Circuit Reconfiguration

Version 3.1

May 12th, 2010

1 Descriptions of Function

All prior work (intellectual property of the company or individual) or proprietary (non-publicly available) work should be so noted.

1.1 Function Name

Circuit Reconfiguration

1.2 Function ID

Identification number of the function

1.3 Brief Description

This use case describes how the system responds to a fault on a line section.

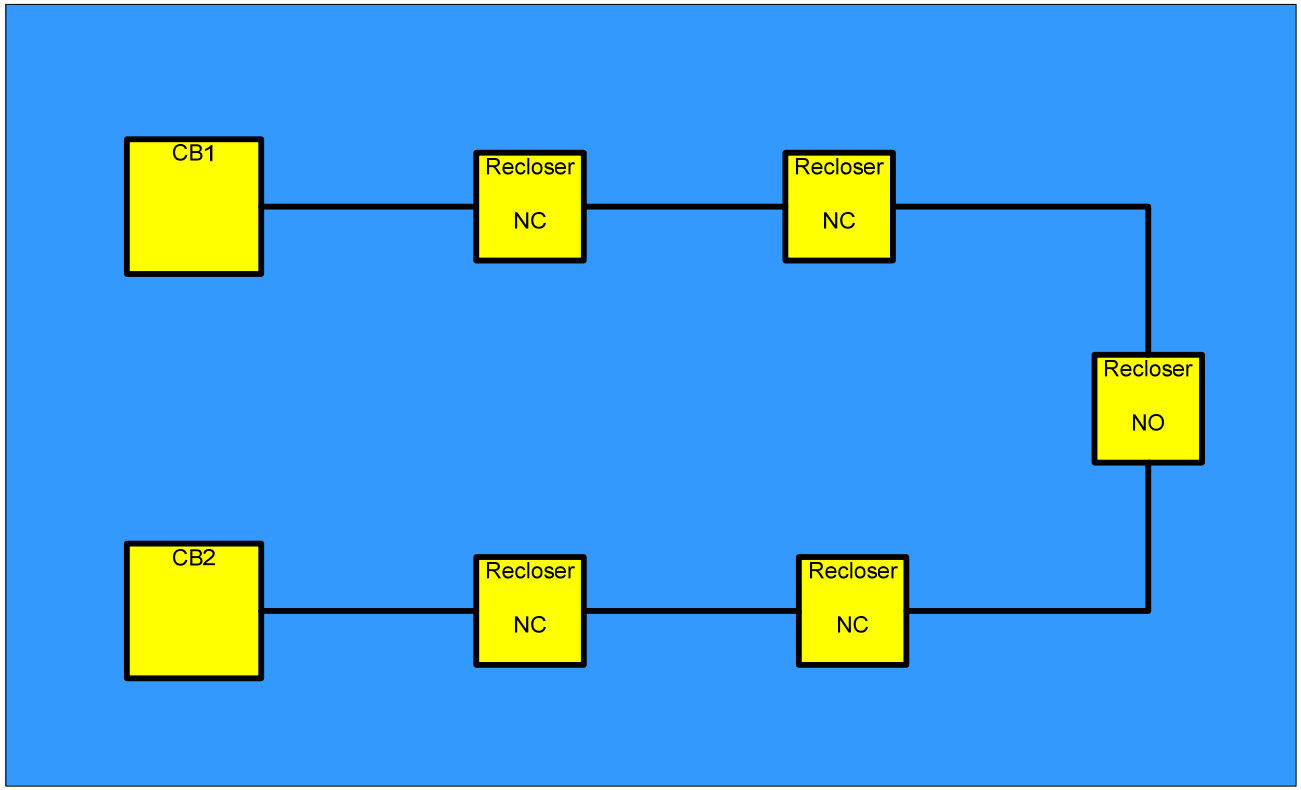
1.4 Narrative

There are three different scenarios to this Use Case.

Scenario #1: In the first scenario, a fault occurs on the distribution system and the ***Fault Clearing Device*** clears the fault. The ***Fault Clearing Device*** sends the lock out signal to the ***Distribution Automation Controller (DAC)***. The ***DAC*** sends the lock out information to the ***D-SCADA***, the ***OMS***, and ***Historian***. By polling the various devices, the ***DAC*** is able to perform a fault isolation calculation to isolate the fault. The ***DAC*** then sends a device command to the ***Zone Isolation Device*** which acknowledges the command and performs the functions needed to isolate the fault. These events are monitored in the ***D-SCADA*** through regular polling of the devices. The ***DAC*** eventually calculates the reconfiguration scenario and sends the commands to the ***Restoring Device*** which acknowledges the commands. After the ***Restoring Device*** functions, it sends an update to the ***DAC*** which sends all equipment status updates to ***D-SCADA*** which updates the ***Historian***.

Scenario #2: In the second scenario, a fault occurs on the distribution system and the ***Fault Clearing Device*** (C1 in the circuit diagram below) clears the fault. The ***RTU*** sends the lock out to the ***DAC*** which then sends the lock out information to the ***D-SCADA***, the ***OMS***, and ***Historian***. By polling the various devices, the ***DAC*** is able to perform a fault isolation calculation to isolate the fault. The ***DAC*** then sends a device command to the ***RTU*** in another substation which sends the command the ***Restoring Device*** (C2 in the circuit diagram below) and acknowledges the command and performs the functions needed to isolate the fault. Note that C2 is in a different substation from the ***DAC***. These events are monitored in the ***D-SCADA*** through regular polling of the devices. The ***DAC*** eventually calculates the reconfiguration scenario and sends the commands to the ***Restoring Device*** which acknowledges the commands. After the ***Restoring Device*** functions, it sends an update to the ***DAC*** which sends all equipment status updates to ***D-SCADA*** which updates the ***Historian***.

Scenario #3: In the final scenario, a fault occurs on the distribution system and the ***Fault Clearing Device*** clears the fault. The ***Fault Clearing Device*** sends the lock out signal to the ***DAC.*** The ***DAC*** then sends the lock out information to the ***D-SCADA***, the ***OMS***, and ***Historian***. By polling the various devices, the ***DAC*** is able to perform a fault isolation calculation to isolate the fault. The ***DAC*** then sends a device command to the ***Zone Isolation Device*** which acknowledges the command and performs the functions needed to isolate the fault. These events are monitored in the ***D-SCADA*** through regular polling of the devices. The ***DAC*** eventually calculates the reconfiguration scenario and sends the commands to an alternate ***DAC***, located in a different substation, which then sends the device command to the ***Restoring Device*** which acknowledges the commands. After the ***Restoring Device*** functions, it sends an update to the alternate ***DAC*** which sends all equipment status updates to ***D-SCADA*** which updates the ***Historian***.



