## It's My Phone (imp) White Paper - Why Call Blocking Doesn't Work

By: Andy Dale, Head of Engineering joinimp.com

Andy Dale here, I designed and built the technology behind imp. I wanted to share with you why call blocking doesn't work. And beyond that, why it can't work!

It is very easy to pretend to be someone else on the phone systems. The caller id information that shows up on your phone is provided by the caller. Not the phone company. Here's a website you can use, right now, to make calls from a fake number: <a href="https://www.spooftel.com/">https://www.spooftel.com/</a>

It's like going into a bar and being able to use an ID you made yourself to prove you are old enough to drink. If you try to use a homemade ID to get a drink in an actual bar, there are lots of clues, built into ID cards, that make it hard to fake and easy to spot. There are no such controls built into the phone system. If you walk into the "telephone" bar and tell them your name is Bill Gates and you are 143 years old, they would just accept it.

The bad guys know how easy it is to provide fake caller id information and they know that people are trying to block them. Using computers it is trivially easy to constantly change the caller id information. With 10 digits to play with in a regular phone number like 520-815-4110, there are literally billions of numbers to choose from, there is just no way to block them all. Even if the bad guys limited themselves to 'valid' fake

phone numbers, which they don't, they would have over 3,000,000,000 numbers to use.

1 Billion seconds is about 31.5 years. If a bad guy made one call a second, using a different number each time, it would take close to a hundred and fifty years before they would have to re-use a number. As soon as you block the number that a bad guy has used to call you, they move on to a new one. Blocking specific caller numbers just can't work.

In running our systems for as long as we have we have learned a few things about call traffic patterns. The blocking functionality we provide ends up blocking about 5% of incoming calls, this is about as good as blocking is ever going to get. We seamlessly connect the calls you want from your Greenlist, that's about 20% of call volume. So what about the other 75%?

Call blocking cannot help with the 75%. These calls come from numbers you don't know, you have never had a chance to either block or Greenlist them. With a conventional system, these calls still get put through to you, invariably in the middle of dinner or your favorite tv show. Or the conventional systems hangs up on them. The imp system introduces the Greylist to handle the 75%. These callers are screened by the system and, based on your personal settings, will notify you of these screened calls discreetly in your smartphone imp App. You can review these calls at your leisure, on your terms.

Call blocking only solves 5% of the problem. imp's Greenlist technology, including the Greylist, solves 100% of the problem, restoring peace and quiet as well as peace of mind.