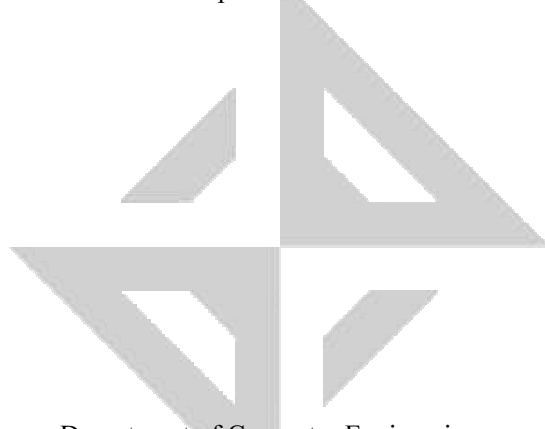


# Specification and Analysis of an Outpatient Clinic Software Architecture

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## Abstract

We consider the information confidentiality issue for an existing outpatient clinic management system at the level of software architecture. First, we describe the software architecture of the information system with Wright, an architecture description language defined in R. Allen's dissertation. Second, we annotate the architecture description with confidentiality authorizations in Wright/c and the Wright ADL with extensions for lattice-based access control. We then check the configuration using the Wright/c analysis tool to detect and identify potential confidentiality problems.

## 1 Introduction

With transition to interconnected and decentralized configurations, as most information systems are built today, information security, which involves confidentiality, integrity and availability, has become a significant consideration in health management systems. In this paper, we focus on the confidentiality problem of an outpatient clinic management system, a subsystem of a commercially available hospital management system, from the software architecture point of view. Our working hypothesis is that formal software architecture descriptions provide a suitable medium to specify and analyze information security issues.

The theoretical background for this work, which spans lattice-based access control [1] and software architectures [2], is presented in C. Ulu's dissertation [3]. A follow up technical report is available from the Wright/c home page [4]. An exposition of architectural description with confidentiality in Wright/c appears in [5].

## 2 Case Study

### 2.1 Scope of the Study

This study is concerned with the outpatient clinic and medical services from the information security, in particular confidentiality, perspective at the level of software architecture. The software architecture of the outpatient clinic management subsystem is modeled with Wright/c so as to specify and enable the static analysis of the confidentiality issues based on data flow over the architectural elements. To this end, the components and their interconnections are described, the hierarchical role structure is elucidated, and a clearance is assigned to each role. The access control lattice is constructed and the architecture configuration together with confidentiality authorizations is expressed in Wright/c notation. Finally, the configuration is checked using the Wright/c analysis tool [3], for incongruous clearance assignments, which indicate a potential of violation of the Bell-LaPadula principles. The checking algorithm detects and reports excess privileges as well.

### 2.2 Outpatient Clinic

A hospital system is about providing health services where patients, administrative staff such as managers, secretaries and medical staff including physicians, nurses, technicians and experts are involved. Physicians are responsible for examining patients physically, deciding on diagnosis and prescribing treatment. Nurses are responsible for helping the physicians with examinations, performing such tasks as measuring the blood pressure or temperature of the patient. Technicians and experts are responsible for conducting requested tests. Administrative staff is responsible for tracking and calculating financial information of patients. Secretaries are responsible for patient admission and providing information to accompanying persons. Figure 1 sketches the typical case of patient flow in the outpatient clinic.

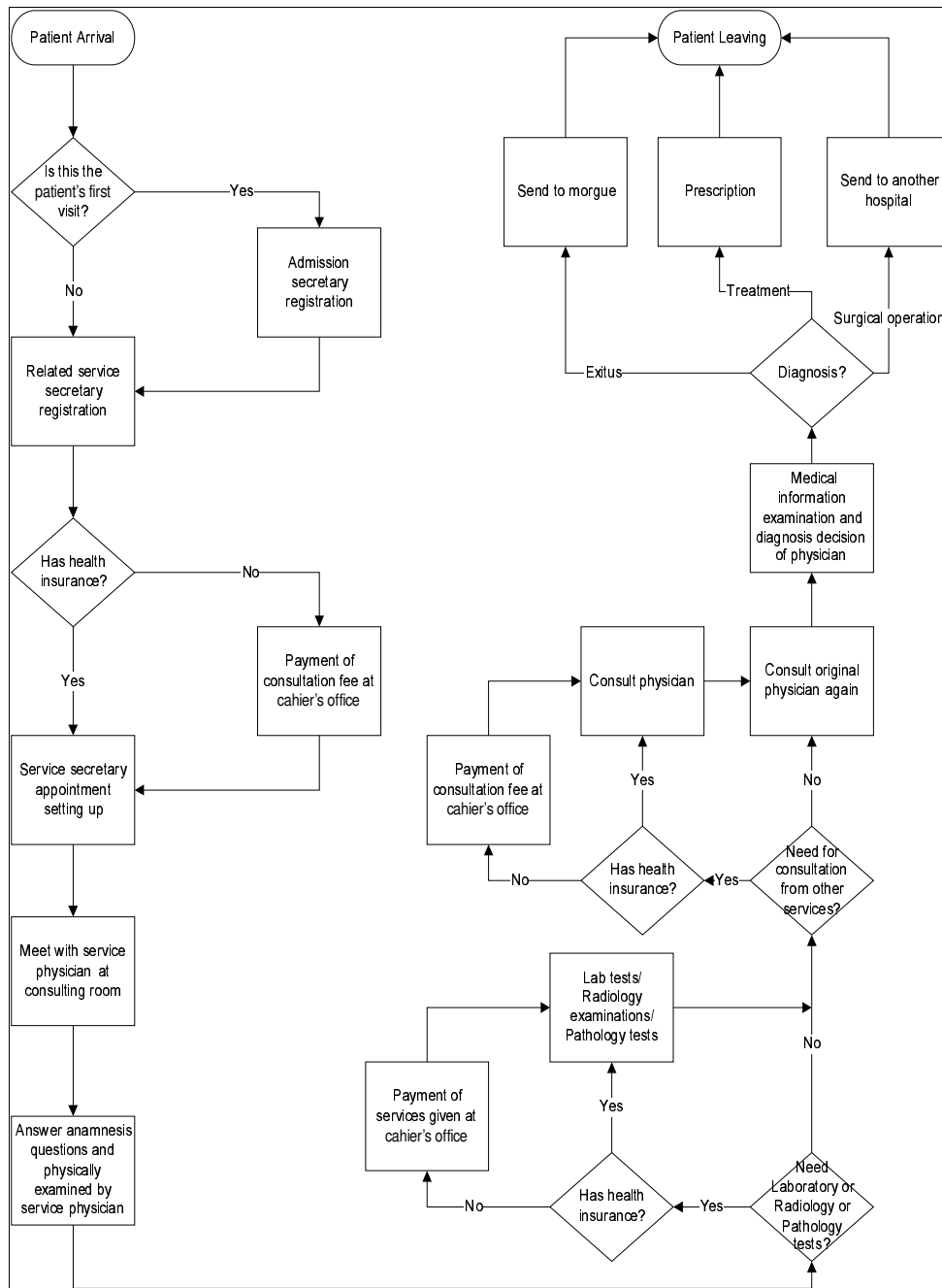


Figure 1: Patient Flow Diagram (typical case)

When a patient arrives at the outpatient clinic, firstly his brevity and sponsor information is received by the admission secretary as a part of the clinic admission procedure if the patient has not come to the hospital before. (The patient is referred to "he" and any clinic staff member is referred to "she" in the sequel.) He requires consultation from appropriate service related to his complaint. The service secretary registers him and requests his dossier from the archive. If he does not have any health insurance, he has to pay the consultation fee at the cashier's office. The service secretary sets up an appointment for the patient with the related service physician. As the patient's turn comes, the service physician takes him to the consulting room. She begins to apply anamnesis questionnaire, which includes various questions pertaining to patient's current complaint, habits, important medical and genetic symptoms and illnesses, regularly taken medicines, forbidden medicines, allergies, birth information, and surgical operations undergone and so on. The aim here is to examine the medical history of the patient. After questions are answered, she examines him physically and the service nurse records physical examination results. The service physician decides on a pre-diagnosis and she asks for a radiology examination and laboratory and pathology tests as necessary. Before conducting the requested tests, technicians and experts check whether the patient has health insurance or not. If not, he has to pay the services provided which is calculated by the financial service based on the agreement and sponsor information and requested tests. Then all requested tests are examined and the results are handed to the patient (or the accompanying person). The patient brings the results to the related physician. She sends him to other services for consultation or requests further tests if necessary. Before consulting another service physician, patient's health insurance is checked. If he does not have any health insurance, he has to pay the consultation fee at the cashier's

office. After taking consultation from another service, patient meets with his original physician again. The original service physician reaches a diagnosis by examining all the results coming from other services and tests. Based on the diagnosis she can write a prescription or send him to another hospital for surgical operation or send his body to morgue in case of exitus. Figure 2 depicts the patient flow when patient arrives at the emergency department of outpatient clinic:

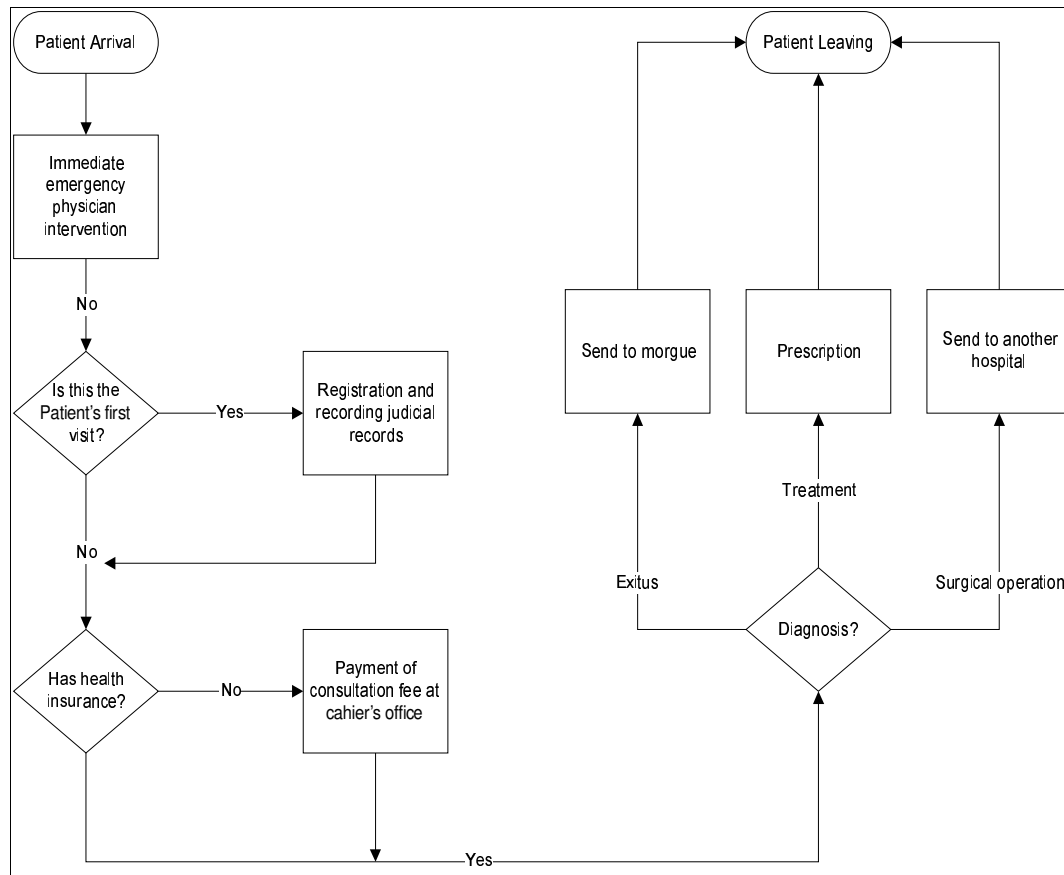


Figure 1: Patient Flow Diagram in Emergency Department

In case patient arrives at the emergency department, the emergency physician on watch intervenes immediately. Paperwork is completed afterwards.

Component structure of the outpatient clinic management software is depicted in the component diagram in figure 3 (An arrow from component A to component B indicates A's dependence on B.):

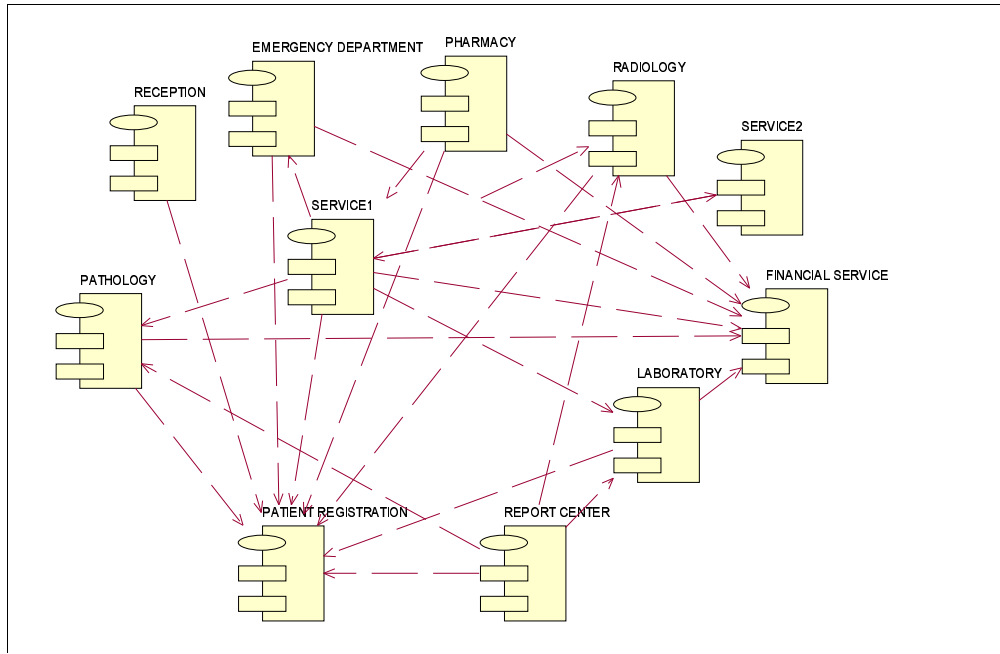


Figure 3: Component view of the outpatient clinic management software as a UML component diagram.

The functionality of each component is briefly described in the sequel.

- Reception component records patient's short introductory, the physical location of service, administrative and medical staff and their names.
- Patient Registration component registers new patient's medical, personal, financial information, and handles complete patient information including his medical and judicial history and his sponsor details.
- Each Service component, such as Service1, offers health services such as tests, examinations, pre-diagnosis and diagnosis, consultation and treatment, and supports physicians to make consultation decisions by providing instant access to comprehensive patient information. Service2, which stands for any other service, has the same relations with other components as Service1, hence, only its relation with Service1 is explicitly shown.
- Similarly to any Service component, Emergency Department serves emergency patients.
- Pathology and Laboratory components handle specimen and test definitions, sample details, requested tests and test results.
- Radiology component deals with radiology test category definitions, requested examinations, examination results.
- Pharmacy component carries out pharmacy drug configuration, unit dosage facility, maintenance of drug inventory and supplier information. Moreover, it supports dispensing of medicine according to prescription content.
- Report Center component prepares various medical, personal and financial reports.
- Financial Service component handles definitions of health services provided, their prices, the insurance, agreement, sponsor and payment details, billing operations, and it calculates payment amount of the patient and the sponsor.

Data items handled in the system are presented in Table 1.

