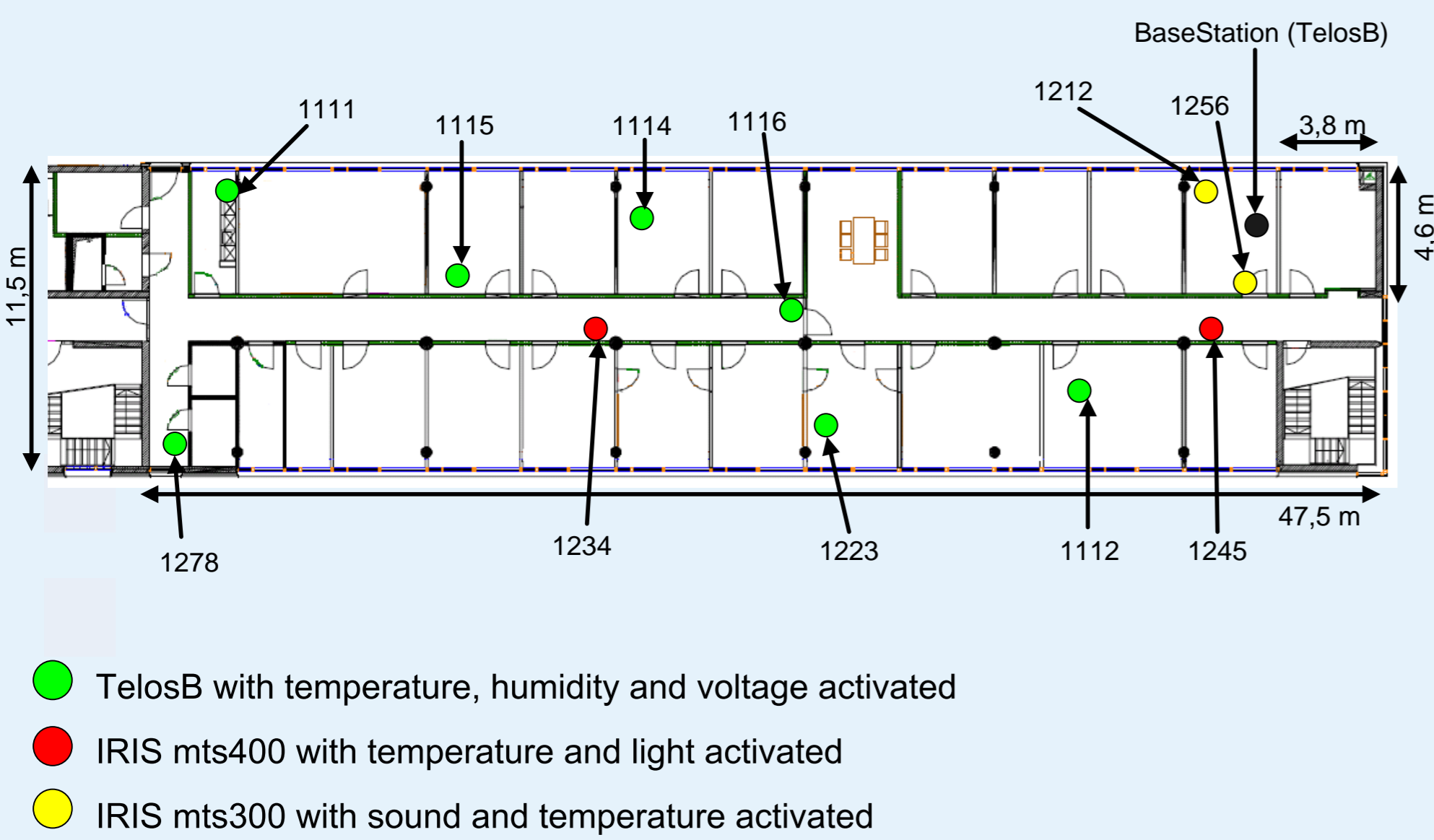


TinyIPFIX for Home Network Application - Demonstrator -

Sensor Node Location



Tunnel Activity

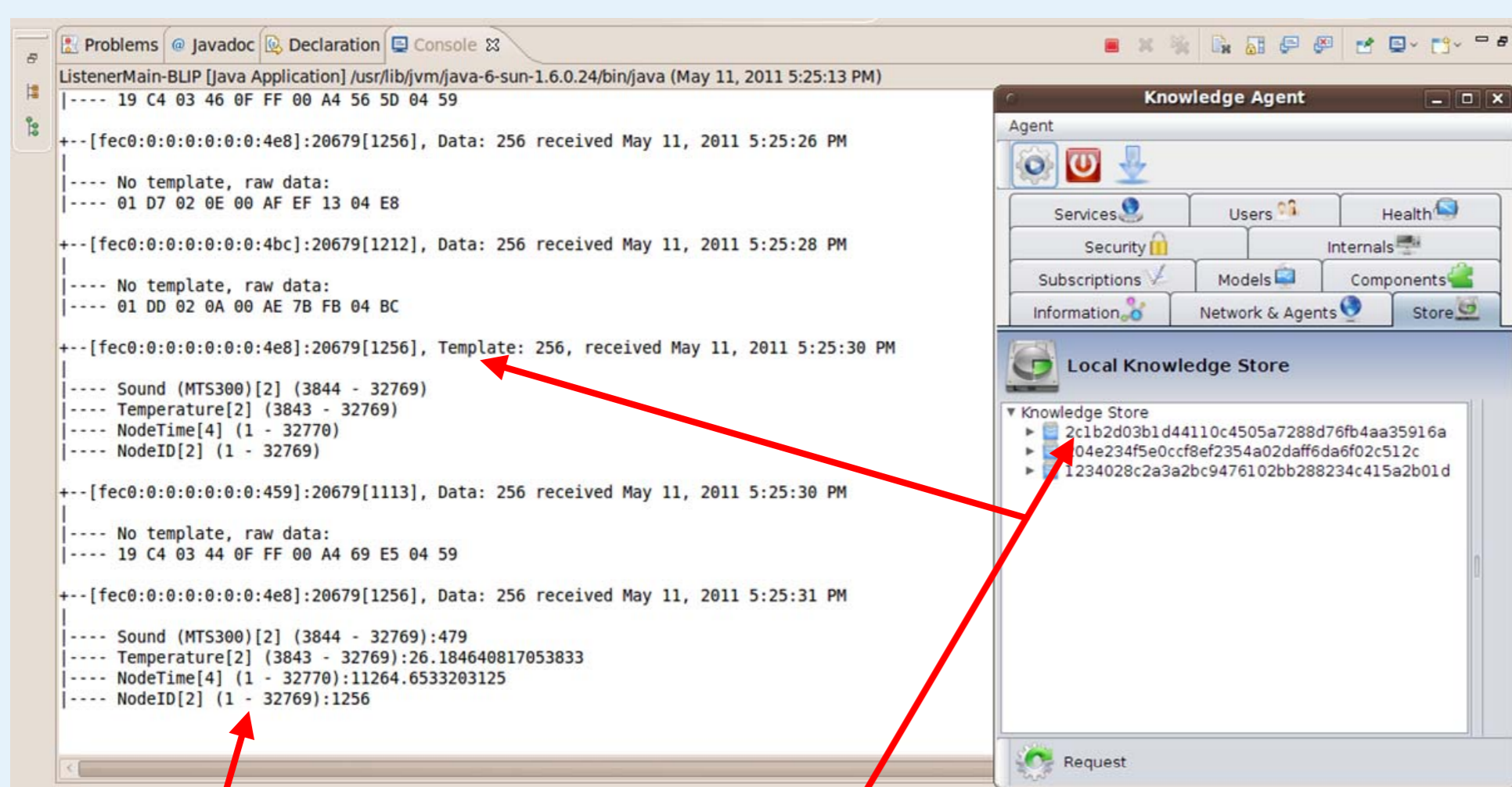
```

File Edit View Terminal Help
tinys@tinys-desktop: /opt/tinys-2.1.1/support/sdk/c/blip
[sudo] password for tinys:
tinys@tinys-desktop: /opt/tinys-2.1.1/support/sdk/c/blips sudo driver/ip-driver /dev/ttyUSB0 telosb
2011-05-11T14:17:37.822CE: INFO: Read config from 'serial_tun.conf'
2011-05-11T14:17:37.823CE: INFO: Using channel 15
2011-05-11T14:17:37.823CE: INFO: Retries: 5
2011-05-11T14:17:37.824CE: INFO: telnet console server running on port 6106
2011-05-11T14:17:37.826CE: INFO: created tun device: tun0
2011-05-11T14:17:38.659CE: INFO: interface device successfully initialized
2011-05-11T14:17:38.659CE: INFO: starting radvd on device tun0
2011-05-11T14:17:49.894CE: INFO: Starting to proxy for 0x4e8
2011-05-11T14:18:05.128CE: INFO: Starting to proxy for 0x4d2
2011-05-11T14:18:32.175CE: INFO: Starting to proxy for 0x4c7
2011-05-11T14:18:55.675CE: INFO: Starting to proxy for 0x4dd
