Invitech ICT Services Ltd.

2040 Budaörs, Edison u. 4.

General Terms and Conditions of Contract

(Invitech GTC)

ANNEX 1

Basic and supplementary services
Service quality parameters and target values

Date of entry into force of this GTC:

01 Jan 2023

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1. Electronic communications services

(1) The Service is provided by the Service Provider in the territory of Hungary.
(2) The tariffs of the Services and of the Supplementary Services and of other administrative and operator services are contained in **Annex 2 to the GTC**.
(3) The Service Provider may provide the internet access service in combination with telephone or other basic service in a single package.
(4) Combined services must be treated in combination, as a single service package, in particular for relocation, takeover, modification or termination.
(5) Provision of the Service requires the use of services provided by third parties, in particular electricity service providers and other public utility providers. These services are beyond the control of the Service Provider, therefore the Service Provider cannot guarantee the continuous availability of the Services at the access point installed at the Customer's premises. Consequently, the Services are suitable only with limitations for the performance of activities that require continuous availability, e.g. asset protection or security-monitoring activities. In the case of any power failure the Service is not available during its period, is not suitable for making emergency calls either.
(6) The Services provided by the Service Provider are not limited in time, but they require, with the exceptions specified in this section, at the access point installed at the Customer's premises continuous **230 V/AC** power supply provided by the Customer for the terminal equipment and appropriate operating environment.
(7) Should the Customer use more than one Service at the same Subscriber Access Point, the Services may be restricted or suspended with the conditions specified in the GTC.

1.1 Voice Service

(1) A publicly available electronic communications service that includes, directly or indirectly, the making and receiving of domestic or domestic and international calls using a number or numbers in a national or international numbering plan. The more traditional name of voice service is telephone service, in these GTC we always mean voice service.
(2) The Service Provider provides the Service in the territory of Hungary.
(3) The call charge is paid by the calling party from the time of answering the call by the called party to the termination of the call.
(4) The Service Provider provides the Service also for ad hoc use.

1.1.1 Fixed location analogue (PSTN) telephone service

(1) The Service is provided on metal subscriber loop (copper twin wire) with **300-3400 Hz** bandwidth that is suitable for transmission of voice, G2/G3 fax signals and enables establishment of data transmission connection with maximum **9600 bps** rate.
(2) Subscriber Access Point: A wall-mounted telephone connector (RJ11, 6P2C) mounted by the Service Provider at the point of installation identified by the Customer.
(3) Analogue (PSTN) telephone service provides uninterrupted centre-side remote power supply (48 V), thus the access point can be used also in the case of power failure at the Customer's premises. A condition thereto is that the telephone set connected to the Subscriber Access Point is operating with the current taken from the telephone network.
(4) The call is disconnected by the calling party (with the exception of malicious calls identification) by placing the handset onhook. The calls ends after **90 seconds** also in the case when the called party places the handset onhook and fails to continue the call within this period.
(5) During the provision of the Service the Service Provider and any other service provider involved in carrying the domestic and international call may use technologies that implements in some sections of the connection coded (VoIP) voice transmission. Devices implementing data transmission in the voice band (G3 fax, POS terminal, alarm device, low-rate, max. **9600 bps** modem) interoperate with the Service during their normal operation, but the Service Provider does not give any guarantee for the voice-band data connections. The impacts of delays in the transmission and occurring due to the features of IP technology, voice coding procedures depend on the given device, and cannot be influenced by the Service Provider. It is not suitable for transmission of voice-based modem signals for data communication with a rate exceeding 9600 bps and outband signals!
(6) Analogue PBX can be connected with the use of the Line Group supplementary service (Call Queuing – PBX) through combination of several analogue lines to create a PBX line group accessible on a specified call number (Control Number).
(7) In the PBX line group the calling line is identified and calls are billed on the calling line number, for each sub-number. The billing and calling line identification presentation method can be modified by the Customer by ordering the Control Number setting supplementary service.

1.1.2 Fixed location ISDN service

(1) ISDN (integrated services digital network) service provides on a metal subscriber loop (copper twin wire) digital transmission of voice, G2/G3 fax, text, as well as data and image information. Calls are originated and disconnected basically identically as with analogue telephone service, but exchange of signals is carried out on the digital signalling channel that is controlled by the Customer Premises Equipment (e.g. ISDN telephone set, ISDN PBX).
(2) Subscriber Access Point: For ISDN service the Subscriber Access Point is the subscriber side of the Network Termination Equipment (NT1) owned by the Service Provider (T interface).
(3) The Customer can connect directly with ISDN terminal equipment (e.g. ISDN PBX, ISDN telephone set, etc.), indirectly with non-ISDN terminal equipment (e.g. analog telephone set) via a special interface, a terminal adapter (TA), or directly with a Network Termination Equipment that contains also a special terminal adapter.
(4) For ISDN service two standard connection modes are available:
a.) basic connection (BRA), (hereinafter referred to as ISDN2,
b.) primary connection (PRA), (hereinafter referred to as ISDN30.
(5) BRA – ISDN2 consists of two 64 kbps user B channels and one 16 kbps D channel for signalling transmission.
a.) Both B channels can be used for making circuit-switched calls (i.e. routed by selection information).
b.) The two B channels can be used simultaneously independently of each other or in combination.
c.) ISDN2 can have point-point (p-p) or point-multipoint (p-mp) configuration. In point-point configuration only one (e.g. ISDN PBX) terminal equipment can be connected, in point-multipoint configuration more than one ISDN terminal equipment can be connected.
d.) With ISDN2 connection ISDN terminal equipment can be connected directly or to an internal 4-wire cable (S bus) connected to the interface. In this case the T and S reference points coincide and the interface is called S/T interface.
(6) Power supply to the ISDN2 connection NT1 internal circuits is provided, like with analogue telephone service, through remote supply from the telephone exchange. Power supply to the maximum **4 ISDN terminal equipment** on the S/T interface is provided by a **230 V** power supply unit, operated from mains, integrated into NT1, but provided by the Customer, but the ISDN terminal equipment must have own power supply. In the case of power failure the telephone exchange automatically ensures remote power supply to the NT1 and maximum one ISDN telephone set in emergency operating mode.
(7) PRA – ISDN30 connection on E1 interface contains **30 x 64 kbps** user B channels and one 64 kbps D channel for signalling transmission.
(8) ISDN30 connection can have only point-point configuration, only one terminal equipment (e.g. ISDN PBX) can be connected to the T interface.
(9) Power supply to the ISDN30 NT1 must be provided by the Customer. If the Customer cannot provide uninterrupted power supply to the NT1, the Service will not function in the case of power failure.
(10) The Customer can request modification of telephone service type from analogue to ISDN2 connection or from ISDN2 connection to analogue subject to payment of service change fee. The price includes the cost of transport and commissioning.
(11) The call can be disconnected by the calling party or the called party. During the call the terminal equipment mobility supplementary service can be activated that enables during an active call reconnection of the ISDN telephone set to another access point operating on the same NT1 without interruption of the call.
(12) During the provision of the ISDN2 Service the Service Provider and any other service provider involved in carrying the domestic and international call may use technologies that implements in some sections of the connection coded (VoIP) voice transmission. In such cases ISDN data connections cannot be used, therefore Videotelephone, ISDN router back-up, ISDN data call (modem) features are not functioning. Devices implementing data transmission in the voice band (G3 fax, POS terminal, alarm device, low-rate, max. **9600 bps** modem) interoperate with the Service during their normal operation, but the Service Provider does not give any guarantee for the voice-band data connections. The impacts of delays in the transmission and occurring due to the features of IP technology, voice coding procedures depend on the given device, and cannot be influenced by the Service Provider. It is not suitable for transmission of voice-based modem signals for data communication with a rate exceeding 9600 bps!
(13) ISDN PBX can be connected with ISDN p-p configuration with Line Hunting (LHT), while with ISDN p-mp configuration with the Line Group service (Call Queuing - PBX) to create a PBX line group accessible on a specified call number (Control Number).
(14) In the PBX line group the calling line is identified and calls are billed on the calling line number, or on the direct dialling-in (DDI) number of the ISDN PBX extension, for each sub-number. The Customer's ISDN PBX must forward to the Service Provider's telephone exchange for each originated call the DDI number of the relevant extension. If these settings are not made, calls with incorrect identifier are presented at the called party and billed on the DDI number selected by the Customer or the last DDI number. The invoicing and

calling line identification presentation mode can be modified by the Customer by ordering the Control Number setting supplementary service.

1.1.3 Location-independent nomadic telephone service

(1) This includes publicly accessible VoIP-based voice services that do not ensure mobility, but enable location-independent (nomadic) use (even on different access points) used for carrying telephone calls via the public internet network. The location of the subscriber access point may change, i.e. access to the service is not dedicated to a specified access point, but during the use of the service the access point cannot be changed.
(2) The service does not substitute the fixed-line (PSTN) or fixed location VoIP telephone service, is not functioning in the case of power failure, and successful call and call quality is not guaranteed, depends on the current traffic conditions of the internet network. The Service Provider does not take any liability for the decrease of quality or reduced availability of functions caused by the capabilities of the technologies used, and for other damages suffered during the use of the Service (inaccessibility, loss of data, virus infection, defect).
(3) The condition of using the Service is that the Customer must before the call connect to the internet.
(4) With this Service the Service Provider provides a telephone number consisting of the service access code 21 (area number) and a 7-digit number with which any telephone number accessible from the Service Provider's network, operating in public telephone numbers can be called, and the Customer can be called also from the public telephone and mobile radio telephone network and with other service provider's nomadic telephone service.
(5) The Service can be used, by considering what is regulated in paragraphs (1) – (3), to a limited extent also for making emergency calls. Emergency calls are free of charge.
(6) The possibility of being called and making calls from the internet network is provided by the Service Provider to the Customers by using the services of other partner providers. The service subscriber can be called from the partner providers' network which concluded a network contract for this purpose with the Service Provider.
(7) Internet access is ensured by the Customer, it can be ordered also from the Service Provider.
(8) Technical conditions of using this service:

a.) The Customer or User must have broadband fixed location or mobile internet access service with continuously available minimum 100 kbps upload and download rate that can be reserved,

b.) The Customer must have a computer with appropriate SIP-based client programme or SIP-based client programme running on other device and the necessary supplementary devices (microphone, earpiece), or terminal equipment suitable for using the service that can be connected to the internet network (SIP ATA + conventional telephone; IP telephone), or IP Center mobile application and a mobile phone suitable for running it.

(9) Appropriate voice quality is available if the internet access of the given application/device meets the conditions set forth in paragraph (8) a), and voice-purpose data traffic has priority as a result of appropriate settings (QoS) within the total data traffic available. The Customer is responsible for making the setting on the devices within the control of the Customer that are connected to the internet access (e.g. router).

1.1.4 Fixed location VoIP telephone service

(1) VoIP (voice over internet protocol) based voice service ensures access via the public internet network (Bearer Service) or the Service Provider's closed IP-based data transmission system (dedicated access) to subscribers or services accessible in the public telephone network with a telephone number.
(2) Devices using voice-based data transmission (G3 fax, POS terminal, alarm device, low-rate (max. 9600 bps) modem) normally interoperate with the Service, but the Service Provider does not give any guarantee for the functioning of voice-band data connections. The impacts of delays in the transmission and occurring due to the features of IP technology, voice coding procedures depend on the given device, and cannot be influenced by the Service Provider. It is not suitable for transmission of voice-based modem signals for data communication with a rate exceeding **9600 bps** and outband signals!
(3) The service complies with the recommendations RFC3261 (SIP) and RFC3264 (SDP) and RFC3550 (RTP), and the standards G711, G722 and G729. The terminal equipment implementing VoIP-based voice communications connected to the Service Provider's communications network must be capable of G.711A voice coding.
(4) With this Service the Service Provider does not carry out recoding. If the terminal equipment use differing coding, the voice connection is not established.
(5) Subscriber Access Point: The Ethernet port connected to the Bearer Service constructed at the place of installation determined by the Customer, or the Ethernet, analogue or ISDN2 connection of the Network Termination Equipment that implements the voice service.

(6) The Service Provider is responsible for operating the Subscriber Access Point, that includes the Bearer Service only if it is provided by the Service Provider (Internal Bearer Service or dedicated access). The fault of the Service is deemed by the Service Provider to have been reported when the Parties have ascertained that the Bearer Service is not faulty. The fault of the Bearer Service must be reported according to the relevant subscription contract in the case of Internal Bearer Service to the Service Provider, in other case to the communications service provider that provides the external bearer service. The Service Provider may charge the additional costs of incorrect fault report to the Customer.

(7) Fixed location VoIP telephone service connection modes:

a.) network termination equipment (NT-TA, terminal adapter), connection types:

aa.) Analogue connection: analogue main line with RJ-11 connector.

ab.) ISDN2 p-mp connection: ISDN2 S0 main line with RJ-45 connector with 2-10 (default: 2) assigned numbers (MSN) to which more than one ISDN2 terminal equipment can be connected on the S0 bus. The S0-bus (internal network) is installed by the Customer.

ac.) ISDN2 p-p10 connection: ISDN2 S0 main line with RJ-45 connector with default 10 assigned numbers (DDI) to which one ISDN2 terminal equipment (PBX) can be connected with direct connection.

ad.) ISDN2 p-p0 connection: can be ordered only as a supplement to the ISDN2 p-p10 connection, for increasing the capacity.

b.) IP Account main line / telephone set: IP telephone set with a similar functionality as the conventional premium telephone sets, with RJ-45 Ethernet connection point with associated geographic telephone number.

c.) SIP trunk: ensures multi-channel voice transmission for hardware/software applications implementing PBX function. The transfer interface is the RJ-45 Ethernet connector of the Bearer Service.

(8) The Services provided by the Service Provider are not limited in time, however, the Network Termination Equipment provided by the Service Provider require, depending on the structure determined in the Contract, continuous **230 V** power supply provided by the Service Provider, while when IP telephone set is connected with Power over Ethernet power supply according to **44-48 V/DC IEEE 802.3af** is required, and accessibility to the Service requires availability of the Bearer Service with at least the guaranteed rate. In the case of any power failure or interruption of the Bearer Service or overload the Service is not accessible, is not suitable for making emergency calls either!

(9) Calls are originated, set up, disconnected basically identically as with analogue voice service, but exchange of signalling towards the telephone exchange is performed according to the SIP protocol, it is controlled by the terminal equipment (e.g. IP telephone set).

(10) To access the VoIP gateway (telephone exchange) the Customer Premises Equipment must have the user name and password specified by the Service Provider.

(11) The fixed location VoIP telephone service may be used exclusively at the point of installation specified in the Contract.

(12) ISDN data connections cannot be used with this technology, therefore Videotelephone, ISDN router back-up, ISDN data call (modem) are not functioning.

(13) VoIP voice service and other data transmission services share the data transmission rate determined by the Bearer Service. When making the configuration in the network of the Network Termination Equipment installed by the Service Provider the Service Provider attempts to always give priority to voice service against parallel data traffic. A precondition thereto is that the Customer should route all data traffic via the Service Provider's Network Termination Equipment, and it should not directly connect to the Bearer Service with the exception of cases previously agreed with the Service Provider and considered when constructing the network.

(14) Special rules applicable to the Bearer Service:

a.) The Bearer Service must be provided by the Customer and can be ordered from the Service Provider or other communications service provider.

b.) The Customer can use the total available capacity for carrying its calls. The number of users that can simultaneously make voice calls on a given line is determined by what is allowed on the basis of the available download and upload rates. A voice call requires **100 kbps** download and upload rate (with G722 or G711 voice coding), ADSL-based broadband subscriber access requires **40 kbps** (with G729 voice coding), fax call requires **80 kbps**.

c.) Packet delay is max. **200 ms**, jitter is max. **100 ms.**

d.) In the case of Bearer Service based on leased line with guaranteed quality and high availability the Customer can determine the rate that the Service Provider can use for carrying simultaneous voice calls.

e.) If the External Bearer Service is operating on PPPoE connection, appropriate functioning requires that the connection is controlled, subject to consent of the Customer, by the Network Termination Equipment with the ID and password provided.

f.) If the Bearer Service does not have a permanent (fixed) IP address, the Service Provider ensures continuous accessibility to the Network Termination Equipment through regular querying of the IP address.
g.) The Service Provider does not support the use of mobile internet service as Bearer Service.
h.) The Service Provider does not take any liability when due to a network configuration previously not agreed with the Service Provider or modified the administrative functions of the IP telephone set operating at the Customer's premises become accessible from the public internet and unauthorised network access becomes possible via the telephone set or other charged telephone calls are made.

(15) Modification of the Bearer Service and internal network parameters by the Customer or its contracted service provider can have an impact on the Supported Service provided on it, therefore the Customer must previously agree on it with the Service Provider or immediately notify it. The Service Provider does not take any liability for defective performance or inaccessibility to the Service due to failure to do so. Termination of the Bearer Service – for a reason within the control of the Customer – results in simultaneous termination of the fixed location VoIP telephone service.
(16) The Customer must determine the volume of traffic that it wants to carry on the Subscriber Access Points (maximum number of simultaneously originated and terminated calls) and the parameters of the Bearer Service ordered, in accordance with paragraph (14). If a call requires a speed that exceeds the available data transmission rate, additional call cannot be originated or terminated due to overload of the line. The Service Provider does not take any liability for damages that may result from overloading.
(17) The Customer must construct and operate the internal network between the Bearer Service access point and the Network Termination Equipment as well as between the telephone set connection points.
(18) ISDN PBX can be connected with ISDN p-p configuration through assignment of the Line Hunting (LHT) Supplementary Service, while with analogue lines and ISDN p-mp configuration with the use of the Line Group service (Call Queuing – PBX) Supplementary Service to establish a PBX line group accessible on a specified call number (Main Number).
(19) In the PBX line group the calling line is identified and calls are billed on the calling line number, or on the direct dialling-in (DDI) number of the ISDN PBX extension, for each sub-number. The Customer's ISDN PBX must forward to the Service Provider's telephone exchange for each originated call the DDI number of the relevant extension. If these settings are not made, calls with incorrect identifier are presented at the called party and billed on the DDI number selected by the Customer or the last DDI number. The invoicing and calling line identification presentation mode can be modified by the Customer by ordering the Control Number setting supplementary service.

1.1.5 IP Account main line service

(1) The Service Provider provides the IP Account main line service with fixed location VoIP (analogue or ISDN2 (pp or p-mp) or IP telephone set) service.
(2) IP Account main line means a set of logical IDs with which the Customer can connect to the Service Provider's central SIP server (SoftSwitch) via internet access by setting the dialling application (programme) selected by it, based on the IDs. During the provisioning the Customer receives by email a proposal for installation and the IDs (login, server, domain) and in a separate procedure the password.
(3) Connection enables, in the function of the parameters of the dialling programme selected by the Customer, access to the following services: origination and answering of voice calls to the public telephone network, call forwarding, calling line identification presentation.
(4) To ensure defence against unauthorised use the connection that is accessible with IDs is in default case restricted to premium rate directions. It can be released and restricted again by the Customer through dedicated codeword-based restriction. The Customer is liable for all activities connected with the IDs, keeping the IDs and the password, in particular the Customer is liable for preserving the confidentiality of the IDs and of the passwords. The Service Provider does not take any liability for misuse caused by the Customer through disclosing or directly or indirectly making accessible its ID and/or password to others.
(5) The User is responsible for using the software enabling access, the user name and the password for their intended purpose, and for preventing unauthorised access to the user details. The Customer will pay all resultant charges due to such action. The password is delivered by the Service Provider only to the person authorised thereto.
(6) The Service Provider does not provide fault repair service with the IP Account main line service, or further help for installation, and it does not include HelpDesk service either.
(7) The Service Provider will use the following details specified by the Customer in the Specific Agreement for this purpose:

a.) send the data needed for registration to the specified email address:
aa.) The server address from where the Customer can download a free dialling programme and install it according to the proposal for installation sent by the Service Provider by email.
ab.) The login name needed for identification.

b.) send to the specified mobile telephone number by SMS the password that must be entered during registration in the way defined in the guide.

Then the Service can be used.

1.1.6 Business IP Center PBX functions

(1) IP Center PBX functions with the use of Fixed-location VoIP telephone service enable the application of various call control and supplementary (hereinafter collectively: PBX) functions.
(2) IP Center PBX functions can be used subject to ordering **2 or more PBX extensions**.
(3) The Service can be used exclusively with IP telephone set provided by the Service Provider.
(4) The Service Provider provides for accessing the IP Center PBX functions for each extension **1** Basic IP telephone set or for a surcharge an Extra IP telephone set.
(5) Subscriber Access Points obtain access to the IP Center PBX functions on the basis of their rights, PBX functions are accessible exclusively with fixed-location VoIP telephone service or IP Account main line connection.
(6) Subscriber Access Points obtain, in addition to the subscriber telephone number, also a short telephone number (hereinafter: **extension**) with which extensions can also directly access each other within a group.
(7) By using the call number override administrator function, in the case of a call initiated from an extension, any number belonging to the group can be set (e.g. ring group, IVR function, e-Fax, extension) and it will be displayed to the called party.
(8) In the case of an emergency call the administrator override function does not work, in all cases the subscriber number assigned to the extension, or in its absence, the lead number of the location will be sent and displayed.
(9) Use of IP Center PBX functions depends on the terminal equipment used. Basic functions are accessible also with analogue telephone set, while more advanced supplementary functions can be used exclusively with IP telephone set, SIP client software or IP Center mobile application and PC integration.
(10) When originating a call for an IP Center PBX extension the dialling process differs from the usual process at the Subscriber Access Point. The public telephone network can be accesses from the IP Center PBX network with the „0” prefix and with the use of intelligent dialling mode. The intelligent dialling mode can distinguish on the basis of the first digit of the number dialled and the length of the number dialled the internal PBX calls from public telephone network calls. Intelligent dialling mode is applied to all call directions if the IP Center PBX extensions do not have a short telephone number starting with 1. The Service Provider creates short telephone numbers preferentially from the number range starting with 2 to 9. If upon an explicit request of the customer a short telephone number starting with 1 is used, the short telephone numbers starting with 1 as defined in **Anft.** (Hungarian Plan for National Identifiers), including emergency calls, can be dialling with the prefix „0”, while extensions and other call directions in the public telephone network can still be distinguished with the intelligent dialling mode, it is not required to use the „0” prefix. The „06” prefix for domestic long-distance calls and mobile radio telephone network calls or the „00” prefix for international calls do not require either a “0” prefix.
(11) Special regulations for personal data processing and information supply to users:

a). The Customer, as data controller, processes personal data with relevant legal basis – the Users’ consent, performance of contractual obligation, etc. –, including recording the personal data in the central system that implements the PBX function.

b.) The Customer must give relevant information to the Users about the fact and circumstances of data processing.

c.) The telephone set provided for the Service (terminal equipment) and the system registers and stores the available data of the originated and terminated calls (calling party’s name, telephone number, time of the call). The Customer must inform the Users that

ca.) the person using the telephone set can access the personal data stored in the telephone set, depending on the settings of the telephone set, and

cb.) the operating personnel and the Full Right User (admin) can access the personal data stored in the system.

d.) The Service Provider is not liable for unauthorised access to personal data stored in the telephone sets. The Customer and the User are responsible for deleting the call lists stored in the telephone set.

e.) The Customer is responsible for informing the Users that the personal data specified on the web interface can be accessed by the Full Right User (admin) and the operating personnel for the performance of administrative tasks.

f.) The data stored in the system (voice recordings, messages, etc.) will be deleted after the expiry of the required data storage period and when the Customer’s contract expires (central directory, call lists, etc.) and cannot be restored. The Full Right User (admin) is authorised to download the necessary data from the system after the expiry of the required data storage period.

(12) Data storage periods:

a.) Call data stored in the system:	end of the 6th month following the month in question
b.) Voice recording:	15 days
c.) New voice-mail message (not played yet):	until the deletion of the voice-mail box
d.) Voice-mail messages played:	30 days after playing
e.) Saved voice-mail message:	30 days after saving

1.1.6.1 Web (online) user interface (admin and extension level services)

(1) A web user interface is associated with each extension requested by the Customer, where the User can make the settings for his own extension, e.g. activation and deactivation of Don't disturb function, call forwarding, selective call forwarding, activation and deactivation of profiles, modification of own details (entering a mobile telephone number, home telephone number).
(2) Web interface address: https://admin.ipcentrex.hu
(3) The initial user IDs (user name, password) are given by the Service Provider to the Customer during the installation. These can be changed at any time by a user with admin rights, and after the first login the system prompts mandatory change of password.
(4) The Customer is exclusively responsible for password treatment. In the case of disclosure of the access right to any third party the Customer will be liable for all damages suffered. The Service Provider will not be liable for non-completion of calls due to error in user settings, e.g. incorrect setting of selective call routing, using an incorrect destination number, etc. The same user name and password pairs can be used as for the software used for PC integration, if applicable.

1.1.6.2 Full Right User (admin)

(1) The Customer receives one full right administrator (admin) user access. With this rights level the Customer can handle all functions of the application, including the supplementary PBX functions. The user can in general, but not exclusively, override the settings of extensions, set individual rules which only a user with admin right may set (individual call restriction for local, long-distance, international and premium rate calls; setting inclusion in groups, in the case of serial ringing determining the priorities of extensions and their ringing times; managing groups, making their settings, modifying the Remote Nomadic Office password; setting individual passwords of extensions).
(2) Web interface address: https://admin.ipcentrex.hu
(3) Initial user IDs (username, password) are provided by the Service Provider during the installation to the Customer, which at the first login must be changed on a mandatory basis.
(4) The Customer is exclusively responsible for password treatment. In the case of disclosure of the access right to any third party the Customer will be liable for all damages suffered. The Service Provider will not be liable for non-completion of calls due to error in user settings, e.g. incorrect setting of selective call routing, using an incorrect destination number, etc.
(5) The expert support fee specified **in Annex 2 to the GTC** must be paid for the performance of tasks which may be performed by the Customer's full right user (admin), but ordered from the Service Provider, and for the subsequent modification of the configuration ordered.
(6) The Customer must prevent by requiring and taking appropriate measures access to the personal data processed by the Full Right User (admin) (call and activity lists, telephone numbers, email addresses, settings).

1.1.6.3 Integrated directory

(1) This function enables the Customer to upload telephone numbers for the extensions created by it, and to display them in the IP telephone set provided by the Service Provider. This service is not accessible for IP Account and analogue extensions and with older IP telephone sets (SPA921, Aastra 5xi and 31i).
(2) The admin user is responsible for editing and uploading data to the directory. Data can be uploaded to the directory with a predefined format. The system accepts data only with the format and data predefined by the Service Provider. The Customer is exclusively liable for the correctness of data. The data are stored by the Service Provider's VoIP centre to which exclusively the Customer (admin user) has access.

1.1.6.4 GSM adapter

(1) This feature means leasing an adapter for GSM mobile radio telephone connection that alone does not include the voice transmission service. The Customer must conclude the subscription contract for mobile telephone service that is required for this function, and make the associated SIM card available to the Service Provider. The GSM adapter provided by the Service Provider can be used exclusively with the SIM card provided by the Customer.
(2) This function enables the Customer to originate calls to the mobile radio telephone network with its own SIM card. The GSM adapter is connected to the Service Provider's VoIP centre. Simultaneously as many

mobile calls can be routed in the system to the adapter as many GSM adapters are assigned to the Customer.
(3) The Customer can decide whether all or selected mobile carrier's calls it wants to route to the GSM adapter.
(4) The Customer is responsible for the subscription associated with the SIM card, payment of the related charges and compliance with the provisions of the Contract. The Service Provider will not be liable for termination of calls in the GSM adapter and any loss of service that may occur in the GSM network.
(5) The Service Provider may, irrespective of the setting, terminate in its own network the following calls to the mobile radio telephone network:

a.) simultaneous calls with a number exceeding the number of GSM adapters,
b.) calls which due to any failure cannot be terminated via the GSM adapter.

