

# Provision PaaS App Service - Pattern4 and upgrading App Service plan - size & tier

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## Overview

<b>Platform:</b>	<b>Azure</b>
<b>Owner of this SOP:</b>	Fully Managed POD A
<b>Cloud Services:</b>	Instance Management

## Problem

When requesters are asking for creating Azure File share with Private Endpoint and Storage account.

tester	Reviewer
@ Senthilkumaran Gurusamypandian	

## Solution

Cloud Services operators will perform basic health checks and update the associated record as required. In most cases, the record will be an Incident Task (which may be assigned or manually created).

## Pre-requisites

- The operator needs to have access to the **Cloud Factory ServiceNow Dashboard**. If this access is missing raise a request for [Access to ServiceNow](#) and request the group "Cloud Factory - Dashboard Access".
- Must be a member of the "Cloud Svcs- CloudOne" assignment group to work on ServiceNow tickets. As well access to the required report in this SOP. Use the same [Access to ServiceNow](#) request to gain this group if needed.
- The operator needs to be part of **OperationsCloudOneAccess** role in AWS & **CloudOne Operator** role in Azure . If this is missing raise a [Manage Cloud Access](#) request to get this custom role.

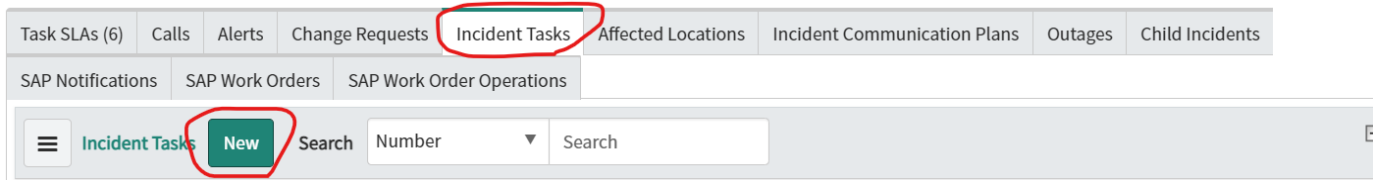
## Procedure

Steps to create & manage Incident Task

### Create Incident Task

Follow the below steps to create incident task. This step is required when the operator has received only an Incident.

On *Incident Tasks* Tab of the Incident ticket, click *New* and assign it to "CloudOne" team. Populate the Assignment group and Configuration item (CI). (Hint the CI is the VM on which the health check is being performed)



## Steps

- Clone the Blue Print 10 repo "<https://gitlab.com/bhp-cloudfactory/azure-blueprints/azr-paas-application-pattern-4> " into a your repository under new project e.g. <https://gitlab.com/bhp-cloudfactory/tooling-foundations/fm-sops/paasp4>
- change all the variables in the tfvars file to suit your application

