Appendix 8 Service targets

Dynamic purchasing system

02.22 It-drift

Version 1.0

The State and Municipalities' Purchasing Service A/S
The assembly hall | Pakkerivej 6, 2500 Valby
Telephone +45 33 42 70 00 | CVR 17472437

Contents

1. Local definitions

K-1 Local definitions

This appendix contains local definitions that are only used in this appendix. The definitions are given in capital letters and in sharp, square brackets: […].

In the event of any inconsistency between the local definitions set out herein and the definitions set out in Annex 1 (Definitions), the local definitions in this Annex shall prevail in the interpretation of this Annex and unless otherwise expressly stated in case of discrepancies.

2. Introduction

This appendix contains the Customer's requirements for Service Targets for the Services the Supplier must provide under the Supply Contract as well as the principles for calculating the KPIs and measurement methods.

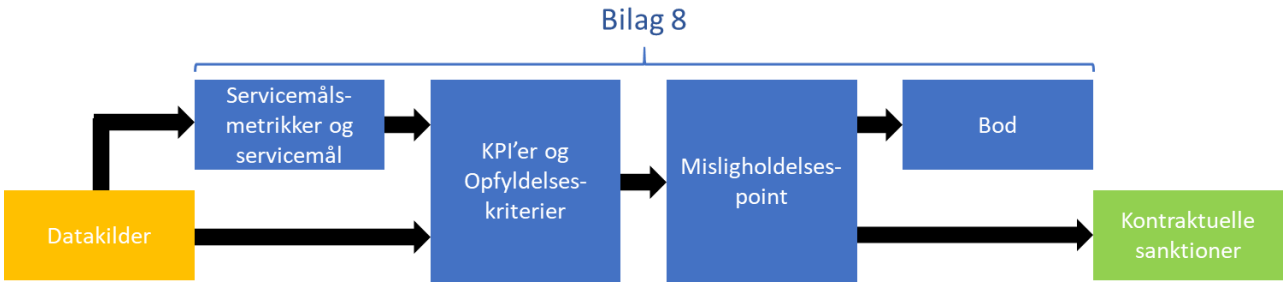

Figure 2.1: Overview of model for performance management

The supply contract's model for performance management is illustrated in Figure 2.1. The following concepts are used in the model:

[Service Objective Metrics]	**Unit of measurement for performance. A Service Objective metric could be, for example, Availability, which is defined in the metric definition in Section 5.**
[Service Target]	**The agreed performance requirement for a Service target metric, e.g. requirements for Availability for the Gold Service Level.**
[KPI]	**An overall indicator of performance. Most KPIs are assessments of the Supplier's**

	general ability to meet the associated Service targets for certain Service target metrics. However, KPIs can be based on other data sources. The delivery contract's KPIs are defined in section 6.
[Eligibility Criteria]	**Fulfillment criterion at KPI level.**
[Default Points]	**If the KPI's fulfillment criterion is not met, a number of non-compliance points per KPI is calculated. The formula for calculating non-compliance points appears in section 7.1**
[that]	**On the basis of the accrued number of non-compliance points across all KPIs, it is used when calculating the possible penalty for the measurement period, cf. the penalty model in section 7.2.**
[Contractual Sanctions]	**If the number of non-compliance points reaches a certain level, it can trigger a number of sanction options as defined in the Supply Contract's section 44.**

3. General requirements

K-2 Entry into force of reporting and penalty

The supplier must undertake reporting in accordance with Annex 9 (Reporting and insight) on all Service targets contained in this Annex 8 (Service targets) from the Transition Day, cf. appendix 11 (Transition Ind), and is calculated for all services that have been transferred to the Supplier's operational responsibility from and including the following month after the takeover.

The provisions regarding fines, cf. section 7, comes into force from the approval of the operational test.

K-3 The customer's insight into Measurements and calculations

At the request of the Customer, the Supplier must give the Customer access to relevant, detailed, underlying documentation for the correctness of the calculated Service targets and KPIs. The documentation must be suitable for the Customer to verify the Supplier's calculation of the KPIs.

The supplier cannot, without the customer's written consent, make changes to previous calculations of the service targets.

If the content of an operating status report does not agree with the underlying data or contravenes the provisions of the Agreement, the Customer may demand that the operating status report and the resulting calculation of the Penalty and Default Points be corrected with retroactive effect.

K-4 Measurement period

The supplier must calculate each KPI as well as underlying, necessary Service target metrics with the frequency set as the Measurement Period for the KPI in question, cf. section 6.

K-5 Other Requirements

K-5 Other Requirements

K-5.K-1 Local definitions

[Agreed working hours] are all working days from 8:00 a.m. to 17.00]

[Agreed operating time] is the total time in the measurement period cf. section 5.1

4. The customer's right to changes

4.1 Change of KPI weights

K-6 Change of KPI weights

The customer can change the weight of the agreed KPIs.

The adjustment must be carried out within the following limits:

a. A KPI's Weight can be set to a value between 0 and 5.

b. The total sum of Weights for all KPIs must not exceed 100.

Changes to Weights take effect 2 months after the Customer has notified the Supplier in writing.

4.2 Change of Service Levels

K-7 Change of Service Levels

Before the Takeover Day, the customer has determined the Service Levels, cf. section 5.1, for the Services for which Availability is calculated. The customer can subsequently change the agreed Service Levels by, during the procedure for ordering Standard Order Services, cf. annex 17.a (Ordering of Standard ordering services), to complete the ordering of the Standard ordering

services arranged for the purpose, cf. detailed description of this in appendix 12.h (Standard order services).

