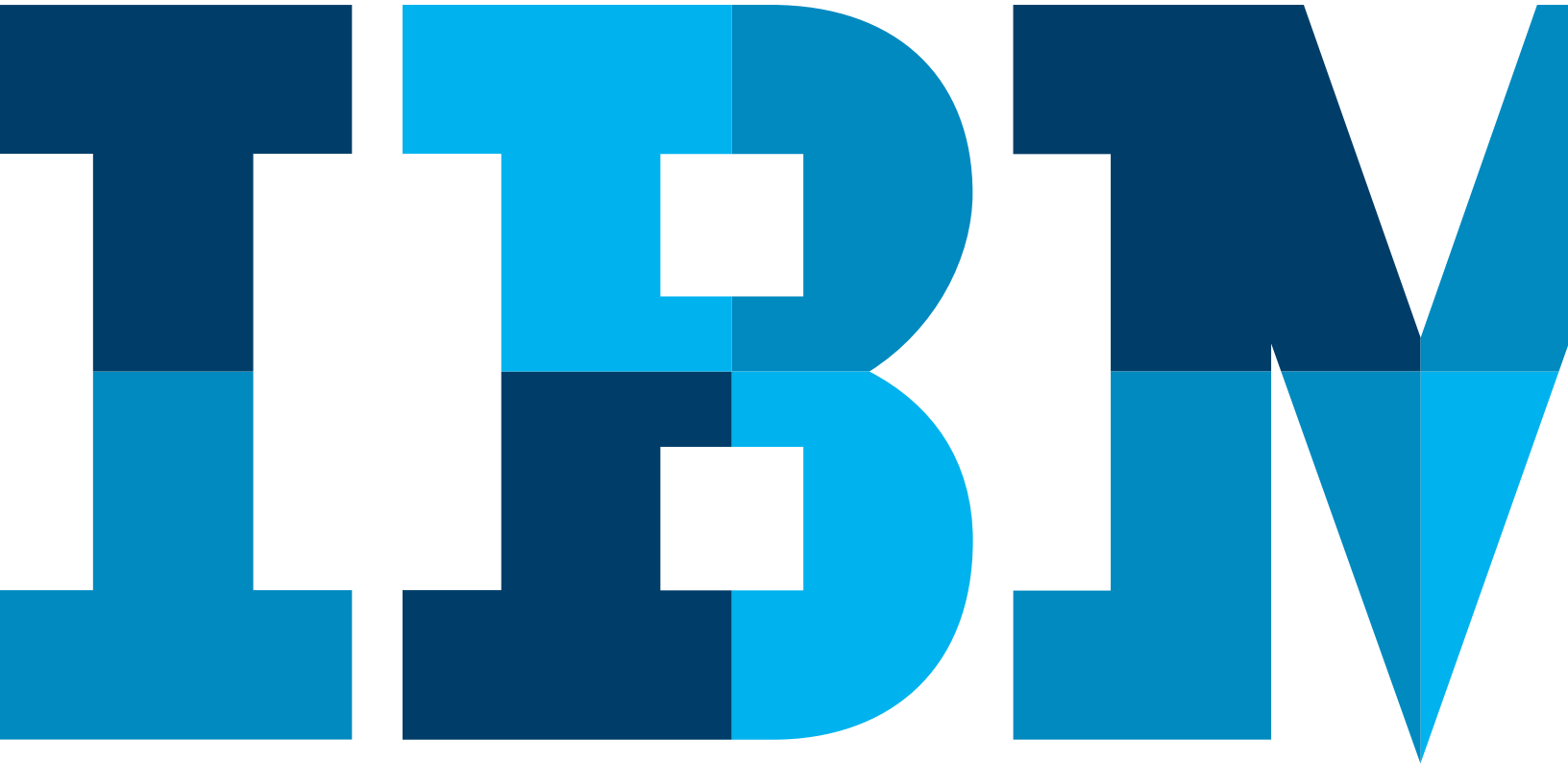


# IBM Data Engine for NoSQL Power Server Edition

*Quick Start Guide*



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# IBM Data Engine for NoSQL Power Systems Edition

