



**THE CITY OF WINNIPEG**

# **REQUEST FOR PROPOSAL**

**RFP NO. 784-2009**

**APPENDIX A - EXISTING SATELLITE SYSTEM DESCRIPTIONS**

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## Overview

This document will provide an overview of existing Satellite systems, how they currently interact with the existing CAMA/DMT system, as well as what is considered the desired future state from the perspective of these systems remaining in service with minimal modification to allow integration with a new system. They are described in some detail, including primary purpose so that vendors with existing modules performing the same task may propose an alternative where this satellite system may possibly be decommissioned rather than integrated with/modified to support a new systems interface requirements.

For each satellite system in question, we will describe ***Current Interactions*** with our existing DMT system to better understand the nature of the Satellite system; and we will describe the ***Desired state (new system)*** to give some idea of the scope of work required for a candidate for modifications, coding or data conversion, we will also describe what we see as our desired interactions between a new system and these existing satellite systems.

Note that any of the satellite systems that depend on direct data access to the existing DMT system will require significant modification to support a new system's data structures if that new system cannot provide an adequate replacement module which would allow discontinuation of the existing satellite system.

## AsmtPub (Public web parcel and business search)

### Overview

Through the Department's web site, the public is permitted to search for properties and businesses in the city of Winnipeg. A limited set of parcel characteristics and the parcel's current assessed value (and proposed value during a reassessment preview period) can be viewed. The parcel information also includes the ability to display a map of the neighbourhood surrounding the parcel showing the assessment values of all the properties.

### At a glance

<b>Platform:</b>	Web, ASP.NET, .NET v2.0, Oracle DB	<b>Outage impact:</b>	Minor
<b>Replaceable:</b>	No	<b>Maintenance/source:</b>	Internal/available
<b>Age:</b>	8 years	<b>Suggested Integration:</b>	Spawn

### Current interactions

#### DMT access to Satellite

When a parcel's new assessment value is finalized, database triggers in DMT copy all parcel information to a staging area, which is then copied to the DMZ once a day.

#### Satellite access to DMT

The satellite system requires access to parcel attribute information, including value information, for customer viewing. This is currently performed via an intermediate data store located in a DMZ to ensure there is no external access to our internal production data. This data store is structured the same as the internal production system's database however.

### Desired state (new system)

#### New CAMA access to Satellite

The new system must continue to be aware of when a parcel's changes are ready to be put on the public website and trigger the process to do so.

#### Satellite access to New CAMA

The new system must continue to provide characteristic and value information for parcels that the satellite system can display to the public. The new system must also be able to provide assessment value information to the Corporate mapping systems group so value labels can be generated for the maps.

# AutoCAMA

## Overview

AutoCAMA refers to a **COM-based DLL** written by **Intergraph** to automatically create new inventory parcels from replots based on GIS info. Saves a lot of time for large subdivisions. However, there are improvements that could be made.

## At a glance

<b>Platform:</b>	COM DLL	<b>Outage impact:</b>	None
<b>Replaceable:</b>	Yes	<b>Maintenance/source:</b>	External/Unavailable
<b>Age:</b>	5 years	<b>Suggested Integration:</b>	Replace?

## Current interactions

### DMT access to Satellite

There is no access currently.

### Satellite access to DMT

Creates parcel records directly in database

## Desired state (new system)

Ideally, the new system would provide a robust capability for working with GIS information directly, and would be able to handle replots and creating new parcels using GIS without the aid of this product.

## Comparables Search, or Brief Preparation

### Overview

This web application assists in preparing appeal briefs for valuation staff to present at the municipal or provincial Boards of Revision. It draws information from the existing DMT system regarding parcel characteristics, income information, responses to requests for information, tenancy information and business occupancy information. It draws information regarding the appeal in question from the AACS system noted elsewhere. It also draws mailer tracking information from the PADSecure/ODC application also noted elsewhere in this document. It then uses javascript to generate Microsoft Word documents from templates, and inserts the data that the valuation staff member has selected into them. It provides complex searching criteria for residential, condominium, commercial, industrial and multi-family comparable sales and leases; as well as the ability to produce briefs for business assessment appeals. It can also make use of auto-comparables stored in the CAMA system for residential properties.