Typical Circuit Layout for this Use Case

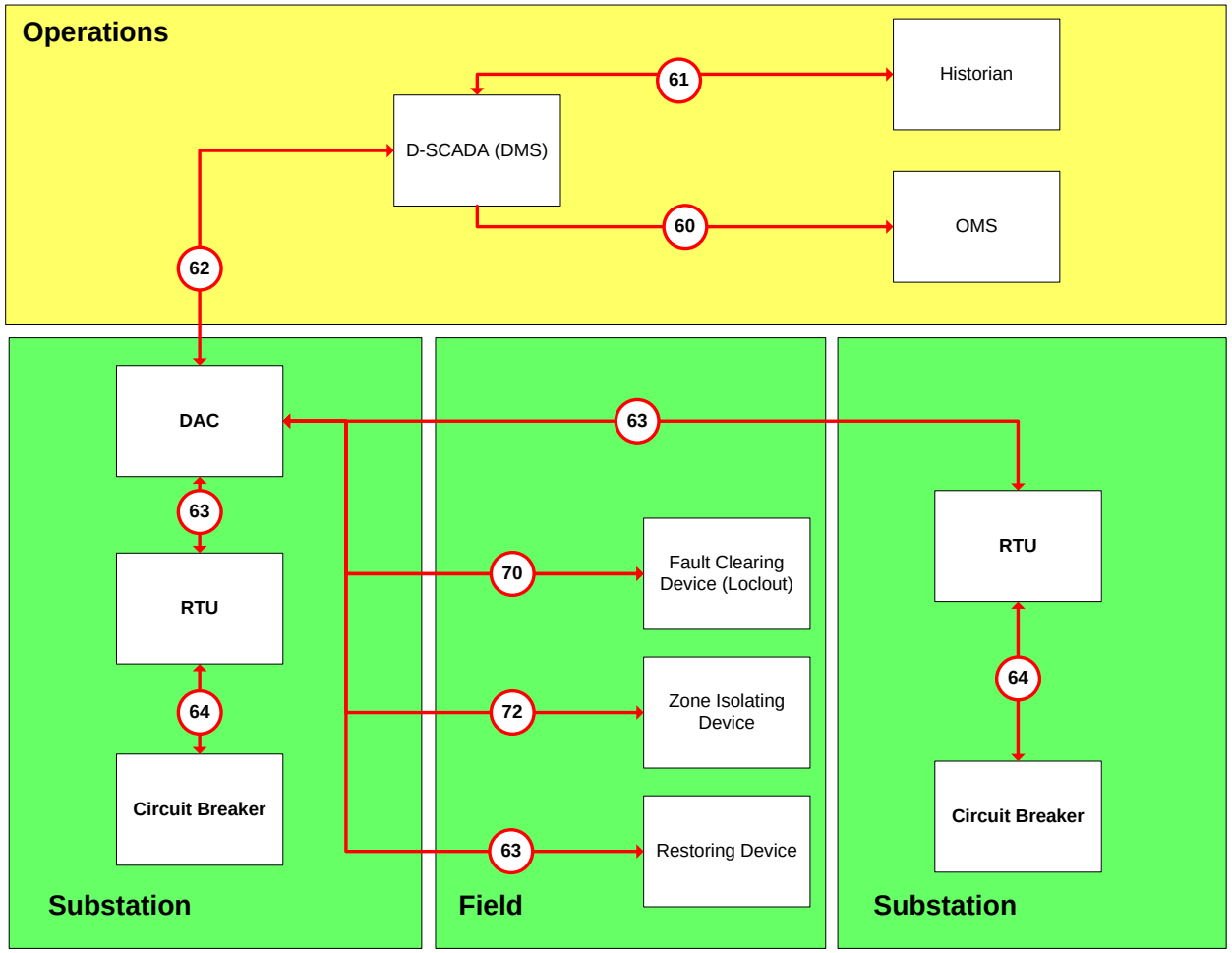


Figure 1-1
Context Diagram for Re-Configuration for the first two scenarios: the restoring device in the field or the restoring device is in another substation.

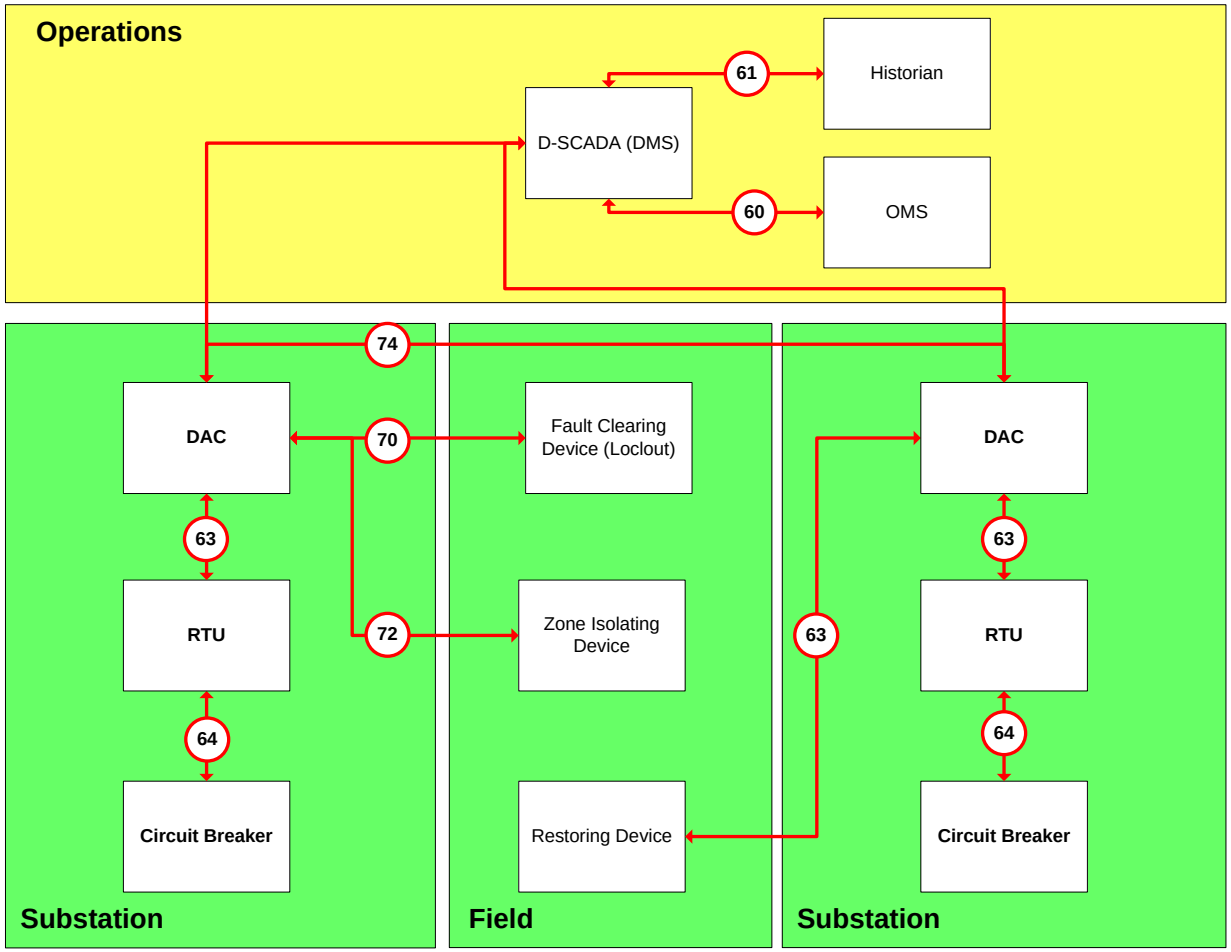


Figure 1-2
Context Diagram for Re-Configuration where the restoring device communicates with a DAC in another substation.

1.5 Actor (Stakeholder) Roles

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Grouping (Community)		*Group Description*
Actor Name	*Actor Type (person, organization, device, system, or subsystem)*	*Actor Description*
Fault Clearing Device	Device	Within the substation, this device isolates the fault to protect the equipment. (function of a recloser) This is a line device, usually **not** within the substation. The exception is the zone closest to the station where the station circuit breaker is the fault clearing device.
Zone Isolating Device	Device	Recloser (or switch) that isolates the zone where the fault occurred.
Restoring Device	Device	In a DA system, a switch that restores power to portion of the electric system not affected by the fault.
DAC	Device	The Distribution Automated Control is a smart RTU typically residing in a sub station
D-SCADA	Sub-System	Distribution Supervisory Control and Data Acquisition System. D-SCADA is a sub-system of the DMS.
OMS	System	Outage Management System maintains and reports outages and restorations on the system.

Grouping (Community)		*Group Description*
Actor Name	*Actor Type (person, organization, device, system, or subsystem)*	*Actor Description*
Historian	System	Repository of time series data coming from multiple sources.
IED Radios	Device	Radio that communicates with the Protective IEDs that are not located at the substations. These IEDs are line devices (typically recloser controls and motor operated switches).
Fault Clearing Device (CB1)	Device	Within the substation, this device (circuit breaker) isolates the fault to protect the equipment. This device is usually in the substation. In this case, the fault is in the zone closest to the station and the station circuit breaker is the fault clearing device.
Alternate DAC	Device	The Distribution Automated Control is a smart RTU typically residing in a sub station. The Alternate DAC is a DAC that is used to communicate DAC to DAC with another piece of field equipment.