## Field Merge IBM Flash System 900

### Prepare for install

Information:



Read IBM Systems Safety Notices, found in the publications package



Installation Guide: <https://ibm.biz/BdRcCt>



Encryption: If this system will use encryption, ensure that you always know where the USB flash drive is located

Firmware:

The firmware level for the IBM Flash System 900 must be 1.3 or greater

Ethernet cables:

2 (per IBM Flash System 900)



Note: 1 Ethernet cable required for each S822L system

Rack:



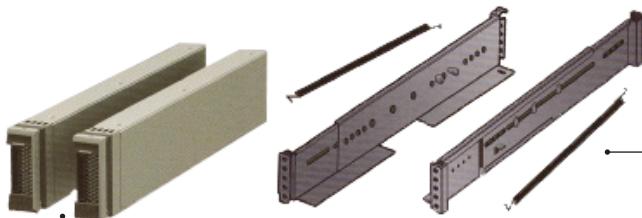
2U (per IBM Flash System 900)

Note: 2U rack space required for each S822L system

### Verify inventory



IBM Flash System 900 (see note below)



Rails (Left & Right)

Springs (x2)

Battery Card (2) for IBM Flash System 900



Rail mounting screws 4 per IBM Flash System 900

Use the appropriate pins or screws on the rail flange for your rack type.



