

# OCCUPATIONAL QUALIFICATION STANDARD

## Information and Telecommunications Senior Specialist, EstQF Level 6

An occupational qualification standard is a document which describes the set of skills, knowledge and attitudes, i.e. competence requirements, needed to successfully accomplish duties. Occupational qualification standards are used for compiling curricula and awarding qualifications.

Occupational title	Level of Estonian Qualifications Framework (EstQF)
Information and Telecommunications Senior Specialist, EstQF Level 6	6

### Part A DESCRIPTION OF WORK

<p><b>A.1 Description of work</b></p> <p>Information and Telecommunications Senior Specialists implement, manage and update information and communications technology (ICT) networks (radio and cable networks and the wide and local area networks based on them) and systems (including infrastructure). A senior ICT specialist is involved in the design of the comprehensive architecture of telecommunications networks. They are familiar with the physical basis and technological limitations of the functioning of the most common components.</p> <p>The main tasks of the ICT Senior Specialist are setting up ICT systems, developing service plans and identifying and eliminating non-conformities. ICT Senior Specialists set up and monitor ICT system elements and their connections based on the requirements, taking into account standards, best practice, current procedures and product features. ICT Senior Specialists are aware of the organisation's ICT strategy and business strategy, the ICT budget limitations, ICT system security and ways of ensuring integrity and timeliness. They participate in risk analysis to ensure that services are operational. They may be involved in advising clients.</p> <p>ICT Senior Specialists work independently and in teams according to established procedures. ICT Senior Specialists are responsible for the safety of themselves and others in the working environment and comply with occupational and environmental safety requirements. The job of an ICT Senior Specialist has a heightened electrical, EMF and laser radiation hazard; the job must be performed outdoors and at heights, where necessary. Duties may require working and/or responding outside usual office hours, on weekends and public holidays and/or at night.</p> <p>The European ICT Competence Framework (e-CF) is the basis for describing ICT occupations.</p>
<p><b>A.2 Tasks</b></p> <p>A.2.1 Service Level Management (e-CF competence A.2)</p> <p>A.2.2 Product/Service Planning (e-CF competence A.4) and Project and Portfolio Management (e-CF competence E.2)</p> <p>A.2.3 Application Design (e-CF competence A.6)</p> <p>A.2.4 Design and Development and System Integration (e-CF competences B.1 &amp; B.2)</p> <p>A.2.5 Testing (e-CF competence B.3)</p> <p>A.2.6 Solution Implementation/Installation/Adoption (e-CF competence B.4)</p> <p>A.2.7 Documentation Production (e-CF competence B.5)</p> <p>A.2.8 User Support (e-CF competence C.1)</p> <p>A.2.9 Change Management (e-CF competence C.2)</p> <p>A.2.10 Service Delivery (e-CF competence C.3)</p> <p>A.2.11 Problem Management (e-CF competence C.4)</p> <p>A.2.12 Information Security Management (e-CF competence E.8)</p> <p>A.2.13 ICT Quality Management (e-CF competence E.6)</p> <p>A.2.14 Purchasing (e-CF competence D.4)</p>

A.2.15 Sales Proposal Development (e-CF competence D.5)
A.2.16 Information and Knowledge Management (e-CF competence D.10)
A.2.17 Risk Management (e-CF competence E.3)
<b>A.3 Professional preparation</b>
ICT Senior Specialists are usually people with specialised higher education or work experience in the ICT sector who have completed further ICT related training.
<b>A.4 Most common occupational titles</b>
ICT specialist, ICT senior specialist, radio network specialist, optical network specialist, IP network specialist, network manager, network designer, architect.
<b>A.5 Regulations governing profession</b>
There are no regulations governing the occupation.

## Part B

### COMPETENCY REQUIREMENTS

<b>B.1 Structure of occupation</b>
All competences must be certified when applying for the qualification.

<b>B.2 General skills of Information and Telecommunications Senior Specialist, EstQF Level 6</b>
<ol style="list-style-type: none"> <li>1) complies with legislation;</li> <li>2) values their work because it is a part of the country's critical information infrastructure;</li> <li>3) works responsibly to manage and develop information and communication systems;</li> <li>4) creates new and maintains existing communication networks;</li> <li>5) expresses their opinion in a well-argued way and is able to identify the key points of a discussion;</li> <li>6) monitors the information sources considered trustworthy in the field;</li> <li>7) is guided rationally by the customer's needs and sets realistic expectations;</li> <li>8) presents written materials that are structured, logical and linguistically accurate;</li> <li>9) takes into account the objectives of the organisation when setting personal professional goals and uses the organisation's resources responsibly and prudently;</li> <li>10) takes responsibility for their own actions within the limits of their competence;</li> <li>11) processes the information entrusted to them in accordance with the existing procedure and legislation;</li> <li>12) considers ethical beliefs and values important and draws attention to unethical practices;</li> <li>13) participate in teamwork and recognise the contribution of others;</li> <li>14) assesses the impact of their actions on the environment, tries to lessen this impact and avoids harming the environment;</li> <li>15) speaks Estonian or English at the C1 level and at least one other language at the B1 level (see Annex 1).</li> </ol>

<b>B.3 Competences</b>	
<b>B.3.1 Service Level Management (e-CF competence A.2)</b>	<b>EstQF Level 6</b>
Performance indicators: <ol style="list-style-type: none"> <li>1. provides input for drawing up service level agreements, guided by technological options and best practice;</li> <li>2. detects non-conformities with the requirements specified in the service level agreement.</li> </ol>	
<b>B.3.2 Product/Service Planning (e-CF competence A.4) and Project and Portfolio Management (e-CF competence E.2)</b>	<b>EstQF Level 6</b>
Performance indicators: <ol style="list-style-type: none"> <li>1. provides input for the design of the project plan regarding the time spent carrying out their work;</li> <li>2. manages internal projects without involving outside parties, guided by generally accepted project management principles.</li> </ol>	