(6) The usage charges payable for calls addressed in paragraph (5) are paid by the Customer to the mobile carrier with the tariffs specified in its subscription contract for mobile telephone service, according to the actual call direction.
(7) The Service Provider will not take any liability for establishing exclusively such calls via the Customer's SIM card which were originated by the Customer.

1.1.6.5 Ringing group

(1) When this function is ordered, the Service Provider will assign a geographical subscriber number (telephone number) and a related abbreviated or short number to the Service from its own number range, or through number porting on the order of the Customer, to which the Customer can assign the physical extensions to the ringing group at its own discretion. The extensions included in the ringing group can be parameterised by the Customer for parallel or serial ringing mode, ringing sequence and switchover time. Incoming calls not to the ringing group not answered will be displayed by the IP telephone.
(2) When this feature is ordered the Service Provider registers the request, and the ringing group with the assigned telephone number appears in the admin user's administration site. The admin user determines the ringing group, assignment of extensions and parametering of the ringing group.

1.1.6.6 Call pickup group

The admin user can independently create a call pickup group without a dedicated telephone number, or can parameterise the ringing groups to function also as call pickup group. This service is not accessible for IP Account and analogue connection extensions, and with older Aastra 5xi and 31i IP telephone sets.

1.1.6.7 Voice recording

(1) The function enables recording by extension, and/or by IVR as described in section 1.1.6.12**Hiba! A hivatkozási forrás nem található.**. It is possible to set in the system parameterization feature to record all call types (default), only outgoing or only incoming calls.
(2) The Service Provider accepts no liability for the quality characteristics of the audio material, for the recording of the audio material and for the damages resulting from unauthorized access.
(3) The Service Provider will not issue any other certificate or proof regarding the usability of the recorded audio materials and cannot provide data or other information related to them.
(4) The Customer must provide preliminary information of adequate content to the relevant User(s) about the fact of the voice recording. The Service Provider shall not be liable for the lack or withdrawal of appropriate information and consent.
(5) At the choice of the Customer, the Service Provider will either send the audio materials to the specified e-mail address within a maximum processing time of **30 minutes** after their generation or will temporarily place them in a central storage place with a **15-day data** retention period, from which they can be downloaded via SFTP protocol during the retention period. The two methods may not be combined for the same recorded object.
(6) The Service Provider will not store audio material older than the data retention period or already sent by e-mail and does not take responsibility if it is not received or downloaded by the Customer for any reason. Subsequent retrieval is not possible.
(7) The Service Provider will create the access IDs to the storage location when activating the service and send them to the contact address provided by the Customer, (access path, username and password), protection of the IDs is the responsibility of the Customer.

1.1.6.8 PC integration

(1) PC integration is enabled by the Deverto Communicator software, the support of the software has been terminated. Some functions of the existing and installed application are available, but the Service Provider accepts no liability for their operation.

1.1.6.9 e-Fax

(1) With this function the user can receive fax-type calls from its own number range or to the assigned geographical subscriber number (phone number) provided for the function through number porting on the order of the Customer, and will forward the received fax to the receiving email address specified by the Customer in the Contract PDF format.
(2) The Service Provider assigns it in its system the sending email address provided by the Customer to the e-Fax number. Mails coming in with a sending e-mail address are deemed by the Service Provider as outgoing fax and forwarded to the specified telephone number in the form of fax. The destination telephone number is specified in the addressee field with the following format: telephonenumber@fax.ipcentrex.hu where the telephone number format is for a domestic addressee 06, area code, telephone number, while for a foreign addressee in international direction 00, country code, telephone number. The confirmation of successful or unsuccessful fax sending is forwarded by the system to the sending email address.
(3) The Service Provider will not be liable for receipt of the message or fax at the receiving e-mail address.

1.1.6.10 Voice mail

(1) The IP Center PBX extensions also include a voice mail service that stores and plays voice messages electronically for the User with access.
(2) The User can set the routing of the IP Center PBX to voice mail in the web user interface or on his device with the appropriate codes (* #) for the desired cases and timings.
(3) When a new voice message arrives in the voice mailbox, the voice mail device sends a message alert to the Customer. For detailed information on possible message alerts, see the IP Center User's Guide.
(4) The content of the voice mail service:
a.) Voicemail account capacity: 15 days
b.) Maximum length of a message: 120 seconds
(5) Query:
a.) Local access from your own extension: By pressing a separate button on the device (dialing vm_list)
or by default dialing Speed Dial number 1
b.) Remote access from other telephones: 06 1 888 3737, from abroad: + 36 1 888 3737
Remuneration for remote access is paid on the basis of the tariff according to the current tariff package of the User, corresponding to the call route, on the invoice issued by the service provider providing voice services to the User.
(6) Conditions for use:
a.) The user of the voice mail service has the right to access the messages in the voice mailbox from any telephone number using a secret code. For details on using a secret code, see the IP Center User's Guide (Smart Guide).
b.) The secret code used for remote access to the voice mailbox is the same as the secret code used in the IP Center PBX in the initial setup, however, the User may set the secret codes used in the two locations separately so that they may differ later.
c.) The Service Provider shall not be liable for any damages resulting from the use of the voicemail service other than those presented in the Instructions for Use, as well as for the transfer of the secret code and use to third parties.

1.1.6.11 Remote Nomadic Office

(1) Remote nomadic office feature can be used in the PBX application for each extension. It can be used for login to access own extensions and make outgoing calls. The Service Provider provides for origination of outgoing calls a telephone number with “21” prefix assigned to the non-geographic nomadic telephone service.
(2) When the Remote Nomadic Office function is ordered the Service Provider sets the right linked to the given extension on the admin web interface. The login password is specified by the Admin user.
(3) The Customer is responsible for managing the user name and password associated with this function. The Customer is responsible for regular use of the Remote Nomadic Office, the Customer will be exclusively liable for abuse with the user IDs, including explicitly, but not limited to, the obligation of payment of call charges resulting from irregular use.
(4) This function can be used with any SIP-based client programme if the programme can connect to the Service Provider’s VoIP centre, and can process all data supplied by the Service Provider (e.g. username, password, Auth. name, User name, password). When this function is used calls coming to the extension are sent by the system to the remote connection too, i.e. simultaneously rings the extension and the client. Incoming calls can be answered at both points.
(5) When Remote Nomadic Office is used higher continuous download and upload rate must be ensured than what is required in the technical parameters of the non-geographic nomadic telephone service,

minimum **200 kbps**. The Service Provider will not guarantee the voice quality and accessibility if the technical conditions for the access are not ensured.

1.1.6.12 IVR function

(1) When this function is ordered, the Service Provider will assign a geographical subscriber number (telephone number) and a related abbreviated or short number to the Service from its own number range, or through number porting on the order of the Customer, on which the Customer can create its own IVR (Interactive Voice Response system) menu. When anyone calls the given IVR telephone number, the function plays the voice recordings uploaded by the Customer on the admin web interface, and if the calling party has a telephone set with Tone mode, then when the selected number (menu item) is pressed

a.) in a single-level menu the call group or extension specified by the Customer is connected.

b.) on a multi-level menu when the selected number (menu item) is pressed a further menu, call group or extension specified by the Customer is connected.

(2) When no menu, extension or call group exists for a number (menu item), the IVR starts to play again the greeting voice recording. The Service Provider does not examine the content elements of the voice recordings, exclusively the Customer is liable for its features.
(3) The Service Provider does not take any liability for the voice quality of the voice recordings uploaded by the Customer.
(4) The Service Provider reserves the right to limit the simultaneously incoming calls in the IVR system to the maximum total number of extensions of the Customer.

1.1.6.13 Extra IP telephone set

Fixed-location VoIP telephone service is available with standard IP telephone set, while telephone set with extra features can also be requested. Extra telephone set can be ordered for a monthly rent identified in the Tariffs Schedule.

1.1.6.14 Individual Logo for all devices

(1) The Customer can in one order give a logo graphic to the Service Provider to ensure that the Service Provider displays it on enabled telephone sets, or can request deactivation of the default service logo.
(2) Telephone sets within specified telephone set types cannot be distinguished, when Individual Logo is requested, all sets within the group will display the same logo or all will function without logo. The one-time fee for the Individual Logo option is paid for each telephone set type. Resolution, format of the logo graphic is specified by the Service Provider when concluding the contract.
(3) Telephone set types that can display Individual Logo:

a.) Cisco SPA303, SPA50x2, SPA50x4, SPA508, SPA525G2, CP68x1

b.) Yealink. T21P, T22P, T23P/G, T27P/G, T28P, T29G, T33, T43, T46, VP530, CP860, CP920, CP960

1.1.6.15 PIN code protection service

(1) The Customer can request PIN code protection for its own group. In this case all telephone sets can be locked by the administrator and/or the user.
(2) In the case of activated protection the user of the extension can exclusively make outgoing calls (except emergency calls) with the use of the PIN code. The PIN code is specified after entering the called number, with the use of an IVR system.
(2) With this service the user of the extension can make outgoing calls with the code from other telephone sets too whereby the telephone set used takes over also the calling line presentation data for the period of the call.
(3) The PIN code user must preserve the confidentiality of the PIN code. The Service Provider will not be liable for damages resulting from disclosure of the PIN code to unauthorised users.

1.1.6.16 Control Number setting

(1) By ordering the Control Number setting function calling line identification presentation is enabled in a way that the system will not send the telephone number of the extension to the called party, but the control number specified by the Administrator.
(2) The Control Number setting function can be activated and deactivated by the Administrator.

1.1.6.17 Videotelephone service

(1) Video calls can be made within the group with the use of a telephone set provided by the Service Provider that is enabled for video calls.
(2) Video signal transmission requires higher data transmission rate than normal voice and fax calls, that must be provided in the case of more than one site by the network interconnecting the sites (internet

accesses, own network sections) for the entire connection. The required continuous download and upload rate for each calls is minimum 500 kbps, maximum 2 Mbps.
(3) Video calls can be made between access points within the Business IP Center service, while video calls can be made also to other networks, services enabling videotelephony, but interoperation of the networks and success of the call is not guaranteed.
(4) When this service is ordered the monthly rent specified in the Tariffs Schedule is paid.

1.1.6.18 Virtual extension service without public telephone number

(1) This supplementary service is not associated with geographic or nomadic telephone number, is identified exclusively by the internal extension number within the group, and is not associated with a telephone set either.
(2) With the virtual extension Supplementary Service calls can be made from the (closed) IP Center extension within the group which has PIN code protection with the short telephone number and PIN code of the extension, in accordance with the rights granted to the extension.
(2) This Supplementary Service is accessible exclusively with the use of the PIN code protection service.
(3) During the call the telephone number of the telephone set (extension) used is presented at the called party in accordance with the settings for calling line identification presentation, while the traffic generated is registered among the traffic data of the own extension.

1.1.6.19 Virtual extension service with Nomadic Telephone Number (0621)

(1) This supplementary service is associated with a nomadic telephone number accessible also from the public telephone network, is identified by the internal extension number within the group, but is not associated with a telephone set.
(2) The virtual extension service with Nomadic Telephone Number is accessible exclusively in the territory of Hungary.
(3) The further conditions of use, the description of the associated user IDs are contained in Section 1.1.5 of this Annex, in connection with the IP Account main line service.

1.1.6.20 Virtual extension service with Geographic Telephone Number

(1) This supplementary service is associated with a geographic telephone number determined by the site that is accessible also from the public telephone network, is identified by the internal extension number within the group, but is not associated with a telephone set.
(2) During the call forwarded via the virtual extension the telephone number of the original calling party is presented at the called party in accordance with the settings for calling line identification presentation, while the traffic generated is registered among the traffic data of the own extension.

1.1.7 Telephone call types

(1) For the purposes of this section the call directions and services listed are specified on the basis of **Anft.**
(2) The tariffs applicable to each call direction are shown in the Individual Subscriber Contract. The tariffs of call directions not specified and not listed in the Individual Subscriber Contract are shown in **Annex 2 to the GTC**.

1.1.7.1 Local call

Means a call between subscriber access points operating in the Service Provider's network which are located within the administrative boundaries of a given settlement. To access the called subscriber or service a 6-digit telephone number needs to be dialled, while in Budapest a 7-digit telephone number. The use of the domestic prefix (06) and the area code is not required.

1.1.7.2 Local call to the network of other service provider

Means a call between subscriber access points which are located within the administrative boundaries of a given settlement whereby the called party has a subscriber access point operating in the network of a communications service provider other than the Service Provider, with the exception of Domestic Special Calls. To access the called subscriber or service a 6-digit telephone number needs to be dialled, while in Budapest a 7-digit telephone number. The use of the domestic prefix (06) and the area code is not required.

1.1.7.3 Long-distance calls within the same area (Tariff zone I)

Means a call between subscriber access points located in the same geographic numbering area in different settlements, with the exception of Domestic Special Calls. The use of the domestic prefix (06) and the area code is not required.

1.1.7.4 National long distance call (Tariff zones II, III)

Means a call in the fixed network between subscriber access points located in different geographic numbering areas in different settlements, with the exception of Domestic Special Calls. To access the called subscriber or service domestic prefix (06), area code and a 6-digit telephone number needs to be dialled, while in Budapest a 7-digit telephone number.

1.1.7.5 Domestic Special Call

Means a call to a subscriber access point established in the network of a communications service provider not identified in Decision HF/25016-187/2012 of the Chairman of the National Media and Communications Authority (NMHH), that provides public fixed location voice service, but has no significant market power, independently of the call direction, provided that after **1 July 2021**, a termination fee other than that provided for in **Commission Regulation (EU) No 2021/654** is applied. To access the called subscriber within the same area 6-digit telephone number needs to be dialled, while in Budapest a 7-digit telephone number, while for calls to other area domestic prefix (06), area code and a 6-digit telephone number needs to be dialled, while in Budapest a 7-digit telephone number.

1.1.7.6 Mobile radio telephone call

Means a call to a domestic mobile radio telephone service subscriber. To access the called subscriber domestic prefix (06), service code (SHS=20, 30, 31, 50 or 70) and a 7-digit telephone number needs to be dialled.

1.1.7.7 International call

(1) Means a call to a subscriber access point outside the territory of Hungary and all calls where international prefix (00) needs to be dialled to access the called subscriber or service.
(2) International calls are billed according to the tariff zone allocation determined on the basis of the called numbering range (prefix) and the associated costs. The allocation of destination countries and the given call directions is shown in **Annex 2 to the GTC**.
(3) In the allocation to zone different call directions of the same destination country can be allocated to different zones. The terminated international call directions can be, when the service providers concerned (ensuring access to the called party, transit) distinguish them, the following: fixed, mobile, special and premium-rate.

1.1.7.8 Emergency call

(1) Emergency call telephone numbers:
- a.) Ambulance (104),
- b.) Fire Department (105),
- c.) Police (107),
- d.) European Emergency Phone Number (112).

(2) Emergency calls are free of charge, can be made also from subscriber access points subject to restriction.

1.1.7.9 Special calls (non-geographic numbers)

(1) The Service Provider enables – under a cooperation with other Partner Providers – its customers to access from subscriber access points established on its service area the call directions identified with the following service and network codes (SHS), which determine a numbering range for a service or network managed separately on non-geographic basis.
(2) According to the ANFT Decree the accessed services can be the following:
- a.) SHS=21 – Nomadic telephone service
  - aa.) voice service that is accessible for originating and answering calls at any subscriber access point of the networks that provide this service, i.e. access to the service is not allocated to a given subscriber access point, but the subscriber access point cannot be changed during using the service.
  - ab.) To use the service the domestic prefix (06), the service code 21 and a 6-digit telephone number needs to be dialled by Customer.
- b.) SHS=38 – Corporate networks
  - ba.) A network serving a specified group of Customers – generally a company or other organisation –, that enables access to the members of the business network (Corporate Network) from the telephone network. A corporate network interconnects the private network and/or virtual private network components of the given organisation and enables also access to the electronic communications network. A corporate network may include both electronic communications service providers network and private network components.

bb.) To use the service the domestic prefix (06), the service code 38 and a 8-digit telephone number needs be to be dialled.

c.) SHS=71 – Machine-to-machine (M2M) communication

ca.) enables communication in the electronic communications network between terminal equipment or applications, whereby information is transmitted with not more than minor human intervention.

cb) To use the service the domestic prefix (06), the service code 71 and a 10-digit telephone number needs be to be dialled.

cc.) The conditions of using these numbers for given applications are determined by the Authority in the allocation permit. Data and voice communication and message sending to these numbers is possible exclusively with the type and way specified in the authority's decision on numbering range allocation, between the terminal equipment and applications used for this application.

d.) SHS=80; 00800 – Freephone service (green number call and universal international freephone service)

da.) Means a service whereby access to the user of the number or the service that provides information, content with this service is free for the calling party.

db.) To use the service the domestic prefix (06), the service code 80 and a 6-digit telephone number needs be to be dialled by Customer.

dc.) To use the universal international freephone service the international prefix (00), the country code 800 and the relevant telephone number needs to be dialled by the Customer.

e.) SHS=90 – premium rate service without charge limit (Audiofix, Audiotex)

ea.) Means a service that enables access from the voice-purpose electronic communications network to services providing information, content which can be called – with regard to the content provided – without risk to be considered for the protection of the minor. The charge for using the service contains also the charge payable for the service that provides information, content.

eb.) To use the service the domestic prefix (06), the service code 90 and a 6-digit telephone number needs be to be dialled by Customer.

ec.) The call charge is determined by the call duration or the number of calls, and the call tariff determined by the content provider.

f.) SHS=90 – premium rate adult service (Audiofix, Audiotex)

fga.) Means a service that enables access from the voice-purpose electronic communications network to services providing information, adult content. The charge for using the service contains also the charge payable for the service that provides information, content.

fb.) To use the service the domestic prefix (06), the service code 90 and a 6-digit telephone number needs be to be dialled by Customer.

fc.) The call charge is determined by the call duration or the number of calls, and the call tariff determined by the content provider.

fd.) Adult content: means any content that can adversely influence the physical, intellectual or moral development of minors, in particular by having a determining element that directly describes pure violence or sexuality.

g.) SHS=91 – Premium Rate service with charge limit (Audiofix, Audiotex)

ga.) Means a service that enables access from the voice-purpose electronic communications network to services providing information, content which can be called – with regard to the content provided and the reduced charge of the call – without risk to be considered for the protection of the minor. The charge for using the service contains also the charge payable for the service that provides information, content.

gb.) To use the service the domestic prefix (06), the service code 91 and a 6-digit telephone number needs be to be dialled by Customer.

gc.) The call charge is determined by the call duration or the number of calls, and the call tariff shown in **Annex 2 to the GTC**. The highest charge payable by the calling party may not exceed the charge published by the authority – annually by 31 January – in its official journal and website.

1.1.7.10 Short numbers

(1) A short number means a non-geographic number containing not less than three and not more than six digits that enables access to a service. **Article 148 of Eht.** provides for the conditions of enabling calls to short numbers from the international network.

(2) According to the ANFT Decree the accessed services can be the following:

a.) Harmonised numbers of harmonised services of public interest

aa.) Telephone numbers of services proposed by the European Union to be introduced in the territory of all member states with identical telephone number, telephone numbers of so-called harmonised services of public interest, designed to enable free access to a given service of public

interest – serving the welfare and security of citizens or groups of citizens, or helping citizens in trouble.

ab.) To use the service a 6-digit telephone number with the format 116def needs to be dialled by the Customer.

ac.) Hotline maintained to find lost children: 11600

ad.) Calls to harmonised services of public interest are free of charge.

b.) Directory assistance service numbers

ba.) These numbers enable national access to directory assistance services that supply information about specific details of Customers – subject to consent of the Customer.

bb.) To use the service a 5-digit telephone number with the format 118de needs to be dialled by the Customer.

c.) Electronic communications service providers' customer care service numbers

ca.) These numbers enable national access to the customer care services of electronic communications services providers registered by the authority for the provision of electronic communications service.

cb.) To use the service a 4-digit telephone number with the format 12de needs to be dialled by the Customer.

d.) Donation numbers – cannot be called from the Service Provider's network!

A 4-digit telephone number with the format 135d or a 5-digit telephone number with the format 136de.

e.) Crisis line service numbers – cannot be called from the Service Provider's network!

A 5-digit telephone number with the format 137de.

f.) National access to free services

fa.) Short numbers enabling national access to free services.

fb.) To use the service a 4-digit or 5-digit telephone number with the format 14cd(e) needs to be dialled by the Customer, which have the following values:

Four-digit numbers: 140d, 141d, 142d, 143d, 144d

Five-digit numbers: 145de, 146de, 147de, 148de, 149de

g.) Short numbers for premium rate services

ga.) These numbers enable access to specified premium rate services from the voice-purpose electronic communications network. According to the service usage charge and content these numbers enable access to premium rate services, premium rate services with charge limit, premium rate services without charge limit and premium rate adult services.

gb.) To use the service a 5-digit or 6-digit telephone number with the format 16cde(f) needs to be dialled by the Customer, which have the following values:

Premium rate service with charge limit: 160de, 161def

Premium rate service without charge limit: 164de, 165def

Premium rate adult service: 168de, 169def

h.) Numbers allocated to the electronic communications provider's network

ha.) Short numbers enabling on-net access to services provided by the Service; cannot be called from other networks.

hb.) To use the service a 3-digit, 4-digit or 5-digit telephone number with the format 17c(d)(e) needs to be dialled by the Customer.

i.) Numbers of public information and support services

ia.) Short numbers enabling access to support or information services serving the interest of a larger community or of the entire society.

ib.) To use the service a 3-digit or 4-digit telephone number with the format 18c(d) needs to be dialled by the Customer.

ic.) NMHH (authority) continuously publishes on its website (www.nmhh.hu) the numbers available for allocation and the services accessible with these numbers. Introduction of services is not mandatory, but when applied the published numbers can be used only with the identified services.

1.1.7.11 On-net nomadic call

Calls between the Service Provider's subscribers to nomadic telephone service (within service area 21). To make a call the domestic prefix (06), the service code 21 and a 7-digit telephone number needs be to be dialled.

1.1.7.12 Off-net nomadic call

Call to the subscribers of other service provider's nomadic telephone service voice service. To make a call the domestic prefix (06), the service code 21 and a 7-digit telephone number needs be to be dialled.

1.1.8 Call periods, time zones

(1) Voice service charges are based on time zones. Unless otherwise provided in the conditions of the tariff package set forth in the Contract:

a) Daytime (peak period): Monday to Friday or on workdays from **7.00 a.m. to 6.00 p.m.**

b) Reduced tariff period (off-peak period): Monday to Friday or on workdays from **6.00 p.m. to 7.00 a.m.**, and on Saturday and Sunday and holiday from **midnight to midnight**.

(2) In specified mobile internet access service tariff packages data traffic is measured on the basis of time zones. The traffic volume can be used for each time zone.

a) Daytime: all days from **7.00 a.m. to midnight**.

b) Night period: all days from **midnight to 7.00 a.m.**

1.1.9 Telephone supplementary (comfort) services (Digifon)

(1) Supplementary Services offer in addition to telephone basic services other additional (network and/or information) services. Use of the supplementary services available in digital telephone exchanges is optional for the Customers, need to be ordered and activated when needed.

(2) Supplementary Services can be ordered, modified or cancelled by the Customers according to the options and rules applicable to contract conclusion and service modification. Services can be ordered for a definite term or until cancellation. The scope of supplementary services accessible in various telephone exchange types operating in the Service Provider's network may vary, related descriptions contain the relevant information. Information about the telephone exchange types serving the Customer can be requested at the customer service offices.

(3) Use of the Supplementary Services (switching on, programming, activation, deactivation, cancellation, modification, switching off, etc.) is possible with pushbutton telephone set (in Tone operating mode), activation of some functions requires a short interruption („Flash" or „R" programmed to about 150 ms (short)) button and fulfilment of the technical conditions of using.

(4) Allocation of supplementary service included in the basic scope is automatically done at telephone line provisioning, and can be activated by the User, e.g.

a.) Call forwarding (unconditional or on no reply)

b.) Wake up, alarm calls

(5) Some supplementary services cannot simultaneously be used.

(6) Supplementary services can be used after ordering and allocation by the Service Provider – except wake-up/alarm call. The condition of activation and deactivation is that the Service Provider allocates the Supplementary Service ordered to the identified telephone number.

(7) Some Supplementary Services immediately function after allocation, others can be switched on and off by the User through activation and deactivation.

a.) Service activation means placing the service in "standby" status ready for functioning. By deactivation the service is put out of standby status, thus cannot function until the next activation. Supplementary services can be used by the Customer until they are cancelled.

b.) Activation of Supplementary Service in permanent mode is done by the Service Provider after ordering, i.e. these do not require activation and deactivation by the User, can continuously be used until cancelling.

c.) Supplementary Services in semi-permanent mode are functioning only after ordering in the period between activation and deactivation by the Customer. In activated status they automatically function, do not require special intervention.

d.) Supplementary Services in operation by call mode are operated by the User for each call, as needed. These are activated by the Service Provider after ordering.

(8) Use and functioning of the Supplementary Services may differ from what is described here, depending on the settings of the terminal equipment used and the capabilities of the telephone exchange serving the Customer.

1.1.9.1 „Don't disturb" service

(1) If the Customer does not want to answer calls coming to its telephone number, it can temporarily forward the calls to a voice response unit playing a pre-recorded announcement.

(2) Conditions of using this service: AXE, EWSD, VoIP.

(3) Voice announcement: „Upon the Customer's request the called number temporarily cannot be connected."

(4) Forwarded call charge:

a.) the calling party pays the charge of the call to the Customer who ordered the forwarding,

b.) the call forwarded to voice announcement is free of charge for the Customer.

(5) Use:

a.) Activation: *26#

b.) Deactivation: #26#

1.1.9.2 Call forwarding unconditional

(1) If the Customer cannot answer calls coming to its telephone number due to its absence, it can forward them to another telephone number specified when activating the feature (if permitted by its subscriber). During active call forwarding incoming calls are forwarded by the telephone exchange in each case to the specified telephone number.
(2) Telephone exchange: AXE, EWSD, VoIP.
(3) Forwarded call charge:
a.) the calling party pays the charge of the call to the Customer who ordered the forwarding,
b.) The charge of the call forwarded to the telephone number specified when activating the feature is paid by the Customer who ordered the call forwarding, according to the tariffs applicable in its tariff package.
(4) Use:
a.) Activation with specification of telephone number: *21*telephonenumber#
b.) Deactivation (with deletion of telephone number): #21#
c.) Deactivation (with retention of telephone number): #22#
d.) Activation with stored number: *22#

1.1.9.3 Call forwarding busy

(1) The Customer can forward calls to its telephone number, if its telephone line is busy, to another telephone number specified when activating the feature (if permitted by its subscriber).
(2) Conditions of using this service: AXE, EWSD, VoIP.
(3) Forwarded call charge:
a.) The calling party pays the charge of the call to the Customer who ordered the forwarding,
b.) The charge of the call forwarded to the telephone number specified when activating the feature is paid by the Customer who ordered the call forwarding, according to the tariffs applicable in its tariff package.
(4) Call forwarding busy is not functioning simultaneously with Call waiting supplementary service.
(5) Use:
a.) Activation with specification of telephone number: *67*telephonenumber#
b.) Deactivation (with deletion of telephone number): #67#

1.1.9.4 Call forwarding no reply

(1) The Customer can forward calls to its telephone number, which are not answered within a specified time, to another telephone number specified when activating the feature (if permitted by its subscriber). During active forwarding the telephone exchange will forward only the calls to the telephone number specified when activating the feature (if permitted by its subscriber) which are not answered by the called Customer within 25 seconds or the specified delay time (does not lift the receiver about during 3 rings).
(2) Conditions of using this service: AXE, EWSD, VoIP.
(3) Forwarded call charge:
a.) The calling party pays the charge of the call to the Customer who ordered the forwarding,
b.) The charge of the call forwarded to the telephone number specified when activating the feature is paid by the Customer who ordered the call forwarding, according to the tariffs applicable in its tariff package.
(4) Use:
a.) Activation with specification of telephone number: *61*telephonenumber#
b.) Activation with specification of delay: *61*telephonenumber*seconds#
c.) Deactivation: #61#

1.1.9.5 „Parallel ringing" service

(1) The Customer can set that the calls coming to its telephone number be ringed also on another (fixed or mobile) telephone number specified when this service is activated (if permitted by its subscriber). The incoming call will be terminated on the telephone number where the receiver is first lifted.
(2) Conditions of using this service: EWSD, VoIP.
(3) If the call coming to the Customer's telephone number is answered on the other telephone number specified when activating this feature (ringed parallel), the call will function as forwarding with the following charging rule:
a.) The calling party pays the call to the Customer that ordered the parallel ringing,

b.) The charge of the call forwarded to the telephone number specified when activating the feature is paid by the Customer who ordered the call forwarding, according to the tariffs applicable in its tariff package.

