

Usage-based calculation methods for MindSphere applications

August 2022

The following pricing models are supported for MindSphere applications and their upgrades (called "extensions"): subscription-based and usage-based. This document focuses on how fees for usage-based extensions are calculated.

Usage-based pricing provides a cost efficient and a flexible method for users depending on their monthly usage pattern. To offer customers usage-based extensions, applications need to be tracked on daily basis and usage data has to be recorded by MindSphere's service Usage Transparency Service (UTS). Using UTS customers will be able to view and analyze their MindSphere usage.

Usage-based fees are always billed monthly in arrears.

The following examples explain how usage-based calculations for non-packaged and packaged MindSphere applications work.

1. Example of usage-based calculation: for non-packaged applications

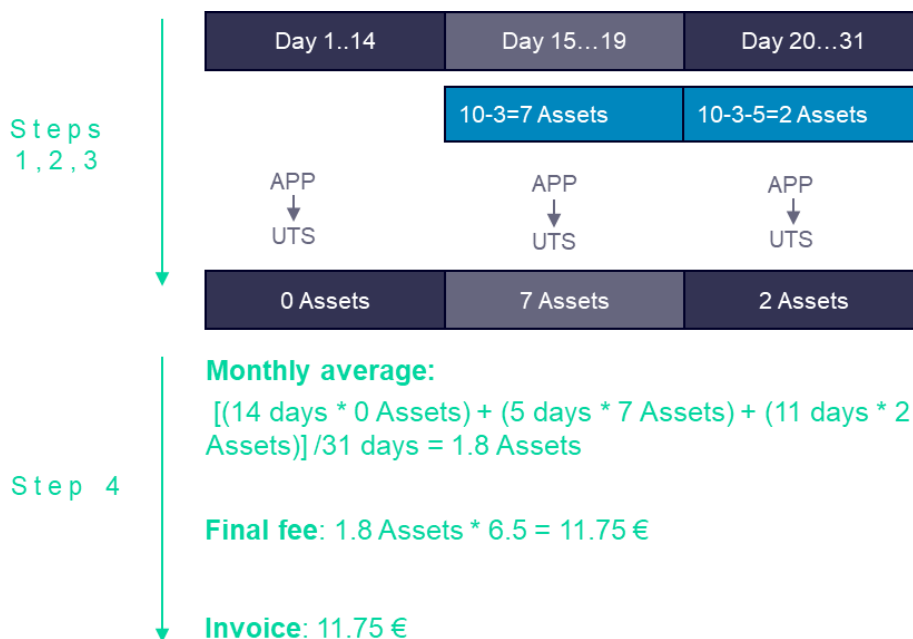
This example uses the following pricing model of a non-packaged application:

Pricing Model					
Fee for	Application subscription	Extensions (optional)			
		Subscriptions			Usage-based
	3 Assets	5 additional Assets	20 additional Assets	100 additional Asset	6.50 €/ month for 1 additional Asset
Subscription/ Activation date	1st January	15th January			20th January

Use case description and calculation:

- January 1st:** Customer subscribes to an application which allows them to onboard up to 3 Assets.
- January 15th:** Customer onboards a production line with 10 Assets into this application. Starting on 15th of January, the application reports to MindSphere UTS customer's Assets which exceed his subscribed quota (in this case $10-3=7$). For apps combining subscription- and usage-bases values, the application will always eliminate the subscription-based values.
- January 20th:** Customer subscribes to an extension containing 5 additional Assets. Starting on 20th of January, the application reports to MindSphere UTS an adjusted number of Assets (in this case $10-3-5=2$).
- Beginning of February:** Based on the values provided by the application to MindSphere UTS during January, the monthly average is calculated:
 - $[(14 \text{ days} * 0 \text{ Assets}) + (5 \text{ days} * 7 \text{ Assets}) + (11 \text{ days} * 2 \text{ Assets})] / 31 \text{ days} = 1,8 \text{ Assets}$.
 - The monthly average is multiplied then with the price for one additional Asset:
 - $1,8 \text{ Assets} * 6.5 = 11.75 \text{ €}$

Therefore, a usage-based fee amounting to 11.75 € for month January would be charged.



2. Example of usage-based calculation: for packaged applications

This example uses the following pricing model of a packaged application:

Pricing Model

Fee for	Application subscription	Extensions (optional)	
		Extension A (usage-based)	Extension B (usage-based)
	Includes: <ul style="list-style-type: none"> Application Base Tenant 100 Asset Attributes 0.5 GB TS Storage 	Includes: <ul style="list-style-type: none"> 50 additional Asset Attributes 0.5 GB additional TS Storage 	Includes: <ul style="list-style-type: none"> 100 additional Asset Attributes 0.5 GB additional TS Storage
Fee	100 € / month	30 € / month	50 € / month
Subscription/ Activation date	1st January	15th January	20th January

Use case description and calculation:

- January 1st:** Customer subscribes to a packaged application and gets provisioned the MindSphere Resources included in his subscription.
- January 15th:** Customer activates within the application an Extension A.
- January 20th:** Customer activates within the application an Extension B.
- Beginning of February:** Based on the values provided by the Package Builder (PB) API to MindSphere UTS during January, the monthly average is calculated:
 - For Extension A: $[(0 \text{ Extension A} * 14 \text{ days}) + (1 \text{ Extension A} * 17 \text{ days})] / 30 \text{ days} = 0,6;$
 - For Extension B: $[(0 \text{ Extension A} * 19 \text{ days}) + (1 \text{ Extension B} * 12 \text{ days})] / 30 \text{ days} = 0,4;$

SIEMENS

The monthly average is multiplied then with the price for Extensions A and B:

- Extension A: $0,6 * 30 \text{ €} = 18 \text{ €}$
- Extension B: $0,4 * 50 \text{ €} = 20 \text{ €}$
- Total amount: $18 + 20 = 38 \text{ €}$

Therefore, a usage-based fee amounting to 38 € for month January would be charged.

