USAGE AND BILLING

For Windows Azure Pack

SETUP GUIDE

Usage and Billing for Windows Azure Pack setup and configuration guide

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Cloud Assert

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INTRODUCTION

Usage and Billing for Windows Azure Pack has four components. All of these can be installed from their respective installers:

- I. API Service IIS Web Application
- II. Aggregation Service Windows Service
- III. Admin Extension Windows Azure Pack Admin Portal Extensions
- IV. Tenant Extension Windows Azure Pack Tenant Portal Extensions

These components can be installed on the same machine or multiple machines.

GENERAL PRE-REQUISITES

Following are some of the installation pre-requisites and checklist.

Cloud Assert Usage and Billing Database:

- a. Ensure that the Database server has at least 8 GB RAM and 4 Virtual CPUs. As Usage and Billing involves lots of data aggregations it is important to have a performant database server.
- b. (Optional) Create a SQL Database and note down the name. For example: CloudAssert.Billing.
- c. Create a database user with read-write, owner and admin privileges just to this database. This database needs db_datareader/db_datawriter permission for the following WAP databases.
 - Microsoft.MgmtSvc.PortalConfigStore
 - Microsoft.MgmtSvc.Store
 - Microsoft.MgmtSvc.Usage

INSTALLATION

Usage and Billing solutions can be installed in two different ways,

- Single Machine Setup
- > Distributed Multi-Machine Setup

General Upgrade Installation Instructions

Pre-Uninstall Steps

- 1. Take a backup of Cloud Assert billing database and obtain the resource provider username and password settings from Usage and Billing API Service web.config.
- 2. Take backup of 'Web.config' file located at 'C:\inetpub\MgmtSvc-CloudAssertBilling'.
- 3. Take backup of 'CloudAssert.WAP.Billing.AgentService.exe.config' file located at 'C:\Program Files\CloudAssertBilling\CloudAssert.WAP.Billing.AgentService'.
- 4. Take a backup of 'Scripts' folder form 'C:\ Program Files\ CloudAssertBilling\ CloudAssert. WAP. Billing. AgentService' folder if present.
- 5. Take a backup of the following files (If present) from 'C:\ Program Files\ CloudAssertBilling\ CloudAssert. WAP. Billing. AgentService'.
 - a. CloudAssert.Billing.UsageExtensions.dll
 - b. System.Management.Automation.dll
 - c. CloudAssert.Billing.UsageExtensions
 - d. UsageExtensionsSettings.json
- 6. Take backups of '*Templates*' folders present in '*C*:*inetpub**MgmtSvc-CloudAssertBilling*' and '*C*:\ *Program Files*\ *CloudAssertBilling*\ *CloudAssert. WAP. Billing. AgentService*'.

Uninstallation Steps

- 1. Uninstall existing Usage and Billing installers from Add or Remove Programs on the respective machines.
- 2. Delete 'CloudAssertBilling' from 'C:\Program Files' if present after uninstalling Billing Agent Service setup.

Pre – Installation Steps

- 1. For upgrading from version v1.9.0.22 to v1.9.1.11 (or) v1.9.2.*, the following has to be done before installing the latest build.
 - a. Download the SQL script from here.
 - b. Execute the script in CloudAssertBilling database server

NOTE: Versions less than 1.9.0.22 will not need the script to be executed.

- 2. For upgrading from version v1.9.1.10 to v1.9.2.*
 - a. Download the SQL script from here.
 - b. Execute the script in *CloudAssertBilling* database server.
- 3. For upgrading from version v1.9.1.11 to v1.9.2.*
 - a. Download the SQL script from here.
 - b. Execute the script in *CloudAssertBilling* database server.

Post – Installation Steps

The post installation steps need to be followed after the 'Billing Agent Service' setup is installed.

- 1. Stop the billing agent service.
- 2. Replace the folder '*Templates*' and its contents into '*C*:*inetpub\MgmtSvc-CloudAssertBilling*' and '*C*:\ *Program Files*\ *CloudAssertBilling*\ *CloudAssert. WAP. Billing. AgentService*'.
- 3. Replace the 'Scripts' folder and its contents into 'C:\ Program Files\ CloudAssertBilling\ CloudAssert. WAP. Billing. AgentService' folder.
- 4. Replace the following files into 'C:\ Program Files\ CloudAssertBilling\ CloudAssert. WAP. Billing. AgentService' folder.
 - a. CloudAssert.Billing.UsageExtensions.dll
 - b. System.Management.Automation.dll
 - c. CloudAssert.Billing.UsageExtensions
 - d. UsageExtensionsSettings.json
- 5. Open 'CloudAssert.WAP.Billing.AgentService.exe.config' file located at 'C:\ Program Files\ CloudAssertBilling\CloudAssert.WAP. Billing. AgentService' and compare it with the backup file of the same name (CloudAssert.WAP.Billing.AgentService.exe.config). Enable the job processors that are enable in the backup file. For example, UsageEventsProcessors, UsageExtensionProcessor, etc.

```
<!-- Billing Usage Events Processor -->
<add key="UsageEventsProcessor.Enabled" value="true"/>
<add key="UsageEventsProcessor.ReadBatchSize" value="200"/>
<add key="UsageEventsProcessor.PollingIntervalSeconds" value="120"/>
<add key="UsageEventsProcessor.ErrorBackoffIntervalSeconds" value="240"/>
<add key="UsageEventsProcessor.IsMasterExpirationInSeconds" value="600"/></a>
```

 If 'UsageExtensionProcessor' is enabled in the backup file, set true in the new file and also ensure the 'SettingsPath' is pointed to 'C:\ Program Files\ CloudAssertBilling\ CloudAssert. WAP. Billing. AgentService\ UsageExtensionsSettings.json' as seen below.

- <add key="UsageExtensionsProcessor.PollingIntervalSeconds" value="60"/>
- <add key="UsageExtensionsProcessor.ErrorBackoffIntervalSeconds" value="120"/>

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<add key="UsageExtensionsProcessor.Enabled" value="true"/>

<adk key="UsageExtensionsProcessor.SettingsPath" value="C:\Program Files\CloudAssertBilling\CloudAssert.WAP.Billing.AgentService\UsageExtensionsSettings.json"/>

<add key="UsageExtensionsProcessor.ReadBatchSize" value="500"/>

<add key="UsageExtensionsProcessor.IsMasterExpirationInSeconds" value="600"/>

7. Start the Billing agent service.

Single Machine Setup

If all the Windows Azure Pack (WAP) components like Admin Portal, Tenant Portal, etc. are setup in a single machine, then all the CloudAssertBilling installers can be installed in the same machine.

IMPORTANT NOTE: The agent service setup alone is installed after all the preliminary settings and configurations are done. The steps for it are discussed under *Step 10 – Installing Usage and Billing Agent Service* section.

1. INSTALL USAGE AND BILLING API SERVICE

1.1. Download the 'CloudAssert.WAP.Billing.Service.Setup' installer after registering into

https://www.cloudassert.com/register

1.2. Click on the installer and click 'Next' button.



1.3. Click the 'I accept the terms in the License Agreement' check box to accept the EULA and click the 'Next' button.

😸 Cloud Assert Usage and Billing - API Service Setup	
End-User License Agreement USAGE AND BILLING Please read the following license agreement carefully For Windows Azure Pock SETUP SETUP	
License Agreement for Cloud	
Assert Products	
Cloud Assert, LICENSES THIS SOFTWARE PRODUCT TO YOU SUBJECT TO THE TERMS CONTAINED IN THIS END USER LICENSE AGREEMENT (THIS "AGREEMENT" OR "EULA"). READ THE TERMS AND CONDITIONS OF THIS AGREEMENT CAREFULLY BEFORE INSTALLING, COPYING AND USING THIS COMPUTER SOFTWARE AND ITS	
✓ I accept the terms in the License Agreement	
Print Back Next Cancel	

1.4. Click 'Next' button.

👸 Cloud Assert Usage and Billing - AP	I Service Setup 📃 🗖 🗙			
Custom Setup Select the way you want features to be installed.	Custom Setup USAGE AND BILLING Select the way you want features to be installed. For Windows Azure Pock SETUP SETUP			
Click the icons in the tree below to change the way features will be installed.				
Gloud Assert Usage and Billing -	Installs Cloud Assert Usage and Billing - API Service 1.8.1.1			
< 1111 >	This feature requires 0KB on your hard drive. It has 1 of 1 subfeatures selected. The subfeatures require 19MB on your hard drive.			
	Browse			
Reset Disk Usage	Back Next Cancel			

1.5. To install the API Service with AppPoolIdentity use the default option. Change the default option if a specific service account needs to be used to run the AppPool. Click the 'Next' button.

뤓	Cloud Assert Usage and Billing - API Service Setup
Α	opPool Identity Credentials USAGE AND BILLING Enter credentials for the IIS Service AppPool. For Windows Azure Pock SETUP SETUP
C ir B	loud Assert Usage and Billing - API Service installs and runs as an IIS Service. To operate this manner, you must supply the user account credentials for Cloud Assert Usage and lling - API Service to run successfully.
1	dentity Type:
(Run AppPool with AppPoolIdenity
(Run AppPool with specified Account:
	Domain: (optional)
	User:
	Password:
	Back Test Cancel Cancel

1.6. Set the user name and password for the API Service resource provider credentials and click the 'Test' button, if the 'Test Result' label displays a green tick mark click 'Next' button. Make a note of the user name and password that is set, it is used while installing the Billing Agent Service Setup.

Usage <u>&</u> Billing AP Please enter U	I details sage & Billing IIS API Credentials	USAGE AND BILLING For Windows Azure Pock
		JETOF /
User Name	admin	
Password	•••••	
Confirm	•••••	
Test Result: 🗸	•	

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1.7. Specify the database server name, instance name (if any) under 'Database Instance'.

E.g.: 'myserver\myinstance' or 'myserver,portnumber'

- 1.7.1. Specify the database name (refer GENERAL PRE-REQUISITES) and click the 'Test' button.
- **1.7.2.** If the 'Test Result' label displays a green tick mark click 'Next' button.

😼 🛛 Cloud Assert Usag	ge and Billing - API Service S	Setup	- 0	x
Cloud Assert Usage an Select the database serve	d Billing - API Servi er location.	USAGE For Windor SETU	AND B ws Azure Po D	
Please specify the DB Se 'hostname\instance' (e.g 'hostname,port' (e.g. my	rver (and Instance) by typing it as . myserver (myinstance) or dbserver, 1833).			
Database Instance:				······································
Database Name				·
Create the database now	·			· ·
Test Result: 🛕 Test DB Se	ettings to continue			
	Back Test	Next	Car	ncel

- **1.8.** If the database is not created beforehand, specify the database server name and instance name (if any) under 'Database Instance' and click the 'Create the database now' button.
 - **1.8.1.** Select the type of login authentication and specify the database name, login user name and password.
 - **1.8.2.** Click 'Create' button, when the 'Result' label displays a green tick close the dialog box.
 - **1.8.3.** Repeat steps **1.7.1** and **1.7.2**.

闄	Cloud Assert	Usage and Billing - API Service Setup	x
	Admin Credentials for	creating the Database	
	Log on Type:		
	O Windows Authe	ntication (uses the account with which you are current	y logge
	SQL Authentica	tion	
	Database to create	CloudAssertBilling	
	Admin Username	sa	
	Admin Password	•••••	
	Pecult:		
	Kesuit. 👻		
		Create Close	

- 1.9. Specify the login user name and password for the database created. (Example: CloudAssertBilling)1.9.1. Click the 'Test' button.
 - **1.9.2.** If the 'Test Result' label displays a green tick mark click 'Next' button.

😸 Cloud Assert Usage and Billing - API Service Setup 📃 🗖 🗙
Database Runtime Credentials USAGE AND BILLING Enter runtime credentials to connect to the database. For Windows Azure Pock SETUP
This user account will be used to access the Cloud Assert Usage and Billing - API Service database during runtime.
Runtime Credentials:
Note: Windows Authentication is not available for connecting to the remote database when Cloud Assert Usage and Billing - API Service service is running as LocalSystem. Please specify SQL credentials.
Login: sa
Password:
Create User
Test Result: 🛩
Back Test Cancel Cancel

1.10. Specify the WAP database server name, instance name (if any) under 'WAP Database Instance'. *E.g.: 'myserver\myinstance' or 'myserver,portnumber'*

1.10.1. Click the 'Test' button.

1.10.2. If the 'Test Result' label displays a green tick mark click 'Next' button.

1	Cloud Assert Usage and Billing - API Service Setup
C	Ioud Assert Usage and Billing - API Servi USAGE AND BILLING Select the WAP database server location. For Windows Azure Pack SETUP SETUP
	Please specify the WAP DB Server (and Instance) by typing it as 'hostname\instance' (e.g. myserver\myinstance) or 'hostname,port' (e.g. mydbserver, 1833).
۱	NAP Database Instance:
Т	Test Result: 🛕 Test DB Settings to continue
	Back Test Next Cancel

1.11. Specify the login user name and password for the WAP database.

1.11.1. Click the 'Test' button.

1.11.2. If the 'Test Result' label displays a green tick mark click 'Next' button.

👸 Cloud Assert Usage and Billing - API Service Setup 📒 🗖 🗙					
WAP Database Server Runtime Credentials USAGE AND BILLING Enter runtime credentials to connect to the WAP Server. For Windows Azure Pock SETUP SETUP					
These credentials will be used by Cloud Assert Usage and Billing - API Service to read data from WAP databases during runtime.					
Note: Windows Authentication is not available for connecting to the remote database when Cloud Assert Usage and Billing - API Service service is running as LocalSystem. Please specify SQL credentials.					
Login: sa Password: ••••••					
Test Result: 🔔 Connection must be tested to continue					
Back Test Next Cancel					

1.12. Click 'Install' button to install the Usage and Billing – API Service, click 'Finish' button to exit the installer after completion of the installation.

2. INSTALL USAGE AND BILLING ADMIN EXTENSION

- **2.1.** Download the 'CloudAssert.WAP.Billing.Extension.Admin.Setup' installer after registering into <u>https://www.cloudassert.com/register</u>
- **2.2.** Click on the installer and follow instructions on the installer and click 'Next' till the installer finishes and then click 'Finish' to exit. Sample installer screens shown below:



3. INSTALL USAGE AND BILLING TENANT EXTENSION

- **3.1.** Download the 'CloudAssert.WAP.Billing.Extension.Tenant.Setup' installer after registering into https://www.cloudassert.com/register
- **4.1.** Click on the installer and follow instructions on the installer and click 'Next' till the installer finishes and then click 'Finish' to exit.

Distributed Multi-Machine Setup

If the Windows Azure Pack (WAP) components are installed in different machines in the distributed environment, then the Usage and Billing components are required to be installed on different machines respectively.

Note: For upgrade installations refer General Upgrade Installation Instructions .

IMPORTAN NOTE: The agent service setup alone is installed after all the preliminary settings and configurations are done. The steps for it are discussed under *Step 10 – Installing Usage and Billing Agent Service* section.

1. INSTALL USAGE AND BILLING API SERVICE

Pre-Requisites:

- Usage and Billing API Service can co-exist with other WAP Portal components, for example the Usage and Billing API Service can be installed on the same machine as WAP Admin API machine.
- It is better to install the Usage and Billing API Service in each of the machines where WAP 'Admin-API' component is installed.
 - Ensure that the machine has at least 4 GB RAM, preferably 8 GB
 - \circ $\;$ Ensure that firewall is configured to allow access to inbound port 30045 $\;$
 - Ensure that this machine can talk to the SQL database server on which the Usage and Billing database will be configured (refer *GENERAL PRE-REQUISITES*).
 - Ensure that IIS, Asp.Net MVC features and other features similar to the requirements for Windows Azure Pack portal installations are met.
 - Ensure that the machine can connect to internet if the Payment gateway feature is enabled (Licensed Feature).
- **1.1.** Download the 'CloudAssert.WAP.Billing.Service.Setup' installer after registering into <u>https://www.cloudassert.com/register</u>
- **1.1.** Repeat steps 1.2 to 1.10 from 'Install Usage and Billing API Service' under 'Single Machine Setup' section to complete the installation in each of the machines where WAP 'Admin-API' component is installed. .

2. INSTALL USAGE AND BILLING ADMIN EXTENSION

- **2.1.** Logon to the machine on which WAP 'Admin-Site' is installed.
- 2.2. Download the 'CloudAssert.WAP.Billing.Extension.Admin.Setup' installers from:

https://cloudassertdownloads.blob.core.windows.net/usagerc/CloudAssert.WAP.Billing.Extension.Admin.Setup.msi

- **2.3** Click on the installer and follow instructions on the installer and click 'Next' till the installer finishes and then click 'Finish' to exit.
- 2.4 Repeat the above steps for each machine in which WAP 'Admin-Site' is installed.

3. INSTALL USAGE AND BILLING TENANT EXTENSION

- **3.1** Logon to the machine on which WAP '**Tenant-Site**' is installed.
- 3.2 Download the 'CloudAssert.WAP.Billing.Extension.Tenant.Setup' installers from:

https://cloudassertdownloads.blob.core.windows.net/usagerc/CloudAssert.WAP.Billing.Extension.Tenant.Setup.msi

- **3.3** Click on the installer and follow instructions on the installer and click 'Next' till the installer finishes and then click 'Finish' to exit.
- **3.4** Repeat the above steps for each machine in which WAP '**Tenant-Site**' is installed.

SETUP CONFIGURATION AND AGENT SERIVCE INSTALLATION Step 1 - Register Usage and Billing Resource Provider with Windows Azure Pack

Note: If you are upgrading from a previously supported installation, the resource provider registration could be skipped as it might already be registered. If you changed the username or password on the previous step, then do not skip this step and must proceed with updates as mentioned below.

- 1. Logon to WAP Admin portal, click on Usage and Billing on the Left.
- Click on the Quick Setup Icon 4.



 Click 'Connect the portal to your CloudAssert Usage & Billing resource provider'. The following dialog box appears.

ENDPOINT URL		7	
http://wapdemo.corp	.cloudassert.com:30045		
USERNAME			
admin			
PASSWORD			
]	
FORCE UPDATE THE REGIS	STRATION?		
FORCE UPDATE THE REGIS	STRATION?		

- Enter the Endpoint URL for Usage and Billing API Service.
 For example, 'http://CloudAssertBillingAPIServiceMachine:30045/' or 'http://localhost:30045/' for single machine setup.
- 5. Enter the username and password which was used for registering the Usage and Billing API service during the installation (*refer step 1.6 from Install Usage and Billing API Service*).
- 6. The username and password can also be obtained from the 'Web.config' file located in the machine where the Usage and Billing API Service is installed. The 'Web.config' file can be found in 'C:\inetpub\MgmtSvc-CloudAssertBilling'.



- 7. Click \bigcirc at bottom to complete the registration.
- 8. If the registration fails, check the username and password again with 'Web.config' of Usage and Billing API service and try again.

Step 2 – Configure Basic Settings for Usage and Billing

After registering the resource provider successfully, the basic settings such as 'Usage Processor Settings', 'WAP Server Settings', 'WAP Admin API Endpoint Settings' and 'Email notification Settings' (Optional) needs to be configured.

- 1. Logon to WAP Admin portal, click on Usage and Billing on the Left.
- 2. Click on the Quick Setup Icon 🌆.
- 3. Click 'Quick Setup Wizard'.

STEP 2.1 – CONFIGURING USAGE PROCESSOR SETTINGS

USAGEPROCESSORSETTINGS SETTINGS	×	
Configure Settings		
ENDPOINT URL		
https://wapdemo.cloudassert.com:30022/usage		
like https://wapa01.contoso.com:30022/usage		
USERNAME		
UsageClient		
like UsageClient		
PASSWORD		
•••••		
To get the Azure Pack usage endpoint user name via Windows Azure Pack Configuration Powe Command:	rShell	
To get the Azure Pack usage endpoint user name via Windows Azure Pack Configuration Powe Command: Get-MgmtSvcSetting -Namespace UsageService -Name Username	rShell	
To get the Azure Pack usage endpoint user name via Windows Azure Pack Configuration Powe Command: Get-MgmtSvcSetting -Namespace UsageService -Name Username If the usage endpoint password is not known or this is the first time setting up a usage and bi solution,	erShell	
To get the Azure Pack usage endpoint user name via Windows Azure Pack Configuration Powe Command: Get-MgmtSvcSetting -Namespace UsageService -Name Username If the usage endpoint password is not known or this is the first time setting up a usage and bi solution, use following commands to setup both usage endpoint user name and password:	erShell Iling	
To get the Azure Pack usage endpoint user name via Windows Azure Pack Configuration Powe Command: Get-MgmtSvcSetting -Namespace UsageService -Name Username If the usage endpoint password is not known or this is the first time setting up a usage and bi solution, use following commands to setup both usage endpoint user name and password: Set-MgmtSvcSetting -Namespace UsageService -Name Username -Value [yourUserName]	erShell lling	
To get the Azure Pack usage endpoint user name via Windows Azure Pack Configuration Powe Command: Get-MgmtSvcSetting -Namespace UsageService -Name Username If the usage endpoint password is not known or this is the first time setting up a usage and bi solution, use following commands to setup both usage endpoint user name and password: Set-MgmtSvcSetting -Namespace UsageService -Name Username -Value [yourUserName] Set-MgmtSvcSetting -Namespace UsageService -Name Password –Value [password] –Encode	erShell lling	
To get the Azure Pack usage endpoint user name via Windows Azure Pack Configuration Powe Command: Get-MgmtSvcSetting -Namespace UsageService -Name Username If the usage endpoint password is not known or this is the first time setting up a usage and bi solution, use following commands to setup both usage endpoint user name and password: Set-MgmtSvcSetting -Namespace UsageService -Name Username -Value [yourUserName] Set-MgmtSvcSetting -Namespace UsageService -Name Password –Value [password] –Encode	erShell lling	
To get the Azure Pack usage endpoint user name via Windows Azure Pack Configuration Powe Command: Get-MgmtSvcSetting -Namespace UsageService -Name Username If the usage endpoint password is not known or this is the first time setting up a usage and bi solution, use following commands to setup both usage endpoint user name and password: Set-MgmtSvcSetting -Namespace UsageService -Name Username -Value [yourUserName] Set-MgmtSvcSetting -Namespace UsageService -Name Password –Value [password] –Encode	erShell lling	
To get the Azure Pack usage endpoint user name via Windows Azure Pack Configuration Powe Command: Get-MgmtSvcSetting -Namespace UsageService -Name Username If the usage endpoint password is not known or this is the first time setting up a usage and bi solution, use following commands to setup both usage endpoint user name and password: Set-MgmtSvcSetting -Namespace UsageService -Name Username -Value [yourUserName] Set-MgmtSvcSetting -Namespace UsageService -Name Password –Value [password] –Encode	erShell lling	
To get the Azure Pack usage endpoint user name via Windows Azure Pack Configuration Powe Command: Get-MgmtSvcSetting -Namespace UsageService -Name Username If the usage endpoint password is not known or this is the first time setting up a usage and bi solution, use following commands to setup both usage endpoint user name and password: Set-MgmtSvcSetting -Namespace UsageService -Name Username -Value [yourUserName] Set-MgmtSvcSetting -Namespace UsageService -Name Password –Value [password] –Encode	lling	

1. Enter the Endpoint URL of WAP Usage Service.

For example, 'http://WAPUsageServiceMachine:30022/usage'.

2. To get the Azure pack usage endpoint user name, open 'Windows Azure Pack Configuration PowerShell' and type the following command:

Get-MgmtSvcSetting -Namespace UsageService -Name Username

3. If the usage endpoint password is not known or if this is the first time setting up the Usage and Billing solution, use following commands to setup both usage endpoint user name and password:

Set-MgmtSvcSetting -Namespace UsageService -Name Username -Value [yourUserName]

Set-MgmtSvcSetting -Namespace UsageService -Name Password –Value [password] –Encode

4. Enter the username and password in the quick setup wizard and click next.

STEP 2.2 – CONFIGURING WAP DATABASE SERVER SETTINGS

		WAPSERVERINFO SETTINGS			×			
		Configure Settin	gs					
		DATABASE SERVER	WAP Server/Instance Name]				
		USE INTEGRATED SECURITY						
		USER	sa]				
		PASSWORD]				
1	2			ϵ	∢	4	5	6

- 1. Enter the WAP database Server name.
- 2. Specify the SQL authenticated User name and Password.
- 3. Click next.

WAPADMINAPIENDPOINTSETTINGS SETTINGS	×	
Configure Settings		
ENDPOINT URL		
https://wapdemo.cloudassert.com:30004		
like https://wapa01.contoso.com:30004		
USER DOMAIN		
•		
USERNAME		
administrator		
PASSWORD		
AUTHENTICATION TYPE		
WINDOWS •		
ADMIN AUTH SITE ENDPOINT		
https://wapdemo.cloudassert.com:30072		
ADMIN LOGON TYPE		
LOGON32_LOGON_NETWORK		
WAP MEMBERSHIP DB CONNECTION STRING		
Data Source=localhost;User Id=sa; Password=pass		
like "Data Source=localhost;User Id=sa; Password=YOUR_PASSWORD; Initial Catalog=Microsoft.MgmtSvc.PortalConfigStore;" without the quotes		4

4. Enter the Endpoint URL of WAP Admin API.

For example, 'https://AdminAPIMachine:30004.

