

OFFER FOR COLLOCATION 2004

OPERATIONS AND MAINTENANCE MANUAL MDF ACCESS

Changes from previous version¹

Added

Paragraph	Remarks	Issue ²
General remark	General remark: SDF will be a part of WOS. WOS is the Wholesale Order Service on the Internet. Each Service Taker can order SDF through WOS.	
2.8	“Collocation Requirements Document Content – Joint Enclosure Facility	
2.12	Site Offer Content – Joint Enclosure Facility	
3	“SDF” in the header par 3 => “Energy use of Service Taker in Physical Collocation and SDF”.	

Changed

Paragraph	Remarks	Issue ²
Voettekst	Changed version from 2.2 to 2.3	
Various	Colours to various definitions, services and documents	
Renummer paragraphs	Add par 2.8 “Collocation Requirements Document Content – Joint Enclosure Facility Renummer the following paragraphs Par 2.8 => 2.9 Par 2.9 => 2.10 Par 2.10 => 2.11 Add par 2.12 Site Offer Content – Joint Enclosure Facility Par 2.11 => 2.13	
2.1.5	Art 2.1.5 “have placed” changed into “can place”	

Removed

Paragraph	Remarks	Issue ²

¹ Grammatical changes have not been indicated.

² See “Reply issues R02001 collocation 3rd phase.xls”

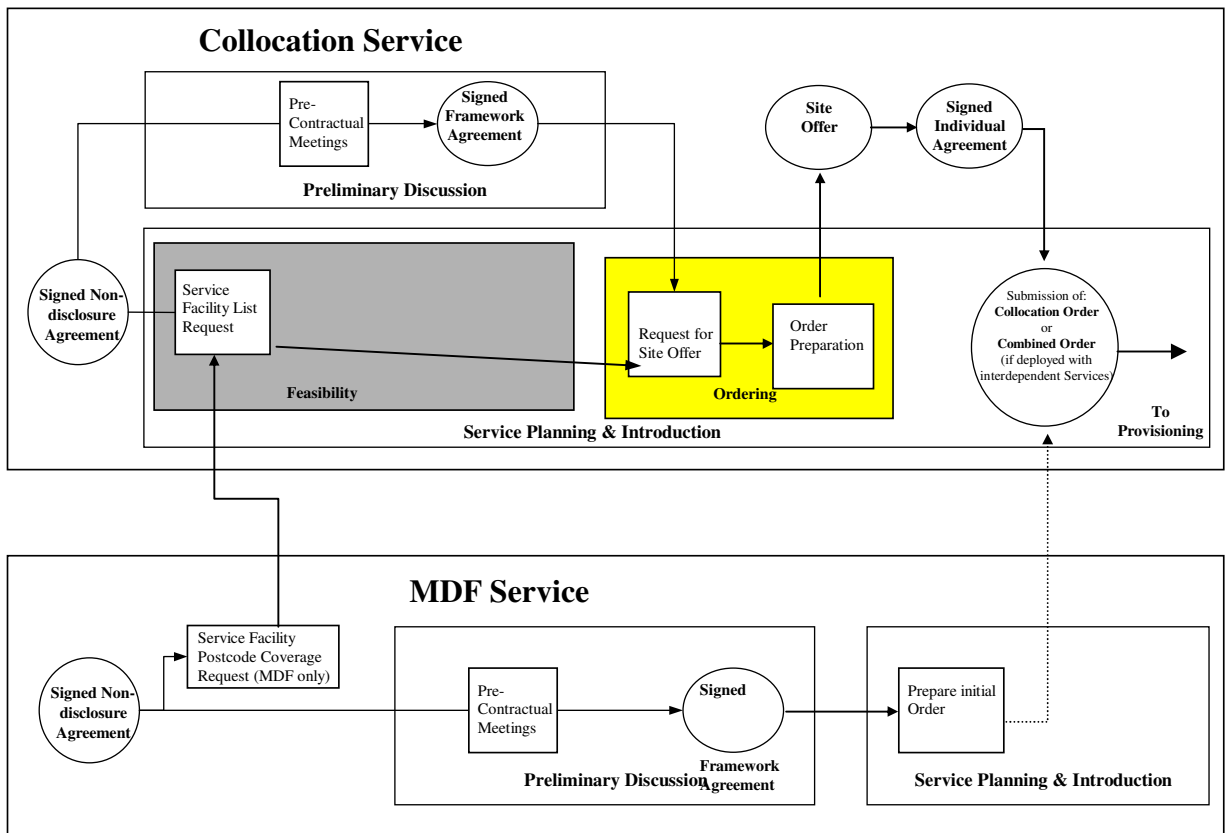
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1. General Introduction

- 1.1.1 This document presents the specific ordering processes applicable to the **KPN Telecom Collocation Service for MDF Access** provided by KPN to **Service Taker**, as used in the Framework Agreement, Individual Agreements, and supporting manuals and schedules.
- 1.1.2 Processes and information exchange that apply for all of the **KPN Telecom Collocation Services** are presented in the **General Operations and Maintenance Manual**.
- 1.1.3 This manual does not describe the internal activities within each of the Parties organisations that are necessary to support the Party to Party interfaces.
- 1.1.4 The set of operational processes in this **MDF Access Operations and Maintenance Manual** covers the ordering process depicted in the context diagram.
- 1.1.5 The goal of the description of the ordering processes is to provide:
- i a description of the key interactions between the **Service Taker** and KPN; and
 - ii a common language to describe the roles and responsibilities of both Parties.
 - iii graphical representation. A flowchart of the ordering process is added in appendix I.
- 1.1.6 Terms used within this manual of which the first letter is capitalised are defined in General and Specific **Definitions** or are the names of manuals that form part of the **Framework Agreement**.

