The role of graph databases in geomatics

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Abstract: The metropolitan area of Greater Moncton is the fastest growing census metropolitan area in eastern Canada. We are working with CODIAC transit to promote efficient transportation services and reduce private car dependency. CODIAC Transpo currently operates 30 regular routes Monday to Saturday, some of which provide additional evening and Sunday services. Graph database provides us with the capabilities to deal with the big spatial data that is being streamed from the buses at very high velocity, volume, and variety. Graph data management and analytics approach have shown to be powerful in its ability to capture observational and topological information from the transit networks in a database. Data management of transit networks as a network using graph unlocks the deep knowledge that is embedded both within the observed entities and their connectivity.