<i>Data Group</i>	<i>Abbrev.</i>	<i>Description</i>
<i>Advisory</i>	A1	Advisory (Patient's short introductory, physical location of service, medical and administrative staff, staff name and surname)
<i>Financial</i>	F1	Payment and Receivables, Invoice
	F2	Agreement and Sponsor Details
<i>Medical</i>	M1	Medical Reports
	M2	Pre-diagnosis and Diagnosis
	M3	Anamnesis Questions and Answers
	M4	Physical Examination Results
	M5	Prescription
	M6	Treatment
	M7	Patient Medical History-Secure Part
	M8	Patient Medical History-Public Part
<i>Personal</i>	P1	Patient Registry and Brevity (Name, Surname, Birth Date, Health Insurance, Sponsorship name, Address, Telephone, etc)
	P2	Patient Short Introductory (Name, Surname, Related Clinic Name)
	P3	Patient Judicial Record
<i>Service</i>	S1	Health Services Provided in Radiology(Examinations, drugs)

	S2	Health Services Provided in Laboratory(Tests)
	S3	Health Services Provided in Pathology (Tests)
	S4	Health Services Provided in Service (Treatment and consultation services, medical consumptions, such as lint, serum, etc.)
<i>Test and Results</i>	T1	Pathology test request
	T2	Pathology test results
	T3	Radiology examination request
	T4	Radiology examination results
	T5	Laboratory test request
	T6	Laboratory test results

Table 1: Data Groups

Note that the patient’s medical history data is divided into secure and public parts for security purposes. Medical history information except patient’s current complaint, allergies and forbidden medicines are covered in the secure part of the patient’s medical history. (Note that in determining the data items, their pairwise disjointness is taken into consideration from integrity point of view. From the point of view of confidentiality alone, we could handle inclusions of data items by assigning to the including item a higher (or equal) label than the included item.)

### 2.3 Access Control

The outpatient clinic information security, in particular confidentiality, problem is tackled with the help of role based access control model [6] and lattice based access control model based on mandatory access control (MAC) policy [1].

Data items presented in the preceding section constitute the data flow over the elements of the architecture, namely, the components and the connectors, as dictated by the behavioral descriptions thereof. The behavioral descriptions are formulated in CSP, a process algebraic notation due to T. Hoare adopted in Wright as a sublanguage [7]. This enables the static analysis of the information flow over the architectural configuration subject to Bell-LaPadula principles. Indeed, data flow analysis is the heart of our Wright/c tool. The interested reader may consult [3] for a technical description including, in particular, the analysis algorithm and its correctness proof.

#### 2.3.1 Role Hierarchy and Role Rights

In the outpatient clinic management system there are thirteen defined roles, each of which represents responsibility of work with prescribed reading privileges. The hierarchy of roles shown in figure 4 reflects the administrative hierarchy of the outpatient clinic. The topmost role is B. The level of authority is decreasing downwards. For instance, the role A has less authority than the role AD.

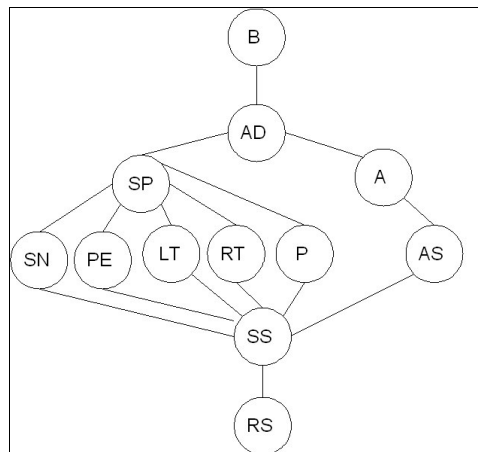


Figure 4: Role Hierarchy

A clearance is assigned to each of role introduced in outpatient clinic. As assigning clearances, there is an exceptional situation that should be taken into account. In an outpatient clinic both Boss and Administrator has right to see all records. Nonetheless, Boss is generally interested in financial, medical and registration reports. As a result, the confidentiality clearances of the Boss and Administrator are same, although Boss is the most authorized role from the administrative point of view. The clearances are assigned to CAD considering the rule that if two clearances dominate the same set of data items [3]. These are confidentiality clearances. Although Boss has right to see any information whatsoever, the roles of Boss and Administrator are differentiated due to integrity consideration as boss has no right to write or modify any record. Therefore, Boss and Administrator roles must be assigned to two different integrity clearances. However this is a concern for the follow-up work, not for the present work.

The roles’ reading privileges on data items, listed in Table 1, are presented in Table 2.

<i>Role</i>	<i>Has the right to read</i>
Boss(B)	All items
Administrator(AD)	All items
Service Physician(SP)	A1,M* <sup>1</sup> ,P*,S4,T*
Service Nurse(SN)	A1,M4,M8,P1,P2
Service Secretary(SS)	A1,P1,P2
Laboratory Technician(LT)	A1,P1,P2, S2,T5,T6
Radiology Technician(RT)	A1,P1,P2,S1,T3,T4
Pathology Specialist (PS)	A1,P1,P2, S3,T1,T2
Accountant(A)	A1,F1,F2,S*,P1,P2
Pharmacist(P)	A1,M5,P1,P2
Reception Secretary(RS)	A1,P2
Admission Secretary(AS)	A1,F2,P1,P2

Table 2: Roles and Their Reading Privileges

A confidentiality clearance (designated with the prefix C) is assigned to each role as presented in Table 3. (Note that the roles of the Boss, the owner of the clinic, and the Administrator, the top manager, have been distinguished from the integrity perspective, although there is no need to distinguish them from the confidentiality perspective alone.)

<i>Role</i>	<i>Clearance</i>
Boss (B)	CAD
Administrator (AD)	CAD
Service Physician (SP)	CSP
Service Nurse (SN)	CSN
Service Secretary (SS)	CSS
Accountant (A)	CA
Laboratory Technician (LT)	CLT
Radiology Technician (RT)	CRT
Pathology Specialist (PS)	CPS
Pharmacist (P)	CP
Reception Secretary (RS)	CRS
Admission Secretary (AS)	CAS

Table 3: Clearance Assignment of the Roles.

## 2.4 Hierarchical Role Model and Role Rights

Security (confidentiality) labels (designated with the prefix SL) are assigned to data items according to their sensitivity, as presented in Table 4. Note that the existence of the top label SL1 is required for security labels to form a lattice.

<i>Data Item</i>	<i>Security Label</i>
-	SL1
M1, M2, P3	SL2
M4	SL3
T1, T2	SL4
T3, T4	SL5
T5, T6	SL6
M5	SL7
M8	SL8
F1	SL9
S1	SL10
S2	SL11
S3	SL12
S4	SL13
F2	SL14
P1	SL15
P2, A1	SL16

<sup>1</sup> M\* stands for all data items M1 through M8, and so on.

M3, M7	SL17
M6	SL18

Table 4: Assignment of Security Labels to Data Items

The access control lattice for the outpatient clinic system is presented in Figure 3. Nodes depicted as rectangles denote security labels. In the Bell-LaPadula model of access control, a clearance that dominates a security label, say SL<sub>x</sub>, gives its holder the right to read all data items whose labels are “below” SL<sub>x</sub> (including SL<sub>x</sub> itself), and to write data items whose labels are “above” SL<sub>x</sub>. The former is known as the simple security property, and the latter as the \*-property [1].

The access control lattice structure of Outpatient Clinic, shown in figure 5, is readily expressible in Wright/c, but we do not reproduce that code here due to lack of space. The Wright/c description of architectural configuration is given, in outline form, in Appendix A. The complete description is available as a part of a technical report available from the Wright/c Web page [4].

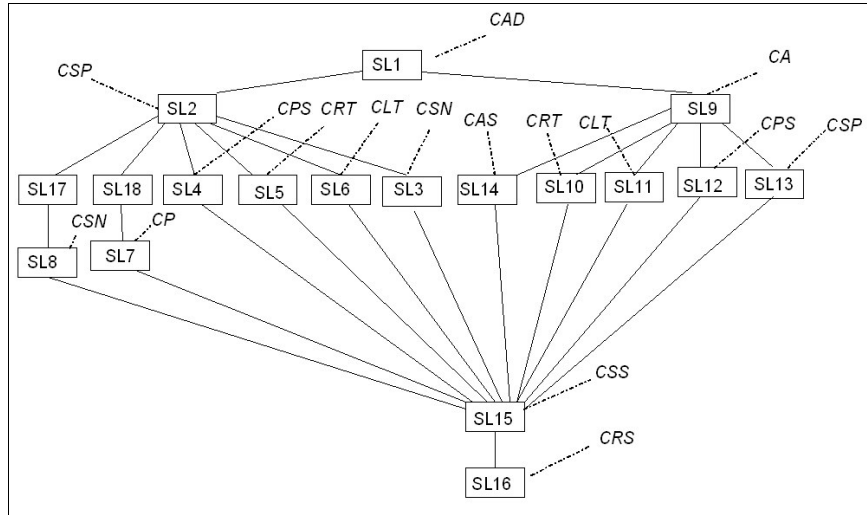


Figure 5: Access Control Lattice Structure for the Outpatient Clinic

The access control lattice structure of Outpatient Clinic, shown in figure 6, is expressed in Wright/c in figure 7:

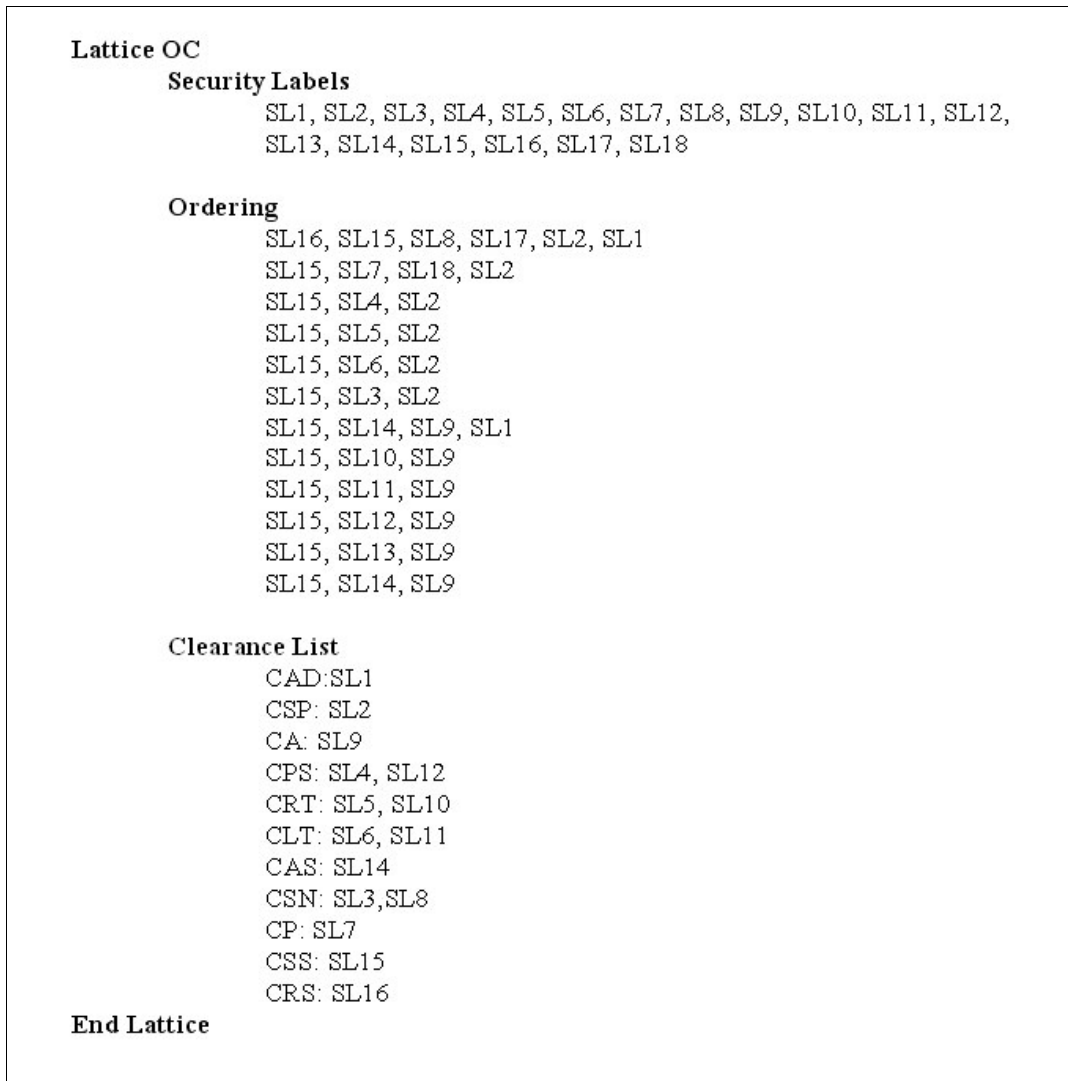


Figure 6: Access Control Lattice Structure for the Outpatient Clinic in Wright/c

## 2.5 Wright/c Configuration Model

Components of the outpatient clinic, ports and their clearances of each component, and related connectors are depicted in figure 7 which the overall structure is observed.

# Outpatient Clinic System

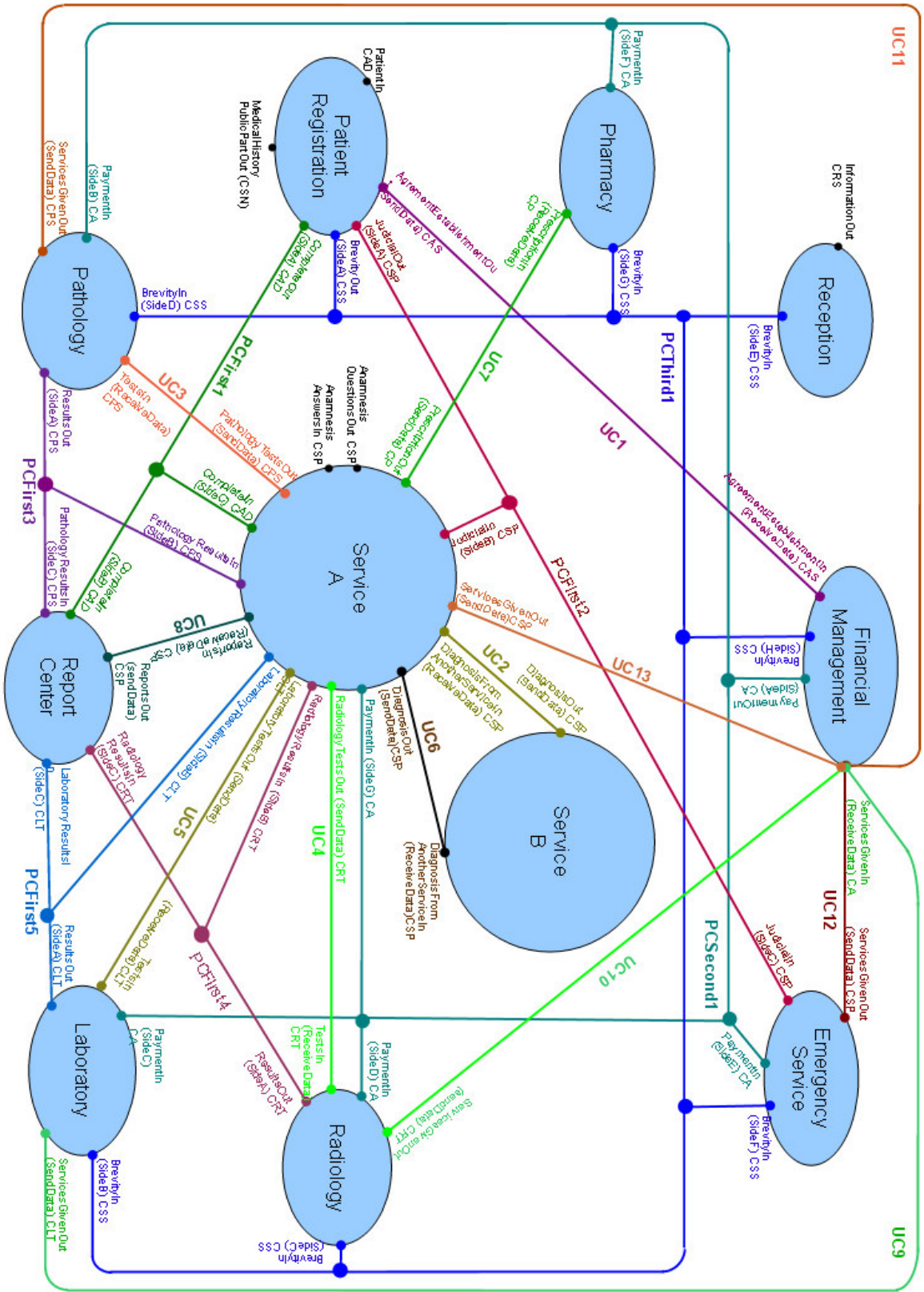


Figure 7: Outpatient Clinic System Structure

### 3 Analysis And Results

The analysis revealed four cases of incongruity in the assignment of privileges, which were subsequently corrected, and one case of excess privilege (with no existing lower privilege to replace it).

