Driver's Licence Number Project (DLNP)

Technical information for external stakeholders

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Contents

1. Document change history

The following changes were made in document version 1.1:

- Section 6 ‘DL Number formats in impacted Systems or Components, including Integrations with ICBC Systems’; added clarifications and examples for external partner system integrations with ICBC systems
- Section 7 ‘Physical driver’s licence’; updated the last sentence to clarify the reference to external partner system integration updates.

2. Background

ICBC anticipates running out of seven digit driver’s licence numbers by the fall of 2023. In preparation, **we will increase the length of driver’s licence numbers from 7 digits to 8 digits by the summer of 2023**.

Adding an additional digit to the driver’s licence number will impact many ICBC systems and processes. It may also impact your organisation. It is important that you assess your systems and discuss this change with your business and technology teams, so you’re prepared to make any changes required to accommodate the additional digit.

If you have any questions about the information in this document you can reach us at 8digitDL@icbc.com.

3. Document Purpose

The purpose of this document is to provide you with technical information to help you assess your systems and processes for impacts related to the introduction of an 8-digit driver’s licence number.

This document describes:

- What will change when we increase the length of the driver’s licence number;
- The format of the driver’s licence number and the client number;
- How these numbers are stored and processed in ICBC systems and applications;
- How to update your impacted systems and applications;
- How to update your impacted integrations with ICBC systems and applications.

4. Overview of Driver's Licence Number and Client Number

Client number (CLN) and driver's licence number (DLN) are used to uniquely identify customers in ICBC systems. Numbers are assigned when ICBC creates a record for any new (unknown or unmatched) organisation or individual.

- **Individuals** are assigned a **driver's licence number and a client number**.
- **Organisations** are assigned a **client number**.

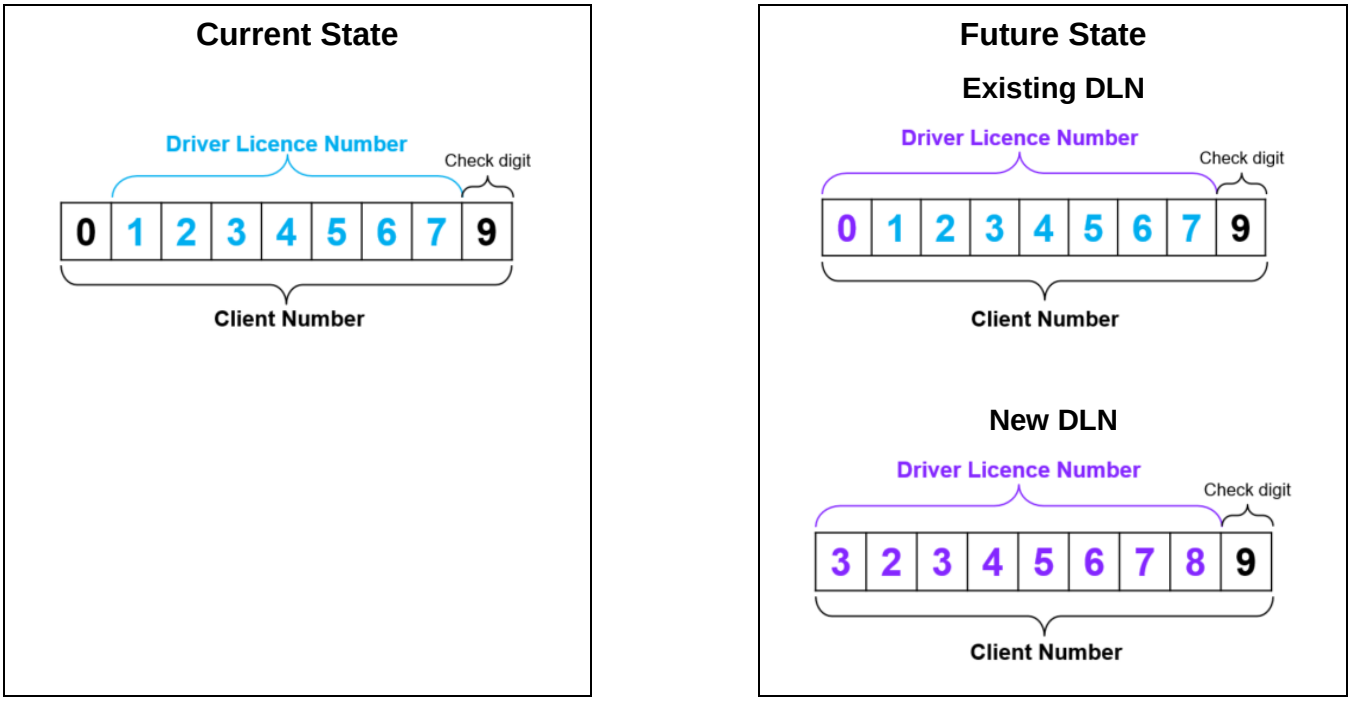
4.1 Individuals

Individuals are assigned a driver's licence number and a client number. The individual client number is derived from the driver's licence number.

