OCH Agreement
- Direct Connection -

Between

OCH A/S
c/o Telia
Holmbladsgade 139
DK-2300 Copenhagen S
(hereinafter referred to as OCH)

and

Name
Address
Town
VAT:

(herein after referred to as DIRECT CUSTOMER)

The following Agreement has today been made on DIRECT CUSTOMER's connection to the OCH System.

The Agreement regulates conditions regarding exchange of information between OCH and DIRECT CUSTOMER for the use of DIRECT CUSTOMER's provision of a number portability service.

The Agreement is made in accordance with the terms of Agreement on Connection to the OCH System, including Annexes, which has been received and accepted by DIRECT CUSTOMER when signing the present Agreement.

DIRECT CUSTOMER has chosen the following type of connection to the OCH System:

x   VPN connection via SOAP

The following special conditions have been agreed:

None

The present Agreement is signed in duplicate, one original being held by each party.

Copenhagen, XX-XX-XXXX

OCH A/S: Company name.

_____   _____
Mette Catrine Bell   Name
Administration   Title

OPERATORS CLEARING HOUSE A/S

AGREEMENT ON CONNECTION TO THE OCH SYSTEM

The Agreement concluded between OCH A/S and DIRECT CUSTOMER on delivery of services according to the Agreement on Connection to the OCH System shall be subject to the terms stated below.

1. Conditions for Agreement on Connection to the OCH System:

With this agreement DIRECT CUSTOMER buys access to OCH system and also the communications channel (SOAP) that makes access to data on the OCH system possible. It should also be noted that the final functionality of number portability is subject to an interconnection agreement being concluded with one or more operators.

2. Contractual relationship:

The present Connection Agreement, together with the Annexes referred to in the Agreement shall constitute the complete contractual relationship for DIRECT CUSTOMER's purchase of services from OCH A/S.

3. Definitions:

Flow Holder: This means the OCH customer who sends an NP Create, see the definition in Annex 3.

Physical Manning Period: This means the period during the 24 hours in which OCH A/S ServiceCenter is physically manned. The manning period is described in section 8.

Help Desk Support: This means the support specified in Annex 4.

OCH Online System: A more detailed description of the online system and its functions is given in Annex 3.

OCH Price List: This means the price list issued by OCH A/S and which may be varied in accordance with the terms of section 6. The price list is shown as Annex 1 to this Agreement.

OCH System: This means the system described in Annex 2.

Response Time: This means the time passing from DIRECT CUSTOMER's request until fault repair is started.

Service Windows: This means the periods during which the OCH System is not in operation owing to planned system work. Service Windows are described in section 8.

End-users: This means the customers with which DIRECT CUSTOMER has made an agreement regarding electronic communications services.

TI Agreements: This means the industry agreements in force from time to time regarding number portability as adopted by the Telecommunication Industries Association in Denmark (TI).

TI Procedures: This means the technical and administrative procedures in force from time to time as adopted by the Telecommunication Industries Association in Denmark (TI).

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Connection Agreement: This means the Connection Agreement signed between OCH A/S and DIRECT CUSTOMER with associated annexes.

4. Terms of delivery:

DIRECT CUSTOMER is obligated to comply with OCH's terms for connecting to the OCH system. It is considered noncompliant of the connection agreement if the Direct customer does not comply with the agreement made with OCH

DIRECT CUSTOMER connects to the OCH System via SOAP via VPN.

5. OCH A/S' services:

Services delivered by OCH A/S under the present Agreement are specified in documents adopted by the Telecommunication Industries Association in Denmark (TI).

OCH A/S shall deliver the services necessary to enable providers of telecommunications networks and telecommunications services to offer their customers statutory facilities for number portability. The OCH System is designed in conformity with the technical and administrative procedures adopted by the Telecommunication Industries Association in Denmark (TI Procedures).

At the time of signing this Agreement, these procedures comprise the following documents:

- Rules and Procedures for Number Portability

- Requirements/Transactions for Number Portability

However, this is subject to the proviso that the OCH System has not necessarily implemented the most recently adopted procedures.

