

**LLE INSTRUCTION 9800G**

**SUBJECT: INTRODUCTION OF COMPUTERS INTO THE OMEGA FACILITY**

**ENCLOSURE: Computer Identification Data Sheet (CIDS) Format**

1. **Purpose:** To formalize procedures which assure that computers and software used within the Laser Facility are configured, maintained, and documented in a manner consistent with operational requirements.
2. **Definition:** This instruction applies to all computers introduced into the OMEGA and OMEGA EP Laser Facility.
3. **Discussion:** Efficient, reliable, and safe laser facility operations depend upon the correct operation of the system computers, software, and the network infrastructure. Accordingly, it is of great importance that equipment connected to the Laser Facility networks are of the correct quality and configuration, and that the allocation and de-allocation of network addresses be properly controlled. In addition, because the LLE support groups will generally be expected to support any and all Laser Facility computers in contingent situations, it is necessary that certain information about the computers be available in a timely manner. In the case of units that are integral to operations, it is also necessary that at least two LLE employees have a working understanding of the software.

The following principles apply:

- a. The Laser Facility Manger (LFM) and LLE System Engineering (SE) shall be notified of and agree to all computer installations and software applications covered by this instruction (Sec. 2).
- b. All covered installations shall be documented as outlined in Sec. 4 of this instruction.
- c. If a system will be removed from service within six months of its introduction, it will be considered a Temporary Installation and shall not require contingent support from the LLE support groups. A temporary installation cannot become a permanent installation unless a new CIDS is submitted.
- d. A system that will remain in service for more than six months will be considered a Permanent Installation. Permanent systems will be installed and supported by the LLE support groups with the active cooperation of the requestor.

- e. Two classifications are used to define the responsibility of the Computer Support Group (CSG) to repair computers in support of Laser System operations. The categories are:
  - NA—Not Applicable – CSG is not responsible. (Unit is a PLC, not owned by LLE, or a network-enabled “black box.”)
  - N—Normal – (Any computer with a field upgradeable operating system and application files.) CSG will execute a best effort to restore computer operation within one hour. Non-CSG support may be required to restore LLE-specific functions.
- f. Experimental data and application configuration data shall be stored on the OMEGA or OMEGA EP file servers, never on a local disk.
- g. The CSG shall maintain disk images and ensure their availability.

#### 4. Procedures:

- a. Computers – The Laser Facility Manager (LFM), LLE System Engineering (SE), and the leader of the CSG shall be notified two months in advance of plans to install or operate a computer in either Laser Facility. This notification shall, at a minimum, include providing the information required by the Computer Identification Data Sheet (CIDS) located online through the OMEGA or LLE web sites. (See the attached format.) The CIDS shall be part of the specification/purchase order process when a new computer is needed. Approval to install or operate equipment in a shorter time frame will require the agreement of the LFM, SE, and CSG group leader.
- b. Applications – The LFM, LLE SE, and the leader of the Software Development Group (SDG) shall be notified in advance of plans to install a new application on a computer in the Laser Facility. Appropriate tests shall be made prior to installation to preclude impacting operations.
- c. Name and IP Address – If the computer is to be connected to the Laser Facility network, an IP address and a computer name will be assigned when the CIDS is received.
- d. Aliases – When useful, a descriptive name can be assigned to a computer or a familiar name can be maintained when the computer is replaced. This is accommodated through the use of an “alias,” an additional name stored in the domain name server (DNS), created to point to the IP address of the computer. When subsequent changes occur, the alias name remains the same and the record is updated to point to the IP address of the current computer. Applications connected to the original computer continue to connect via the alias without alteration.

- e. Permanent Installation – If the computer is to become a permanent part of the Laser Facility, the requestor shall work with the leaders of the Software Development and Computer Support Groups to establish the information required by the CIDS.
- f. Data Safety – The CSG shall make, store, and maintain disk images of all permanent installations. Fresh images of all systems shall be made at least weekly.
- g. Location and Timing – The LFM shall approve the location and timing of the installation. Actual installation of any system will be predicated on the completion of each of the applicable parts of the CIDS, including approvals.
- h. Installation – The installation, including software required for Laser Facility operations, will be performed by the CSG using the techniques established in Section 4.e above.
- i. Maintenance – Every CIDS will be reviewed on a six-month basis to confirm that the CIDS database has current hardware and software information as well as instructions where applicable. Computers that have been permanently removed from operation will have their CIDS information purged. A significant change to form and function may require creation of a new CIDS.