5. Service targets and Service target metrics

K-8 Calculation of Service target metrics and fulfillment of Service targets

The supplier must meet the Service targets agreed in this section, and must perform calculations every month of the Service target metrics defined herein as a basis for calculating the KPIs defined in section 6

5.1 Availability

The Supplier calculates Availability for all individual Infrastructure systems, including physical server instances, virtual server instances, cloud server instances, network devices and Storage equipment, which the Supplier is responsible for operating.

If the Supplier is responsible for Application operation, the Supplier must also calculate Availability for the combined Applications as a whole.

The supplier calculates Availability for all the Customer's Environments.

The supplier uses the following formula when calculating Availability:

$$Availability = \frac{[Agreed\ operating\ time] - [Service\ window] - [Downtime]}{[Agreed\ operating\ time] - [Service\ Window]} \cdot 100\ \%$$

When calculating the parameters in the formula for, the Supplier must use the following definitions:

[Agreed Operating Time]	**The total number of minutes in the Measurement Period, e.g. 30 days x 24 hours x 60 minutes = 43,200 minutes.**
[Service Window]	**The total number of minutes in which there have been agreed Service Windows during the measurement period. Unused (parts of) Service windows are not included.**
[Downtime]	**The total number of minutes in which there have been unresolved P1 or P2 Incidents in relation to the**

	relevant Infrastructure system or the relevant Application during the Measurement Period. **The Supplier may deduct Downtime where it has not been able to work on rectifying the Incident as a result of circumstances beyond the Supplier's control, including:** **a.** The Supplier has been waiting for the Customer's approval for resolution of Incidents; **b.** The Supplier has been waiting for additional information from the Customer or Other Suppliers, which is beyond the Supplier's control, if it can be documented that the Supplier has continuously followed up on the Customer's or Other Supplier's response; **c.** The matter has been resolved by the Customer or an Other Supplier outside the Supplier's control, if it can be documented that the Supplier has continuously followed up on the Customer's or the Other Supplier's handling; **d.** The Supplier can demonstrate that the Incident in question is due to the underlying physical infrastructure being out of support, and where this is a consequence of the Customer's circumstances or has been approved by the Customer; **e.** The Supplier can demonstrate that the Incident in question has arisen as a result of a User designated by the Customer having privileged rights to the Infrastructure system / Application in question, and where the Incident in question has arisen because the User designated by the Customer has not followed the Supplier's instructions; **f.** The supplier, in agreement with the customer, has kept the incident open, after the triggering impact has been documented and remedied; **g.** The infrastructure system in question has not been in payable operation. **)**
[Unallowed Downtime]	**Number of hours of Non-Allowed Downtime started. Non-permitted downtime means Downtime that is beyond the Downtime that is permitted as a result of the agreed Availability. If, for example, is agreed 99.90% Availability in a month of 30 days (43,200) minutes, the permitted downtime is 0.1% of 43,200 minutes, i.e. 43.2 minutes. Has the infrastructure system in question been down for e.g. 250 minutes, the Unauthorized Downtime is calculated as 250 - 43.2**

	= 206.8 minutes / 60 = 3.44 hours, which corresponds to 4 hours of Unauthorized Downtime started.
[Infrastructure Systems]	**Refer to the Infrastructure, including physical server instances, virtual server instances, cloud server instances, network devices and Storage equipment, which the Supplier is responsible for operating.**

K-9 Service measures for availability

Table 5.1 below sets out Service targets for Availability. Service target for Availability is met when [Availability] ≥ [Agreed Availability].

Service level	Agreed Availability
platinum	99,99 %*
Gold	99,90 %
Silver	99,50 %
Bronze	95,00 %
Iron	90,00 %

Table 5.1: Service targets for Availability

The customer determines the Service Level in section 6.1.

*A tier III data center, as specified by the Uptime Institute, has an expected availability of 99.982% per year. In this appendix, this availability target is rounded to 99.99% (Platinum).

5.2 Incidents

The Supplier must calculate the Service target metrics below for all Incidents which have been open during the Measurement Period and for which the Supplier has been fully or partially responsible. Incidents which should have been rectified, but which have not been rectified in the given measurement period, are also included.

5.2.1 Solution time

The Supplier calculates the resolution time for all Incidents that the Supplier is either fully or partially responsible for rectifying. The supplier uses the following parameters when calculating the Solution Time:

[Time of Creation]	**The time when an Incident is created in the ITSM system designated by the Customer.**
[Time of resolution]	**The time when an Incident is set to status Closed by the Supplier. If the Incident in question is later reopened, the latest time when the Incident in question had the status "Closed" is used as the time for resolution.**
[Actual Solution Time]	**Number of minutes between [Time to create] and [Time to resolve].** **If a ticket is reopened within 5 Working Days from the last applicable [Time for Resolution], [Actual Resolution Time] is calculated as the total time between [Time for Creation] and the updated [Time for Resolution].** **The supplier can deduct time when he has not worked on the case if at least one of the following points is met:** **a.** The Supplier has been waiting for the Customer's approval to resolve the Incidents. **b.** The Supplier has been waiting for additional information from the Customer or Other Supplier, which is beyond the Supplier's control, if it can be documented that the Supplier has continuously followed up on the Customer's or Other Supplier's response. **c.** The matter has been resolved by the Customer or Other Supplier outside the Supplier's control, if it can be documented that the Supplier has continuously followed up on the Customer's or Other Supplier's handling. **d.** The Supplier can demonstrate that the Incident in question is due to the underlying physical infrastructure owned by the Customer being out of support, and that this has prevented the Supplier from restoring the service.

Service targets for Agreed Resolution Time appear in Table 5.2 below.

If a given Incident has been reprioritized, the priority at the time of resolution is used when determining whether the Service Objectives have been met.