DIRECT CUSTOMER has been informed of, and shall comply with, the TI Procedures in force from time to time.

It shall be regarded as a breach of the Connection Agreement if DIRECT CUSTOMER does not comply with the adopted TI Procedures and TI industry agreements in force from time to time.

To the extent that DIRECT CUSTOMER does not comply with the TI Procedures referred to above, OCH A/S shall be able to suspend DIRECT CUSTOMER from the OCH System. However, a suspension will only be effected in case DIRECT CUSTOMER's conduct is a material breach of its obligations under the TI Procedures, and is also of substantial inconvenience to the other customers on the OCH System.

DIRECT CUSTOMER should be aware that TI may have adopted versions of the TI Procedures above that are newer than the documents on which coding of the OCH System is based.

However, OCH A/S aims to ensure that later changes in TI Procedures that involve changes in the OCH System should be adopted by OCH A/S as soon as possible.

6. Prices:

All services under the present Agreement shall be delivered at the prices given in the OCH Price List. The Price List effective at the date of signing the present Agreement is appended as Annex 1. The monthly charge includes payment for all forms of transaction described in Annex 1.

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Subject to a written notice of three months, OCH A/S shall be entitled to vary the prices in relation to DIRECT CUSTOMER without DIRECT CUSTOMER being entitled to terminate the Agreement, see also section 15.

7. Payment:

DIRECT CUSTOMER shall arrange for payments to be made at the place of payment specified by OCH A/S from time to time. Subject to a written notice of one month, OCH A/S shall be entitled to change the specified place of payment.

All services from OCH A/S will be invoiced monthly in arrears, the time allowed for payment being the date of invoice + 30 days. However, the monthly charge will be invoiced in advance.

In case of late payment, OCH A/S shall be entitled to charge DIRECT CUSTOMER a fee according to the OCH Price List, see Annex 1. In case of late payment, interest will also be charged on the outstanding amount at a rate of 1.5% per month or fraction thereof.

OCH A/S shall be entitled to demand that DIRECT CUSTOMER provide proper security for DIRECT CUSTOMER's current usage of services bought from OCH A/S. The requirement for security to be provided may be made by OCH A/S both when the Agreement is concluded and at a later date.

8. Operational aspects:

OCH A/S shall provide 24 hour Help Desk support from ServiceCenter to DIRECT CUSTOMER regarding the OCH System.

DIRECT CUSTOMER's usage of Help Desk support from ServiceCenter will be invoiced by OCH A/S according to the current OCH Price List, see Annex 1.

The OCH System and the underlying production environment are designed to be available 24 hours a day, all days of the year, with the exception of planned service windows. However, OCH A/S does not provide any guarantee for such availability.

Service Windows are basically planned outside normal working hours during the period from 18.00 to 08.00 hours. Extraordinary interruptions - e.g. in case of system re-engineering - will be advised at a notice of 14 days.

In connection with the transition from/to summer time, there may be interruptions of a duration up to two hours.

OCH A/S Response Times are specified in Annex 4. OCH A/S does not provide any guarantee as to when observed faults have been repaired.

As facility management operator for OCH A/S, physical manning period in ServiceCenter is all weekdays (Monday-Friday) 08.00-16.00 hours. In addition to this time schedule, a special on-call service is provided. Invoicing for the above services shall be made in accordance with the OCH Price List, see Annex 1.

DIRECT CUSTOMER shall not be entitled to perform batch runs, which shall mean collection of major transaction volumes in one run, without prior agreement with ServiceCenter.

9. Duty to give information:

DIRECT CUSTOMER shall notify OCH A/S as soon as possible of any faults or delays that DIRECT CUSTOMER finds in the OCH System.

DIRECT CUSTOMER shall inform OCH A/S without undue delay of any unplanned operating disturbance to the DIRECT CUSTOMER's own systems.

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Furthermore, DIRECT CUSTOMER shall notify OCH of any planned Service Windows well in advance and at a notice of at least 14 days.

DIRECT CUSTOMER shall keep OCH informed on a current basis of the correct name and address of DIRECT CUSTOMER's business. Furthermore, DIRECT CUSTOMER shall inform OCH A/S on a current basis of the contact person for contractual relations between DIRECT CUSTOMER and OCH A/S.

