SCM Active-Active Application Note

SCM Samsung Communication Manager

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SCM Samsung Communication Manager

Active-Active

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Active-Active Architecture

Active-Active Deployment Scenarios

Active-Active Fail Cases

Active-Active Setup

Modes and Status

Helpful Reminders

Active-Active Architecture

System Architecture
SBC w/gateway

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Active-Active with SBC and PSTN Gateways

- Total 3000 users supported on the SCM is this scenario
- All users are assigned to the Master as primary system
- The slave SCM will act as the secondary system
- Our Master and Slave nodes are located at 2 different data centers
- All users will use SIP Trunking
- The phones all have a PRI gateway onsite for survivability
- Everything is connected through MPLS provided by the carrier

ONLY the users on the Master side can use MS exchange for integration

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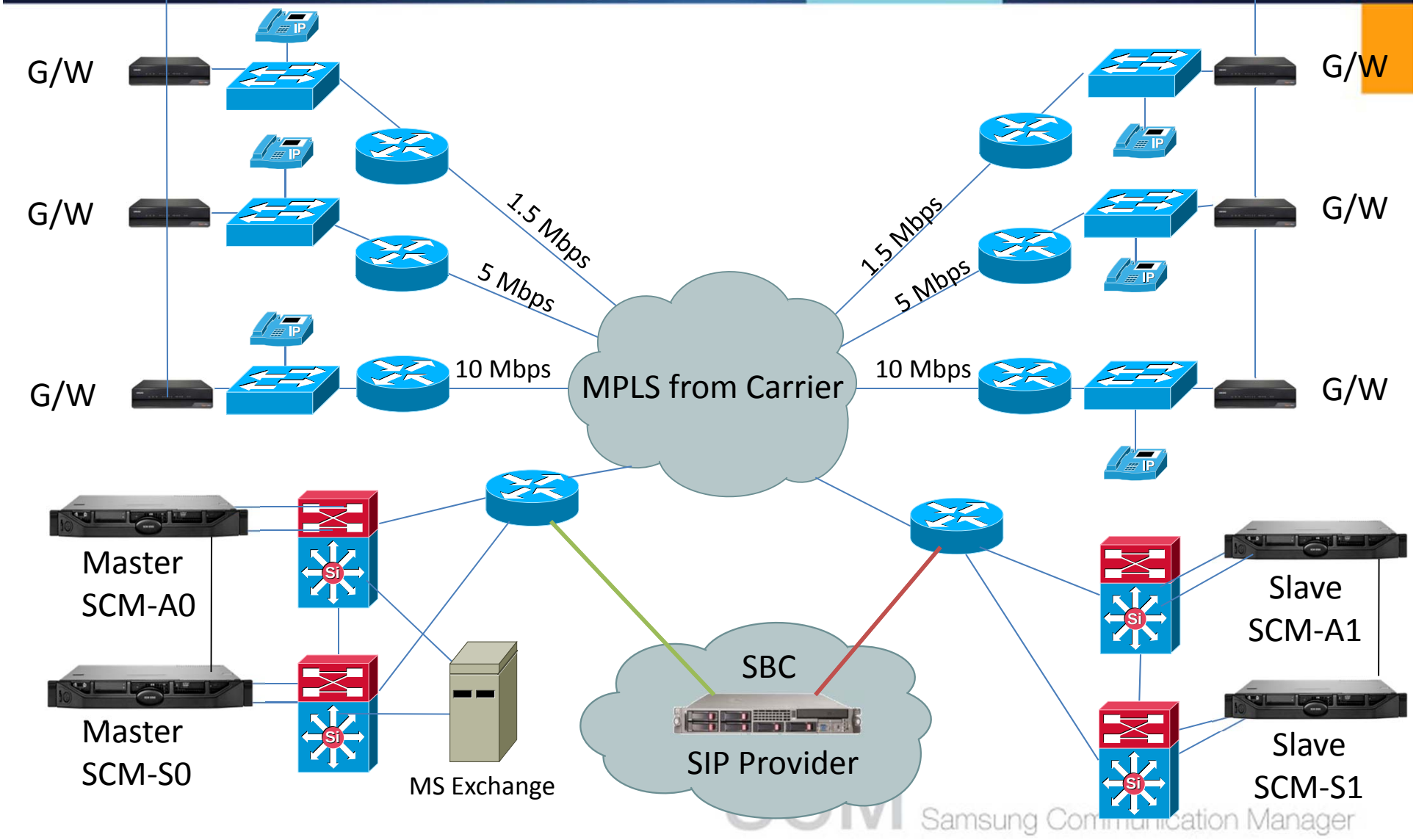
System Architecture
SBC w/gateway



System Architecture
Voice Gateways only

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Active-Active with PSTN Voice Gateways

- Total 3000 users supported on the SCM is this scenario
- All users are assigned to the Master as primary system
- The slave SCM will act as the secondary system
- The Master node is located at the Head Office #1
- Slave node is located at Head Office #2
- The phones all have a gateway onsite for survivability
- Everything is connected through MPLS provided by the carrier

System Architecture
Voice Gateways only

PSTN

G/W

G/W

G/W

1.5 Mbps

5 Mbps

10 Mbps

MPLS from Carrier

10 Mbps

5 Mbps

1.5 Mbps

G/W

G/W

G/W

Master
SCM-A0

Master
SCM-S0

MS Exchange

Slave
SCM-A1

Slave
SCM-S1

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System Architecture
SBC w/gateway “6000 users”

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Active-Active with SBC and w/voice gateways

- Total 6000 users supported on the SCM is this scenario
- 3000 users are assigned to the Master as primary
- 3000 users are assigned to the Slave as primary
- Each secondary server will backup the primary server
- Our Master and Slave nodes are located at 2 different data centers
- All users will use SIP Trunking and have PSTN gateways for survivability
- Everything is connected through MPLS provided by the carrier

System Architecture
SBC w/gateway “6000 users”

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3000 Phones are registered to Master as Primary

3000 Phones are registered to Slave as Primary

G/W

G/W

G/W

G/W

MPLS from Carrier

SCM-Master Active

SCM-Master Standby

SBC

SIP Provider

SCM-Slave Active

SCM-Slave Standby

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Active-Active Switch Over

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- **Active-Active**
  - If the primary server (master.active or master.standby) can not provide the service
  - The secondary server (slave.active and slave.standby) will provide the service on behalf of the primary server.
- **Active-Active switch-over occurs in the following situations :**
  - If the primary server goes down, Secondary server provides the PBX services.
  - If terminals connected to the primary server have been lost, Secondary server provides the services.
  - If the primary server goes into slave node, slave node does not provide the service during full data synchronization. In this case, secondary server of terminals provides the services.

Key Constrains

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Administrator	**Configuration Change/Modification is allowed only through the Master Node** • The Slave-node is just a read-only permitted, except for MOH uploading
Embedded Application	**The Following Applications are NOT available on Secondary Server** • Voice Mail, Call Recording, AME, Outlook service. **Conference Bridge** • Meet-me Conference feature is NOT available on Secondary Server. • Ad-hoc, Progressive, Predefined, Conference are available both SCM nodes. **ACD Lite and CSTA Service are NOT available on Secondary Server** • The ACD group operates on one node only.
Call Services	The Park and Retrieve feature is NOT supported on Secondary Server The Callback feature is NOT supported on Secondary Server
Others	Custom MOH files MUST be loaded on both Master and Slave Nodes Custom AA files MUST be loaded on both Master and Slave Nodes

Active-Active Deployment

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Active-Active Deployment Scenarios

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Supported
Active-Active Scenarios

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We will now cover what scenarios are supported

for

Active-Active

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Scenario #1

(SBC w/voice gateways)

Scenario #1

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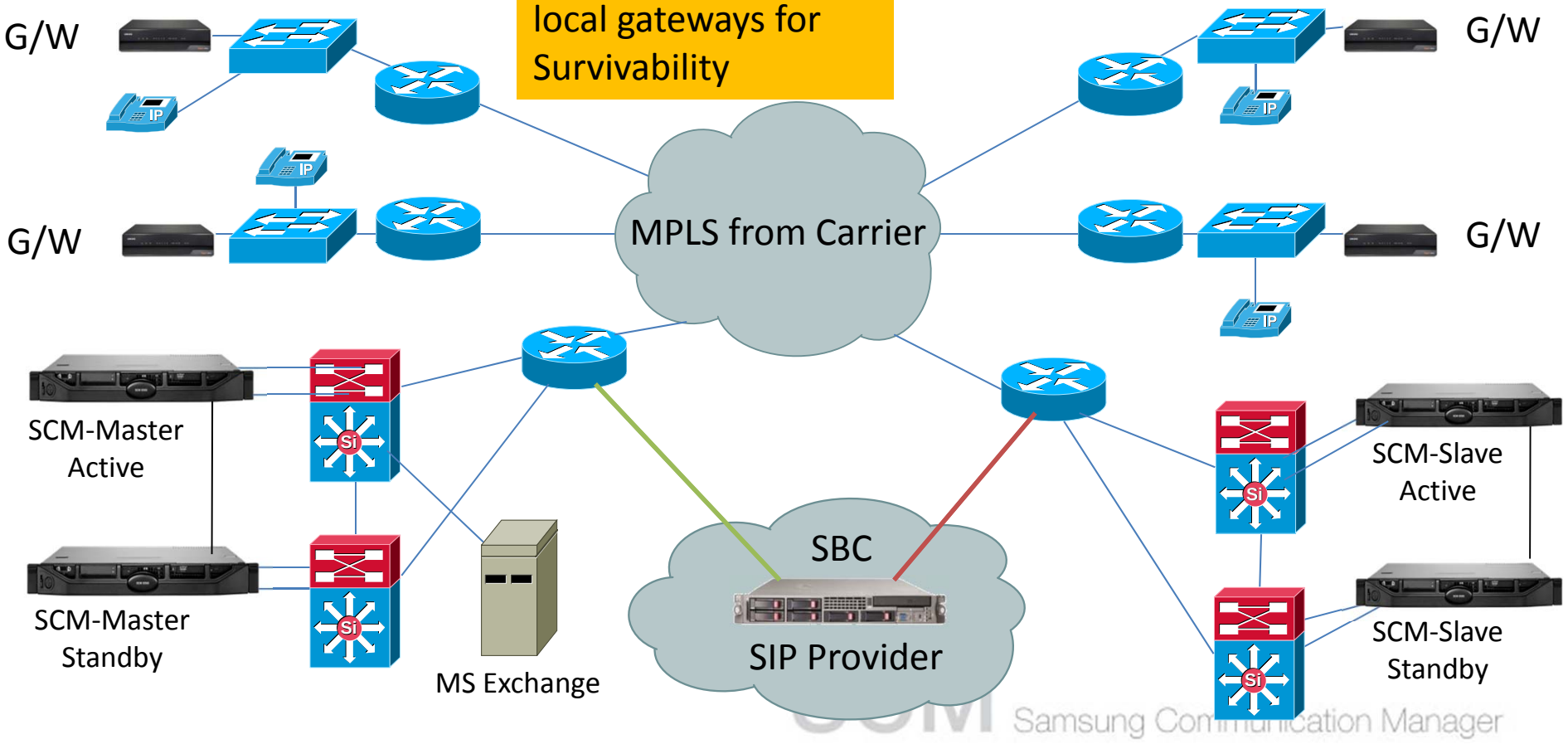
All Phone are registered to Master as Primary and Slave as secondary

Users will also be assigned to their local gateways for Survivability

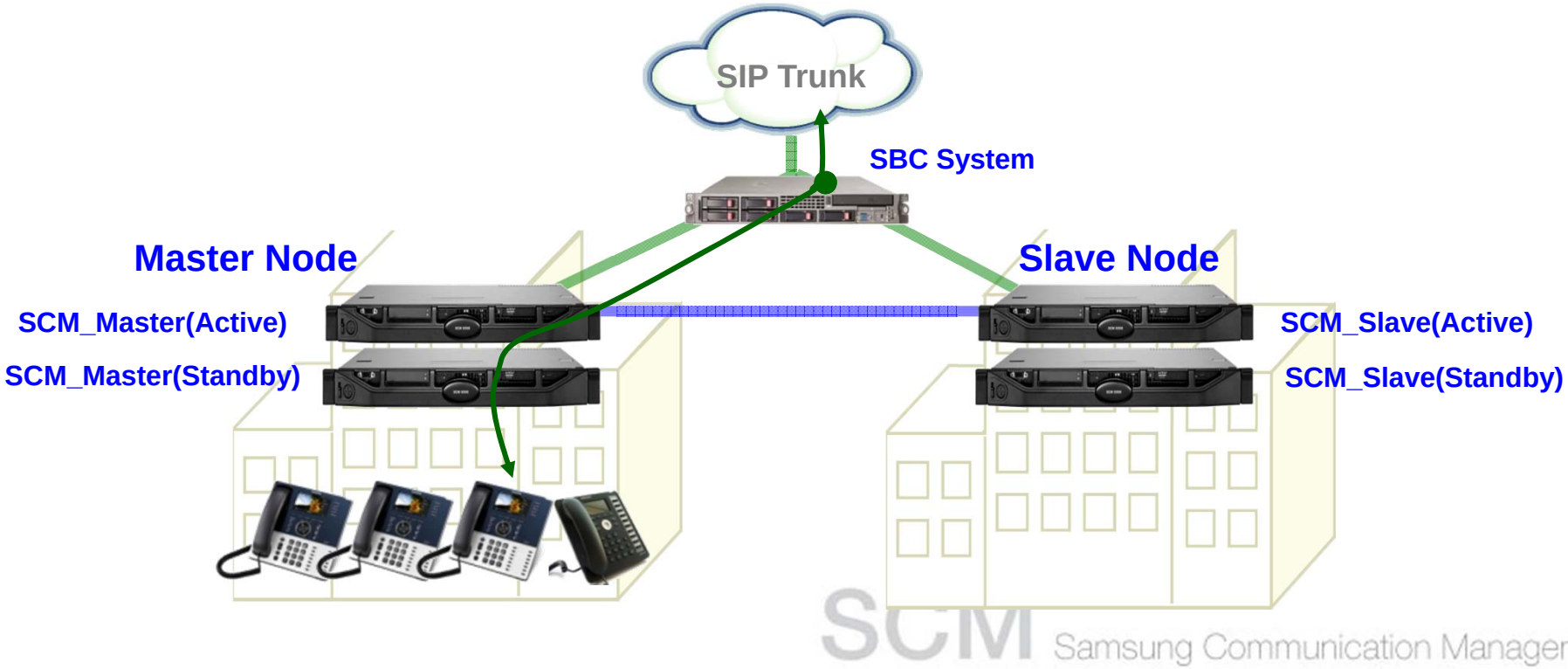
SCM Master and SCM Slave will both have a dual route to the SBC



Scenario #1
SIP Trunks Active-Active

When an SBC is used for call routing

- The SBC is be configured with Multiple Session Targets so that Primary Session Target is pointing to Master Node and Secondary Session Target is pointing to Slave Node.
- If SBC is unable to send the Calls to Master Node than it will use Secondary Session Target to send the calls to the Slave Node.



Scenario #1

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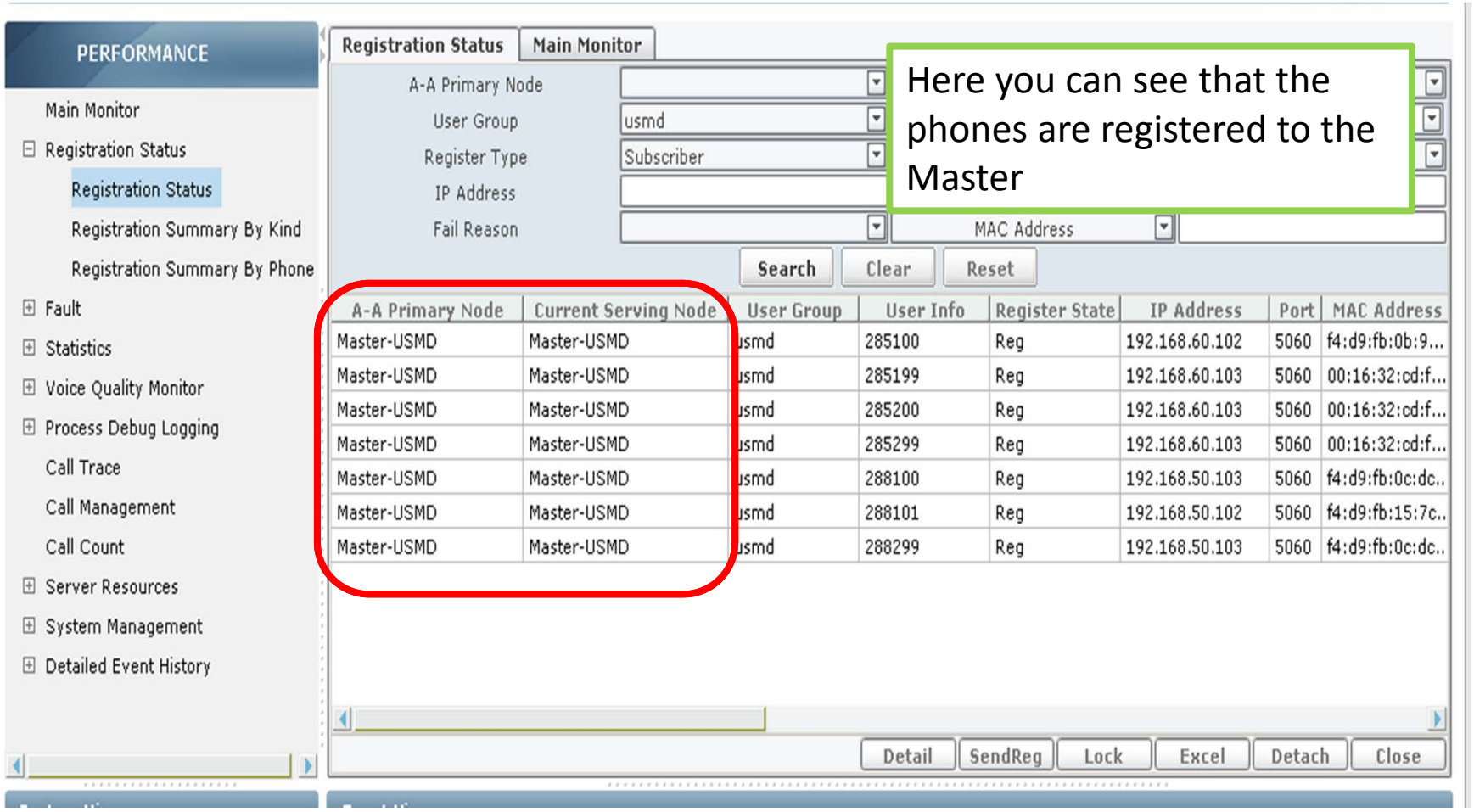

Here you can see that the phones are registered to the Master

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Scenario #1

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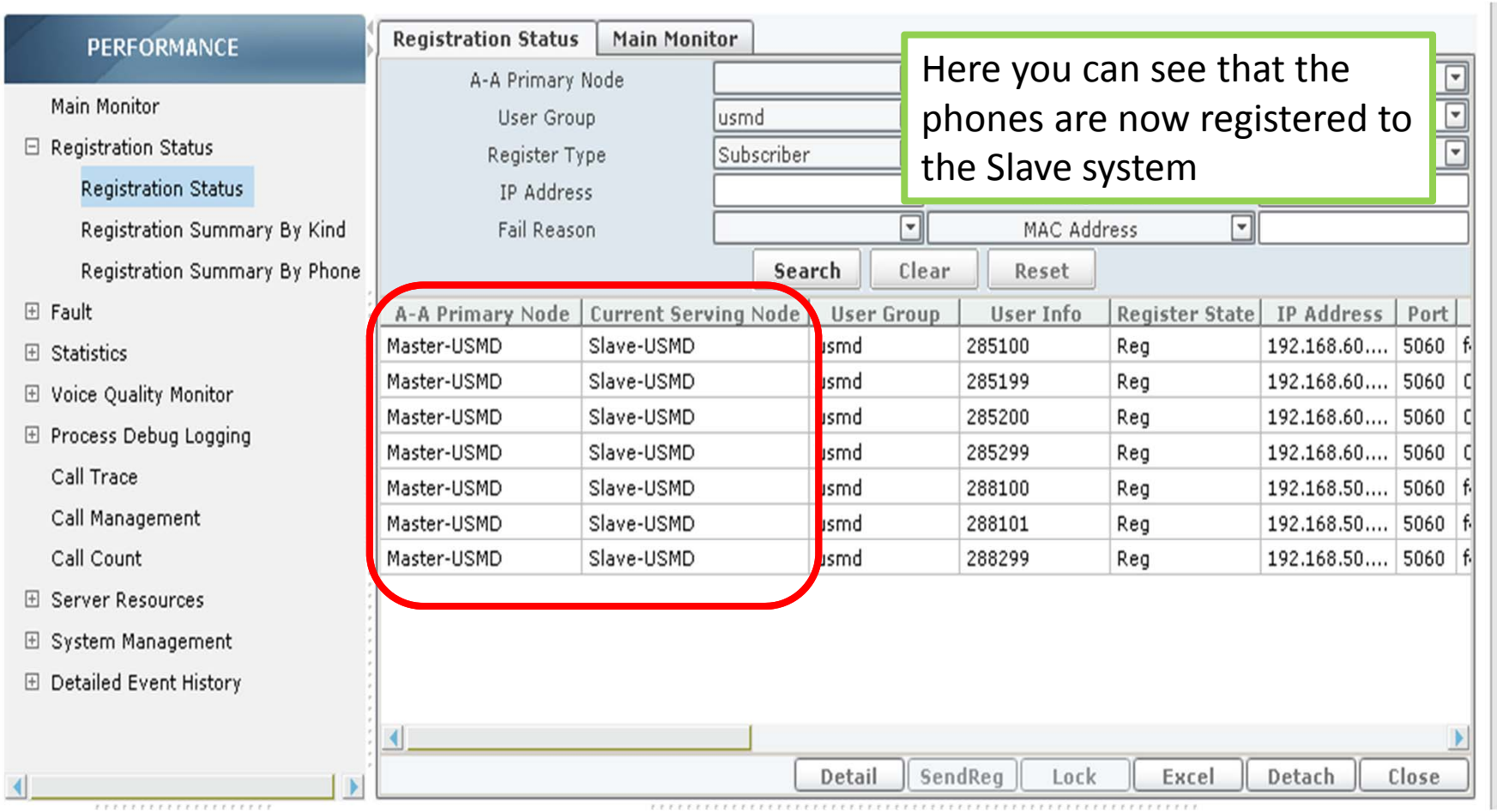

Here you can see that the phones are now registered to the Slave system

Scenario #1

Fail Cases

Scenario #1
Fail Case - 1

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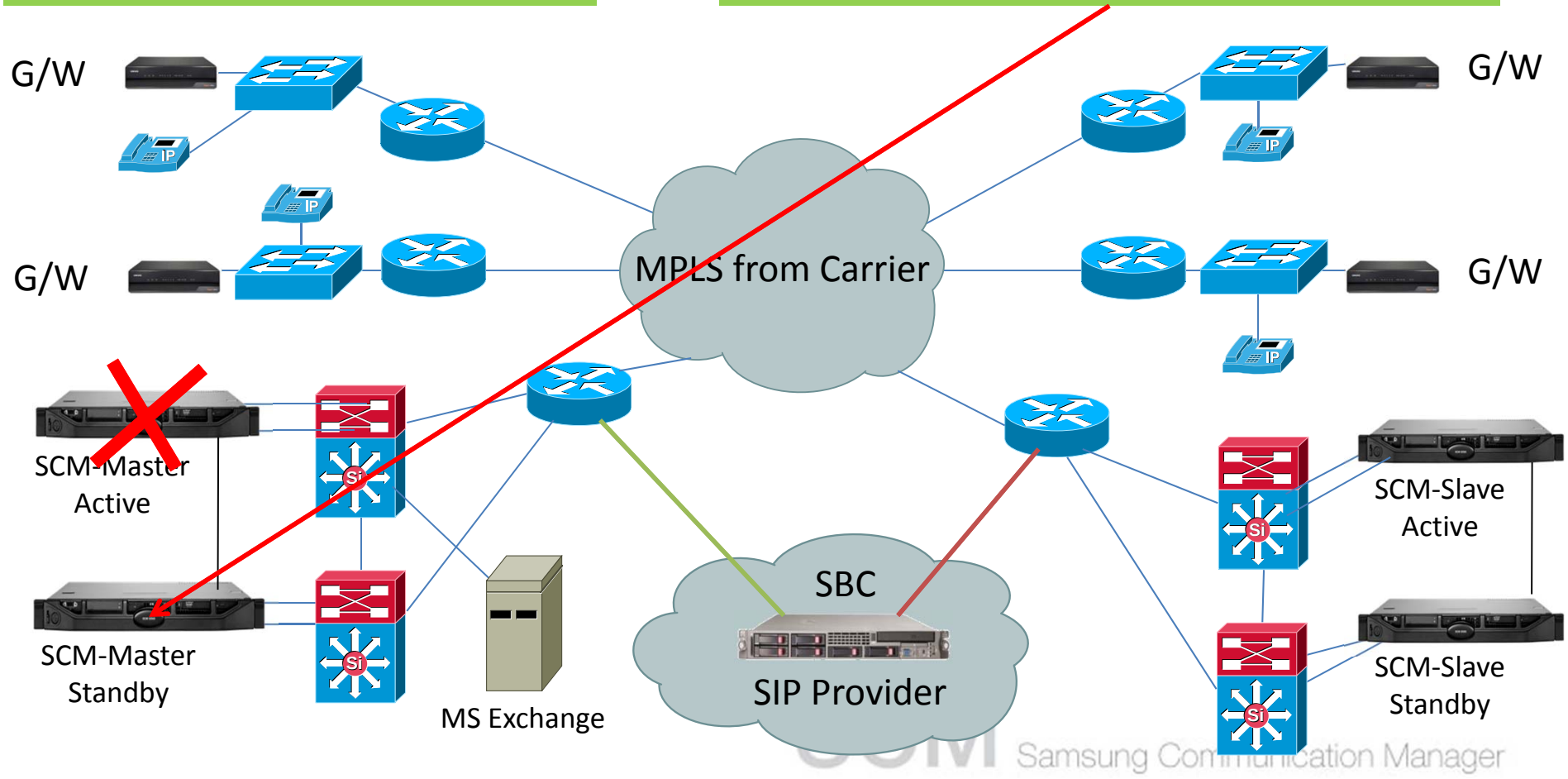
Your SCM-Master.active is down!

