

Translated English of Chinese Standard: GB/T36327-2018

www.ChineseStandard.net → Buy True-PDF → Auto-delivery.

Sales@ChineseStandard.net

GB

NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA

ICS 35.100.05
L 79

GB/T 36327-2018

**Information technology - Cloud computing -
Application management requirements with platform
as a service (PaaS)**

信息技术 云计算

平台即服务（PaaS）应用程序管理要求

Issued on: June 07, 2018

Implemented on: January 01, 2019

Issued by: State Administration for Market Regulation;

Standardization Administration of the PRC.

Table of Contents

Foreword.....3

1 Scope.....4

2 Normative references.....4

3 Terms and definitions4

4 Abbreviations5

5 General requirements5

 5.1 Sketch5

 5.2 PaaS customer administrator5

 5.3 PaaS user6

6 PaaS application management process.....6

7 PaaS application management requirements7

 7.1 Develop PaaS application7

 7.2 Deploy PaaS application8

 7.3 Manage PaaS application9

 7.4 Configure PaaS application running.....10

 7.5 Get PaaS application information.....11

 7.6 Migrate the application12

Appendix A (Informative) Deployment modes of PaaS application14

 A.1 Single cloud PaaS application deployment.....14

 A.2 PaaS application component integration14

 A.3 Cross-software running environment deployment14

Information technology - Cloud computing - Application management requirements with platform as a service (PaaS)

1 Scope

This Standard proposes a management process for the platform as a service (PaaS) application and specifies the general requirements and management requirements for the PaaS application.

This Standard applies to service provisioning of PaaS providers related to platform as a service (PaaS) application management; and the scenarios where platform as a service (PaaS) customers use cloud platform services to deploy and run applications, and where platform as a service (PaaS) collaborators, based on the function of platform as a service (PaaS) application management, provide third-party services.

2 Normative references

The following documents are indispensable for the application of this document. For the dated references, only the editions with the dates indicated are applicable to this document. For the undated references, the latest edition (including all the amendments) are applicable to this document.

GB/T 35301-2017 Information technology - Cloud computing - Platform as a Service (PaaS) reference architecture

3 Terms and definitions

The terms and definitions defined in GB/T 35301-2017 and the following are applicable to this document.

3.1 PaaS application

An application which can be deployed and run in the software running environment provided by PaaS.

3.2 PaaS application deployment package

Package files for PaaS application deployment and run-related content.

5.3 PaaS user

To support the management of PaaS applications, PaaS providers shall provide the following capabilities for PaaS users:

- a) SUPPORT PaaS users to manage their account information;
- b) SUPPORT PaaS users to access monitoring information and logs of their own PaaS applications;
- c) SUPPORT PaaS users to perform related operations in the PaaS application management process;
- d) SUPPORT PaaS users to manage and edit basic information, authentication information, and payment information for their accounts.

6 PaaS application management process

The PaaS application management process is divided into 4 stages of development, deployment, running, and migration, as shown in Figure 1. PaaS users advance and implement the following activities involved in these 4 stages:

a) Development

Based on the specifications, interfaces, tools, and services provided by PaaS, develop applications which can be deployed and run in the PaaS software running environment; and FORM a PaaS application deployment package.

b) Deployment

Deploy the PaaS application; configure the PaaS application; and prepare the application to run in the PaaS software running environment.

c) Running

Manage the running process of the PaaS application; and GET information about the running of the PaaS application.

d) Migration

Migrate the PaaS application out of the PaaS software running environment, to support the PaaS application to deploy and run in other software running environments.

publishing examples;

- m) shall provide a graphical interface for applying for the publishing and withdrawal of PaaS applications; or provide an online telephone service.

7.4 Configure PaaS application running

PaaS users, through PaaS interfaces, tools, and rules, configure the PaaS application's running parameters, running policy, resources required for running, and batch running. PaaS providers:

- a) shall provide an interface or tool which declares the configurable parameters of PaaS application;
- b) shall support PaaS application configuration based on formatting templates (such as xml, etc.);
- c) shall provide the documentation for the configuration of running parameters of PaaS application and provide configuration examples;
- d) shall provide the template for the configuration of running parameters of PaaS application, for users to implement custom and extended configurations;
- e) shall save the configuration result of PaaS application running parameters in the log;
- f) shall provide documentation for the application policy configuration and provide configuration examples, where:
 - The application running policies supported by the PaaS software running environment shall include security policy, resource usage policy, etc.;
 - The application running policies supported by the PaaS software running environment shall be classified according to public cloud, proprietary cloud, and hybrid cloud;
- g) shall provide documentation for the PaaS application requesting running resources and provide an example of the operation;
- h) shall clearly specify the type and maximum number of contents included in the PaaS software running environment;
- i) shall support the dynamic scalability strategy of PaaS software running environment, to meet the PaaS application's requirement for dynamic resource quota;

