## Initial Settings from file 50Meter.out

2500 simpleElectricPolyMeter - Payload = 30,700 Bytes, interval = 900s

8500 simpleElectricMeter - Payload = 30,000 Bytes, interval = 3600s

*network capacities*

meters to DCs = 3.0

DC #1 to Headend = 3.5

DC #2 to Headend = 3.5

DC #3 to Headend = 3.5

DC #4 to Headend = 3.5

DC #5 to Headend = 9.0

Headend to MDMS = 17.0

### 1. Baseline

Load topology file 50Meter.out. Run analysis.

Results

(dc\_0 - headend\_0)/e50, Network Capacity = 3.5, Network Usage = 1.698, Utilization = **48.52%**

(dc\_1 - headend\_0)/e51, Network Capacity = 3.5, Network Usage = 1.698, Utilization = **48.52%**(dc\_2 - headend\_0)/e52, Network Capacity = 3.5, Network Usage = 1.698, Utilization = **48.52%**

(dc\_3 - headend\_0)/e53, Network Capacity = 3.5, Network Usage = 1.698, Utilization = **48.52%**

(dc\_4 - headend\_0)/e54, Network Capacity = 9.0, Network Usage = 1.698, Utilization = **18.87%**

(headend\_0 - mdms\_0)/e55, Network Capacity = 17.0, Network Usage = 8.49, Utilization = **49.94%**

### 2. Change Payload and interval for all simpleElectricPolyMeters and simpleElectricMeters connected to first data collector

Use the same topology file.

Set the following parameters on all meters connected to dc\_0;

simpleElectricPolyMeter - Payload = 40,700 Bytes, interval = 700s

simpleElectricMeter - Payload = 40,000 Bytes, interval = 3100s

Run analysis.

Results

(dc\_0 - headend\_0)/e50, Network Capacity = 3.5, Network Usage = 2.842, Utilization = **81.21%**

(dc\_1 - headend\_0)/e51, Network Capacity = 3.5, Network Usage = 1.698, Utilization = **48.52%**(dc\_2 - headend\_0)/e52, Network Capacity = 3.5, Network Usage = 1.698, Utilization = **48.52%**

(dc\_3 - headend\_0)/e53, Network Capacity = 3.5, Network Usage = 1.698, Utilization = **48.52%**

(dc\_4 - headend\_0)/e54, Network Capacity = 9.0, Network Usage = 1.698, Utilization = **18.87%**

(headend\_0 - mdms\_0)/e55, Network Capacity = 17.0, Network Usage = 9.634, Utilization = **56.67%**

### 3. Add 3 DR components to the 5th data collector (dc\_4)

Use the same topology file.

Set the following parameters for a Pool pump, Water heater, and PTAC components.

3 components with a Payload = 50,000 Bytes and interval = 300 seconds each.

Set line rate to 5 Kbps each.

Run analysis.

Results

(dc\_0 - headend\_0)/e50, Network Capacity = 3.5, Network Usage = 2.842 Utilization = **81.21%**  
(dc\_1 - headend\_0)/e51, Network Capacity = 3.5, Network Usage = 1.698, Utilization = **48.52%**  
(dc\_2 - headend\_0)/e52, Network Capacity = 3.5, Network Usage = 1.698, Utilization = **48.52%**  
(dc\_3 - headend\_0)/e53, Network Capacity = 3.5, Network Usage = 1.698, Utilization = **48.52%**  
(dc\_4 - headend\_0)/e54, Network Capacity = 9.0, Network Usage = 5.698, Utilization = **63.32%**  
(headend\_0 - mdms\_0)/e55, Network Capacity = 17.0, Network Usage = 13.634, Utilization = **80.2%**  
(poolPump\_57 - dc\_4)/e56, Network Capacity = 5.0, Network Usage = 1.33, Utilization = **26.67%**  
(waterHeater\_58 - dc\_4)/e57, Network Capacity = 5.0, Network Usage = 1.33, Utilization = **26.67%**  
(PTAC\_59 - dc\_4)/e58, Network Capacity = 5.0, Network Usage = 1.33, Utilization = **26.67%**