Context diagram



The context diagram illustrates:

- the Service Planning & Introduction processes within the Collocation Service up to the point of submission of an Order for Collocation; and
- the interdependencies between the **MDF Access** in relation to the submission of a **Combined Order**.

2 Ordering Collocation for MDF Access

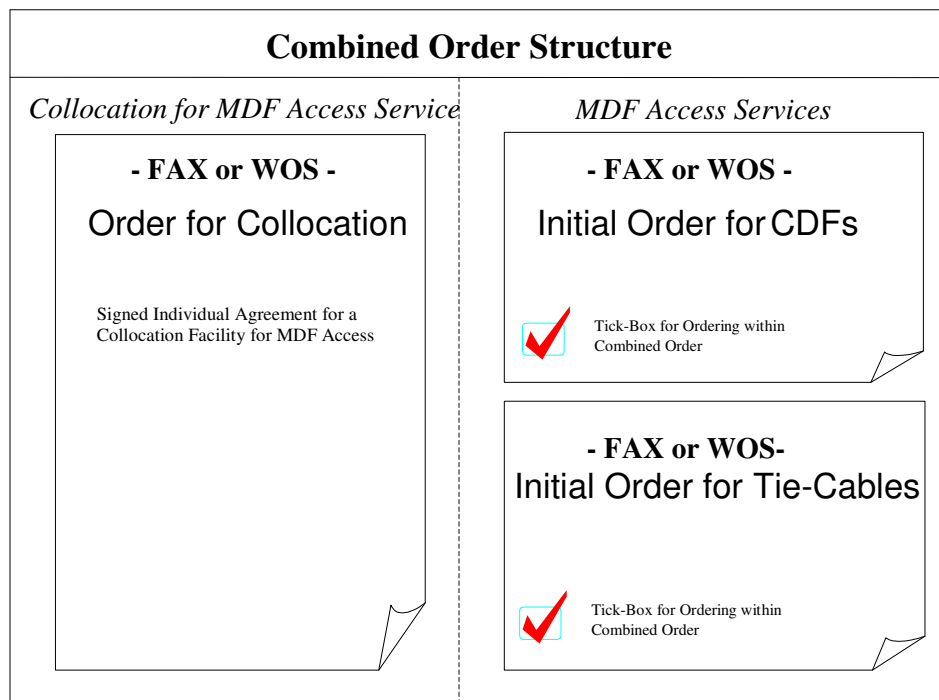
2.1 Process Description

- 2.1.1 If the **Service Taker** wishes to make a request for a **Site Offer**, then the **Service Taker** must submit a **Site Offer Request** form in conjunction with a **Collocation Requirements Document** to KPN, as described in the **General Operations and Maintenance Manual**.
- 2.1.2 The “first-come, first-served” mechanism will be implemented using the fax date and time-stamp on the **Site Offer Request**. This time stamp will be used to judge which **Service Taker’s Site Offer Request** can be fulfilled in cases where there are more requests than **Physical, Adjacent or Streetcabinet Collocation Space** available.
- 2.1.3 From the moment that the **Site Offer Request and Collocation Requirements Document** are received, KPN shall reserve the **Collocation Space** on behalf of the **Service Taker** for a maximum of 35 **Working Days**. This 35-day period runs until such time as the **Order** for Collocation is submitted in the form of a signed **Individual Agreement**.
- 2.1.4 Within a particular **Service Facility**, a **Site Offer Request** for a second **Physical** or **Adjacent Collocation Facility** by an individual **Service Taker** is steered by the expansion scheme as part of the **MDF Access Service**, since **Collocation for MDF Access** can only be ordered in combination with the **MDF Access Service**.