- SCM will continue to function as normal

- The SCM-Master.standby will take over as the active system.
- All operation will stay the same



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Scenario #1
Fail Case - 2

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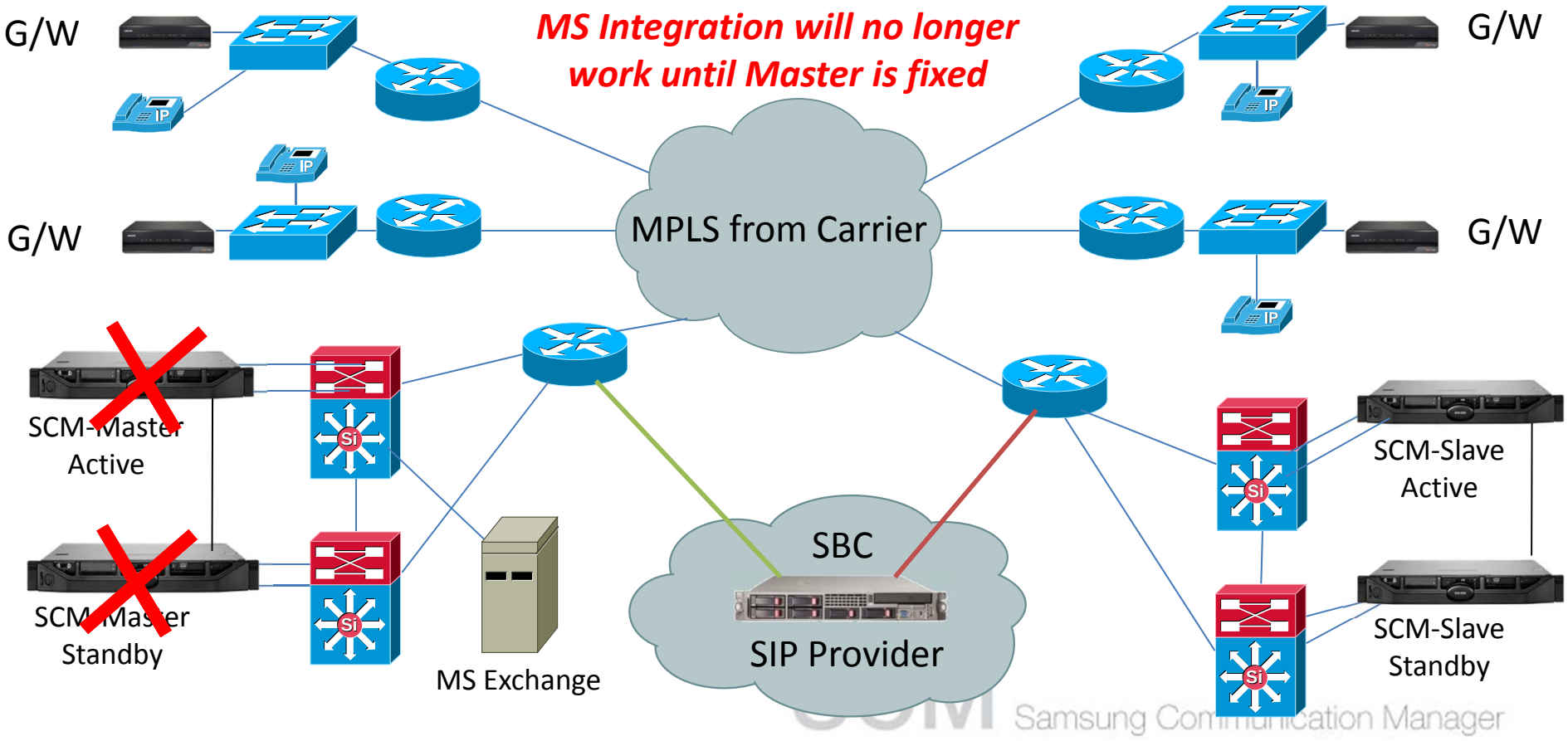
SCM Master is down!

- All phones will now function from the SCM Slave system

- The primary server for a phone provides UMS
- Since our phones primary was the SCM Master
- We will no longer have Mailbox func



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Scenario #1
Fail Case - 3

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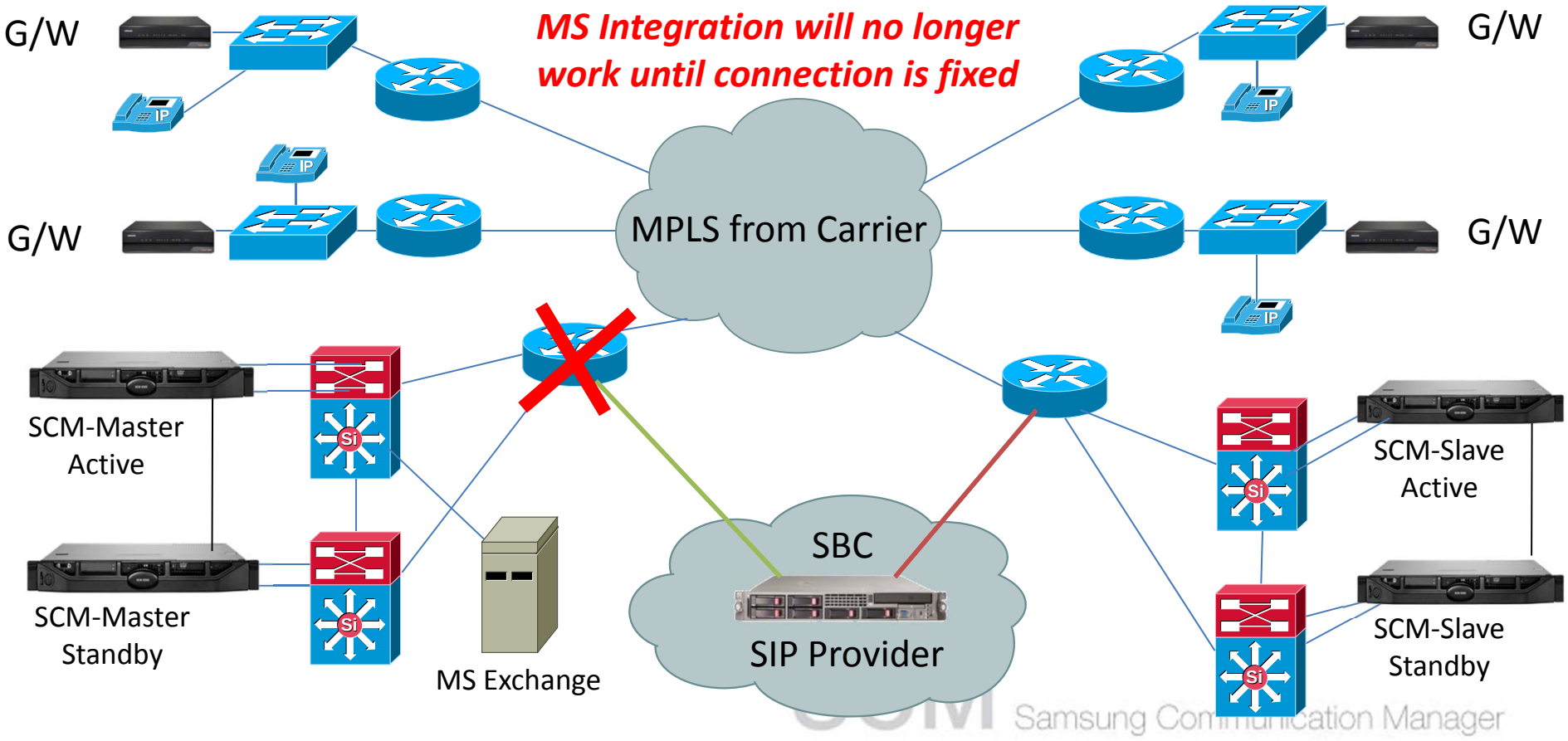
Your data center network is down!
- All phones will now function from the SCM Slave system

- The primary server for a phone provides UMS
- Since our phones primary was the SCM Master
- We will no longer have Mailbox func



Scenario #1
Fail Case - 4

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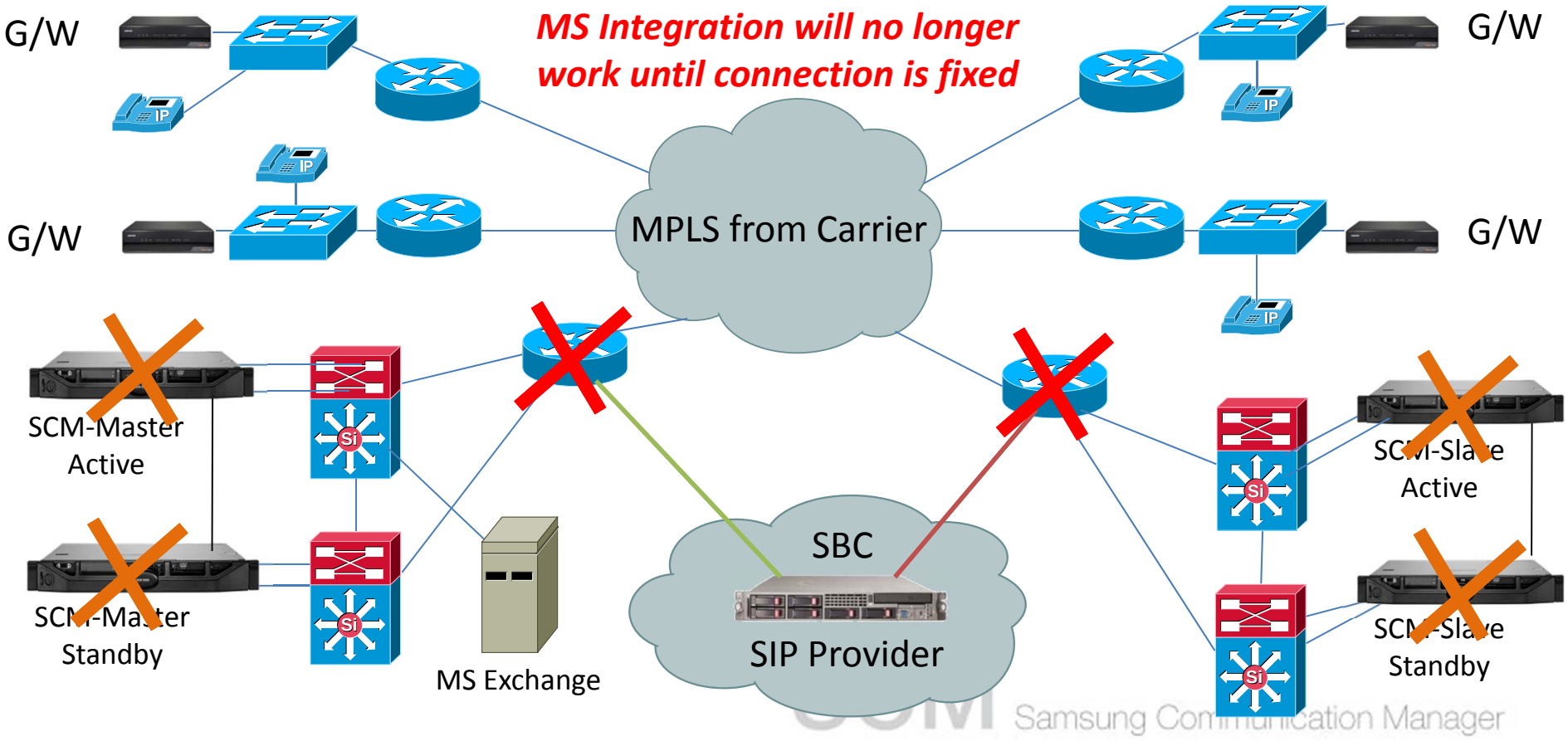
Both data centers are down!
- Users will now fail over to the gateways
- A user must be assigned to a gateway

Survivability mode is in place
- Users can make outbound calls only
- We will no longer have Mailbox function



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Scenario #2

(PRI-Gateways)

Scenario #2

PSTN

All Phone are registered to Master as Primary and Slave as secondary

Survivability is in use for all users

G/W

G/W

G/W

1.5 Mbps

5 Mbps

10 Mbps

MPLS from Carrier

10 Mbps

1.5 Mbps

5 Mbps

G/W

G/W

G/W

Master
SCM-A0

Master
SCM-S0

MS Exchange

The gateways will be registered to SCM-Master as primary with dual registration setup to fail over to the SCM Slave system

Slave
SCM-A1

Slave
SCM-S1

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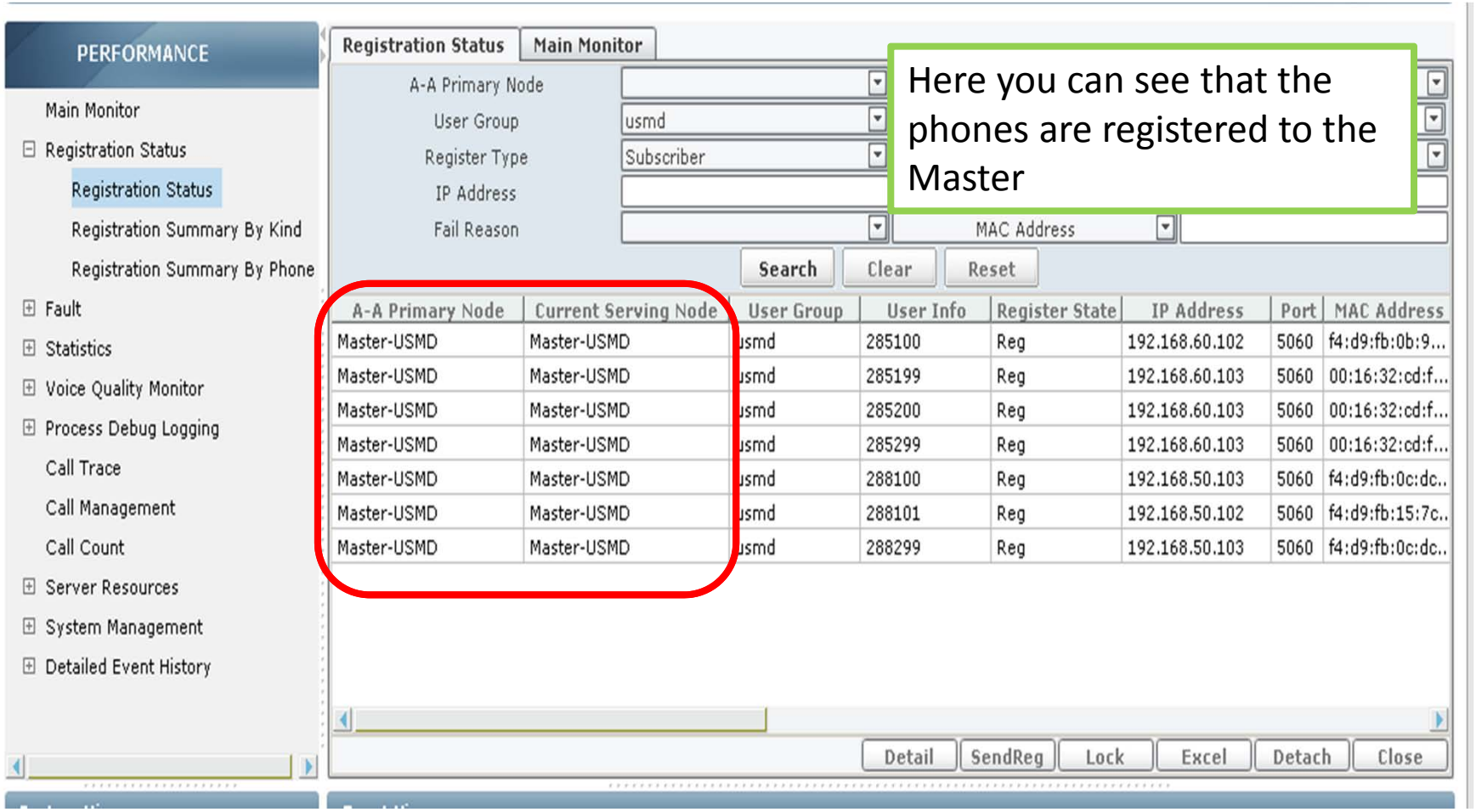
Scenario #2

SAMSUNG



Here you can see that the phones are registered to the Master

Scenario #2

SAMSUNG

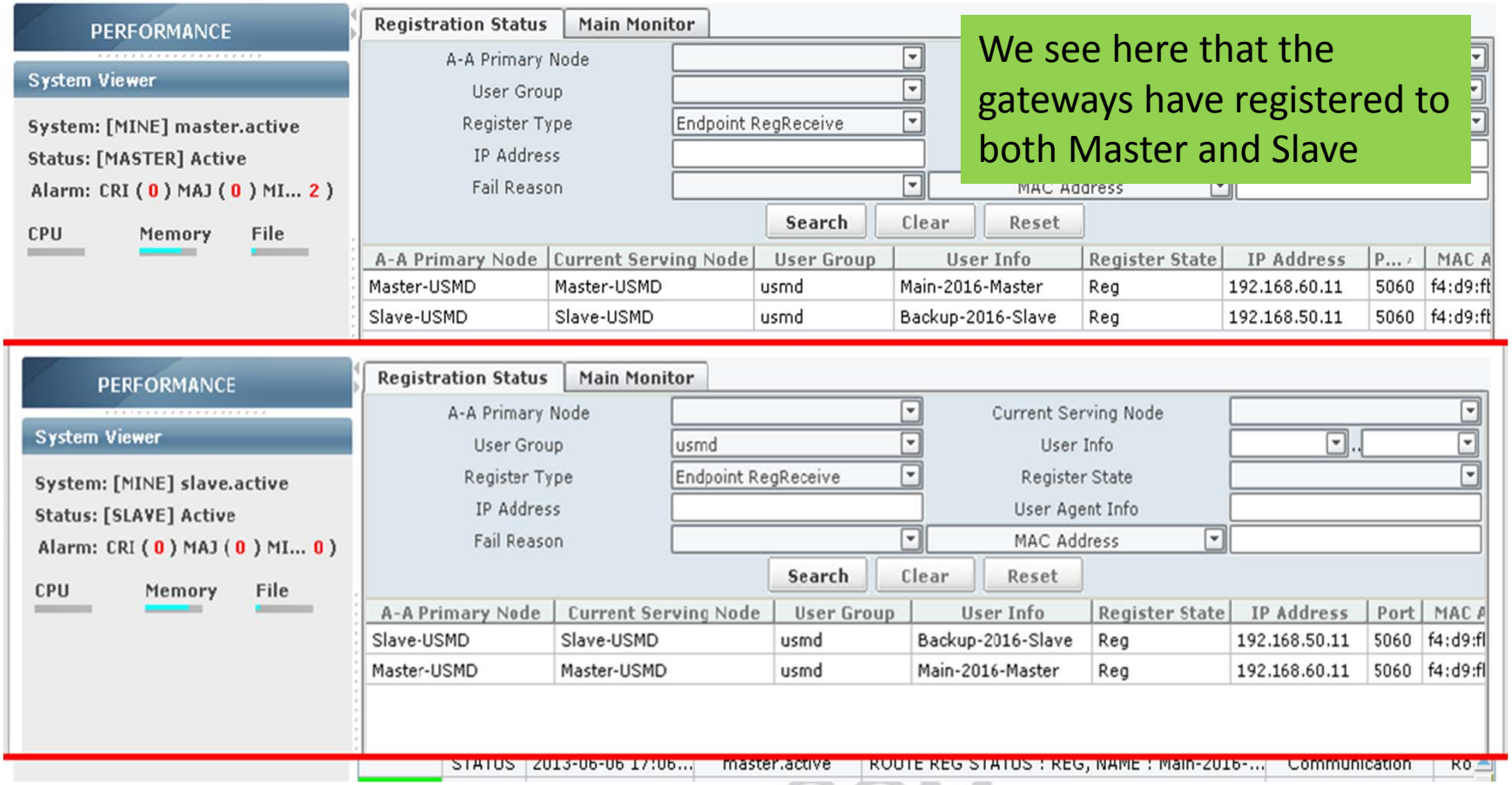
Ubigate Voice Gateway Dual Registration

```
voip-gateway
  host domain-name samsung.com
  bind control interface ethernet 0/1
  bind media interface ethernet 0/1
  rtp payload-type nte 101
  call-server
    ip-address ipv4:192.168.60.10
    ip-address ipv4:192.168.50.10  secondary ← Here we will add the Secondary Server
    gw-uri usmd-master-2016 expires 60
    exit call-server
  sip-ua
    authentication username usmd-master-2016 password usmd-master-2016
    registrar concurrent-registration
    offer call-hold dir-inactive
    disable-star-contact
    reason-header override
    no shutdown
    exit sip-ua
  no shutdown
  exit voip-gateway
```

Scenario #2

SAMSUNG

Ubigate Voice Gateway Dual Registration



We see here that the gateways have registered to both Master and Slave

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Scenario #2

Fail Cases

Scenario #2
Fail Case - 1

PSTN

SAMSUNG

Your SCM-Master.active is down!

