NORTEL

Carrier VoIP

SAM21 Shelf Controller Security and Administration

NN10177-611

Document status: Standard
Document version: 08.01
Document date: 20 October 2006

SAM21 Shelf Controller Security and Administration

New in this release

Feature changes

All the feature changes are associated with activity A00015879.

We have added a procedure for changing the password of a SAM21 shelf controller card, "Changing the password of a SAM21 shelf controller card" (page 8).

We have added three procedures explaining how to reset the password of a SAM21 shelf controller card to its default value. You will have to do this if you set the password and subsequently forget it. The password-reset procedures are as follows.

- If the SAM21 shelf contains two SAM21 shelf controller cards, and one or more passwords on each of the cards have been forgotten, use the procedure "Resetting SAM21 shelf controller card passwords (I)" (page 12).

- If the SAM21 shelf contains two SAM21 shelf controller cards, and one or more passwords on one of the cards have been forgotten, use the procedure "Resetting SAM21 shelf controller card passwords (II)" (page 26).

- If the SAM21 shelf contains one SAM21 shelf controller card, and one or more passwords on that card have been forgotten, use the procedure "Resetting SAM21 shelf controller card passwords (III)" (page 32).

Other changes

There are no other changes.

Security and administration strategy

Security for the SAM21 shelf controllers is implemented according to the items in the following list:

- physical security of the client workstation

- physical security of the SAM21 shelf

- security mechanisms available through the client workstation operating system

- SAM21 shelf controllers only allow login connections from the CS 2000 Core Manager, the host that provides the CS 2000 Management Tools, and the mate SAM21 shelf controller

Tools and utilities

There are no tools or utilities for security. The CS 2000 SAM21 Manager client is the interface for administration of the SAM21 shelf controllers.

If a Card View window is opened and a task or maintenance is completed, close the window rather than minimize the window. Memory consumption is kept to a minimum, but several unused and open Card View windows can consume memory on the CS 2000 SAM21 Manager client workstation.

User administration

The SAM21 shelf controllers do not implement any custom security features. The CS 2000 SAM21 Manager client authenticates users when the application is started.

Adding a user

The SAM21 shelf controllers do not provide user adminstration. The CS 2000 SAM21 Manager provides authentication, but not user administration. For procedures on how to add a user to the CS 2000 SAM21 Manager client workstation, contact your system administrator or refer to the operating system reference documentation.

Setting privileges

The SAM21 shelf controllers and the CS 2000 SAM21 Manager client do not implement user privilege administration.

Removing a user

To prevent user access to the CS 2000 SAM21 Manager client, contact your system administrator to disable the user account on the workstation.
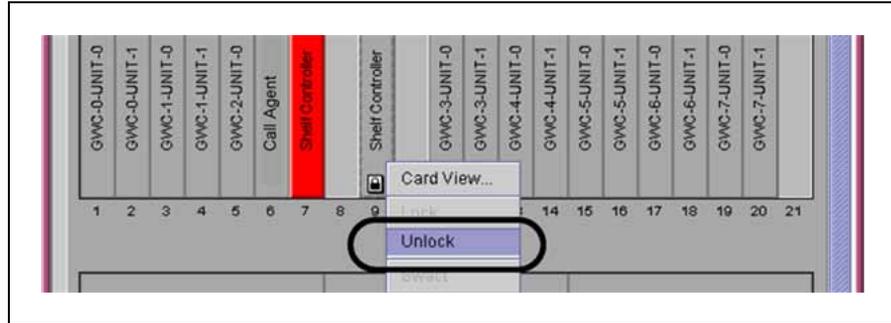
Device administration

Administration of the SAM21 shelf controllers is done through the CS 2000 SAM21 Manager client.

Unlocking a SAM21 shelf controller

Step	Action

At the CS 2000 SAM21 Manager client workstation

1   From the Shelf View, right click on the SAM21 shelf controller and
select Unlock from the context menu.

—End—

Locking a SAM21 shelf controller

Step	Action

At the CS 2000 SAM21 Manager client workstation

1   From the Shelf View, right click on the SAM21 shelf controller and
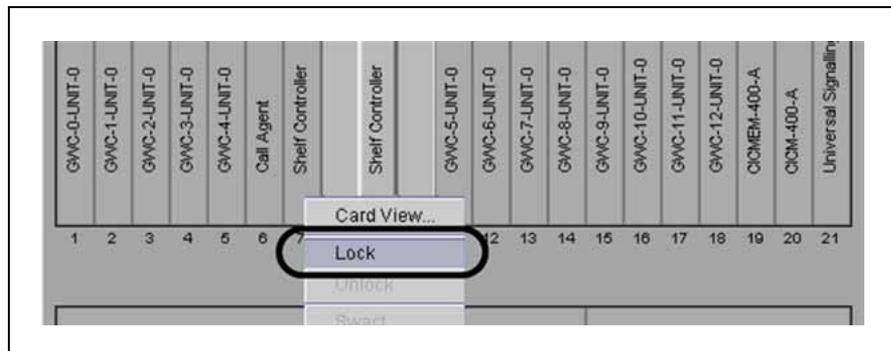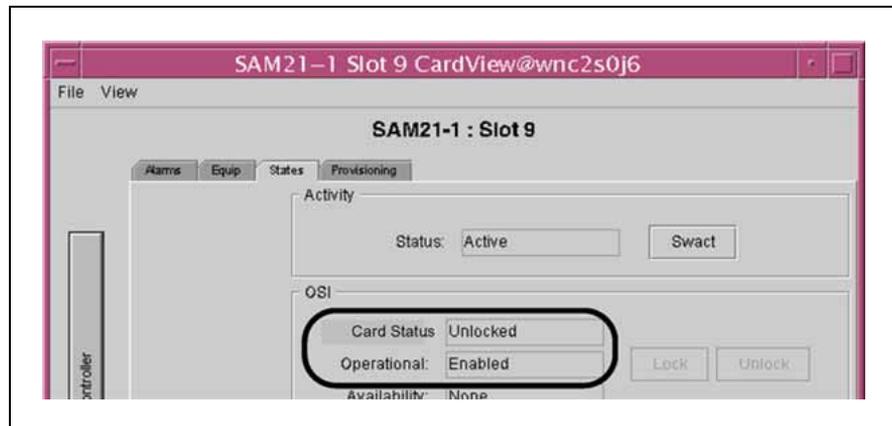select Lock from the context menu.