- 5. Specify the Domain name if any.
- 6. Specify the username and password of the machine in which the WAP Admin API Component is installed.

Note: The username that has to be specified is the user that has permission to access the Windows Azure Pack Admin portal. To know the active admin users open '**Windows Azure Pack Configuration Powershell**' and execute the cmdlet '*Get-MgmtSvcAdminUser*'. To add a new admin user, execute the cmdlet '*Add-MgmtSvcAdminUser -Principal "Domain\user'"* by replacing the Domain and user name accordingly.

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- 7. Select the authentication type 'WINDOWS' or 'ADFS'.
- 8. Enter the Endpoint URL of WAP WindowsAuthSite.

For example, 'https://WindowsAuthSiteMachine:30072.

9. Select the admin logon type. Some of the Logo types are as follows

LOGON32_LOGON_BATCH LOGON32_LOGON_INTERACTIVE LOGON32_LOGON_NETWORK LOGON32_LOGON_NETWORK_CLEARTEXT LOGON32_LOGON_NEW_CREDENTIALS LOGON32_LOGON_SERVICE LOGON32_LOGON_UNLOCK

10. Logon type can also be directly given in 'Web.Config' file located in the machine where the Usage and Billing API Service is installed. The 'Web.config' file can be found in 'C:\inetpub\MgmtSvc-CloudAssertBilling'.

	Web.config - Notepad	_ 🗆 X
File	Edit Format View Help	
	Please change this passphrase by using appropriate Installer <add key="SettingsPassphrase" value="B30263CC-7880-41BA-9D50-D5B1157A470F"></add> LOGON32_LOGON_NETWORK or LOGON32_LOGON_NEW_CREDENTIALS <add key="WAPAdminImpersonationLogOnType" value="LOGON32_LOGON_NETWORK"></add>	×

11. Enter the WAP membership database connection string as

'Data Source=**WAP Server/instance name**;User Id=**WAP SERVER USERNAME**; Password=**WAP SERVER PASSWORD**; Initial Catalog=Microsoft.MgmtSvc.PortalConfigStore;'

12. Click next.

CTED 2 4 CONFICUEINIC ENAMI		
STEP 2.4 - CONFIGURING EIVIAIL	INDIFICATION SETTINGS	(UP HONAL)

			EMAILNOTIFICATIONSSETTINGS SE	TTINGS	×	
			Configure Setting	gs		
					1	
			SMTP HOST	smtp.gmail.com		
				like smtp.googlemail.com		
			SMTP PORT	587		
				like 587		
			SHOULD AUTHENTICATE WITH SMTP SERVER?	V		
			SMTP USER	alertusage@gmail.com		
				like cloudassert@gmail.com	·	
			SMTP PASSWORD			
			ADMIN EMAIL IDS (COMMA SEPARATED)	emailsenttest123@gmail.com, cloudassert@gmail.		
			USE SSL TO TALK TO SMTP SERVER?			
			TENANT PORTAL URL	https://wapdemo.cloudassert.com:30081		
1	2	3		Azure Pack Tenant Portal URL. Used in email templates	$(\leftarrow)(\rightarrow)$	
					00	

- 1. Specify the SMTP host name or IP address.
- 2. Specify the SMTP Port number.
- 3. Check 'SHOULD AUTHENTICATE WITH SMTP SERVER?' if the SMTP server requires authentication.
- 4. Enter the SMTP user id and password. (valid email-id and its password)
- 5. Check 'USE SSL TO TALK TO SMTP SERVER?' if the SMTP server uses SSL.
- 6. Specify the '*ADMIN EMAIL ID(S)*', each email id needs to be separated by a comma (,). The notification email is delivered to the email id(s) specified here.
- 7. Enter the tenant URL.
- 8. For example, 'https://TenantSiteMachine:30081.
- 9. Click next to complete the basic settings.

Note: Configuring 'Email' notification settings will enable automatic email notifications to users upon successfully subscription creation, deletion, suspension of subscription, invoice warning and due date notification, etc.

STEP 3 – Activating License

STEP 3.1 - STEPS FOR ACTIVATION

There are two ways to activate the license, first one is online directly from the WAP Usage and Billing Admin Page and the second one is manually via email.

3.1.1 ACTIVATE ONLINE

2.

To activate online, Usage and Billing API service needs to have access to internet. If Admin deployment is inside an isolated network that doesn't have access to internet, please skip this section and follow the steps mentioned in 'Activate via Email'.

1. Navigate to WAP Admin Portal \rightarrow Usage and Billing \rightarrow License Tab.

2. Click on the 'Activate Online' button:						
Servio	ce Management Portal	~			•	WAPDEMO\Administrator
	ALL ITEMS	usage and billing)			
		PRICING PROFILE USAGE	INVOICES USE	R CREDITS STATUS	NOTIFICATIONS	LICENSE
	PARTNERPOINT					
0	REQUEST MANAGEMENT	activate license				
Č	VCONNECT 7	ACTIVATION TEXT	NUIZNS1BQkU4LU	FENzUtM0I4Ni00MEI0	LUExQ0EtQjVENy03	Nki1
0	WEB SITE CLOUDS	Activate online by clicking the buttor	below or copy the ad	tivation text and send t	o support@cloudasse	ert.com
¢		current license				
. <i>t</i>	SQL SERVERS	Product Name: CloudAssertBilling Product Id: 7d2159c2-000e-4d	c8-97b4-1bcee41587b	of		
My	MYSQL SERVERS Product Edition: Trial Version: 1.0.00					
÷ Cs	AUTOMATION 28					
\$	USAGE AND BILLING	licensed features				
1	PLANS	Feature Evolution Licer				
+	NEW	Acti	PLOAD ACTIVATE ON	ILINE		

3. In the resulting dialog enter license key and email id associated with the license.

ACTIVATE ONLINE	×
Enter License Details	
LICENSE KEY	
9	
EMAIL ID	
	\checkmark

4. Click the submit button and if everything is valid, installation will be activated and administrator will see the confirmation message.

3.1.2 Activate Via Email

If Usage and Billing API Service installation is not connected to internet follow the steps below to activate manually.

- 1. Navigate to WAP Admin Portal \rightarrow Usage and Billing \rightarrow License Tab.
- 2. Copy the 'Activation Text' and email to 'support@cloudassert.com'.
- 3. We will generate activation file and reply to you in email.
- 4. Admin can then 'Upload' the activation file via the Upload button in the License Tab.

STEP 3.2 - CONSIDERATIONS FOR MULTIPLE INSTANCES OF USAGE AND BILLING AND OFFLINE ACTIVATION

When there are more than one Usage and Billing API service deployed for high availability scenarios, the activation must be done multiple times for each of the machine. Currently this cannot be achieved through the admin portal online activation. Follow the steps below to manually activate each installation.

- Identify a machine in your labs that has internet access, and in that machine download <u>'VConnect.zip'</u> and extract all the files to a local folder.
- 2. On each machine that has Usage and Billing API service installed, do the following:
 - a. Copy the VConnect extracted files to the machine's local folder.
 - b. Open a command prompt with 'Run as administrator' and go to the local folder that contains the extracted files.
 - c. Run 'VConnect.exe GetActivationText' and copy the activation text in the result.

- d. Now, go back to the machine identified in Step 1, and open a command prompt with 'Run as administrator' and go to the local folder that contains the extracted VConnect.zip files.
- e. Run 'VConnect.exe ActivateOffline licenseKey emailed activationText', by editing the highlighted text as follows:
 - i. Replace licenseKey and emailId with the values shared earlier
 - ii. Replace activationText with the activation text identified in Step 2.c above
- f. The above step will generate a License.cal file in the same folder as VConnect.exe. Copy the 'License.cal' file.
- g. Now go back to the Usage & Billing API service VM where Step 2.c was executed, and paste the generated activation file 'License.cal' in the Usage & Billing API Service bin directory: [C:]\inetpub\MgmtSvc-CloudAssertBilling\bin.
- h. Recycle the MgmtSvc-CloudAssertBilling application pool using IIS manager.
- 3. Make sure to perform the above steps by keeping one node in the cluster at a time.
- 4. Now if you go to WAP Admin Portal \rightarrow Usage & Billing \rightarrow License tab, you should see the production license quotas properly.

Please contact us at support@cloudassert.com for any questions.

Step 4 – Configuring Tenant Site

Once all the basic settings are configured, it is mandatory to configure the 'Web.config' file of the WAP

tenant Site.

- 1. Logon to the machine where WAP Tenant site component is installed.
- 2. Open 'Windows Azure Pack Configuration PowerShell' and type the following command

Unprotect-MgmtSvcConfiguration -Namespace "TenantSite"

- 3. Navigate to 'C:\inetpub\MgmtSvc-TenantSite' and open 'Web.config' file.
- 4. Add the following lines under <appSettings> tag:
 - <add key="CloudAssertBilling.Endpoint" value="http://Cloud Assert Billing API Service Machine:30045/" />
 - <add key="CloudAssertBilling.Username" value="username used for registering Usage and Billing Resource provider" />
 - <add key="CloudAssertBilling.Password" value="password used for registering Usage and Billing Resource provider" />
- 5. Refer '*Step 1 Register Usage and Billing Resource Provider with Windows Azure Pack*' section for knowing the endpoint, username and password.
- 6. Once the three settings are added save the 'Web.config' file.
- 7. Give the following command in 'Windows Azure Pack Configuration PowerShell' *Protect-MgmtSvcConfiguration -Namespace "TenantSite"*

Step 5 – Enabling/Disabling Product Features

Once the basic settings have been configured the product feature of Usage and Billing can be enabled or disabled.

- 1. Logon to WAP Admin portal, click on Usage and Billing on the Left.
- 2. Click on the 'SETTINGS' Tab.
- 3. Click 'PRODUCT FEATURES' sub tab.

Servi	ce Management Portal		AASHISH-VM\Administrator	
	ALL ITEMS	PRICING CATALOG FTP SERVER		
	VCONNECT 0			
0	WEB SITE CLOUDS	IS NOTIFICATIONS FEATURE ENABLED FOR TENANTS?		
	0 VM CLOUDS			
¢	SERVICE BUS CLOUDS	IS INVOICES FEATURE ENABLED FOR TENANTS?		
27	SQL SERVERS	CAN TENANT DOWNLOAD INVOICE		
My	MYSQL SERVERS	PDF?		
ţ	AUTOMATION 0	IS 'USAGE AND BILLING' TAB ENABLED FOR TENANT CO-ADMINISTRATORS?		
\$	USAGE AND BILLING			
	PLANS 5	IS PRICING CATALOG FEATURE ENABLED?		
2	USER ACCOUNTS 21	SHOULD INVOKE SUBSCRIPTION		
	USER COSTS	TEMPLATE OPERATIONS?		
		IS PAYMENT GATEWAY FEATURE ENABLED?		
		IS USER PROFILE FEATURE ENABLED FOR TENANTS?		
		IS CSP FEATURE ENABLED FOR TENANTS?		
+	NEW		0	

4. Each of the product feature can be enabled or disabled by checking or unchecking the checkboxes and clicking the '*SAVE*' button below.

The following are the description of each product feature that are available in Usage and Billing solution.

IS PROMOTIONS FEATURE ENABLED?

The Promotion Feature is used to create a pricing profile with either One-Time credit or Recurring credit. One-Time credit is given for a fixed number of days for which the tenant need not pay. Recurring credit is a fixed amount that is credited recursively on every month for the tenant.

IS NOTIFICATIONS FEATURE ENABLED FOR TENANT?

The notification feature is used to indicate the tenant that the credit is running low. It sends a notification message to the tenant when the credit limit is met. The administrator can set the credit limit that has to be met in order to send the notification message. Notification can be configured from '*NOTIFICATIONS*' tab under Usage and Billing admin portal.

IS INVOICE FEATURE ENABLED FOR TENANTS?

Enabling this feature allows the tenants to view their invoices. The tenants can also view all their invoices till the previous month (i.e.) invoices from the first month of subscription to the previous month.

CAN TENANT DOWNLOAD INVOICE PDF?

Enabling this feature allows the tenants to download their invoice in a PDF format. In order for this feature to work, the 'IS INVOICE FEATURE ENABLED FOR TENANTS?' needs to be enabled.

IS 'USAGE AND BILLING' TAB ENABLED FOR TENANT CO-ADMINISTRATORS?

This feature is enabled by default. Disabling this feature hides the 'Usage and Billing' extension from tenant portal for users who are co-administrators of a tenant.

IS PRICING CATALOG FEATURE ENABLED?

The Pricing Catalog Feature allows the tenants to subscribe a plan or add-ons from WAP tenant portal \rightarrow Usage and Billing \rightarrow Marketplace tab. Disabling this feature removes the 'Marketplace' tab from the Usage and Billing tenant portal.

SHOULD INVOKE SUBSCRIPTION TEMPLATE OPERATION?

Enabling this feature allows the administrator to implement invocation of custom scripts when subscriptions are created, updated, or deleted by the tenant. The details of the custom script execution are displayed under Admin portal 'OPERATIONS' tab.

IS PAYMENT GATEWAY FEATURE ENABLED?

This is a licensed feature and it might not be available for trial versions of Usage and Billing solutions. Enabling the feature allows the admin and tenants to pay their invoices through an integrated payment gateway.

IS USER PROFILE FEATURE ENABLED?

This is yet another licensed feature of Usage and Billing solutions. Enabling the feature mandates the tenants to complete a user profile in order to use all the services provided by Usage and Billing.

Note: in-order for Payment gateway to work, both payment gateway feature and user profile feature needs to be enabled.

IS CSP FEATURE ENABLED?

This is yet another licensed feature of Usage and Billing solutions. Enabling the feature will allow the tenants to create customer profile, create users, buy license/add-ons and assign licenses to users in Microsoft partner center from within Usage and Billing Solutions.

Step 6 – Configure Invoice Settings

This is an optional setting that can be configured any time once the basic settings is configured.

- 1. Logon to WAP Admin portal, click on Usage and Billing on the Left.
- 2. Click on the 'SETTINGS' Tab.
- 3. Click 'INVOICE' sub tab.

	ALL ITEMS	usage and billing		
8	WEB SITE CLOUDS	PRICING PROFILE USAGE	USER CREDITS REPORTS STATUS NOTIFICATIONS OPERATIONS SETTINGS USER PROFILES LICENSE	
	VM CLOUDS 0	DATABASE USAGE PROCESSOR	WAP ADMIN API API SECURITY PRODUCT FEATURES INVOICE EMAIL WHMCS PRICING CATALOG	
¢	SERVICE BUS CLOUDS	HEADER CONTENT	Add Content to Header	
	SQL SERVERS			
My	MYSQL SERVERS	FOOTER CONTENT	Add Content to Footer	
Ľ.				
\$	USAGE AND BILLING	INVOICE DUE DATE (IN A GIVEN MONTH)	20	
	PLANS 6			
2	USER ACCOUNTS	NUMBER OF DAYS PRIOR TO DUE DATE FOR SENDING REMINDER E-MAIL	3	
	USER COSTS			
		COMPANY LOGO PATH	C\inetpub\MgmtSvc-CloudAssertBilling\InvoiceLogo.png	
		COMPANY LOGO POSITION	Right	
+	NEW		SAVE	?

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- 4. Specify the content to format how the Invoice PDF should look like.
- 5. Set the 'INVOICE DUE DATE (IN A GIVEN MONTH)' to send an email notifying the due date to the tenant every month on the specified date. (Optional setting)
- If the 'INVOICE DUE DATE' is set, then set the 'NUMBER OF DAYS PRIOR TO DUE DATE FOR SENDING REMINDER E-MAIL' to send a reminder email notifying the tenant that the due date is approaching (Optional setting even if 'INVOICE DUE DATE' is set).
- 7. Set 'TAX RATE (IN %)' to include the tax amount of the total cost in the invoice. (Optional Setting)
- 8. Check 'APPLY TAX?' checkbox in order for the tax rate to take effective.

APPLY TAX?	Tax Rate takes effect only when this is checked	
TAX RATE (IN %)	10	

- 9. Check/Uncheck '*PRORATE MONTHLY FIXED FEE IN PRICING PROFIES*?' to enable/disable proration of fixed fee.
- 10. Check/Uncheck 'PRORATE FIXED FEE ADD-ONS?' to enable/disable proration of fixed fee of Add-Ons.

PRORATE MONTHLY FIXED FEE IN PRICING PROFILES?	
PRORATE FIXED FEE ADD-ONS?	

NOTE: The 'APPLY TAX?' check box is available for versions higher than v1.9.0.2.

The 'PRORATE MONTHLY FIXED FEE IN PRICING PROFIES?' and 'PRORATE FIXED FEE ADD-ONS?' check box will be available for versions higher than 1.9.2.12.

Step 7 – Configure Pricing Catalog Terms of Service URL

The pricing catalog terms of service URL needs to be set if the Pricing Catalog feature is enabled from Settings \rightarrow Product features tab.

- 1. Logon to WAP Admin portal, click on Usage and Billing on the Left.
- 2. Click on the 'SETTINGS' tab.
- 3. Click 'PRICING CATALOG' sub tab.

62	PRICIN	IG PROFILE	USAGE	USER CREDITS	REPORTS	STATUS	NOTIFICATIONS	OPERATIO	NS	SETTINGS	USER PROFILES	LICENSE
DA	TABASE	USAGE PROC	CESSOR	WAP ADMIN API	API SECUR	ITY PR	ODUCT FEATURES	INVOICE	EMAII	L WHMC	9 PRICING CATA	LOG
TERMS OF SERVICE URL			https://www.cloud	lassert.com/	terms.htm	ıl]				

4. Specify the URL to the Terms of Service page and click save button at the bottom.

Step 8 – Configure API Security

The API Security tab allows the admin to specify the whitelisted IPs of machines which can make use of the Usage and Billing API directly.

- 1. Logon to WAP Admin portal, click on Usage and Billing on the Left.
- 2. Click on the 'SETTINGS' tab.
- 3. Click 'API SECURITY' sub tab.

DATABASE	USAGE PROCESSOR	WAP ADMIN API	API SECURITY	PRODUCT FEATURES	INVOICE	EMAIL	WHMCS	PRICING CATALOG
IS ALLOW OF	NLY WHITE LISTED IPS							
WHITE LISTE SEPARATED)	D IPS (COMMA	192.168.1.2,192.16	8.1.3					

- 4. Check the 'IS ALLOW ONLY WHITE LISTED IPS' and specify the list of IPs separated by comma.
- 5. Click 'SAVE' button.

Step 9 – Customizing MARKET PLACE Tab

The marketplace is tab in tenant portal from which the users can subscribe for any public plan. Admin can advertise a plan by customizing it from the Pricing profile tab of Usage and Billing.

- 1. Logon to WAP Admin portal, click on Usage and Billing on the Left.
- 2. Click on the 'PRICING PROFILE' tab.

3. Select a desired pricing profile and click edit button.

PLAN PRICING DETAILS		×	
PROFILE NAME	DataBase]	
SET MONTHLY FEE?			
MONTHLY FEE	1000]	
APPLY STANDARD TAX RATE?			
PROMO TYPE	Recurring Monthly One-Time		
PROMO CREDIT AMOUNT	50		
UPDATE PROMO CREDIT TO EXISTING SUBSCRIPTIONS?			
MINIMUM COMMITMENT DURATION	10 DAYS		
REGION	USA		
CURRENCY TEXT	USD	_	
CURRENCY SYMBOL	\$	_	
		(\rightarrow)	

4. Click Next button.

	PRICING CATALOG DETAILS		×
	DISPLAY NAME	PAYU_DB	
	DISPLAY SEQUENCE ORDER	4	
	ADVERTISED AMOUNT	Minimum cost of \$ 1000 applicable]
	ADVERTISEMENT TEXT	<marquee>Subscribe!!!<!--marquee--></marquee>	_
1		(€√

5. Specify the 'Display Name', 'Display Sequence Order', 'Advertised Amount' and 'Advertisement Text' and click finish button.

NOTE: Specifying the 'Display Sequence Order', orders the pricing catalogs accordingly in the tenant portal 'MARKTPLACE' tab.

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Once the pricing profile is linked to a public plan (Refer *Adding Cloud Assert Usage and Billing Service to a WAP Plan*), the tenant portal Usage and Billing extension would look like the following image.

Service Management Portal	ert			Subscriptions 🍸 🕀 sub2@mmf.com 🔎
ALL ITEMS	usage and billing			
SQL SERVER DATABASES	A MARKETPLACE OVERVIEW U	SAGE HISTORY INVOICES		
\$ USAGE AND BILLING	PLANS ADD-ONS			
	NonMMF	PAYUG_DB	PAYUG_DB	
	N/A	\$1000+	\$1000+	
	DETAILS	DETAILS	DETAILS	
	TestPlan2	MMF_DB	MMF1	
	Monthly Fee: \$ 500	Monthly Fee: \$ 1000	Monthly Fee: \$ 1000	
	Prices do not include Tax	Tax: 10%	Tax: 10%	
NEW				0

The users can subscribe for the plan from the 'MARKETPLACE' tab. All the resources and its monthly unit price that are associated with the plan can be seen by clicking the 'VIEW DETAILS' button at the button.

Step 10 – Installing Usage and Billing Agent Service

The agent service setup alone is installed after all the preliminary setting are configured in the admin portal. The agent service can be installed in both *Single Machine Setup* and *Distributed Multi-Machine Setup*.

Pre-Requisites for Distributed Setup:

- Choose a machine with at least 4 GB RAM, preferably 8 GB
- Ensure that firewall is configured to allow access to port outbound port 30045
- Ensure that this machine can talk to all WAP endpoints (usually ports 30071 to 30100).
 Specifically, Admin API endpoint (usually port 30004), Admin Auth endpoint (30072), Usage API endpoint (usually port 30022).

- Ensure that this machine can talk to the SQL database server on which the Usage and Billing database will be configured (refer *GENERAL PRE-REQUISITES*)
- Ensure that this machine can talk to WHMCS (if WHMCS integration is planned).

Note: Usage and Billing Agent Service supports a master/slave architecture to ensure high availability. This component can be installed in two machines, with one acting as the master and the other acting as a slave (on standby).

- 12.1 Download the 'CloudAssert.WAP.Billing.AgentService.Setup' installer after registering into https://www.cloudassert.com/register
- 12.2 Repeat steps 1.2 to 1.4 from 'Install Usage and Billing API Service' above.
- 12.3 Specify the host name of the machine (localhost for single machine setup) in which the Usage and Billing API service is installed under 'API URL'.
 - 12.1.1 Specify user name and password which was set during the Usage and Billing API installation. (refer 1.6)
 - 12.1.2 Click the 'Test' button.
 - 12.1.3 If the 'Test Result' label displays a green tick mark click 'Next' button.

😸 Cloud Assert	Usage and Billing - Agent Service Setup 📒 🗖 🗙
Usage & Billing IIS A Please enter Usag	PI details ge & Billing IIS API Endpoint details.
Please make sure L Service.	$I\underline{\&}B$ IIS Service is installed and configured prior to installing this Agent
API URL	http://localhost:30045
User Name	admin
Password	•••••
Test Result: 💙	
	Back Test Next Cancel

12.2 Repeat steps 1.7 to 1.11 from installing Usage and Billing API Service.

12.3 Click 'Install' button to install the Usage and Billing – Agent Service, click 'Finish' button to exit the installer after completion of the installation.

MANAGING PRICING PROFILES

The Pricing Profiles allows the administrator to set price for each resource and its meters that are specified by the resource providers. The Usage and Billing solution allows the administrators to create three type of pricing profiles which can be associated with a plan:

- i. Fixed Payment Plan
- ii. Pay-As-You-Go Plan
- iii. Fixed Payment + Pay-As-You-Go plan (available only in versions v1.9.0.7 or higher)

i. Fixed Payment Plan

A Fixed Payment Plan does not require any meter of resource provider to be configured. A fixed cost is calculated for any number/type of resources used by the tenant. The fixed cost can be given either as Monthly fee, One-Time fee or combination of both. For monthly fee, the cost for first month is prorated from the date of subscription. Similarly, it is prorated for the last month of subscription until the Subscription deleted date. As the name implies the One-Time fee (No proration) will apply to the subscription for one time only. The number of resources that can be created by the tenant is specified by the admin as part of quota settings while adding its service in the plan.

ii. Pay-As-You-Go Plan

A Pay-As-You-Go Plan requires meter of resource provider to be configured in order to generate the usage cost for tenants. Administrator can set a desired price for each meter of a resource provider, the usage cost of the resource for the tenant is calculated accordingly.

iii. Fixed Payment + Pay-As-You-Go Plan

As the name specifies, it's a combination of fixed payment plan and pay as you go plan. A minimum fixed amount can be set in the pricing profile along with it, price for meters of various resource providers are set inside the pricing profile.