- SCM will continue to function as normal

Survivability is in use for all users

G/W

G/W

G/W

1.5 Mbps

5 Mbps

10 Mbps

MPLS from Carrier

10 Mbps

5 Mbps

1.5 Mbps

G/W

G/W

G/W

IP

Master
SCM-A0

Master
SCM-S0

MS Exchange

- The SCM-Master.standby will take over as the active system.
- All operation will stay the same

Slave
SCM-A1

Slave
SCM-S1

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Scenario #2
Fail Case - 2

PSTN

All phones and gateways will now function from the SCM Slave system

MS Integration will no longer work until Master is fixed

G/W

G/W

G/W

G/W

G/W

G/W

5 Mbps

5 Mbps

10 Mbps

10 Mbps

MPLS from Carrier

Master
SCM-A0

Master
SCM-S0

MS Exchange

Slave
SCM-A1

Slave
SCM-S1

- The primary server for a phone provides UMS
- Since our phones primary was the SCM Master
- We will no longer have Mailbox func

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Scenario #2
Fail Case - 3

PSTN

All phones and gateways will now function from the SCM Slave system

MS Integration will no longer work until network is fixed

G/W

G/W

G/W

5 Mbps

5 Mbps

10 Mbps

10 Mbps

MPLS from Carrier

G/W

G/W

G/W

Master
SCM-A0

Master
SCM-S0

MS Exchange

Slave
SCM-A1

Slave
SCM-S1

- The primary server for a phone provides UMS
- Since our phones primary was the SCM Master
- We will no longer have Mailbox func

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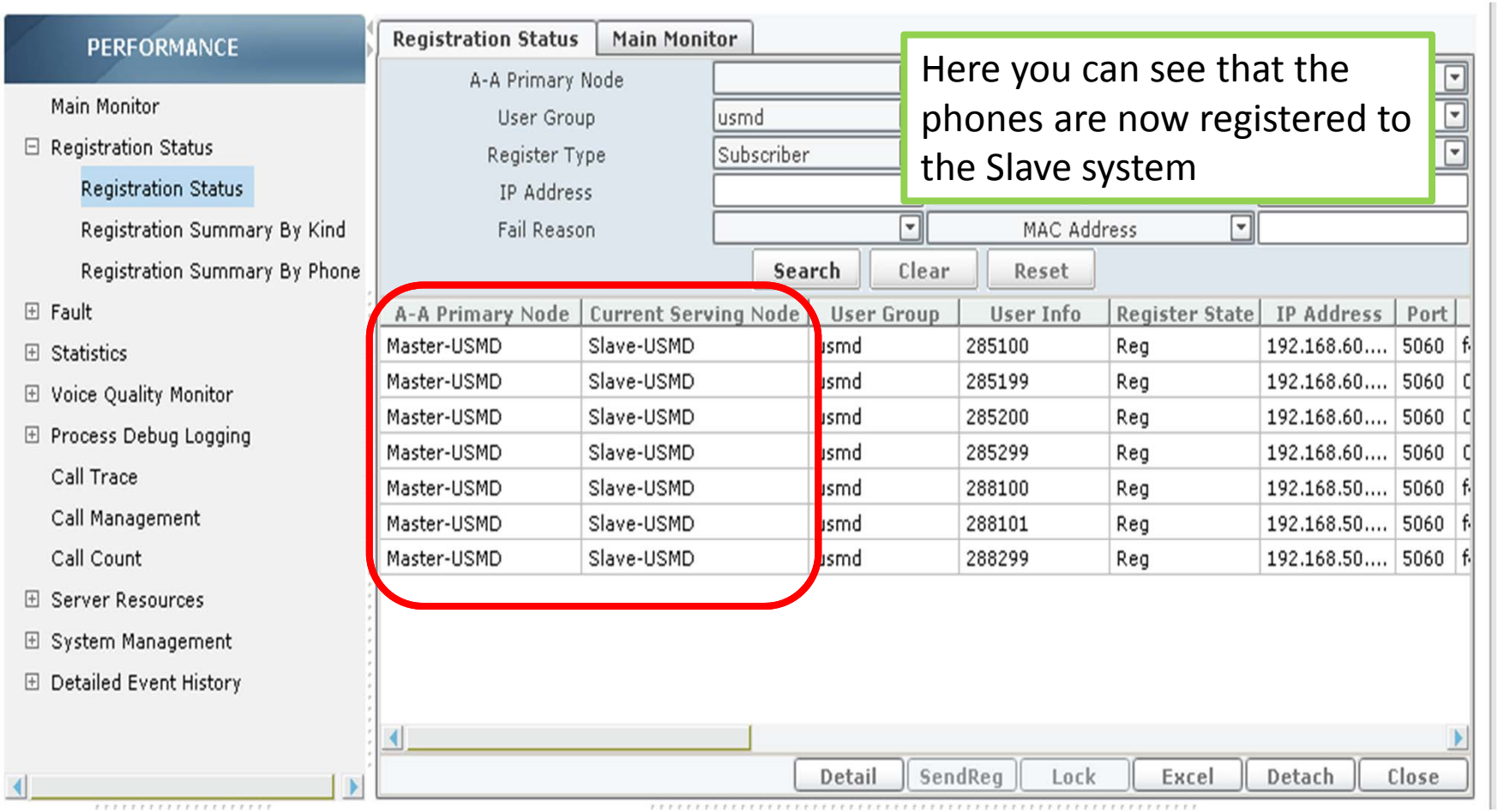
Scenario #2
Fail Case – 3

SAMSUNG



Here you can see that the phones are now registered to the Slave system

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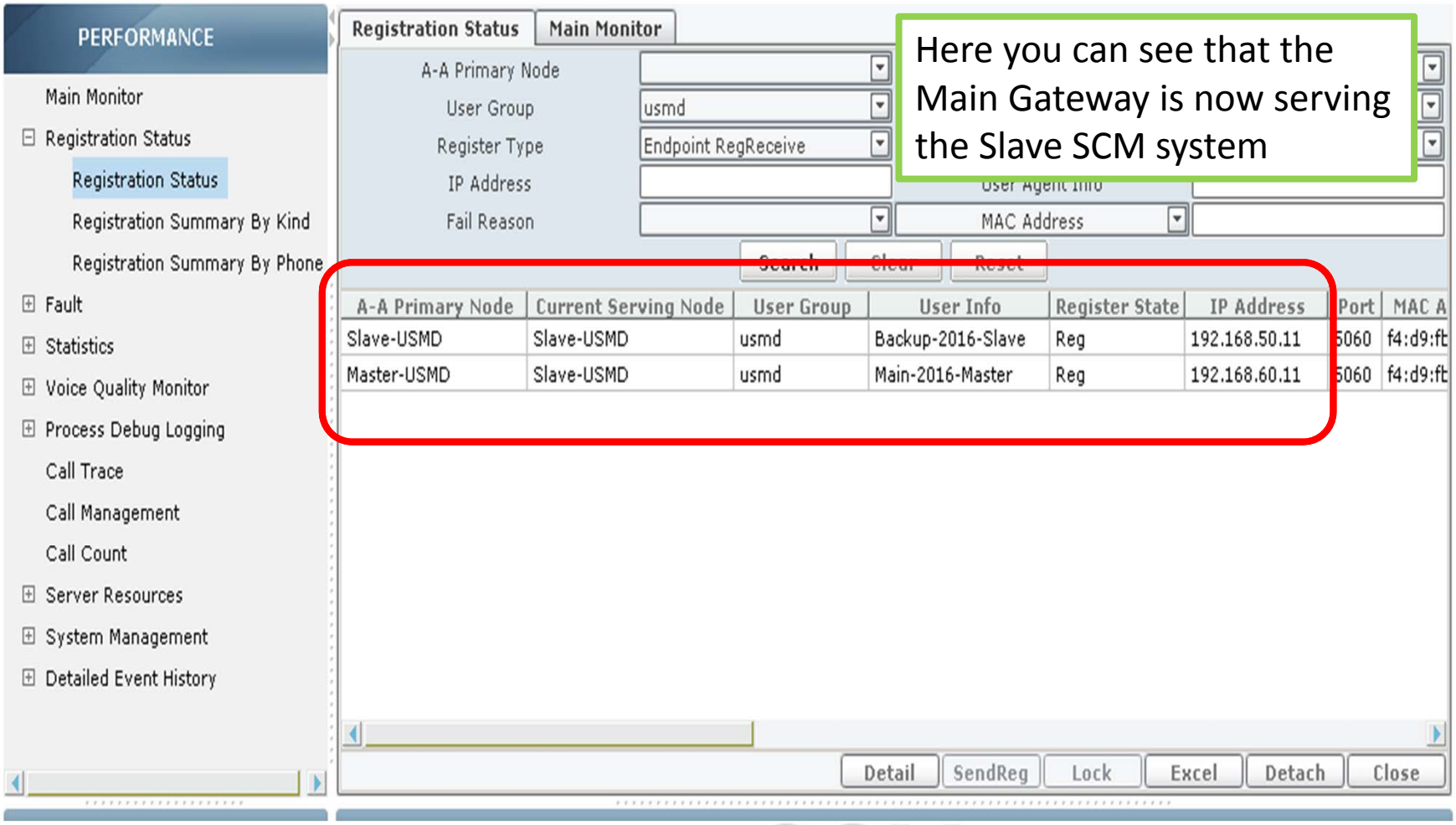
Scenario #2
Fail Case – 3

SAMSUNG



Here you can see that the Main Gateway is now serving the Slave SCM system

Scenario #2
Fail Case – 4

PSTN

SAMSUNG

Survivability mode is in place
- Users can make outbound calls only

G/W

G/W

G/W

1.5 Mbps

5 Mbps

10 Mbps

MPLS from Carrier

1.5 Mbps

5 Mbps

10 Mbps

G/W

G/W

G/W

Master
SCM-A0

Master
SCM-S0

Slave
SCM-A1

Slave
SCM-S1

Users have lost total communication with the datacenter!
- All calls will route out their local gateways

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Scenario #3

(w/6000 users)

Scenario #3

SAMSUNG

Active-Active with SBC and w/voice gateways

- Total 6000 users supported on the SCM is this scenario
- 3000 users are assigned to the Master as primary
- 3000 users are assigned to the Slave as primary
- Each secondary server will backup the primary server
- Our Master and Slave nodes are located at 2 different data centers
- All users will use SIP Trunking and have PSTN gateways for survivability
- Everything is connected through MPLS provided by the carrier

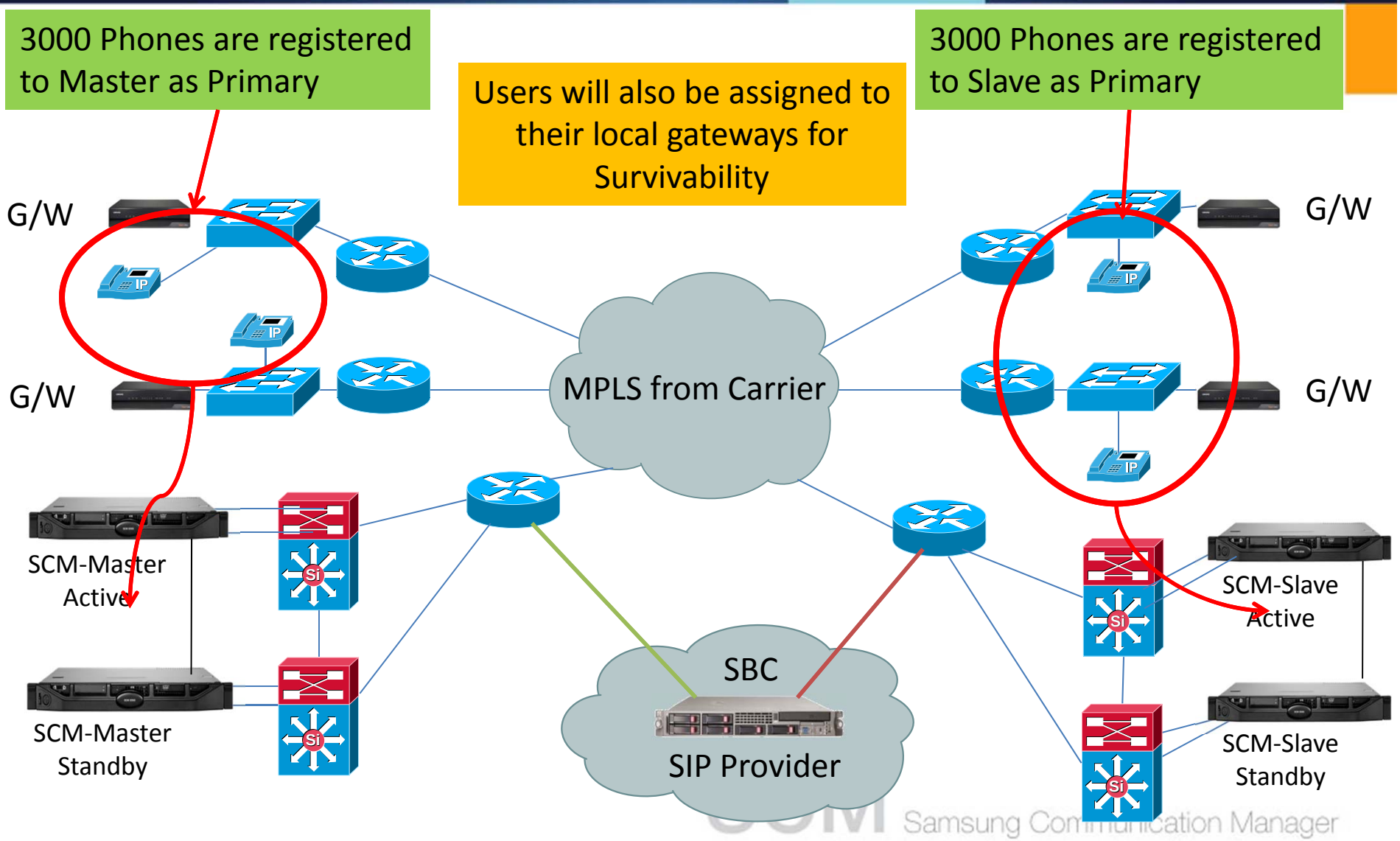
Scenario #3

SAMSUNG

3000 Phones are registered to Master as Primary

Users will also be assigned to their local gateways for Survivability

3000 Phones are registered to Slave as Primary



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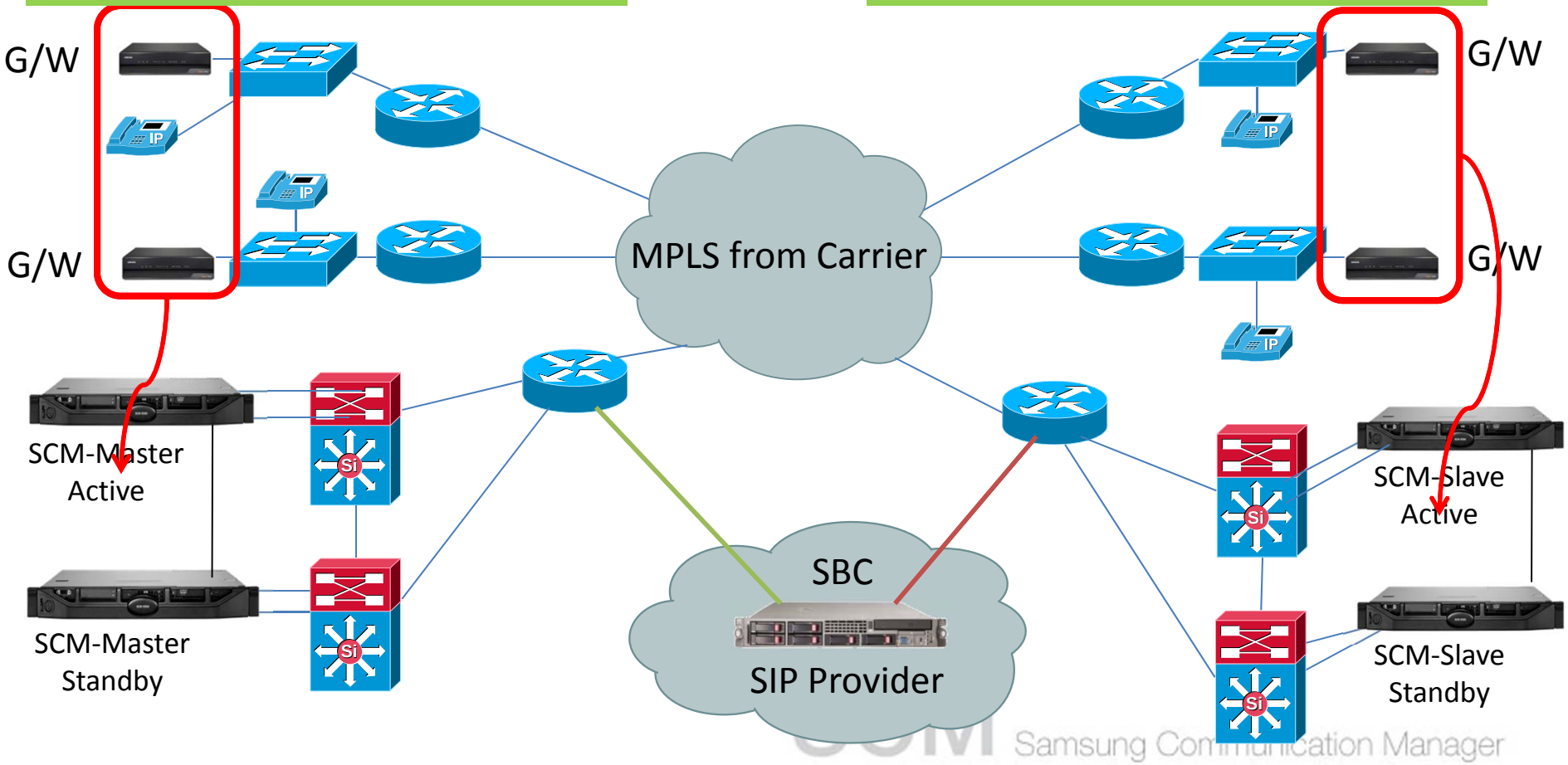
Scenario #3

SAMSUNG

These gateways are registered to Master as Primary and the Slave as secondary

These gateways are registered to Slave as Primary and the Master as secondary

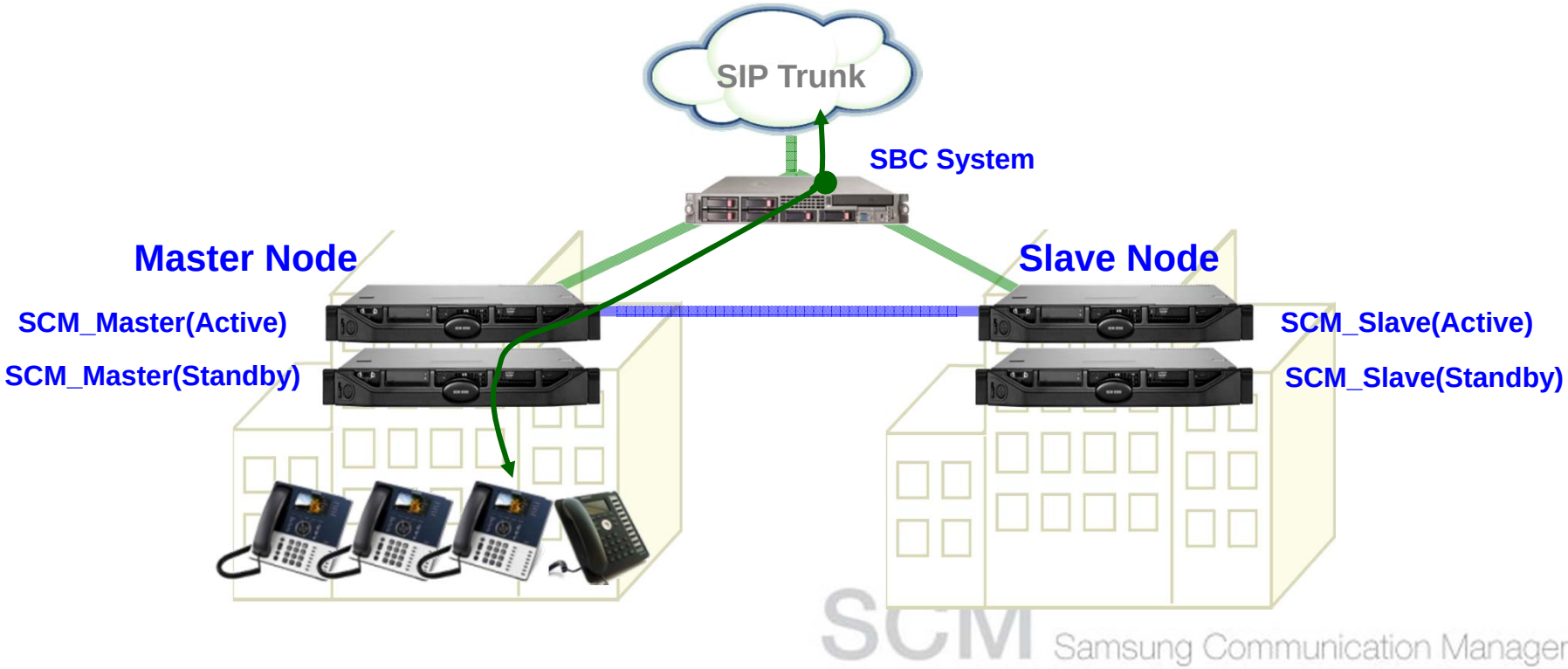


Scenario #3
SIP Trunks Active-Active

SAMSUNG

When an SBC is used for call routing

- The SBC is be configured with Multiple Session Targets so that Primary Session Target is pointing to Master Node and Secondary Session Target is pointing to Slave Node.
- If SBC is unable to send the Calls to Master Node than it will use Secondary Session Target to send the calls to the Slave Node.



