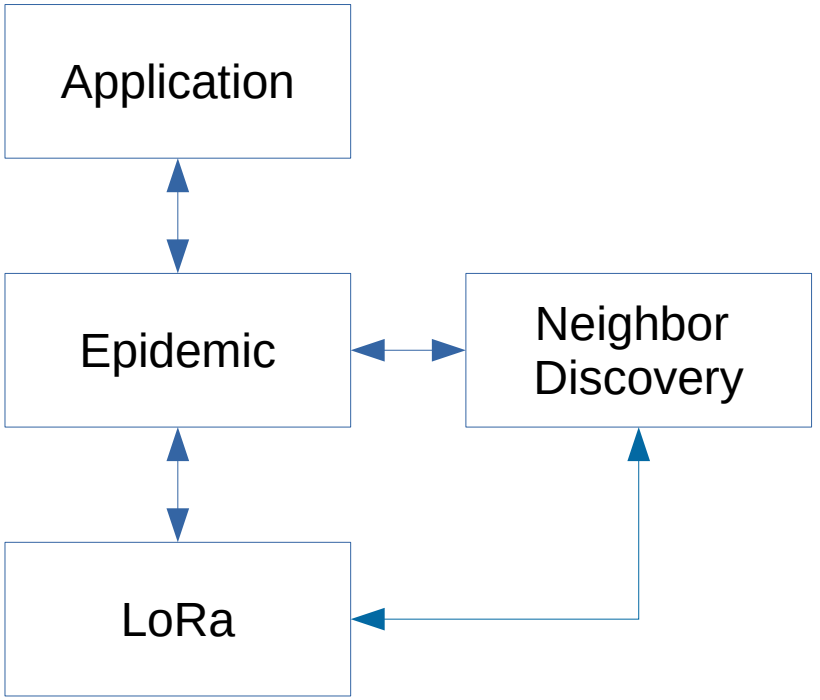
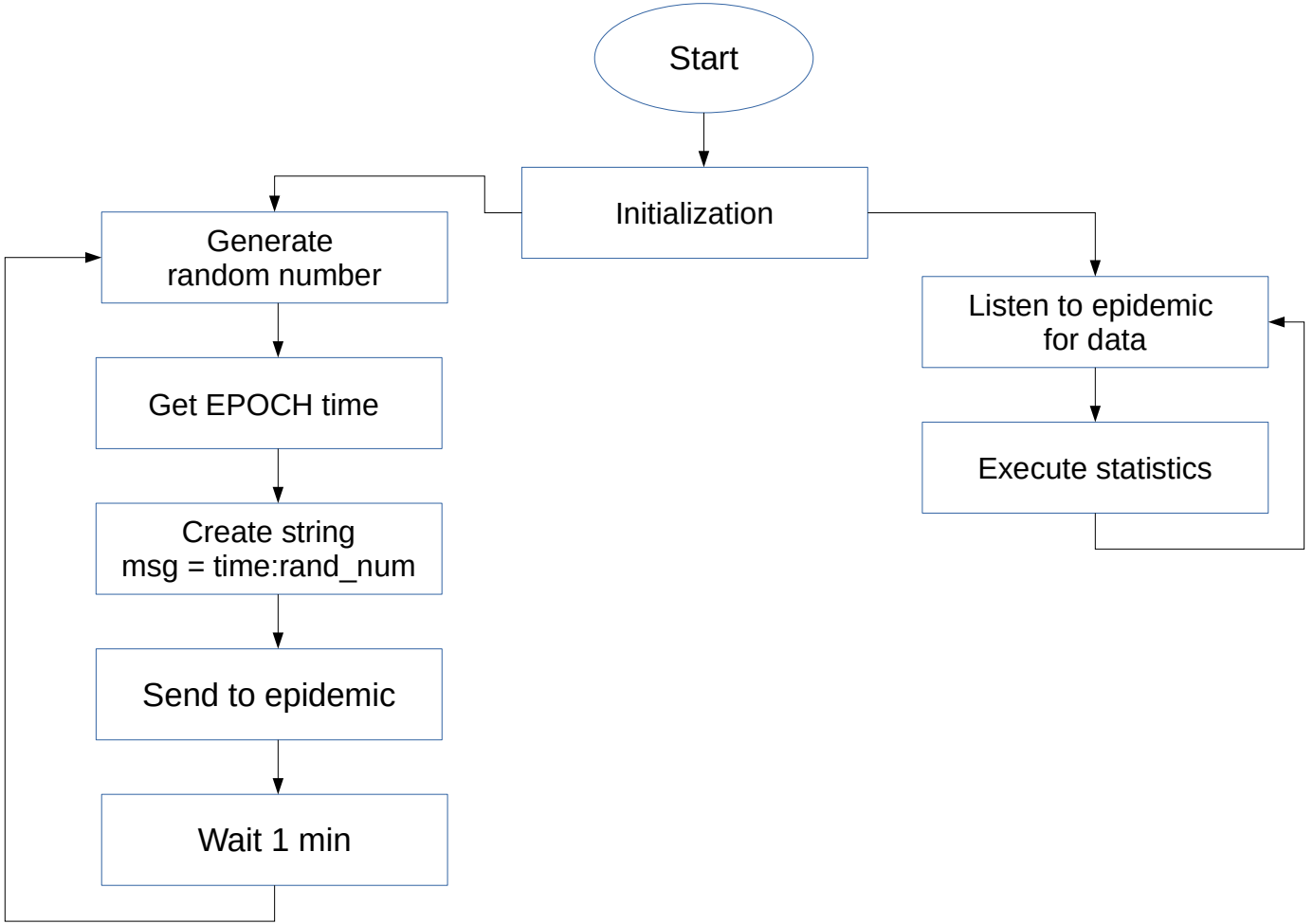
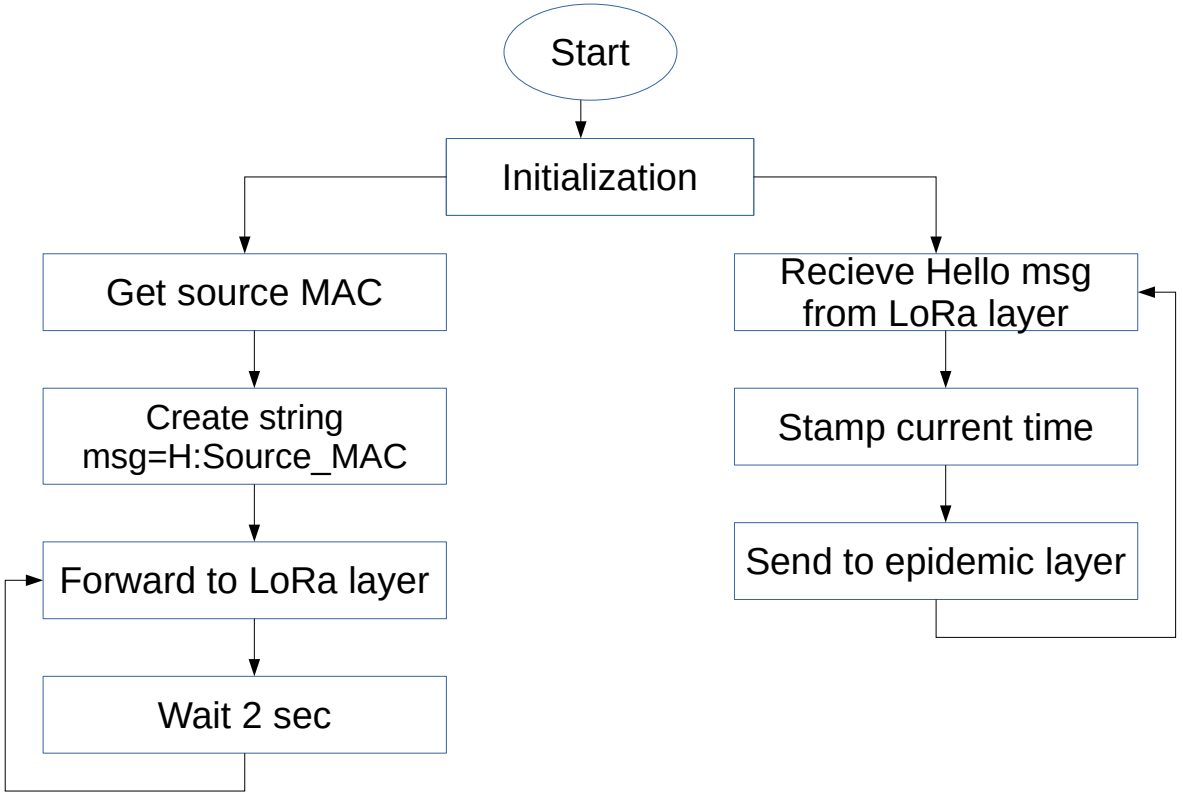
Project Overview



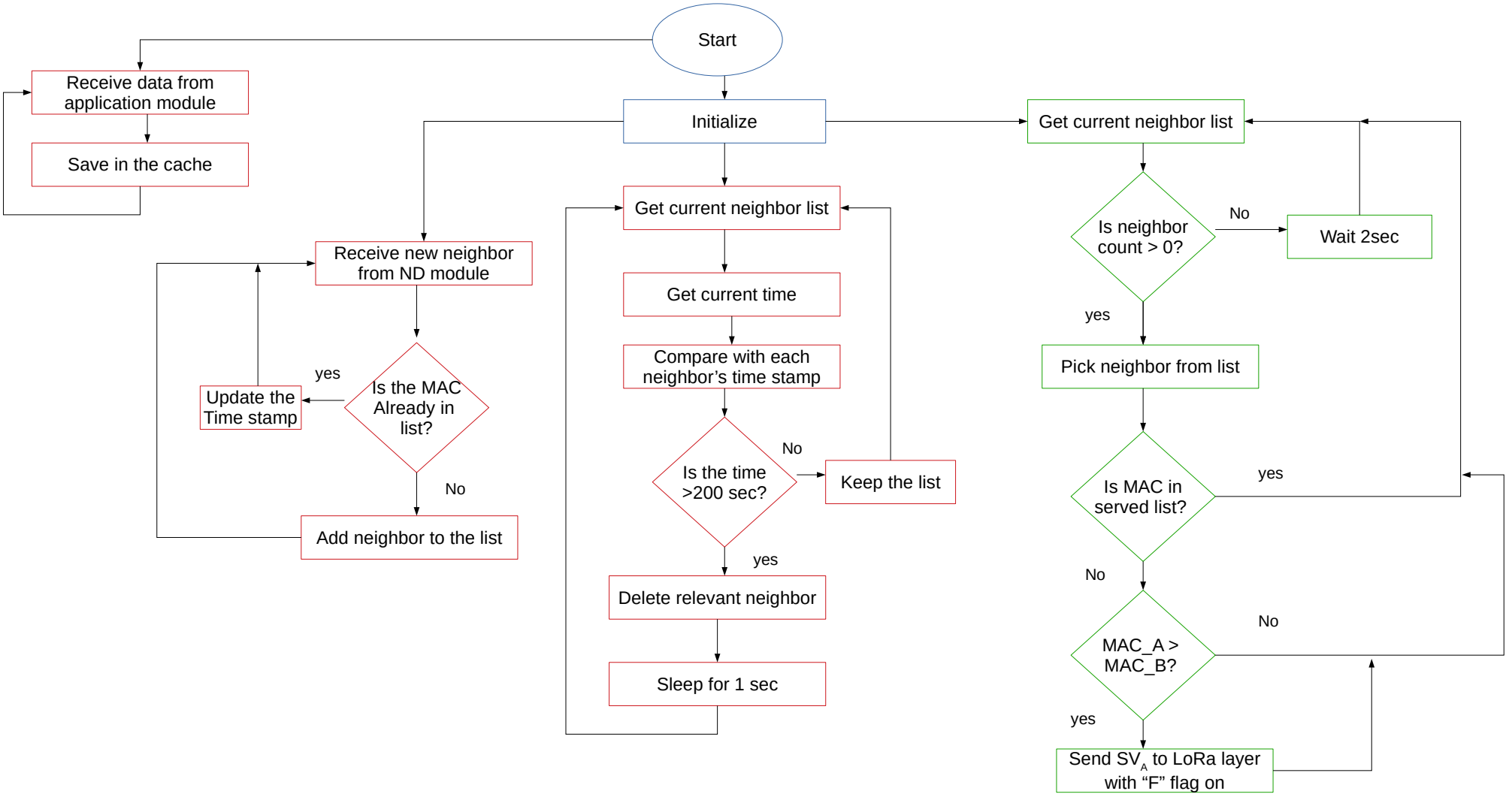
Application Module



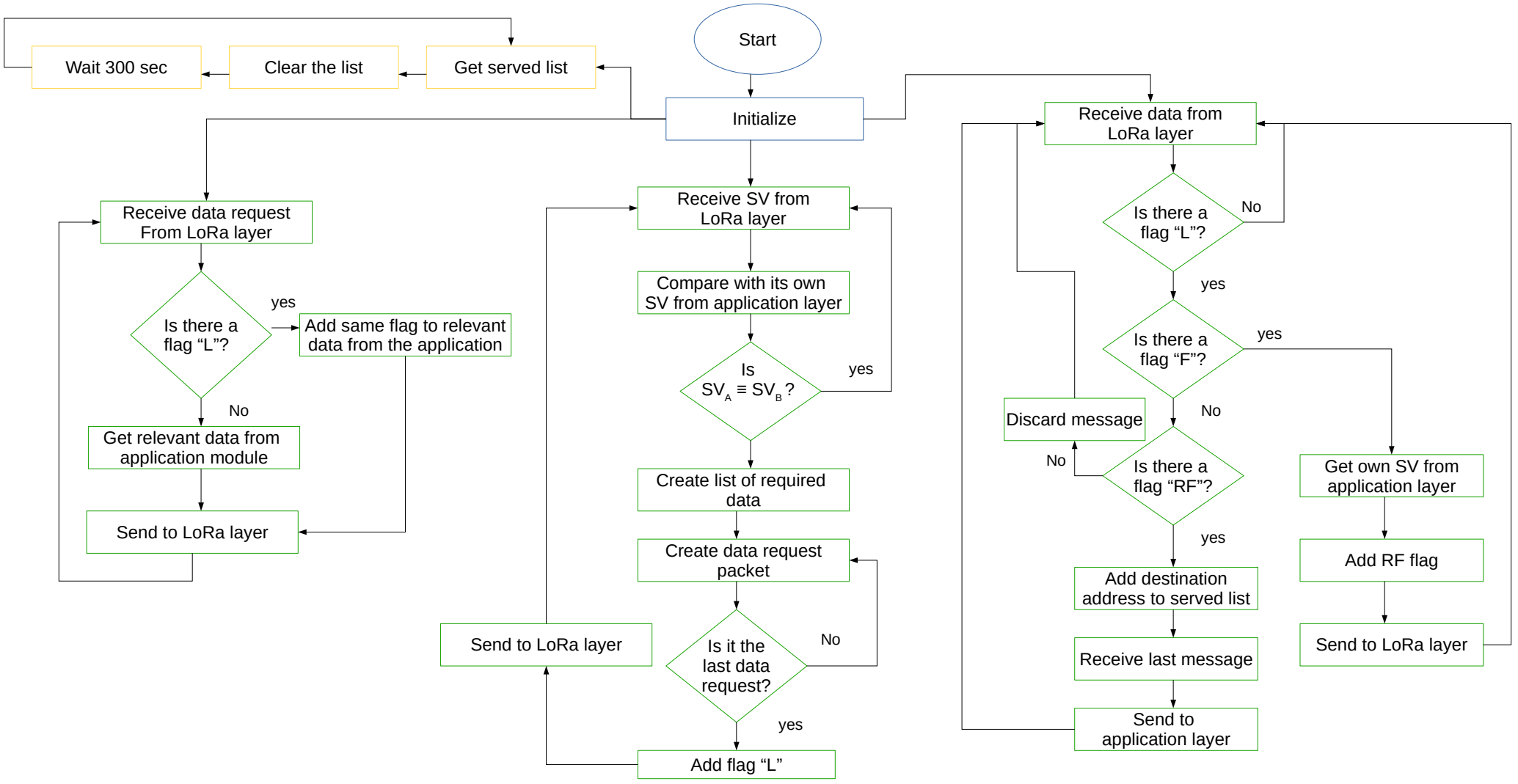