Note: If a pricing profile is cloned, all its configuration including the price for each meter, and plan type are copied into the new pricing profile. Pricing profile associated with a plan cannot be deleted provided it has no subscriptions. The trial version of Usage and Billing allows only two pricing profile to be created.

Creating a Fixed Payment Plan

- 1. Logon to WAP Admin portal, click on Usage and Billing on the Left.
- 2. Click on the 'PRICING PROFILES' Tab.
- 3. Click 'ADD' button.

PLAN PRICING DETAILS (BASIC)		×		
PROFILE NAME	FixedPaln]		
SET MONTHLY FEE?				
MONTHLY FEE	1000]		
ONE-TIME FEE	100]		
REGION	USA]		
CURRENCY TEXT	USD	_		
CURRENCY SYMBOL	\$]		
		(\rightarrow)	2	3

- 4. Specify a name for the pricing profile.
- 5. Check the 'SET MONTHLY FEE?' check box.
- 6. Specify the '*MONTHLY FEE*' amount.
- 7. Specify the 'ONE-TIME FEE' amount.
- 8. Specify the '*REGION*', 'CURRENCY TEXT' and 'CURRENCY SYMBOL' and click next.

PLAN PRICING DETAILS (ADVAN	ICED)	:	×
APPLY STANDARD TAX RATE?			
PROMO TYPE	Recurring Monthly One-Time		
PROMO CREDIT AMOUNT	50		
MINIMUM COMMITMENT DURATI	ON 365 DAYS		
		$\left(\leftrightarrow \right)$)

- If the tax rate needs to be included for the tenants who subscribe for this plan check the 'APPLY STANDARD TAX RATE?' box provided the tax rate is specified under 'SETTINGS' 'INVOICE' tab under Usage and Billing admin portal. (Optional)
- 10. Specify the '*PROMO TYPE*' and specify the '*PROMO CREDIT AMOUNT*' if required (Refer *Recurring Credit*& *One-Time Credit*).
- 11. Specifying the '*MINIMUM COMMITEMENT DURATION*' will allow the tenant users to delete their subscriptions only after the expiry date (In the above example, expiry date is 365 days from the date of subscription of the plan). (Optional)
- 12. Click next.

Note: The next step (shown in the below Figure) appears only if the pricing catalog feature is enabled under *'SETTINGS' 'PRODUCT FEATURES'* tab in Usage and Billing admin portal.

	PRICING CATALOG DETAILS		×
	DISPLAY NAME	Fixed Plan	
	DISPLAY SEQUENCE ORDER	1	
	ADVERTISED AMOUNT	\$1000	
	ADVERTISEMENT TEXT	<marquee>Subscribe!!</marquee>	
1			

- 13. The name specified under '*DISPLAY NAME*' appears in the 'MARKET PLACE' of Usage and Billing tenant portal.
- 14. Specify the 'DISPLAY SEQUENCE ORDER', 'ADVERTISED AMOUNT' and 'ADVERTISED TEXT'.
- 15. Click Finish to create a pricing profile.

Creating / Cloning Pay-As-You-Go Plan

Usage and Billing comes with a pre-loaded pricing profile called as '*default*' pricing profile which is of the type 'Pay-As-You-Go'. This pricing profile contains all the meters of the resources providers. It is better to clone this pricing profile rather than to create a new pricing profile of type pay-as-you-go.

CREATING A PAY-AS-YOU-GO PRICING PROFILE

- 1. Logon to WAP Admin portal, click on Usage and Billing on the Left.
- 2. Click on the 'PRICING PROFILES' Tab.
- 3. Click 'ADD' button.
- 4. Specify a name for the pricing profile.
- 5. Uncheck the 'SET MONTHLY FEE?' check box.
- 6. Specify the 'ONE-TIME FEE' as zero.
- 7. Repeat steps 8 to 15 from 'Creating a Fixed Payment Plan' section.
- 8. Click the 'ID' column of the newly created pricing profile to configure the pricing profile.
- 9. Click '*CREATE METERED PRICING*' or 'ADD' button to create a meter for the resource.

METERED RESOURCE PRICING			Deising Dataile			×	¢	
Basic Details			Pricing Details			٦		
PROVIDER NAME	sqlservers		MONTHLY UNIT PRICE	180]		
METERED RESOURCE NAME			SAMPLE COST CALCULATOR	0.25				
RESOURCE DISPLAY NAME	DATABASE SIZE - WEB EDITION		RAW USAGE PER HOUR	1		7		
FORMULA	Unit Multiplier O Custom		FOR DURATION	1 Hour	•			
	1 / 1024	9	WILL BE	0.0009765625	GB HOURS			
UNIT DISPLAY NAME	GB Hours		AND COSTS	0.000244140625	USD			
IS COLLECTION ENABLED ?	Ø			L				2
						4		2

- 10. After specifying all the fields check the 'IS COLLECTION ENABLED?' check box to enable Usage and Billing solution to calculate the usage cost for the resource as specified.
- 11. Click next

	metered resource pricing Advanced Details		×
	HOURLY UNIT CREDITS	0	
	RECORD TYPE	TIMERANGE_CONTINUOUS_USAGE •	
	REGION	default	
	RESOURCE CONDITIONS		
	FILTER PROPERTIES	73	
1			$\langle \bullet \rangle$

- 12. The Advanced detail setting is an optional setting and can be ignored.
- 13. Refer 'Unit Credit' to set 'HOURLY UNIT CREDITS' if necessary.
- 14. Click Finish to configure the price settings for the resource.

CLONING A PAY-AS-YOU-GO PRICING PROFILE

- 1. Logon to WAP Admin portal, click on Usage and Billing on the Left.
- 2. Click on the 'PRICING PROFILES' Tab.

E

- 3. Select the default pricing profile labeled as 'default' and click the 'CLONE' button.
- 4. A dialog box appears prompting to enter a new name for the pricing profile.

CLONE PRICING PROFILE	
Enter display name for the new Pricing	
Profile	
ORIGINAL PRICING PROFILE	
default	
NEW PRICING PROFILE	
PayAsYouGo	G

- 5. Click Finish button.
- 6. Click the 'ID' column of the newly cloned pricing profile.

III ⊗ (I) ↔ II ≶ ×	default fixed payas FixedPian PayAsYouGo	Provider: ALL ID 235 236 237 238 239 240	Show Enabled Only NAME VM - CPUAllocationCount-Average VM - CPUAllocationCount-Max VM - MemoryAllocated-Average VM - MemoryConsumed-Average VM - MemoryConsumed-Average VM - MemoryConsumed-Max	PROVIDER → SERVICE systemcenter → VirtualMachine systemcenter → VirtualMachine systemcenter → VirtualMachine systemcenter → VirtualMachine systemcenter → VirtualMachine	RESOURCE CPUAllocationCount-Average CPUAllocationCount-Max MemoryAllocated-Average MemoryConsumed-Average MemoryConsumed-Average	Ad UNIT PRICE 0 0 0 0 0 0 0 0 0 0 0 0 0	vanced View	
40) 		241	VM - CPUPercentUtilization-Medi	systemcenter \rightarrow VirtualMachine	CPUPercentUtilization-Median	0		
\$		242	VM - CrossDisklOPerSecond-Max	systemcenter → VirtualMachine	CrossDisklOPerSecond-Max	0		
12		243	VM - CrossDiskIOPerSecond-Med	systemcenter → VirtualMachine	CrossDiskIOPerSecond-Median	0		
3		244	VM - CrossDiskSizeAllocated-Ave	systemcenter	CrossDiskSizeAllocated_Aver	0		
		245	VM - NICKBSentPerSecond-Max	systemcenter → VirtualMachine	*NICKBSentPerSecond-Max	0		
		247	VM - NICKBSentPerSecond-Avera	systemcenter → VirtualMachine	*NICKBSentPerSecond-Avera	. 0		
		248	VM - NICKBReceivedPerSecond-M.	systemcenter → VirtualMachine	*NICKBReceivedPerSecond-Max	0		
		249	VM - NICKBReceivedPerSecond-A	systemcenter → VirtualMachine	*NICKBReceivedPerSecond-A	. 0		
		250	VM - Site64BitUsage	systemcenter → VirtualMachine	Site64BitUsage	0		
		251	VCONNECT VM- Compute Hours	cloudassert-vconnect → VirtualM	ComputeUnits	0		
		252	VCONNECT VM- CPUAllocationC	cloudassert-vconnect → VirtualM	CPUAllocationCount-Max	0		
		253	VCONNECT VM- MemoryAllocate	cloudassert-vconnect → VirtualM	MemoryAllocated-Max	0		
		254	VCONNECT VM- MemoryConsum	cloudassert-vconnect → VirtualM	MemoryConsumed-Average	0		
					1	2345	6 🗧	⇒
+	NEW		ADD					

7. A list of meter resources appears. Select a desired meter resource and click the 'EDIT' button.

Basic Details		Pricing Details			
Dasie Details		Theng Details			
PROVIDER NAME	systemcenter	MONTHLY UNIT PRICE	150		
SERVICE TYPE	VirtualMachine	HOURLY UNIT PRICE	0.20833333333333334		
METERED RESOURCE NAME	CPUAllocationCount-Average	SAMPLE COST CALCULATOR			
RESOURCE DISPLAY NAME	VM - CPUAllocationCount-Average	RAW USAGE PER HOUR	1		
FORMULA	Unit Multiplier Ocustom				
	RuntimeSeconds-Sum / 3600	FUR DURATION	1 Hour	•	
	2 (2)	WILL BE	Dynamic Value	CPU HOURS	
			-,		
UNIT DISPLAY NAME	CPU Hours	AND COSTS	Dynamic Value 🛛 🤡	USD	
IS COLLECTION ENABLED ?					
					(\rightarrow)

- 8. It is enough to specify either the 'MONTHLY UNIT PRICE' or the 'HOURLY UNIT PRICE' and checking the 'IS COLLECTION ENABLED?' checkbox.
- 9. Click next button and click finish.

Note: To know more about configuring 'Metered Resource Pricing' click

http://www.cloudassert.com/Blogs/metered-resources-e28093-setting-up-unit-multiplier-and-monthlyunit-price-53375

To Know more about 'Setting up Pricing Profiles for System Center Virtual Machines' click <u>http://www.cloudassert.com/Blogs/setting-up-pricing-profiles-for-system-center-virtual-machines-</u> 53348

Creating Fixed Payment + Pay-As-You-Go Plan

- 1. Repeat steps 1 to 4 in 'Creating a Pay-As-You-Go Pricing Profile' section.
- 2. Check the 'SET MONTHLY FEE?' check box.
- 3. Specify the 'MONTHLY FEE' amount.
- 4. Specify the 'ONE-TIME FEE' amount (optional).
- 5. Repeat steps 7 to 14 in 'Creating a Pay-As-You-Go Pricing Profile' section.

NOTE: Creating a 'Fixed + Pay-as-you-go' pricing profile is available for versions higher than v1.9.0.2. In lower versions only two types of pricing profile can be created, 'Fixed Payment' and 'Pay-As-you-Go'.

CONFIGURING RESOURCE CONDITION UNDER ADVANCED DETAILS METERED RESOURCE SETTINGS

Configuring a resource condition is an optional setting which can be ignored while configuring the unit price for a resource. Resource condition is given in order to set different price for the same metered resource. This can be done by cloning a configured metered resource and setting a new unit price for the cloned metered resource. Following is an example to set resource condition for SQL Database based on the Database count.

metered resource pricing Basic Details		Pricing Details		×	
PROVIDER NAME	sqlservers	MONTHLY UNIT PRICE	10		
SERVICE TYPE	Default	HOURLY UNIT PRICE	0.013888888888888888888		
METERED RESOURCE NAME	DatabaseCount	SAMPLE COST CALCULATOR			
RESOURCE DISPLAY NAME	DATABASE UNITS - WEB EDITION	RAW USAGE PER HOUR	1		
FORMULA	Unit Multiplier Custom	FOR DURATION	1 Hour 🔻		
		WILL BE	1 Ø DB HOURS		
UNIT DISPLAY NAME	DB Hours	AND COSTS	0.01388888888888888888		
IS COLLECTION ENABLED ?	Ø			•	2

1. Select a metered resource and click edit.

- Set the 'MONTHLY UNIT PRICE' as \$10 and copy the 'METERED RESOURCE NAME' (DatabaseCount). Click next.
- 3. In the '*RESOURCE CONDITION*' field paste the copied 'METERED RESOURCE NAME' and give the following condition:

'DatabaseCount > 1 && DatabaseCount <= 2'

METERED RESOURCE PRICING	
Advanced Details	
HOURLY UNIT CREDITS	0
RECORD TYPE	TIMERANGE_CONTINUOUS_USAGE •
REGION	default
RESOURCE CONDITIONS	DatabaseCount > 1 && DatabaseCount <= 2
FILTER PROPERTIES	
Add	

- 4. Click Finish Button.
- 5. Select the newly configured resource from the metered resource list and click the 'CLONE' button.

	$\left(\leftarrow \right)$	payasyougo					
8		Provider: sqlservers	▼ Show Enabled Only			Advance	ed View 🔲
	default	ID	NAME	PROVIDER → SERVICE	RESOURCE	UNIT PRICE	Q
	fixed payas	259 →	DATABASE UNITS - WEB EDITION	sqiservers → Defauit	✓ DatabaseCount	10	
ЦЪ.	FixedPlan	343	DATABASE UNITS - WEB EDITION	sqiservers → Defauit	✓ DatabaseCount	10	
	PayAsYouGo						
My							
, Či							
\$							
1 2 3							
2							
🗸 Su	ccessfully cloned Metered I	Pricing of Resource 'DatabaseCount'.					ок 🔗
+	NEW		ADD EDIT				1 = ?

6. Select the cloned metered resource and click edit.

- 7. Change the 'MONTHLY UNIT PRICE' as \$20 and click next.
- 8. In the 'Resource Condition' field give the following condition and click Finish:

'DatabaseCount > 2'

The above example demonstrates the use of '*RESOURCE CONDITION*' while configuring a metered resource. Based on the conditions specified above, if the tenant creates either one or two Databases, a monthly unit price of \$10 is calculated and if the tenant creates more than two databases a monthly unit price of \$20 is calculated.

Adding Cloud Assert Usage and Billing Service to a WAP Plan

Once the pricing profile is created and configured, it is essential to add the Cloud Assert Usage and Billing service to a plan and configure the service by selecting a pricing profile and thus associating a pricing profile to a plan.

• Logon to WAP Admin portal, click on PLANS on the Left pane.

ADDING USAGE AND BILLING SERVICE TO AN EXISTING PLAN

1. Select a desired plan to which the Usage and Billing service needs to be added.



2. Click the 'ADD SERVICE' button.

Salact Sarvica to Add		
Select Sel Vice to Add		
SELECT SERVICE		
CloudAssert Billing	•	
SELECT INSTANCE		
CloudAssert Billing Instance	•	

- 3. Select the service as 'CloudAssert Billing' and instance as 'CloudAssert Billing instance'.
- 4. Click Finish.
- 5. Once the service is added to the plan, select the 'CloudAssert Billing' service from the plan Dashboard tab.

	cloudassert billing
SQL Servers CloudAssert Billin	plan and addon pricing details
 	PRICING PROFILE PayAsYouGo V
.	
My	
, C	
\$	
<u> </u>	
NEW	SAVE DISCARD

- 6. From the drop down list select the desired pricing profile and click the save button.
- 7. Once the changes are saved change the access of the plan as desired.

Note: Only public plans will be available for the tenants under the 'MARKETPLACE' tab of Usage and Billing tenant extension (Tenant Portal). The 'CloudAssert Billing' service can also be added while creating a new plan.

Creating Fixed Fee Add-Ons / Add-On deletion block

A fixed fee add-on is a type of add-on that allows the tenants to subscribe to it and are charged based on the fixed amount that is set by the admin at the pricing profile level.

Note: Fixed Fee Add-Ons feature is currently available for versions higher than v 1.8.2.2.

- 1. Logon to WAP Admin portal, click on 'PLANS' on the Left pane.
- 2. Click 'Add-Ons' tab
- 3. Click 'Create New Add-On' or click 'NEW' button from the bottom and click 'Create Add-On'.

4. Specify the Add-On name and click next button.

Select services for an Add-on. Please select the services that you would like to include in your add-on. For each service you consistent which instance of the service should be used (only needed when multiple independent installations of the same service are registered). Image: SqL SERVERS SqL Servers Image: MYSqL SERVERS MySqL Servers Image: CLOUDASSERT BILLING CloudAssert Billing Instance	ADD-ON SERVICES		
Please select the services that you would like to include in your add-on. For each service you cloud select which instance of the service should be used (only needed when multiple independent installations of the same service are registered). Image: SQL SERVERS SQL Servers Image: MYSQL SERVERS MySQL Servers Image: CLOUDASSERT BILLING CloudAssert Billing Instance	Select services fo	or an Add-on.	
SQL SERVERS SQL SERVERS MySQL SERVERS CloudAssert Billing Instance	Please select the services that you we select which instance of the service s installations of the same service are i	ould like to include in your add-on. For each ser hould be used (only needed when multiple inde registered).	vice you c pendent
MYSQL SERVERS MySQL Servers V CLOUDASSERT BILLING CloudAssert Billing Instance	SQL SERVERS	SQL Servers	۲
CLOUDASSERT BILLING	MYSQL SERVERS	MySQL Servers	T
create sector and a sector a	CLOUDASSERT BILLING	CloudAssert Billing Instance	۲
			0

- 5. Include 'CLOUDASSERT BILLING' service and any other service that is required and click next.
- 6. Click the newly created add-on and click 'CloudAssert Billing' from the dashboard.

Service	e Management Portal	V .			🜐 INDHU-VM\Administrator 퇻
	$\langle \boldsymbol{\epsilon} \rangle$	cloudassert billing			
ē	CloudAssert Billing SQL Servers	plan and addon pricing details			
		Is Allowed to Delete?		YES NO	
₩ 					
Ċ,					
\$;=					
<u>.</u>					
KO ²					
+	NEW		R 5445	DISCAND	0

Note: Add-on deletion can be blocked by clicking 'No' button for 'Is Allowed To Delete' and vice versa.

- 7. Click 'Yes/No' button for 'Is Allowed To Delete?'.
- 8. Click 'SAVE' button to finish configuring the add-on.
- 9. Link the Add-on to the desired plan.
- 10. Click 'USAGE AND BILLING' on the Left pane of the admin portal.
- 11. Click 'PRICING PROFILE' tab.
- 12. Select a pricing profile.

Service	e Management Portal	v		🌐 тн <i>и</i>	NGAS-VM\Administrator
		fixed_standard pric	ing		
		Provider: No Providers present 🔻	Show Enabled Only		Advanced View
	default	ID NAME	PROVIDER → SERVICE	RESOURCE	UNIT PRICE P
	FIXED_Standard Pri	No MeteredPricing ha	ve been created yet. To get sta	arted, click Create.	
Mu		0			
\$					
2					
÷	NEW		ADD FIXED FEE ADD-ON		0

13. Click 'ADD FIXED FEE ADD-ON' button from the bottom.

•

- 14. Specify the 'PROVIDER NAME' and select the 'ADD-ON NAME' from the list-box.
- 15. Set the 'MONTHLY PRICE' as desired and click Finish.
- 16. Logon to the machine(s) where the Usage and Billing Agent Service Setup is installed.
- 17. Open '*CloudAssert.WAP.Billing.AgentService.exe.config*' file from 'C:\Program Files\CloudAssertBilling\CloudAssert.WAP.Billing.AgentService'.
- 18. Stop the 'Billing Agent Service' from Services.msc.
- 19. Change 'add key=" UsageEventsProcessor.Enabled"' value from 'false' to 'true'.

CloudAssert.WAP.Billing.AgentService.exe.config - Notepad	_ D X
File Edit Format View Help	
<pre><!-- Billing Usage Events Processor--> <add key="UsageEventsProcessor.Enabled" value="false"></add> <add key="UsageEventsProcessor.ReadBatchSize" value="200"></add> <add key="UsageEventsProcessor.PollingIntervalSeconds" value="120"></add> <add key="UsageEventsProcessor.ErrorBackoffIntervalSeconds" value="240"></add> <add key="UsageEventsProcessor.IsMasterExpirationInSeconds" value="600"></add> </pre>	×

	CloudAssert.WAP.Billing.AgentService.exe.config - Notepad	x
File	Edit Format View Help	
	Billing Usage Events Processor	^
	<add key="UsageEventsProcessor.Enabled" value="<mark>true</mark>"></add>	
	<pre><add key="UsageEventsProcessor.ReadBatchSize" value="200"></add></pre>	
	<pre><add key="UsageEventsProcessor.PollingIntervalSeconds" value="120"></add> </pre>	
	<pre><add key="UsagezventsProcessor.tr/orbackotfintervalseconds" value="240"></add> <add key="UsagEventsProcessor.tr/orbackotfintervalseconds" value="240"></add> <add key="UsagEventsProcessor.tr/orbackotfintervalseconds" value="240"></add> <td></td></pre>	
	<pre>\aud key= usagetventsitutessui.ismastertayirationiisetulus Value= 000 // (/ansattinas)</pre>	
	() oppocce	~

CONFIGURE BILLING ADAPTER TO SUPPORT ADD-ON DELETION APPROVAL / REJECTION FOR 'SYSTEMCENTER' SERVICE

- 1. Logon to a machine where the WAP Usage Service component is installed.
- 2. Open 'Windows Azure Pack Configuration PowerShell' from start menu.
- 3. Run the following command.

Set-MgmtSvcNotificationSubscriber -Endpoint http://*UsageAndBillingApiMachine*:30045/BillingAdapter/ - Name CloudAssertBilling -AuthenticationMode Basic -AuthenticationPassword

UsageAndBillingApiPassword -AuthenticationUsername UsageAndBillingApiUserName -Enabled \$True -Force -SubscriberType BillingService -ConnectionString "Data Source=DatabaseServername;Initial Catalog= Microsoft.MgmtSvc.Usage; User Id=SQLAuthenticationUsername; password= SQLAuthenticationPassword;"

- 4. The Usage and Billing API username and password can be obtained from the 'Web.config' file located in the machine where the Usage and Billing API Service is installed. The 'Web.config' file can be found
 - in 'C:\inetpub\MgmtSvc-CloudAssertBilling'.



CONFIGURE SYSTEM CENTER SETTINGS

Configuring the system center settings in Usage and Billing solutions is needed in-order to prevent the deletion of add-ons with VLANs/Virtual Networks being used. Earlier a tenant can subscribe an add-on with VLAN, attach it any VM and can delete the add-on. The tenant continues using the VLAN but will not be charged since the add-on is deleted.

NOTE: T	⁻ he tenant v	will not be charged f	or the add-ons with VLAN only if the add-on is given as fixed-fee add
on.			
ALL ITE	:MS	usage and billing	g
		PRICING PROFILE USAGE	USER CREDITS REPORTS STATUS NOTIFICATIONS OPERATIONS SETTINGS USER PROFILES LICENSE
	ITE CLOUDS	DATABASE USAGE PROCESSOR	SPF WAP ADMIN API API SECURITY PRODUCT FEATURES INVOICE EMAIL WHMCS PRICING CATALOG
	OUDS	Fill out the settings below if quota	validations need to be enabled on Subscription and Add-On creation / deletion.
	E BUS CLOUDS	SPF SERVER URL	https:// corp.cloudassert.com:8090/SC2012R2
SQL SEI	RVERS		like https://spf.contoso.com:8090/SC2012R2
	_ SERVERS	DOMAIN	
	NATION	DOMAIN	like ourdomain
USAGE	AND BILLING		
Þ			
1 PLANS 2 18		USER NAME	(Spf_Local
USER A	ACCOUNTS		like administrator
	.0515	PASSWORD	Enter password
			B
NEW			SAVE

NOTE: In-order to configure the System Center Server Settings, Admin should have a user account on SPF Server with Administrator privilege.

- 1. Logon to WAP Admin portal, click on Usage and Billing on the Left.
- 2. Click on the '*SETTINGS*' Tab.
- 3. Click 'SPF' sub tab.
- 4. Enter the System Center Server URL.

For example, 'https://spf.contoso.com:8090/SC2012R2'.

- 5. Specify the Domain name if any.
- 6. Specify the User Name and Password of System Center Server.
- 7. Click 'SAVE' button.

MANAGING USER PROFILES

Every tenant is required to complete the User Profile in order to use the Usage and Billing services. Once the tenant completes the User Profile a user signup request is sent to the admin. The admin is notified with an email for every user request if the email settings are configured under '*SETTINGS*' '*EMAIL*' sub-tab in the admin portal of Usage and Billing solution. The admin can either approve or reject the request of the tenant after viewing the profile. Upon processing the request, a notification email is sent to the tenant notifying the signup request status. Only the tenants whose request has been approved can use the services provided by the Usage and Billing solution.