Only lock a circuit pack that is in service. If a SAM21 shelf controller
is unlocked and then re-locked before the SAM21 shelf controller
boots, flash memory can be corrupted and require a replacement
SAM21 shelf controller. Check that a SAM21 shelf controller is
Unlocked and Enabled from the Status tab of the Card View window.
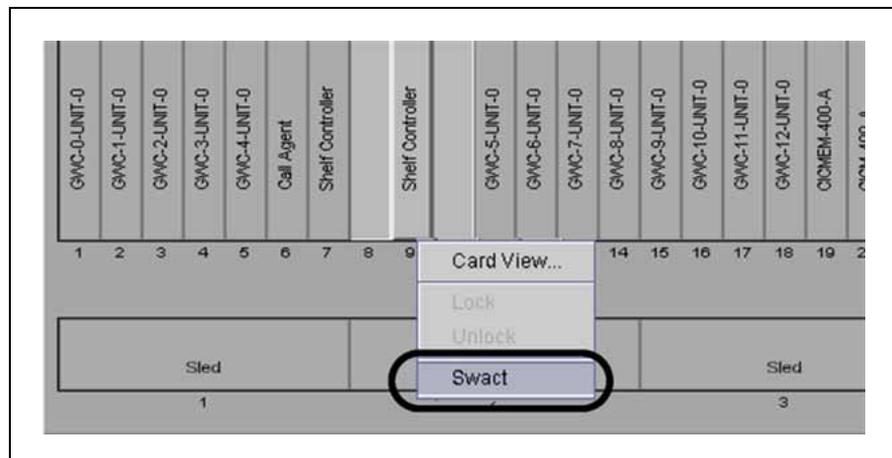
—End—

Invoking manual protection switch

Step	Action

At the CS 2000 SAM21 Manager client workstation

1 From the Shelf View, right click on the SAM21 shelf controller and select Swact from the context menu.

Swact is available on the active SAM21 shelf controller only.

—End—

Replacing air filters

Replace the three air filters from the front of the fan sleds on the SAM21 shelf with part number A0828397. This part number includes three air filters. Replace these air filters every 10 000 hours. When performing the replacement, replace one air filter at a time and do not leave a fan not inserted for more than one minute.

Changing the password of a SAM21 shelf controller card

Each SAM21 shelf controller card has a unique password. When the card is first installed, the system automatically generates and sets the initial password.

You can change the password of the SAM21 shelf controller card. You can assign the same password to multiple SAM21 shelf controller cards, or you can assign unique passwords of your own choosing to each SAM21 shelf controller card.

If you set the password, it will survive system restarts, and it will remain unchanged until you set it to something else.

ATTENTION
Ensure that the password will never be forgotten
If you assign a password, you must make arrangements to ensure that it will never be forgotten.

Interval

Perform this procedure as required.

Prerequisite

You must know the IP address of each SAM21 shelf controller card whose password you want to change.

If you are going to set the password of a SAM21 shelf controller card that has a user-specified password for the mtc user, then you must know that password.

If you are going to set the password of a SAM21 shelf controller card that has a user-specified password for the root user, then you must know that password.

Common Procedures

This procedure does not refer to any common procedures.

Action

Changing the password of a SAM21 shelf controller card

Step	Action

1   Log on as the maintenance user. At the prompt, type the following command and press the Enter key.

```
ssh -l mtc <IP-address>
```

where

<IP-address> is the IP address of the SAM21 shelf controller card whose password you want to change

Example of system response:
```
mtc@47.168.18.190's password:
```

2   Select the next step as follows:

If	Do
the current mtc password is the default password (the password that the system automatically generated)	step 3
the current mtc password is a user-specified password	step 5

3   Type the default password of the mtc user, and press the Enter key.

The default password of the mtc user is the IP address of the card.

For example, type

```
47.168.44.46
```

and press the Enter key..

In response the system displays the mtc user's prompt.

4   Go to step 6.

5   Type the user-specified password of the mtc user and press the Enter key.

In response the system displays the mtc user's prompt.

6 Select the next step as follows:

If	Do
the current root password is the one the system automatically generated	step 7
the current root password is a user-specified password	step 8

7 Find out the MAC address of the SAM21 shelf controller card. At the prompt, type the following command and press the Enter key.

```
scdata  -s  <slot>
```

where

<slot> is the slot number of the SAM21 shelf controller card

For example, type

```
scdata  -s  7
```

and press the Enter key.

Example of system response:
```
==================== SLOT 7 ==============
==== STATES ========= DATA ===============
CPU-A              mac_add: 0001AF00FD60
.
.
.
=========================================
```

Make note of the last six characters of the MAC address.

8 Use the switch-user command to become the root user. At the prompt, type the following command and press the Enter key.

```
su  -
```

Example of system response:
```
Password:
```

9 Select the next step as follows:

If	Do
the current root password is the one the system automatically generated	step 10
the current root password is a user-specified password	step 12

10   At the prompt, type in the last six characters of the MAC address that the system displayed in step 7.

For example, type

`00FD60`

and press the Enter key.

11   Go to step 13.

12   At the prompt, type in the current password and press the Enter key.

13   Change the password. At the prompt, type the following command and press the Enter key.

`echo "root:<newpassword>" | /usr/sbin/chpasswd`

where

<newpassword> is the password of your choosing

Passwords are case-sensitive. For example, the system would regard LION and lion as different passwords.

For example, type

`echo "root:123456" | /usr/sbin/passwd`

and press the Enter key.

14   Terminate the session. At the prompt, type the following command and press the Enter key.

`exit`

15   Select the next step as follows:

If	Do
you want to change the password of another card	step 1
you do not want to change the password of another card	step 16

16   You have completed the procedure.

—End—

Resetting SAM21 shelf controller card passwords (I)

There are three procedures for resetting the password of a SAM21 shelf controller password. Use the procedure that suits your situation:

- If the SAM21 shelf contains two SAM21 shelf controller cards, and one or more passwords on each of the cards have been forgotten, use this procedure.

- If the SAM21 shelf contains two SAM21 shelf controller cards, and one or more passwords on one of the cards have been forgotten, use the procedure "Resetting SAM21 shelf controller card passwords (II)" (page 26).

- If the SAM21 shelf contains one SAM21 shelf controller card, and one or more passwords on that card have been forgotten, use the procedure "Resetting SAM21 shelf controller card passwords (III)" (page 32).

Interval

Perform this procedure as required.

Prerequisites

The prerequisites are as follows.

- You must have a terminal connected to a computer that enables you to access the SAM21 shelf controller cards. You can use a Linux terminal, that is, a terminal connected to a computer that is running the Linux operating system, which allows you to create an xterm window. Alternatively, you can use a Windows terminal, that is, a terminal connected to a computer running a Windows operating system. The Windows computer must have third-party ssh software. The Linux computer or Windows computer must be able to access the CS LAN--for example, by way of the 8600 switch.

- You must know the IP address of each SAM 21 shelf controller card.

- If you want to avoid typing in the new passwords one by one, you can preload the usernames and passwords into ASCII files. In such a file, each line must contain one username-and-password pair, in the format **username:password**. You must know the fully qualified pathname of each such file.

Common procedures

This procedure does not refer to common procedures.

Action

Use this procedure to reset the passwords of both SAM21 shelf controller cards in a SAM21 shelf.

Resetting the passwords of the SAM21 shelf controller card (I)

Step	Action

At SAM21 element manager terminal

1   If the SAM21 shelf controller card in slot 7 is not inactive, Swact the SAM21 shelf controller cards. To Swact the cards, proceed as follows. In the Shelf View, right click on the SAM21 shelf controller in slot 7 and select Swact from the context menu.