Fiber Optic Cables 2 per EJ16 adapter



System mounting screws 4 per IBM Flash System 900



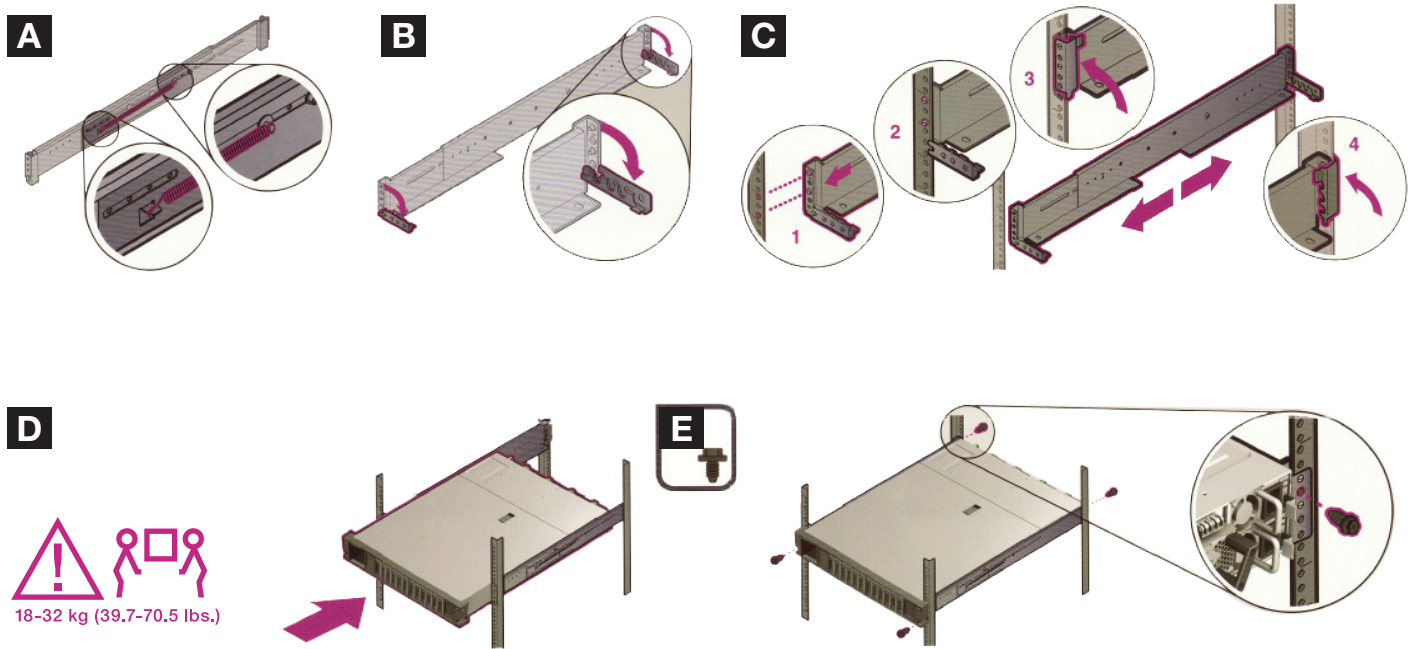
IBM Flash System 900 USB Drive



Power Cables 2 per IBM Flash System 900

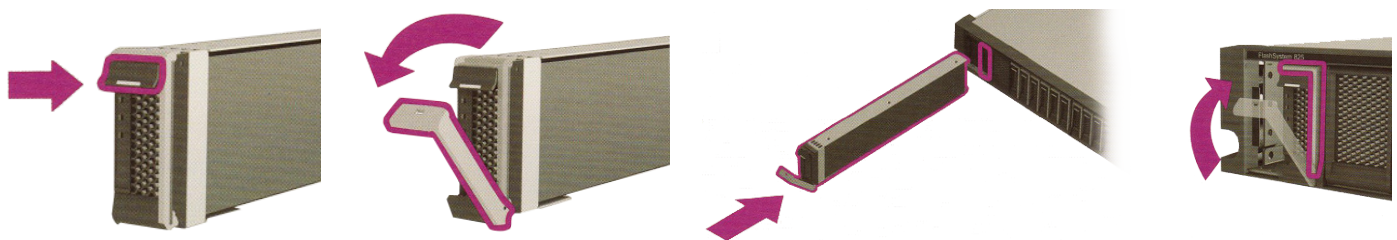
Note: Loop-back verification can be performed without the IBM Flash System 900 installed, see instructions on page 11

## Install IBM Flash System 900 in the rack



## Install battery cards into IBM Flash System 900

Note, if the battery cards have been previously installed, remove the battery cards, then re-seat them as shown below



## Connecting network and power cables



# IBM Data Engine for NoSQL Power Systems Edition

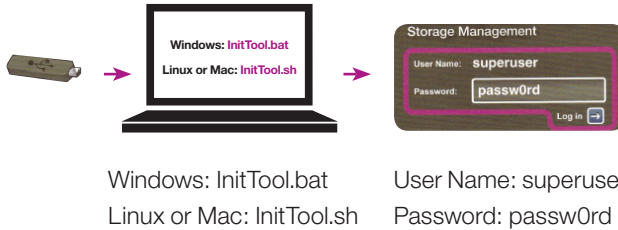
## Initialize the IBM Flash System 900

**⚠ Firmware Prerequisite: IBM Flash System 900 must be 1.3 or greater.**

### Prepare for set up

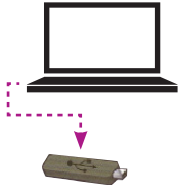
You will need:

- USB drive that was shipped with the IBM Flash System 900
- IP Address
- Subnet mask
- Gateway information



### User interaction flow:

- Select Yes, configure a new system
- Enter IP address
- Enter subnet mask
- Enter gateway information
- Click Apply Click Next
- Enter call home information
- Remove USB



## Initializing the IBM Flash System 900

Before you proceed, ensure that the IBM Flash System is powered on.