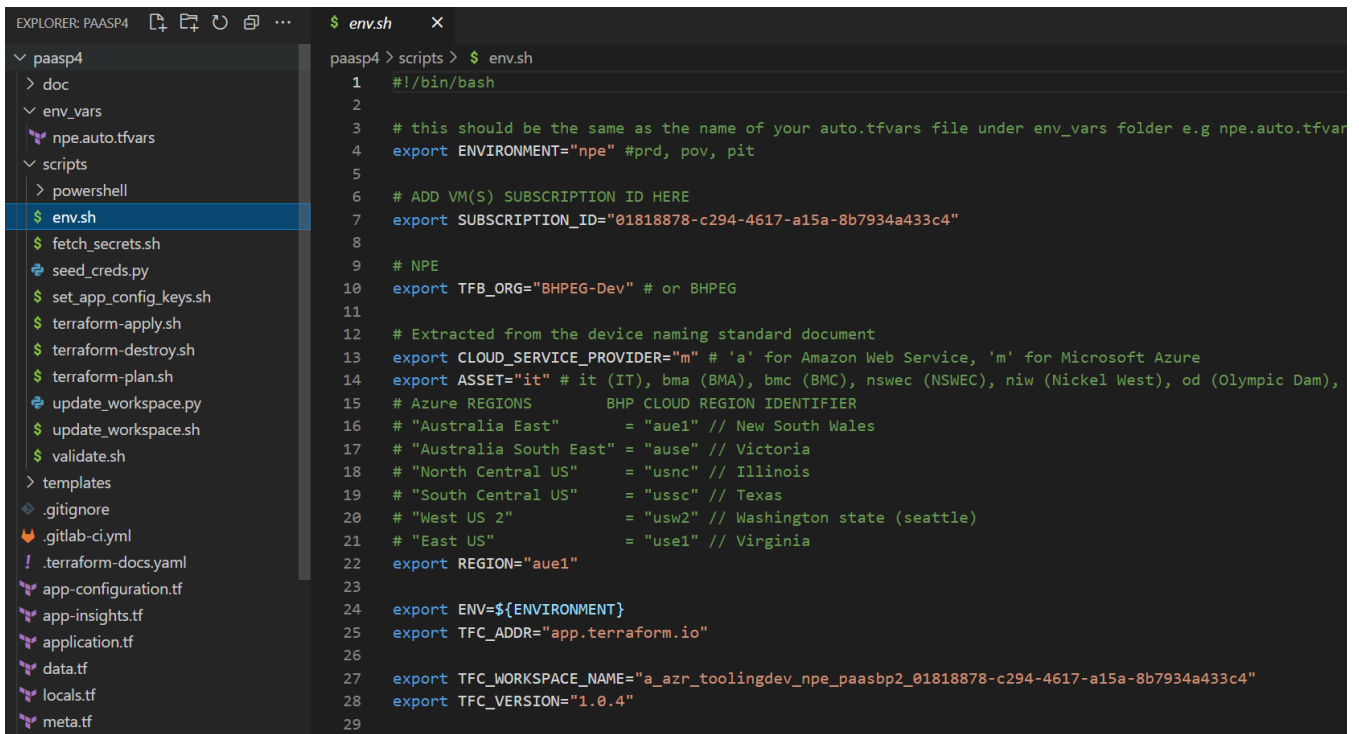
```

EXPLORER: PAASP4  npe.auto.tfvars
└─ paasp4
  └─ env_vars
    └─ npe.auto.tfvars
  └─ scripts
  └─ templates
  └─ .gitignore
  └─ .gitlab-ci.yml
  └─ .terraform-docs.yml
  └─ app-configuration.tf
  └─ app-insights.tf
  └─ application.tf
  └─ data.tf
  └─ locals.tf
  └─ meta.tf
  └─ outputs.tf
  └─ providers.tf
  └─ README.md
  └─ resource-group.tf
  └─ sql-database-primary.tf
  └─ sql-database-secondary.tf
  └─ sql-server-primary.tf
  └─ sql-server-secondary.tf
  └─ variables.tf

paasp4 > env_vars > npe.auto.tfvars
1  base_name           = "it"
2  create_resource_group = true                # set this to false for shared landscape
3  application_resource_group_name = "aue1-npe-arg-paasapp" # RENAME to your region, env and applic
4  location             = "Australia East"                # or other azure region
5  resource_group_lock_level = ""                          # Specifies the Level to be used for thi
6
7  app_configuration_name = "aue1-npe-paasapp-aconf" # rename this based on your region, env
8  app_configuration_sku  = "standard"                # or free
9
10 key_vault_name = "it-fmpoda"
11 key_vault_rg   = "it-aue1-npe-arg-operations"
12
13 # App Service
14 app_service = {
15   name           = "aue1-npe-paasapp-asv" # rename this based on your region, environment and s
16   app_settings   = {}
17   connection_string = []
18 }
19
20 # App Service Plan
21 app_service_plan = {
22   name     = "aue1-npe-paasapp-asp" # rename this based on your region, environment and solution n
23   tier      = "PremiumV2"           # required for VNET integration
24   size     = "P1v2"
25   capacity = 1
26 }