If the Payment gateway integration feature (Licensed Feature) is enabled, then the tenant is required to choose the payment method either 'Offline' or 'Credit Card' before completing the user profile. A payment profile is required for the tenant who choose their payment method as credit card. To complete the payment profile, the Usage and Billing solution redirects the tenant to 'CyberSource' web page where the tenant user is required to specify their credit card details. Only when the payment profile is completed a user signup request is sent to the admin for approval. User signup request of credit card users can be auto-approved by checking 'Auto Approve Credit Card Customer's Signup Request?' check-box under 'USER PROFILE' 'NOTIFICATIONS' sub-tab tab in the admin portal of Usage and Billing solution.

Note: User Profile is a licensed feature and is available for version higher than v 1.8.1.1 of Usage and Billing.

Enabling User Profile

- 1. Logon to WAP Admin portal, click on Usage and Billing on the Left.
- 2. Click on the 'SETTINGS' Tab.
- 3. Click 'PRODUCT FEATURES' sub tab.
- 4. Enable " Is User Profile Enabled for Tenants?

IS USER PROFILE FEATURE ENABLED FOR TENANTS?				
		SAVE		?
5. Click 'SAVE' bu	itton.			

Configuring Settings for ADFS Membership

- 1. Logon to the machine(s) where the Usage and Billing Agent Service Setup is installed.
- 2. Open '*CloudAssert.WAP.Billing.AgentService.exe.config*' file from 'C:\Program Files\CloudAssertBilling\CloudAssert.WAP.Billing.AgentService'.
- 3. Stop the 'Billing Agent Service' from Services.msc.
- 4. Change 'add key="UserProfileChecker.Enabled"' value from 'true' to 'false'.

CloudAssert.WAP.Billing.AgentService.exe.coning - Notepad	 x
File Edit Format View Help	
<pre><!-- User Profile Checker - Deleting User Profile table Entries and child table entries--> <add key="UserProfileChecker.Enabled" value="true"></add> <add key="UserProfileChecker.ReadBatchSize" value="200"></add> <add key="UserProfileChecker.PollingIntervalSeconds" value="120"></add> <add key="UserProfileChecker.ErrorBackoffIntervalSeconds" value="240"></add> <add key="UserProfileChecker.IsMasterExpirationInSeconds" value="600"></add> </pre>	

	CloudAssert.WAP.Billing.AgentService.exe.config - Notepad	_	x
File	Edit Format View Help		
	<pre><!-- User Profile Checker - Deleting User Profile table Entries and child table entries--> <add key="UserProfileChecker.Enabled" value="false"></add> <add key="UserProfileChecker.ReadBatchSize" value="200"></add> <add key="UserProfileChecker.PollingIntervalSeconds" value="120"></add> <add key="UserProfileChecker.EnrorBackoffIntervalSeconds" value="240"></add> <add key="UserProfileChecker.IsMasterExpirationInSeconds" value="600"></add> <anstructure"></anstructure"> <anstructure< a=""></anstructure<></pre>		
	, abbaccau8a,		~

- 5. Save the file.
- 6. Start the 'Billing Agent Service' from Services.msc.

Configuring Notification Settings

- 1. Logon to WAP Admin portal, click on Usage and Billing on the Left.
- 2. Click on the 'USER PROFILES' Tab and 'NOTIFICATIONS' sub-tab.

usage and billing]						
DASHBOARD PRICING PR LICENSE	OFILE USAGE	USER CREDITS	STATUS	NOTIFICATIONS	OPERATIONS	SETTINGS	USER PROFILES
USER REQUESTS NOTIFICATION:	2						
company information							
COMPANY NAME	Change me						
signup notification settings							
AUTO APPROVE SIGNUP REQUESTS Auto Approve Credit Card Customer's Signup Request?							
DEFAULT MESSAGE You have not yet provided your User Profile. Please provide details to sign Up.							

- 3. Fill-in the particulars.
- 4. Check 'Auto Approve Credit Card Customer's Signup Request?' (Optional) if the 'Payment Gateway Feature' is enabled from 'SETTINGS' 'PRODUCT FEATURES' sub-tab.
- 5. Click 'SAVE' button once all the message is set.
- 6. Click 'USER REQUEST' sub-tab to view, approve, reject or delete user signup requests.

usage ar	nd billing							
42 PRICING PR	ROFILE USAGE	USER CREDITS	REPORTS STA	TUS NOTIFICAT	IONS OPERATI	ONS SETTINGS	USER PROFILE	S LICENSE
USER REQUESTS	NOTIFICATIONS							
ID	USERID	BILLING FIRST	BILLING LAST N	BILLING COMP	BILLING EMAIL	PAYMENT TYPE	SIGNUP DATE	USER STA 🔎
1	billing@ca.com	Biilling	User	CloudAssert	billing@ca.com	Offline	2016-08-03 07:47	Approved
		L E E E E E E E E E E E E E E E E E E E	ROVE REJEC	T DELETE				

Note: Do not delete user signup requests of approved tenants. Delete only the request of tenants who have been rejected.

OTHER CONFIGURABLE SETTINGS

App Settings Table

There are few configurable settings in Usage and Billing which can be configured by editing 'dbo.AppSettings' table in the 'CloudAssertBilling' database.

Кеу	Values	Default	Functionality
MaxHourlyUnitPriceAllowed	Number	100	Does not calculate the usage cost if the hourly unit price for the resource exceeds the 'MaxHourlyUnitPriceAllowed' value
MaxMonthlyUnitPriceAllowed	Number	74400	Does not calculate the usage cost if the monthly unit price for the resource exceeds the 'MaxMonthlyUnitPriceAllowed value
IsAutoApproveInvoices	Text	False	Invoice will be auto-approved by admin when the value is set to true and will be ready to be processed in WHMCS payment portal.
IsAutoSuspendSubscriptionO nLowCredit	Text	False	When the value is set to true, subscriptions will be auto- suspended when the credit runs out. This works only if 'LowCreditChecker' is enabled Agent Service config file.
PriceCatalogsTheme	Text	EffectivePriceCatalog.html	Changing it changes the appearance of the market place tile. Themes for the tile cane be seen in 'C:\inetpub\MgmtSvc- Tenantsite\Content\CloudAssertBi lling\Themes' folder. Any customized html file can be placed in this folder and can be set in the app setting table.
PriceCatalogsViewOptions	Text	GridAndTiles	Shows both Grid and List view of plans in the tenant portal MARKETPLACE Tab. Other values are 'Grid' and 'Tile'.
MaximumPurchaseLimitForA ddOnAtAnInstance	Number	5	Will not allow the tenants to purchase multiple instances of an add-on beyond '5' at a single purchase.

Кеу	Values	Default	Functionality
ShowRemainingDaysInOvervi	Text	True	When the value is set to false, in
ewTile			the tenant portal overview tab,
			remaining days will not be shown.
ShowOverviewTileText	Text	False	When the value is set to true, in
			the tenant portal overview tab, a
			text will be shown just below the
			Current bill amount.
TenantOverviewTileText	Text	Prices do not include tax	In the tenant portal overview tab,
			the specified value will be shown
			just below the Current bill amount.
CsvColumnOrderForSubscripti	Text	SubscriptionId,	Contains the column order for the
on		ProviderName,	subscription summary csv file. (the
		ServiceType,	value given right to the colon is a
		MeteredResourceDisplay	friendly name, it is optional)
		Name:ResourceName,	
		Resourceid,	
		Properties/son:Properties,	
		ISOCurrencySymbol:Curre	
		CurrencySymbol:Currency	
		Units:TotalUnits	
		Cost:TotalCost	
		PlanName	
		SubscriptionName	
CsyColumnOrderForAllUsers	Text		Contains the column order for the
	i cht	er. SubscriptionId.	subscription summary of all users
		PlanName.	csv file. (the value given right to
		SubscriptionName:Subscri	the colon is a friendly name, it is
		ption Name,	optional)
		ISOCurrencySymbol:Curre	
		ny Text,	
		CurrencySymbol:Currency	
		Symbol,	
		AddOnMonthlyFee:AddO	
		n Cost,	
		ProratedMinimumMonthl	
		yFee:Monthly Fee,	
		TotalCost:Total Cost,	
		BillableCostOnUI:Billable	
		Cost,	
		TotalIncludedOfferCredits	
		Included Credits,	
		TaxAmount:Tax Amount,	
		SubscriptionProvisionedD	

Кеу	Values	Default	Functionality
		ate:Subscription Created Time	
CsvColumnOrderForAllInvoice s	Text	Id:Invoice ID, AccountUserId:User, PlanName:Plan Name, SubscriptionName:Subscri ption Name, Subscription_Id:Subscripti on ID, InvoiceStartTime:Start, InvoiceEndTime:End, InvoiceDueDate:Due Date, ProcessingStatusString:Pr ocessing Status, PaymentStatusString:Pay ment Status, IsOfflinePayment:Is Offline Payment, ISOCurrencySymbol:Curre ncy, FinalBillableAmount:Total Amount	Contains the column order for the invoice summary of all users csv file. (the value given right to the colon is a friendly name, it is optional)
DefaultCustomerDomainSuffi x	Text	.onmicrosoft.com	This will be suffixed to the domain name when a new customer creates a CSP customer profile from the tenant portal
IncludeExtendedResourcePro peties	Text	False	When the value is set to true, the usage cost will be set based on the custom property of the VM.
TimeoutIntervalSeconds	Number	300	Used for subscription sync process after addon is purchased.
PollingIntervalSeconds	Number	20	Waiting time for subscription sync process state checking.
MaxAutoRetry	Number	2	Maximum auto retries for subscription sync process (if it is failed to sync) when addon purchase is failed.

API Service Configuration File

The 'Web.config' file is located at '*C*:*inetpub\MgmtSvc-CloudAssertBilling*' in the machines where the Cloud Assert Usage and Billing API Service is installed.

Web.config - Notepad	_ 🗆 X
File Edit Format View Help	
<pre><connectionstrings> connectionStrings> cannee"UsefultConnection" providerHame="System.Data.Sql(lient" connectionString="Data Source=</connectionstrings></pre>	;"/> [ConfigStore;"/>

 Replace the 'Data Source', 'User Id' and 'Password' values with the WAP server name, database User Id and Password in the following line if already not set.

<add name="WapMembershipDatabase" connectionString="Data Source=localhost;User Id=sa; Password=[[ReplaceWithYourPassword]]; Initial Catalog=Microsoft.MgmtSvc.PortalConfigStore;" />

Agent Service Configuration File

The job processors of Usage and Billing solutions can turned on and off by changing the values in the 'CloudAssert.WAP.Billing.AgentService.exe.config' file located at 'C:\Program Files\ CloudAssertBilling\ CloudAssert.WAP.Billing.AgentService' in the machine where the Cloud Assert Usage and Billing Agent Service is installed.

Updating WAP Membership Connection

1. Find the line that has 'WapMembershipDatabase' in it.



2. Replace the 'Data Source', 'User Id' and 'Password' values with the WAP server name, database User Id and Password in the following line if already not set.

<add name="WapMembershipDatabase" connectionString="Data Source=localhost;User Id=sa; Password=[[ReplaceWithYourPassword]]; Initial Catalog=Microsoft.MgmtSvc.PortalConfigStore;" />

Invoice Processor Settings

This setting has to be set as 'TRUE' for WHMCS integration. It sends the invoices of tenants to the WHMCS portal.

	CloudAssert.WAP.Billing.AgentService.exe.config - Notepad	- 🗆 X
File	Edit Format View Help	
		^
	<add key="InvoiceProcessor.Enabled" value="<mark>true</mark>"></add>	
	<add key="InvoiceProcessor.ReadBatchSize" value="1"></add>	
	<add key="InvoiceProcessor.PollingIntervalSeconds" value="300"></add>	
	<pre><ad key="invoiceProcessor.prorbackottintervalseconds" value="600"></ad> </pre>	
	<pre><ad key="Involcerrocessor.lsmastertxpirationinseconds" value="900"></ad> <ad istate="" key="lswariseDesser" putaamountseconds="" value="900"></ad></pre>	
	<pre><auu key="invoicerrocessor.isAutoApproveinvoices" value="taise"></auu></pre>	~

Setting 'IsAutoApproveInvoices' value to 'True' from the above image will auto-approve the invoices by admin, and will be made ready for processing by WHMCS. This has to be set in 'App Settings' table also (Refer *App Settings Table*).

Invoice notifier Settings

Marking this setting 'True' will auto-suspend the subscription if the tenants fail to pay the invoice on or before the Due date (Refer step 335 & 6 from Step 6 - Configure Invoice Settings). It is also responsible for sending warning and reminder emails to tenants on invoice due date. It also reactivates the subscriptions automatically upon successful payment of invoice.

	CloudAssert.WAP.Billing.AgentService.exe.config - Notepad	x
File	e Edit Format View Help	
	<add key="InvoiceNotifier.Enabled" value="<mark>true</mark>"></add> <add key="InvoiceNotifier.ReadBatchSize" value="1"></add> <add key="InvoiceNotifier.PollingIntervalSeconds" value="300"></add> <add key="InvoiceNotifier.ErrorBackoffIntervalSeconds" value="600"></add> <add key="InvoiceNotifier.IsMasterExpirationInSeconds" value="900"></add>	
		~

Low Credit Checker Settings

Marking this setting 'True' will auto-suspends the subscriptions of the user if more credits are consumed beyond the allotted limit. It also sends an email notification to the user upon suspending or reactivating the subscriptions.



Once the setting is set to 'True' in configuration file, it has to be set in the 'App Settings' table as well (Refer *App Settings Table*).

FTP Push Setting

This setting will push the invoice csv files to the ftp server location which can be later used by any ERP

system.

- 1. Logon to WAP Admin portal, click on Usage and Billing on the Left.
- 2. Click on the '*SETTINGS*' Tab.
- 3. Click *'FTP SERVER'* sub tab.
- 4. Check the 'IS FTP PUSH ENABLED' checkbox in order for the invoices to be sent to the FTP/SFTP severs.

Service Management Portal	 ~	AASHISH-VM\Administrator
ALL ITEMS	usage and billing	9
	42 DASHBOARD PRICING PR	NOFILE USAGE USER CREDITS STATUS NOTIFICATIONS OPERATIONS SETTINGS USER PROFILES LICENSE
	DATABASE USAGE PROCESSOR	SPF WAP ADMIN API API SECURITY PRODUCT FEATURES INVOICE EMAIL WHMCS CSP
	PRICING CATALOG FTP SERVER	
	IS FTP PUSH ENABLED	
SQL SERVERS		
MYSQL SERVERS	FTP SERVER HOST ADDRESS	192.168.1.79
		like 192.168.1.100 or localhost
\$ USAGE AND BILLING	FTP SERVER PORT	22
	FTP USERNAME	ftpadmin
USER COSTS	FTP PASSWORD	Enter password
	FTP MODE	SFTP V
	DESTINATION FOLDER	(OPTIONAL) like InvoiceCsv
	AUTO APPROVE INVOICES?	
	INVOICE FILE FORMAT	Cloud_Assert_[InvoiceCycleDate;yyyy-MMM] (OPTIONAL) like Cloud_Assert_[InvoiceCycleDate;yyyy-MMM] (or) [InvoiceCycleDate;yyyy-MMM]_Cloud_Assert
	PROCESS FROM DATE	2012/01/01 Set a date since WAP existance. Date format YYYY/MM/DD
	PROCESS TO DATE	2020/12/31 Set a date till which the csv files has to be bushed to the ftp server. Date format YYYY/MM/DD
+ NEW		

- 5. Specify the fields as seen in the above screenshot.
- 6. Click 'Save' button.

Note: A manual restart of the Billing Agent service might be required in order for the FTP Push settings to work properly.

Customizing Column Order in CSV Files

Usage and Billing solutions allows to set the column order, remove unwanted columns and give friendly name for any downloadable csv file. This can be done by editing the *App Settings Table* values for 'CsvColumnOrderForSubscription', 'CsvColumnOrderForAllUsers' and 'CsvColumnOrderForAllInvoices'.

Adding Custom Column and Custom Data in Invoice CSV File

Custom column and custom data for each and every column for the invoice CSV file can be added.

ADDING CUSTOM COLUMN

- 1. Logon to the machine where Usage and Billing database is installed.
- 2. Navigate to [dbo].[AppSettings] table.
 - CloudAssertBilling
 Database Diagrams
 Tables
 Tables
 System Tables
 FileTables
 API.AzurePackSubscriptionsInfo
 dbo._MigrationHistory
 dbo.AgentCommands
 dbo.AgentHeartbeats
 dbo.AgentLogs
 dbo.AlertRules
 dbo.AppSettings
 dbo.BillingDailyRecords
- 3. Right click on the table name and click 'Edit top 200 Rows'.
- 4. Search for the key 'CsvColumnOrderForAllInvoices' (Refer App Settings Table).
- 5. In the corresponding value add the custom column name anywhere separated by a comma (,).

77	CsvColumnOrderForAllInvoices	, ISOCurrencySymbol:Currency, FinalBillableAmount:Total Amount, CustomColumn

ADDING CUSTOM DATA

- 1. Logon to WAP Admin portal, click on Usage and Billing on the Left.
- 2. Click on the 'USAGE' Tab.
- 3. Click 'SUBSCRIPTION PROPERTIES' sub tab.

Service Management Portal	 ∨		•	AASHISH-VM\Administrator
ALL ITEMS	usage and billing			
	42 DASHBOARD PRICING PROFILE U	USAGE USER CREDITS STATUS NOTIFIC	CATIONS OPERATIONS SETTINGS	USER PROFILES LICENSE
	HISTORY INVOICES SUBSCRIPTION PRO	OPERTIES		
	SUBSCRIPTION ID	USER NAME	PLAN NAME	SUBSCRIPTIO P
	051a7d3b-bd2c-43e0-be24-6ef4036288d8	user12@csp.com	DB Only	DB Only
SQL SERVERS	071d5fc5-0aae-446a-b6e4-9e232cc71b18	user1@csp.com	DB Only	DB Only
	080c7ec5-5065-4216-a8ea-ffe2c862252c	testuser1@csp.com	DB Only	DB Only
MYSQL SERVERS	2245a99a-503d-4ca0-9b53-a9c36aab8f05	testuser3@csp.com	DB Only	DB Only
	24b37c74-f842-431a-9684-b9d110751aae	user3@csp.com	DB Only	DB Only
	2aab7451-7808-4565-81f5-d8676f7e464d	user77co@csp.com	DB Only	DB Only
USAGE AND BILLING	93061b9a-d4aa-48e1-8c09-e2d36fe6f65c	user4@csp.com	DB Only	DB Only
Ψ	96e29d75-4af6-4038-8a78-ca0e896873d2	user9@csp.com	DB Only	DB Only
2 PLANS 5	9d22cb87-b7e0-4b4a-a57b-0ebc4b9ed6f6	user6@csp.com	DB Only	DB Only
USER ACCOUNTS	a537494c-de09-483f-a820-4bf1d8d0e703	csptest1@csp.com	DB Only	DB Only
21	ba0243ac-d73c-4893-ae9e-27ecaa77d09d	testuser2@csp.com	DB Only	DB Only
	cd0b66d4-7438-4971-9bfa-a94fdcefbdde	testuser4@csp.com	DB Only	DB Only
	d45c7369-ad48-49a2-a1c2-48ee03fd2a22	user5@csp.com	DB Only	DB Only
	da0c194a-2d2a-44db-8fed-6f552c0c6c63	testuser4@csp.com	DB Only	DB Only
	db1cd5f0-2c04-417d-a914-46f12ee9d6b3	newprofile1@csp.com	DB Only	DB Only
NEW		+		
		ADD		

4. Drill down into a desired subscription and click on the 'ADD INVOICE CSV PROPERTIES' button at the bottom.

ADD CUSTOM PROPERTIES FOR INVOICE CSV F	ILES			>
Subscription ID 051a7d3b-bd2c-43e0-be24-6ef4036288d8	User user12@csp.com	Plan Name DB Only	Subscription Name DB Only	1
AVAILABLE COLUMNS Invoice ID, User, Plan Name, Subscription Name, S Payment Status, Is Offline Payment, Currency, Tota	ubscription ID, Sta Amount, Custom	rt, End, Due Da Column	ate, Processing Status,	i
ADD CUSTOMIZED VALUES				ł
# Column	My Data	Value	X	
	Test subserieties			
Subscription Name	lest subscription			
			(

- 5. In the following dialog box that appears, specify the column name from the 'AVAILABLE COLUMNS' list and specify the value.
- 6. Click complete button to save the values.
- 7. Click 'INVOICES' sub tab under 'USAGE' tab.
- 8. Click '*Export All Invoices*' button at the bottom to download the csv file.

Invoice ID User	Plan Nam	Subscription Name	Subscripti	Start	End	Due Date	Processin	Payment	Is Offline	Currency	Total Amc CustomCo	lumn
2 user12@c	DB Only	Test subscription	051a7d3b-	*****	*****	*****	PendingA	None	TRUE	USD	3666.667 My Data	
3 user1@cs	DB Only	DB Only	071d5fc5-	*****	****	****	PendingA	None	TRUE	USD	6533.333	
4 testuser1	DB Only	DB Only	080c7ec5-	*****	*****	*****	PendingA	Paid	FALSE	USD	3436.496	
5 testuser3	DB Only	DB Only	2245a99a-	*****	****	*****	PendingA	None	FALSE	USD	3433.333	
RUN RESET USAGE

Meters' price in Usage and Billing solutions can be reset by using 'RUN RESET USAGE' button.

- 1. Logon to WAP Admin portal, click on Usage and Billing on the Left.
- 2. Click on the 'STATUS' Tab.
- 3. Click 'STATUS' sub tab.
- 4. Click "RUN RESET USAGE" button.

Service Management Portal	 ~			POONGODI-VM	Administrator
ALL ITEMS	usage and billing				
	DASHBOARD PRICING PROFILE USER PROFILES LICENSE	CSP USAGE USER CREDITS	STATUS NOTIFICATIO	NS OPERATIONS SETTINGS	
	A Your License will expire in 3 day(s)!				
	STATUS LOGS				
SOL SERVERS	Usage Status				
	SERVICE	LAST SEEN TIME (LOCAL TIME)	STATUS	MESSAGE	Q
MYSCE SERVERS					
	Usage Aggregation Status				
USAGE AND BILLING	AGGREGATION NAME	LAST PROCESSED ID / TIME	E	LATEST AGGREGATOR TIME (LOCAL TIM	E) (+0530) 🔎
Þ	BillingDailyAggregator	8/11/2017 3:06:48 PM		8/28/2017 5:30:00 AM	
1 PLANS 16	BillingMonthlyAggregator	8/11/2017 3:06:48 PM		8/1/2017 5:30:00 AM	
USER ACCOUNTS	BillingMonthlySummaryAggregator	8/11/2017 3:06:48 PM		8/1/2017 5:30:00 AM	
²² 22	UsageEventsProcessor	86 (8/11/2017 3:04:34 PM Lo	ocal Time)	1/1/1753 5:30:00 AM	
USER COSTS	UsageRecordProcessor	8/11/2017 3:06:48 PM		8/28/2017 3:30:00 PM	
	Records Count				
	RECORD TYPE		COUNT		Q
	Errored Hourly Records		0		
	Errored Daily Records		0		
	Errored Monthly Records		0		
+ NEW		S RUN RESET USAGE			2

5. Specify the date and time from when the usage cost has to be reset.

RUN RESET USAGE DETAILS			×
RESET FROM DATE	<mark>05</mark> /30/2017	×≎▼]
RESET FROM TIME	01:00 AM	ОТС	_
			\checkmark

6. Click Finish.

TYPES OF CREDITS IN USAGE AND BILLING

Usage and Billing allows the administrator to set credits for the tenants. There are five types of credits, they are as follows:

- i. Recurring Credit
- ii. One-Time Credit
- iii. User Credit
- iv. Unit Credit
- v. Exclusive Credit

Among the five type of credits 'Recurring Credit' and 'One-time' credit can be set while creating or editing a pricing profile. 'User Credit' is set for each user (tenant), 'Unit Credit' is set at the metered resource pricing level and 'Exclusive Credit' is set for each subscription.

Note: In order for 'Recurring Credit', 'One-time credit' and 'Exclusive credit' to work, '*Is Promotions Feature Enabled*?' Has to be enabled from Usage and Billing admin portal 'SETTINGS' 'PRODUCT FEATURES' tab.

'Unit Credit' can be applied only to subscriptions of plan type 'Pay-As-You-Go Plan'.

Recurring Credit

Recurring credit is a credit amount that is given as discount for every month to the users who subscribe for the plan.

- 1. Logon to WAP Admin portal, click on Usage and Billing on the Left.
- 2. Click on the 'PRICING PROFILES' Tab.
- 3. Select a desired pricing profile and click edit. (Recurring credit can be also set while creating a pricing profile. Refer *MANAGING PRICING PROFILES*).

