

Tri-State



B **g535.com**
K8BIG

The BASICS

What is D-Star

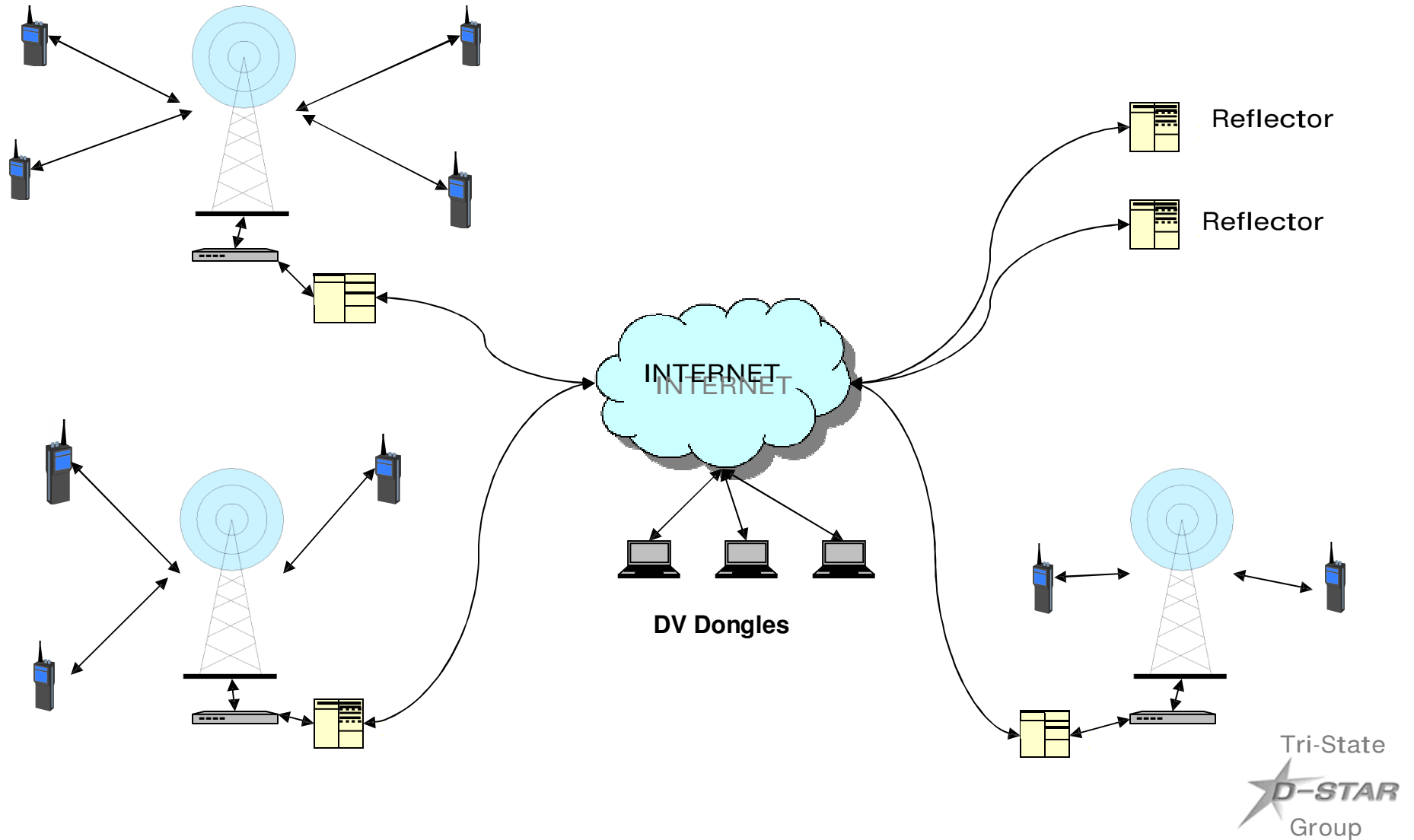
D-STAR

Digital **S**mart **T**echnology for **A**mateur **R**adio.

