



NearMap.com PhotoMap Integration for Government Agencies

Latest update: 18th October 2010

For the latest update, please refer to:

www.nearmap.com/gov/integration.pdf (for this document)

www.nearmap.com/forum (for user forums)

Introduction

NearMap.com employs a range of standards so that government agencies can quickly and effectively start using their licence for NearMap.com PhotoMaps.

The quickest approach is to use the standard web map portal offered by NearMap.com. The standard map TMS and WMS protocols provide access our PhotoMaps within your applications. Offline or direct application use of PhotoMaps is achieved by using our free HyperTiles application to download georeferenced tiles. Maps can be embedded into your web pages using our Map Object.

These and other integration methods offer a wide range of capabilities to enable government agencies to get maximum value from NearMap.com's offerings.

This document details the different ways integration can be performed.

Recent document changes

8 th February 2010	First public release
23 rd March 2010	Latest information on HyperTiles and HyperWMS
29 th March 2010	PhotoMaps as ECW mosaics from NGIS, and Map Object API docs
12 th April 2010	Update on DMS
18 th October 2010	Document style revision

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Integration methods

This integration method details some of the ways that can be used for integration, which enables access through different web or application solutions.

This section instead describes generic integration methods that are available, where as the "Application integration" chapter deals with integration with specific applications and the "Best Practices" chapter describes ways to get maximum value from your NearMap.com licence.

NearMap.com Web Map Portal

The quickest and very effective way to use NearMap.com PhotoMaps is through NearMap.com's map web portal. This offers the advantage of minimal training and access using standard web browsers, and is available at www.nearmap.com

The map web portal always offers the latest capabilities. For example, map TimeView enables staff to quickly flick through different dates, and the map MultiView enables buildings to be viewed from different sides.

Embedding maps into your own web pages

Your own web pages can be enhanced to include maps, by using the Map Object. This is the same map object that drives NearMap.com's own web map portal. It uses a similar API interface to Google's map object, making it easy for your web developers to interface to.

For example, the following few lines of HTML will embed a map page into your web page:

```
<iframe width="425" height="350" frameborder="0" scrolling="no"
marginheight="0" marginwidth="0"
src="http://www.nearmap.com/output=embed"><small><a
href="http://www.nearmap.com?source=embed" style="color: #0000ff;text-
align:left">View Large Map</a></small></iframe>
```

The map is fully interactive; users can pan and zoom around the map and select different dates. You can also embed a map that automatically shows a specific area, for example to show a new development that is being planned.

You can customise the Map Object being embedded in your web page in many ways. The following document gives detailed information and examples on using our Map Object's API: www.nearmap.com/documentation/browsermap/

Using maps in mobile devices

NearMap.com's web map portal automatically offers a customised map to iPhone mobile devices. This is optimised to the smaller display area on these devices.

A third party application has added a free Blackberry mapping application that supports NearMap.com, available at maps.bigtincan.com/btc-mapper.ph

Access using the Tile Map Server (TMS) protocol

Many applications have native support for the Tile Map Server (TMS) protocol. Using this protocol, the application requests PhotoMap tiles directly from our web servers.

This protocol is highly efficient, providing efficient use of broadband. It is far more efficient than the WMS protocol, as tiles can be cached locally, and because panning or zooming requests only new tiles, rather than having the entire view area regenerated and transmitted from the map server.

Any application that indicates that it supports the Tile Map Server protocol, or that it supports accessing Google Maps will probably be able to access NearMap.com PhotoMaps using the TMS protocol.

Applications with support for the TMS protocol include:

- Web based Map Objects from NearMap.com, Google and other map portals
- DeepEarth
- GDAL
- JOSM
- Manifold GIS
- MapServer
- MATLAB with getTile addon
- Merkaartor
- myTracks
- OpenLayers
- Potlatch
- TileCache (WMS-C server using a TMS server as the source)
- Trekbuddy Atlas Creator

The "Application Integration" section of this document details individual applications that are known to support TMS servers, and the "Appendix A: TMS Protocol" details the protocol itself.

More information on using the TMS protocol can also be found here:

http://www.nearmap.com/documentation/external/Nearmap_URL_formats.pdf

Access using the Web Map Server (WMS) protocol

Government agencies who have a current licence can request access to NearMap.com's map servers through the Web Map Server protocol. You will need to provide your internet IP address so that NearMap.com can enable access to your government agency, as the WMS service is only provided to agencies who have their IP address registered with NearMap.com for access to the WMS service.

