

Proposed Recommendation for: Hierarchical Addressing Protocol

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Introduction

The TAPR BBS Special Interest Group recommends the adoption of the x.3.4 hierarchical address protocol.

After discussion of previous articles on hierarchical addressing standards (1,2) and taking into account international issues of regional/state name sizes, the TAPR BBS Special Interest Group recommends the adoption of the x.3.4 standard on an international basis. x is defined as 2, 3, or 4 letter region names as defined by the country

Examples of x.3.4:

@WA6GVD.CA.USA.NOAM
@EA2CMO.EAZ.ESP.EURO
aF5JGK.FAQL.FRA.EURO

Regional identifiers may be duplicated in different countries (i.e. AK, Alaska, USA, could be used in another country as a regional identifier); however, Country and Continental identifiers SHOULD NOT be used as regional names.

It is important to note that there is a distinct and significant difference between HIERARCHICAL ADDRESSES and FLOOD DESIGNATORS. Hierarchical address elements are common to all messages (bulletins, P and T types) and are the foundation of the digital forwarding system. Flood designators are used for routing and filtering bulletins. Geographical flood designators are likely based upon hierarchical address elements. It is therefore important that any attempt to establish standards concentrate first on hierarchical address elements. Standards for flood designators can follow.

It is the purpose of this document to establish a basic framework upon which to base a logical hierarchical addressing structure. Attached Supplemental Tables will be changed as necessary to reflect current configurations within the international BBS network.

Hierarchical Routing Syntax Summary

This summary uses a modified Backus-Naur form to summarize the syntax for hierarchical addressing.

[] = optional

ahierarchical address

bbs. [#octothorpe.][region.]country.continent

bbs

valid callsign as defined by local communications authority

#octothorpe.

#area. [#octothorpe.]

#area

local area identifier as defined by the sysops of the local region

See Supplemental Table 4 for list of current area identifiers

region

2,3, or 4 character region identifier (for state, province, department, prefecture, etc.)
as defined by sysops within each country.

See Supplemental Table 3 for list of region identifiers

country

3 character country identifier as defined by ANSI X. 12 and EDIFACT.
Published in ISO 3 166-198 1 (E/F).

See Table 2 for country identifiers

continent

4 character continental identifier.

See Table 1 for continental identifiers.

Examples:

F6CNBMETX.TX.USA.NOAM

KE!7WE.#WWA.WA.USA.NOAM
OHGRBV.#VAA.FIN.EURO
SK2AT.AC.SWE.EURO
OH6RBG.FIN.EURO
KE7KD.#NONEV.NV.USA.NOAM
WX3K.#NOCAL.CA.USA.NOAM

References:

1. Jenkins, Lew (N6VV), Dave Toth (VE3GYQ), and Hank Oredson (WORLI). International Routing Designators. Proceedings of the ARRL 7th Computer Networking Conference. Columbia Maryland. October 1, 1988. pp. 91-93.
2. Clark, Tom (W3IWI). Some comments on the 'Hierarchical Continent Address Designator. Proceedings of the ARRL 9th Computer Networking Conference. London, Ontario Canada. September 22, 1990. pp. 278-279.

TABLE 1: Continent Identifiers

EURO -- Europe
MEDR -- Mediterranean
INDI -- Indian Ocean including the Indian subcontinent
MDLE -- Middle East
SEAS -- South-East Asia
ASIA -- The Orient

NOAM -- North America (Canada, USA, Mexico)
CEAM -- Central America
CARB -- Caribbean
SOAM -- South America

AUNZ -- Australia/New ZeAC -- Eastern Pacific
NPAC -- Northern Pacific
SPAC -- Southern Pacific
WPAC -- Western Pacific