- 2.1.5 KPN will acknowledge receipt of the [Site Offer Request](#) within 1 [Working Day](#) and respond to the [Service Taker](#) within 20 [Working Days](#), with either a [Site Offer](#) or a rejection of the [Site Offer Request](#) (including the reasons for rejection). This response will also be by fax. Possible reasons for rejection include:
- i) failure to meet the requirements referred to in paragraph 2.1.4 (normally this check would be at the beginning of the 20 days period);
 - ii) there is no [Collocation Requirements Document](#) submitted with the [Site Offer Request](#) or the submitted [Collocation Requirements Document](#) is not filled correctly (normally this check would be at the beginning of the 20 days period);
 - iii) [Collocation Space](#) has been allocated to another [Service Taker](#) under the “first-come, first-served” process;
 - iv) the [Service Taker](#) fails to meet essential obligations under this [Framework Agreement](#) and/or one or more previous [Individual Agreements](#), including but not limited to its payment obligations as referred to in the [Framework Agreement](#) and such failure justifies a rejection;
 - v) [Local Authorities](#) can place restrictions on construction at KPN premises ([Adjacent Collocation](#), [Streetcabinet Collocation](#) or [Physical Collocation](#) in temporary buildings only);
 - vi) there is no [Collocation Space](#) available or can be made available within the [Service Facility](#); or
 - vii) there is no space available on the main distribution frame after all methods under the KPN policy for extension of the main distribution frame have been applied.
- 2.1.6 If the order of the [Service Taker](#) is rejected, [Service Taker](#) can request a "Walk Through" in that location. This procedure is described in the [General Operations and Maintenance Manual](#).
- 2.1.7 After issuing the [Site Offer](#) and on request of the [Service Taker](#), KPN shall arrange a meeting within five (5) [Working Days](#) to discuss the [Site Offer](#) and to resolve any open items, including obtaining agreement on key project dates. This meeting is referred to as the [Site Offer Meeting](#).
- 2.1.8 After receiving the [Site Offer](#), the [Service Taker](#) has a total of 15 [Working Days](#) to submit a [Combined Order](#) and signed [Individual Agreement](#). The [Combined Order](#) and [Individual Agreement](#) shall be submitted by fax to the number provided within the [MDF Access Parameter Schedule](#).

- 2.1.9 KPN shall respond to the **Combined Order** within 3 **Working Days** by sending either an **Order Confirmation** and counter-signed **Individual Agreement** or an **Order Rejection**. The **Order Rejection**, together with reasons for rejection, will be sent if any of the following apply:
- i incomplete or incorrect **Order** submitted;
 - ii no accompanying **Order** for **MDF Access Service**;
 - iii unsigned or no accompanying **Individual Agreement**; and
 - iv no up-front payment sent in accordance with the **MDF Access Tariff Schedule** and **General Billing Manual**.

- 2.1.10 The Schematic below summarises the structure and key requirements of the **Combined Order**.



2.2 TIE cable and CDF ordering

- 2.2.1 This paragraph of the **Operations and Maintenance Manual** covers the following:

- i the scope of the **Tie cable** and **CDF** Ordering process;
- ii the elements that can be ordered within the **Service**;
- iii a summary of the options, methods and pre-requisites related to Ordering;
- iv description of the Ordering process for each element; and

- v references to the lead times that apply in each case.

2.2.2 Scope, Ordering - Options and Methods

The Ordering process covers the inter-Party activities from the **Service Taker's** submission of any Order, to the **Service Supplier's** confirmation or rejection of that Order.

The Service elements that can be ordered within the **Tie cable** and **CDF** ordering process are:

- I. **Collocation Distribution Frames (CDFs)**
- II. **Tie Cables**

2.2.3 General Considerations concerning the **Tie cable** and **CDF** ordering:

The **Service Supplier** will not accept any Orders for **MDF Access Services** unless the following Agreements have been signed:

- i. the **Collocation for MDF Access Service Agreement**; and
- ii. The Individual Agreement for the **Service Facility** at which the **Service Taker** wishes to deploy **MDF Access Services**.

2.2.4 The Non-disclosure agreement Options and Constraints for **CDFs** and **Tie-Cables**

When first ordering **Tie-Cables** and one or more **CDFs**, the **Service Taker** has to combine these Orders with an Order for Collocation. This is referred to as a Combined Order. It comprises three elements, which are:

- i. an Order for Collocation for **MDF Access Service** within a **Service Facility**, in accordance with the **Collocation for MDF Access Service Agreement**;
- ii. an initial Order for one or more **CDFs** to be installed within the ordered **Collocation Facility**; and
- iii. an initial Order for **Tie-Cables** to be connected to the ordered **CDF(s)** subject to the constraints described in the **Parameter Schedule**.

2.2.5 Orders for **Tie-Cables** and **CDFs** may be submitted individually once a Combined Order has been confirmed, provided that these individual Orders are to be provisioned at the same **Collocation Facility** as the Combined Order and that the number of **Tie Cables** ordered meets the criteria described within the **Parameter Schedule**.

2.2.6 **Service Taker** can order **Tie cables** and **CDF** for a Collocation **Service** using the KPN Internet application **WOS**. **Service Taker** can also sent the Orders for **Tie-Cables** and **CDFs** to the **Service Supplier's** Account Manager.

2.2.7 **Service Taker** can submit either of the following types of **Tie-Cables**:

- i. **B-Cable**; or
- ii. **D-Cable**

2.2.8 **Tie-Cables** shall at all times be filled before a new **Tie-Cable** is deployed for the provision of additional **Individual Connection Orders (ICO)**. The **Service Taker** is responsible for ensuring that this occurs. The **Service Taker** shall therefore submit Connection **ICOs** for partially filled **Tie-Cables** in preference to empty **Tie-Cables**.

2.3 **Process Description for CDF and Tie-Cable Orders**

2.3.1 **Combined Order**

The Collocation for MDF Access **Operations and Maintenance Manual** describes the processes that must be completed prior to the preparation and submission of a Combined Order. These are illustrated in this paragraph.

