

# Wake On Lan

manager selected from CLI Args

↳ inherent as global bool for Part 2

Shared State

Between  
Whole App and

Probably  
Different  
Threads  
or/and  
Processes

Subservices

Discovery

Adds  
&  
Removes  
Pcs  
from map

Manager  
Listens and  
Responds  
to SSD

Participant  
broadcasts  
SSD

Monitoring

Updates  
the  
info  
of state

Manager

Sends SSR  
to participants  
↓  
Response  
Awake

Participant

Responds to  
the SSR

Management

Actually  
Updates the  
table from  
the data  
received from  
other subservices  
(probably pipes)

Interface

Displays

The pcs  
in the table

Lets users

Execute commands

Exit → sends to manager SSE

wakeup <hostname> → sends WOL packet

Manager

Displays  
the list of  
all the participants

Participant

Only the manager  
info

SSD: Sleep Service Discovery

SSE: Sleep Service Exit

SSR: Sleep Service Request

↳ Thread input  
↳ Thread output

also works with  
ctrl+c or d

Pc\_map

→ Shared!!

HashTable

key

MacAddr

to

unique  
or

s70::Shared\_ptr

value

Computer

Simple  
class  
for fast  
access

Big  
Data structure  
for storing  
Pcs hostname | MAC | IP | status  
ID must be hostname  
with IP as fallback

Need Functions for:

Serializing/deserializing

Creating and sending packets

Packet for message passing

```
typedef struct {
    uint16_t type; // ex: DATA | CMD
    uint16_t seqn; // Number in sequence
    uint16_t length; // Payload length
    uint16_t timestamp; // Data timestamp
    const char * payload; // Data
} Packet;
```