The output report of the analysis is supplied in the Appendix. It shows the iteration results of the verification process, and finally outputs the status of all ports of each component instance in the configuration. The status includes each port's assigned clearance, the port type (input, output, or input\_output), possible data security labels that can be input through the port, possible data security labels that can be output from the port. It also includes refused data security labels, if one exists, that are filtered out due to the principles of Bell-LaPadula during the analysis. If such labels exist in the final state of the analysis, these labels are reported as a violation with respect to the Bell-LaPadula principles.

The analysis finally reports that there is no excess privilege assigned to the ports. Therefore, there is no need to lower the clearance of the any ports.

### 4 Conclusion

This work has successfully tested the formalism and the method put forth in [3] on a real-life example. The Wright/c description of the existing software architecture and confidentiality authorizations proved straightforward, although reverse engineering took six person-months of painstaking effort. Analysis on the current, un-optimized version of the tool suffered from run-time problems due to the size of the architectural configuration parameters, such as the total number of ports and number of security labels, although the analysis algorithm is polynomial. Supporting documentation of the present work is available from [4].

The analysis revealed four cases of incongruity in the assignment of privileges, which were subsequently corrected, and one case of excess privilege (with no existing lower privilege to replace it).

Future plans include analyzing the integrity issues based on the Biba model using the same analysis tool, along the line suggested by Sandhu [1].

#### Acknowledgments

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### References

- [1] Sandhu R.S., "Lattice-Based Access Control Models", IEEE Computer Vol. 26 No: 11, November 1993, 9-19.
- [2] Allen Robert J., "A Formal Approach to Software Architecture", Ph.D. Thesis, School of Computer Science, Carnegie Mellon University, May 1997.
- [3] Ulu C., "Specification and Verification of Confidentiality in Software Architectures", Ph.D. Thesis, School of Natural and Applied Sciences, Middle East Technical University, March 2004. Available as electronic resource from METU Library: <http://library.metu.edu.tr/>
- [4] Wright/c Web Page:
- [5] <http://www.ceng.metu.edu.tr/~cemil/wrightc/>
- [6] Ulu C. and Oğuztüzün H. "Specification of Confidentiality Authorizations at Architecture Level", Proceedings of the 3rd Asia Pacific Symposium on Information Technology, January 2004, Istanbul, 482-489.
- [7] Sandhu R.S., Coyne E.J., Feinstein H.L. and Youman C.E., "Role Base Access Control Models", IEEE Computer 29(2), February 1996.
- [8] Hoare C.A.R, Communicating sequential processes, Prentice Hall International Series, 1985

## Appendix.A1. Wright/c Configuration (excerpts)

### Style Outpatient Management

**Import Lattice OC** "/project/OC/OC\_lattice.txt"

#### Component Patient Registration ( $\mu, \alpha, \chi, \gamma, \varphi$ : Security Label)

//Sends patient's personal, medical and test results information

**Port CompleteOut** =  $\overline{\text{Send!}x^\mu} \rightarrow \text{CompleteOut}$

// Sends patient's agreement and establishment information

**Port AgreementEstablishmentOut** =  $\overline{\text{Send!}x^\alpha} \rightarrow \text{AgreementEstablishmentOut}$

// Sends patient's registry and brevity information

**Port BrevityOut** =  $\overline{\text{Send!}x^\chi} \rightarrow \text{BrevityOut}$

// Sends patient's general medical history information

**Port MedicalHistoryPublicPartOut** =  $\overline{\text{Send!}x^\gamma} \rightarrow \text{MedicalHistoryPublicPartOut}$

// Sends patient's judicial record

**Port JudicialOut** =  $\overline{\text{Send!}x^\varphi} \rightarrow \text{JudicialOut}$

// Gets patient's all information

**Port PatientIn** =  $\text{Receive?}x \rightarrow \text{PatientIn}$

//Registers patient, stores patient's complete (medical, personal, financial information) information

**Computation** =  $\text{PatientIn.Receive?}x \rightarrow \text{Registration} \rightarrow \text{Computation} \quad \square$

$\overline{(\text{CompleteOutSend!}x^\mu \rightarrow \text{Computation})} \quad \square$

$\overline{\text{BrevityOutSend!}x^\chi \rightarrow \text{Computation}} \quad \square$

$\overline{\text{JudicialOutSend!}x^\varphi \rightarrow \text{Computation}} \quad \square$

$\overline{\text{MedicalHistoryPublicPartOutSend!}x^\gamma \rightarrow \text{Computation}} \quad \square$

$\overline{\text{AgreementEstablishmentOutSend!}x^\alpha \rightarrow \text{Computation}}$

#### Component PLR ( $\chi, \delta$ : Security Label)

// Sends requested tests and results

**Port ResultsOut** =  $\overline{\text{Send!}x^\chi} \rightarrow \text{ResultsOut}$

// Sends health services given to patient

**Port ServicesGivenOut** =  $\overline{\text{Send!}x^\delta} \rightarrow \text{ServicesGivenOut}$

// Gets patient's registry and brevity information

**Port BrevityIn** =  $\text{Receive?}x \rightarrow \text{BrevityIn}$

// Gets requested test information

**Port TestsIn** =  $\text{Receive?}x \rightarrow \text{TestsIn}$

// Gets payment of tests given

**Port PaymentIn** =  $\text{Receive?}x \rightarrow \text{PaymentIn}$

//Includes test definitions, range of test results, specimen and diagnosis information and stores test results

**Computation** =  $(\text{BrevityIn.Receive?}x \parallel \text{PaymentIn.Receive?}x \parallel \text{TestsIn.Receive?}x) \rightarrow \text{Examination}$

$\rightarrow (\overline{\text{ResultsOutSend!}x^\chi} \rightarrow \text{Computation} \quad \square \quad \overline{\text{ServicesGivenOutSend!}x^\delta} \rightarrow \text{Computation})$

#### Component Pharmacy ()

// Gets patient's registry and brevity information

**Port BrevityIn** =  $\text{Receive?}x \rightarrow \text{BrevityIn}$

// Gets payment

**Port PaymentIn** =  $\text{Receive?}x \rightarrow \text{PaymentIn}$

// Gets prescription content

*Port PrescriptionIn* = Receive?x → *PrescriptionIn*

// Includes medicine and prescription information

**Computation** = ( BrevityIn.Receive?x || PaymentIn.Receive?x || PrescriptionIn.Receive?x ) → *SendMedicine* → *Computation*

**Component** Report Center (  $\chi$  : Security Label)

// Gets pathology test results

*Port PathologyResultsIn* = Receive?x → *PathologyResultsIn*

// Gets laboratory test results

*Port LaboratoryResultsIn* = Receive?x → *LaboratoryResultsIn*

// Gets radiology examination results

*Port RadiologyResultsIn* = Receive?x → *RadiologyResultsIn*

// Gets patient's medical, personal and financial information

*Port CompleteIn* = Receive?x → *CompleteIn*

// Sends requested type of reports

*Port ReportsOut* =  $\overline{\text{Send!x}^\chi}$  → *ReportsOut*

// Prepares reports

**Computation** = ( PathologyResultsIn.Receive?x → *PrepareReport* →  $\overline{\text{Re portsOutSend!x}^\chi}$  → *Computation* )

( LaboratoryResultsIn.Receive?x → *PrepareReport* →  $\overline{\text{Re portsOutSend!x}^\chi}$  → *Computation* )

( RadiologyResultsIn.Receive?x → *PrepareReport* →  $\overline{\text{Re portsOutSend!x}^\chi}$  → *Computation* )

( CompleteIn.Receive?x → *PrepareReport* →  $\overline{\text{Re portsOutSend!x}^\chi}$  → *Computation* )

**Component** Emergency Department(  $\delta$  : Security Label)

// Gets patient's registry and brevity information

*Port BrevityIn* = Receive?x → *BrevityIn*

// Gets amount of payment of tests given

*Port PaymentIn* = Receive?x → *PaymentIn*

// Gets patient's judicial record

*Port JudicialIn* = Receive?x → *JudicialIn*

// Sends health services given to patient

*Port ServicesGivenOut* =  $\overline{\text{Send!x}^\delta}$  → *ServicesGivenOut*

// Gets patient information, serves health services like consultation and treatment

**Computation** = BrevityIn.Receive?x → *Treatment* → JudicialIn.Receive?x → PaymentIn.Receive?x →  $\overline{\text{ServicesGivenOut.Send!x}^\delta}$  → *Computation*

**Component** Financial Management (  $\chi$  : Security Label)

// Gets patient's registry and brevity information

*Port BrevityIn* = Receive?x → *BrevityIn*

// Gets patient's agreement and establishment information

*Port AgreementEstablishmentIn* = Receive?x → *AgreementEstablishmentIn*

// Gets services and tests given

*Port ServicesGivenIn* = Receive?x → *ServicesGivenIn*

// Sends patient's payment of services given

*Port PaymentOut* =  $\overline{\text{Send!x}^\chi}$  → *PaymentOut*

// Includes service definitions, agreement and sponsor information, payments and receivables, sends the payment of services given to patient

**Computation** = ( BrevityIn.Receive?x || ServicesGivenIn.Receive?x || AgreementEstablishmentIn ) → *CalculatePayment* →  $\overline{\text{PaymentOut.Send!x}^\chi}$  → *Computation*

**Component** Service (  $\alpha, \gamma, \varphi, \chi, \delta, \lambda, \omega$  : Security Label) 4319765 --

// Gets patient's personal, medical and test results information

**Port CompleteIn** = Receive?x → *CompleteIn*  
 // Gets the answer of the anamnesis question  
**Port AnamnesisAnswersIn** = Receive?x → *AnamnesisAnswersIn*  
 // Gets amount of payment of tests conducted  
**Port PaymentIn** = Receive?x → *PaymentIn*  
 // Gets reports  
**Port ReportsIn** = Receive?x → *ReportsIn*  
 // Gets patient's judicial record  
**Port JudicialIn** = Receive?x → *JudicialIn*  
 // Gets pathology test results  
**Port PathologyResultsIn** = Receive?x → *PathologyResultsIn*  
 // Gets laboratory test results  
**Port LaboratoryResultsIn** = Receive?x → *LaboratoryResultsIn*  
 // Gets radiology examination results  
**Port RadiologyResultsIn** = Receive?x → *RadiologyResultsIn*  
 // Gets diagnosis information from another service  
**Port DiagnosisFromAnotherServiceIn** = Receive?x → *DiagnosisFromAnotherService*  
 // Sends prescription content  
**Port PrescriptionOut** =  $\overline{\text{Send!x}^\alpha}$  → *PrescriptionOut*  
 // Sends requested radiology test information  
**Port RadiologyTestsOut** =  $\overline{\text{Send!x}^\gamma}$  → *RadiologyTestsOut*  
 // Sends requested laboratory test information  
**Port LaboratoryTestsOut** =  $\overline{\text{Send!x}^\phi}$  → *LaboratoryTestsOut*  
 // Sends requested diagnosis  
**Port DiagnosisOut** =  $\overline{\text{Send!x}^\chi}$  → *DiagnosisOut*  
 // Sends requested pathology test information  
**Port PathologyTestsOut** =  $\overline{\text{Send!x}^\delta}$  → *PathologyTestsOut*  
 // Sends the anamnesis question  
**Port AnamnesisQuestionsOut** =  $\overline{\text{Send!x}^\lambda}$  → *AnamnesisQuestionsOut*  
 // Sends health services given to patient  
**Port ServicesGivenOut** =  $\overline{\text{Send!x}^\omega}$  → *ServicesGivenOut*

//Gets patient's registry and brevity information, sends the anamnesis questions and gets the answers from patient, makes physically examination, composes patient's medical history, determines pre-diagnosis, if necessary requests laboratory and pathology tests and radiology examinations and then get each of the test results, if necessary sends patient to other service and gets diagnosis information and decides diagnosis by taking into account patient's medical history and all results and sends health services given to patient, finally if necessary writes prescription.

**Computation** = ((PaymentIn.Receive?x || CompleteIn.Receive?x || JudicialIn.Receive?x) → *PhysicalExamination* →  
 $\overline{\text{AnamnesisQuestionsOut.Send!x}^\lambda}$  → *AnamnesisAnswersIn.Receive?x* → *DecidePre-Diagnosis* →  
*Computation*) □  
 $\overline{\text{LaboratoryTestsOut.Send!x}^\phi}$  → *Computation* □  $\overline{\text{RadiologyTestsOut.Send!x}^\gamma}$  → *Computation* □  
 $\overline{\text{PathologyTestsOut.Send!x}^\delta}$  → *Computation*) □  
 ((PathologyResultsIn.Receive?x → *DiagnosisFromAnotherService.Receive?x* → *DecideDiagnosis*  
 → *Computation*) □  
 (LaboratoryResultsIn.Receive?x → *DiagnosisFromAnotherService.Receive?x* → *DecideDiagnosis*  
 → *Computation*) □  
 (RadiologyResultsIn.Receive?x → *DiagnosisFromAnotherService.Receive?x* → *DecideDiagnosis*  
 → *Computation*) □

$$\begin{array}{l}
((\text{PathologyResultsIn.Receive?}x \rightarrow \text{DecideDiagnosis} \rightarrow \text{Computation}) \square \\
(\text{LaboratoryResultsIn.Receive?}x \rightarrow \text{DecideDiagnosis} \rightarrow \text{Computation}) \square \\
(\text{RadiologyResultsIn.Receive?}x \rightarrow \text{DecideDiagnosis} \rightarrow \text{Computation}) \square \\
\hline
\text{ReportsIn.Receive?}x \rightarrow \text{Computation} \square \quad \text{Pr escriptionOut.Send!}x^\alpha \rightarrow \text{Computation} \square \\
\hline
\text{ServicesGivenOut.Send!}x^\omega \rightarrow \text{Computation} \square \quad \text{DiagnosisOut.Send!}x^\chi \rightarrow \text{Computation} \square
\end{array}$$

**Component** Reception ( $\chi$  : Security Label)

// Gets patient's short introductory information  
**Port** *BrevityIn* =  $\text{Receive?}x \rightarrow \text{BrevityIn}$

// Sends advisory information  
**Port** *InformationOut* =  $\text{Send!}x^\chi \rightarrow \text{InformationOut}$

// Gives patient's short introductory information  
**Computation** =  $\text{BrevityIn.Receive?}x \rightarrow \text{InformationOut.Send!}x^\chi \rightarrow \text{Computation}$

**Connector** *UniDirectionalComm*

**Role** *SendData* =  $\text{Send!}x \rightarrow \text{SendData}$   
**Role** *ReceiveData* =  $\text{Receive?}x \rightarrow \text{ReceiveData}$   
**Glue** =  $\text{SendData.Send!}x \rightarrow \text{ReceiveData.Receive?}x \rightarrow \text{Glue}$

**Connector** *PoliDirectionalComm1*

**Role** *SideA* =  $\text{Send!}x \rightarrow \text{SideA}$   
**Role** *SideB* =  $\text{Receive?}x \rightarrow \text{SideB}$   
**Role** *SideC* =  $\text{Receive?}x \rightarrow \text{SideC}$   
**Glue** =  $\text{SideA.Send!}x \rightarrow \text{SideB.Receive?}x \rightarrow \text{Glue} \square \text{SideA.Send!}x \rightarrow \text{SideC.Receive?}x \rightarrow \text{Glue}$

**Connector** *PoliDirectionalComm2*

**Role** *SideA* =  $\text{Send!}x \rightarrow \text{SideA}$   
**Role** *SideB* =  $\text{Receive?}x \rightarrow \text{SideB}$   
**Role** *SideC* =  $\text{Receive?}x \rightarrow \text{SideC}$   
**Role** *SideD* =  $\text{Receive?}x \rightarrow \text{SideD}$   
**Role** *SideE* =  $\text{Receive?}x \rightarrow \text{SideE}$   
**Role** *SideF* =  $\text{Receive?}x \rightarrow \text{SideF}$   
**Role** *SideG* =  $\text{Receive?}x \rightarrow \text{SideG}$