(4) Use:

a.) Activation with specification of telephone number: *64*telephonenumber#
b.) Deactivation: #64#

1.1.9.6 Call waiting

(1) In the case of activated supplementary service the User making the call receives during the call a voice signal indicating that another calling party is calling its telephone number.
(2) The called party can select from the following options:

a) continue with the initial call by ignoring the indication, while the calling party receives a ringing tone feedback
b) end the initial call, place the receive onhook to answer the new call after the ringing tone sounds.
c) answer the new call without disconnecting the ongoing call („Flash" or „R" button), then talk alternately to both calling parties by toggling between the two calls at his discretion. The party put on hold hears a relevant tone.

(3) The User must pay special attention to disconnecting its telephone calls. After disconnection of the call about 3-5 seconds need to be waited before originating the next call, because a one-off quick pressing of the telephone set disconnection button sends identical signal to the telephone exchange as the „Flash" or „R" button and the telephone exchange can interpret the short interruption as putting the call on hold.
(4) Conditions of using this service: AXE, EWSD, VoIP.

a.) Fax / data calls are disturbed by the tone, during the period of data transmission call waiting should be deactivated.
b.) Call waiting is not functioning simultaneously with Call forwarding on busy and Don't disturb supplementary services.

(5) The charge of both calls are paid, independently of each other, by the calling parties for the total duration of the call including the period of holding.
(6) Use:

a.) Activation: *43#
b.) Deactivation: #43#
c.) Toggling between active calls: „Flash" + „1" or „2"

1.1.9.7 Three-party conference call

(1) A user making a call can call a third party while continuing with the call. After the third party answered the call, the User can select between the following options, in any order, with the „Flash" or „R" button and entering the relevant code:

a.) toggle between the two called parties at its discretion,
b.) set up a conference call with common voice path.

(2) Conditions of using this service: AXE, EWSD.
(3) The User must pay special attention to disconnecting its telephone calls. After disconnection of the call about 3-5 seconds need to be waited before originating the next call, because a one-off quick pressing of the telephone set disconnection button sends identical signal to the telephone exchange as the „Flash" or „R" button and the telephone exchange can interpret the short interruption as originating a conference call.
(4) The charge of both calls are paid, independently of each other, by the calling parties for the total duration of the call including the period of holding.
(5) Use:

a.) Toggling between active calls: „Flash" + „1" or „2"
b.) Conference: „Flash" + „3"

1.1.9.8 Denied operator call offering

(1) This supplementary service excludes the possibility of call offering by the operator when the Customer's line is busy. Call offering during a call can be recognised when a camp-on tone is heard, and the tone disturbs the existing data of fax calls.
(2) Conditions of using this service: AXE, EWSD.

1.1.9.9 Call restriction with password

(1) The Customer can at its discretion restrict with the use of a secret code provided by the Service Provider the possibility of originating calls from its telephone line (except emergency and fault report calls) by accordingly programming its telephone set, with the predefined restriction types, and cancel the restriction.

(2) The table showing the available restriction types (codes) is shown in the description of the „Call restriction – permanent" operator service.
(3) The Customer can request replacement of its password for a charge. In the case of loss of the password or use of the password by unauthorised persons the Service Provider will not have any liability for the damages.
(4) Conditions of using this service: AXE, EWSD, VoIP.
(5) Use:

a.) Restriction activation: *34*xxxx*code#
b.) Restriction cancellation: #34*xxxx*code#
c.) Querying: *#34*code#

(6) The 4-digit password („xxxx") can be specified in the Customer Service Office.

1.1.9.10 Calling line identification presentation service

(1) The Calling line identification presentation service enables the Customer to present the calling party's telephone number for incoming calls.
(2) The Calling line identification presentation (CLIP) service can be used when ordered by the Customer, with a telephone set enabled for receiving and displaying the FSK signals sent by the telephone exchange in the first interval between two ringing tones or with an individual display.
(3) The Service Provider will send telephone numbers to the called line when displaying is not restricted by the calling party.
(4) Conditions of using this service: AXE, EWSD, VoIP.
(5) This Supplementary Service cannot be provided to subscribers connected to the telephone exchange with radio access or MUX (multiplexer).

1.1.9.11 Calling line identification restriction

(1) The Calling line identification restriction service enables the User originating the call to restrict presentation of its telephone number on the called line, continuously or on a call-by-call basis.
(2) The Service Provider provides the following options upon written request of the Customer, free of charge:

a.) the calling User to restrict on a call-by-call basis the presentation of its ID (telephone number) on the called telephone set,
b.) the calling Subscriber to restrict for each subscriber access point the presentation of its ID on the called telephone set,
c.) the calling User to enable on a call-by-call basis – notwithstanding the permanent restriction defined in paragraph b). - presentation of its ID on the called telephone set,
d.) the called party subscriber to restrict presentation of the calling party's ID on its telephone set,
e.) the called subscriber to reject answering calls where the calling party restricted presentation of its ID,
f.) the called subscriber to restrict presentation of its ID on the calling party's telephone set (connected line identification restriction), see: paragraph (3).

(3) In the cases defined in paragraph (2) a.), d.) and e.) the Customer can, when its terminal equipment is appropriately enabled, programme the telephone exchange to restrict calling line identification presentation on a case-by-case basis, without ordering this service.
(4) The Service Provider enables the Customer, free of charge, to request in the case when the calls coming to its telephone set are, upon its request, automatically forwarded by the Service Provider to another telephone number, to restrict presentation on the calling telephone set of any data that

a.) refers to the telephone number to which the call is forwarded, or
b.) refers to the person of the Customer to whom the call is forwarded.

(5) A condition to fulfilment of the requests concerning identification presentation defined in the above paragraphs is that the Customer must make a written statement and have a telephone set enabled for restriction of calls.
(6) The restriction defined in paragraph (1) a) and b) cannot be used for calls to the telephone numbers identified in **Decree 24/1997. (III.26.) BM** on the list of organisations with high importance for the functioning of the state and supply to the population, and the telephone numbers of emergency services (police, fire department, ambulance, **„112"** European emergency number). In order to enable answering emergency calls the Service Provider must provide, upon request of the emergency services, the data for identification of the calling party even when the calling party failed to give its consent or withdrawn the consent.
(7) For public payphones and semi-public payphones calling line identification restriction on a call-by-call basis is not possible, calling line identification presentation is in each case enabled.
(8) If at contract conclusion the Customer fails to make a statement on calling line identification presentation, its telephone number will not be presented at the called party, as default setting.
(9) Conditions of using this service: AXE, EWSD, VoIP.

(10) Use:

a.) Calling line identification restriction for one call: *31*telephonenumber
from rotary dialling telephone set: 130 and the telephone number

b.) Calling line identification presentation for one call: #31*telephonenumber
from rotary dialling telephone set: 131 and the telephone number

1.1.10 ISDN supplementary services

(1) ISDN supplementary services offer, in addition to telephone supplementary services, other extra (network and/or information) services to users. The services provided by digital telephone exchanges are optional for the Customers, must be ordered or activated when requested.
(2) Supplementary services can be ordered, modified or cancelled by the Customers according to the options and rules applicable to subscriber contract conclusion and service modification. Services can be ordered for a definite term or until cancellation. The scope of supplementary services accessible in various telephone exchange types operating in the Service Provider's network may vary, the related description contains the relevant information. Information about the telephone exchange types serving the Customer can be requested by the Customer at the customer service offices.
(3) Allocation of supplementary services included in the basic scope is automatically done at the provisioning of the ISDN connection.
(4) Some ISDN supplementary services immediately function after allocation, others can be switched on and off by the User through activation and deactivation.

a.) Service activation means placing the service in "standby" status ready for functioning. By deactivation the service is put out of standby status, thus cannot function until the next activation. The Customer is authorised to use the service until its cancellation.

b.) Activation of services in permanent mode is done by the Service Provider after ordering, i.e. these do not require activation and deactivation by the User, can continuously be used until cancelling.

c.) Services in semi-permanent mode are functioning only after ordering in the period between activation and deactivation by the Customer. In activated status they automatically function, do not require special intervention.

d.) Services in operation by call mode are operated by the User for each call, as needed. These are activated by the Service Provider after ordering.

1.1.10.1 DDI - Direct Dialling In

(1) If the Customer has a digital PBX that is enabled for accommodating ISDN2 or ISDN30 connection, ordering this Supplementary Service enables calling specified (or all) extensions of the PBX directly from the telephone network without operator intervention (outside Budapest with six-digit number, in Budapest with seven-digit number).
(2) This Supplementary Service is in permanent operating mode.

1.1.10.2 MSN – Multiple Subscriber Number

(1) This Supplementary Service is the equivalent of direct dialling-in for non-PBX subscribers. With this service more than one telephone number can be allocated to one ISDN2 connection, thus different telephone numbers can be used to call different terminal equipment. The Customer programmes the telephone number for each terminal equipment.
(2) This Supplementary Service is in permanent operating mode.

1.1.10.3 COLP – Connected Line Identification Presentation

(1) This Supplementary Service enables the calling party's telephone set to present the actually connected telephone number, when it is not restricted by the called party. This can be used to check the correctness of the called numbers, and can also be important when the called party uses call forwarding service, and the call is set up to other than the initially called telephone number. If the called party forwarded the call to another subscriber's telephone number, the other subscriber may restrict presentation of its telephone number at the calling party's telephone set, when it is authorised to use this service.
(2) This Supplementary Service is functioning in permanent operating mode.

1.1.10.4 COLR – Connected line Identification Restriction

(1) The Customer can restrict presentation of its telephone number on the calling party's telephone set.
(2) This Supplementary Service is available in both permanent operating mode and on a call-by-call basis.

1.1.10.5 SUB - Sub-addressing

(1) ISDN addressing can include, in addition to the telephone number, a sub-address consisting of maximum 20 digits and characters (max. 20 octets). This is sent by the calling party to the called party. The network

forwards the sub-address without modification, does not use it for routing within the network. This service can be used only between ISDN subscribers, on a call-by-call basis.
(2) It is functioning by sending the sub-address, does not require activation.

1.1.10.6 LHT – Line Hunting

(1) This Supplementary Service enables the Service Provider's telephone exchange to create for PBXs connected via ISDN2 or ISDN30 connection PBX line group. The lines in the PBX line group can be accessed with a single telephone number (Control Number). When it is used with Direct dialing-in supplementary service, all calls coming to a DDI telephone number will be routed by the telephone exchange by seeking within the PBX line group a free B channel.
(2) This Supplementary Service is functioning in permanent operating mode.

1.1.10.7 HOLD – Call Hold

(1) With the use of the Call hold Supplementary Service the User can put its ongoing call on hold, then later continue with the call. The connection is not interrupted while the other party is put on hold. The Customer can have more than one calls put on hold, these can be distinguished with the IDs specified by itself.
(2) This Supplementary Service is functioning in call-by-call mode, i.e. the User must indicate to the telephone exchange when it wants to put a call on hold or take it back.

1.1.10.8 TP – Terminal Portability

(1) This Supplementary Service enables disconnection of the calling party's or the called party's terminal from the S bus, then connect it to another subscriber access point operating on the same S bus to restore the call. The Customer has a period of 3 minutes between the suspension and the restoration.
(2) This Supplementary Service can only be used with ISDN2 connection and for interactive (e.g. telephone, videotelephone) services, but not for other services (fax, data transmission).
(3) It is functioning in call-by-call mode, and can be used with functional protocol. The User must indicate to the telephone exchange the intention of putting on hold and, after the terminal is connected again, the intention of restoration of the earlier calls.

1.1.10.9 UUS - User-to-User signalling

(1) With this Supplementary Service the calling party can at the origination and disconnection of the call send to the called party a message with a length not exceeding 32 characters with the pushbuttons of its telephone set. The message is displayed on the called party's telephone set even when it is busy. If the called party does not answer the call, its telephone set can remember the message and later list it with the calling party's telephone number.
(2) This Supplementary Service can be used not only for telephone purposes, but e.g. in remote monitoring systems for checking authorisation (in this case the message can also be a password), or for automatic interruption of a call, if the message indicates a call with higher priority (e.g. in combined data transmission/security systems interruption of data transmission for the period of security control).
(3) This service is functioning only between ISDN subscribers, is operated by sending the message.
(4) It is functioning in call-by-call mode.

1.2 Operator assisted services

1.2.1 Universal national directory assistance service (11800)

(1) Information can be requested from a subscriber's line or a public payphone about the following:
   a) whether a natural or legal person identified with name and address is a subscriber and the telephone number of its line;
   b) the Customer of a station identified with telephone number and its address;
   c) the address of a public payphone identified with telephone number.
(2) This service can be used with the assigned telephone number of the universal domestic directory assistance service (**11800**).
(3) During one call up to four enquiries are allowed.
(4) The directory assistance service cannot give information about telephone lines that the Customer requested to keep confidential.

1.2.2 National directory assistance service (11888)

(1) Information can be requested from a subscriber's line or a public payphone about the following:
   a) whether a natural or legal person identified with name and address is a subscriber and the telephone number of its line;
   b) the subscriber of a station identified with telephone number and its address;

c) the address of a public payphone identified with telephone number, and the telephone number on which a public payphone identified with address can be called.

(2) The service can be used with the assigned telephone number of the national directory assistance service (**11888**).
(3) During one call up to four enquiries are allowed.
(4) The directory assistance service cannot give information about telephone station that its subscriber requested to keep confidential.

1.3 Other operator services

(1) In addition to standard and supplementary services, the Service Provider provides also other operator services. These can be selected and ordered by Customers individually.
(2) Supplementary Services can be ordered, modified or cancelled by the Customers according to the options and rules applicable to contract conclusion. Services can be ordered for a definite term or until cancellation.
(3) When the services are used the charge specified in **Annex 2 to GTC,** the Contract or otherwise on a case-by-case basis is paid.

1.3.1 Itemised bill (itemised call statement)

(1) The Service Provider offers, subject to ordering by the Customer, a list with more details than the mandatory data to be shown on a supplement to the bill showing volume-based charges (telephone traffic, internet data traffic and ad hoc ordered service traffic – itemised call statement).
(2) The itemised call statement can be ordered on an ad hoc basis or regularly, for a definite term or until cancellation. The shortest call list period that can be requested is one month.
(3) The Service Provider shows the charges payable by the Customer, when call directions with different tariffs are not applied, with breakdown by terminating service provider, while for premium rate calls with breakdown by tariffs. The itemised call list shows also the charges of non-telephone services used through telephone service.
(4) It is not possible to request the name of the number user of the premium rate telephone numbers and the name of the service provided in the itemised call statement. An up-to-date register of premium rate services is available on the website of the current provider of the premium rate number.
(5) The itemised call list shows the following items with breakdown by service and service provider:

a.) the called number,
b.) call starting time,
c.) call duration,
d.) tariff of one call unit,
e.) call charge.

(6) For non-voice data connections, calls the itemised call list shows for each access type the following items:

a.) time of non-voice data traffic;
b.) volume of data traffic, or for time-based billing the duration of data traffic;
c.) unit of traffic, or for time-based billing the tariff of time-based unit;
d.) charge of the data traffic.

(7) For flat-rate service the Service Provider may show, instead of paragraph (4) d) - e) and paragraph (5) c) - d), also the flat-rate tariff or the flat-rate nature of the Service.
(8) The bill attachment is issued by the Service Provider, according to the Customer's order, in e-mail, on data carrier (CD-ROM). The Service Provider sends the electronic bill attachment to the e-mail address specified by the Customer. Printed bill attachment is not provided by the Service Provider.
(9) When bill attachment is delivered by e-mail the Service Provider does not take any liability for the safety of personal data of the User(s) or of the Customer.
(10) Ad hoc itemised call list is sent by the Service Provider within **15 days** of ordering, while regular itemised call list is sent to the Customer with the bill for the target month.

1.3.2 Balance information

It shows the open items recorded in the Service Provider's billing system at a given time for the Customer's current account, with amount and on an itemised basis.

1.3.3 Current account reconciliation/ current account statement

It shows an itemised statement of bills issued and their payment, as recorded in the Service Provider's billing system for a given period for the Customer's current account.

1.3.4 Call restriction – permanent

(1) During the period of using this service the Service Provider restricts the call types that can be originated from the telephone line, in the way and for the purpose identified by the Customer.
(2) Restriction types available:

Code	Description
01	International call restriction
02	International and premium rate call restriction
03	International, premium rate, donation line, national long-distance call and mobile call restriction (accessible: 0621, 0680)
04	Only emergency and other freephone numbers can be called
05	International, premium rate and donation line call restriction
06	Premium rate call restriction
07	Premium rate and mobile call restriction
08	Premium rate and donation line call restriction
09	Premium rate, mobile and donation line call restriction
10	International, premium rate, mobile and donation line call restriction
11	International, premium rate and mobile call restriction

(3) Emergency calls and fault report calls may not be restricted.

1.3.5 Announcement on changed number

(1) If the Customer's telephone number changes at the request of the Customer, the Customer can order an announcement on the changed number provided by the exchange to users calling the earlier number for a period not exceeding **6 months**.
(2) In the case of changing the telephone number for technical reasons by the Service Provider provision of this announcement for **6 months** can be ordered free of charge.
(3) Conditions of using this service: AXE, EWSD.

1.3.6 Line group service (Call queuing – PBX)

(1) This service enables creating a line group by grouping several analogue telephone lines. The members of the line group can be accessed on a common telephone number (Control Number). Calls to the common Control Number are switched by the exchange to the first found free line.
(2) Lines can be searched in two ways:
a.) serial, when it starts with the control line and proceeds with a predefined order of lines.
b.) distributed, when search starts after the last engaged line.
The Customer decides on the way of searching when ordering the service, at the same determines also the priorities of lines.

1.3.7 Circuit and telephone number reservation

(1) The circuit and/or telephone number needed for the installation (operation) of the Subscriber Access Point is reserved by the Service Provider upon request of the Customer if installation or relocation (modification, replacement) of the equipment cannot be performed within **3 months** for a reason beyond its control, and the customer agrees to pay a reservation fee.
(2) Reservation of the circuit and/or telephone number can be cancelled by the Customer through termination with **15 days**' notice.
(3) The reservation charge is equal to the charge of suspension upon request of the Customer.

1.3.8 Business conference call service

(1) This Supplementary Service enables users to make conference calls via the telephone network with two or up to 5 parties. This Supplementary Service can be used without ordering or contract conclusion on a case-by-case basis simply by starting to use the service. This Supplementary Service can be used by dialling the Business Conference telephone number followed by a **5-digit** code predefined by the users for interconnection.
(2) Conditions of using this service:
a.) Territorial or technical restrictions do not apply to this service, it can be used by any domestic fixed and mobile telephone subscriber and foreign subscriber. Using this Supplementary Service requires a telephone set with DTMF (tone) mode.
b.) ISDN subscribers can access this service by using the 3.1 kHz audio service.
(3) Service access number:
a.) 06 63 363 363

b.) From abroad +36 63 363 363

(4) This Supplementary Service is charged according to the price plan of the given User, with the tariff applicable to the given call, on the bill issued by the provider of voice service to the User.

1.3.9 Individually allocated easy-to-remember number

(1) Easy-to-remember numbers are predefined telephone numbers with advertising value that are easy to remember for the calling parties. The Customer pays an extra charge for using such numbers.

(2) Easy-to-remember number types:

a.) **Diamond:** This telephone number typically includes identical digits, or one digit and zeros, or two digits.

b.) **Platinum:** This number typically includes a periodically repeated or symmetrically arranged string of two or three digits, or is generated with an easy-to-remember algorithm.

c.) **Golden:** Any easy-to-remember number outside the above two categories.

d.) **Silver:** A number selected by the Customer outside the above two categories.

Information about easy-to-remember number types and the list of available numbers is accessible in the Customer service offices.

(3) Easy-to-remember numbers can be requested only in line with the Service Provider's numbering field and numbering plan.

1.3.10 Main number setting

(1) When this Supplementary Service is ordered, the Service Provider sets for all calls originated by the PBX connected to the PBX line group the PBX line group's Main Number is presented at the called party instead of the telephone number of the line or the DDI number of the ISDN PBX, depending on the current settings for calling line identification presentation, and all calls originated are billed to the Main Number.

(2) Conditions of using this service: AXE, EWSD, VoIP.

1.3.11 Individual voice announcement

(1) The Customer can route incoming calls to a voice announcement with individual text.

(2) A one-off activation fee is paid for operating the individual announcement. The calling party pays normal, non-premium rate call charge, depending on the place and time of the call.

(3) If the voice announcement is provided by the Customer by delivering it to the Service Provider in the format **„Wav, mono, 8 kHz sampling, 16 bit coding"**.

(4) Optimal length of voice announcement: **15 seconds**, but not more than **30 seconds**.

(5) The Service Provider may reject activation of the voice announcement, when it fails to comply with legislative requirements for general moral values and freedom of speech.

(6) If the Customer orders from the Service Provider the preparation of the voice announcement message, the text of the voice announcement must be provided by the Customer, taking into account the provisions of paragraphs (4)-(5). The fee specified in Annex 2 of the GTC shall be paid for the creation and setting of the voice announcement.

1.3.12 Individual traffic statement

(1) The Customer can request a traffic statement for the geographic telephone number subscribed to or non-geographic telephone number used by it (e.g. Audiotex, Audiofix (SHS=90; 91) and Green Number (SHS=80)).

(2) One statement can be requested for each telephone number retroactively for not more than **1 year** and contains data on a period of up to **3 months**. If the statement is ordered for a period exceeding **3 months**, each started **3-month period** is deemed to be a separate statement.

(3) The statement contains the number of calls to the telephone number and the hold time for each call.

(4) The Service Provider produces the traffic statement by the **15th day** of the month following the target month and sends it by e-mail to the address specified by the Customer.

(5) The statement does not contain data that can be used to clearly identify the calling party (e.g. telephone number), and the statement can contain data within the period specified in paragraph (2) up to the date preceding the date when the data are retrieved by the Service Provider. Ordering continuous (regular) supply of traffic statements is not possible.

1.3.13 Supply of voice recording

(1) The Customer can request the Service Provider to supply the voice recording produced by the Service Provider on contract conclusion or on customer service calls to check the content of the call.

(2) To ensure data protection, the Service Provider may make the voice recording accessible exclusively to the person involved in the voice recording.

(3) The Service Provider does not consent to use of the voice recording to any purpose not connected with the relevant subscription contract, e.g. disclosure to unauthorised persons or sharing, whether in whole or in part.
(4) Supply of the voice recording is free of charge once a year.

1.3.14 „Disaster recovery" call forwarding service

(1) The Customer's authorised representative may request at any time, by calling the Service Provider's fault report service, to forward calls, after a service activation period not exceeding **2 hours**, from his telephone number or telephone number range that became inaccessible for a defect or other reason to a predefined domestic fixed or mobile number (destination number).
(2) The charge of forwarded calls is paid according to the tariffs schedule applicable to the voice service, based on the calling telephone number and the destination number.
(3) This service can be ordered when at least **5 working days** before the first activation the details of the authorised representative(s) and the telephone numbers and destination numbers concerned are available to the Service Provider.
(4) Procedure for service activation/cancellation:
a.) The Customer's assigned representative can request at the Service Provider's Fault Report Service to activate or cancel the service.
b.) The particulars of the service and the applicant's authorisation is in each case checked.
c.) A control call is immediately made by the Service Provider to the applicant to inform about the activation/cancellation.
(5) After activation or cancellation of forwarding the Service Provider calls back the applicant for notification.
(6) The Service Provider will not take any liability for calls lost during the period of making the activation of forwarding or for damages that may result from inaccessibility to or overload of the destination number.
(7) The charge specified in **Annex 2 to the GTC** is paid for activation of the service, for each telephone number, while subsequent cancellation is free of charge.

1.4 Services provided with publicly accessible voice service

1.4.1 Access to Audiofix and Audiotex call, premium rate services

(1) The premium rate number ranges and the associated tariffs are shown in **Annex 2 to the GTC**.
(2) Audiofix and Audiotex calls can be, depending on the content accessed,
a.) premium rate calls without charge limit (SHS=90; 160de, 161def), premium rate adults service (SHS=90; 168de, 169def), or
b.) premium rate calls with charge limit (SHS=91; 164de, 165def).
(3) Audiofix enables participation in live phone games or using a content service. Calls are generally short (average duration: half minute), a one-off tariff applies to the call, but if the call duration exceeds **one (1) minute** additional call hold fee may be charged to the Customer with the tariff specified in the Tariffs Schedule.
(4) Audiotex call charges depend on the call duration, but in the case of premium rate call with charge limit (SHS=91) the charge paid by the calling party may not exceed the limit published by the authority, annually by 31 January, in its official journal and on its website.
(5) All communications service providers must keep a record of premium rate content service providers contracted with them and their services.
(6) The record contains for each ID (telephone number) complete updated true data specified by legislation, separately for each ID:
a.) designation of the service intended to be provided by the content service provider;
b.) short description of the service intended to be provided by the content service provider;
c.) a relevant reference when the content accessible with the service intended to be provided by the content service provider is adult content;
d.) the way of using the service intended to be provided by the content service provider (voice call, fax, message sending);
e.) specification whether the service intended to be provided by the content service provider is continuously accessible. In the case of non-continuously accessible services, if the service:
ea.) is accessible only in specified period, specification of such period,
eb.) is accessible only in connection with a specified event (in particular in connection with a programme or programmes broadcast via linear media service), specification of the event (programme);
f.) in respect of the charge of the service intended to be provided by the Number User:
fa.) the way of payment of the charge (with premium rate call originated or premium rate messages sent and/or received),

fb.) the way of charging (for voice calls charge based on duration or number of calls, for message sending charge for messages sent or received),
fc.) the rate of the charge applied;

g.) if the service intended to be provided by the content service provider can be used by receiving premium rate messages, the maximum number of messages sent to the user while providing the service;

h.) if the service intended to be provided by the content service provider can be used by paying a regularly charged fee, the duration of the period of usage must be specified, and whether after such period the service ordering is automatically renewed;

i.) designation of the content service provider providing the service, its address, registration number, designation of the organisation keeping such register, address of its website, and specification of the state in which the number user is deemed to be established;

j.) contact points of the customer service connected with the service intended to be provided by the content service provider in terms of telephone number, postal address and email address;

k.) way of cancellation of the service intended to be provided by the content service provider, when it is applicable to the given service;

l.) general terms of contract in Hungarian for the service intended to be provided by the content service provider, and the internet address where these are published in a way accessible to all.