10. Limitation of liability:

OCH A/S does not assume any guarantee or liability for operating the OCH System and can in no circumstances be held liable for DIRECT CUSTOMER's direct or indirect loss as a result of any inability of the OCH System to work.
Any guarantees given by DIRECT CUSTOMER to an INDIRECT CUSTOMER or to its end-users shall be no concern of OCH A/S.

11. Amendment of contract terms:

Amendments of the present contract terms shall only be valid if agreed in writing between the parties.

OCH A/S shall be entitled to demand that the contract terms be amended if such amendments are required by the authorities. DIRECT CUSTOMER undertakes to sign new contract terms in case amendments are required by the authorities.

Subject to a notice of three months, OCH A/S shall also be entitled to amend the contract terms without DIRECT CUSTOMER being entitled to terminate the Agreement, see also section 15.

12. Ownership of OCH data:

The intellectual property right in respect of all OCH data shall be held by OCH A/S, and DIRECT CUSTOMER shall not be entitled to use OCH data contrary to this property right.

13. Confidentiality:

All information received by DIRECT CUSTOMER regarding the functionality of the OCH System shall be treated confidentially and shall not be passed on to other parties except with the prior written consent of OCH A/S. Moreover, all information received by OCH A/S regarding DIRECT CUSTOMER and the market situation of DIRECT CUSTOMER shall be treated confidentially and shall not be passed on to other parties except with the prior written consent of DIRECT CUSTOMER.

14. Terms for resale:

Services bought from OCH A/S shall not be passed on, sold or used in any other way in relation to third parties except with the prior written permission of OCH A/S.

It shall be considered a material breach of the present Agreement if this obligation is disregarded by DIRECT CUSTOMER.

OCH A/S shall be entitled to demand special payment for DIRECT CUSTOMER's use of OCH services in relation to third parties.

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15. Termination of the Agreement:

The present Agreement shall continue until terminated by one of the parties at a written notice of three months with effect from the end of a month. However, the Agreement shall cease without notice in case of material failure by one of the parties to perform its obligations, including failure to pay amounts due.

In case OCH A/S has made use of its right to give notice of variations in prices and terms that are to the disadvantage of DIRECT CUSTOMER, cf. sections 6 and 11, DIRECT CUSTOMER shall have the option, within 14 days after having been informed of such notice, to terminate the Agreement with effect from the date on which such price notice becomes effective.

In case OCH A/S has not received DIRECT CUSTOMER's written notice of termination before expiry of the 14-day time limit referred to above, this special termination option shall no longer apply in relation to DIRECT CUSTOMER.

16. Assignment of the Agreement:

DIRECT CUSTOMER shall not be entitled to assign its rights or obligations under the present Agreement to a third party except with the prior written consent of OCH A/S.

OCH A/S shall be entitled to charge a special administration fee, cf. the OCH Price List in Annex 1, for arranging such assignment of the Agreement to a third party.

OCH A/S shall be entitled to assign its rights and obligations to a third party, including the facility management operator chosen from time to time.

17. Settlement of disputes:

Any dispute arising about the content of the present Agreement shall be settled under Danish law.

In case the dispute cannot be solved by negotiation between the parties, either party shall be entitled to submit the dispute to arbitration at an arbitration tribunal appointed by the Danish Institute of Arbitration in accordance with "Rules of Procedure of the Danish Institute of Arbitration (Copenhagen Arbitration)".

