DigitalNetworks

DECserver 900TM Problem Solving Guide

March 2006

This guide describes how to troubleshoot the DECserver 900TM using the LEDs

Problem Solving Using the LEDs

When diagnosing a problem with the module, note that the problem is often indicated by the combined states of the module's LEDs. Table 2 lists the states of the LEDs for various error conditions that can occur during initial installation of the device, along with probable causes and steps you can take to correct the condition.

Normal Power Up

When power to the module is initially turned on, the following events occur:

1. The Power LED lights and remains lit. All other LEDs light and then turn off. This verifies that the individual LEDs are operational.
2. The module initiates its built-in self-test.
3. After the self-test completes successfully (within approximately 2 minutes), the Module OK LED lights and remains lit.
4. The remaining LEDs indicate their operational status as described in Table 2.

Problem Solving

Table 2 lists probable causes and corrective actions you can take if the module LEDs do not function properly.

Table 2 Problem Solving Using the LEDs

SYMPTOM	PROBABLE CAUSE	CORRECTIVE ACTION
Power LED is off	The module is not receiving power.	Ensure that the release lever (if installing into a MultiSwitch 900) or the locking L-bracket (if installing into a DEChub ONE) is locked securely
		If installing the module into a MultiSwitch 900, check the power status on the Hub Manager status display. If enough power is available, lift the release lever (if installing the module into a DEChub ONE, loosen the locking L-bracket screw). Remove the module.
		Inspect the module's 48-pin and 160-pin connectors for bent, broken, or dirty pins. If any pins are broken or bent, replace the module.
		If no pins are broken or bent, reinstall the module into the MultiSwitch.
		If the problem persists, replace the module.
Power LED is flashing	The module connection is faulty.	Lift the release lever then reseat the module.
	Faulty MultiSwitch 900 slot connection.	Reinstall the module into another slot.
	MultiSwitch power supply is faulty.	If the module is installed in a MultiSwitch 900, replace the power supply.
		If the module is installed in a DEChub ONE, replace the DEChub ONE.
Module OK LED is off	Module does not have sufficient power.	Ensure Power LED is on.
	Self-test is in progress.	Wait up to 2 minutes for self-test to complete.
	Self-test failed.	If the LED does not light after approximately 2 minutes, lift the release lever momentarily to repeat the self-test. If self-test fails again, replace the module.
Module OK LED is flashing	Non-fatal error	See the error message on the console port.
	Fan is faulty.	Call Customer Services to replace the fan.
Seven-segment display is flashing "C," "d," or "n"	Memory failure	Return the unit.
Seven-segment display is flashing or displaying a solid "8"	Fatal error	Return the unit.
Seven-segment display shows a "3"	Download backoff is in progress.	If the display persists, there is a loading problem. See the error message on the console port.

Problem Solving Using the Seven Segment Display

Table 3 shows the codes that appear on the seven-segment display during the server power-up and initialization internal self-test. The first column indicates a horizontal view (standalone). The second column indicates a vertical view (hub) of the codes. The third column describes the codes.

Table 3 Seven-Segment Display Codes

Off	Off	No power or display broken
		Initial power on
		Initialization
		DECserver 900 internal test
		SIM 1 test
		SIM 2 test
		DECserver 900 internal test (Flexchannel test and Fan test)
		DECserver 900 internal test
		DECserver 900 internal test
		DECserver 900 internal test
		Network interface external test
		Software loading from or programming Flash RAM card
		Requesting load
		Load request backoff
		Loading
		Requesting dump
		Dumping
		Hardware revision # incompatible with firmware revision #
		No SIMs, or wrong type SIMs installed
		DECserver 900 is operating correctly. The rotating code is referred to as the “race track” pattern.
Rotating	Rotating	

LKG-8099-93I