



EPIC Central Requirements

1.0 Purpose

The purpose of this document is to define the overall system requirements for the EPIC Central component of the ClearView solution. EPIC Central is the name of the ClearView SaaS-based solution to be used for the following purposes:

- Authorization and authentication of scans
- Archiving of scan images and data
- Administration of accounts
- End user management of accounts
- Purchasing of additional scans
- Device management
- Exception tracking and notifications
- Overall system tracking

2.0 Scope

The scope of this document consists of the EPIC Central system as a whole, no other systems requirements are defined in this document. The initial release of this document addresses only the requirements for the core system. This will be augmented as new requirements are introduced.

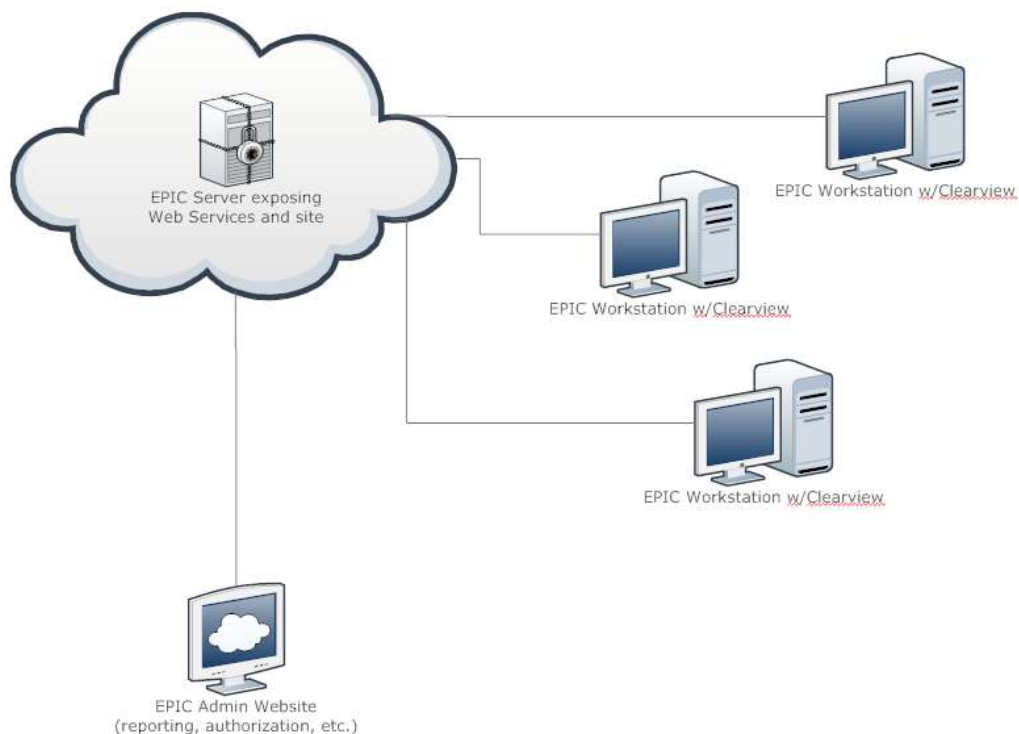
3.0 Definitions

SaaS	Software as a Service – A common term used to describe software systems that are accessed through a browser and reside on servers in a different physical location from the client. Typical SaaS examples are Salesforce.com, Google Docs, etc.
EDI	Electronic Data Exchange – The transfer of data through electronic means (data files) from one location to another.
https	This is a combination of the Hypertext Transfer Protocol with the SSL/TLS protocol to provide encrypted communication and secure identification of a network web server. HTTPS connections are often used for payment transactions on the World Wide Web and for sensitive transactions in corporate information systems.
Web Service	A web service is typically an application programming interface (API) or Web API that is accessed via Hypertext Transfer Protocol (HTTP) and executed on a remote system hosting the requested service.

User	A person that can login to the EPIC Central application. This person may be either an EPIC employee, or a user of EPIC's products associated with a Customer.
Customer	The base unit that uses the ClearView products. An example of this would be a medical clinic. The "Customer" may have many users, locations and/or ClearView devices.

4.0 System Requirements

The overview of the ClearView system is shown below. The EPIC Central system is accessed by the ClearView application deployments (through web services) as well as ClearView users and administrators (through a web browser).



Core Website Requirements

The application must have this core set of requirements implemented prior to launch:

1. The site is constructed as a .Net 4.0 web application and the code behind is all done in C#.

2. All static text that appears on the site (not retrieved from the database) is pulled from resource files. This architecture is already implemented and needs to be leveraged for this module.
3. Standard .net error handling is used for required and malformed fields. The errors either appear at the top of the form, in a red box, or if the validations are in a grid, they appear in the superform contained within the grid. Regular expression validators are used when a standard validator does not work.
4. The site must force https:// access only, no access through http:// will be allowed.
5. All database access is accomplished through ORM objects created by LLBLgen. If a query is too complex to be easily manipulated through the ORM objects, a stored procedure is used and then accessed through the ORM objects.
6. The general look and feel of the site mirrors the look and feel of the corporate site. (headers, footers, font type, colors, etc.).



7. Other than the login page and the support page, all pages within this site must be accessible only to authenticated users.
8. The authentication process is comprised of a user ID and password combination.
9. There are two types of users in the system: Administrators and Clients.
10. Clients have two subtypes: Normal Client and Super-User Client. The difference between a normal client and a super-user client is the breadth of view they have of the data. A normal client user can only see their own information, where a super-user client can see the information for all locations that they belong to.
11. A menu system is used to expose the functionality available in the system to a logged in user.