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ANNEX 1:

OCH PRICE LIST EFFECTIVE 1st January 2015:

Connection types:
Direct connection: DKK   15.000,-   per connection established

Monthly charge (including connection to the OCH online system):
Per directly connected customer: DKK   3.500,-   per month
SOAP connection: DKK   2.900,-   per month

Routing database dump
When DIRECT CUSTOMER is connected to OCH, OCH will arrange for the OCH database to be placed in DIRECT CUSTOMER's tray free of charge.
On application to ServiceCenter, DIRECT CUSTOMER may arrange for additional dumps to be placed in DIRECT CUSTOMER's tray, from where these dumps can be collected by DIRECT CUSTOMER.
For this service, DIRECT CUSTOMER will be invoiced according to the time consumed, at the hourly rates given below, with a fixed addition of:
- dump of active porting data   DKK   1.500,-   per dump
- dump of historic porting data   DKK   1.500,-   per dump
- dump of all porting data   DKK   3.000,-   per dump

ServiceCenter / Help Desk support:
(Invoicing is per period of 15 minutes or fraction thereof)
Hourly payment (weekdays 08.00-16.00 hours):   DKK   995,-   per hour
Special on-call arrangement: DKK   1.990,-   per hour

List of OCH transaction prices:

Transactions[1]:
NP Create Order type 1:   DKK   7,-   per transaction
(Transaction type 001)
NP Create Order type 2[2]:   DKK   80,-   per transaction
(Transaction type 001 - type 2)

NP Change type 1:   DKK   4,-   per transaction
(Transaction type 017)
NP Change type 2[2]:   DKK   10,-   per transaction
(Transaction type 017 - type 2)

NP Create Light   DKK   4,-   per transaction

NP Range Update - initiating operator: DKK   25,-   per transaction
NP Range Update - receiving operators: DKK   0,-   per transaction
(Transaction type 014)

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[1] Reference is made to the document "Requirements/Transactions for Number Portability (Phase 2)" for definition of the individual transactions. The amount stated will be invoiced to the operator initiating the individual transaction. The amount is invoiced on transmission of the transaction irrespective of whether the transaction is completed.
[2] The price applies to numbers belonging to the same End-user customer. The transaction type cannot be used for numbers belonging to different End-user customers.

Database lookup:

Database lookup on OCH online is free up to and including 50.000
Lookups per month. Beyond this the price is: DKK   1,-   per 100 lookup

Administration fees:

For assignment of Agreement to a third party: DKK   5,000,-   per occasion

Late payment:

Reminder fee: DKK   150,-   per reminder
Interest charged at a rate of 1.5% per month or fraction thereof.

Reactivation fee:

In case of deactivation of DIRECT customer
Due to lack of payment a reactivation
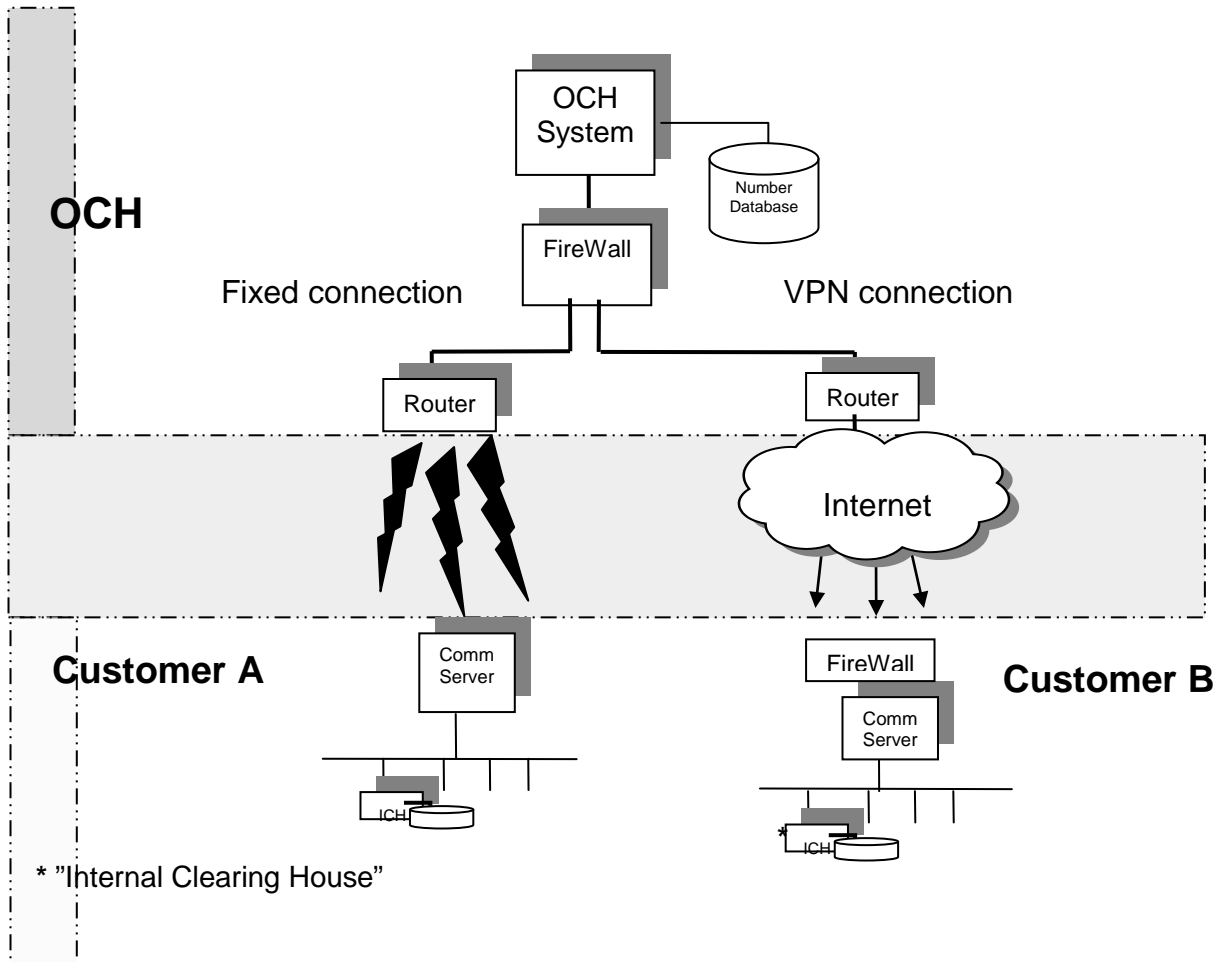Is charged: DKK   3.000,-   per occasion