1. Insert USB drive into left canister port **1** to allow the system to initialize.
2. LED indications  
The Identify LED A, which is blue, will go off, and the canister Status LED B, will come on solid, indicating that the canisters have clustered. This process can take up to 3 minutes.
3. Remove USB drive from left canister port **1**



## Complete the management wizard and remove the USB drive from the PC



### User interaction flow:

- If initialization was successful, Click, finish
- Management Wizard will auto launch
  - Ping system
  - Run health check
  - **Skip create LUNs**



Store USB drive for future use



# IBM Data Engine for NoSQL Power Systems Edition

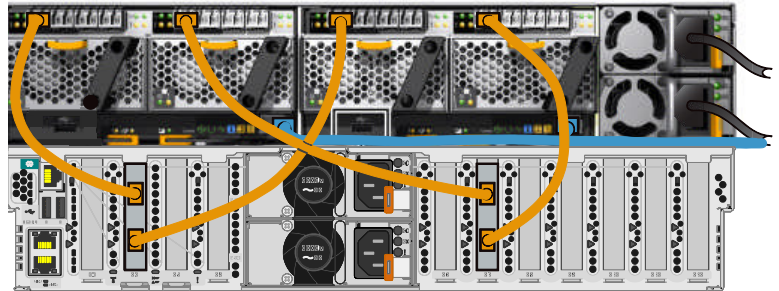
## Integration of the IBM Flash System 900 with the S822L

### Cable IBM Flash System 900 to S822L

If no Flash System is available, cable each card's ports in 'Loop Back' mode. Connect a cable from the top port to the bottom port of each card.

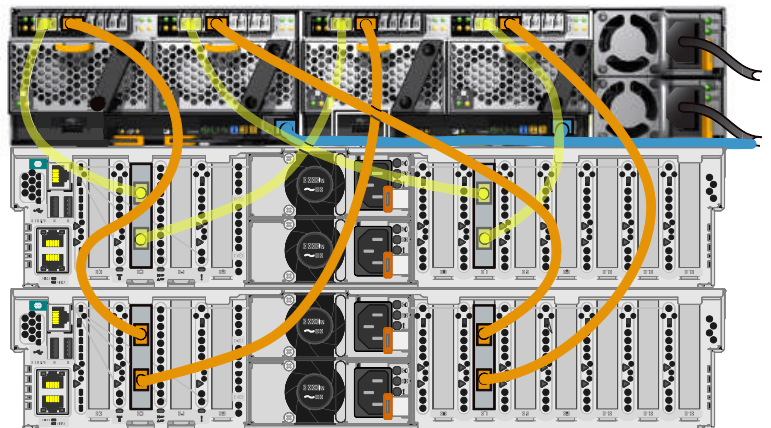
Fiber optic cable connections for the **first** S822L

Note: The LC to LC cables used for the Loopback are not supplied. The length of the LC to LC cables 1 to 15 meters.



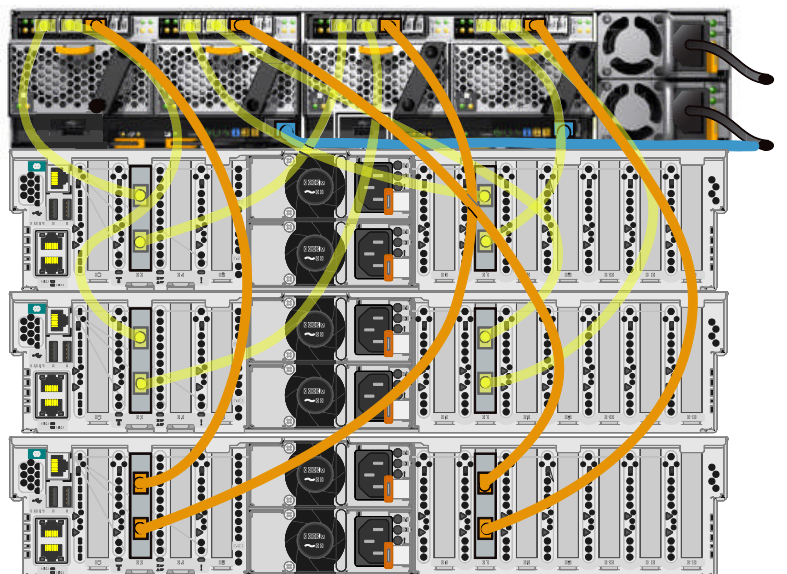
Fiber optic cable connections for the **second** S822L

