Phone Systems Tutorial by The Jolly Roger

To start off, we will discuss the dialing procedures for domestic as well as international dialing. We will also take a look at the telephone numbering plan.

North American Numbering Plan

In North America, the telephone numbering plan is as follows:

A) a 3 digit Numbering Plan Area (NPA) code , ie, area code
B) a 7 digit telephone # consisting of a 3 digit Central Office (CO) code plus a 4 digit station #

These 10 digits are called the network address or destination code. It is in the format of:

Area Code	Telephone #
N*X	NXX-XXXX

Where: N = a digit from 2 to 9
* = the digit 0 or 1
X = a digit from 0 to 9

Area Codes

Check your telephone book or the seperate listing of area codes found on many bbs's. Here are the special area codes (SAC's):

510 - TWX (USA)
610 - TWX (Canada)
700 - New Service
710 - TWX (USA)
800 - WATS
810 - TWX (USA)
900 - DIAL-IT Services
910 - TWX (USA)

The other area codes never cross state lines, therefore each state must have at least one exclusive NPA code. When a community is split by a state line, the CO #'s are often interchangeable (ie, you can dial the same number from two different area codes).

TWX (Telex II) consists of 5 teletype-writer area codes. They are owned by Western Union. These SAC's may only be reached via other TWX machines. These run at 110 baud (last I checked! They are most likely faster now!). Besides the TWX #'s, these machines are routed to normal telephone #'s. TWX machines always respond with an answerback. For example, WU's FYI TWX # is (910) 279-5956. The answerback for this service is "WU FYI MAWA".

If you don't want to but a TWX machine, you can still send TWX messages using Easylink [800/325-4112]. However you are gonna have

to hack your way onto this one!

700:

700 is currently used by AT&T as a call forwarding service. It is targeted towards salesmen on the run. To understand how this works, I'll explain it with an example. Let's say Joe Q. Salespig works for AT&T security and he is on the run chasing a phreak around the country who royally screwed up an important COSMOS system. Let's say that Joe's 700 # is (700) 382-5968. Everytime Joe goes to a new hotel (or most likely SLEAZY MOTEL), he dials a special 700 #, enters a code, and the number where he is staying. Now, if his boss received some important info, all he would do is dial (700) 382-5968 and it would ring wherever Joe last progammed it to. Neat, huh?

800:

This SAC is one of my favourites since it allows for toll free calls. INWARD WATS (INWATS), or Inward Wide Area Telecommunications Service is the 800 #'s that we are all familiar with. 800 #'s are set up in service areas or bands. There are 6 of these. Band 6 is the largest and you can call a band 6 # from anywhere in the US except the state where the call is terminated (that is why most companies have one 800 number for the countery and then another one for their state.) Band 5 includes the 48 contiguous states. All the way down to band 1 which includes only the states contiguous to that one. Therefore, less people can reach a band 1 INWATS # than a band 6 #.

Intrastate INWATS #'s (ie, you can call it from only 1 state) always have a 2 as the last digit in the exchange (ie, 800-NX2-XXXX). The NXX on 800 #'s represent the area where the business is located. For example, a # beginning with 800-431 would terminate at a NY CO.

800 #'s always end up in a hunt series in a CO. This means that it tries the first # allocated to the company for their 800 lines; if this is busy, it will try the next #, etc. You must have a minimum of 2 lines for each 800 #. For example, Travelnet uses a hunt series. If you dial (800) 521-8400, it will first try the # associated with 8400; if it is busy it will go to the next available port, etc. INWATS customers are billed by the number of hours of calls made to their #.

OUTWATS (OUTWARD WATS): OUTWATS are for making outgoing calls only. Largecompanies use OUTWATS since they receive bulk-rate discounts. Since OUTWATS numbers cannot have incoming calls, they are in the format of:

   (800) *XXX-XXXX

Where * is the digit 0 or 1 (or it may even be designated by a letter) which cannot be dialed unless you box the call. The *XX identifies the type of service and the areas that the company can call.