Many applications support the WMS protocol to access imagery such as NearMap.com's PhotoMaps.

Note: if your application also supports the TMS protocol, it will be more efficient to use the TMS protocol than the WMS protocol.

The NearMap.com WMS server address (which is what you would normally specify as the URL) is:
<http://wms.nearmap.com>

For example, the WMS get capabilities URL would be:
<http://wms.nearmap.com/?request=GetCapabilities&service=WMS&version=1.1.1>

Client applications that are reported to support the WMS protocol include:

- Bentley Systems GIS products
- ESRI ArcGIS
- Cadcorp SIS products
- GeoMedia
- Global Mapper
- MapInfo Professional
- MATLAB
- Google Earth

The "Application Integration" section of this document details individual applications that are known to support WMS servers, and the "Appendix B: WMS Protocol" details the protocol itself.

Creating your own WMS server using the free HyperWMS application

The "Application Integration" section of this document details individual applications that are known to support WMS servers, and the "Appendix B: WMS Protocol" details the protocol itself.

NearMap.com will be releasing the source code to HyperWMS once testing is complete. HyperWMS can be run within your organisation as a LAN speed WMS server. Please contact NearMap.com if you would like to use HyperWMS as an internal WMS service.

Downloading tiles for offline use with HyperTiles

Note: please contact NearMap.com for a copy of the HyperTiles program.

There are cases where it is desirable to have local copies of the NearMap.com PhotoMaps. This might be for situations where:

- You want offline copies of PhotoMaps, for example for notebooks used in the field.
- You have applications that don't support either the WMS or TMS protocols.
- You want local, redundant, copies of the PhotoMaps.
- To serve using local intra-net based WMS servers.

In these situations, the solution is to download the NearMap.com PhotoMaps into local files. There are a range of open source tools that can download tiles from a remote TMS server, and NearMap.com continues to encourage the development of these sorts of tools.

In addition, NearMap.com is making available a free application called HyperTiles.

Using HyperTiles, you can select an area, and then download the PhotoMap for that area for a specific date and resolution. The PhotoMaps will be stored as tiles. Each tile is 8192 x 8192 and saves as a JPEG file, with an associated world (.jpw) file. You don't need to download each individual tile; just specify the overall area to download, and HyperTiles will download all of the 8K x 8K tiles required to cover that area.

Most GIS and CAD applications support display of imagery using JPEG files with world files, so this is an effective way to add NearMap.com PhotoMaps to your local applications.

At 7.5cm pixel size, each 8192 x 8192 size JPEG file covers just over 1km x 1km in area, so this is an effective balance between keeping the individual tile sizes fairly small, and yet not having too many tiles to cover the area. The tiles are loaded from the seamless PhotoMaps served by NearMap.com, so will not have tile edge artifacts (e.g. they are tiles extracted from the full PhotoMaps served by NearMap.com).

For many uses, the use of JPEG tiles will be sufficient. You may want to compress the individual tiles into a single ECW or JPEG-2000 file. This can be achieved through the use of applications such as ER Mapper or other products that support creating ECW format files.

HyperTiles is a free GPL-licenced application, and we encourage use of it as a starting point to create customised tile download applications.

PhotoMaps on hard disk or DVD in ECW format

NGIS, a NearMap.com partner, will be offering a value added service to our government clients (who must have a current NearMap.com licence). As part of NGIS's service, you will be able to obtain PhotoMaps for your licence Area as mosaics in ECW format on hard disk or DVD.

Please contact Nathan Eaton at NGIS (www.ngis.com.au) for pricing and availability of this service.

Best Practices

Efficient use of NearMap.com's PhotoMaps may involve using several different integration methods for larger government agencies.

