

# ČDT-TELEHOUSING SERVICE DESCRIPTION



## of ČD - Telematika a.s.

Company ID: 614 59 445, registered office at Pernerova 2819/2a, Praha 3

Incorporated in the Commercial Register kept by the Municipal Court in Prague, Section B, File 8938

### 1. Opening provisions

- 1.1. The Service Description defines technical, operating and organisational details for provision of the ČDT-TELEHOUSING electronic communications service (hereinafter, the Service), used for placement of the User's electronic communications equipment and other equipment used for data processing and/or transmission.
- 1.2. The provider of the Service is ČD - Telematika a.s., with its registered office at Pernerova 2819/2a, 130 00 Praha 3, ID No.: 614 59 445, registered in the Commercial Register maintained by the Municipal Court in Prague, Section B, entry 8938 (hereinafter, the "Provider"), which organises provision of services to third parties ("Participants") in accordance with legal regulations in force.
- 1.3. This Service Description complements and expands on the provisions of the General Terms and Conditions for Provision of Services issued by the Provider (hereinafter, the "GTC") and any interpretation of this Service Description and terms that it uses have to be based on the provisions of the GTC.
- 1.4. User's Equipment refers to electronic communications equipment or other equipment the placement of which on the Provider's premises the User requires.

### 2. Subject matter of the Service

- 2.1. Based on the Contract and to the extent agreed therein, the Provider provides the Participant with the telehousing service.
- 2.2. The ČDT-TELEHOUSING electronic communications service typically includes the following component services:
  - a) placement of the User's Equipment on the Provider's premises;
  - b) access to the User's Equipment based on the regime specified in 3.2;
  - c) provision of power supply for the User's Equipment.
- 2.3. The Service is provided 24 hours a day, 7 days a week and 365 days a year, with the exception of the periods of Authorised Service Provision Interruption and the Scheduled Maintenance Time.
- 2.4. The Service is provided within the territory of the Czech Republic.
- 2.5. Besides the Service operation and servicing, the Service also involves survey, design and installation work for setting up the Service.
- 2.6. Information on each Service, notably the specification of spaces, is shown in the respective Technical Specification.

### 3. Specification of equipment spaces

#### 3.1. Classification of spaces

All spaces intended for placement of the User's Equipment conform to the standard ČSN ETS300\_019\_1-3 (Environmental conditions and tests of environmental effects on telecommunications equipment – Part 1-3).

- 3.1.1. Class I spaces and buildings (fully compliant with requirements for telecommunications equipment spaces, including access regime):
  - a) Equipment spaces and buildings of ČD - Telematika a.s.
  - b) Equipment spaces and buildings of third parties in which ČD - Telematika a.s. has its own equipment placed.
- 3.1.2. Class II and III spaces and buildings (the degree of utilities and presence of telecommunications infrastructures in these spaces and buildings, including the access regime, differs individually depending on the location):
  - a) Equipment spaces and buildings of ČD - Telematika a.s.
  - b) Equipment spaces and buildings of third parties in which ČD - Telematika a.s. has its own equipment placed.

Access to and movement in class II and III spaces and buildings is only permitted if accompanied by a responsible person.

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### 3.2. Technological space access regime

3.2.1. A request for access must be submitted electronically via the customer portal ([zp.cdt.cz](http://zp.cdt.cz)). All mandatory fields in the portal marked with an asterisk must be filled in.

3.2.2. If the portal is not available, it is possible to send a request for access by e-mail to the supervision centre's (NOC) electronic address [noc@cdt.cz](mailto:noc@cdt.cz).

Each access request has to contain:

- the applicant's business name
- name and phone number of the representative in charge
- date and time of requested entry
- date and time of anticipated departure
- purpose of entry (scope of work performed)
- location of entry

3.2.3. The maximum length of one stay is 4 hours. If you require a longer stay, you must contact the NOC operator by calling 210 021 666.

3.2.4. Before the first entry and after the last departure from the building/space specified in paragraph 3.1.1, the User is required to contact the NOC operator by telephone at the number 210 021 666. In buildings specified in 3.1.2, i.e. buildings with a specified operation and access regime, the User has to schedule his/her activity on business days between 7 am and 5 pm.

3.2.5. Scheduled access:

The User must make requests for planned access, i.e. for construction work, periodic equipment maintenance and servicing, project work, etc. at least 72 hours before the requested time of entry.

