SAP HANA Sentiment Intelligence RDS (Version 2)

TABLE OF CONTENTS

This document answers frequently asked questions about the SAP HANA Sentiment Intelligence RDS (Version 2), provides compliance guidelines, best practices and gives an introduction into the user interface.

FREQUENTLY ASKED QUESTIONS

1. **Which social media networks are integrated in the solution by default?**
   The RDS provides interfaces via Data Services to the Twitter Search API, the Facebook Graph API, SAP StreamWork API and the Google+ API by default. However, it is also possible to connect to any other web channel with a publicly available API called via Python code.

2. **Which software components are mandatory for the SAP HANA Sentiment Intelligence RDS (version 2)?**
   - SAP Data Services 4.1 SP01 or higher
   - SAP HANA Platform 1.0 SPS05

3. **Which software components are optional for the SAP HANA Sentiment Intelligence RDS (version 2)?**
   - SAP BusinessObjects BI Platform 4.0 SP04
   - SAP BusinessObjects BI Platform Client tools 4.0 SP04
   - SAP BusinessObjects Explorer 4.0 SP04
   - SAP Visual Intelligence 1.0 SP07
   - SAP CRM 7.0 or higher (pre-defined configuration can be selected by customer as part of scope)
   - Microsoft SQL Server 2008 (for local Data Services repository, customer can also choose other existing data base which is supported by BOE server)

4. **Can I mash-up the social media data with information from my CRM system?**
   Yes. We provide an optional connection to your CRM system to associate the current sentiments with the promotions/campaign and service tickets in the CRM system.

5. **Briefly describe the CRM mapping.**
   Information such as marketing promotions and service requests can be extracted from the SAP CRM system, transferred and stored into HANA server via Data Services for further processing. Usually, this would contain information such as promotion start/end dates or related products which could be then associated with search terms and search periods on the dashboard. Social media posts can also be assigned to campaigns and service tickets from the CRM system.

6. **What is the role of HANA in the product?**
   HANA is the in-memory database that stores the data and provides high performance analysis with SAP Explorer, SAP Visual Intelligence and the SAP HANA UI5/Toolkit. Furthermore, SAP HANA Platform 1.0 SPS05 includes Text Data Processing to process and rate the data.

7. **How can we estimate the data volume being loaded into HANA in order to get a correct sizing? Are there any example data available or could you provide a sizing guide?**
   The official SAP sizing guide for HANA can be found under http://help.sap.com/disclaimer?site=https%3A//service.sap.com/sap/support/notes/1514966. Please always check the information provided by this note at first.

8. **How accurate is Sentiment Intelligence?**
   By using grammatical parsing and semantic disambiguation, Sentiment Intelligence extracts entities as well as fact types like sentiment from the text. Based on the contained sub entities in the sentences, the fact types are assigned as very positive, positive, neutral, negative or very negative. Our text analysis approach works very well but like every other natural language processing (NLP) approach it cannot give you an accuracy of 100%.

9. **How many different languages can be analyzed?**
   The second version of the SAP HANA Sentiment Intelligence RDS supports German, English, French and Spanish.

10. **Will I be able to analyze the regional location of the user in order to analyze regional trends/sentiments?**
    Yes. However, the majority of the entries and users does not provide any location information and can therefore not be assigned to a region. All entries with location information can be displayed and compared on a map.

11. **Where can I find an exact scope definition?**
    The scope is defined in the Scoping Document which is part of the RDS service documents.

12. **Do we have to pay additional fees for data from social networks?**
    No. The data is collected via publicly available APIs. However, SAP has no influence on API license agreement or technical interface changes made by social network providers in the future.

13. **Do we get data from the past?**
    Depending on the source, the APIs provide the last 50-1500 entries as long as they are created in the past five to fourteen days. In addition, we can help you to sing up with social media data collection firehose services that have special agreements with Twitter and resell historical Twitter data.

14. **Do you have a data acquisition and data protection disclaimer?**
    The solution does not acquire neither stores any personal/private, logon protected, or access any un-released data.
    It provides code templates to utilize public application programming interfaces (API) from Twitter, Facebook, SAP Streamwork and Google+ for data acquisition. Therefore the implementation of the actual API calls at the customer site are owned by the customer as SAP cannot guarantee nor take on warranty regarding availability and stability of public API provided by Twitter, Google and Facebook respectively.
    Consequently, SAP is not obliged to deliver the data after potential changes or withdrawal of the API by Twitter and Facebook.

