

## SERVICE LEVEL AGREEMENT

SERVICE LEVEL AGREEMENT ADDENDUM COLOCATION BIT-2 BIT B.V. - VERSION 2020-08-11



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## 1. Definitions

#### 1.1. Dew point

The dew point is the temperature to which air must be cooled, at constant barometric pressure, for water vapor to condense into water. The condensed water is called dew. The dew point is a saturation point. When the dew point temperature falls below this limit, condensation will occur. This was previously defined as relative humidity at a given temperature. E.g.: 50% relative humidity at 21° Celsius matches a dew point of 10.2° Celsius.

#### 1.2. Incident

Unavailability of the service due to causes other than maintenance within a maintenance window, maintenance in consultation with the client, or faulty equipment utilization by the client themselves.

#### 1.3. Service

Colocation in a space provided for that purpose at location BIT-2 in Ede, including electricity and cooling facilities.



## 2. SLA

This document is the addendum on the framework SLA for the service Colocation BIT-2.

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## **3. Service Description**

#### 3.1. Access

Access to the data center is free during office hours. Outside of office hours access is also free for clients who have purchased the supplementary "autonomous access to BIT-2" service. Clients without autonomous access can obtain access to the data center outside of office hours for the current hourly rate.

Clients who wish to visit the data center must notify BIT of their visit at least one hour before arrival; this also applies to clients who have autonomous access and request access by phone. Access requests using <a href="https://portal.bit.nl">https://portal.bit.nl</a> have to be filed at least two minutes before entry. When visiting the data center, a visitor without autonomous access must show a valid ID card. If the visitor has autonomous access, a biometric access check will be performed.

Visiting the data center is fully at the visitor's own risk. Visitors are asked to comply with BIT colocation house rules. These house rules are posted next to the entrance to the server rooms at BIT-2, among other places.

#### 3.2. Security

#### 3.2.1. Breaking and Entering

The data center is electronically and structurally protected in compliance with VEB security class 4\*. Two surveillance services monitor the premises outside of office hours and respond to alarms immediately and independently of each other.

Security cameras are located throughout the data center. The images used for alarm or fire signals are temporarily archived.

Only authorized employees and visitors receive access to the server rooms. Visitors who do not have autonomous access are obligated to carry ID. The access control system uses biometric verification for checking the identity of visitors with autonomous access and authorized employees.

#### 3.2.2. Fire

The server rooms have an independent fire detection system: a system with conventional smoke alarms and an early warning system. Alarms are forwarded to the fire department's emergency center by means of a direct automatic connection. The fire department has a detailed plan of attack, tailored to the specific situation in our data center.

The server room is equipped with a certified automatic gas extinguishing system based on inert gases (nitrogen and argon).

#### 3.2.3. Lightning

The building is equipped with a certified lightning protection system in compliance with NEN 1014 class LP4.



#### 3.3. Climate Control

The air conditioning system is redundant (N+1). The atmospheric humidity is kept in check in order to prevent problems as a consequence of static electricity (ESD) and to guarantee an optimal warmth level. The temperature is guaranteed at the front of the rack at a height of 1.5 meters.

	Default Value	Permitted Deviation
Guaranteed temperature	25° Celsius	+/- 2° Celsius (23-27).
Dew point	10° Celsius	$-3^{\circ}$ / +14° Celsius (7-24). Dew point may never be higher than temperature.

#### 3.4. Power Supply

BIT will provide a guaranteed power availability at BIT-2 of 99.99% per month. The power supply is entirely redundant (A & B) and is secured with two sets of UPSes (2N) and other emergency power units (N+1). Upon request, BIT can also provide equipment for connecting machines with a single supply on both feeds. The guaranteed availability only applies if the equipment is connected to both power feeds and no more power is taken than that which was agreed upon.

#### 3.5 Backup power tests

A backup power test is conducted monthly by BIT. During this test the emergency power units are started, one of the feeds is switched from grid to genarator power, followed by a switch of the other feed. After some time the feeds are one by one switched back to grid power. This test is conducted every month, except in June and December, on the second Tuesday of the month between 09:00 AM and 11:00 AM for BIT-2BCD and on the third Tuesday of the month between 09:00 AM and 11:00 AM for BIT-2A.

This test is not conducted in the months June and December. In these two months a black building test is conducted. During these tests an unexpected loss of grid power is simulated. After switching off the grid the generators will power up. Both feeds simultaniously switch to generator power. Between the loss of grid power and generator power datacenter equipment will be powered by the UPSes. The air conditioning system is not powered by the UPSes between the loss of grid power and generator power. It will therefore be unavailable during that time. This black building test is conducted on the second Tuesday of June and December between 05:00 AM and 07:00 AM. The black building tests are announced using the maintenance communication channels as described in the SLA framework.



## 4. Incidents

Incidents are classified into four categories by BIT:

Priority	Description	
1	<ul> <li>The service is fully unavailable.</li> <li>There is an interruption in the entire power supply.</li> <li>The temperature deviates more than 13° Celsius from the permitted temperature of 23-27° Celsius.</li> </ul>	
2	<ul> <li>The service is available but degraded.</li> <li>The temperature deviates more than 8° Celsius from the permitted temperature of 23-27° Celsius.</li> </ul>	
3	<ul> <li>The service is available but degraded.</li> <li>One of the two power feeds is not delivering any power.</li> <li>The temperature deviates more than 2° Celsius from the permitted temperature of 23-27° Celsius.</li> </ul>	
4	Incidents that barely cause the client any hindrance.	



### **5. Non-Performance Penalties**

In the event of non-observance with the defined availability, the client is entitled to compensation according to the following table:

Priority	Time the service was unavailable	Non-performance penalty
1	4 minutes, 19 seconds and more	25% of the monthly sum
1 & 2	2 hours and more	50% of the monthly sum
1 & 2	8 hours and more	100% of the monthly sum

The non-performance penalty is limited to 100% of the monthly sum of the service in question. The nonperformance penalty is limited to one penalty for a single incident case, even if the incident spreads over two calendar months or more. The penalty will only be rewarded upon customers request.

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