

ACPREFIX.TXT

From: goldstein@delni.enet.dec.com
Subject: Re: Calls With Area Code Prefixes
Organization: Digital Equipment Corporation, Littleton MA USA

In article <telecom-v09i0530m04@vector.dallas.tx.us>, dgc@math.ucla.edu writes...

>Can anyone tell me exactly how calls with area code prefixes are
>handled? Previous messages on the handling of 700 calls left me with
>some questions unanswered. I think that there are basically 4 cases:

>1. 1-800 prefix

Two answers on 800 service. Today, they use the "NXX" method. Each of the NXX codes (i.e., 800-221, 800-222, etc.) belongs to one or another LD carrier. The local telco simply hands it off. Each RBOC owns a few of its own, too, for intra-LATA use. "Tomorrow" (R.S.N.), there may be a huge telco-owned collective data base indicating which carrier carries each 800 number. So you will be able to switch carriers without changing 800 numbers. The problem is delay: There's a finite time it takes the telco to send the lookup request through the SS7 network to the data base engine (SCP). It delays call processing by a few seconds. Other than that, the technique works well.

>2. 1-900 prefix

Like 800 service today, each 900 prefix is handed off to an LD carrier. I don't think there are plans to change it.

Note that the caller's default carrier is not meaningful for these SACs, since they're destination-selected. The list of who owns which was posted in this Digest a couple years back. Note that these are not area codes but service access codes.

>3. 1-700 prefix

This means "carrier specific number", so it's handed off to the default or selected carrier. Each carrier has its own 700 number space to do with as they see fit.

>4. All other prefixes

If it's intra-LATA, the telco just routes it. If it's inter-LATA, it goes to the default or (10xxx) selected carrier, who figures out what to do with it.

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>Why couldn't US Telecom just have you dial 11+local number if 1+ calls
>(other than 10+ calls) all go to it? Is there some requirement that
>exactly 10 digits follow the initial 1? and couldn't that be handled by
>having the customer dial dummy 1's either at the beginning (say 1111) or
>at the end of the number (111) at the end?

The RBOCs are under no obligation to provide "equal access" for intra-LATA calls; that's their own bailiwick. If they did provide it, they'd have to do it equally, like for inter-LATA calls. The numbering plan only has room for so many hacks. It does involve digit counting, etc.

fred

From: David Lewis <nvuxr!deej@bellcore.bellcore.com>
Subject: Re: Calls With Area Code Prefixes (800 in particular)
Organization: Bellcore, Livingston, NJ

In article <telecom-v09i0533m06@chinacat.lonestar.org>, goldstein@delni.enet.dec.com writes:

> In article <telecom-v09i0533m04@vector.dallas.tx.us>, dgc@math.ucla.edu
> writes...

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> owns a few of its own, too, for intra-LATA use. "Tomorrow" (R.S.N.),

As soon as 80% of BOC end offices are connected to the Signaling System 7 (common channel signaling) network. At least, that's the latest FCC ruling.

> there may be a huge telco-owned collective data base indicating which

Oh, please don't say "collective" in the same breath as "telco". That always makes people think of the other word that starts with "coll" -- "collusion".

A more accurate description of 800 Database Service (800 DBS) is that

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there will be 800 databases owned by each telco, with the appropriate information duplicated.

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> carriers without changing 800 numbers. The problem is delay: There's
> a finite time it takes the telco to send the lookup request through
> the SS7 network to the data base engine (SCP). It delays call
> processing by a few seconds. Other than that, the technique works
> well.

If your phone subtends an end office which is SS7-connected, the delay is actually less than a second. Delays only really pile up if the end office can't send a query directly to the database, but has to hand off the call to a tandem via MF (Multi-Frequency -- inband) signaling. Then, it gets really bad. That's one large reason why the FCC mandated that the BOCs can't switch from the NXX method to 800 DBS until 80% of end offices (actually, it may be 80% of end office lines, but the economics fall the same way) are SS7-connected.

David G Lewis ...!bellcore!nvuxr!deej
(@ Bellcore Navesink Research & Engineering Center)
"If this is paradise, I wish I had a lawnmower."

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