

SV8100 T1-CCIS

T1 CCIS on the SV8100 will allow connection to any other NEC Key or PBX system that supports T1 CCIS protocol. No license is needed for this feature and it is available in all software revisions of the SV8100. The slot, trunk, and trunk group numbers in this doc are suggestion only. The SV8100 will support up to 8 CCIS –T1 spans.

Each CCIS-T1 link requires a dedicated trunk for the CCH (Common Channel Handler data trunk) and trunk or trunks for the voice channels. Up to 127 voice trunks (five T1's) can be supported by one CCH trunk.



1. Install the CCTA blade. Confirm the allocated trunk numbers from the Blade Configuration or **CM 10-03**. If this is to be a partial span make sure **CM 10-39** is enabled before installing the blade. Trunk numbers for a partial span will not be visible until step 4 below is executed.

2. CM 10-03 Assign the correct line coding for the circuit. Also set the distance between the CCTA blade and the CSU installed on the T1 circuit.

3. CM 10-03-05 Assign **T1 Clock Source**. This determines where the SV8100 gets its timing for the T1 circuit. If there is already an ISDN PRI installed in the cabinet the CCTA **MUST** be set to **Internal** and it will use the timing from the PRI. If it is the only digital span in the system then the PBX at the other end of the circuit can supply the clocking from it's PRI by setting this to **External**. If neither systems has a PRI one site must be set as the Master clock (**Internal** setting) and the other would be set to slave from it (**External** setting). Make sure installed CSU's are passing the clock source and not supplying it.

4. CM 10-03-06 If you assigned **CM 10-39** in step 1 you must set the number of trunks for the span. After selecting the number the CCTA blade must be reset. Only then will CCTA trunks be visible. Wiring type should be left to **Auto** in **CM 10-03-07**

10-03: PRTA (T1)/(CCTA) Configuration

01 - Logical Port	<input type="text" value="25"/>
02 - Frame Type	<input type="text" value="ESF (24 Multi-frame)"/>
03 - Zero Code Suppression	<input type="text" value="B8Z5"/>
04 - Distance between PCB & CSU	<input type="text" value="0ft~133ft"/>
05 - T1 Clock Source	<input type="text" value="Internal"/>
06 - Number of Ports	<input type="text" value="Auto"/>
07 - Wiring Type	<input type="text" value="Auto"/>

14-05: Trunk Groups

Trunk

Trunk	Trunk Group	Priority	Trunk	Trunk Group	Priority
25	<input type="text" value="10"/>	<input type="text" value="23"/>	35	<input type="text" value="10"/>	<input type="text" value="13"/>
26	<input type="text" value="10"/>	<input type="text" value="22"/>	36	<input type="text" value="10"/>	<input type="text" value="12"/>
27	<input type="text" value="10"/>	<input type="text" value="21"/>	37	<input type="text" value="10"/>	<input type="text" value="11"/>
28	<input type="text" value="10"/>	<input type="text" value="20"/>	38	<input type="text" value="10"/>	<input type="text" value="19"/>

5. CM 14-05 Place the CCTA trunks in a unique trunk grp. **DO NOT USE TRK GRP 1**. The CCH trunk (Data trunk) is also assigned to this same trunk group. Also set the trunk order opposite to the order of the trunks in the other site. If the other site is high to low set your site for low to high.

6. CM 14-13 Assign a CCIS Route ID to the Trunk Group set in step 5. The first CCIS-T1 span should be assigned as 1. The second CCIS-T1 span as 2, etc.