3.2.6. Non-scheduled access:

The User has to make a request for access that cannot be scheduled in advance, i.e., servicing, an emergency affecting the functionality of installed equipment, etc., immediately after identifying the need for access. As well as submitting a request on the portal ([zp.cdt.cz](http://zp.cdt.cz)), the User shall contact the NOC operator by calling 210 021 666 in order to arrange access in a timely manner.

### 3.3. Categories of spaces pursuant to ČSN:

Pursuant to ČSN 33 2000-3/Z2, Art. 32.NM 1, the spaces are normal spaces.

3.3.1. Specification of external effects pursuant to ČSN 332000-3 for equipment placement:

AA5, AB5, AC1, AD1, AE1, AF1, AG1, AH1, AK1, AL1, AM1, AN1, AP1, AQ1, AR1, AS1, BA1, BC1, BE1, CA1, CB1

Pursuant to ČSN 33 2000-3/Z2, Table 32.NM 3, note 1, the spaces are dangerous spaces in the case of the following specification.

3.3.2. Specification of external effects pursuant to ČSN 332000-3 for antenna placement:

AA7, AB8, AC1, AD4, AE1, AF1, AG1-2, AH1-2, AK1, AL1, AM1,2,6, AN1, AP1, AQ1-2, AS1-2, BA1,4,5, BC3,4, BD1, BE1,2, CA1,2, CB1

### 3.4. Voltage systems:

3.4.1. LV: 1 NPE AC 50 Hz, 230 V / TN-S or 3 NPE AC 50 Hz, 400 V / TN-S

3.4.2. MV: 2 DC 48 V / ELV (positive pole grounded)

### 3.5. Protection from dangerous contact voltage:

3.5.1. Live components:

Pursuant to ČSN 33 2000-4-41

3.5.2. Non-live components:

- Protection in TN grids + conductive connection of non-live components
- Protection in TN grids + residual-current device  $I_{\Delta n} = 30 \text{ mA}$
- Electric separation
- Protection in TT grids + residual-current device  $I_{\Delta n} = 30 \text{ mA}$
- Protection in IT grids

The grounding point conforms to ČSN 33 2000-5-54. The overall equipment protection from lightning and dangerous voltage conforms to ČSN 34 1390.

### 3.6. Equipment placement specification:

3.6.1. The User's Equipment to be placed in the equipment space have to be designed for installation in a 19" rack. Exceptions are external units (antennas) for radio relay systems, special instruments designed for installation to other than 19" racks and devices designed for use in office settings (stored on rack shelves).

3.6.2. Installation of the User's Equipment has to comply with the "Terms and conditions for installation and operation of third-party equipment on ČD - Telematika premises", contained in Annex 1.

### 3.7. User's Equipment specification

#### 3.7.1. Electromagnetic compatibility

The User's Equipment has to comply with emission limits specified for environments under IEC 61000-6-4 (Industrial Environments).

The User's Equipment has to comply with immunity tests specified for environments under IEC 61000-6-4 (Industrial Environments).

#### 3.7.2. User's Equipment weight

The specification shall list all of the User's Equipment with weight in excess of 45 kg. Special approval procedure applies to placement of instrument racks and free-standing devices with total weight in excess of 250 kg as well as all equipment, equipment sets and structures that exert a load of more 400 kg/m<sup>2</sup> on the floor.

#### 3.7.3. Special restrictions for User's Equipment

The following are subject to special operating restrictions:

- device prototypes
- devices containing chemically aggressive (e.g., liquid electrolyte), inflammable, explosive, radioactive and otherwise dangerous substances
- devices requiring ventilation
- devices designed for outdoor environments
- cables designed for outdoor environments
- cables and protective elements of inflammable design

The Service Provider is entitled to ban operation of the User's Equipment and request immediate removal if the User's Equipment is additionally found to be non-compliant with the Terms and conditions for installation and operation of third-party equipment on ČD - Telematika premises.

