

/ CONFIGURATION GUIDELINES

SmartRG Dial Plan Syntax

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This document explains dial plan syntax on SmartRG VoIP devices.

Basic Dial Plan Syntax

Below is a description for each symbol on the configuration of the dial plan.

| (VERTICAL BAR, OR PIPE SYMBOL)

Used to separate dial plan script options (digit sequences).

Each sequence in the dial plan is compared against the dial string entered by the user making a call. If a match is detected, the call is transmitted to the VSP (VoIP Service Provider). If no sequence matches the user's input dial string, the call is blocked.

Digit Sequence Syntax

Allowed input digits are: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, *, or #.

X

Represents any single digit element from 0 through 9. Multiple x's indicate multiple digits.

Example - Only 11-Digit Numbers

```
xxxxxxxxxxxxx
```

This example validates dialed numbers of 11-digits only.

. (PERIOD)

The period, when appended to an element, means the element preceding the period can be repeated 0 or more times.

Example - No Restrictions

```
( xxxxx. )
```

This example allows three, or more, of any number digits to be sent.

In other words, there are no restrictions on what number combinations, or length, can be dialed following the minimum number of digits defined. The digit followed by the period is an optional digit that can be repeated any number of times, including zero times.

Thus, four x's followed by a period means a minimum of three digits are allowed, and more than three digits will also be allowed.

Example - 7 Digits or More

```
( xxxxxxxx. )
```

This example, of 8 x's, allows a minimum dialing of 7-digits.

In other words, this filter allows calls to 7-digit, 10-digit, 11-digit, 13-digits, and so on. Actually, any number of 7 digits or more in length will be allowed.

[] SUBSETS OR RANGES

The square bracket is used to limit the "range" of digits that can represent any single digit input position. Only digits listed within the brackets will be allowed in that digit sequence position.

Example - Only 4 or 9 Precede 11

```
( [49]11 )
```

This example allows only the subset of digits 4 *OR* 9 to precede the digits 11. In other words, only the sequences 411 and 911 are allowed to be dialed. All other 3-digit x11 calls will be rejected.

Example - Only Specific Numbers

```
( [3-8]11 )
```

This example allows only 311, 411, 511, 611, 711, and 811 calls to be dialed. 011, 111, 211, and 911 sequences will be rejected.

Example - Only 7-Digit Numbers

([2-9]xxxxxx)

This example allow only valid 7-digit phone numbers to be called. In North America, 7-digit local phone numbers cannot begin with 0 OR 1. Only 7-digit telephone numbers beginning with 2 through 9 are valid local area phone numbers. Thus, in this example, any 7-digit sequence dialed beginning with 0 OR 1 will be rejected.

Dialplan Syntax Example

The following dial plan syntax example is explained in the table below:

*xx|[2-9]11|0|00|1[2-9]xxxxxxxx|[2-9]xxxxxxxx|011[2-9]xxxx

OPTION	SYNTAX	NUMBERS THAT CAN BE DIALED
1.	*xx	Any number starting with * key + 2 single digits (0 through 9).
2.	[2-9]11	Any dial number starting with a single digit (2 through 9) + 2 digits of 1. Valid dial numbers 211, 311, 411, 511, 611, 711, 811 and 911.
3.	0	0 dial number.
4.	00	00 dial number.
5.	1[2-9]xxxxxxxx	Any dial number starting with 1 + one single digit (2 through 9) + 9 digits (0 through 9).
6.	[2-9]xxxxxxxx	Any dial number starting with one single digit (2 through 9) + 9 digits (0 through 9).
7.	011[2-9]xxxx.	Any dial number starting with 011 + one single digit (2 through 9) + at minimum 4 digits (0 through 9).