PLAN PRICING DETAILS (ADVAN	ICED)	×
APPLY STANDARD TAX RATE?		
PROMO TYPE	Recurring Monthly One-Time	
PROMO CREDIT AMOUNT	50	
MINIMUM COMMITMENT DURATI	ON 365 DAYS	
		$\left(\leftrightarrow \right)$

- 4. Click Next and select 'PROMO TYPE' as 'Recurring Monthly'.
- 5. Specify the 'PROMO CREDIT AMOUNT'.
- 6. Click Next and save the pricing profile.

One-Time Credit

As the name indicates one-time credit expires over a period. Any tenant who subscribe for this plan gets a discount for a number of days from the date of subscription of the plan.

- 1. Logon to WAP Admin portal, click on Usage and Billing on the Left.
- 2. Click on the 'PRICING PROFILES' Tab.
- 3. Select a desired pricing profile and click edit. (one-time credit can be also set while creating a pricing profile. Refer *MANAGING PRICING PROFILES*).

PLAN PRICING DETAILS (ADVANC	ED)	×
APPLY STANDARD TAX RATE?		
PROMO TYPE	Recurring Monthly One-Time	
PROMO CREDIT AMOUNT	40	
PROMO PERIOD	10 DAYS	
MINIMUM COMMITMENT DURATION	N 365 DAYS	

- 4. Click Next and select 'PROMO TYPE' as 'One-time.
- 5. Specify the 'PROMO CREDIT AMOUNT'.
- 6. Specify the 'PROMO PERIOD'.
- 7. Click Next and save the pricing profile.

➢ From the above screen-shot, any user who subscribe for this plan will be given a discount of \$100 for a period of 30 days from the day of the subscription.

➢ If the user subscribes in the middle of the month (e.g.: on 15th), for the current month \$50 (*calculated for remaining 15 days of the month (15th-30th)*) will be given as discount and in the next month remaining \$50 will be given as discount.

User Credit

Usage and Billing allows the admin to set credits for individual users. User credits can be set to user irrespective of the plan they subscribe.

- 1. Logon to WAP Admin portal, click on Usage and Billing on the Left.
- 2. Click on the 'USER CREDIT' Tab.
- 3. Click 'ADD' button.

	uab@test1.com	
CREDIT AMOUNT	300	
Negative credits can be ac	Ided to an existing user, to deduct his curren	t Credits.
IS LOW CREDITS CHECKER I	ENABLED?	

- 4. Select the desired 'USER ID' from the select box.
- 5. Specify the 'CREDIT AMOUNT'.
- 6. Click Finish to set the credit for the user.

Note: User credits are specific to user and are not dependent on any plan or pricing profile.

➢ For existing users, credits can be reduced by selecting the 'User Id' from the select box and giving a negative value in the 'Credit Amount' field.

➢ For example, for a user \$100 credit would have been set. It can be reduced to \$50 by clicking 'Add' button and selecting the same user id from the select box and specifying the credit amount as -50.

SUSPENDING SUBSCRIPTIONS UPON USAGE EXCEEDING ALLOWED CREDITS

Enabling 'Low Credit Checker Settings' will automatically suspend subscriptions of user if the usage cost exceeds the allowed credit limit. This can be turned off for individual users while setting User Credits.

Note: This feature is available for versions higher than v1.0.9.2.

1. Repeat steps 1 to 3 under 'User Credit' section.

	sub regrimited	•
CREDIT AMOUNT	50	
ivegative credits can be add	ed to an existing user, to deduct his current Credits.	
IS LOW CREDITS CHECKER EN	ABLED? 🕑	

- 2. Checking 'IS LOW CREDITS CHECKER ENABLED?' will suspend the subscriptions of the user upon usage cost exceeding the allowed credit.
- 3. Unchecking 'IS LOW CREDITS CHECKER ENABLED?' will not suspend the subscriptions of the users.

Unit Credit

Unit credit is given for meters of resource while configuring a 'Pay-As-You-Go plan' (Refer *Creating a Pay-As-You-Go Pricing Profile*).

1. Logon to WAP Admin portal, click on Usage and Billing on the Left.

- 2. Click on the 'PRICING PROFILES' Tab.
- 3. Drill down into a desired pricing profile.
- 4. Select a desired metered resource and click 'EDIT' button.
- 5. After ensuring that the 'MONTHLY UNIT PRICE' is set, click next button.

	METERED RESOURCE PRICING Advanced Details		×
	HOURLY UNIT CREDITS	0.1	
	RECORD TYPE	TIMERANGE_CONTINUOUS_USAGE	
	REGION	default	
	RESOURCE CONDITIONS		
	FILTER PROPERTIES Add		
1			¢ 🗸

- 6. Specify the 'HOURLY UNIT CREDITS' and click finish to save the metered resource pricing.
- From the above screen-shot, for every hour of usage \$0.1 is discounted from the usage cost.

Exclusive Credit

Usage and Billing allows the admin to set credits for individual subscriptions. Exclusive credits are specific to subscription and are not dependent on any plan or pricing profile. It can be given in four different ways:

- i. Recurring Monthly Credit
 - Recurring credit is a credit amount that is given as discount for every month to the subscription. For the first month alone, the credit amount will be prorated from the date of subscription.
- ii. Recurring Monthly Credit in Percentage
 - Recurring credit in Percentage is similar to 'Recurring Credit', the only difference is that credit amount computation. For 'Recurring Credit' the specified amount will be directly applied to the subscription but for 'Recurring Credit in Percentage', the credit amount will be calculated as given credit percent of total cost of the subscription. For e.g. If given credit percent = 5 and total cost = 100, then credit amount of 5 will be applied to subscription.

- iii. One-Time Credit
 - One-time credit is a credit amount that is given as discount to the subscription for one time only.
- iv. One-Time Credit in Percentage
 - The One-Time Credit in Percentage is similar to 'One-Time Credit' but the credit calculation is different for both. For 'One-Time Credit' the specified amount will be directly applied to the subscription but for "One-Time Credit in Percentage', the credit amount will be computed same as 'Recurring Monthly Credit in Percentage'

Exclusive Recurring Monthly Credit

Exclusive Recurring Monthly credit can be given as direct amount or as percentage. Based on the credit type selected appropriate credit will be applied to the subscription.

- 1. Logon to WAP Admin portal, click on Usage and Billing on the Left.
- 2. Click on the 'USAGE' Tab.
- 3. Click on the 'SUBSCRIPTION PROPERTIES' sub tab.
- 4. Drill down into a desired subscription and click 'ADD EXCLUSIVE CREDITS' button.

Subscription ID cb89eff0-c93b-44f2-b51a-f4478d284a7f	User uab@test1.com	Plan Name UsagePlan	Subscription Name changesubname2	
DD CREDITS				
Credit Type		Value		
Recurring Monthly Credit	▼ 50			

- 5. Select the credit type as '*Recurring Monthly Credit*' or '*Recurring Monthly Credit in Percentage*'.
- 6. Specify the desired credit value and click Finish.

Exclusive One-Time Credit

Exclusive One-Time credit can be given as direct amount or as percentage. Based on the credit type selected appropriate credit will be applied to the subscription.

- Repeat steps 1 to 4 in '
- 1. Exclusive Recurring Monthly Credit' section.

ADD EXCLUSIVE CREDITS FOR SUBSCRIPTION		×
Subscription IDUserPlan Namecb89eff0-c93b-44f2-b51a-f4478d284a7fuab@test1.comUsagePlan	Subscription Name changesubname2	
ADD CREDITS		
Credit Type Value		
One-Time Credit in Percentage 5		
		\checkmark

2. Select the credit type as 'One-Time Credit' or 'One-Credit Credit in Percentage'.

3. Specify the desired credit value and click Finish.

MANAGING PAYMENT GATEWAY INTEGRATION

The integrated payment gateway allows the users to make payments for their consumption of services based on the actual usage. It allows the users to pay their invoice from the Usage and Billing solution.

Note: The payment gateway integration is a licensed feature and will not be available in the trial versions of the Usage and Billing solution. It is available for versions higher than v1. 8.2.1.

Enabling Payment Gateway

- 1. Logon to WAP Admin portal, click on Usage and Billing on the Left.
- 2. Click on the 'SETTINGS' Tab.
- 3. Click 'PRODUCT FEATURES' sub tab.
- 4. Enable " Is Payment Gateway Feature Enabled?

IS PAYMENT GATEWAY FEATURE ENABLED?



5. Click 'SAVE' button.

Configuring CyberSource for Payment Gateway Integration

1. Logon to <u>https://www.CyberSource.com/register/</u> and click 'Register' button at the bottom.

the power of payment		Evaluatio	n Account Sign-
Evaluation Form	2 Review Information	Conditions	Registration Complete
By completing the evaluation will not be disclosed to third	on registration process, yo d parties. Please refer to o	u will be able to send test transact ur <u>Privacy Policy</u> for details.	ions to CyberSource. Your informati • Required Fi
First Name* Cloud Last Name* Test Company* Cloud Acceded			
Website www.cloudassert.com Business.Email*			
support@cloudassert.com Business Phone* +1 (800) 569-5610			
Country* United States Minor Outlying Islam	nds 🔻		
Postal Code 98052			
CloudAssertPaymentProfile			

- Open a notepad file and make a note of the Merchant ID and save the file as 'CyberSource_Credential.txt'.
- 3. Click next till the registration process is complete in the CyberSource registration page.
- 4. A verification mail will be sent to the email id specified during the registration process.
- 5. From the verification mail make a note of the Organization Id and the contact email Id in a notepad file (e.g. CyberSource_Credential.txt) and click the link in the mail.
- 6. Specify the Organization Id and contact email Id and click 'SUBMIT' button.

CyberSource*

Live Business Center			
Test Business Center			
	Verify Identity		
	verify identity		
	Organization/Merchant ID	cloudasserttech_acct	
	Contact Email	support@cloudassert.com	
		Submit	
(

- 7. After completing the Account Admin account and Merchant admin account login to 'https://ebc.cybersource.com/ebc/login/Login.do' if not already logged in. {go to https://ebctest.cybersource.com/ebctest/login/Login.do if you are using the Test environment.}
- 8. Navigate to Tools & Settings -> Profiles and click Create profile.
- 9. Specify the details and click create.

CyberSource* Test Business Cen	ter		You are logged in as Account ID: Log Out User ID: cloudassertadmin Last Login: 2016-08-15 23 50 44 PDT Online Help
Home		Create Profile	
Support Center		* Required Fields	
Virtual Terminal	×.	Profile Information Name and describe your Secure Accentance profile below Indicate how you intend to intervate payment accentance on your website via WebMobile or	
Decision Manager		Sient Order Post	
Tools & Settings	v	Name* CloudAssertTestProfile	
Secure Acceptance		Description Test profile for payment gateway integration	
Profiles			
Batch Transactions		Integration Method(s)* Web/Mobile Silent Order Post	
Templates		Company Name* Cloud Assert Technologies	
Upload			
Detail Report			
Batch Upload Search		Contact Information	
		Name CloudAssertAdmin	
Stored Value			
		Email support@cloudassert.com	
ransaction Search	1	Phone Number +1 (800) 569-5610	
Reports	Þ		
Account Management	•	Added Value Services	
My User Settings	×	Payment Tokenization 🛛 🕅	
		Decision Manager 🗭 Enable Verbose Data 🗭 Generate Device Fingerprint 🗭	
		Create Cancel	
			@ CyberSource 2

10. Once the profile is successfully created the following screen appears, make a note of the Profile Id from the top of the screen in the notepad file (eg. CyberSource_Credential.txt).

CyberSource* Test Business Cente		You are logged in as Account ID: User ID: cloudassertadmin Merchant ID Last Login: 2015.02.15 33:5044.007	Log Out
Home	< All Profiles		Online Help
Support Center	* includes settings required for activation		
Virtual Terminal	CloudAssertTestProfile (Editable version) Promote to Active		
Decision Manager	Profile ID: The following settings determine your customer's check out experience. NOTE: In Active profile is read, only. To edit an Active profile return to the profile ist		
Tools & Settings	and select edit.		
Secure Acceptance	General Settings Pothe name, ID, description, contact information, company name,		
Profiles	and integration method: Web/Mobile or Sient Order Post. process is completed.		
Batch Transactions	Payment Settings * Customer Response Pages *		
Templates Upload	Payment types, accepted currencies, and authorization reversal.		
Detail Report Batch Upload Search	Security *		
Stored Value	A security key is required for all transactions, and for a profile to be Customization of your check-out pages with your own company activated.		
Transaction Search	Payment Form		
Reports	The presentation of the check-out sections including the fields that where the last of CyberSource supported languages.		
Account Management			
My User Settings			
			© CyberSource, 2016

CONFIGURING PAYMENT SETTINGS

- 1. Click the 'Payment Settings' icon and click 'Add/ Edit Cards types'.
- 2. Select the type of card from the list which will be later used by the tenant to make the payments.

CyberSource	iter			You are logged in as Account ID: User ID: cloudssetadmin Merchant ID Last Login: 2016-08-15 23:50 44 PDT Online Help
Home				
Support Center		Payment Settings (CloudAssertTestProfile)	Save Cancel	
Virtual Terminal			auve Currer	
Decision Manager	×	Payment Method		
Tools & Settings	٣	To promote a profile to active, you must select at least one paym	Add/Edit Card Types X	
Secure Acceptance		Card	Check or uncheck card type(s) to update your payment methods.	
Profiles		Add or edit the card types that your merchant account provide Payer Authentication, and Currencies settings.	🖉 Visa	
Batch Transactions		Card Type CVN CVN Payer	MasterCard	
Templates		Display Required Authentica	American Express Discover	
Upload			Diners Club	
Detail Report				
Batch Upload Search		Automatic Authorization Reversal	✓ JCB	
		Check to perform an automatic authorization reversal on each	EnRoute	
Stored Value		Eails AVS check	IAL I	
		Eails CVN check	Maestro (UK Domestic)	
Transaction Search	16.		Delta	
		achack	Visa Electron	
Reports	▶.	echeck	Dankort	
Account Management		eCheck is a payment option allowing US and Canadian custon	Laser	
	12	accept these payments prior to enabling eCheck below.	Carte Bleue	
My User Settings	Þ	Enable eCheck payments	Carta Si	
			Maestro (International)	
		Max Charlant	GE Money UK card	
		visa checkout	Hipercard	
		Visa Checkout is a digital payment service designed to simpli devices using a customer's preferred payment method. You w section of Account Management.	Elo	
		PayPal Express Checkout	unicer Canicer	
		You can accept PayPal payments through Secure Acceptance. P configured for PayPal prior to enabling below.	lease contact CyberSource Customer Support to ensure your Merchant ID is	
		Enable PayPal Express Checkout		
			Save Cancel	

3. Click 'Update' button and click 'Save' button.

CONFIGURING CUSTOM RESPONSE PAGE

- 1. Click 'Customer Response Pages' from the profile home screen.
- 2. Select 'Hosted by you' radio button and specify as 'http://localhost/secureacceptance/receipt.aspx'
- 3. Specify the 'Web Address' at the bottom and click the 'Save' button.

Test Business Center		Last Login: 2016-08-15 23:50:44 PDT
Home		
Support Center	CUstomer Response Pages (CloudAssertTestProfile) Save Cancel	
/irtual Terminal		
ecision Manager 🛛 🕨	* Required Fields	
Tools & Settings v	Transaction Response Page Select the method for hosting the transaction response page, which is displayed at the end of the check-out process.	
Secure Acceptance	Hosted by CyberSource	
Profiles	A response message is displayed when the transaction is declined, cancelled, or if there is an error (listed below).	
Batch Transactions	Hosted by you http://localhost/secureacceptance/receipt.aspx (URL)	
Templates	Selecting this option enables you to manage your own response pages.	
Upload		
Detail Report Batch Upload Search	Transaction Response Message	
	DECLINE	
Stored Value	PLOTING	
Transaction Search	Retry Limit Customers may retry a declined transaction up to 0 v times.	
Reports ►	ERROR	
Account Management ►	Message: An error occurred during payment processing. Please verify your information.	
Ay User Settings ►		
	Custom Cancel Response Page	
	Select the method for hosting the transaction cancellation page, which is displayed when a user clicks the cancel button in the checkout process.	
	Hosted by CyberSource "Your order was cancelled." is displayed when the transaction is cancelled. A button will take the user to the Customer Redirect URL specified	
	below.	
	Hosted by you (URL)	
	Selecting this option enables you to manage your own response page.	
	Fuctomer Bedirect offer Check-out	
	Existing a serie for the form the Transition Personan Data after the dedicate sectors in complete	
	Web Address* http://www.cloudassert.com (URL)	
	Save Cancel	

CONFIGURING SECURITY SETTINGS

- 1. Click 'Security' icon form Profile home screen.
- 2. Click 'Create New Key' button.

CyberSource* Test Business Center		You are logged in as Account ID: Log Out User ID: cloudesertadmin Merchant ID Last Login: 2016-08-15 23:50 44 PD7 Online Help
Home		
Support Center	CloudAsserTestProfile)	
Virtual Terminal		
Decision Manager 🕨	🚵 = Key expires in less than 60 days	
Tools & Settings 🛛 🔻	Security Keys At least one security key must be activate a Profile. Note: Keys are active for 2 years.	
Secure Acceptance	Key Name Access Key Signature Version Signature Method Date Created Date Expires Status	
Profiles	No security keys have been added.	
Batch Transactions	Create New Key Deactivate Activate	
Templates		
Upload	Create New Key X	
Detaš Report	* Required Fields	
Batch Upload Search	Claudésert	
	Key Name	
Stored Value	Signature Version* Version 1	
Transaction Search	HMAC-SHA256	
Reports ►	agnature Method"	
Account Management	Country Count	
My User Settings 🛛 🕨	Generatic Key Carros	

3. Specify the 'Key name', 'Signature Version' version as Version 1 and "Signature Method as HMAC-SHA256 and click 'Generate Key' button.

WWW.CLOUDASSERT.COM

CyberSource Test Business Ce									
Home		-							
Support Center		Sec (Clou	dAssertTestProfile)					Determine Des	Ma harman
Virtual Terminal	F	_						Return to Pro	nie nome
ecision Manager	Þ						۵.	Key expires in less	than 60 days
ols & Settings	* Se	ecurity Keys least one securi	y key must be active to	activate a Profile. Note	Keys are active for 2	years.			
Secure Acceptance	K	ey Name	Access Key	Signature Version	Signature Method	Date Created	Date Expire	s Status	
Profiles	c	loudAssert	b7bd52b1d44532	. 1	HMAC_SHA256	08/16/2016	08/16/2018	Active	
Batch Transactions						6	Create New Key	Deactivate	Activate
Templates					Create New K	(0)		Constantine of the	
Detail Report					Cleate New P	vey			* Required Field
Batch Upload Search						Key Name*	CloudAssert		
Stored Value						Noy Hattio	Marries #	-	
praction Search					Sign	ature Version*	version 1	•	
ansaction search					Sign	ature Method*	HMAC-SHA256	•	
eports					Plassa copy the	access key and	secret key below. T	via window will ch	as in 20 seconds
account Management	•				Please copy the	access key and	secret key below. I	ns window will ca	se in 50 seconds.
Ay User Settings	P.					Access Key			
						Secret Key		-	
		_				Secretikey			
								-	
								. /	
					Tim	ne Remaining :	0:21		
									Clove
									CIDAC

4. Copy paste the 'Access Key' and 'Secret Key' in a notepad file (e.g. CyberSource_Credential.txt) and click 'Close' button.

CONFIGURING PAYMENT FORM

- 1. Click 'Payment Form' icon form Profile home screen.
- 2. Check 'Billing Information' check box from 'Checkout Steps' section.
- 3. Check the necessary fields and give Read/Write permission for the fields and specify whether the Field is required or not by checking/unchecking necessary fields.
- 4. Click 'Save' button.

yture these via Secure
w Edit Require
2 2
2 2
3
× ×
Save Cancel

Important Note: Once all the settings are configured in the profile, it is mandatory to click 'Promote to Active' button from Profile home screen.

Configuring Database

Once the payment gateway settings are configured it is necessary to update the CloudAssertBilling database in-order for the payment gateway integration to take effective.

PRE-REQUISITES

- All the credentials such as 'Merchant Id', 'Merchant Profile Id', 'Access Key' and 'Secret/Security Key' must be saved into a notepad file. (e.g. CyberSource_Credential.txt)
- 1. These credential need to be encrypted before inserting them to the database.
- 2. Write to support@cloudassert.com requesting the above credentials to be encrypted.
- 3. A SQL query will be sent within 1 to 2 business days.
- 4. Run the query in the SQL Management Studio.

Configuring Postback Call

- 6. Logon to the machine where Usage and Billing database is installed.
- 7. Navigate to [dbo].[AppSettings] table.

-	间 Clo	oud/	AssertBilling
	+ 🚞	Dat	tabase Diagrams
	e 🚞	Tał	bles
	+		System Tables
	+		FileTables
	+	Ħ	API.AzurePackSubscriptionsInfo
	+	Ħ	dboMigrationHistory
	+	Ħ	dbo.AgentCommands
	+	Ħ	dbo.AgentHeartbeats
	+	Ħ	dbo.AgentLogs
	+	Ħ	dbo.Agents
	+	Ħ	dbo.AlertRules
	+	Ħ	dbo.AppSettings
	+	Ħ	dbo.BillingDailyRecords
		_	

- 8. Right click on the table name and click 'Edit top 200 Rows'.
- 9. Search for 'PostbackUrlForAdmins' and 'PostbackUrlForTenants'.
- 10. Replace the Admin URL and Tenant URL in the highlighted area as seen in the below image.

71	1	Postback Url For Admins	https://	AdminSiteMachine>	30091/CloudAssertBillingAdmin/PaymentPostback	PaymentGateway	System
72	1	Postback UrlForTenants	https://	<tenantsitemachine:< th=""><th>30081/CloudAssertBillingTenant/PaymentPostback</th><th>PaymentGateway</th><th>System</th></tenantsitemachine:<>	30081/CloudAssertBillingTenant/PaymentPostback	PaymentGateway	System

11. Save the table.

MANAGING WHMCS INTEGRATION

Usage and Billing solution is capable of integrating with WHMCS to process the invoices of tenants and integrate with popular payment gateways to make payments. Features supported:

- Automated user and subscription creation in Azure Pack, when a new user orders a product in WHMCS
- Automated email notification to user with login information for Windows Azure Pack portal
- Automated Subscription life cycle sync with Windows Azure Pack and WHMCS
- WHMCS Invoice generation based on tenant user usage in Windows Azure Pack

Configuring WHMCS Settings

PRE-REQUISITES

1. Download WHMCS (v6 or later) and install it in a machine with optimal configuration.

USAGE & BILLING PHP MODULE

- 1. Go to the machine where Usage & Billing API Service is setup.
- Copy the C:\inetpub\MgmtSvc-CloudAssertBilling\WHMCSModule\causageandbilling folder to the \modules\servers folder under WHMCS website folder in WHMCS machine (e.g., C:\inetpub\wwwroot\whmcs\modules\servers).

Lo	cal Disk (C:) → inetpub → wwwroot → whmcs	modules + servers	 causageandbilling 		Υ	Ċ
	Name	Date modified	Туре	Size		
	Causageandbilling.php	6/8/2016 12:28 PM	PHP File		13 KE	}

ADDING U&B API SERVER

- 1. Login to WHMCS admin portal in the web browser
- 2. Click Setup \rightarrow Products/Services \rightarrow Servers.
- 3. Click Add New Server Button.

/HM	5		Pending Orders 14 Overdue involces 0 Ticket(s) Awaking keply								
	Clier	nts Orders	Billing	Support	Reports	Utilities	Addons	Setup	Help		
uration	Servers									i He	
ettings										A .110	
on Settings in Links onnect	Edit Server										
odules			Name	WAP Cloud	Assert						
ups tection			Hostname	wap-csp-sb	x.wapdemo.	corp.cloudass	ert.com				
anagement			IP Address								
ator Users ator Roles or Authentication											
nts		Assigned	IP Addresses								
s Gateways ns		(One per line)								
ts/Services		1	Monthly Cost	0.00	1						
Services ble Options		Dat	acenter/NOC								
ddons undles		Maximum No	of Accounts	200							
egistrars		Server St	atus Address	To display t monitor) - e	his server on g. http://www	the server st w.whmcs.com	atus page, ente v/status/	r the full pa	th to the serve	r status folder (required to be uploaded to each server you want to	
t		Er	able/Disable	Tick to d	isable this se	rver					
lepartments tuses Rules	Nameservers										
trol		Primary	Nameserver				IP Ad	dress:			
		Secondary	Nameserver				IP Ad	dress:			

- 4. Specify the name, Hostname or the IP Address of the machine where the Usage and Billing API Service setup is installed.
- 5. Under 'Server Details' section specify select the type as 'Causageandbilling', give the username and password which was given during the installation of Usage and Billing API setup. (*Refer Install Usage and Billing API Service*).

