Namaste Room Definition Discussion
18 March 2008

What is a room?

A room is similar in concept to chat rooms on the internet. It's an enhanced conversation space that is enabled by using digital communications techniques. Rooms allow file sharing, parallel text channels, personalization, and thematic elements.

What does a room have as attributes?

It has a name. It has one or more participants. It has an optional text description and an optional voice tag. At any given moment it has zero or one persons speaking. If you have multiple people speaking, then the audio has to be combined somehow.

What a room is not.

A room is not permanent. The room disappears when the last user leaves.

Are all conversations rooms?

All conversations are rooms. However, not all rooms will take advantage of all the options. A basic voice contact shall be accomplished as simply as possible, with the room options available without being required to establish contact. The room options allow for personalization and enjoyment, but must not impede contact with others.

Does the satellite know about rooms?

No. The satellite should be as simple as possible. There is no compelling performance advantage to the satellite managing room aspects.

Does the room have an associated text chat channel?

Yes, rooms have an associated text chat channel. This is an option.

Does the room have an associated file transfer area?

Yes, rooms have an associated file transfer area called The Table. This is an option. The Table provides a way to share documents while the room is open. The documents are no longer available when the room shuts down.

Question: Are there any open protocols for collaborative file sharing?

If you have a multi-user channel and the person wants to present a file to everyone on the channel (e.g. a photo to share, i.e. SSTV style) then we need a way to do a broadcast file transfer. And we already have a protocol for that. PACSAT broadcast protocol. We could use that one. However, PBP was originally intended for single server. Namaste could offer the file as the server. However, PBP is AX.25. Maybe something IP-based would be more appropriate, such as an IP multicast perhaps. Think about

whether or not a push and/or a pull file transfer would be more useful here. A hybrid broadcast protocol may need to be invented.

How are rooms managed?

You set up a room by either joining an existing room, and therefore joining the list of people in the room, or adding your own room, which other people can then join or be invited to join. The person that initially creates the room is the person that can modify room options. This person owns the room. The owner of the room can pass room ownership to another. This is called a transfer of room ownership. If the owner leaves the room or is disconnected without first transferring ownership to another, then the room member that has been in the room the longest is designated room owner. This is called room inheritance. When someone leaves the room, it is called quitting the room. When the last person leaves the room, the room is torn down. Any resources allocated to the room are released, and the room disappears from the list of channels.

Room creation, ownership, options, joining, invitation, transfer, inheritance, quitting and tear-down are handled by Namaste. In order to manage the rooms, the station must be able to receive the list of channels and status messages.

Multiple rooms can be monitored by a single station. In other words, a station can be a member of multiple rooms. However, in normal operation, any given voice transmission is in exactly one room.

Rooms have options that are used from within the room, such as the The Table and The Podium. Rooms also have options that are used from outside the room, such as room markings. These markings indicate the expectations set by the owner. Some examples of markings would be open invitation, directed net, roundtable, or a particular theme of discussion, such as knitting, bird watching, scars, surgeries, windows Vista problems, or who has the best coffee. Markings appear in the list of channels. Markings are optional and can greatly aid in making contacts with others of similar interest. Room markings are not the same as the room name. The room name is required, where room markings are optional. There is a default room name and that is the call sign of the room owner plus a suffix corresponding to the number of rooms owned. E.g., if W5NYV started a room then the default name of the room would be W5NYV_1. The default room names for two rooms owned by W5NYV would be W5NYV_1 and W5NYV_2.

Each room, upon creation, is assigned a logical channel number by the system. While this could be done in the payload, or it could be done by a high-availability ground controller, there is another way to accomplish this that has the advantage of simplifying the overall system. This method is called zero configuration. The room creator picks a number at random from the defined range of numbers and then announces his intention to use it. If there's a conflict, it's up to the existing user to re-announce his use of the channel number. If no objection is heard, the creator assumes he can use the channel number. The satellite broadcasts its list of recently-heard channel numbers, just like it does with uplink physical channels. This would only be a hint, though, because channels could be idle for arbitrarily long and yet still be in use.

Can people indicate that they want to speak? Side channel like they're raising their hand. Can this be accomplished in the text channel?

Is there a mechanism for voting?

Can you script a regular room like a Stammtisch? Yes.