Blueprint Architecture – Phase 1

# Applications

## Blueprint Web Application

Blueprint is Requirement Management web application. Contains functional modules, dialogs and other user interactions. Technology: HTML5/Angular/Typescript.

### Application Administration Views

Application Administration module contains views where application administrator can setup and manage application instance. All application settings are managed from the views and dialogs of Application Administration module.

### Project Administration Views

Project Administration module contains views where project administrator can setup and manage project. All project settings are managed from the views and dialogs of Project Administration module.

### Artifact Management Views

Artifact Management module contains views where users can create, update, manipulate and delete artifacts, its properties and alike. All textual and graphical representations and editors of the artifacts are implemented in Artifact Management module.

### Activity Simulation Views

Activity Simulation module contains views where user runs screen mockup and use case simulations.

### Baseline Review Views

Baseline Review module contains views where user can define baseline and create review of artifacts as of baseline date.

### Rapid Review Views

Rapid Review module contains views where user can review collection of artifacts.

### Impact Analysis Views

Impact Analysis module contains views where user can trace and explore artifact dependencies.

## Bluedocs Application

Bluedocs Application allows users to convert MS Word files into Blueprint projects, extracting use cases and screen mockups. Application has self-learning capabilities to recognize patterns. Technology: C#/Silverlight Desktop.

## Migration Application

Migration Utility facilitates migration of data from legacy RC projects to Blueprint Software. Technology: Java/Swing.

# Services

## Open API Web Service

Open API Service exposes Blueprint Software functionality via REST endpoint. It is designed for various external system integration scenarios employing Tasktop or OpsHub. Technology: ASP.NET Web API/C#.

## Artifact Store Web Service

Artifact Store web service facilitates creation, persistence, modification and manipulation of artifacts. It also includes bulk import and export of artifacts via excel files. Artifacts are stored in Artifact Store database. Technology: ASP.NET Web API/C#.

## Admin Store Web Service

Admin Store web service facilitates application and project administration, setup and user credential management. Data is persisted in Admin Store database. Technology: ASP.NET Web API/C#.

## File Store Web Service

File Store web service facilitates file upload, storage, download and removal. Files are stored as binary sequences in File Store database. Technology: ASP.NET Web API/C#.

## Data Analytics Service

Data Analytics Service implements functionality to access data analytics via OData interface. Data is stored in Data Analytics database. Data Analytics database is updated from Artifact Store and Admin Store databases via ETL process. ETL process is scheduled nightly using MS SQL Server scheduling. Technology: WCF/C#.

## Phone Home Windows Service

Phone Home Windows Service receives usage and forensics data from Blueprint application instances and stores it in Phone Home database. Technology: C#.

## ALM Connector Web Service

ALM Connector web service facilitates synchronization of Blueprint data with external ALM systems such as MS TFS and HP ALM / QC. ALM Connector web service can communicate via REST, SOAP or COM interfaces. Data is loaded from Artifact Store database. Technology: ASP.NET Web API/C#.

## Job Executor Web Service

Job Executor web service performs long running user initiated operations via exposed REST interface. Results are saved in Artifact Store database. Technology: ASP.NET Web API/C#.

## Access Control Web Service

Access Control web service performs session token validation and authorization for other services. Data is stored in Admin Store database. Technology: ASP.NET Web API/C#.

## License Control Web Service

License Control web service performs license management and is invoked by Admin Store web service. Data is stored in Admin Store database. Technology: ASP.NET Web API/C#.

# Databases

## Artifact Store Database

Artifact Store database contains artifacts, artifacts relations and artifact properties. Storage is highly relational in nature. Technology: SQL Server 2012.

## Admin Store Database

Admin Store database contains all administration details, such as application settings, access control lists and license information. Storage is somewhat relational in nature. Technology: SQL Server 2012.

## File Store Database

File Store database contains uploaded files and basic metadata. Storage is non-relational in nature. Technology: SQL Server 2012.

## Data Analytics Database

Data Analytics database contains data analytics data collected from Artifact Store and Admin store databases. Storage is relational in nature. Technology: SQL Server 2012.

## Phone Home Database

Phone Home database contains opted in customers’ usage and forensic data received from cloud and on-premise installations of Blueprint. Technology: SQL Server 2012.