FREEDM: TEST PLAN FOR STATE COLLECTION MODULE

Case	Precondition of the system			Action Performed by the State Collection	Expected of the system			Date
	Node1	Node2	Node3		Node1	Node2	Node3	
1	groupleader Up	Up	Up	• Node 1, 2 and 3 generate a group with leader Node1 • Any module in Node 1 send request message for state (gateway value, …) • Node 1 start State Collection upon receiving request • Collecting state process will expire after some time and collected states will send back to request module in Node 1	The request module get s collected states of all three nodes.	Report its own state to Node1	Report its own state to Node1	12/16/11
2	Up	groupleader Up	Up	• Node 1, 2 and 3 generate a group with leader Node2 • Any module in Node 2 send request message for state (gateway value, …) • Node 2 start State Collection upon receiving request • Collecting state process will expire after some time and collected states will send back to request module in Node 2	Report its own state to Node2	The request module get s collected states of all three nodes.	Report its own state to Node2	12/16/11
3	Up	Up	groupleader Up	• Node 1, 2 and 3 generate a group with leader Node3 • Any module in Node 3 send request message for state (gateway value, …) • Node 3 start State Collection upon receiving request	Report its own state to Node3	Report its own state to Node3	The request module get s collected states of all three	12/16/11

				• Collecting state process will expire after some time and collected states will send back to request module in Node3			nodes.	
4	Up in group, but later Dead	Up in group	Up in group	• Any module in Node 2 or 3 sends request message for state (gateway value, …) • Then start Node 1 and waiting for the new group generating • Kill Node 1	Dead	The updated states will be sent to request Node after the PeeList has been updated.	The updated states will be sent to request Node after the PeeList has been updated.	12/16/11
5	Up in group	Up in group, but later Dead	Up in group	• Any module in Node 1 or 3 sends request message for state (gateway value, …) • Then start Node 2 and waiting for the new group generating • Kill Node 2	The updated states will be sent to request Node after the PeeList has been updated.	Dead	The updated states will be sent to request Node after the PeeList has been updated.	12/16/11
6	Up in group	Up in group	Up in group, but later Dead	• Any module in Node 1 or 2 sends request message for state (gateway value, …) • Then start Node 3 and waiting for the new group generating • Kill Node 3	The updated states will be sent to request Node after the PeeList has been updated.	The updated states will be sent to request Node after the PeeList has been updated.	Dead	12/16/11

7	Up in group	Up in group, but later dead	Up in group, but later dead	• Any module in Node 1 sends request message for state (gateway value, …) • Then start Node 2 and 3, waiting for the new group generating • Kill Node 2 and 3	The updated states will be sent to Node 1 after the PeeList has been updated.	Dead	Dead	12/16/11
8	Up in group, but later dead	Up in group	Up in group, but later dead	• Any module in Node 2 sends request message for state (gateway value, …) • Then start Node 1 and 3, waiting for the new group generating • Kill Node 1 and 3	Dead	The updated states will be sent to Node 2 after the PeeList has been updated.	Dead	12/16/11
9	Up in group, but later dead	Up in group, but later Dead	Up in group	• Any module in Node 3 sends request message for state (gateway value, …) • Then start Node 1and 2, waiting for the new group generating • Kill Node 1 and 3	Dead	Dead	The updated states will be sent to Node 3 after the PeeList has been updated.	12/16/11