#### 3.7.4. Supply voltage

The User's Equipment can be powered from existing supply voltage distribution lines. The User's Equipment may have specifications for power supply voltage:

- 48 V DC, positive pole grounded
- 230 V AC,

Supply voltage provision

The supply voltage is provided in sockets or terminals as specified in executive project documentation or technical specification. The technical specification or project documentation have to detail the following:

- rated supply voltage
- rated device input power or rated current consumption
- requirement for backup power supply working time
- location or position number and number of sockets used
- or identification of position of distribution board used
  - terminal number
  - circuit breaker number
  - cable identification with tag saying the User's business name (including extension cables and power cables to active components)

Measuring instrument power supply

The specification shall state a requirement for power supply to measuring instruments if used for equipment commissioning and tests. Specify the following:

- rated voltage
- rated input power
- requirement for number of sockets

### 3.8. Requirement for project documentation

Approved project documentation has to be used for any construction of the User's Equipment that requires:

- outdoor or indoor communication cables,
- a fixed voltage supply,
- use of a radio relay system, in which case, the Provider additionally reserves the exclusive right of frequency coordination within bands defined in VO\_R/14/08.2005-26 (10 GHz) and VO\_R/12/08.2005-34 ( 2.4 and 5.7 GHz),
- structural modifications,
- installation of non-standard process equipment distribution boards or cabinets owned by the User.

General terms and conditions for project documentation on RR routes are specified in Annex 2 – General requirements for design, installation and operation of microwave RR routes for the purposes of ČD - Telematika a.s.

### 3.9. Requirement for simplified project documentation

Simplified project documentation can only be used for projects that use:

- the Provider's standard data connections,
- a mobile voltage supply,
- the User's Equipment designed for integration in 19" racks (or free-standing devices, installed on rack shelves).

## 4. Other arrangements

- 4.1. The Provider is required to set up and provide the service for the Participant under the agreed terms providing that the Participant's Point is properly prepared for location, installation and configuration of Electronic Communications Equipment according to contractual documents and their annexes, including having all necessary administrative or private permits, and the Participant pledges to provide the Provider with all necessary cooperation to that end.
- 4.2. Based on the Provider's communicated instructions and requirements, the Participant pledges to provide, at its own expense, the Provider will all necessary cooperation for setting up the Service, performance of trial operation and its proper provision in accordance with contractual documents, including resumption of provision following an interruption or parameter change.
- 4.3. In the case of change to the Service parameters based on a request of either Party, the Parties shall sign a new Technical Specification corresponding to the requirement for change to the Service parameters.
- 4.4. The procedure for resumption of Service provision or start of Service provision after a change to its parameters is the same as that for initial Service setup.
- 4.5. The Service provision shall end on the day of termination of the Technical Specification. In the event of termination of the Technical Specification by notice, the Service provision shall end on the expiry of the notice period.
- 4.6. The Participant pledges to make sure that the Service and the Electronic Communications Equipment are used in accordance with legal regulations of the Czech Republic and not used for purposes in contradiction with law or good manners or otherwise misused.
- 4.7. The Participant is liable for indemnification for any costs, damages or other claims that may be raised or made against the Provider by a third party in connection with the Participant's use of the Service in contravention of the contractual documents.
- 4.8. The Provider is authorised to halt the Service provision if the Participant violates any provision of the contractual documents and fails to make remedies within the compensatory period in spite of the Provider's written notification. In the event of such a halting of Service provision, the Participant is required to pay the Provider a contractual penalty in the amount of Service price that the Participant would be required to pay the Provider if the Service provision were not halted.

## 5. Common and final provisions

- 5.1. This Service Description and the Provider's and Participant's rights and obligations arising herefrom are governed by the legal system of the Czech Republic.
- 5.2. Should any provision(s) of the Framework Agreement, Service Description or GTC be regarded as unlawful, invalid or unenforceable, such unlawfulness, invalidity or unenforceability shall not concern the other provisions, which shall be construed as if such unlawful, invalid or unenforceable did not exist. The Parties agree that any unlawful, invalid or unenforceable provisions will be replaced with lawful, valid and enforceable provisions that are the closest to the meaning and purpose of this Service Description.
- 5.3. The Service Description enters into force and effect on the date of the Technical Specification.

## Annex 1

# Terms and conditions for installation and operation of third-party equipment on ČD - Telematika premises

## 1. Introduction

- 1.1 The subject matter of this document is definition of terms and conditions for installation and operation of User process equipment on the Provider's premises or on shared premises in buildings owned by České dráhy, a.s., or Railway Infrastructure Administration, s.o. (both companies referred to collectively as ČD), to which the Provider has the right of use.
- 1.2 The User is responsible for the User's Equipment in terms of adherence to legal and technical regulations, and liable for any damage incurred by the installation and operation of the User's Equipment.