<b>B.3.3 Application Design (e-CF competence A.6)</b>	<b>EstQF Level 6</b>
Performance indicators: 1. collects information about the customer's communication needs; 2. maps the existing ICT system and infrastructure.	
<b>B.3.4 Design and Development and System Integration (e-CF competences B.1 &amp; B.2)</b>	<b>EstQF Level 6</b>
Performance indicators: 1. prepares customer solutions using known technical solutions and being guided by predetermined requirements; 2. uses standard procedures, thereby ensuring the maintenance and sustainability of solutions; 3. ensures interoperability with related systems, using standard interfaces; 4. explains the capabilities and possibilities of the solution created for the customer.	
<b>B.3.5 Testing (e-CF competence B.3)</b>	<b>EstQF Level 6</b>
Performance indicators: 1. implements the testing plan; 2. documents the test results.	
<b>B.3.6 Solution Implementation/Installation/Adoption (e-CF competence B.4)</b>	<b>EstQF Level 6</b>
Performance indicators: 1. follows the implementation plan, responding to non-conformities; 2. participates in information exchange in accordance with the existing procedure.	
<b>B.3.7 Documentation Production (e-CF competence B.5)</b>	<b>EstQF Level 6</b>
Performance indicators: 1. prepares and adapts documents as specified in the documentation management; 2. prepares document templates for common use.	
<b>B.3.8 User Support (e-CF competence C.1)</b>	<b>EstQF Level 6</b>
Performance indicators: 1. implements support processes and guarantees the agreed service levels; 2. collects information on incidents so as to identify the causes of errors/non-conformities; 3. communicates with end users and provides codes of conduct, following good customer service practice.	
<b>B.3.9 Change Management (e-CF competence C.2)</b>	<b>EstQF Level 6</b>
Performance indicators: 1. implements system changes according to approved requests for changes; 2. assesses the impact of functional/technical changes on the system.	
<b>B.3.10 Service Delivery (e-CF competence C.3)</b>	<b>EstQF Level 6</b>
Performance indicators: 1. implements preventive and corrective actions when non-conformities are detected, in accordance with established procedures; 2. verifies that the system's operational characteristics comply with the technical conditions.	
<b>B.3.11 Problem Management (e-CF competence C.4)</b>	<b>EstQF Level 6</b>
Performance indicators: 1. implements problem management procedures; 2. assesses the technical condition of system components on the basis of predetermined criteria and implements preventive measures to avoid potential non-conformities.	
<b>B.3.12 Information Security Management (e-CF competence E.8)</b>	<b>EstQF Level 6</b>
Performance indicators: 1. implements information security procedures, being guided by the objectives defined in the organisation's information security policy and the requirements set out in legislation.	

<b>B.3.13 ICT Quality Strategy Development (e-CF competence D.2) and ICT Quality Management (e-CF competence E.6)</b>	<b>EstQF Level 6</b>
Performance indicators: 1. implements quality control procedures, being guided by the objectives defined in the organisation's quality policy; 2. collects and monitors monitoring data; 3. implements improvement actions in order to ensure that quality objectives are met.	
<b>B.3.14 Purchasing (e-CF competence D.4)</b>	<b>EstQF Level 6</b>
Performance indicators: 1. follows the organisation's procurement procedures; 2. provides input for the selection of suppliers, products and services by assessing delivery terms and the key indicators of the product or service being procured; 3. participates in the procurement process as a member of the evaluation committee; 4. prepares technical requirements for the product/service being procured.	
<b>B.3.15 Sales Proposal Development (e-CF competence D.5)</b>	<b>EstQF Level 6</b>
Performance indicators: 1. provides input for the compilation of a sales offer by cost component of the service, proposing alternative solutions.	
<b>B.3.16 Information and knowledge management (e-CF competence D.10)</b>	<b>EstQF Level 6</b>
Performance indicators: 1. complies with requirements for obtaining, using, transmitting and storing information.	
<b>B.3.17 Risk management (e-CF competence E.3)</b>	<b>EstQF Level 6</b>
Performance indicators: 1. provides input for risk analysis within the limits of their own know-how.	

## Part C GENERAL INFORMATION AND ANNEXES

<b>C.1 Information concerning compilation and certification of occupational qualification standard and reference to classification of occupations</b>	
1. ID of occupational qualification standard in register of occupational qualifications	08-17102019-1.1/2k
2. Occupational qualification standard compiled by:	Andres Eek, TalTech Joonas Heiter, Riigi Infosüsteemi Amet Laur Lemendik, TalTech Sven Päränd, Telia Eesti AS Urmas Ruuto, Ericsson Eesti AS Heiki Tähis, AS Atea
3. Occupational qualification standard approved by:	Information Technology and Telecommunication
4. No. of decision of Sectoral Council	15
5. Date of decision of Sectoral Council	17.10.2019
6. Occupational qualification standard valid until	22.09.2024
7. Occupational qualification standard version no.	2
8. Reference to International Standard Classification of Occupations (ISCO 08)	2523 Computer Network Professionals
9. Reference to European Qualifications Framework (EQF)	6
<b>C.2 Occupational title in foreign language</b>	
English:	Information and Telecommunications Senior Specialist, EstQF Level 6

**C.3 Annexes**Lisa 1 [Language skills level descriptions](#)