Scenario #3

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PERFORMANCE

- Main Monitor
- Registration Status
  - Registration Status
  - Registration Summary By Kind
  - Registration Summary By Phone
- Fault
- Statistics
- Voice Quality Monitor
- Process Debug Logging
- Call Trace
- Call Management
- Call Count
- Server Resources
- System Management
- Detailed Event History

Registration Status | Main Monitor

A-A Primary Node
User Group: usmd
Register Type: Subscriber
IP Address
Fail Reason

Search

A-A Primary No...	Current Serving ...	User Group	User Info	Register State	IP Address	Port	MAC A
Slave-USMD	Slave-USMD	usmd	280100	Reg	192.168.50.102	5060	f4:d9:ft
Slave-USMD	Slave-USMD	usmd	280101	Reg	192.168.50.103	5060	f4:d9:ft
Master-USMD	Master-USMD	usmd	285100	Reg	192.168.60.102	5060	f4:d9:ft
Master-USMD	Master-USMD	usmd	285199	Reg	192.168.60.103	5060	00:16:3
Master-USMD	Master-USMD	usmd	285200	Reg	192.168.60.103	5060	00:16:3
Master-USMD	Master-USMD	usmd	285299	Reg	192.168.60.103	5060	00:16:3
Master-USMD	Master-USMD	usmd	288101	Reg	192.168.50.102	5060	f4:d9:ft

Detail | SendReg | Lock | Excel | Detach | Close

Here you can see that we have phones registered to Slave as primary and phones registered to Master as primary

Scenario #3

Fail Cases

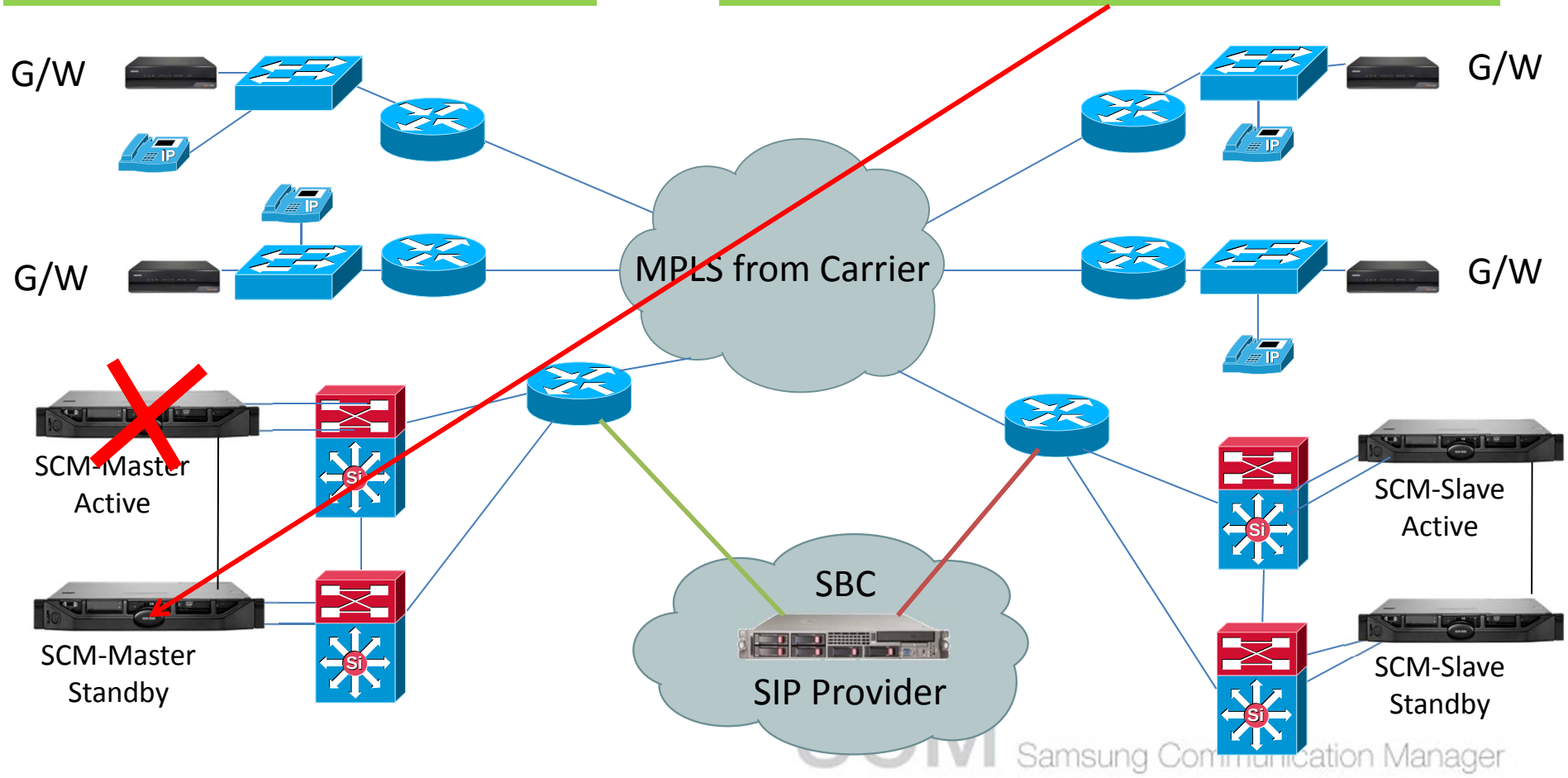
Scenario #3
Fail Case - 1

SAMSUNG

Your SCM-Master.active is down!

- SCM will continue to function as normal

- The SCM-Master.standby will take over as the active system.
- All operation will stay the same



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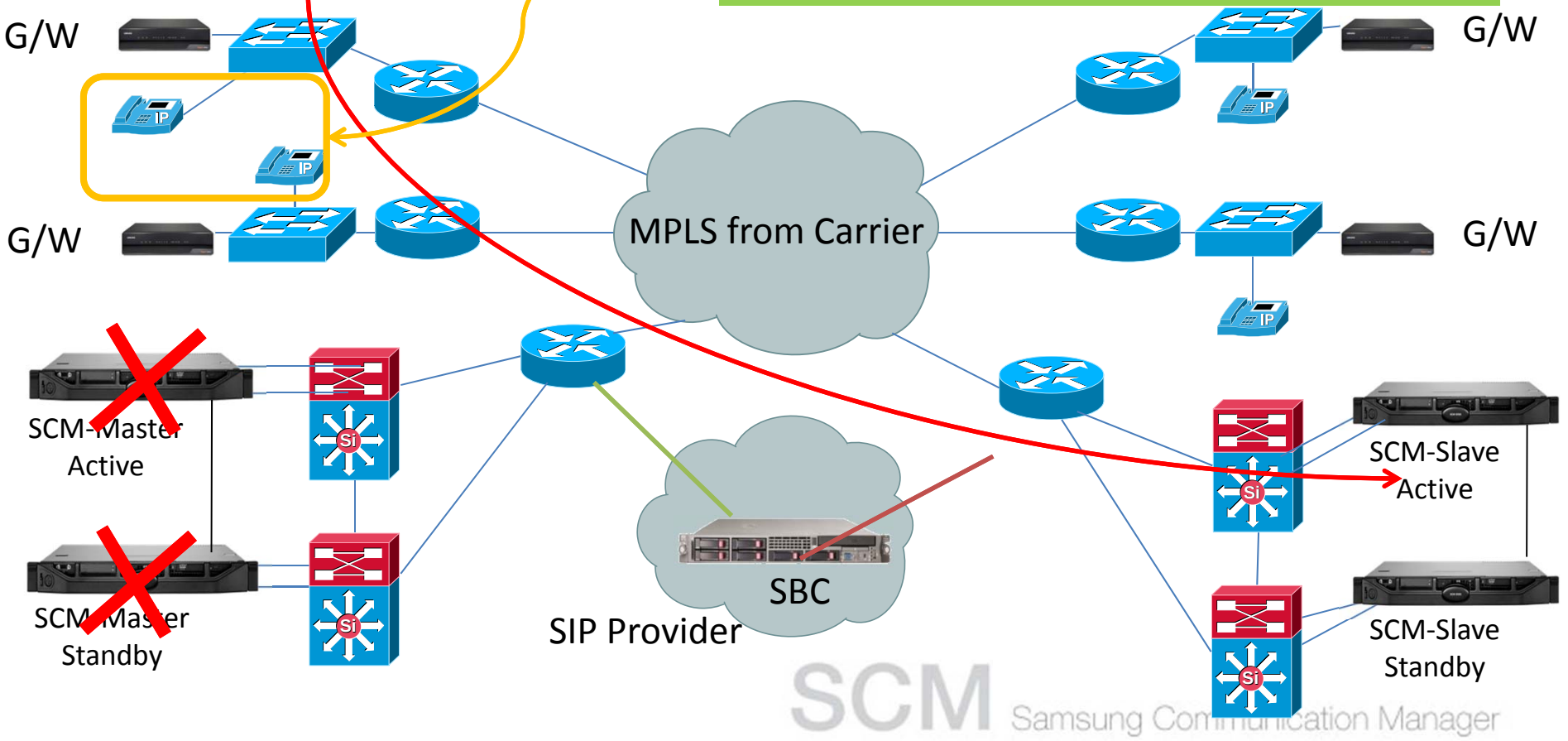
Scenario #3
Fail Case - 2

SAMSUNG

SCM Master is down!

- All phones and gateways will now function from the SCM Slave system

- Users assigned to the Master will no longer have Mailbox Function
- Users assigned to the Slave as primary will still have Mailbox Function



Scenario #3
Fail Case - 3

SAMSUNG

Data center network is down!

- All phones and gateways will now function from the SCM Slave system

- Users assigned to the Master will no longer have Mailbox Function
- Users assigned to the Slave as primary will still have Mailbox Function

G/W

G/W

G/W

G/W

MPLS from Carrier

SCM-Master Active

SCM-Master Standby

SBC

SIP Provider

SCM-Slave Active

SCM-Slave Standby

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Scenario #3
Fail Case - 4

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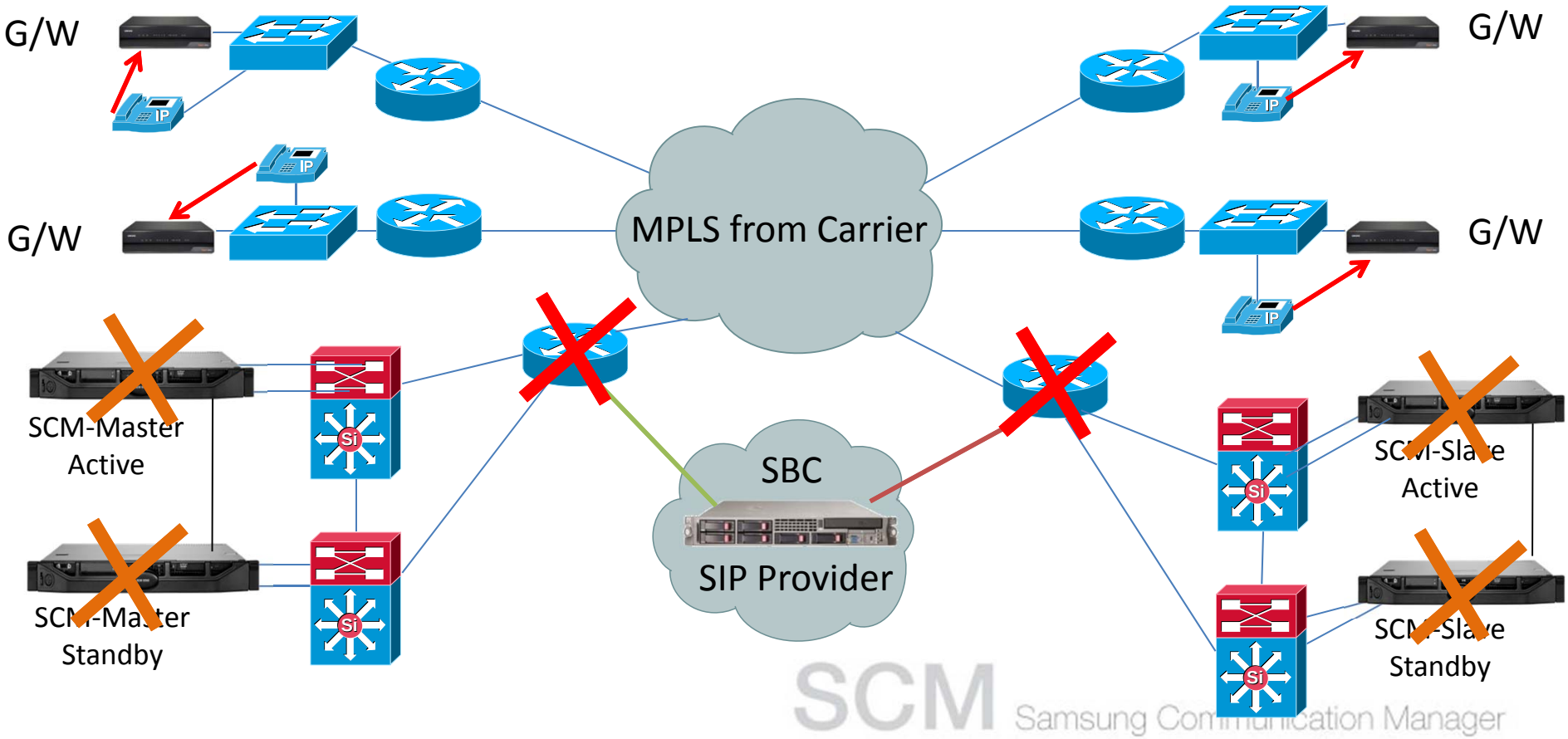
Both data centers network is down!

- Users assigned to gateways will now function in Survivability mode

- No phone system = no application servers!
- Outbound calls only!



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Active-Active Setup

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Method 1 (Beginning with A/A)

Method 1 Setup

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Method 1 Setup Configuration

- **Master-Node 0 (Component) IP : 192.168.60.10**
- **Slave-Node 1 (Component) IP : 192.168.50.10**
- **Master Node Name : Dallas**
- **Slave Node Name : Irving**
- **User Group profile created at Administrator of Master**
- **SBC sip routing setup for Dual registration setup**
- **Gateway Dual registration setup**
- **PSTN Routing setup on Master for Dual registration setup**
- **Users will be automatically setup for Dual registration**
- **Master as Primary and Slave as Secondary**

Method 1 “Part 1”

SAMSUNG

Login to the Administrator for Master Node

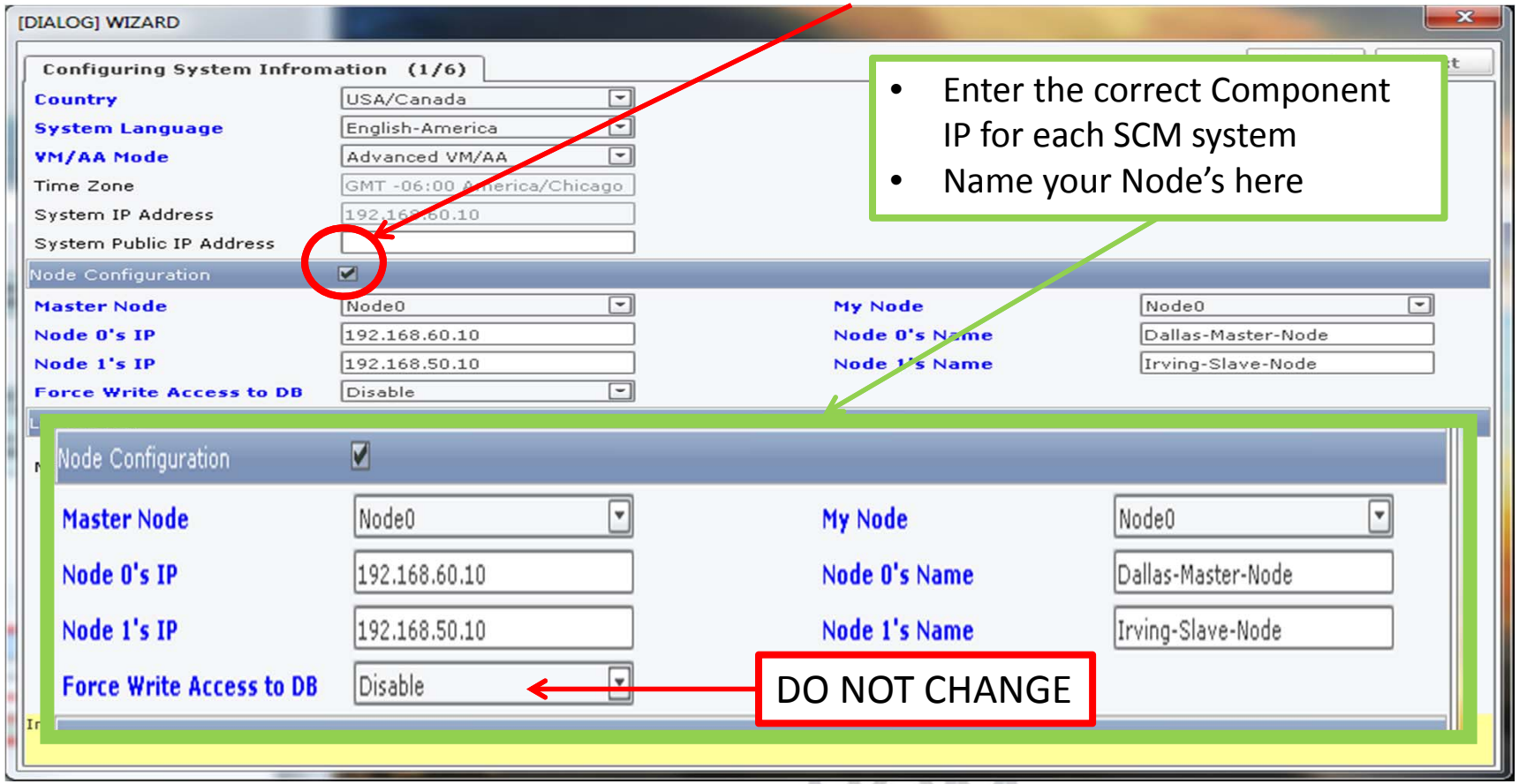
- **URL = 192.168.60.10/scm.jnlp**

Level	User Name	Password
Administrator	admin	samsung*#
Administrator	root	samsung*#

Method 1

SAMSUNG

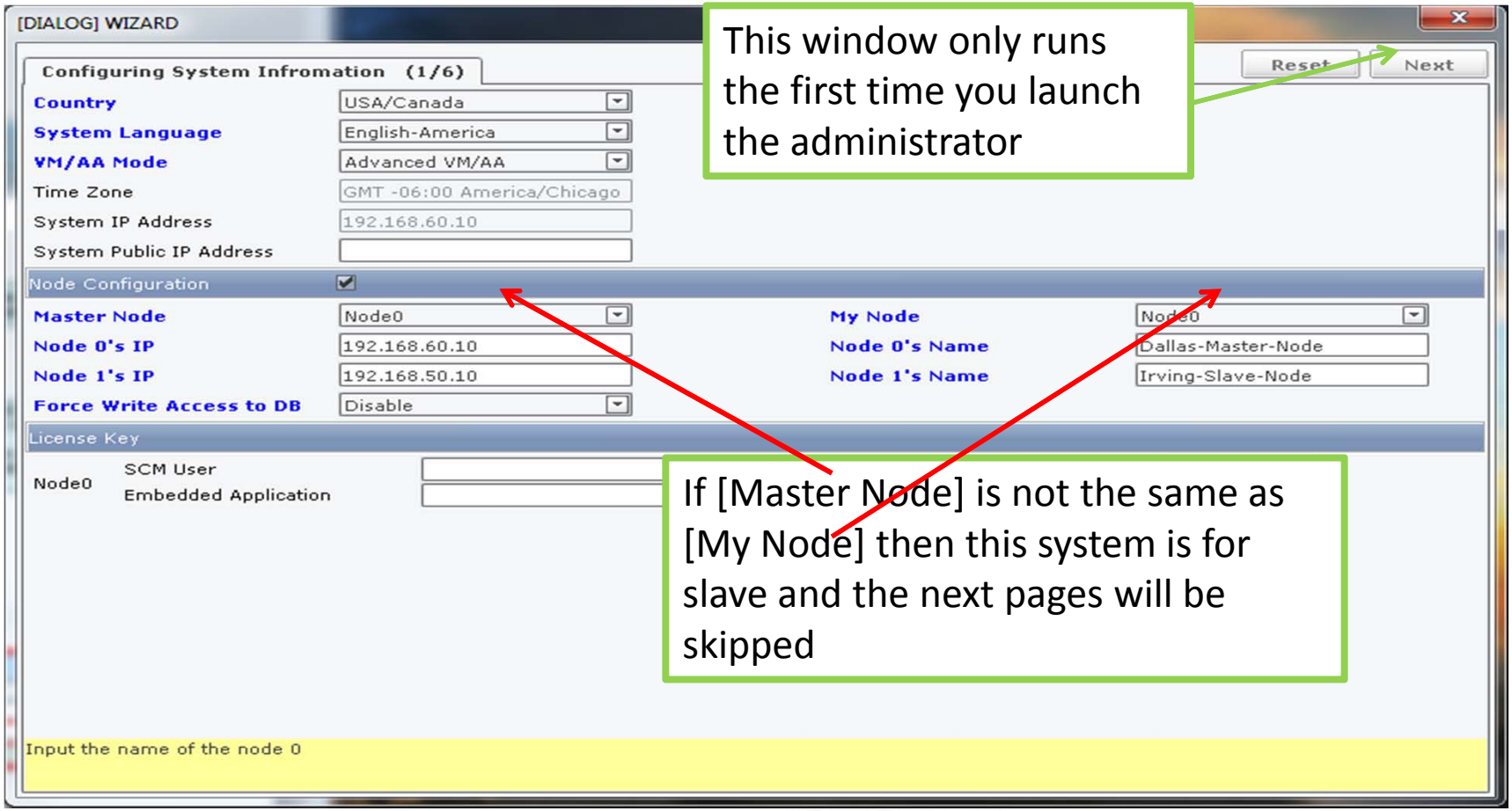
- Configure the system information
- Select and configure the node configuration