OCH A/S shall not be responsible for any misprints, and the prices listed are subject to alteration.

All prices are exclusive of VAT.

ANNEX 2:

THE OCH SYSTEM

* "Internal Clearing House"

In addition to the transaction server itself, with the associated in/out trays per operator, the OCH System also consists of a number of auxiliary systems:

❖ Management
❖ Statistics
❖ Store and forward

These systems are used for fault handling and processing of invoicing data.
Customers are connected via DN/EDIcom client program, which is installed on the CommServer (DIRECT CUSTOMER's communications server). The client program is compiled to a number of standard platforms, and on OCH A/S' website customers can always see what platforms are being supported.

DN/EDIcom is standard concept for connecting to. DN/EDIcom users include companies that make use of EDI. If DIRECT CUSTOMER already has a physical connection to, it might also be possible to use this for connecting to the OCH System.

ANNEX 3:

General functionality of the OCH Online System

Functionality
OCH online is a lookup database where it is possible to follow all portings in OCH and the location of the end-user number at network and/or service operators. Usage of this lookup tool is free, and it is designed to allow users to follow a number porting flow or enquire about the current status of one or more telephone numbers.

Access
To enable lookup in OCH online, a user ID and password are required. These are to be handled separately by DIRECT CUSTOMER.
One or two administrators shall be appointed to handle the ordering of passwords. All new passwords shall be ordered in writing from Helpdesk, and DIRECT CUSTOMER shall define the user ID and password itself.
The administrators shall always be responsible for ensuring that the user ID is not used improperly and that outdated passwords are cancelled.

Forced closure of flows
Forced closure of flows via OCH online is possible, and this may only be done by the Flow Holder, i.e. the operator that sent NP Create. Forced closure can only be done when the Point of No Return has been passed, i.e. when the Flow Holder has sent an NP Completion, and OCH has sent the NP Update.
Forced closure can be undertaken by ordinary users and administrators at the Flow Holder.

However, Helpdesk is always able to undertake forced closure of a flow at an arbitrary stage of the flow, but the name of the person making the request must be registered. Such forced closure will most often imply clean-up of both the Donor's and Recipient's own systems.