1.4.2 Domestic Green Number service

1) Domestic Green Number service enables other subscribers to call the Customer from Hungary free of charge.

(2) When a Domestic Green Number call is answered the service Subscriber pays the call termination charge according to the tariffs of the service. The call is free of charge for subscribers making such call in Hungary. Domestic Green Number can be called from abroad with the tariffs applicable to international calls to Hungary.

(3) Conditions of using this service:

a.) Digital exchange: AXE, EWSD.

b.) When special restrictions do not apply, calls are accepted from all geographic numbering areas and the mobile carriers' networks where the communications service provider has a cooperation agreement with the Service Provider.

c.) To order this service, the Customer needs to have subscription for the number of telephone lines sufficient for answering the daily number of calls estimated by it (destination lines).

(5) Supplementary options available with the service, conditions of using them (only for **primary areas 62 and 63**):

a.) Restriction of period of answering calls

The domestic green number subscriber may request limitation of the period when calls are answered. Call answering period can be limited in three basic groups:

aa.) working days
ab.) Saturdays
ac.) holidays (Sundays and official holidays)

If the above option is activated for the called green number, the following voice announcement is heard by the calling party: "The called service is not accessible in this period."

b.) Territorial restriction of calls

The domestic green number subscriber may request geographic restriction of calls. It can determine the geographic numbering areas from which it answers calls.

If the above option is activated for the called green number, the following voice announcement is heard by the calling party: "The called service is not accessible from your area."

(6) The Customer can request itemised list of calls to the green number that will be produced and delivered by the Service Provider with the last three digits crossed. The supplied information is indicative only, may not be used as evidence.

(7) The Domestic green number subscriber may request call statistics from the Service Provider – exclusively as indicative information. Statistical data supply is not included in the service billing system, therefore the Service Provider does not guarantee that the statistical data collection system registers all calls answered by the destination line. This service is functioning in the first month after ordering on a test basis. At the end of the month the Service Provider declares what part of the Customer's total traffic is covered by the statistical data collection system with full certainty. After having received the first call statistics the Customer can order or cancel it. The first (test) month is free of charge. The colour number statistics may not be used for checking against the bill to make a complaint. The statistics contains exclusively calls coming from outside the exchange.

(8) The service can be ordered by the Customer at the Service Provider's Customer Relations Point, the Service Provider produces the statistics by the **15th day** of the month following the target month.

1.5 Data transmission services

(1) Data transmission services enable establishment of permanent or temporary connection between the endpoints covered by the electronic communications network of Service Provider and of the Partner Providers contracted with it, access to the data network (VPN), internet and other supplementary services accessible in the Service Provider's network.
(2) Data transmission service is provided by the Service Provider between the Subscriber Access Points specified by the Customer, on circuits with the parameters requested by the Customer, installed for its exclusive use, or on virtual circuit sections. The Service Provider provides data transmission service also internationally.
(3) The, not exclusive, list of subscriber section types on which the Service Provider provides data transmission Services is shown below.

a.) in copper wire network, with TDM-based managed digital leased line (nx64k),
b.) Ethernet-based leased line with direct optical or microwave radio access (n*Mbps),
c.) non-managed, DS-based symmetrical or asymmetrical access,
d.) non-managed, open frequency microwave access,
e.) satellite (V-Sat) access,
f.) back-up or redundant access point.

(4) The Network termination equipment needed for using the Service is provided by the Service Provider and are owned by the Service Provider.

1.5.1 TDM-based managed digital leased line service

(1) Managed digital leased line connection generally means a data transmission path that interconnects two endpoints and is capable of transmitting digital signals, with high quality and availability. The Service supported by the Service Provider's management system provided on its TDM (time division multiplex) based data transmission network offers to the Customer a data transmission speed determined in n*64 kbps steps between the interfaces with the type specified by the Customer. The service ensures protocol- and usage-independent bit-transparent plesiochronous transmission for various voice, data, video and multimedia applications.
(2) **Subscriber Access Point:** The Subscriber interface of the Network Termination Equipment that meets the relevant international (ITU-T) recommendations.

Interface type	Max. data transmission rate [kbps]
ITU-T V.24-V.28 Synchronous	64
ITU-T V.24-V.28 Asynchronous	38.4
ITU-T X.21	64 - 1920
ITU-T V.36, V.37 (V.11/V.28)	160
ITU-T G.703/1 (Co-directional)	64
ITU-T G.703/6 (Transparent)	2048
ITU-T G.703-G.704 (E1)	2048 (max. effective: 1920)
ITU-T G.703/8 (Transparent)	34,368
ITU-T G.703/9 (Transparent)	139,234
ITU-T G.703/12-G.707 (STM-1)	155,520

(3) Connections can be established between interfaces of different types, too.

1.5.2 Ethernet-based leased line service (ELINE)

(1) Ethernet-based leased line service is data transmission service with guaranteed bandwidth, high speed and availability.
(2) The service can provide point-point or point-multipoint connection in a transparent way.
(3) Subscriber access point:

Designation	Interface rate	Connector cable type	Connector type	Maximum cable length [m]
10/100BaseTX	10/100 Mbps	Min. Cat5, 100Ω, UTP	RJ-45	100
1000Base-LX	1 Gbps	LWL (1,310 nm), SMF	Duplex LC	10,000
1000Base-SX	1 Gbps	SWL (850 nm)	Duplex LC	300
1000BaseT	1 Gbps	Min. Cat5, 100Ω, UTP	RJ-45	100

The Service Provider provides interfaces with 1 Gbps speed only for bandwidth exceeding 100 Mbps.
The Service Provider provides interfaces with 10 Gbps speed only for bandwidth exceeding 1 Gbps. Upon request of the Customer lower bandwidths with customised solution and tariffs may be ordered.

(4) The user bandwidth accessible at the Subscriber Access Points is influenced by the connection type, and the protocol settings used for the data transmission (MTU size, etc.).
(5) The Service Provider allows traffic from the Customer's network connected to the Subscriber Access Point **from 40 MAC addresses** or for each IP address **from 1 MAC address**. The packets not meeting this rule are discarded.

1.5.3 Rules for Subscriber Access Point established in data centre (UNI; User Network Interface)

a.) Connection:
  aa.) 100BASE-TX ports: RJ-45 connectors, 2-pair Category 5 UTP cabling
  ab.) 1000BASE-T RJ-45 connectors, 4-pair Category 5 UTP cabling
  ac.) 1GE or 10GE optical connection based on individual survey (SR, LR, ER, DWDM stb.)
b.) Negotiation:
  ba.) auto
  bb.) manual, full duplex and speed – special connection cases require the use of manual operating mode – dual home
c.) Auto-MDX: Automatic cross-cable recognition is supported.
d.) Encapsulation:
  access mode, the Ethernet frame does not contain VLAN identifier and does not contain Layer 2 priority bits (default operating mode)
e.) MAC address: Maximum permitted number of MAC addresses, in the function IP address range:
  fa.) /32 (1 out of /24) – 5 pcs
  fb.) /29 – 8 pcs
  fc.) /28 – 16 pcs
  fd.) /27 – 32 pcs
  When the maximum number of MAC addresses is exceeded the port is automatically put in error disable status.
f.) Use of non-real source MAC addresses:
  Ethernet packet, where the source MAC address is only zero or a multicast value. Maximum permitted non-real packet speed is 500 packet/s. In the case of sending in excess of the limit the port is automatically put in error disable status.
g.) Broadcast and multicast level:
  Ethernet packet, where the destination MAC address is full 1 digits (ffff.ffff.ffff). Maximum permitted broadcast packets rate is 1% compared to the port rate. In the case of sending in excess of the limit the port is automatically put in error disable status.
h.) Spanning tree:
  Spanning tree protocol operation is not supported. When BPDU packet is received the port is automatically put in error disable status. In order to prevent Layer2 loop the port continuously sends BPDU packets in each second.
i.) CDP (Cisco Discovery protocol):
  Its use is not supported.
j.) Virtual MAC address:
  Unicast or multicast type Ethernet packet, where a destination MAC address is used from which earlier packet has not been received, thus is not contained in the switch MAC table. Packets of this type are not transmitted, are discarded.
k.) IGMP snooping:
  For Layer 3 based services – internet; L3VPN not supported.
l.) Automatic error disable status:
  The software operating the device automatically detects erroneous functioning of the port and the interface is put to error disable, i.e. down status. This status is identical with the non-connected interface – cable drawn out – status. This status is not automatically released, intervention by the Service Provider's operator is required.
n.) Private VLAN can be installed by individual agreement.
o.) QoS setting, DSCP, CoS bitt and packet priorization are not possible.

1.6 Virtual Private Network (VPN) service

(1) The Service Provider enables in its electronic communications network that implements integrated data transmission for the Customer that the Customer can use certain parts of the Service Provider's network (sections, capacity and switching devices of sections, etc.) by sharing with other Customers in such a way as if it were its own independent wide area network (WAN).
(2) Virtual Private Network (VPN) can be constructed on the basis of subscriber sections of Ethernet-based leased line services.

1.6.1 IP-based virtual private network service (IPVPN, L3VPN)

(1) The Service provides OSI Layer3 level, IP (internet protocol) based virtual private network service (L3VPN) to the Customer. Within one IPVPN network, between the endpoints of a user group IP-based data connection is established and basically any endpoint can send data to any other endpoint.
(2) Data traffic between the endpoints can be routed, filtered or banned according to the Customer's request. This way further groups (subnetworks) can be created within the user group (e.g. mother company's headquarters and subsidiaries and subsidiary groups), and traffic within and between the groups can be regulated.
(3) The IP-VPN service has the following characteristics:
a.) Subscriber section type, nominal data transmission rate
b.) Number and type of terminal equipment
c.) Address and type of endpoints, number and type of ports
d.) Endpoint services

1.6.2 IP Sec service

(1) With the IP Sec service the Customer can use internet as Bearer Service to access the VPN concentrator provided by the Service Provider and through it the Customer's IP VPN network.
(2) This service ensures separated, encrypted access that cannot be accessed by others.
(3) The IP Sec service has the following characteristics:
a.) Bearer Service type, nominal data transmission rate
b.) Number and type of terminal equipment

1.6.3 Ethernet-based virtual private network service (L2VPN)

(1) This service offers OSI Layer2 Ethernet-based virtual private network service (L2VPN) to the Customer. The service is implemented on the Service Provider's and its partner providers' Ethernet aggregation and MPLS backbone network. The Service is used for interconnection of the local networks (LAN) used by the Customer with point-point, point-multipoint or multipoint-multipoint configuration. Closed communication at the endpoints is ensured, the endpoints can communicate exclusively with each other.
(2) Within an L2VPN network Ethernet-based data traffic is carried between the endpoints. Three types of this Service are distinguished according to the type of configuration:
a.) E-LINE type: point-point configuration
b.) E-TREE type: point-multipoint configuration
c.) E-LAN type: multipoint-multipoint configuration
(3) The Service Provider installs demarcation network terminal equipment (switch) at the endpoints, as part of the Service, to which the Customer can connect local network(s) by using Layer 3 CPE (router, PC).
(4) Subscriber access point:

Designation	Interface rate	Connector cable type	Connector type	Maximum cable length [m]
10/100BaseTX	10/100 Mbps	Min. Cat5, 100Ω, UTP	RJ-45	100
1000Base-LX	1 Gbps	LWL (1,310 nm), SMF	Duplex LC	10,000
1000Base-SX	1 Gbps	SWL (850 nm)	Duplex LC	300
1000BaseT	1 Gbps	Min. Cat5, 100Ω, UTP	RJ-45	100

The Service Provider provides interfaces with 1 Gbps speed only for bandwidth exceeding 100 Mbps.
The Service Provider provides interfaces with 10 Gbps speed only for bandwidth exceeding 1 Gbps. Upon request of the Customer lower bandwidths with customised solution and tariffs may be ordered.
(6) The Service is capable of transmitting voice or multimedia content without special QoS (Quality of Service) setting by the service provider. Upon request of the Customer the Service Provider ensures priority of the transmission of prioritised data traffic through appropriate setting of the QoS parameter. The L2VPN QoS option does not substitute the (Layer 3) QoS configurations that can be set in the customer's router!
(7) Definition of QoS means that the data transmission rate available at the Subscriber Access Point is shared between several priority classes through classification of data types in QoS classes. Sharing is carried out in a way whereby priority transmission is ensured for the traffic classified in higher priority class with the percentage defined in the given option, i.e. the data traffic coming to the port with such classification may not be congested up to the rate specified in the given option. This setting, however, does not mean rate restriction for any data traffic, because the prioritised and non-prioritised traffic according to the QoS classification can take up the total data transmission rate if the other type is not available.
(8) The Service Provider can define more than one QoS class in its network.
(9) Data traffic is classified in high or low priority class on the basis of its content, using the priority bit (P bit) value of the Ethernet frames coming to the port. Since the 802.1p priority bit exists only with Ethernet frames provided with VLAN tag, QoS-based prioritisation requires that the data traffic must come from the Customer with VLAN tag (as trunk).

(10) Data traffic without tag is carried in the lowest priority class. The Customer can use one or more customer VLAN (C-VLAN). A single service VLAN (S-VLAN) is set in the network for the user traffic. The Service Provider supports the acceptance of Layer2 control protocols (e.g. CDP, VTP, STP, etc.) between the endpoints.

1.6.4 Ethernet-based MEF2.0 virtual private network service (MEF2.0 L2VPN, Carrier Ethernet)

(1) This service offers OSI Layer2 Ethernet-based virtual private network services (L2VPN) to the Customer in accordance with Metro Ethernet Forum (MEF) Carrier Ethernet 2.0 (CE 2.0) recommendations.
The virtual network created by the Customer's endpoints that can communicate at Layer 2 is the L2VPN network. The closed nature of the L2VPN network is ensured, the endpoints of an L2VPN network can communicate only with each other. The service is available with the following configurations:

a.) E-LINE type: point-point configuration
b.) E-TREE type: point-multipoint configuration
c.) E-LAN type: multipoint-multipoint configuration

(4) Subscriber access point:

Designation	Interface rate	Connector cable type	Connector type	Maximum cable length [m]
10/100BaseTX	10/100 Mbps	Min. Cat5, 100Ω, UTP	RJ-45	100
10G-LR	10 Gbps	LC/PC (1310nm), SMF	Duplex LC	10,000
10G-SR	10 Gbps	LC/PC (850 nm)	Duplex LC	300
1000BaseT	1 Gbps	Min. Cat5, 100Ω, UTP	RJ-45	100

The Service Provider provides interfaces with 1 Gbps speed only for bandwidth exceeding 100 Mbps.
The Service Provider provides interfaces with 10 Gbps speed only for bandwidth exceeding 1 Gbps. Upon request of the Customer lower bandwidths with customised solution and tariffs may be ordered.
(5) The Service Provider installs network termination equipment (demarcation switch) at the endpoint that implements a Subscriber Access Point to which the Customer can connect local network(s) by using Layer 3 CPE (router, PC).
(6) The L2VPN service is transferred in the existing data flow as VLAN (EVPL) or directly at the interface (EPL).
(7) The Service is capable of transmitting voice or multimedia content without special QoS (Quality of Service) setting by the service provider. Upon request of the Customer the Service Provider ensures priority of the transmission of prioritised data traffic through appropriate setting of the QoS parameter. The L2VPN QoS option does not substitute the (Layer 3) QoS configurations that can be set in the customer's router!
(8) The Service provide dedicated bandwidth to different QoS classes at the Subscriber Access Point with the determination of QoS.
(9) Data traffic is classified in high, medium or low priority class on the basis of its content, using the priority bit (P bit) value of the Ethernet frames coming to the port. Since the 802.1p priority bit exists only with Ethernet frames provided with VLAN tag, QoS-based prioritisation requires that the data traffic must come from the Customer with VLAN tag.
(10) Data traffic without tag is carried in the lowest priority class. The Customer can use one or more customer VLAN (C-VLAN). A single service VLAN (S-VLAN) is set in the network for the user traffic. The Service Provider supports the acceptance of Layer2 control protocols (e.g. CDP, STP, LLDP, etc.) between the endpoints.

1.7 Internet access services

(1) The Service offers broadband internet service to the Customer with connection to the internet network (domestic and foreign internet exchanges and internet-based services). The internet service provided by the Service Provider is "best effort", the data passing through the internet connection are not managed, reach the destination on the path and with the speed determined by the internet network elements. The Service Provider does not use distinguishing according to quality classes (QoS) or data types (VoIP, HTTP, FTP, P2P, etc.), except when the internet access is operating as the Bearer Service of the Customer's fixed location VoIP telephone service and the terminal equipment that implements the Subscriber Access Point is operated by the Service Provider.
(2) The Service Provider restricts the unencrypted email sending protocol (SMTP) traffic according to the conditions set forth in **Section 5.2.2 of GTC**.
(3) The user ID needed for using the Service is protected by the Service Provider by an initial password that the Customer may change to his own password. Should the Customer fail to change the password, it will be liable for all consequences.
(4) Sharing the internet service outside the premises is not permitted, with the exceptions set forth in the Contract.

(5) If for the Customer the Guaranteed or minimum rate is not ensured in a documented way for a reason occurring in the Service Provider's network, the Service is deemed as underperformed in the period of documented non-compliance.
(6) Download and upload direction:
Upload: data transmission from the Customer to the Service Provider.
Download: data transmission from the Service Provider to the Customer.
(7) The Service Provider excludes its liability and it will not be deemed as faulty performance when the internet network is accessible at the Subscriber Access Point, but some IP addresses, subnetworks, websites temporarily or permanently cannot be accessed for a reason beyond the control of the Service Provider. In this case the Service Provider will attempt, on the basis of the notification, to reveal the reason for the inaccessibility and contribute at its best to its elimination.
(8) The Network termination equipment needed for using the service (modem, splitter, optical terminal equipment - ONT, outdoor and indoor unit) in the Service Provider's network are provided by the Service Provider and are owned by the Service Provider. In the case of Service offered in a partner provider's network the Network termination equipment are owned by the Customer or the Partner Provider.

1.7.1 Leased line internet access service

(1) Leased line internet access service offers to the Customer internet access service with guaranteed quality, identical rate in download and upload direction. The terminal equipment that implements the Subscriber Access Point (NT and router) connects to the Service Provider's data centre with high availability managed digital leased line or Ethernet-based leased line service.
(2) Subscriber Access Point: The Subscriber interface, that complies with international (ITU-T) recommendations, of the router that implements the Subscriber Access Point, that is also the Service Provider's service area boundary. The interface type can be specified in the Specific Agreement. Leased line internet service includes **4 Fixed IP addresses**, of which **1** can be used for the Customer.
(3) Subscriber interfaces provided by the Service Provider:

Designation	Interface rate	Connector cable type	Connector type	Maximum cable length [m]
10/100BaseTX	10/100 Mbps	Min. Cat5, 100Ω, UTP	RJ-45	100
1000Base-LX	1 Gbps	LWL (1,310 nm), SMF	Duplex LC	10,000
1000Base-SX	1 Gbps	SWL (850 nm)	Duplex LC	300
1000BaseT	1 Gbps	Min. Cat5, 100Ω, UTP	RJ-45	100

The Service Provider provides interfaces with 1 Gbps speed only for bandwidth exceeding 100 Mbps.
The Service Provider provides interfaces with 10 Gbps speed only for bandwidth exceeding 1 Gbps. Upon request of the Customer lower bandwidths with customised solution and tariffs may be ordered.
(4) The terminal equipment (NT and router) is provided by the Service Provider and are owned by the Service Provider.

1.7.2 Broadband internet access services

(1) The broadband internet access service is based on the Service Provider's network and the network of the Partner Providers with which the Service Provider has concluded network contract for the use of broadband access. Where the Service Provider or the Partner Provider provides area-specific service, it is specifically identified.
(2) The ADSL internet service can be used on the Subscriber Access Points where the required technical conditions (physical pair, distance, etc.) are met. A further condition of use is that with other Service used in addition to voice service the telephone service may not be restricted or suspended at the Subscriber Access Point. The designation ADSL internet access means hereinafter the ADSL, ADSL2+, VDSL technologies. The current speed of the ADSL connection depends, among others, on the maximum bandwidth set by the Service Provider, the physical distance from the Service Provider's data centre, its traffic and technical parameters, the capacity of the website visited by the Customer and its response time, and the transmission protocol used. The ADSL connection can reach its maximum performance within a distance of about **2 km**. The maximum efficient range of ADSL-based service is about **5 km**; above this distance it can be provisioned only subject to individual tests. The VDSL-based connection can reach its maximum performance within a distance of about **500 m**; above this distance it can be provisioned only subject to individual tests.
(3) The ADSL internet service is based on a digital transmission technology solution that offers high-speed asymmetric (that means higher download rate from the Service Provider to the Customer and lower upload rate from the Customer to the Service Provider) data transmission by using the existing twisted copper wire of the existing communications subscriber network above the voice band used by conventional telephone service, as secondary usage.

(4) The Service Provider's high speed ADSL internet access service can be used without disturbing the conventional baseband analogue (PSTN) or digital ISDN2 services, because the ADSL transmission system used applies splitter both on the Customer's side and on the network side for providing the data transmission channel.
(5) The FTTH internet access is constructed on Partner Provider's network by using the latest GPON optical technology (Fiber-to-the-home, FTTH), with terminal equipment installed at the Customer's premises or CAT5 UTP cabling from the central distribution equipment.
(6) The RFoG internet access is constructed on Partner Provider's CaTV network with terminal equipment installed at the Customer's premises.
(7) The logging in on the network (PPPoE) requires the user name and password specified in the Contract.
(8) When connecting to the internet an IP address randomly selected from the Service Provider's IP address range, or when fixed IP address Supplementary Service is used a permanent IP address is assigned to the device connected to the terminal equipment, e.g. the Customer's computer, for the period of the connection. The Service Provider allows traffic from the subscriber network connected to the Subscriber Access Point **from 1 MAC address** for each IP address. The packets not meeting this rule are discarded.
(9) The Subscriber interface, that meets the relevant international (ITU-T) recommendations, of the telecommunications terminal equipment (ADSL modem, FTTH optical terminal equipment (ONT/IAD), central distribution equipment, RFoG termial equipment) implementing the Subscriber Access point, that is also the Service boundary.

Interface type
Ethernet 10/100Base-T(X)
RJ-11 (ADSL splitter)

1.7.3 Business internet service

Service Provider	**Access technology**	**Package**	**Maximum speed (Mbit/s)**		**Minimum speed (Mbit/s)**	
			download	**upload**	**download**	**upload**
Magyar Telekom Plc.	ADSL	10M	10,00	3,00	0,50	0,25
	VDSL	20M	20,00	1,00	1,00	0,25
	VDSL	30M	30,00	1,00	5,00	0,25
	GPON	150M	150,00	50,00	60,00	25,00
	GPON	300M	300,00	75,00	100,00	30,00
	GPON	1G	1 000,00	1 000,00	300,00	50,00
INVITEL Távközlési Plc.	ADSL	10M	10,00	3,00	0,50	0,25
	VDSL	20M	20,00	1,00	1,00	0,25
	VDSL	30M	30,00	1,00	5,00	0,25
	GPON	150M	150,00	50,00	60,00	25,00
	GPON	300M	300,00	75,00	100,00	30,00
Vodafone Magyarország Plct.	ADSL	10M	10,00	1,00	3,00	0,30
	ADSL	20M	20,00	1,50	6,00	0,50
	RFoG	150M	150,00	50,00	60,00	25,00
	RFoG	300M	300,00	75,00	100,00	30,00
	RFoG	500M	500,00	75,00	100,00	30,00
	RFoG	1G	1 000,00	300,00	100,00	50,00
Invitech ICT Services Ltd.	ADSL	15M	15,00	0,50	3,00	0,25
	VDSL	25M	25,00	5,00	10,00	1,00
	VDSL	48M	48,00	7,00	18,00	2,00

1.7.4 Non-managed symmetric business internet access services

(1) Non-managed symmetric business internet service offers to the Customer broadband internet access service with identical rate in download and upload direction. The Service is accessible in Invitech's Service Area, based on technical survey conducted by the Service Provider. It is based on a digital transmission solution that uses **1, 2 or 4** twisted copper pairs of the copper subscriber network, or the FTTH (GPON) optical subscriber network for high-speed data transmission.

(2) Login (PPPoE) requires use of the username and password provided by the Service Provider.
(3) When connecting to the internet an IP address randomly selected from the Service Provider's IP address range, or when fixed IP address Supplementary Service is used a permanent IP address is assigned to the device connected to the terminal equipment, e.g. the Customer's computer, for the period of the connection.
(4) Subscriber access point: The Subscriber interface, that meets the relevant international (ITU-T) recommendations, of the Network Termination Equipment implementing the Subscriber Access Point, that is also the Service boundary. The Service can be used on the Subscriber Access Points where the required technical conditions (physical pair, distance, etc.) are met.
(5) Interface type provided by the Service Provider: Ethernet 10/100/1000Base-T(X)

1.7.4.1 Non-managed symmetric business internet service in the copper wire subscriber network

	1M	2M	4M	8M
Maximum speed (download/upload, Mbps)	1.00 / 1.00	2.00 / 2.00	4.00 / 4.00	8.00 / 8.00
Minimum speed (download/upload, Mbps)	1.00 / 1.00	2.00 / 2.00	4.00 / 4.00	8.00 / 8.00

1.7.4.2 Non-managed symmetric business internet service in the FTTH (GPON) subscriber network

	10M	20M	30M	50M	60M	100M
Maximum speed (download/ upload; Mbit/s)	10,00 / 10,00	20,00 / 20,00	30,00 / 30,00	50,00 / 50,00	60,00 / 60,00	100,00 / 100,00
Minimum speed (download / upload; Mbit/s)	5,00 / 5,00	10,00 / 10,00	15,00 / 15,00	25,00 / 25,00	30,00 / 30,00	50,00 / 50,00

1.7.5 Guest WiFi internet

(1) Internet access service provided in wireless local network, that is open (public) internet access freely accessible in the coverage area. The Service enables ad hoc service sharing so that the Customer's staff, clients, guests (hereinafter collectively: Guest) can connect with own devices to the wireless local network and the internet.
(2) The Service Provider has no contractual relationship with the Customer's Guests, the Service Provider is not liable directly to the Customer's Guests, the WiFi internet usage by the Guests is allowed by the Customer to its Guests at own liability, the Customer is exclusively and fully liable to its Guests in legal and material terms. Furthermore, the Customer is exclusively and fully liable in legal and material terms to the Service Provider for the activities of its Guests irrespectively of the fact whether the Service is actually used by the Customer or a third person, the service charge must in each case be paid by the Customer to the Service Provider.
(3) The Service Provider excludes its liability for the contents transferred by the Guest while using the WiFi internet.
(4) The wireless local network is constructed on the basis of a technical survey conducted by the Service Provider, at the place of installation specified by the Customer. The service includes installation, operation of the base station operating in the open frequency band, with IEEE802.11 (WiFi) standard (Access point), and of other equipment regulating the use, as requested by the Customer, as well as the internet access service serving these equipment.
(5) Use of the Service requires WiFi-enabled terminal equipment (e.g. mobile phone, laptop).
(6) The wireless local network can be

a.) Public open network to which anyone can connect without any restriction, can be subject to acceptance of usage conditions, when the Customer decides so (landing page);
b.) Public closed network: connection to the network requires a code;
c.) Commercial HotSpot service: connection to the wireless network is subject to charge payment;
d.) Private network: the Customer's network for own use, protected by a secret code, connection to the network requires a password.