2011-05-11T14:19:06.941CE: WARN: broken link was 1256 -> 1245
2011-05-11T14:19:06.941CE: WARN: dropping packet since it has an invalid source route and I sent it
2011-05-11T14:19:18.519CE: WARN: broken link was 1256 -> 1245
2011-05-11T14:19:18.519CE: WARN: dropping packet since it has an invalid source route and I sent it
2011-05-11T14:19:25.396CE: INFO: Starting to proxy for 0x4bc
2011-05-11T14:19:28.487CE: WARN: broken link was 1256 -> 1245
2011-05-11T14:19:28.487CE: WARN: dropping packet since it has an invalid source route and I sent it
2011-05-11T14:19:41.692CE: WARN: broken link was 1223 -> 1212
2011-05-11T14:19:41.692CE: WARN: dropping packet since it has an invalid source route and I sent it
2011-05-11T14:28:01.394CE: WARN: broken link was 1223 -> 1212
2011-05-11T14:28:01.394CE: WARN: dropping packet since it has an invalid source route and I sent it
2011-05-11T14:28:51.385CE: INFO: VTY: new connection accepted from ::1
2011-05-11T14:21:20.554CE: INFO: writing topology to '/home/tinys/Desktop/routes-5-iris.dot'
2011-05-11T14:28:38.748CE: INFO: Starting to proxy for 0x458
