



CFMS Fare Media Regional Numbering Scheme Guidelines

APTA Universal Transit Fare System Task Force

APTA S-UTFS-D-TR-01A-09

Reference CFMS Standards:

APTA S-UTFS-WP0-001-07

APTA S-UTFS-WP1-001-07

APTA S-UTFS-WP4-001-07

Updated: March 5, 2009

I. INTRODUCTION

There is a need to establish a unique numbering scheme for regions in North America in order to allow for continental interoperability (not required but not precluded). This scheme will ensure all cards used in CFMS-compliant North American smart card electronic fare collection systems are assigned a discrete region number. APTA is the administrator of the numbering scheme.

Determining the RtsRegionID in an acceptable way requires development of a discrete numbering scheme. With prospective US regions set, each identified region will have a number assigned. When a transit agency or region begin a smart card AFC deployment, APTA will assign them their RtsRegionID and they will submit to APTA their RtsIssuerID list for their region or APTA can define. The agency or region will have a discrete set of regional numbers available to their system. Additionally, the numbering scheme includes Canada and Mexico regions to complete the North American perspective.

Section IV provides a list of assigned regional ID codes current as the date of this document.

II. NUMBERING SCHEME APPROACH

The numbering scheme creates a list of metropolitan regions together with a group of regions for large non-urban areas of the US. A similar list was developed for Canada and Mexico and appears following the US listing.

1. RtsCountryID- This field is 10 characters long and so has 1024 discrete values.

1.1. US RtsCountryID is 840

1.2. Canada RtsCountryID is 124

1.3. Mexico RtsCountryID is 484

2. RtsRegionID- This field is 8 characters long and so has 256 discrete values

2.1. US Regions can be defined and given an RtsRegionID as follows:

2.1.1. Large Metro Regions – Identified at least 16 large Metropolitan Regions:

• Boston	• NY-NJ-CT-PA-Wilmington, DE
• Washington DC-Baltimore	• Raleigh-Durham-Charlotte-Winston-Salem
• Atlanta	• Tampa-St. Petersburg
• Miami-Dade Co.	• Detroit
• Chicago	• Minneapolis- St. Paul
• St. Louis-East St. Louis	• Dallas-Ft. Worth
• Houston	• Seattle-Tacoma*
• San Francisco Bay Area*	• Los Angeles

* May be included in San Francisco region (TransLink)

2.2. For any region or transit agency not located in the regions identified above, they may be included in regions that correlate to the 10 FTA regions such as those shown below.

- Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut
- New York, New Jersey, and U.S. Virgin Islands
- Delaware, Maryland, Pennsylvania, Virginia, West Virginia, and the District of Columbia
- North Carolina, Kentucky, Tennessee, South Carolina, Alabama, Georgia, Florida, Mississippi, and Puerto Rico
- Illinois, Ohio, Minnesota, Wisconsin, Indiana, and Michigan
- Texas, Oklahoma, Arkansas, Louisiana, and New Mexico
- Iowa, Kansas, Nebraska, and Missouri
- Colorado, Utah, Montana, Wyoming, South Dakota, and North Dakota
- California, Arizona, Nevada, Hawaii, Guam, American Samoa, and the Northern Mariana Islands
- Washington, Oregon, Idaho, and Alaska

2.2.1. If there is a further need to assign additional RtsRegionID numbers, consideration can be given to specific cities or zones. For instance, there are 34 US cities with populations greater than 300,000 and these cities alone may warrant unique numbers depending on local transit agencies and established partnership strategies.

2.2.2. The group may feel the need to examine cross-border metro regions and assign the same RtsRegionID to both the US and non-US cities in these regions. Some cross-border areas identified are:

- Seattle-Vancouver, CA
- Detroit-Windsor, CA
- El Paso-Juarez, MX
- San Diego-Tijuana, MX

2.3. Canada Regions

2.3.1. Canada RtsCountryID is 124

2.3.2. Canada has 13 Provinces and 9 cities over 300,000 population yielding 22 RtsRegionID assignments.

2.4. Mexico Regions

2.4.1. Mexico RtsCountryID is 484

2.4.2. Mexico has 31 states and 6 cities over 1 million in population yielding 37 RtsRegionID assignments.

3. RTSIssuerID

3.1. Regional system administrators must submit an RtsIssuerID number request to APTA for all regional transit agencies and other regional issuers (governmental issuers and private issuers). This list may include RtsIssuerID assignments or request these assignments from APTA. Each region must request APTA for an RtsIssuerID when a new regional partner is brought into the regional scheme.