**5. Responsibilities:** (In addition to Sec. 4)

- a. Requestor: Initiate and facilitate the actions required by this instruction. Notify the LFM, SE, and the CSG leader of significant changes in plans, status, and schedule. This shall include notifying the CSG prior to relocation or removal of the computer as well as prior to changes in the hardware, software configuration, instructions, or function. Computers that are connected to the laser facility network shall not be disconnected until the CSG has been notified and the CIDS database has been updated.
- b. CSG: Support the requestor's reasonable needs in this area. Provide an estimate of the time required to deliver the system or service. Provide reasonable certainty that installation and operations will have no adverse impact on the performance of the laser system. Provide continuing hardware support and upgrade recommendations when requested. Collect and update the CIDS information on all active computers when notified of changes. Provide for rapid access to this information by operating and support personnel. Provide a means to review CIDS information every six months and resolve discrepancies.
- c. The CSG shall assign reference numbers and maintain a current file of active CIDS. The information in this file shall be available for review by the parties mentioned in this instruction.

- d. The CSG shall review the CIDS for a Temporary Installation at its expected date of removal. Resulting dispositions could include: update of CIDS entries, removal from active status, and transfer to a new CIDS.
  - e. SDG: Support the implementation specified on the CIDS and provide for the training of redundant personnel to support the operation of installed software. Facilitate or provide active configuration control of applications that are required for OMEGA operations.
  - f. The primary user(s) shall report any changes to the software or hardware configuration when effected to the CSG so that the CIDS database can be updated.
6. **Process:** The application, review/approval, and data maintenance requirements of this instruction are implemented in a paperless system. To create or search for a CIDS, go to <http://csg.lle.rochester.edu/cids> or visit either the LLE or OMEGA web sites and follow the appropriate links. Help is available online through the web page or by contacting computer support.

7. **Approval**

Robert L. McCrory  
Director

## Computer Identification Data Sheet

### Required Fields

Control Number: *New*

<b>Requested by:</b>	<input type="text" value="Pick One"/>
<b>Date:</b>	02/16/2007
<b>Primary User(s):</b>	<input type="text"/>
<b>Purpose:</b> <i>(i.e. diagnostic name)</i>	<input type="text"/>
<b>Proposed Location:</b>	<input type="text"/>
<b>Ownership:</b>	<input type="text" value="LLE"/> LLE LLNL LANL CEA NRL
<b>Computer Type:</b>	<input type="text" value="PC"/> PC Diagnostic Control Laptop MAC PLC Workstation controller
<b>Desired Installation Date:</b>	<input type="text"/>
<b>Permanent Installation?:</b>	<input type="radio"/> Yes <input checked="" type="radio"/> No - Expected removal date: <input type="text"/>
<b>Where will the computer be used?:</b>	<input type="checkbox"/> OMEGA <input type="checkbox"/> EP <input type="checkbox"/> LLE (outside of laser facilities)
<b>Connected to OMEGA or OMEGA-EP Ethernet?:</b>	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="checkbox"/> Connected to EP-WAP
<b>Is the system to be used for development and testing?</b> <small>NOTE: These cannot be supported as 'Critical'</small>	<input type="radio"/> Yes <input checked="" type="radio"/> No
<b>Classification</b> <small>See <a href="#">Instruction 9800</a> for Details</small>	<input checked="" type="radio"/> Normal - 1 hour goal to restore computer operation. Non-CSG support required to restore LLE-specific functions  <input type="radio"/> Not Applicable - CSG is not responsible
<b>Netbackup:</b>	<input type="text" value="Daily Backup"/> Daily Backup No Backup Weekend Backup
<input type="button" value="Submit"/>	