



Department of Environment, Land, Water & Planning

Geodesy
Office of Surveyor-General Victoria
GPO Box 527
Melbourne, Victoria 3001
Telephone: (03) 9194 0264
DX 250639
www.delwp.vic.gov.au

Dear Value Added Reseller,

GPSNET DATA CENTRE MIGRATION CHANGE

GPSnet will be making changes to the GPSnet Primary (PR) data centre (IBM) and Disaster Recovery (DR) data centre (MCP).

WHEN is the migration happening

Between 5:00pm and 9:00pm (AEDT) On **Tuesday December 11th 2018**

WHAT is happening during the migration

At this time, a Data Centre migration will occur with the intention to make the MCP data centre the Primary data centre and the IBM Data Centre the Disaster Recovery data centre.

To implement this change, GPSnet will switch the DNS addresses between the IBM and MCP data centres, as indicated in Table 1 and Table 2 below.

Table 1: Current Data Centre DNS and IP Status

Current Data Centre Status	Data Centre	DNS	IP Address
PR	IBM	http://gnss.vicpos.com.au	121.200.232.45
DR	MCP	http://www.gpsnet.com.au	168.128.52.108

Table 2: Data Centre DNS and IP Status after Migration Change

Data Centre Status after migration	Data Centre	DNS	IP Address
PR	MCP	http://gnss.vicpos.com.au	168.128.52.108
DR	IBM	http://www.gpsnet.com.au	121.200.232.45

Whilst there will be no changes to the current port structure or data streams being output from IBM (see **Appendix 1: Table 3** below), the port structure and data streams being output from the MCP (see **Appendix 1: Table 4** below) will be different and VAR's should take note of these differences such that they can connect to the preferred data streams accordingly.

Privacy Statement

Any personal information about you or a third party in your correspondence will be protected under the provisions of the Privacy and Data Protection Act 2014. It will only be used or disclosed to appropriate Ministerial, Statutory Authority, or departmental staff in regard to the purpose for which it was provided, unless required or about access to information about you held by the Department should be directed to the Privacy Coordinator, Department of Environment, Land, Water and Planning, PO Box 500, East Melbourne, Victoria 8002

For the **MCP Data Centre** the following ports and data streams will be available:

- **8080** and **2101** will be dedicated to **Network RTK** data streams

The data format of Network RTK data streams will be dependent upon the mountpoint being requested. For example, **RTKNet-RTCM3** is an RTCM3.1 data stream. **RTKNet-RTCM32** is a RTCM3.2 (MSM 7) data stream and **RTKNet-CMRplus** is a CMR+ data stream.

- **2102** will be dedicated to **Single Base** data streams in the **RTCM3.1** format

Single Base RTCM3.1 data streams are the corrected data streams and have the APC offset already applied, meaning the ADVNULLANTENNA should be used if connecting to either of these types of data streams

- **2103** will be dedicated to **Single Base** data streams in the **RTCM3.2 (MSM7)** format

Single Base RTCM3.2 data streams are the corrected data streams and have the APC offset already applied, meaning the ADVNULLANTENNA should be used if connecting to either of these types of data streams

- **2104** will be dedicated to **Single Base** data streams in the **CMR+** or **CMRx** format

Only selected CORS will output Single Base data streams in the CMR+ or CMRx format

- **2105** will be dedicated to **Single Base** data streams rebroadcasting the **RAW** receiver data in the same format it is received from the individual GNSS receiver. Port 2105 will also broadcast some specialised single base **BINEX** data streams.

Single Base RAW data streams will be in either the RTCM3.1 or RTCM3.2 (MSM7) formats and will be dependent upon the individual receiver's capability. It should also be noted that RAW data streams DO NOT have the APC offset included and as such the appropriate antenna needs to be applied when using these data streams. Antenna details for each of the GPSnet CORS are located and maintained via the GNSS Site Manager at <https://gnss-site-manager.geodesy.ga.gov.au>

- **2106** will be dedicated to Single Base data streams in the **DGPS** (RTCM2.3 or RTCM2.4) format (if they are required)

WHAT to do prior to the migration

To prepare for this migration and to minimise any related downtime when the DNS's are switched (or in the event the DNS's need to be rolled back), GPSnet suggests that T1 VARS point to the IP addresses of each data centres as opposed to the DNS prior to the Data Centre migration occurring.