3.2. APTA will maintain this list for each compliant system in North America.

III. FIELD IDENTIFIERS

<i>RtsCountryID</i>	10	0-1023	6-15	<p>Numeric value that identifies the country in which this PICC was issued. This element allows for values between 0 and 999. The assignment of the country code is considered fixed and permanent* and consistent for all countries that recognize and adhere to the ISO 3166 standard implementing the "three Digit code" scheme. I.e.;</p> <p><i>000 = reserved for future use</i> <i>004 = Afghanistan</i> <i>036 = Australia</i> <i>060 = Bermuda</i> <i>124 = Canada</i> <i>250 = France</i> <i>484 = Mexico</i> <i>630 = Puerto Rico</i> <i>702 = Singapore</i> <i>850 = US Virgin Islands</i> <i>826 = United Kingdom</i> <i>840 = United States</i> <i>1000-1023 Reserved</i> <i>By defining a country, this code is also defining the country's base currency.</i></p>
<i>RtsRegionID</i>	8	0-255	16-23	<p>Numeric value that identifies the metropolitan region of a country in which this PICC was issued and intended for the majority of its use. There are 256 possible Regions that can be defined on a PICC within each Country. (Note: Cross country regions may be defined with their own unique country code) The assignment of the region code is considered fixed and permanent* and consistent for all regions that recognize and adhere to the Regional Interoperability Standard.</p> <p>A region is defined as a grouping of transit agencies accepting the same transit PICC fare program, with the fare collection revenues being cleared and settled by an agreed upon clearinghouse system and/or process. I.e., [<i>RtsCountryCode</i>] = USA (840) the regional codes are as follows: <i>0 = reserved for future use</i> <i>1 = New York/New Jersey/Connecticut/Pennsylvania (SmartLink/Liberty)*</i> <i>2 = Washington DC/Baltimore</i></p>

				<p><i>(SmarTrip)*</i> <i>3 = Miami</i> <i>4 = Texas</i> <i>4 = San Francisco Bay Area (TransLink)*</i> <i>5 – 255 = reserved for future USA regions</i></p> <p><i>further example;</i> <i>[RtsCountryCode] = United Kingdom</i> <i>(826):</i> <i>1=London (TranSys)</i></p>																								
<i>RtsIssuerID</i>	<i>10</i>	<i>0-1023</i>	<i>24-33</i>	<p><i>Designates the CARD & Ticketing Application of issuing Nation, State/Region or Agency.</i> <i>E.g.</i></p> <table border="1"> <thead> <tr> <th><i>9th bit</i></th> <th><i>8th bit</i></th> <th><i>7-0 bits*</i></th> <th><i>Definition</i></th> </tr> </thead> <tbody> <tr> <td><i>0</i></td> <td><i>0</i></td> <td><i>00000000</i></td> <td><i>Reserved</i></td> </tr> <tr> <td><i>0</i></td> <td><i>0</i></td> <td><i>00000001</i></td> <td><i>Agency ID</i></td> </tr> <tr> <td><i>0</i></td> <td><i>1</i></td> <td><i>00000001</i></td> <td><i>State/Regional ID</i></td> </tr> <tr> <td><i>1</i></td> <td><i>0</i></td> <td><i>00000001</i></td> <td><i>National (Gov)ID</i></td> </tr> <tr> <td><i>1</i></td> <td><i>1</i></td> <td><i>00000001</i></td> <td><i>National Institution ID</i></td> </tr> </tbody> </table> <p><i>Agency use of the 7-0 bits with bits 8 and 9 set to zero.</i> <i>0 = Reserved*</i> <i>1 = New York City Transit Authority*</i> <i>2 = New Jersey Transit*</i> <i>3 = Port Authority Trans Hudson (PATH)*</i> <i>4 = Port Authority AirTrain*</i> <i>5 = Long Island Railroad*</i> <i>6 = Metro-North Railroad*</i> <i>7 = Hudson-Bergen Light Rail*</i> <i>8 = New York Waterway*</i> <i>9 = Staten Island Ferry*</i> <i>10= NFTA</i> <i>11 = NYC DOT*</i> <i>12 = PATCO</i> <i>13 = WMATA</i> <i>14 - 62 reserved for future transit agency IDs</i></p> <p><i>State or Regional (Non-Agency) use of the 7-0 bits with bit 8th set to a one and 9</i></p>	<i>9th bit</i>	<i>8th bit</i>	<i>7-0 bits*</i>	<i>Definition</i>	<i>0</i>	<i>0</i>	<i>00000000</i>	<i>Reserved</i>	<i>0</i>	<i>0</i>	<i>00000001</i>	<i>Agency ID</i>	<i>0</i>	<i>1</i>	<i>00000001</i>	<i>State/Regional ID</i>	<i>1</i>	<i>0</i>	<i>00000001</i>	<i>National (Gov)ID</i>	<i>1</i>	<i>1</i>	<i>00000001</i>	<i>National Institution ID</i>
<i>9th bit</i>	<i>8th bit</i>	<i>7-0 bits*</i>	<i>Definition</i>																									
<i>0</i>	<i>0</i>	<i>00000000</i>	<i>Reserved</i>																									
<i>0</i>	<i>0</i>	<i>00000001</i>	<i>Agency ID</i>																									
<i>0</i>	<i>1</i>	<i>00000001</i>	<i>State/Regional ID</i>																									
<i>1</i>	<i>0</i>	<i>00000001</i>	<i>National (Gov)ID</i>																									
<i>1</i>	<i>1</i>	<i>00000001</i>	<i>National Institution ID</i>																									

			<p><i>set to zero;</i> 0 = Reserved 1 = State of NY 2 = New York Libraries 3 = State of New Jersey 3 = State of Connecticut 4 = State of Pennsylvania 5–63 reserved for future State or Regional Ids</p> <p><i>National use of the 7-0 bits with bit 9 and 8 set to one;</i> 0 = Reserved 1 = Citibank 2 = Chase Manhattan 3 = AARP 4 = Amtrak All other unassigned codes are reserved for future use</p>
--	--	--	---