If the SAM21 Shelf Controller is configured with an ATM interface, perform the Swact at a period of low activity.

2   In the Shelf View window, right click on the card icon for the SAM21 shelf controller card in slot 7, and select Lock from the card context menu..

At the front of the SAM21 shelf

3   Unlock the ejector levers on the SAM21 Shelf Controller card in slot 7. Verify that the green LED is not lit and that the red LED is lit.


CAUTION
Danger of component damage
Electronic components are extremely sensitive to electrostatic discharge (ESD). When you remove the SAM21 shelf controller from the shelf, hold it by the latches only. The workbench surface on which you place the card must be grounded and static-free. Put the card down component side up. Do not slide it over any surface.

---

4   Pull the card out of the shelf and take it to your work bench, and place it on your workbench, component side up.

At your work bench

5   Attach an ESD strap to your wrist. Attach the other end of the strap to a ground point. The ESD strap must be secured to your wrist and to the ground point while you remove or install components on the SAM21 shelf controller card..

6   Remove the four phillips-head screws at the corners of the RAM300 mezzanine module. Put the screws aside in a safe place.

11661.00 9611 (2-3)
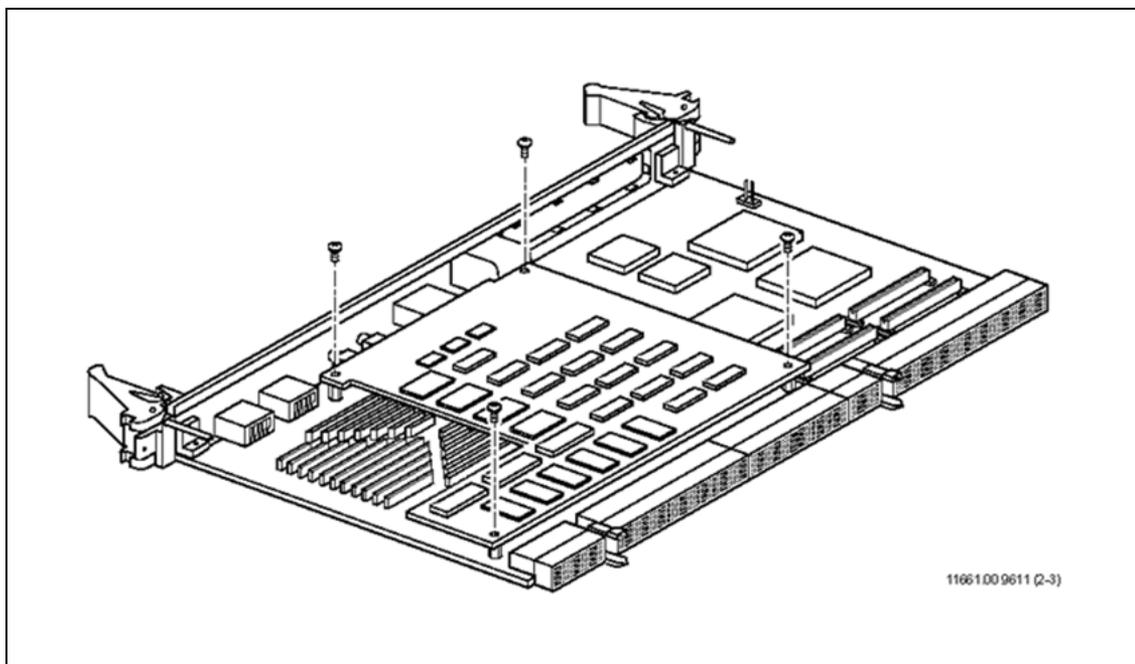
7 Remove the RAM300 mezzanine module by gently lifting it near the connector end of the module. Put the RAM300 mezzanine module aside in a safe place.

8 Remove the the flash memory card. Slide it out of the J9 connector and put it aside in a safe place.

Flash memory card

2117 9710
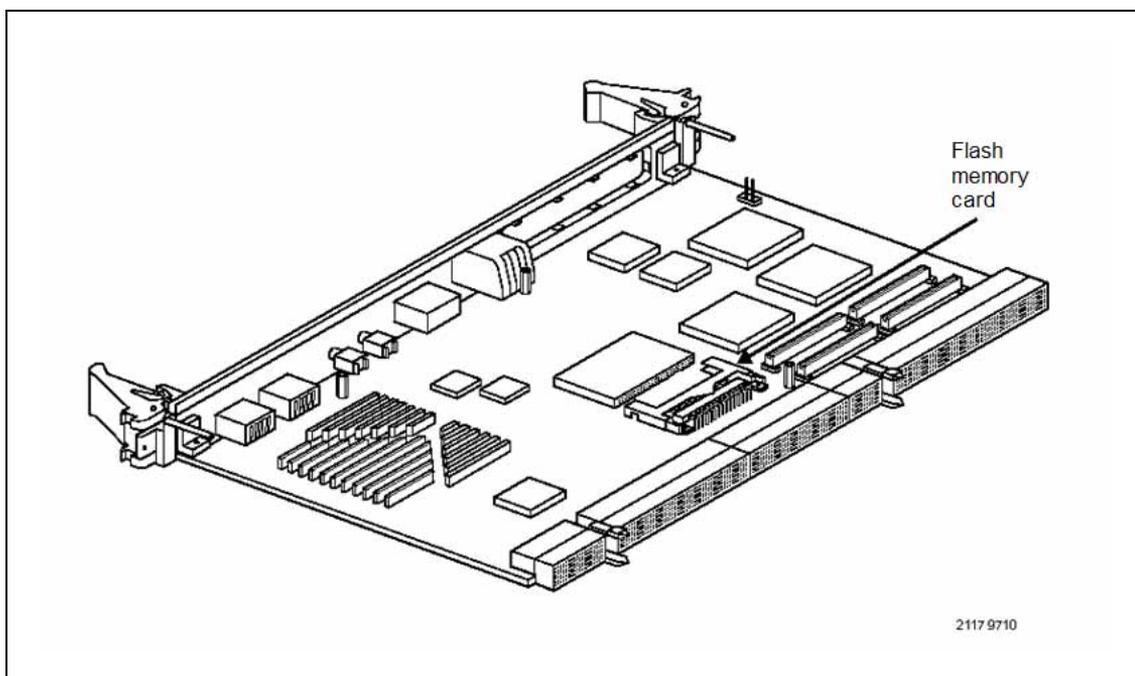
9   Place the RAM300 mezzanine module on top of the SAM21 shelf
controller card. The connector on the underside of the RAM300
mezzanine module should connect with the corresponding connector
(J10) on the SAM21 shelf controller card.

10   Insert four short phillips-head screws through the holes at the
corners of the RAM300 mezzanine and into the standoffs on the
SAM21 shelf controller card. Tighten the screws.