- j) shall provide real-time log view and offline log file export functions;
- k) Abnormal interruption of PaaS application shall not affect the integrity of log information;
- l) The recorded log information shall indicate category information. The category information shall include configuration information, running information, debugging information, warning information, alarm information, etc.; and shall support statistical analysis of monitoring information of a single PaaS application; and support comparative analysis of monitoring information of multiple PaaS applications;
- m) shall send an alarm information to the user when there is an abnormality in the PaaS software running environment;
- n) may provide a graphical interface for publishing, modifying, and retrieving PaaS applications.

7.6 Migrate the application

To support PaaS users to export PaaS applications deployed in the PaaS software running environment to a common format and deploy them in other software running environments, PaaS providers:

- a) shall provide a service or interface for PaaS application migration;
- b) shall provide specifications and requirements for the migration of PaaS applications, including packaging format, running environment, coding restrictions, transmission format, etc.;
- c) shall support the migration of different granular contents of PaaS applications, components, and configuration files, etc.;
- d) shall provide a clearing mechanism for the PaaS application, to ensure that there is no application residue in the current PaaS software running environment after the migration;
- e) shall provide a fallback mechanism for unsuccessful PaaS application migration, including the recovery of the original PaaS software running environment, etc.;
- f) shall provide the PaaS application migration function in the PaaS application management interface;
- g) shall, according to the performance requirements of migrating PaaS application, provide the corresponding resource dynamic scalability policy;

Appendix A

(Informative)

Deployment modes of PaaS application

A.1 Single cloud PaaS application deployment

PaaS customers deploy PaaS applications to the cloud platform of a single cloud platform provider; and use the cloud platform services to manage the applications.

A.2 PaaS application component integration

PaaS customers can, in PaaS applications, use the PaaS application components deployed in the PaaS software running environment as a functional module for their applications. In this mode, PaaS customers can, in the PaaS software running environment, publish their application components in the form of APIs and use PaaS interfaces to manage. The integration of PaaS application components can be done in the following two ways:

- a) Integrated PaaS component: A function or module of an application is deployed in the PaaS software running environment. The function or module can be deployed by the application owner in the PaaS software running environment as a proprietary service; or deployed by a third-party service provider in the PaaS software running environment as a public service;
- b) Process choreography: Applications use PaaS application components based on one or more PaaS deployments to choreograph them into processes, to achieve specific functions.

A.3 Cross-software running environment deployment

PaaS customers, for availability or performance considerations, deploy their PaaS applications or components in multiple PaaS software running environments (provided by single or multiple PaaS providers). In this mode, the deployment of PaaS application is done in the following two ways:

- a) Copy deployment: PaaS customers distribute multiple copies of PaaS applications in different PaaS software running environments for deployment, to avoid availability problems caused by single PaaS software running environment instance failures;

This is an excerpt of the PDF (Some pages are marked off intentionally)

Full-copy PDF can be purchased from 1 of 2 websites:

1. <https://www.ChineseStandard.us>

- SEARCH the standard ID, such as GB 4943.1-2022.
- Select your country (currency), for example: USA (USD); Germany (Euro).
- Full-copy of PDF (text-editable, true-PDF) can be downloaded in 9 seconds.
- Tax invoice can be downloaded in 9 seconds.
- Receiving emails in 9 seconds (with download links).

2. <https://www.ChineseStandard.net>

- SEARCH the standard ID, such as GB 4943.1-2022.
- Add to cart. Only accept USD (other currencies - <https://www.ChineseStandard.us>).
- Full-copy of PDF (text-editable, true-PDF) can be downloaded in 9 seconds.
- Receiving emails in 9 seconds (with PDFs attached, invoice and download links).

Translated by: Field Test Asia Pte. Ltd. (Incorporated & taxed in Singapore. Tax ID: 201302277C)

About Us (Goodwill, Policies, Fair Trading...): <https://www.chinesestandard.net/AboutUs.aspx>

Contact: Wayne Zheng, Sales@ChineseStandard.net

Linkin: <https://www.linkedin.com/in/waynezhengwenrui/>

----- The End -----