**Glue** =  $\text{SideA.Send!}x \rightarrow \text{SideB.Receive?}x \rightarrow \text{Glue} \square \text{SideA.Send!}x \rightarrow \text{SideC.Receive?}x \rightarrow \text{Glue} \square$   
 $\text{SideA.Send!}x \rightarrow \text{SideD.Receive?}x \rightarrow \text{Glue} \square \text{SideA.Send!}x \rightarrow \text{SideE.Receive?}x \rightarrow \text{Glue} \square$   
 $\text{SideA.Send!}x \rightarrow \text{SideF.Receive?}x \rightarrow \text{Glue} \square \text{SideA.Send!}x \rightarrow \text{SideG.Receive?}x \rightarrow \text{Glue}$

**Connector** *PoliDirectionalComm3*

**Role** *SideA* =  $\text{Send!}x \rightarrow \text{SideA}$   
**Role** *SideB* =  $\text{Receive?}x \rightarrow \text{SideB}$   
**Role** *SideC* =  $\text{Receive?}x \rightarrow \text{SideC}$   
**Role** *SideD* =  $\text{Receive?}x \rightarrow \text{SideD}$   
**Role** *SideE* =  $\text{Receive?}x \rightarrow \text{SideE}$   
**Role** *SideF* =  $\text{Receive?}x \rightarrow \text{SideF}$   
**Role** *SideG* =  $\text{Receive?}x \rightarrow \text{SideG}$   
**Role** *SideH* =  $\text{Receive?}x \rightarrow \text{SideH}$

**Glue** =  $\text{SideA.Send!}x \rightarrow \text{SideB.Receive?}x \rightarrow \text{Glue} \square \text{SideA.Send!}x \rightarrow \text{SideC.Receive?}x \rightarrow \text{Glue} \square$   
 $\text{SideA.Send!}x \rightarrow \text{SideD.Receive?}x \rightarrow \text{Glue} \square \text{SideA.Send!}x \rightarrow \text{SideE.Receive?}x \rightarrow \text{Glue} \square$   
 $\text{SideA.Send!}x \rightarrow \text{SideF.Receive?}x \rightarrow \text{Glue} \square \text{SideA.Send!}x \rightarrow \text{SideG.Receive?}x \rightarrow \text{Glue} \square$   
 $\text{SideA.Send!}x \rightarrow \text{SideH.Receive?}x \rightarrow \text{Glue}$

**End Style**

## Configuration Outpatient Clinic

### Style Outpatient Management

#### Instances

PatientRegistration	: Patient Registration (OC.SL1, OC.SL14, OC.SL15, OC.SL8, OC.SL2)
FinancialManagement	: Financial Management (OC.SL9)
ReportCenter	: Report Center (OC.SL2)
ServiceA	: Service (OC.SL7, OC.SL5, OC.SL6, OC.SL2, OC.SL4, OC.SL17, SL13)
ServiceB	: Service (OC.SL7, OC.SL5, OC.SL6, OC.SL2, OC.SL4, OC.SL17, SL13)
Pathology	: PLR (OC.SL4, OC.SL12)
Radiology	: PLR (OC.SL5, OC.SL10)
Laboratory	: PLR (OC.SL6, OC.SL11)
Reception	: Reception (OC.SL16)
Emergency	: Emergency Department (OC.SL13)
Pharmacy	: Pharmacy ()
UC1	: UniDirectionalConn
UC2	: UniDirectionalConn
UC3	: UniDirectionalConn
UC4	: UniDirectionalConn
UC5	: UniDirectionalConn
UC6	: UniDirectionalConn
UC7	: UniDirectionalConn
UC8	: UniDirectionalConn
UC9	: UniDirectionalConn
UC10	: UniDirectionalConn
UC11	: UniDirectionalConn
UC12	: UniDirectionalConn
UC13	: UniDirectionalConn
PCFirst1	: PoliDirectionalConn1
PCFirst2	: PoliDirectionalConn1
PCFirst3	: PoliDirectionalConn1
PCFirst4	: PoliDirectionalConn1
PCFirst5	: PoliDirectionalConn1
PCSecond1	: PoliDirectionalConn2
PCThird1	: PoliDirectionalConn3

#### Clearance

PatientRegistration.CompleteOut	: CAD
PatientRegistration.BrevityOut	: CSS
PatientRegistration.JudicialOut	: CSP
PatientRegistration.AgreementEstablishmentOut	: CAS
PatientRegistration.MedicalHistoryPublicPartOut	: CSN
PatientRegistration.PatientIn	: CAD
Laboratory.BrevityIn	: CSS
Laboratory.TestsIn	: CLT
Laboratory.PaymentIn	: CA
Laboratory.ServicesGivenOut	: CLT
Laboratory.ResultsOut	: CLT
Radiology.BrevityIn	: CSS
Radiology.TestsIn	: CRT
Radiology.PaymentIn	: CA
Radiology.ServicesGivenOut	: CRT
Radiology.ResultsOut	: CRT
Pathology.BrevityIn	: CSS
Pathology.TestsIn	: CPS
Pathology.PaymentIn	: CA
Pathology.ServicesGivenOut	: CPS
Pathology.ResultsOut	: CPS
Pharmacy.BrevityIn	: CSS
Pharmacy.PaymentIn	: CA
Pharmacy.PrescriptionIn	: CP
ReportCenter.LaboratoryResultsIn	: CLT
ReportCenter.RadiologyResultsIn	: CRT
ReportCenter.PathologyResultsIn	: CPS
ReportCenter.CompleteIn	: CAD
ReportCenter.ReportsOut	: CSP
Emergency.BrevityIn	: CSS
Emergency.PaymentIn	: CA
Emergency.JudicialIn	: CSP
Emergency.ServicesGivenOut	: CSP
FinancialManagement.BrevityIn	: CSS
FinancialManagement.ServicesGivenIn	: CA
FinancialManagement.AgreementEstablishmentIn	: CAS
FinancialManagement.PaymentOut	: CA
ServiceA.CompleteIn	: CAD
ServiceA.PaymentIn	: CA
ServiceA.ReportsIn	: CSP

ServiceA.JudicialIn	: CSP
ServiceA.LaboratoryResultsIn	: CLT
ServiceA.RadiologyResultsIn	: CRT
ServiceA.PathologyResultsIn	: CPS
ServiceA.DiagnosisFromAnotherServiceIn	: CSP
ServiceA.LaboratoryTestsOut	: CLT
ServiceA.RadiologyTestsOut	: CRT
ServiceA.PathologyTestsOut	: CPS
ServiceA.AnamnesisQuestionsOut	: CSP
ServiceA.AnamnesisAnswersIn	: CSP
ServiceA.DiagnosisOut	: CSP
ServiceA.PrescriptionOut	: CP
ServiceA.ServicesGivenOut	: CSP
ServiceB.DiagnosisOut	: CSP
ServiceB.DiagnosisFromAnotherServiceIn	: CSP
Reception.InformationOut	: CRS
Reception.BrevityIn	: CSS

#### Attachments

FinancialManagement.AgreementEstablishmentIn as UC1.ReceiveData  
PatientRegistration.AgreementEstablishmentOut as UC1.SendData

ServiceA.DiagnosisFromAnotherServiceIn as UC2.ReceiveData  
ServiceB.DiagnosisOut as UC2.SendData

Pathology.TestsIn as UC3.ReceiveData  
ServiceA.PathologyTestsOut as UC3.SendData

Radiology.TestsIn as UC4.ReceiveData  
ServiceA.RadiologyTestsOut as UC4.SendData

Laboratory.TestsIn as UC5.ReceiveData  
ServiceA.LaboratoryTestsOut as UC5.SendData

ServiceB.DiagnosisFromAnotherServiceIn as UC6.ReceiveData  
ServiceA.DiagnosisOut as UC6.SendData

Pharmacy.PrescriptionIn as UC7.ReceiveData  
ServiceA.PrescriptionOut as UC7.SendData

ServiceA.ReportsIn as UC8.ReceiveData  
ReportCenter.ReportsOut as UC8.SendData

FinancialManagement.ServicesGivenIn as UC9.ReceiveData  
Laboratory.ServicesGivenOut as UC9.SendData

FinancialManagement.ServicesGivenIn as UC10.ReceiveData  
Radiology.ServicesGivenOut as UC10.SendData

FinancialManagement.ServicesGivenIn as UC11.ReceiveData  
Pathology.ServicesGivenOut as UC11.SendData

FinancialManagement.ServicesGivenIn as UC12.ReceiveData  
Emergency.ServicesGivenOut as UC12.SendData

FinancialManagement.ServicesGivenIn as UC13.ReceiveData  
ServiceA.ServicesGivenOut as UC13.SendData

PatientRegistration.CompleteOut as PCFirst1.SideA  
ReportCenter.CompleteIn as PCFirst1.SideB  
ServiceA.CompleteIn as PCFirst1.SideC

PatientRegistration.JudicialOut as PCFirst2.SideA  
ServiceA.JudicialIn as PCFirst2.SideB  
Emergency.JudicialIn as PCFirst2.SideC

Pathology.ResultsOut as PCFirst3.SideA  
ServiceA.PathologyResultsIn as PCFirst3.SideB  
ReportCenter.PathologyResultsIn as PCFirst3.SideC

Radiology.ResultsOut as PCFirst4.SideA  
ServiceA.RadiologyResultsIn as PCFirst4.SideB  
ReportCenter.RadiologyResultsIn as PCFirst4.SideC

Laboratory.ResultsOut as PCFirst5.SideA  
ServiceA.LaboratoryResultsIn as PCFirst5.SideB

ReportCenter.LaboratoryResultsIn as PCFirst5.SideC

FinancialManagement.PaymentOut as PCSecond1.SideA

Pathology.PaymentIn as PCSecond1.SideB

Laboratory.PaymentIn as PCSecond1.SideC

Radiology.PaymentIn as PCSecond1.SideD

Emergency.PaymentIn as PCSecond1.SideE

Pharmacy.PaymentIn as PCSecond1.SideF

ServiceA.PaymentIn as PCSecond1.SideG

PatientRegistration.BrevityOut as PCThird1.SideA

Laboratory.BrevityIn as PCThird1.SideB

Radiology.BrevityIn as PCThird1.SideC

Pathology.BrevityIn as PCThird1.SideD

Reception.BrevityIn as PCThird1.SideE

Emergency.BrevityIn as PCThird1.SideF

Pharmacy.BrevityIn as PCThird1.SideG

FinancialManagement.BrevityIn as PCThird1.SideH

## End Outpatient Clinic

# Appendix.A2. Analysis of the Outpatient Clinic Software Architecture

Iteration No: 0

RECEIVED LIST (0)

Component.Port: PatientRegistration.CompleteOut type: UNUSED clearance: CAD

Allowed Security Labels (min,max): (SL16,SL1)

Refused Security Labels (min,max):

Component.Port: PatientRegistration.BrevityOut type: UNUSED clearance: CSS

Allowed Security Labels (min,max): (SL16,SL15)

Refused Security Labels (min,max):

(SL8,SL1)(SL7,SL18)(SL4,SL4)(SL5,SL5)(SL6,SL6)(SL3,SL3)(SL14,SL9)(SL10,SL10)(SL11,SL11)(SL12,SL12)(SL13,SL13)

Component.Port: PatientRegistration.JudicialOut type: UNUSED clearance: CSP

Allowed Security Labels (min,max): (SL16,SL2)

Refused Security Labels (min,max): (SL1,SL1)(SL9,SL9)

Allowed Security Labels (min,max): (SL13,SL13)

Refused Security Labels (min,max):

Component.Port: PatientRegistration.MedicalHistoryPublicPartOut type: UNUSED clearance: CSN

Allowed Security Labels (min,max): (SL3,SL3)

Refused Security Labels (min,max): (SL17,SL1)

Component.Port: PatientRegistration.AgreementEstablishmentOut type: UNUSED clearance: CAS

Allowed Security Labels (min,max): (SL16,SL14)

Refused Security Labels (min,max): (SL1,SL1)(SL9,SL9)

Component.Port: PatientRegistration.PatientIn type: UNUSED clearance: CAD

Allowed Security Labels (min,max): (SL1,SL1)

Refused Security Labels (min,max):

Component.Port: FinancialManagement.BrevityIn type: UNUSED clearance: CSS

Allowed Security Labels (min,max): (SL16,SL15)

Refused Security Labels (min,max):

(SL8,SL1)(SL7,SL18)(SL4,SL4)(SL5,SL5)(SL6,SL6)(SL3,SL3)(SL14,SL9)(SL10,SL10)(SL11,SL11)(SL12,SL12)(SL13,SL13)

Component.Port: FinancialManagement.AgreementEstablishmentIn type: UNUSED clearance: CAS

Allowed Security Labels (min,max): (SL16,SL14)

Refused Security Labels (min,max): (SL1,SL1)(SL9,SL9)

Component.Port: FinancialManagement.ServicesGivenIn type: UNUSED clearance: CA

Allowed Security Labels (min,max): (SL16,SL9)

Refused Security Labels (min,max): (SL1,SL1)

Component.Port: FinancialManagement.PaymentOut type: UNUSED clearance: CA

Allowed Security Labels (min,max): (SL16,SL9)

Refused Security Labels (min,max): (SL1,SL1)

Component.Port: ReportCenter.LaboratoryResultsIn type: UNUSED clearance: CLT

Allowed Security Labels (min,max): (SL16,SL6)

Refused Security Labels (min,max): (SL2,SL1)(SL9,SL9)  
Allowed Security Labels (min,max): (SL11,SL11)  
Refused Security Labels (min,max):

Component.Port: ReportCenter.RadiologyResultsIn type: UNUSED clearance: CRT  
Allowed Security Labels (min,max): (SL16,SL5)  
Refused Security Labels (min,max): (SL2,SL1)(SL9,SL9)  
Allowed Security Labels (min,max): (SL10,SL10)  
Refused Security Labels (min,max):

Component.Port: ReportCenter.PathologyResultsIn type: UNUSED clearance: CPS  
Allowed Security Labels (min,max): (SL16,SL4)  
Refused Security Labels (min,max): (SL2,SL1)(SL9,SL9)  
Allowed Security Labels (min,max): (SL12,SL12)  
Refused Security Labels (min,max):

Component.Port: ReportCenter.CompleteIn type: UNUSED clearance: CAD  
Allowed Security Labels (min,max): (SL16,SL1)  
Refused Security Labels (min,max):

Component.Port: ReportCenter.ReportsOut type: UNUSED clearance: CSP  
Allowed Security Labels (min,max): (SL16,SL2)  
Refused Security Labels (min,max): (SL1,SL1)(SL9,SL9)  
Allowed Security Labels (min,max): (SL13,SL13)  
Refused Security Labels (min,max):

Component.Port: ServiceA.CompleteIn type: UNUSED clearance: CAD  
Allowed Security Labels (min,max): (SL16,SL1)  
Refused Security Labels (min,max):

Component.Port: ServiceA.AnamnesisAnswersIn type: UNUSED clearance: CSP  
Allowed Security Labels (min,max): (SL2,SL2)  
Refused Security Labels (min,max): (SL1,SL1)(SL9,SL9)

Component.Port: ServiceA.PaymentIn type: UNUSED clearance: CA  
Allowed Security Labels (min,max): (SL16,SL9)  
Refused Security Labels (min,max): (SL1,SL1)

Component.Port: ServiceA.ReportsIn type: UNUSED clearance: CSP  
Allowed Security Labels (min,max): (SL16,SL2)  
Refused Security Labels (min,max): (SL1,SL1)(SL9,SL9)  
Allowed Security Labels (min,max): (SL13,SL13)  
Refused Security Labels (min,max):

Component.Port: ServiceA.JudicialIn type: UNUSED clearance: CSP  
Allowed Security Labels (min,max): (SL16,SL2)  
Refused Security Labels (min,max): (SL1,SL1)(SL9,SL9)  
Allowed Security Labels (min,max): (SL13,SL13)  
Refused Security Labels (min,max):