1.6 Information exchanged

Information Object Name	*Information Object Description*
Lock Out Signal	Signal indicating that a device has operated as planned and has finally locked itself open.
Fault Isolation Calculation	Calculation to allow the circuit to be isolated by the field equipment

Information Object Name	*Information Object Description*
Status Update	System equipment status updates
Optimal Reconfiguration Scenario	Optimal circuit reconfiguration scenario calculated by the DAC
Device Commands	Operational commands (such as open or close) to enable the system equipment to function as needed.
Communications Acknowledgements	Acknowledgement that the communication signal has been received at the device.

1.7 Activities/Services

Activity/Service Name	*Activities/Services Provided*

1.8 Contracts/Regulations

Contract/Regulation	*Impact of Contract/Regulation on Function*

Policy	*From Actor*	*May*	*Shall Not*	*Shall*	*Description (verb)*	*To Actor*

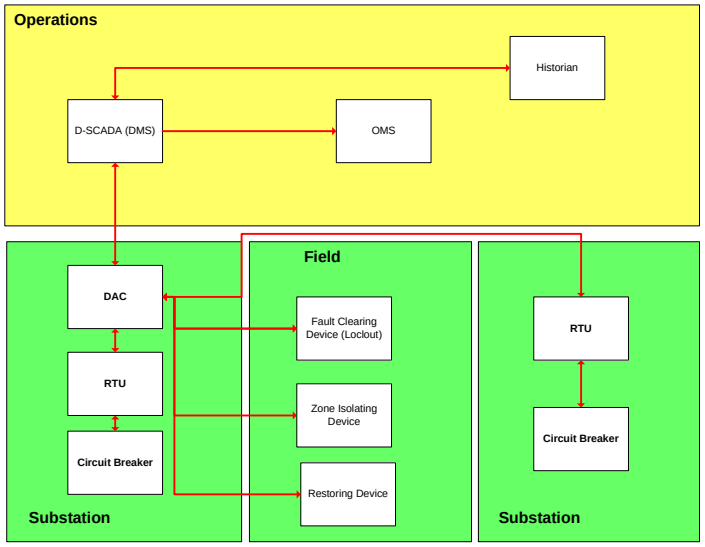
Constraint	*Type*	*Description*	*Applies to*

2 Step by Step Analysis of Function

Describe steps that implement the function. If there is more than one set of steps that are relevant, make a copy of the following section grouping (Steps to implement function, Preconditions and Assumptions, Steps normal sequence, Post-conditions) and provide each copy with its own sequence name.

2.1 Steps to implement function – Name of Sequence

Circuit reconfiguration with reclosers.



Communication Diagram for Scenario #1

2.1.1 Preconditions and Assumptions

Actor/System/Information/Contract	*Preconditions or Assumptions*
DAC	DAC updates loading and status information frequently

2.1.2 Steps – Name of Sequence

#	Event	Primary Actor	Name of Process/Activity	Description of Process/Activity	Information Producer	Information Receiver	Name of Info Exchanged	Additional Notes	IECSA Environment
#	*Triggering event? Identify the name of the event.*[1]	*What other actors are primarily responsible for the Process/Activity? Actors are defined in section1.5.*	*Label that would appear in a process diagram. Use action verbs when naming activity.*	*Describe the actions that take place in active and present tense. The step should be a descriptive noun/verb phrase that portrays an outline summary of the step. "If …Then…Else" scenarios can be captured as multiple Actions or as separate steps.*	*What other actors are primarily responsible for Producing the information? Actors are defined in section1.5.*	*What other actors are primarily responsible for Receiving the information? Actors are defined in section1.5.* *(Note – May leave blank if same as Primary Actor)*	*Name of the information object. Information objects are defined in section 1.6*	*Elaborate architectural issues using attached spreadsheet. Use this column to elaborate details that aren't captured in the spreadsheet.*	*Reference the applicable IECSA Environment containing this data exchange. Only one environment per step.*
1.1	Protective devices clears fault	Fault Clearing Device (lockout)	Send Lock Out to DAC	Fault Clearing Device sends Lock Out Signal to the DAC	Fault Clearing Device	DAC	Lock Out Signal		
1.2 A.1		DAC	Send Lock Out to DSCADA	The DAC sends the Lock Out Signal to the DSCADA	DAC	DSCADA	Lock Out Signal		

[1] Note – A triggering event is not necessary if the completion of the prior step – leads to the transition of the following step.

#	Event	Primary Actor	Name of Process/Activity	Description of Process/Activity	Information Producer	Information Receiver	Name of Info Exchanged	Additional Notes	IECSA Environment
1.2 B.1		DAC	Send Lock Out to OMS	The DSCADA sends the Lock Out Signal to the OMS	DSCADA	OMS	Lock Out Signal		
1.2 C.1		DAC	Send Lock Out to Historian	The DSCADA sends the Lock Out Signal to the Historian	DSCADA	Historian	Lock Out Signal		
1.3		DAC	Polls Devices	DAC polls applicable devices for status	Devices	DAC	Device Status	Poll happens because of the Lock Out message	
1.4		DAC	Fault Isolation Calculation	DAC performs a Fault Isolation Calculation to isolate the fault using Device Status	DAC	DAC	Fault Isolation Calculation		
1.5		DAC	Send Device Commands	DAC sends Device Commands to the appropriate Zone Isolation Device	DAC	Zone Isolation Device	Device Commands		
1.6.1		Zone Isolation Device	Receive Device Commands	Zone Isolation Device receives Device Commands	Zone Isolation Device	Zone Isolation Device	Device Commands		
1.6.2		Zone Isolation Device	Communications Acknowledgement	Zone Isolation Device sends Communication Acknowledgements to DAC	Zone Isolation Device	DAC	Communications Acknowledgements		
1.6.3		Zone Isolation Device	Functions Accordingly	Zone Isolation Device functions according to the Device Command	Zone Isolation Device	Zone Isolation Device	Device Commands		

#	Event	Primary Actor	Name of Process/Activity	Description of Process/Activity	Information Producer	Information Receiver	Name of Info Exchanged	Additional Notes	IECSA Environment
1.7		Zone Isolation Device	Send Status Update to DAC	Zone Isolation Device sends Status Update to DAC	Zone Isolation Device	DAC	Status Update		
1.8		DSCADA	DSCADA Regular Poll	DSCADA receives Device Status Updates via the regular poll	Devices	DSCADA	Device Status Updates		
1.9		DAC	Calculates Optimal Reconfiguration Scenario	DAC calculates Optimal Reconfiguration Scenario	DAC	DAC	Optimal Reconfiguration Scenario		
1.10.1		DAC	Send Device Commands	DAC send Device Commands to Restoring Device	DAC	Restoring Device	Device Commands		
1.10.2		Restoring Device	Receive Device Commands	Restoring Device receives Device Commands	Restoring Device	Restoring Device	Device Commands		
1.10.3		Restoring Device	Communication Acknowledgement	Restoring Device sends Communication Acknowledgements to DAC	Restoring Device	DAC	Communications Acknowledgements		
1.11		Restoring Device	Functions Accordingly	Restoring Device functions according to the Device Command	Restoring Device	Restoring Device	Device Commands		
1.12		Restoring Device	Sends Status Updates to DSCADA	Restoring Device sends Status Updates to DAC	Restoring Device	DAC	Status Updates		
1.13		DAC	Sends Status Updates to DSCADA	DAC sends Status Updates to DSCADA	DAC	DSCADA	Status Updates		