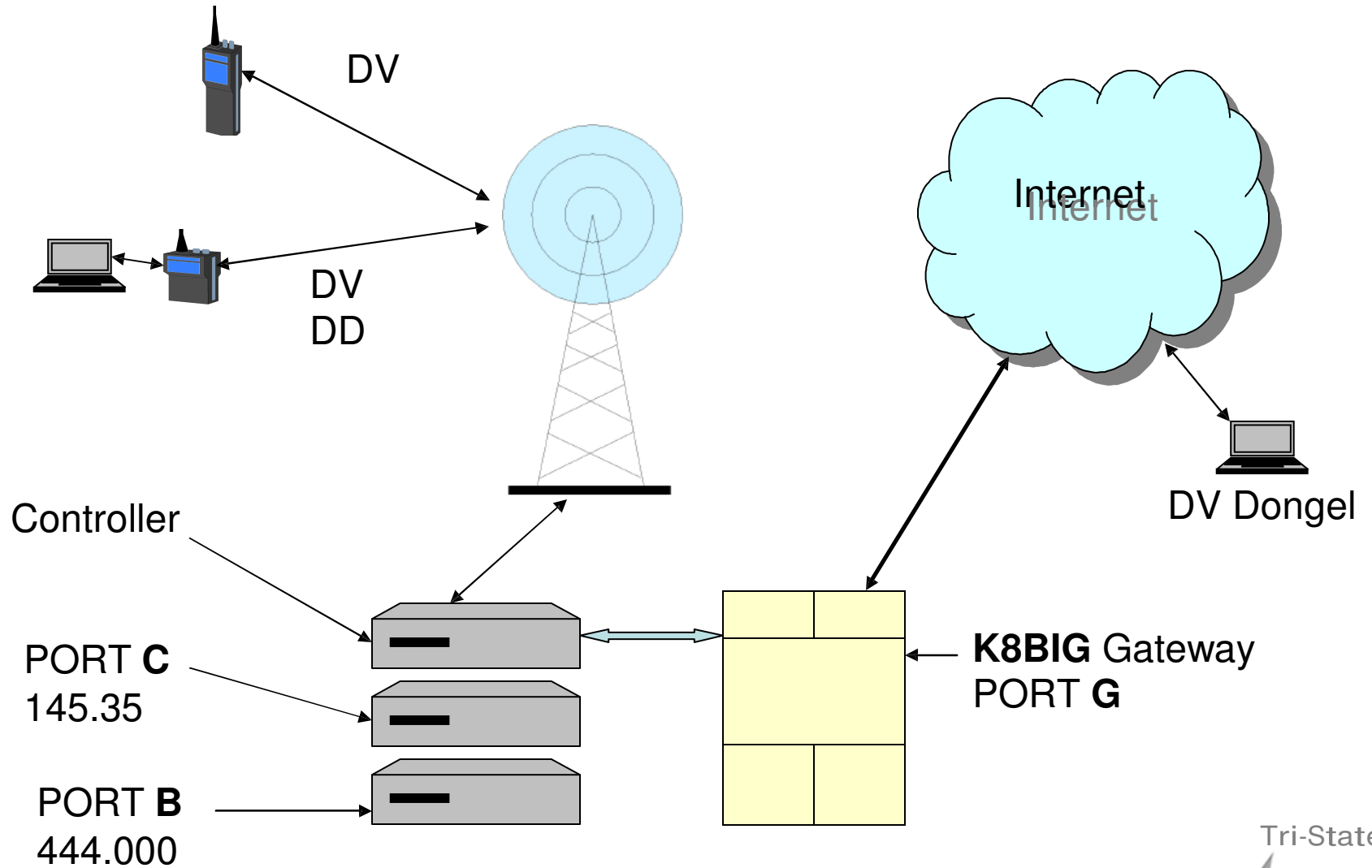
An open standard developed as the result of research funded by the Japanese government and administered by the JARL to investigate digital technologies for amateur radio.

D-Star provides a NEW HAM Radio system of communication. It allows both Voice and Digital (Text) Communications through RF simplex, Repeaters, Micro-Wave links and the internet.