Note: connections from previous step shown in 



Fiber optic cable connections for the **third** S822L

Note: connections from previous step shown in 



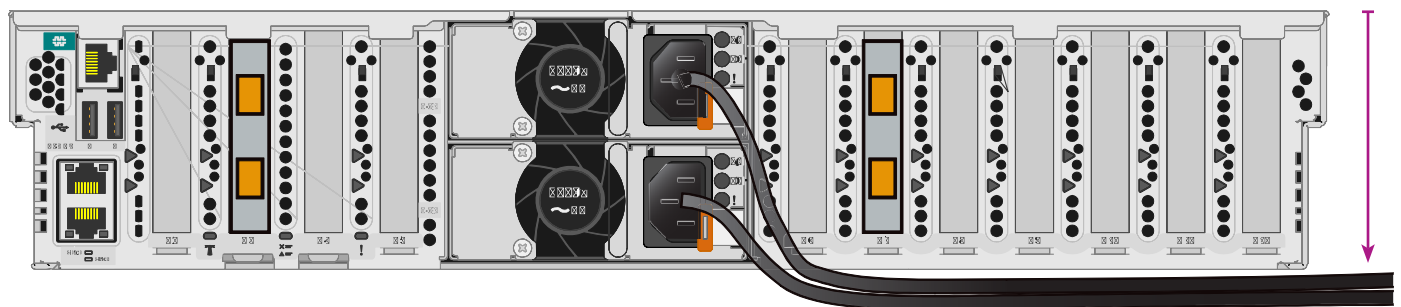
# IBM Data Engine for NoSQL Power Systems Edition

## Prepare S822L

### Connect S822L power cables

1. Ensure that the power supplies are fully seated in the system (remove the power supply shipping brackets if they are still installed)
2. Connect the power cords to the system and plug them into the outlets

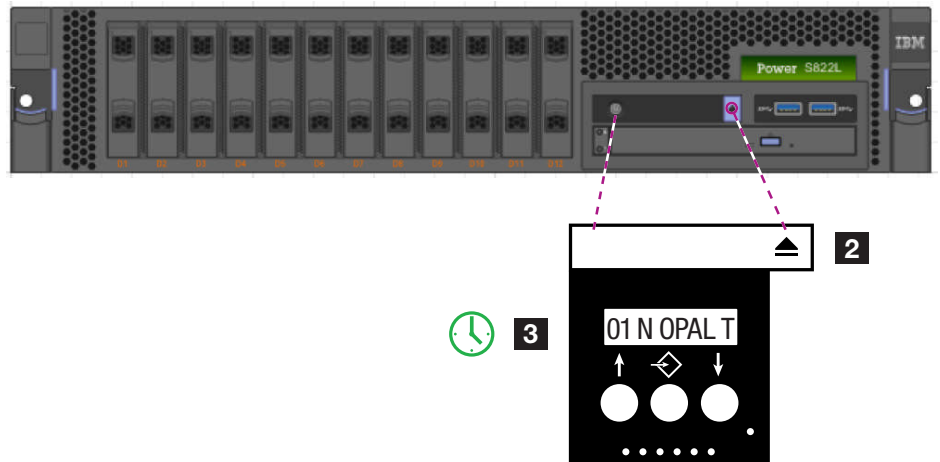
Rear view



### Power on S822L to stand by

1. Wait for the green power LED on the control panel to start flashing, indicating that it is ready to use.
2. To view the control panel prompts, press the “open” button to view the control panel display.
3. Check for the prompt **01 N OPAL T** to appear on the display.