At the front of the SAM21 shelf

11   Re-insert the SAM21 shelf controller card into slot 7.

When re-inserting the card, hold it by the latches. Do not push on
the faceplate.

Verify that the CPU LED lights. If the CPU LED does not light, reseat
the card.

12   Wait for the card to appear in the Shelf View window.

13   In the Shelf View window, right click on the card icon for the SAM21
shelf controller card in slot 7, and select Unlock from the card
context menu.

At the Linux or Windows terminal

14   Log on to the card in slot 7 using the default username and password
of the mtc user. At the prompt, type

`ssh -l <Username> <IP-address>`

and press the Enter key

where

<Username> is mtc

<IP-address> is the IP address of the card

For example, type

`ssh -l mtc 47.168.18.190`

Example of system response:
`mtc@47.168.18.190's password:`

15   Type the default password of the mtc user, and press the Enter key.

The default password of the mtc user is the IP address of the card.

For example, type

`47.168.18.190`

and press the Enter key.

In response the system displays the mtc user's prompt.

16   Find out the MAC address of the card. At the prompt, type

```
scdata -s 7
```

and press the Enter key.

Example of system response:
```
===============SLOT 7===============
====STATES=============DATA================
CPU-A ==================mac_add:  0001AF00FD60
.
.
.
============================================
```

17   Use the switch-user command to become the root user. At the prompt, type

```
su -
```

and press the Enter key.

Example of system response:
```
Password:
```

18   Type in the last six characters of the MAC address.

For example, type

```
00FD60
```

and press the Enter key.

19   Type

```
smpe rm –f /persistence/pw/shadow
```

and press the Enter key.

There is no system response to the command.

20   Type

```
smpe rm –f /persistence/pw/passwd
```

and press the Enter key.

There is no system response to the command.

21   Terminate the session. At the prompt, type

```
exit
```

and press the Enter key.

At the SAM21 element manager terminal

22   Lock the SAM21 shelf controller card in slot 9. In the Shelf View window, right click on the card icon and select Lock from the card context menu.

23   Unlock the SAM21 shelf controller card in slot 9. In the Shelf View window, right click on the card icon and select Unlock from the card context menu.

At the Linux or Windows terminal

24   Log on to the card in slot 9 as the maintenance user. At the prompt, type

```
ssh -l mtc <IP-address>
```

and press the Enter key

where

<IP-address> is the IP address of the card.

Example of system response:
```
mtc@47.168.18.191's password:
```

25   Type the default password of the mtc user, and press the Enter key.

The default password of the mtc user is the IP address of the card.

For example, type

```
47.168.18.191
```

and press the Enter key.

In response the system displays the mtc user's prompt.

26   Find out the MAC address of the card. At the prompt, type

```
scdata -s 9
```

and press the Enter key.

Example of system response:
```
===============SLOT 9===============
====STATES=============DATA================
CPU-A =================mac_add:  0001AF00FD61
.
.
.
=============================================
```

27   Use the switch-user command to become the root user. At the prompt, type

```
su -
```

and press the Enter key.

Example of system response:
```
Password:
```

28   Type in the last six characters of the MAC address.

For example, type

00FD61

and press the Enter key.

In response the system displays the root user's prompt.

29   Change the passwords of the SAM21 shelf controller card in slot 9.
At the prompt, type

chpasswd

and press the Enter key.

Example of system response:
```
Enter username:password pairs, one pair per line.
Enter CTRL+D when finished.
```

30   Select the next step as follows:

If	Do
you intend to type in the username:password pairs at the prompt	step 31
you have preloaded the username:password pairs into an ASCII file	step 35

31   Type in a username and password, separated by a colon, and press
the Enter key.

For example, type

mtc01:grfld11

and press the Enter key.

ATTENTION
The username must be the username of an existing user. You cannot
create a new user in this way.

---

32   Select the next step as follows:

If	Do
you want to type in another username:password pair	step 31
you have finished typing in all username:password pairs	step 33

33   Indicate that you are finished inputting usernames and passwords. Hold down the CTRL key and press the D key.

34   Go to step 36.

35   If you have preloaded the username-and-password pairs into an ASCII file, type

`cat <filename> │ chpasswd`

and press the Enter key

where

<filename> is the fully qualified pathname of the file.

ATTENTION
The usernames in the file must be the usernames of existing users. You cannot create new users in this way.

---

36   Terminate the session. Type

`exit`

and press the Enter key.

At the SAM21 Element Manager terminal

37   If the SAM21 shelf controller card in slot 7 is not inactive, Swact the SAM21 shelf controller cards. To Swact the cards, proceed as follows. In the Shelf View, right click on the SAM21 shelf controller in slot 7 and select Swact from the context menu.

   If the SAM21 Shelf Controller is configured with an ATM interface, perform the Swact at a period of low activity.

38   In the Shelf View window, right click on the card icon for the SAM21 shelf controller card in slot 7, and select Lock from the card context menu.

At the front of the SAM21 shelf

39   Unlock the ejector levers on the SAM21 Shelf Controller card in slot 7. Verify that the green LED is not lit and that the red LED is lit.

<table>
<tr>
<td>

CAUTION
Danger of component damage
Electronic components are extremely sensitive to electrostatic
discharge (ESD). When you remove the SAM21 shelf controller
from the shelf, hold it by the latches only. The workbench surface
on which you place the card must be grounded and static-free. Put
the card down component side up. Do not slide it over any surface.

</td>
</tr>
</table>

40   Pull the card out of the shelf and take it to your work bench, and
place it on your workbench, component side up.

At your work bench

41   Attach an ESD strap to your wrist. Attach the other end of the strap
to a ground point. The ESD strap must be secured to your wrist
and to the ground point while you remove or install components on
the SAM21 shelf controller card..

42   Remove the four phillips-head screws at the corners of the RAM300
mezzanine module. Put the screws aside in a safe place.