NAFR -- Northern Africa
CAFR -- Central Africa
SAFR -- Southern Africa

ANTR -- Antarctica

TABLE 2: Country Identifiers

ARG -- Argentina	ISR -- Israel
AUS -- Australia	ITA -- Italy
AUT -- Austria	JPN -- Japan
BEL -- Belgium	PRK -- Korea, North
BMU -- Bermuda	KOR -- Korea, South
BOL -- Bolivia	LBN -- Lebanon
BRA -- Brazil	LIE -- Liechtenstein
BRN -- Brunei	LUX -- Luxembourg
BGR -- Bulgaria	MYS -- Malaysia
CAN -- Canada	MEX -- Mexico
CHL -- Chile	MCO -- Monaco
CHN -- China	MAR -- Morocco
COL -- Colombia	NLD -- Netherlands
CRI -- Costa Rica	NZL -- New Zealand
CUB -- Cuba	NIC -- Nicaragua
DNK -- Denmark	NOR -- Norway
DOM -- Dominican Republic	PAK -- Pakistan
ECU -- Ecuador	PAN -- Panama
EGY -- Egypt	PRY -- Paraguay
SLV -- El Salvador	PER -- Peru
FIN -- Finland	PHL -- Phillipines
FRA -- France	POL -- Poland
PYF -- French Polynesia	PRT -- Portugal
DEU -- Germany	ROM -- Romania
GRC -- Greece	SAU -- Saudi Arabia
GRL -- Greenland	SGP -- Singapore
GTM -- Guatemala	ZAF -- South Africa
HTI -- Haiti	ESP -- Spain
HND -- Honduras	SWE -- Sweden
HKG -- Hong Kong	CHE -- Switzerland
HUN -- Hungary	SYR -- Syria
ISL -- Iceland	TWN -- Taiwan
IND -- India	THA -- Thailand
IDN -- Indonesia	TUR -- Turkey
IRL -- Ireland	GBR -- United Kingdom
	USA -- United States

URY -- Uruguay
 SUN -- USSR ??? (Docu-
 ment needs latest defintions)
 VEN -- Venezuela
 YUG -- Yugoslavia

END of formal document.

SUPPLEMENTAL TABLES follow, which may be modified on a continuing basis to reflect the changing nature of the amateur digital communications network. It is the express desire of the authors that these tables be 'fleshed out' in time as acceptance of the standard proposed in this document grows. The supplemental tables may be maintained by TAPR and disseminated, as necessary.

Supplemental Tables for Hierarchical Addressing Protocol Document e. These tables are to be maintained by TAPR, Tucson Amateur Packet Radio Corporation, based on continuing input from the amateur community.

TABLE 3 (SUPPLEMENTAL): Region Identifiers organized by Country Codes.

ARG -- Argentina	CHN -- China	HND -- Honduras
BA III 77	??	??
CF i7	COL -- Colombia	I-KG -- Hong Kong
AUS --Australia	??	??
3 7	CRI -- Costa Rica	HUN -- Hungary
ACT -- Austria	??	??
??	CUB -- Cuba	ISL -- Iceland
BEL -- Belgium	??	??
HT II 77	DNK -- Denmark	IND -- India
LG 77	??	??
()<--: +?	DOM -- Dominican	IDN -- Indonesia
WVL -- ??	Republic	??
BMU -- Bermuda	??	IRL -- Ireland
??	ECU -- Ecuador	??
B&L -- Bolivia	??	ISR -- Israel
??	EGY -- Egypt	??
BRA -- Brazil	??	ITA -- Italy
RS -0 77	SLV -- El Salvador	IEMR -- ??
SP i i	??	IFVG -- ??
BRN 1: Brunei	FIN -- Finland	ILOM -- ??
??	??	IPIE -- ??
BGR -- Bulgaria	FRA -- France	IPUG -- i?
??	FCEN -- ??	ISAR -- ??
CAN -- Canada	FRPA -- ?i	ISIC -- ??'
	FCAL -- ??	ITAA -- ??
Al3 -- Alberta	FPDL -- ??	IVEN -- ?'i
BC -- British Columbia	FMLR -- ??	MO -- ??
LB -- Labrador	FNOR -- ??	JPN -- Japan
MB -- Manitoba	FCOR -- ??	??
NB -- New Brunswick	FPOC -- ??	PRK -- Korea, North
NF -- Newfoundland	FAQI -- ??	??
NS -- Nova Scotia	PYF -- French Polynesia	K6R -- Korea, South
NT -- Northwest	??	??
Territories	DEU -- Germany	LBN -- Lebanon
ON -- Ontario	BY 77	??
PE -- Prince Edward	GRC --:Greece	LIE -- Liechtenstein
Island	??	??
PQ -- Quebec	GR!L -- Greenland	LUX -- Luxembourg
SK -- Saskatchewan	??	??
UT -- Yukon Territory	GTM -- Guatemala	MYS -- Malaysia
	none	??
CHL -- Chile	HTI -- Haiti	MEX -- Mexico
??	??	??

MCO -- Monaco
 ??
 MAR -- Morocco
 ??
 NLD -- Netherlands
 ??
 NZL -- New Zealand
 ??
 NIC -- Nicaragua
 ??
 NOR -- Norway
 ??
 PAK -- Pakistan
 ??
 PAN -- Panama
 ??
 PRY -- Paraguay
 ??
 PER -- Peru
 ??
 PHL -- Phillipines
 ??
 POL -- Poland
 ??
 PRT -- Portugal
 CTPT -- ??
 ROM -- Romania
 ??
 SAU -- Saudi Arabia
 ??
 SGP -- Singapore
 ??
 ZAF -- South Africa
 ??
 ESP -- Spain