Component.Port: ServiceA.LaboratoryResultsIn type: UNUSED clearance: CLT  
Allowed Security Labels (min,max): (SL16,SL6)  
Refused Security Labels (min,max): (SL2,SL1)(SL9,SL9)  
Allowed Security Labels (min,max): (SL11,SL11)  
Refused Security Labels (min,max):

Component.Port: ServiceA.RadiologyResultsIn type: UNUSED clearance: CRT  
Allowed Security Labels (min,max): (SL16,SL5)  
Refused Security Labels (min,max): (SL2,SL1)(SL9,SL9)  
Allowed Security Labels (min,max): (SL10,SL10)  
Refused Security Labels (min,max):

Component.Port: ServiceA.PathologyResultsIn type: UNUSED clearance: CPS  
Allowed Security Labels (min,max): (SL16,SL4)  
Refused Security Labels (min,max): (SL2,SL1)(SL9,SL9)  
Allowed Security Labels (min,max): (SL12,SL12)  
Refused Security Labels (min,max):

Component.Port: ServiceA.DiagnosisFromAnotherServiceIn type: UNUSED clearance: CSP  
Allowed Security Labels (min,max): (SL2,SL2)  
Refused Security Labels (min,max): (SL1,SL1)(SL9,SL9)

Component.Port: ServiceA.LaboratoryTestsOut type: UNUSED clearance: CLT  
Allowed Security Labels (min,max): (SL16,SL6)  
Refused Security Labels (min,max): (SL2,SL1)(SL9,SL9)  
Allowed Security Labels (min,max): (SL11,SL11)

Refused Security Labels (min,max):

Component.Port: ServiceA.RadiologyTestsOut type: UNUSED clearance: CRT  
Allowed Security Labels (min,max): (SL16,SL5)  
Refused Security Labels (min,max): (SL2,SL1)(SL9,SL9)  
Allowed Security Labels (min,max): (SL10,SL10)  
Refused Security Labels (min,max):

Component.Port: ServiceA.PathologyTestsOut type: UNUSED clearance: CPS  
Allowed Security Labels (min,max): (SL16,SL4)  
Refused Security Labels (min,max): (SL2,SL1)(SL9,SL9)  
Allowed Security Labels (min,max): (SL12,SL12)  
Refused Security Labels (min,max):

Component.Port: ServiceA.DiagnosisOut type: UNUSED clearance: CSP  
Allowed Security Labels (min,max): (SL2,SL2)  
Refused Security Labels (min,max): (SL1,SL1)(SL9,SL9)

Component.Port: ServiceA.PrescriptionOut type: UNUSED clearance: CP  
Allowed Security Labels (min,max): (SL16,SL7)  
Refused Security Labels (min,max): (SL2,SL1)(SL18,SL18)

Component.Port: ServiceA.ServicesGivenOut type: UNUSED clearance: CSP  
Allowed Security Labels (min,max): (SL16,SL2)  
Refused Security Labels (min,max): (SL1,SL1)(SL9,SL9)  
Allowed Security Labels (min,max): (SL13,SL13)  
Refused Security Labels (min,max):

Component.Port: ServiceA.AnamnesisQuestionsOut type: UNUSED clearance: CSP  
Allowed Security Labels (min,max): (SL2,SL2)  
Refused Security Labels (min,max): (SL1,SL1)(SL9,SL9)

Component.Port: ServiceB.CompleteIn type: UNUSED clearance: CAD  
Allowed Security Labels (min,max): (SL1,SL1)  
Refused Security Labels (min,max):

Component.Port: ServiceB.AnamnesisAnswersIn type: UNUSED clearance: CSP  
Allowed Security Labels (min,max): (SL2,SL2)  
Refused Security Labels (min,max): (SL1,SL1)(SL9,SL9)

Component.Port: ServiceB.PaymentIn type: UNUSED clearance: CA  
Allowed Security Labels (min,max): (SL9,SL9)  
Refused Security Labels (min,max): (SL1,SL1)

Component.Port: ServiceB.ReportsIn type: UNUSED clearance: CSP  
Allowed Security Labels (min,max): (SL2,SL2)  
Refused Security Labels (min,max): (SL1,SL1)(SL9,SL9)

Component.Port: ServiceB.JudicialIn type: UNUSED clearance: CSP  
Allowed Security Labels (min,max): (SL2,SL2)  
Refused Security Labels (min,max): (SL1,SL1)(SL9,SL9)

Component.Port: ServiceB.LaboratoryResultsIn type: UNUSED clearance: CLT  
Allowed Security Labels (min,max): (SL6,SL6)  
Refused Security Labels (min,max): (SL2,SL1)(SL9,SL9)

Component.Port: ServiceB.RadiologyResultsIn type: UNUSED clearance: CRT  
Allowed Security Labels (min,max): (SL5,SL5)  
Refused Security Labels (min,max): (SL2,SL1)(SL9,SL9)

Component.Port: ServiceB.PathologyResultsIn type: UNUSED clearance: CPS  
Allowed Security Labels (min,max): (SL4,SL4)  
Refused Security Labels (min,max): (SL2,SL1)(SL9,SL9)

Component.Port: ServiceB.DiagnosisFromAnotherServiceIn type: UNUSED clearance: CSP  
Allowed Security Labels (min,max): (SL2,SL2)  
Refused Security Labels (min,max): (SL1,SL1)(SL9,SL9)

Component.Port: ServiceB.LaboratoryTestsOut type: UNUSED clearance: CLT  
Allowed Security Labels (min,max): (SL6,SL6)  
Refused Security Labels (min,max): (SL2,SL1)(SL9,SL9)

Component.Port: ServiceB.RadiologyTestsOut type: UNUSED clearance: CRT  
Allowed Security Labels (min,max): (SL5,SL5)  
Refused Security Labels (min,max): (SL2,SL1)(SL9,SL9)

Component.Port: ServiceB.PathologyTestsOut type: UNUSED clearance:CPS  
 Allowed Security Labels (min,max): (SL4,SL4)  
 Refused Security Labels (min,max): (SL2,SL1)(SL9,SL9)

Component.Port: ServiceB.DiagnosisOut type: UNUSED clearance:CSP  
 Allowed Security Labels (min,max): (SL2,SL2)  
 Refused Security Labels (min,max): (SL1,SL1)(SL9,SL9)

Component.Port: ServiceB.PrescriptionOut type: UNUSED clearance:CP  
 Allowed Security Labels (min,max): (SL7,SL7)  
 Refused Security Labels (min,max): (SL2,SL1)(SL18,SL18)

Component.Port: ServiceB.ServicesGivenOut type: UNUSED clearance:CSP  
 Allowed Security Labels (min,max): (SL2,SL2)  
 Refused Security Labels (min,max): (SL1,SL1)(SL9,SL9)

Component.Port: ServiceB.AnamnesisQuestionsOut type: UNUSED clearance:CSP  
 Allowed Security Labels (min,max): (SL2,SL2)  
 Refused Security Labels (min,max): (SL1,SL1)(SL9,SL9)

Component.Port: Laboratory.BrevityIn type: UNUSED clearance:CSS  
 Allowed Security Labels (min,max): (SL16,SL15)  
 Refused Security Labels (min,max):  
 (SL8,SL1)(SL7,SL18)(SL4,SL4)(SL5,SL5)(SL6,SL6)(SL3,SL3)(SL14,SL9)(SL10,SL10)(SL11,SL11)(SL12,SL12)(SL13,SL13)

Component.Port: Laboratory.TestsIn type: UNUSED clearance:CLT  
 Allowed Security Labels (min,max): (SL16,SL6)  
 Refused Security Labels (min,max): (SL2,SL1)(SL9,SL9)  
 Allowed Security Labels (min,max): (SL11,SL11)  
 Refused Security Labels (min,max):

Component.Port: Laboratory.PaymentIn type: UNUSED clearance:CA  
 Allowed Security Labels (min,max): (SL16,SL9)  
 Refused Security Labels (min,max): (SL1,SL1)

Component.Port: Laboratory.ServicesGivenOut type: UNUSED clearance:CLT  
 Allowed Security Labels (min,max): (SL16,SL6)  
 Refused Security Labels (min,max): (SL2,SL1)(SL9,SL9)  
 Allowed Security Labels (min,max): (SL11,SL11)  
 Refused Security Labels (min,max):

Component.Port: Laboratory.ResultsOut type: UNUSED clearance:CLT  
 Allowed Security Labels (min,max): (SL16,SL6)  
 Refused Security Labels (min,max): (SL2,SL1)(SL9,SL9)  
 Allowed Security Labels (min,max): (SL11,SL11)  
 Refused Security Labels (min,max):

Component.Port: Radiology.BrevityIn type: UNUSED clearance:CSS  
 Allowed Security Labels (min,max): (SL16,SL15)  
 Refused Security Labels (min,max):  
 (SL8,SL1)(SL7,SL18)(SL4,SL4)(SL5,SL5)(SL6,SL6)(SL3,SL3)(SL14,SL9)(SL10,SL10)(SL11,SL11)(SL12,SL12)(SL13,SL13)

Component.Port: Radiology.TestsIn type: UNUSED clearance:CRT  
 Allowed Security Labels (min,max): (SL16,SL5)  
 Refused Security Labels (min,max): (SL2,SL1)(SL9,SL9)  
 Allowed Security Labels (min,max): (SL10,SL10)  
 Refused Security Labels (min,max):

Component.Port: Radiology.PaymentIn type: UNUSED clearance:CA  
 Allowed Security Labels (min,max): (SL16,SL9)  
 Refused Security Labels (min,max): (SL1,SL1)

Component.Port: Radiology.ServicesGivenOut type: UNUSED clearance:CRT  
 Allowed Security Labels (min,max): (SL16,SL5)  
 Refused Security Labels (min,max): (SL2,SL1)(SL9,SL9)  
 Allowed Security Labels (min,max): (SL10,SL10)  
 Refused Security Labels (min,max):

Component.Port: Radiology.ResultsOut type: UNUSED clearance:CRT  
 Allowed Security Labels (min,max): (SL16,SL5)  
 Refused Security Labels (min,max): (SL2,SL1)(SL9,SL9)  
 Allowed Security Labels (min,max): (SL10,SL10)  
 Refused Security Labels (min,max):

Component.Port: Pathology.BrevityIn type: UNUSED clearance:CSS  
 Allowed Security Labels (min,max): (SL16,SL15)

Refused Security Labels (min,max):  
(SL8,SL1)(SL7,SL18)(SL4,SL4)(SL5,SL5)(SL6,SL6)(SL3,SL3)(SL14,SL9)(SL10,SL10)(SL11,SL11)(SL12,SL12)(SL13,SL13)

Component.Port: Pathology.TestsIn type: UNUSED clearance:CPS  
Allowed Security Labels (min,max): (SL16,SL4)  
Refused Security Labels (min,max): (SL2,SL1)(SL9,SL9)  
Allowed Security Labels (min,max): (SL12,SL12)  
Refused Security Labels (min,max):

Component.Port: Pathology.PaymentIn type: UNUSED clearance:CA  
Allowed Security Labels (min,max): (SL16,SL9)  
Refused Security Labels (min,max): (SL1,SL1)

Component.Port: Pathology.ServicesGivenOut type: UNUSED clearance:CPS  
Allowed Security Labels (min,max): (SL16,SL4)  
Refused Security Labels (min,max): (SL2,SL1)(SL9,SL9)  
Allowed Security Labels (min,max): (SL12,SL12)  
Refused Security Labels (min,max):

Component.Port: Pathology.ResultsOut type: UNUSED clearance:CPS  
Allowed Security Labels (min,max): (SL16,SL4)  
Refused Security Labels (min,max): (SL2,SL1)(SL9,SL9)  
Allowed Security Labels (min,max): (SL12,SL12)  
Refused Security Labels (min,max):

Component.Port: Reception.BrevityIn type: UNUSED clearance:CSS  
Allowed Security Labels (min,max): (SL16,SL15)  
Refused Security Labels (min,max):  
(SL8,SL1)(SL7,SL18)(SL4,SL4)(SL5,SL5)(SL6,SL6)(SL3,SL3)(SL14,SL9)(SL10,SL10)(SL11,SL11)(SL12,SL12)(SL13,SL13)

Component.Port: Reception.InformationOut type: UNUSED clearance:CRS  
Allowed Security Labels (min,max): (SL16,SL16)  
Refused Security Labels (min,max): (SL15,SL1)

Component.Port: Emergency.BrevityIn type: UNUSED clearance:CSS  
Allowed Security Labels (min,max): (SL16,SL15)  
Refused Security Labels (min,max):  
(SL8,SL1)(SL7,SL18)(SL4,SL4)(SL5,SL5)(SL6,SL6)(SL3,SL3)(SL14,SL9)(SL10,SL10)(SL11,SL11)(SL12,SL12)(SL13,SL13)

Component.Port: Emergency.PaymentIn type: UNUSED clearance:CA  
Allowed Security Labels (min,max): (SL16,SL9)  
Refused Security Labels (min,max): (SL1,SL1)

Component.Port: Emergency.JudicialIn type: UNUSED clearance:CSP  
Allowed Security Labels (min,max): (SL16,SL2)  
Refused Security Labels (min,max): (SL1,SL1)(SL9,SL9)  
Allowed Security Labels (min,max): (SL13,SL13)  
Refused Security Labels (min,max):

Component.Port: Emergency.ServicesGivenOut type: UNUSED clearance:CSP  
Allowed Security Labels (min,max): (SL16,SL2)  
Refused Security Labels (min,max): (SL1,SL1)(SL9,SL9)  
Allowed Security Labels (min,max): (SL13,SL13)  
Refused Security Labels (min,max):

Component.Port: Pharmacy.BrevityIn type: UNUSED clearance:CSS  
Allowed Security Labels (min,max): (SL16,SL15)  
Refused Security Labels (min,max):  
(SL8,SL1)(SL7,SL18)(SL4,SL4)(SL5,SL5)(SL6,SL6)(SL3,SL3)(SL14,SL9)(SL10,SL10)(SL11,SL11)(SL12,SL12)(SL13,SL13)

Component.Port: Pharmacy.PaymentIn type: UNUSED clearance:CA  
Allowed Security Labels (min,max): (SL16,SL9)  
Refused Security Labels (min,max): (SL1,SL1)

Component.Port: Pharmacy.PrescriptionIn type: UNUSED clearance:CP  
Allowed Security Labels (min,max): (SL16,SL7)  
Refused Security Labels (min,max): (SL2,SL1)(SL18,SL18)

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SENT LIST (0)

Component.Port: PatientRegistration.CompleteOut type: OUTPUT\_PORT clearance:CAD  
Allowed Security Labels (min,max): (SL1,SL1)  
Refused Security Labels (min,max):

Component.Port: PatientRegistration.BrevityOut type: OUTPUT\_PORT clearance:CSS

Allowed Security Labels (min,max): (SL15,SL15)  
Refused Security Labels (min,max):

Component.Port: PatientRegistration.JudicialOut type: OUTPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (SL2,SL2)  
Refused Security Labels (min,max):

Component.Port: PatientRegistration.MedicalHistoryPublicPartOut type: OUTPUT\_PORT clearance:CSN  
Allowed Security Labels (min,max): (SL8,SL8)  
Refused Security Labels (min,max):

Component.Port: PatientRegistration.AgreementEstablishmentOut type: OUTPUT\_PORT clearance:CAS  
Allowed Security Labels (min,max): (SL14,SL14)  
Refused Security Labels (min,max):

Component.Port: PatientRegistration.PatientIn type: INPUT\_PORT clearance:CAD  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: FinancialManagement.BrevityIn type: INPUT\_PORT clearance:CSS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: FinancialManagement.AgreementEstablishmentIn type: INPUT\_PORT clearance:CAS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: FinancialManagement.ServicesGivenIn type: INPUT\_PORT clearance:CA  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: FinancialManagement.PaymentOut type: OUTPUT\_PORT clearance:CA  
Allowed Security Labels (min,max): (SL9,SL9)  
Refused Security Labels (min,max):

