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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:   |  |  |  | | --- | --- | --- | | 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** |

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:** |