



## Legislators lay groundwork for local 5G phone service

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This year is the 10th anniversary of Apple's iPhone, the first smartphone for ordinary people. Next year will be the 10th anniversary of the Android phone, now the most common smartphone.

Despite the whiz-bang coolness of smartphones, what folks forget is that the phone is only half of the telecom "smart" equation. Without an equally akamai network, the phones lose much of their utility and hence "IQ."

So let's talk about the network service here in Hawaii. You are probably between 3G and 4G, depending on your phone, the service you use and your location. But there is a big change coming, and it is already being introduced in select mainland cities.

Just around the corner, 5G is coming to Hawaii.

So why should you care?

For starters, 5G will provide support for the new 911 so that individuals can be located if they call but cannot communicate. It could alert you to the closest medical services or resuscitators wherever you are in town, for instance. Even better, it could be used to alert you of open parking spaces downtown.

How would that work? One of the keys to 5G is that it will focus on machine- to-machine communication. This would allow sensors and cameras to communicate directly with your phone or public service systems based on things happening in their area. On a personal level this would allow businesses to advertise lunch specials on your phone as you walk near their location in town or drive through their neighborhood in your car. 5G would allow bus stops to show the actual arrival time of the next bus.

But that is only the beginning, 5G services are part of new self-driving cars. This is the real heart of machine- to-machine communication, as cars could talk to each other to reduce traffic jams and accidents.

State Rep. Ryan Yamane (D, Mililani-Waipio-Waikale) and state Sen. Glenn Wakai (D, Kalihi-Salt Lake-Aliamanu) want you to know about this because the next generation, 5G, will take more effort to implement in our state. We are all familiar with cellular

towers and sets of antenna on buildings that provide service for a 10-square-mile area. The next generation is Small Wireless Facilities or Small Cells serving only about one square mile. These will greatly expand the services available and use much smaller boxes that can be attached to telephone poles, stoplights or buildings. That's where things get interesting for Hawaii.

In a conversation I recently had with Yamane, we discussed the differences and the changes we needed to make to ensure that 5G arrives in Hawaii on time. The House and matching Senate bills that he and Wakai introduced begin to define the new broadband services so registration and site licensing policies are more efficient and faster.

The goal is allowing service providers to license 5G sites in project groups of about 25 sites. Because the sites are so much smaller and less obtrusive, it doesn't make sense to require individual licensing as is done for the old cell sites. This will make a large difference to the services providers so they can all take advantage of administrative efficiencies and build new 5G services in Hawaii quickly.

For this to happen, all levels of government in Hawaii need to be on the same page and making the necessary changes for these new services to work. Yes, that could be a problem. But I was impressed with Yamane's efforts to keep Hawaii at the front of technology when we are all used to being left behind. If you want to check on the status of these bills, they are HB 625 and SB 1201.