Categorization of Incidents takes place in accordance with the procedure and principles laid down in Appendix 4.c (Operational Processes).

An Incident meets the Service Target for Agreed Resolution Time when [Actual Resolution Time] ≤ [Agreed Resolution Time].

K-10 Service target for resolution time for incidents

Priority	Agreed solution time
P1	4 hours (240 minutes)
P2	8 hours (480 minutes)
P3	24 hours (1,440 minutes)
P4	192 hours (11,520 minutes)

Table 5.2: Service targets for Incident Management

The Actual resolution time for incident priority 1-2 is measured in Agreed Operating Time (24/7/365), i.e. The supplier must work without interruption until the incident is resolved, unless otherwise agreed with the customer. The customer must be available to the extent necessary while the error is being resolved.

The Actual resolution time for incident priority 3-4 is measured within the Agreed Working Time (Working days 8am-5pm).

5.2.2 Resolution time exceeded and Proportion of re-opened Incidents

The Supplier must also calculate the Service target metrics below for all Incidents which have been open during the Measurement Period and for which the Supplier has been fully or partially responsible. Incidents which should have been rectified, but which have not been rectified in the given measurement period, are also included.

[Solution Timeout]	**For each Incident, the number of hours calculated to two decimal places by which the Agreed Resolution Time has been exceeded. If the Incident is resolved within the Agreed Resolution Time, Resolution Time Exceeded = 0.**
[Proportion of reopened Incidents]	**Number of re-opened Incidents / Total number of incidents which have been reported as "closed" or "resolved" in the Measurement Period.** **Reopened Incidents are understood to mean Incidents where:**

1. the processing of the same Ticket is resumed after the case has been reported as closed or resolved, or
2. where a new Ticket is opened relates to a Configuration Item for which an Incident with the same root cause has been closed within a period of 30 days.

5.3 Service Requests

The Supplier calculates the delivery time for Service Requests, for which the Supplier is fully or partially responsible for the delivery. The Supplier must include all Service Requests which have been open during the Measurement Period and for which the Supplier has been fully or partially responsible. Service Requests that should have been delivered but have not been delivered in the given measurement period are also included.

For the calculation, the Supplier uses the following parameters:

[Time for order]	**For Standard Service Requests and Hourly Service Requests, [Time for order] is the time of registration in the ITSM system designated by the Customer.**
[Time for delivery]	**The time when the relevant ticket is registered as "closed".**
[Actual Delivery Time]	**The number of minutes between [Time for order] and [Time for delivery] minus any Delay that the Supplier can document is due to the Customer's conditions or other conditions over which the Supplier has had no influence, including third party delivery times.** **When calculating the Delivery Time for Service Requests, where the implementation is carried out via the Change Management process, any time when progress has been prevented by the Customer's lack of approval is deducted.** **If [Time for delivery] has not taken place in the given measurement period, the calculation uses the last day (at 23:59) in the given measurement period to calculate [Actual Delivery Time].**

	The supplier can deduct time when he has not worked on the case, if one or more of the following points are met: **a.** The supplier has been waiting for the customer's approval. **b.** The Supplier has been waiting for supplementary information from the Customer or Other Supplier, which is beyond the Supplier's control, if it can be documented that the Supplier has continuously followed up on the Customer's or Other Supplier's response; **c.** The matter has been resolved by the Customer or Other Supplier outside the Supplier's control, if it can be documented that the Supplier has continuously followed up on the Customer's or Other Supplier's handling. **d.** The supplier can demonstrate that the delay is due to the underlying physical infrastructure, which is owned by the customer, being out of support.

Service targets for [Agreed Delivery Time] for Standard Service Requests appear in appendix 20.a (Prices and remuneration calculation).

For Hourly Service Requests, [Agreed Delivery Time] is agreed between the Parties at the time of order, cf. appendix 4.c (Operational Processes).

The service target for [Agreed Delivery Time] is met when [Actual Delivery Time] ≤ [Agreed Delivery Time].

5.4 IT security

The Supplier must calculate the delivery time for vulnerability analyses, notifications of security breaches and implementation of security patches for which the Supplier is fully or partially responsible.

For the calculation, the Supplier uses the following parameters:

[Time for identification]	**For vulnerability analyses, the time of identification of a vulnerability registered in an official vulnerability database is used, such as: National Institute of Standards and Technology (NIST)'s National Vulnerability Database (NVD) and when the vulnerability has been assigned a CVSS vulnerability level (Common Vulnerability Scoring System)).**

	For security breaches, the time when the Supplier discovers or should have discovered a security breach is used. **For security patches, the time when a security patch is made available from the manufacturer of the affected equipment is used.**
[Time for delivery]	**For vulnerability analyses, [Time for Delivery] is the time when the Customer receives a plan for remediation of the vulnerability.** **For security breaches, [Time for delivery] is the time when the Customer is notified by the Supplier of the security breach.** **For security patches, [Time to Delivery] is the time when a security patch is successfully deployed.**
[Actual Delivery Time]	**The time measured in hours between [Time for identification] and [Time for delivery] minus any Delay that the Supplier can document is due to the Customer's circumstances and which the Supplier has attempted to reduce.** **If [Time for delivery] has not taken place in the given measurement period, the last day (at 23:59) of the given measurement period is used to calculate [Actual delivery time].**

Service target for [Agreed Delivery Time] is met when [Actual Delivery Time] ≤ [Agreed Delivery Time].

K-11 Service targets for IT security

For IT security, the following Service targets specified in the table below apply.