11661.00.9611 (2-3)
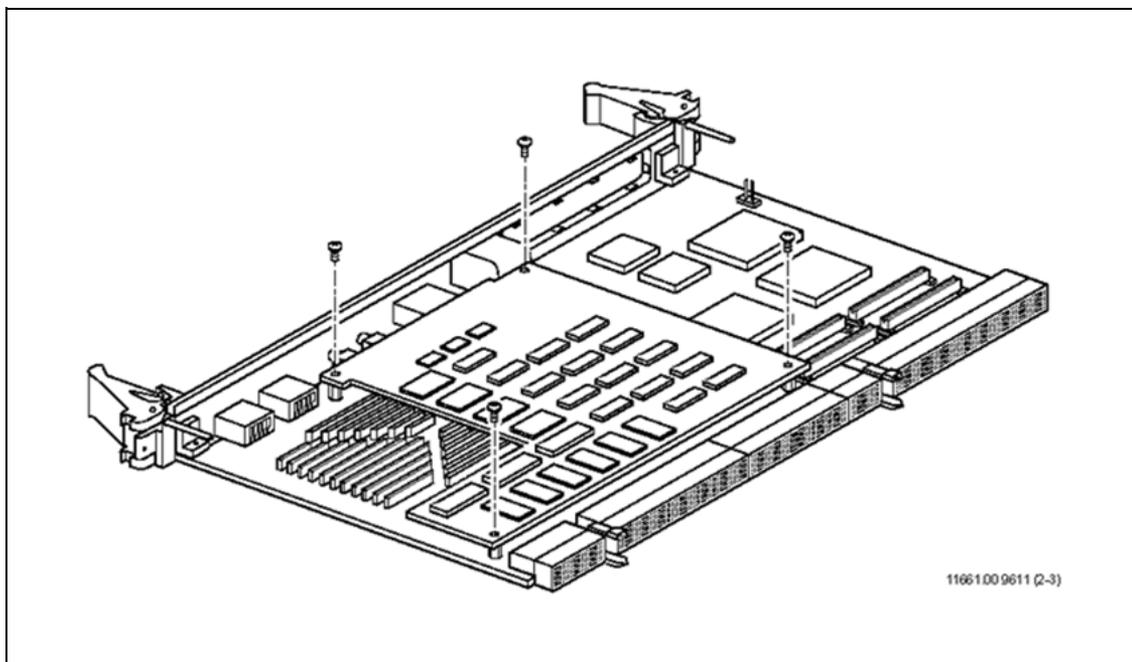
43   Remove the RAM300 mezzanine module by gently lifting it near the
connector end of the module. Put the RAM300 mezzanine module
aside in a safe place.

44   Slide the compact flash memory card into the J9 connector and
ensure that pin 1 of the card aligns with pin 1 of J9.

Flash
memory
card

2117 9710
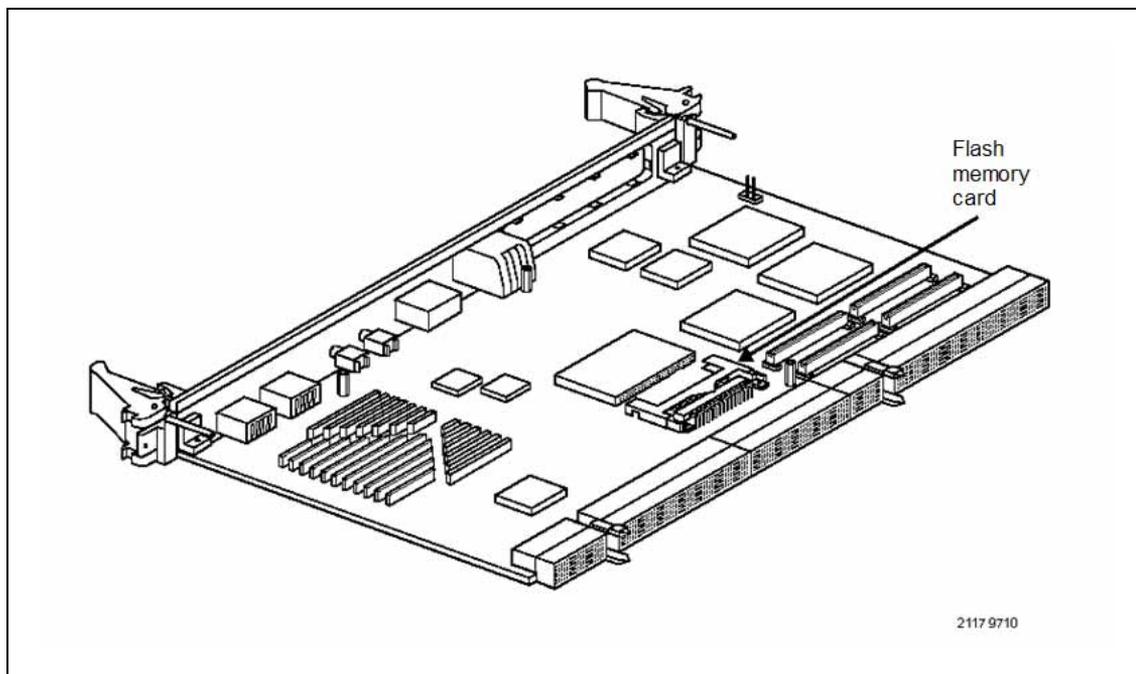
45 Place the RAM300 mezzanine module on top of the SAM21 shelf
controller card. The connector on the underside of the RAM300
mezzanine module should connect with the corresponding connector
(J10) on the SAM21 shelf controller card.

46 Insert four short phillips-head screws through the holes at the
corners of the RAM300 mezzanine and into the standoffs on the
SAM21 shelf controller card. Tighten the screws.

At the front of the SAM21 shelf

47 Re-insert the SAM21 shelf controller card into slot 7.

When re-inserting the card, hold it by the latches. Do not push on
the faceplate.

Verify that the CPU LED lights. If the CPU LED does not light, reseat
the card.

48 Wait for the card to appear in the Shelf View window.

49 In the Shelf View window, right click on the card icon for the SAM21
shelf controller card in slot 7, and select Unlock from the card
context menu.

At the Linux or Windows terminal

50 Log on to the card in slot 9 as the maintenance user. At the prompt,
type

```
ssh -l mtc <IP-address>
```

and press the Enter key

where

<IP-address> is the IP address of the card.

Example of system response:
`mtc@47.168.18.191's password:`

51   Type the password of the mtc user, and press the Enter key.

The password of the mtc user is a password you specified earlier in this procedure.

In response the system displays the mtc user's prompt.

52   Use the switch-user command to become the root user. At the prompt, type

`su -`

and press the Enter key.

Example of system response:
`Password:`

53   Type the password of the root user, and press the Enter key.

The password of the root user is a password you specified earlier in this procedure.

In response the system displays the mtc user's prompt.

54   Type

`smpe rm -f /persistence/pw/shadow`

and press the Enter key.

There is no system response to the command.

55   Type

`smpe rm -f /persistence/pw/passwd`

and press the Enter key.

There is no system response to the command.

56   Terminate the session. At the prompt, type

`exit`

and press the Enter key.

At the SAM21 element manager terminal

57   Lock the SAM21 shelf controller card in slot 7. In the Shelf View window, right click on the card icon and select Lock from the card context menu.

58   Unlock the SAM21 shelf controller card in slot 7. In the Shelf View window, right click on the card icon and select Unlock from the card context menu.

At the Linux or Windows terminal

59   Log on to the card in slot 7 as the maintenance user. At the prompt, type

`ssh -l mtc <IP-address>`

and press the Enter key

where

<IP-address> is the IP address of the card.

Example of system response:
mtc@47.168.18.190's password:

60   Type the default password of the mtc user, and press the Enter key.

The default password of the mtc user is the IP address of the card.

For example, type

`47.168.18.190`

and press the Enter key.

In response the system displays the mtc user's prompt.

61   Find out the MAC address of the card. At the prompt, type

`scdata -s 7`

and press the Enter key.