More than one wireless local network (SSID) can be created at one site, also by mixing the above options.
(7) Upon connection a randomly selected IP address is assigned to the terminal equipment, that is best-effort, ensures distributed internet access with NAT (network address translation) and basic level firewall function. Communication by the terminal equipment in the wireless local network is not encrypted, the Service does not offer protection to the connected terminal equipment (e.g. virus protection).
(8) Communication via the internet access provided by the Service Provider may be regulated by the Service Provider in the way specified by the Customer. The service is suitable specifically, but not exclusively, for

web browsing, email sending and receiving, accessing social sites and chat applications, teleworking VPN usage.
(9) The virtual Subscriber Access Point is established for the period of the connection by selection of the network ID (SSID) and entering a user name/password and/or acceptance of the usage conditions.
(10) The Service does not include encryption of the Subscriber terminal equipment.
(11) The Service charge depends on the technical solution applied, the charges payable are shown in the Contract.
(12) The maximum speed is **54.00 Mbit/s**.
The minimum download and upload rate is **0.00 Mbps**.

1.8 Services on mobile network

1.8.1 Business mobile internet service

(1) Electronic communications service offered by the Service Provider to Customers under own brand name where the mobile network for the mobile internet service is provided by Yettel Magyarország Zrt. according to a cooperation agreement with the Service Provider. Business Mobile Internet Service is available to Customers exclusively in the territory of Hungary, in Yettel Magyarország Zrt.'s coverage area.
(2) Roaming means mutual use of service in the network of the other party according to agreements between mobile internet service providers. Roaming services within the European Community are governed by Directive 531/2012/EU.
(3) Roaming service is not offered by the Service Provider.
(4) The Service Provider provides the following Services:

	7M (2GB)	**10M (4GB)**	**20M (9GB)**	**30M (20GB)**
Traffic limit	2 GB	4 GB	9 GB	20 GB
Estimated maximum download speed (Mbps)	7.00	10.00	20.00	30.00
Estimated maximum upload speed (Mbps)	1.00	2.00	2.00	5.00
Maximum download and upload speed after the traffic limit is reached (kbps)[1]	32/32	32/32	256/128	256/128
	60 M (24GB)	**150M (50GB)**	**150M**	
Traffic limit	24 GB	50 GB	Unlimited	
Estimated maximum download speed (Mbps)	60.00	150.00	150.00	
Estimated maximum upload speed (Mbps)	5.00	5.00	5.00	
Maximum download and upload speed after the traffic limit is reached (kbps)[1]	32/32	32/32	-	

[1] Usage over the traffic limit is free of charge, the Service Provider sets the maximum speed to the value shown in the table until the first day of the next calendar month.
(5) The minimum download and upload rate is 0,00 Mbps.
(6) Business mobile internet service can be used with mobile devices supporting the HSDPA and HSPA+ standard.
(7) The estimated maximum speed is a nominal value that depends on the availability of the network technology providing the service in the given area, existence of a mobile device supporting it and the current network load.

1.8.2 Machine-to-machine services (M2M)

(1) This electronic communications service provided by the Service Provider to Customers under its own brand name, in the case of which the complex data transmission service (e.g. IPVPN service or backup access) is implemented through a subscriber terminal (router) suitable for this purpose on the mobile network of Yettel Magyarország Plc.
(2) The subscriber terminal equipment is the property of the Service Provider and requires regular network power supply, and in the absence of adequate indoor coverage, it may be necessary to install an external antenna.
(3) The conditions of the M2M services are the same as the Business Mobile Internet service, but they do not include mobility, the Service can only be used on a fixed basis at the installation location specified in the Contract.

1.8.3 Definitions

(1) **Coverage Area:** All areas where the Service can be used on the basis of interoperation with Yettel Magyarország Zrt.'s mobile network. Size of this area is specified on the coverage map refreshed and published as needed.
(2) **Outdoor coverage:** All areas where the Customer can use the Service outside buildings. This is identical with the coverage area. This area can include buildings where the service is available within the building, too.
(3) **Indoor coverage:** All areas where the Customer can use the Service within buildings. The estimated indoor coverage applies to the lowest level of the building that is still above the surface. The structure of buildings and the building materials used greatly impact the reception signal level, therefore estimates are based on an assumed average structure.
(4) **Traffic limit:** The free volume of data traffic included in the monthly fee. The data volume means the sum of data downloaded and uploaded at the Subscriber Access Point, measurement is made by 10 kbyte units. In the case of usage exceeding the data volume included in the monthly fee for flat-rate mobile internet service the maximum speed of the Service is reduced until the end of the calendar month to the level specified in the table for the relevant time zone. If the Service is activated on other than the first day of the given calendar month, the time-proportionate share of the data volume included in the monthly fee can be used for the first fractional month.

1.8.4 SIM card

(1) A card containing data and information needed for using the Service that is used for identification of the Customer within the network. The SIM card containing an integrated circuit remains the property of Yettel Magyarország Zrt., that is cooperating with the Service Provider, even after the Service Provider has delivered it to the Customer for use.
(2) The Service Provider gives the Customer SIM card containing the data used for identification of the Customer in the network.
(3) SIM cards can be used in Hungary only with GMS radio telephones/terminal equipment provided with conformity mark according to applicable standards and laws. The Service Provider reserves the right to lock any phones not meeting the requirements set forth in this section, as well as defective and stolen phones from the network.
(4) **SIM card/Mobile Internet Service activation:** According to the Subscription contract, unless otherwise agreed by the parties, the Service Provider will activate the SIM card and the Mobile Internet Service for the Customer within 5 days of conclusion of the Contract.
(5) **SIM card change:** The Service Provider will change the SIM card free of charge if it gets defective or unusable through no fault of the Customer, or if the SIM card programming is defective. A defective card cannot log in to the Service Provider's network, or the phone may not perceive it. The Service Provider will change the SIM card within 5 working days of receiving the Customer's request. The Customer can request change of the SIM card at the Customer Service.
(6) If the SIM card gets defective, damaged, incapable of normal use through fault of the Customer or otherwise for a reason within the control of the Customer, the Service Provider will not be under the obligation to repair or change the card free of charge.
(7) **SIM card replacement:** If the SIM card gets lost and/or stolen, the Customer must immediately report it to the Service Provider at the Customer Service and at the same time request suspension of the Service. In this case the Service will be suspended from the time of reporting until the SIM card is found or a new SIM card is activated. If the Customer's SIM card has been stolen, after the stealing was immediately reported the Service Provider will disable the SIM card in the network.
In such case the Service Provider will upon request of the Customer provide a new SIM card to the Customer – for an extra charge specified in **Annex 2 to the GTC** (SIM card replacement charge) –, if the Customer does not have billing debt to the Service Provider. In the case of billing debt the SIM card can be replaced only after payment of the debt. The Service Provider will replace the SIM card within 5 working days of receiving the request.

1.8.5 Mobile device

(1) A terminal equipment (modem) enabling connection of the Customer to the mobile network and use of the Service with USB interface, operating in GSM radio connection mode. The mobile device is owned by the Service Provider. The mobile device can be used with personal computer running with the most widely used operating systems (Linux, Microsoft Windows XP -7, Mac OS-X). Specific compatibility issues depend on the device.
(2) Upon request, the Service Provider provides to the Customer mobile device with declaration of conformity to governing standards and laws that can be used with an appropriate SIM card for using the service. After

the expiry of the contractual relationship the Customer must immediately return the mobile device owned by the Service Provider and the SIM card to the Service Provider, at the latest within 30 days.
(3) The Service Provider reserves the right to lock any defective and stolen device from the network.
(4) **Mobile device change:** The Service Provider will change the mobile device owned by the Service Provider free of charge if it gets defective or unusable through no fault of the Customer, or if the mobile device programming is defective. The Service Provider will change the mobile device within 5 working days of receiving the request. The Customer can request the change at the Customer Service.
(5) If the mobile device gets defective, damaged, incapable of normal use through fault of the Customer or otherwise for a reason within the control of the Customer, the Service Provider will not be under the obligation to repair or change the card free of charge.
(6) The Service Provider may charge the cost of mobile device change, defined in the Tariffs Schedule, as well as the cost of delivery, if applicable, to the Customer.
(7) **Mobile device replacement:** If the mobile devices owned by the Service Provider gets lost and/or stolen, the Customer must immediately report it to the Service Provider at the Customer Service and at the same time request suspension of the Service. In this case the Service will be suspended from the time of reporting until the mobile device is found or a new mobile device is delivered and a new SIM card is activated.
In such case the Service Provider will upon request of the Customer provide a new mobile device to the Customer – for an extra charge specified in **Annex 2 to the GTC** (Mobile device replacement charge) –, if the Customer does not have billing debt to the Service Provider. In the case of billing debt the mobile device can be replaced only after payment of the debt. The Service Provider will change the mobile device within 5 working days of receiving the Customer's request.
In the case of delivery the Service Provider will charge the cost of delivery of the mobile device to the Customer.

1.8.6 Active connection interruption

(1) In order to ensure optimal use of network resources, or the correct functioning of online balance information feature and SMS notice the Service Provider may temporarily disconnect the existing connection if during a continuous connection (session) the total data volume reaches **4 GB** (4096 kB). After the disconnection the Customer may start a new connection (session).
(2) The Service Provider may temporarily disconnect the existing connection at midnight on the last day of the billing cycle. After the disconnection the Customer may start a new connection (session).

2. Server Hosting Services

2.1 Server hosting

(1) The Service Provider provides physical space for the placement of server computers provided by the Customer, and upon request of the Customer provides the necessary other supplementary services for their operation.
The basic service provided by the Service Provider will not include monitoring of communications and/or IT servers and equipment, thus the Service Provider will not supervise whether the server and/or IT device is operating or stopped and will not notify this to the Customer.

2.1.1 Server hosting

Size of space provided (width/depth/height):

a.) For placement in shelves: 250 mm x 550 mm x 550 mm
b.) For placement in rack cabinet: 1 unit = 480 mm x 800 mm x 44.45 mm
c.) Rack cabinet dimensions:
  ca.) Invitech DC10 Premium, DC10-III and DC14: 600 mm x 1000 mm x 2,200 mm
  cb.) Invitech DC10 Standard: 600 mm x 1000 mm x 2,000 mm

2.1.1.1 Rack packages

Flat-rate consumption packages[4]	**Bronze Light**	**Bronze**	**Silver Light**	**Silver**
Size	2 unit / 1 machine	2 unit / 1 machine	2 unit / 1 machine	2 unit / 1 machine
Electricity consumption limit	50 W	200 W	50 W	200 W
Internet connection	-	-	1 x 100 Mbit/s	

Metered consumption packages4	Gold 9U[1]	Gold 21U[2]	Platinum[3]	Terület[3]
Size	¼ separated rack unit / 9 unit	½ separated rack unit / 21 unit	1 full rack / 42 unit	Not limited
Internet connection	1 x 100 Mbit/s			-

[1] One complete rack divided into 4 dedicated, separately locked units.
[2] One complete rack divided into 2 dedicated, separately locked units.
[3] For Invitech DC10 Premium, DC10-III and DC14 when the power consumption exceeds 3.5 kW/rack cabinet, while for Invitech DC10 Standard when it exceeds 2,5 kW/rack cabinet the Service Provider will examine whether SLA parameters (air-conditioning and power supply) can be fulfilled, and when it is justified the Service Provider may apply power reservation fee.
[4] In Invitech DC10-III machine rooms only Gold 9U, Gold 21U, Platinum and Area-based location is available.

2.1.1.2 Shelf packages

Flat-rate consumption packages[1]	Bronze Light	Bronze	Silver Light	Silver
Méret	1 PC	1 PC	1 PC	1 PC
Electricity consumption limit	50 W	200 W	50 W	200 W
Internet connection	-	-	1 x 100 Mbit/s	

tered consumption packages[1]	Gold	Platinum
Size	2 shelves / 8-10 PCs (depending on machine dimensions)	1 complete shelf block / 20-25 PCs (depending on machine dimensions)
Internet connection	1 x 100 Mbit/s	-

[1] Not available in Invitech DC10-III machine rooms!

2.1.2 Parameters and connection options of internet service used with the Service:

(1) Parameters of internet service used with the Service:
a.) unlimited data traffic
b.) bandwidth and internet traffic composition defined in server hosting packages or the Contract
ba.) Max. 100 Mbps BIX connection (min. 40 Mbps guaranteed),
bb.) Max. 100 Mbps international connection (min. 1 Mbps guaranteed),
bc.) Internet traffic composition: 90% domestic, 10% international
c.) 1 fixed IP address
d.) 1 domain name registration (.hu)
e.) 1 primary DNS registration

(2) Internet-service types:

No.	Bandwidth	IP address domain	Routing	Available connection modes
1	<=1Gbps	1 out of /24	no	101, 102, 103, 104, 105, 106
2	<=1Gbps	/29 – /26	no	101, 102, 103, 104, 105, 106
3	<=1Gbps	>= /25	BGP (the Service Provider provides the BGP-enabled terminal equipment)	101, 102
4	<=1Gbps	>= /25	BGP (the Customer provides the BGP-enabled terminal equipment)	104, 106
5	1-10 Gbps	/29 – /26	no	111, 112
6	Individual	Individual	Individual	Individual

* Maximum subnet that can be added as a connected domain: /27. In addition to the primary domain, 2 secondary domains can be added, if the size of the /27 subnet is not exceeded.

(3) Connection modes required for using the Service:

No.	Classification*	Connection type	Bandwidth	Interface type	Interface mode	Service transfer point
101	Standard	Single Home	<=1Gbps	T – RJ45	access	Top Rack Switch
102	Non-Standard	Single Home	<=1Gbps	T – RJ45	trunk	Top Rack Switch

No.	Classification*	Connection type	Bandwidth	Interface type	Interface mode	Service transfer point
103	Non-Standard	Single home – Load Balance	<=1Gbps	T – RJ45	access	Top Rack Switch
104	Non-Standard	Dual home – Active/Backup	<=1Gbps	T – RJ45	access	Top Rack Switch
105	Non-Standard	Single home – Load Balance	<=1Gbps	T – RJ45	trunk	Top Rack Switch
106	Non-Standard	Dual home – Active/Backup	<=1Gbps	T – RJ45	trunk	Top Rack Switch
111	Non-Standard	Single home	1-10 Gbps	SR:	access	10G access switch
112	Non-Standard	Single home	1-10 Gbps	SR:	trunk	10G access switch
121	Non-Standard	Individual	Individual	Individual	Individual	Individual

* For Non-Standard connection modes the Customer must previously agree with the Service Provider.

(4) **Bandwidth guarantee:** The Service Provider guarantees for the connections between the Subscriber Access Point and the service provider device installed in the domestic exchange (BIX) and the service provider device installed in the international internet exchange to ensure by appropriate dimensioning and setting of its communications network that the guaranteed bandwidth is in all cases available to the Customer.

The bandwidth guarantee does not cover other networks connecting to the Subscriber Access Point, BIX and international peering.

2.1.3 Entry rights, access right levels

(1) Exclusively the persons with the right specified in **Section 2.6 of GTC**, identified in the Personnel List, may enter the Data Centre for provisioning, repair and maintenance of the Customer's equipment.

(2) When server lease package is used authorised persons may exclusively have Console right for accessing the device leased from the Service Provider even when the Customer has higher access level for the Server Hosting package.

(3) The persons having entry right may have the following right levels:

a.) Console right

Persons with console right may use remote access to the Customer's server, but may not have physical access to the server.

b.) Hardware change right

Persons with hardware change right have console right, additionally may request transport of the server from the server room to the console room where they may perform maintenance and repair work.

c.) Hardware transport right

Persons with hardware transport right may transport the devices from the Data Centre, additionally have Console and Hardware Change right.

d.) Approval right

In addition to rights levels specified in a.) – b.) – c.) authorised persons may also have approval right. With this right the authorised person may modify the Personnel List, the a) – b) – c) right levels specified therein, and may issue temporary entry permit. Approval right may be granted or modified exclusively by delivery of a form with corporate signature.

2.1.4 Electricity consumption and its charging

2.1.4.1 Metered consumption services

(1) In the case of the Gold 9U, Gold 21U, Platinum and Area packages, the Service Provider installs an individual consumption meter and after reading the consumption meter on the **25th of each month**, the actual electricity consumption will be added to the next month's bill.

(2) The Service Provider installs individual consumption meter. In this case the identified packages do not include electricity charge in the package fee, it is not charged with a flat rate, but after consumption meter reading on the **25th** of each month in the next month's bill, on the basis of the actually metered consumption.

(3) Electricity consumption fee:

=Measured consumption * electricity tariff * cooling factor

a.) Measured consumption: monthly consumption based on individual consumption meter

b.) Electricity tariff: the electricity tariff applicable in the Data Centre hosting the Service

c.) Cooling factor: ratio of the total electricity consumption of the Data Centre to the electricity consumption of the IT devices

2.1.4.2 Flat-rate consumptiob services, extra consumption

(1) Silver packages contain an electricity usage limit that can be used up to a specified power limit, the service fee of which includes the cost of continuous power supply for devices with a specified maximum power. If the recorded (in a report) power consumption of the equipment(s) installed by the Customer exceeds the electricity consumption limit specified in the table, the Service Provider will charge an additional fee to the Customer for the electricity consumption exceeding the capacity limit and invoice it as an intermediated service in addition to the service fee.
(4) Calculation of the additional fee for electricity consumption exceeding the capacity limit:

=Exess power * electricity tariff * cooling factor * 730

a.) Exess power: the difference between the electricity consumption limit and the power consumption included in the report according to paragraph (1)
b.) Electricity tariff: the electricity tariff applicable in the Data Centre hosting the Service
c.) Cooling factor: ratio of the total electricity consumption of the Data Centre to the electricity consumption of the IT devices
d.) **730:** number of hours in an average month

2.1.4.3 Cooling factor used for charging

a.) Invitech DC14: 1.7
b.) Invitech DC10-III: 1.5
c.) Invitech DC10 Premium: 1.7
d.) Invitech DC10 Standard: 1.3

2.2 Server hosting and lease

(1) The Service Provider provides physical space for the placement of server computers leased from the Service Provider, and upon request of the Customer provides the necessary other supplementary services for their operation.
(2) The Server lease packages can be used at an Invitech DC10-III or Invitech DC10 Premium place of installation.
The basic service provided by the Service Provider will not include monitoring of communications and/or IT servers and equipment, thus the Service Provider will not supervise whether the server and/or IT device is operating or stopped and will not notify this to the Customer.

2.2.1 Server lease

The available configurations may change based on the actual offer of the Service Provider.

HP servers			
		HP DL360e Gen8	**HP DL380p Gen8**
Rack-based server hosting (precondition)		Invitech DC10 Premium: Bronze, Silver, Gold9U, Gold21U, Platinum or Area Invitech DC10-III: Gold9U, Gold21U, Platinum or Area	
Motherboard		DL 360e G8	DL380p G8
CPU		E5-2420v2 (2.2GHz/6-core/15MB/80W)	E5-2640v2 (2.0GHz/8-core/20MB/95W)
RAM		1 x 8 GB	1 x 16 GB
HDD		2 x 500 GB 6G SATA 7.2K rpm LFF (3.5-inch)	2 x 300 GB 6G SAS 10K rpm SFF (2.5-inch)
Support	Hotline	7 / 24	
	Response time	30 minutes	15 minutes
	Starting fault management	4 hours	1 hour
	Fault repair	within 36 hours	within 6 hours

Available options for HP servers

HDD (SATA)	500 GB 6G SATA 7.2K rpm LFF (3.5-inch)
HDD (SAS)	300 GB 6G SAS 10K 2.5in
	600 GB 6G SAS 10K rpm SFF(2.5-inch)
RAM	8 GB (1x8 GB) Single Rank
	16 GB (1x16 GB) Dual Rank
CPU	Intel Xeon E5-2420v2 (2.2 GHz/6-core/15 MB/80 W)
	Intel Xeon E5-2640v2 (2.0 GHz/8-core/20 MB/95 W)
Cache	512 MB P-series Flash Backed Write Cache
	1 GB P-series Smart Array Flash Backed Write Cache
Power supply unit	460 W Common Slot Gold Hot Plug Power Supply Kit

Adapter	HP Ethernet 1 GB 4-port 331T Adapter
Slot Riser Kit	HP DL380/385 GN 3 slot PCI-E Riser Kit

2.2.2 Supermicro servers

Server lease			
Package		**MicroBlade**	**TwinBlade**
Motherboard		SYS-5038ML-H8TRF	SYS-2027TR-H71RF
CPU		Haswell 4C E3-1230V3 3.3G 8M 5GT/s DMI	2 x Intel E5-2620v2
RAM		8 GB RAM	2 x 8 GB Reg. ECC RAM
HDD		2 x 500 GB SATA HDD	2 x 1 TB HDD 2,5" 7.2K SATA
Support	Hotline	7 / 24	
	Response time	30 minutes	30 minutes
	Starting fault management	4 hours	4 hours
	Fault repair	within 36 hours	within 36 hours

Available options for Supermicro servers

MicroBlade
Haswell 4C E3-1230V3 3.3G 8M 5GT/s DMI
Haswell 4C E3-1270V3 3.5G 8M 5GT/s DMI
8 GB RAM
500 GB SATA HDD
1 TB SATA HDD
TwinBlade
Intel E5-2620v2
Intel E5-2650v2
8 GB Reg. ECC RAM
1 TB HDD 2,5" 7.2K SATA

2.2.3 Entry rights, access right levels

(1) Exclusively the persons with the right specified in **Section 2.6 of GTC**, identified in the Personnel List, may enter the Data Centre.
(2) When server lease package is used authorised persons may exclusively have Console right for accessing the device leased from the Service Provider even when the Customer has higher access level for the Server Hosting package.
(3) The persons having entry right may have the following right levels:

a.) Console right
Persons with console right may use remote access to the Customer's server, but may not have physical access to the server.
b.) Approval right
In addition to Console rights level the authorised persons may also have approval right. With this right the authorised person may modify the Personnel List, and may issue temporary entry permit. Approval right may be granted or modified exclusively by delivery of a form with corporate signature.

2.3 Virtual server lease

Virtual server service is a complex service whereby the Service Provider leases to the Customer the capacity ordered by the Customer of the Service Provider's server placed in the Data Centre, and provides other supplementary services to the Customer which are required for the operation of the virtual server. The server is leased by the Service Provider simultaneously to more than one Customer, the virtual servers do not influence the functioning of each other.

2.3.1 Service ordering

(1) The Customer can specify in the Specific Agreement the parameters used by the Service Provider for installing the virtual server:

a.) Processor (CPU) quantity: number of vCPUs (1 vCPU has a capacity of minimum 2 GHz)
b.) Memory (RAM) size: in 1 GB steps
c.) HDD size: in 1 GB steps
d.) Internet access: 100 Mbps, 1Gbps, no
e.) Virtualisation system: VMWare, Hyper-V

(2) In the case of Virtual Pool service for technical reasons the allocated HDD capacity is by 15% higher than the contracted level. This additional storage space must in each case be left free. Otherwise the Service Provider cannot guarantee the SLA values shown in this Annex.
(3) Maximum virtual server capacity per virtual server:
for Hyper-V virtual server:
a.) Processor (CPU): 8 vCPUs
b.) Memory (RAM): 32 GB
c.) HDD: 5 TB
for VMware virtual server:
a.) Processor (CPU): 8 vCPUs
b.) Memory (RAM): 64 GB
c.) HDD: 5 TB
for VMware Pool virtualisation:
a.) Processor (CPU): 32 vCPUs
b.) Memory (RAM): 192 GB
c.) HDD: 5 TB

2.3.2 Service content and parameters

a.) Virtual server
b.) Unlimited internet data traffic
ba.) Max. 100 Mbps or 1 Gbps BIX connection (min. 30 Mbps guaranteed),
bb.) Max. 100 Mbps or 1 Gbps international connection (min. 1 Mbps guaranteed),
c.) 24/7 Fault Report Service
d.) Server and HDD setup
e.) Virtual server reboot
f.) 1 fixed IP address
g.) 1 domain name registration (.hu)
h.) 1 primary DNS registration
i.) Basic on-site support: The Service Provider will ensure support needed for the operation of the virtual servers 24 hours a day, 365 (366) days a year.
j.) The Service Provider agrees to perform under this Service the following (upon request of the Customer's assigned staff):
ja.) ping testing
jb.) virtual server switch-off, switch-on, reset with remote hands and upon request of the Customer.

2.3.3 Bandwidth guarantee

(1) The Service Provider guarantees for the connections between the (virtual) Subscriber Access Point and the service provider device installed in the domestic exchange (BIX) and the service provider device installed in the international internet exchange to ensure by appropriate dimensioning and setting of its communications network that the guaranteed bandwidth is in all cases available to the Customer.
The bandwidth guarantee does not cover other networks connecting to the (virtual) Subscriber Access Point, BIX and international peering.
(2) The data transfer rate of the (virtual) Subscriber access point is meant at Layer2 (Ethernet) level. The bandwidth available to the Customer includes the data transmission capacity (overhead) required by the protocol used.

2.3.4 Entry rights, access right levels

(1) The persons shown on the Personnel List annexed to the Contract by the Customer may obtain, subject to prior notification, virtual console access in the Console Room located at the Service Provider's premises.
(2) The Service Provider will grant so-called virtual console access, in accordance with the rights level selected by the Customer, to the persons specified in the Personnel List in the Contract, after verification of identity, to the Customer's virtual servers via the internet or personally in the Console Room.
(3) The persons having entry and access right can have the following rights level:
a.) Virtual console access (Data Centre) (**1st level access**)
The Customer's virtual servers can be accessed in the Console Room located in the Data Centre with the use of a virtual console, on IP basis, with KVM functionality. This level enables configuration of the virtual server, installation of operating system and in the case of Virtual Pool package creation of a virtual server.
The IP address, ID and password needed for virtual console address can be received from the operator on duty by the Customer's staff member with virtual console right after activation of the service, in the Data Centre exclusively personally after verification of identity.

b.) Virtual console access (internet) (**1st level access**)
(1) ROOT level virtual console access with which the Customer can via the internet access its virtual server 24 hours a day. It can be used with internet access to the virtual server.
(2) The user name and access details (URL, etc.) needed for login are delivered by the Service Provider by email, while the password is delivered to the Customer's contact person for general issues by phone. The password must be changed upon the first login. The Service Provider will not take any liability for disclosure of login details to unauthorised parties.
c.) Remote desktop connection (**2nd level access**)
Remote desktop or remote ssh access with which the Customer can access via the internet its virtual server 24 hours a day. It can be used with a functional operating system on the virtual server and internet access to the virtual server.
The user name and access details (URL, etc.) needed for login are delivered by the Service Provider by email, while the password is delivered to the Customer's contact person for general issues by phone. The password must be changed upon the first login. The Service Provider will not take any liability for disclosure of login details to unauthorised parties.
d.) Approval right
In addition to virtual right the authorised persons may also have approval right. With this right the authorised person may modify the Personnel List, and may issue temporary entry permit. Approval right may be granted or modified exclusively by delivery of a form with corporate signature.