```

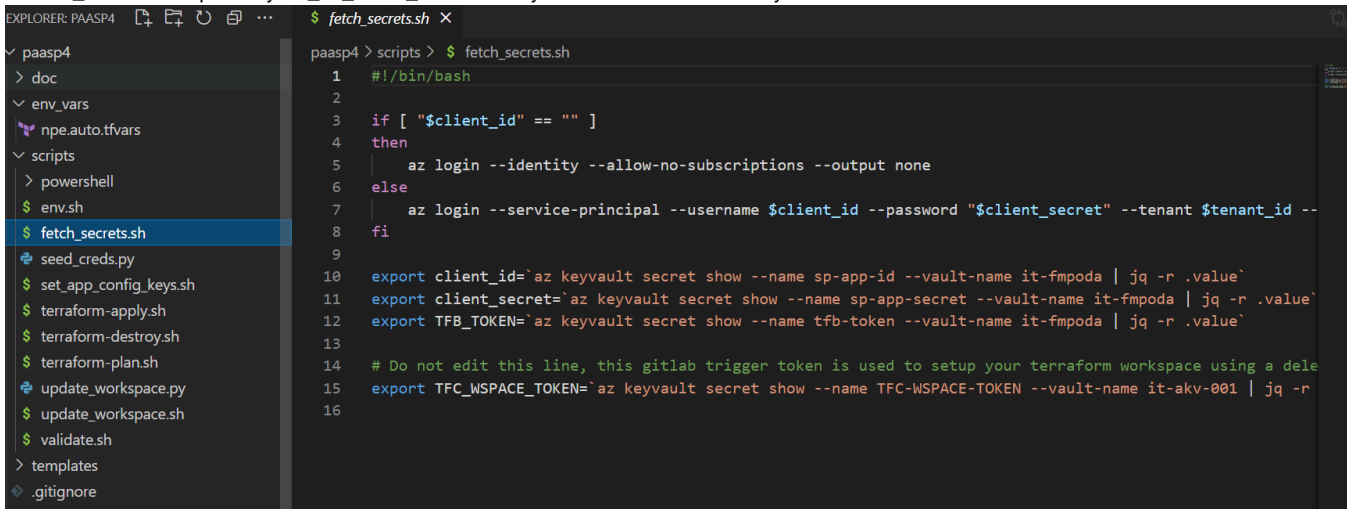
- change the variables in the env.sh file to match your environment
-



The screenshot shows the VS Code Explorer on the left with the file tree for 'paasp4'. The 'env.sh' file is selected. The main editor shows the content of 'env.sh' with line numbers 1 through 29. The script sets environment variables for environment, subscription ID, NPE, TFB\_ORG, cloud service provider, asset, regions, and region, and exports ENV, TFC\_ADDR, TFC\_WORKSPACE\_NAME, and TFC\_VERSION.

```
paasp4 > scripts > $ env.sh
1  #!/bin/bash
2
3  # this should be the same as the name of your auto.tfvars file under env_vars folder e.g npe.auto.tfvars
4  export ENVIRONMENT="npe" #prd, pov, pit
5
6  # ADD VM(S) SUBSCRIPTION ID HERE
7  export SUBSCRIPTION_ID="01818878-c294-4617-a15a-8b7934a433c4"
8
9  # NPE
10 export TFB_ORG="BHPEG-Dev" # or BHPEG
11
12 # Extracted from the device naming standard document
13 export CLOUD_SERVICE_PROVIDER="m" # 'a' for Amazon Web Service, 'm' for Microsoft Azure
14 export ASSET="it" # it (IT), bma (BMA), bmc (BMC), nswec (NSWEC), niw (Nickel West), od (Olympic Dam),
15 # Azure REGIONS      BHP CLOUD REGION IDENTIFIER
16 # "Australia East"   = "aue1" // New South Wales
17 # "Australia South East" = "ause" // Victoria
18 # "North Central US" = "usnc" // Illinois
19 # "South Central US"  = "ussc" // Texas
20 # "West US 2"         = "usw2" // Washington state (seattle)
21 # "East US"           = "use1" // Virginia
22 export REGION="aue1"
23
24 export ENV=${ENVIRONMENT}
25 export TFC_ADDR="app.terraform.io"
26
27 export TFC_WORKSPACE_NAME="a_azr_toolingdev_npe_paasbp2_01818878-c294-4617-a15a-8b7934a433c4"
28 export TFC_VERSION="1.0.4"
29
```