Service goals	Agreed delivery time
Resolution of security incidents	1 hour - security incidents must be resolved within 1 hour, cf. appendix 4.c (Operational processes), K-17

Information about security breaches	30 minutes - information to the Customer in relation to a security breach must take place within 30 minutes of identification

Table 5.3: Service targets for IT security

Calculation of [Solution Time Exceeded]

For each safety incident, the number of hours, calculated to two decimal places, by which the Agreed Delivery Time has been exceeded. If the Security Incident Resolution Time is within the Agreed Delivery Time, [Resolution Time Overrun] = 0.

5.5 Problems

The Supplier must calculate the delivery time regarding Root Cause Analyzes in relation to Problems that fall within the Supplier's area of responsibility. For the calculation, the Supplier uses the following parameters:

[Time for order]	**The time when a Problem ticket is created which correctly identifies the symptoms of the problem as well as details of the Incident or Incidents that have given rise to the Problem in question being raised.**
[Time for delivery]	**The time when the Customer receives the final Root Cause Analysis containing workarounds and/or permanent solution options.**
[Actual Delivery Time]	**The time measured in Working Days between [Time for order] and [Time for delivery] minus any Delay which the Supplier can document is due to the Customer's circumstances and which the Supplier has attempted to reduce.** **If [Time for delivery] has not taken place in the given measurement period, the last day of the given measurement period is used instead of [Time for delivery] when calculating [Actual Delivery Time].**

Service target for [Actual Delivery Time] is met when [Actual Delivery Time] ≤ [Agreed Delivery Time].

K-12 Service goals for Root Cause Analyzer

Service targets for Root Cause Analyzer are listed in the table below.

Service goals	Agreed delivery time
Root Cause A**nalyse**	10 working days

Table 5.6: Service targets for Root Cause Analyzer

5.6 Backup and restore

5.6.1 Execution of Backup

The Supplier must calculate the proportion of failed backup executions for all Backup executions which fall within the Supplier's area of responsibility and which the Supplier is responsible for handling according to the following formula:

$$Percentage\ of\ failed\ executions\ = \frac{[Number\ of\ failed\ executions]}{[Number\ of\ executions]}$$

For the calculation, the Supplier uses the following parameters:

[Proportion of failed executions]	**The number of planned Backup jobs that failed and the number of planned Backup jobs that were completed during the Measurement Period but with errors.**
[Number of executions]	**The number of planned Backup jobs which, according to the Backup plan, should have been completed during the Measurement Period.**

When calculating the Share of failed executions, the Supplier only includes executions of Backup jobs relating to commissioned Production Environments.

A Backup job is considered to have failed if the Backup job has not returned a status code that has been approved by the Customer in the operation manual, and if the Supplier cannot otherwise document that the execution has been completed and verified.

If the Supplier has proved to the Customer that a failed execution is due to circumstances beyond the Supplier's control, including that it is not possible to complete the Backup job within the agreed time limit (the period between two consecutive executions) due to e.g. the amount of data, the Supplier submits a draft for changes to the Backup plan for the Customer's approval, and the backup job in question is then based on the calculation of Proportion of error-free executions, until the Customer has approved a proposal for changes to the Backup plan prepared by the Supplier.

When calculating whether the execution has failed repeatedly, the Supplier only includes Backup jobs that are planned within the same Measurement Period. The number of planned Backup jobs in a Measurement Period appears in the Backup plan, which has been agreed between the Parties in connection with the Transition phase with later changes.

5.6.2 Restore

The Supplier calculates the actual delivery time for all requests to restore data based on Backup data, which the Supplier is responsible for implementing.

[Time for order]	**The time for ordering a restore from Backup (time for creating the ticket in question in the ITSM system designated by the Customer).**
[Time for delivery]	**The time when the Supplier initiates the restore of data from the Backup.**
[Actual Delivery Time]	**The time measured in hours between [Time for order] and [Time for delivery] minus any Delay that the Supplier can document is due to the Customer's circumstances and which the Supplier has attempted to reduce.** **If [Time for delivery] has not taken place in the given measurement period, the last day of the given measurement period is used instead of [Time for delivery] when calculating [Actual Delivery Time].**

Service targets for restore are the agreed delivery deadlines for Standard Service Requests that relate to restoring data, cf. appendix 20.a (Prices and remuneration calculation).

The service target for [Agreed Delivery Time] is met when [Actual Delivery Time] ≤ [Agreed Delivery Time]. If an attempt to restore data is unsuccessful, the Service target is considered to have not been met, regardless of whether the attempt is completed within the agreed time limit or not.

5.7 Capacity Management

The Supplier must calculate the proportion of Configuration Items with warning for all physical server instances, virtual server instances and cloud server instances for which the Supplier is responsible for the operation and for which the Supplier has not submitted a proposal to remedy the specific capacity problem.

[Proportion of CIs with warning]	**The proportion of all Configuration Items where there have been warnings of the type "critical" due to exceeding a capacity threshold value for either CPU, Storage or memory (RAM) during the Measurement Period. In the calculation, the Supplier may disregard warnings that have arisen as a result of the Customer not having approved a capacity expansion proposal put forward by the Supplier, and where the Supplier can document that the proposed capacity expansion proposal is reasonable and necessary to remedy the capacity problem.**

5.8 First Call Resolution Rate

The Supplier calculates the First Call Resolution Rate for telephone inquiries received in the Supplier's Service Desk from the Customer's Users.

[Number of calls]	**Total number of telephone inquiries received at the Supplier's Service Desk during the Measurement Period from the Customer's Users, which have given rise to the creation of an Incident ticket in the ITSM system designated by the Customer.**
[Number of calls solved]	**Number of telephone inquiries which are resolved before the end of the telephone conversation calculated in the ITSM system designated by the Customer during the Measurement Period.**

[First Call Resolution Rate]	**[Number of calls solved] / [Number of calls] * 100**

K-13 Service goals for First Call Resolution

EXPIRES

5.9 Ticket Routing Accuracy

The Supplier calculates the ticket routing accuracy for all Incidents received by the Supplier's Service Desk.