In the future:

- the driver's licence number will **increase in length**
- newly issued driver's licence numbers will use a **new number range** (3 or higher)

The diagram below represents current and future states.



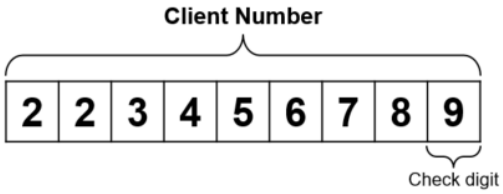
Client number and driver licence number field formats vary depending on where they are stored and used in ICBC systems. See **Section 4** and **Section 5** for field format specifications and specific details of what will change in the future.

4.2 Organizations

Organizations are assigned a client number. There is no related driver licence number for organizations.

Organization client numbers are assigned from a specific number range and always begin with 2.

There is **no change to future state for organization client numbers**.

Current State	Future State
	**No change to future state for organization client numbers**

5. Number Formats

The following tables define number formats and provide examples of current and future state.

Legend:

1234	Black indicates current state / no change
0000	Blue indicates current state leading zeros
1234	Purple indicates future state change
1234	Red indicates check digit

5.1 Driver's Licence Number Formats

Element	Current State	Future State	Change Summary
DL Number <u>Integer</u> Format	Maximum 7-digit integer 1 2 3 4 5 6 7 3 4 7 6 3 1 2 3 4 6 7 8 9	Maximum 8-digit integer 1 2 3 4 5 6 7 8 3 4 7 6 3 1 2 3 4 6 7 8 9 3 1 0 9 8 7 9 4	• No change to integer format • No change to existing DLNs • New DLNs will be 8-digits long • New DLNs will use new number range, starting with 3 range
DL Number <u>String</u> Format	7 numeric character string, padded with leading zeros 1 2 3 4 5 6 7 0 0 5 6 7 4 5 0 3 4 7 6 3 1 2 3 4 6 7 8 9	8 numeric character string, padded with leading zeros 1 2 3 4 5 6 7 8 0 0 0 5 6 7 4 5 0 0 3 4 7 6 3 1 0 2 3 4 6 7 8 9 3 1 0 9 8 7 9 4	• String length increased to 8 characters • Existing DLNs: add additional leading zero to increase length to 8 characters • New DLNs: will be 8 characters long

5.2 Individual Client Number Formats

Element	Current State	Future State	Change summary
Individual Client Number <u>Integer</u> Format	Maximum 8-digit integer 1 2 3 4 5 6 7 8 3 4 7 6 3 1 3 2 3 4 6 7 8 9 2	Maximum 9-digit integer 1 2 3 4 5 6 7 8 9 3 4 7 6 3 1 3 2 3 4 6 7 8 9 2 3 1 0 9 8 7 9 4 0	• No change to integer format • No change to existing CLNs • New individual CLNs will be 9-digits long
Individual Client Number <u>String</u> Format	9 numeric character string, padded with leading zeros 1 2 3 4 5 6 7 8 9 0 0 3 4 7 6 3 1 3 0 2 3 4 6 7 8 9 2	9 numeric character string, padded with leading zeros 1 2 3 4 5 6 7 8 9 0 0 3 4 7 6 3 1 3 0 2 3 4 6 7 8 9 2 3 1 0 9 8 7 9 4 0	• No change to string format • No change to existing CLNs • New individual CLNs will use new number range, starting with 3

5.3 Organisation Client Number

Element	Current State	Future State	Change
Organization Client Number Integer Format	9-digit integer 1 2 3 4 5 6 7 8 9 2 1 0 9 8 7 8 4 9 2 3 7 4 3 7 6 5 8	9-digit integer 1 2 3 4 5 6 7 8 9 2 1 0 9 8 7 8 4 9 2 3 7 4 3 7 6 5 8	• No change
Organization Client Number String Format	9 numeric character string 1 2 3 4 5 6 7 8 9 2 1 0 9 8 7 8 4 9 2 3 7 4 3 7 6 5 8	9 numeric character string 1 2 3 4 5 6 7 8 9 2 1 0 9 8 7 8 4 9 2 3 7 4 3 7 6 5 8	• No change