- In fetch\_secrets.sh update "your\_tfc\_token\_name" to keyvault variable which has your token



The screenshot shows the VS Code Explorer on the left with the file tree for 'paasp4'. The 'fetch\_secrets.sh' file is selected. The main editor shows the content of 'fetch\_secrets.sh' with line numbers 1 through 16. The script sets environment variables for client\_id, client\_secret, and TFB\_TOKEN, and exports TFC\_WSPACE\_TOKEN.

```
paasp4 > scripts > $ fetch_secrets.sh
1  #!/bin/bash
2
3  if [ "$client_id" == "" ]
4  then
5      az login --identity --allow-no-subscriptions --output none
6  else
7      az login --service-principal --username $client_id --password "$client_secret" --tenant $tenant_id --
8  fi
9
10 export client_id='az keyvault secret show --name sp-app-id --vault-name it-fmpoda | jq -r .value'
11 export client_secret='az keyvault secret show --name sp-app-secret --vault-name it-fmpoda | jq -r .value'
12 export TFB_TOKEN='az keyvault secret show --name tfb-token --vault-name it-fmpoda | jq -r .value'
13
14 # Do not edit this line, this gitlab trigger token is used to setup your terraform workspace using a dele
15 export TFC_WSPACE_TOKEN='az keyvault secret show --name TFC-WSPACE-TOKEN --vault-name it-akv-001 | jq -r
16
```

- commit and push your changes
- verify that the pipeline executes as expected and that a terraform workspace is created and run
- verify the terraform plan in your TF workspace
- if you are satisfied with the plan output, Initiate the apply stage in pipeline

a\_azr\_toolingdev\_npe\_paasbp2\_01818878-c294-4617-a15a-8b7934a433c4

ID: ws-nPmtbbnCzfAChuez

Resources

46

Terraform version

1.1.4

Updated

3 days ago

No workspace description available. [Add workspace description.](#)

Overview

Runs

States

Variables

Settings

Unlocked

Actions

Applied

Queued from GitLab CI/CD Pipeline

CURRENT

API Integration triggered a run from API 3 days ago

Run Details

Plan finished 3 days ago

Resources: 1 to add, 0 to change, 0 to destroy

Cost estimation finished 3 days ago

Resources: 2 of 23 estimated · \$226.49/mo - +\$0.00

Policy check passed 3 days ago

Policies: 13 passed, 0 failed

Apply finished 3 days ago

Resources: 1 added, 0 changed, 0 destroyed

Status	Pipeline ID	Triggerer	Commit	Stages	Duration
blocked	#453173482 latest		main ~ 12c87710 provisioning paas u...	<div> <div>✓</div> <div>✓</div> <div>✓</div> <div>✓</div> <div>⚙️</div> </div>	00:04:34

- Check and confirm whether the required App Service, App Insights ,AD application, SQL server with geo replication is created as per requirement

Home > App Services >

it-aue1-npe-paasapp-asv

App Service

Search (Ctrl+J)

Browse

Stop

Swap

Restart

Delete

Refresh

Get publish profile

Reset publish profile

Share to mobile

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Security

Events (preview)

Deployment

Quickstart

Deployment slots

Deployment Center

Settings

Essentials

Resource group (move)

it-aue1-npe-arg-paasapp

Status

Running

Location

Australia East

Subscription (move)

it-npe-toolingdev

Subscription ID

01818878-c294-4617-a15a-8b7934a433c4

Tags (edit)

BusinessUnit : Enterprise&Global

CostCentre : 9001590

More (6)

URL

<https://it-aue1-npe-paasapp-asv.azurewebsites.net>

Health Check

Not Configured

App Service Plan

it-aue1-npe-paasapp-asv (P1v2-1)