2.3.5 Operating system types

The Customer must specify in the Specific Agreement the operating system selected from the following table which it will install on the virtual server. The Customer must give prior notice to the Service Provider at least 15 days before installation of another operating system on the server. Should the Customer fail to do so, the Service Provider will not guarantee functioning of the Service according to contract and will not guarantee the quality parameters of the Service.
Operating systems supported by the selected virtualisation server (checked with „x"):

No.	Operating system	VMware	HyperV
1	Asianux 3.0 (32bit)	x	
2	Asianux 3.0 (64bit)	x	
3	Asianux 4.0 (32bit)	x	
4	Asianux 4.0 (64bit)	x	
5	CentOS 4.9 (32bit)	x	
6	CentOS 4.9 (64bit)	x	
7	CentOS 5.x (32bit)	x	x
8	CentOS 5.x (64bit)	x	x
9	CentOS 6.x (32bit)	x	x
10	CentOS 6.x (64bit)	x	x
11	CentOS 7.x (64bit)	x	x
12	CoreOS 557 (64bit)	x	
13	CoreOS 607 (64bit)	x	
14	CoreOS 633 (64bit)	x	
15	CoreOS 647 (64bit)	x	
16	CoreOS 681 (64bit)	x	
17	CoreOS 717 (64bit)	x	
18	CoreOS 723 (64bit)	x	
19	CoreOS 766 (64bit)	x	
20	CoreOS 835 (64bit)	x	
21	Debian GNU/Linux 6.0 (32bit)	x	
22	Debian GNU/Linux 6.0 (64bit)	x	
23	Debian GNU/Linux 7.X (32bit)	x	x
24	Debian GNU/Linux 7.X (64bit)	x	x
25	Debian GNU/Linux 8.x (32bit)	x	x
26	Debian GNU/Linux 8.x (64bit)	x	x
27	eComStation 1.2R (32bit)	x	
28	eComStation 2.0 (32bit)	x	
29	eComStation 2.1 (32bit)	x	
30	FreeBSD 10.x (32bit)	x	x
31	FreeBSD 10.x (64bit)	x	x
32	FreeBSD 7.x (32bit)	x	

No.	Operating system	VMware	HyperV
33	FreeBSD 7.x (64bit)	x	
34	FreeBSD 8.x (32bit)	x	
35	FreeBSD 8.x (64bit)	x	
36	FreeBSD 9.x (32bit)	x	x
37	FreeBSD 9.x (64bit)	x	x
38	Mac OS X 10.6.x (32bit)	x	
39	Mac OS X 10.7.x (32bit)	x	
40	Mac OS X 10.7.x (64bit)	x	
41	NeoKylin Linux Advanced Server 6.x (64bit)	x	
42	NeoKylin Linux Desktop 6.x (64bit)	x	
43	OpenServer 5.0.6 (32bit)	x	
44	OpenServer 5.0.7 Maintenance Pack 5 (32bit)	x	
45	Oracle Linux 4.9 (32bit)	x	
46	Oracle Linux 4.9 (64bit)	x	
47	Oracle Linux 5.x (32bit)	x	
48	Oracle Linux 5.x (64bit)	x	
49	Oracle Linux 6.x (32bit)	x	x
50	Oracle Linux 6.x (64bit)	x	x
51	Oracle Linux 7.x (64bit)	x	x
52	OS X 10.10.x (64bit)	x	
53	OS X 10.11.x (64bit)	x	
54	OS X 10.8.x (64bit)	x	
55	OS X 10.9.x (64bit)	x	
56	Project Photon 1.0 (64bit)	x	
57	Red Hat Enterprise Linux 3.x (32bit)	x	
58	Red Hat Enterprise Linux 3.x (64bit)	x	
59	Red Hat Enterprise Linux 4.x (32bit)	x	
60	Red Hat Enterprise Linux 4.x (64bit)	x	
61	Red Hat Enterprise Linux 5.x (32bit)	x	x
62	Red Hat Enterprise Linux 5.x (64bit)	x	x
63	Red Hat Enterprise Linux 6.x (32bit)	x	x
64	Red Hat Enterprise Linux 6.x (64bit)	x	x
65	Red Hat Enterprise Linux 7.x (64bit)	x	x
66	Red Hat Enterprise Linux Atomic Host 7.x (64bit)	x	
67	Solaris 10 (32bit)	x	
68	Solaris 10 (64bit)	x	
69	Solaris 10 1/06 (Update 1) (32bit)	x	
70	Solaris 10 1/06 (Update 1) (64bit)	x	
71	Solaris 10 1/13 (Update 11) (32bit)	x	
72	Solaris 10 1/13 (Update 11) (64bit)	x	
73	Solaris 10 10/08 (Update 6) (32bit)	x	
74	Solaris 10 10/08 (Update 6) (64bit)	x	
75	Solaris 10 10/09 (Update 8) (32bit)	x	
76	Solaris 10 10/09 (Update 8) (64bit)	x	
77	Solaris 10 11/06 (Update 3) (32bit)	x	
78	Solaris 10 11/06 (Update 3) (64bit)	x	
79	Solaris 10 5/08 (Update 5) (32bit)	x	
80	Solaris 10 5/08 (Update 5) (64bit)	x	
81	Solaris 10 5/09 (Update 7) (32bit)	x	
82	Solaris 10 5/09 (Update 7) (64bit)	x	
83	Solaris 10 6/06 (Update 2) (32bit)	x	
84	Solaris 10 6/06 (Update 2) (64bit)	x	
85	Solaris 10 8/07 (Update 4) (32bit)	x	
86	Solaris 10 8/07 (Update 4) (64bit)	x	
87	Solaris 10 8/11 (Update 10) (32bit)	x	
88	Solaris 10 8/11 (Update 10) (64bit)	x	
89	Solaris 10 9/10 (Update 9) (32bit)	x	
90	Solaris 10 9/10 (Update 9) (64bit)	x	

No.	Operating system	VMware	HyperV
91	Solaris 11 (64bit)	x	
92	Solaris 11.1 (64bit)	x	
93	Solaris 11.2 (64bit)	x	
94	Solaris 11.3 (64bit)	x	
95	SUSE Linux Enterprise Desktop 10 Service Pack 3 (32bit)	x	
96	SUSE Linux Enterprise Desktop 10 Service Pack 3 (64bit)	x	
97	SUSE Linux Enterprise Desktop 10 Service Pack 4 (32bit)	x	
98	SUSE Linux Enterprise Desktop 10 Service Pack 4 (64bit)	x	
99	SUSE Linux Enterprise Desktop 11 Service Pack 1 (32bit)	x	
100	SUSE Linux Enterprise Desktop 11 Service Pack 1 (64bit)	x	
101	SUSE Linux Enterprise Desktop 11 Service Pack 2 (32bit)	x	x
102	SUSE Linux Enterprise Desktop 11 Service Pack 2 (64bit)	x	x
103	SUSE Linux Enterprise Desktop 11 Service Pack 3 (32bit)	x	x
104	SUSE Linux Enterprise Desktop 11 Service Pack 3 (64bit)	x	x
105	SUSE Linux Enterprise Desktop 11 Service Pack 4 (32bit)	x	x
106	SUSE Linux Enterprise Desktop 11 Service Pack 4 (64bit)	x	x
107	SUSE Linux Enterprise Desktop 12 (64bit)	x	x
108	SUSE Linux Enterprise Desktop 12 Service Pack 1 (64bit)	x	x
109	SUSE Linux Enterprise Server 10 Service Pack 3 (32bit)	x	
110	SUSE Linux Enterprise Server 10 Service Pack 3 (64bit)	x	
111	SUSE Linux Enterprise Server 10 Service Pack 4 (32bit)	x	
112	SUSE Linux Enterprise Server 10 Service Pack 4 (64bit)	x	
113	SUSE Linux Enterprise Server 11 Service Pack 1 (32bit)	x	
114	SUSE Linux Enterprise Server 11 Service Pack 1 (64bit)	x	
115	SUSE Linux Enterprise Server 11 Service Pack 2 (32bit)	x	x
116	SUSE Linux Enterprise Server 11 Service Pack 2 (64bit)	x	x
117	SUSE Linux Enterprise Server 11 Service Pack 3 (32bit)	x	x
118	SUSE Linux Enterprise Server 11 Service Pack 3 (64bit)	x	x
119	SUSE Linux Enterprise Server 11 Service Pack 4 (32bit)	x	x
120	SUSE Linux Enterprise Server 11 Service Pack 4 (64bit)	x	x
121	SUSE Linux Enterprise Server 12 (64bit)	x	x
122	SUSE Linux Enterprise Server 12 Service Pack 1 (64bit)	x	x
123	SUSE Linux Enterprise Server 9 Service Pack 4 (32bit)	x	
124	SUSE Linux Enterprise Server 9 Service Pack 4 (64bit)	x	
125	Ubuntu 10.04 (32bit)	x	
126	Ubuntu 10.04 (64bit)	x	
127	Ubuntu 11.04 (32bit)	x	
128	Ubuntu 11.04 (64bit)	x	
129	Ubuntu 11.10 (32bit)	x	
130	Ubuntu 11.10 (64bit)	x	
131	Ubuntu 12.04 (32bit)	x	x
132	Ubuntu 12.04 (64bit)	x	x
133	Ubuntu 12.10 (32bit)	x	
134	Ubuntu 12.10 (64bit)	x	
135	Ubuntu 13.04 (32bit)	x	
136	Ubuntu 13.04 (64bit)	x	
137	Ubuntu 13.10 (32bit)	x	
138	Ubuntu 13.10 (64bit)	x	
139	Ubuntu 14.04 (32bit)	x	x
140	Ubuntu 14.04 (64bit)	x	x
141	Ubuntu 14.10 (32bit)	x	
142	Ubuntu 14.10 (64bit)	x	
143	Ubuntu 15.04 (32bit)	x	x
144	Ubuntu 15.04 (64bit)	x	x
145	Ubuntu 15.10 (32bit)	x	x
146	Ubuntu 15.10 (64bit)	x	x
147	UnixWare 7.1.1 Maintenance Pack 5 (32bit)	x	
148	UnixWare 7.1.4 Maintenance Pack 4 (32bit)	x	

No.	Operating system	VMware	HyperV
149	Windows 10 (32bit)	x	x
150	Windows 10 (64bit)	x	x
151	Windows 2000 (32bit)	x	
152	Windows 7 (32bit)	x	x
153	Windows 7 (64bit)	x	x
154	Windows 8 (32bit)	x	x
155	Windows 8 (64bit)	x	x
156	Windows 8.1 (32bit)	x	x
157	Windows 8.1 (64bit)	x	x
158	Windows Server 2003 (32bit)	x	x
159	Windows Server 2003 (64bit)	x	x
160	Windows Server 2003 R2 (32bit)	x	x
161	Windows Server 2003 R2 (64bit)	x	x
162	Windows Server 2008 R2 (64bit)	x	x
163	Windows Server 2008 (32bit)	x	x
164	Windows Server 2008 (64bit)	x	x
165	Windows Server 2012 R2 (64bit)	x	x
166	Windows Server 2012 (64bit)	x	x
167	Windows Server 2016 (64bit)	x	x
168	Windows Vista (32bit)	x	x
169	Windows Vista (64bit)	x	x
170	Windows XP (32bit)	x	x
171	Windows XP (64bit)	x	x
172	Leased operating system	x	x
173	Virtual Pool	x	x
174	OVA / OVF	x	x

3. Supplementary Services

3.1 Domain name registration and maintenance service

(1) The registration of the domain name may be initiated by the Customer with the Contract concluded for the Internet access Service with the Service Provider by submitting the duly completed and signed domain application form to the Service Provider (Registrar). When performing domain name registration (delegation) and maintenance (representation), the Service Provider will act according to the then applicable domain registration regulations. The regulations are available on the website www.nic.hu operated by the Council of Internet Service Providers.
(2) Delegated domain operation requires that the Customer has Master and/or Slave name servers meeting the domain operating regulations that are owned by the Customer or ordered from the Service Provider with its Domain name server (DNS) service, and other technical conditions.
(3) The condition of delegation is a request form appropriately filled in and signed and submitted to the Service Provider (Registrator) and entitlement to the use of the requested domain.
(4) Domain name registration and maintenance service types:

a.) domestic domain name e.g. (www.)domainname.hu
Domestic domain name registration and maintenance service includes management of registration in the superior .hu domain (delegation) and representation.
b.) International domain name e.g. (www.)domainname.com
International domain name registration and maintenance service includes management of registration in the superior .com; .org; .net; .biz; .info domain (delegation) and representation.
c.) European Union domain name e.g. (www.)domainname.eu
European Union domain name registration and maintenance service includes management of registration in the superior .eu domain (delegation) and representation.

3.2 Domain name maintenance (DNS service

(1) The Supplementary Service includes operation of the Master and/or Slave name servers (DNS) required as a condition of own domain operation, and maintenance of the domain data, that is performed by the Service Provider upon ordering by the Customer.
(2) This supplementary service can be ordered by the Customer on a domain request form.

3.3 Fixed IP address service

When this Supplementary Service is ordered, the Service Provider ensures that with the use of internet a specified IP address or address range is assigned to the Customer's terminal equipment (e.g. computer or router) from the range managed by the Service Provider. The IP addresses identified this way at not allocated to other Service.

3.4 Supplementary Services for protection against denial of service (DDoS) attacks

(1) The system used for protection against DoS (Denial of Service) and DDoS (Distributed Denial of Service) attacks monitors external internet traffic coming in the Service Provider's network towards the Customer, and when this service is ordered filters the traffic on the basis of sampling to protect against potential attacks, while legitimate traffic can flow undisturbed during the period of attacks too.
(2) The Service Provider will start putting into operation of the supplementary service within **5 business days** after the date of the order. The initial period of **45 business days** will qualify as implementation period, while profiling necessary for operation of the service will be made:

a.) Connection of the IP addresses to our DDoS protection system
b.) Connection of Monitoring service, traffic analysis
c.) Setting of the thresholds on the basis of the metered data
d.) Execution of „learn cleaning" on the basis of monitoring of the usage patterns
e.) Analysis of "learn cleaning", prepare and fine tune the "cleaning template" on the basis of the results
f.) Generate username and password for the Service, forward them to the Customer.

(3)The Service will be considered as active protective service after expiry of the implementation period.
(4) The Service Provider identifies the attack source detected within its network and suspends it in accordance with the provisions of **Section 5.3.2 of the GTC.**
(5) Can only be assigned to an internet service with a Fixed IP address.

3.4.1 DDoS monitoring service

(1) The Service Provider monitors the traffic of IP address(es) allocated to the Customer's Service using this Supplementary Service and detects on the basis of sampling DDoS attacks that consume high bandwidth or connection-based DDoS attacks, produces a monthly report on them and sends to the email address specified by the Customer.
(2) The DDoS monitoring service does not include the possibility of intervention, the Service Provider can protect the attack by manually activating the Ad hoc DDoS protection service at the request of the Customer.

3.4.2 Ad-hoc DDoS protection service – up to Layer4 level attack

(1) The Service Provider monitors the traffic of IP address(es) allocated to the Customer's Service and detects on the basis of sampling Layer3 (IP) or Layer4 (TCP/UDP) level DDoS attacks. When an attack is detected, protection is automatically activated within 5 minutes. The traffic temporarily passes through a central filter system (Scrubbing center) placed within the Service Provider's network. The central filter system completely filters the external traffic coming to the Customer and blocks attacking traffic. If the monitoring does not detect any attack, but the Customer assumes a probable application level (Layer7) attack, the Customer can manually activate the protection on the website specified in the Contract or with the involvement of the Service Provider's personnel. The Service Provider routes the traffic for an appropriate period, generally for **6-24 hours,** through the central filter system.

3.4.3 Continuous DDoS Protection service – up to Layer4 level attack

(1) The Service Provider monitors the traffic of the IP address (es) assigned to the Customer's Service and detects Layer3 (IP) or Layer4 (TCP/UDP) level DDoS attacks by sampling. If an attack is detected, the protection will be activated automatically within **10 minutes**. The Service Provider directs the traffic for a suitable period of time, usually for a period of **6-24 hours**, through the central filtering system, which completely filters out the external traffic coming to the Customer and blocks the attacking traffic. The monthly fee for the service that provides automatic protection against an unlimited number of attacks is included in the Individual Agreement.

3.5 Basic level on-site support (First-Line Support)

(1) The Service Provider will ensure support needed for the operation of the equipment placed in the Data Centre **24 hours a day, 365 (366) days a year**. The Service Provider agrees to perform under this Service the following (upon request of the Customer's assigned staff):

a.) performance of ping test,
b.) visual inspection of the accommodated equipment and supply of information to the Customer about the findings (by phone, e-mail, fax),

c.) modification of the equipment status with the help of buttons on the equipment upon request of and according to the instructions given by the Customer (remote hands),
d.) switching on and off and resetting the equipment upon request of and according to the instructions given by the Subscriber (remote hands).

(2) The Service Provider's professionals may not make any repair or test on server, other than those listed above. Should resetting not produce the desired result the Customer may request the Service Provider to switch off the server until the Customer ensures repair.
(3) In the case of server leased from the Service Provider the Customer may request hardware repair of the server and/or in the case of unsuccessful repair its replacement.

3.6 Software lease supplementary service

(1) When server hosting and lease or server virtualisation Service is used, the Customer can lease the following software for a monthly fee for installation on the server used by the Customer.
(2) Simultaneously with the delivery of the Supplementary Service, the Service Provider gives to the Customer also the keys and passwords needed for using the software.
(3) The Service Provider does not take any liability for the functioning of the leased software, for software errors resulting through fault of the software owner or of the Customer.
(4) During the software lease the Service Provider will not give the selected software for exclusively use, the Customer will not obtain ownership right of the software. The Customer may exclusively use the software on the leased or virtual server, no other rights will be granted to the Customer in connection with the software.
(5) The Service Provider will not guarantee any availability in connection with the software lease. The period of software lease will be matched with the term of the Contract.
(6) The following, not exhaustive, list shows the software available for lease:

1	Windows Server Web 2003 32bit	22	SQL Server Web Edition 2005 32bit
2	Windows Server Web 2003 64bit	23	SQL Server Web Edition 2005 64bit
3	Windows Server Web 2003 R2 32bit	24	SQL Server Web Edition 2008 32bit
4	Windows Server Web 2003 R2 64bit	25	SQL Server Web Edition 2008 64bit
5	Windows Server Web 2008 32bit	26	SQL Server Standard Edition 2005 32bit
6	Windows Server Web 2008 64bit	27	SQL Server Standard Edition 2005 64bit
7	Windows Server Web 2008 R2 64bit	28	SQL Server Standard Edition 2008 32bit
8	Windows Server Standard 2003 32bit	29	SQL Server Standard Edition 2008 64bit
9	Windows Server Standard 2003 64bit	30	SQL Server Enterprise Edition 2005 32bit
10	Windows Server Standard 2003 R2 32bit	31	SQL Server Enterprise Edition 2005 64bit
11	Windows Server Standard 2003 R2 64bit	32	SQL Server Enterprise Edition 2008 32bit
12	Windows Server Standard 2008 32bit	33	SQL Server Enterprise Edition 2008 64bit
13	Windows Server Standard 2008 64bit		
14	Windows Server Standard 2008 R2 64bit	34	Ubuntu Linux 32bit
15	Windows Server Enterprise 2003 32bit	35	Ubuntu Linux 64bit
16	Windows Server Enterprise 2003 64bit	36	Suse Linux 32bit
17	Windows Server Enterprise 2003 R2 32bit	37	Suse Linux 64bit
18	Windows Server Enterprise 2003 R2 64bit	38	Debian Linux 32bit
19	Windows Server Enterprise 2008 32bit	39	Debian Linux 64bit
20	Windows Server Enterprise 2008 64bit		
21	Windows Server Enterprise 2008 R2 64bit	40	Other

3.7 Operating system and/or application operation supplementary service

(1) With this Supplementary Service the Service Provider agrees to operate the operating system and/or applications.
(2) Conditions of providing the service

a.) The operating system operation service is provided by the Service Provider exclusively for the operating system installed by it on the leased server provided by it.
b.) The Customer may only in justified case, after having agreed with the Service Provider's personnel responsible for operation, access the server with restricted rights: administrator rights may be held only by the Service Provider's personnel!
c.) Application operation can be provided only if the Service Provider is responsible for operating the operating system on which the application is running.
d.) General operation responsibilities:

da.) log gathering, ad hoc log analysis
db.) development proposals
dc.) rights management

de.) performance of administration tasks
df.) installation of security upgrades

(3) Detailed description of this Supplementary Service is shown in the Specific Agreement.

3.8 Premium on-site support supplementary service

(1) With this supplementary service the Service Provider agrees to perform, when specifically ordered, the following tasks:

a.) Hotswap HDD replacement,
b.) Hotswap power supply unit replacement,
c.) replacement of external drives, pendrives, HDDs,
d.) mounting and dismounting devices in the Customer's rack (for devices not exceeding **3 Units** height and/or **20 kg** weight),
e.) cabling between the ports of specified devices.

(2) Orders can be placed:

a.) by phone on the freephone number **06 80 911 014** in menu item 2
b.) by email at adatkozpont@invitech.hu

(3) The Service Provider will accept orders only from persons in the Personnel List having Hardware change and Hardware transport right. This Supplementary Service is available in the Invitech DC14 Professional data centre exclusively during working hours.
(4) The tasks ordered can be performed if the devices (e.g. HDD, cables, etc.) are unambiguously labelled. The Service Provider will not take any liability for damages resulting from incorrect task definition (e.g. incorrect labelling of HDD or cable) or malfunctioning of the replacement devices.
(5) As part of this Supplementary Service, the Service Provider provides to the Customer a metal cabinet with lock for the storage of replacement components (dimensions: **500 x 500 x 400 mm**). The Customer is responsible for setting up the stock and regularly transporting away the devices scrapped or replaced. The Service Provider is required to replace devices only from the Customer's stocks.
(6) The supplementary service fee is charged on the basis of the number of cases. Accordingly, all tasks listed in this section, ordered and performed will be deemed as separate cases, irrespective of whether the Customer gives a combined order or separate orders. An exception is switch replacement that is charged by the Service Provider as two cases.
(7) If the number of cases performed by the Service Provider exceeds in one month the number of cases agreed in the Contract, the Service Provider may charge for the excess usage.
(8) The Service Provider's professionals are not required to make any repair, mounting or test in addition to the activities listed in this section.

3.9 Veeam-based backup supplementary service

This service is provided with the use of the Veeam® Software product, primarily provides system image based backup of virtual machines (hereinafter: VM) with the following solutions:

a.) with „Backup and Replication" type backup the VM for backup runs in the Service Provider's server virtualisation service,
b.) with „Cloud Connect Backup" type backup the VM for backup runs in the Customer's own environment, where a replica can be made with the functional Veeam Backup and Replication environment to a remote repository.

3.9.1 Backup and Replication

(1) It can be used for backup of a virtual machine running in the virtualisation service of the server provided by the Service Provider. The backup can be used for virtual server and virtual pool, for both VMware and Hyper-V based virtualisation. Backup of virtual machines is stored on a disk system, the service does not include storage on tape.
(2) In default case this Supplementary Service does not guarantee that the data for backup and their backup will be stored on different storage servers. Upon specific request storage on different storage server and/or at different site is also possible.
(3) With this Supplementary Service two Veeam applications with partly differing functionality will be used:

a.) Standard edition,
b.) Enterprise edition.

(4) Functions provided by each edition:

	Function	**Standard**	**Enterprise**
Back-up	Full, image-based VM backup	x	x
	Microsoft Active Directory (2003 SP2+)	x	x
	Microsoft Exchange (2010 SP1+)	x	x

	Function	Standard	Enterprise
	Microsoft SQL Server (2005 SP4+)	x	x
	Microsoft SharePoint (2010+)	x	x
	Oracle DB (11g, 12c)		x
	VeeamZIP (ad-hoc backup in separate file)	x	x
	Encrypted backup	x	x with lost password protection
Recovery	Full VM reloading (to the original place or temporarily in addition to it)	x	x
	Individual VM file (configuration file, virtual disk) reloading	x	x
	File level reloading (for the supported, non-encrypted file systems)	x	x
	Microsoft Active Directory	Individual user or computer object in LDIFDE format	Several objects and containers, GPO, AD integrated DNS record reloading*
	Microsoft Exchange	Mailbox restoration (depending on object type in msg or pst format)	x*
	Microsoft SQL Server	to Point in time export file	Agentless transaction log backup and reloading, transaction level SQL object reloading (tables, stored procedures, …) to the original place or on a new SQL server*
	Microsoft SharePoint	Depending on object type, site, element reloading in original format and/or DAT/XML format	Complete site, site collection reloading*
	Oracle DB	-	Complete database reloading, agentless, transaction log backup and reloading, transaction level database reloading to the original place or on a new SQL server*

*In some cases recovery can be done also to the original place.

(5) The recovery functions available in the Enterprise edition can be provided only subject to fulfilment of certain conditions, such conditions are, not exclusively:

a.) granting the necessary administrator right to the Service Provider,

b.) direct LAN connection is needed between the backup system and the productive environment; establishment of the connection is not included in the Veeam-based backup service,

c.) a temporary server with identical version as the server/application associated with the object to be recovered; it is not part of the Veeam-based backup service.

(6) The following information must be supplied for the provision of this Supplementary Service:

a.) list of VMs/resources for backup (service ID and/or VM name)

b.) frequency of backup (every hour, day, week, …)

c.) number of retention points

d.) optionally:

da.) preferred period for performing the backup

db.) if different backup type is requested for some VMs/resources, the relevant details (e.g. only system disk backup is requested)

(7) The product of the number of retention points and the frequency of backup is the time of the oldest status backed up (RPO): e.g. with **1-hour** frequency of backup, **24 retention points** the oldest data available is 24-hour old or with weekly frequency of backup and **4 retention points 1-month** old status can be retrieved.

(8) During the running of backup tasks the first backup results in a complete backup, while each additional run generates a new increment. When the given retention point is available, later after the generation of a new increment the complete backup and the oldest increment are merged.

(9) The service provider is responsible for configuration of backups, running the backup and the recovery function. The Customer may not obtain access to the backup system.
(10) Backups will be created with the following conditions:
a.) changes made then deleted between two backups will not be backed up,
b.) backups ensure reloading the data accessible during the backup,
c.) if the Customer fails to make a statement on the frequency of backup, backup will be done with weekly frequency, with 4 retention points,
d.) the target interval for the performance of backups is every day **from 10.00 p.m. to 6.00 a.m.**
(11) Unless the Customer determines a different preferred backup window, the Service Provider will perform the backup tasks in this period, but using a different period will not be deemed as faulty performance.
(12) List of components included and not included in the Supplementary Service

Included in the service	Not included in the service
• Configuration of backup tasks based on the parameters specified by the Customer • Running the backup tasks • Supply of information about the status of backups • Performance of reloading • Storage of data • Operating the backup environment	• Providing a self-service interface • Checking the quality of the data backed up* • Performing reloading tests • During reloading providing additional resources, in addition to the resources specified in the original server virtualisation service

* For an initially damaged, defective file system, damaged OS reloading can be successful, but the quality of the reloaded data are not acceptable for the Customer.
(13) Responsibilities connected with operation and other tasks associated with the Supplementary Service

Task	Service Provider	Customer
Determining the parameters of the backup tasks	C	R
Configuration of backup tasks	R	-
Supply of information about the status of backups	R	-
Performance of reloading	R	C

(R=Responsible, C=Contributes)
(14) Service limits

Indicator	Quantity limit	Quantity unit
Number of recovery cases per day	2	pcs
Number of recovery cases per month	4	pcs

3.9.2 Cloud Connect

(1) It can be used for backup of virtual machines running in the infrastructure operated by the Customer, if the Customer has a Veeam Backup and Replication based backup system too.
(2) The Customer obtains access to the Cloud Connect environment operated by the Service Provider and can with own right place backups in that space as remote storage space. The Service Provider provides in default cases **100 Mbps** bandwidth for using the service at the access point.
(3) The following details need to be specified for access to the repository:
a.) service access point: DNS name or IP address, port number,
b.) server certificate ID,
c.) user name (identical with service ID: CB1Axxxx)
d.) individual password
(4) The Customer can configure the service, with the data specified by the Service Provider, in its own Veeam Backup and Replication environment with the following steps:
a.) Backup Infrastructure -> Service providers -> Add service provider…
Running Wizard with specification of the necessary parameters
b.) Backup Infrastructure -> Backup Repositories: check whether the required cloud type backup repository is available
c.) Backup and Replication: configuration of new or existing backup jobs and/or backup copy jobs with the use of the new cloud repository.
(5) With this Supplementary Service the Service Provider provides the necessary infrastructure at its service access point. The Customer has access to the service provider environment only through access to the repository, has no further rights.
(6) With this Supplementary Service the Customer can use the service with own right, according to its needs. The Customer can upload data to the repository from the resources configured by him/her, with the schedule

configured by him/her. Reloading the uploaded data can also be performed independently, without contribution by the Service Provider. (If the infrastructure necessary thereto is available.)
(7) Data uploaded to the repository can be encrypted, that can be configured by the Customer without contribution by the Service Provider. (The Customer is responsible for storing the key used for encryption at a safe place.)
(8) For the use of this Supplementary Service use in the Customer's system of a version that is maximum **2 versions** earlier than the current Veeam Backup and Replication version is supported.
(9) The Service Provider is operating its own environment with the last main version provided by the developer that is generally available.
(10) List of components included and not included in the Supplementary Service

Included in the service	Not included in the service
• Providing access point • Providing storage space • Granting the necessary right • Storage of data • Operating the backup environment	• Configuration of the Customer's backup system • Configuration of backup tasks • Running the backup tasks • Performance of reloading

(11) Responsibilities connected with operation and other tasks associated with the Supplementary Service

Task	Service Provider	Customer
Providing access point	R	-
Providing storage space	R	-
Granting the necessary right	R	-
Configuration of the Customer's backup system	-	R
Configuration of backup tasks	-	R
Running backup tasks	-	R
Performance of reloading	-	R

(R=Responsible, C=Contributes)
(12) Service limits

Indicator	Quantity limit	Quantity unit
Number of concurrent connections	2	pcs
Bandwidth*	100*	Mbps

* The bandwidth available during data transfer is meant at Layer2 (Ethernet) level, which includes data transmission capacity (overhead) required by the protocol used.