- For immediate use and to simplify training, many users can just directly use the NearMap.com web portal via their web browser. This is easy to roll out (just give people the www.nearmap.com URL to use) and efficient, as browsers will automatically cache web tiles that are frequently used. New features are typically released through the NearMap.com map portal, so your web users will be able to take advantage of new features as they become available.
- Your own web pages can be quickly enhanced to include maps embedded in them, by adding a few lines of HTML codes to add the NearMap.com Map Object to your own web pages (this is the same map object used by NearMap.com's own web portal). To embed maps into your web pages: (a) zoom and pan to the area of interest (b) click on the Share button, and then on the Embed option. This will present a few lines of HTML, which you then paste into your own web pages. For example, the following HTML will show the Toodyay area that has severe fires in December 2009. Note that this is the full map object, so users can still pan and zoom, and select different dates etc - it is not a static map page.

```
<iframe width="425" height="350" frameborder="0" scrolling="no"
marginheight="0" marginwidth="0" src="http://www.nearmap.com/?ll=-
31.585701,116.458511&z=14&t=k&nmd=20100106?output=embed"><small><a
href="http://www.nearmap.com/?ll=-
31.585701,116.458511&z=14&t=k&nmd=20100106?source=embed" style="color:
#0000ff;text-align:left">View Large Map</a></small></iframe>
```

- Use the TMS protocol in preference to the WMS protocol when remotely accessing photomaps from NearMap.com map portal (or indeed from any other map portal). The TMS protocol sends small tiles to the client application, and so only has to send tiles that the client has not already cached. The WMS protocol regenerates the entire map display area for each new client request, and that entire map area is resent to the client each time. This is slower as it consumes more network bandwidth and places higher loads on servers.
- Consider running your own WMS server inside your intranet. This will provide higher performance, as network speed will be high speed Ethernet rather than broadband. NearMap.com's free and GPL licensed HyperWMS server locally caches tiles from the NearMap.com TMS server and serves them using the WMS protocol, so this approach ensures your users always have the most current photomaps, while at the same time offers good efficiency and performance.
- Use HyperTiles or some other tile downloader to download tiles to your local file system, for direct access within your applications. HyperTile automatically sets up a directory structure organising tiles by date and type of map (terrain or photomap, etc), so this approach is easy to manage internally. The advantage of this approach is the tiles are downloaded once only, and from then on your users are making use of the local tile copies.

Application integration

Integration with MapInfo, AutoCad, ArcGIS et al

There are many ways to integrate NearMap.com PhotoMaps into your applications. Some applications are listed below. If your application is not listed, see if it supports one of the following integration methods.

Display of images in JPEG format with world files

- If your GIS/CAD application supports display of imagery in the JPEG format, use the HyperTiles application to download tiles from NearMap.com's web site for use in your application. HyperTile automatically creates a world file (.jpw) for each JPEG tile file, so the imagery will automatically be georeferenced (assuming your application knows about geographic world coordinates).

Display of imagery from a WMS server

- If your applications supports loading imagery from a WMS server, you can use the NearMap.com WMS server to add imagery to your application, or add imagery to your own WMS server for your applications.

Display of imagery from a TMS server

- Many applications can display imagery from a Tile Map Server (TMS). Google, Bing, Yahoo, NearMap.com and others all support the TMS protocol as the preferred web access method for tiles of PhotoMaps. So if your application can support displaying imagery from Google Maps, it can probably also be configured to support NearMap.com

If you are uncertain, check the list of specific applications in this section of the document, or contact your software vendor and ask if they support displaying images from JPEG tiles on a local file system, or display of images from a TMS server or a WMS server.

Manifold GIS integration

James Kelly, a Manifold user has developed a open-source add-in (or ISI driver in Manifold language) added support for NearMap.com PhotoMaps to NearMap.com, using the TMS protocol. You can find links to all the necessary files, along with other information and how to use it at <http://kelsos.wordpress.com/>

ERDAS (ER Mapper) integration

Many ERDAS products have support for both the TMS and the WMS protocols. ER Mapper can be used to compress a mosaic of tiles into a single ECW image.

Open Street Map (OSM) integration

Most of the OSM street map editing tools have direct support for NearMap.com PhotoMaps. The OSM development and user community have an active and helpful group of people who frequent the OSM and NearMap.com forums. See also:

- | JOSM v2554 (<http://josm.openstreetmap.de/>)
- | Merkaartor 0.15 (svn rev 18981) (<http://www.merkaartor.org/>)

OpenLayers (<http://www.openlayers.org>)

Potlatch 1.2f (<http://wiki.openstreetmap.org/index.php/Potlatch>)

DeepEarth integration

The DeepEarth project aims to create (1) a multi-provider silverlight map control and (2) a rich and performant map toolkit (focussed on the Bing Map control).