What It All Looks Like



What the Local Side Looks Like

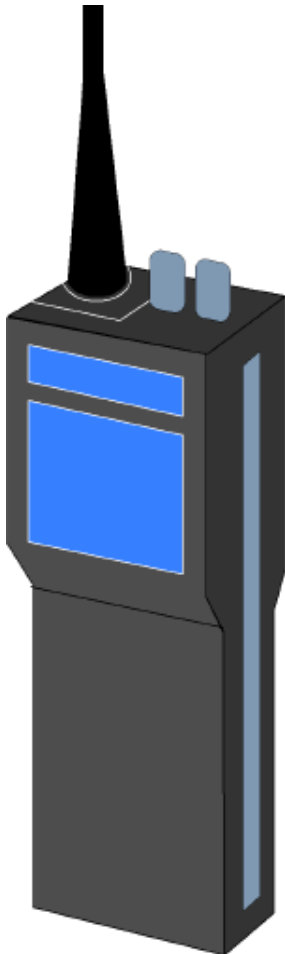


What Can I Do With It

- Connect Radio to Radio
- Connect Station to Station through the Local Repeater
- Connect Station to Station through the Network
- Connect Station to another Port
- Link Ports on other Repeaters
- Link Port to Reflector

Radio Setup Basics

To work on D-Star each radio needs to be programmed to contain certain data. Depending on usage some items may change.



The Basic Items are :

Your Call

Rpt1

Rpt2

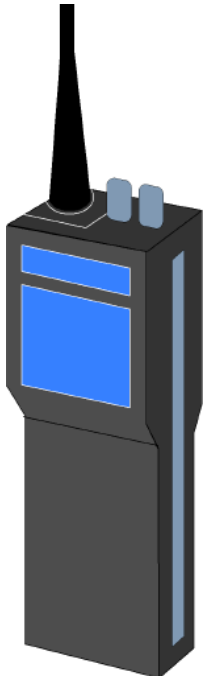
My Call

- Your Call* Station that you are calling. For repeater operation set to **CQCQCQ**
- Rpt1* Repeater which you want to communicate on. This also must contain the port of the repeater in 8th position. See the guides on the following pages for examples.
- Rpt2* Gateway which you want to access the D-Star network through. Not needed for use on the local repeater.
- My Call* Your Call Sign

How To Do IT

Radio to Radio Connection

George, KC8YJ wishes to communicate with Ken, KD8FKU over simplex.



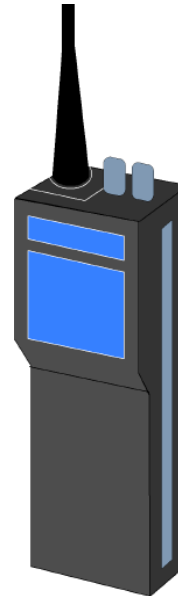
Station A George

Your Call: CQCQCQ

RPT1 :

RPT2 :

MY Call : KC8YJ



Station B Ken

Your Call: CQCQCQ

RPT1 :

RPT2 :