2011-05-11T14:29:12.304CE: INFO: Starting to proxy for 0x4fe
2011-05-11T14:29:40.727CE: INFO: Starting to proxy for 0x457
2011-05-11T14:29:53.180CE: INFO: Starting to proxy for 0x45a
2011-05-11T14:30:12.976CE: INFO: Starting to proxy for 0x459
2011-05-11T14:30:43.211CE: INFO: Starting to proxy for 0x45c
2011-05-11T14:31:09.164CE: INFO: Starting to proxy for 0x45b
2011-05-11T14:35:05.018CE: INFO: writing topology to '/home/tinys/Desktop/routes-5-iris-7telos.dot'
2011-05-11T14:36:45.060CE: INFO: writing topology to '/home/tinys/Desktop/routes-5-iris-7telos-2.dot'
2011-05-11T14:47:01.677CE: INFO: writing topology to '/home/tinys/Desktop/routes-5-iris-7-telos-15.dot'
2011-05-11T15:02:14.734CE: INFO: writing topology to '/home/tinys/Desktop/routes-5-iris-7-telos-30.dot'
2011-05-11T15:19:37.488CE: INFO: writing topology to '/home/tinys/Desktop/routes-5-iris-7-telos-45-node-1234-moved.dot'
2011-05-11T15:58:11.692CE: INFO: writing topology to '/home/tinys/Desktop/routes-5-iris-7-telos-90.dot'
2011-05-11T16:13:30.809CE: INFO: writing topology to '/home/tinys/Desktop/routes-5-iris-7-telos-105.dot'
  
