



Kansas NG911 GIS Post Processing Steps

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Introduction

A Kansas NG911 GIS Data Model compliant PSAP geodatabase (gdb) is submitted to the NG911 Portal. The gdb is run through standard validation tests. If the data does not pass, the user is notified. If the data passes, the following processes are run on the data.

Statewide Layer Updates

Address Points

1. Address points are projected into GCS NAD 1983.
2. The latitude, longitude, and National Grid attributes are filled in.
3. The address points have the STP_RD field added and filled out with a concatenation of the STP & RD fields.
4. Primary addresses are updated in the statewide address point file; all address points are updated in a separate statewide address point file.
5. Address points in both statewide address point files are assigned a statewide unique ID by calculating the concatenation of the steward ID and the NGADDID.

Road Centerline & Road Alias

1. Road centerlines are copied with no GUIDS to a working folder.
2. Road alias records are copied with no GUIDs to a working geodatabase.
3. Roads have a field added called NGKSSEGID in which the statewide unique ID is calculated by concatenating the steward ID and the NGSEGID.
4. Road alias records have both NGKSSEGID and NGKSALIASID and are calculated with the concatenation of the steward ID and the NGSEGID and NGALIASID respectively
5. The LABEL field is stripped of extra leading or trailing spaces.
6. Roads have a field added called STP_RD in which the STP and RD fields are concatenated.
7. Roads have a field added called RD_RENDER in which a variety of calculation methods are used to add a symbology phrase for Vesta Locate. The final result is a combination of looking at the SURFACE field, comparing NGSEGID values to a compiled highway list, examining road names and associated road alias records for highway names, and in some cases, doing a spatial join on the data to acquire highway points. Roads without a SURFACE value or determined not to be highways are assigned a RD_RENDER value of "OTHER".
8. Roads are updated in the statewide road file & road alias records in a statewide road alias table.

ESB

1. If the PSAP submitted a single ESB layer, the layer is split into three separate ESB layers (LAW, FIRE, and EMS) in the working folder.
2. If the PSAP submitted three or more ESB layers, each one is copied into the working folder with no GUIDs.
3. All ESB layers have a field called NGKSESBID added which is a concatenation of the steward ID and the NGESBID.
4. All ESB layers are updated in their respective statewide ESB layers.
5. The data is tested to see if it has been adjusted to the statewide version.
6. If the data has been adjusted to the statewide version, the data is updated in the EGDMS ESB layers which are in GCS WGS 1984, and it is recorded that the PSAP has adjusted their data.

Municipal Boundary

1. The municipal boundary has a field added called NGKSMUNI_ID which is a concatenation of the steward ID and the NGMUNI_ID.
2. Municipal boundaries are updated in the statewide road file.

Parcels

1. Parcels are updated in the statewide layer. Ownership information is updated in the statewide layer over the weekend.

Utilities/Hydrants/Gates/Bridges/Cell Sites/Cell Sector Centroids

1. Data is updated in the proper statewide utility layer.

Final Step

All map services of statewide layers used in call handling are updated over the weekend.

EGDMS Processing

Address Points and Road Centerline

1. Query out counties that were requested and make sure only data marked for submission and primary address points are used.
2. Reproject requested data into GCS WGS 1984.
3. For Road Centerline and Address Points, add fields called FULL_PRD, FULL_STS, and FULL_POD. For each field in each feature class, recalculate PRD, STS, and POD into its respective FULL_ field with the fully spelled out version of the abbreviation.
4. Double-check that STP_RD exists in both Road Centerline and Address Points and make sure it's filled out.
5. Double-check that NGKSADDID exists in the Address Point feature class and that NGKSSEGID exists in the Road Centerline and that the NGKS* fields are filled out and don't have any nulls or blanks.
6. Put 0 in as the ESN of Address Points and ESN_R and ESN_L of road centerlines if the ESN value is blank or null.
7. Convert any Address Points where GEOMSAG = 'Y' into road segments by copying over all common attributes and creating a line geometry. The line created is an L shape where both the vertical and horizontal portions are 2 meters long, and the common vertex of the two portions is

the address point. The notes field indicates that the segment is a converted address point specifically for EGDMS purposes.