14-13: CCIS System Route ID

Trunk Group (1~100)

Trunk Group	CCIS Route ID	Trunk Group	CCIS Route ID
010	<input type="text" value="1"/>	020	<input type="text" value="0"/>

14-14: CCIS Trunk Circuit Identifier Code (CIC)

Trunk

Trunk	CIC	Trunk	CIC
25	<input type="text" value="1"/>	35	<input type="text" value="11"/>
26	<input type="text" value="2"/>	36	<input type="text" value="12"/>
27	<input type="text" value="3"/>	37	<input type="text" value="13"/>
28	<input type="text" value="4"/>	38	<input type="text" value="14"/>
29	<input type="text" value="5"/>	39	<input type="text" value="15"/>
30	<input type="text" value="6"/>	40	<input type="text" value="16"/>

7. CM 14-14. A CIC must be assigned to each voice channel trunk. **DO NOT** assign a CIC to the CCH (Data trunk) channel. The CIC assignment **MUST** match the assignment in the other connected system. That is the first CCIS trunk in either site (regardless of trunk #) must be assigned as CIC 1, the 2nd trunk as CIC 2 etc. If you have multiple CCIS-T1 spans to different locations the first trunk of each span should start with CIC 1.

8. CM 22-02. Set **ALL** of the CCIS trunks to **Tie line** for all modes that are utilized by the system (see **CM 12-08** for modes being used).

22-02: Incoming Call Trunk Setup

Trunk Night Mode

Trunk	Night Mode		
	Mode 1	Mode 2	Mode 3
25	<input type="text" value="Tie line"/>	<input type="text" value="Tie line"/>	<input type="text" value="Tie line"/>
26	<input type="text" value="Tie line"/>	<input type="text" value="Tie line"/>	<input type="text" value="Tie line"/>
27	<input type="text" value="Tie line"/>	<input type="text" value="Tie line"/>	<input type="text" value="Tie line"/>
28	<input type="text" value="Tie line"/>	<input type="text" value="Tie line"/>	<input type="text" value="Tie line"/>

50-01: CCIS System Settings

01 - CCIS Availability

9. CM 50-01. Turn on CCIS.

50-02: Connecting System Settings

CCIS Route ID	Common Signaling Channel Port	Common Signaling Channel Data Speed	Origination Point Code	Destination Point Code	Calling Name Indication	CCH Package Channel Number
01	48	56kbps	1	2	<input checked="" type="checkbox"/>	1
02	0	56kbps	0	0	<input checked="" type="checkbox"/>	0

10. CM 50-02.

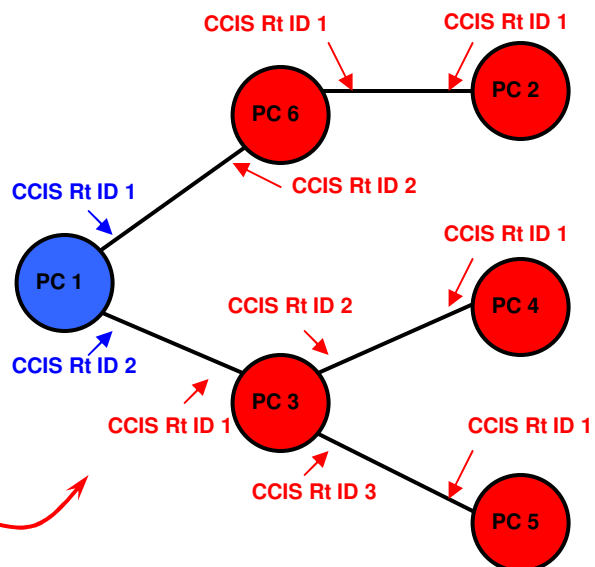
- a. **Common Signaling Channel Port** is the number of the trunk you are using for the CCH (data trunk). This setting **MUST** match the same T1 channel number in the opposite system. Most installs use the last trunk for the CCH but any trunk can be used as long as both sites are looking at the same channel.
- b. It is recommended to leave the **Common Signaling Channel Data Speed** to **56kbps** (this must match the same setting in the opposite system).
- c. The **Origination Point Code** is the unique Point Code you assign this system (1~16367). The Destination Point Code is the unique Point Code (1~16367) of the system this CCIS span is connecting to.
- d. **Calling Name Indication** allows station name and Caller ID information to be passed over the CCIS link.
- e. **CCH Package Channel Number** identifies which of the 8 possible CCH channels this link is utilizing. Always start with Package 1 for the first and Package 2 for the second etc. This assignment does **NOT** have to match the same assignment in the opposite system.

