



# Analytics Out of the Cloud

How local law enforcement can leverage  
“cloud computing” to perform analysis

eastport**analytics**



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## Cloud Computing: Enterprise Data Trends in Government

Enterprise IT organizations across the Federal Government have been diligently creating information sharing mechanisms for their myriad operational customers. The common strategy is to develop data sharing standards, environments and applications that provide centralized data aggregation, access, and delivery services. These services are handled and supported by the Enterprise, and are ultimately made available to participating organizations and individuals through cloud computing environments that are broadly leveraged. Since services are maintained by the Enterprise, all mission organizations need to do is access “the Cloud” and extract what they need when they need it. Whether it’s Law Enforcement, Homeland Security, or Intelligence communities, these solutions can provide vital information sharing services between loosely networked agencies at all levels of Government.

But as a wide range of integrated data sources become readily available for consumption by mission operators, new challenges arise. This newly integrated data may hide valuable insights that can only be exposed by surfacing hidden relationships, correlations, trends or patterns; insights that become increasingly important when spanning Enterprise and local (or mission) data. Data sharing does not necessarily mean insight sharing, nor does it enable mission organizations with the analytic capabilities necessary to detect such critical factors. While data sharing alone may answer some immediate operational needs, it falls short in terms of true data exploitation, and as a result may be missing the true potential of integration.

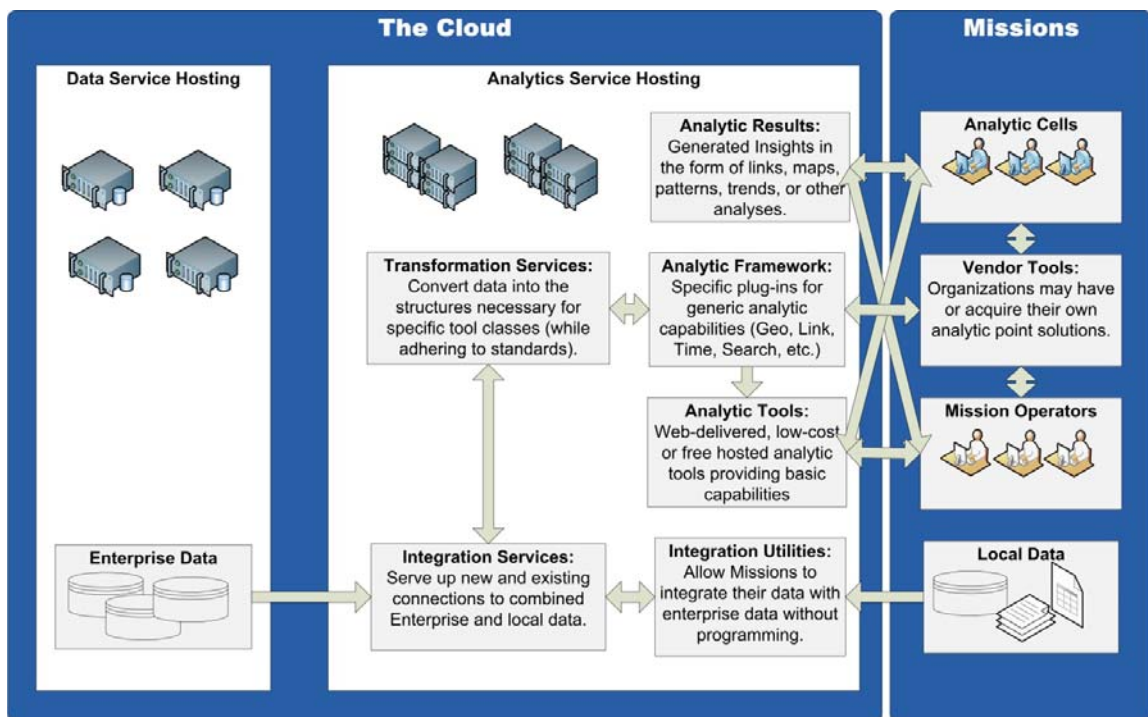
But how can small and tactically focused operations, such as local law enforcement operations, make effective, specialized use of the Enterprise data now available to them? How can they meaningfully and easily integrate Enterprise data offered through the Cloud with their own local sources and draw a complete and nuanced picture? How can they develop, maintain, and connect the robust analytical tools necessary to surface the actionable insights hidden within the data?

### **Analytics Out of the Cloud: Service Based Analytics Solutions**

The answer may lie in analytic services that, much like today’s data services, exist in the Cloud. These services could be centrally managed and hosted, and enable the fundamental analytic capabilities that are broadly required by mission operators, such as geospatial analysis, link analysis,

advanced search, data visualization, text analysis, and others. The capabilities could be independent of any particular data source, but able to freely connect to local data and take advantage of preexisting connections to Enterprise data. They could also be vendor and technology agnostic, allowing operations to choose from a variety of analytic point solutions in the market today. Lastly, organizations or individuals that do not intend to perform analyses can still benefit by tying into analytic insights generated by others in the form of completed maps, link charts, or other analytic products.

Taken together, this suite of services and overall architecture, when hosted and delivered by a central authority, should leverage existing cloud computing environments. It would provide access to the fundamental analytic enablers necessary to exploit integrated data, and therefore work hand in hand with data offered through the Cloud. If achieved, this offering would also relieve missions of the start up and support burdens inherent in deploying analytic capabilities, but directly support the analytic imperatives of large and small organizations alike.



A Logical Architecture for Analytics out of the Cloud

## A Logical Architecture for Analytics out of the Cloud

The keys to successful analytic solutions out of the Cloud will lie in the ways they enable individual mission organizations. The expected benefits to these organizations should include:

- the ability to quickly integrate their data with Enterprise data for various kinds of analyses
- the ability to use that integrated data in a variety of analytic tools depending on their needs, such as Geospatial Analysis, Link Analysis, Advanced Search, Data Visualization, Text Analysis, etc.
- the ability to connect their own point solutions to data with little effort
- a baseline set of tools for organizations that don't have existing point solutions or analytic capabilities of any kind

Mission operators should be able to flexibly choose how they take advantage of the analytic offerings in the Cloud. They could directly interact through a basic set of analytic tools, which are easy to use and web deliverable (so as not to require any installation), use point solutions acquired from tool vendors, or simply consume processed analyses by viewing results generated by analytic cells within their organization or elsewhere. This means organizations of all sizes and maturity could take advantage according to their needs.