3.10 Firewall supplementary service

(1) This Supplementary Service is an internet firewall service operating at the Service Provider's central site, implemented on Cisco vASA platform with Layer3 – Layer4 level, that can function in packet filtering or routed operating mode. The Supplementary Service can be used with multi-level structure:
a.) basic level service with default setting and optional settings,
b.) premium level service with individual IP addressing and individual policies that can be specified in the Specific Agreement.
(2) The basic or premium level parameters set (DMZ, access lists, address translation rules, etc.) can be specified in the Specific Agreement or modified by appropriately filling in and submitting the data sheet provided by the Service Provider.
(3) The Service Provider will within **2 working days** of receiving the data sheet check the data and perform the setting. In the case of incorrect data sheet the setting will not be made, the Service Provider will reject the request and calls on the Customer to provide the missing parameters or correct the incorrect parameters.
(4) Premium level service can be used on the basis of individual survey and proposal.
(5) With this Service during logging logs with warning severity or more serious severity are collected, and upon request provided for the last maximum **1-year** period within 5 **working days** in the way requested by the Customer, in electronic form.
(6) This Service includes setting on **3 occasions** per month up to **10 parameters** free of charge for configuration modification.
(7) Packages available:

Firewall	UDP capacity	Mixed capacity
Cisco ASAv5	100 Mbps	50 Mbps
Cisco ASAv10	1 Gbps	500 Mbps

Firewall	UDP capacity	Mixed capacity
Cisco ASAv30	2 Gbps	1 Gbps
Cisco ASAv50	10 Gbps	5 Gbps

The specified transmission capacity figures are values given by the manufacturer, measured with UDP packets, in ideal circumstances, and with mixed TCP/UDP traffic (e.g. HTTP, SMTP, FTP, IMAPv4, BitTorrent and DNS).

3.10.1 Basic level service

(1) Unless other parameters are specified during contract conclusion (data sheet), the Service Provider applies the following default settings:

a.) 1 internal interface set with security level 100 for the 192.168.1.0/24 private IP domain
(in the internal network the default gateway is the first IP address of the domain that can be allocated, i.e. 192.168.1.1)
b.) 1 DMZ interface for the 192.168.2.0/24 private IP domain
c.) in the DMZ network the default gateway is the first IP address of the domain that can be allocated, i.e. 192.168.2.1)
d.) DHCP server on the internal interface between the IP addresses 192.168.1.10 – 192.168.1.100
e.) 1 external interface with security level 0, to which 1 public IPv4 address is statically allocated from a pool
f.) 1 „source object NAT" policy that translates the internal domain source addresses to the firewall external interface IP address
g.) Internet can be accessed from the internal domain by translating the traffic to the statically allocated public address (NAT) with static routing setting, that means default exit to the internet
h.) MTU value is 1500 bytes on all interfaces
i.) dedicated management interface with management-only setting (ssh, snmp, syslog, ftp, tftp, netflow)

(2) Optional settings:

a.) modification of internal IP address domain, IP domain differing from the default setting on the inside interface,
b.) creation of individual access lists
c.) DMZ generation by specification of the service parameters (port) intended to be published

3.10.2 Premium level service

(1) With premium level firewall service the Customer can request further functions in addition to the basic level service components. Key features of the premium level service:

a.) More than one internal interface
b.) Structure with more than one DMZ
c.) More than one public IP address
d.) Individual policy
e.) Individual NAT rules
f.) Enhanced level log analysis
g.) Failover operation
h.) Dynamic routing
i.) AD integration

(2) Definitions:

„Security level": a value associated with the interface that can be in the range 0-100. In default case the firewall enables traffic from higher security level to lower security level, while disables traffic from lower to higher.
„NAT": Network Address Translation, i.e. translation of network IP address, that enables the change of source or destination IP address in the traffic going through the firewall.
„MTU": Maximum Translation Unit, i.e. the largest permitted packet size on the given interface, including the header.
„DMZ": Demilitarized Zone, i.e. an interface or domain where the resources need to be placed to which access from both the external and the internal domains must be ensured.
„DHCP": Dynamic Host Configuration Protocol, that enables hosts connected to the network to automatically receive valid IP settings for the given network segment.
„Port Forwarding": when the service is published it is possible to publish on the firewall's public outside interface address an application running on an internal server or DMZ, even to enable it from restricted source addresses.

(3) List of components included and not included in the Supplementary Service

Part of basic level service	Part of premium level service	Not included in the service
• Cisco ASA virtual firewall operation • 1 internal interface • 1 DMZ interface • 1 external interface • Monitoring, maintenance of the devices included in the service, in the case of a defect its replacement • Performing an upgrade in the case of software vulnerability • Stateful operation • Generation of basic or even individual access lists • Port Forward • Static routing • Backup of log files • Compliance with protocols (http, smtp, esmtp) • ICMP inspection • Configuration modification on 3 occasions per month, with max. 10 elements, free of charge	In addition to the basic service: • More than one internal interface • Structure with more than one DMZ • More than one public IP address • Individual policy • Individual NAT rules • Enhanced level log analysis • Failover operation • Dynamic routing • AD integration	• IPS/IDS functions • Malware protection • URL-based filtering • L2 transparent operating mode

(4) Responsibilities connected with operation and other tasks associated with the Supplementary Service

Task	Service Provider	Customer
Guaranteeing the contracted service parameters for the network	R	C
Firewall operation, monitoring, fault repair	R	C
Maintenance scheduling	R	C
Providing servicing windows beyond working hours (10.00 p.m. to 6.00 a.m., at least once a week)	R	C

(R=Responsible, C=Contributes)

3.11 Virtual firewall supplementary service

(1) The supplementary service is virtual firewall service implemented on Sophos platform.
(2) The Service Provider provides access to the web platform via the internet in order to monitor the Customer's virtual firewall device. The systems required for the Virtual Firewall service are operated and maintained by the Service Provider and by the web platform provider.
(3) Service level (SLA) options

Task type	Service period	Response time	Start of the solution	
			Fault management	Configuration demands
SLA Premium 9-17	9:00-17:00*	15 minutes	within 1 working hour	within 4 working hours
SLA Advanced 9-17	9:00-17:00*	15 minutes	within 4 working hours	within 8 working hours
SLA Basic 9-17	9:00-17:00*	15 minutes	within 8 working hours	within 24 working hours
SLA Premium 0-24	0:00-24:00	15 minutes**	within 1 hour	within 4 hours
SLA Advanced 0-24	0:00-24:00	15 minutes**	within 4 hours	within 8 hours
SLA Basic 0-24	0:00-24:00	15 minutes**	within 8 hours	within 24 hours

* On working days
**Outside working hours 30 minutes
(4) Service limits – operation limits

Option	Content	Service limit
Operation (Firewall)	Operation and configuration requests	1 hour/ month
Operation (Firewall+UTM)		3 hour/ month
Operation Standard Plus (option)		Included in the package + 1 hour
Operation Advanced Plus (option)		Included in the package + 3 hours
Operation Premium Plus (option)		Included in the package + 5 hours

(5) Operation and configuration requests
a.) Create / delete firewall rule
b.) Question concerning firewall

c.) Change firewall rule
d.) Create / delete network (IP address, route)
e.) Change network (IP address, route)
f.) Question concerning network settings
g.) Create user VPN access
h.) Change / revoke user VPN access
i.) Question concerning user VPN settings
j.) Question concerning remote site connection settings
k.) Create / delete remote site connection (Site-to-site VPN)
l.) Change remote site connection (Site-to-site VPN)
m.) Question concerning remote site connection settings

(6) List of components included and not included in the supplementary service

Included in the service	Not included in the service
• Provision of high availability web platform • Management of fault reports (provision of trouble ticket management system) • Management of operation, configuration requests	• Internet access • Installation, configuration and operation of client-side backend system components and provision of the necessary licenses (ActiveDirectory, Exchange) • Direct support of the endusers • Operation of mobile devices • On-site work

(7) Responsibilities associated with the operation and other tasks for the supplementary service

Task	Service Provider	Customer
Firewall configuration changes on the order of the Customer	R	C
Firewall configuration changes by the Customer	-	R
Provision of the infrastructure elements needed for accessing the service e.g. network, internet	-	R
Provision of Customer-side IT professional	-	R
Operation of firewall service, platform	R	-
Provision of access for the Customer	R	C
Development of Customer-side business processes, related regulations	-	R

(R=Responsible, C=Contributor)

3.12 Virtual server expansion on-line

(1) Expansion of the current virtual server configuration may be ordered by the completion of the form available in our Customer Portal website https://ugyfelportal.invitech.hu/, up to the quantity limit imposed for each order, provided in the table. Any ordered expansion, if compliant with the conditions of ordering, shall be fulfilled by the Service Provider within **3 working days**, with the condition that no new expansion or reduction shall be initiated at the Customer Portal within **15 days**. The Service Provider will charge the outstanding fee of the modified configuration according to the unit prices provided in **Annex 2 to the GTC**, in the next invoice. In the case of a virtual pool, RAM expansion will also involve storage expansion, according to the extent of the RAM expansion. In the case of storage expansion, the Service Provider shall change the supplementary service fee of the ordered Veeam-based backup, proportionately with the increased storage space.

	Ordering unit
Virtual server CPU extension (vCPU/db)	4
Virtual Pool (VMware) CPU extension (vCPU/pcs)	8
Virtual server RAM extension (/GB)	16
Virtual Pool (VMware) RAM extension (/GB)	32
Economic tier storage extension (/GB)	1 000
Balanced tier storage (HDD) extension (/GB)	1 000
High performance tier storage (SSD) extension (/GB)	1 000
SSD extension (/GB)	500
HDD extension (/GB)	1 000
SAS extension (/GB)	1 000
NLSAS extension (/GB)	1 000
SATA extension (/GB)	1 000

(2) The virtual server may be expanded up to the virtual server capacity defined for the given architecture (VMware, HyperV, Virtual Pool) in section 2.3.1.

4. Value-added operator services

4.1 Expert consulting

(1) In order to make its connecting network, equipment capable of using the service the Customer can receive help from the Service Provider's experts. Consulting can be requested by the Customer during normal business after the end of the fault repair process too, if the Parties found without any doubt during the fault repair that the fault occurred in the Service Provider's network or through its fault, but not in connection with the Service.
(2) Expert consulting can be requested exclusively in the cases when the Service Provider offered it in the form of a detailed proposal to the Customer and the Customer's authorised representative explicitly orders it.
(3) The service can be ordered at the Service Provider's Customer Relations Points. If the service is ordered after the end of the fault repair process, the Customer or its authorised representative can order it by phone too on the Fault Report Service numbers.
(4) The Expert consulting fees, the surcharge for urgent cases are shown in **Annex 2 to GTC**. These fees are charged for each started hour, based on the Service Provider's verified expenditure of time. If consulting requires visiting the site, a visiting fee is charged in addition to the hourly fee.
(5) The charge of consulting is paid also when it is not successful due to the particularities of the Customer's network, insufficient information or rights level.
(6) During the consulting the Service Provider is responsible exclusively for the activity specified in the proposal. The Service Provider will treat personal or business data disclosed to it during the consulting confidentially.

4.2 Overtime work

(1) The Customer can request the Service Provider to perform service provisioning or supplementary services ordered during the provision of the Service beyond normal working hours, in a way and at a time agreed at least 14 days earlier.
(2) The fees charged for overtime work on working days or on holidays are shown in **Annex 2 to the GTC**, that is calculated on the basis of the Service Provider's verified expenditure of time, the Expert consulting hourly fee, for each started hour. The charge is paid in addition to the one-off provisioning fee or the fee for the operator service ordered (if any).
(3) The Supplementary Service can be ordered at the Service Provider's Customer Relations Points.
(4) The fee for overtime work is paid also if

a). working started in working hours, but was protracted for a reason within the control of the Customer, for the period of overtime work, or if

b.) the service ordered cannot be performed due to the particularities of the Customer's network, insufficient information or rights level.

4.3 Backup access, redundant structure

(1) In order to increase the availability of the data transmission service used it is possible, subject to individual technical survey, to construct to the same endpoint a main and a backup subscriber section (access) on different routes, with identical (redundant) or different (back-up) technology. With the construction of backup access the Service Provider not only provides two basic services independently of each other, but also interconnects with the installation of an appropriate terminal equipment the main access with a backup access and constructs this way the Subscriber Access Point. In the case of defect of the main access switchover is automatically done by the terminal equipment, thus the Subscriber Access Point remains accessible also when the main access gets defective.
(2) Backup access types:

a.) Backup ADSL/VDSL/FTTH access

The backup access is constructed with broadband ADSL/VDSL/FTTH technology with normal availability, on data connections with asymmetric data transmission speed.

b.) Backup mobile internet

The backup access is constructed on mobile internet access with normal availability.

c.) Leased line

The backup access is constructed on data connection with high availability, with symmetrical data transmission speed.

(3) Upon ordering by the Customer, subject to individual technical survey, it is possible to construct to the same endpoint two independent basic services in a redundant way, on different routes, thus it is not deemed to be backup access. The Service Provider will, if possible, schedule suspension associated with maintenance for different period.

4.4 Service Monitoring System

(1) The Service Monitoring System enables continuous online monitoring on a web interface of the endpoints of Carrier Ethernet-based L2VPN services.
(2) The Service Monitoring System is available after login by the Customer or the User on the website https://monitoring.invitech.hu.
(3) The user IDs (user name, password) are generated and delivered to the Customer's contact person by the Service Provider. After delivery the Customer is responsible for keeping the confidentiality of the user IDs.
(4) The technical SLA parameter measured by the Service Monitoring System shows the technical availability of the Service, indicates the operational capacity of the connection between the devices used for provision of the Service and the endpoints. The technical SLA does not cover the influence of the Customer or any other external factor on the Service compliance, therefore the Subscriber cannot make a claim for penalty to the Service Provider on the basis of the technical SLA. The Customer is entitled to penalty due to faulty performance of the Service only when the fault was reported according to the procedure described in **GTC Bodytext Chapter 6**.
(5) Monitoring of basic level parameters is free of charge for all Carrier Ethernet-based L2VPN services, when an extended parameter list is applied, the charge specified in the Contract is paid for the use of the supplementary service.

4.5 Migration

(1) In order to ensure replacement, integration of its existing network with the use of the Service Provider's services, to make its connecting network, equipment capable of using the service the Customer can use the Service Provider's service.
(2) The Service Provider manages the complete Migration project.
(3) The service can be ordered at the Service Provider's Customer Relations Points.
(4) The charge for the Migration is individually determined by the Service Provider on the basis of the resources expected to be needed, and may modify it during the project.
(5) The charge for the Migration is paid also in the case when
a.) the Migration is delayed for a reason within the control of the Customer, or
b.) the service ordered cannot be performed due to the particularities of the Customer's network, insufficient information or rights level.

4.6 Data entry in the Customer's invoice management system

(1) The Service Provider will, upon ordering by the Customer, enter the details of the invoice issued by it in the Customer's invoice management system within 5 working days of the invoice date.
(2) The Customer must provide to the Service Provider a Hungarian language documentation on its invoice management system, and specify the user data and data security conditions required for login.
(3) The Service Provider will not be liable for delay or failure of data entry due to a fault or unavailability of the invoice management system or for any other reason not attributable to the Service Provider.
(4) The invoice issued by the Service Provider is used as accounting document concerning the Customer's charge payment obligations. During data entry a copy of the invoice with the original image is attached.

5. Other services

5.1 Storage service

(1) The Service Provider will, upon order by the Customer, or after expiry of the Contract, if the Customer fails to transport away its devices, place and store the Devices with the greatest care expected from it in its store room located in its Data Centre on a shelf system with appropriate load-bearing capacity, in the position assigned by the Service Provider.
(2) The Customer may request storage of Devices for which it can guarantee that the Devices are free of all liens, claims and encumbrances, and that no third party has any right or claim concerning the Devices that could hinder the provision of the Service.
(2) When the Devices are located in the Data Centre, dismounting and transport will be performed by the Customer with the contribution of the Service Provider. Entry is subject to prior permission as defined in **GTC Bodytext Section 2.6**, after identification of the person authorised to enter (Temporary Entry Permit or Personnel List).
(3) The Parties will take a **Delivery-Acceptance Report** on the delivery of the Devices, the Service Provider will be liable for risks of damage.
(4) The Service Provider will not obtain ownership right of the Devices placed, will not be entitled to use, alienate, provide for use by third party, lease the Devices.

5.2 Integrated WIFI-Camera and streaming service

(1) The primary objective of the solution provided in the frame of the Service is to make continuous live image records of the site of installation and provide wireless internet access based on 4G/LTE radio interface. The service includes provision of live picture with light-sensitive IP camera, and insertion of the pictures to one web-site specified by the Customer. If required, the system will automatically generate time lapse videos at the end of each day from the captures which the Service Provider will make available for downloading to the Customer as agreed in advance by the Parties.
(2) The data transmission connection required for using the service will be operated on 4G/LTE mobile internet access, the necessary SIM card is contained in the equipment. In case the mobile internet access it not available at the given site, or its technical features are changed and provision of the service becomes impossible the Parties will initiate negotiations with each other. In case the Service Provider is not able to offer an alternative technical solution the Service Provider is entitled to terminate the Contract with immediate effect without legal consequences.
(3) Elements included in the Service

a.) Delivery of the system, putting into operation at the site of installation
b.) Provision of network access
c.) Provision of wireless access: if requested
d.) Motion picture archiving
e.) Continuous streaming for the storing of motion pictures (not available for the Basic package)
f.) 7/24 continous monitoring
g.) Service Time: from **8-17 hours on workdays**

(4) The Customer shall be responsible for providing **230 V** grid voltage that is required for the functioning of the Service.
(5) In case a camera is installed under the Service which is capable of monitoring, the Customer will apply proper marking for the area monitored by the camera by taking into consideration the angle of view, and provide appropriate information to the affected parties about the operation of the electronic monitoring system. In particular, information should be provided about the purpose of making and storing video and voice records, about the legal basis of processing personal data, the place of archiving of the records, the period of archiving, about the system operator, the recipients who are authorised to access such data, furthermore about the provisions of act on the right for informational self-determination and freedom of information, on the rights of the data subjects, and the rules of enforcement on the basis of **Szmtv**. These provisions are for information only, the Customer is responsible for learning the content of the data protection regulations.
(6) The Customer will process the images and time lapse video records generated under the service according to the regulations. The Service Provider will not answer towards the Customer for the legal consequences of improper data processing.
(7) On the basis of the functionalities of the device provided by the Service Provider, the device is capable of sharing the local network of the Customer and provide **Guest WIFI internet service** under the conditions and in the manner described in **Section 1.7.5**.
(8) Aavailable packages and their parameters

Package name and package parameters	**Basic**	**Hotspot**	**Standard**	**Pro**
WiFi specification	• 802.11 b/g/n – 2,4 GHz 2x2 MIMO • 1000 mW output power • Omnidirectional 3.5 dBi	• 802.11 a/b/g/n/ac – 2,4 GHz + 5 GHz • 1000 mW output pwr. 2 Ghz • Omnidirectional 3.5 dBi • 1500 mW output pwr. 5 Ghz • Omnidirectional 3.5 dBi • Cloud based management • Band Steering	• 802.11 b/g/n – 2Ghz 2x2 MIMO • 1000 mW output power • Omnidirectional 3.5 dBi	• 802.11 a/b/g/n/ac – 2,4 GHz + 5 GHz • 1000 mW output power at 2 GHz: • Omnidirectional 3.5 dBi • 1500 mW output power at 5 GHz: • Omnidirectional 3.5 dBi • Cloud based management • Band Steering
Proposed maximum number of clients	30	200	30	200
Network interfaces and connecting interfaces	10/100Base-T (LAN)	-	10/100Base-T (LAN)	2 db 10/100Base-T / 2 db SFP (LAN)
Network supply	230 V/passive PoE 24V	230 V	230 V/passive PoE 24V	230 V
Camera	-	-	HD / FullHD	
Camera viewing angle	-	-	36-100° (adjustable with motor)	
Video records storage	-	-	Cloud-based: 3 working days, maximum 60 days	

Package name and package parameters	Basic	Hotspot	Standard	Pro
Streaming service parameters	-	-	2.5 Mbps stream Maximum 1000 simultaneous viewers	
„Smart" functions	-	-	Motion detector/face recognition/heatmap/access counting	

(9) Data processing

a.) Parties declare that in respect of the personal data created through provision of the Service (in particular live images, video records, time-lapse videos (jointly: **Video records**) and the data of WiFi connection the Customer will be data controller while the Service Provider will be data processor pursuant to **Infotv**. and **GDPR**.

b.) The Service Provider shall keep the video recordings created by the Service for a period of **3-30 days** specified in the written instruction of the Customer. The Customer must prove the legal basis in accordance with the GDPR (so-called interest weighing test), if necessary, it will make available to the Customer during this period, the logging of access (viewing) is the responsibility of the Customer.

c.) The Service Provider will store the log data generated through WiFi access for **12 months** after generation and make them available upon request to the authorities and the Customer so as to comply with the obligation of data supply based on **Section 159/A of Eht.** on the obligation of archiving the data for the police, the national security and home defence organisations. The Service Provider will inform the Customer without delay about any request for information.

(10) The time of image retention can be determined in accordance with Article 31 (2)-(4) of **Act CXXXIII, 2005** on the provisions of personal- and asset protection and private investigation activities (Szmtv). Customer has the right to determine the purpose of the data processing and the retention period. Service Provider will not examine the legality of the use, and excludes any liability arising from it.

3 working days	30 days	60 days
not more than 3 working days after recording (the internal data storage unit of the device keeps the recording for 7 days for operational reasons)	a.) at public events protection of human life, physical integrity, personal freedom, b.) at public events, public transport stations, stops (e.g. railway station, airport, metro stop) prevention of terrorist attack and threats to the public, c.) money, securities of at least significant value as defined in the Act on the Penal Code, for the purpose of safe storage, handling, transport of previous metal, precious stone	a). financial service, supplementary financial service, b.) mortgage-credit institution activity, c) investment service, stock exchange activity, d.) guarding deposited securities, securities deposit management, e.) clearing house activity, f.) protection of private areas, which are accessible for the public, needed by entities performing insurance, insurance brokerage, insurance consulting activity for their duties.

5.3 Invitech Office 365 hosted IT applications

(1) The Service will provide to the Customer the option of using server and/or client application and/or email box on the basis of the packages pre-defined by the Microsoft® (hereinafter: **Manufacturer**).

(2) The Service is based on the Microsoft® Office365© platform, accordingly the terms and conditions of service are identical with the **Microsoft Customer Agreement** provided by Microsoft® which will be agreed by the Customer with the execution of the Contract. The terms and conditions of Service can be amended without giving an advance notice to the Customer.

Availability of the Microsoft Customer Agreement:

https://www.microsoft.com/licensing/docs/customeragreement

Availability of the Service level Agreement for Microsoft Online services:

https://www.microsoft.com/licensing/docs/view/Service-Level-Agreements-SLA-for-Online-Services

(3) While using the Service the technical fault reports and the administrative tasks related to the services used by the Customer (ordering, modification, cancelling) will be performed by the Admin user according to the Customer's request.

(4) In addition to the Microsoft Office client software the Service will also include e-mail functions according to the selected package, which are based on the Manufacturer's Office 365 Exchange© email service. The Service includes shared connection lists, shared calendars, Outlook Web Access (OWA) and default mobile access, SSL encryption for internet-based communication.

(5) Conditions of use

a.) Use of the Service requires broadband internet access, terminal equipment suitable for running an internet browser (e.g. PC, tablet, smartphone) and use of an SSL-enabled web browser. The Customer shall ensure that the terminal equipment, software and other technical devices used by it (e.g., router, fixed-line or WiFi local network) is in a serviceable condition and it can use them on an exclusive basis. Should the Customer fail to ensure a serviceable condition or fail to use the devices for their intended purpose, the Service Provider will not be liable for deterioration of the quality or failure of the Service.

b.) It is not permitted to use the Service for providing service or sell or make available the Service to any third party, to transfer or assign the obligations imposed on it to any third party, whether in part or in full, under any title. Should the Service Provider assume with high probability, based on the circumstances, that the Customer delivers the Service for permanent use to any entity other than its employees and officers, the Service Provider will deem this act as gross breach of contract. In such case the Service Provider will be entitled to terminate the Contract with extraordinary termination and claim compensation for damages.

c.) The Customer will receive, as part of the Service, access codes and passwords for using the Service. The Customer will be exclusively liable for the selection, use and safe guarding (confidentiality) of the passwords, and for using the Customer's websites, emails and the Service Provider's network with passwords, including liability for illegal access by the Customer or the end-users or any third party.

d.) The Customer will be fully liable for any use of the Service whereby its password is used for access. The Service Provider will disclose the Customer's password only to the Customer that shall keep it confidential to any third party. In the case of inappropriate selection or use of the passwords the Service Provider may, in order to ensure safety of the Service Provider's network and the Customer's data, change, disable or delete the passwords with immediate effect, without giving prior notice to the Customer. The Service Provider will not be liable for outage of the Service caused by change, disabling or deletion of the passwords for the above reasons.

e.) The Customer may not modify, reverse engineer the internal structure, decode the underlying code, copy the Service or cause in any other way damage to the Service systems, or the software used on the Service Provider's website.

f.) When using the internet international computer network, the Customer shall observe the general code of ethics for behavior in the network. The Customer takes note that it is strictly forbidden to use the Service for other than its intended purpose. Such case will result in restriction of the service or termination of contract with immediate effect.

g.) The Customer will be liable for any damage arising out of use of the Service or in connection with any abuse committed in connection with the Service, or out of any claim related thereto in any way.

h.) The Service Provider will not be responsible for the safety of data flows in the internet or beyond its direct scope of activity, as well as for delivery and receipt of items sent. The Service Provider will not be liable for any damage resulting from use of the service by the Customer for other than its intended purpose or as a result of any interaction by the Customer. The Service Provider will not be liable for any indirect or collateral damage, or lost benefit. The Service tariffs that include promotions for the Customer were determined with regard to the restriction of liability laid down in this section. The Customer shall accept these restrictions of liability when signing the Contract.

i.) The Customer shall load to the data entry table delivered by the Service Provider the contact persons data of the mailboxes ordered, the requested settings of the initial configuration of the User account (Tenant) and the data that may be needed for mailing, and send it to the Service Provider. When requested, the Service Provider will offer assistance to the Customer for defining its special requests which shall be entered by the Customer in the data entry table.

j.) The Customer shall grant to the Service Provider any necessary assistance and authorisation for contacting the Domain registrator and making the necessary settings. The Customer will be liable for any delay resulting from rejecting such assistance.

