Case Study: Quintiles Transnational Corporation

Project Overview

The Project covers the development and implementation of the custom application allowing for biometric identification by fingerprints of medical workers making use of the Quintiles Centralized Electrocardiogram (QECG) service running on the Citrix platform. QECG is an advanced application designed to help pharmaceutical and biotechnology companies analyze ECG data from clinical trials and use digital ECG data in submissions to regulatory authorities.

Customer

Quintiles Transnational Corporation is a global pharmaceutical company with headquarters in North Carolina. The Company helps improve healthcare worldwide by providing a broad range of professional services, information and partnering solutions to the pharmaceutical, biotechnology and healthcare industries.

Quintiles' operation is focused at the research aimed at regulatory submissions and product registration, sales force deployment and strategic marketing services, and creation of non-traditional alliances helping customers obtain Quintiles services.

The Company employs over 16,000 people in 50 regional offices all over the world.

Challenge

The previous version of the *QECG* application running on Citrix uses conventional password-related authentication methods to control access of the medical staff to the central application database from the client machines.

Considering the criticality of the information contained and added to the database – electrocardiogram data of the patients – the password-related authentication proved inadequate, since passwords tend to be forgotten or shared. In other words, the application demonstrated inability to reliably secure the patients' data and credibly authenticate the personnel accessing it.

To allow only authorized staff accessing the Citrix application from the client machines and operating within it according to their personal profiles, a more secure authentication procedure was required. To satisfy the security demands of the patients' data, a biometric application from BioLink Solutions was selected.

Solution

QECG is built on the client-server architecture; all authentication and automation tools are installed at the server side, while the devices like BioLink fingerprint readers, a barcode scanner and printer, as well as a signature pad are connected to the client machine.

The custom application(developed using BioLink SDK) provides authenticated access of the client machines to the database of the QECG system installed on the Citrix server.

Workflow

QECG users access the application through the client program installed on their desktops. Access to the *QECG* application is protected by the BioLink scanning devices used to reliably authenticate medical officers saving data or adding new users to the central database of the *QECG* application. The biometric database stored on BioLink's Server is also located on the Citrix server.

Operation with biometric readers on the client machine is available thanks to the developed *Virtual Citrix Channel Device Driver for BioLink's readers*, helping to virtually create on the Citrix server the actual BioLink fingerprint scanner physically connected to the client machine. The scheme illustrating logical connectivity between the Citrix client and Citrix server is given below.
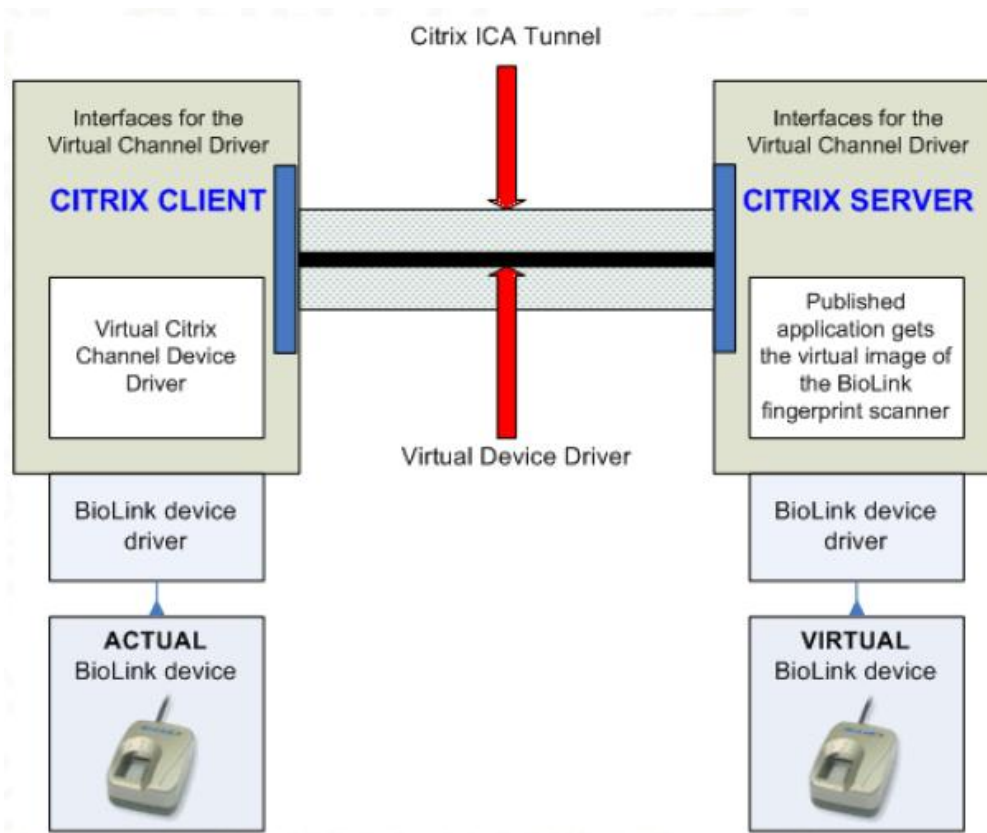
Result

The developed solution offers a fast, secure and convenient way of accessing the remote *QECG* database while adding or retrieving patients' data. At least four groups of users can benefit from the implementation of the biometric application:

1. *Medical personnel* making use of the Citrix application now do not need to remember passwords required to access it. They can easily log on to the *QECG* application by just touching the fingerprint reader.

2. *Head doctors* can make sure the application database is used only by authorized employees thus guaranteeing that violators will be denied access.

3. *Patients* gain confidence that their personal and ECG data can be retrieved only by the persons entitled to do so.

4. *System administrators* are now exempt from the plenty of password-related problems. Administration of the *QECG* application is made easy and secure.

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BioLink Solutions is a trusted global provider, supplier and expert in biometric identification solutions, systems and professional services.

Employing the best international practices and scientific developments, BioLink is committed to building, deploying and maintaining a full range of award-winning biometric identification and identity management solutions worldwide.

Our solutions are designed for a wide range of IT applications, ranging from home computers and information infrastructures of small- and mid-sized enterprises and commercial businesses to large-scale nationwide identification projects.

Our portfolio contains more than 5000 successful implementations in USA, UK, Ireland, Scotland, Nigeria, Malasia,Lithuania, India, Russia, Kazakhstan and other countries.