Ordering of dumps and reports
The administrator at the individual DIRECT CUSTOMER is able to order dumps via OCH online and will be invoiced at the rates shown in the current Price List in Annex 1.
Both the administrator and ordinary OCH online users can order reports via OCH online.

Limitations
OCH online is not designed to handle lookups of the extent that may be generated by a computer setup. As a consequence, any attempt to connect a computer for automatic lookup will be considered as unauthorised use of OCH online and as a breach of the Agreement.

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ANNEX 4:

Fault handling and technical/administrative support

ServiceCenter will provide Help Desk Support at three levels, referred to as level 1, level 2 and level 3 support.

All requests should be addressed to ServiceCenter, which may be contacted 24 hours a day, all days of the year. ServiceCenter is physically manned all weekdays 08.00 to 16.00 hours. During other periods, a special on-call arrangement is available.

ServiceCenter will register all requests for technical/administrative assistance and reports about problems, and will subsequently deal with the problem report irrespective of the way in which the request was made.

Requests may be made for example by:

❖ Telephone
❖ Fax
❖ E-mail
❖ Letter
❖ Automatically or manually via the system log

For using ServiceCenter, a charge will be made according to the terms in Annex 1.

For the purpose of further processing, ServiceCenter will record all relevant information.

The following details must be registered:

❖ A heading describing the content of the report.
❖ The customer represented by the person in question, in a form and to an extent allowing the DIRECT CUSTOMER number to be retrieved.
❖ Who has made the request.

For reports of the category "problem", the following must also be registered:

❖ Contact person, who need not necessarily be identical with the person making the request, and any backup person.
❖ Telephone number/fax number/e-mail address of the person making the request, or who has been contacted regarding the problem.
❖ Time at which the event occurred.
❖ A meaningful description, error messages, symptoms etc. of the problem.
❖ Indication showing what transaction the report is about.

ServiceCenter will undertake an initial analysis of the problem straight away, determining its importance to DIRECT CUSTOMER. Furthermore, it is assessed whether the problem at hand affects other customers.

Before the problem is given a priority, and before processing and possible on-call measures are initiated, ServiceCenter will assess if the affected component is to be in operation at the time concerned (service window).

Factors that determine the priority/severity of a problem are:
❖ Impact on the grade of service
❖ Number of users affected
❖ How often the problem arises
❖ Possibility of bypassing

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Fault priorities

Priority	Characteristics	Comments	Processing Level 1	Processing Level 2	Processing Level 3	Total processing time
			On the basis of the priorities, the following processing times have been determined:			
0	The system is down and activities cannot continue. A service is out of operation. Several customers are affected.	For all priority 0 problems, the Problem Management function MUST be contacted by telephone immediately. Problem solver to be contacted by telephone. Work to proceed without interruption until solution/bypass reached.	< 15 min.	< 1 hour	< 1 hour	**< 1 hour**
1	The system is running, but continued operation is difficult. A service is partly out of operation. A fault is repeated at short intervals.	For all priority 1 problems, the Problem Management function MUST be contacted by telephone immediately. Problem solver to be contacted by telephone.	1 x 24 hours	< 1 x 24 hours	< 1 x 24 hours	**< 1 x 24 hours**
2	Priority reduced from 0 or 1, a bypass having been found which allows continued operation at minor inconvenience. Serious problem with consequences for several users. Complaints to be started at priority 2 as a minimum.		< 1 x 24 hours	< 2 x 24 hours	< 3 x 24 hours	**< 5 days**
3	Serious problem, but without consequences for other users.	Default, i.e. standard level for setting priorities.	< 2 x 24 hours	< 1 week	< 2 weeks	**< 1 month**
4	Minor, non-urgent problem	To be dealt with on an occasional basis.	< 2 x 24 hours	< 2 weeks	< 1 month	**< 2 months**
5	Problems that may await the next release. Problems that must not be forgotten, e.g. because further analysis may result in corrective action. Problems that have been solved and where DIRECT CUSTOMER has been informed, but feedback etc. from DIRECT CUSTOMER is outstanding.	No time limitation. May be dealt with as proposal for new release.	No limitation	No limitation	No limitation	**No limitation**

Annex 5:
Checklist for new Direct OCH connected customer

To insure that deployment proceeds as smoothly as possible and without causing irregularities in the daily production it is important for the new operator to properly document that their API (Internal Clearing House) is thoroughly tested.