#	Event	Primary Actor	Name of Process/Activity	Description of Process/Activity	Information Producer	Information Receiver	Name of Info Exchanged	Additional Notes	IECSA Environment
1.14		DSCADA	Sends Equipment Status Updates to the OMS	DSCADA sends Equipment Status Updates to the OMS	DSCADA	OMS	Equipment Status Updates		
1.15		DSCADA	Sends Equipment Status Updates to the Historian	DSCADA sends Equipment Status Updates to the Historian	DSCADA	Historian	Equipment Status Updates		

2.1.3 Post-conditions and Significant Results

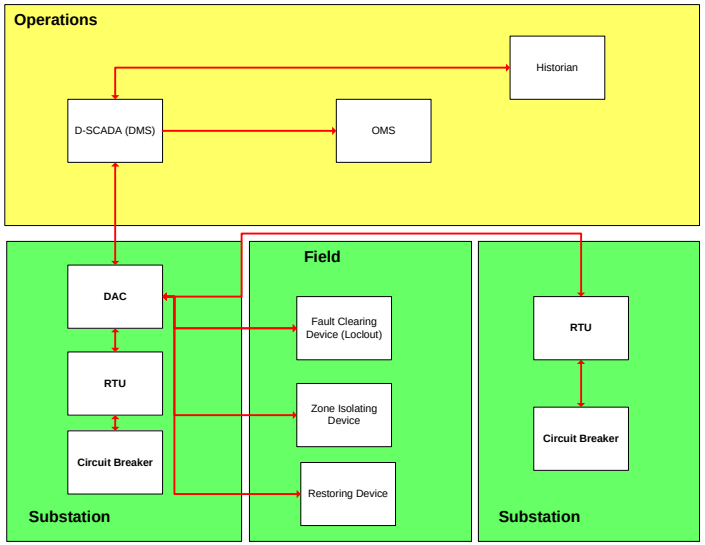
Actor/Activity	*Post-conditions Description and Results*

3 Step by Step Analysis of Function

Describe steps that implement the function. If there is more than one set of steps that are relevant, make a copy of the following section grouping (Steps to implement function, Preconditions and Assumptions, Steps normal sequence, Post-conditions) and provide each copy with its own sequence name.

3.1 Steps to implement function – Name of Sequence

Circuit reconfiguration with CB1 as a clearing device.



Communication Diagram for Scenario #2

3.1.1 Preconditions and Assumptions

Actor/System/Information/Contract	*Preconditions or Assumptions*

3.1.2 Steps – Name of Sequence

#	Event	Primary Actor	Name of Process/Activity	Description of Process/Activity	Information Producer	Information Receiver	Name of Info Exchanged	Additional Notes	IECSA Environment
#	*Triggering event? Identify the name of the event.*[2]	*What other actors are primarily responsible for the Process/Activity? Actors are defined in section1.5.*	*Label that would appear in a process diagram. Use action verbs when naming activity.*	*Describe the actions that take place in active and present tense. The step should be a descriptive noun/verb phrase that portrays an outline summary of the step. "If …Then…Else" scenarios can be captured as multiple Actions or as separate steps.*	*What other actors are primarily responsible for Producing the information? Actors are defined in section1.5.*	*What other actors are primarily responsible for Receiving the information? Actors are defined in section1.5.* *(Note – May leave blank if same as Primary Actor)*	*Name of the information object. Information objects are defined in section 1.6*	*Elaborate architectural issues using attached spreadsheet. Use this column to elaborate details that aren't captured in the spreadsheet.*	*Reference the applicable IECSA Environment containing this data exchange. Only one environment per step.*
2.1	Protective devices (CB1) clears fault	Fault Clearing Device (CB1)	Send Lock Out to RTU	Fault Clearing Device (CB1) sends Lock Out Signal to the RTU	Fault Clearing Device (CB1)	RTU	Lock Out Signal		
2.2		RTU	Send Lock Out to DAC	RTU sends Lock Out Signal to the DAC	RTU	DAC	Lock Out Signal		
2.3 A.1		DAC	Send Lock Out to DSCADA	The DAC sends the Lock Out Signal to the DSCADA	DAC	DSCADA	Lock Out Signal		
2.3 B.1		DAC	Send Lock Out to OMS	The DAC sends the Lock Out Signal to the OMS	DAC	OMS	Lock Out Signal		
2.3 C.1		DAC	Send Lock Out to Historian	The DAC sends the Lock Out Signal to the Historian	DAC	Historian	Lock Out Signal		

[2] Note – A triggering event is not necessary if the completion of the prior step – leads to the transition of the following step.

#	Event	Primary Actor	Name of Process/Activity	Description of Process/Activity	Information Producer	Information Receiver	Name of Info Exchanged	Additional Notes	IECSA Environment
2.4		DAC	Polls Devices	DAC polls applicable devices for status	Devices	DAC	Device Status	Poll happens because of the Lock Out message	
2.5		DAC	Fault Isolation Calculation	DAC performs a Fault Isolation Calculation to isolate the fault	DAC	DAC	Fault Isolation Calculation		
2.6		DAC	Send Device Commands	DAC sends Device Commands to the appropriate Zone Isolation Device	DAC	Zone Isolation Device	Device Commands		
2.7.1		Zone Isolation Device	Receive Device Commands	Zone Isolation Device receives Device Commands	Zone Isolation Device	Zone Isolation Device	Device Commands		
2.7.2		Zone Isolation Device	Communications Acknowledgement	Zone Isolation Device sends Communication Acknowledgements to DAC	Zone Isolation Device	DAC	Communications Acknowledgements		
2.8		Zone Isolation Device	Functions Accordingly	Zone Isolation Device functions according to the Device Command	Zone Isolation Device	Zone Isolation Device	Device Commands		
2.9		Zone Isolation Device	Send Status Update to DAC	Zone Isolation Device sends Status Update to DAC	Zone Isolation Device	DAC	Status Update		
2.10		DSCADA	DSCADA Regular Poll	DSCADA receives Device Status Updates via the regular poll	Devices	DSCADA	Device Status Updates		

#	Event	Primary Actor	Name of Process/Activity	Description of Process/Activity	Information Producer	Information Receiver	Name of Info Exchanged	Additional Notes	IECSA Environment
2.11		DAC	Calculates Optimal Reconfiguration Scenario	DAC calculates Optimal Reconfiguration Scenario	DAC	DAC	Optimal Reconfiguration Scenario		
2.12.1		DAC	Send Device Commands	DAC send Device Commands to Restoring Device	DAC	Restoring Device	Device Commands		
2.12.2		Restoring Device	Receive Device Commands	Restoring Device receives Device Commands	Restoring Device	Restoring Device	Device Commands		
2.12.3		Restoring Device	Communication Acknowledgment	Restoring Device sends Communication Acknowledgements to DAC	Restoring Device	DAC	Communications Acknowledgements		
2.13		Restoring Device	Functions Accordingly	Restoring Device functions according to the Device Command	Restoring Device	Restoring Device	Device Commands		
2.14		Restoring Device	Sends Status Updates to DSCADA	Restoring Device sends Status Updates to DSCADA	Restoring Device	DSCADA	Status Updates		
2.15		Restoring Device	Sends Status Updates to DAC	Restoring Device sends Status Updates to DAC	Restoring Device	DAC	Status Updates		
2.16		DSCADA	Sends Equipment Status Updates to the OMS	DSCADA sends Equipment Status Updates to the OMS	DSCADA	OMS	Equipment Status Updates		

#	Event	Primary Actor	Name of Process/Activity	Description of Process/Activity	Information Producer	Information Receiver	Name of Info Exchanged	Additional Notes	IECSA Environment
2.17		DSCADA	Sends Equipment Status Updates to the Historian	DSCADA sends Equipment Status Updates to the Historian	DSCADA	Historian	Equipment Status Updates		