2.3.1.1 As the capacity of available MDFs is limited, this ensures that, until such time as the Combined Order is submitted, the following are temporarily reserved for the **Service Taker**:

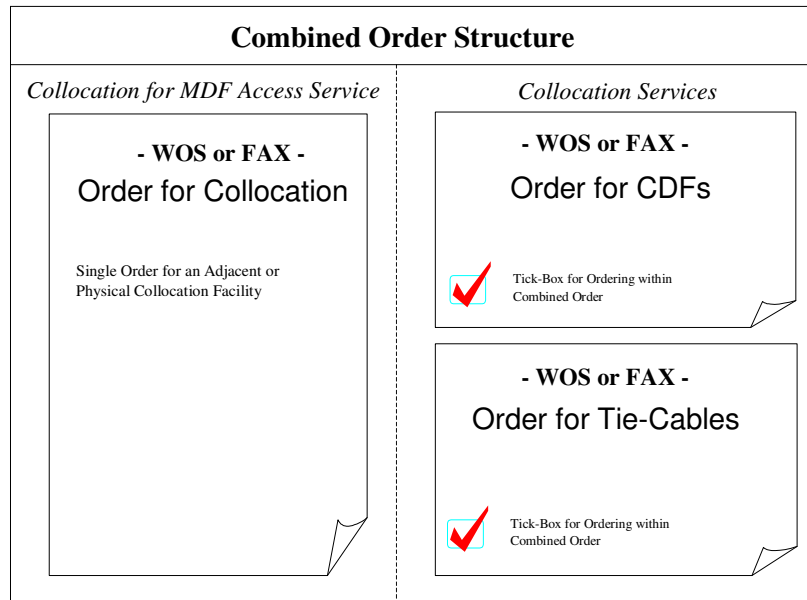
- i the **Collocation Facility**, as requested; and either
- ii sufficient MDF capacity to support the pre-defined number of Tie-Cables allowed within a Combined Order as described in the **Parameter Schedule**; or
- iii a lesser amount of MDF capacity, identified within the **Service Supplier's Site Report** to the **Service Taker**, as described within the Feasibility process in the Collocation for **MDF Access Service Operations and Maintenance manual**.

2.3.1.2 The time-limits governing this temporary period and the inter-Party dependencies are described as part of the Order Preparation stage in the Collocation for **MDF Access Service Operations and Maintenance Manual**.

2.3.1.3 The **Service Taker** must submit all elements of the Combined Order simultaneously within these specified time limits. The **CDF** and **Tie-Cable** Order forms that comprise the **MDF Access Service** components of this Order are described within this Agreement. These are standard **CDF** and

Tie-Cable Order forms, but the appropriate tick-boxes should be marked when these are submitted as part of a Combined Order.

2.3.1.4 The Schematic below summarises the structure and key requirements of the Combined Order.



2.3.1.5 The inter-dependencies between the MDF Access and Collocation for M DF Access Services in relation to the submission of a Combined Order are clarified in the Figure below:

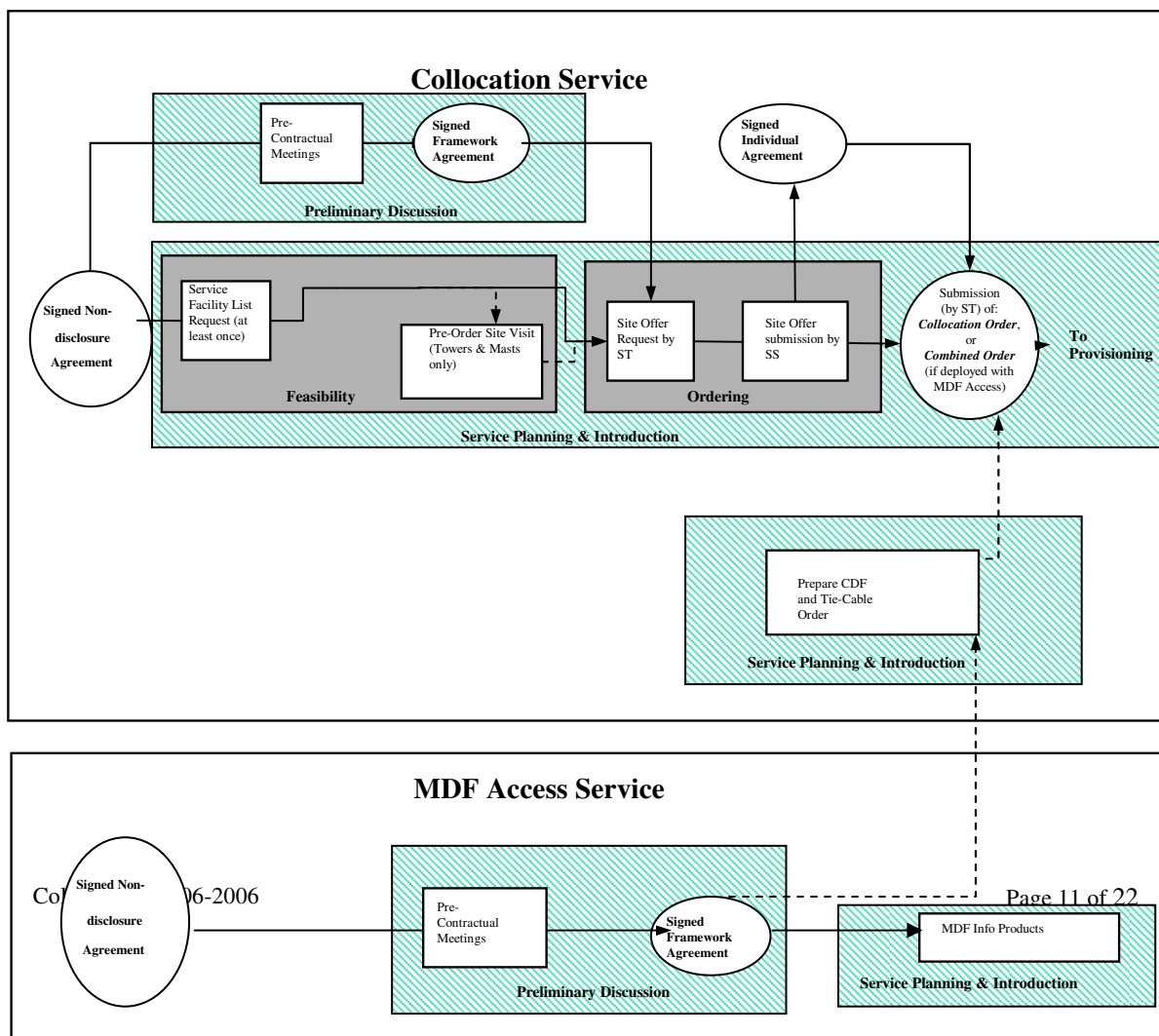


Figure: Combined Order – Service Inter-dependencies

- 2.3.1.6 The **Service Supplier** shall respond to the Combined Order within the timescales specified in the **Parameter Schedule**, by sending either an Order Confirmation or an Order Rejection.
- 2.3.1.7 The **Service Supplier** shall send an Order Rejection for the Combined Order, together with the reasons for rejection, if any of the following apply:
- i the Order does not fulfil the criteria within the Collocation for MDF Access Agreement;
 - ii the Order is incomplete, incorrect or is not signed;
 - iii the Order is submitted outside the specified time limits; or
 - iv the number of **Tie-Cables** ordered is not in accordance with the constraints described within the **Parameter Schedule**.
- 2.3.1.8 Provided that the **Service Taker** provides the essential information and meets the key timescales and conditions listed above, the **Service Supplier** will not reject Combined Orders unreasonably.

2.3.2 Orders for Additional Tie-Cables

- 2.3.2.1 The **Service Taker** may submit Orders for additional **Tie-Cables** to be connected to an existing or ordered **CDF**. The **Tie-Cable** Order form is included within this Agreement.
- 2.3.2.2. The ordering of additional **Tie-Cables** is subject to the MDF connection capacity constraints described within the **Parameter Schedule**.
- 2.3.2.3 The **Service Supplier** shall respond to the **Tie-Cable** Order within the timescales specified in the **Parameter Schedule**, by sending either an Order Confirmation or an Order Rejection.
- 2.3.2.4 The **Service Supplier** shall send an Order Rejection, together with reasons for rejection, if any of the following apply:
- i the Order is incomplete, incorrect or is not signed;
 - ii the **Service Taker** has not received an Order Confirmation for a Combined Order within the **Service Facility**;

- iii the **Tie-Cables** ordered do not meet the MDF connection capacity constraints described with the **Parameter Schedule**;
- iv the capacity of the **Tie-Cables** ordered is greater than the available space on the existing or ordered **CDF(s)**; or
- v there is insufficient capacity on the MDF within the **Service Facility** to provision any of the **Tie-Cables** ordered.

2.3.2.5 Provided that the key conditions of Order submission are met and essential information provided, the **Service Supplier** will not reject Orders for additional **Tie-Cables** unreasonably.

2.3.2.6 In cases where there is only sufficient capacity on the MDF to provision part of the **Service Taker's Tie-Cable** Order, the **Service Supplier** will notify the **Service Taker**, within the Order Confirmation, that the Order will be provisioned as a partially-fulfilled Order.

2.3.3 Orders for Additional CDFs within a Collocation Facility

2.3.3.1 The **Service Taker** may submit Orders for additional **CDFs** to be installed in an existing or ordered **Collocation Facility**. The **CDF** Order form is included within this Agreement.

2.3.3.2 The **Service Supplier** shall respond to the **CDF** Order within the timescales specified in the **Parameter Schedule**, by sending either an Order Confirmation or an Order Rejection.

2.3.3.3 The **Service Supplier** shall send an Order Rejection, together with reasons for rejection, if any of the following apply:

- i the Order is incomplete, incorrect or is not signed;
- ii the **Service Taker** has not received an Order Confirmation for a Combined Order within the **Service Facility**; or
- iii there is insufficient space within the existing or ordered Collocation Facility to accommodate the **CDF(s)** ordered.