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12. Administrator users have a different set of menu options than clients.
13. An administrator can perform the following functions:
 - 13.1. Add new customers into the system. Fields necessary to uniquely identify and define a customer are required.
 - 13.2. Add new customer locations. A customer location is an office or anywhere the ClearView device is housed. A customer may have any number of locations. A location may have multiple devices.
 - 13.3. Capture data for locations including a unique key (guide), address, contact information, and number of scans available for the location. Geo-coding is done on the address as well.
 - 13.4. Assign/unassign devices to the customer locations. A ClearView device is assigned or unassigned to a customer location. A device in use by a customer is always tied to a location.
 - 13.5. Assign/unassign users. Users belong to locations which in turn belong to customers.
 - 13.6. Collect data for a user including a unique Id, name, attributes (IsAdmin, Is Superuser), and an active flag.
 - 13.7. Search for a customer by either the organization name or by the Customers Unique key. The key is a unique value that is assigned to only one customer and is unique to them. A partial search is allowed.
 - 13.8. View a default list of all active customers. No inactive customers are initially shown.
 - 13.9. Cannot see the customer's complete credit card number as it is masked to only the last 4 digits.
 - 13.10. Update any of the customer's information. The administrator has full access to all fields.
 - 13.11. Edit the count of available scans for each customer. Editing is logged in the EC_PurchaseHistory table as either a net add or removal. A note is added to the entry to specify why the edit is made. The log entry will have a zero monetary value.
 - 13.12. Has a full view of the system overall purchase history. The administrator may filter by a specific customer if desired.
 - 13.13. Has a full view of the system overall scan history. The administrator can filter by a specific customer if desired.



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- 13.14. Add new devices to the system and assign them to a specific customer location.
- 13.15. Disable a device at any time.
- 13.16. Add new scan types at any time. The administrator can also change the description of scan types at any time, but not the Id.
- 13.17. Create or update billing information for any customer.
- 13.18. View the overall exception log (exceptions from all the active installations). The administrator can filter the log by exception type or by customer.
- 13.19. View the license keys (unique Ids) for a given customer. This includes the Unique Customer Key, all unique location keys, and all unique device keys.
- 13.20. Queue a message up for any of the following: all users, specific customer (which is displayed on all devices owned by the customer), specific location (which is displayed on all devices in the location), or specific device.
- 13.21. Update or delete any message not picked up by the intended recipient.
- 13.22. Make a purchase on behalf of the customer using the customer's credit card.
- 13.23. Must not store customer credit card information on the EPIC central server. All credit card information is housed by the payment processor.
- 13.24. Change the cost structure of the scans. New rates that are "effective date" based are used. The administrator specifies the effective date, price for the scan and minimum and maximum counts to get the specified rate.
- 13.25. See and respond to all support issues in the system.
- 14. A user login is able to do the following:
 - 14.1. Update their personal information including their password, but not their user ID. If they are a super-user, they are able to see and edit other users in their location.
 - 14.2. Edit the EC_Customer data, location data and billing information, if they are a super-user. The credit card number is never shown in full to the user as it is stored offsite.
 - 14.3. View the purchase history for their location, a super user can see purchases from all locations for a given customer.
 - 14.4. View the number of scans available and the scan history for their device/location.
 - 14.5. View any messages not picked up by ClearView and also view messages already picked up.



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- 14.6. See their support issues and respond to them, and create new support issues.
 - 14.7. View all of their license keys (device, location and customer.) A super-user can view all keys for all locations and devices.
 - 14.8. Purchase additional scans for the location they belong to. A super-user can purchase for all devices in all locations.
15. The site must interface with a clearing house such as Authorize.net in order to process credit card payments.

Central Command Center

The EPIC Central system has a dashboard display available for administrators. It displays in real time the activity taking place in the ClearView system.

16. The top of the display shows real-time statistics and counts for the following:
- 16.1. The stats below are shown in one pane.
 - 16.1.1. Scans performed for the day
 - 16.1.2. Purchase total dollars for the day
 - 16.1.3. Active devices currently
 - 16.1.4. Count for exceptions received for the day
 - 16.1.5. Count for support requests received
 - 16.2. The stats below are shown in a pane next to the one described above.
 - 16.2.1. Total scans performed
 - 16.2.2. Total purchases in dollars
 - 16.2.3. Total active devices in the system
 - 16.2.4. Total active users in the system
 - 16.2.5. Total active companies in the database.
17. The page displays a world map from Google. The map displays in real time, activity happening on the network.
18. The map displays an icon when each of the following events happen at the event location.
- 18.1. Purchase is made by a customer.



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- 18.2. Ping received from live device.
 - 18.3. Scan is performed.
 - 18.4. Calibration is performed.
 - 18.5. Support issue is submitted.
19. The map only displays the latest activity from the site not all activities.

Web Services

Web services control what the client application can do. A web service is required to:

- 20. Validate that a given customer may use the device. A call is made each time the application starts. Three values are passed to authenticate the customer license, location license and device license. If the return value is not affirmative, the application will not start.
- 21. Validate a device for a location and a location license for a customer.
- 22. Sync available scans from EPIC Central down to the ClearView client.
- 23. Inform EPIC Central that a scan is started.
- 24. Inform EPIC Central that a calibration is performed.
- 25. Inform EPIC Central that the ClearView application is activated.
- 26. Decrement the number of scans available after a successful scan.
- 27. Save patient and calibration scan images, and patient data.



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Document Revision History

Version Number:	Description of Change:	Date:	Updated by:
000	New Document	10/20/11	A. Mason