Map Control Features: a smooth, slim DeepZoom based multi provider map control. See DeepEarth (<http://deepearth.codeplex.com/>)

MATLAB integration

see MATLAB with getTile addon

(<http://www.mathworks.com/matlabcentral/fileexchange/25998-gettile>)

Trekbuddy: OziExplorer and other offline mapping tool integration

The Nearmap.com tile sources can be added to Trekbuddy Atlas Creator (<http://trekbuddyatlas.sourceforge.net/>) to compile maps for use in Oziexplorer and other offline mapping software.

myTracks integration

see myTracks 2.1.1 (<http://mytracks.stichling.info>)

MapServer integration

See MapServer v5.6 (<http://mapserver.org/index.html>)

GDAL integration

[GDAL](#) is a widely used, open-source GIS library used for all sorts of image processing.

This page describes one way to use <http://www.nearmap.com> as a data source for GDAL or any application that uses it (e.g MapServer...).

An Example:

Download and install gdal either from source or as part of [FWTools](#) as described on the GDAL website (www.gdal.org).

Save the following file to your working directory and call it **frmt_wms_nearmap_tms.xml** :

```
<GDAL_WMS>
    <Service name="TMS">

<ServerUrl>http://www.nearmap.com/maps/h1=en&x=${x}&y=${y}&z=${z}&nml=Vert
&s=Ga</ServerUrl>

    </Service>
    <DataWindow>
        <UpperLeftX>-20037508.34</UpperLeftX>
        <UpperLeftY>20037508.34</UpperLeftY>
```

```

    <LowerRightX>20037508.34</LowerRightX>

    <LowerRightY>-20037508.34</LowerRightY> <TileLevel>8</TileLevel>
    <TileCountX>1</TileCountX>
    <TileCountY>1</TileCountY>
    <YOrigin>top</YOrigin>

</DataWindow>
<Projection>EPSG:900913</Projection>
<BlockSizeX>256</BlockSizeX>
<BlockSizeY>256</BlockSizeY>
<BandsCount>3</BandsCount>

    <Cache/>
</GDAL_WMS>

```

Edit the file to set the scale at which you want to load the images. This will depend on the area to wish to image. For testing you should start with scale 8, as there is whole-world coverage at this scale. Once you calculate the target coordinates (see below) for your import, you should set this to the best resolution available at that scale. This will probably be between 21 and 23.

Note - if you request an area/scale for which www.nearmap.com has no tile data, the GDAL operation will fail.

To create a JPEG image of the whole world, you could use the command:

```
gdal_translate -outsize 2048 2048 -of JPEG frmt_wms_nearmap_tms.xml test.jpg
```

which means:

- create an image, size 2048x2048 pixels o use
- OutputFormat 'JPEG'
- call the file [test.jp](#).
- Note that the source data will be scale 8 tiles (see the XML above) regardless of the output size you specify here.

At higher resolution you will want to specify a 'window' for the region to export. You can use either:

- `-srcwin xoff yoff xsize ysize`
- which selects a subwindow from the source image for copying based on pixel/line location. **
- `-projwin ulx uly lrx lry`
- which selects a subwindow from the source image for copying (like `-srcwin`) but with the corners (upper left and lower right) given in geo-referenced coordinates (i.e. in metres from the equator/prime-meridian. 0,0 is centre, y is positive upwards)

If you are focused on a particular region, you can set bounds in the XML file rather than in the arguments passed to GDAL. The bounds of the image are specified in metres from the equator/prime-meridian. The example above is the bounds for the whole world. You can convert latitude/longitude to metres using the formula $x = \text{LAT} \times 6378137$ and $y = \text{LONG} \times 6378137$. North and East values are positive. South and West are negative.

Appendix A: Tile Map Server (TMS) Protocol

URLs to access NearMap.com PhotoMap images use the Tile Map Server (TMS) protocol that is compatible Google, Bing, Yahoo and other map providers. NearMap.com has extensions to handle the extra NearMap.com functionality.

www.nearmap.com/documentation/external/Nearmap_URL_formats.pdf

Appendix B: Web Map Service (WMS) protocol

To quote Wikipedia:

"A **Web Map Service (WMS)** is a standard protocol for serving [georeferenced](#) map images over the Internet that are generated by a map server using data from a [GIS](#) database. ^[1] The specification was developed and first published by the [Open Geospatial Consortium](#) in 1999."