Neighbor Discovery



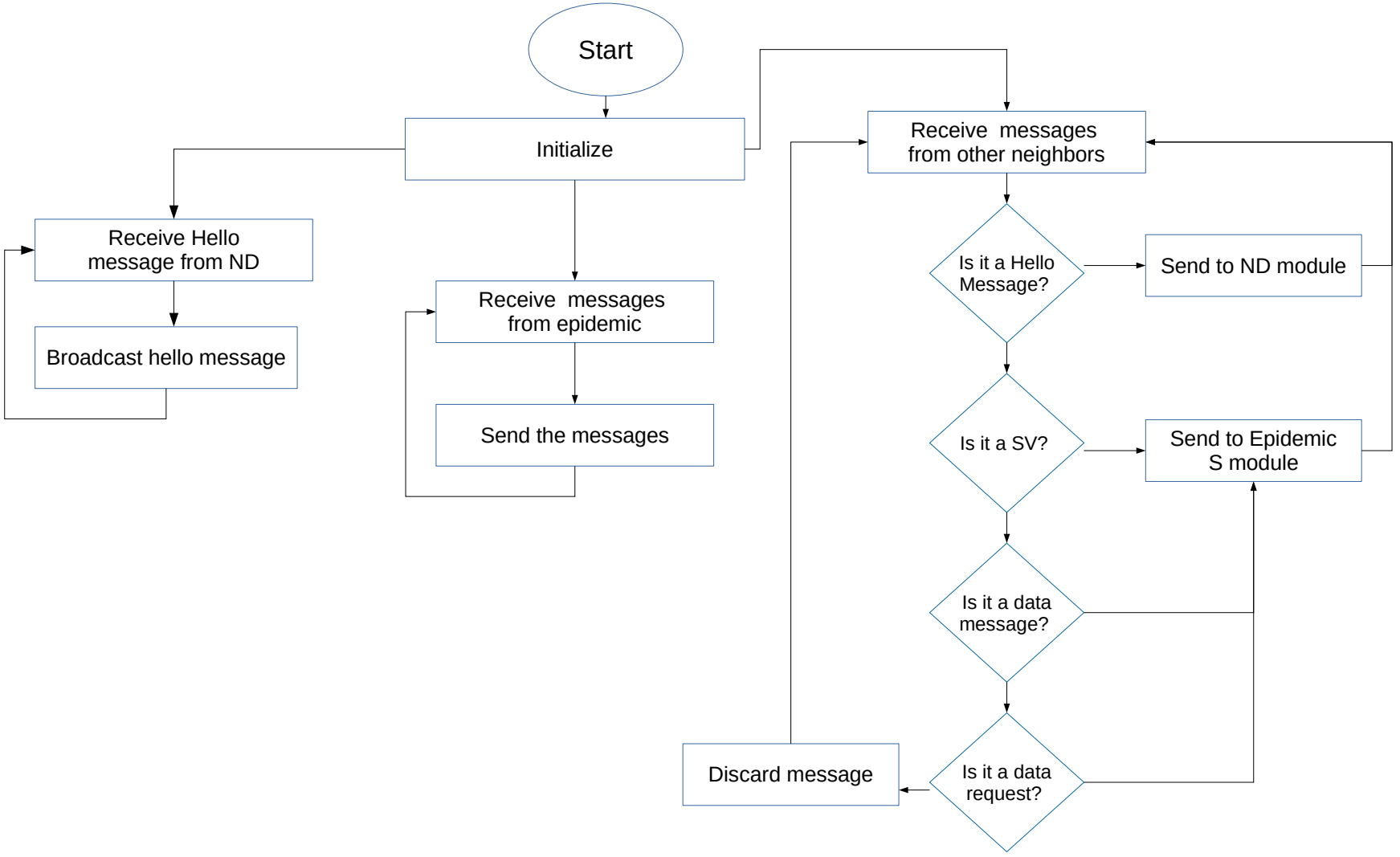
Epidemic Module

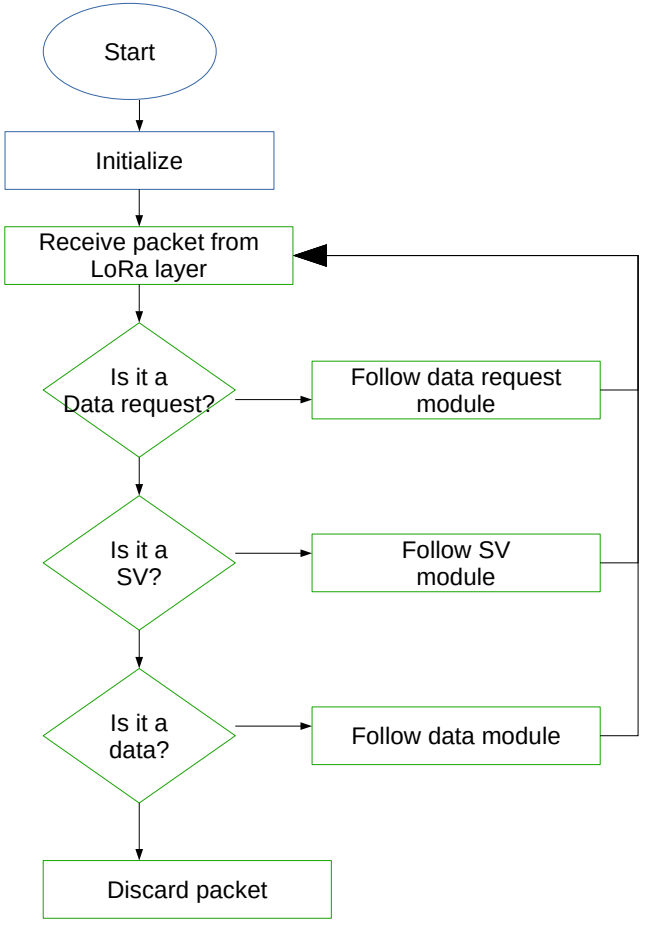


Epidemic Module



LoRa Module


Start
Initialize
Receive Hello message from ND
Broadcast hello message
Receive messages from epidemic
Send the messages
Receive messages from other neighbors
Is it a Hello Message?
Send to ND module
Is it a SV?
Send to Epidemic S module
Is it a data message?
Is it a data request?
Discard message


Start
Initialize
Receive packet from LoRa layer
Is it a Data request?
Follow data request module
Is it a SV?
Follow SV module
Is it a data?
Follow data module
Discard packet

Packet Structures

Packet Type	Structure	Remarks
Hello message	H:source_MAC	Between neighbor discovery and Lora layer
Summary vector	S:source_MAC:destination_MAC:payload	• Between epidemic and Lora layer • Payload: summary vector list from epidemic module
Data request	R:source_MAC:destination_MAC:payload	• Between epidemic and LoRa layer • Payload:missing data list from node
Data	D:source_MAC:destination_MAC:payload	• Between epidemic and LoRa layer • Payload: copy of missing data sent to node
Conditional messages	String message	To set commands in-between the modules