

Understanding ANI and CPN with VoIP by Doug Brickner

ANI (Automatic Number Identification) and CPN (Calling Party Number) have always been confusing. Especially now with VoIP (Voice over IP) telephones. This article explains to you the difference of what Vonage, VoicePulse and a few other VoIP providers send as ANI and CPN/Caller ID when using their Caller ID block feature.

When you place a call the switch logs the time of call, the number you're calling from and the number you're calling to. If the switch is SS7 compatible (which 99.99% of switches are), then the switch sends your ANI and CPN along in a packet of data. The ANI is the number you called from, and so is the CPN (assuming you're using a regular telephone line). If you're using a PBX/PaBX system with trunks then you may have to specify your CPN on your outgoing calls, as DOD trunks do not have phone numbers associated with them since they are Direct Outwards Dialing. In other words, the DOD is specifically meant to make calls, not receive them.

Vonage does this almost like a regular land line. Your CPN and Caller ID are sent fine. If you use *67 they send a private tag but the CPN is still sent. But the ANI is always going to be some 10-digit number that belongs to Vonage. This number is just some disconnected number when you call it. This is because real-time ANI doesn't really work with VoIP because VoIP isn't exactly a real telephone line. So the CPN is "spoofed" as the Vonage customer's VoIP telephone number.

Here is a chart of what your ANI/CPN/CID is like with Vonage, VoicePulse, and Packet8 when using the Caller ID block feature.

VONAGE Blocked/*67

973-954-4049	ANI
Your Vonage Number	CPN
"PRIVATE"	Caller ID Box

VONAGE Unblocked/*82

973-954-4049	ANI
Your Vonage Number	CPN
Your Vonage Number	Caller ID Box

VOICEPULSE Blocked/*67

646-619-5149	ANI
212-400-7400	CPN
"PRIVATE"	Caller ID Box

VOICEPULSE Unblocked/*82

646-619-5149	ANI
Your VoicePulse Number	CPN
Your VoicePulse Number	Caller ID Box

PACKET8 Blocked/*67

NO ANI	ANI
040-361-6210	CPN
040-361-6210	Caller ID Box

PACKET8 Unblocked/*82

NO ANI	ANI
Your Packet8 Number	CPN
Your Packet8 Number	Caller ID Box

When you have your Caller ID blocked, VoicePulse sets a private tag but also changes your CPN to a 212-400 number that they own which happens to be disconnected. When Caller ID is unblocked (or you use *82) VoicePulse sends the proper CPN as your VoicePulse number allowing it to be sent to Caller ID boxes. VoicePulse's and Vonage's real-time ANI is also some other disconnected number.

Why VoicePulse changes your CPN to their 212 number AND sends a private tag for Caller ID, I have no idea. Maybe it's because they believe sending Private isn't enough, they also have to send a fake CPN so nobody can get back to you.

VoicePulse is a good way to go. Because when you block your number, all people will get is some disconnected numbers. Now can that get traced back to you? Of course it can. They can find out it's VoicePulse and VoicePulse can find out easily it's you. That's why you should never do anything too stupid.

I tested all of this is with the ANAC 866-MY-ANI-IS. (Even though it says ANI, it IS reading the CPN.)

Sorry, I can't give you any real-time ANACs. The ones that I use are toll-free that don't require any kind of password; those are hard to find.

Speaking of ANACs, you should also know that 800-444-4444 does NOT read CPN. It reads Caller ID then if Caller ID is blocked it reads the ANI. Now I know you're probably thinking, "What the hell?! CPN is Caller ID you n00b!" Well yes, Caller ID is generated by CPN. However, all 800-444-4444 does is look for the Caller ID information. If it receives Private or any kind of bullshit kind of number it therefore goes and grabs the real-time ANI. Why it does this, I don't know.

The perfect way to test this is with Vonage. I explained how Vonage's real-time is a 973-954-4049 number and Vonage's CPN is ALWAYS going to be your Vonage number. Well if you *67-1-800-444-4444 with Vonage, you'll notice it looked for the Caller ID, but of course it was private so therefore it grabbed your real-time which is the 973-954-4049 number instead of your Vonage number.

Even though if I call *67-1-866-MY-ANI-IS with Vonage it will still read my CPN. Another way is to test this with certain kinds of calling cards, knowing what they pass for ANI, CPN, and if they block Caller ID or not.

You can also always use a soft phone application with an IAX provider so you can spoof any CPN you would like. It's also good to find a good open access VoIP provider that doesn't have a real-time ANI at all either.

It will make you anonymous... but everything can still be traced.

Shouts:

decoder, avid, greyarea, royal, Not Theory, natas, WhiteSword, kizzle, slipm0de, Cessna, RijilV, BlackRatchet, dual_parallel, StankDawg, Strom Carlson, ic0n

Shouts to bellsmind.net and hackermedia.net.

And of course big shouts to everyone out there who is putting out their own Radio/TV shows! It's so good to see so much good alternative underground media out there!