FTP/deployment username

No FTP/deployment user set

FTP hostname

ftp://waws-prod-sy3-053.ftp.azurewebsites.windows.net/site/wwwroot

FTPS hostname

ftps://waws-prod-sy3-053.ftp.azurewebsites.windows.net/site/wwwroot

### Updating App Service Plan - Size

- Change the value in the tfvars file
- Updating App service plan from P1V2 to P2V2
-

```

XPLOER: PAASP4  npe.auto.tfvars
paasp4 > env_vars > npe.auto.tfvars
1  base_name           = "it"
2  create_resource_group = true           # set this to false for shared landscapes
3  application_resource_group_name = "aue1-npe-arg-paasapp" # RENAME to your region, env and application.
4  location             = "Australia East" # or other azure region
5  resource_group_lock_level = ""         # Specifies the Level to be used for this Lock.
6
7  app_configuration_name = "aue1-npe-paasapp-aconf" # rename this based on your region, environment
8  app_configuration_sku  = "standard"             # or free
9
10 key_vault_name = "it-fmpoda"
11 key_vault_rg  = "it-aue1-npe-arg-operations"
12
13 # App Service
14 app_service = {
15   name           = "aue1-npe-paasapp-asv" # rename this based on your region, environment and solution
16   app_settings   = {}
17   connection_string = []
18 }
19
20 # App Service Plan
21 app_service_plan = [
22   name     = "aue1-npe-paasapp-asp" # rename this based on your region, environment and solution name
23   tier      = "PremiumV2"           # required for VNET integration
24   size     = "P2v2"
25   capacity = 1
26 ]
27
28 # App Service Slots
29 app_service_slots = [

```

- commit and push your changes
- verify that the pipeline executes as expected and that a terraform workspace is created and run
- verify the terraform plan in your TF workspace
- if you are satisfied with the plan output, Initiate the apply stage in pipeline

**a\_azr\_toolingdev\_npe\_paasbp2\_01818878-c294-4617-a15a-8b7934a433c4**  
 ID: ws-nPmtbbnCzfACHuez

No workspace description available. [Add workspace description.](#)

Resources	Terraform version	Updated
46	1.1.4	a few seconds ago

Overview **Runs** States Variables Settings

Running [Actions](#)

**Policy checked** **Queued from GitLab CI/CD Pipeline** CURRENT

API Integration triggered a run from API 2 minutes ago Run Details

**Plan finished** 2 minutes ago Resources: 0 to add, 1 to change, 0 to destroy

module.app\_service\_plan.azure\_rm\_app\_service\_plan.this

```

id: "/subscriptions/01818878-c294-4617-a15a-8b7934a433c4/resourceGroups/it-aue1-npe-arg-paas-app/providers/Microsoft.Web/serverfarms/it-aue1-npe-paasapp-asp"
name: "it-aue1-npe-paasapp-asp"
tags: {
  ... 8 unchanged attributes hidden
}
... 10 unchanged attributes hidden
sku {
  size: "P1v2" → "P2v2"
  ... 2 unchanged attributes hidden
}

```

**a\_azr\_toolingdev\_npe\_paasbp2\_01818878-c294-4617-a15a-8b7934a433c4**  
 ID: ws-nPmtbbnCzfAChuez

Resources  
46

Terraform version  
1.1.4

Updated  
a few second ago

No workspace description available. [Add](#) workspace description.

Overview

Runs

States

Variables

Settings

Unlocked

Actions

Applied

Queued from GitLab CI/CD Pipeline

CURRENT

API Integration triggered a run from API 5 minutes ago

Run Details

Plan finished 4 minutes ago

Resources: 0 to add, 1 to change, 0 to destroy

Cost estimation finished 4 minutes ago

Resources: 2 of 23 estimated · \$413.98/mo · +\$187.49

Policy check passed 4 minutes ago

Policies: 13 passed, 0 failed

Apply finished a few seconds ago

Resources: 0 added, 1 changed, 0 destroyed

- Verify the Changes in Azure portal

Home >

**it-ae1-npe-paasapp-asv**  
 App Service

Browse
 Stop
 Swap
 Restart
 Delete
 Refresh
 Get publish profile
 Reset publish profile
 Share to mobile

