

**QSystem Data Dictionary**

**Replacement / Redevelopment**

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# Physical Data Model

The following is the physical data model for the new QSystem application.





# Main Entities

The main entities / tables in the QSystem application are Office, CSR, and Citizen. These tables are described below. The Period table is also described in this section.

## Office Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Null** | **Description** | **Valid Values** |
| OfficeId | BIGINT(20) | No | Primary key, auto generated |  |
| OfficeName | VARCHAR(100) | No | The name of the office | Assigned by Service BC |
| OfficeNumber | INT(11) | No | The number of the office | Assigned by Service BC |
| SBId | BIGINT(20) | No | The key of a record in the SmartBoard table | An ID in the SmartBoard table. |
| Deleted | DATETIME | Yes | Indicates the date at which an office became inactive. Offices are not deleted, but are marked as inactive if this date has been set. | NULL=Active  Non-null=Valid date/time |

## CSR Table

**Please note:** In production, some or all of this data may move to Keycloak.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Null** | **Description** | **Valid Values** |
| CSRId | BIGINT(20) | No | Primary key, auto generated |  |
| UserName | VARCHAR(150) | No | The CSRs idir ID. This field must be unique | A valid IDIR id |
| OfficeId | BIGINT(20) | No | The key of the Office that the CSR is working in | An ID in the Office table |
| RoleId | BIGINT(20) | No | The key of the Role that the CSR has. This role relates to access permissions, not to functional roles (Receptionist, Quick transaction). | An ID in the Role table |
| QTxnCSR\_ind | TINYINT(1) | No | Indicates whether a CSR will only serve citizens that can be handled relatively quickly, until there are no more such citizens left | 0=No (default)  1=Yes |
| Receptionist\_ind | TINYINT(1) | No | Indicates whether a CSR is acting as a receptionist or not. | 0=No (default)  1=Yes |
| Deleted | DATETIME | Yes | Indicates the date at which a CSR’s account was deleted. Accounts are not deleted, but are marked as inactive if this date has been set | NULL=Active  Non-null=Valid date/time |
| CSRStateId | BIGINT(20) | No | The key of the State that the CSR is in | An ID in the CSRState table |

## Citizen Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Null** | **Description** | **Valid Values** |
| CitizenId | BIGINT(20) | No | Primary key, auto generated |  |
| OfficeId | BIGINT(20) | No | The key of the office the citizen enters. **Note:** This cannot be inferred from the CSR’s office ID, because CSRs can change offices. The citizen office must remain static. | An ID in the Office table |
| TicketNumber | VARCHAR(50) | No | A unique alpha-numeric ticket number, assigned to a customer when they arrive at the receptionist |  |
| CitizenName | VARCHAR(150) | Yes | An identifying name a citizen gives to the receptionist so they can be called when a CSR is ready to serve them. If a citizen does not want to use a name, they can be called by their ticket number. |  |
| CitizenComments | VARCHAR(1000) | Yes | Comments regarding the citizen and the services they want to receive. These may be left blank. |  |
| QTxnCitizen\_ind | TINYINT(1) | No | Indicates whether the service the citizen wants can be handled relatively quickly | 0=Not QTxn  1=QTxn |
| CSId | BIGINT(20) | No | The key of the state the citizen is in | An ID in the CitizenState table |
| StartTime | DATETIME | No | The time a CSR starts interacting with a citizen by pressing the Add Citizen button |  |
| AccurateTime\_ind | TINYINT(1) | No | A flag indicating whether the starting and ending times are valid for the last service a citizen received. On occasion, CSRs forget to close a service, or to begin a service. This flag indicates this happened. | 0=Time inaccurate (default)  1=Time accurate |

