```
┌─────────────────┐
│    Segment      │
│ (Destination and│
│  Message) from  │
│     User        │
└─────────────────┘
         │
         ▼
      ◇◇◇◇◇◇                    ┌──────────────────────┐
    ◇ Do we have ◇    No        │ Create and broadcast │
   ◇   a path?    ◇ ─────────▶  │ datagram [Type=RREQ, │
    ◇            ◇               │ Src, Dest, RREQ ID,  │
      ◇◇◇◇◇◇                    │    Power Metric]     │
         │                      └──────────────────────┘
        Yes                                │
         │                                 ▼
         ▼
┌──────────────────────┐
│  Create datagram     │
│[Type=Data, Src, Dest,│
│ Path, Segment, Power │
│      Metric]         │
└──────────────────────┘
```

```
                        ┌──────────────────┐
                        │ Datagram received│
                        │ from another Node│
                        └──────────────────┘
                                 │
                                 ▼
                        ┌──────────────────┐         ╭─────────────╮
                        │ Update database  │────────▶│ See Best Path│
                        │ with path and    │         ╰─────────────╯
                        │ power information │
                        │ from RREQ        │
                        └──────────────────┘
                                 │
                                 ▼
   ┌───────────┐              ◇ Type? ◇ ─────RREQ────▶  ◇ Am I the ◇ ──Yes──▶ ┌──────────────────────┐
   │ Am I the  │◀──RREP────                              ◇ destination? ◇       │ Broadcast Datagram   │
   │destination?│                                                               │ [Type=RREP, Src = Me,│
   └───────────┘              │ Data                          │ No             │ Dest = Beginning of  │
        │                     │                               │                │ RREQ path,           │
        │ No                  ▼                               ▼                │ Path=Reverse of RREQ │
        ▼              ◇ Am I the ◇ ──Yes──▶ ┌──────────┐  ◇ Unique RREQ ◇ ─No─▶ Path, Power Metrics]  │
   ┌──────────┐        ◇ destination? ◇       │Send segment│  ◇   ID    ◇        └──────────────────────┘
   │ Forward  │        └───────────┘         │ to user  │   └─────────┘           ┌──────┐
   │ RREP     │              │ No            └──────────┘        │ No ───────────▶│ Drop │
   └──────────┘              ▼                                   │ Yes            └──────┘
   │ Yes                ◇ Does source ◇ ─Yes─▶ ┌──────────┐      ▼
   ▼                    ◇ precede me on ◇      │ Append power│  ◇ Do I have a ◇ ─Yes─▶ ┌──────────────┐
┌──────────────┐        ◇  the path? ◇        │ metric and  │  ◇ path to the ◇        │ Append power │
│ Drop (Already│        └───────────┘         │ forward     │  ◇ Destination? ◇        │ metric and send│
│ updated)     │              │ No            └──────────┘   └─────────────┘         │ RREP with path│
└──────────────┘              ▼                                   │ No               │ to Destination│
                        ┌──────┐                                  ▼                  └──────────────┘
                        │ Drop │                          ┌──────────────┐
                        └──────┘                          │ Append power │
                                                          │ metrics and id to│
                                                          │ path and forward │
                                                          │ RREQ         │
                                                          └──────────────┘
```

```
                    ┌──────────────────┐
                    │ Agent receives a │
                    │      path        │
                    └────────┬─────────┘
                             │
                             ▼
┌──────────────────┐      ◆◆◆◆◆         ┌──────────────────┐
│ Is new path better│     ◆       ◆      │ Just add the path │
│ than current path?│ Yes ◆  Do we have a◆  No │ with the power    │
│  How to process   │◄────◆  path to the ◆────►│     metric       │
│ and what to store?│     ◆    Node?    ◆      │                  │
│  What tables to   │      ◆◆◆◆◆         └──────────────────┘
│     update?       │
└──────────────────┘
```

Agent receives a path

Do we have a path to the Node?

Yes → Is new path better than current path? How to process and what to store? What tables to update?

No → Just add the path with the power metric

=== Every time we receive a new path, we update the power, cost & path table ===

---- Path Table ----

Dest	Path
A	Null (Us)
B	
C	
D	
E	A-D-E: (1*7+4*3=19)
E	A-B-C-E: (1*6+6*4+5*2=30)

---- Power Table ---- (Power metric)

Node	Power
A	1
B	6
C	5
D	4
E	1

---- Cost ---- (Cost to a node via a single hop)

Hop	Cost				
	A	B	C	D	E
A	Ø	6	10	7	∞
B		Ø	4	∞	∞
C			Ø	5	2
D				Ø	3
E					Ø

```
                          ┌─────────────────┐
                          │  Agent receives a │
                          │  power metric     │
                          └─────────────────┘
                                   │
                                   ▼
┌──────────────────┐          ◆               ┌──────────────────────┐
│ Replace current  │          Is node in       │ Add the node and     │
│ power metric with │◀── Yes ──  power metric  ── No ──▶ the power metric    │
│ new power metric. │           table?          │ to the power         │
└──────────────────┘          ◆               │ metric table.        │
                                               │ Update the cost &    │
                                               │ path table.          │
                                               └──────────────────────┘
```