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Security

Events (preview)

Deployment

Quickstart

Deployment slots

Essentials

Resource group (move)  
[it-ae1-npe-arg-paasapp](#)

Status  
 Running

Location  
 Australia East

Subscription (move)  
[it-npe-toolingdev](#)

Subscription ID  
 01818878-c294-4617-a15a-8b7934a433c4

Tags (edit)

JSON View

URL  
<https://it-ae1-npe-paasapp-asv.azurewebsites.net>

Health Check  
 Not Configured

App Service Plan  
[it-ae1-npe-paasapp-asp-P2v2-1](#)

FTP/deployment username  
 No FTP/deployment user set

FTP hostname  
<ftp://waws-prod-sy3-053.ftp.azurewebsites.windows.net/site/wwwroot>

FTPS hostname  
<ftps://waws-prod-sy3-053.ftp.azurewebsites.windows.net/site/wwwroot>

## Updating App Service Plan - Tier & Size

- Change the value in the tfvars file
- Updating App service plan Size from P2V2 to P2V3 and Tier from "PremiumV2" to "PremiumV3"

```
EXPLORER: PAASP4  npe.auto.tfvars M X
paasp4 > env_vars > npe.auto.tfvars
15   name           = "aue1-npe-paasapp-asv" # rename this based on your region, environment and so
16   app_settings    = {}
17   connection_string = []
18   }
19
20   # App Service Plan
21   app_service_plan = {
22     name     = "aue1-npe-paasapp-asp" # rename this based on your region, environment and solution na
23     tier      = "PremiumV3"           # required for VNET integration
24     size     = "P2v3"
25     capacity = 1
26   }
27
28   # App Service Slots
29   app_service_slots = [{
30     slot_name = "staging" # remove if not required, or add additional slots for separate environments,
31     enabled   = true
32   }]
```

- commit and push your changes
- verify that the pipeline executes as expected and that a terraform workspace is created and run
- verify the terraform plan in your TF workspace
- if you are satisfied with the plan output, Initiate the apply stage in pipeline

**a\_azr\_toolingdev\_npe\_paasbp2\_01818878-c294-4617-a15a-8b7934a433c4** Resources 46 Terraform version 1.1.4 Updated a few seconds ago

ID: ws-nPmtbbnCzIAChuez

No workspace description available. [Add workspace description.](#)

Overview **Runs** States Variables Settings

Running Actions

**Policy checked** Queued from GitLab CI/CD Pipeline CURRENT

API Integration triggered a run from API 3 minutes ago Run Details

**Plan finished** 3 minutes ago Resources: 0 to add, **1 to change**, 0 to destroy

Started 3 minutes ago > Finished 2 minutes ago

module.app\_service\_plan.azure.azurerm\_app\_service\_plan.this

```
id: "/subscriptions/01818878-c294-4617-a15a-8b7934a433c4/resourceGroups/it-aue1-npe-arg-paas-app/providers/Microsoft.Web/serverfarms/it-aue1-npe-paasapp-asp"
name: "it-aue1-npe-paasapp-asp"
tags: {
  -- 8 unchanged attributes hidden
}
-- 10 unchanged attributes hidden
sku {
  ~ size: "P2v2" -> "P2v3"
  ~ tier: "PremiumV2" -> "PremiumV3"
  -- 1 unchanged attributes hidden
}
```

- Verify in Azure portal
-

Home > App Services > it-aue1-npe-paasapp-asv >

## it-aue1-npe-paasapp-asv

Windows Containers plan

Search (Ctrl+/) << Delete Send us your feedback

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Events (preview)

Settings

Essentials

Resource group (move)  
it-aue1-npe-arg-paasapp

Status  
Ready

Location  
Australia East

Subscription (move)  
it-npe-toolingdev

Subscription ID  
01818878-c294-4617-a15a-8b7934a433c4

App Service Plan  
it-aue1-npe-paasapp-asp (P2v3: 1)

