Response to CL-31

Sectra (VNA) Integration

The overall principle for the future solution is that imaging data remains within the existing Sectra environment (VNA/PACS), and that the new Digital Healthcare solution (VITA) will access images through standardized and context-aware integration mechanisms rather than duplicating or storing imaging data locally.

Clinically, the integration must support seamless access to imaging as part of the workflow. This includes maintaining and further improving the current “jump-out” functionality, where clinicians access Sectra viewers (IDS7 and/or UniView) directly from VITA with preserved patient context. This paradigm is considered essential and must be retained in the future solution, including for hospital users and general practitioners.

The integration should therefore be understood as a combination of:

- Contextual launch (deep-link/jump-out) into Sectra viewers
- Structured exchange of orders, metadata, and reports
- Visibility of relevant workflow statuses across systems

This aligns with the current integration landscape where Sectra acts as the imaging system and VNA, while VITA orchestrates ordering and consumption of results.

Clinical Functionality and Workflow Expectations

From a clinical perspective, the minimum functionality is that imaging results (reports) are returned to VITA as structured or text-based responses, as is the case today. However, this is considered a baseline only.

In the future solution, there is a clear need to extend the integration to include visibility of intermediate workflow states from Sectra. This includes, for example, booking status, examination progress, and reporting status. The purpose is to reduce manual follow-up between clinical departments and radiology, which is currently a known inefficiency.

The integration must ensure that relevant clinical context accompanies imaging workflows. This includes ensuring that key clinical information (e.g. referral data, forms, and patient context) is consistently transferred and available in Sectra, and that gaps observed today (e.g. missing structured inputs such as clinical forms or measurements) are addressed in the future design.

Use of DICOM and Accession Number

The DICOM accession number is a key identifier in the imaging workflow and must be consistently used across the integration.

The expectation is that:

- The accession number is generated and/or maintained as part of the ordering workflow
- It is propagated to the modality via the worklist
- It is used to link imaging data, reports, and viewer access
- It is returned and available in VITA for traceability and context

The DICOM-based worklist concept is considered central, including patient demographics and exam context, and must be supported in a standardized manner. This is also consistent with the requirement that VNA/image access is based on DICOM principles.

Integration Approach and Target Architecture

The current integration between COSMIC and Sectra is file-based using EDIFACT/MedCom messages via shared folders, covering referrals, bookings, and report exchange. This approach is acknowledged as the existing baseline but is not considered the target architecture for the future solution.

The future direction is to transition towards a standards-based integration using HL7 (v2 and/or FHIR where applicable) in combination with DICOM for imaging workflows. A key architectural principle is that all integrations, message exchanges, and system interactions will be routed through the upcoming national Integration Platform where it is needed and it makes sense to do so.

This Integration Platform will serve as the central integration hub for the healthcare ecosystem, ensuring that:

- All communication between the new VITA solution and external systems such as Sectra is mediated through the platform
- Standardized protocols (HL7, FHIR, DICOM, MedCom) are consistently applied
- Security, monitoring, logging, and lifecycle management are centrally governed

This reflects the intended architecture where the Integration Platform replaces direct point-to-point integrations with a controlled and standardized middleware layer.

Interface Description of Current COSMIC–Sectra Integration

Integration Method

The current integration between COSMIC and Sectra is based on a file-based message exchange pattern using shared network folders. Both systems produce and consume files asynchronously by monitoring designated directories.

As described in Appendix 17, referrals are generated in COSMIC and transferred to Sectra, while booking confirmations and radiology reports are returned from Sectra to COSMIC. The integration is based on EDIFACT/MedCom-style messaging, with transformation and mapping handled within the COSMIC LabIntegration module.

Technically, COSMIC generates request files which are transformed via XSLT into EDIFACT-compatible messages before being delivered to Sectra. Correspondingly, Sectra produces response files which are transformed back into COSMIC-readable formats (XML) and imported into the system.

The Cambio LabIntegration component is responsible for:

- File polling and routing
- Transformation between XML and text-based formats (via XSLT or templates)
- Message type identification and processing workflows

Message Format

The message structure observed (e.g. HEADER, PATINF, REQQUE, REQANA, REPORT, etc.) corresponds to a text-based EDIFACT/MedCom-style radiology message format, where each line represents a segment containing specific semantic content.

This is not pure EDIFACT syntax (with UNH/UNT segments), but rather a MedCom-derived structured flat-file format, commonly used in Nordic healthcare integrations, especially in older radiology and laboratory integrations.

The structure can be interpreted as:

- HEADER: message metadata
- PATINF: patient information
- REQ* segments: request/order details
- REPORT / RPTOBC / RPTSPC: clinical findings and observations
- EOF: message termination

This aligns with the LabIntegration design, where text-based formats are converted to/from XML using predefined templates, enabling interoperability with MedCom/EDI-based external systems.

Additionally, the presence of <*MessageType*>*MEDREQ*</*MessageType*> indicates that COSMIC internally uses XML-based message identification, which is then transformed into the external MedCom/EDI-compatible format.

Authentication and Transport

The current integration does not implement application-level authentication mechanisms such as OAuth or token-based security. Instead, it relies on the following:

- Controlled access to shared network folders within the hospital network
- Implicit trust within the internal infrastructure
- File-based transfer with directory-level access control

This reflects a legacy integration model and is consistent with the overall architecture described in Appendix 17, where multiple integrations are based on file exchange and internal network trust boundaries.

Current Sectra Products and Versions

- Sectra 26.2
- RIS/PACS 26.2