MY Call : KD8FKU

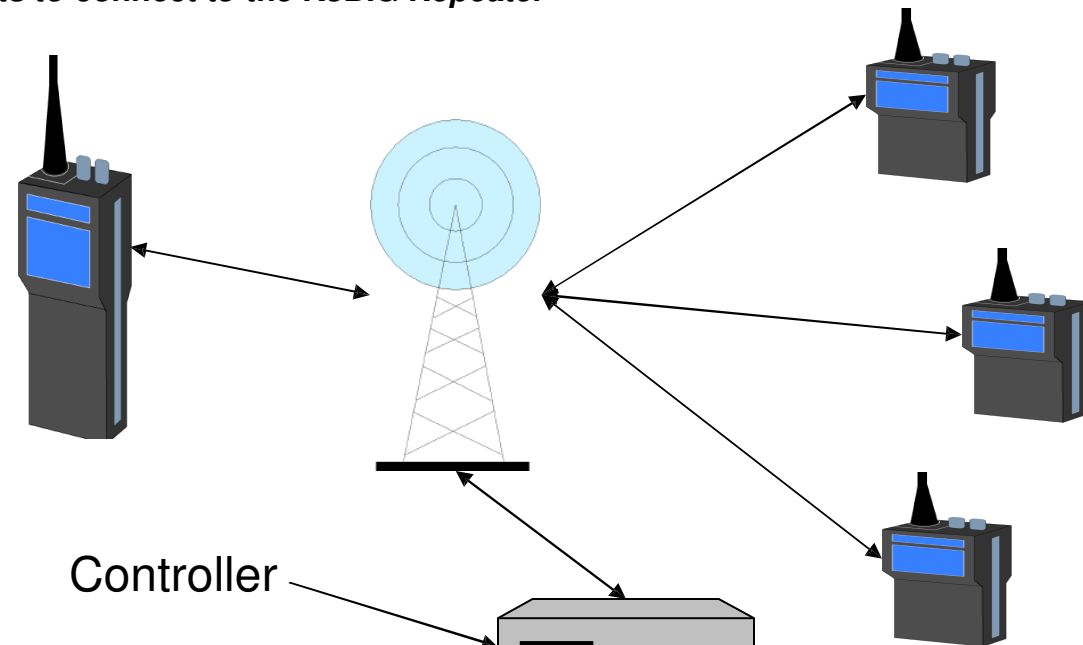
How To Do IT

Communicating on Local Repeaters

Tom, K8CLA wants to connect to the K8BIG Repeater

444.000
Your Call: CQCQCQ
RPT1 : K8BIG..B
RPT2 : K8BIG..G