Front view





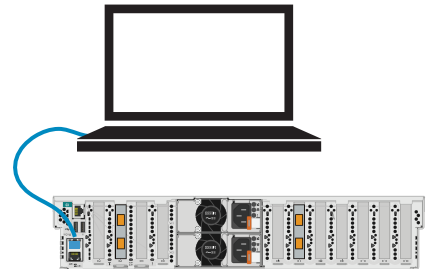
## Network IPs requirements

The IBM Flash System 900 requires 3 IP addresses. Each S822L requires 2 IP addresses.

Reference diagram shown on page 11.

## Connect and set IP for S822L, using static IP *Note: to use DHCP, refer to the S822L installation guide*

1. Connect PC to S822L
  - Connect your PC to HMC1 port on back of S822L with an RJ45 ethernet cable
2. Set the PC IP to match default value for HMC1 on the S822L
  - Set the IP address on your PC or notebook to 169.254.2.140 and subnet mask to 255.255.255.0
3. Open a web browser on the PC, and type: `https://169.254.2.147`
4. Log in using default admin ID and default password
  - default admin ID = admin
  - default admin PW = admin
  - At the prompt, enter and save a new Admin password

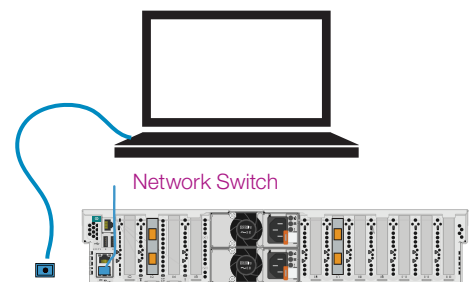


## Change IPMI password

1. Set a password for your IPMI session
  - From the main menu, select Login profile > Change Passwords
  - Select IPMI from the list of user IDs
  - Enter the current password, then enter and confirm a password for IPMI
  - Be sure to record this password
  - Click Continue

## Setup network access

1. To configure network access, specify a different IP address for your service processor
  - From the main menu, select Network Services > Network Configuration
  - From the Network Configuration display, select IPv4 and Continue
  - Select Configure this interface (select eth1)
  - Select eth1 (the second choice)
  - Verify that IPv4 is enabled
  - Select Static for the type of IP address
  - Enter a name for the host system
  - Enter a new IP address for the system
  - Enter a subnet mask
  - At the bottom of the page, enter a default gateway, Domain name and IP for the DNS server
  - After you set the values for the Network Configuration, click Continue
  - Click Save Settings
2. Log off, then disconnect PC from port HMC1
3. Connect port HMC2 to Network Switch



# IBM Data Engine for NoSQL Power Systems Edition

## Bring up server using IMPI

### Power on the S822L using IPMI



#### User interaction flow:

##### Open a terminal program

To power on your server, follow these steps:

1. Open a terminal program and access the IP address of the server.
2. To power on your server, run the following command:

```
ipmitool -I lanplus -H fsp_ip_address -P ipmi_password power on
```

*Note: where ipaddress is the IP address of the power system and ipmi\_password is the password set up for IPMI.*

3. Immediately activate your IPMI console by running this command:

*Tip: Use your keyboard up arrow to display the previous ipmitool command. You can edit previous commands to avoid typing the entire command again.*

```
ipmitool -I lanplus -H fsp_ip_address -P ipmi_password sol activate
```

*Note: The display will remain static until the IPMI console activates.*

4. Ubuntu will boot automatically after 10 seconds.

### Login to Linux OS



#### User interaction flow:

Log in to Linux using...

Default Ubuntu: ibm / passw0rd

Default RHEL: root / passw0rd

Note: The 0 character in the password is a zero.