Method 1

SAMSUNG

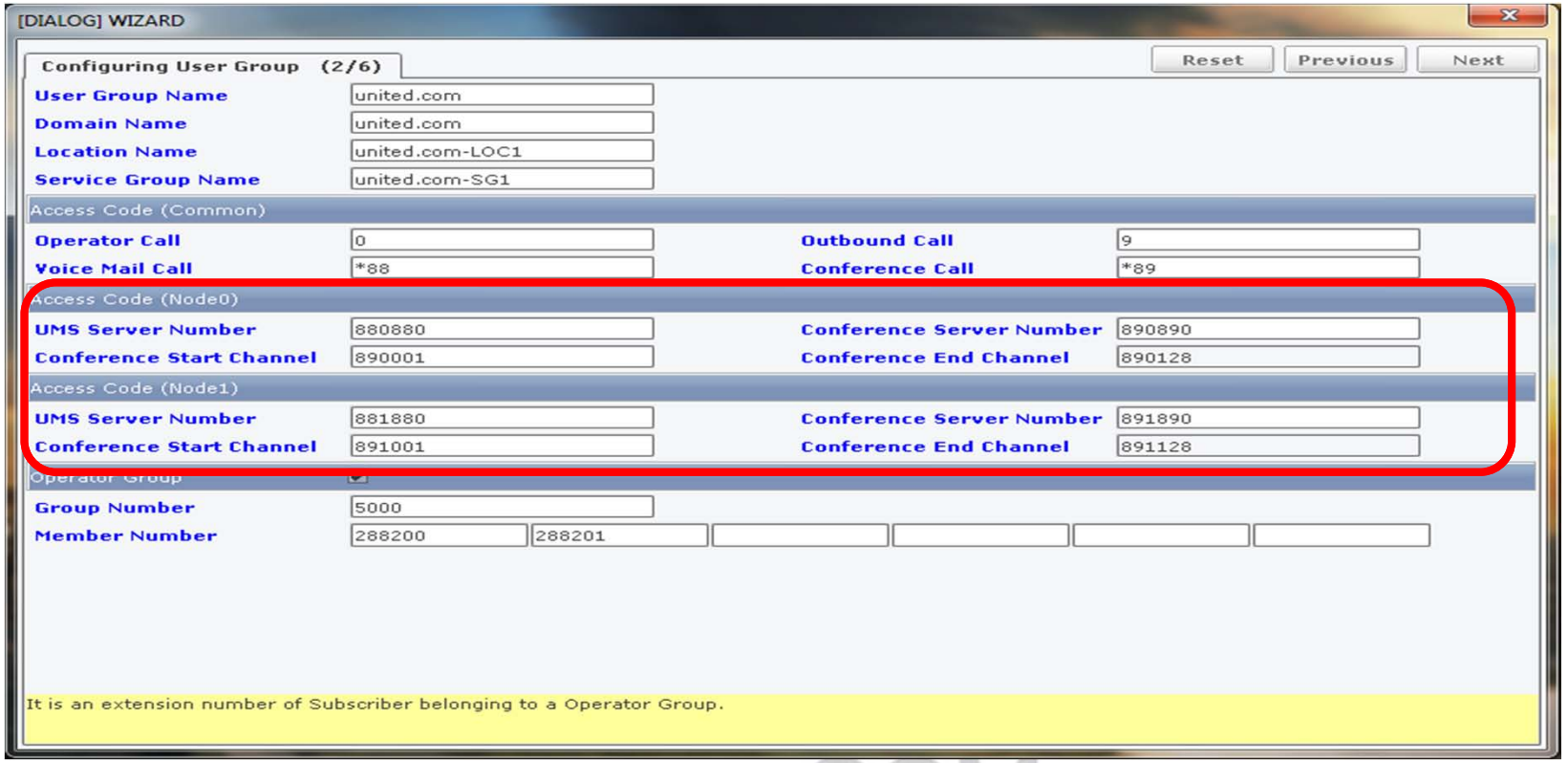
- Important Notes



Method 1

SAMSUNG

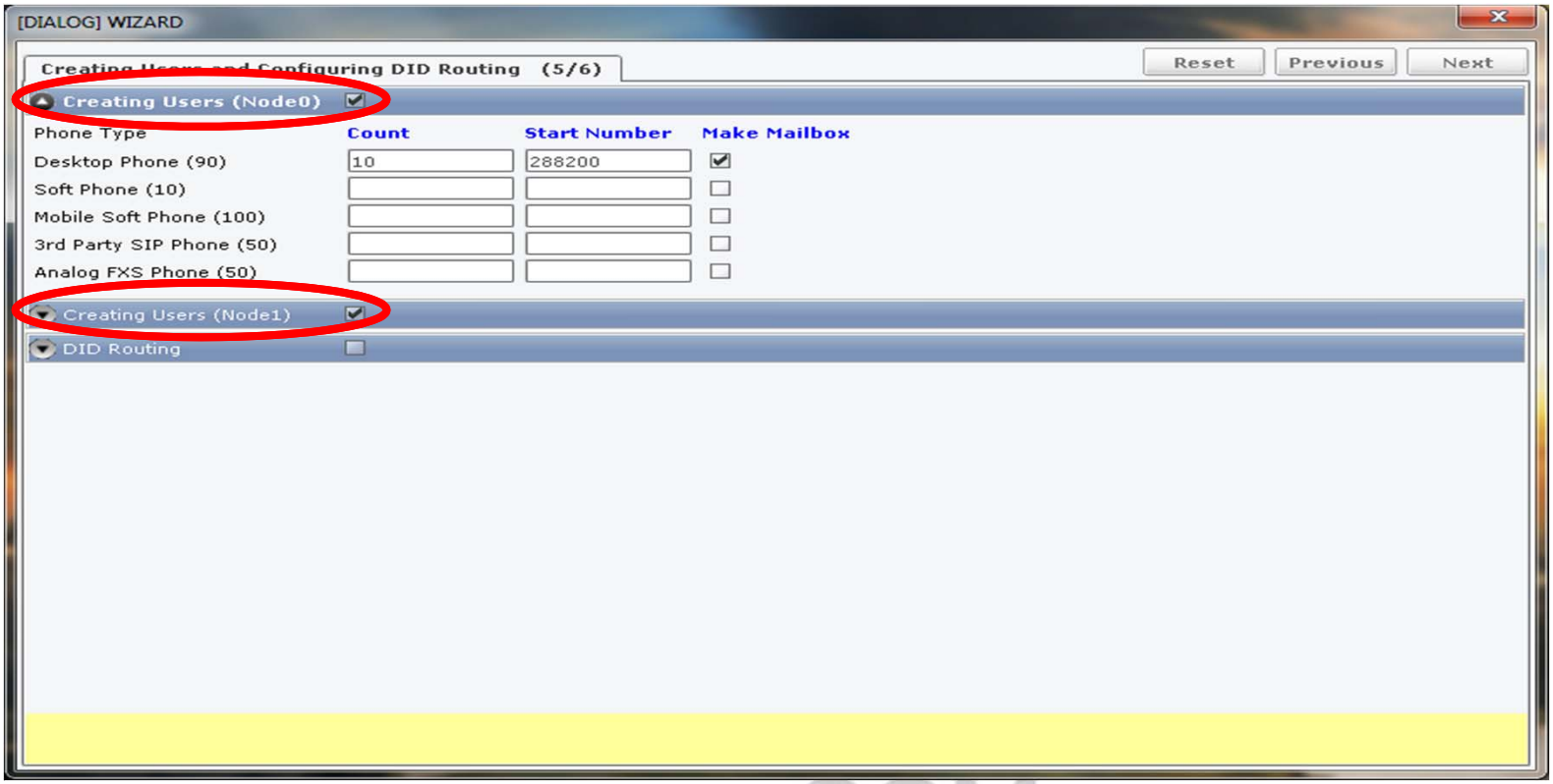
- Create the Global User Group
- UMS & Conference Server for Master Node (Default in place)
- UMS & Conference Server for Slave Node (Default in place)



Method 1

SAMSUNG

- You can choose to create all users assigned to the Master as primary
- You can also choose to have users assigned to the Slave as primary



Method 1 “Part 2”

SAMSUNG

Login to the Administrator for Slave Node

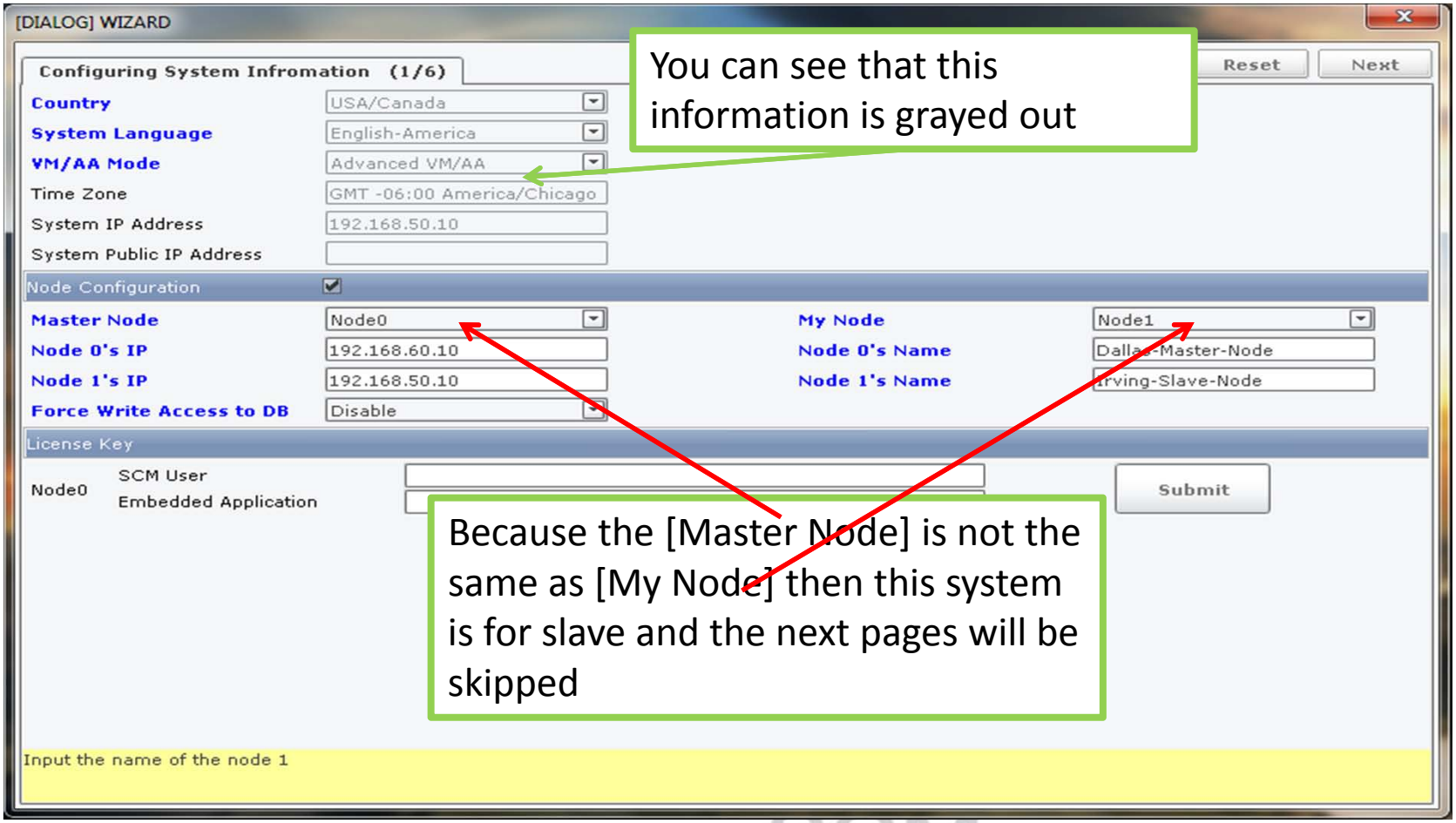
- **URL = 192.168.50.10/scm.jnlp**

Level	User Name	Password
Administrator	admin	samsung*#
Administrator	root	samsung*#

Method 1

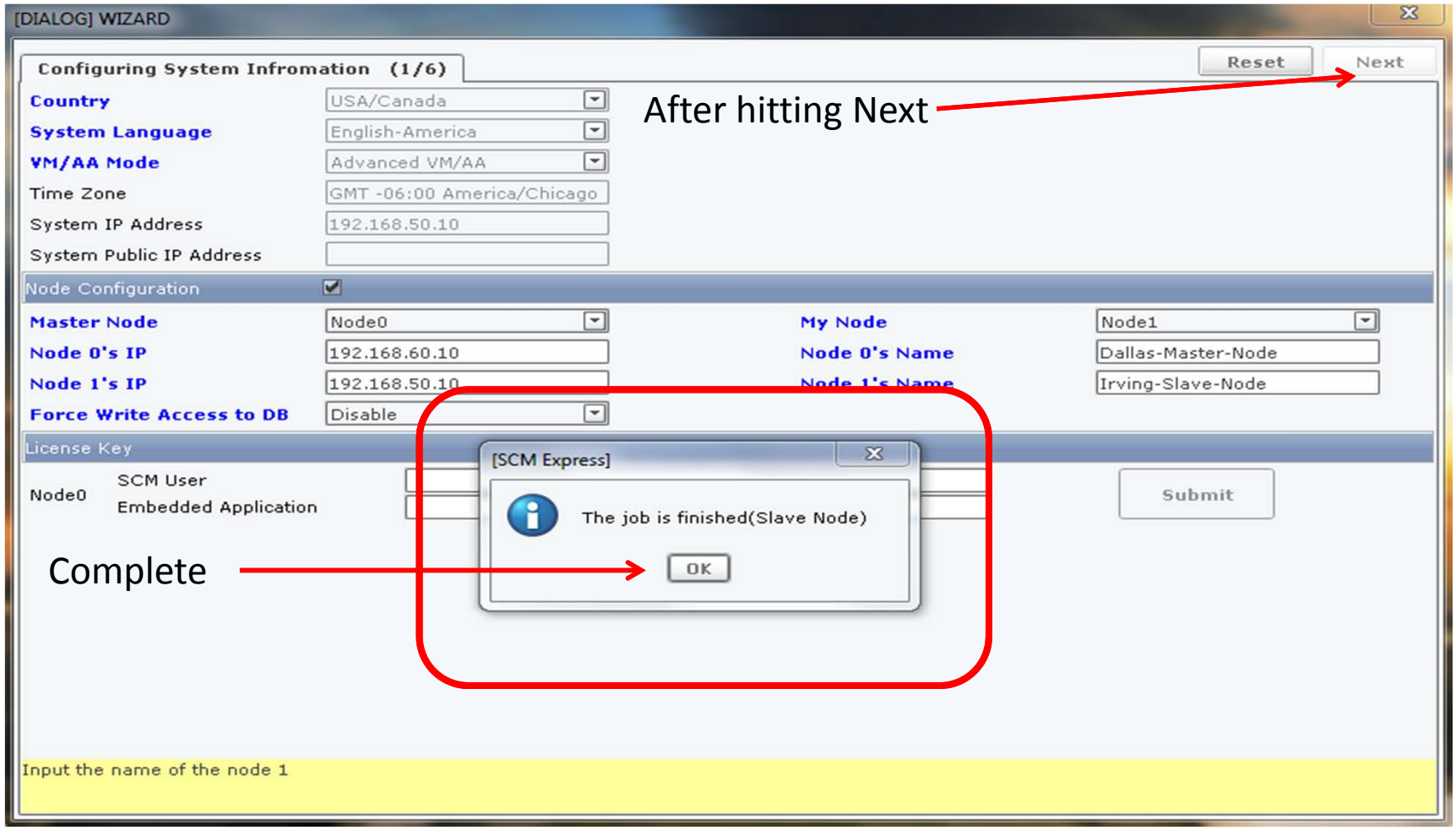
SAMSUNG

- Select and configure the node configuration



Method 1

SAMSUNG

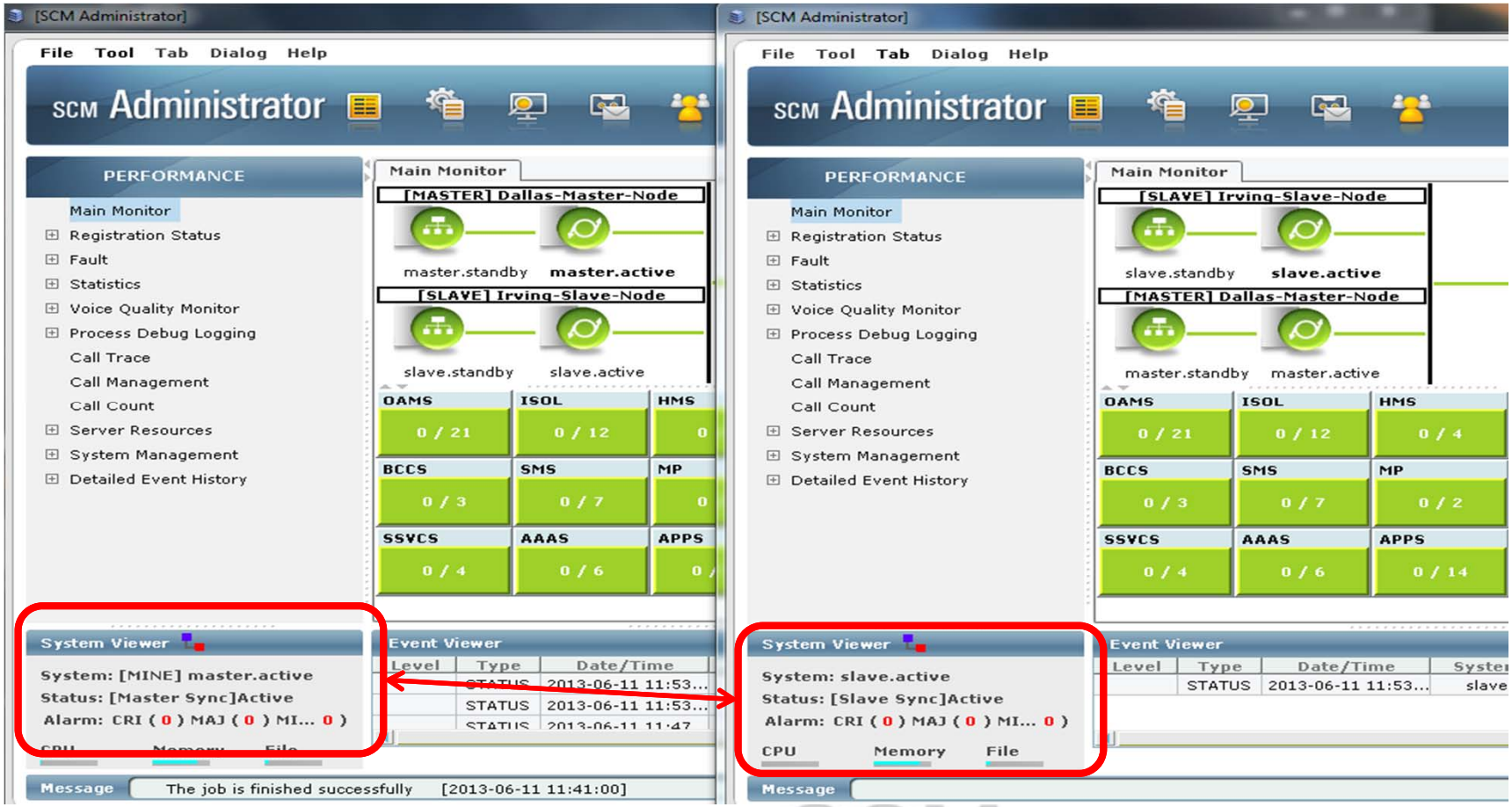


SCM Samsung Communication Manager

Method 1

SAMSUNG

- Systems are syncing “Please **WAIT** until done before going forward!”



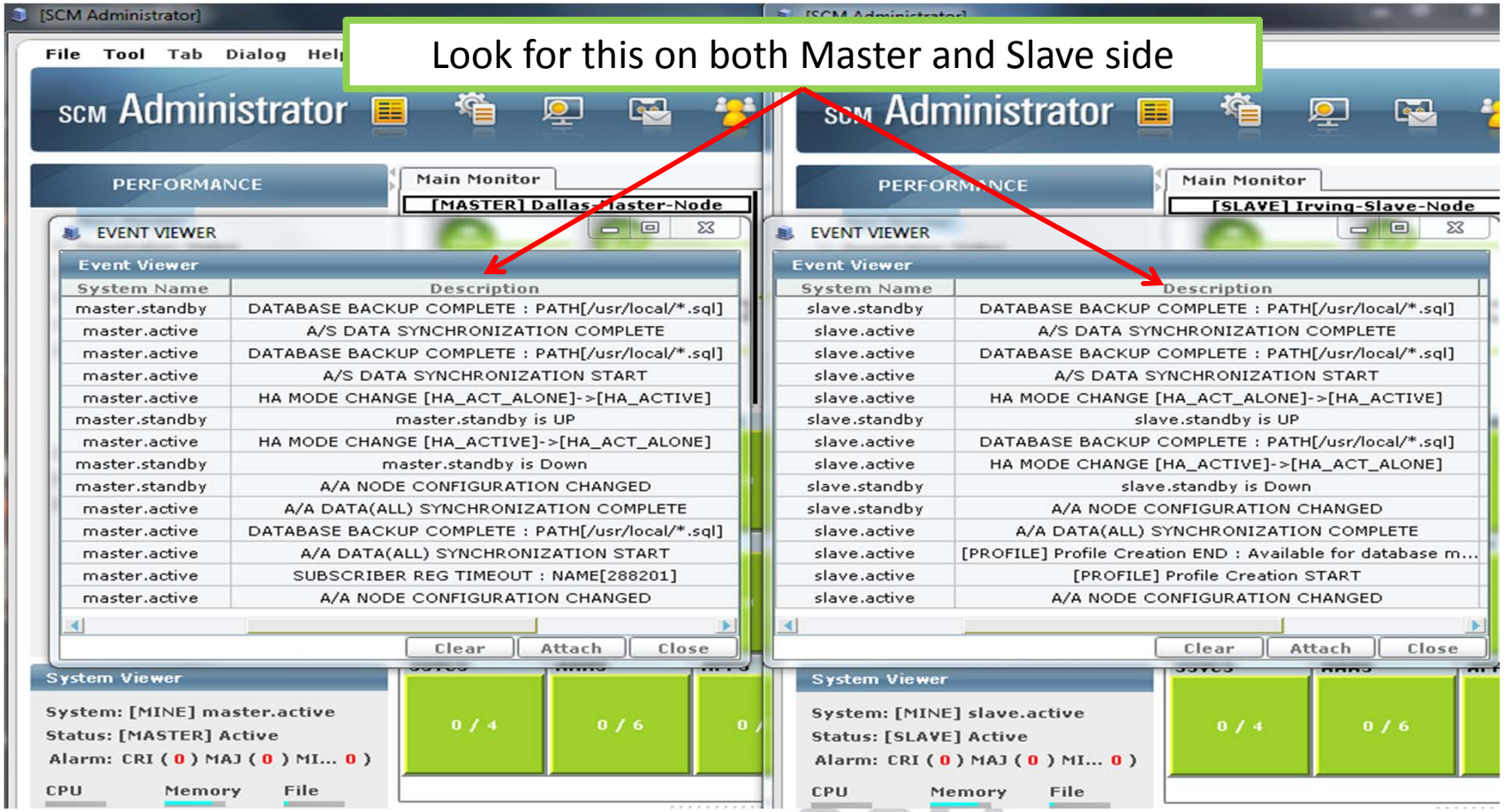
SCM Samsung Communication Manager

Method 1

SAMSUNG

How to know when its done syncing?

