

Appendix G

DCC Gateway Connection Code of Connection

DEFINITIONS

Connection Period	means the period for which a DCC Gateway Connection is to be provided, as determined in accordance with the provisions of clause 1.6 of this document or pursuant to section H15.18(c) of the Code.
Contractual Bandwidth	means, in relation to any particular DCC Gateway HV Connection, the maximum number of megabits of data that are permitted to be transmitted each second over that connection.
DCC Gateway Connection Performance Report	means a monthly report relating to the performance of a DCC Gateway Connection containing the information set out in clauses 1.29 to 1.31 of this document.
Electronic Site Review	means a remote, desk-based assessment of the location at which the DCC Gateway Connection is required to assess whether a physical Site Survey is required.
Enabling Works	means any building or civil works, including laying of cables and gaining the necessary wayleaves or consents, required to be undertaken by a DCC Gateway Party and/or the DCC, to enable the DCC to provide a DCC Gateway Connection.
Inbound	means 'to the DCC Gateway Equipment'.
Load	means the number of bits transferred in a given interval divided by the duration of that interval, expressed in bits per second.
Maximum Physical Bandwidth	means 100 megabits per second (Mbps) or such increases as may be notified to DCC Gateway Parties by the DCC from time to time.
Outbound	means 'from the DCC Gateway Equipment'.
Site Survey	means a physical assessment of the location at which the DCC Gateway Connection is required, to assess whether any Enabling Works are required inside and/or outside the DCC Gateway Party's premises and to detail preparatory works to be carried out by the DCC Gateway Party to be reflected in the offer made pursuant to section H15.12 of the Code.

1. DCC GATEWAY CONNECTIONS

- 1.1 Section H15 sets out principal rights and obligations applying to the provision of DCC Gateway Connections which are supplemented by the provisions set out below.

General Obligations

- 1.2 A DCC Gateway LV Connection will provide a download bandwidth of up to 40Mbps and an upload bandwidth of up to 10Mbps or such increases as may be notified to DCC Gateway Parties by the DCC from time to time.
- 1.3 A DCC Gateway HV Connection will provide a bandwidth of up to the Maximum Physical Bandwidth, which can be specified in increments of 10Mbps.
- 1.4 Each Party that wishes to establish a DCC Gateway Connection shall submit a request for a connection. Such request shall specify the DCC Gateway Bandwidth Option and:
- (a) in the case of a request for a DCC Gateway LV Connection, the Connection Period; or
 - (b) in the case of a request for a DCC Gateway HV Connection;
 - (i) the required Contractual Bandwidth in relation to that connection, provided that the Contractual Bandwidth for any connection shall be an integer multiple of 10Mbps, and shall not exceed the Maximum Physical Bandwidth;
 - (ii) and the Connection Period; and

shall be made using the application form for such requests as published on the DCC Website.

- 1.5 Following a request for a connection being submitted, the DCC and the Party that submitted the request shall inform each other of the contact details of one or more persons working for their respective organisations for the purposes of communications associated with the establishment and management of DCC Gateway Connection(s). The following information shall be provided in relation to each such person (and shall subsequently be kept up to date by the providing Party):
- (a) contact name;
 - (b) contact email;
 - (c) contact telephone;
 - (d) contact role(s);
 - (e) contact address;

and any other contact details as may be reasonably required by the DCC or the other Party from time to time.

Connection Mechanisms and Period of Connection

- 1.6 Where a DCC Gateway Party wishes to procure a DCC Gateway Connection:
- (a) the connection may be requested for an initial period of either one or three years from the point at which the connection becomes capable of operation; and
 - (b) the DCC shall notify the DCC Gateway Party when the connection becomes capable of operation.