Example of system response:
```
===============SLOT 7===============
====STATES=============DATA=================
CPU-A ==================mac_add:  0001AF00FD60
.
.
.
=============================================
```

62   Use the switch-user command to become the root user. At the prompt, type

`su -`

and press the Enter key.

Example of system response:
```
Password:
```

63 Type in the last six characters of the MAC address.

For example, type

00FD60

and press the Enter key.

In response the system displays the root user's prompt.

64 Change the passwords of the SAM21 shelf controller card in slot 7. At the prompt, type

chpasswd

and press the Enter key.

Example of system response:
```
Enter username:password pairs, one pair per line.
Enter CTRL+D when finished.
```

65 Select the next step as follows:

If	Do
you intend to type in the username:password pairs at the prompt	step 66
you have preloaded the username:password pairs into an ASCII file	step 70

66 Type in a username and password, separated by a colon, and press the Enter key.

For example, type

mtc01:grfld11

and press the Enter key.

ATTENTION
The username must be the username of an existing user. You cannot create a new user in this way.

---

67   Select the next step as follows:

If	Do
you want to type in another username:password pair	step 66
you have finished typing in all username:password pairs	step 68

68   Indicate that you are finished inputting usernames and passwords. Hold down the CTRL key and press the D key.

69   Go to step 71.

70   If you have preloaded the username-and-password pairs into an ASCII file, type

`cat <filename> | chpasswd`

and press the Enter key

where

<filename> is the fully qualified pathname of the file.

ATTENTION

The usernames in the file must be the usernames of existing users. You cannot create new users in this way.

---

71   Terminate the session. Type

`exit`

and press the Enter key.

72   If you are working in an xterm window, click on the "Close" button in the xterm window.

73   You have completed the procedure.

—End—

Resetting SAM21 shelf controller card passwords (II)

There are three procedures for resetting the password of a SAM21 shelf controller password. Use the procedure that suits your situation:

- If the SAM21 shelf contains two SAM21 shelf controller cards, and one or more passwords on each of the cards have been forgotten, use the procedure "Resetting SAM21 shelf controller card passwords (I)" (page 12).

- If the SAM21 shelf contains two SAM21 shelf controller cards, and one or more passwords on one of the cards have been forgotten, use this procedure.

- If the SAM21 shelf contains one SAM21 shelf controller card, and one or more passwords on that card have been forgotten, use the procedure "Resetting SAM21 shelf controller card passwords (III)" (page 32).

Interval

Perform this procedure as required.

Prerequisites

The prerequisites are as follows.

- You must have a terminal connected to a computer that enables you to access the SAM21 shelf controller cards. You can use a Linux terminal, that is, a terminal connected to a computer that is running the Linux operating system, which allows you to create an xterm window. Alternatively, you can use a Windows terminal, that is, a terminal connected to a computer running a Windows operating system. The Windows computer must have third-party ssh software. The Linux computer or Windows computer must be able to access the CS LAN--for example, by way of the 8600 switch.

- You must know the IP address of each SAM 21 shelf controller card.

- If you want to avoid typing in the new passwords one by one, you can preload the usernames and passwords into an ASCII file. In such a file, each line must contain one username-and-password pair, in the format `username:password`. You must know the fully qualified pathname of the file.

Common procedures

This procedure does not refer to common procedures.

Action

Use this procedure to reset the passwords of one SAM21 shelf controller card in a SAM21 shelf that contains two SAM21 shelf controller cards.

Resetting the passwords of the SAM21 shelf controller card (II)

Step	Action

At the Linux or Windows terminal

1   To begin, you must log on to the SAM21 shelf controller card whose passwords do not need to be reset. Log on to the card as the mtc user. At the prompt, type

ssh -l <Username> <IP-address>

and press the Enter key

where

<Username> is mtc

<IP-address is the IP address of the card

For example, type

ssh -l mtc 47.168.18.190

Example of system response:
mtc@47.168.18.190's password:

2   Type the password of the mtc user and press the Enter key.

In response the system displays the mtc user's prompt.

3   Use the switch-user command to become the root user. At the prompt, type

su -

and press the Enter key.

Example of system response:
Password:

4   Type in the root password of the card and press the Enter key.

In response the system displays the root user's prompt.

5   Type

smpe rm –f /persistence/pw/shadow

and press the Enter key.

There is no system response to the command.

6   Type

```
smpe rm -f /persistence/pw/passwd
```

and press the Enter key.

There is no system response to the command.

7 Terminate the session. At the prompt, type

```
exit
```

and press the Enter key.

At the SAM21 element manager terminal

8 Lock the SAM21 shelf controller card whose passwords need to be reset. In the Shelf View window, right click on the card icon and select Lock from the card context menu.

9 Unlock the SAM21 shelf controller card whose passwords need to be reset. In the Shelf View window, right click on the card icon and select Unlock from the card context menu.

At the Linux or Windows terminal

10 Log on to the SAM21 shelf controller card whose passwords need to be reset. Log on as the maintenance user. At the prompt, type

```
ssh -l mtc <IP-address>
```

and press the Enter key

where

<IP-address> is the IP address of the card.

Example of system response:
```
mtc@47.168.18.191's password:
```

11 Type the default password of the mtc user, and press the Enter key.

The default password of the mtc user is the IP address of the card.

For example, type

```
47.168.18.191
```

and press the Enter key.

In response the system displays the mtc user's prompt.

12 Find out the MAC address of the card. At the prompt, type

```
scdata -s <slot>
```

and press the Enter key

where

<slot> is the slot number of the card whose passwords need to be reset

For example, if the SAM21 shelf controller card whose passwords need to be reset is in slot 9, type

scdata -s 9

and press the Enter key.

Example of system response:
```
===============SLOT 9==============
====STATES=============DATA================
CPU-A ==================mac_add:  0001AF00FD61
.
.
.
============================================
```

13 Use the switch-user command to become the root user. At the prompt, type

su -

and press the Enter key.

Example of system response:
```
Password:
```

14 Type in the last six characters of the MAC address.

For example, type

00FD61

and press the Enter key.

In response the system displays the root user's prompt.

15 Change the passwords of the SAM21 shelf controller card. At the prompt, type

chpasswd

and press the Enter key.

Example of system response:
```
Enter username:password pairs, one pair per line.
Enter CTRL+D when finished.
```

16 Select the next step as follows:

If	Do
you intend to type in the username:password pairs at the prompt	step 17
you have preloaded the username:password pairs into an ASCII file	step 21

17 Type in a username and password, separated by a colon, and press the Enter key.

For example, type

`mtc01:grfld11`

and press the Enter key.

ATTENTION
The username must be the username of an existing user. You cannot create a new user in this way.

---

18 Select the next step as follows:

If	Do
you want to type in another username:password pair	step 17
you have finished typing in all username:password pairs	step 19

19 Indicate that you are finished inputting usernames and passwords. Hold down the CTRL key and press the D key.

20 Go to step 22.

21 If you have preloaded the username-and-password pairs into an ASCII file, type

`cat <filename> | chpasswd`

and press the Enter key

where

<filename> is the fully qualified pathname of the file.

