



Department of Environment, Land, Water & Planning

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Dear Value Added Reseller/GPSnet Customer,

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**

Impact to services during migration

This migration work is likely to cause an outage of approximately 1-2 hours whilst the DNS and IP addresses are changed.

WHAT is happening during the migration

On **Tuesday December 11th, 2018**, 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 VARs should take note of these differences such that they can both advise and assist their users to connect to the preferred data streams accordingly.

For the **MCP Data Centre** (which will become the Primary Data Centre after the migration is completed), 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 before the migration

Most GPSnet users should not need to do anything before the migration as the changes are being made in back end processes. Thus, for most users the migration should be seamless.

Keeping this in mind, GPSnet recommends that ALL VARS contact their own customers accordingly. VARS should advise their customers of this Data Centre Migration work as some users will be required to make changes to be able to continue to connect too and use the GPSnet services after the migration is completed.

WHAT to do after the migration

- **Network RTK Users**

Some users may find that they will be required to re-select the preferred mountpoints or data streams after the migration is completed. For example, if the customer is using the **RTKNet-RTCM3** mountpoint or data stream prior to the migration, they may be required to re-select it via the mountpoint list on their device or equipment after the migration work is completed.

Users currently using Network RTK mountpoints or data streams via port **2102** including **CMRplus-GG, CMRx-GG, RTCM3-GG** and the **NearestCORS-CMRx** **MUST** change the port to **2101** or **8080** to be able to continue using these data streams after the migration as these data streams will no longer be available via port 2102.

- **Single Base users**

Users currently using Single Base mountpoints or data streams in the RTCM3 format (eg **HRSM-RTCM3**) via port 8080 or 2101, **MUST** change the port to **2102** to be able to continue using these data streams after the migration as these data streams will no longer be available via ports 8080 or 2101.

Users currently using Single Base mountpoints or data streams in the CMR+ or CMRx format (eg **HRSM-CMRplus** or **HRSM-CMRx**) via port 8080 or 2101, **MUST** change the port to **2104** to be able to continue using these data streams after the migration as these data streams will no longer be available via ports 8080 or 2101.

- **Web and Reference Data Shop users**

Users whom currently access or **download** data from the GPSnet website will notice a change to the layout, however the core functionality will remain unchanged with some minor improvements and additional functionality being added.

Users who currently download **post processing** data automatically via 3rd party software packages should not have to make any changes to the process they are currently using.

Users currently downloading Data via the GPSnet **FTP** server will need to contact GPSnet separately to discuss alternative arrangements.

Whilst all steps have been taken to try and ensure a smooth migration, GPSnet will be available to assist any VARs or users if problems occur once the migration has been completed.

If VARs do require assistance they can contact GPSnet via one of the following options:

Email: GPSnet.Support@delwp.vic.gov.au

Phone: Kris Halewood – (03) 9194 0265
Hayden Asmussen – (03) 9194 0261

If you have any further questions or queries, please do not hesitate to contact me directly.

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 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

