I. Outline for Deploying the Forum Systems HSM Appliances

1. Choose the network topology, review requirements.

   Doc Reference : "Hardware Installation Guide" & "Guide to Security Worlds"

2. Rack the appliances and power up.

   Doc Reference : "Hardware Installation Guide"

3. On first Forum Appliance, attach the Card Reader and then connect to ForumOS CLI via Serial console with HyperTerminal or Minicom.

   Doc Reference: "Hardware Installation Guide" & "Guide to Security Worlds"

4. Choose to create a new Security World. Follow-on screen instructions, be sure to generate enough admin cards (at least 3 per physical location).

   Doc Reference: "Guide to Security Worlds"

5. Following the wizard, configure the appropriate network settings. Create Enable Mode password and admin user.

6. Test network settings. Use the "network utils ping" and "network utils traceroute" commands.

   Doc Reference: "CLI Reference Guide"

7. Access the WebAdmin interface (on MGMT port) via network using a web browser on port 5050. Log in with admin user created in step 5.

   Doc Reference: "Hardware Installation Guide"

8. Export bootstrap file via HyperTerminal zmodem transfer. Command is "management bootstrap export". This command needs to be run in Enable Mode.

   Doc Reference: "CLI Reference Guide"

9. With a text editor, modify the exported bootstrap, changing just the network settings – to match the settings of the second Forum appliance.

10. On second/next Forum appliance, attach the Card Reader and then connect to the ForumOS CLI via Serial console with HyperTerminal or Minicom.

11. Choose to add the device into an existing Security World.

    Doc Reference: "Guide to Security Worlds"

12. Follow the on-screen instructions, insert the admin cards, and import the bootstrap file. If the Bootstrap import fails, see the workaround below.

13. All of the network settings should be imported.

14. Test network settings.

15. Access the WebAdmin interface (on MGMT port) via network using a web browser on port 5050.

16. Export a new bootstrap file or use existing exported file and repeat steps 9-16 for additional Sentry appliances.

II. Workaround Procedures if Boostrap Import Fails (step 12)

If for any reason the FSB boostrap file upload fails, there is a workaround procedure to put the existing Security World on appliances being initialized. Follow the steps below to add a Forum Systems appliance to an existing Security World without using the boostrap upload procedure.

1. Export the full Sentry configuration from an appliance in the known Security World. This configuration file (.fsx) can be exported from the WebAdmin interface on the System>>Configuration>>Import/Export screen. Record the export password as this is used to import later.

2. On the appliance where the bootstrap upload fails, when prompted to create a new Security World or join an existing Security World, choose to create a new Security World. This will be a temporary Security World (used for this workaround only) so only create a single admin card.

3. Configure the new temporary Security World and the network settings.

4. After configuration, access the WebAdmin interface of this appliance via the network or directly with a laptop. If using a direct connection with a laptop, be sure to use a crossover cable and be sure the IP of the Sentry MGMT interface is in the same subnet as the IP of the laptop.

5. Import the full Sentry configuration file that was exported in step 1 of the workaround procedures. Note the following error message that comes up:

```
IMPORT / EXPORT

This appliance's HSM module is not initialized with the same security world key as that in the configu

**********************************************************
*                                                        *
*          Importing an HSM Security World Key           *
*                                                        *
* To import this configuration into this appliance,      *
* you must first reinitialize the HSM module with the    *
* same security world key contained in this              *
* configuration file.  A copy of the security world      *
* key from this configuration file has been saved on     *
* this system.  You may now import the configuration     *
* using the following procedure:                         *
*                                                        *
* 1. Access the command line interface and perform a     *
* factory reset.  This must be done from enable mode     *
* using the "factory-reset" command.                     *
*                                                        *
* 2. After the appliance reboots, the HSM portion of     *
* the Install-Wizard will detect the existence of a      *
* saved security world key.  It will then prompt you     *
* to select whether to use the saved security world      *
* key or to generate a new security world key to         *
* initialize the HSM module.  Select to use the          *
* existing key.                                          *
*                                                        *
* 3. The initialization procedure will then continue.    *
* You must have an Administrator Card for the            *
* security world key in the configuration file           *
* available (as well as its passphrase) to complete      *
* the HSM module initialization.                         *
*                                                        *
* 4. After the HSM module is initialized with the        *
* saved security world key, return to this screen,       *
* and perform the import of the configuration again.     *
*                                                        *
**********************************************************
```

6. After this failure, access the CLI of this Sentry appliance and run a factory reset. From Enable mode, type: system config factory-reset

7. When prompted, choose to DELETE (or not keep) the existing Security World. This will wipe the temporary Security World from the systems.

8. When the system comes back up, there will now be 3 options for the initialization, choose option 3 to use the saved Security World imported with the FSX file instep 5.

9. Continue with the initialization procedures to add the network settings.

For questions or assistance please contact Forum Systems support at support@forumsys.com or +1-781-791-7510 option 2.