3.1.3 Post-conditions and Significant Results

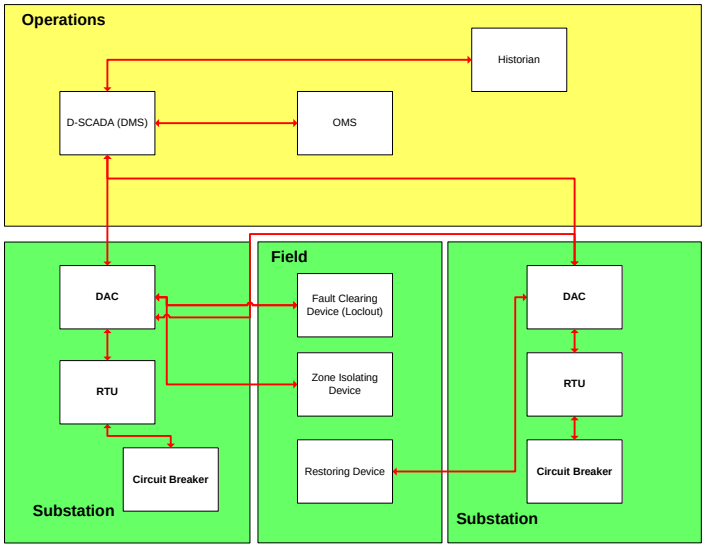
Actor/Activity	*Post-conditions Description and Results*

4 Step by Step Analysis of Function

Describe steps that implement the function. If there is more than one set of steps that are relevant, make a copy of the following section grouping (Steps to implement function, Preconditions and Assumptions, Steps normal sequence, Post-conditions) and provide each copy with its own sequence name.

4.1 Steps to implement function – Name of Sequence

Circuit reconfiguration with recloser on another DAC as the Restoring Device.



Communication Diagram for Scenario #3

4.1.1 Preconditions and Assumptions

Actor/System/Information/Contract	*Preconditions or Assumptions*
Alternate DAC	The Alternate DAC is a DAC in another substation that the Restoring Device can communicate with to get information back to the DAC.

4.1.2 Steps – Name of Sequence

#	Event	Primary Actor	Name of Process/Activity	Description of Process/Activity	Information Producer	Information Receiver	Name of Info Exchanged	Additional Notes	IECSA Environment
#	*Triggering event? Identify the name of the event.*[3]	*What other actors are primarily responsible for the Process/Activity? Actors are defined in section1.5.*	*Label that would appear in a process diagram. Use action verbs when naming activity.*	*Describe the actions that take place in active and present tense. The step should be a descriptive noun/verb phrase that portrays an outline summary of the step. "If …Then…Else" scenarios can be captured as multiple Actions or as separate steps.*	*What other actors are primarily responsible for Producing the information? Actors are defined in section1.5.*	*What other actors are primarily responsible for Receiving the information? Actors are defined in section1.5.* *(Note – May leave blank if same as Primary Actor)*	*Name of the information object. Information objects are defined in section 1.6*	*Elaborate architectural issues using attached spreadsheet. Use this column to elaborate details that aren't captured in the spreadsheet.*	*Reference the applicable IECSA Environment containing this data exchange. Only one environment per step.*
3.1	Protective devices clears fault	Fault Clearing Device	Send Lock Out to DAC	Fault Clearing Device sends Lock Out Signal to the DAC	Fault Clearing Device	DAC	Lock Out Signal		
3.2 A.1		DAC	Send Lock Out to DSCADA	The DAC sends the Lock Out Signal to the DSCADA	DAC	DSCADA	Lock Out Signal		
3.2 B.1		DAC	Send Lock Out to OMS	The DAC sends the Lock Out Signal to the OMS	DAC	OMS	Lock Out Signal		
3.2 C.1		DAC	Send Lock Out to Historian	The DAC sends the Lock Out Signal to the Historian	DAC	Historian	Lock Out Signal		
3.3		DAC	Polls Devices	DAC polls applicable devices for status	Devices	DAC	Device Status	Poll happens because of the Lock Out message	

[3] Note – A triggering event is not necessary if the completion of the prior step – leads to the transition of the following step.

#	Event	Primary Actor	Name of Process/Activity	Description of Process/Activity	Information Producer	Information Receiver	Name of Info Exchanged	Additional Notes	IECSA Environment
3.4		DAC	Fault Isolation Calculation	DAC performs a Fault Isolation Calculation to isolate the fault	DAC	DAC	Fault Isolation Calculation		
3.5		DAC	Send Device Commands	DAC sends Device Commands to the appropriate Zone Isolation Device	DAC	Zone Isolation Device	Device Commands		
3.6.1		Zone Isolation Device	Receive Device Commands	Zone Isolation Device receives Device Commands	Zone Isolation Device	Zone Isolation Device	Device Commands		
3.6.2		Zone Isolation Device	Communications Acknowledgement	Zone Isolation Device sends Communication Acknowledgements to DAC	Zone Isolation Device	DAC	Communications Acknowledgements		
3.7		Zone Isolation Device	Functions Accordingly	Zone Isolation Device functions according to the Device Command	Zone Isolation Device	Zone Isolation Device	Device Commands		
3.8		Zone Isolation Device	Send Status Update to DAC	Zone Isolation Device sends Status Update to DAC	Zone Isolation Device	DAC	Status Update		
3.9		DSCADA	DSCADA Regular Poll	DSCADA receives Device Status Updates via the regular poll	Devices	DSCADA	Device Status Updates		
3.10		DAC	Calculates Optimal Reconfiguration Scenario	DAC calculates Optimal Reconfiguration Scenario	DAC	DAC	Optimal Reconfiguration Scenario		

#	Event	Primary Actor	Name of Process/Activity	Description of Process/Activity	Information Producer	Information Receiver	Name of Info Exchanged	Additional Notes	IECSA Environment
3.11.1		DAC	Send Device Commands	DAC send Device Commands to Alternate DAC	DAC	Alternate DAC	Device Commands		
3.11.2		Alternate DAC	Send Device Commands	Alternate DAC send Device Commands to Restoring Device	Alternate DAC	Restoring Device	Device Commands		
3.11.3		Restoring Device	Receive Device Commands	Restoring Device receives Device Commands	Restoring Device	Restoring Device	Device Commands		
3.11.4		Restoring Device	Communication Acknowledgement	Restoring Device sends Communication Acknowledgements to Alternate DAC	Restoring Device	Alternate DAC	Communications Acknowledgements		
3.11.5		Alternate DAC	Communication Acknowledgement	Alternate DAC sends Communication Acknowledgements to DAC	Alternate DAC	DAC	Communications Acknowledgements		
3.12		Restoring Device	Functions Accordingly	Restoring Device functions according to the Device Command	Restoring Device	Restoring Device	Device Commands		
3.13		Restoring Device	Sends Status Updates to DSCADA	Restoring Device sends Status Updates to DSCADA	Restoring Device	DSCADA	Status Updates		
3.14		Restoring Device	Sends Status Updates to Alternate DAC	Restoring Device sends Status Updates to Alternate DAC	Restoring Device	Alternate DAC	Status Updates		
3.15		Alternate DAC	Sends Status Updates to DAC	Alternate DAC sends Status Updates to DAC	Alternate DAC	DAC	Status Updates		

#	Event	Primary Actor	Name of Process/Activity	Description of Process/Activity	Information Producer	Information Receiver	Name of Info Exchanged	Additional Notes	IECSA Environment
3.16		DSCADA	Sends Equipment Status Updates to the OMS	DSCADA sends Equipment Status Updates to the OMS	DSCADA	OMS	Equipment Status Updates		
3.17		DSCADA	Sends Equipment Status Updates to the Historian	DSCADA sends Equipment Status Updates to the Historian	DSCADA	Historian	Equipment Status Updates		