2.3.3.4 Provided that the key conditions of Order submission are met and essential information provided, the **Service Supplier** will not reject Orders for additional **CDFs** unreasonably.

2.4 De-fragmentation of Tie cables

2.4.1 De-fragmentation is the process of re-arranging the deployment of Tie-Lines within **Tie-Cables** in order to maximise the available free capacity on a **MDF**.

- 2.4.2 When circumstances require the **Service Supplier** to free capacity on the **MDF**, the **Service Supplier** will de-fragment **Tie-Cables** used by a **Service Taker** in order to make more efficient use of the available capacity of the **MDF**. De-fragmentation will only be performed when it leads to a smaller number of **Tie-Cables** being used by the **Service Taker**.
- 2.4.3 The **Service Supplier** will inform the **Service Taker** in advance when de-fragmentation is required. The **Service Supplier** will also discuss with the **Service Taker** the method, scope, timescales and impact of the work to be undertaken.

2.5 Collocation Requirements Document Content – Physical

Collocation

2.5.1 For [Physical Collocation](#), the [Collocation Requirements Document](#) must contain, as a minimum the following information:

- i) the dimensions of the proposed cabinets to be installed by the [Service Taker](#);
- ii) the expected floor-load of the fully-configured cabinets;
- iii) cable access specifications;
- iv) fuse rating of the equipment;
- v) total power consumption and heat dissipation; and
- vi) power supply requirements.

2.6 Collocation Requirements Document Content – Adjacent

Collocation

2.6.1 For [Adjacent Collocation](#), the [Collocation Requirements Document](#) must contain, as a minimum the following information:

- I) cable access specifications.

2.7 Collocation Requirements Document Content – Streetcabinet

Collocation

2.7.1 For [Streetcabinet Collocation](#), the [Collocation Requirements Document](#) must contain, as a minimum the following information:

- I) The [Collocation Requirements Document](#) for [Adjacent Collocation Space](#), as specified in 2.3.1;
- II) the dimensions of the proposed cabinets to be installed by the [Service Taker](#);
- III) the expected floor-load of the fully-configured cabinets;
- IV) cable access specifications for [Streetcabinet Collocation Space](#).

2.8 Collocation Requirements Document Content – Joint Enclosure Facility

- 2.8.1 For a **Joint Enclosure Facility**, the **Collocation Requirements Document** must contain, as a minimum the following information:
- I) cable access specifications.
 - II) the dimensions of the **Service Taker Equipment** to be installed by **Service Taker** in the Lockable CDF Shelter;
 - III) the expected floor-load of the fully-configured **Service Taker Equipment**;
 - IV) fuse rating of the **Service Taker Equipment**;
 - V) total power consumption and heat dissipation; and
 - VI) power supply requirements.

2.9 Site Offer Content – Physical Collocation

- 2.9.1 For **Physical Collocation**, the **Site Offer** sent by KPN to the **Service Taker** will contain, as a minimum the following information:
- i) the conditions of supply of the **Collocation Facility**;
 - ii) One-off and recurring costs for the requested **Standard and Optional Facilities** and, if appropriate any **Non-Standard Facilities** indicated on the **Site Offer Request**;
 - iii) the **Ready for Service Date**;
 - iv) other key dates within the **Collocation Facility** delivery process and **Service Taker** obligations prior to the **Delivery Date** (e.g. provision of **Facilities Link** at the **Fibre Interface Point**);
 - v) drawings showing the **Fibre Interface Points** appropriate to the **Service Facility**; and
 - vi) details on the layout of the **Collocation Space** for the **Service Taker** within the **Service Facility**.

2.10 Site Offer Content – Adjacent Collocation

- 2.10.1** For **Adjacent Collocation**, the **Site Offer** sent by KPN to the **Service Taker** will contain, as a minimum the following information:
- I. the conditions of supply of the **Collocation Facility**;
 - II. One-off and recurring costs for the requested **Standard** and **Optional Facilities** and, if appropriate any **Non-Standard Facilities** indicated on the **Site Offer Request**;
 - III. the **Ready for Service Date**;
 - IV. other key dates within the **Collocation Facility** delivery process and **Service Taker** obligations prior to the **Delivery Date** (e.g. provision of **Facilities Link** at the **FLEP**);
 - V. drawings showing the **FLEP** appropriate to the **Service Facility**; and
 - VI. details on the layout of the **Collocation Space** for the **Service Taker** within the **Service Facility**.

2.11 Site Offer Content – Streetcabinet Collocation

- 2.11.1** For **Streetcabinet Collocation**, the **Site Offer** sent by KPN to the **Service Taker** will contain, as a minimum the following information:
- I. the conditions of supply of the **Adjacent Collocation Facility** and the **Streetcabinet Collocation Facility**;
 - II. One-off and recurring costs for the requested **Standard Facilities** indicated on the **Site Offer Request**;
 - III. the **Ready for Service Date**;
 - IV. other key dates within the **Collocation Facility** delivery process and **Service Taker** obligations prior to the **Delivery Date** (e.g. provision of **Facilities Link** at the **FLEP**);
 - V. drawings showing the **FLEP** and **Fibre Interface Points** appropriate to the **Service Facility**; and
 - VI. details on the layout of the **Collocation Spaces** for the **Service Taker** within the **Service Facility**.

