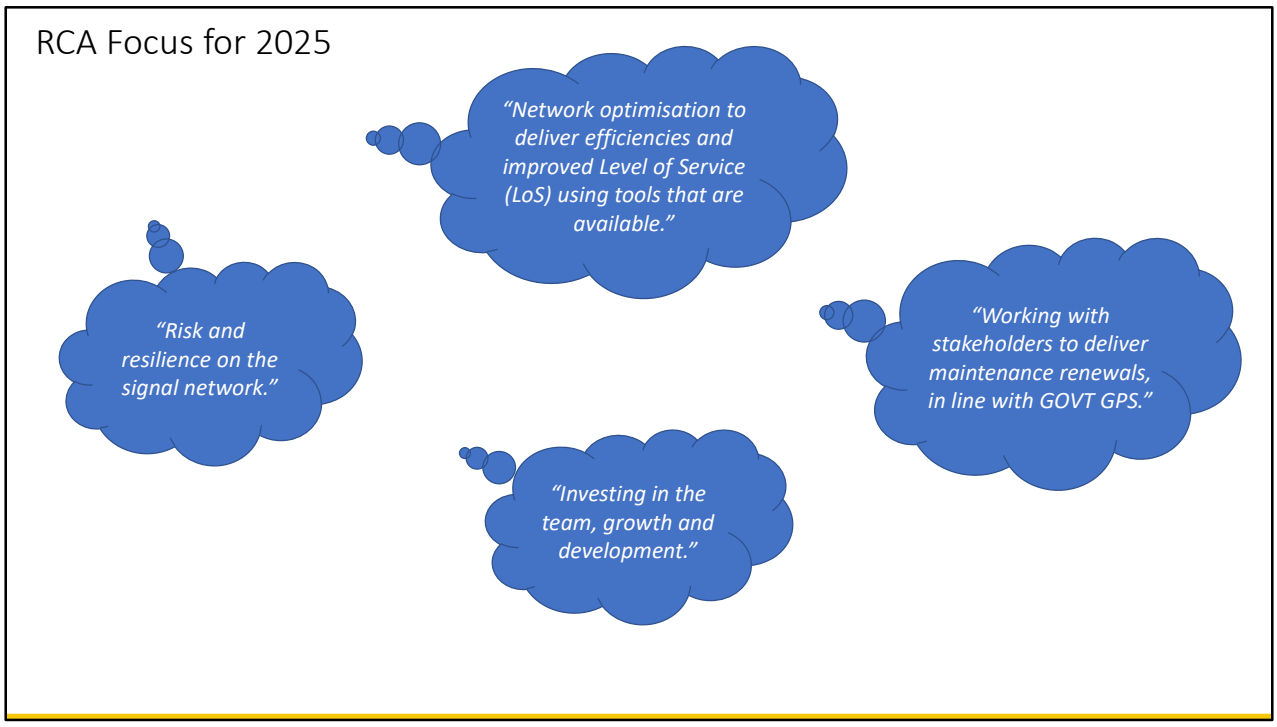
There are several devices such as Flir and AGD devices typically chosen for above ground detection at midblocks and pedestrian crossings etc.

Stop line, bus and cycle detection has typically used FLIR devices, however Christchurch City Council are currently trailing a Bosch Dinion for bus detection.

It is worth noting that there several trials underway with RCAs, with ATOC trialling a Swarco ITC-3 controller late 2024 or early 2025, and we are keen to hear how things go with that trial.



Above are the 2024 concerns from regional RCAs
Notable items are general lack of skills in the industry, trained individuals to operate traffic systems and poor traffic signal design generally.
CoPTTM making pricing difficult for the maintenance and delivery of traffic signals.
Skilled signal personality writers.
Changing technology and difficulty to keep on top of it.
engaging with contractors generally.



RCA Focus for 2025 are:
Efficiencies and improved level of service on the network.
Investing in the team, particularly around development and skill growth.
Working more closely with stakeholders to deliver maintenance renewals.
Additional focus for RCAs is risk and resilience on the network.

Thank you