Here are some points to consider when using WMS to access NearMap.com PhotoMaps:

- WMS is a more powerful - but more complex and much less efficient - protocol than TMS. This is one reason that major map providers prefer serving imagery using the TMS protocol, as it places less burden on web servers and provides higher performance.
- As a rough rule of thumb, most commercial applications support or prefer the WMS protocol, where as most open source applications use or prefer the TMS protocol.
- For the best performance, consider running your own WMS server, which will give higher performance to your application users (as they will be accessing the WMS server via the higher speed internal internal organisation network).
- As an alternative, Government Agencies who have current licenses will be able to use the NearMap.com WMS servers hosted by NearMap.com. Access to NearMap.com's WMS servers is limited to government agencies with a current licence.

Appendix C: Map Projects and Datums

NearMap publishes imagery in the **Spherical Mercator** map projection for 2D applications. This is the same map projection adopted by Google, Microsoft and Yahoo.

The technical term for our PhotoMaps is that they are mosaics of orthorectified images. This means that each raw photo that goes into making up our PhotoMaps has had the full orthorectification process applied, including removal of terrain distortions, lens distortions and so on. Individual orthoimages are then merged together into a mosaic, being the PhotoMaps that you see on our map portal.

We generate high resolution bare-earth terrain maps as a necessary part of the orthorectification process (so that terrain distortions can be removed). As an aside, we also use the raw terrain surface (not bare earth) data to generate our color shaded Terrain maps. The Terrain maps have comparable accuracy and resolution to LIDAR generated terrain data.

The bundle adjustment stage of our HyperVision supercomputer based photogrammetry processing system performs full interior and exterior orientation of cameras and photos, including self calibration of cameras. Self calibration is the most accurate form of computing the metric camera interior orientation and lens parameters. A unique feature of our HyperPod aerial camera system is that it captures many more photos observing a given point on the ground (e.g. very high photo redundancy) compared to older aerial camera systems. This enables our processing system to handling difficult situations such as cloud and smoke, and has also means it has a far lower blunder rate than older orthophoto solutions. Our HyperVision processing is fully automated, and designed to create PhotoMaps anywhere in the world, without requiring any ground control point data at all. This also allows us to capture accurate PhotoMaps in adverse conditions where ground point data is not available, is obscured, has moved or is inaccurate. Our orthophoto bundle adjustment precision is typically better than 50cm RMS error. Note that some older PhotoMaps flown prior to November 2009 were prototype and tests surveys, and don't have the same level of accuracy. The RMS precision will continue to improve over time, as we move towards releasing full 3D capabilities.

To take advantage of NearMap's accurate PhotoMap georeferencing, you need to ensure that all aspects of map projection and datum transformations are handled by your GIS or CAD system when it merges different sources of data. For example, NearMap uses Datum Epochs ranging from 2009.0 through to 2010.0. Many systems do not take epochs into account correctly or at all when performing map projection conversions, and assume an older epoch such as 1994.0. As Australia has fairly rapid continental drift in the order of 7cm per year, failure to take the epoch into account during datum conversions can result in an error of 1 meter or more, simply due to incorrect datum transformations. So to ensure accurate georeferencing of NearMap's PhotoMaps, it is vital that your processing systems correctly take datum and projection and epoch transformations correctly into account.

The HyperTiles program can reproject our PhotoMaps into common projections and projections, such as UTM and GDA94. The HyperWMS service that offers the WMS service to our government clients can also reproject to common projections as well.

Appendix D: Integration Partners

NGIS

1. NGIS Profile

NGIS is Australia's largest independent provider of geospatial professional services. With a staff of 80 based in offices in Sydney, Perth, Brisbane and Hong Kong, NGIS is the largest specialist provider of GIS specific services in Australia. NGIS employees have qualifications and experience in geographic information systems, graphic design, geography, management, marketing, and computer science.

Core services provided by NGIS Australia include software project management and development, strategic planning, feasibility studies, needs assessment analysis, database design and implementation, web development and consulting, graphic design, data collection and management, spatial analysis, and training.

NGIS Australia is a Microsoft Certified Partner. Our development teams have Microsoft Certification in several area of expertise. The team members are skilled in many programming languages, including: Visual Basic.NET, Visual Basic, C++, C#.NET, Java++, Java Script, DHTML, HTML, XML, Active Server Pages (ASP), ActiveX, and Flash. NGIS Australia staff have strong RDBMS backgrounds, including Oracle, UniVerse, Db2, Ingres, SQL Server and MS Access.

