Amateur Radio Callsign to ALE Address Standard Protocol

STANDARD FOR AMATEUR RADIO CALLSIGN CONVERSION TO ALE ADDRESS
This document discusses the standard conversion protocol for amateur radio 'operator callsign' or 'station callsign' to Automatic Link Establishment (ALE) self-address. A unique ALE self-address is required for proper operation on the air using ALE.

AMATEUR RADIO CALLSIGN AS ALE ADDRESS
Since 2001, amateur radio operators have been operating in organized nets using ALE. Universal use of operator callsign or station callsign was adopted, and this simple callsign forms the basis of the present global standard of ALE self-address. ITU international allocation agreements require that amateur callsigns normally are CAPITAL ALPHABET characters and NUMERIC DIGITS. This is compatible with ALE self-address requirements. The basic original callsign is always preferred as ALE self-address whenever possible.

Example:

Callsign	ALE Address
KQ6XA	KQ6XA

2G ALE STANDARD ADDRESS PROTOCOL
The world standard ALE system is known as 2G ALE. The 2G ALE system can ONLY use an ALE address containing the Basic 36 ALPHA-Numeric characters;
the 26 Characters of ALPHABET (A-Z) ALL CAPS and the 10 Digits (0-9)

Valid ALE Self-Address characters:

ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789

Important notes:
- No other characters or spaces can be in the ALE Self Address.
- The ALE address must be less than 15 characters long.

PORTABLE, MOBILE, MULTIPLE, OR RECIPROCOL CALLSIGNS
Operators may desire (or require) the use of additional indicators to expand their callsign with more characters when operating portable, mobile or in a different location or country from the operator's original callsign. Careful conversion using this standard avoids confusion, duplication, or invalid ALE addresses. Also, it enables the protocol to be used for consistent international station identification.

An operator may have multiple different stations or ALE radios, and may want to differentiate the ALE self-addresses for identification, EmComm incident situations, or messaging/inbox data traffic purposes.

Traditionally, on voice or CW, some additional callsign indicators have used the /*slash* (slant-bar) for /M (mobile) or /P (portable). However, the /slash is not a valid ALE address character, so /slash CAN NOT be used for ALE self address.

Amateur Radio Callsign to ALE Address Standard Protocol

CONVERSION OF /SLASH
The standard conversion method of /slash indicator to ALE self-address depends on whether the indicator is before or after the original callsign.

PREFIX /SLASH
If the expanded character callsign indicator precedes the main callsign (such as operation in another country) then DELETE the slash to form the ALE self-address.

Example:

Callsign	ALE Address
VR2/KQ6XA	VR2KQ6XA

SUFFIX /SLASH FOR MOBILE OR PORTABLE
If the expanded character callsign indicator comes after the main callsign (portable or mobile) then ADD a SINGLE DIGIT.

Examples:

Callsign	ALE Address
KQ6XA/M	KQ6XA1
KQ6XA/P	KQ6XA2
KQ6XA/4	KQ6XA4

ALTERNATIVE SUFFIX /SLASH
If the operator requires more alphabet characters after the main callsign, then REPLACE /slash with DIGIT "1" and add ALPHABET CHARACTERS

Examples:

Callsign	ALE Address
KQ6XA/P	KQ6XA1P
KQ6XA/MM	KQ6XA1MM
KQ6XA/VE9	KQ6XA1VE9

INVALID ALE ADDRESS CHARACTERS
Here is a list of some common mistakes of invalid ALE address characters, and all such invalid characters will cause problems for ALE use.

Examples:

Characters	ALE Self Address
/	NOT VALID!
*	NOT VALID!
–	NOT VALID!
?	NOT VALID! (used as protocol wildcard)
_ underbar	NOT VALID!
Φ various ascii symbols	NOT VALID!
@	NOT VALID! (used as protocol utility)
space	NOT VALID!

SIMPLE IS BETTER
Keep in mind, when converting callsign to ALE self-address:
Minimum characters in the ALE address improves linking reliability. It is always wise to use the basic simple callsign as the self-address if possible.