# Service Level Agreement (SLA) for LOCKSS at CSU Channel Islands

# Overview

This service level agreement has been developed to accomplish the following goals:

1. Create an orderly, consistent method of gathering information about LOCKSS issues;
2. Facilitate documentation of chronic technical issues which will enable proactive repair and support;
3. Clarify roles and responsibilities for providing operational support by CI and by LOCKSS;
4. Define difference between LOCKSS operational support and project support;
5. Clarify the John Spoor Broome (JSB) Library’s recovery needs and expectations regarding response times for LOCKSS.

**Affected Groups**

This SLA affects the following campus groups:

* T&C staff (including Help Desk and other technical staff)
* JSB Library Staff
* LOCKSS Customer Support
* CI Procurement Staff
* Dell Enterprise Support

# Affected Systems

This SLA applies to the LOCKSS server, LOCKSS application, the infrastructure established by CI T&C, and access (both physical and virtual) to the LOCKSS server.

# Definitions

**IP Address Ranges for LOCKSS:** The following number ranges should be provided to vendors who request our IP Address Range.

209.129.115.0/24

209.129.116.0/24

209.129.118.0/24

**LOCKSS:** An acronym that stands for, **“**lots of copies keeps stuff safe.” LOCKSS is an application that allows libraries to digitally preserve subscription resources. Librarians and archivists are using the LOCKSS software to preserve content in two distinct networking environments. The first is through a global LOCKSS Network that allows libraries to build and preserve collections of open access titles, and to e-journals and ebooks to which they subscribe. See [participating publishers and titles.](http://www.lockss.org/community/publishers-titles-gln/) The second is through a Private LOCKSS Network used to preserve locally authored manuscripts and collections of images, data sets, and government document collections. CSU Chico, Fresno, and several other California State Universities are currently using LOCKSS.

**lockss.csuci.edu:** Name of LOCKSS Server in DNS. This is a Linux Server that has been designated to the sole use of LOCKSS. The server has 6-7TB of available storage.

**Operations**: Everyday business activities. Operations are repetitive activities, typically with the same outcomes. Further, operations are ongoing, with no start and end dates. This includes, but is not limited to the ordering and purchase of server replacement parts. Operations typically require less than 30 hours of time to complete.

**Project:** A task or planned program of work that requires more than 30 hours of time, effort, and planning for completion (e.g., Replacing the current LOCKSS Server with a new one). Projects have clear start and end dates.

**RAID**: RAID stands for Redundant Array of Independent Disks. This is something that the JSB Library Staff have decided to monitor with the assistance and guidance from LOCKSS Customer Support. It’s basically a way to make sure that in the event of a disc failure on the server, there’s redundancy (a back-up).

**Remote Access Point (RAP):**  Allows the extension of Campus WiFi SSID and associated network access to be extended to remote destinations such as homes or remote offices.

**VPN Access:** The University provides a virtual private network to enable secure remote access. Clients may be required to complete a new VPN form requesting permission to LOCKSS. Visit the [T&C VPN](http://www.csuci.edu/tc/vpn.htm?tcps) site for additional information.

**Wireless Access:** Over 300 wireless access points on campus provide wireless access for major campus facilities. Visit the [T&C Wireless Access](http://www.csuci.edu/tc/wireless/?tcps) site for additional information.

# Service Description and Standards

## Operations Support Standards

### Overview

The diagram in Figure 1 represents the process flow for LOCKSS operations support requests.

There are 2 tiers in the support process, which are described in detail in the “Roles and Responsibilities” section below.

### Figure 1. Diagram of Operations Support Process

**By Request**

### Roles & Responsibilities

#### Tier 1 Support

Tier 1 support will be provided by the following areas:

* **Tier 1a-** JSB Library Staff
* **Tier 1b**- JSB Library LOCKSS Administrator
* **Tier 1c-** LOCKSS Customer Support

All Tier 1 support personnel provide basic troubleshooting. This includes the following tasks:

1. Repeat the transaction, and verify that the problem happens again.
2. If it is a LOCKSS-related issue, that cannot be resolved and/or answered by the Library Staff and/or the CI LOCKSS Administrator, LOCKSS Customer Service will be contacted by the CI LOCKSS Administrator.

If completion of basic troubleshooting does not solve issue, Tier 1 support will document sufficient information and report the problem to Tier 2 support via completion of a T&C Help Desk Ticket Request or email request to [helpdesk@csuci.edu](mailto:helpdesk@csuci.edu)

#### Tier 2 Support

Tier 2 support will be tracked, monitored, and routed to the appropriate Infrastructure Subject Matter Expert via CI’s T&C Help Desk.