Products/Services Configurable Options Product Addons Product Rundles Domain Pricing Domain Registrars Servers	Datacenter/NOC Maximum No. of Accounts Server Status Address	200 200 C C C C C C C C C C C C C C C C C C C
Support		monitor) - eg. http://www.whmcs.com/status/
Support Departments	Enable/Disable	Tick to disable this server
<u>Ticket Statuses</u> Escalation Rules	Nameservers	
Spam Control	Primary Nameserver	IP Address:
de Other	Secondary Nameserver	IP Address:
Order Statuses	Third Nameserver	IP Address:
Security Questions Banned IPs	Fourth Nameserver	IP Address:
Banned Emails Database Backups	Fifth Nameserver	IP Address:
Advanced Search	Server Details	
Clients •	Туре	Causageandbilling *
Client Name 🔻	Username	admin
Search	Password	
Staff Online whmcsadmin	Access Hash (Instead of password for cPanel servers)	
		A
	Secure	Tick to use SSL Mode for Connections
		Save Changes Cancel Changes
▲ Тор		Copyright © WHMCompleteSolution. All Rights
Dev License: Thi	s installation of WHMCS is running under a D	evelopment License and is not authorized to be used for production use. Please report any cases of abuse to abuse@whmcs.com

6. Click 'Save Changes' button.

ADDING A SERVER GROUP

- 1. Once the server is created and save successfully click 'Create New Group' button from Server home screen.
- 2. Specify the group name and select the server(s) that needs to be added to the group from the list of available servers.

🗅 WHMCS - Servers 🛛 🗙		Both _ 🖬 🗙
+ > C 🗋 whmcs1.wap	demo.corp.cloudassert.com/admin/configservers.php?action=managegroup&id=1	☆ =
Apps 🗋 Admin ี Tenant		
Home Client Area My Notes	My Account Logout	Wednesday, 17 August 2016, 07:36
	C 7 Pending Orders 14 Overdue Invoices 0 Ticket(s) Awaiting Reply	
	Clients Orders Billing Support Reports Utilities Addons Setup Help	
Configuration	Servers	Generation Help
eneral Settings	Edit Group	
oplication Links		
nail Templates	Name WAP CloudAssert	
idon Modules	Fill Type Add to the least full server	
aud Protection	Fill active server until full then switch to next least used	
staff Management	ShashankTestServer WAP CloudAssert Thangas.VM	
dministrator Users		
wo-Factor Authentication	Add »	
Payments	Selected Servers	
urrencies	« nemove	
ayment Gateways ax Rules		
romotions		
Products/Services	Chun Chungen Changes	
oducts/Services	Save changes Cancer changes	
oduct Addons		
oduct Bundles omain Pricing		
omain Registrars		
ervers		
support	<u> </u>	
Dev License: Thi	s installation of WHMCS is running under a Development License and is not authorized to be used for production use. Please report any case	es of abuse to abuse@whmcs.com
	a 🖸 🖳 🔤 😡 📝 💺 📖 🎎 🖂	▲ 😼 💭 7:36 Ab

3. Click 'Save Changes' button.

CONFIGURING GENERAL SETTINGS

1. Select Setup \rightarrow General Settings tab from the home screen.

			7 Pendir	g Orders 14 O	verdue Invoice	s 0 Ticket(s) Aw	aiting Reply				
	Clients	Orders	Billing	Support	Reports	Utilities	Addons	Setup	Help		
onfiguration	eneral Settin	gs									💡 Help
eral Settings omation Settings plication Links	ieneral Localis	sation Orde	ering Dom	ins Mail	Support	Invoices	Credit At	filiates Sec	curity Soc	cial Other	
enID Connect ail Templates		Con	npany Name	Cloud Asser	t LLC		Your Cor	npany Name	as you wan	t it to appear throughout the system	
Ion Modules ant Groups		Er	mail Address	contact@clo	oudassert.co	m	The defa	ult sender ad	dress used	for emails sent by WHMCS	
ud Protection			Domain	http://www.	cloudassert	com/		The U	RL to your v	website homepage	
iministrator Users			Logo URL	https://www Enter your lo	v.cloudasser ogo URL to o	rt.com/Portals display in ema	s/0/CloudSun ail messages (Wide11.png or leave blank	for none		
ro-Factor Authentication Payments urrencies syment Gateways ax Rules comptions			Pay To Text	8201 164ti Suite 200 Redmond	h Ave NE WA 98052 U	JSA					
roducts/Services		WHMCS	System LIRI	This text is c	lisplayed on cs1.wapdem	the invoice a	s the Pay To assert.com/	letails			
nfigurable Options	WHINCS System URL URL of the WHMCS installation, eg. http://www.yourdomain.com/members/ WHMCS SSL System URL https://whmcs1.wapdemo.corp.cloudassert.com/ URL of the WHMCS installation for secure access, eg. https://www.yourdomain.com/members/ (leave blank for no SSL)							:/			
oduct Addons oduct Bundles								nain.com/members/ (leave blank for no SSL)			
main Registrars			Template	Six		The te	emplate you v	ant WHMCS	to use		
upport		Limi	t Activity Log	10000 Tł	he Number	of Activity Log	g Entries you	vish to keep			
pport Departments cket Statuses	Re	ecords to Disp	lay per Page	50		•					
calation Rules am Control		Mainte	nance Mode	Tick to er	hable - preve	ents client are	a access whe	n enabled			
Other	Ma	aintenance Mr	de Message	We are cu	rrently perfe	orming maint	enance and v	vill be back sh	ortly.		

- 2. Specify the necessary fields under all the sub-tabs.
- 3. For end of month (post-usage) invoicing, disable automatic invoice on order creation by choosing 'Just show the order completed page' option under Ordering tab → Auto Redirect on Checkout.
- 4. Under Security tab→ API IP Access Restriction field, click 'Add IP' button and specify the IP address of the U&B API server that was created earlier.

Tax Rules Promotions		③ Add IP ⊜ Remove Selected						
Products/Services	Whitelisted IP Login Failure Notices	Tick to send login failure notices for Whitelisted IP addresses						
Products/Services	Admin Force SSL Access	Tick this box to force SSL Access for all admin area requests						
Product Addons	Disable Admin Password Reset	s box to disable the forgotten password feature on the admin login page						
Product Bundles Domain Pricing	Disable Credit Card Storage	Tick this box to not store customers credit cards in the database (Warning: This will delete any existing stored credit card data)						
Domain Registrars	Allow Client CC Removal	Tick this box to allow customers to delete the credit card details stored on their account						
servers	Disable Session IP Check	This is used to protect against cookie/session hijacking but can cause problems for users with dynamic IPs						
Support Support Departments Ticket Statuses Escalation Rules	Allow Smarty PHP Tags	Tick to allow use of the Smarty (php) tag in templates. This is considered a security risk. Enabled Disabled (Recommended)						
Spam Control	Proxy IP Header	Header used by your trusted proxies to relay IP information. Most proxies use "X_FORWARDED_FOR"; that is the default if no value is specified						
Custon Client Fields Order Statuses Security Questions Banned IPs Banned Emails	Trusted Proxies	 IP addresses of trusted proxies that forward traffic to WHMCS. Only add addresses that directly proxy requests! Add IP Remove Selected 						
Database Backups Advanced Search Clients	API IP Access Restriction	192.168.2.176 - Jagan-VM 192.168.2.49 - ShashankIP 192.168.55.48 - Thangas-VM IP Addresses allowed to connect to the WHMCS API Add IP © Remove Selected						
Client Name 🔻	Log API Authentication							
Search	CSRF Tokens: General	Tick to enable general use of CSRF tokens for all public and clientarea forms (Highly Recommended) Trabled (Default) Disabled						
whmcsadmin - Minimise Sidebar	CSRF Tokens: Domain Checker	Tick to enable use of CSRF tokens for the Domain Checker form © Enabled ® Disabled (Default)						
		Save Changes Cancel Changes						
♠ Top		Copyright & WHMCompleteSolution. All Rights Reserved.						
Dev License: Th	is installation of WHMCS is running up	ader a Development License and is not authorized to be used for production use. Please report any cases of abuse to abuse@whmes.com						

5. Click 'Save Changes' button.

CONFIGURING PRODUCTS / SERVICES SETTINGS

- Click Setup→Products/Services and click 'Create a New Group' to create a new Product Group (e.g., Pay-as-you-go Plans)
- 2. Click Setup→Products/Services and click 'Create a New Product'
- 3. Specify the necessary details under 'Details' tab and save them.
- 4. Under 'Pricing' tab specify Payment Type as 'Recurring' and configure One Time/Monthly Price (for advertising the product) and save the settings.
- 5. Under 'Module Settings' tab select the Module Name as 'Causageandbilling' and click 'Save Changes'.
- 6. Once it gets saved select the Server Group created earlier.

		7 Pendi	ng Orders 14 Ov	verdue Invoices	0 Ticket(s) Awaitin	g Reply			
	Clients Orde	rs Billing	Support	Reports	Utilities	Addons	Setup	Help	
on	roducts/Services								
gs	roduces/services								¥
ettings									
ect E	dit Product								
es es	Details Pricing Modu	le Settings Cu	tom Fields	Configurable	Options Upgr	ades F	ree Domain	Other Li	inks
_									
on	Module Name	Causageandbillin	g	•					
gement	Server Group	WAP CloudAsser		-					
Users Roles									
thentication	CA Billing Convice Jourse	I If West then	aast name is u	cod whon co	lling the CA UR	2	CA Billing Cond	~	
	Host Name	Billing Servio	e. If 'No', then I	IP Address is	used.	D	API Port Num	ber 3004	Port number to use when calling the CA U&B Billing Service.
1015	CA Billing Service - 🔲 If 'No', then certificate errors are ignored when calling the 🛛 Is update Next Due 🥑 If 'Yes', then Next Due Date is updated to a configured date when								'Yes', then Next Due Date is updated to a configured date when a user
adys	Validate SSL Certificate	CA U&B Billir	ig Service.				Date on Cre	ate up	p for this product, or when the Admin clicks Create
ervices	Automatically setup the setup of the setu	ne product as soo	n as an order i	is placed					
ces options	Automatically setup the setup of the setu	ne product as soo	n as the first p	ayment is re	ceived				
<u>15</u>	 Automatically setup the 	ne product when	you manually a	accept a pen	ding order				
	 Do not automatically 	setup this produc	t						
rars									
					Sav	e Change	Cancel Cha	anges	
tments									
2									
2									
rialda.									

- Check 'CA Billing Service Is use Host Name' if the server created uses host name to connect, if it uses IP Address to connect, the check box can be left blank.
- 8. Check 'Automatically setup the product as soon as an order is placed' radio button.
- 9. Click 'Custom Fields' tab.
- 10. Specify the Field Name as 'SubscriptionID' and Field Type as 'Text box', click 'Save Changes'

Home Client Area My Notes	s My Account Logout	Wednesday, 17 August 2016, 08:17
WHM	7 Pending Orders 14 Overdue Invoices 0 Ticket(1) Awaiting Reply Clients Orders Billing Support Reports Utilities Addons Setup Help	4
Configuration General Settings Automation Settings Application Links OpenID Connect Email Templates	Products/Services Edit Product	@ Help
Addon Modules Client Groups Fraud Protection	Changes Saved Successfully! Your changes have been saved.	« Back to Product List
A Staff Management	Details Pricing Module Settings Custom Fields Configurable Options Upgrades Free Domain Other Links	
Administrator Users Administrator Roles	Add New Custom Field	
Two-Factor Authentication	Field Name SubscriptionId	Display Order 0
Currencies	Field Type Text Box	
Payment Gateways	Description The explanation to show users	
Promotions	Validation Regular Expression Validation String	
9 Products/Services	Select Options For Dropdowns Only - Comma Seperated List	
Products/Services Configurable Options	Admin Only 🗆 Required Field 💷 Show on Order Form 🗔 Show on Invoice	
Product Addons Product Bundles Domain Pricing Domain Registrars Servers	Save Changes Cancel Changes	
Support		
Support Departments Ticket Statuses Escalation Rules Spam Control		
🤌 Other		
Custom Client Fields		
Waiting for whmcs1.wapdemo.corp.clo	oudssetcom.	ise to abuse@wnmcs.com

11. Add another custom field. Specify the Field Name as 'Windows Azure Pack Plan', Field type as 'Drop Down' and specify an appropriate Windows Azure Pack Plan name in the Select Options field.

	_ ۲			7 Pendir	ng Orders 14 (Overdue Invoice:	s 0 Ticket(s) A	waiting Reply				
	د ا	Clients	Orders	Billing	Support	Reports	Utilities	Addons	Setup	н	lelp	
figuration	Produc	ts/Service	es									
l Settings												
tion Links	Edit Pro	duct										
<u>Connect</u> emplates	Edit Ho					- 0 - 11						
<u>Aodules</u>	Details	Pricing	Module Sel	tings Cust	om Fields	Configurable	Options	Upgrades	Free Domain	Other	r Links	
otection		Field Na	me Subso	riptionID								Display Order
Management		Field Ty	/pe Tex	t Box		•						
trator Users trator Roles		Descript	ion Subso	riptionID					The explanat	ion to sh	ow users	
tor Authentication		Validat	ion						Regular Expr	ession Va	alidation String	
ents		Select Ontic	one						For Drondow	ns Only	Comma Seperated List	
es t Gateways		Sciect Optin	and a dr	nin Only 🗌 R	oquired Field	Show on	Order Form	Show on		ns only -	- comma seperatea Eise	Delete
is ions			© Au	nin Only © K	equired Held		order Form	20 3110W 011	invoice			
icts/Services		Field Na	me Wind	ows Azure Pa	ck Plan							Display Order
s/Services rable Options		Field Ty	/pe Dro	p Down		•						
Addons		Descript	ion Wind	ows Azure Pa	ck Plan				The explanat	ion to sh	iow users	
Pricing		Validat	ion						Regular Expr	ession Va	alidation String	
Registrars		Select Optio	ons GoldF	lan					For Dropdow	ns Only -	- Comma Seperated List	
ort		Sciece open		nin Only 🕅 R	equired Field	Show on	Order Form	Show on		ins only	comma seperated list	Delete
Departments atuses												
on Rules	Add Nev	w Custom Fie	ld									
		Field Na	me									Display Order

- 12. For the SubscriptionID and Windows Azure Pack Plan custom fields, enable the appropriate checkboxes as shown in the above screenshot.
- 13. Click 'Save Changes'.

UPDATING AUTH KEY

- 1. Logon to the machine where WHMCS is installed.
- 2. Open 'configuration.php ' from WHMCS website folder (e.g., 'C:\inetpub\wwwroot\whmcs').

Configuration.php - Notepad	×	
File Edit Format View Help		
php</td <td></td> <td>~</td>		~
<pre>\$license = 'Dev-6bc6908bf3f323f052e1';</pre>		
<pre>\$db_host = 'localhost';</pre>		
<pre>\$db_port = '';</pre>		
<pre>\$db_username = 'whmcsuser';</pre>		
<pre>\$db_password = 'interface i';</pre>		
<pre>\$db_name = 'whmcsdb';</pre>		
<pre>\$cc_encryption_hash = 'rXQh77VC99F6R2NZkg5Uud7ZFknq8BmsesnR3IJVBiLZpDFxaluU2meCsF1mu3MK';</pre>		
<pre>\$templates_compiledir = 'templates_c';</pre>		
<pre>\$mysql_charset = 'utf8';</pre>		
<pre>\$autoauthkey = "ENTER PASSWORD HERE";</pre>		
		×
	>	Fat

- 3. Make a note of the password that is specified.
- 4. Save the Document.
- 5. Restart WHMCS web server.

CONFIGURING WHMCS IN USAGE AND BILLING SETTINGS

- 1. Logon to WAP Admin Portal, Click Usage and Billing from the left pane.
- 2. Click Settings \rightarrow WHMCS tab.
- 3. Check the following check boxes:
 - a. SYNCTOENABLED?
 - i. This enables publishing of invoices to WHMCS
 - b. SHOW BILLING PORTAL LINK TO TENANTS?
- 4. SYNCFROMENABLED? Check box field is obsolete. Leave it as it is.

usage and billing	1
PRICING PROFILE USAGE	USER CREDITS REPORTS STATUS NOTIFICATIONS OPERATIONS SETTINGS USER PROFILES LICENSE
DATABASE USAGE PROCESSOR	WAP ADMIN API API SECURITY PRODUCT FEATURES INVOICE EMAIL WHMCS PRICING CATALOG
SYNCFROMENABLED?	new WHMCS Orders will automatically trigger new subscription creation and user creation in Azure Pack
SYNCTOENABLED?	
SHOW BILLING PORTAL LINK TO TENANTS?	
URL	https://whmcs1.wapdemo.corp.cloudassert.com/includes/api.php like http://WHMCSServer/whmcs/includes/api.php, Make sure the Billing Agent machine IP is added to allowed IP Address in WHMCS Settings
USERNAME	whmcsadmin
PASSWORD	Enter password
NEXTDUEDAYONPRODUCTACTIVATION	20
AUTOAUTHKEY	Enter password
TENANTLOGINURL	https://whmcs1.wapdemo.corp.cloudassert.com/dologin.php
PRODUCTIDCSV	comma seperated product lds from WHMCS, only these product IDs will auto trigger subscription creation in Azure Pack. Like: 1,2,5,6

5. Specify the URL field as *https://WHMCSInstalledMachine/includes/api.php*.

- 6. Specify the WHMCS administrator username and password.
- 7. Change the Next Due Day On Product Activation (default is 20th). This denotes the invoice due date.
- 8. Enter the Auth Key specified in the 'configuration.php' file in the WHMCS installed machine (Refer *Updating Auth Key*).
- 9. Specify the Tenant Logon URL as https://WHMCSInstalledMachine/dologin.php.
- 10. Leave PRODUCTIDCSV field as empty (this field is obsolete).
- 11. Click 'SAVE' button.
- 12. Ensure WAP Admin API Settings are configured (refer *Step 2.3 Configuring WAP Admin API Endpoint Settings*).

SIGNING UP A NEW TENANT USER

- 1. Tenants can sign up as new users and place orders from WHMCS portal. If Tenant needs to be onboarded by an admin to WHMCS, then follow the instructions below.
- 2. Click Clients → Add New Clients. Specify the fields and click 'Save Changes' button.

List All Products/Services		First Name	Cloud		Address 1			
- VPS/Servers - Other Services		Last Name	Assert		Address 2			
Service Addons Domain Registrations Capcellation Reguests	vice Addons Company Name anin Registrations Company Name cellation Requests Email Address Email Address				City	/		
Affiliates			contact@cloudassert.com		State/Region	- *		
Manage Affiliates		Password	Enter to Change 🔒 Reset &	Send Password	Postcode			
Advanced Search	_	Security Question	None •		Country	United States 🔹		
Clients	·	Security Answer			Phone Number			
Client Name	·							
Searc	<u> </u>	Late Fees	Don't Apply Late Fees		Payment Method	Select to Change Defau 🔻		
Staff Online		Overdue Notices	Don't Send Overdue Emails		Billing Contact	Default 🔻		
		Tax Exempt	Don't Apply Tax to Invoices		Language	Default •		
Ainimise Sidebar		Separate Invoices	Separate Invoices for Services		Status	Active •		
		Disable CC Processing	Disable Automatic CC Processin;	g	Currency	USD 🔻		
		Marketing Emails Opt-out	Don't send client marketing ema	ails	Client Group	None 🔻		
		Status Update	Disable Automatic Status Update	e	Two-Factor Authentication	Enabled - Uncheck to disable		
		Allow Single Sign-On	 Tick to allow Single Sign-On 					
		Admin Notes						
				Save Changes Can	cel Changes			
Dev Licens	e: This in:	stallation of WHMCS is runni	ing under a Development Licen	se and is not authorized to be use	d for production use. Please	report any cases of abuse to	abuse@whmcs.com	

3. Click Product / Services tab.

🝰 Clients	Client Profile
View/Search Clients Add New Client	Ravi C K 👻
9 Products/Services	Summary Profile Contacts Products/Services Domains Billable Items Invoices Quotes Transactions Emails Notes (0) Log
List All Products/Services - Shared Hosting	Products: VMware Plan 🔹 Upgrade/Downgrade Move Product/Service
- Reseller Accounts - VPS/Servers	
- Other Services	Order # 3 - View Order Registration Date 2016/03/09
Domain Registrations	Product/Service VMware Plan • First Payment Amount 0.01
Cancellation Requests	Server WAP CloudAssert (8/200 Acc 🔻 Recurring Amount 0.01 🔂 Auto Recalculate on Save
Manage Affiliates	Domain www.whois intoDNS Next Due Date 2016/04/20
🔍 Advanced Search	Dedicated IP Termination Date
Clients	Username Billing Cycle Monthly •
Client Name 🔻	Password 7nZ96Q4lba Payment Method PayPal * View Invoices
Search	Status Active • (Suspend Reason: Overdue on Payment) Promotion Code None • (Change will not affect price)
Staff Online	VCPU 4 vCPU \$70.00 USD *
WITTESBUTTIT	Edition
- Minimise Sidebar	
	Module Commanus Create Suspend Orsuspend remminate Associate Account
	Reg Date Name Pricing Status Next Due Date
	Addons No Records Found
	Add New Addon
	SubscriptionID 51b8deee-02b7-454d-b44d-19d0fbb02b54
	Windows Azure Pack Plan GoldPlan
Development	

- 4. Select the Product/Service field and the server from the respective list boxes.
- 5. Specify the next Due Date, Billing Cycle and Payment method.
- 6. Specify the SubscriptionID of the tenant.
- 7. Select the Windows Azure Pack Plan and click 'Save Changes' button.

Note: The WHMCS gateway integration is a licensed feature and will not be available in the trial versions of the Usage and Billing solution

CREATING A SUBSCRIPTION WITH USAGE AND BILLING

1. Logon to WAP tenant portal, click on Usage and Billing on the Left.



2. Click 'Click here to setup your Basic Profile' under 'Setup Basic Profile'

user profile Please enter your Billing d	etails			×
FIRST NAME	demo	POSTAL CODE	98052	
LAST NAME	user	COUNTRY	United States 🔻	
COMPANY	Cloud Assert Technologies	STATE	Washington •	
ADDRESS LINE1	8201 164th Ave NE	PHONE NUMBER	8005695610	
ADDRESS LINE2	Suite 200,	EMAIL ADDRESS	demoUser@ca.com	
СІТҮ	Redmond			
				\checkmark

3. Fill the particulars and press next. The following screen appears.

Service Management Portal	→ demoUser@ca.com
ALL ITEMS	usage and billing
\$ USAGE AND BILLING	A MARKETPLACE OVERVIEW USAGE HISTORY INVOICES
MY ACCOUNT	 User Profile Your Sign Up Request is sent and awaiting approval. It may take upto 1 to 2 business days for the request to get processed. Please contact admin for further assistance. Setup Basic Profile Click here to setup your Basic Profile Update Basic Profile Click here to update your Basic Profile Click here to update your Basic Profile
✓ Successfully saved User Profil	e ok 🔗
- New	1 🔤 🕐

- 4. Logon to WAP Admin portal, click on Usage and Billing on the Left.
- 5. Click on the 'USER PROFILES' Tab and 'USER REQUEST' sub-tab.
- 6. Select the user request and click the 'APPROVE' button.

Service Management Portal	$ $ \vee							THANGAS-V	M\Administrator	
	usage ar	nd billing								
	42 PRICING PR							S USER PROFIL		
	USER REQUESTS									
			BILLING FIRST	BILLING LAST N	BILLING COMP	BILLING EMAIL	PAYMENT TYPE	SIGNUP DATE	USER STA 🔎	
				User	CloudAssert		Offline	2016-08-03 07:47	Approved	
USAGE AND BILLING										
Are you sure you want to Approv	e the request of user 'd	lemo'?						YES (✓ N0 (X	\mathbf{O}
		v	İ IEW DETAILS AP	PROVE REJEC	T DELETE				?	

7. Go back to the tenant portal and click 'MARKETPLACE' tab.

Service Management Portal	 ↓			demoUser@ca.com
ALL ITEMS	usage and billing			
USAGE AND BILLING MY ACCOUNT	MARKETPLACE OVERVIEW	USAGE HISTORY INVOICES		
	PAYG_Pricing Adv \$1000 DETAIL S PAYG Standard Plan	FIXED_Standard VMs \$ 1000 DETAILS FIXED Standard Plan	FIXED_Standard VMs \$ 1000 DETAILS VMCloud Plan	
	Pay-As-You-Go Plan Tax Rate: 0%	Fixed Payment Plan One-Time Credits: \$ 500.00 Promo Period: 30 days Tax Rate: 10%	Fixed Payment Plan One-Time Credits: \$ 500.00 Promo Period: 30 days Tax Rate: 10%	
NEW		LI L		0

8. From the listed plans/add-ons select any and click the 'ADD SUBSCRIPTION' button.



- 9. Check the check-box that appears in the 'Terms of Service' dialog box to agree to the terms of conditions.
- 10. Click next to complete the subscription process.
PURCHASING MULTIPLE INSTANCES OF AN ADDON

Usage and Billing solution allows the tenants to purchase multiple instance of an add-on with a single

click.

