Blue: Ports
Yellow: Transisiton
Green : Actions
Blue text : Events

```
                    ─inport─▶  ┌────────────────────────┐
                               │  n_ResponseL1Network_in │
                               └────────────────────────┘
                                            │
                                       N_GET_INSTR
                                            │
                                            ▼
   ┌──────────────┐                    ◇─────────────◇
   │  Transition  │◀─ACK── NAck_all ──No│ is_valid(cache)? │──Yes──┐
   │    {NP,I}    │                    ◇─────────────◇          │
   └──────────────┘                                                │
                                                                   │
                    ┌──────────────┐                        ◇──────────◇
                    │  Transition  │◀── N_SendL2 ──No──────│    is      │──Yes── N_DataL1 ──┐
                    │  {M,E,S,I,NP}│                        │ Type:DATA? │                   │
                    └──────────────┘                        ◇──────────◇                    ▼
                                                                                    ┌──────────────┐
                                                                                    │  Transition  │
                                                                                    │  {IS} -> S   │
                                                                                    │  {IS_I} -> I │
                                                                                    └──────────────┘
```

Transition {NP,I}

is_valid(cache)?

Transition {M,E,S,I,NP}

is Type:DATA?

Transition {IS} -> S {IS_I} -> I

Actions row (left group under Transition {M,E,S,I,NP}):

- o_popnIncomingResponseQueue
- npo_observeMiss
- uu_profileInstMiss
- nai_issueGETINSTR
- pp_allocateL1ICacheBlock

Actions row (right group under Transition {IS}->S {IS_I}->I):

- u_writenDataToL1Cache
- j_sendUnblock
- hx_load_hit
- s_deallocateTBE
- ne_nsendAckToRequestor
- o_popnIncomingResponseQueue
- kd_wakeUpDependents

Under nai_issueGETINSTR:

enqueue
RequestMsg
l1_request_latency

RequestL1Network_out

CoherenceRequestType → GET_INSTR
MessageSizeType → Control

Under u_writenDataToL1Cache:

Write to cache

Under ne_nsendAckToRequestor:

ne_nsendAckToRequestor

enqueue
ResponseMsg
l1_response_latency

n_ResponseL1Network_out

CoherenceRequestType → ACK
MessageSizeType → Response_Control