- 1.7 Where a DCC Gateway Party requests multiple DCC Gateway Connections for a single location at the same time, the DCC shall take all reasonable steps to conduct any Site Surveys in a single visit to that location.
- 1.8 Where any Enabling Works are required, the DCC Gateway Party and the DCC shall inform each other of the progress and completion of the Enabling Works.
- 1.9 In the event that a DCC Gateway Party wishes to decrease the Contractual Bandwidth of its DCC Gateway HV Connection during its Connection Period:
- (a) the DCC Gateway Party shall inform the DCC, provided that the requested decrease shall be an integer multiple of 10Mbps;
 - (b) the DCC shall reduce the Contractual Bandwidth accordingly as soon as is reasonably practicable and in any event within 30 days of being informed of the required adjustment; and
 - (c) the DCC shall provide the DCC Gateway Party with advance notice of the date from which the adjusted Contractual Bandwidth shall take effect.
- 1.10 In the event that a DCC Gateway Party wishes to increase the Contractual Bandwidth of its DCC Gateway HV Connection during its Connection Period:
- (a) the DCC Gateway Party shall inform the DCC, provided that the requested increase shall be an integer multiple of 10Mbps, and shall not exceed the Maximum Physical Bandwidth of that connection;
 - (b) the DCC shall confirm to the DCC Gateway Party the applicable charges arising from the increase as soon as reasonably practicable and in any event within 5 Working Days;
 - (c) following notification of the applicable charges, the DCC Gateway Party shall, within 30 days, confirm to the DCC that the DCC Gateway Party wishes to proceed with the increase (and where no such confirmation is provided within 30 days, the DCC's offer to increase the bandwidth at the notified applicable charge shall lapse);
 - (d) where the DCC receives confirmation from the DCC Gateway Party within 30 days that it wishes to proceed with the increase, the DCC shall increase the Contractual Bandwidth accordingly as soon as is reasonably practicable and in any event within 30 days of receiving such confirmation; and
 - (e) the DCC shall provide the DCC Gateway Party with advance notice of the date from which the adjusted Contractual Bandwidth shall take effect.

Installation, Maintenance and Removal of DCC Gateway Equipment

- 1.11 Sections H15.20 to H15.28 set out principal rights and obligations relating to DCC Gateway Equipment which are supplemented with the provisions set out below.
- 1.12 Where the DCC is undertaking works at the DCC Gateway Party's premises for the purposes of installation, maintenance or removal of DCC Gateway Equipment, the DCC shall take all reasonable steps to avoid interrupting the DCC Gateway Party's existing telecommunications services at those premises. In the event that it is necessary to interrupt the DCC Gateway Party's existing telecommunications services:

- (a) the DCC shall take all reasonable steps to provide the DCC Gateway Party with advance notice of the interruption; and
 - (b) the DCC Gateway Party shall have the right to request that such interruption be rescheduled, such request not to be unreasonably withheld or delayed by the DCC.
- 1.13 Where the DCC Gateway Party's existing telecommunications services are interrupted as a result of DCC undertaking works as set out in clause 1.12, the DCC shall:
- (a) take all reasonable steps to minimise the length and impact of the interruption; and
 - (b) ensure that the telecommunications services are restored as soon as is reasonably practicable and in any event immediately following the completion of the works.
- 1.14 Where maintenance undertaken by the DCC requires the replacement of DCC Gateway Equipment:
- (a) the DCC shall remove that equipment within 30 days of the date of the replacement activity; and
 - (b) in the event that such equipment is not removed within 30 days, the DCC Gateway Party may dispose of the equipment and shall notify the DCC at least 5 days prior to disposing of the DCC Gateway Equipment, provided that the DCC shall have the right to remove the equipment prior to the end of that 5 day period.
- 1.15 Subject to the obligations in Sections H15.20, H15.21, and H15.28(b) for the DCC to act in accordance with Good Industry Practice, the DCC shall not be responsible for or liable to the DCC Gateway Party for making good any minor repairs to decoration that have become necessary as a result of the DCC's installation, maintenance or removal of DCC Gateway Equipment.
- 1.16 Each DCC Gateway Party shall make available to the DCC all information, facilities and services reasonably required by the DCC to carry out installation, maintenance or removal of DCC Gateway Equipment.
- 1.17 Where reasonably requested by a DCC Gateway Party, the DCC shall provide such information as required by the DCC Gateway Party in order to facilitate the installation, maintenance or removal of DCC Gateway Equipment. Following receipt of that information, the DCC Gateway Party shall have the right to reschedule the visit by the DCC. The DCC Gateway Party acknowledges that rescheduling of the visit required for installation may give rise to the DCC notifying a revised connection date pursuant to H15.15 and that rescheduling the visit for maintenance or removal may give rise to corresponding delays for the completion of that maintenance or removal.
- 1.18 Subject to Section H15.24, and except where such steps are necessary on security or safety grounds, each DCC Gateway Party shall not take any steps that may affect the operation of the DCC Gateway Connection without prior agreement of the DCC, such agreement not to be unreasonably withheld or delayed, and shall ensure that no person other than the DCC undertakes any maintenance of the DCC Gateway Equipment.
- 1.19 The DCC Gateway Party shall implement and maintain controls to ensure the physical security of the DCC Gateway Equipment, including that only appropriately authorised persons have access to such equipment, and that this access is recorded in a log maintained for that purpose.
- 1.20 The DCC shall take all reasonable steps to comply with any DCC Gateway Party's reasonable requests in respect of installation or relocation of DCC Gateway Equipment. The DCC Gateway Party shall be

