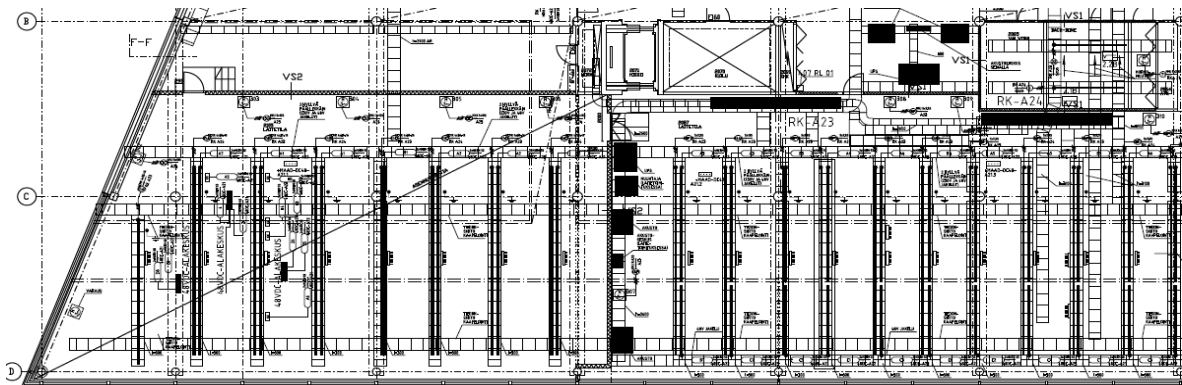


Tenue Hiomo Data Centre Premium telehousing on Helsinki Metropolitan Area



Service Description
(updated 08.01.2010)

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Tenue reserves the right to make changes to this service description. Please contact Tenue for the latest version of this document.

1 Data Centre Service Overview

1.1 Introduction

Tenue Data Centre Service is a service that enables customers to place their own telecommunications and computer equipment in Tenue's computer rooms in Helsinki. The Data Centre site is located at Hiomotie 32, 00380 Helsinki, FINLAND (2nd Floor).

These premises offer a computer room environment that meets stringent requirements relating to cooling, protected power systems, perimeter protection etc. The premises and the customers' own cabinets/racks are accessible 24 hours a day all year round.

1.2 General description

Tenue provides high quality Data Centre facility with pre-installed 19" cabinets in the computer room, access-floor, power distribution units, reverse power and redundant cooling systems. Customer can have it's own reserved common area with the option for cages if agreed. Foot prints (for example storage systems) available only on special request.

All electrical and mechanical systems on the site are engineered with multiple levels of redundancy and 24x7 protection against fire and natural disasters. Data Centre's power and cooling systems have been designed to reach up to 1,1MW maximum power usage. Power and cooling capacity can be increased if necessary.

Tenue is responsible for power, cooling, computer room, perimeter protection, racks and cross connections. The customer is responsible for his equipment in the cabinet.

High capacity and low-latency network connections to Russia, European countries, USA and Asia are available. Data centre services with direct backbone connections (n x 10 Gbits) are available in Moscow, St. Petersburg, Kiev and Stockholm via our partners.

2 Technical Description

2.1 Environment

The customer's equipment is placed in cabinets fitted with either padlocks or code locks in a computer room environment, which has cooling, a guaranteed power supply via UPS and diesel-driven power units.

The cabinets are placed in a separate room with access control, in direct connection to Tenue's own equipment.

The Site Specification according to the "Uptime Institute" is between Tier-2 and Tier-3 (multiple delivery paths but for example only one diesel generator for reverse power).

2.2 Fire

The computer rooms are fitted with personal fire protection in accordance with current EU standards.

2.3 Air/cooling

Temperature in the room is kept at $22^{\circ}\text{C} \pm 3^{\circ}$.
Relative air humidity is regulated to $50\% \pm 10\%$.

2.4 Power

- Uninterruptible 230 volt $\pm 3\%$, 50 Hz ± 0.5 Hz

- Steady State UPS without power dips/peaks when changing power source
- Diesel-driven reserve power units
- A & B feed each, 230 AC power, 16 A or 32 A or 63A, single phase and three phase.
- A & B feed each, 48V DC power, 16 A or 32 A or 63A.
- Real Time Monitored Power Consumption Usage available

2.5 *Perimeter protection*

A security company provides surveillance of the premises. Tenue and the security company have access to the premises and all other personnel wanting access to the premises must obtain approval from Tenue.