## 2. Pre-project survey

- 2.1 Pre-project survey is a local survey based on which site conditions (visibility, equipment, mast or cabling placeability, etc.) are verified is summoned by the Provider based on the User's request or signed Technical Specification (hereinafter, TS). Upon the Provider's invitation, the survey shall be attended by representatives of all the stakeholders, i.e., the User, project documentation supplier, the Provider and the building owner.
- 2.2 The documentary output of the pre-project survey consists of a report and an attendance sheet containing specific identified facts, which is used as the primary background information for development of actual project documentation (hereinafter, PD). Information in the report are binding for all the stakeholders.
- 2.3 In the case of a ČD site, the Provider shall arrange participation of all responsible persons on behalf of ČD.

## 3. Project documentation

- 3.1 The User is responsible for project documentation development.
- 3.2 The User is entitled to make the PD with its own resources while adhering to all the Provider's requirements as specified in Annex 3 – General requirements for project documentation of RR routes for the purposes of ČD - Telematika a.s. Upon the User's request, the Provider shall provide a project documentation template.
- 3.3 In the case of a microwave communication link installation, the Provider shall arrange an installation point (mast, bracket, cable tray) for fastening the antenna and routing the coaxial cable. The Provider shall also specify a requested area of a distribution board for equipment installation, including the presence of a power supply system as required by the User and depending on the Provider's capacity on the site. For these operations, the User is required to pay the Provider's costs for space preparation.
- 3.4 In the event of a transfer of an optical path, the Provider shall ensure an assembly place for fastening the optical path and a location for an optical distribution board. For these operations, the User is required to pay the Provider's costs for space preparation.
- 3.5 The User's PD shall specify requirements due to specific aspects of railway operation, particularly different types of protection from dangerous contact voltage of non-live components, different method of conductive connection of non-live components, etc., the scope of which the Provider's representative shall assess on a case-by-case basis.

## 4. Construction start, progress and completion

- 4.1 After receiving an approval position statement on the PD, the User shall invite the Provider and inform it about the construction start date. The Provider shall arrange construction site handover on the required site as of the set date in the presence of a responsible representative. In the case of a ČD building, a ČD representative shall attend the construction site handover as well.
- 4.2 The User is required to proceed so as not to disrupt operation of other installed equipment. If that happens, the User is required to inform the Provider's NOC immediately of any facts that may have an adverse effect on the functioning of existing equipment. In case the User's activity demonstrably causes damage to the Provider's equipment and property or others' equipment and property, the User shall pay the damages in full.
- 4.3 After construction completion and initial inspection of electric equipment pursuant to ČSN 33 2000-6-61 Ed2 (if required), the User shall inform the Provider immediately, and the Provider shall then arrange the commencement of the accepting procedure and technical inspections. After completion of the technical inspections, the Provider shall summon an acceptance procedure in order to accept the installed equipment for operating management.
- 4.4 The output information from the mutual acceptance of a project is a handover report, based on which the User becomes entitled to due to use of the Service and the Provider assumes responsibility for the installed equipment.
- 4.5 In case the User's Equipment is a hazard to health and property, the Provider is entitled to disable the User's Equipment.

## Annex 2

### General requirements for design, installation and operation of microwave RR routes for the purposes of ČD - Telematika a.s.

#### 1. Steel structures

- a) **Pipe masts and structures** – exclusively seamless tubes terminated with standard (ČSN) six-hole flange for further mast expansion; pipe mast body diameter 50-108 mm according to the stability requirement for a mast with an anti-corrosion surface finish.
- b) **Side fixture fastening** - with steel both-sided bolts made of U-profile 80, alternatively chemical anchors.
- c) **Surface finish** – hot galvanising.

#### 2. Coaxial and Ethernet cables for radio communications

- a) **50Ω** - Belden H1000, or direct substitute
- b) **75Ω** - VUKI Bratislava VCCJD75–7.25, or direct substitute
- c) **100Ω** - S-STP Cat. 5 or higher depending on the place of use

#### 3. Power supply

- a) **LV 230V distribution lines** – exclusively TN-S system, for socket circuits and main rack supply min. cross-section of Cu wires 2.5 mm, unless specified otherwise. The distribution lines have to conform to ČSN 34 2300 concerning intersections and parallel running with other existing communication lines.
- b) **MV 48V ELV distribution lines** – exclusively TT system, with positive pole of the 48V power supply grounded, min. cross-section of Cu wires for connection of equipment to secondary distribution panel within a rack must correspond to the used protection, however, at least 1.5 mm<sup>2</sup>.
- c) **Protection from electric shock** – ČSN 33 2000-4-41: automatic disconnection from power supply, additional conductive connection, unless specified otherwise.