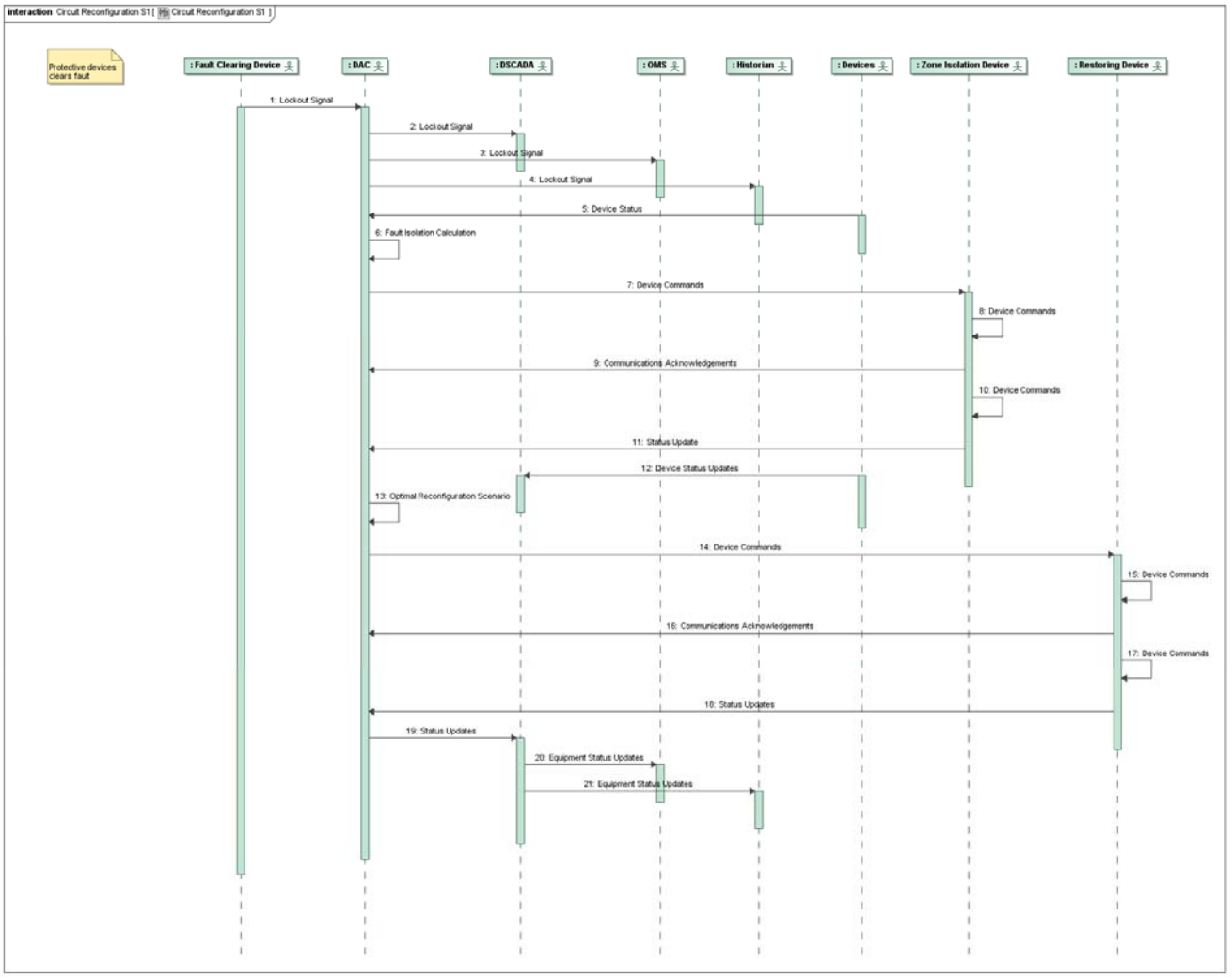
4.1.3 Post-conditions and Significant Results

Actor/Activity	*Post-conditions Description and Results*

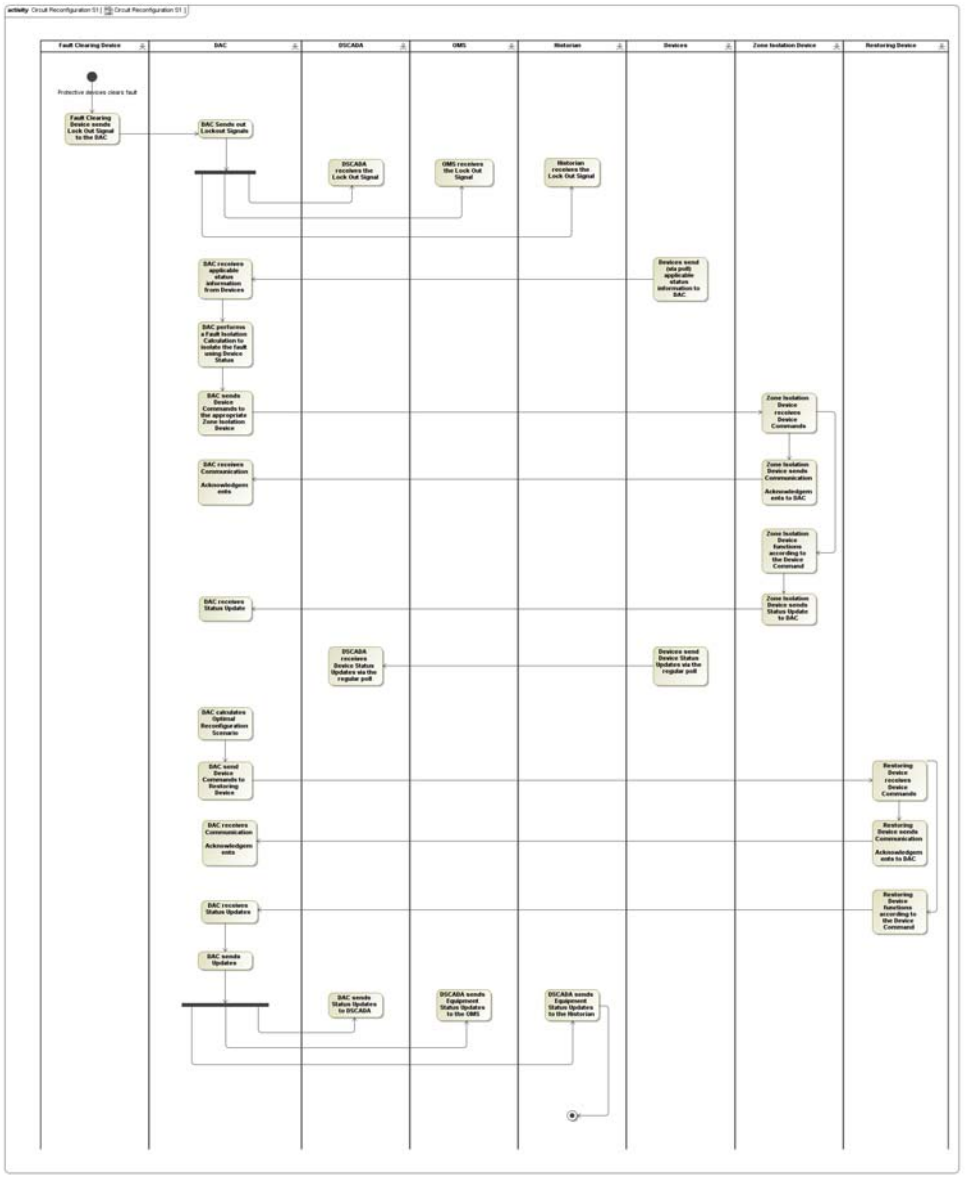
4.2 Architectural Issues in Interactions

Elaborate on all architectural issues in each of the steps outlined in each of the sequences above. Reference the Step by number.