[Antal Incidents]	**Total number of Incidents which have been open during the Measurement Period according to the ITSM system designated by the Customer.**
[Number Redirected]	**Number of Incidents which are redirected to another resolver group in the Measurement Period.**
[Ticket Routing Accuracy]	**[Number Redirected] / [Number Incidents] * 100**

K-14 Service measure for Ticket Routing Accuracy

EXPIRES

K-15 Other Requirements

K-15 Other Requirements

K-15.K-1 Reaction time

The Supplier calculates the reaction time for all Incidents that the Supplier is either fully or partially responsible for rectifying. The supplier uses the following parameters when calculating the reaction time:

[Time of start of measurement]	The earliest time when either the supplier receives an alarm which will result in an incident or an Incident has been reported to the supplier by the Customer or by a third party.
[Time of reaction]	The time when the incident is allocated for resolution by a named employee at the Supplier and this employee has started the remedy
[Actual Response Time]	Number of minutes between [Time of start of measurement] and [Time of reaction].

Service targets for Agreed Resolution Time appear in Table 5.7 below.

If a given Incident has been reprioritized, the priority at the time of resolution is used when determining whether the Service Objectives have been met.

Categorization of Incidents takes place in accordance with the procedure and principles laid down in Appendix 4.c (Operational Processes).

An Incident meets the Service Target for Agreed Response Time when [Actual Response Time] ≤ [Agreed Response Time].

K-15.K-2 Service measures for response time for incidents

Priority	**Agreed response time**
P1	10 minutes
P2	30 minutes
P3	8 hours (480 minutes)
P4	24 hours (1,440 minutes)

Table 5.7: Service target for Response time

The response time requirements for incident priority 1-2 are measured in Agreed Operating Time (24/7/365).

The requirements for reaction time for incident priority 3-4 are measured within the Agreed Working Time (Working days 8am-5pm).

K-15.K-3 Calculation of [Reaction time exceeded]

For each incident, the number of hours calculated to two decimal places by which the Agreed Response Time has been exceeded. If the Incident Response Time is within the Agreed Response Time, [Reaction Time Exceeded] = 0.

6. KPI definitions

K-16 KPI template

The delivery contract's KPIs are defined on the basis of the template that appears in Table 6.0.

KPI-ID	Unique ID for the KPI
Description	Overall description/title.
Purpose	Description of the KPI's purpose.
Measurement period	Indicates the temporal scope for the KPI.
Scope of application	Indicates the data scope when calculating the KPI.
Measurement method	Indicates the measurement methods or Service target metrics used when calculating the KPI.
Fulfillment criteria	The fulfillment criterion for the KPI, which is compared with the result of the measurement that appears in the Measurement method field.
Performance factor	The performance factor can be a constant or a variable that is used in the calculation of non-compliance points, cf. section 7.1 in the event that the fulfillment criterion is not met. In cases where the performance factor is a variable, the formula for calculation will appear in the field.
Weight	The weight of the KPI is a constant that is used in the calculation of non-compliance points, cf. section 7.1 in the event that the fulfillment criterion is not met.
Exception	The supplier is generally obliged to calculate all active KPIs every month, but a number of KPIs may under certain conditions be exempt from this obligation. In that case, it will appear in the Exception field.

Table 6.0: The delivery contract's KPI template

6.1 Availability

K-17 KPI catalog for Availability

The supplier must calculate the KPIs that are marked as active in Table 6.1, cf. more about this in the following subsections.

KPI ID	KPI description	Active

AV01.1	Availability for servers with the Platinum Service Level	
AV01.2	Availability for Infrastructure systems with the Service Level Platinum	
AV02.1	Availability for servers with the Gold Service Level	
AV02.2	Availability for Infrastructure systems with the Gold Service Level	
AV03.1	Availability for Silver or Bronze Service Level servers	
AV03.2	Availability for Infrastructure systems with Service Level Silver or Bronze	
AV04.1	Availability of network and storage equipment	
AV04.2	Availability of network and storage equipment	
AV05.1	Availability of Applications with the Platinum Service Level	
AV05.2	Availability for Applications with the Platinum Service Level	
AV06.1	Availability of Applications with other Service Levels	
AV06.2	Availability of Applications with other Service Levels	
AV07.1	Data center availability with the Platinum service level (monthly measurement period)	X
AV07.2	Data center availability with service level Platinum (annual measurement period)	X

Table 6.1: The supply contract's KPI catalog for availability

K-18 Calculation of KPIs regarding Availability

The supplier must calculate the KPIs below that are marked as active in Table 6.1 every month and do his best to meet the agreed fulfillment criteria. When calculating, the Supplier must use the Service targets and Service target metrics defined in section 5.1.

KPI-ID	**AV07.1**
Description	Data center availability with the Platinum service level (monthly measurement period)
Purpose	The KPI must create an incentive for the Supplier to ensure that the data center and the associated data center facilities (power supply, network supply, cooling supply etc.), for which the Supplier has operational responsibility, have a high degree of Availability.
Measurement period	Last completed month.
Scope of application	The customer's data center.
Measurement method	The sum of non-permitted downtime for the data center within the scope of the KPI.
Fulfillment criteria	< 4 minutes and 21 seconds
Performance factor	1 + 0.05 per started hour Non-permitted downtime for the data center within the scope of the KPI.
Weight	5
Exception	No

KPI-ID	**AV07.2**
Description	Data center availability with service level Platinum (annual measurement period)
Purpose	The KPI must create an incentive for the Supplier to ensure that the data center and the associated data center facilities (power supply, network supply, cooling supply etc.), for which the Supplier has operational responsibility, have a high degree of Availability.
Measurement period	Most recently completed 12-month period.