### At a glance

<b>Platform:</b>	Web, ASP.NET/VB, .Net v2.0	<b>Outage impact:</b>	Severe during appeals
<b>Replaceable:</b>	Yes	<b>Maintenance/source:</b>	Internal/Available
<b>Age:</b>	9 years	<b>Suggested Integration:</b>	Spawn

### Current interactions

#### DMT access to Satellite

There is no access currently.

#### Satellite access to DMT

The system has query access to parcel, customer, and/or business information.

### Desired state (new system)

#### New CAMA access to Satellite

None required, it stores no information.

#### Satellite access to New CAMA

Will require the ability to retrieve equivalent information to what it does now. If data structures change significantly, it will require a rewrite, or replacement should the new system provide some sort of defense preparation module.

## Commercial Data Collection System (CDS)

### Overview

This is an older system now used exclusively by the Hotel Valuation Tool noted elsewhere in this document to store mailer information about hotel properties. The existing DMT system was enhanced to support income-based valuation for most commercial properties, but not for hotels.

### At a glance

<b>Platform:</b>	Powerbuilder, Oracle DB	<b>Outage impact:</b>	Minor, moderate during reassessment
<b>Replaceable:</b>	Yes	<b>Maintenance/source:</b>	Internal/Available
<b>Age:</b>	10+ years	<b>Suggested Integration:</b>	Replace

### Current interactions

#### DMT access to Satellite

There is no access currently.

#### Satellite access to DMT

CDS retrieves parcel information from the existing system.

### Desired state (new system)

Ideally, the new system would have the ability to access ODC noted elsewhere in the document for mailer information for all commercial property types including hotels. This would require an enhancement of ODC, however, as it does not currently support hotel mailers.

#### New CAMA access to Satellite

Ability to display data from this system if not replaced. Otherwise, desired state is same as ODC.

#### Satellite access to New CAMA

If not replaced, satellite would still require access to parcel information, parcel use, parcel id, and address primarily. Otherwise, desired state is same as ODC.

## Hotel Valuation Tool

### **Overview**

The existing CAMA system is not capable of performing the valuation of hotel properties, so a separate application was written to accommodate this. The system uses income and expense mailer information (stored in CDS) from a three year period based on a reference date to calculate industry norms by hotel category to determine and apply a capitalization rate for producing a value for each hotel. This value is then manually entered into the existing DMT system so that it may become part of the City's electronic assessment roll.

### **At a glance**

<b>Platform:</b>	Windows forms client, .Net v2.0, Oracle DB	<b>Outage impact:</b>	Minor, used once per reassessment cycle
<b>Replaceable:</b>	Yes	<b>Maintenance/source:</b>	Internal/Available
<b>Age:</b>	5 years	<b>Suggested Integration:</b>	Replace

### **Current interactions**

#### **DMT access to Satellite**

There is no access currently.

#### **Satellite access to DMT**

Parcel characteristic information is read by the Satellite system. The Satellite also accesses mailer information stored in a separate data store underlying the CDS system noted elsewhere.

### **Desired state (new system)**

The new system should have the ability to value hotel properties.



## Image Search and display

### Overview

This web page queries a DB table which stores information about photographs of properties (which are stored on a separate network file share). The images stored at that location are accessed from the existing DMT system as well as this web page. The page then presents thumbnails of the images, and the ability to view the images (via references to a UNC path rather than serving up from the web server). This system is used by not only the Assessment and Taxation Department, but other departments throughout the city, including the Police Department.

### At a glance

<b>Platform:</b>	Web, ASP/VBScript, Oracle DB and file share.	<b>Outage impact:</b>	Minor
<b>Replaceable:</b>	Yes	<b>Maintenance/source:</b>	Internal/Available
<b>Age:</b>	10 years	<b>Suggested Integration:</b>	Replace with Web service/DB Access/spawn

### Current interactions

#### DMT access to Satellite

There is no access currently.

#### Satellite access to DMT

Reads parcel (parcel ID and address) info, as well as an existing table of images by parcel ID.

#### Desired state (new system)

Replace with a service that can be accessed by other departments

#### New CAMA access to Satellite

None required

#### Satellite access to New CAMA

Satellite must still be able to find parcel image information and present images to users of the application.

