Providing Amateur Radio Infrastructure

This document is to help those wishing to provide infrastructure for amateur radio systems make good, solid decisions about doing so.

Amateur Radio Infrastructure is equipment such as high level repeaters, packet radio digipeaters, D-Star systems, WL2K RMS Packet and / or Pactor servers, and other equipment considered needed on a 24 / 7 / 365 basis for amateur radio communications.

It is honorable when an individual or group has a vision to provide equipment needed for infrastructure. However, this is not something to be looked at lightly. Some infrastructure items may sit idle for days and maybe weeks at a time, but when “the chips are down” it must be there and be ready. Sure, it is good if the infrastructure is used everyday, because when it is, amateur radio operators are training and learning, and the infrastructure is being tested for reliability.

Infrastructure items can cost from a few hundred dollars to thousands, and even ten thousands of dollars. A packet radio digipeater can probably be put up for a little more than $500. A D-Star system with all bands, all modes, and Internet connection may cost over $10,000, and have recurring costs of the monthly Internet charges. A long hard look needs to be taken at the financial ability of the one or group providing and maintaining the equipment.

Planning infrastructure needs to have good research in what is available for what you want to do, and what is tried and proven. Infrastructure is not a place for experimentation. Infrastructure needs to be based on what has been done before and what is being done around you now, not what someone desires that may not be compatible with know practices. K.I.S.S. goes a long way in planning for infrastructure. That being said, those using and providing the infrastructure need to be constantly involved in what is happening, and how the technology is evolving. Things do change, and an infrastructure that doesn't change hurts the overall functionality of the system.

Longevity is something else that must be studied. Very well meaning people and groups have started infrastructure projects, only to have some catastrophic event happen that places everything that has been done in jeopardy. People die. People that own infrastructure. Who is going to manage and own that equipment when they are gone? Locations of infrastructure get sold. Is there a plan in place to be able to keep that infrastructure alive at that same location with a new owner? Or is there a back up location that can be sought? These are all part of the infrastructure planning process.

How about the mentality of the individual or group when it comes to operation, maintenance and use of the infrastructure? There is no place for politics, petty arguments, a “my four and no more” attitude, etc. This is something placed because a need was seen.

Agreements. MOUs. Liabilities. Insurance. Utilities. These all factor into the planning process. Is the infrastructure you are planning funded by a government or business entity? Handshakes are great, but legal documents stand up in court. Do your homework. Get them written, signed, and documented. Everyone will be glad you did.

Careful considerations can make your vision to provided needed infrastructure a reality that is long lasting, and well appreciated.

Think of this, a policeman carries a gun the entire time he is on duty, and some when he is not. He may never need to use it, but he needs it available if he does.

This of the fireman and his airpack. He may not need it today, but tomorrow may be a different story.