A person who is to be given access to the premises, referred to as authorised personnel, must sign a security agreement, which is personalised. Other personnel, such as service engineers, must be accompanied by authorised personnel, i.e. not remain alone on the premises. The authorised person is responsible for activities on the premises. Everyone remaining on and around the premises must show identification if requested by Tenue or the security company's personnel.

The premises can be accessed 24 hours a day, all year round.

The Site has infrared motion detection systems and video surveillance on all areas of the data centre.

2.6 *Basic design of cabinets*

All cabinets are lockable and fitted with either padlocks or code locks. The cabinets have ventilated doors at the front and back, partition walls and ceilings made of sheet metal. Every cabinet is drip-proof up to IP55 and is fitted with a ventilation in the cabinet.

2.6.1 *Full rack (Cabinet)*

The cabinet is fitted with a 19 -inch rack with 42U adjustable heights. The space in the cabinets belongs to the customer in the same way as any other installation site for Tenue's services.

By default the rack has one to four socket with a total of 16 ampere 230 Volt with UPS and Diesel Generator backup.

The physical external measurements of the cabinets are: 600 mm x 1000 (1070) mm (42U).

Optionally available 750 mm x 1070 mm cabinets (42U) when allocation is one Cold Aisle.

One full Cold Aisle is 26 pcs 600 mm x 1070 mm Cabinets or 22 pcs 750 mm x 1070 mm Cabinets.

3 **Cabling and Cross Connections**

As a supplementary service to Tenue's Housing Service, Tenue can also offer various forms of cabling. The main aim of this is to enable the customer to obtain externally ordered fibre or to link different racks with the required cabling.

The customer himself orders external connections to Tenue's Housing sites. All Cross Connections has to go through Tenue's meet me room.

Agreements with the following fibre/capacity operators are currently under negotiations: Elisa, Ainacom, DNA, IP-Only, RETN, Global Crossing and TeliaSonera.

Tenue can offer the following types of cable:

- Fibre, Single mode or Multi mode
- Ethernet (Cat 5 and 6)
- Copper

Tenue's personnel always carries out the cable pulling at the sites. Under no circumstances may the customer do this. Tenue does not monitor the lines that have been pulled, but provides incident handling for each pulled line.

4 Operational and Maintenance support

Tenue will provide a 24/7/365 NOC single point of contact for all services.

Standard Onsite services include

- Installation (rack/cards etc) and Commissioning support
- Remote Hands & Eyes with quick response, 15 minutes daytime
- Card changes
- Spare Part Handling
- Shipment assistance and incoming equipment repository
- In-house cabling and cross connecting

Extended Service time and Incident handling is available 24 hours a day all year round if agreed.

Tenue is not responsible for monitoring or operation of the customer's equipment.

Normal number of working hours: Weekdays Mon -Fri 08.30-17.00 (EET). The call-out costs for faults not caused by Tenue will be charged to the customer.

5 SLA

5.1 Delivery

Standard delivery time for the housing service is 2 working days after receipt of the order. Following credits are reasonable liquidated damages for the delay.

Days past promise	Discount from next Monthly fee
1	5% of the monthly charge in question
2 through 30	15 % of the monthly charge in question
Over 30 days	100% of the monthly charge in question

Both parties will also have the right to cancel any service delayed over 30 days with no liability to the cancellation.

5.2 Service

Availability will be computed with the aggregate outage for each service in question in the calendar month.

Monthly Availability	Discount from next Monthly fee
100% to 99.9%	0
99.9% to 99.60%	10%
99.59% to 99.0%	30%
Less than 99,0%	50%

6 Tenue

6.1 General

Tenue is a company producing centralized data centre services. All services are produced together with carefully selected partners.

An activity based on the providing and support of centrally produced capacity of information system as well as on producing of data center capacity.

Tenue has achieved the highest class of creditability AAA (2008, 2009) according to the rating of Dun & Bradstreet and has also received the Finland's Strongest 2009 certificate issued by Customer Data of Finland.

The company grows strongly and its goal is to be leading Data Centre service provider in Finland and is growing rapidly. Key persons, that own the company, worked in leading IT-companies for years.

6.2 *Address*

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6.3 *Contact Person*

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