At NGIS Australia our proven development and implementation methodologies ensure new solutions are clearly aligned to business objectives and integrate seamlessly with existing enterprise systems. NGIS Australia offers a sophisticated system design and integration service incorporating:

- Business and technical needs analysis
- System design and architecture
- Solution development
- Deployment and testing
- Cross-system integration
- User training and technical support

NGIS Australia is specialised in the development of applications based on GeoSamba, ESRI, ER Mapper and MapInfo software products.

2. NGIS Australia Technical Capabilities

Strategic Consulting

NGIS Australia accepts a responsibility and actively participates to work with our clients and ensure spatial solutions will address and continue to address business needs. NGIS Australia believe by partnering with its clients, a mutually beneficial relationship can be maintained.

NGIS Australia have the skills and experience required to develop business models, processes and strategies which use spatial technologies to derive maximum solution benefit to the client. The key and often most difficult task in implementing successful spatial systems is identifying the true business essence and developing effective models ensure benefit realisation. It is not uncommon for the business analysis we undertake in the course of deploying solutions to seed new insights which results in significant ongoing spill over benefits to our clients.

Web Based Solutions Development

NGIS Australia have been working with Web based GIS applications for a number of years. Experience in implementing solutions includes working with:

- ArcGIS Server and ArcIMS (ESRI)
- MapExtreme (MapInfo)
- MapServer (OpenSource)
- ASP Map (VDS Technologies)

NGIS Australia staff have significant experience in the developing web mapping solutions written in VB, ASP, C#.NET, Java Script, DHTML, HTML, XML, J2EE, Flash and KML.

Desktop Based Solutions Development

NGIS Australia has been developing desktop based GIS solutions for a number of years. NGIS Australia are experts at developing ArcObjects solutions for ESRI products but also have expertise in developing solutions with many other packages including:

- MapObjects
- Microsoft Access
- SQL Server
- Open Source GIS (Including MapWindow)

Desktop based solutions are typically client specific and tailored to our clients' requirements to ensure the system delivers a focused business outcome. These systems typically involve the integration of textual and spatial (both vector and raster) data. Detailed training manuals and on-site training courses are delivered by NGIS Australia staff to clients as part of a complete solution.

Data Management

NGIS Australia provides data management services for many organisations throughout Australia. In many situations this capability is provide as an end-end service with NGIS resources undertaking the complete management and governance activities related to spatial data. This includes the following activities:

- Data custodianship
- Metadata collation and management
- Data model optimisation
- Data Capture and Generalisation
- Capture and Hosting services

Application Development

NGIS is a Microsoft Certified Partner in Data Management Solutions and its subsidiary integrate Systems is a Microsoft Independent Software Vendor Partner specialising in the development of integration solutions. NGIS maintains a large team of solution developers that are experts in all aspects of the .Net Framework including web services and SQL Server database.

Digital Mapping Solutions (DMS)

Digital Mapping Solutions is a leading supplier of software and consulting services to the spatial information industry. They specialise in the implementation and customisation of Enterprise Web based spatial solutions that are tightly integrated with existing corporate applications. Their IntraMaps Enterprise web application can support NearMap.com using the WMS server protocol to support real-time integration of NearMap.com with IntraMaps.

If you are using IntraMaps or are looking to integrate NearMap.com into your web based GIS, you might want to:

- See [the DMS website](#)
- Learn more about their [IntraMaps product](#)

Depending on your needs and your existing GIS environment, IntraMaps is able to make use of or integrate with NearMap.com PhotoMaps in different ways, including URL Integration and WMS Integration.

1. URL Integration

IntraMaps is able to pass the location of a map feature to the NearMap.com server where the same location is displayed. This type of integration already exists at the City of Canning, where community users can use IntraMaps' point selection tool to display information about a property, including a link to the most current PhotoMap for that property on the NearMap.com website.

See this kind of integration demonstrated here: http://www.mapimage.net/city_of_canning/

2. WMS Integration

IntraMaps is able to consume Web Mapping Service (WMS) image overlays. This type of integration will allow a NearMap.com PhotoMap flown on a given date to be displayed as a WMS layer within your GIS.

If you have any questions about DMS products, contact Luke Handcock at DMS on 6436 2400 or luke.handcock@mapsolutions.com.au