ATTENTION

The usernames in the file must be the usernames of existing users. You cannot create new users in this way.

---

22   Terminate the session. Type

exit

and press the Enter key.

23   If you are working in an xterm window, click on the "Close" button in the xterm window.

24   You have completed the procedure.

—End—

Resetting SAM21 shelf controller card passwords (III)

There are three procedures for resetting the password of a SAM21 shelf controller password. Use the procedure that suits your situation:

- If the SAM21 shelf contains two SAM21 shelf controller cards, and one or more passwords on each of the cards have been forgotten, use the procedure "Resetting SAM21 shelf controller card passwords (I)" (page 12).

- If the SAM21 shelf contains two SAM21 shelf controller cards, and one or more passwords on one of the cards have been forgotten, use the procedure "Resetting SAM21 shelf controller card passwords (II)" (page 26).

- If the SAM21 shelf contains one SAM21 shelf controller card, and one or more passwords on that card have been forgotten, use this procedure.

Interval

Perform this procedure as required.

Prerequisites

The prerequisites are as follows.

- You must have a terminal connected to a computer that enables you to access the SAM21 shelf controller card. You can use a Linux terminal, that is, a terminal connected to a computer that is running the Linux operating system, which allows you to create an xterm window. Alternatively, you can use a Windows terminal, that is, a terminal connected to a computer running a Windows operating system. The Windows computer must have third-party ssh software. The Linux computer or Windows computer must be able to access the CS LAN--for example, by way of the 8600 switch.

- You must know the IP address of the SAM 21 shelf controller card.

- If you want to avoid typing in the new passwords one by one, you can preload the usernames and passwords into an ASCII file. In such a file, each line must contain one username-and-password pair, in the format **username:password**. You must know the fully qualified pathname of the file.

Common procedures

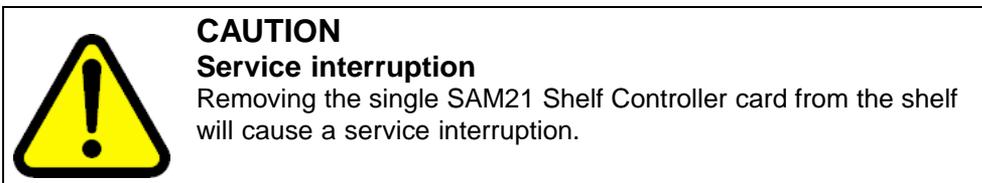This procedure does not refer to common procedures.

Action

Use this procedure to reset the passwords of the SAM21 shelf controller card in a SAM21 shelf that contains only one such card.

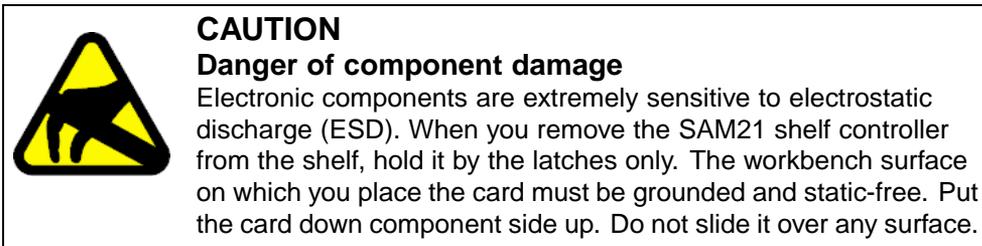### Resetting the passwords of the SAM21 shelf controller card (III)

Step	Action

At SAM21 element manager terminal

1   In the Shelf View window, right click on the card icon and select Lock from the card context menu.

At the front of the SAM21 shelf

|	**CAUTION**
⚠️	**Service interruption**
	Removing the single SAM21 Shelf Controller card from the shelf will cause a service interruption.

2   Unlock the ejector levers on the SAM21 Shelf Controller card, Verify that the green LED is not lit and that the red LED is lit.

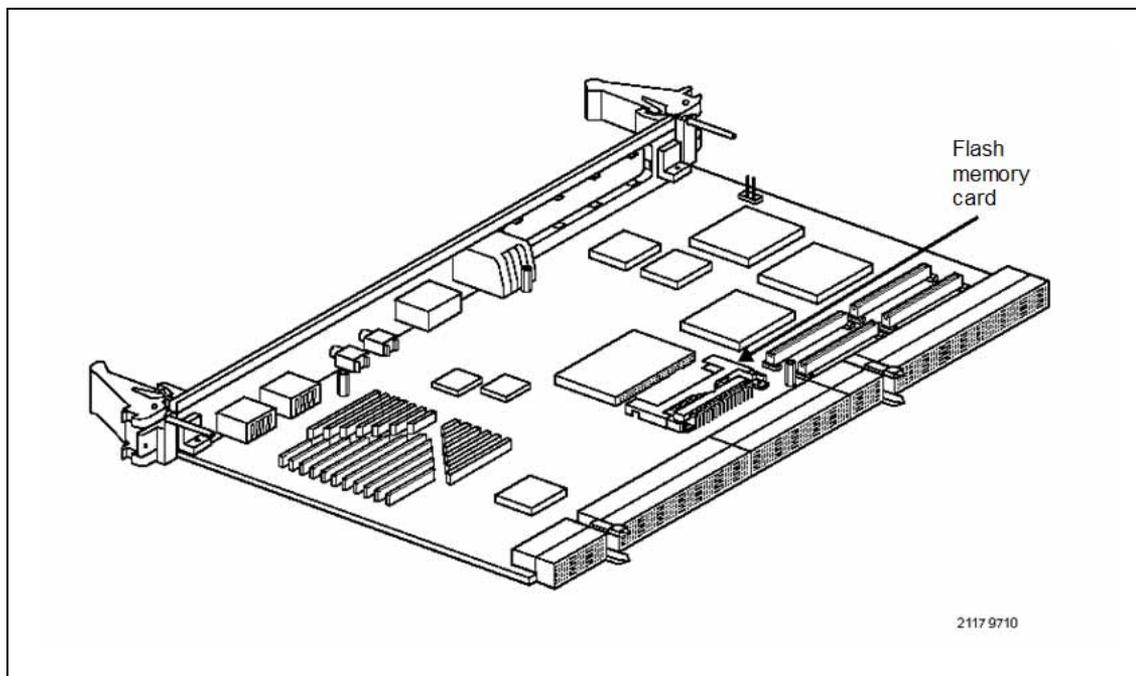|	**CAUTION**
⚠️	**Danger of component damage**
	Electronic components are extremely sensitive to electrostatic discharge (ESD). When you remove the SAM21 shelf controller from the shelf, hold it by the latches only. The workbench surface on which you place the card must be grounded and static-free. Put the card down component side up. Do not slide it over any surface.

3   Pull the card out of the shelf and take it to your work bench, and place it on your workbench, component side up.

At your work bench

4   Attach an ESD strap to your wrist. Attach the other end of the strap to a ground point. The ESD strap must be secured to your wrist and to the ground point while you remove or install components on the SAM21 shelf controller card..