## Period Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Null** | **Description** | **Valid Values** |
| PeriodId | BIGINT(20) | No | Primary key, auto generated |  |
| SRId | BIGINT(20) | No | The key of an entry in the ServiceReq table, which points to a service the citizen wants to receive. | An ID in the ServiceReq table |
| CSRId | BIGINT(20) | No | The key of an entry in the CSR table, indicating the CSR serving the client during this period | An ID in the CSR table |
| ReceptionCSR\_ind | TINYINT(1) | No | Indicates whether the CSR serving the client was acting as a Receptionist during this period. **Note:** As a CSRs function changes during the day, we cannot get this value from the CSRId | 0=Yes (default)  1=No |
| PSId | BIGINT(20) | No | The key of an entry in the PeriodState table, indicating the state the citizen is in this period. | An ID in the PeriodState table |
| TimeStart | DATETIME | No | The time the period entered the current state | Valid date/time |
| TimeEnd | DATETIME | Yes | The time the period left the current state. This may be null until the period has ended. | Valid date/time |

# Lookup Tables

The lookup tables used in the new QSystem application are the CSR State, Smartboard, Service, Category, Channel, PeriodState, CitizenState, SRState, Role, Right and MetaData tables.

## CSRState Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Null** | **Description** | **Valid Values** |
| CSRStateId | BIGINT(20) | No | Primary key, auto generated |  |
| CSRStateName | VARCHAR(50) | No | The name of a state the CSR can be in | Logout, Login, Break, Serving, Back Office |
| CSRStateDesc | VARCHAR(1000) | No | A description of this state | A description of the above state |

## Smartboard Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Null** | **Description** | **Valid Values** |
| SBId | BIGINT(20) | No | Primary key, auto generated |  |
| Type | VARCHAR(45) | No | The type of smartboard an office has | callbyname, callbyticket, nocallonsmartboard |

## Channel Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Null** | **Description** | **Valid Values** |
| ChannelId | BIGINT(20) | No | Primary key, auto generated |  |
| ChannelName | VARCHAR(100) | No | A channel through which Service BC offers services | In Person, Phone, Back Office, Email/Fax/Mail, CATs Assist, Mobile Assist |

## CitizenState Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Null** | **Description** | **Valid Values** |
| CSId | BIGINT(20) | No | Primary key, auto generated |  |
| CSStateName | VARCHAR(100) | No | The name of the state the citizen is in | Active, Received services, Left before receiving services |
| CSStateDesc | VARCHAR(1000) | No | A description of the state the citizen is in |  |

## Service Table

**Please Note:** This table contains items for actual services, or for categories. Categories can contain multiple services or categories. Hierarchies are defined by the ParentId, and the ActualService flag.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Null** | **Description** | **Valid Values** |
| ServiceId | BIGINT(20) | No | Primary key, auto generated |  |
| ServiceCode | VARCHAR(50) | No | A unique service code, defined by Service BC. Categories will not often have a Service Code. | Given by Service BC |
| ServiceName | VARCHAR(500) | No | The name of the service or category | A service name as specified by Service BC |
| ServiceDesc | VARCHAR(2000) | No | A description of the service or category, which will be displayed in a tooltip when a CSR hovers over the service name |  |
| ParentId | BIGINT(20) | No | Either 0, indicating this is a Root category, or the ID of the immediate parent of this category or service. | Either 0, or a Service ID in this table. |
| Deleted | DATETIME | Yes | Indicates the date at which a service or category was deleted. Services are not deleted, but are marked as inactive if this date has been set | NULL=Active  Non-null=Valid date/time |
| Prefix | VARCHAR(10) | No | Usually a single character prefix of the service being offered. Categories will ignore this field. | Specified by Service BC |
| DisplayDashboard\_ind | TINYINT(1) | No | Indicates whether this service should be displayed in the wait queue for the digital signage. Categories will ignore this field. | 0=no display  1=display (default) |
| ActualService\_ind | TINYINT(1) | No | Indicates whether this is a real service, or a category. | 0=Category  1=Service |

## PeriodState Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Null** | **Description** | **Valid Values** |
| PSId | BIGINT(20) | No | Primary key, auto generated |  |
| PSName | VARCHAR(100) | No | The name of the state |  |
| PSDesc | VARCHAR(1000) | No | A description of the state |  |
| PSNumber | INT(11) | No | The code for the state the citizen is in |  |

