The business intelligence as a service capability maturity model

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------------|---|---|---|---|---|---|---|---|---|
| Design | | | | | | | | | |
| Data Storage | | A | | | В | | С | | |
| Accessibility | | A | В | | С | | | | D |
| Data | | | | | | | | | |
| Data gathering | | A | | | | | | В | C |
| Data management | | A | В | С | D | | Е | | F |
| Data processing | | | | | A | | В | С | D |
| Data analysis | | A | В | С | D | Е | F | | |
| Usage | | | | | | | | | |
| Application logic | | A | В | | C | | | | D |
| Usability | | | | | A | В | С | | |
| Consumerization | | A | В | С | D | Е | F | | |
| Support | | | | | | | | | |
| Alerting | | | | | | | A | | В |
| Service | | A | В | C | D | | | | E |

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Data Storage

- A The service is installed in a data center accessible via the internet.
 - The solution is designed to support multi-tenancy, where multiple customers share the same application and
- B database instance.
 - Resources are virtual and therefore are not bound to one physical location. Resources can be switch to different
- c locations at any time.

Accessibility

- A The solution is primairily available by remote access via the internet.
 - The solution is developed for- and installed in a data center chosen by the vendor. The solution is provided to
- B the customer over the Internet.
 - All the data is highly protected and a systematical process is in place to guarantee this data protection at all
- C times
- D Resources are automatically optimized depending on the current performance, demand and service contract.

Data Gathering

- There is an automated means available to extract data from a source system, transform the data into a
- A predefined format and load the data into the solution's data warehouse.
 - The solution can import structured, but also semi-structured and unstructured data (text, images, emails,
- B business processes).
 - The solution provides an automated workflow with easy to use steps for users to control the data importation
- c process.

Data Management

- A There is a data warehouse available containing predefined data models which can handle intensive querying. Standard security protocols and methods are used to assure secure data delivery. Security measures against standard internet attacks (e.g. web defacing, web page hijacking) are implemented to assure privacy and
- B integrity of private information.
- C There is a structured process to ensure correct, valid, integrated and in-time data.
 - Monitoring tools are provided to monitor data connections to source systems. Connections to source systems are monitored continiously and a structured process is available to restore connections withing considerable
- D time
- E Common used data is automatically summarized and query optimization techniques are used for querying.
- F Customers Business Intelligence needs are systematically gathered and translated into system updates.

Data Processing

- A Techniques are used to deal with information and noisy data.
- B Data is transformed into actionable decision information.
 - Segmentation and clustering techniques and algorithms are used to preprocess data into useable segments and
- C clusters (for instance for geographic information).
 - Data warehouse learning techniques are implemented for automated refinement of algortihms (i.e. clustering
- D refinement)

Data Analysis

- A Automated knowledge discovery techniques are available to analyze data.
- B Rollup and drill-down, slice-and-dice, and pivotting operations are available for data processing.
- C Data can be explored using predefined queries.
- D Predictive algorithms are used to make forecasts using history data.
- E Text mining techninques are available to mine large amount text and extract useful knowledge.
- F Visualization techniques are implemented to visualize relationships and dependencies between data.



- The solution infrastructure is easily scaled up- or down depending on the demand of the customer. The solution
- A is scalable within considerable time (within minutes).
 - The solution is designed and developed by the vendor without intervention of users (user independent development). The solution is maintained by the vendor and updates are deployed for all users in rapid
- B deployment cycles.
 - The whole solution (data, computing resources, hardware resources) is fully virtualized and can be duplicated on-
- C demand.
- D The solution automatically adapts to changing usage.

Usability

- A Usage monitoring is provided to monitor usage. Alerts are implemented at predifined thresholds.
- B The solution can be used without learning.
- C The solution is configurable to fulfil the varying functional and quality requirements of individual customers.

Consumerization

- A Predifined business performance visualizations are available (KPI's, dashboards, story boards).
- B Specified data can be visualized using predifined (interactive) visualization techniques.
- C Reports and visualizations can be exported for offline use and collaboration.
- D Users can create own reports with specialized tooling and save them for later use.
- Reports and visualizations can be addressed via different channels (PC, mobile phones, tablets) and are tested
- E on usability making use of standard usability heuristics.
- F The reports and visualizations can be tuned to support multiple bussiness units en processes.

Alerting

- Operational business metrics and user-denined business thresholds and rules can be set to alert users for
- A potential business problems
 - Exceptions and anomalities in source connections, data depencies and inter table references are automatically
- B detected and the users are informed by sending an alert.

Service

- A Access and support is time and location independent.
 - Customers are charged using a payment model. The model is on a pay-per-use basis (based on usage metrics) or
- B using a subscription model (fixed fee or recurring monthly, quarterly, or annually).
 - Predefined measurable qualities of service (i.e. infrastructure uptime) are in place and communicated to the
- C customer. A process is in place to secure the promised QoS.
- D There are predefined service level aggreements which are communicated to the customers
- E The provided service is offered for a competitive price.