2.12 Site Offer Content – Joint Enclosure Facility

2.12.1 For **SDF Collocation**, the **Site Offer** sent by KPN to the **Service Taker** will contain, as a minimum the following information:

- I. the conditions of supply of the **Collocation Facility**;
- II. One-off and recurring costs for the requested **Standard** and **Optional Facilities** and, if appropriate any **Non-Standard Facilities** indicated on the **Site Offer Request**;
- III. the **Ready for Service Date**;
- IV. other key dates within the **Collocation Facility** delivery process and **Service Taker** obligations prior to the **Delivery Date** (e.g. provision of **Facilities Link** at the **FLEP**);
- V. drawings showing the **FLEP** appropriate to the **Joint Enclosure Facility**; and
- VI. details on the layout of the **Lockable CDF Shelter inside the Joint Enclosure Facility**.

2.13 TIE cable and CDF provisioning

2.13.1 Introduction

2.13.1.1 This section of the **Operations and Maintenance manual** covers the following:

- i the scope of the Provisioning process;
- ii a description of the Provisioning process for each of the elements of the **Service**; and
- iii references to the lead times that apply in each case

2.13.1.2 The Provisioning process covers the inter-Party activities from the **Service Supplier's** confirmation of submitted Order to the **Service Supplier** notifying the **Service Taker** that an Order has been delivered.

2.13.1.3 The Provisioning process covers:

- i **CDFs**;
- ii **Tie-Cables**;

2.13.2 Process Description for Provisioning of CDFs and Tie-Cables

General Considerations

- 2.13.2.1 The **Service Supplier** does not perform any acceptance testing of **CDF** or **Tie-Cable** Orders delivered as part of this **Service**.
- 2.13.2.2 Once Orders for **CDFs** and **Tie-Cables** have been provisioned, the **Service Supplier** shall send a delivery notice to the **Service Taker**. The Delivery Times are specified in the **Parameter Schedule**.

Provisioning of a Combined Order

- 2.13.2.3 After sending the Order Confirmation to the **Service Taker**, the **Service Supplier** shall install the **Tie-Cables** and **CDFs** according to the dates specified in the Project Plan, as described in the **Operations & Maintenance Manual**.
- 2.13.2.4 The **CDFs** and **Tie-Cables** will be delivered concurrently with the **Collocation Facility** within which they are to be installed.
- 2.13.2.5 With the delivery of the **CDF**, the **Service Supplier** will deliver a duplicate key of the **CDF** for the **Service Taker** and will be placed in the keylocker at the Collocation.
- 2.13.2.6 At the proposed **Ready for Service Date**, the **Service Taker's** Project Manager shall check that all the elements within the Combined Order have been provisioned. The Project manager shall subsequently sign an Acceptance Form as described in the **Operations and Maintenance manual**.
- 2.13.2.7 If the provision of the Combined Order is found to be incomplete or unsatisfactory at the proposed **Ready for Service Date**, the Project Managers from both Parties will agree on an appropriate course of action to complete any outstanding work. They will also agree on a new **Ready for Service Date**.

Provisioning of Additional Tie-Cables and CDFs

- 2.13.2.8 After sending the Order Confirmation to the **Service Taker**, the **Service Supplier** shall install the **Tie-Cable(s)** and / or **CDF(s)**, within the Delivery Times as specified in the **Parameter Schedule**.
- 2.13.2.9 If the **Service Supplier** does not meet or expect to meet the Delivery Time for the ordered **Tie-Cable(s)** and / or **CDF(s)**, the **Service Supplier's** Project Manager will inform the **Service Taker's** Project Manager in writing as soon as the delay has been identified. The **Service Supplier** will include the

reasons for the delay and will propose a revised **Delivery Date**. The **Service Supplier** will use best endeavours to keep the delay as short as possible.

- 2.13.2.10 With the delivery of the **CDF**, the **Service Supplier** will deliver a duplicate key of the **CDF** for the **Service Taker** and will be placed in the keylocker at the Collocation.

3 Energy Use of Service Taker in Physical Collocation and SDF

3.1 Energy Usage of Service Taker

- 3.1.1 In addition of what is described in the General documentation, the energy use of **Service Taker** for **MDF Access Services** will always be calculated by KPN with a formula as described in this paragraph.

- 3.1.2 The energy usage formula to determine the energy use of **Service Taker** is the following:

- Energy use for 230V AC (un)monitored:
"Tariff according to the **Tariff Schedule**" per kWh * 33.2kWh * sum of lines.
- Energy use for 48V DC no break:
"Tariff according to the **Tariff Schedule**" per kWh * 33.2kWh * sum of lines or
- Energy use for 48V DC no break:
"Tariff according to the **Tariff Schedule**" per line per year.