#### 4. Placement in racks

- a) **Cooling** – vertical spacing between devices of 1 hole (1/3 U) of 19" racks.
- b) **Equipment positions** – installation and addition of equipment in racks in a top-down method, or vice versa, with a vertical spacing as per the previous paragraph.
- c) **Power supply line positions** – secondary distribution panel 48 V always at the top along with the 48 V power supply. Secondary distribution panel 230 V always at the bottom.

#### 5. Frequency coordination

- a) **Frequency bands as per VO\_R/12/12.2019-10, i.e., 2.4 to 71 GHz** – The Provider reserves the right of frequency coordination and specification or change of requested channels/frequencies.
- b) **Frequency bands as per VO\_R/14/12.2012-17, i.e., 10 GHz** – The Provider reserves the right of frequency coordination and specification or change of requested channels/frequencies. Combinations of high and low TX channels within the same point are not permitted. The duplex distance between RX and TX channels in the same RR line has to be 168 MHz. Conversion of channel numbers to frequencies shall follow exclusively the specification VO\_R/14/12.2012-17.
- c) **Coordinated bands** – installation and operation exclusively based on a valid CTO installation authorisation for use of radio frequencies.
- d) **Equipment collisions** – in the event of VF interference, the equipment Operator has to eliminate the cause immediately and if beyond its capability, has to disable the equipment. In the case of a dispute over the originator or source of interference, the Czech Telecommunication Office is the ultimate authority.
- e) **Responsibility** – the Provider's authorised employee shall perform all frequency coordination within ČD - Telematika distribution points. No equipment of the types specified above may be installed or operated without their approval.



## Annex 3

### General requirements for project documentation (PD) of RR routes for the purposes of ČD - Telematika a.s.

#### 1. Introduction

- a) **Basic information** (route name, purpose, project type, project location, investor, installer, supervision centre, equipment manufacturer, project number)
- b) **Investor requirements** (transmission capacity requirements)
- c) **System extent** (number of RR routes in each band in the project)
- d) **RR route operation organisation** (route type - automatic, duplex, 365/7/24 operation)
- e) **Equipment used** (technical specification of components used)
- f) **Electromagnetic compatibility** (undesirable radiation, CTO permit)
- g) **Environmental impact** (declaration of equipment wholesomeness, reference to public health report)
- h) **Remote monitoring** (equipment monitoring method, by whom, etc.)
- i) **RR route maintenance** (who will do maintenance)
- j) **Construction dates** (year and month of PD development, implementation, trial commissioning, permanent commissioning)
- k) **OHS** (access to antenna systems, equipment transport to installation area, expert supervision, Act no. 262/2006 Coll. the Labour Code, Decree no. 48/1982 Coll. Basic requirements for security of work and technical equipment, etc.)

#### 2. RR route point design

- a) **Route point location** (address, WGS84 coordinates, km in Common Railway Mileage, antenna and indoor unit location, coaxial cable route)
- b) **Route point information** (aggregate information on the room, rack type and method of indoor equipment installation)
- c) **Information on MW equipment** (frequency, power output, dish diameter - antenna type, polarisation, azimuth to opposite point, antenna system centre of gravity elevation)
- d) **Antenna connection to lightning conductor system** (as per ČSN 341390 and 342820, including other requirements of SM-SMS.5.4 Annex 3 Galvanic separation of antennas)
- e) **Equipment connection to power supply grid** (ČSN 33-2000-3 Report on identification of external effects, power supply connection method, voltage system definition, electricity consumption, protection from electric shock)
- f) **Process equipment interconnection** (method of connecting devices to the route)
- g) **Periodic maintenance**(how it will be done)
- h) **Bill of materials used**

#### 3. Drawings

- a) Block diagram (method of process equipment unit connection, data and power)
- b) Equipment location
- c) Antenna location, its galvanic separation design if required
- d) Coaxial cable route
- e) Drawings of mast, boom, etc.

#### 4. Required annexes

- a) Public health report for MW equipment (Electromagnetic field calculation and exposure assessment pursuant to Government Regulation no. 1/2008 Coll., including statement of applicable Public Health Authority)
- b) Fire safety report (based on installed input power)
- c) Structural analysis