Original author: Robert Pates

Author of latest version: Chris Moskaluk

Authorizer: Christopher Moskaluk, LCBRN Principal Investigator

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Purpose

The informatics system used by the Lung Cancer Biospecimen Resource Network (LCBRN) to track and annotate biospecimens is created, modified and maintained by the LCBRN Coordination Center at the University of Virginia (UVA). The informatics system is based on the open-source CAISIS clinical research management system (1). The technology employed is Microsoft SQL Server (back end) and Microsoft .NET (front end). This document describes standard operating procedures, expected level of service and describes the process for requesting access to services.

**Security Note:** To access any of the systems discussed in this document it is necessary to establish a Virtual Private Network using an iKey hardware token issued by The University of Virginia (see Procedure).

Responsibility

Informatics efforts for the LCBRN are overseen and managed by the LCBRN Data Management Specialist. Software development is performed by staff members of the Bioinformatics Division of the UVA Cancer Center. Hardware systems administration and management is performed by UVA ITC (Information Technology & Communication) Microsystems Group. The System Database Administrator or "System DBA" at UVA sustains the repository infrastructure that enables the University to capture, maintain, and access institutional administrative data.

**Bioinformatics Division Cancer Center Technical Support Team**: delivers application support services for their implementation of the Caisis LCBRN information system.

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| --- | --- | --- |
| Name | Role | email |
| Sean Graves | LCBRN Data Management Specialist (project oversight) | sgraves@virginia.edu |
| Jeff Pitts | Project Manager (primary software writer) | jp2pz@Virginia.EDU |
| Robert Pates | Technical support | rdp2n@Virginia.EDU |

**Database Technical Support Team**: ITC's Microsystems Group delivers database administration services and database technical support for the LCBRN SQL Server database instances (see below). Contact information for this team is available by email to itc-microsystems@virginia.edu **.**

Equipment/Reagents

**LCBRN SQL Server Database Instances--Profile**

| **Instance** **Name** | **Server** | **Primary Purpose** | **Instance Steward** | **Version** |
| --- | --- | --- | --- | --- |
| LCBRN\_Prod | Stringer.eservices.virginia.edu | Serves as the production database environment for the LCBRN system application. | Jeff Pitts(Project Manager)Rob Pates(Technical Support) | SQL Server 2008 |
| LCBRN\_Dev | Stringer.eservices.virginia.edu | Serves as the development/test/training database environment for the LCBRN system application.Supports database research or maintenance activities by database administrators in support of the LCBRN databases. For example, it serves as a test bed for the application and testing of database patches required to keep database maintenance current.Supports application maintenance activities, such as the application and testing of vendor patches and as a means for providing data exports for software debugging at the request of the LCBRN Instance Steward. | Jeff Pitts(Project Manager)Rob Pates(Technical Support) | SQL Server 2008 |

**SQL Server Database Instances--Hours of Availability**

| **Instance****Name**  | **Normal** **Hours of Availability**  |
| --- | --- |
| LCBRN\_Prod | Instance is available 24 hours a day; 7 days a week |
| LCBRN\_Dev | Instance is available 24 hours a day; 7 days a week |

The hours of availability reflect the period of time that an SQL Server database instance is normally accessible. All other hours will be reserved for system administration and database administration activity. Exceptions to the posted hours in Table 2 will be approved and communicated by the instance steward.

**SQL Server Database Instances --Backup Strategy**

| **Instance****Name**  | **Server** | **Normal** **SQL Server Backup Strategy**  | **Normal Retention** **Schedule** |
| --- | --- | --- | --- |
| LCBRN\_Prod | Stringer.eservices.virginia.edu  | Daily:  10:00 PM: Online hot backup to diskSunday:  3:00 AM: Offline cold backup to disk | Online hot backups: 14 days on diskOffline cold backups: 14 days on disk |
| LCBRN\_Dev | Stringer.eservices.virginia.edu  | Daily:  10:00 PM: Online hot backup to diskSunday:  3:00 AM: Offline cold backup to disk | Online hot backups: 14 days on diskOffline cold backups: 14 days on disk  |

The following table contains profile information for each Windows share that supports the LCBRN information systems.

**LCBRN Microsoft Windows Shares for ASP.NET--Profile**

| **Share** **Name** | **Server** | **Primary Purpose** | **Share Steward** | **.NET Version** |
| --- | --- | --- | --- | --- |
| LCBRN\_Prod$ | Es-medweb.eservices.virginia.edu | Serves as the production environment for the LCBRN .NET system web application. | Jeff Pitts(Project Manager)Rob Pates(Technical Support) | 3.5 |
| LCBRN\_Dev$ | Es-medweb.eservices.virginia.edu | Serves as the development/test/training environment for the LCBRN .NET system web application.Supports web application research or maintenance activities by database administrators in support of the LCBRN databases. For example, it serves as a test bed for the application and testing of new software required to maintain, enhance and upgrade the system. | Jeff Pitts(Project Manager)Rob Pates(Technical Support) | 3.5 |

**LCBRN Microsoft Windows Shares --Hours of Availability**

| **Instance****Name**  | **Normal** **Hours of Availability**  |
| --- | --- |
| LCBRN\_Prod$ | Instance is available 24 hours a day; 7 days a week |
| LCBRN\_Dev$ | Instance is available 24 hours a day; 7 days a week |

The hours of availability reflect the period of time that a Microsoft Windows share is normally accessible. Exceptions to the posted hours in Table 2 will be approved and communicated by the share steward.

Local workstation/browser requirements for connecting to and using the LCBRN information system:

Recommended workstation requirements:

Recommended internet browsers:

Recommended network requirements:

Procedure

To ensure system security, new personnel requiring access to UVA systems must perform the following the three steps:

**1) Obtain a UVA Computing Account:** This process is described here:

<http://itc.virginia.edu/accounts/facstaffaccounts.html>

**2) Obtain a UVA Authentication Device (iKey):** This process is described here:

<http://itc.virginia.edu/csd/secnet/secnet_jvpn.html>

**3) Activate the iKey:** This process is described here:

<http://www.itc.virginia.edu/identity/token/install.html>

Once the above security steps are in place, access the informatics system by

References

(1) Fearn P, Sculli F. The CAISIS Research Data System. In: Ochs MF, Casagrande JT, Davuluri RV editors. *Biomedical Informatics for Cancer Research*: Springer US, 2010, p. 215-225.

**Change History**

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| --- | --- | --- | --- |
| Version # | Significant change(s) | Author | Effective Date |
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