MY Call : K8CLA

145.350
Your Call: CQCQCQ
RPT1 : K8BIG..C
RPT2 : K8BIG..G
MY Call : K8CLA



Controller

Station A
PORT C
145.35

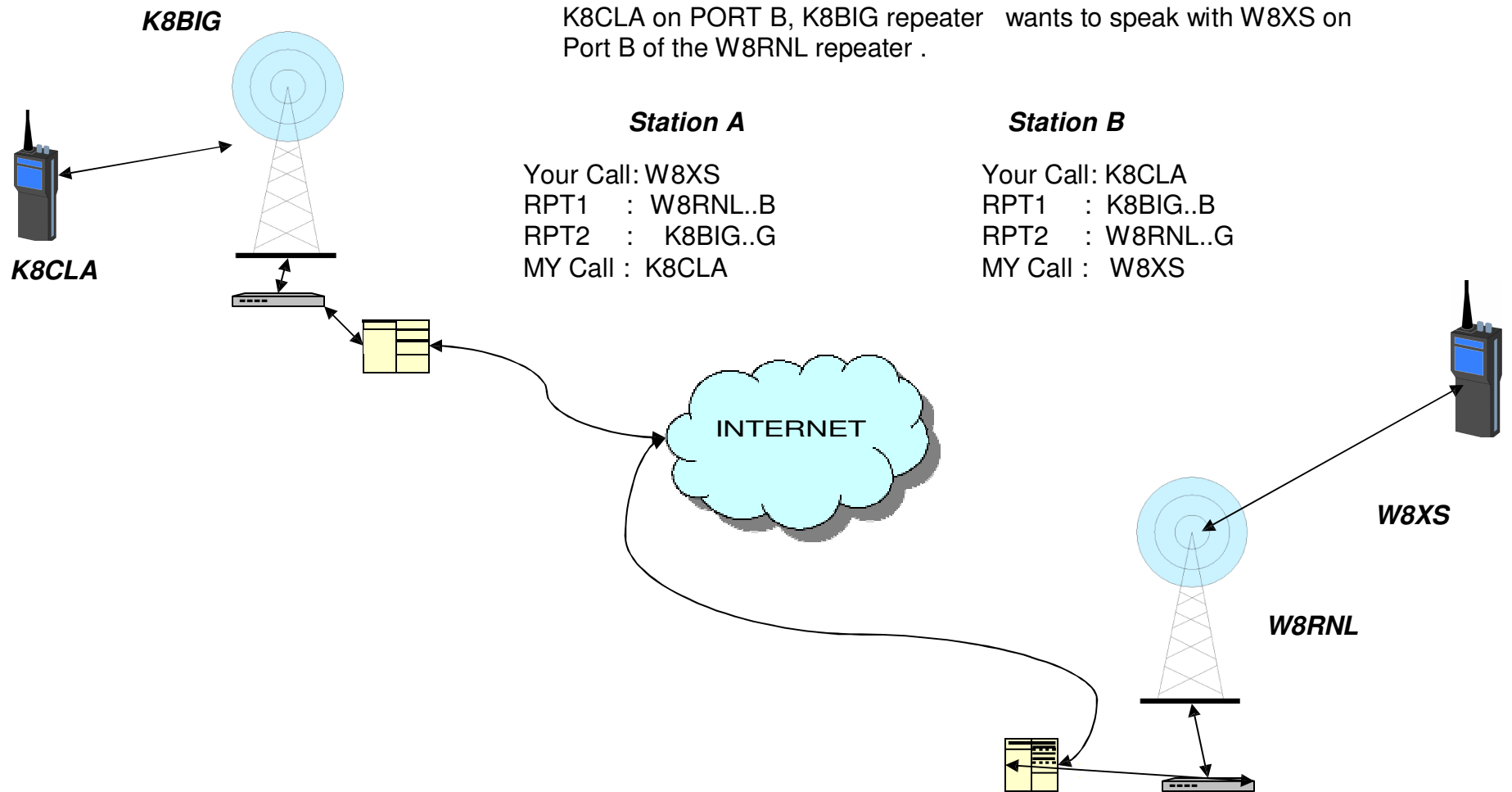
PORT B
444.000

Special Note:

**Pay attention to the position
Of the Port Designator**

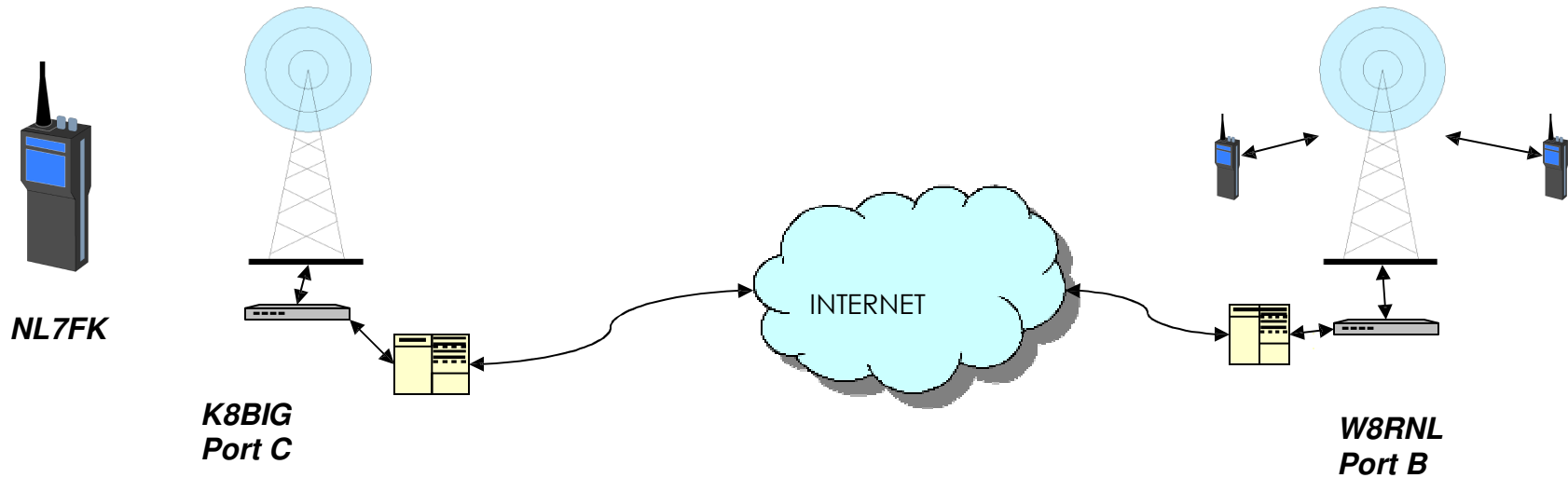
How To Do IT

Connect Station to Station through the Network



How To Do IT

Connect Station to a Port



NL7FK wishes to connect to Port B on the W8RNL repeater

Your Call: /W8RNL.B
RPT1 : K8BIG..C
RPT2 : K8BIG..G
MY Call : NL7FK

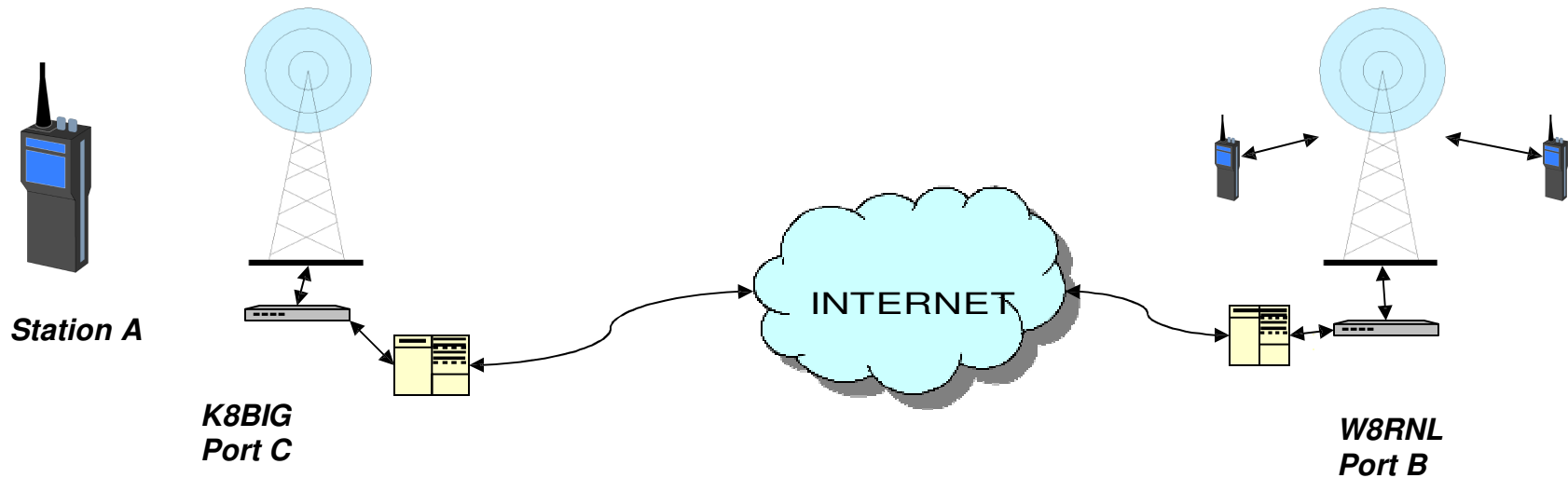
To Unlink when Done:

Your Call:U
RPT1 : K8BIG..C
RPT2 : K8BIG..G
MY Call : NL7FK

Caution: Be sure to state the call sign and port of the repeater you are connecting through.
Those on the W8RNL repeater will hear you but will need your data to return to you.

How To Do IT

Link Port to Port



Repeater Ports can be directly Linked together thus eliminating the need for users on both sides To One-Touch or otherwise put the callsign data in for stations on the other repeater port.