## Interfaces between existing DMT and Manta systems

### Overview

The DMT system is used to store parcel characteristic information, but the existing Manta system is the official source of the assessment roll and customer information. Because of this, interfaces were created to move information back and forth between the two systems when needed. Changes of ownership and changes in value are the primary drivers for interface activity

### At a glance

<b>Platform:</b>	Powerbuilder, Oracle DB (triggers and tables)	<b>Outage impact:</b>	Severe
<b>Replaceable:</b>	Yes	<b>Maintenance/source:</b>	Internal/Available
<b>Age:</b>	10 years	<b>Suggested Integration:</b>	Replace or DB

### Current interactions

#### DMT access to Satellite

None per se.

#### Satellite access to DMT

Satellite utilizes triggers within the DMT database to be made aware of necessary transactions to process. The interfaces then generate appropriate records in the Manta system based on value changes in the DMT system, or generate ownership changes in the Manta system. There is also an interface which updates customer information in DMT based on changes/corrections to customers in the Manta system

### Desired state (new system)

#### New CAMA access to Satellite

If not replaced, System would notify interfaces that value has changed so that interface could update Manta system.

#### Satellite access to New CAMA

If the interfaces continue to be used, they will still need to hook into changes being made in the new system via triggers, and will need to be able to access the information required to generate parcel assessment transaction, and ownership records in the Manta system. Interface will still need to update customer information (name) in new system, if new system must store owner info locally.

## Land Titles Office Interface (LTO)

### Overview

The LTO Interface system consists of two components: an overnight job that retrieves title information from the province; and a user interface application to process the titles. The system is used to identify changes in ownership due to sales, as well as changes to properties such as splitting or merging properties. It then updates ownership information in the Manta and DMT system, as well as creating sales records for the properties in question in the DMT system. It also makes use of a 3<sup>rd</sup> party web service to format addresses and perform postal code validation.

### At a glance

<b>Platform:</b>	ASP.NET/VB, .Net v2.0, Oracle DB	<b>Outage impact:</b>	Significant
<b>Replaceable:</b>	No	<b>Maintenance/source:</b>	Internal/Available
<b>Age:</b>	5 years	<b>Suggested Integration:</b>	DB access

### Current interactions

#### DMT access to Satellite

There is no access currently.

#### Satellite access to DMT

The satellite system creates records in DMT currently, as well as in the Manta system (noted in Appendix B) . It depends on current parcel and legal description information to match titles received with existing properties.

### Desired state (new system)

#### New CAMA access to Satellite

Display originating land titles information from LTO.

#### Satellite access to New CAMA

New system must continue to allow this system to read parcel and legal description information, and must also allow the satellite system to write new sales information and ownership information to the system.

## Mailer Extract

### Overview

The mailer extract system is an application used to generate mail merge data for sending income and expense questionnaires (and sales questionnaires) to commercial property owners in the City. It generates the extract, and creates mailer records for workflow tracking purposes in the PADSecure/ODC system (noted elsewhere).

### At a glance

<b>Platform:</b>	Web, ASP.NET/VB, .Net v2.0, Excel, Oracle DB	<b>Outage impact:</b>	Significant
<b>Replaceable:</b>	Yes	<b>Maintenance/source:</b>	Internal/Available
<b>Age:</b>	5 years	<b>Suggested Integration:</b>	Replace

### Current interactions

#### DMT access to Satellite

There is no access currently.

#### Satellite access to DMT

The satellite system retrieves parcel, premise, and ownership information from the existing DMT system.

### Desired state (new system)

#### New CAMA access to Satellite

None required.

#### Satellite access to New CAMA

If the new system does not include a module for preparing and tracking mailers, then the existing satellite system must continue to be able to access parcel, premise, and ownership information for the production of income and expense mailers for commercial properties. As noted in Attachment B, in the new system the ownership information is expected to come from the Manta system.

## Mailer Report Query

### Overview

Because both the existing DMT system and the PADSecure/ODC system store mailer information at different stages of the workflow, a consolidated view was required for the purpose of identifying what state mailer processing was in at any given time. This query accesses both systems for this purpose.