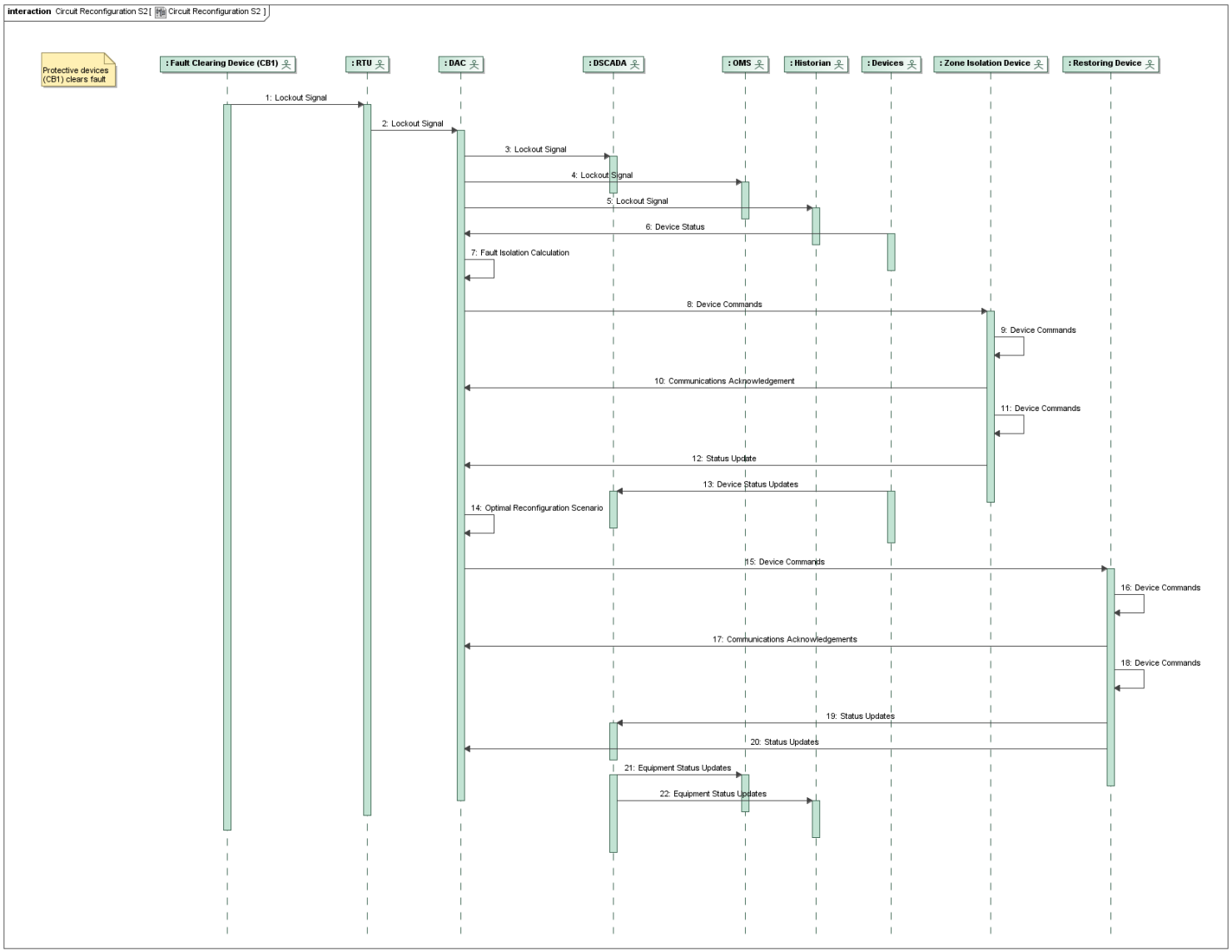
4.3 Diagrams



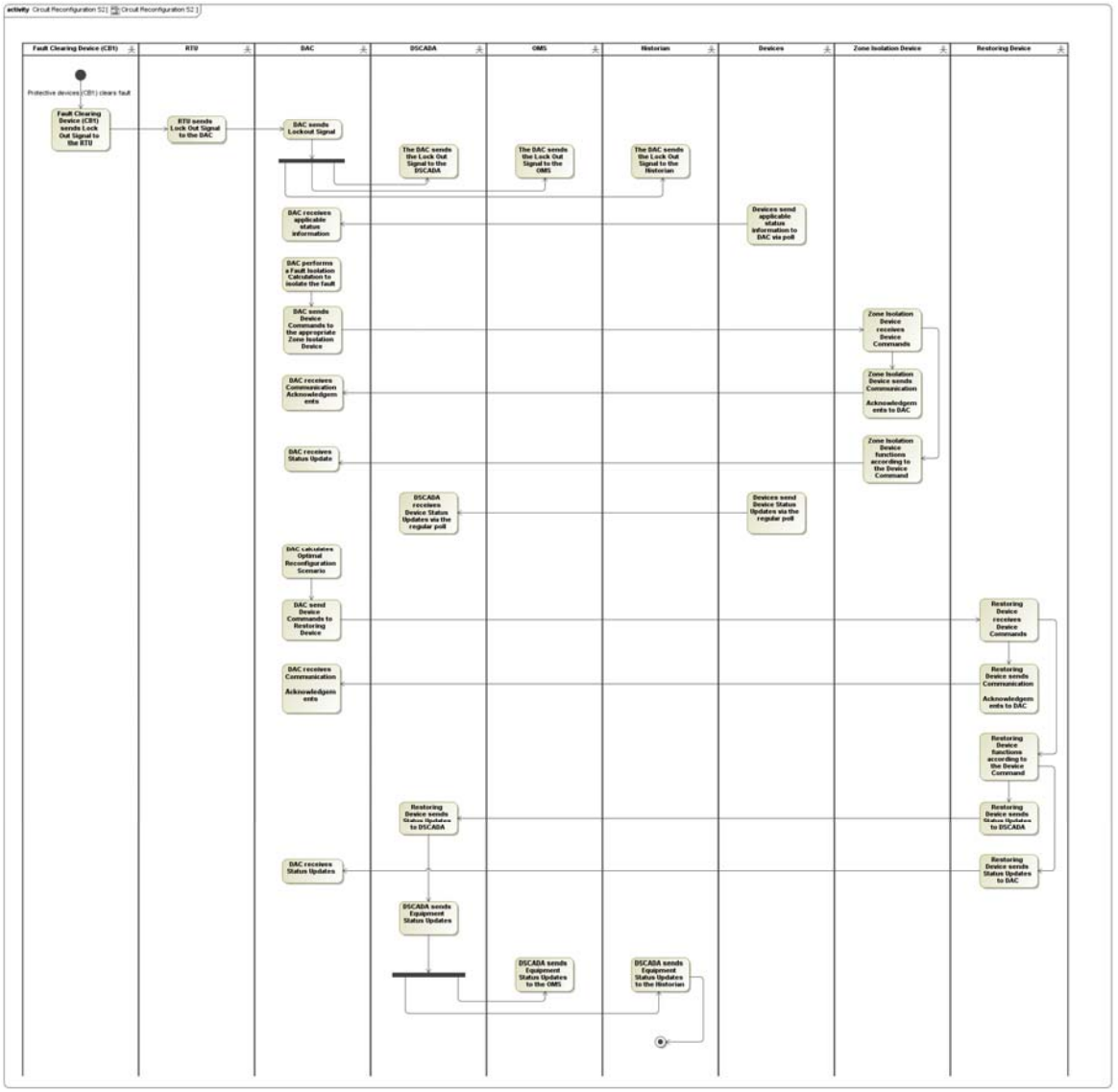
Circuit Reconfiguration Scenario 1 Sequence Diagram