	For the period from the approval of the operational test, cf. K-2, and until 12 months have passed, the measurement period is, however, the period from the approval of the operational test until the current measurement period.
Scope of application	The customer's data center.
Measurement method	The sum of non-permitted downtime for the data center within the scope of the KPI.
Fulfillment criteria	< 52 minutes and 10 seconds
Performance factor	n/a For this KPI, an extended fine applies, cf. section 7.2.
Weight	n/a
Exception	No

6.2 Incident Management

K-19 KPI-katalog for Incident Management

The supplier must calculate the KPIs that are marked as active in table 6.2, cf. more about this in the following subsections.

KPI ID	KPI description	Active
IN01.1	Resolution time for P1 Incidents	
IN02.1	Resolution time for P2 Incidents	
IN03	Resolution time for P3 Incidents	
IN04	Resolution time for P4 Incidents	
IN05	The supplier's quality level in relation to closure of Incidents	
IN06	Response time for P1 incidents	X

IN07	Response time for P2 incidents	X
IN08	Response time for P3 incidents	X
IN09	Response time for P4 incidents	X

Table 6.2: The supply contract's KPI catalog for Incident Management

K-20 Calculation of KPIs regarding Incident Management

The supplier must calculate every month the KPIs below that are marked as active in Table 6.2 and do his best to meet the agreed fulfillment criteria. When calculating, the Supplier must use the Service targets and Service target metrics defined in section 5.2.

In the statement, the Supplier must include all Incidents which have been open during the Measurement Period and for which the Supplier has been fully or partially responsible. Incidents which should have been rectified, but which have not been rectified in the given measurement period, are also included.

KPI-ID	**IN06**
Description	Response time for P1 Incidents.
Purpose	The KPI must create an incentive for the Supplier to ensure that error handling of P1 incidents is quickly initiated
Measurement period	Last completed month.
Scope of application	Incidents with priority P1.
Measurement method	Total number of hours [Reaction time exceeded] for Incidents within the scope of the KPI.
Fulfillment criteria	= 0 (Reaction Time Exceeded = 0, i.e. no Reaction Time Exceeded)
Performance factor	1 + 0.1 per hour [Reaction time exceeded] for Incidents within the scope of the KPI.
Weight	4
Exception	No.

KPI-ID	**IN07**

Description	Response time for P2 Incidents.
Purpose	The KPI must create an incentive for the Supplier to ensure that error handling of P2 incidents is quickly initiated
Measurement period	Last completed month.
Scope of application	Incidents with priority P2.
Measurement method	Total number of hours [Reaction time exceeded] for Incidents within the scope of the KPI.
Fulfillment criteria	= 0 (Reaction Time Exceeded = 0, i.e. no Reaction Time Exceeded)
Performance factor	1 + 0.1 per hour [Reaction time exceeded] for Incidents within the scope of the KPI.
Weight	1
Exception	No.

KPI-ID	**IN08**
Description	Response time for P3 Incidents.
Purpose	The KPI must create an incentive for the Supplier to ensure that error handling of P3 incidents is quickly initiated
Measurement period	Last completed month.
Scope of application	Incidents with priority P3.
Measurement method	Total number of hours [Reaction time exceeded] for Incidents within the scope of the KPI.
Fulfillment criteria	= 0 (Reaction Time Exceeded = 0, i.e. no Reaction Time Exceeded)
Performance factor	1 + 0.1 per hour [Reaction time exceeded] for Incidents within the scope of the KPI.
Weight	1
Exception	No.

KPI-ID	**IN09**
Description	Response time for P4 Incidents.
Purpose	The KPI must create an incentive for the Supplier to ensure that error handling of P4 incidents is quickly initiated
Measurement period	Last completed month.
Scope of application	Incidents with priority P4.
Measurement method	Total number of hours [Reaction time exceeded] for Incidents within the scope of the KPI.
Fulfillment criteria	= 0 (Reaction Time Exceeded = 0, i.e. no Reaction Time Exceeded)
Performance factor	1 + 0.1 per hour [Reaction time exceeded] for Incidents within the scope of the KPI.
Weight	1
Exception	No.

6.3 Service Request fulfilment

K-21 KPI-katalog for Service Request fulfilment

The supplier must calculate the KPIs that are marked as active in Table 6.3, cf. more about this in the following subsections.

KPI ID	KPI description	Active
SR01.1	Timely delivery of Standard Service Requests	X
SR01.2	Timely delivery of Standard Service Requests, end user administration.	
SR02	Timely delivery of hourly service requests	X

Table 6.3: The supply contract's KPI catalog for Service Request Fulfillment

K-22 Calculation of KPIs regarding Service Request Fulfillment

The supplier must calculate every month the KPIs below that are marked as active in Table 6.2 and do his best to meet the agreed fulfillment criteria. When calculating, the Supplier must use the Service targets and Service target metrics defined in section 5.3.

In the statement, the Supplier must include all Service Requests which have been open during the Measurement Period and for which the Supplier has been overall responsible for the delivery. Service Requests which should have been delivered, but which have not been delivered in the given Measurement Period, are also included.