App(s) / Slots  
1/1

Operating System  
Windows

Zone redundant  
Disabled

Home > App Services > it-aue1-npe-paasapp-asv > it-aue1-npe-paasapp-asp

## it-aue1-npe-paasapp-asp | Properties

Windows Containers plan

Search (Ctrl+/) <<

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Events (preview)

Settings

Apps

File system storage

Networking

Scale up (App Service plan)

Scale out (App Service plan)

Properties

Status  
Ready

Location  
Australia East

Pricing Tier  
PremiumV3

Instance Size

Instance Count  
1

Resource ID  
/subscriptions/01818878-c294-4617-a15a-8b7934a433c4/resourceGroups/it-aue1-npe-arg-paasapp/providers/Microsoft.Web/sites/it-aue1-npe-paasapp-asp

### Updating App Service Plan - capacity

- Change the value in the tfvars file
- Updating App service plan capacity from 1 to 2

```

paasp4 > env_vars > npe.auto.tfvars
15  name      = "aue1-npe-paasapp-asv" # rename this based on your region, environment
16  app_settings = {}
17  connection_string = []
18  }
19
20  # App Service Plan
21  app_service_plan = {
22    name      = "aue1-npe-paasapp-asp" # rename this based on your region, environment and solution
23    tier       = "PremiumV3"           # required for VNET integration
24    size      = "P2v3"
25    capacity  = 2
26  }
27

```

- commit and push your changes
- verify that the pipeline executes as expected and that a terraform workspace is created and run
- verify the terraform plan in your TF workspace
- if you are satisfied with the plan output, Initiate the apply stage in pipeline



a\_azr\_toolingdev\_npe\_paasbp2\_01818878-c294-4617-a15a-8b7934a433c4

ID: ws-nPmtbbnCzfAChuez

Resources

46

Terraform version

1.1.4

Updated

a few second  
ago

No workspace description available. [Add workspace description.](#)

Overview **Runs** States Variables Settings

Running

Actions

Policy checked

Queued from GitLab CI/CD Pipeline

CURRENT

API Integration triggered a run from API 2 minutes ago

Run Details

Plan finished 2 minutes ago

Resources: 0 to add, 1 to change, 0 to destroy

Started 2 minutes ago > Finished a minute ago

1 to change

```
module.app_service_plan.azurem_app_service_plan.this
  id: "/subscriptions/01818878-c294-4617-a15a-8b7934a433c4/resourceGroups/it-ae1-npe-arg-paas-app/providers/Microsoft.Web/serverfarms/it-ae1-npe-paasapp-asp"
  name: "it-ae1-npe-paasapp-asp"
  tags: {
    ... 8 unchanged attributes hidden
  }
  ... 10 unchanged attributes hidden
  sku {
    capacity: 1 → 2
    ... 2 unchanged attributes hidden
  }
```

- Verify in Azure portal

Microsoft Azure Search resources, services, and docs (G+)

Home > it-ae1-npe-paasapp-asp

### it-ae1-npe-paasapp-asp | Properties

Windows Containers plan

Search (Ctrl+ /)

- Scale up (App Service plan)
- Scale out (App Service plan)
- Properties**
- Locks

Monitoring

- Alerts
- Metrics
- Logs
- Diagnostic settings

Automation

- Tasks (preview)

Status: Ready

Location: Australia East

Pricing Tier: PremiumV3

Instance Size

**Instance Count: 2**

Resource ID: /subscriptions/01818878-c294-4617-a15a-8b7934a433c4/resourceGroups/it-ae1-npe-arg-paasapp/providers/Microsoft.Web/serverfarms/it-

## Related articles

- [AWS VPC Endpoints configuration change](#)
- [Renewal / Upload SSL certificate for existing Application](#)
- [Monitoring GitLab Access Audit Report](#)
- [Azure Storage Account Blueprint SOP - BPAZR022](#)
- [Azure App Service FTP Credential Sharing and Reset Procedure](#)