```

Initialization of tunnel
Registration of IRIS motes
Establishment and updates of routes
Registration of TelosB motes
Plotting of routing graph

Registration of first node

PacketListener was started and Knowledge Agent starts with node registration.



Starting Data transmission

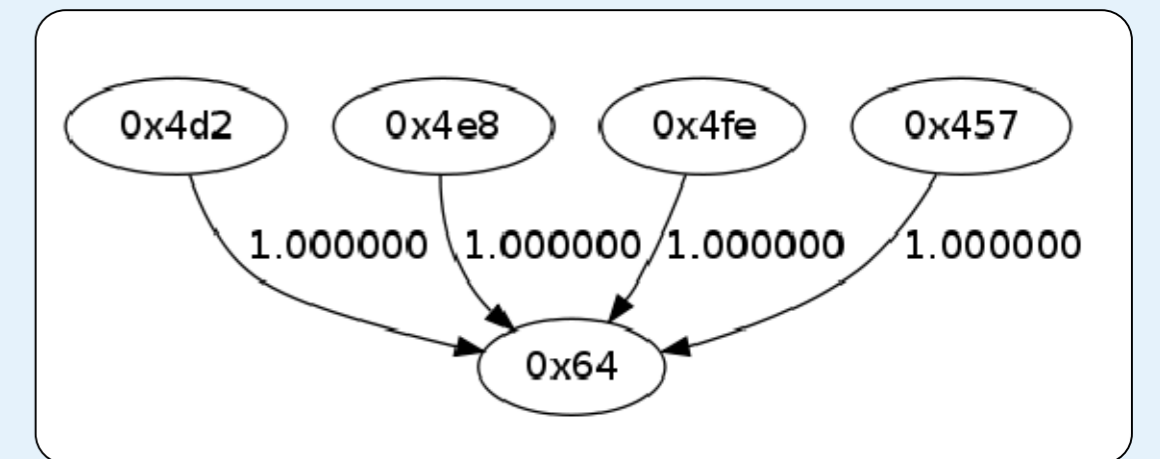
Node is registered at Knowledge Agent as soon as a Template is received.

Establishment of Routing Graph

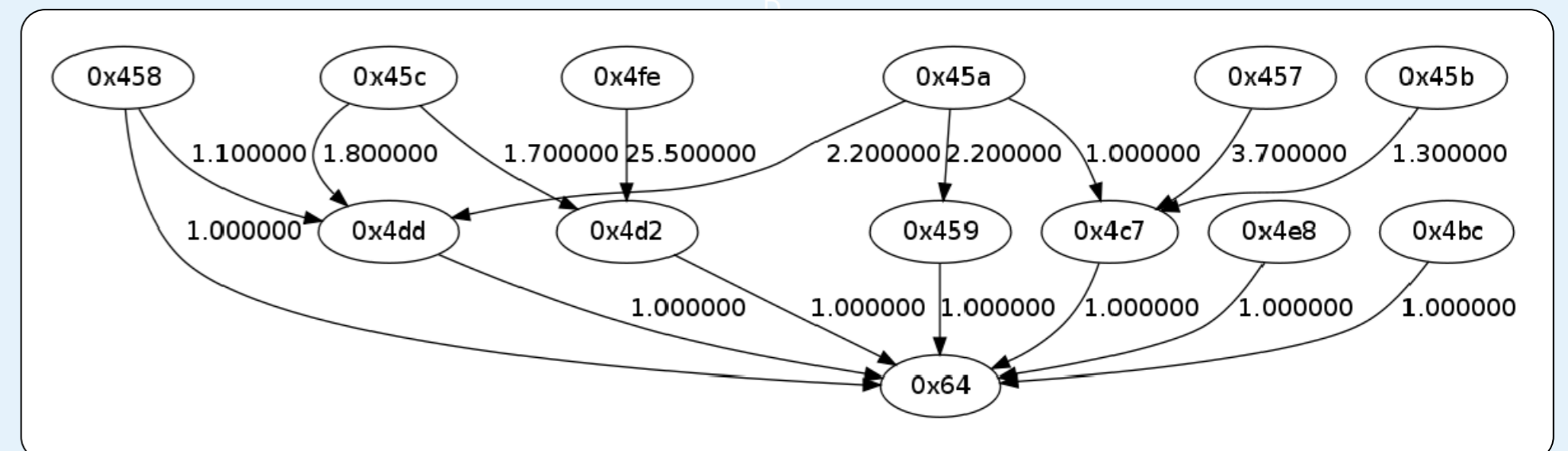
Setup:

- Blip under TinyOS 2.1.1
- 5 IRIS motes
- 7 TelosB motes
- 1 TelosB is a IP-Basestation

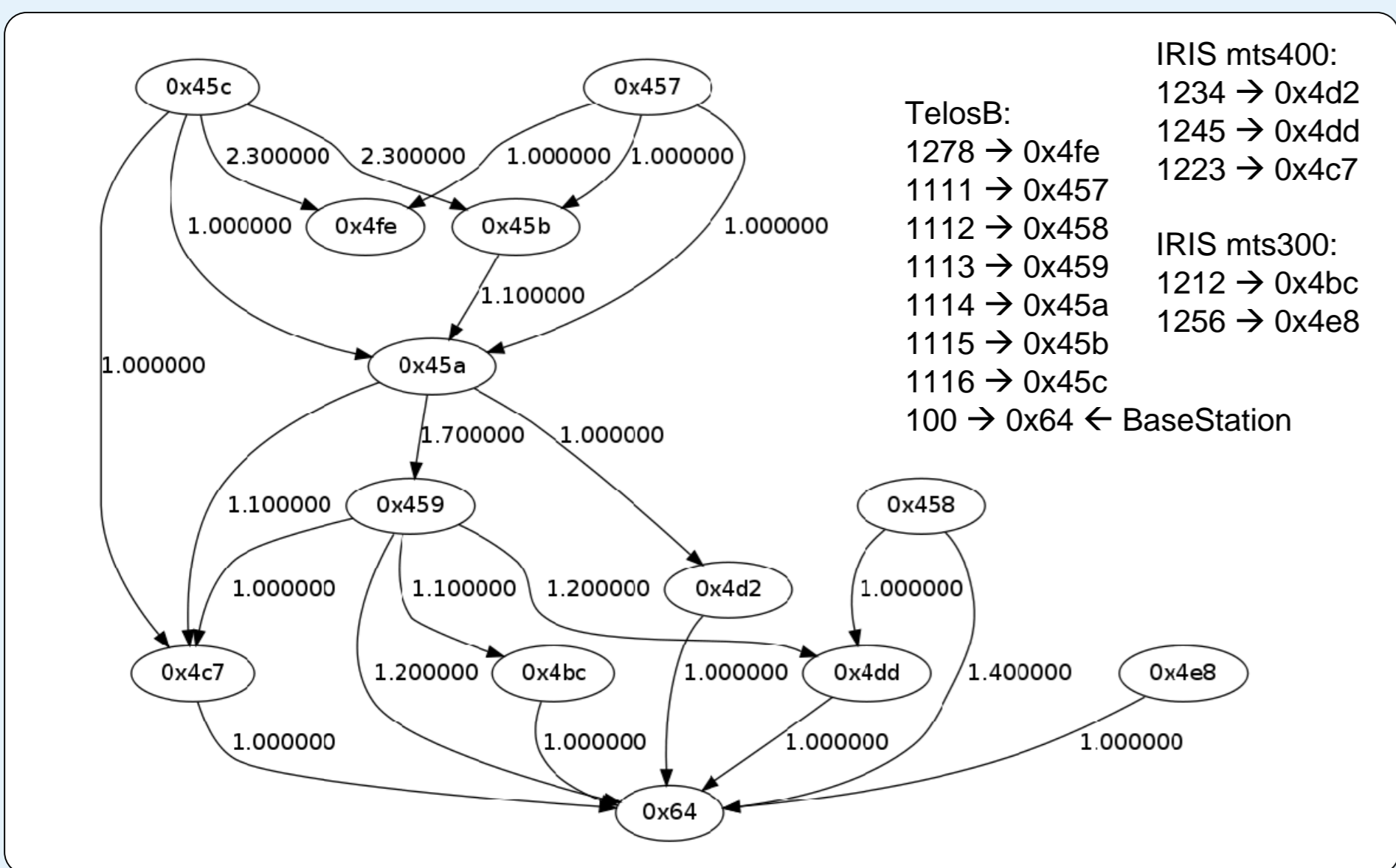
Routing Graph after 2min – Just IRIS motes activated