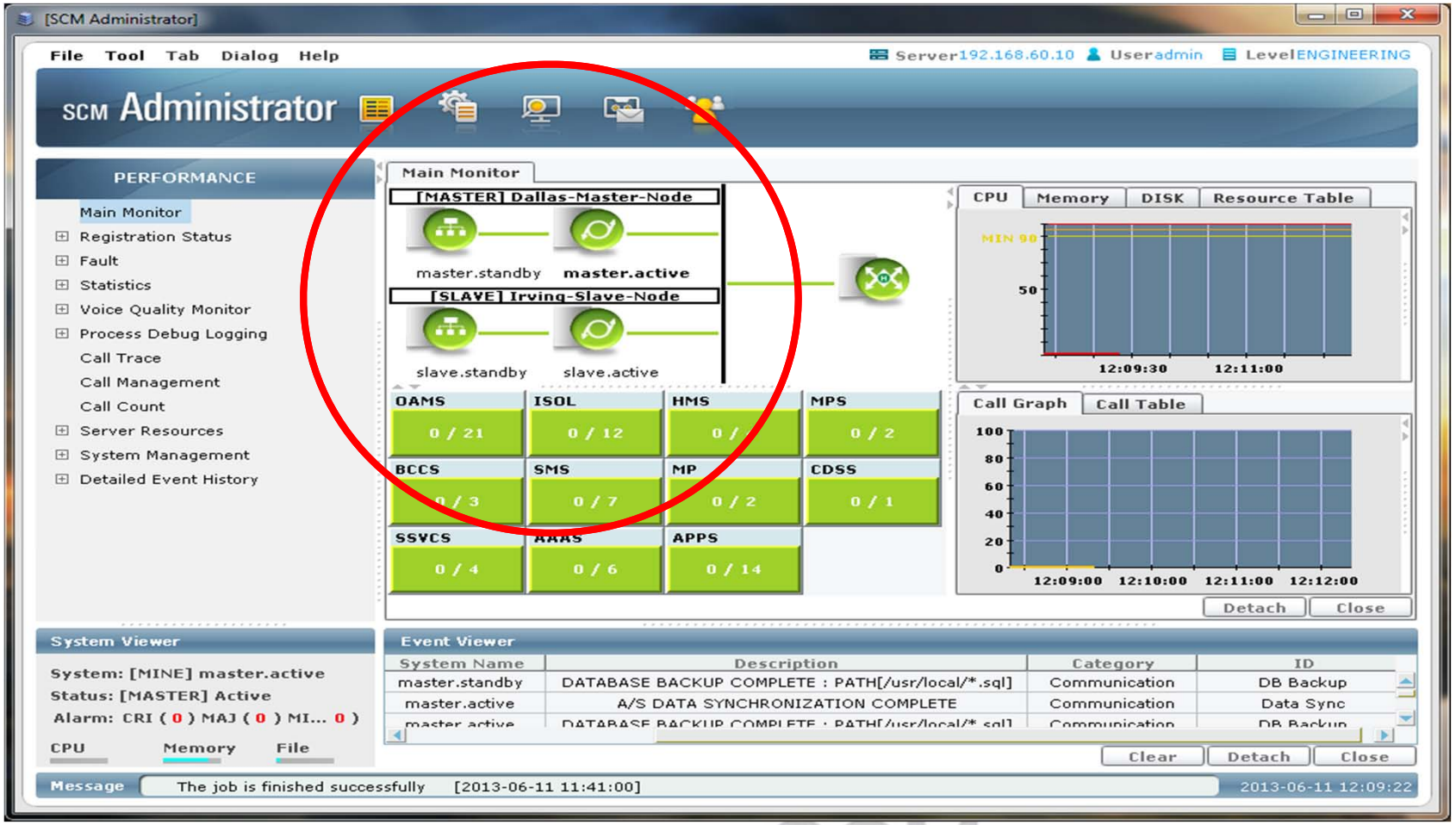
Look for this on both Master and Slave side



Method 1

SAMSUNG

All systems are a go!



SCM Samsung Communication Manager

Please note

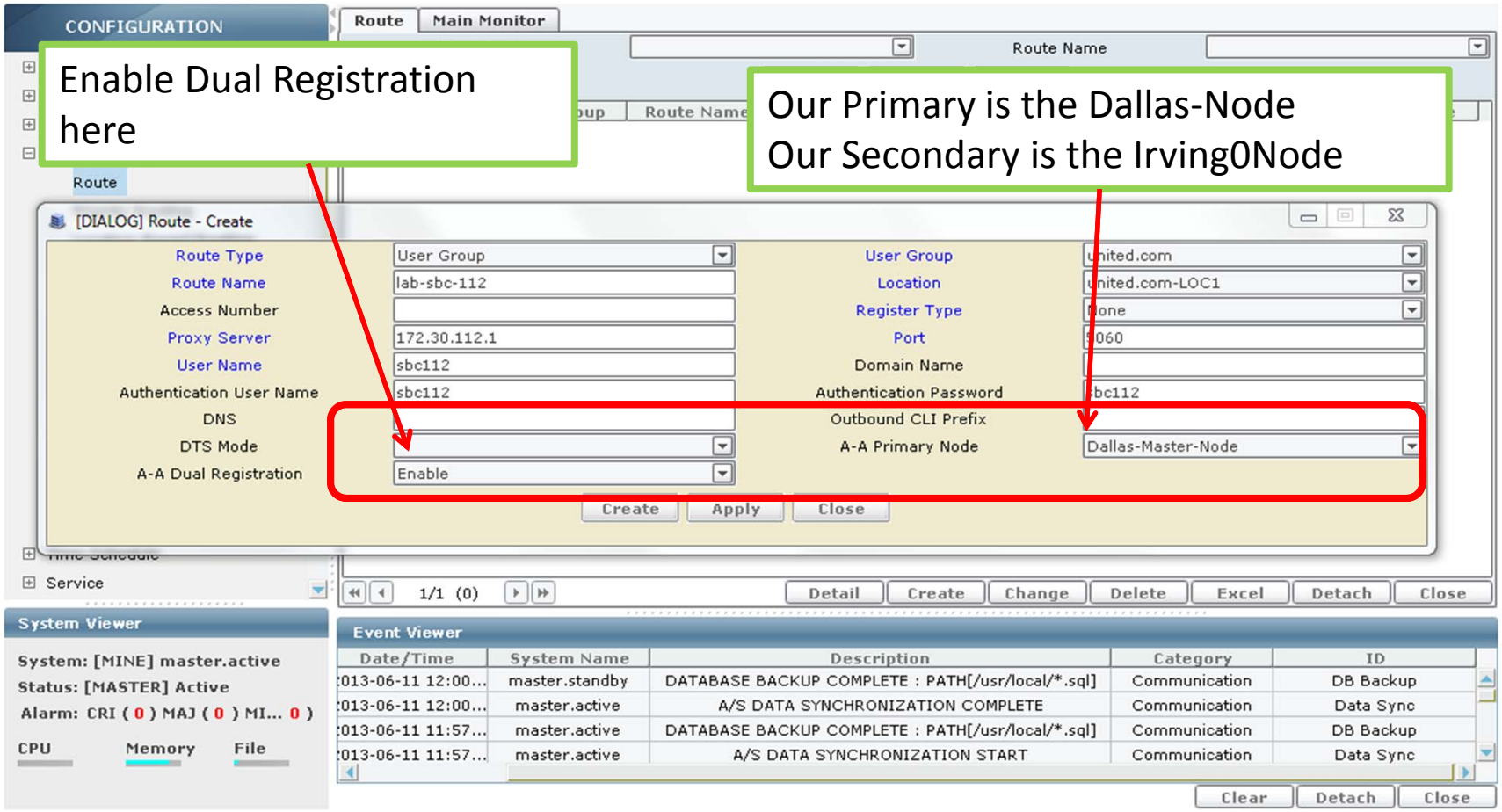
SAMSUNG

Changes or adds can only be made from the Master-Node

Method 1 “Part 3”

SAMSUNG

- Setting up the SBC sip connection

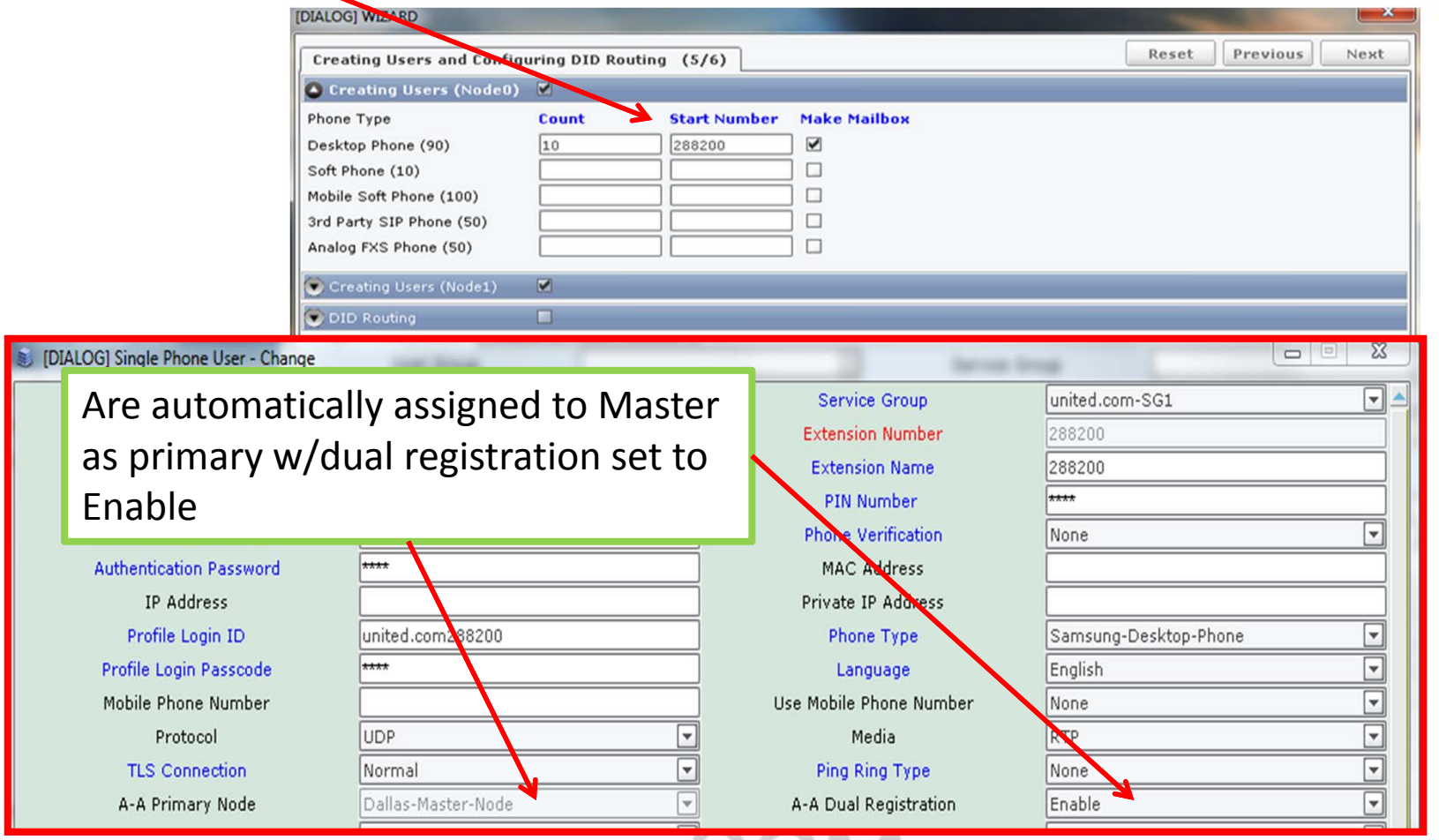


SCM Samsung Communication Manager

Method 1 “Users”

SAMSUNG

Users created here

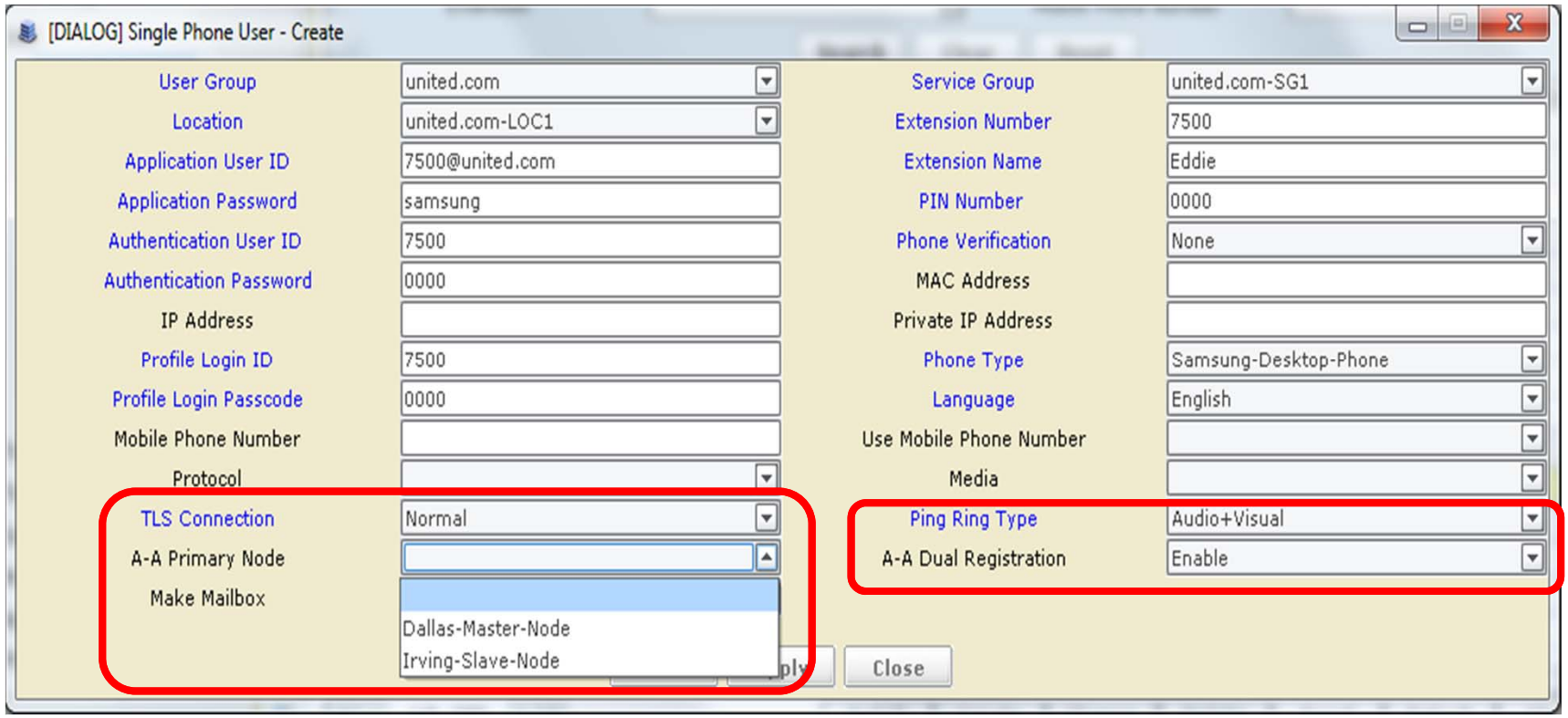


SCM Samsung Communication Manager

Method 1 “Users”

SAMSUNG

When creating a user after setup you can decide what Node to make primary and can Enable dual registration



SCM Samsung Communication Manager

Method 1 “Part 4”

SAMSUNG

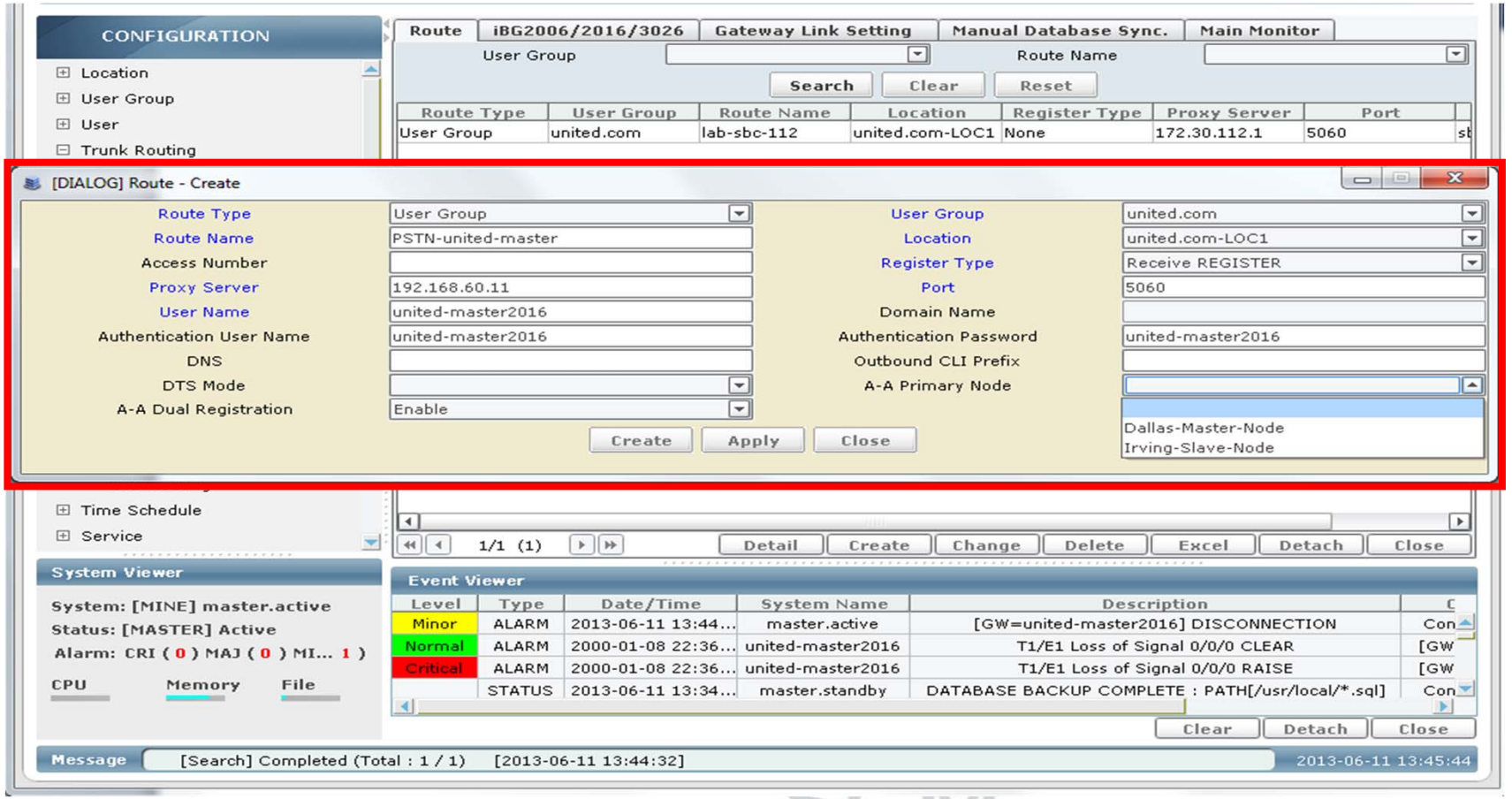
- You must setup Dual Registration for each gateway like below
- Make sure to add the secondary server IP

```
voip-gateway
 host domain-name samsung.com
 bind control interface ethernet 0/1
 bind media interface ethernet 0/1
 rtp payload-type nte 101
 call-server
  ip-address ipv4:192.168.60.10
  ip-address ipv4:192.168.50.10  secondary ← Here we will add the Secondary Server
  gw-uri usmd-master-2016 expires 60
  exit call-server
 sip-ua
  authentication username usmd-master-2016 password usmd-master-2016
  registrar concurrent-registration
  offer call-hold dir-inactive
  disable-star-contact
  reason-header override
  no shutdown
  exit sip-ua
 no shutdown
 exit voip-gateway
```

Method 1 “PSTN Route”

SAMSUNG

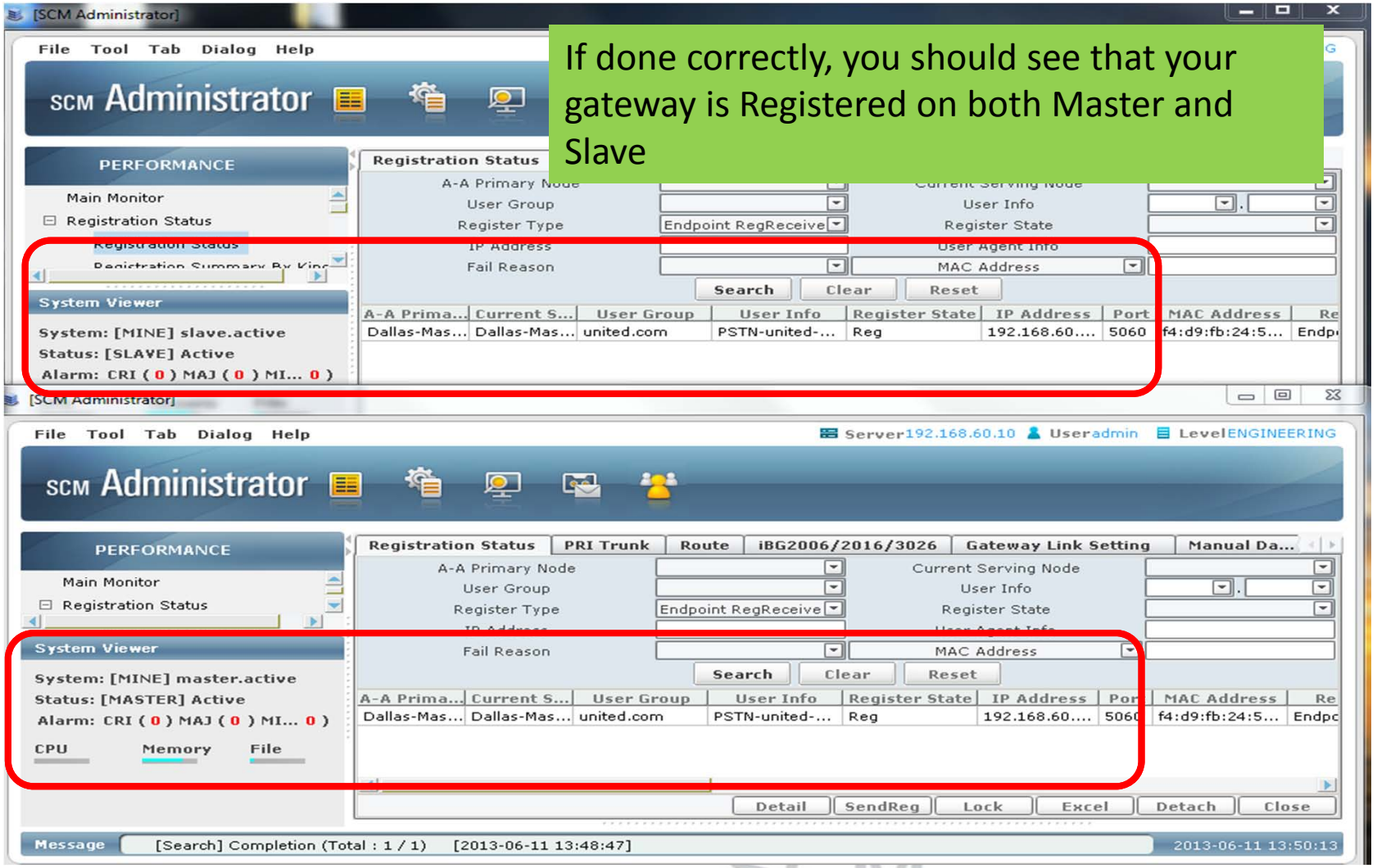
- You must setup Dual Registration for the PSTN route
- And select which node will be its primary



Method 1 “PSTN Route”

SAMSUNG

If done correctly, you should see that your gateway is Registered on both Master and Slave



Method 2 (Converting to A/A)