(6) When sending an email the Service Provider will not assume any liability if the email is filtered out by any component of the internet network or the email is received by the addressee with delay, irrespective of whether it received feedback on such fact.

(7) When sending an email the Service Provider will not assume any liability for failure of delivery to the addressee due to incorrect addressing or size or content of the email, irrespective of whether it received feedback on such fact.

(8) The Service Provider will not give any guarantee for the time of delivery of inbound and outbound emails, thus any delay in email delivery will not be included in the calculation of availability, and will not be deemed as service outage. Should delay in email delivery result from outage of a given Service, server or network, only these Services concerned will be considered for calculating availability.

(9) The Service Provider will not perform maintenance activity in the user environments. Any maintenance activity in the manufacturer's IT infrastructure on which the Service is based may be performed by the Manufacturer without prior notification given to and approval obtained from the Customer. Any maintenance operations that may be performed by the Manufacturer may be monitored by the Customer's Admin user in the Service administration interface (Office 365 Admin Center/Status menu item).

(10) The Customer will be liable according to legislation in force for the content of data transmitted with or stored in the Service. The Service Provider will not be liable in any way for the content of data transmitted with or stored in the Service by the End-user, while it will observe its obligations required by law if it obtains information about any infringement of law. The Service Provider will not monitor and check the information

transmitted through its network, i.e. the information received through the Service, the Service Provider's network, the internet or terminal equipment will be used exclusively at the Customer's risk.
(11) In the case of use for other than the intended purpose, as defined in detail in **Section 13.2 of the GTC**, the Service Provider will reserve the right to restrict or suspend with immediate effect the given User account subject to notification given to the Customer.
(12) The Customer takes note that the Service Provider reserves all rights connected with the denomination of the Services specified in the Contract, the related copyrights, the content of the website, and all rights will remain at the exclusive disposal of the Service Provider.
(13) Any user name or email address selected by the Customer may under any circumstances, i.e. in conjunction with the second or third level domain name if any, not infringe the rights of any third party. Should according to the above the Customer's act infringe laws, or otherwise breach the contract, the Service Provider will be entitled to suspend the use of the email address with immediate effect. The Customer will be liable for any claim by third parties against the Service Provider for the above infringement of law or breach of contract and for the damages suffered by the Service Provider.
(14) When using the Service gross breach of contract will mean in particular resale of the Service or the email address, unauthorised assignment of the related use.
(15) The Service Provider will not have any liability if a court or other competent authority prohibits the use of a given domain name as part of a name or email address.
(16) The licences, functions related to the User account may not be suspended upon request of the Customer.

6. Service quality requirements, target value (indicators)

(1) Annual availability (usability) will be calculated with the following formula:

$$\frac{(8760 - \text{total time of service outage period (hours)}) * 100}{8760 \text{ (number of hours in one year)}}$$

(2) Availability is defined for one calendar year.
(3) Service quality requirements mean the totality of the target values to be achieved and quality requirements to be fulfilled by the Service Provider on a mandatory basis, as agreed in this GTC. When the legal consequences are determined, in the case of fulfilment or overfulfilment the service will be deemed as compliant, in the case non-fulfilment the service will be deemed as underperformed or not suitable for use.
(4) Individual service quality requirement means a service quality requirement agreed by the Service Provider in the Contract to fulfil on a mandatory basis at the Subscriber Access Point or the Service boundary point.
(5) When availability is calculated the period of regular maintenance according to **GTC Bodytext Section 5.1.2** is excluded.

6.1 Electronic communications services

6.1.1 Voice service

(1) Specific service quality indicator: **Voice quality (%)**
a.) Target value: **80%**
b.) Definition of service quality indicator: For voice service used at the Subscriber Access Point **80%** of the calls reach the MOS value **2,58** according to the ITU-T G.107, 109 recommendation.
c.) Measuring method: **100** measurements are performed with an instrument for measuring the MOS value defined in the ITU-T G.107, 109 recommendation.
(2) Specific service quality indicator: **Availability [%]**
a.) Target value: **96%**
b.) Definition of service quality indicator: Availability of the telephone service used at the Subscriber Access Point.
c.) Measuring method: The percentage of all service outages in one calendar year.

6.1.2 Broadband internet access service

(1) Specific service quality indicator: **Specific service quality requirement for the maximum bandwidth and the related minimum download and upload speed**
a.) Target value: The values are shown in **Annex 1 to GTC** (Mbit/s).
b.) Definition of service quality requirement: The average download and upload speed that the service provider guarantees to its Customer using the service. For internet service test measurement must be conducted on reference servers. The test traffic can consist of simple TCP (FTP) traffic, it is not required to exactly replicate the network protocols used (http, mail, etc.). For other (transparent) data transmission service the service provider must measure the bandwidth between to service points.

c.) Measuring method: The measurement is conducted with a portable laptop controlled by a dedicated programme and external modems connected to it. The programme takes a report on the measurement.

(2) Specific service quality indicator: **Availability (%):**

a.) Target values:

aa.) On non-managed access: **96.50%**
ab.) On microwave, open frequency access (WiFi): **95.00%**
ac.) On managed leased line access: **99.50%**

b.) Definition of service quality indicator: Service availability means the period during which the guaranteed download and upload speed is available at the Subscriber Access Point and the Customer can connect to the internet network. The Service Provider excludes its liability and it will not be deemed as faulty performance when the internet network is accessible at the Subscriber Access Point, but some IP addresses, subnetworks, websites temporarily or permanently cannot be accessed for a reason beyond the control of the Service Provider.

c.) Measuring method: The percentage of all service outages in one calendar year.

(3) Specific service quality indicator: **Delay and associated delay fluctuation (ms)**

a.) Target values:

aa.) On unmonitored access: <**50ms**, <**5ms**
ab.) On microwave open-frequency access (WIFI): <**100ms**, <**10ms**
ac.) On managed leased line access: <**20ms**, <**2ms**

b.) Definition of the service quality indicator: The time between the transmission of a data packet from one endpoint and its return to the same endpoint on the tested link and the average difference in delay values between the same two endpoints.

c.) Measuring method: The measurement is performed with a portable laptop controlled by the dedicated program based on the average of the ping times measured on the examined connection.

(4) Specific service quality indicator: **Packet loss (%)**:

a.) Target values:

aa.) On unmonitored access: **<0,5%**
ab.) On microwave open-frequency access (WIFI): **<0,5%**
ac.) On monitored leased line access: **<0,1%**

b.) Definition of the service quality indicator: The quotient of the number of data packets not received at the endpoint within a given time and all data packets sent on the connection tested. Percentage of package loss measured on the service per calendar year.

c.) Measuring method: The measurement is performed with a portable laptop controlled by the dedicated program based on the average of the ping times measured on the examined connection.

(5) Specific service quality indicator: **Speed available under normal conditions (Mbit/s)**:

a.) Target value: Its value is equal to 50% of the maximum speed specified in **Annex 1 to the GTC**. (Mbit/s).

b.) Definition of the service quality indicator: The average download and upload speed that the Service Provider provides to the Customer during the use of the Service at least **90%** of the time per calendar day. In the case of an internet service, test measurements must be performed on reference servers. Test traffic can be simple TCP (FTP) traffic, it is not necessary to precisely copy the network protocols used (http, mail, etc.).

c.) Measuring method: The measurement is performed with a portable laptop controlled by the dedicated program. The program makes a report about the measurement.

6.1.3 Mobile internet service

(1) During the performance of the Service, in order to ensure service provision according to technical specifications regulated by legislation, the Service Provider will perform with the technical conditions available and guaranteed in cooperation with Yettel Magyarország Zrt. the construction, operation, maintenance and fault repair of its network. The Mobile Internet Service provided by the Service Provider uses the mobile network of Yettel Magyarország Zrt.
The current coverage map of the mobile service is accessible on the Service Provider's website:
https://www.Yettel.hu/hipernet#lefedettseg-terkep
(2) At some points current coverage may deviate from what is shown on the map (due to particularities of the mobile radio telephone service, with special regard to the impact of buildings and functioning within buildings, the scale of the map, etc.), which are not consequences of the service quality and for which the Service Provider cannot take liability. By considering the limitations of radio transmission and the operating particularities of the mobile radio telephone network, it will not be deemed as faulty performance of the service when on given areas the accessibility of the basic service is limited or not ensured, e.g. because Yettel Magyarország Zrt. eliminates some of its base stations.

(3) Specific service quality indicator: **Specific service quality requirement for the estmated maximum bandwidth and the related minimum download and upload speed:**

Target value:

a.) Estmated maximum bandwidth: **0.00 Mbps**.
b.) Minimum download and upload speed: **0.00 Mbps**.

6.1.4 VPN provided on managed leased line access, Ethernet data transfer and internet service

(1) Specific service quality indicator: **Specific service quality requirement for maximum (nominal) speed**

a.) Target value: Values are included in the Specific Contract (Mbit/s, Gbit/s).
b.) Definition of quality of service requirement: The data transfer rate that the Service Provider guarantees to the Customer during the use of the Service in the direction of download and/or upload at the Subscriber access point.
The (nominal) bandwidth available to the Customer is meant at Layer2 (Ethernet). The nominal bandwidth according to the contract includes the data transmission (overhead) capacity required by the protocol used.
c.) Measurement method: The measurement is performed with a dedicated measuring device.

(2) Specific service quality indicator: **Availability [%]**

a.) Target values:
aa.) Managed leased line and Ethernet-based service: **99.50%**
ab.) Internet and VPN service on managed leased line access: **99.50%**
ac.) Internet and VPN service on non-managed leased line access: **96.50%**
b.) Definition of service quality indicator: Service availability means the period during which the service is available at the Subscriber Access Point.
c.) Measuring method: The percentage of all service outages in one calendar year.

6.2 Server hosting services

6.2.1 Invitech DC14 Professional

Annual availability of power supply	99.99%
Annual availability of air-conditioning	99.99%
Annual availability of IP service	99.99%
Operator Service	on workdays 8.00 a.m. to 6.00 p.m.
Operator Supervision	midnight to midnight
Security Service	midnight to midnight

6.2.2 Invitech DC10-III

Annual availability of power supply	99.999%
Annual availability of air-conditioning	99.999%
Annual availability of IP service	99.990%
Operator Service	midnight to midnight
Security Service	midnight to midnight

6.2.3 Invitech DC10 Premium

Annual availability of power supply	99.999%
Annual availability of air-conditioning	99.999%
Annual availability of IP service	99.990%
Operator Service	midnight to midnight
Security Service	midnight to midnight

6.2.4 Invitech DC10 Standard

Annual availability of power supply	99.90%
Annual availability of air-conditioning	99.90%
Annual availability of IP service	99.50%
Operator Service	midnight to midnight
Security Service	midnight to midnight

6.2.5 Service outage

(1) In respect of power supply and air-conditioning service outage will mean the following:
a.) Power failure: Power failure or reduction to below **90%** of the specified voltage level for a period exceeding **100 ms** is detected at the supply point (standard electric connector provided by the Service Provider) in both directions of power supply when dual direction power supply is used
b.) Cooling outage: Cooling reduces to such extent that the air temperature in the collocation room exceeds **30 ºC** for a period exceeding 60 minutes, measured in the Server Room's cold row.
(2) Availability period excludes the boot time of some IT/telecommunications devices placed by the Customer.
(3) For Invitech DC10 Premium, DC10-III and DC14 when the power consumption exceeds **3.5 kW/rack cabinet**, while for Invitech DC10 Standard when it exceeds **2,5 kW/rack cabinet** the Service Provider will examine whether SLA parameters (air-conditioning and power supply) can be fulfilled.
(4) All periods when the internet service is not available or its bandwidth does not reach the value guaranteed in the contract will be deemed as internet service outage.

6.2.6 Compliance audit

(1) The Service Provider will on one occasion per calendar year conduct an audit on the compliance of the data centre with relevant standards and regulations.
(2) The audit will result on not more than **2** consecutive days in interruption of one supply side of the dual direction power supply, while the other side remains operational.
(3) The Service Provider will notify the Customer of the audit according to **GTC Bodytext Section 5.1.2**, according to the rules of maintenance.
(4) The period of compliance audit conducted according to the notification given to the Customer will not be deemed as service outage, will not decrease the availability period.

6.2.7 Fault repair times

In connection with the Server hosting service the Service Provider agrees to start elimination of all defects within two hours of notification and to eliminate at least on a temporary basis the defect within **4 hours** of notification. In the case of temporary fault repair the Service Provider must finally repair the fault within **72 hours**.

6.2.8 Service provisioning period

	Server hosting			
	On shelf	**In rack-cabinet Unit-based**	**Full rack-cabinet**	**Area**
Standard provisioning period	10 working days	10 working days	20 working days	35 working days

	Server lease
Standard provisioning period[1]	10 working days

[1] The Service Provider will, with regard to the server supplier's conditions, guarantee this provisioning period when maximum **2 servers** are leased.
For operating system and/or application operation software will be installed with default configuration. Construction and configuration of a customised system according to the Customer's needs will be provided within 5 working days of conducting a survey by the Service Provider. In the case of incomplete or late data supply by the Customer the Service Provider will be released from the consequences of non-compliance with the deadline agreed.

6.3 Server virtualisation services

6.3.1 Guaranteed quality parameters:

Annual availability for virtual server service	99.5%
Annual availability for internet service	99.99%
Operator Service	midnight to midnight
Security Service	midnight to midnight

6.3.2 Service outage

(1) It will be deemed as virtual server service outage when the virtual server service is not available for a period exceeding **10 seconds** due to a fault of the hardware and software platform that provides the Service or the technical personnel operating them. Exception to service outage will be in particular the notified maintenance activities and the cases when the system running with the Service was not put into operation by

the Customer according to the technical conditions specified by the Service Provider (e.g. the operator installed driver and auxiliary programmes not compliant with the recommendations).
(3) All periods when the bandwidth of the internet service does not reach the value guaranteed in the contract will be deemed as internet service outage.
(2) The start of the service outage period is the time when the fault is notified by the Customer in accordance with the contract.

6.3.3 Fault repair times

The Service Provider agrees to start repair of faults within two hours of fault report and repair at least on a temporary basis the fault within **4 hours** of fault report. In the case of temporary fault repair the Service Provider must finally repair the fault within **72 hours**.

6.4 Premium level on-site support

The Service Provider will perform the requested task in the case of a fault (e.g. HDD replacement is necessary) within 60 minutes of notification, in the case of new service request (e.g. drawing in new cables) within **4 hours**.

6.5 Response time, fault repair times for operating system and application operation

Service	Service period		Fault repair		New request solution time[4]	Availability
	Normal[1]	Duty service	Reaction[2]	Solution		
Operating system operation	8.00 a.m. to 4:30 p.m.	4:30 p.m. to 8.00 a.m.	4 hours	2 working days[5]	5 working days	95.0%
Application operation	8.00 a.m. to 4:30 p.m.	4:30 p.m. to 8.00 a.m.	4 hours	no[6]	5 working days	95.0%

[1] On workdays defined by law.
[2] Reaction time start in normal service period is the time of notification, in duty period the start of the next normal period.
[3] Solution time start is identical with the verified reaction time.
[4] New and modification requests should be made with specification of the required parameters. The Service Provider must make a declaration within maximum **2 working days** of the notification on whether the request can be fulfilled. In the case of missing or incorrect parameters the performance time will restart when these are supplied/corrected.
[5] After agreement with the Customer.
[6] The Service can be temporarily restored with an alternative solution, subject to agreement with the Customer.

6.6 Veeam-based backup supplementary service

(1) Annual availability for Backup and Replication and Cloud Connect backup: annually **99.50%**, continuous period of service outage is maximum **24 hours**.
(2) If performance of scheduled tasks, e.g. fault or scheduled maintenance, is not possible, the tasks not performed must be run:

a.) for Backup and Replication immediately after fault repair by the Service Provider, by considering the period determined by the Customer (backup window). (If such period is not determined in the configured task, the task can be performed at any time).
b.) for Cloud Connect backup the Customer is responsible for running the tasks not performed.

(3) for Backup and Replication further parameter

Service	Reaction time	Starting recovery	Ending recovery
Recovery from backup	30 minutes	in working hours (on workdays 8.00 a.m. to 4.30 p.m.) within 2 hours beyond working hours within 4 hour	No guaranteed recovery*

* The recovery time depends on the volume, type of data to be recovered and the load on the backup system, therefore general guaranteed period cannot be specified.

6.7 Firewall service

Service	Service period		Fault repair		New request solution time[4]	Availability
	Normal[1]	Duty service	Reaction[2]	Solution[3]		
Firewall service	8.00 a.m. to 4:30 p.m.	4:30 p.m. to 8.00 a.m.	2 hours	12 hours[4]	2 working days	99.50%

[1] On workdays defined by law.
[2] Reaction time start in normal service period is the time of notification, in duty period the start of the next normal period.
[3] Solution time start is identical with the verified reaction time.
[4] New and modification requests should be made with specification of the required parameters. The Service Provider will check the data and perform the setting. In the case of incorrect data sheet the setting will not be made, the Service Provider will reject the request and calls on the Customer to provide the missing parameters or correct the incorrect parameters.

6.8 Integrated WIFI-Camera and streaming

SLA and fault handling

Annual availability rate:	96,50%	98,00%	99,00%
Max. downtime (hours/year)**:**	307	175	87,50
Max. fault repair time (hours)**:**	72	48	36

Fault repair time is calculated in the Service time window, work after hours and in the weekend do not count into the time agreed.

6.9 Invitech Office 365 hosted IT applications

6.9.1 Committed quality indicators

The availability of the Services is contained in the Manufacturer's **Service Level Agreement for Microsoft Online Services** document that is in effect at all times. Availability:
https://www.microsoft.com/licensing/docs/view/Service-Level-Agreements-SLA-for-Online-Services

6.9.2 Availability period

(1) Service availability is designed to meter the period of accessing and retrieving data from the prescribed Services by the End-user of the Customer Tenant, calculated always on the basis of workstation/service and assumed that the Tenant of the Customer is active, licensed and free from any debt.

Office 365 annual service availability rate:	99,90 %

(2) Service downtimes attributable to any reason beyond the scope of the Service Provider - including IT attacks resulting in deny of the service (DOS), and similar attacks, letter bombs, damage to DNS resolution, expiry of the domain name, and disturbance of the internet access, SYN attacks and other events, including those considered as Force Majeure –, will not be taken into account for the calculation of service availability (SLA), subject to reasonable evaluation.

7. Invitech DataCenter infrastructure

(1) The technical parameters listed here may be changed through unilateral modification by the Service Provider without notification given to the Customer, if it does not affect the Customer's rights, the circumstances of providing the Service, or it affects them only to a minimum extent, or is favourable for the Customer.
(2) Invitech DC10 and Invitech DC14 constitute with georedundant structure a common virtual data centre.

7.1 Invitech DC14

7.1.1 Building

a.) Address: Budapest, Ilka utca 31. Building B Ground Floor
b.) Size of complete machine room: 800 m2
c.) Raised floor: 50 cm, suspended ceiling: 30 cm, permitted ceiling load: 30 kN/m2
d.) External operator room outside the machine room, with customer terminal

7.1.2 Communications connections

a.) Dual side independent optical supply for the Invitech infrastructure
b.) Further optical fibers for optical connection of customers
c.) Direct connections to larger internet nodes (e.g. Invitech DC10 Premium, BIX, Infopark, Dataplex etc.)
d.) 2 x 10 Gbps redundant connection to Invitech's other sites

7.1.3 Power supply and cooling

a.) Independent uninterrupted power supply with A and B side supply, redundant (3-phase) power supply, 200 kVA for each side, with 10 minute bridging time
b.) 540 kVA diesel generator
c.) Air-conditioned room: 22.5 degree permanent temperature
d.) The air-conditioning and generally the machine room comply with the conditions of MSZ EN 300 019-1-3:2003 Class 3.1: Temperature-controlled locations.

7.1.4 Safety

a.) 24/7 security service
b.) Closed circuit video monitoring and recording system
c.) Access control and intrusion detection system with continuous monitoring
d.) Building management system with continuous monitoring
e.) Fire protection: High sensibility aspirated fire detection system with automatic extinguishing using gas

7.2 Invitech DC10-III

7.2.1 Building

a.) Address: 1108 Budapest, Kozma utca 2.
b.) Number of parking places available: 200
c.) Total available area: 10,000 m^2
d.) Permitted ceiling load: 5000 kg / m2
e.) Office and emergency (DR) office area: 2700 m^2
f.) Freight loading ramp:
g.) MABISZ 15-minute total breakthrough prevention on the total outer surface and on all outside doors and windows

7.2.2 Security and fire protection

a.) Physical protection points, motor vehicle and personal entry gate
b.) Personal identification and access control with metal-detector
c.) Security service with armed guards
d.) CCTV IP video surveillance and recording system covering the total outdoor area and the rooms of the facility
e.) Access control and intrusion detection system with continuous monitoring
f.) Early Warning Smoke Detection System with aspiration and optical sensors
g.) Automatic extinguishing system with IG-541 nitrogen extinguishing gas that can be used for fire extinguishing in any machine room with selective valves, and has separate redundant battery group to enable fire extinguishing twice in the machine room.

7.2.3 Communications connections

a.) Optical supply at two independent points, separate optical routes
b.) Duplicated optical receiver within the building
c.) Microwave connection
d.) Further optical fibers for optical connection of customers
e.) 2 x 100 Gbps redundant internet connection
f.) DC10, DC10-III and DC14 constitute a common virtual data centre with georedundant structure
g.) Cisco "Spine and Leaf" architecture

7.2.4 Certifications, compliance

a.) Uptime Institute Tier 3 Certifications in Design Documents (TCDD)
b.) ISO 9001 quality management system
c.) ISO 27001 IT security management system
d.) ISO 20001 IT security management system

e.) AQAP 2120 NATO supplier compliance system

7.2.5 Machine rooms

a.) Data centre area: 750 m^2 3 machine rooms (design: 1000 m^2, 4 machine rooms)
b.) All machine rooms are in separate fire compartments, with 60-minute fire-retarding capability
c.) Raised floor height: 90 cm
d.) Raised floor permitted load: with distributed load 2000 kg/m^2
e.) Without suspended ceiling
f.) 3 m free headroom in machine room
g.) Suspended optical and weak-current cable tray system
h.) Some machine rooms have an average attenuation of 40 dB against conducted and radiated electromagnetic interference sources (EMC protection)
i.) Complete house-in-house system, with double ceiling

7.2.6 Power supply and cooling

a.) Two medium-voltage supply lines on independent routes
b.) On each side one 2 MVA transformer with own operation
c.) Both power supply routes supported with generators, each with 820 kVA devices with 24-hour bridging time
d.) Uninterrupted power supply is provided by two independent A-B side UPS systems with 10-minute bridging time
e.) Independent two-way A-B side power supply system
f.) Cooling system: upgraded direct expansion (DX) coolers suitable for free cooling too
g.) In each machine room 4 x 100 kW indoor air-conditioning equipment with humidification, N+1 backup in each machine room
h.) Air handling machines supply fresh, dust-free, heated/cooled air to the building.
i.) Cold-hot corridor structure

7.3 Invitech DC10 Premium

7.3.1 Building

a.) Address: 1108 Budapest, Kozma u. 2.
b.) Size of complete machine room: 1500 m^2
c.) Raised floor permitted load: point load: 50 kN/m^2
d.) 3.7 m free headroom in machine room
e.) Fire-resistance grade: 60 minutes
f.) Redundancy of power supply and building engineering (HVAC) systems: at least N + 1

7.3.2 Communications connections

a.) Two-side independent optical feeding and microwave connection to Invitech’s infrastructure
b.) Further optical fibers for optical connection of customers
c.) Direct connections to larger internet nodes (e.g. Invitech DC14 Professional, BIX, Infopark, Dataplex etc.)
d.) Radio connection can be provided to the Data Center
e.) 3 x 10 Gbps redundant connection to Invitech’s other sites

7.3.3 Power supply and cooling

a.) availability of power supply and air-conditioning: 99.999%
b.) 3 medium-voltage power supply units with 1600 kVA capacity (2 operational, 1 reserve)
c.) 2 diesel groups each with 2 x 1400 kVA Cummins Power Generation generators in parallel structure
d.) in the case of full load 72-hour power failure can be bridged
e.) 2N UPS system, on each side with 3 + 1 structure, 1650 kVA + 550 kVA power, for bridging the time between power failure and full operation of generators
f.) in the case of full load 30-minute power failure can be bridged
g.) A + B independent UPS in the machine rooms
h.) 1600 kW cooling power, with 2N redundancy
i.) energy-saving cooling solutions (combination of free cooling condensers and compact liquid coolers)
j.) 40 x 50 kW indoor computer air-conditioning with humidification, in each machine room with N+2 structure
air handling machines for supply of fresh, dust-free, heated/cooled air to the building

7.3.4 Safety

a.) 24/7 security service
b.) CCTV IP video surveillance and recording system covering the total outdoor area and the rooms of the facility
c.) Access control and intrusion detection system with continuous monitoring
d.) Building management system with continuous monitoring
e.) Some machine rooms have an average attenuation of 40 dB against conducted and radiated electromagnetic interference sources (EMC protection)
f.) Early Warning Smoke Detection System with aspiration and optical sensors
g.) delay between alarm and start of extinguishing: 30 seconds
h.) extinguishing system: with extinguishing gas FM-200 (HFC-227ea)

7.4 Invitech DC10 Standard

7.4.1 Building

a.) Address: 1108 Budapest, Kozma u. 2.
b.) Size of complete machine room: 150 m^2
c.) 3 m free headroom in machine room
d.) Fire-resistance grade: 30 minutes
e.) Redundancy of power supply and building engineering (HVAC) systems: at least N + 1
f.) Maximum dimensions of rack cabinet that can be placed: 600 mm x 1000 mm x 2000 mm

7.4.2 Communications connections

a.) Single side optical supply for the Invitech infrastructure
b.) Further optical fibers for optical connection of customers
c.) Direct connections to larger internet nodes (e.g. Invitech DC10 Premium and DC14 Professional, BIX, Infopark, Dataplex etc.)

7.4.3 Power supply and cooling

a.) medium-voltage power supply units with 1600 kVA capacity
b.) Automatically starting diesel (HIW 450) generator
c.) In the case of full load 8-hour power failure can be bridged
d.) A + B independent UPS in the machine rooms
„A" side protected with UPS and diesel right, „B" side has only diesel right
e.) UPS system: AEG PROTECT 3.33, 120 kVA nominal power, 10-minute bridging time (at 80 kVA), 3/3 phase
f.) 100 kW cooling power, with N+1 redundancy
g.) Energy saving cooling solutions (combination of direct free cooling and traditional cooling systems)
h.) Rack cabinet with maximum 2.5 kW consumption can be placed

7.4.4 Safety

a.) 24/7 security service
b.) CCTV IP video surveillance and recording system covering the area of the facility
c.) Access control and intrusion detection system with continuous monitoring
d.) Online building management system with continuous monitoring
e.) Early warning smoke detection system with aspiration detectors