KPI-ID	**SR01.1**
Description	Timely delivery of Standard Service Requests.
Purpose	The KPI must create an incentive for the Supplier to deliver the Standard Service Request on time.
Measurement period	Last completed month.
Scope of application	Standard Service Requests that have been delivered or should have been delivered. The Standard Service Requests that are included in the statement are the Standard Service Requests that are described in Appendix 12.h (Standard order services).
Measurement method	Proportion of Standard Service Requests that are delivered within [Agreed Delivery Time].
Fulfillment criteria	> 95 %
Performance factor	1 + 0.1 per percentage point by which the fulfillment criterion is exceeded. Example: The actual proportion of Standard Service Requests that are delivered within the [Agreed Delivery Time] is 92%. The performance factor in this case is: 1 + 0.1 * (95 – 92) = 1.3.
Weight	2
Exception	No

KPI-ID	**SR02**
Description	Timely delivery of hourly service requests.

Purpose	The KPI must create an incentive for the Supplier to deliver hourly Service Requests in a timely manner. The KPI is therefore only applicable to Service Requests billed by the hour.
Measurement period	Last completed month.
Scope of application	Hourly Service Requests that have been delivered or should have been delivered.
Measurement method	Proportion of hourly billed Service Requests which are delivered within [Agreed Delivery Time].
Fulfillment criteria	> 95 %
Performance factor	1 + 0.1 per percentage point by which the fulfillment criterion is exceeded. Example: The actual proportion of hourly service requests that are delivered within [Agreed Delivery Time] is 92%. The performance factor in this case is 1 + 0.1 * (95 – 92) = 1.3.
Weight	2
Exception	No

6.4 IT security

K-23 KPI catalog for IT security

The supplier must calculate the KPIs that are marked as active in Table 6.4, cf. more about this in the following subsections.

KPI ID	KPI description	Active
SI01	Meeting deadlines for delivery of vulnerability assessments	
SI02	Assets with assigned owner	
SI03	Devices with approved safety baseline	
SI04	Approved firewall rules	

SI05	Resolution time for security incidents	X
SI06	Meeting the deadline for notification of security breaches	X
SI07	Meeting security patching deadlines	

Table 6.4: The supply contract's KPI catalog for IT security

K-24 Calculation of KPIs regarding IT security

The supplier must calculate the KPIs below that are marked as active in Table 6.4 every month and do his best to meet the agreed fulfillment criteria. When calculating, the Supplier must use the Service targets and Service target metrics defined in section 5.4.

KPI-ID	**SI05**
Description	Resolution time for security incidents
Purpose	The KPI must create an incentive for the Supplier to resolve security incidents in a timely manner.
Measurement period	Last completed month.
Scope of application	All Security Incidents.
Measurement method	Total number of hours [Resolution time exceeded] for Security incidents within the scope of the KPI, i.e. the Security Incidents where [Actual Delivery Time] exceeds [Agreed Resolution Time]
Fulfillment criteria	= 0 (Solution timeout = 0, i.e. no Solution timeout)
Performance factor	1 + 0.5 per started hour [Resolution time exceeded] for Security incidents within the scope of the KPI, i.e. the Security Incidents where [Actual Delivery Time] exceeds [Agreed Delivery Time].
Weight	5
Exception	No.

KPI-ID	SI06
Description	Meeting the security breach notification deadline.
Purpose	The KPI must create an incentive for the Supplier to implement the necessary measures to partly identify security breaches and partly to keep the Customer informed about this.
Measurement period	Last completed month.
Scope of application	All identified security breaches.
Measurement method	Total number of hours [Resolution time exceeded] for notification of Security Incidents within the scope of the KPI, i.e. the Security Incidents where [Actual Delivery Time] exceeds [Agreed Resolution Time].
Fulfillment criteria	= 0 (Solution timeout = 0, i.e. no Solution timeout)
Performance factor	1 + 0.5 per started hour [Resolution time exceeded] for the deadline for notification of Security Incidents within the scope of the KPI, i.e. the cases where [Actual Delivery Time] for notification of Security Incidents exceeds [Agreed Delivery Time].
Weight	3
Exception	No.

6.5 Problem Management

K-25 KPI-katalog for Problem Management

The supplier must calculate the KPIs that are marked as active in Table 6.5, cf. more about this in the following subsections.

KPI ID	KPI description	Active
PR01	Meeting deadlines for delivery of Root Cause Analysers	X
PR02	Incidents that should have been prevented by Problem Management	X

Table 6.5: The supply contract's KPI catalog for Problem Management

K-26 Calculation of KPIs regarding Problem Management

Each month, the supplier must calculate the KPIs below that are marked as active in Table 6.5 and do its best to meet the agreed fulfillment criteria. When calculating, the Supplier must use the Service targets and Service target metrics defined in section 5.5.

KPI-ID	**PR01**
Description	Meeting deadlines for delivery of Root Cause Analysers.
Purpose	The KPI must create an incentive for the Supplier to deliver Root Cause Analyzes in a timely manner, i.e. within a reasonable time after the related Incident occurred.
Measurement period	Last completed month.
Scope of application	Root Cause Analyzes which have been delivered or should have been delivered during the Measurement Period.
Measurement method	Proportion of Root Cause Analyzes delivered within [Agreed Delivery Time].
Fulfillment criteria	> 90 %
Performance factor	1 + 0.1 per Root Cause Analysis which is not submitted on time.
Weight	1
Exception	No.

KPI-ID	**PR02**
Description	Incidents that should have been prevented by Problem Management.
Purpose	The KPI must create an incentive for the Supplier to implement solutions that prevent Incidents from reoccurring. The KPI is necessary because the other Incident Management KPIs only relate to the Supplier's ability to resolve Incidents.
Measurement period	Last completed month.