entitled to make the final decision on the routing of cables and location of the DCC Gateway Equipment, subject to such decision not impacting on the DCC's ability to provide and maintain the DCC Gateway Connection.

- 1.21 The DCC may modify or replace the DCC Gateway Equipment where necessary to maintain the operation of the DCC Gateway Connection, provided that such modification or replacement does not materially diminish the performance of the DCC Gateway Connection, and only after giving reasonable notice of the need to modify or replace the DCC Gateway Equipment to the DCC Gateway Party.
- 1.22 The DCC shall wherever possible carry out maintenance of the DCC Gateway Equipment installed at a DCC Gateway Party's site remotely, using the network connection itself to gain access to the DCC Gateway Equipment:
- (a) where reasonably practicable, the DCC shall provide reasonable advance notice to the DCC Gateway Party of such maintenance;
 - (b) such advance notice shall be provided to a contact nominated to the DCC for that purpose by the DCC Gateway Party, or otherwise the contact provided pursuant to clause 1.5; and
 - (c) the DCC Gateway Party shall have the right to request that the maintenance is rescheduled, such request not to be unreasonably withheld or delayed by the DCC.
- 1.23 The DCC and each DCC Gateway Party shall provide sufficient information to each other to enable the establishment and maintenance of the network layer connectivity across the DCC Gateway Connection.
- 1.24 The DCC shall give the DCC Gateway Party reasonable notice of required site visits to perform installation, maintenance or removal of DCC Gateway Equipment and the DCC shall accommodate the DCC Gateway Party's reasonable requests regarding the timing of such visits.

Reporting Obligations

- 1.25 Where a DCC Gateway Party notifies the DCC that the DCC Gateway Party wishes to receive DCC Gateway Connection Performance Reports, the DCC shall provide such DCC Gateway Connection Performance Reports, in accordance with clause 1.26, until notified by the DCC Gateway Party that it no longer wishes to receive such reports. The DCC shall notify DCC Gateway Parties of the DCC contact details for these purposes.
- 1.26 By the end of the 10th Working Day following the end of each calendar month, the DCC shall provide each DCC Gateway Party who has requested a report pursuant to clause 1.25 with a DCC Gateway Connection Performance Report for each of their DCC Gateway Connections for the previous calendar month (the 'reporting period').
- 1.27 The DCC shall provide DCC Gateway Connection Performance Reports to DCC Gateway Parties via an appropriate mechanism (as reasonably determined by the DCC) and notify each DCC Gateway Party of such mechanism. Where the DCC first proposes a mechanism or proposes to change the mechanism for the provision of the DCC Gateway Connection Performance Reports, the DCC shall:
- (a) undertake reasonable consultation with DCC Gateway Parties regarding the proposed mechanism or the proposed modification thereto;
 - (b) give due consideration to, and take into account, any consultation responses received;