Please Note

SAMSUNG

Converting to Active-Active

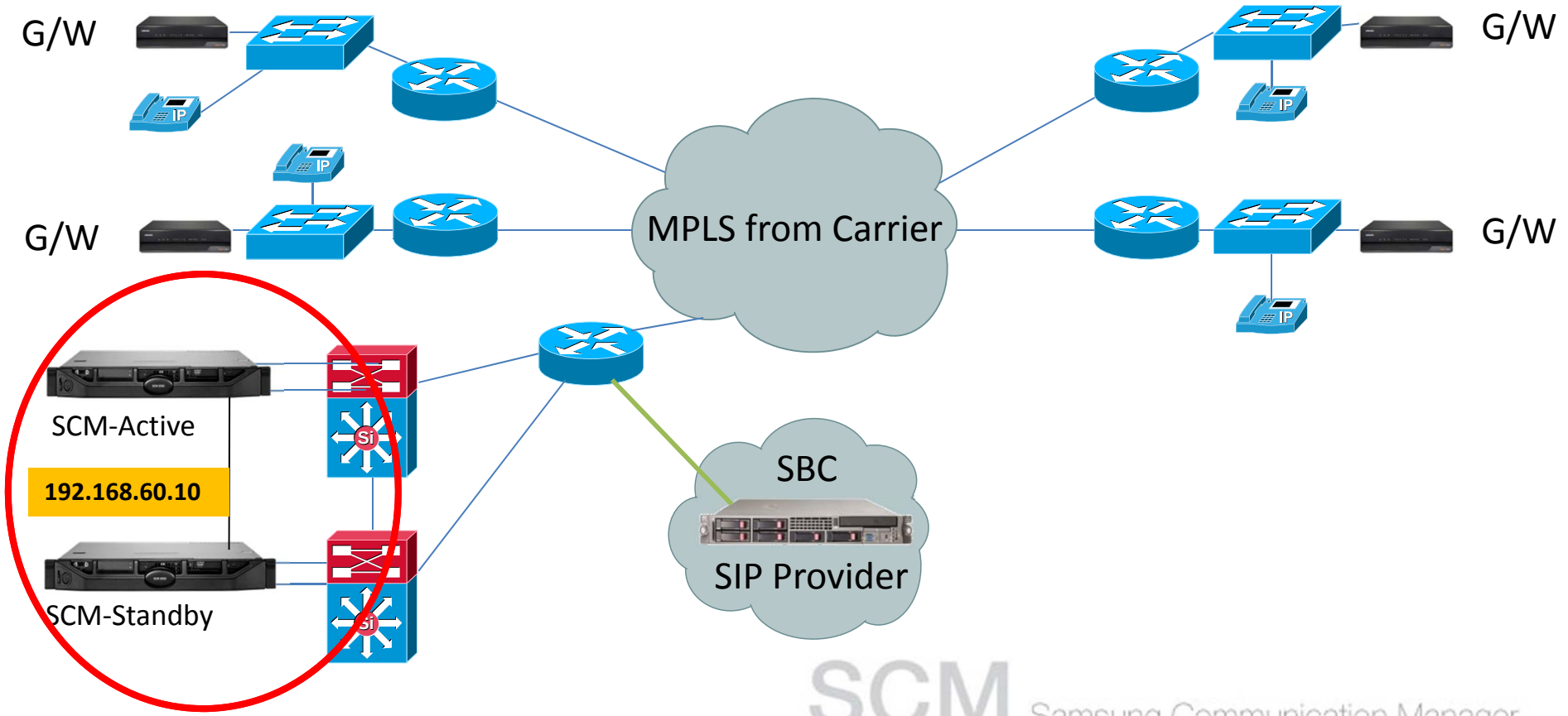
- *When you covert to A/A, all users and routes will have the Master as Primary*
- *The newly added Slave will act as the secondary server for all users and routes*
- *You will need to setup dual registration for any gateways on the network*
- *You will need to reassign the Announcement language*

Method 2 Setup

SAMSUNG

Current setup is 2 servers setup with High Availability

All users and gateways are assigned to the current SCM

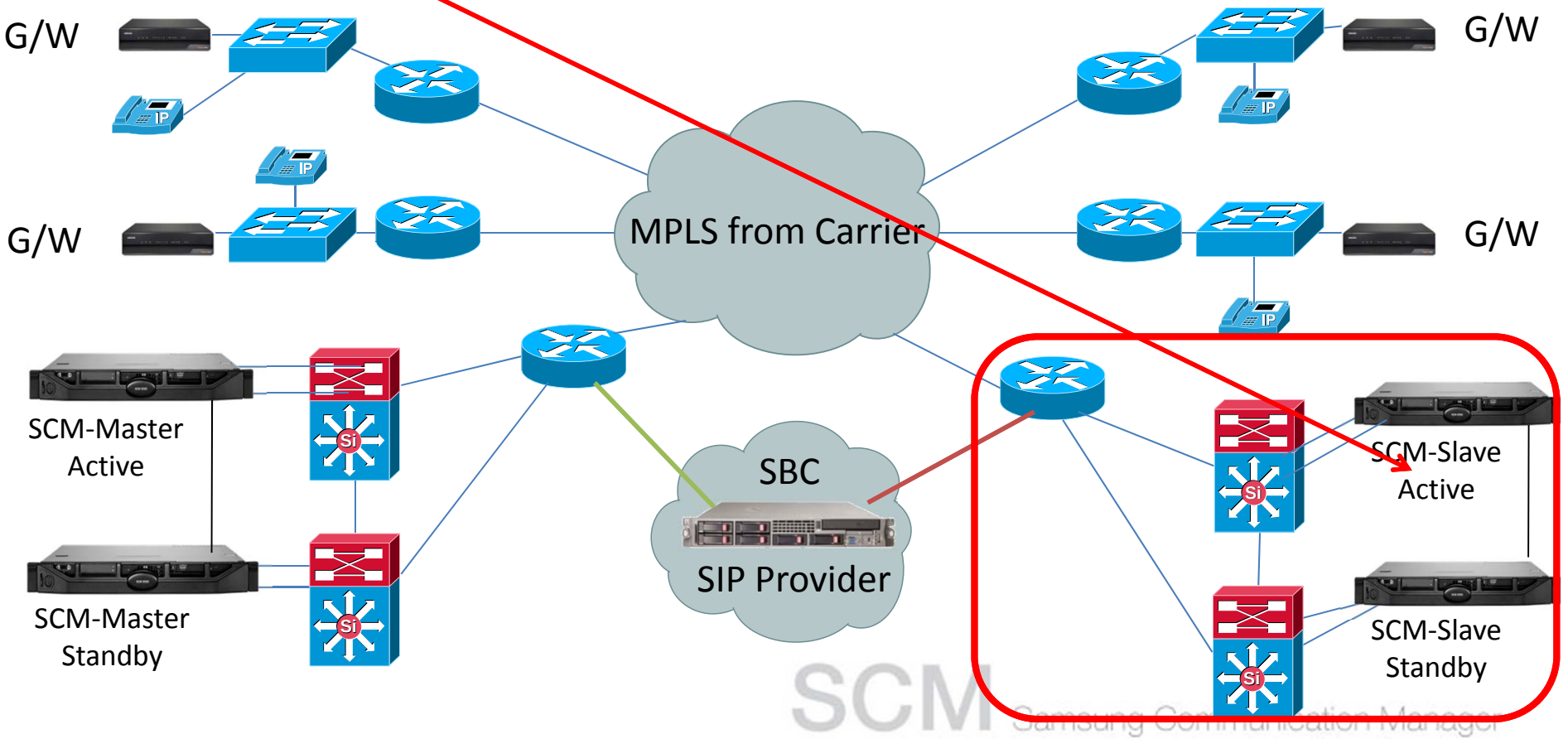


SCM Samsung Communication Manager

Method 2 Setup

SAMSUNG

Future plan is to add 2 servers for Active-Active feature



Method 2 Setup

SAMSUNG

Method 2 Setup Configuration

- **Master-Node 0 (Component) IP : 192.168.60.10**
- **Slave-Node 1 (Component) IP : 192.168.50.10**
- **Master Node Name : Dallas**
- **Slave Node Name : Irving**

Method 2 “Part 1”

SAMSUNG

Login to the Administrator for Master Node

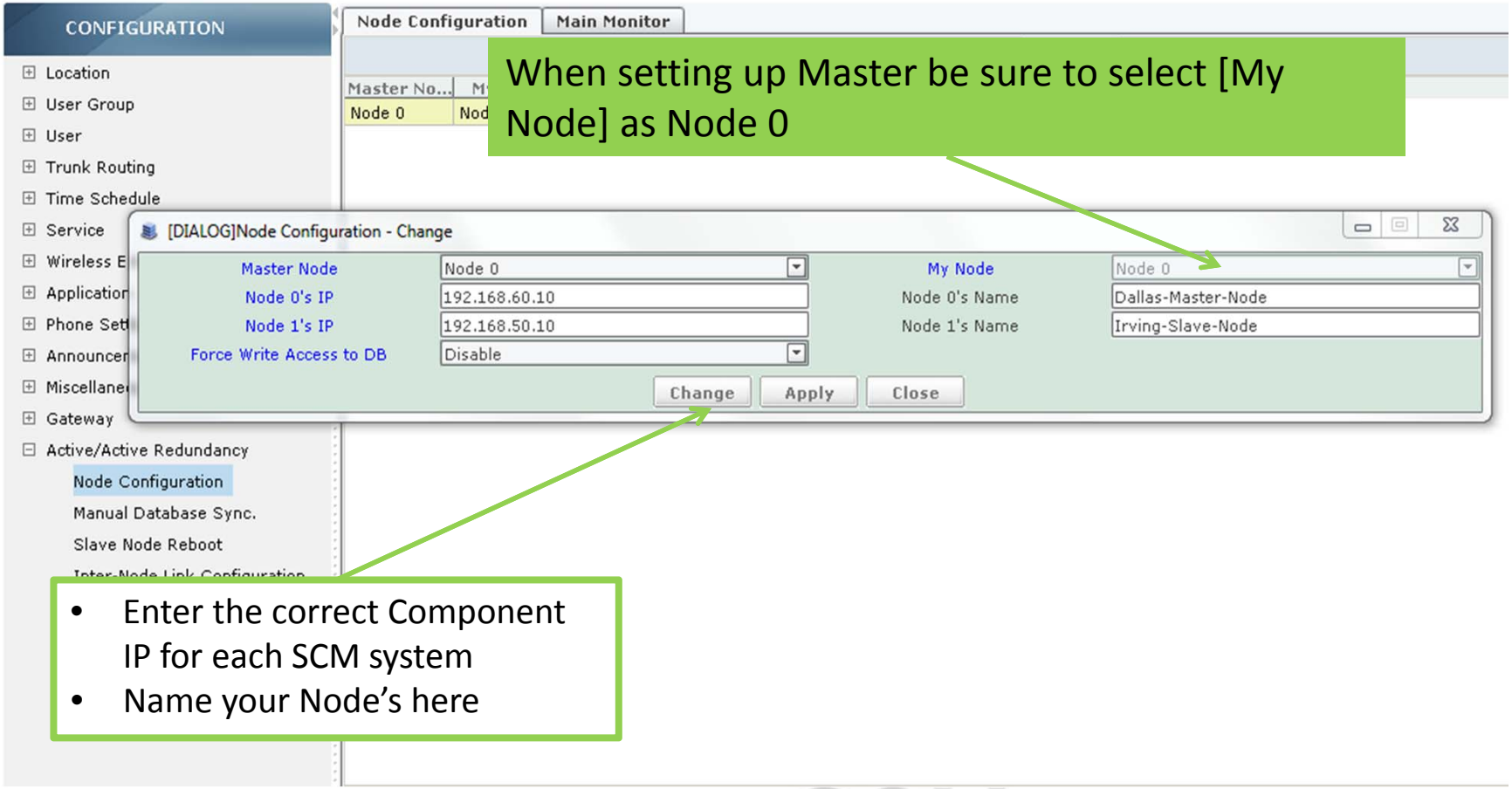
- **URL = 192.168.60.10/scm.jnlp**

Level	User Name	Password
Administrator	admin	samsung*#
Administrator	root	samsung*#

Method 2

SAMSUNG

Configuration → Active/Active Redundancy → Node Configuration



Method 2 “Part 2”

SAMSUNG

Login to the Administrator for Slave Node

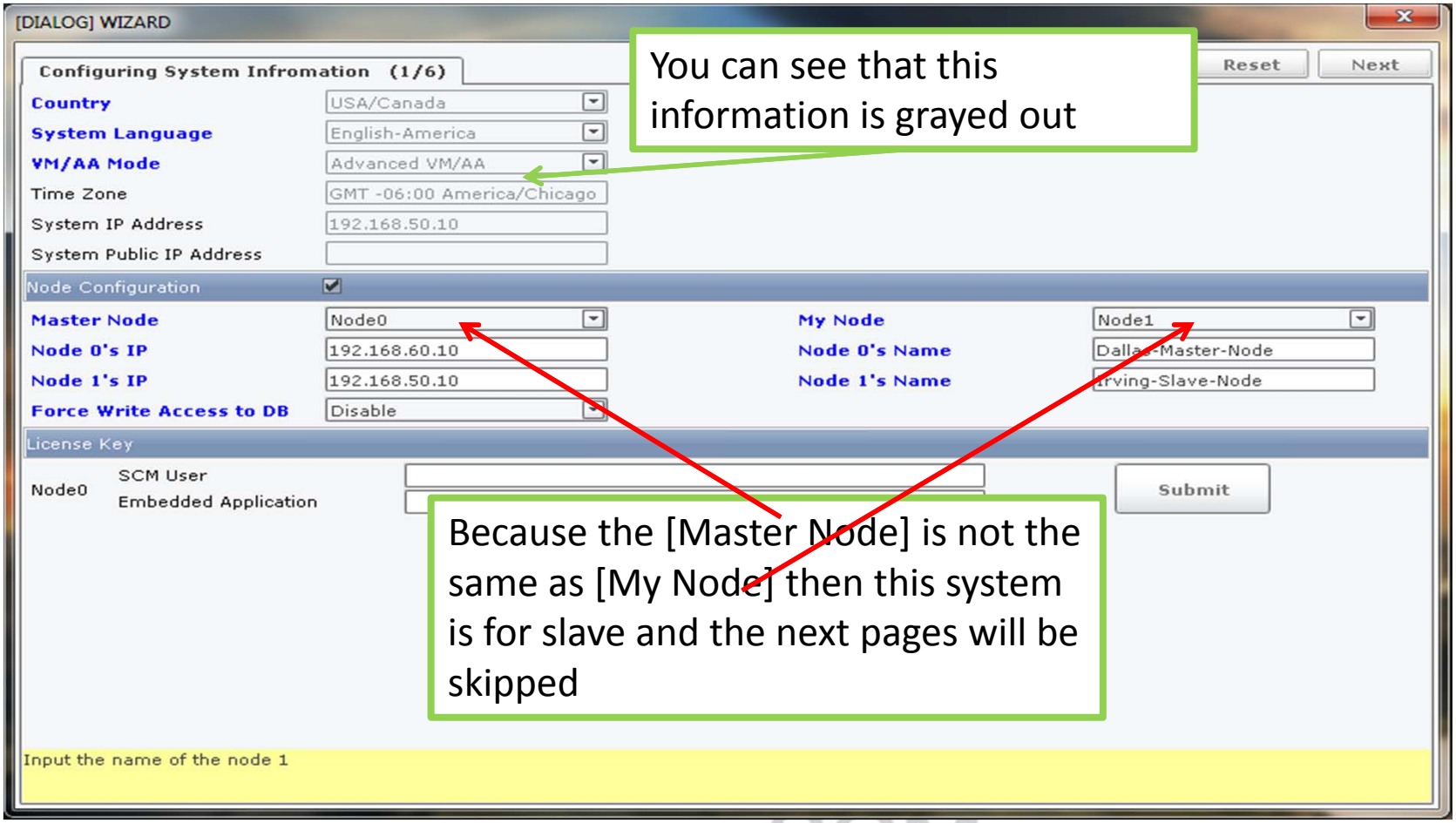
- **URL = 192.168.50.10/scm.jnlp**

Level	User Name	Password
Administrator	admin	samsung*#
Administrator	root	samsung*#

Method 2

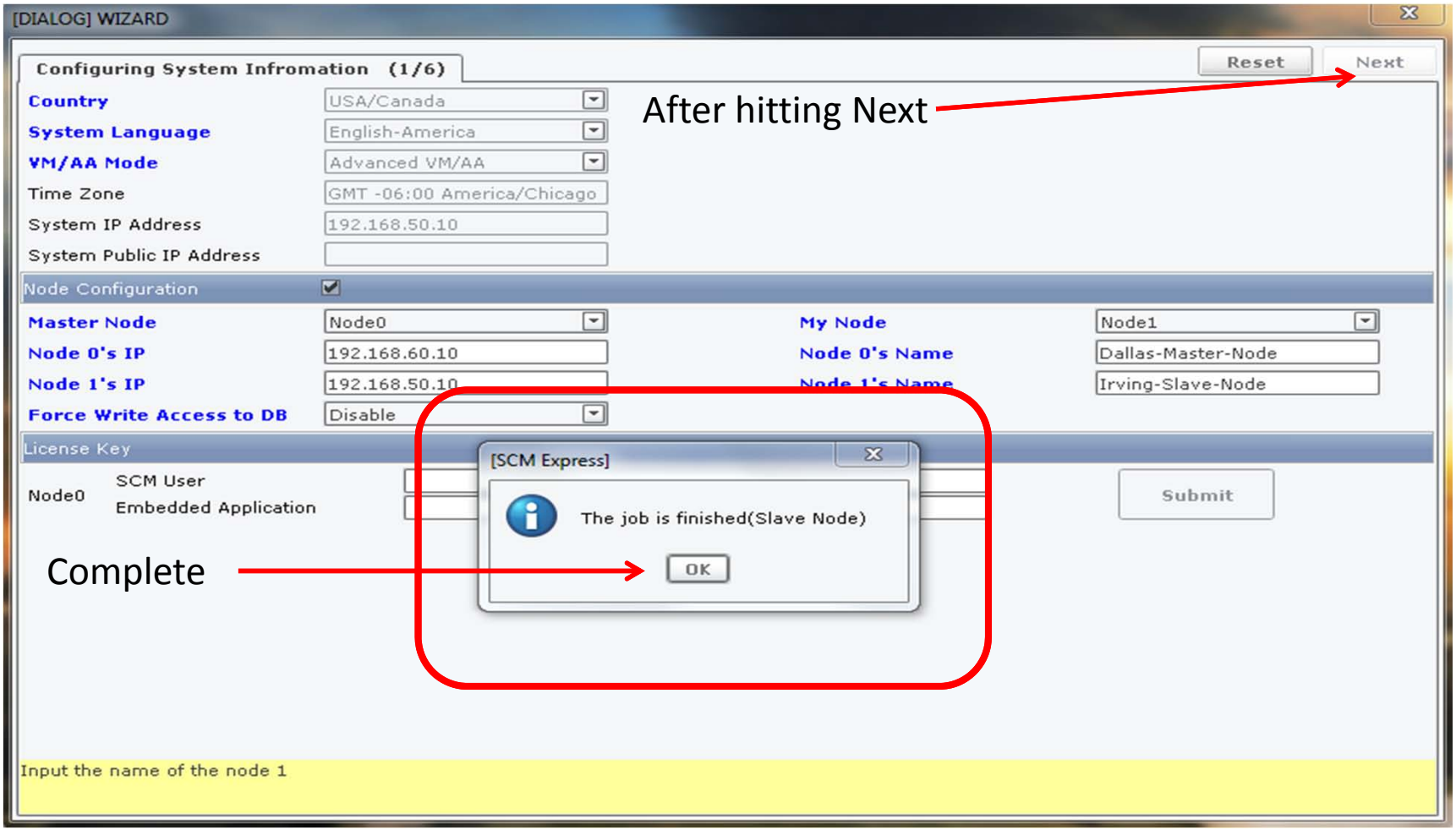
SAMSUNG

- Select and configure the node configuration



Method 2

SAMSUNG

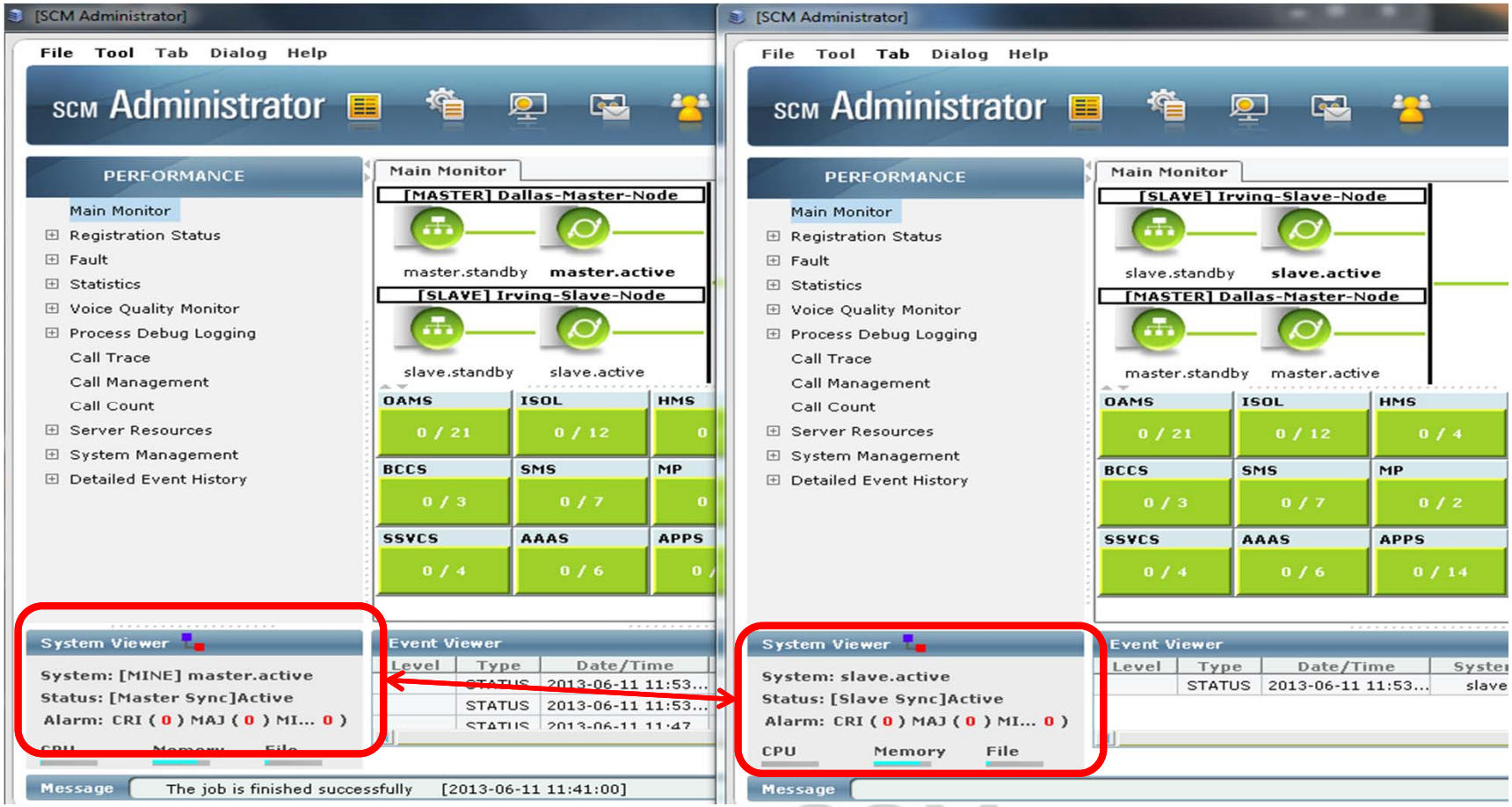


SCM Samsung Communication Manager

Method 2

SAMSUNG

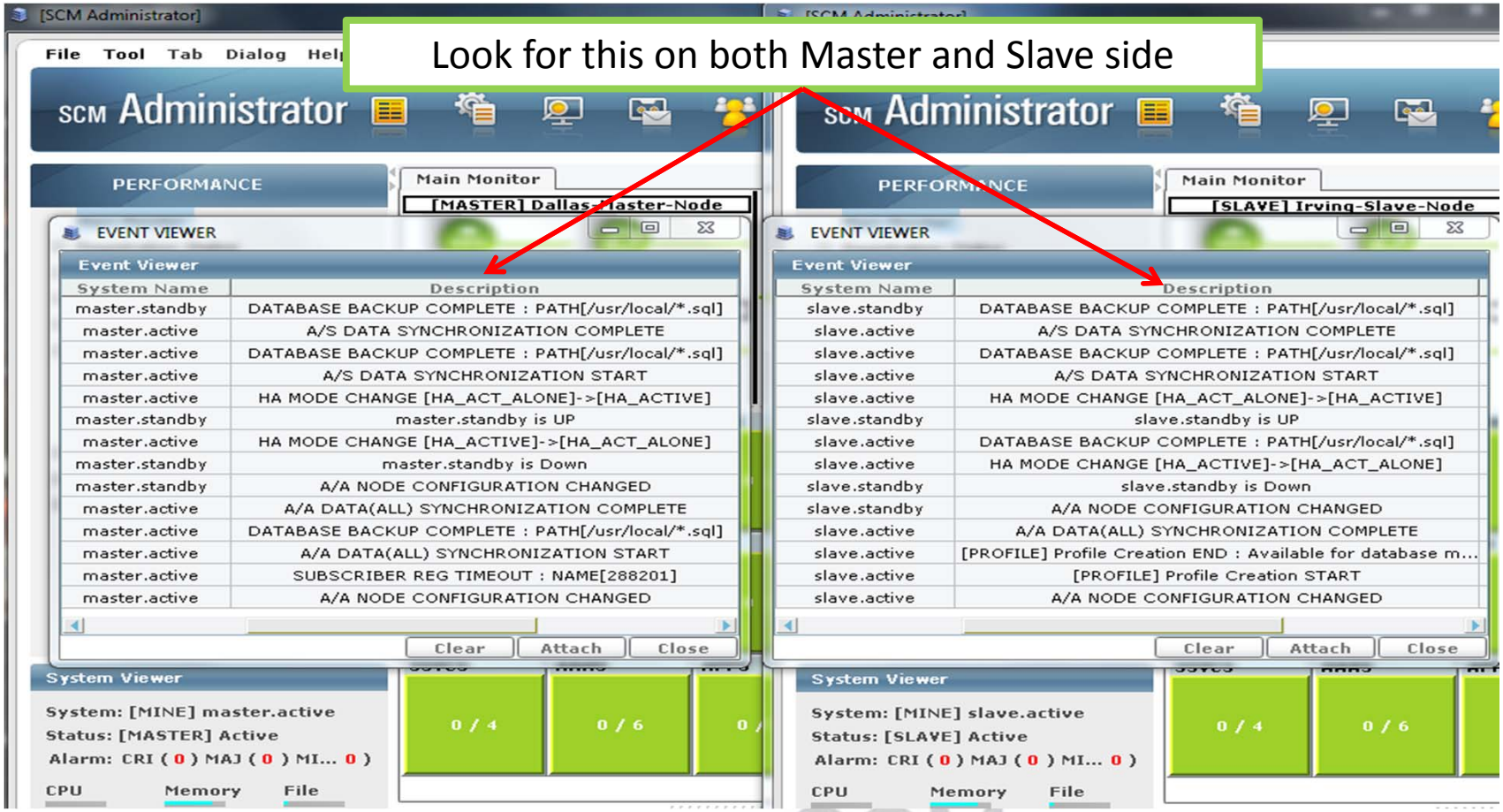
- Systems are syncing “Please **WAIT** until done before going forward!”