15. **Are there any rate limitations concerning the extract of social media data?**
    It depends on the source. Even if there are any (e.g. for Twitter), we do not believe that you are going to encounter them generally. However, Twitter infrequently lowers its rate limitations in peak times to prevent its servers from shutting down what might cause rate limitation errors.

16. **How many search teams can we monitor?**
    The number of search terms is only restricted by limitations of the social media APIs.

17. **Is it possible to filter out retweets?**
    Yes. Your consultant can easily add a small piece of code to filter out retweets.

18. **How much effort does it take to configure additional social media sources?**
    It totally depends on the interface. Please ask your consultant for a rough estimation. In general, RSS feeds of blogs are usually easy to connect while APIs of additional social media sources might take more effort.

19. **Will the predesigned HTML5 user interface still work with additional sources?**
    The HTML5 user interface gets all its information about the social media sources from the database. For this reason, it will not be affected.

20. **Which possibilities do we have to monitor the data?**

The HTML5 web-based user interface is automatically included in the SAP HANA Sentiment Intelligence RDS. Depending on your licenses, you can also explore the sentiment data via SAP Explorer and SAP Visual Intelligence.

21. Does the browser version/HTML5 web-based user interface run on every browser?
We guarantee that the HTML5 web-based user interface runs smoothly on Mozilla Firefox 10, Google Chrome 24, Safari 5.1 and Internet Explorer 9 (and later versions).

22. Why do I often see these "□" in the HTML5 user interface?
The "□" are emojis sent from Apple devices. The wrong display is not caused by our solution but is a Windows issue. For this reason, please install bugfix 2729094 (http://support.microsoft.com/kb/2729094/de) for Windows 7. If you cannot install the bugfix manually, please speak to your IT department.

23. How many workshops are planned at the customer site?
We estimate that only one combined workshop for kick-off and scoping would be necessary.

COMPLIANCE GUIDELINES

Since the terms and policies of the social networks APIs change frequently, please check the following links:
Twitter Developer Rules of the Road: https://dev.twitter.com/terms/api-terms
Facebook Platform Policies: https://developers.facebook.com/policy/
Google+ Platform Terms of Service: https://developers.google.com/+/terms
SAP StreamWork Terms of Use: https://streamwork.com/accepted_agreements/printable/TOU-20111111

EXPERIENCE THE USER INTERFACE

Depending on your owned solutions, SAP HANA Sentiment Intelligence RDS gives you the option to explore the sentiment data via SAP Explorer, SAP Visual Intelligence or a flexible HTML5 web-based user interface based on SAP HANA UI5/Toolkit.

Configuration
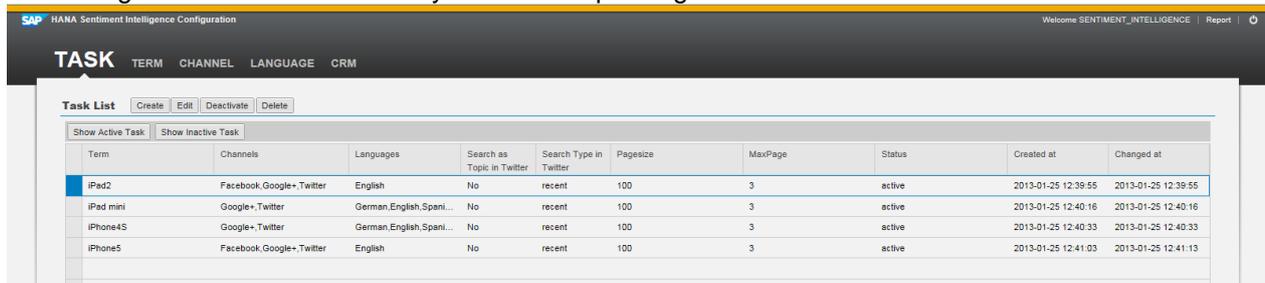The configuration can be done easily via a self-explaining HTML5 user interface.

Figure 1: Configuration Overview

By using the provided buttons, search terms can easily be added, edited, deactivated and deleted. The appearing pop-up allows the setting of parameters like language or specific Twitter API parameters i.e. PageSize and MaxPage.
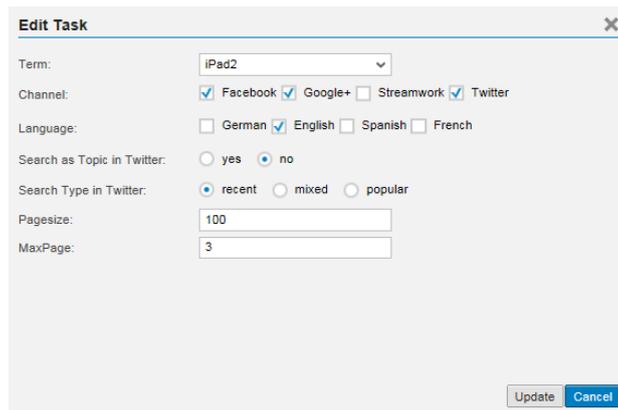
Figure 2: Configuration Details