50-03: CCIS Destination System

CCIS System ID (1~255)

CCIS System ID	Destination Point Code	CCIS Route ID
001	2	1
002	0	0

11. CM 50-03. Every Point Code in the CCIS network (whether directly connected or not. See diagram below) MUST be entered in CM 50-03. **DO NOT** enter this site's OPC ONLY destination sites. If you expect to call a site in the CCIS network you must enter that Point Code along with the CCIS Route ID (CM 14-13) of the span you will send the call to. See diagram below.

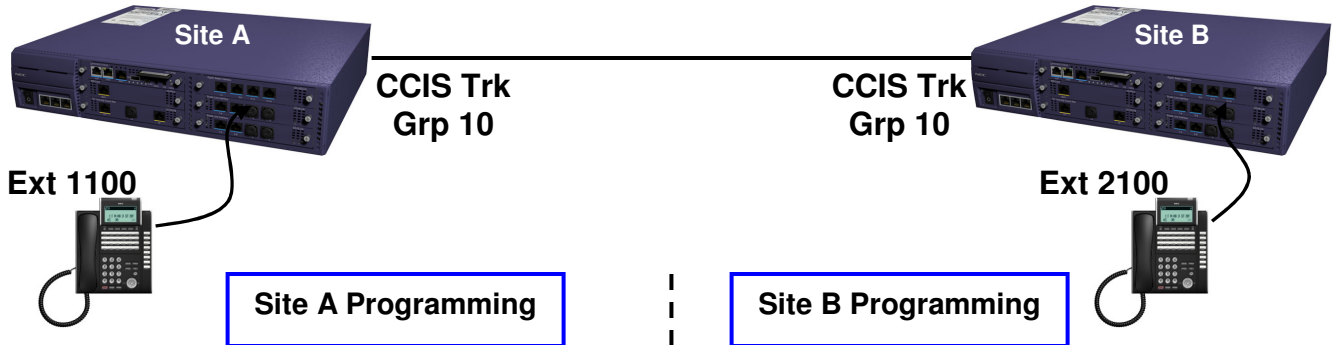


E.g.. CM 50-03 must include all sites in the CCIS network. To the right the diagram shows site Blue connected to 5 other sites. CM 50-03 would be assigned in site Blue as follows....

- PC 2 – CCIS Rt ID 1
- PC 3 – CCIS Rt ID 2
- PC 4 – CCIS Rt ID 2
- PC 5 – CCIS Rt ID 2
- PC 6 – CCIS Rt ID 1

Even though PC 5 is connected to CCIS Rt ID 3 in PC 3 it is assigned as Rt ID 2 in the Blue system as this is the route the call would take leaving Blue to get to PC 5.

Dialing over CCIS



11-01: System Numbering

2nd Dial Digit:

1st and 2nd Dial Digits	Dial Digit Length	
11	<input type="text" value="4"/>	Extension
21	<input type="text" value="2"/>	F-Route

11-01: System Numbering

2nd Dial Digit:

1st and 2nd Dial Digits	Dial Digit Length	
11	<input type="text" value="2"/>	F-Route
21	<input type="text" value="4"/>	Extension

44-02: F-Route Dial Analysis Table

Table Entry (1~120):

Table Entry	Dial Digits	Service Type	Additional Data
001	<input type="text" value="2"/>	F-Route Table	<input type="text" value="1"/>

44-02: F-Route Dial Analysis Table

Table Entry (1~120):

Table Entry	Dial Digits	Service Type	Additional Data
001	<input type="text" value="1"/>	F-Route Table	<input type="text" value="1"/>

44-05: F-Route Table

F-Route Table (1~500):

01 - Trunk Group	<input type="text" value="10"/>
09 - Maximum Dialing Digit	<input type="text" value="4"/>

44-05: F-Route Table

F-Route Table (1~500):

01 - Trunk Group	<input type="text" value="10"/>
09 - Maximum Dialing Digit	<input type="text" value="4"/>

For additional CCIS features such as Page over CCIS, Centralized VM, DSS/BLF over CCIS, etc, please see the P2P CCIS Cheat Sheet.