Method 2

SAMSUNG

How to know when its done syncing?

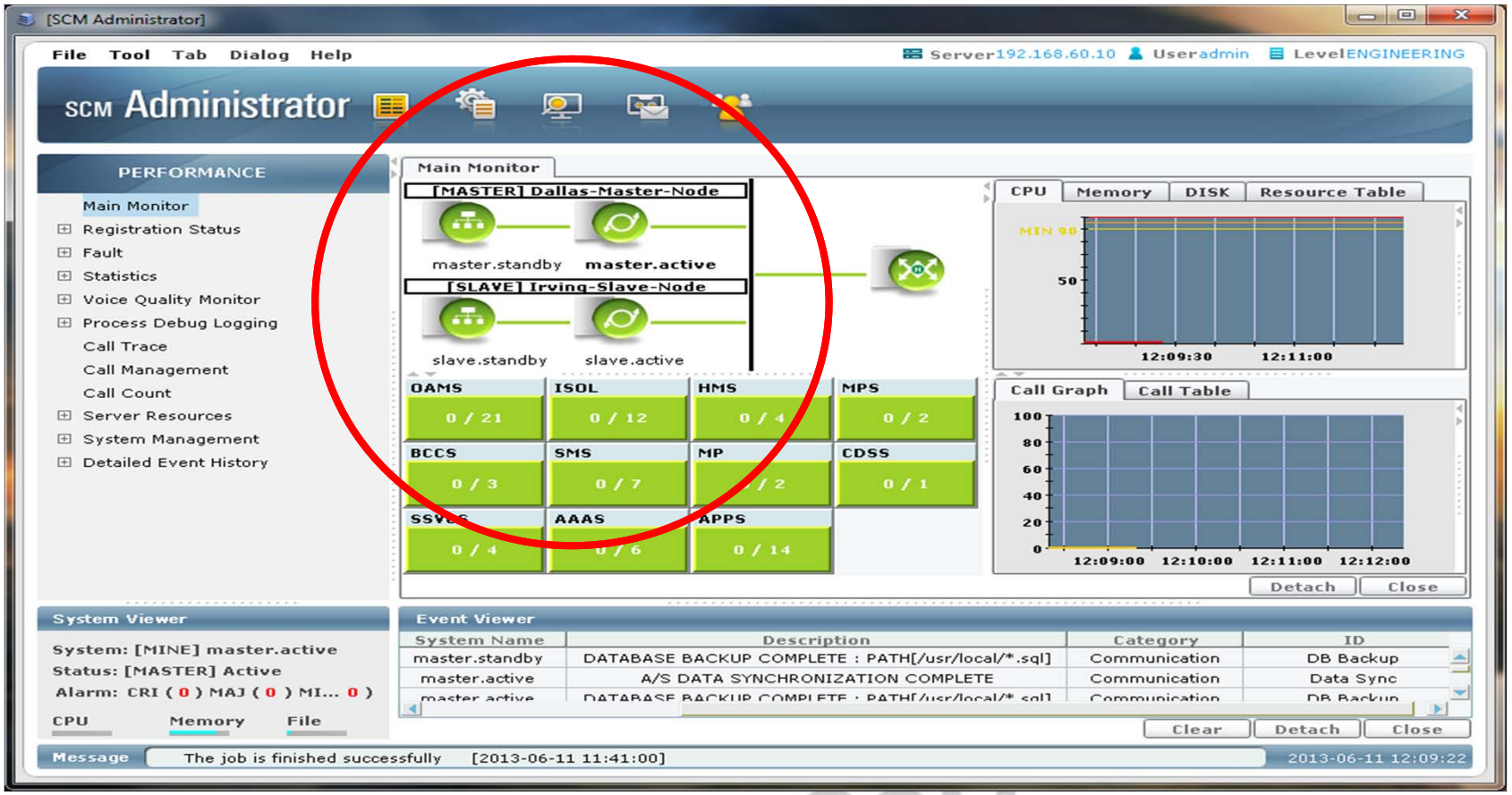


SCM Samsung Communication Manager

Method 2

SAMSUNG

All systems are a go!



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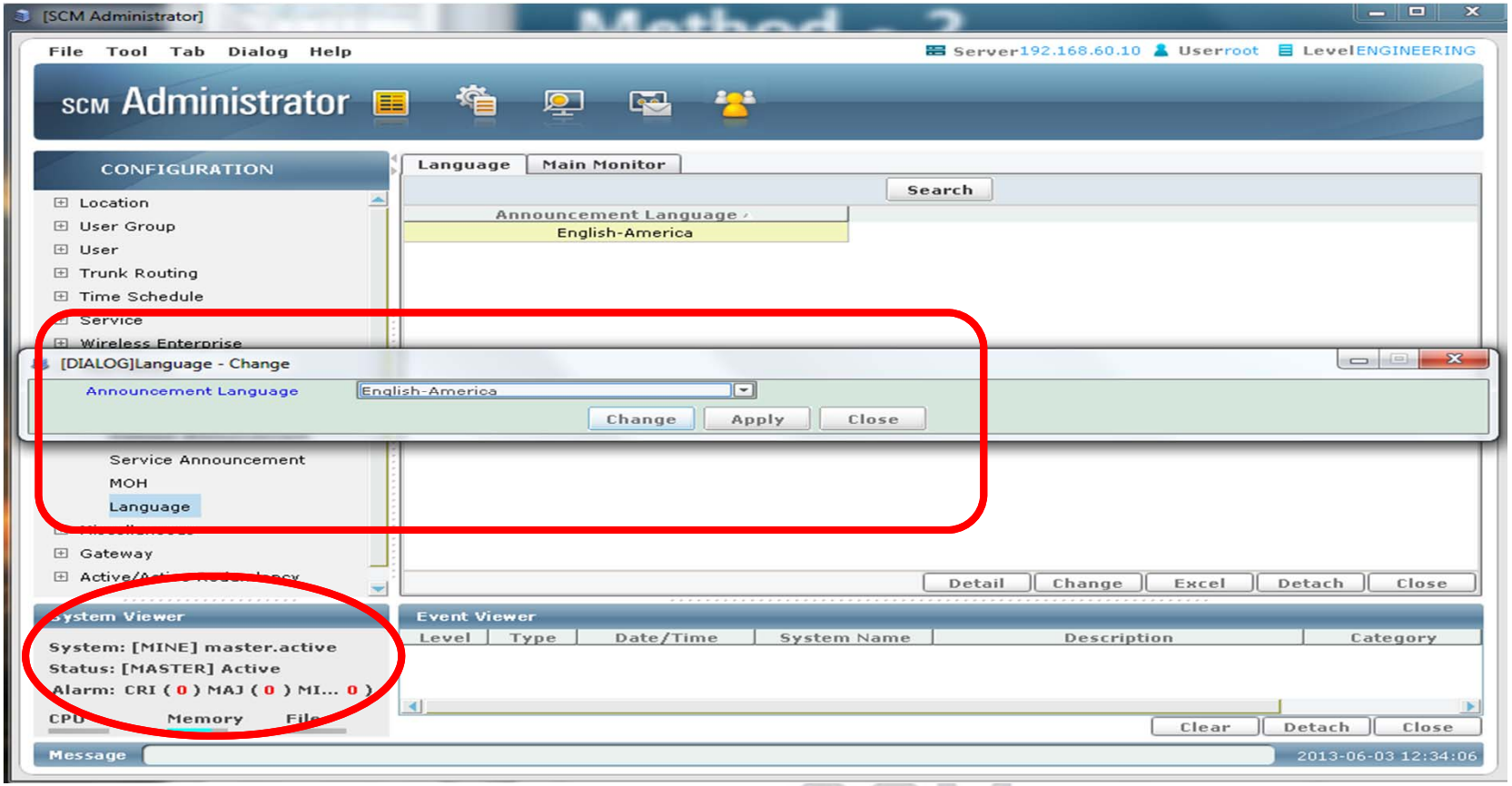
Method 2 “Part 3”

SAMSUNG

- Resetting the announcement language
- This must be done here, simply reselect your language



Method 2 “Part 4”

SAMSUNG

- You must setup Dual Registration for each gateway like below
- Make sure to add the secondary server IP

```
voip-gateway
 host domain-name samsung.com
 bind control interface ethernet 0/1
 bind media interface ethernet 0/1
 rtp payload-type nte 101
 call-server
  ip-address ipv4:192.168.60.10
  ip-address ipv4:192.168.50.10  secondary ← Here we will add the Secondary Server
  gw-uri usmd-master-2016 expires 60
  exit call-server
 sip-ua
  authentication username usmd-master-2016 password usmd-master-2016
  registrar concurrent-registration
  offer call-hold dir-inactive
  disable-star-contact
  reason-header override
  no shutdown
  exit sip-ua
 no shutdown
 exit voip-gateway
```

Lab Time

- Work with a partner to setup Active-Active
- Use method #2
- Initialize one of the databases
- We will cover Scenario #1 and #3

Modes and Status

Role of Active-Active Nodes

SAMSUNG

- **Data management**
  - Master Node
    - In the Active-Active system, this node can change the data using the Administrator.
  - Slave Node
    - In the Active-Active system, this node can be only display the data using the Administrator.
  - Data changed on the master node is copied to the slave node.
  - You must setup a sync time or sync the system manually.
- **Call service (Active-Active Priority Server)**
  - Primary Server (Node-0)
    - Server that provide call services to subscribers.
  - Secondary Server (Node-1)
    - If the subscriber's primary server can not provide call service, secondary server provides call service on behalf of the primary server.
  - Current Serving Server
    - Server that provide call service to subscribers.

Active-Active Status

SAMSUNG

- **MASTER state**
  - With the Active-Active configuration system, when the master and slave node is connected, it refers to the state of the master system.
- **Master Alone state**
  - With the Active-Active configuration system, when the master and slave node is not connected, it refers to the state of the master system.
- **SLAVE state**
  - With the Active-Active configuration system, when the master and slave node is connected, it refers to the state of the slave system.
- **Slave Alone state**
  - With the Active-Active configuration system, when the master and slave node is not connected, it refers to the state of the slave system.

Active-Active Synchronization

SAMSUNG

- **Active-Active Synchronization**
  - When Active-Active systems are connected, you can setup a schedule when they perform synchronization.
  - When the FULL synchronization happens
    - Data is copied from the master node to the slave node.
  - PARTIAL synchronization
    - It is to copy only the changed data during the time between Master and Slave is disconnected.
- **Active-Active Partial synchronization execution condition**
  - Systems perform the partial synchronization except in the case of conditions to perform the all synchronization of the above.

Active-Active Synchronization

SAMSUNG

- **Active-Active All synchronization execution condition**
  - The master and slave node was connected after you change the Active-Active node configuration.
  - The master and slave node was connected after the operator is forced to change the node configuration in a disconnected state.
  - If it fails to transfer important node configuration, systems perform the all synchronization when SCM is restarted.
  - The operator performs the all synchronization using manual synchronization command.

Recovery between nodes

SAMSUNG

- **Logical Links between active and active nodes**
  - Link to check alive state between nodes (TCP)
- **Link Down between nodes**
  - If any of the following conditions occurred, the link between the nodes was disconnected.
    - TCP connection to check the alive state was disconnected.
    - Local node did not receive the Heartbeat message from the remote node for 10 seconds.
      Note : Each node sends a Heartbeat message at 1 second intervals.
    - Three TCP connections to send/receive data were disconnected.
    - Three TLS connections to send/receive data were disconnected.
- **Link Up between nodes**
  - If all the conditions below are met, the link between nodes was connected.
    - TCP connection to check the alive state was connected and each nodes received a heartbeat message.
    - TCP/TLS connection to send/receive data are all connected and nodes successfully send/receive internal initialization messages.

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Helpful Reminders

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Active-Active “Force Write”

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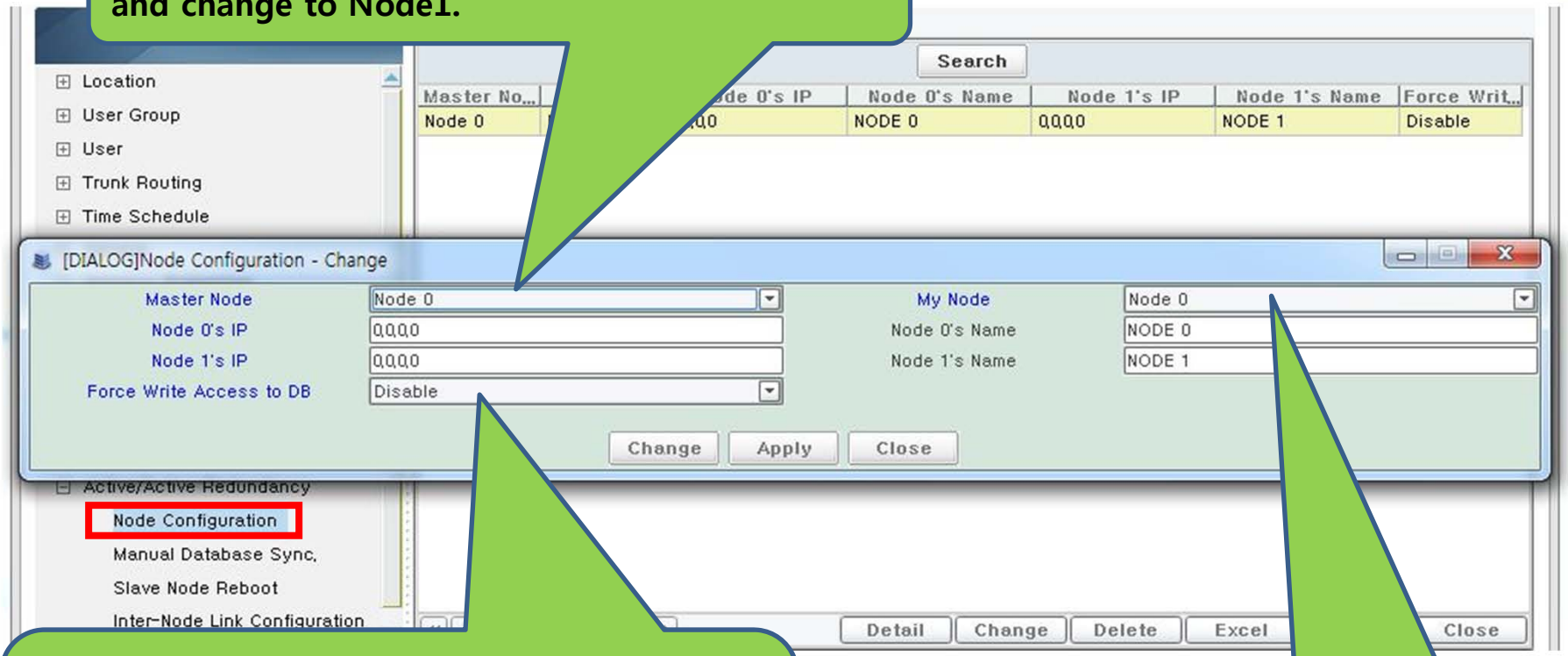
Active-Active “Force Write”

SAMSUNG

If Node0 is unrecoverable, select the master item and change to Node1.



If Link between A-A nodes disconnect , operator can select this item and can change database settings
(Don't change this item to Enable after Active-Active connection.)

If my node is slave, change the Node1.
(required checklist)

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Gateway Dual Registration

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Gateway Dual Registration

SAMSUNG

- *You will need to setup a backup call-server for each gateway you have.*
- *Simply login to your gateway and add the secondary call server like this.*

```
usmd-Master-2016/configure/voip-gateway#

voip-gateway
  host domain-name usmd.com
  bind control interface ethernet 0/1
  bind media interface ethernet 0/1
  rtp payload-type nte 101
  call-server
    ip-address ipv4:192.168.60.10
    ip-address ipv4:192.168.50.10 secondary
    gw uni usmd-master-2016 expires 60
    exit call-server
  sip-ua
    authentication username usmd-master-2016 password usmd-master-2016
    registrar concurrent-registration
    offer call-hold dir-inactive
    disable-star-contact
    reason-header override
    no shutdown
    exit sip-ua
  shutdown
  exit voip-gateway

usmd-Master-2016/configure/voip-gateway# no shutdown
```

Gateway Dual Registration

SAMSUNG

If done correctly, you can check the status on the master and slave

[SCM Administrator]

SCM Administrator

PERFORMANCE

- Main Monitor
- Registration Status
  - Registration Status
  - Registration Summary By Kind
  - Registration Summary By Phone
- Fault
- Statistics
- Voice Quality Monitor
- Process Debug Logging
- Call Trace
- Call Management
- Call Count
- Server Resources
- System Management
- Detailed Event History

Registration Status | Main Monitor

A-A Primary Node | Current Serving Node
User Group | User Info
Register Type: Endpoint RegReceive | Register State
IP Address | User Agent Info
Fail Reason | MAC Address

Search | Clear | Reset

A-A Primary ...	Current Servi...	User Group	User Info	Register State	IP Address
Master-USMD	Master-USMD	usmd	master-2016-PRI-000	Reg	192.168.60.11
Master-USMD	Master-USMD	usmd	master-2016-PRI-001	Reg	192.168.60.11
Master-USMD	Master-USMD	usmd	masterROUTING-2016	Reg	192.168.60.11
Slave-USMD	Slave-USMD	usmd	slave-2016-Route-PRI	Reg	192.168.50.11

Detail | SendReg | Lock

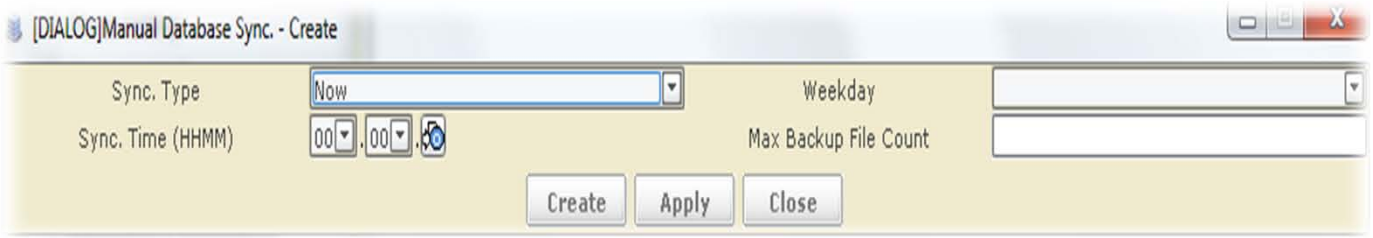
Database Sync

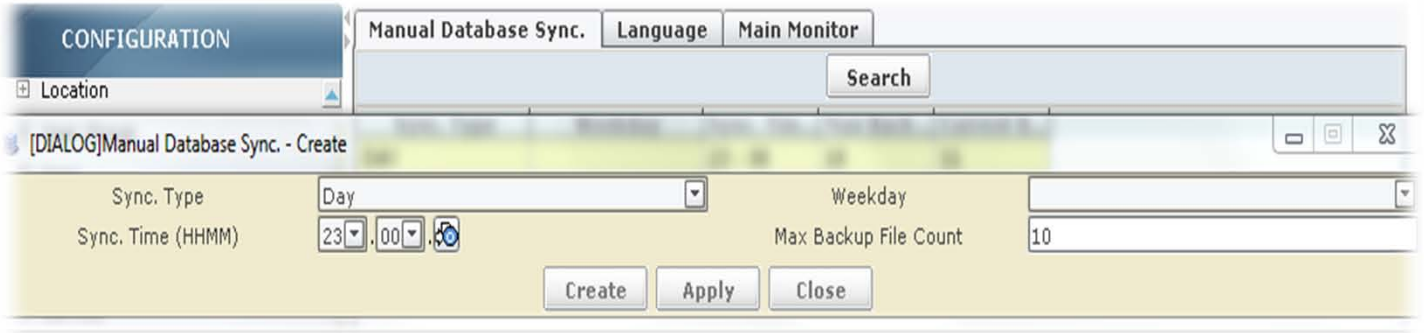
Database Sync

SAMSUNG

Reminder

- When Active-Active systems are connected, you must setup a schedule when they perform synchronization.





Lab Time

- Lets do it again!
- Using Method #1
- Initialize all servers
- Setup Scenario #2

The End