5   Remove the four phillips-head screws at the corners of the RAM300 mezzanine module. Put the screws aside in a safe place.

11661.00.9611 (2-3)
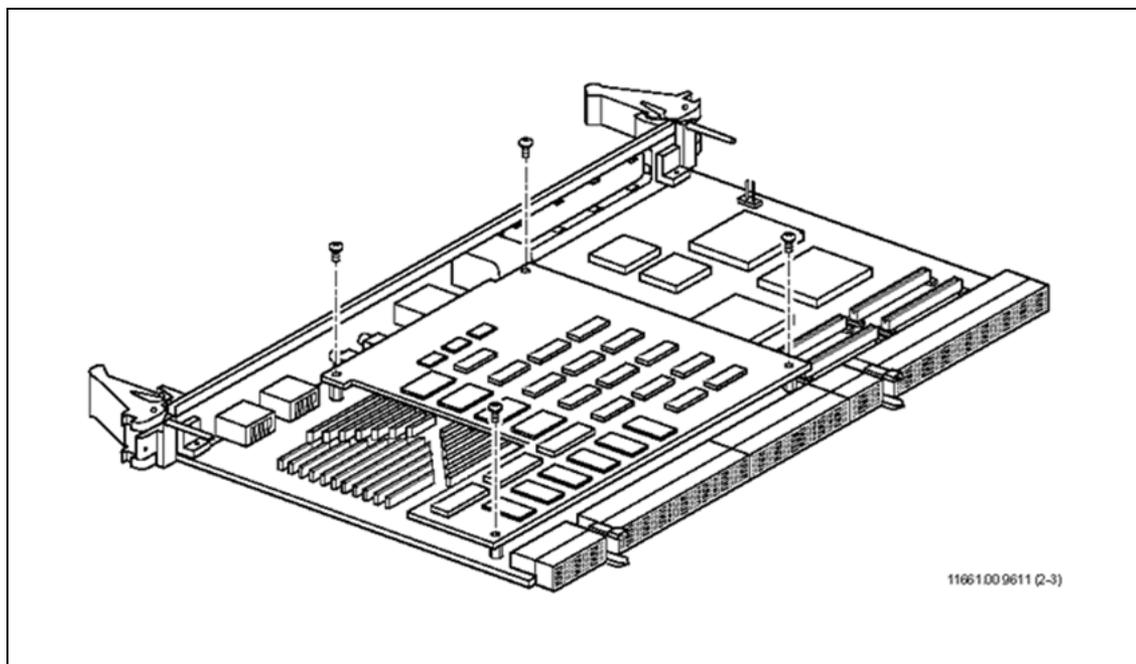
6   Remove the RAM300 mezzanine module by gently lifting it near the connector end of the module. Put the RAM300 mezzanine module aside in a safe place.

7   Remove the the compact flash memory card. Slide it out of the J9 connector.

Flash memory card

2117 9710

8   Format the flash memory card. You use a flash card reader to do this.

9   Attach an ESD strap to your wrist. Attach the other end of the strap to a ground point. The ESD strap must be secured to your wrist and to the ground point while you remove or install components on the SAM21 shelf controller card..

> **CAUTION**
> **Danger of component damage**
> Electronic components are extremely sensitive to electrostatic discharge (ESD). The workbench surface on which you place the card must be grounded and static-free. Put the card down component side up. Do not slide it over any surface.

10   Slide the compact flash memory card into the J9 connector and ensure that pin 1 of the card aligns with pin 1 of J9.

11   Place the RAM300 mezzanine module on top of the SAM21 shelf controller card. The connector on the underside of the RAM300 mezzanine module should connect with the corresponding connector (J10) on the SAM21 shelf controller card.

12   Insert four short phillips-head screws through the holes at the corners of the RAM300 mezzanine and into the standoffs on the SAM21 shelf controller card. Tighten the screws.

At the front of the SAM21 shelf

13   Re-insert the SAM21 shelf controller card in its slot in the shelf.

When re-inserting the card, hold it by the latches. Do not push on the faceplate.

Verify that the CPU LED lights. If the CPU LED does not light, reseat the card.

14   Wait for the card to appear in the Shelf View window.

15   In the Shelf View window, right click on the card icon and select Unlock from the card context menu.

At the Linux or Windows terminal

16   Log on to the card as the mtc user. At the prompt, type

`ssh -l mtc <IP-address>`

and press the Enter key

where

<IP-address> is the IP address of the card

For example, type

```
ssh -l mtc 47.168.18.190
```

Example of system response:
```
mtc@47.168.18.190's password:
```

17 Type the default password of the mtc user, and press the Enter key.

The default password of the mtc user is the IP address of the card.

For example, type

```
47.168.18.190
```

and press the Enter key.

In response the system displays the user's prompt.

18 Find out the MAC address of the card. At the prompt, type

```
scdata -s <slot>
```

and press the Enter key

where

<slot> is the slot number of the card

For example, type

```
scdata -s 7
```

and press the Enter key.

Example of system response:
```
===============SLOT 7===============
====STATES=============DATA================
CPU-A ==================mac_add:  0001AF00FD60
.
.
.
============================================
```

19 Use the switch-user command to become the root user. At the prompt, type

```
su -
```

and press the Enter key.

Example of system response:
```
Password:
```

20 Type in the last six characters of the MAC address.

For example, type

```
00FD60
```

and press the Enter key.

In response the system displays the root user's prompt.

21   Change the passwords of the SAM21 shelf controller card. At the prompt, type

chpasswd

and press the Enter key.

Example of system response:
Enter username:password pairs, one pair per line.
Enter CTRL+D when finished.

22   Select the next step as follows:

If	Do
you intend to type in the username:password pairs at the prompt	step 23
you have preloaded the username:password pairs into an ASCII file	step 27

23   Type in a username and password, separated by a colon, and press the Enter key.

For example, type

mtc01:grfld11

and press the Enter key.

ATTENTION

The username must be the username of an existing user. You cannot create a new user in this way.

---

24   Select the next step as follows:

If	Do
you want to type in another username:password pair	step 23
you have finished typing in all username:password pairs	step 25

25   Indicate that you are finished inputting usernames and passwords. Hold down the CTRL key and press the D key.

26   Go to step 28.

27 If you have preloaded the username-and-password pairs into an ASCII file, type

`cat <filename> | chpasswd`

and press the Enter key

where

<filename> is the fully qualified pathname of the file.

ATTENTION

The usernames in the file must be the usernames of existing users. You cannot create new users in this way.

---

28 Terminate the session. Type

`exit`

and press the Enter key.

29 If you are working in an xterm window, click on the "Close" button in the xterm window.

30 You have completed the procedure.

—End—

Carrier VoIP

SAM21 Shelf Controller Security and Administration

To provide feedback or report a problem in this document, go to www.nortel.com/documentfeedback.

The information in this document is sourced in Canada, the United States of America, and the United Kingdom.

NORTEL