Remember:

 INWATS + OUTWATS = WATS EXTENDER

900:

This DIAL-IT SAC is a nationwide dial-it service. It is use for taking television polls and other stuff. The first minute currently costs an outrageous 50-85 cents and each additional minute costs 35-85 cents. Hell takes in a lot of revenue this way!

Dial (900) 555-1212 to find out what is currently on this service.

CO CODES
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These identify the switching office where the call is to be routed. The following CO codes are reserved nationwide:

   555 - directory assistance
   844 - time. These are now in!
   936 - weather the 976 exchange
   950 - future services
   958 - plant test
   959 - plant test
   970 - plant test (temporary)
   976 - DIAL-IT services

Also, the 3 digit ANI & ringback #'s are regarded as plant test and are thus reserved. These numbers vary from area to area.

You cannot dial a 0 or 1 as the first digit of the exchange code (unless using a blue box!). This is due to the fact that these exchanges (000-199) contains all sorts of interesting shit such as conference #'s, operators, test #'s, etc.

950:

Here are the services that are currently used by the 950 exchange:

   1000 - SPC
   1022 - MCI Execunet
   1033 - US Telephone
   1044 - Allnet
   1066 - Lexitel
   1088 - SBS Skyline

These SCC's (Specialized Common Carriers) are free from fortress phones! Also, the 950 exchange will probably be phased out with the introduction of Equal Access

Plant Tests:

These include ANI, Ringback, and other various tests.

976:
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Dial 976-1000 to see what is currently on the service. Also, many bbs's have listings of these numbers.

N11 codes:

Bell is trying to phase out some of these, but they still exist in most areas.

  011 - international dialing prefix
  211 - coin refund operator
  411 - directory assistance
  611 - repair service
  811 - business office
  911 - EMERGENCY

International Dialing
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With International Dialing, the world has been divided into 9 numbering zones. To make an international call, you must first dial: International Prefix + Country code + National #

In North America, the international dialing prefix is 011 for station-to-station calls. If you can dial International #'s directly in your area then you have International Direct Distance Dialing (IDDD).

The country code, which varies from 1 to 3 digits, always has the world numbering zone as the first digit. For example, the country code for the United Kingdom is 44, thus it is in world numbering zone 4. Some boards may contain a complete listing of other country codes, but here I give you a few:

   1 - North America (US, Canada, etc.)
  20 - Egypt
 258 - Mozambique
  34 - Spain
  49 - Germany
  52 - Mexico (southern portion)
   7 - USSR
  81 - Japan
  98 - Iran (call & hassle those bastards!)

If you call from an area other than North America, the format is generally the same. For example, let's say that you wanted to call the White House from Switzerland to tell the prez that his numbered bank account is overdrawn (it happens, you know! ha ha). First you would dial 00 (the SWISS international dialing refix), then 1 (the US country code), followed by 202-456-1414 (the national # for the White House. Just ask for Georgy and give him the bad news!)

Also, country code 87 is reserved for Maritime mobile service, ie, calling ships:

   871 - Marisat (Atlantic)
   871 - Marisat (Pacific)
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872 - Marisat (Indian)

International Switching:

In North America there are currently 7 no. 4 ESS's that perform the duty of ISC (Inter-nation Switching Centers). All international calls dialed from numbering zone 1 will be routed through one of these "gateway cities". They are:

182 - White Plains, NY
183 - New York, NY
184 - Pittsburgh, PA
185 - Orlando, Fl
186 - Oakland, CA
187 - Denver, CO
188 - New York, NY

The 18X series are operator routing codes for overseas access (to be furthur discussed with blue boxes). All international calls use a signaling service called CCITT.It is an international standard for signaling.

Ok.. there you go for now! If you wanna read more about this, read part two which is the next file #36 in the Jolly Roger's cookbook!

-Jolly Roger-

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