Tier 2 provides enhanced troubleshooting for issues that cannot be resolved by Tier 1 support. This includes the following tasks:

1. Contact CI LOCKSS Administrator and/or LOCKSS Customer Support as necessary to resolve problem
2. Provide both technical and non-technical solutions for issues to the extent of knowledge and capabilities.
3. Research and gather information
4. Document additional steps performed to resolve issue
5. Maintain documentation on issue resolution
6. Work with Tier 1 support to research and troubleshoot issues.
7. Work with a range of vendors/manufacturers to resolve technical issues.
8. Serve as a liaison between Tier 1 and vendor/manufacturer, if explicitly requested by Tier 1 support.

If Tier 2 support is unable to solve issue, Tier 2 support will escalate request back to Tier 1 Support with recommendations on how to proceed or work around the issue. Unique fixes projected to take longer than 30 hours shall go through the official [T&C Project Request Process](http://www.csuci.edu/tc/projects).

# Recovery Needs and Response Times

LOCKSS has been categorized by CI T&C as a moderately important system. This means that in the event that the system goes down, CI T&C will do everything possible to bring it back online and available within 30 days.

# Service Description and Standards

***Roles & Responsibilities***

| **Roles** | **Responsibilities** |
| --- | --- |
| John Spoor Broome (JSB) Library Staff | Primary point of contact for questions pertaining to the JSB Library and its available resources |
| JSB Library LOCKSS Administrator | Day-to-day operation and ownership of the LOCKSS processes. This includes but is not limited to:   * Accessing and monitoring the LOCKSS server to ensure that the system is running as expected. * Providing vendors with IP address ranges * Reporting any questions/concerns to LOCKSS Customer Support and escalating to Tier 2 support when necessary * Work with LOCKSS to clarify hardware, new server, and server replacement requirements and communicate these needs to the T&C Help Desk at [Helpdesk@csuci.edu](mailto:Helpdesk@csuci.edu) Responsible for procurement process and hardware costs in support of LOCKSS. * Manual monitoring of RAID * Communicate any reported failure to T&C Help Desk within timely manner (48 hours) * Following BP-03-003 Business Practice for Data Center Access – Policy and Guidelines * Maintains Root Password for LOCKSS. |
| T&C Help Desk | * Route all tickets to the appropriate Subject Matter Expert in T&C. * Ensure that all T&C service desk tickets are tracked and monitored through completion. |
| T&C Infrastructure | * System owner and subject matter experts of the CI data center. * Assist JSB Library LOCKSS Administrator and Library Staff with gaining both physical and virtual access to LOCKSS * Tier 2 support * Assist with Change Management (e.g. upgrades and server changes) * Issue Escalation & Troubleshooting * Assist with projects (something that will take over 30 hours to complete and has a clear beginning and an end) per JSB Library request and approval of T&C Project Review Board * CI campus liaison to Dell Enterprise Systems, ensuring that all requests for quotes from the JSB library are processed appropriately. * Notify JSB Library LOCKSS Administrator of any planned or unexpected changes, outages or downtime to data center operations that may affect the function or performance of the LOCKSS system. * Communicate any changes to infrastructure that would impact LOCKSS to JSB Library * Assist T&C Help Desk with troubleshooting RAP issues in a timely manner (48 hours). |
| LOCKSS Customer Support | Primary point of contact at Stanford University for the LOCKSS Administrator’s questions |

## Contact Information

**Dell Large Enterprise & Public Sector Support**

Phone: 800/456-3355

**John Spoor Broome Library LOCKSS Administrator**

Name: Christina Salazar, Systems Librarian

Email: Christina.Salazar@csuci.edu

Phone: 805/437-3198

**LOCKSS Customer Support**

Name: Clay Miller

Email: [lockss-support@support.lockss.org](mailto:lockss-support@support.lockss.org) or [clarym@lockss.org](mailto:clarym@lockss.org)

Phone: 720/336-0143

Website: <http://www.lockss.org/>

### T&C Help Desk

Email: [Helpdesk@csuci.edu](mailto:Helpdesk@csuci.edu)

Phone: 805/437-8552

## About this Document

Date: 8/14/2014

Author: Melissa Bergem

Approved by:

Melissa Bergem

Christina Salazar

Stephen Stratton

Peter Mosinskis

Peter Scamardo

Matt Hughes

Herb Aquino

Marc Dubransky

Neal Fisch