 EAA -- Alicante
 EAAB -- Albacete
 EAAL -- Almeria
 EAAV -- Avila
 EAO -- Asturias
 EABI -- Vizcaya
 EAB -- Barcelona
 EABA -- Badajoz
 EABU -- Burgos

EAC -- La Coruna
 EACA -- Cadiz
 EACC -- Caceres
 EACE -- Ceuta
 EACO -- Cordoba
 EAH -- Huesca
 EASE -- Sevilla
 EAHU -- Heulva
 EAZ -- Zaragoza
 EACR -- Ciudad Real
 EACS -- Castelion
 EACU -- Cuenca
 EAGC -- Gran Canaria
 EAGI -- Girona
 EAGR -- Granada
 EAGU -- Guadalajara
 EAHU -- Huelva
 EAJ -- Jaen
 EAL -- Lleida
 EALE -- Leon
 EALO -- La Rioja
 EALU -- Lugo
 EAM -- Madrid
 EAMA -- Malaga
 EAML -- Melilla
 EAMU -- Murcia
 EANA -- Navarra
 (Pamplona)
 EAO -- Oviedo
 EAOR -- Orense
 EAP -- Palencia
 EAPM -- Baleares
 (Palma de Mallorca j
 EAPO -- Pontevedra
 EAS -- Cantabria
 EASA -- Salamanca
 EASG -- Segovia
 EASO -- Soria
 EASS -- Guipuzcoa
 EAT -- Tarragona
 EATE -- Turuel
 EATO -- Toledo
 EATF -- Santa Cruz de
 Tenerife
 EAV -- Valencia

EAVA -- Valladolid
 EAVI -- Alava
 EAZA -- Zamora

 SWE -- Sweden
 AC -0 ??
 CH; -- Switzerland
 ??
 SYR W₀- Svria
 ??
 TWN -- Taiwan
 37
 THA -- Thailand
 73
 TUR -- Turkey
 ??
 GHR ---- United Kingdojnl
 (need a list of routing
 numbers, by county)
 #1 -- -73
 #2 -0 37
 # ... -80 !!
 USA -- United States
 AK -- Alaska
 AL -- Alabama
 AR -- Arkansas
 AZ -- Arizona
 CA -- California
 CO -- Colorado
 CT -- Connecticut
 DE -- Delaware
 FL -- Florida
 GA -- Georgia
 HI -- Hawaii
 IA -- Iowa
 ID -- Idaho
 IL -0 Illinois
 IN -- Indiana
 KS -- Kansas
 KY -- Kentucky
 LA -- Louisiana
 IMA -- Massachusetts
 MD -- Maryland
 ME -- Maine

MI -- Michigan	PA -- Pennsylvania	URY -- Uruguay
MI -- Mississippi	RI -- Rhode Island	MVD -- ??
MN -- Minnesota	SC -- South Carolina	SUN -- USSR ???
MO -- Missouri	SD -- South Dakota	(Document needs latest
MT -- Montana	TN -- Tennessee	defmtions)
NC -- North Carolina	TX -- Texas	??
ND -- North Dakota	UT -- Utah	VEN -- Venezuela
NE -- Nebraska	VA -- Virginia	
NH -- New Hampshire	VT -- Vermont	YUG -- Yugoslavia
NJ -- New Jersey	WA -- Washington	SRI3 -- ??
NM -- New Mexico	WI -- Wisconsin	
NV -- Nevada	WV -- West Virginia	
NY -- New York	WY -- Wyoming	
OH -- Ohio	DC -- District of	
OK -- Oklahoma	Columbia	
OR -- Oregon	PR -- Puerto Rico	

Table 4: (Local) Area Defintions

All readers are suggested to submit their local area defintions for inclusion in the table. Be sure to include the region and country.

Example: #DFW.TX.USA
 -- Dallas/Ft Worth Texas
 Area would be an entry in this table.

USA -- United States

AK -- Alaska
 #ADAK#AK
 #SAK#AK

AL -- Alabama
 #BHM#AL
 #CENAL#AL
 #FHI?#AL
 #HSV#AL
 #MOBAL#AL
 #BHM#AL
 #CENAL#AL

#FHP#AL
 #HSV#AL
 #MOBAL#AL

AZ -- Arizona

*AZ
 We do not implement .#
 do to our network system
 allowing live connects from
 one end of the state to
 another. We agreed this year
 to not to make any changes
 because things are still
 working so well.