Fred wants to link the K8BIG repeater port C to W8RNL repeater port B

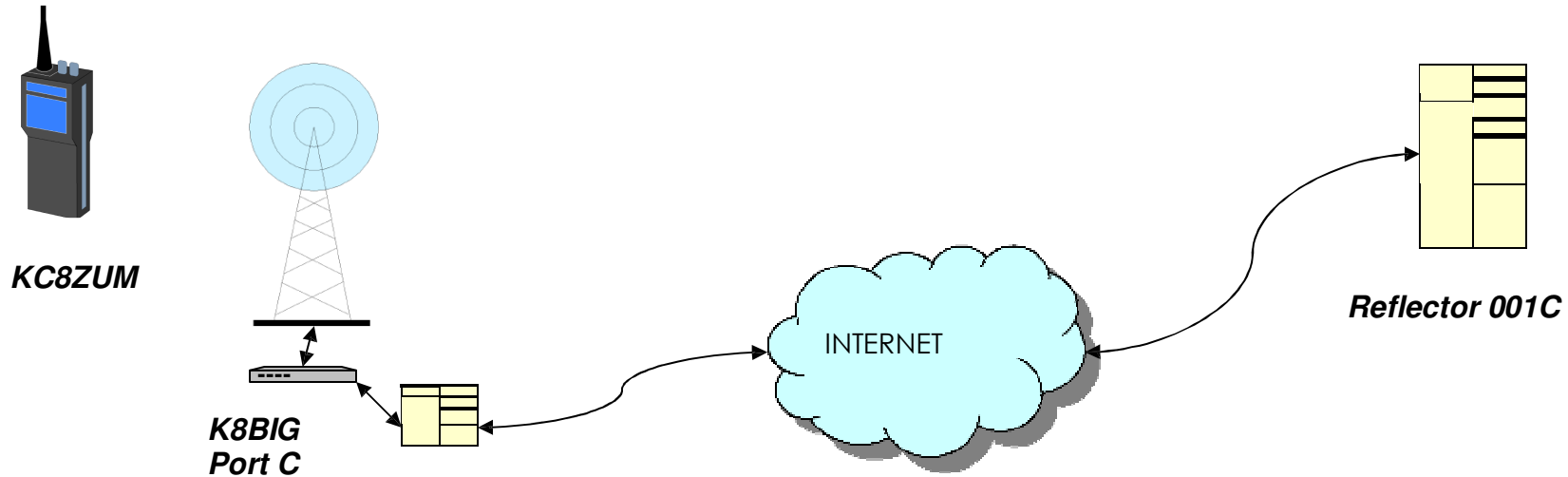
Your Call: W8RNL..L
RPT1 : K8BIG..C
RPT2 : K8BIG..G
MY Call : Your Call Sign

To Unlink when Done:

Your Call: W8RNL..U
RPT1 : K8BIG..C
RPT2 : K8BIG..G
MY Call : Your Call Sign

How To Do IT

Link Port to Reflector



Dan, KC8ZUM wants to tie K8BIG port C to Reflector 1 C .

Your Call: REF001CL
RPT1 : K8BIG..C
RPT2 : K8BIG..G
MY Call : KC8ZUM

To Unlink when Done:

Your Call: REF001CU
RPT1 : K8BIG..C
RPT2 : K8BIG..G
MY Call : KC8ZUM

Operating Basics for Success

We have discovered that following some basic practices will provide successful communication on D-Star

- Do not Quick Key. It will only lead to forward error correction errors (R2D2) on your signal.
- Press and hold the PTT Key a brief moment before beginning to speak. When done with your transmission continue to hold the PTT for a bit.
- In groups greater than 3 or so pass the mike. Don't just leave it up for grabs or it will sound like a StarTrek Convention.
- To borrow from another BE NICE we have a good group here and lets keep it so.
- Have fun. There is lots to try and do, if you get stuck don't be afraid to ask for help.

Glossary

Controller:

The part of a D-STAR repeater that handles and routes the voice and data streams either between modules or between modules and the gateway.

DD (Digital Data):

The D-STAR high-speed digital data signal.

DV (Digital Voice):

The D-STAR digital voice + low-speed data signal.

DV Dongle

A device which provides an interface between ones workstation and the internet allowing D-Star access.

Gateway:

The part of a D-STAR repeater that connects the controller to other gateways via the Internet.

Reflector:

A device which allows multiple ports to link together over the internet allowing communication between users on all connected ports.

Server:

A computer that supplies data (programs, Web pages, documents, etc.) to clients when requested.