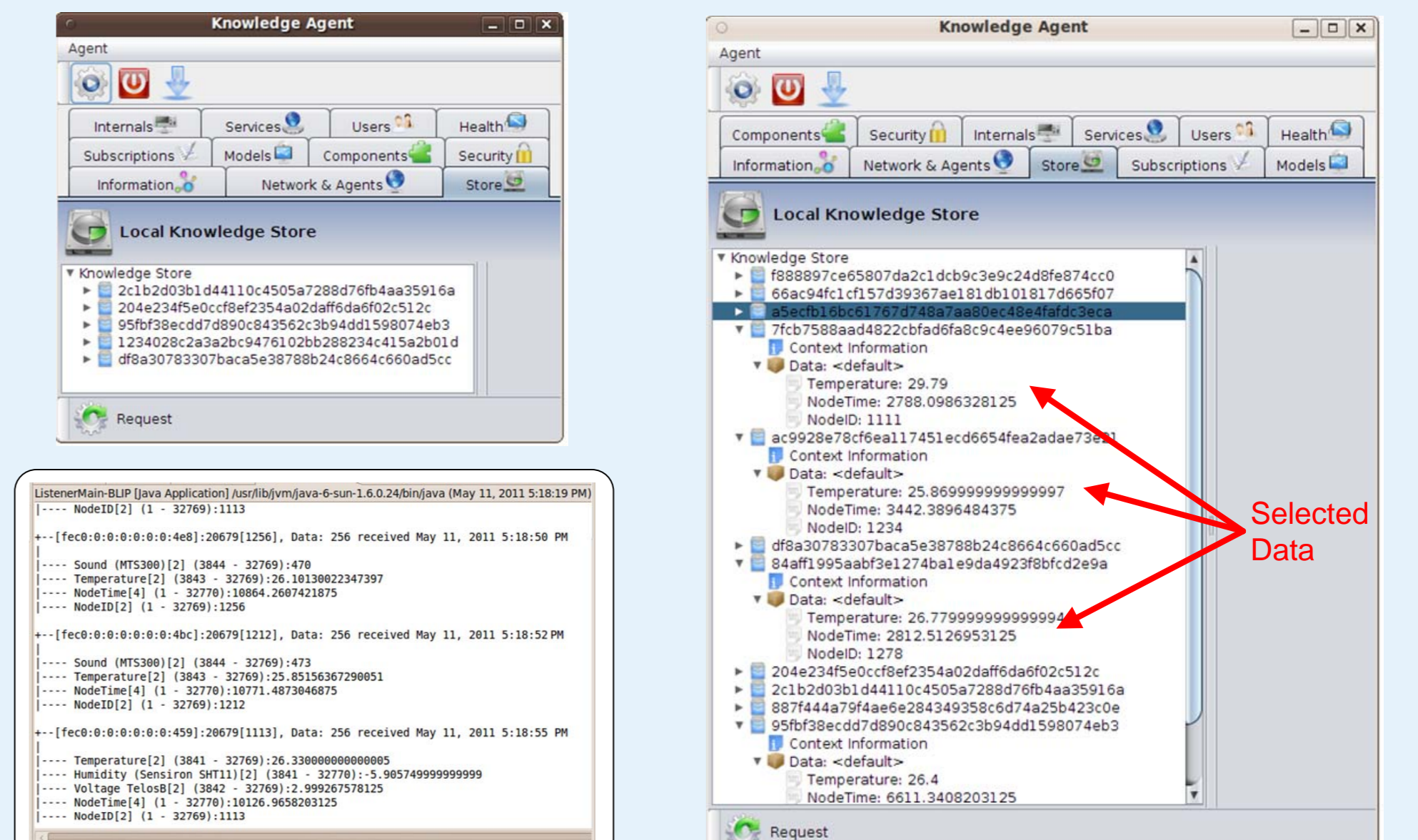
Routing Graph after 15 min – all 12 motes are activated



Routing Graph after 180 min



Knowledge Agent Activity



Selected Data