Scope of application	P1 and P2 Incidents.
Measurement method	Number of Incidents that have a Root Cause that has been the subject of a previous Root Cause Analysis prepared by the Supplier, and where the remedial measures specified by the Supplier have or should have been implemented. Incidents which have occurred while remedial measures were being implemented and which have been resolved within the [Agreed Resolution Time] are deducted from the calculation of this KPI.
Fulfillment criteria	0
Performance factor	1
Weight	1
Exception	No.

6.6 Backup and restore

K-27 KPI catalog for Backup and restore

The supplier must calculate the KPIs that are marked as active in Table 6.6, cf. more about this in the following subsections.

KPI ID	KPI description	Active
BA01	Error-free executions of Backup jobs	
BA02	Error-free executions of Backup jobs	
RE01	Timely execution of successful restore requests	

Table 6.6: The supply contract's KPI catalog for Backup and restore

K-28 Calculation of KPIs regarding Backup and restore

EXPIRES

6.7 Capacity Management

K-29 KPI-katalog for Capacity Management

The supplier must calculate the KPIs that are marked as active in Table 6.7, cf. more about this in the following subsections.

KPI ID	KPI description	Active
CP01	Capacity Management	

Table 6.7: The supply contract's KPI catalog for Capacity Management

K-30 Calculation of KPIs regarding Capacity Management

EXPIRES

6.8 Service Desk

K-31 KPI-katalog for Service Desk

The supplier must calculate the KPIs that are marked as active in Table 6.8, cf. more about this in the following subsections.

KPI ID	KPI description	Active
SD01	First Call Resolution Rate	
SD02	Ticket Routing Accuracy	
SD03	User satisfaction survey	

Table 6.8: The supply contract's KPI catalog for Service Desk

K-32 Calculation of KPIs regarding the Service Desk

EXPIRES

K-33 Other Requirements

K-33 Other Requirements

No own requirements

7. Bodsmodel

K-34 Bodsmodel

If one or more KPIs are not met in a Measurement Period, the Supplier incurs Default Points as described below. At the end of each measurement period, the total number of non-compliance points is calculated, which is then converted into a fine. The calculation model for non-compliance points and fines is described in this section.

7.1 Calculation of Default Points

K-35 Calculation of Default Points

The supplier calculates each month the number of non-compliance points earned per KPI based on the following formula:

Default Points = Weight x Performance Factor x Default Level

[Weight]	Weight is determined by the customer for the individual KPI.
[Performance Factor]	The performance factor is 0 if the KPI's fulfillment criterion for the measurement period in question is met. If the KPI's fulfillment criterion for the relevant Measurement Period is not met, the Performance Factor is calculated as specified in the KPI definition for the relevant KPI, cf. section 6.
[Default Level]	The level of non-compliance is determined according to the following criteria: · If the KPI's fulfillment criterion is not met in the latest Measurement Period, the Non-compliance level is 1, unless one of the following criteria is also met. · If the KPI's fulfillment criterion has not been fulfilled in the last two Measurement Periods, the Non-compliance level is 2, unless one of the following criteria is also fulfilled. · If the KPI's fulfillment criterion has not been met in 4 out of the last 6 Measurement Periods, the Non-compliance level is 3, unless one of the following criteria is also met.

	· If the KPI's fulfillment criterion has not been met in at least 6 out of the last 9 Measurement Periods, the Non-compliance level is 4.

7.2 Calculation and payment of Fine

K-36 Calculation and payment of Fine

The price is calculated by the Supplier based on the following formula:

[that]	The penalty is 0 if the number of Default Points is < 5. The penalty percentage cannot exceed 100%.
[Penalty percentage]	The penalty percentage is equal to the number of non-compliance points calculated for all KPIs / 100.
[At-risk amount]	At-risk amount is 20% of the actual monthly operating remuneration (excluding remuneration for consultancy services and remuneration for transition and transformation).

The supplier pays the penalty after the calculation of the actual, monthly operating remuneration, and pays this by issuing a credit memo to the Customer or via offsetting in the next invoicing of Remuneration to the Customer, after the penalty statement has been settled.

Example:

Number of default points in the measurement period: 23

Total, actual monthly operating remuneration: DKK 355,000.

At-risk amount: 20% of DKK 355,000. = DKK 71,000

Penalty percentage = 23/100 = 0.23

Fine = 71,000 * 0.23 = DKK 16,330.

Extended storage

For KPI AV07.2 (Availability for data center with service level Platinum (annual measurement period)) an extended fine applies. The extended fine is calculated as follows.

If the Unauthorized downtime, in the most recently completed 12-month period, exceeds the limit of the fulfillment criterion, 90% of the most recent monthly operating remuneration is paid in addition to the calculated penalty for the month, cf. above calculation.

The total fine for the month cannot exceed the monthly operating fee.

Example:

Calculated storage for the measurement period: NOK 16,330.

Unauthorized downtime in the most recently completed 12-month period: 52 minutes and 11 seconds (exceeding the fulfillment criterion limit*).

Extended fine: 90% of DKK 355,000. = DKK 319,500.

Total storage for the measurement period: NOK 16,330 + 319,500 = NOK 335,830.

After this, the total Unauthorized downtime for the data center is reset.

*A tier III data center, as specified by the Uptime Institute, has an expected availability of 99.982% per year. In this appendix, this availability target is rounded to 99.99% (Platinum), corresponding to a total permitted downtime per year of 52 minutes and 10 seconds.

7.3 Earn back

K-37 Earn Back

EXPIRES

7.4 Example of penalty calculation

EXPIRES

K-38 Other Requirements

K-38 Other Requirements

No own requirements

7.5 Other Requirements

K-39 Other Requirements

K-39 Other Requirements

No own requirements