Appendix I - Process Flow Charts

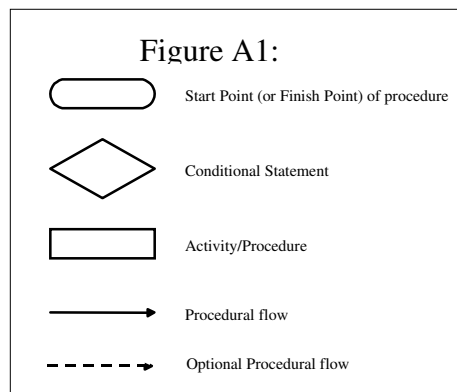
Description of flowchart terminology

The following paragraphs describe the flowchart terminology used in this MDF Access **Operations and Maintenance manual**.

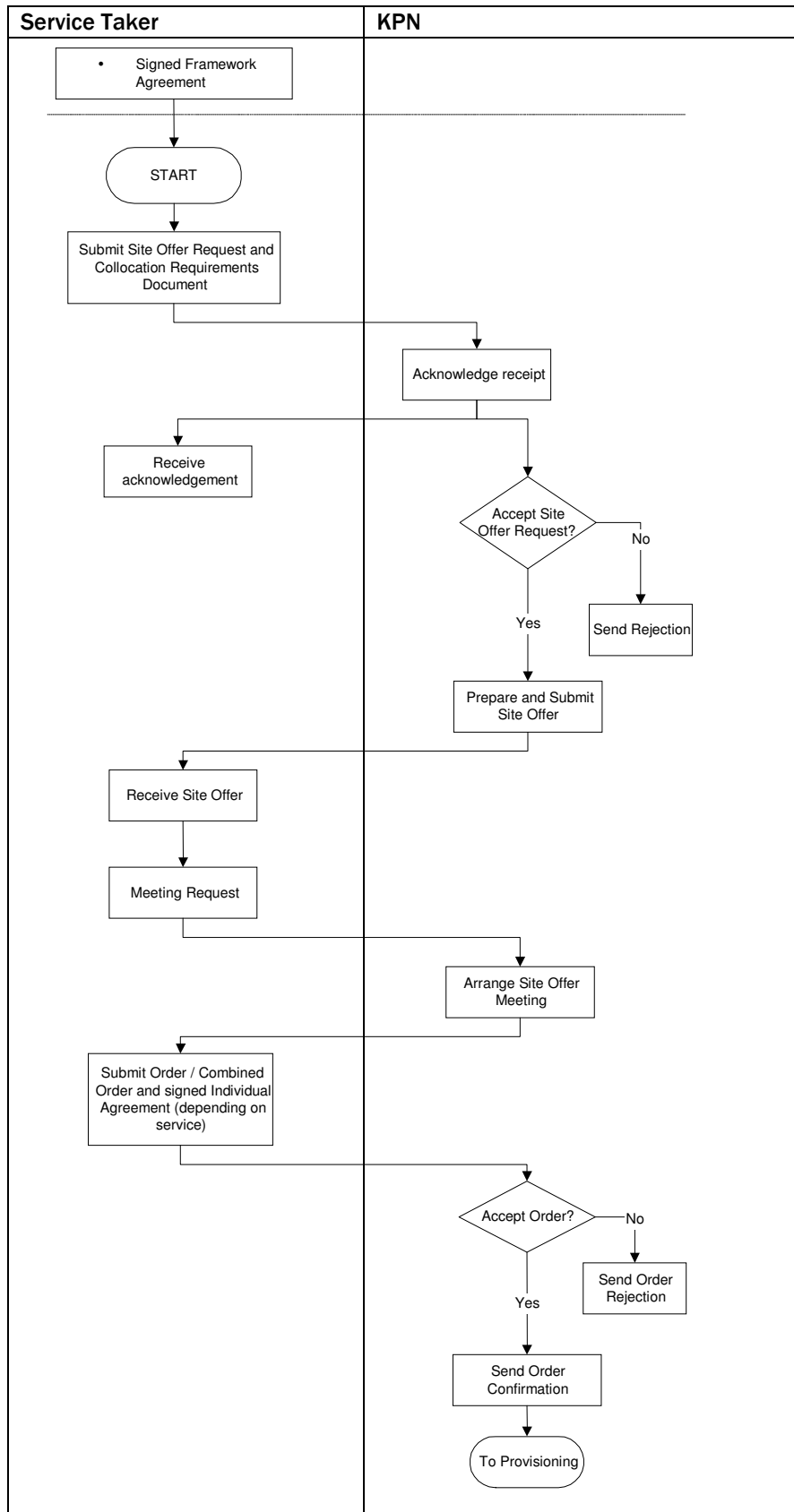
The flowchart is included for clarification purposes only for certain key elements of the Ordering phases.

The procedural flow is depicted through arrows between the processes and decision boxes. The arrows extend across the **Service Taker** and the KPN interfaces.

The following notation is used in each flowchart. The rounded symbol represents the start and completion of the process, the diamond symbol represents decision states, the rectangular symbol represent processes, the circular black mark denotes a milestone and the arrows are procedural flows. See figure A1 below.



Ordering Process



- End of Operations and Maintenance Manual -