## Verify Cable Connectivity, Using Loopback Mode

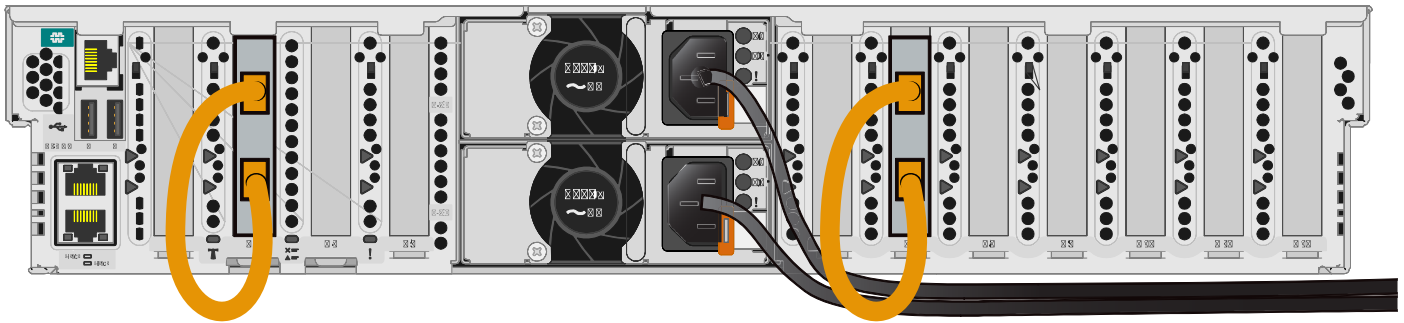


**User interaction flow:**

Run a cabling diagnostic for all fiber channel cables (in “loopback” mode or when cabled to a Flash System) by executing the following command:

```
sudo /opt/ibm/capikv/bin/cablecheck
```

Note: If no FlashSystem 900 is available, connect LC-LC cables as per the figure below. Otherwise, proceed using existing cabling to FlashSystem 900 as per earlier cabling steps.” Cable checks will run in either configuration.



Note: LC-LC cables are not included, recommended cable length, 1 meter to 15 meters.

## Complete installation of the IBM Data Engine for NoSQL Software library

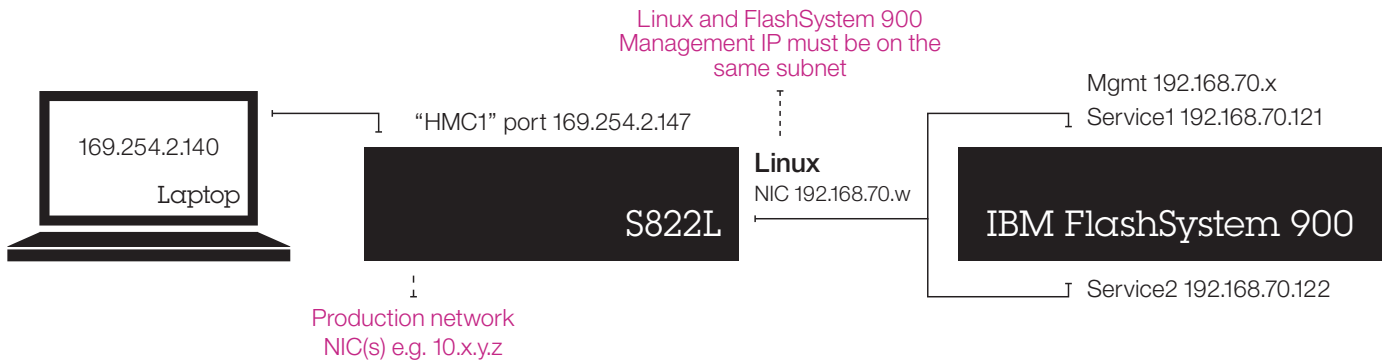


**User interaction flow:**

Configure the Software library by executing the following command:

```
/opt/ibm/capikv/bin/setup.sh
```

## Example Network Reference Diagram



The FSP IP will be used for platform management, and 192.168.1.x addresses will be used to send in-band control commands from Linux to the FlashSystem 900.



Part Number: 00NK026

Printed in USA

Form number: G111-9912-01



(1P) P/N 00NK026