After the migration is completed T1 VAR's will be welcome to point back to the DNS (if preferred).

Yours sincerely



Hayden Asmussen
Manager GPSnet
Surveyor-General Victoria

16 / 11 / 2018

APPENDIX 1

GPSnet Data Centre Port and Data Stream Tables

Table 3: IBM Port Structure

Data Centre	Data Stream Types	Data Stream Formats	Data Stream Port(s)	Data Stream (Mountpoint) Name
IBM	Network RTK and Single Base	Multiple	8080 & 2101	RTKNet-CMRplus RTKNet-RTCM3 DGPSNet DGNSS_HP CMRplus-G CMRplus-GG CMRx-GG RTCM3-G RTCM3-GG NearestCORS-CMRplus NearestCORS-RTCM3 (The Data Stream format is dependent on Data Stream selected)
		RTCM3.1	8080 & 2101	XXXX-RTCM3*
		CMR+ & CMRx	8080 & 2101	XXXX-CMR+* Or XXXX-CMRx* (only select CORS output the CMRx format)
		RAW	8080 & 2101	XXXX-RAW* Or XXXX-RTCM3-RAW* (only select CORS output the RAW formats)
	BINEX	8080 & 2101	XXXX-BINEX* (only select CORS output the BINEX format)	
	Network RTK	Special Network RTK Mountpoints	2102	CMRplus-GG CMRx-GG RTCM3-GG NearestCORS-CMRx

* Where XXXX represents the CORS 4-character ID (eg Albury = ALBU)

Table 4: MCP Port Structure

Data Centre	Data Stream Type	Data Stream Formats	Data Stream Port(s)	Data Stream (Mountpoint) Name
MCP	Network RTK	Multiple	8080 & 2101	RTKNet-CMRplus RTKNet-CMRx RTKNet-RTCM3 DGPSNet DGNSS_HP NearestCORS-CMRplus NearestCORS-CMRx NearestCORS-RTCM3 NearestCORS-RTCM32 CMRplus-G CMRplus-GG CMRx-GG RTCM3-G RTCM3-GG (The Data Stream format is dependent on Data Stream selected)
	Single Base	RTCM3.1	2102	XXXX-RTCM3 *
		RTCM3.2 [#] (MSM 7)	2103	XXXX-RTCM32 *
		CMR+ & CMRx	2104	XXXX-CMR+ * Or XXXX-CMRx * (only select CORS output the CMR+ and CMRx formats)
		RAW & BINEX	2105	XXXX-Rx-RTCM31 * Or XXXX-Rx-RTCM32 * (The RTCM format is dependent on receiver capability) Or XXXX-BINEX * (only select CORS output the BINEX formats)
DGPS		2106	XXXX-DGPS * (only select CORS output the DGPS formats)	

* Where XXXX represents the CORS 4-character ID (eg **Albury** = **ALBU**)