Deployment schedule

At least 3 weeks before deployment the new operator will send test plan with test cases to OCH A/S.

At least 2 weeks before deployment – and preferably before deployment mail is sent – OCH A/S will invite the new operator to a review meeting.
In this meeting OCH's daily management and Technical Group will participate along with representatives from OCH's development and facility management partners.
In the meeting we will review the new operators ICH setup, test cases and the tests performed. We will also discuss the new operator's contingency plan and the new operator information on OCH Online (Operation Information).

Deployment day
On the deployment day, we will have a conference phone meeting with the operator, OCH facility management and representatives from OCH's daily management/Technical Group regarding deployment status.

Daily during the first days after deployment
Brief status meetings if required.

Operator system test in the test period

A Network operator must be able to:

Import
Send NP Create and receive NP OCH Response. NP Create with and without porting date.
Receive NP Error.
Receive NP Confirmation.
Receive several NP Confirmations on the same flow.
Receive NP Reject.
Send NP Cancel.
Send NP Completion and receive NP Update Complete from all other operators.
Send NP Return.
Send NP Range Update and receive NP Update Complete from all other operators.

Export
Receive NP Create and send NP Confirmation.
Send several NP Confirmations on the same flow with a different confirm date.
Receive NP Create and send NP Reject.

Receive NP Cancel.
Receive NP Update and send NP Update Complete within no more than 10 mins.

3rd party
Receive NP Update and send NP Update Complete within no more than 10 mins.
Receive 1000 NP Update and send 1000 NP Update Complete, for each of them within no more than 10 mins.

A Network operator should be able to:

Send NP Change and receive NP Update Complete from all other operators.
Handle import type 2.
Handle export type 2.
Handle import/export with ICC number.
Handle import/export with Customer-ID.

A Network operator with a directly connected Service operator must be able to:

Import

Send NP Create with a different SO in Recipient Service Operator and receive NP OCH Response. NP Create with and without porting date.

Export

Receive NP Create CC.
Receive NP Confirm CC.
Receive NP Reject CC.
Receive NP Cancel CC.

A Network operator with a directly connected Service operator must also be able to:

Import

Send NP Create with a different SO in Recipient Service Operator and receive NP OCH Response. NP Create with and without porting date.

Export
Receive NP Create and send NP Confirmation on behalf of SO.
Receive Create and send NP Reject on behalf of SO.
Receive NP Cancel on behalf of SO.

A directly connected Service operator must be able to:

Import
Receive NP Create CC.
Receive NP Error.

Receive NP Confirmation CC.
Receive several NP Confirmations CC on the same flow.
Receive NP Reject CC.
Receive NP Cancel CC.
Receive NP Update and send NP Update Complete within no more than 10 mins.
Receive NP Update Complete from all operators.
Send NP Return.
Send NP Range Update and receive NP Update Complete from all operators.

Export
Receive NP Create and send NP Confirmation.
Send several NP Confirmation on the same flow with a different confirm date.
Receive NP Create and send NP Reject.
Receive NP Cancel CC.
Receive NP Update and send NP Update Complete within no more than 10 mins.

3rd party
Receive NP Update and send NP Update Complete within no more than 10 mins.
Receive 1000 NP Update and send 1000 NP Update Complete, for each of them within no more than 10 mins.

A directly connected Service operator should be able to:

Send NP Change and receive NP Update Complete from all other operators.
Handle import type 2.
Handle export type 2.
Handle import/export with ICC number.
Handle import/export with Customer-ID.

Contingency plan/monitoring
Is it important that the operator monitors the system especially in the first 14-24 hrs
(calendar days). If any problems arises all operators must be notified.

Contact
The operator must supply name, email-address and phone number for a technical contactperson that can be reached 24 hrs. day in the startup phase.