A list of the valid states, with comments, is below:

|  |  |  |
| --- | --- | --- |
| **Number** | **Name** | **Description** |
| N/A | N/A | Note: The time a citizen is waiting in the office, before a receptionist can see them to create a ticket, is not tracked. |
| 1 | Waiting | Waiting in line to see a CSR, after a ticket has been created for them. The time they are in this state is the Citizen Wait time. |
| 2 | Ticket creation | A receptionist is creating a service request / ticket for the citizen. This is the first state a citizen will be in. The time they are in this state is the CSR prep time. |
| 4 | Invited | Has been called from the waiting area to be served. The time they are in this state is the time it takes them to walk from the waiting area, to the CSR, until the CSR starts to serve them. |
| 7 | Being Served | Is being served by a CSR. The time they are in this state is the Service time. |
| 11 | On hold | Has been placed on hold by a CSR. The time they are in this state is the Hold time. |

## SRState Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Null** | **Description** | **Valid Values** |
| SRStateId | BIGINT(20) | No | Primary key, auto generated |  |
| SRCode | VARCHAR(100) | No | The name of the state the service the citizen requested is in | Pending, Active, Complete |
| SRStateDesc | VARCHAR(1000) | No | A description of the state the service requested is in |  |

## Role Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Null** | **Description** | **Valid Values** |
| RoleId | BIGINT(20) | No | Primary key, auto generated |  |
| RoleCode | VARCHAR(100) | No | The Role a CSR has | GA, CSR |
| RoleDesc | VARCHAR(1000) | No | A description of the Role |  |

## Permission Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Null** | **Description** | **Valid Values** |
| PermissionId | BIGINT(20) | No | Primary key, auto generated |  |
| PermissionCode | VARCHAR(100) | No | A right to a system feature | GABoard, Admin, Reports |
| PermissionDesc | VARCHAR(1000) | No | A description of the right |  |

## MetaData Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Null** | **Description** | **Valid Values** |
| MetaDataId | BIGINT(20) | No | Primary key, auto generated |  |
| MetaText | VARCHAR(100) | No | A keyword describing a service in the Service table | Supplied by Service BC |

# Many To Many tables

The main many to many tables used in the new QSystem application are the the following:

1. OfficeService, which indicates which offices offer each service
2. ServiceReq, which indicates all the services each citizen requests
3. RoleRight, which indicates all the rights each role has
4. ServiceMetadata, which indicates all the meta data keywords each service has

These tables are described below.

## OfficeService Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Null** | **Description** | **Valid Values** |
| OfficeId | BIGINT(20) | No | The key of an entry in the Office table | An ID in the Office table |
| ServiceId | BIGINT(20) | No | The key of an entry in the Service table | An ID in the Service table |

## ServiceReq Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Null** | **Description** | **Valid Values** |
| SRId | BIGINT(20) | No | Primary key, autogenerated |  |
| CitizenId | BIGINT(20) | No | The key of an entry in the Citizen table | An ID in the Citizen table |
| Quantity | INT(11) | No | The quantity of services (Hunting Licenses, for example) the citizen wanted | Any numeric integer (default 1) |
| ChannelId | BIGINT(20) | No | A key in the Channel table, indicating the channel a citizen is receiving services from this period. | An ID in the Channel table |
| ServiceId | BIGINT(20) | No | The key of an entry in the Service table | An ID in the Service table |
| SRStateId | BIGINT(20) | No | The key of an entry in the SRState table | An ID in the SRState table |

## RolePermission Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Null** | **Description** | **Valid Values** |
| RoleId | BIGINT(20) | No | The key of an entry in the Role table | An ID in the Role table |
| PermissionId | BIGINT(20) | No | The key of an entry in the Permission table | An ID in the Right table |

## ServiceMetadata

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Null** | **Description** | **Valid Values** |
| ServiceId | BIGINT(20) | No | The key of an entry of an actual service in the Service table | An ID in the Service table |
| MetaDataId | BIGINT(20) | No | The key of an entry in the MetaData table | An ID in the MetaData table |