Component.Port: ReportCenter.LaboratoryResultsIn type: INPUT\_PORT clearance:CLT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ReportCenter.RadiologyResultsIn type: INPUT\_PORT clearance:CRT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ReportCenter.PathologyResultsIn type: INPUT\_PORT clearance:CPS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ReportCenter.CompleteIn type: INPUT\_PORT clearance:CAD  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ReportCenter.ReportsOut type: OUTPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (SL2,SL2)  
Refused Security Labels (min,max):

Component.Port: ServiceA.CompleteIn type: INPUT\_PORT clearance:CAD  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.AnamnesisAnswersIn type: INPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.PaymentIn type: INPUT\_PORT clearance:CA  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.ReportsIn type: INPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.JudicialIn type: INPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.LaboratoryResultsIn type: INPUT\_PORT clearance:CLT

Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.RadiologyResultsIn type: INPUT\_PORT clearance: CRT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.PathologyResultsIn type: INPUT\_PORT clearance: CPS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.DiagnosisFromAnotherServiceIn type: INPUT\_PORT clearance: CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.LaboratoryTestsOut type: OUTPUT\_PORT clearance: CLT  
Allowed Security Labels (min,max): (SL6,SL6)  
Refused Security Labels (min,max):

Component.Port: ServiceA.RadiologyTestsOut type: OUTPUT\_PORT clearance: CRT  
Allowed Security Labels (min,max): (SL5,SL5)  
Refused Security Labels (min,max):

Component.Port: ServiceA.PathologyTestsOut type: OUTPUT\_PORT clearance: CPS  
Allowed Security Labels (min,max): (SL4,SL4)  
Refused Security Labels (min,max):

Component.Port: ServiceA.DiagnosisOut type: OUTPUT\_PORT clearance: CSP  
Allowed Security Labels (min,max): (SL2,SL2)  
Refused Security Labels (min,max):

Component.Port: ServiceA.PrescriptionOut type: OUTPUT\_PORT clearance: CP  
Allowed Security Labels (min,max): (SL7,SL7)  
Refused Security Labels (min,max):

Component.Port: ServiceA.ServicesGivenOut type: OUTPUT\_PORT clearance: CSP  
Allowed Security Labels (min,max): (SL13,SL13)  
Refused Security Labels (min,max):

Component.Port: ServiceA.AnamnesisQuestionsOut type: OUTPUT\_PORT clearance: CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max): (SL17,SL17)

Component.Port: ServiceB.CompleteIn type: INPUT\_PORT clearance: CAD  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.AnamnesisAnswersIn type: INPUT\_PORT clearance: CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.PaymentIn type: INPUT\_PORT clearance: CA  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.ReportsIn type: INPUT\_PORT clearance: CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.JudicialIn type: INPUT\_PORT clearance: CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.LaboratoryResultsIn type: INPUT\_PORT clearance: CLT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.RadiologyResultsIn type: INPUT\_PORT clearance: CRT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.PathologyResultsIn type: INPUT\_PORT clearance: CPS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.DiagnosisFromAnotherServiceIn type: INPUT\_PORT clearance: CSP

Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.LaboratoryTestsOut type: OUTPUT\_PORT clearance:CLT  
Allowed Security Labels (min,max): (SL6,SL6)  
Refused Security Labels (min,max):

Component.Port: ServiceB.RadiologyTestsOut type: OUTPUT\_PORT clearance:CRT  
Allowed Security Labels (min,max): (SL5,SL5)  
Refused Security Labels (min,max):

Component.Port: ServiceB.PathologyTestsOut type: OUTPUT\_PORT clearance:CPS  
Allowed Security Labels (min,max): (SL4,SL4)  
Refused Security Labels (min,max):

Component.Port: ServiceB.DiagnosisOut type: OUTPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (SL2,SL2)  
Refused Security Labels (min,max):

Component.Port: ServiceB.PrescriptionOut type: OUTPUT\_PORT clearance:CP  
Allowed Security Labels (min,max): (SL7,SL7)  
Refused Security Labels (min,max):

Component.Port: ServiceB.ServicesGivenOut type: OUTPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (SL13,SL13)  
Refused Security Labels (min,max):

Component.Port: ServiceB.AnamnesisQuestionsOut type: OUTPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max): (SL17,SL17)

Component.Port: Laboratory.BrevityIn type: INPUT\_PORT clearance:CSS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Laboratory.TestsIn type: INPUT\_PORT clearance:CLT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Laboratory.PaymentIn type: INPUT\_PORT clearance:CA  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Laboratory.ServicesGivenOut type: OUTPUT\_PORT clearance:CLT  
Allowed Security Labels (min,max): (SL11,SL11)  
Refused Security Labels (min,max):

Component.Port: Laboratory.ResultsOut type: OUTPUT\_PORT clearance:CLT  
Allowed Security Labels (min,max): (SL6,SL6)  
Refused Security Labels (min,max):

Component.Port: Radiology.BrevityIn type: INPUT\_PORT clearance:CSS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Radiology.TestsIn type: INPUT\_PORT clearance:CRT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Radiology.PaymentIn type: INPUT\_PORT clearance:CA  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Radiology.ServicesGivenOut type: OUTPUT\_PORT clearance:CRT  
Allowed Security Labels (min,max): (SL10,SL10)  
Refused Security Labels (min,max):

Component.Port: Radiology.ResultsOut type: OUTPUT\_PORT clearance:CRT  
Allowed Security Labels (min,max): (SL5,SL5)  
Refused Security Labels (min,max):

Component.Port: Pathology.BrevityIn type: INPUT\_PORT clearance:CSS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Pathology.TestsIn type: INPUT\_PORT clearance:CPS

Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Pathology.PaymentIn type: INPUT\_PORT clearance:CA  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Pathology.ServicesGivenOut type: OUTPUT\_PORT clearance:CPS  
Allowed Security Labels (min,max): (SL12,SL12)  
Refused Security Labels (min,max):

Component.Port: Pathology.ResultsOut type: OUTPUT\_PORT clearance:CPS  
Allowed Security Labels (min,max): (SL4,SL4)  
Refused Security Labels (min,max):

Component.Port: Reception.BrevityIn type: INPUT\_PORT clearance:CSS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Reception.InformationOut type: OUTPUT\_PORT clearance:CRS  
Allowed Security Labels (min,max): (SL16,SL16)  
Refused Security Labels (min,max):

Component.Port: Emergency.BrevityIn type: INPUT\_PORT clearance:CSS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Emergency.PaymentIn type: INPUT\_PORT clearance:CA  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Emergency.JudicialIn type: INPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Emergency.ServicesGivenOut type: OUTPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (SL13,SL13)  
Refused Security Labels (min,max):

Component.Port: Pharmacy.BrevityIn type: INPUT\_PORT clearance:CSS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Pharmacy.PaymentIn type: INPUT\_PORT clearance:CA  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Pharmacy.PrescriptionIn type: INPUT\_PORT clearance:CP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

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Iteration No: 1

RECEIVED LIST (1)

Component.Port: PatientRegistration.CompleteOut type: UNUSED clearance:CAD  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: PatientRegistration.BrevityOut type: UNUSED clearance:CSS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: PatientRegistration.JudicialOut type: UNUSED clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: PatientRegistration.MedicalHistoryPublicPartOut type: UNUSED clearance:CSN  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: PatientRegistration.AgreementEstablishmentOut type: UNUSED clearance:CAS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: PatientRegistration.PatientIn type: UNUSED clearance:CAD  
Allowed Security Labels (min,max): (NONE,NONE)

Refused Security Labels (min,max):

Component.Port: FinancialManagement.BrevityIn type: UNUSED clearance:CSS

Allowed Security Labels (min,max): (SL15,SL15)

Refused Security Labels (min,max):

Component.Port: FinancialManagement.AgreementEstablishmentIn type: UNUSED clearance: CAS

Allowed Security Labels (min,max): (SL14,SL14)

Refused Security Labels (min,max):

Component.Port: FinancialManagement.ServicesGivenIn type: UNUSED clearance:CA

Allowed Security Labels (min,max): (SL11,SL11)

Refused Security Labels (min,max):

Allowed Security Labels (min,max): (SL10,SL10)

Refused Security Labels (min,max):

Allowed Security Labels (min,max): (SL12,SL12)

Refused Security Labels (min,max):

Allowed Security Labels (min,max): (SL13,SL13)

Refused Security Labels (min,max):

Component.Port: FinancialManagement.PaymentOut type: UNUSED clearance:CA

Allowed Security Labels (min,max): (NONE,NONE)

Refused Security Labels (min,max):

Component.Port: ReportCenter.LaboratoryResultsIn type: UNUSED clearance:CLT

Allowed Security Labels (min,max): (SL6,SL6)

Refused Security Labels (min,max):

Component.Port: ReportCenter.RadiologyResultsIn type: UNUSED clearance: CRT

Allowed Security Labels (min,max): (SL5,SL5)

Refused Security Labels (min,max):

Component.Port: ReportCenter.PathologyResultsIn type: UNUSED clearance: CPS

Allowed Security Labels (min,max): (SL4,SL4)

Refused Security Labels (min,max):

Component.Port: ReportCenter.CompleteIn type: UNUSED clearance:CAD

Allowed Security Labels (min,max): (SL1,SL1)

Refused Security Labels (min,max):

Component.Port: ReportCenter.ReportsOut type: UNUSED clearance: CSP

Allowed Security Labels (min,max): (NONE,NONE)

Refused Security Labels (min,max):

Component.Port: ServiceA.CompleteIn type: UNUSED clearance:CAD

Allowed Security Labels (min,max): (SL1,SL1)

Refused Security Labels (min,max):

Component.Port: ServiceA.AnamnesisAnswersIn type: UNUSED clearance: CSP

Allowed Security Labels (min,max): (NONE,NONE)

Refused Security Labels (min,max):

Component.Port: ServiceA.PaymentIn type: UNUSED clearance:CA

Allowed Security Labels (min,max): (SL9,SL9)

Refused Security Labels (min,max):

Component.Port: ServiceA.ReportsIn type: UNUSED clearance: CSP

Allowed Security Labels (min,max): (SL2,SL2)

Refused Security Labels (min,max):

Component.Port: ServiceA.JudicialIn type: UNUSED clearance: CSP

Allowed Security Labels (min,max): (SL2,SL2)

Refused Security Labels (min,max):

Component.Port: ServiceA.LaboratoryResultsIn type: UNUSED clearance: CLT

Allowed Security Labels (min,max): (SL6,SL6)

Refused Security Labels (min,max):

Component.Port: ServiceA.RadiologyResultsIn type: UNUSED clearance: CRT

Allowed Security Labels (min,max): (SL5,SL5)

Refused Security Labels (min,max):

Component.Port: ServiceA.PathologyResultsIn type: UNUSED clearance: CPS

Allowed Security Labels (min,max): (SL4,SL4)

Refused Security Labels (min,max):

Component.Port: ServiceA.DiagnosisFromAnotherServiceIn type: UNUSED clearance: CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.LaboratoryTestsOut type: UNUSED clearance: CLT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.RadiologyTestsOut type: UNUSED clearance: CRT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.PathologyTestsOut type: UNUSED clearance: CPS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.DiagnosisOut type: UNUSED clearance: CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.PrescriptionOut type: UNUSED clearance: CP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.ServicesGivenOut type: UNUSED clearance: CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.AnamnesisQuestionsOut type: UNUSED clearance: CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.CompleteIn type: UNUSED clearance: CAD  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.AnamnesisAnswersIn type: UNUSED clearance: CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.PaymentIn type: UNUSED clearance: CA  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.ReportsIn type: UNUSED clearance: CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.JudicialIn type: UNUSED clearance: CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.LaboratoryResultsIn type: UNUSED clearance: CLT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.RadiologyResultsIn type: UNUSED clearance: CRT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.PathologyResultsIn type: UNUSED clearance: CPS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.DiagnosisFromAnotherServiceIn type: UNUSED clearance: CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.LaboratoryTestsOut type: UNUSED clearance: CLT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.RadiologyTestsOut type: UNUSED clearance: CRT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.PathologyTestsOut type: UNUSED clearance:CPS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.DiagnosisOut type: UNUSED clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.PrescriptionOut type: UNUSED clearance:CP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.ServicesGivenOut type: UNUSED clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.AnamnesisQuestionsOut type: UNUSED clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Laboratory.BrevityIn type: UNUSED clearance:CSS  
Allowed Security Labels (min,max): (SL15,SL15)  
Refused Security Labels (min,max):

Component.Port: Laboratory.TestsIn type: UNUSED clearance:CLT  
Allowed Security Labels (min,max): (SL6,SL6)  
Refused Security Labels (min,max):

Component.Port: Laboratory.PaymentIn type: UNUSED clearance:CA  
Allowed Security Labels (min,max): (SL9,SL9)  
Refused Security Labels (min,max):

Component.Port: Laboratory.ServicesGivenOut type: UNUSED clearance:CLT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Laboratory.ResultsOut type: UNUSED clearance:CLT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Radiology.BrevityIn type: UNUSED clearance:CSS  
Allowed Security Labels (min,max): (SL15,SL15)  
Refused Security Labels (min,max):

Component.Port: Radiology.TestsIn type: UNUSED clearance:CRT  
Allowed Security Labels (min,max): (SL5,SL5)  
Refused Security Labels (min,max):

Component.Port: Radiology.PaymentIn type: UNUSED clearance:CA  
Allowed Security Labels (min,max): (SL9,SL9)  
Refused Security Labels (min,max):

Component.Port: Radiology.ServicesGivenOut type: UNUSED clearance:CRT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Radiology.ResultsOut type: UNUSED clearance:CRT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Pathology.BrevityIn type: UNUSED clearance:CSS  
Allowed Security Labels (min,max): (SL15,SL15)  
Refused Security Labels (min,max):

Component.Port: Pathology.TestsIn type: UNUSED clearance:CPS  
Allowed Security Labels (min,max): (SL4,SL4)  
Refused Security Labels (min,max):

Component.Port: Pathology.PaymentIn type: UNUSED clearance:CA  
Allowed Security Labels (min,max): (SL9,SL9)  
Refused Security Labels (min,max):

Component.Port: Pathology.ServicesGivenOut type: UNUSED clearance:CPS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Pathology.ResultsOut type: UNUSED clearance:CPS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Reception.BrevityIn type: UNUSED clearance:CSS  
Allowed Security Labels (min,max): (SL15,SL15)  
Refused Security Labels (min,max):

Component.Port: Reception.InformationOut type: UNUSED clearance:CRS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Emergency.BrevityIn type: UNUSED clearance:CSS  
Allowed Security Labels (min,max): (SL15,SL15)  
Refused Security Labels (min,max):

Component.Port: Emergency.PaymentIn type: UNUSED clearance:CA  
Allowed Security Labels (min,max): (SL9,SL9)  
Refused Security Labels (min,max):

Component.Port: Emergency.JudicialIn type: UNUSED clearance:CSP  
Allowed Security Labels (min,max): (SL2,SL2)  
Refused Security Labels (min,max):

Component.Port: Emergency.ServicesGivenOut type: UNUSED clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Pharmacy.BrevityIn type: UNUSED clearance:CSS  
Allowed Security Labels (min,max): (SL15,SL15)  
Refused Security Labels (min,max):

Component.Port: Pharmacy.PaymentIn type: UNUSED clearance:CA  
Allowed Security Labels (min,max): (SL9,SL9)  
Refused Security Labels (min,max):

Component.Port: Pharmacy.PrescriptionIn type: UNUSED clearance:CP  
Allowed Security Labels (min,max): (SL7,SL7)  
Refused Security Labels (min,max):

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SENT LIST (1)

Component.Port: PatientRegistration.CompleteOut type: OUTPUT\_PORT clearance:CAD  
Allowed Security Labels (min,max): (SL1,SL1)  
Refused Security Labels (min,max):

Component.Port: PatientRegistration.BrevityOut type: OUTPUT\_PORT clearance:CSS  
Allowed Security Labels (min,max): (SL15,SL15)  
Refused Security Labels (min,max):

Component.Port: PatientRegistration.JudicialOut type: OUTPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (SL2,SL2)  
Refused Security Labels (min,max):