SAP HANA UI5/Toolkit

The pre-designed web-based HTML5 user interface is accessible via your browser. It provides total flexibility ranging from a generic overview to the possibility of drilling down to single tweets including the option to respond to tweets directly. Every part of a diagram is clickable. The filter is automatically applied to all other diagrams. The diagrams can be moved, enlarged or replaced by alternative diagrams by Drag & Drop.
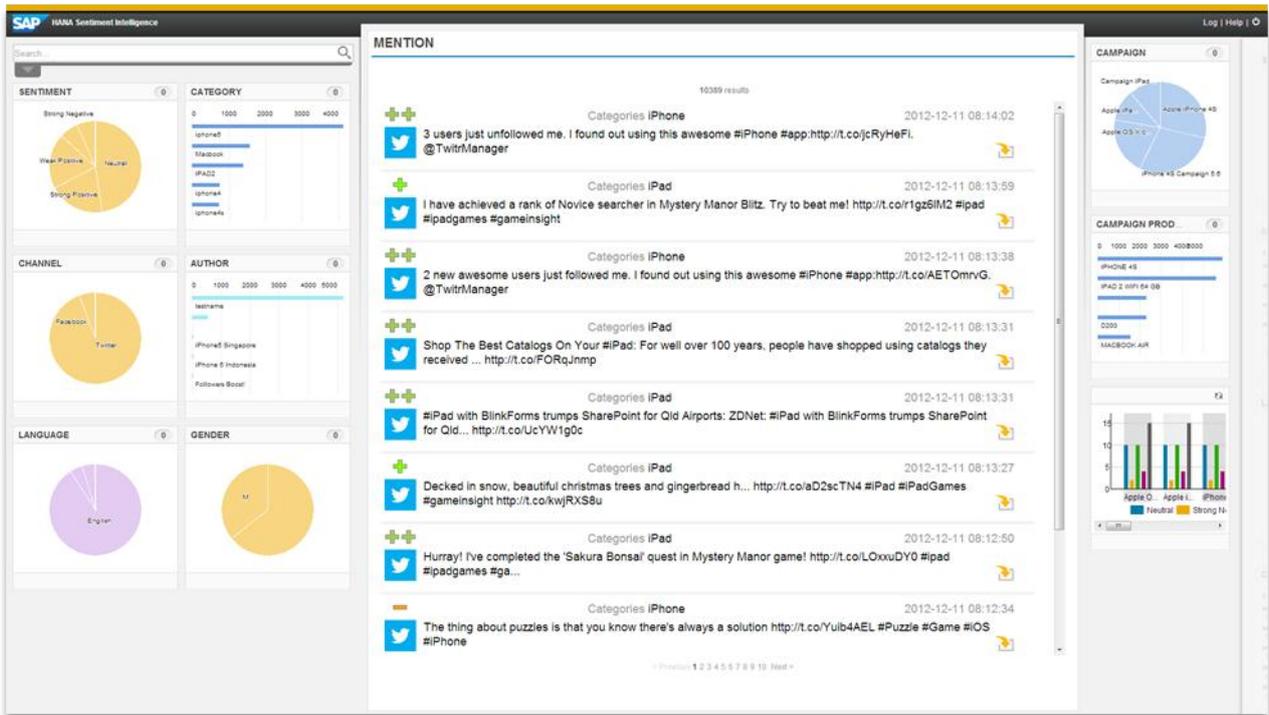
Figure 3: SAP HANA UI5/Toolkit Overview

SAP Explorer

With SAP Explorer, you can access a variety of diagrams, graphs, charts and tables. By clicking on one or several parts of charts e.g. a country or a bar, you can filter the view according to selected criteria. An additional view of the graph and the underlying data can be opened by using Explore . You can also fade in the toolbar with additional setting for a graph with .

At the top of the screen, you can open additional, more detailed views or create your own exploration views via the dropdown menu (Sentiment Overview ▾).

Figure 4: SAP Explorer Overview

SAP Explorer is also available on mobile devices.

Figure 5: SAP Explorer on Mobile

SAP Visual Intelligence

SAP Visual Intelligence is a data visualization tool with a wide palette of graphical charts and tables. You can easily create your own diagram within less than a minute.