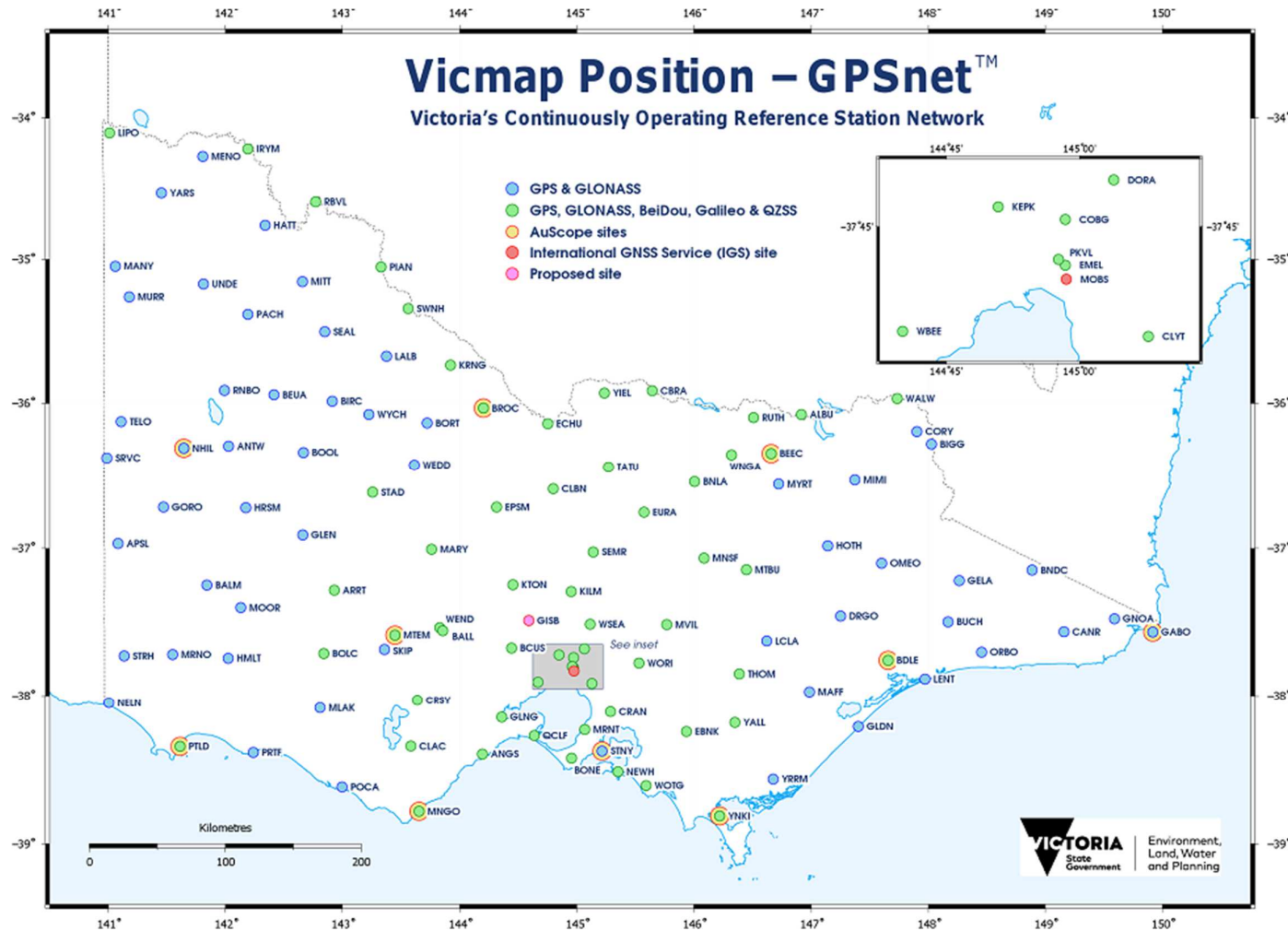
[#] Please note that Single Base data streams for RTCM3.2 MSMS7 have been set up for each GPSnet CORS. However not all GPSnet CORS are currently capable of supporting the RTCM3.2 format and as such are only outputting RTCM3.1. For example, the mountpoint for the Apsley CORS is APSL-RTCM32, but because the CORS receiver is only capable of supporting RTCM3.1, the actual data format being output via the APSL-RTCM3.2 is RTCM3.1.

The RTCM3.2 mountpoints have been setup this way such that T1 VAR's can choose to use either the RTCM3 mountpoints via port 2102, or the RTCM3.2 MSM7 mountpoints via port 2103, as opposed to having to manage different RTCM3 formats for different GPSnet CORS across multiple ports.

The attached map (See Appendix 2) indicates the GPSnet CORS (circled green) that are currently outputting RTCM3.2 MSM7 data streams. The GPSnet CORS circled in blue are only outputting RTCM3.1.

APPENDIX 2

GPSnet CORS outputting RTCM 3.2 MSM and RTCM3.1



Privacy Statement

Any personal information about you or a third party in your correspondence will be protected under the provisions of the Privacy and Data Protection Act 2014. It will only be used or disclosed to appropriate Ministerial, Statutory Authority, or departmental staff in regard to the purpose for which it was provided, unless required or authorised by law. Enquiries about access to information about you held by the Department should be directed to the Privacy Coordinator, Department of Environment, Land, Water and Planning, PO Box 500, East Melbourne, Victoria 8002