NOTE: This feature is available for versions higher than v1.9.0.2.

- 1. Logon to WAP tenant portal, click on Usage and Billing on the Left.
- 2. Click 'MARKETPLACE' tab.
- 3. Click 'ADD-ONS' sub tab.

	SQL SERVER DATABASES	MARKETPLACE OVERVIEW	USAGE HISTORY INVOICES	S NOTIFICATIONS		
\$	USAGE AND BILLING	PLANS ADD-ONS				
	MY ACCOUNT	SELECT SUBSCRIPTION MO	CTPlan	۲		
		ADD-ON NAME	LINKED PLAN NAME			Q
		BillTestAddOn	MCTPlan			
-	NEW		VIEW PLAN DETAIL	s ADD ADD-ON	14	2

- 4. Select a desired subscription and add-on and click 'ADD ADD-ON' button.
- 5. Tick the check box under Terms of Service dialog box and click the complete button.

	×
ADD ADD-ON 'VMADDON' TO SUBSCRIPTION 'MMFTESTPLAN(025CAA52-41E6-48CE-A37D- SED55CDEE69E)'	
Terms of Service	
I HAVE READ AND I AGREE TO THE TERMS OF SERVICE.	
	\checkmark

6. Specify the number of instances to purchase and click the complete button present in the dialog box.

		×
Purchase Add-On 'VMA	ddOn'	
AVAILABLE PURCHASE LIMIT - 9		
NUMBER OF INSTANCES TO PURCHASE:	3	
	Estimated Total Monthly Cost: \$30.00	
		0

NOTE: The default purchase limit for an add-on at a single purchase is '5'. To increase this limit changes to '*MaximumPurchaseLimitForAddOnAtAnInstance*' in App Setting table has to be done. Refer *App Settings Table*.

MANAGING CSP INTEGRATION

Usage and Billing solution has integrated with Microsoft Cloud Service Provider to self-service licenses from with Windows Azure Pack tenant portal.

Note: This is a licensed feature and will not be available by default along with the Usage and Billing solutions. In order for the CSP integration to work properly, the machine where the Usage and Billing API service installed must have a constant internet connection

Configuring CSP Admin Settings

- 1. Logon to WAP Admin portal, click on Usage and Billing on the Left.
- 2. Click on the 'Settings' tab and then click 'CSP' sub tab.

DASHBOARD PRICING PL	ROFILE USAGE	USER CRED	ITS STATUS	NOTIFICATIONS	OPERATIONS	SETTIN	3S USEF	R PROFILES	LICE
DATABASE USAGE PROCESSOR PRICING CATALOG FTP SERVER	SPF WAP AD	MIN API A	API SECURITY	PRODUCT FEATURE	S INVOICE	EMAIL	WHMCS	CSP	
PARTNER SERVICE API ENDPOINT	https://api.partn	ercenter.mic	rosoft.com						
	like https://api.part	nercenter.mic	rosoft.com						
AUTHENTICATION TYPE	USER V								
AUTHENTICATION AUTHORITY ENDPOINT	https://login.win	dows.net							
AUTHENTICATION APPLICATION ID									
DOMAIN	common								
USER NAME	admin@cspsand	box10.onmi	crosoft.com						
PASSWORD	Enter password								
ESOURCE URL	https://api.partne like https://api.partn	rcenter.micn ercenter.micr	osoft.com osoft.com						
EDIRECT URL	http://localhost like http://localhost								
MARKET	US Provide the same M	arket used to	create CSP acc	ount (like 'US')					
ANGUAGE	En like 'En'								
ULTURE	en-US like 'en-US'								

- 3. Enter the Endpoint URL of Partner service API.
 - For example, 'https://api.partnercenter.microsoft.com'
- 4. Select the authentication type 'USER'.
- Enter the Endpoint URL of Authentication authority.
 For example, 'https://login.windows.net'
- 6. Specify the Authentication Application Id and domain name.
- 7. Specify the username and password of the Microsoft partner center account.
- 8. Enter the Resource and Redirect URL.
- 9. Specify the Market which was used while signing up in the Microsoft partner center portal.
- 10. Enter the Language and Culture.

Enabling CSP feature

- 20. Logon to WAP Admin portal and click on Plans on the left.
- 21. Drill down in to a Plan and then CloudAssert Billing service.
- 22. Click 'Yes' button for 'EnableCspForTenants?'.
- 23. Click Save.

Service	Management Portal	↓
		cloudassert billing
	SQL Servers CloudAssert Billing	plan and addon pricing details
		PRICING PROFILE CSP_PP V
**		
		product features
°~~ \$		EnableCspForTenants? YES NO
2		

Walkthrough of CSP in the Tenant Portal:

Purchase a subscription from the Plan with CSP feature enabled (Refer *CREATING A SUBSCRIPTION WITH USAGE AND BILLING*). Now the CSP tab will appear in the Usage and Billing tenant portal.

CREATING CUSTOMER PROFILE

- 1. Logon to the tenant portal, click on Usage and Billing on the left.
- 2. Click on the 'CSP' tab and then click 'Profile' sub tab.

CREATE CSP CUSTOMER PROFILE					×
FIRST NAME *	Cloud]	COMPANY NAME *	CloudAssert]
LAST NAME *	Assert]	ADDRESS LINE 1 *	164th Ave NE]
CULTURE *	en-US]	ADDRESS LINE 2]
LANGUAGE *	En]	СПТҮ *	Redmond]
DOMAIN NAME *	CloudAssert001]	STATE *	WA]
EMAIL ADDRESS *	info@cloudassert.com]	COUNTRY *	US	
PHONE NUMBER *	4258805999]	POSTAL CODE *	98052]
					\checkmark

- 3. Click 'Create' button.
- 4. Fill the particulars.
- 5. Click Finish to create a customer profile.

PLACING AN ORDER

- 1. Logon to the tenant portal, click on Usage and Billing on the left.
- 2. Click on the 'CSP' tab and then click 'Offers' sub tab.

Servi	ice Management Portal	 ▼	Subscriptions 🍸 🌐 csp@test4.com 💄
		usage and billing	
	SQL SERVER DATABASES	CSP MARKETPLACE OVERVIEW USAGE HISTORY INVOICES NOTIFICATIONS	
\$	USAGE AND BILLING	PROFILE OFFERS SUBSCRIPTIONS	
2	MY ACCOUNT	Microsoft Offers	
		 Azure Active Directory Basic - 84A03D81-6B37-4D66-8D4A-FAEA24541538 Enterprise, License A robust set of capabilities to empower organizations with more demanding needs on identity and access management. LearnMore 	3 Licenses
		 Azure Active Directory Basic (Government Pricing) - 0A7983CD- 961F-4C7C-9CBF-1F6BB322CBF3 Government, License A robust set of capabilities to empower organizations with more demanding needs on identity and access 	4 Licenses
+	■ NEW	SUBMIT CHIDER	0

- 3. Select a customer.
- 4. Select the offers and specify the license quantity.
- 5. Click 'Submit Order' button to buy the selected offers.

PURCHASING ADD-ONS

- 1. Logon to the tenant portal, click on Usage and Billing on the left.
- 2. Click on the 'CSP' tab and then click 'Subscriptions' sub tab.

Service Management Portal	 ▼	Subscriptions 🍸 🌐 csp@test4.com 💄
ALL ITEMS	usage and billing	
SQL SERVER DATABASES	SP MARKETPLACE OVERVIEW USAGE HISTORY INVOICES NOTIFICATIONS	
USAGE AND BILLING	PROFILE OFFERS SUBSCRIPTIONS	
	Subscriptions	
	SFIFCT CUSTOMFR CSP-Ra376046-5627-4493-88c5-h14363b84515 7	
	ID SUBSCRIPTION STATUS QUA	ANTITY BILLING TYPE
	8EC642D8-349C-492E-80FC Azure Active Directory Basic (Government Active 4	License
	A663B891-44FC-440F-B203-B13E Azure Active Directory Basic Active 3	License
	i Jupate Suscention	0

3. Drill down into a subscription.

Service	e Management Portal					Su	ubscriptions 🍸	Csp@test4.co	m 🚨
Service Management Portal Subscriptions C C C C C C C Aure Active Direct. Aure Active Direct. Aure Active Direct. Aure Active Direct. Dynamics 365 Enter. Dynamics 365 Enter. D ADDON UNIT TYPE QUANTITY AddOns No< AddOns Available Available Available AddOns Interview (State AddItional Dichases State, Cigatytes 10 ADDON UNIT TYPE QUANTITY AddOns Interview (State AddItional Dichases State, Cigatytes Interview (State AddItional Dichases State, Cigatytes Interview (State AddItional Portal AddItional Portal Add-On Licenses F54227F0-TIE6-4569-92A9-4262200151FD8 Dynamics 365 Enterprise Edition - Additional Portal Add-On Licenses F54227F0-TIE6-4569-92A9-4262200151FD8 Dynamics 365 Enterprise Edition - Additional Portal Add-On Licenses F54227F0-TIE6-4569-92A9-4262200151FD8 Dynamics 365 Enterprise Edition - Additional Portal Add-On Licenses F54227F0-TIE6-4569-92A9-426220051FD8 Dynamics 365 Enterprise Edition - Additional Portal Add-On Licenses F54227F0-TIE6-4569-92A9-426220051FD8 Dynamics 365 Enterprise Edition - Additional Portal Add-On Licenses F54227F0-TIE6-4569-92A9-426220051FD8 Dynamics 365 Enterprise Edition									
*	Azure Active Direct	Purchased AddOns							
`	Azure Active Direct								
	Dynamics 365 Enter	ID	ADDON		UNIT TYPE		QUANTITY		<u>م</u>
		No AddOns Available							
		Available AddOns							
									_
		ID		ADDON		UNIT TYPE			p
		7F975734-3E60-4A1A-9200-084BEFA083E6		Dynamics 365 Enterprise Edi	tion - Additional Database Sto.	Gigabytes			
		F5A22FF0-71E6-4569-92A9-826290151FD8		Dynamics 365 Enterprise Edit	tion - Additional Non-Product.	. Instances			
		E7AFC5A3-049A-4A0E-B2B0-C8921D1D9B9	7	Dynamics 365 Enterprise Edi	tion - Additional Portal	Add-On Licer	nses		
		F9E4C71E-BDE1-440A-B010-D1EC89A74DA	E	Dynamics 365 Enterprise Edi	tion - Additional Portal Page V.	. Add-On Licer	nses		
		D99C49C8-C9EB-4651-B8B8-5EC217B8CCD	8	Dynamics 365 Enterprise Edit	tion - Additional Production In.	. Instances			
		58718CC7-2477-4016-90A4-F3D7C2747DE	5	Dynamics 365 Enterprise Edit	tion Plan 2 - Operations Sand	Licenses			
		F1B1BF48-DB29-46C9-836D-9C1E916CB58	3	Dynamics 365 Enterprise Edit	tion Plan 2 - Operations Sand	Licenses			
		2C0D88AA-F73C-409A-B90F-AF2CB5C8E4C	D	Dynamics 365 Enterprise Edi	tion Plan 2 - Operations Sand	Licenses			
		DD69EF92-314E-445B-A131-F33BD85B036	4	Dynamics 365 Enterprise Edi	tion Plan 2 - Operations Sand	Licenses			
		ECA123E6-23DC-4649-94BF-826C4DDA220	8	Dynamics 365 Enterprise Edi	tion Plan 2 - Operations Sand	Licenses			
+	NEW								?

4. Select an Add-on and click 'View Details' button.

		;
Add-On - Dynamio Additional Databas	cs 365 Enterprise Edition - se Storage (Government Pricing))
Description		
1 GB of additional struc shared storage capacity engagement application	tured database storage to expand the of a Dynamics 365 customer ns tenant.	
RANK:	27	
ID:	7F975734-3E60-4A1A-9200- 084BEFA083E6	
COUNTRY:	US	
IS AUTORENEWABLE:	true	
QUANTITY:	2 Gigabytes	
	(

- 5. Enter the License quantity
- 6. Click Finish to purchase the selected add-on.

CREATING USER ACCOUNT

- 1. Logon to the tenant portal, click on Usage and Billing on the left.
- 2. Click on the 'CSP' tab and then click 'Profile' sub tab.
- 3. Drill down inside a customer profile.

Servio	e Management Portal					Subscriptions 🍸 🌐	csp@test4.com
		csp - 8a376046	-5627-4a93-88	3c5-b14363b845	515		
¢	CSP - 8a376046-56	Users					
- - P		ID	DISPLAY NAME	USER PRINCIPAL NAME	FIRST NAME	LAST NAME	Q
		71ad83c8-bd81-4713-bfb9 →	CA	admin@Indhu566.onmicrosoft.co	. CSP	mathi	
		9fa7cf59-f38f-419d-926c-c199ca.	User1	User1@Indhu566.onmicrosoft.com	Cloud	assert	
+	NEW		ADD L	JSER			?

4. Click 'Add' button.

CREATE NEW USER	
DISPLAY NAME	User1
FIRST NAME	Cloud
LAST NAME	Assert
EMAIL ALIAS	User1
PASSWORD	

- 5. Specify the User details.
- 6. Click Finish to create a user.

ASSIGNING LICENSES TO USERS

- 1. Logon to the tenant portal, click on Usage and Billing on the left.
- 2. Click on the 'CSP' tab and then click 'Profile' sub tab.
- 3. Select a Customer profile and drill down to a user.

Servio	e Management Portal	V		Subscriptions 🍸	۲	csp@test1.com	
		user31					
¢	CA	User License Details					_
цр П	User31	ID	NAME			م	
	036134	1b1b1f7a-8355-43b6-829f-336cfccb744c	Office 365 Advanced Compliance				
		1fc08a02-8b3d-43b9-831e-f76859e04e1a	SharePoint Online (Plan 1)				
+	NEW					?	

4. Click 'Assign Licenses' button.



5. Select the desired license.

Click Finish to assign the selected license(s) to the user.

REVOKING LICENSES OF USERS

- 1. Repeat steps 1 to 3 from Assigning Licenses to UserS.
- 2. Click 'Remove Licenses' button.



- 3. Select the licenses as desired.
- 4. Click Finish to remove the assigned licenses of the User.

USING CSP LICENSE UPDATER TOOL TO UPDATE PRICING PROFILE WITH CSP LICENSE AND ADD-ONS COST

Every month the costs for each and every license and add-on differs. The CSP LicenseUpdaterTool updates the license and add-ons cost in the pricing profiles.

Download the tool from <u>here</u>.

DOWNLOADING CURRENT MONTH PRICE LIST

- 1. Login to the Microsoft partner portal <u>https://partnercenter.microsoft.com</u>.
- 2. Click 'Pricing and Offers' from the left pane.

Microsoft Partner	Center Programs ~ How-to ~ Support Find a Pa	artner Dashboard 🗐
Dashboard	Pricing and offers	_
Overview	Pricing	*
Customers		
Service requests \checkmark	License-based services	Usage-based services
Service health	See pricing information for Office 365, Enterprise Mobility Suite, and Microsoft Dynamics CRM.	See pricing information for Microsoft Azure. You can also use the Azure Services in CSP Pricing Calculator.
Product analytics	June 2017 Preview	May 2017 Current
Azure spending	May 2017 Current	April 2017
Activity log	indy corr carent	April 2017
Billing	April 2017	March 2017
Pricing and offers	March 2017	February 2017
Referrals \checkmark	February 2017	January 2017
	January 2017	
Account settings	December 2016	
Notification center		

3. Under License based services, click the current month to download the price list.

PREPPING THE LICENSE LIST

- 1. Open the price list that is available as an .xlsx file.
- 2. Click on the worksheet that has the appropriate currency code (eg. USD).

1 Doc cui	rrency USD	1								
2 3 MC/D/	U _1 Valid From Date	Valid To Date	Offer Dicplay Name	Offer ID	License Agreel	Purchase Unit	Secondary Lic ~	End Customer Tun -	List Drice ~	FRD Drice
4 ADD	2017	0501 9999123	Dyn365 for Operations Activity, Enterprise Edition	6130626e-bee0-4e76-8abb-e919	Corporate	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER CO.	35.00	43.80
5			Dyn365 for Operations Activity, Enterprise Edition (45a5c94f-8f85-404f-a4ab-d5769	1 Government	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER GO	29.75	37.20
6			Dyn365 for Operations Activity, Enterprise Edition t	1ec83327-72dd-481c-acc4-87ab	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER FAI	19.25	24 10
7			Dyn365 for Operations Activity, Enterprise Edition 1	eca4378b-b97e-4f23-ae73-ef01a	a Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER STU	14.00	17.50
8			Office 365 Threat Intelligence	efe1183a-8fa0-4138-bf0a-5ae27	Government	1 Month(s)	ADDON	CLOUD RESELLER GO	6.40	8.00
9			Office 365 Threat Intelligence (Government Pricing	7e614c9d-1738-4bf8-a963-b724c	Government	1 Month(s)	ADDON	CLOUD RESELLER GO	5.60	7.00
10			Office 365 Threat Intelligence for faculty	f8aa0b4e-0799-4149-8dbc-b610	5 Academic	1 Month(s)	ADDON	CLOUD RESELLER FAR	2.40	3.00
11			Office 365 Threat Intelligence for students	5fd2b092-f47a-44c2-a79f-b3208	Academic	1 Month(s)	ADDON	CLOUD RESELLER STU	1.80	2.30
12			Skype for Business Plus CAL for faculty	8637b090-a710-44e8-96ec-230e	0 Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER FAR	1.20	1.50
13			Skype for Business Plus CAL for students	17853361-4de9-487f-b897-ac65b	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER STU	0.40	0.50
14 UNC	2017	9999123	Azure Active Directory Basic	84a03d81-6b37-4d66-8d4a-faea	Corporate	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER CO	0.80	1.00
15			Azure Active Directory Basic (Government Pricing)	0a7983cd-961f-4c7c-9cbf-1f6bb3	Government	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER GO	0.70	0.90
16			Azure Active Directory Basic for Faculty	7da6cd50-24d3-477f-8848-3fad6	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER FAR	0.00	0.00
17			Azure Active Directory Basic for Students	afb11d0e-f236-4915-a38a-53153	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER STU	0.00	0.00
18			Azure Active Directory Premium P1	16c9f982-a827-4003-a88e-e75df	1 Corporate	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER CO	4.80	6.00
19			Azure Active Directory Premium P1 (Government P	ceca6875-f3ba-4f9a-916f-9cc9e3	Government	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER GO	4.08	5.10
20			Azure Active Directory Premium P1 for Faculty	3e3e9ccc-cdd4-4c7d-8644-33643	1 Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER FAR	0.50	0.60
21			Azure Active Directory Premium P1 for Students	2084c385-65b3-4fac-867b-e9a2e	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER STU	0.20	0.30
22			Azure Active Directory Premium P2	e59159fc-6f67-4599-b3cb-17ff40	2 Corporate	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER CO	7.20	9.00
23			Azure Active Directory Premium P2 for Faculty	da22b4b5-e211-4e95-905d-fc24	fl Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER FAR	0.75	0.90
24			Azure Active Directory Premium P2 for Students	190adaa1-f3fc-40d3-94f3-1474e	f Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER STU	1.00	1.30
25			Azure Information Protection Plan 1	648bf77b-1f0a-4911-8066-caf370	d Corporate	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER CO	1.60	2.00
26			Azure Information Protection Plan 1 (Government P	e60e0348-1710-484b-992a-32b2	9 Government	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER GO	1.41	1.80
27			Azure Information Protection Premium P1 for Facul	dbf3d646-ff57-461f-910c-f2a922	8 Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER FAR	0.50	0.60
28			Azure Information Protection Premium P1 for Stude	d4a16afd-1d3f-4761-82cb-408a6	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER STU	0.50	0.60
29			Azure Information Protection Premium P2	0962a210-418f-4d36-ba9c-4f01c	6 Corporate	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER CO	4.00	5.00
30			Azure Information Protection Premium P2 for Facul	d10fa413-a055-4196-b18f-a0149	(Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER FAI	0.88	1.10
31			Azure Information Protection Premium P2 for Stude	edf471ca-1ff8-4378-a057-276ef3	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER STU	0.66	0.80
32			Azure Rights Management for faculty	5ebcbff5-6ecd-41e1-a681-0a991	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER FAC	0.00	0.00
33			Azure Rights Management for students	8942c63e-ae18-4ab5-b9c7-d080	c Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER STU	0.00	0.00
34			Cloud App Security for Government	855b3ebe-2483-4696-aef9-7565	2 Government	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER GO	3.50	4.38
4 k		D CAD CHF	DKK EUR GBP INR JPY	KRW NOK NZD R	UB SEK	TWD 🕘				1

3. Select the list from row 3 till the end of the price list.

3	A/C/D/U	-1 Valid-Fr - 1	Valid To [-	Offer Display Name	→ [†] Offer ID	- License Agreeme	Purchase Unit	Secondary Licen	End Customer Type ~	List Price 👻	ERP Price -
4	ADD	20170501	99991231	Dyn365 for Operations Activity, Enterprise Edition	6130626e-bee0-4e76-8abb-e919b0ec9483	Corporate	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER COF	35.00	43.80
5				Dyn365 for Operations Activity, Enterprise Edition	Gor 45a5c94f-8f85-404f-a4ab-d57691b70d67	Government	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER GO	29.75	37.20
6				Dyn365 for Operations Activity, Enterprise Edition	for 1ec83327-72dd-481c-acc4-87ab518d5a00	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER FAC	19.25	24.10
7				Dyn365 for Operations Activity, Enterprise Edition	for { eca4378b-b97e-4f23-ae73-ef01a63293ed	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER STL	14.00	17.50
8				Office 365 Threat Intelligence	efe1183a-8fa0-4138-bf0a-5ae271ab6e3c	Government	1 Month(s)	ADDON	CLOUD RESELLER GO	6.40	8.00
9				Office 365 Threat Intelligence (Government Pricing) 7e614c9d-1738-4bf8-a963-b724cd4b1baa	Government	1 Month(s)	ADDON	CLOUD RESELLER GO	5.60	7.00
10				Office 365 Threat Intelligence for faculty	f8aa0b4e-0799-4149-8dbc-b6105b5b4209	Academic	1 Month(s)	ADDON	CLOUD RESELLER FAC	2.40	3.00
11				Office 365 Threat Intelligence for students	5fd2b092-f47a-44c2-a79f-b3208bba335b	Academic	1 Month(s)	ADDON	CLOUD RESELLER STL	1.80	2.30
12				Skype for Business Plus CAL for faculty	8637b090-a710-44e8-96ec-230e0c7f1e19	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER FAC	1.20	1.50
13				Skype for Business Plus CAL for students	17853361-4de9-487f-b897-ac65b9e508a3	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER STL	0.40	0.50
14	UNC	20170501	99991231	Azure Active Directory Basic	84a03d81-6b37-4d66-8d4a-faea24541538	Corporate	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER COF	0.80	1.00
15				Azure Active Directory Basic (Government Pricing)	0a7983cd-961f-4c7c-9cbf-1f6bb322cbf3	Government	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER GO	0.70	0.90
16				Azure Active Directory Basic for Faculty	7da6cd50-24d3-477f-8848-3fad610535f9	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER FAC	0.00	0.00
17				Azure Active Directory Basic for Students	afb11d0e-f236-4915-a38a-53153e27c9ff	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER STL	0.00	0.00
18				Azure Active Directory Premium P1	16c9f982-a827-4003-a88e-e75df1927f27	Corporate	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER COF	4.80	6.00
19				Azure Active Directory Premium P1 (Government F	riciı ceca6875-f3ba-4f9a-916f-9cc9e322d4aa	Government	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER GO'	4.08	5.10
20				Azure Active Directory Premium P1 for Faculty	3e3e9ccc-cdd4-4c7d-8644-336431f50e2b	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER FAC	0.50	0.60
21				Azure Active Directory Premium P1 for Students	2084c385-65b3-4fac-867b-e9a2e1dde635	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER STL	0.20	0.30
22				Azure Active Directory Premium P2	e59159fc-6f67-4599-b3cb-17ff4020f643	Corporate	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER COF	7.20	9.00
23				Azure Active Directory Premium P2 for Faculty	da22b4b5-e211-4e95-905d-fc24ff5a90a9	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER FAC	0.75	0.90
24				Azure Active Directory Premium P2 for Students	190adaa1-f3fc-40d3-94f3-1474ef1629d0	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER STL	1.00	1.30
25				Azure Information Protection Plan 1	648bf77b-1f0a-4911-8066-caf37d67dc72	Corporate	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER COF	1.60	2.00
26				Azure Information Protection Plan 1 (Government F	rici e60e0348-1710-484b-992a-32b294d4cde1	Government	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER GO	1.41	1.80
27				Azure Information Protection Premium P1 for Facul	ty dbf3d646-ff57-461f-910c-f2a922820475	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER FAC	0.50	0.60
28				Azure Information Protection Premium P1 for Stude	nts d4a16afd-1d3f-4761-82cb-408a6dbc0f1f	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER STL	0.50	0.60
29				Azure Information Protection Premium P2	0962a210-418f-4d36-ba9c-4f01c673f57c	Corporate	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER COF	4.00	5.00
30				Azure Information Protection Premium P2 for Facul	ty d10fa413-a055-4196-b18f-a014908c7208	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER FAC	0.88	1.10
31				Azure Information Protection Premium P2 for Stude	nts edf471ca-1ff8-4378-a057-276ef3b430ba	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER STL	0.66	0.80
32				Azure Rights Management for faculty	5ebcbff5-6ecd-41e1-a681-0a991dd864ae	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER FAC	0.00	0.00
33				Azure Rights Management for students	8942c63e-ae18-4ab5-b9c7-d080d4aa7524	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER STL	0.00	0.00
34				Cloud App Security for Government	855b3ebe-2483-4696-aef9-75652133a387	Government	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER GO	3.50	4.38
	<	USD	AUD	AD CHF DKK EUR GBP IN	R JPY KRW NOK NZD R	UB SEK TW	/D 🔶 🕀				4

- 4. Copy it, open a new MS-Excel work book and paste it.
- 5. Right click on the sheet name, select rename and specify the currency code (eg. USD).

