

# Problem determination and troubleshooting

Specific steps for the DSE solution

Lenovo

## General troubleshooting reference resources

- ThinkAgile VX DSE solution general troubleshooting steps:  
[ES42015 - ThinkAgile VX Series: general troubleshooting and PD map](#)
- Collecting diagnostic information for ESXi hosts and vCenter servers:  
[https://kb.vmware.com/s/article/2032892#:~:text=Click%20the%20Monitor%20tab%20and,vSphere%20Web%20Client%20logs%20option](#)
- Collect the FFDC dump for escalation – it contains all the registers that are useful with debugging

## Specific troubleshooting methods

Specific debugging methods for the ThinkAgile VX DSE solution involve the `mondbg` XCC CLI command. This command allows users to connect to the serial port for the ARM controller on BlueField-2; this is the primary debugging path for the adapter. The serial path on BlueField-2 passes through the NIC BMC first, but the adapter is supposed to have **Vendor Field Mode** enabled. This mode shuts down the NIC BMC copper port and makes the path seamlessly pass through the ARM console after the BMC boots. However, this setting is sometimes disabled, and you might need to log in and manually switch to the ARM console.



ES42460 Study guide



Mondbg, arm uefi settings and fw update



Refer to this document on the course landing page for more information about the `mondbg` command.

**Note:** For safety reasons, this feature is not enabled in the production build and is only available in the dev build. In addition, the `mondbg` command is not listed in the CLI help information.

## mondbg usage

### Usage:

- `mondbg info` → the CLI will return [serial port index] and UART information
- `mondbg [serial port index]` → the CLI will connect with the selected UART port
  - `[ctrl+A q]` will disconnect with the UART port
  - `[ctrl+A c]` will send ctrl+c to UART
  - `[ctrl+A a]` will send ctrl+A to UART
- `mondbg usb [adapter index]` → force a connection with the USB serial port
- `mondbg host [adapter index]` → force a connection with the host serial port

```
system>
system> mondbg
Unknown argument:
mondbg info - print UART information
mondbg [serial port index] - connect with serial port
                        - [ctrl+A a] will send ctrl+A to UART
                        - [ctrl+A c] will send ctrl+c to UART
                        - [ctrl+A q] disconnect

system>
system> mondbg info
UART information
[1]: /dev/ttyUSB0
system>
system> mondbg 1

dpu-bmc login:
dpu-bmc login:
dpu-bmc login: █
```

# Summary

This course enabled you to:

- Provide an overview of the VMware vSphere Distributed Services Engine on ThinkAgile VX
- Describe the VMware vSphere Distributed Services Engine on ThinkAgile VX solution and how this solution works
- Describe the service flow
- Describe the problem determination steps and explain how to troubleshoot issues with the VMware vSphere Distributed Services Engine on ThinkAgile VX