6. DL Number formats in impacted Systems or Components, including Integrations with ICBC Systems

Many external partner systems integrate with ICBC systems through various mechanisms:

- Access ICBC IMS DB database directly using the mainframe programs;
- Access ICBC DB2 database directly using the stored procedures or SQL statements;
- Invoke ICBC mainframe transactions, programs or subroutines from external partner client applications or mainframe transactions, programs or subroutines;
- Send or receive the mainframe batch files to or from ICBC mainframe system;
- Send or receive the mainframe reports to or from ICBC mainframe system;
- Invoke ICBC web service SOAP or RESTful APIs.

The owners of the external partner systems that are integrated with ICBC systems are expected to make changes to their impacted systems and interface mechanisms with the ICBC systems following the instructions in this section and in section 5.1 ‘Driver’s Licence Number Formats’.

For example,

- *If a system or application in your organisation integrates with an ICBC mainframe transaction directly, the external partner system needs to make the change and send the future state 8 characters string format DL number in the IMS transaction string to the ICBC mainframe.*
- *If a system or application in your organisation integrates with an ICBC RESTful API, the external partner should consult with ICBC first to decide if an 8 characters string format or integer format DL number is required in the specified API. If an 8 characters string format DL number is required, make the external partner system change to send the future state 8 characters string format DL number to the ICBC RESTful API.*

The table below lists the **driver’s licence number** future state changes made by ICBC to the ICBC systems and components. These changes are also applicable to impacted systems owned by external partners to support the future state. ***External partners are responsible to make the required changes to the impacted systems and components that they own and operate.***

Exception cases may exist. Please contact us at 8digitdl@icbc.com with questions.

System or Component	Current State	Future State	Change
IMS DB	Integer format DL number for the field data type “FIXED BIN (31)”	Integer format DL number for the field data type “FIXED BIN (31)”	No
	7 character string format DL number for field data type “CHAR (7)”	8 character string format DL number for field data type “CHAR (8)”	**Yes**
Z/OS DB2	Integer format DL number for the field data type “INT”	Integer format DL number for the field data type “INT”	No
	7 character string format DL number for field data type “CHAR (7)”	8 character string format DL number for field data type “CHAR (8)”	**Yes**
Mainframe transactions and programs – input & output data	7 character string format DL number	8 character string format DL number	**Yes**
Mainframe Application – screen input & display	7 character string format DL number	8 character string format DL number	Yes
Mainframe batch files	7 character string format DL number	8 character string format DL number	**Yes**
Mainframe reports	7 character string format DL number	8 character string format DL number	**Yes**
Web service or API **please consult ICBC for the DL number format of specific ICBC services or APIs*	Integer format DL number	Integer format DL number	No
	7 character string format DL number	8 character string format DL number	**Yes**

No system changes are required for the individual client number:

- For an integer format client number, ICBC systems currently use the data type “integer”. No change is required to support future state.
- For a string format client number, ICBC systems currently use the data type “CHAR (9)”. No change is required to support future state.

7. Physical driver’s licence

After we implement this change, driver’s licences in circulation may show either 7- or 8-digit numbers:

- Existing cards will show 7-digits
- Newly issued, renewed or replaced cards will show 8-digits

Driver’s licences are generally issued with a 5-year expiry date. Existing cards will be gradually updated to show 8-digit numbers as they are renewed or replaced. After the 5-year renewal cycle most cards will show 8-digits.

7.1 Barcode and Magnetic Stripe data

Data contained in the magnetic stripe and barcode will align with what is printed on the card:

- Existing cards will have 7-digit driver’s licence number in magnetic stripe and barcode
- New, renewed or replaced cards will have 8-digit driver’s licence number in magnetic stripe and barcode

There is **no change to the technical specification for barcode or magnetic stripe data**. Current data formats for both barcode and magnetic stripe will support future state.

Regardless of what is printed on the card or captured from the barcode or magnetic stripe, to support the future state the integration points with ICBC systems must follow the driver’s licence number formats as described in **Section** 5 ‘Number Formats’ and **Section 6 ‘**DL Number formats in impacted Systems or Components, including Integrations with ICBC Systems**’.**