### At a glance

<b>Platform:</b>	Excel, Oracle DB	<b>Outage impact:</b>	Moderate
<b>Replaceable:</b>	Yes	<b>Maintenance/source:</b>	Internal/Available
<b>Age:</b>	2 years	<b>Suggested Integration:</b>	Replace

### Current interactions

#### DMT access to Satellite

There is no access currently.

#### Satellite access to DMT

Queries mailer and parcel information from existing DMT system.

### Desired state (new system)

#### New CAMA access to Satellite

None.

#### Satellite access to New CAMA

If the new system does not contain a mailer tracking module that can replace this and the mailer extract system, this query will still require access to any mailer date and status information stored in the new system. Note that the new system is expected to access mailer information from the ODC system.

## Market Valuation Tool (Valcura)

### Overview

A Valcura Market Valuation Tool & Valuation Data Store provides a separate tool for undertaking multiple regression analysis valuation for selected property types including: residential, apartments, multi-family units, commercial condos, and others. The department uses SPSS to do mass appraisal for reassessment purposes, and duplicates those models in the Valcura tool to allow the existing system to apply the equivalent models to individual properties directly within the existing DMT system. See Appendix D for an overview of Valcura.

### At a glance

<b>Platform:</b>	Oracle SQL	<b>Outage impact:</b>	Significant
<b>Replaceable:</b>	Yes	<b>Maintenance/source:</b>	External/Unavailable
<b>Age:</b>	5 years	<b>Suggested Integration:</b>	Replace or Integrate

### Current interactions

#### DMT access to Satellite

Calls satellite from within application using an Oracle stored procedure.

#### Satellite access to DMT

Reads detailed parcel data and writes updated values.

### Desired state (new system)

#### New CAMA access to Satellite

Ideally, the new system would be able to work directly with SPSS to apply the models and eliminate the need for a parallel system. If not, system must provide the data Valcura requires to perform multiple regression analysis for selected properties.

#### Satellite access to New CAMA

As above, if direct integration with SPSS is not possible, system must continue to allow Valcura to write recalculated values back to the system.

## PADSecure/Online Data Collection (ODC)

### Overview

A public facing secure website which allows property owners of the City to log in and review detailed information about the properties they own. For owners of commercial properties it also provides the ability to enter income and expense information online (ODC), and submit that information to the department. The Department's staff members utilize an internal version of this application to process both customer submitted information as well as data enter information submitted on paper. The income and expense information, once reviewed and corrected is then accepted, which pushes the data from this satellite system into the existing DMT system.

### At a glance

<b>Platform:</b>	Web, ASP.NET/VB, .NET v2.0, Oracle DB	<b>Outage impact:</b>	Severe during I&E collection periods
<b>Replaceable:</b>	Unlikely	<b>Maintenance/source:</b>	Internal/Available
<b>Age:</b>	3 years	<b>Suggested Integration:</b>	DB Access/Spawn

### Current interactions

#### DMT access to Satellite

There is no access currently.

#### Satellite access to DMT

Satellite system inserts mailer information about income and expenses, as well as tenancy information into the existing system.

The satellite system also requires access to parcel characteristic information, including comparable sales, for customer viewing. This is currently performed via an intermediate data store located in a DMZ to ensure there is no external access to our internal production data. This data store is structured the same as the internal production system's database however.

### Desired state (new system)

#### New CAMA access to Satellite

The new system should be aware of mailer progress in ODC, and display mailer information from ODC in the system.

#### Satellite access to New CAMA

The new system should integrate with ODC and make it the central location for all mailer information. If this is not possible, then the ODC component must continue to be able to insert the same information into a new system.

The display of parcel characteristics in PADSecure will need to access that data from the new system.

## PADiView

### Overview

This is a “dashboard” like application built on top of the Corporate Land Based Information System’s iView Geomedia WebMap GIS web application. The system provides mapping information on properties, including aerial photo layers, parcel information, as well as information from other departments in a map format. The Department has extended this view to include a sidebar that allows access to many of our other data sources, including PITA (noted elsewhere), AACCS (noted elsewhere), parcel characteristics, sales information, and tax information.

### At a glance

<b>Platform:</b>	ASP/VBScript, GeoMedia, Oracle DB	<b>Outage impact:</b>	High
<b>Replaceable:</b>	Sidebar replacement possible	<b>Maintenance/source:</b>	Internal/available
<b>Age:</b>	10 years	<b>Suggested Integration:</b>	Spawn

### Current interactions

#### DMT access to Satellite

There is no access currently.

