Knowledge Exchange (KE) V2.0 System Release Notes

INTRODUCTION

The Olympus Knowledge Exchange (KE) System connects to Olympus medical devices installed in a healthcare facility, collects endoscopy exam images and information, and provides integrated management on them. Installing the KE System provides smooth information exchange and utilization among endoscopic settings.

This document provides a listing of the features of KE V2.0 over KE V1.1 with some discussion of each feature.

For system requirements of devices mentioned in this document, refer to *Knowledge Exchange (KE) V2.0 System IT Specifications* (TR0136).

If you have any questions or concerns regarding the content of this document, contact the Technical Assistance Center (TAC) at 1-800-848-9024.

KNOWLEDGE EXCHANGE (KE) SYSTEM V2.0 OVERVIEW

The KE System works with your OER-Pro to keep track of endoscope reprocessing information and images, including associated examination details.

The KE System is intended for use by medical facilities that perform endoscopic and ultrasound procedures.

Main Functions:

- Connection to the Olympus OER-Pro and Olympus EVIS EXERA III VIDEO SYSTEM CENTER (CV-190)
- Management of endoscope reprocessing records, including DICOM connectivity for Olympus EVIS EXERA III VIDEO SYSTEM CENTER (CV-190), and HL7 connectivity for the transfer of data

KNOWLEDGE EXCHANGE (KE) SYSTEM V2.0 FEATURES

The KE System V2.0 includes the following features over KE System V1.1:

Enhanced Cyber Security

- Encrypted External Data Transmission

    - The KE software has a function to export data containing protected healthcare information (PHI) in a file format. The file is zipped; password protection can be added. The password-protected zip file is encrypted (AES-256) and can be safely brought out of the facility.

- Enhanced Password/Account Policy

    - Passwords registered by customers in the KE software are saved in a hashed format.

    - A hash value is generated via BCrypt with salt and stretching to make it extremely hard to calculate the original password.

        NOTE: *It is the customer's responsibility to maintain passwords.*

- Encrypted highly confidential information like PHI

    - The KE software installs and uses Oracle® Database 12.1.0.2. Information stored in the database (DB) may contain PHI. The KE software encrypts columns that possibly store PHI for enhanced confidentiality. Furthermore, although the password is not subject to PHI, it is hashed when stored in the DB.

    - Operation of the KE server with the following software HDD encryption has been verified:

        - McAfee® Complete Data Protection (McAfee Endpoint Encryption for PCs 7.0.3)
        - Microsoft BitLocker® 6.3.9600

- Microsoft IIS with HTTPS Support

- Supports monthly updates for supported 3rd party applications (e.g., Adobe Acrobat®, Google Chrome™, Microsoft Internet Explorer)

Refer to the *Knowledge Exchange (KE) V2.0 System IT Specifications* (TR0136) and *Knowledge Exchange (KE) V2.0 System Cyber Security Plan* (TR0137) for additional details.

Improved HL7 Results Format (PDF)
The KE System V2.0 supports HL7. This includes the option to PDF HL7 output. The following HL7 versions are supported:

- 2.3.1
- 2.4
- 2.5

The KE System V2.0 supports up to 12 images per page.

Unifia Environment UE Integration
Olympus offers Unifia Environment UE and the Knowledge Exchange (KE) System that work in harmony and need separate server environments. These environments can be set up on virtual machines to assist in deployment.

Refer to the *Unifia Environment UE + Knowledge Exchange (KE) System IT Specifications* (TR0132) for additional details.

Supports Windows 10 Client Machines
The KE System V2.0 supports client hardware using Windows 10® to access KE System V2.0.

Refer to the *Knowledge Exchange (KE) V2.0 System Cyber Security Plan* (TR0137) for additional details.

HDD/NAS Capacity
The KE System V2.0 supports either HDD or NAS storage.

Refer to the *Knowledge Exchange (KE) V2.0 System IT Specifications* (TR0136) for recommended storage size.

Mini Server option
The KE System V2.0 can be installed on a dedicated mini server for a lightweight concurrent connection environment.

Refer to the *Knowledge Exchange (KE) V2.0 System IT Specifications* (TR0136) for additional details.

Enhanced System and Audit Log Collection Tool
It is recommended for customers to audit the KE System for secure system operation.

Logs handled by the KE software are shown below. Logs other than the access log are used only by Field Service Representatives.

Log Type	Description
Access log	Records user access to PHI. Contains PHI. Can be used for audit by users.
Trace log	Used for fault analysis. Contains patient ID.
Detail log	Records information that is not recorded in trace log. Used for fault analysis. Does not contain PHI.
DB access log	Records DB access history such as SQL. Contains PHI.
Communication log	Records communication information such as HL7 communication, DICOM communication, and telegram. The communication information contains exam information, which contains PHI.
Middleware log	Exported by middleware like Oracle or GlassFish®. Does not contain PHI.

Removal of Pop-up Window when Logging On
The Notification screen does not automatically display when first logging into KE V2.0, but can be configured to display automatically if desired.

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