Component.Port: PatientRegistration.MedicalHistoryPublicPartOut type: OUTPUT\_PORT clearance:CSN  
Allowed Security Labels (min,max): (SL8,SL8)  
Refused Security Labels (min,max):

Component.Port: PatientRegistration.AgreementEstablishmentOut type: OUTPUT\_PORT clearance:CAS  
Allowed Security Labels (min,max): (SL14,SL14)  
Refused Security Labels (min,max):

Component.Port: PatientRegistration.PatientIn type: INPUT\_PORT clearance:CAD  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: FinancialManagement.BrevityIn type: INPUT\_PORT clearance:CSS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: FinancialManagement.AgreementEstablishmentIn type: INPUT\_PORT clearance:CAS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: FinancialManagement.ServicesGivenIn type: INPUT\_PORT clearance:CA

Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: FinancialManagement.PaymentOut type: OUTPUT\_PORT clearance:CA  
Allowed Security Labels (min,max): (SL9,SL9)  
Refused Security Labels (min,max):

Component.Port: ReportCenter.LaboratoryResultsIn type: INPUT\_PORT clearance:CLT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ReportCenter.RadiologyResultsIn type: INPUT\_PORT clearance:CRT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ReportCenter.PathologyResultsIn type: INPUT\_PORT clearance:CPS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ReportCenter.CompleteIn type: INPUT\_PORT clearance:CAD  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ReportCenter.ReportsOut type: OUTPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (SL2,SL2)  
Refused Security Labels (min,max):

Component.Port: ServiceA.CompleteIn type: INPUT\_PORT clearance:CAD  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.AnamnesisAnswersIn type: INPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.PaymentIn type: INPUT\_PORT clearance:CA  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.ReportsIn type: INPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.JudicialIn type: INPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.LaboratoryResultsIn type: INPUT\_PORT clearance:CLT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.RadiologyResultsIn type: INPUT\_PORT clearance:CRT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.PathologyResultsIn type: INPUT\_PORT clearance:CPS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.DiagnosisFromAnotherServiceIn type: INPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.LaboratoryTestsOut type: OUTPUT\_PORT clearance:CLT  
Allowed Security Labels (min,max): (SL6,SL6)  
Refused Security Labels (min,max):

Component.Port: ServiceA.RadiologyTestsOut type: OUTPUT\_PORT clearance:CRT  
Allowed Security Labels (min,max): (SL5,SL5)  
Refused Security Labels (min,max):

Component.Port: ServiceA.PathologyTestsOut type: OUTPUT\_PORT clearance:CPS  
Allowed Security Labels (min,max): (SL4,SL4)  
Refused Security Labels (min,max):

Component.Port: ServiceA.DiagnosisOut type: OUTPUT\_PORT clearance:CSP

Allowed Security Labels (min,max): (SL2,SL2)  
Refused Security Labels (min,max):

Component.Port: ServiceA.PrescriptionOut type: OUTPUT\_PORT clearance:CP  
Allowed Security Labels (min,max): (SL7,SL7)  
Refused Security Labels (min,max):

Component.Port: ServiceA.ServicesGivenOut type: OUTPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (SL13,SL13)  
Refused Security Labels (min,max):

Component.Port: ServiceA.AnamnesisQuestionsOut type: OUTPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max): (SL17,SL17)

Component.Port: ServiceB.CompleteIn type: INPUT\_PORT clearance:CAD  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.AnamnesisAnswersIn type: INPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.PaymentIn type: INPUT\_PORT clearance:CA  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.ReportsIn type: INPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.JudicialIn type: INPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.LaboratoryResultsIn type: INPUT\_PORT clearance:CLT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.RadiologyResultsIn type: INPUT\_PORT clearance:CRT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.PathologyResultsIn type: INPUT\_PORT clearance:CPS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.DiagnosisFromAnotherServiceIn type: INPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.LaboratoryTestsOut type: OUTPUT\_PORT clearance:CLT  
Allowed Security Labels (min,max): (SL6,SL6)  
Refused Security Labels (min,max):

Component.Port: ServiceB.RadiologyTestsOut type: OUTPUT\_PORT clearance:CRT  
Allowed Security Labels (min,max): (SL5,SL5)  
Refused Security Labels (min,max):

Component.Port: ServiceB.PathologyTestsOut type: OUTPUT\_PORT clearance:CPS  
Allowed Security Labels (min,max): (SL4,SL4)  
Refused Security Labels (min,max):

Component.Port: ServiceB.DiagnosisOut type: OUTPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (SL2,SL2)  
Refused Security Labels (min,max):

Component.Port: ServiceB.PrescriptionOut type: OUTPUT\_PORT clearance:CP  
Allowed Security Labels (min,max): (SL7,SL7)  
Refused Security Labels (min,max):

Component.Port: ServiceB.ServicesGivenOut type: OUTPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (SL13,SL13)  
Refused Security Labels (min,max):

Component.Port: ServiceB.AnamnesisQuestionsOut type: OUTPUT\_PORT clearance:CSP

Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max): (SL17,SL17)

Component.Port: Laboratory.BrevityIn type: INPUT\_PORT clearance:CSS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Laboratory.TestsIn type: INPUT\_PORT clearance:CLT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Laboratory.PaymentIn type: INPUT\_PORT clearance:CA  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Laboratory.ServicesGivenOut type: OUTPUT\_PORT clearance:CLT  
Allowed Security Labels (min,max): (SL11,SL11)  
Refused Security Labels (min,max):

Component.Port: Laboratory.ResultsOut type: OUTPUT\_PORT clearance:CLT  
Allowed Security Labels (min,max): (SL6,SL6)  
Refused Security Labels (min,max):

Component.Port: Radiology.BrevityIn type: INPUT\_PORT clearance:CSS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Radiology.TestsIn type: INPUT\_PORT clearance:CRT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Radiology.PaymentIn type: INPUT\_PORT clearance:CA  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Radiology.ServicesGivenOut type: OUTPUT\_PORT clearance: CRT  
Allowed Security Labels (min,max): (SL10,SL10)  
Refused Security Labels (min,max):

Component.Port: Radiology.ResultsOut type: OUTPUT\_PORT clearance: CRT  
Allowed Security Labels (min,max): (SL5,SL5)  
Refused Security Labels (min,max):

Component.Port: Pathology.BrevityIn type: INPUT\_PORT clearance:CSS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Pathology.TestsIn type: INPUT\_PORT clearance:CPS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Pathology.PaymentIn type: INPUT\_PORT clearance:CA  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Pathology.ServicesGivenOut type: OUTPUT\_PORT clearance:CPS  
Allowed Security Labels (min,max): (SL12,SL12)  
Refused Security Labels (min,max):

Component.Port: Pathology.ResultsOut type: OUTPUT\_PORT clearance:CPS  
Allowed Security Labels (min,max): (SL4,SL4)  
Refused Security Labels (min,max):

Component.Port: Reception.BrevityIn type: INPUT\_PORT clearance:CSS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Reception.InformationOut type: OUTPUT\_PORT clearance:CRS  
Allowed Security Labels (min,max): (SL16,SL16)  
Refused Security Labels (min,max):

Component.Port: Emergency.BrevityIn type: INPUT\_PORT clearance:CSS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Emergency.PaymentIn type: INPUT\_PORT clearance:CA

Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Emergency.JudicialIn type: INPUT\_PORT clearance: CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Emergency.ServicesGivenOut type: OUTPUT\_PORT clearance: CSP  
Allowed Security Labels (min,max): (SL13,SL13)  
Refused Security Labels (min,max):

Component.Port: Pharmacy.BrevityIn type: INPUT\_PORT clearance: CSS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Pharmacy.PaymentIn type: INPUT\_PORT clearance: CA  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Pharmacy.PrescriptionIn type: INPUT\_PORT clearance: CP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

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Iteration No: 1)

STABLE RECEIVED LIST (1)

Component.Port: PatientRegistration.CompleteOut type: UNUSED clearance: CAD  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: PatientRegistration.BrevityOut type: UNUSED clearance: CSS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: PatientRegistration.JudicialOut type: UNUSED clearance: CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: PatientRegistration.MedicalHistoryPublicPartOut type: UNUSED clearance: CSN  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: PatientRegistration.AgreementEstablishmentOut type: UNUSED clearance: CAS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: PatientRegistration.PatientIn type: UNUSED clearance: CAD  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: FinancialManagement.BrevityIn type: UNUSED clearance: CSS  
Allowed Security Labels (min,max): (SL15,SL15)  
Refused Security Labels (min,max):

Component.Port: FinancialManagement.AgreementEstablishmentIn type: UNUSED clearance: CAS  
Allowed Security Labels (min,max): (SL14,SL14)  
Refused Security Labels (min,max):

Component.Port: FinancialManagement.ServicesGivenIn type: UNUSED clearance: CA  
Allowed Security Labels (min,max): (SL11,SL11)  
Refused Security Labels (min,max):  
Allowed Security Labels (min,max): (SL10,SL10)  
Refused Security Labels (min,max):  
Allowed Security Labels (min,max): (SL12,SL12)  
Refused Security Labels (min,max):  
Allowed Security Labels (min,max): (SL13,SL13)  
Refused Security Labels (min,max):

Component.Port: FinancialManagement.PaymentOut type: UNUSED clearance: CA  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ReportCenter.LaboratoryResultsIn type: UNUSED clearance: CLT  
Allowed Security Labels (min,max): (SL6,SL6)  
Refused Security Labels (min,max):

Component.Port: ReportCenter.RadiologyResultsIn type: UNUSED clearance: CRT  
Allowed Security Labels (min,max): (SL5,SL5)  
Refused Security Labels (min,max):

Component.Port: ReportCenter.PathologyResultsIn type: UNUSED clearance: CPS  
Allowed Security Labels (min,max): (SL4,SL4)  
Refused Security Labels (min,max):

Component.Port: ReportCenter.CompleteIn type: UNUSED clearance: CAD  
Allowed Security Labels (min,max): (SL1,SL1)  
Refused Security Labels (min,max):

Component.Port: ReportCenter.ReportsOut type: UNUSED clearance: CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.CompleteIn type: UNUSED clearance: CAD  
Allowed Security Labels (min,max): (SL1,SL1)  
Refused Security Labels (min,max):

Component.Port: ServiceA.AnamnesisAnswersIn type: UNUSED clearance: CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.PaymentIn type: UNUSED clearance: CA  
Allowed Security Labels (min,max): (SL9,SL9)  
Refused Security Labels (min,max):

Component.Port: ServiceA.ReportsIn type: UNUSED clearance: CSP  
Allowed Security Labels (min,max): (SL2,SL2)  
Refused Security Labels (min,max):

Component.Port: ServiceA.JudicialIn type: UNUSED clearance: CSP  
Allowed Security Labels (min,max): (SL2,SL2)  
Refused Security Labels (min,max):

Component.Port: ServiceA.LaboratoryResultsIn type: UNUSED clearance: CLT  
Allowed Security Labels (min,max): (SL6,SL6)  
Refused Security Labels (min,max):

Component.Port: ServiceA.RadiologyResultsIn type: UNUSED clearance: CRT  
Allowed Security Labels (min,max): (SL5,SL5)  
Refused Security Labels (min,max):

Component.Port: ServiceA.PathologyResultsIn type: UNUSED clearance: CPS  
Allowed Security Labels (min,max): (SL4,SL4)  
Refused Security Labels (min,max):

Component.Port: ServiceA.DiagnosisFromAnotherServiceIn type: UNUSED clearance: CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.LaboratoryTestsOut type: UNUSED clearance: CLT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.RadiologyTestsOut type: UNUSED clearance: CRT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.PathologyTestsOut type: UNUSED clearance: CPS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.DiagnosisOut type: UNUSED clearance: CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.PrescriptionOut type: UNUSED clearance: CP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.ServicesGivenOut type: UNUSED clearance: CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.AnamnesisQuestionsOut type: UNUSED clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.CompleteIn type: UNUSED clearance:CAD  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.AnamnesisAnswersIn type: UNUSED clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.PaymentIn type: UNUSED clearance:CA  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.ReportsIn type: UNUSED clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.JudicialIn type: UNUSED clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.LaboratoryResultsIn type: UNUSED clearance:CLT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.RadiologyResultsIn type: UNUSED clearance:CRT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.PathologyResultsIn type: UNUSED clearance:CPS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.DiagnosisFromAnotherServiceIn type: UNUSED clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.LaboratoryTestsOut type: UNUSED clearance:CLT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.RadiologyTestsOut type: UNUSED clearance:CRT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.PathologyTestsOut type: UNUSED clearance:CPS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.DiagnosisOut type: UNUSED clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.PrescriptionOut type: UNUSED clearance:CP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.ServicesGivenOut type: UNUSED clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.AnamnesisQuestionsOut type: UNUSED clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Laboratory.BrevityIn type: UNUSED clearance:CSS  
Allowed Security Labels (min,max): (SL15,SL15)  
Refused Security Labels (min,max):

Component.Port: Laboratory.TestsIn type: UNUSED clearance:CLT  
Allowed Security Labels (min,max): (SL6,SL6)  
Refused Security Labels (min,max):

Component.Port: Laboratory.PaymentIn type: UNUSED clearance:CA  
Allowed Security Labels (min,max): (SL9,SL9)  
Refused Security Labels (min,max):

Component.Port: Laboratory.ServicesGivenOut type: UNUSED clearance:CLT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Laboratory.ResultsOut type: UNUSED clearance:CLT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Radiology.BrevityIn type: UNUSED clearance:CSS  
Allowed Security Labels (min,max): (SL15,SL15)  
Refused Security Labels (min,max):

Component.Port: Radiology.TestsIn type: UNUSED clearance:CRT  
Allowed Security Labels (min,max): (SL5,SL5)  
Refused Security Labels (min,max):

Component.Port: Radiology.PaymentIn type: UNUSED clearance:CA  
Allowed Security Labels (min,max): (SL9,SL9)  
Refused Security Labels (min,max):

Component.Port: Radiology.ServicesGivenOut type: UNUSED clearance:CRT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Radiology.ResultsOut type: UNUSED clearance:CRT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Pathology.BrevityIn type: UNUSED clearance:CSS  
Allowed Security Labels (min,max): (SL15,SL15)  
Refused Security Labels (min,max):

Component.Port: Pathology.TestsIn type: UNUSED clearance:CPS  
Allowed Security Labels (min,max): (SL4,SL4)  
Refused Security Labels (min,max):

Component.Port: Pathology.PaymentIn type: UNUSED clearance:CA  
Allowed Security Labels (min,max): (SL9,SL9)  
Refused Security Labels (min,max):

Component.Port: Pathology.ServicesGivenOut type: UNUSED clearance:CPS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Pathology.ResultsOut type: UNUSED clearance:CPS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Reception.BrevityIn type: UNUSED clearance:CSS  
Allowed Security Labels (min,max): (SL15,SL15)  
Refused Security Labels (min,max):

Component.Port: Reception.InformationOut type: UNUSED clearance:CRS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Emergency.BrevityIn type: UNUSED clearance:CSS  
Allowed Security Labels (min,max): (SL15,SL15)  
Refused Security Labels (min,max):

Component.Port: Emergency.PaymentIn type: UNUSED clearance:CA  
Allowed Security Labels (min,max): (SL9,SL9)  
Refused Security Labels (min,max):

Component.Port: Emergency.JudicialIn type: UNUSED clearance:CSP  
Allowed Security Labels (min,max): (SL2,SL2)  
Refused Security Labels (min,max):

Component.Port: Emergency.ServicesGivenOut type: UNUSED clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Pharmacy.BrevityIn type: UNUSED clearance:CSS  
Allowed Security Labels (min,max): (SL15,SL15)  
Refused Security Labels (min,max):

Component.Port: Pharmacy.PaymentIn type: UNUSED clearance:CA  
Allowed Security Labels (min,max): (SL9,SL9)  
Refused Security Labels (min,max):

Component.Port: Pharmacy.PrescriptionIn type: UNUSED clearance:CP  
Allowed Security Labels (min,max): (SL7,SL7)  
Refused Security Labels (min,max):

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STABLE SENT LIST (1)

Component.Port: PatientRegistration.CompleteOut type: OUTPUT\_PORT clearance:CAD  
Allowed Security Labels (min,max): (SL1,SL1)  
Refused Security Labels (min,max):