FL -- Florida
 #MOB#FL
 #MLBFL#FL
 #NEFL#FL
 #NFL#FL - North
 Florida Section
 #OCFFL#FL

#OKLAN#FL -
 Okaloosa County LAN
 #ORLFL#FL - Orlando,
 FL
 #PASFL#FL
 #PFNFL#FL
 #PMPFL#FL
 #PNSFL#FL -
 Pensacola, FL
 #PSJ#FL
 #RCCFL#FL
 #SRQ#FL
 #SRQFL#FL
 #STC#FL
 #STU#FL
 #SUNFL#FL
 #SWFL#FL
 #TAV#FL
 #TLH#FL - Talahassee,
 FL
 #TPA#FL - Tampa, FL
 #VENFL#FL
 #VRBFL#FL - Vero
 Beach, FL

#WPBFL#FL - West
Palm Beach, FL

GA -- Georgia

#CVL#GA
#DLT#GA
#ETADS#GA
#MAR#GA
#NGA#GA
#NOGA#GA
#NTSGA#GA
#SAV#GA
#SEGA#GA
#SSI#GA
#STK#GA
#SWGA#GA
#VLD#GA
#WAL#GA
#WCGL#GA

IA -- Iowa

#CIA#IA
#ECIA#IA
#KAOSTB#IA
#NWIA#IA
#SEIA#IA
#SWIA#IA
#WCIA#IA

IL -- Illinois

#NEIL.IL.USA
NORTHEASTERN IL
#NWIL.IL.USA
NORTHWESTERN IL
#NCIL.IL.USA
NORTHCENTRAL IL
#SIL.IL.USA
SOUTHEXN IL
#CIL.IL.USA
CENTRAL IL
#ECIL.IL.USA
EASTCENTRAL IL

#WCIL.IS.USA
WESTCENTRAL IL

IN -- Indiana

#CEIN#IN
#CrN#rN
#NOIN#IN
#NCIN#IN
#NErN#rN
#NrIwIN
#NOIN#IN
#NwrN#rN
#SrN#rN

KS -- Kansas

#NWKS.KS.USA --
Northwest Kansas (2 1
counties)
#NCKS.KS.USA --
North Central Kansas (15
counties)
#NEKS.KS.USA --
North East Kansas (21
counties)
#SEKS.KS.USA --
South East Kansas (15
counties)
#SCKS.KS.USA --
South Central Kansas (15
counties)
#SWKS.KS.USA --
Southwest Kansas (18
counties)

KY -- Kentucky

#MIDKY#KY
#NCKY#KY
#NEKY#KY
#NWKY#KT

NC -- North Carolina

#AVL#NC
#BUY#NC
#CLT 1 #NC
#DUR#NC
#EASTNC#NC
#GAS#NC
#GSO#NC
#HKY#NC .
#&KY 1#NC
#ILM#NC
#INT#NC
#LBT#NC
#MEB#NC
#RTP#NC
#RTP#NC

ND -- North Dakota

#DL#ND
#GFK#ND
#JAM#ND
#MOT#ND
#PAR#ND
#RL#ND
#SEND#ND

NE -- Nebraska

#ASHBY#NE
#ENE#NE
#NENE#NE
#SCNE#NE
#SENE#NE
iWNE#NE

NH -- New Hampshire

#NNH#NH
#SCNH#NH

NJ -- New Jersey

#NNJ#NJ
#SNJ#NJ

NV -- Nevada
#NENEV#NV Covers
Elko and Ely Nevada
#NONEV#NV Covers
Reno, Carson, Fallon, Lake
Tahoe Nevada
#SONEV#NV Covers
Las Vegas BBSs

NY -- New York

#CNY#NY
#ENY#NY
#NENY#NY
#NLI#NY
#NNY#NY
#NYC#NY
#WNY#NY

OH -- Ohio

#CIN#OH
#CMH#OH
#DAY#OH
#EOH#OH
#NCOH#OH
#NEOH#OH
#NOH#OH
#NWOH#OH
#SEOH#OH
#SWOH#OH
#TOL#OH

OK -- Oklahoma

---- END ----

#NCOK#OK
#NEOK#OK
#OKC#OK
#SCOK#OK

PA -- Pennsylvania

#EPA.PA.USA -- East
PA
#WPA.PA.USA --
Western PA
#cpa
#nepa
#sepa
#ncpa
#scpa
#nwpa
#swpa

TX -- Texas

#AUS
#CENTX
#DFW
#ETX
#NTX
#SAT
#STX
#SETX
#WTX

WA -- Washington

#SWA#WA

#SEA#WA
#SEWA#WA
#SPOKN#WA
#VANC#WA
#WWA#WA

WI -- Wisconsin

#CFL#WI
#CWI#WI
#DUR#WI
#ECWI#WI
#JNSVL#WI
#MKE#wI
#NOWI#WI
#NwI#WI
#SCWI#WI
#SEWI#WI
#TMH#WI
#WwI#WI

WV -- West Virginia

#NEWV#WV
#NwV#WV

WY -- Wyoming

#NwwY#wY
#RAwL#WY
#SEWY#WY
#SOWY#WY

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