Therefore, please connect to your HANA database and select a view. In the appearing window, you can choose between several diagram types and your desired dimensions and measures.
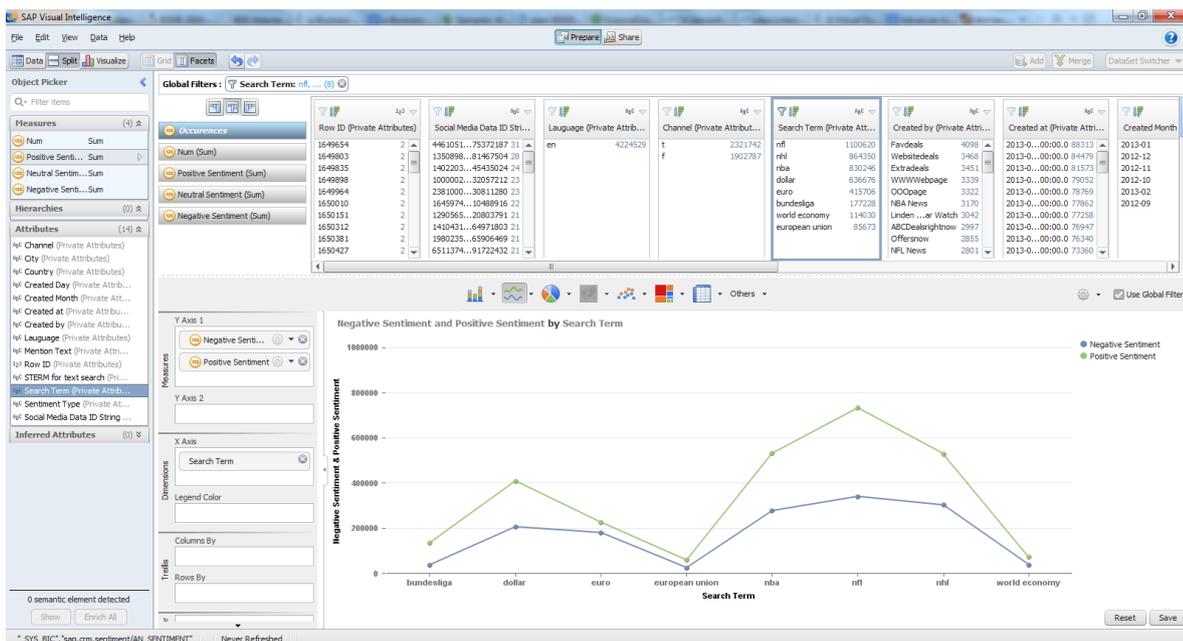

Figure 6: Visual Intelligence Chart

In the provided screenshot, we chose a line chart with negative and positive sentiments as measures and the search terms as the dimension.
Measures and dimensions can be added by Drag & Drop.
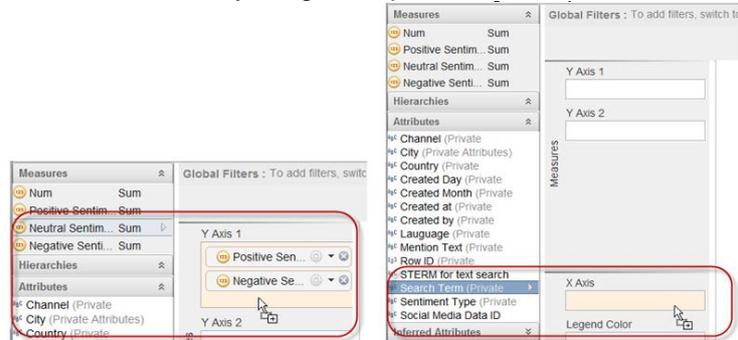
Figure 7: Adding measures in VI

RELATED CONTENT

Sentiment Intelligence on SAP Marketplace: https://websmp210.sap-ag.de/rds-sent-int
Twitter Developer Rules of the Road: https://dev.twitter.com/terms/api-terms
Facebook Platform Policies: https://developers.facebook.com/policy/
Google+ Platform Terms of Service: https://developers.google.com/+/terms
SAP StreamWork Terms of Use: https://streamwork.com/accepted_agreements/printable/TOU-20111111
SAP HANA Sizing Note:
http://help.sap.com/disclaimer?site=https%3A//service.sap.com/sap/support/notes/1514966
Official product tutorial site of SAP Explorer: http://scn.sap.com/docs/DOC-8675
Official help page of the SAP Visual Intelligence: http://help.sap.com/vi

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