Component.Port: PatientRegistration.BrevityOut type: OUTPUT\_PORT clearance:CSS  
Allowed Security Labels (min,max): (SL15,SL15)  
Refused Security Labels (min,max):

Component.Port: PatientRegistration.JudicialOut type: OUTPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (SL2,SL2)  
Refused Security Labels (min,max):

Component.Port: PatientRegistration.MedicalHistoryPublicPartOut type: OUTPUT\_PORT clearance:CSN  
Allowed Security Labels (min,max): (SL8,SL8)  
Refused Security Labels (min,max):

Component.Port: PatientRegistration.AgreementEstablishmentOut type: OUTPUT\_PORT clearance:CAS  
Allowed Security Labels (min,max): (SL14,SL14)  
Refused Security Labels (min,max):

Component.Port: PatientRegistration.PatientIn type: INPUT\_PORT clearance:CAD  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: FinancialManagement.BrevityIn type: INPUT\_PORT clearance:CSS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: FinancialManagement.AgreementEstablishmentIn type: INPUT\_PORT clearance:CAS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: FinancialManagement.ServicesGivenIn type: INPUT\_PORT clearance:CA  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: FinancialManagement.PaymentOut type: OUTPUT\_PORT clearance:CA  
Allowed Security Labels (min,max): (SL9,SL9)  
Refused Security Labels (min,max):

Component.Port: ReportCenter.LaboratoryResultsIn type: INPUT\_PORT clearance:CLT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ReportCenter.RadiologyResultsIn type: INPUT\_PORT clearance:CRT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ReportCenter.PathologyResultsIn type: INPUT\_PORT clearance:CPS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ReportCenter.CompleteIn type: INPUT\_PORT clearance:CAD  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ReportCenter.ReportsOut type: OUTPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (SL2,SL2)  
Refused Security Labels (min,max):

Component.Port: ServiceA.CompleteIn type: INPUT\_PORT clearance:CAD

Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.AnamnesisAnswersIn type: INPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.PaymentIn type: INPUT\_PORT clearance:CA  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.ReportsIn type: INPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.JudicialIn type: INPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.LaboratoryResultsIn type: INPUT\_PORT clearance:CLT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.RadiologyResultsIn type: INPUT\_PORT clearance:CRT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.PathologyResultsIn type: INPUT\_PORT clearance:CPS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.DiagnosisFromAnotherServiceIn type: INPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceA.LaboratoryTestsOut type: OUTPUT\_PORT clearance:CLT  
Allowed Security Labels (min,max): (SL6,SL6)  
Refused Security Labels (min,max):

Component.Port: ServiceA.RadiologyTestsOut type: OUTPUT\_PORT clearance:CRT  
Allowed Security Labels (min,max): (SL5,SL5)  
Refused Security Labels (min,max):

Component.Port: ServiceA.PathologyTestsOut type: OUTPUT\_PORT clearance:CPS  
Allowed Security Labels (min,max): (SL4,SL4)  
Refused Security Labels (min,max):

Component.Port: ServiceA.DiagnosisOut type: OUTPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (SL2,SL2)  
Refused Security Labels (min,max):

Component.Port: ServiceA.PrescriptionOut type: OUTPUT\_PORT clearance:CP  
Allowed Security Labels (min,max): (SL7,SL7)  
Refused Security Labels (min,max):

Component.Port: ServiceA.ServicesGivenOut type: OUTPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (SL13,SL13)  
Refused Security Labels (min,max):

Component.Port: ServiceA.AnamnesisQuestionsOut type: OUTPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max): (SL17,SL17)

Component.Port: ServiceB.CompleteIn type: INPUT\_PORT clearance:CAD  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.AnamnesisAnswersIn type: INPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.PaymentIn type: INPUT\_PORT clearance:CA  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.ReportsIn type: INPUT\_PORT clearance:CSP

Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.JudicialIn type: INPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.LaboratoryResultsIn type: INPUT\_PORT clearance:CLT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.RadiologyResultsIn type: INPUT\_PORT clearance:CRT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.PathologyResultsIn type: INPUT\_PORT clearance:CPS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.DiagnosisFromAnotherServiceIn type: INPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: ServiceB.LaboratoryTestsOut type: OUTPUT\_PORT clearance:CLT  
Allowed Security Labels (min,max): (SL6,SL6)  
Refused Security Labels (min,max):

Component.Port: ServiceB.RadiologyTestsOut type: OUTPUT\_PORT clearance:CRT  
Allowed Security Labels (min,max): (SL5,SL5)  
Refused Security Labels (min,max):

Component.Port: ServiceB.PathologyTestsOut type: OUTPUT\_PORT clearance:CPS  
Allowed Security Labels (min,max): (SL4,SL4)  
Refused Security Labels (min,max):

Component.Port: ServiceB.DiagnosisOut type: OUTPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (SL2,SL2)  
Refused Security Labels (min,max):

Component.Port: ServiceB.PrescriptionOut type: OUTPUT\_PORT clearance:CP  
Allowed Security Labels (min,max): (SL7,SL7)  
Refused Security Labels (min,max):

Component.Port: ServiceB.ServicesGivenOut type: OUTPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (SL13,SL13)  
Refused Security Labels (min,max):

Component.Port: ServiceB.AnamnesisQuestionsOut type: OUTPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max): (SL17,SL17)

Component.Port: Laboratory.BrevityIn type: INPUT\_PORT clearance:CSS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Laboratory.TestsIn type: INPUT\_PORT clearance:CLT  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Laboratory.PaymentIn type: INPUT\_PORT clearance:CA  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Laboratory.ServicesGivenOut type: OUTPUT\_PORT clearance:CLT  
Allowed Security Labels (min,max): (SL11,SL11)  
Refused Security Labels (min,max):

Component.Port: Laboratory.ResultsOut type: OUTPUT\_PORT clearance:CLT  
Allowed Security Labels (min,max): (SL6,SL6)  
Refused Security Labels (min,max):

Component.Port: Radiology.BrevityIn type: INPUT\_PORT clearance:CSS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Radiology.TestsIn type: INPUT\_PORT clearance:CRT

Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Radiology.PaymentIn type: INPUT\_PORT clearance:CA  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Radiology.ServicesGivenOut type: OUTPUT\_PORT clearance:CRT  
Allowed Security Labels (min,max): (SL10,SL10)  
Refused Security Labels (min,max):

Component.Port: Radiology.ResultsOut type: OUTPUT\_PORT clearance:CRT  
Allowed Security Labels (min,max): (SL5,SL5)  
Refused Security Labels (min,max):

Component.Port: Pathology.BrevityIn type: INPUT\_PORT clearance:CSS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Pathology.TestsIn type: INPUT\_PORT clearance:CPS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Pathology.PaymentIn type: INPUT\_PORT clearance:CA  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Pathology.ServicesGivenOut type: OUTPUT\_PORT clearance:CPS  
Allowed Security Labels (min,max): (SL12,SL12)  
Refused Security Labels (min,max):

Component.Port: Pathology.ResultsOut type: OUTPUT\_PORT clearance:CPS  
Allowed Security Labels (min,max): (SL4,SL4)  
Refused Security Labels (min,max):

Component.Port: Reception.BrevityIn type: INPUT\_PORT clearance:CSS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Reception.InformationOut type: OUTPUT\_PORT clearance:CRS  
Allowed Security Labels (min,max): (SL16,SL16)  
Refused Security Labels (min,max):

Component.Port: Emergency.BrevityIn type: INPUT\_PORT clearance:CSS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Emergency.PaymentIn type: INPUT\_PORT clearance:CA  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Emergency.JudicialIn type: INPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Emergency.ServicesGivenOut type: OUTPUT\_PORT clearance:CSP  
Allowed Security Labels (min,max): (SL13,SL13)  
Refused Security Labels (min,max):

Component.Port: Pharmacy.BrevityIn type: INPUT\_PORT clearance:CSS  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Pharmacy.PaymentIn type: INPUT\_PORT clearance:CA  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

Component.Port: Pharmacy.PrescriptionIn type: INPUT\_PORT clearance:CP  
Allowed Security Labels (min,max): (NONE,NONE)  
Refused Security Labels (min,max):

#### VERIFICATION REPORT

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Component.Port: PatientRegistration.CompleteOut type :OUTPUT\_PORT clearance:CAD  
potentially output data security labels: SL1

potentially input data security labels: NONE

Component.Port: PatientRegistration.BrevityOut type :OUTPUT\_PORT clearance:CSS  
potentially output data security labels: SL15

potentially input data security labels: NONE

Component.Port: PatientRegistration.JudicialOut type :OUTPUT\_PORT clearance:CSP  
potentially output data security labels: SL2

potentially input data security labels: NONE

Component.Port: PatientRegistration.AgreementEstablishmentOut type :OUTPUT\_PORT clearance: CAS  
potentially output data security labels: SL14

potentially input data security labels: NONE

Component.Port: FinancialManagement.BrevityIn type :INPUT\_PORT clearance: CSS  
potentially output data security labels: NONE  
potentially input data security labels: SL15

Component.Port: FinancialManagement.AgreementEstablishmentIn type :INPUT\_PORT clearance: CAS  
potentially output data security labels: NONE  
potentially input data security labels: SL14

Component.Port: FinancialManagement.ServicesGivenIn type :INPUT\_PORT clearance: CA  
potentially output data security labels: NONE  
potentially input data security labels: SL11  
SL10  
SL12  
SL13

Component.Port: FinancialManagement.PaymentOut type :OUTPUT\_PORT clearance: CA  
potentially output data security labels: SL9

potentially input data security labels: NONE

Component.Port: ReportCenter.LaboratoryResultsIn type :INPUT\_PORT clearance: CLT  
potentially output data security labels: NONE  
potentially input data security labels: SL6

Component.Port: ReportCenter.RadiologyResultsIn type :INPUT\_PORT clearance: CRT  
potentially output data security labels: NONE  
potentially input data security labels: SL5

Component.Port: ReportCenter.PathologyResultsIn type :INPUT\_PORT clearance: CPS  
potentially output data security labels: NONE  
potentially input data security labels: SL4

Component.Port: ReportCenter.CompleteIn type :INPUT\_PORT clearance: CAD  
potentially output data security labels: NONE  
potentially input data security labels: SL1

Component.Port: ReportCenter.ReportsOut type :OUTPUT\_PORT clearance: CSP  
potentially output data security labels: SL2

potentially input data security labels: NONE

Component.Port: ServiceA.CompleteIn type :INPUT\_PORT clearance: CAD  
potentially output data security labels: NONE  
potentially input data security labels: SL1

Component.Port: ServiceA.PaymentIn type :INPUT\_PORT clearance: CA  
potentially output data security labels: NONE  
potentially input data security labels: SL9

Component.Port: ServiceA.ReportsIn type :INPUT\_PORT clearance: CSP

potentially output data security labels: NONE  
potentially input data security labels: SL2

Component.Port: ServiceA.JudicialIn type :INPUT\_PORT clearance:CSP  
potentially output data security labels: NONE  
potentially input data security labels: SL2

Component.Port: ServiceA.LaboratoryResultsIn type :INPUT\_PORT clearance:CLT  
potentially output data security labels: NONE  
potentially input data security labels: SL6

Component.Port: ServiceA.RadiologyResultsIn type :INPUT\_PORT clearance:CRT  
potentially output data security labels: NONE  
potentially input data security labels: SL5

Component.Port: ServiceA.PathologyResultsIn type :INPUT\_PORT clearance:CPS  
potentially output data security labels: NONE  
potentially input data security labels: SL4

Component.Port: ServiceA.LaboratoryTestsOut type :OUTPUT\_PORT clearance:CLT  
potentially output data security labels: SL6  
potentially input data security labels: NONE

Component.Port: ServiceA.RadiologyTestsOut type :OUTPUT\_PORT clearance:CRT  
potentially output data security labels: SL5  
potentially input data security labels: NONE

Component.Port: ServiceA.PathologyTestsOut type :OUTPUT\_PORT clearance:CPS  
potentially output data security labels: SL4  
potentially input data security labels: NONE

Component.Port: ServiceA.PrescriptionOut type :OUTPUT\_PORT clearance:CP  
potentially output data security labels: SL7  
potentially input data security labels: NONE

Component.Port: ServiceA.ServicesGivenOut type :OUTPUT\_PORT clearance:CSP  
potentially output data security labels: SL13  
potentially input data security labels: NONE

Component.Port: Laboratory.BrevityIn type :INPUT\_PORT clearance:CSS  
potentially output data security labels: NONE  
potentially input data security labels: SL15

Component.Port: Laboratory.TestsIn type :INPUT\_PORT clearance:CLT  
potentially output data security labels: NONE  
potentially input data security labels: SL6

Component.Port: Laboratory.PaymentIn type :INPUT\_PORT clearance:CA  
potentially output data security labels: NONE  
potentially input data security labels: SL9

Component.Port: Laboratory.ServicesGivenOut type :OUTPUT\_PORT clearance:CLT  
potentially output data security labels: SL11  
potentially input data security labels: NONE

Component.Port: Laboratory.ResultsOut type :OUTPUT\_PORT clearance:CLT  
potentially output data security labels: SL6  
potentially input data security labels: NONE

Component.Port: Radiology.BrevityIn type :INPUT\_PORT clearance:CSS  
potentially output data security labels: NONE

potentially input data security labels: SL15

Component.Port: Radiology.TestsIn type :INPUT\_PORT clearance: CRT  
potentially output data security labels: NONE  
potentially input data security labels: SL5

Component.Port: Radiology.PaymentIn type :INPUT\_PORT clearance: CA  
potentially output data security labels: NONE  
potentially input data security labels: SL9

Component.Port: Radiology.ServicesGivenOut type :OUTPUT\_PORT clearance: CRT  
potentially output data security labels: SL10  
potentially input data security labels: NONE

Component.Port: Radiology.ResultsOut type :OUTPUT\_PORT clearance: CRT  
potentially output data security labels: SL5  
potentially input data security labels: NONE

Component.Port: Pathology.BrevityIn type :INPUT\_PORT clearance: CSS  
potentially output data security labels: NONE  
potentially input data security labels: SL15

Component.Port: Pathology.TestsIn type :INPUT\_PORT clearance: CPS  
potentially output data security labels: NONE  
potentially input data security labels: SL4

Component.Port: Pathology.PaymentIn type :INPUT\_PORT clearance: CA  
potentially output data security labels: NONE  
potentially input data security labels: SL9

Component.Port: Pathology.ServicesGivenOut type :OUTPUT\_PORT clearance: CPS  
potentially output data security labels: SL12  
potentially input data security labels: NONE

Component.Port: Pathology.ResultsOut type :OUTPUT\_PORT clearance: CPS  
potentially output data security labels: SL4  
potentially input data security labels: NONE

Component.Port: Reception.BrevityIn type :INPUT\_PORT clearance: CSS  
potentially output data security labels: NONE  
potentially input data security labels: SL15

Component.Port: Emergency.BrevityIn type :INPUT\_PORT clearance: CSS  
potentially output data security labels: NONE  
potentially input data security labels: SL15

Component.Port: Emergency.PaymentIn type :INPUT\_PORT clearance: CA  
potentially output data security labels: NONE  
potentially input data security labels: SL9

Component.Port: Emergency.JudicialIn type :INPUT\_PORT clearance: CSP  
potentially output data security labels: NONE  
potentially input data security labels: SL2

Component.Port: Emergency.ServicesGivenOut type :OUTPUT\_PORT clearance: CSP  
potentially output data security labels: SL13  
potentially input data security labels: NONE

Component.Port: Pharmacy.BrevityIn type :INPUT\_PORT clearance: CSS  
potentially output data security labels: NONE  
potentially input data security labels: SL15

Component.Port: Pharmacy.PaymentIn type :INPUT\_PORT clearance:CA  
potentially output data security labels: NONE  
potentially input data security labels: SL9

Component.Port: Pharmacy.PrescriptionIn type :INPUT\_PORT clearance:CP  
potentially output data security labels: NONE  
potentially input data security labels: SL7

\*\*\*\*\* The verification is SUCCESSFUL \*\*\*\*\*

EXCESS PRIVILEGES  
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There is no excessive privileges...