MASTER THESIS – BIG DATA SCALABLE ARCHITECTURE

Background
The society’s development towards open data is an indicator that new strategies are required for systems integration of multiple sources of data streams. The emergence of mass data systems with advanced correlation will be challenged to take on a new level of functional growth. Now is the time of realization and implementation of functions for the second decade in the 21 century.

We would like to continue this journey by further analyzing the data we have together with our customer sources and use that to create a Big Data solution with the mandate to tailor any question to that set of data.

Thesis Description
This master thesis will include an implantation and realization of a Big Data solution after study and analysis has been performed. The aim is to use existing knowledge in the area to break new ground with latest best thinking. This includes selecting platform components, database types, loading mechanisms but most of focus all on optimal database architecture. The data set will come from high load real-time service to be combined with open data sources. The Big Data solutions goal is to answer some predefined questions and find out what other valuable queries can be answered to the data base.

The thesis will be concluded with a result presentation for the Ericsson team. The following steps are envisioned as part of the thesis work:

• Ground research from internal company sources and literature study of industry wide best praxis for Big Data.
• Investigate and analyze Big Data solution to answer how architecture and platform components shall be formed
• Implement Big Data solution with specified data feed structured to answer defined queries
• Characterize and optimize response frequency performance

Contact Persons
Daniel Jakobsson System Developer
+46 10 711 4290
daniel.jakobsson@ericsson.com

Anders Fransson L
+46107114808
anders.l.fransson@ericsson.com
Qualifications
This project aims at students in computer science, computer engineering with following courses like Databases, Data Mining and programming like Data structures and algorithms, or similar with experience from distributed systems.

Extent
1-2 students, 30hp

Location
Ericsson AB Mjärdevi, Linköping

Preferred Starting Date
2015 Q4

Keywords Big Data, Databases, Data mining, Computer Architecture, SQL, NoSQL