- (c) publish a statement of its reasons for proposing or modifying the mechanism, as applicable, together with copies of any consultation responses received; and
- (d) provide reasonable notice to DCC Gateway Parties of the mechanism or any changes in the mechanism, as applicable.
- 1.28 The DCC shall ensure that each DCC Gateway Connection Performance Report is made available to be accessed (via the mechanism described in clause 1.27) by the relevant DCC Gateway Party at any time in the six month period following the provision of the report.
- 1.29 The DCC shall ensure that each DCC Gateway Connection Performance Report shall include values for each of the data elements set out in Table 1 (DCC Gateway Connection performance measures) in respect of the performance of the relevant DCC Gateway Connection during the reporting period.
- 1.30 The DCC shall ensure that each DCC Gateway Connection Performance Report is provided in a Portable Document Format (PDF).
- 1.31 The DCC shall provide the data (recorded in per minute intervals) used to calculate the values for each of the data elements set out in Table 1 in a separate file in Comma Separated Variable (CSV) format except those data that relate to:
- (a) changes in values between the relevant reporting period and the preceding reporting period;
- (b) calculation of Jitter and Latency (as defined in Table 1 below); and
- (c) outages and availability (as defined in Table 1 below).

Table 1: DCC Gateway Connection performance measures

Data element	Description
95th percentile Load Inbound	Load Inbound values for each minute during the reporting period shall be ranked from highest to lowest and the top five percent shall be discarded. The highest value of those which remain shall be the 95th percentile Load Inbound
95th percentile Load Outbound	Load Outbound values for each minute during the reporting period shall be ranked from highest to lowest and the top five percent shall be discarded. The highest value of those which remain shall be the 95th percentile Load Outbound
95th percentile utilisation Inbound	The 95th percentile Load Inbound as a proportion of the Contractual Bandwidth, expressed as a percentage
95th percentile utilisation Outbound	The 95th percentile Load Outbound as a proportion of the Contractual Bandwidth, expressed as a percentage

Availability	The percentage of time for which the DCC Gateway Equipment or the network used by the DCC to transfer data to or from the DCC Gateway Equipment, was available during the reporting period
Average Load Inbound	The mean value of Load Inbound during the reporting period
Average Load Outbound	The mean value of Load Outbound during the reporting period
Average utilisation Inbound	The mean Load Inbound during the reporting period as a proportion of the Contractual Bandwidth, expressed as a percentage
Average utilisation Outbound	The mean Load Outbound during the reporting period as a proportion of the Contractual Bandwidth, expressed as a percentage
Change in the 95th percentile Load	The difference in the 95th percentile Load Inbound or Outbound between the reporting period and the preceding reporting period, whichever difference is greater (the highest absolute value, ignoring the sign), as a proportion of the equivalent Load for the preceding reporting period, expressed as a percentage.
Change in volume	The difference in the total amount of data transferred Inbound or Outbound between the reporting period and the preceding reporting period, whichever difference is greater (the highest absolute value, ignoring the sign), as a proportion of the equivalent value for the preceding reporting period, expressed as a percentage
Discards	The total number of data packets not delivered due to network routing issues during the reporting period
Errors	The total number of data packets where discrepancies were identified during transmission in the reporting period, expressed as a percentage.
Jitter	The time, in milliseconds, measuring the variation in latency. The interval over which the variation is measured is determined in accordance with Good Industry Practice
Latency	The time, in milliseconds, taken for a test ping to be transferred Inbound and Outbound.
Outages	The total time, in minutes, for which the DCC Gateway Equipment or the network used by the DCC to transfer data to or from the DCC Gateway Equipment was not available during the reporting period
Peak Load Inbound	The highest single value of Load Inbound during the reporting period

Peak Load Outbound	The highest single value of Load Outbound during the reporting period
Peak utilisation Inbound	The peak Load Inbound during the reporting period as a proportion of the Contractual Bandwidth, expressed as a percentage
Peak utilisation Outbound	The peak Load Outbound during the reporting period as a proportion of the Contractual Bandwidth, expressed as a percentage
Volume Inbound	The total amount of data Inbound during the reporting period, expressed in bytes
Volume Outbound	The total amount of data Outbound during the reporting period, expressed in bytes