1	А	В	С	D	E	F	G	Н	1	J	K
1	A/C/D/U	Valid-From	Valid To Da	Offer Display Name	Offer ID	License Agreemer	Purchase Uni	Secondary Lice	End Custome	List Price	ERP Price
2	ADD	20170501	99991231	Dyn365 for Operations Activity, Enterpris	6130626e-bee0-4e76-8ab	Corporate	1 Month(s)	NON-SPECIFIC	CLOUD RESEL	35.00	43.80
3				Dyn365 for Operations Activity, Enterpris	45a5c94f-8f85-404f-a4ab-	Government	1 Month(s)	NON-SPECIFIC	CLOUD RESEL	29.75	37.20
4				Dyn365 for Operations Activity, Enterpris	1ec83327-72dd-481c-acc4	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESEL	19.25	24.10
5				Dyn365 for Operations Activity, Enterpris	eca4378b-b97e-4f23-ae73	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESEL	14.00	17.50
6				Office 365 Threat Intelligence	efe1183a-8fa0-4138-bf0a-	Government	1 Month(s)	ADDON	CLOUD RESEL	6.40	8.00
7				Office 365 Threat Intelligence (Governme	7e614c9d-1738-4bf8-a963	Government	1 Month(s)	ADDON	CLOUD RESEL	5.60	7.00
8				Office 365 Threat Intelligence for faculty	f8aa0b4e-0799-4149-8dbc	Academic	1 Month(s)	ADDON	CLOUD RESEL	2.40	3.00
9				Office 365 Threat Intelligence for student	5fd2b092-f47a-44c2-a79f-	Academic	1 Month(s)	ADDON	CLOUD RESEL	1.80	2.30
10				Skype for Business Plus CAL for faculty	8637b090-a710-44e8-96ec	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESEL	1.20	1.50
11				Skype for Business Plus CAL for students	17853361-4de9-487f-b897	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESEL	0.40	0.50
12	UNC	201705(Insert	tive Directory Basic	84a03d81-6b37-4d66-8d4a	Corporate	1 Month(s)	NON-SPECIFIC	CLOUD RESEL	0.80	1.00
13		1	Delete	tive Directory Basic (Governmen	0a7983cd-961f-4c7c-9cbf-	Government	1 Month(s)	NON-SPECIFIC	CLOUD RESEL	0.70	0.90
14				tive Directory Basic for Faculty	7da6cd50-24d3-477f-8848	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESEL	0.00	0.00
15			Kename	tive Directory Basic for Students	afb11d0e-f236-4915-a38a-	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESEL	0.00	0.00
16			Move or C	^{copy} tive Directory Premium P1	16c9f982-a827-4003-a88e-	Corporate	1 Month(s)	NON-SPECIFIC	CLOUD RESEL	4.80	6.00
17			View Code	tive Directory Premium P1 (Gove	ceca6875-f3ba-4f9a-916f-	Government	1 Month(s)	NON-SPECIFIC	CLOUD RESEL	4.08	5.10
18		[Protect Sh	eet tive Directory Premium P1 for Fa	3e3e9ccc-cdd4-4c7d-8644	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESEL	0.50	0.60
19			Tab Color	tive Directory Premium P1 for St	2084c385-65b3-4fac-867b-	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESEL	0.20	0.30
20			100 00101	tive Directory Premium P2	e59159fc-6f67-4599-b3cb-	Corporate	1 Month(s)	NON-SPECIFIC	CLOUD RESEL	7.20	9.00
21			Hide	tive Directory Premium P2 for Fa	da22b4b5-e211-4e95-9050	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESEL	0.75	0.90
22			<u>U</u> nhide	tive Directory Premium P2 for St	190adaa1-f3fc-40d3-94f3-	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESEL	1.00	1.30
23			Select All S	Sheets formation Protection Plan 1	648hf77h-1f0a-4911-8066-	Corporate	1 Month(s)	NON-SPECIFIC	CLOUD RESEL	1.60	2.00
	8 E -	Sheet1	0				1				

6. Repeat steps 2 to 5 for any other desired currency code.

1	A/C/D/U	Valid-From C	Valid To Date	Offer Display N	Offer ID	License Agreement T	Purchase Unit	Secondary Licen	s End Customer Typ	List Price	ERP Price
2	ADD	20170501	99991231	Dyn365 for Op	e 6130626e-bee0-4	Corporate	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER C	275.49	344.40
3				Dyn365 for Op	e 45a5c94f-8f85-404	Government	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER G	234.17	292.70
4				Dyn365 for Op	e 1ec83327-72dd-4	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER F.	151.52	189.40
5				Dyn365 for Op	e eca4378b-b97e-4	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER S	110.20	137.80
6				Office 365 Thre	e efe1183a-8fa0-41	Government	1 Month(s)	ADDON	CLOUD RESELLER G	50.38	63.00
7				Office 365 Thre	e 7e614c9d-1738-4	Government	1 Month(s)	ADDON	CLOUD RESELLER G	44.08	55.10
8				Office 365 Thre	e f8aa0b4e-0799-41	Academic	1 Month(s)	ADDON	CLOUD RESELLER F.	18.89	23.60
9				Office 365 Thre	5fd2b092-f47a-44	Academic	1 Month(s)	ADDON	CLOUD RESELLER S	14.17	17.70
10				Skype for Busi	r 8637b090-a710-44	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER F.	9.44	11.80
11				Skype for Busi	n 17853361-4de9-4	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER S	3.15	3.90
12	UNC	20170501	99991231	Azure Active D	i 84a03d81-6b37-4	Corporate	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER C	6.29	7.90
13	1			Azure Active D	i 0a7983cd-961f-4c	Government	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER G	5.51	6.90
14				Azure Active D	i 7da6cd50-24d3-4	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER F.	0.00	0.00
15				Azure Active D	i afb11d0e-f236-49	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER S	0.00	0.00
16				Azure Active D	i 16c9f982-a827-40	Corporate	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER C	37.78	47.20
17				Azure Active D	i ceca6875-f3ba-4f	Government	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER G	32.12	40.20
18				Azure Active D	i 3e3e9ccc-cdd4-4c	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER F.	3.94	4.90
19	1			Azure Active D	i 2084c385-65b3-4f	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER S	1.58	2.00
20				Azure Active D	i e59159fc-6f67-45	Corporate	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER C	56.67	70.80
21				Azure Active D	i da22b4b5-e211-4	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER F.	5.91	7.40
22				Azure Active D	i 190adaa1-f3fc-40	Academic	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER S	7.87	9.80
23				Azure Informa	t 648hf77h-1f0a-49	Corporate	1 Month(s)	NON-SPECIFIC	CLOUD RESELLER C	12 59	15 70
	4. OK	USD S	EK 🕂						4		

7. Save the workbook in the location where CSp LicenseUpdaterTool is extracted and ensure that the excel file (.xlsx) is in the same location as CSPLicenseUpdater.exe.

UPDATING THE PRICES IN THE PRICING PROFILE

- 1. Ensure that there is only one excel (.xlsx) file in the root folder of the CSP LicenseUpdateTool.
- 2. Open Command prompt.
- 3. Navigate to the location where the CSP LicenseUpdateTool is extracted.
- 4. Type 'CSPLicenseUpdater.exe' and press enter.

5. Specify the server name, database name, user name and password of the Usage and Billing database.



6. In a couple of seconds, the different price list based on the currency code will be listed.

vailable Price Lists:		
EK.xlsx		
SD.xlsx		

7. Specify the desired currency list with the file extension (eg. USD.xlsx).

```
Enter a file name with extension:
USD.xlsx
```

Processing...

Enter 1 to update the pricing profiles with the 'List price' present in the excel sheet or press
 2 to update 'ERP Price' present in the excel sheet.

Enter 1 to update List Price or 2 to update ERP Price:

9. All the available pricing profiles will be listed with their currency codes. Enter the pricing profile IDs separated by blank space and press enter to update the pricing profiles.

Availa	able Pricing Profi	les:
ID	Profile Name	Currency Code
1	default	USD
2	Min100	USD
Enter 1 2	Pricing profile 1	D(s) to update (Enter multiple pricing profile IDs seperated by blank spaces):

10. Press enter key to exit.

Pricing profile(s) updated. Press Enter key to exit...

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TROUBLESHOOTING

Contact support@cloudassert.com for general support help.

Visit <u>http://www.cloudassert.com/Solutions/Usage</u> to get latest updated information about the product and <u>http://www.cloudassert.com/Blogs</u> for latest tips and solutions.

APPENDIX A: SETTING UP IIS AND ASP.NET MVC 4

IIS and Sub-Features Installation

- 1. Open Server Manager.
- 2. Under Manage menu, select Add Roles and Features:



3. Select Role-based or Feature-based Installation:

elect installatio	on type Destination sei Win2012DE
Before You Begin	Select the installation type. You can install roles and features on a running physical computer or vir machine, or on an offline virtual hard disk (VHD).
Installation Type	Role-based or feature-based installation
Server Selection	Configure a single server by adding roles, role services, and features.
	○ Remote Desktop Services installation
	Install required role services for Virtual Desktop Infrastructure (VDI) to create a virtual machine-
	or session-based desktop deployment.
	< Previous Next > Install Can

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4. Select the appropriate server (local is selected by default), as shown below:

b	Add Roles and Features Wizard	- 0	x
Select desti	DESTINA nation server siva-vm.wapdemo.corp.cic	TION SER	VER :om
Before You Begir Installation Type Server Selection	 Select a server or a virtual hard disk on which to install roles and features. Select a server from the server pool Select a virtual hard disk 		
Server Roles Features Confirmation Results	Server Pool Filter: Name IP Address Operating System		
	siva-vm.wapdemo.corp.c 192.168.1.33 Microsoft Windows Server 2012 R2 Standa	rd	
	1 Computer(s) found This page shows servers that are running Windows Server 2012, and that have been added Add Servers command in Server Manager. Offline servers and newly-added servers from wh collection is still incomplete are not shown.	by using hich data	the
	< Previous Next > Install	Cance	:

5. Select Web Server (IIS) and click Next:

a	Add Roles and Features Wizard	_ D X
Before You Begin Installation Type Server Selection Server Roles Features Web Server Role (IIS) Role Services Confirmation Results	Add Roles and Features Wizard Select one or more roles to install on the selected server. Roles Active Directory Rights Management Services Application Server DHCP Server DNS Server Fax Server File And Storage Services (Installed) Hyper-V Network Policy and Access Services 	Description Web Server (IIS) provides a reliable, manageable, and scalable Web application infrastructure.
	Print and Document Services Remote Access Remote Desktop Services Volume Activation Services Windows Deployment Services Windows Server Update Services Vindows Server Update Services	>Install Cancel

6. Select all the features that are selected in the following images.



7. Click Next and enable the following roles.

b	Add Roles and Features Wizard	_ _ X
Select role servic Before You Begin Installation Type Server Selection Server Roles Features Web Server Role (IIS) Role Services Confirmation Results	Select the role services to install for Web Server (IIS) Role services Web Server Common HTTP Features Default Document Directory Browsing HTTP Errors Static Content HTTP Redirection WebDAV Publishing I HTP Activity Lorging I HTP Lerrors I Lister Lorging I Lister Lor	DESTINATION SERVER DTestVM1-Jul23.wapdemo.corp.cloudassert.com Description Logging Tools provides infrastructure to manage Web server logs and automate common logging tasks.
	Custom Logging Custom Logging Custom Logging Custom Logging CODBC Logging CRequest Monitor	t > Install Cancel



a	Add Roles and Features Wizard	_ _ X
Before You Begin Installation Type Server Selection Server Roles Features Web Server Role (IIS) Role Services Confirmation Results	Add Notes and reactives wizard CCES Select the role services to install for Web Server (IIS) Role services URL Authorization URL Authorization Windows Authentication NET Extensibility 3.5 Application Initialization ASP.NET 3.5 ASP.NET 4.5 CGI VISAPI Extensions	DESTINATION SERVER DTestVM1-Jul23.wapdemo.corp.cloudassert.com Description .NET extensibility allows managed code developers to change, add and extend web server functionality in the entire request pipeline, the configuration, and the UI. Developers can use the familiar ASP.NET extensibility model and rich .NET APIs to build Web server features that are just as powerful as those written using the native C++ APIs.
	✓ ISAPI Filters Server Side Includes WebSocket Protocol ✓	
	< Previous Ne	xt > Install Cancel

elect role servi	ces	D	DESTINATION SERVER
Before You Begin Installation Type	Select the role services to install for Web Server (IIS) Role services		Description
Server Selection Server Roles Features Web Server Role (IIS) Role Services Confirmation Results	ASP.NET 4.5 CGi ISAPI Extensions ISAPI Filters Server Side Includes WebSocket Protocol FTP Service FTP Service FTP Extensibility Management Tools IIS Management Console IIS Management Compatibility IIS Management Scripts and Tools Management Service III		ASP.NET provides a server side object oriented programming environment for building Web sites and Web applications using managed code. ASP.NET is not simply a new version of ASP. Having been entirely re-architected to provide a highly productive programming experience based on the .NET Framework, ASP.NET provides a robust infrastructure for building web applications.

8. Click Next and click Install:

È.	Add Roles and Features Wizard	_ D ×	
Confirm installati	on selections	DESTINATION SERVER WIN2012DEMOS	
Before You Begin	To install the following roles, role services, or features on selected server, click	k Install.	
Installation Type	Restart the destination server automatically if required		
Server Selection	Optional features (such as administration tools) might be displayed on this pa	age because they have	
Server Roles	their check boxes.	ires, click Previous to clear	
Features			
Web Server Role (IIS)	.NET Framework 4.5 Features	Ê	
Role Services	ASP.NET 4.5	=	
Confirmation	Web Server (IIS)		
Results	Web Server		
	Static Content		
	Default Document		
	Directory Browsing		
	HTTP Errors		
	HTTP Redirection		
	WUDAV DURUS	\checkmark	
	Export configuration settings Specify an alternate source path		
	< <u>P</u> revious <u>N</u> ext >	Install Cancel	

9. When the IIS installation completes, the wizard reflects the installation status:

a	Add Roles and Features Wizard	-		x
Installation progr	ess dest	INATION WIN2012	SERVI DEMO	ER DS
Before You Begin	View installation progress			
Installation Type	i Feature installation			
Server Selection				
Server Roles	Installation succeeded on WIN2012DEMOS.			
Features	.NET Framework 4.5 Features			^
Web Server Role (IIS)	ASP.NET 4.5			=
Role Services	Web Server (IIS)			
Confirmation	Web Server			
Results	Static Content			
	Default Document			
	Directory Browsing			
	HTTP Errors			
	WebDAV Publishing			~
	You can close this wizard without interrupting running tasks. View task progress page again by clicking Notifications in the command bar, and then Task Details. Export configuration settings	or open	this	
	< Previous Next > Close	Ca	ancel	

10. Click Close to exit the wizard.

Users can also download <u>IISConfigTemplate.xml</u> file from and run the below Power shell command to configure the IIS.

Install-WindowsFeature -ConfigurationFilePath <Replace with xml path>

Ex: Install-WindowsFeature -ConfigurationFilePath D:\ConfigurationFiles\IISConfigTemplate.xml

Installing ASP .Net MVC 4

- Download the installer from the following link. <u>http://www.microsoft.com/en-in/download/details.aspx?id=30683</u>
- 2. Install the downloaded installer.

APPENDIX B: FREQUENTLY ASKED QUESTIONS

Q: How to troubleshoot Windows Azure Pack (WAP) and System Center Usage Pipeline?

A: Visit the following link <u>http://www.cloudassert.com/Blogs/how-to-troubleshoot-windows-azure-pack-wap-</u> and-system-center-usage-pipeline-52932

Q: Is it easy to integrate the payment gateway with any existing or new payment systems?

A: Yes. Since every customer tends to have a different type of payment systems that they use, we defer the customer to have choice of their payment system and we just provide integration with it.

Q: Will you do this integration or we need to do it?

A: We will work with you to understand the best way to integrate with your choice of payment system and we will create mechanisms to accomplish the integration. If the integration requires lot of custom work, then we will add it to the deployment cost and you will know firsthand how much the total solution will cost.

Q: We do lot of offline payments; how do you take care of it? And how do you disable user for non-payments?

A: Precisely because every customer has different way to collect payments, this solution doesn't involve the real payment collection instead it builds on top of Azure Pack constructs and integrates with existing payment systems. For example, if you disable a user in your billing system, say WHMCS for any reason such as payment not received, this solution can automatically disable the subscription in Azure Pack, however this solution itself doesn't track payments etc.

Q: Can we offer trial periods and discount periods?

A: Yes. You can run plan-level promotions that are recurring or valid for a specific number of days. You can also offer hourly credits for metered resources, or offer credits per user.

Q: How do I Update my Bank Account information with CyberSource?

A: Visit the following link:

https://support.CyberSource.com/cybskb/index?page=content&id=C285&actp=search&viewlocale=en_US&s earchid=1471408348091

Q: When can I see, the updated cost take effective once I change the unit price of a meter resource in a pricing profile?

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A: Once the unit price is changed in the pricing profile, the usage cost for the records will take effective only for records that are newly generated. It would take a minimum time of 2 hours (in case of VMs) to a maximum time of 48 hours (in-case of Databases). *Note:* For existing records the newly set unit price will not take effective.

Q: Can I update the usage cost of records that are already generated once I change the unit price of meter resource in a pricing profile?

A: Yes, you can. After changing the unit price of a meter resource in a pricing profile do the following

- Stop the 'Billing Agent Service' from the Services.msc.
- Replace the database name in the following query and run it in the database.

```
USE [REPLACE CLOUD ASSERT BILLING DB NAME HERE]
GO
UPDATE [dbo].[UsageProcessingStates]
 SET [LastUsageId] = 0
WHERE StateName = 'UsageRecordProcessor'
GO
UPDATE [dbo].[UsageProcessingStates]
 SET [LastProcessedTime] = '2010-12-31 00:00:00.000'
WHERE StateName = 'UsageRecordProcessor'
GO
UPDATE [dbo].[UsageProcessingStates]
 SET [LastProcessedTime] = '2010-12-31 00:00:00.000'
WHERE StateName = 'BillingDailyAggregator'
GO
UPDATE [dbo].[UsageProcessingStates]
 SET [LastProcessedTime] = '2010-12-31 00:00:00.000'
WHERE StateName = 'BillingMonthlyAggregator'
GO
UPDATE [dbo].[UsageProcessingStates]
 SET [LastProcessedTime] = '2010-12-31 00:00:00.000'
WHERE StateName = 'BillingMonthlySummaryAggregator'
GO
delete from BillingHourlyRecords where StartTime >= '2010-12-31 00:00:00.000'
delete from BillingDailyRecords where StartTime >= '2010-12-31 00:00:00.000'
delete from BillingInvoiceSendInfos
delete from BillingInvoices where InvoiceStartTime >= '2010-12-31 00:00:00.000'
delete from BillingMonthlyRecords where StartTime >= '2010-12-31 00:00:00.000'
delete from BillingMonthlyResourceSummaries where StartTime >= '2010-12-31 00:00:00.000'
delete from BillingMonthlyRunningSummary where StartTime >= '2010-12-31 00:00:00.000'
          Start the 'Billing Agent Service' from Services.msc
```

It will take about three to ten minutes to generate the records with the newly set unit price.

Q: Is it possible to inject non-WAP Usage details into Usage and Billing pipeline?

A: Yes, it is possible to set price for meters that are not listed by WAP. Visit the following link to know more. <u>http://www.cloudassert.com/Blogs/cloud-assert-usage-billing-usage-collector-extensibility-with-c-and-powershell-53007</u>

Q: How often does the usage cost reflect in the tenant portal?

A: The usage in the tenant portal updates every 60 seconds. It is also depending on the Resource providers that you have. For example, Systemcenter VMs update the usage record every two hours and SQLServers update usage records every two days in the WAP database. Usage and Billing solution checks for the usage records every 60 seconds and updates in the tenant portal after computing the usage cost.

Q: What is the best practice for the "AppPool identity credentials" required during the setup? Apppool identity or a separate account?

A: By default, AppPool identity will suffice

Q: What is the username and password of the "API credentials"? What is the criteria for this?

A: The API credentials are used for registering the U&B API service in WAP. It doesn't have to be a valid user account it can be any username and password.

Q: Would there be any problem with the Usage and Billing setup, if the WAP admin and tenant URLs are changed to a custom URL "AFTER" Usage and Billing is installed?

A: If the WAP URLs change, then they need to be updated appropriately under the WAP Admin Portal \rightarrow Usage & Billing \rightarrow Settings section (across WAP Usage, WAP Admin API tabs). If Usage & Billing is setup in same machines where WAP admin components exist, then Usage & Billing API Service URL will also change, so you need to update the U&B resource provider configurations using PowerShell API. Refer to <u>this article</u>. Usage and billing - resource provider settings needs to be updated accordingly in tenant config file. Refer to *Step 4 – Configuring Tenant Site*.

Q: Under section "STEP 2.1 CONFIGURING USAGE PROCESSOR SETTINGS" the steps to create usage endpoint username and password \rightarrow Can it be any account name and password? OR does it need to follow certain naming convention? Is this a local computer user account?

A: It can be any user name and password. There are no conventions and it is not a local computer user account. It is a user account which will be used to access the WAP Usage component which is running in WAP.

Q: Is it possible to disable a subscription of a specific tenant after they cross a quota? (a) Without shutting down VMs and (b)By shutting down VMs / Is it possible to disable a VMs network access if it exceeds the quota?

A: It can be done by using runbook scripts which will suspend the subscription (with and without shutting down the VM) and prevent Network access when it meets the criteria(quota).

Q: Is it possible to track the usage of a network in terms of GBs instead of bandwidth?

A: It is already reported in GB. You could change the custom formula to report it in MB/KB/GB. The below is the formula for reporting the same in GB. (The meters for network usage are '*NICKBSentPerSecond-Average' and '*NICKBReceivedPerSecond-Average').

FORMULA	Onit Multiplier Ocustom	
	3600 / 1024 / 1024	
UNIT DISPLAY NAME	GB Hours	

APPENDIX C: KNOWN ISSUES

- 1. When trying to start, or stop the Billing Agent Service from service.msc it may show an error/warning message sometimes.
- 2. Billing Agent Service setup may not install properly if 'services.msc' is kept open in the desktop.
- 3. When all the subscriptions of a tenant are deleted, the overview tab will not load.
- 4. Email notification for subscription creation and deletion cannot be turned off from the admin portal settings.
- 5. The license may get invalidated when MAC address of Usage and Billing API machine changes.
- 6. If the Billing Agent Service doesn't run for a day, in the Admin portal Dashboard tab, the cost in the monthly trend for the day will be zero. Once the agent service starts running from the next day the cost will be updated for the current day and for the day where the agent service did not run it will be still zero.
- 7. The usage cost for CSP license will be calculated only if the license is purchased from Usage and Billing.
- 8. After assigning a license for a user, it will not get updated immediately a manual refresh may be needed.
- 9. When trying to delete a CSP customer profile, the profile will not be deleted, all its subscriptions and users alone will be deleted. The customer profile will still be visible in the tenant portal.
- 10. In the tenant portal, the CSP profile tab might sometimes not load and throw an error, this is because of poor or no internet connection in the machine where the Cloud Assert usage and Billing API service is installed.
- 11. In admin portal, the Virtual Machines(VM) count in the dashboard tab, includes deleted VMs too.