#### Satellite access to DMT

PADiView retrieves parcel characteristic, sale, and value information directly from the existing system’s database.

### Desired state (new system)

#### New CAMA access to Satellite

New system integrates with the mapping aspects of iView, potentially surfacing maps in its own viewer.

#### Satellite access to New CAMA

If new system cannot take over responsibilities of the sidebar in satellite and surface the existing iView mapping data, the satellite would continue to require access to the same parcel data that it currently has.



## Percent Change Reports

### Overview

During the reassessment valuation process that occurs every two years, mass valuation of all parcels in the City is undertaken. The percent change report application provides parcel information in a spreadsheet format to identify outliers that require further attention because the model applied did not result in a proposed value within the expected range of the existing value.

### At a glance

<b>Platform:</b>	Web, ASP.NET/VB, .NET v2.0, Excel, Oracle DB	<b>Outage impact:</b>	Severe during reassessment
<b>Replaceable:</b>	Yes	<b>Maintenance/source:</b>	Internal/available
<b>Age:</b>	8 years	<b>Suggested Integration:</b>	Replace

### Current interactions

#### DMT access to Satellite

There is no access currently.

#### Satellite access to DMT

The satellite system currently uses the existing systems data to compare the proposed assessment values with the current assessment values, as well as displaying relevant characteristic information to assist in verifying if unusual deviations from the expected percentage change are valid. Note that the current values are drawn from the Manta system's assessment roll info.

### Desired state (new system)

#### New CAMA access to Satellite

The new system should be able to launch the appropriate report directly based on the collection of parcels currently being operated on.

#### Satellite access to New CAMA

If the new system doesn't have a corresponding module to replace this system, then the system must continue to provide access to proposed value and characteristic information so that percent changes can be identified.

# Parcel Information Tracking Application

## Overview

A web application used as the valuation staff's primary workflow tool. It tracks activity requests for a parcel, be that building permits from the Planning Property & Development Department's AMANDA system, internal inquiries, tax certificate requests from the Tax Branch of the department, or external inquiries coming from the PADSecure website (noted elsewhere).

## At a glance

<b>Platform:</b>	Web, ASP.NET/VB, .NET v2.0, Oracle DB	<b>Outage impact:</b>	High
<b>Replaceable:</b>	Unlikely	<b>Maintenance/source:</b>	Internal/Available
<b>Age:</b>	8 years	<b>Suggested Integration:</b>	Spawn/DB access

## Current interactions

### DMT access to Satellite

There is no access currently.

### Satellite access to DMT

Satellite retrieves parcel and address information from existing DMT system to associate with its activity records (building permits still constitute 90% or more of it's use).

## Desired state (new system)

### New CAMA access to Satellite

The new system would ideally be able to display a list of activities for a given parcel by directly accessing the satellite system's data, allow access to the details of the activity and to update the status of the activity.

### Satellite access to New CAMA

The satellite system will continue to require access to parcel and address information to allow it to associate activity records with the correct parcel.

## Replot Tracking / PlanTrack

### **Overview**

This is the combination of a VB6 app and a web interface to keep track of the current state of replots as they move through the department. Who's currently working on the physical package, and what parcel IDs are involved in which replots (both source and target).

Also of note is that both our replot numbers used, and our method of tracking which parcel ID is to be created next in our existing system is via excel spreadsheets.

### **At a glance**

<b>Platform:</b>	VB6, ASP, oracle	<b>Outage impact:</b>	Significant
<b>Replaceable:</b>	Yes	<b>Maintenance/source:</b>	Internal/available
<b>Age:</b>	6 years	<b>Suggested Integration:</b>	Replace

### **Current interactions**

#### **DMT access to Satellite**

None.

#### **Satellite access to DMT**

Reads parcel related information.

### **Desired state (new system)**

#### **New CAMA access to Satellite**

None.

#### **Satellite access to New CAMA**

Ideally, none if New CAMA provides its own methods for tracking replot workflow, and the properties involved in a replot. If it cannot, then the system must continue to allow this satellite access to parcel information.