8. Ensure that address ranges and parities are set to 0-0 & Z respectively where a steward reports they do not have authority over the segment (AUTH_L or AUTH_R = 'N').
9. For roads and address points, add fields for MSAG_ID/_L/_R and populate field with the AT&T MSAG_AGENCYID according to the feature's ESN number.
10. Prepare the Road Centerline to add exceptions for several issues West is reporting.
 - a. Replace any literal "<null>" values in the STP_RD field with 'PRIVATE'.
 - b. Replace any blank " " values in the STP_RD field with 'PRIVATE'.
 - c. Add the WESTEXE field to the roads.
 - d. Add the value OAB for "Outside Authoritative Boundary" to the WESTEXE field for any roads that are not completely within the PSAP boundary.
 - e. Add the value ARO for "Address Range Overlap" to the WESTEXE field for any roads that have been determined by West to have overlapping address ranges.
11. Copy roads or address points to the delivery geodatabase.
12. Verify that road centerline segments exist inside every PSAP being submitted.

PSAP

Past EGDMS Prep:

1. This layer was solidified in 2017 as a statewide layer with no gaps and no overlaps and projected in WGS 1984.
2. West's URI value was added for each PSAP.
3. When PSAP boundary updates are submitted by counties, the boundary submission is verified against the submitted supporting documentation and edits are made to the statewide layer by DASC as needed.
4. Added AT&T PSAP ID.

EGDMS Per-Request Prep:

1. Copy selected PSAP boundaries into the delivery geodatabase.
2. Run QA processes on the selected PSAP boundaries on the stewards and route URI counts.
3. Dissolve the selected PSAP boundaries into one boundary in the delivery geodatabase.
4. Verify that the PSAPs being submitted matches the PSAPs that were requested.

ESB

1. Each PSAP now edits their ESB boundaries to be coincident with the statewide PSAP boundary.
2. For counties that have not yet edited their ESB boundaries, a single countywide boundary is submitted for EGDMS that matches the statewide PSAP boundary. When a county is adjusted, this boundary is replaced with their edited data.
3. For EGDMS, the selected PSAPS are copied in the delivery geodatabase.
4. Make sure SERVICEURI field is filled out.

Document Change Log

Date	Person	What Changed
December 20, 2018	Kristen Jordan Koenig	Document publish date
January 11, 2019	Kristen Jordan Koenig	Typo fix
March 28, 2019	Kristen Jordan Koenig	Added processing steps for West exceptions
April 4, 2019	Kristen Jordan Koenig	Added document change log for Eileen
May 14, 2019	Kristen Jordan Koenig	Removed step for road generalization
June 17, 2019	Kristen Jordan Koenig	Added EGDMS PSAP QA steps
October 23, 2019	Kristen Jordan Koenig	Added EGDMS ESB clip & fields verification
January 22, 2020	Kristen Jordan Koenig	Edited EGDMS processing to reflect statewide ESBs, edited EGDMS projection to GCS WGS 1984, made other edits for clarification
May 1, 2020	Kristen Jordan Koenig	Added road centerline and PSAP validation methods
August 14, 2020	Kristen Jordan Koenig	Edited "Statewide Layer Updates" to remove Vesta Locate processing steps. Added step where address ranges and parities are edited based on AUTH_X.
February 18, 2021	Kristen Jordan Koenig	Edited Address Point processing to add coordinate calculation back in.
April 26, 2021	Kristen Jordan Koenig	Edited EGDMS processing to account for AT&T MSAG_ID/_L/_R field addition. Edited past PSAP processing to add AT&T PSAP ID.