Prerequisite
(1) To use the FUJITSU Cloud Service K5 - CF Service, the Customer must download the CF commands\(^1\) and in compliance with the instructions provided, install them.

1. CF Service Overview
   Fujitsu provides the following services as the CF Service using Cloud Foundry, an open source platform.

(1) CF Basic Service
   i. Application Execution Environment
      This Service provides an environment which enables the Customer’s applications to be deployed and executed on this CF Service. It is also possible to specify in the environment the amount of memory to be allocated for execution of the applications deployed by the Customer (hereinafter “Applications”). If the amount of memory is not specified by the Customer, then a default value of 1GB will be allocated to the memory for Applications.
   ii. Service Link
      This Service provides, through use of the CF commands, a function which creates instances\(^2\) for services such as the relational database, and enables such instances to be called out from the Applications.
   iii. Scaling and Load Balancer
      Instances of the Applications can be increased or decreased manually. Requests sent to Applications are automatically distributed to instances as the number of instances increases or decreases.
   iv. Health Monitoring and Auto-Recovery
      This Service monitors the status of Applications, and automatically recovers instances of Applications when they end abnormally.

(2) Buildpack
   i This Service provides a function that deploys within the Application Execution Environment a build pack which includes the framework and runtime as required for the operation of Applications.
   ii. Attachment Table 1 shows the buildpack types that can be deployed.

(3) Relational Database
   i This Service provides a relational database based upon PostgreSQL as the database engine. The Customer can use one of the plans of relational database sets from the following table:

<table>
<thead>
<tr>
<th>Details</th>
<th>Plan</th>
<th>Number of virtual CPUs (vCPUs)</th>
<th>Allocated memory (GB)</th>
<th>Capacity of object storage (GB)</th>
<th>Applicable database engine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>L1 (light)</td>
<td>1</td>
<td>4</td>
<td>20</td>
<td>PostgreSQL</td>
</tr>
</tbody>
</table>

(4) Logging and Monitoring
   i Saving and Viewing of logs
      Logs output from Applications can be saved and viewed by the Customer using one of the following plans:

<table>
<thead>
<tr>
<th>Details</th>
<th>Plan</th>
<th>Log storage size (GB)</th>
<th>Data storage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>L1 (light)</td>
<td>10</td>
<td>1 location</td>
</tr>
<tr>
<td></td>
<td>M1 (medium)</td>
<td>50</td>
<td>2 locations (by replication)</td>
</tr>
</tbody>
</table>

   ii Creation of Custom Meter\(^3\), and collecting and viewing Sample\(^4\)
      The Customer can create a Custom Meter, and collect and view the Sample. This enables the Customer to monitor the conditions of Applications for any item.
(5) CF Dashboard
   i. This Service provides an operation window for management of the Applications.
   ii. This Service provides a function for management of the status of the Organization*5, Space*6 and other items of the CF environment as follows:

<table>
<thead>
<tr>
<th>Item</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organization</strong></td>
<td></td>
</tr>
<tr>
<td>Summary</td>
<td>Display usage status (amount of allocated memory for the Organization and each Space), Display and/or modify the quota (upper limits of the number of the memory size or the service instances that can be used in the Application Execution Environment) for the Organization</td>
</tr>
<tr>
<td>Space</td>
<td>Display a list of space</td>
</tr>
</tbody>
</table>
| User (*7) | Granting of user privileges in the Organization *One of the following user privileges can be selected and granted:  
  - Org Manager  
  - Billing Manager  
  - Org Auditor |
| View of Logging and Monitoring(M1 (medium) only) |  
  - Retrieve/view logs  
  - Check the log storage size  
  - Check the Custom Meter and the Sample |
| **Space** | |
| Summary | Display the usage status (amount of allocated memory for the Space) |
| Application | Display the Application list (including the activation status) and activate and deactivate Applications |
| User | Granting of user privileges in the Space *One of the following user privileges can be selected and granted:  
  - Space Manager  
  - Space Developer  
  - Space Auditor |
| View of Logging and Monitoring (M1 (medium) only) |  
  - Retrieve/view logs  
  - Check the log storage size  
  - Check the Custom Meter and the Sample |
| **Other** | |
| - | Display the download page for the CF command  
  Display the download page for the sample applications  
  Display the documentation |

2. This Service is available in following regions:
   - Eastern Japan Region 1
   - Eastern Japan Region 2
   - UK Region 1
   - Finland Region 1
   - Germany Region 1
   - Spain Region 1
   - US Region 1

3. Restrictions and Notes
   (1) It is not possible to restrict external access to the Application Execution Environment provided by this CF Service, and the Applications will remain exposed to the Internet. The Customer is solely responsible for the security of the Applications.
   (2) When an error occurs at a log service instance, stored logs cannot be viewed. The Customer is solely responsible for backing up logs as necessary.

Footnotes:
*1 The CF commands can be downloaded from the following website: https://github.com/cloudfoundry/cli/releases
*2 "Instance" is a unit used when virtually executing the services such as the Applications and relational database on a K5 resource.
*3 "Custom Meter" is a monitoring parameter which the Customer can arbitrarily set.
*4 "Sample" is data collected by Custom Meter.
*5 "Organization" is a unit of this CF Service for management. One Organization is available per a contract number in each region.
*6 "Space" is a unit of this CF Service for management. A space manages Application instances and service instances. Only Users with privileges to a certain space can access that space.
*7 "User" is a person who uses functions or manages resources provided by this CF Service.
Attachment Table 1 - Buildpack Types

(1) **Buildpack Types**
The Customer can deploy the buildpacks listed in the following table by the method described:

<table>
<thead>
<tr>
<th>Buildpack</th>
<th>Deployment method</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Catalog view</td>
<td>CF commands</td>
</tr>
<tr>
<td>Java (GlassFish 4.1 Web Profile / Java SE 8)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Java (Tomcat / OpenJDK)</td>
<td>N/A</td>
<td>Yes</td>
</tr>
<tr>
<td>Go</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Node.js</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>PHP</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Python</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Ruby</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Staticfile</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

The following website lists the versions of buildpacks that are supported, and only listed versions of buildpacks can be deployed on this CF Service. The Customer must use the CF commands to deploy the versions that are not noted as being the latest in the list.

Supplementary Provision (July 31, 2016)
The present Service Description is effective from July 31, 2016.

Supplementary Provision (August 19, 2016)
The present Service Description is effective from August 19, 2016.

Supplementary Provision (November 18, 2016)
The present Service Description is effective from November 18, 2016.

Supplementary Provision (December 19, 2016)
The present Service Description is effective from December 19, 2016.

Supplementary Provision (January 27, 2017)
The present Service Description is effective from January 27, 2017.

Supplementary Provision (March 23, 2017)
The present Service Description is effective from March 23, 2017.

Supplementary Provision (May 8, 2017)
The present Service Description is effective from May 8, 2017.

Supplementary Provision (October 19, 2017)
The present Service Description is effective from October 19, 2017.

Supplementary Provision (April 19, 2018)
The present Service Description is effective from April 19, 2018.