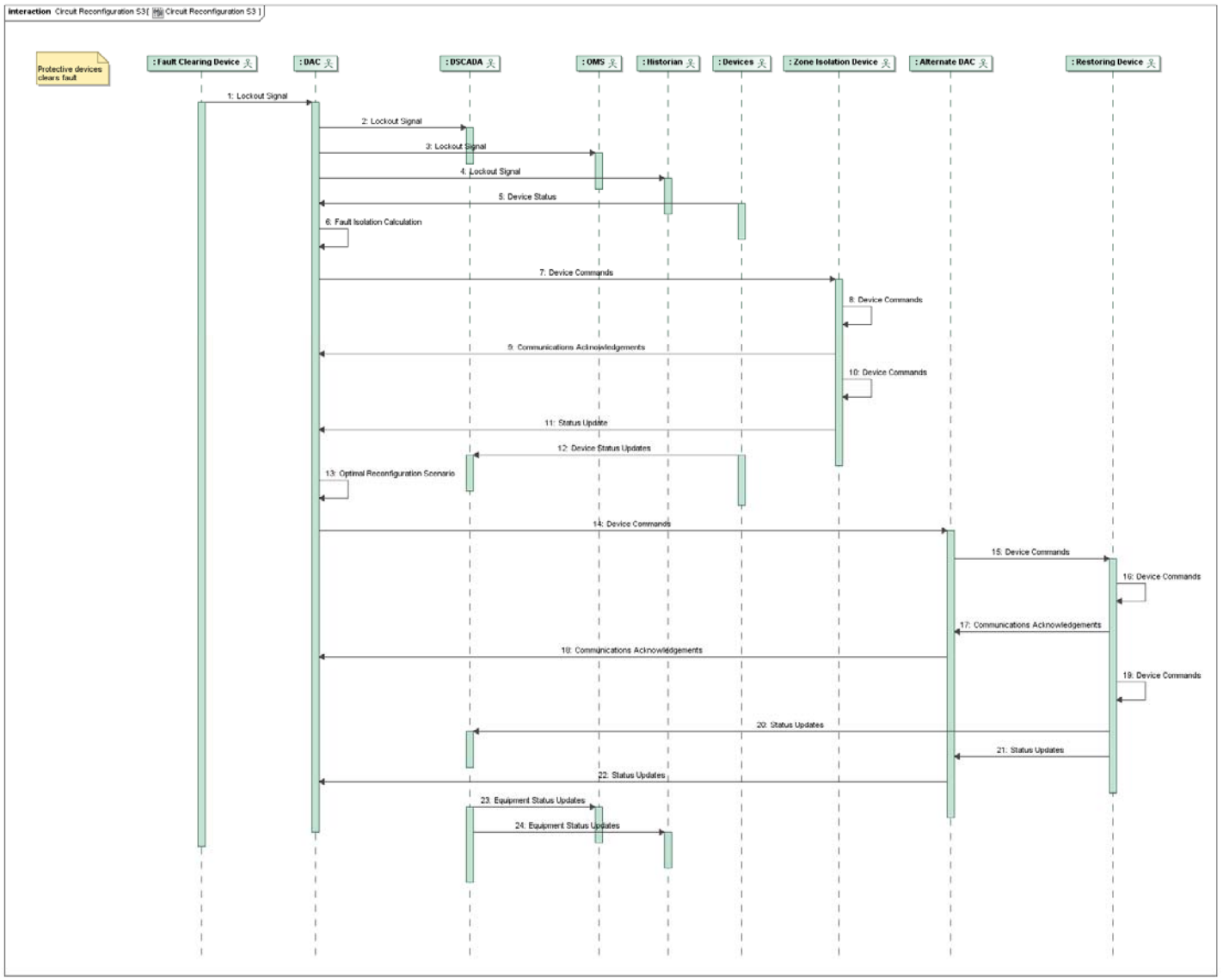
Circuit Reconfiguration S1 Activity Diagram



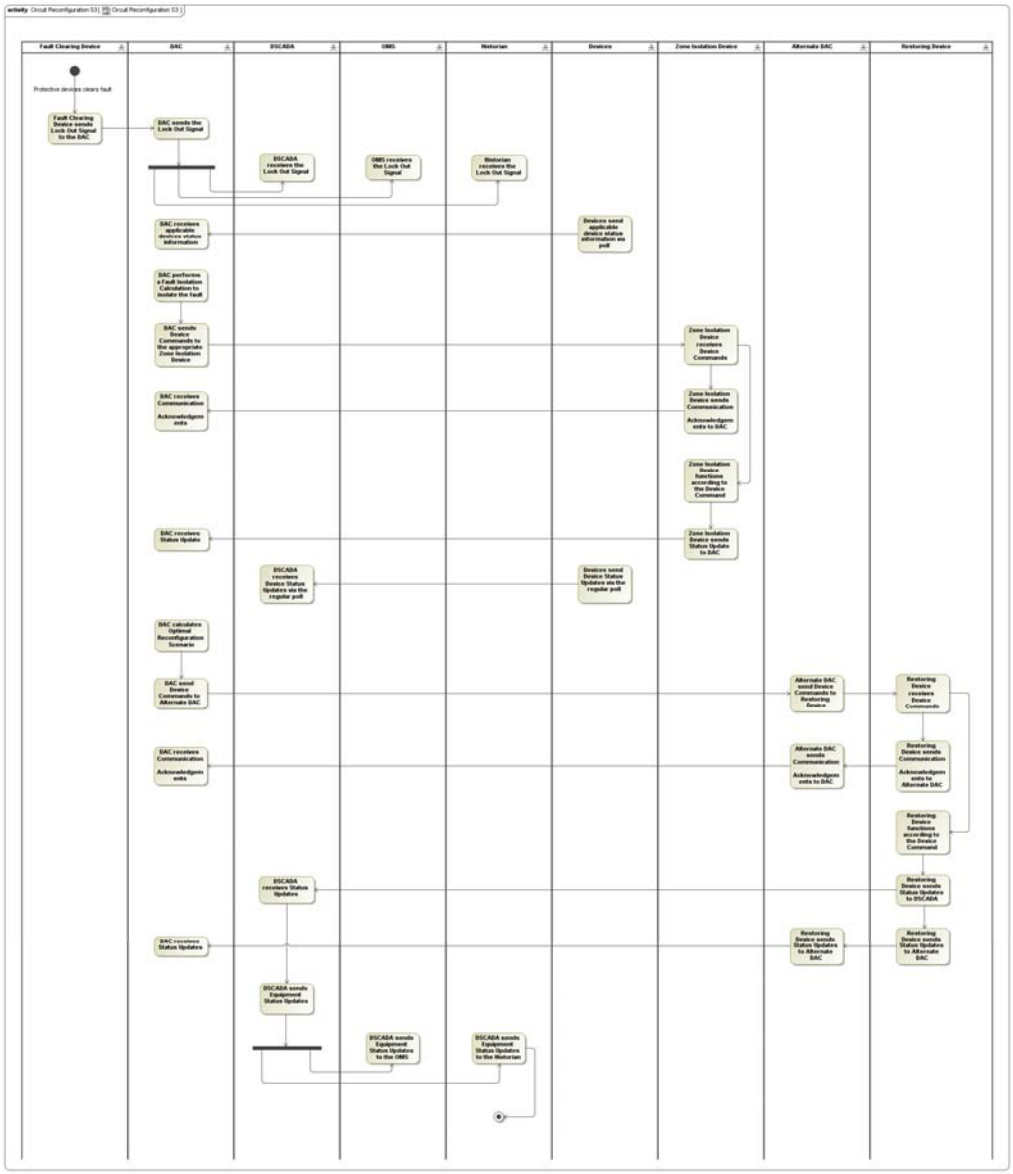
Circuit Reconfiguration S2 Sequence Diagram



Circuit Reconfiguration S2 Activity Diagram



Circuit Reconfiguration S3 Sequence Diagram



Circuit Reconfiguration S3 Activity Diagram

5 Auxiliary Issues

5.1 References and contacts

ID	Title or contact	Reference or contact information
[1]		

5.2 Action Item List

ID	Description	Status
[1]		

5.3 Revision History

No	Date	Author	Description
1.1	4-5-2010	Brian D. Green	Original Use Case
1.2	4-6-2010	Brian D. Green	Add final two scenarios
1.3	4-7-2010	Brian D. Green	Clean-Up Steps
2.0	4-12-2010	Brian D. Green	Clean-Up Actors and add scenario diagrams
3.0	5-10-2010	Brian D. Green	Revisions and add sequence and activity diagrams
3.1	5-12-2010	John Simmins	Narrative additions
3.2	5-14-2010	Brian D. Green	Utility Revisions