

Software Specification

Alleantia Co-Creation Program

**Revision History**

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| --- | --- | --- | --- |
| **Revision** | **Date** | **Notes** | **Owner** |
| 1.0 | 2018/08/3 | First version | Hank.Peng |
|  |  |  |  |

1. **Customer’s requirement**

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| **Project (\*)** | Alleantia Co-Creation Program | **Apply Date (\*)** | 2018/07/24 |
| **Customer (\*)** | Alleantia | **Business (\*)** | IoT co-creation program |
| **PM (\*)** | Kurt.Ou | **AE (\*)** | Kalvin.Yang |
| **Platform** | UTX-3117 | **OS (\*)** | Windows10 |
| **Peripheral** | **Name** | **Purpose** |
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|  |  |
| **User /****Functional Requirements** | **Description** | **Evaluate Solution** | **Version** |
| Alleantia SRP development |  |  |
| Custom plugin which is able to communicate with Alleantia ISC based on MQTT protocol.  |  |  |
| Defining a suitable IPSO data format which is capable to cover different industry data model from Alleantia. |  |  |
| SRP dashboard development |  |  |
| **Others** |
| Integration plan and Architecture |
|  |

**(\*): Must**

1. **Software Specification**

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| We will provide a software service for the function of subscribing Alleantia MQTT data and transform the data into WISE-PaaS/EdgeSense data format for EI-Agent to upload the data to WISE-PaaS/EdgeSense cloud, the detail function include below items:

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| Item | Description | Remark |
| 1. | Transfer Alleantia sensor data format to Advantech IPSO-like format |  |
| 2. | Upload real-time Alleantia sensor data to WISE-PaaS/EdgeSense |  |
| 3. | Get real-time Alleantia sensor data to WISE-PaaS/EdgeSense |  |
| 4. | Set real-time Alleantia sensor data from WISE-PaaS/EdgeSense |  |
| 5. | Transfer Alleantia Alarm message to WISE-PaaS/EdgeSense |  |
| 6. | Transfer Alleantia Event message to WISE-PaaS/EdgeSense |  |
| 7. | Register system to runs as a Windows service |  |
| 8. | Pack installer by AdvanceInstaller |  |

The system architecture is defined as below:C:\Projects\Development\Alleantia\AlleantiaISC_WISEPaaS_01.png**Note:*** **The system doesn’t support Alleantia configuration from WISEPaaS/EdgeSense.**
* **Alleantia configuration can be set by Alleantia Web Portal**
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1. **Efforts of Software Development/Customization**

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| **Tasks** | **Comment** | **Man-days** |
| Feasibility Evaluation | Technique study + Confirm SW specification + Demo kit setup | 3 |
| Architecture Design | Software architecture design | 2 |
| Data Simulator | Define data format and provide a Node-Red flow to generate simulate data | 5 |
| SW Service Development | Implement | 15 |
| Integration | Integration with WISEPaaS/EdgeSense | 5 |
| Functional verification | RD function verification, debug and define test plan | 3 |
| Documentation | Release Note & User Guide | 2 |
| **Total** |  | **35** |

1. **Signature**

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| **Customer:** Company: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_By (Signature): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Name (Print): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Title:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Address:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Anticipated Annual Quantities: \_\_\_\_\_ | **Approve by:** | **Advantech Co., Ltd.****Name(Print):** **Title:**  **Address**:2F., No.27, Wende Rd., Guishan Dist., Taoyuan City 333, Taiwan, R.O.C**Tel**: 886-2-2792-7818 |
| **Comments:** |