SOP Configure Application Gateway

Status of SOP:

> ✅ Endorsed.

Related Platform	Component
Azure	Azure Application Gateway

Problem

> ❌ How to configure new application gateway?

Azure Application Gateway is a web traffic load balancer that enables you to manage traffic to your web applications.

Application Gateway can make routing decisions based on additional attributes of an HTTP request, for example URI path or host headers. For example, you can route traffic based on the incoming URL. So if /images is in the incoming URL, you can route traffic to a specific set of servers (known as a pool) configured for images. If /video is in the URL, that traffic is routed to another pool that's optimized for videos.

This type of routing is known as application layer (OSI layer 7) load balancing. Azure Application Gateway can do URL-based routing and more.

NATURE OF REQUEST:

A ServiceNow request would be received configure application gateway. This kind of request is very rare as application gateways for all the four regions have already been configured.

WORKFLOW OF SERVICENOW REQUEST:

PROCESS:

Raise a Normal Change Request

Open a Normal Change Request to implement the SR. Please go to page 20 of the below *Change Control document* :

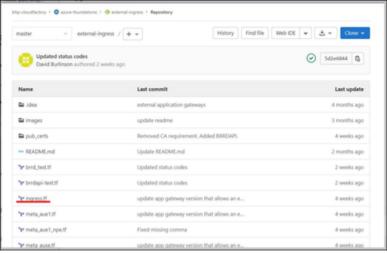Service Management: As-Is Change Management (ServiceNow)

Please select the respective Cloud Factory assignment group when raising a change request in Service Now

Cloud Network - Hub Connectivity - Azure

Solution

1. Go to below repository and open the file **ingress.tf** which has application gateway configuration.
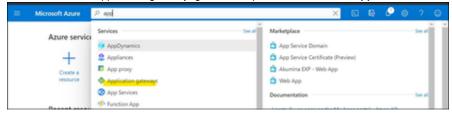
https://gitlab.com/bhp-cloudfactory/azure-foundations/external-ingress/-/tree/master

2. Open the file and copy one of the regions app gateway section and paste it in the same file and change the details as per SNOW request to configure new Application Gateway.


```
22   module ingress_aue1 {
23     source = "git@gitlab.com:bhp-cloudfactory/azure-components/terraform-azurerm-application-gateway?ref=v0.1
24
25     name                                              = "it-aue1-agw-ingress-ext-001"
26     resource_group_name                               = local.aue1.rg
27     subnet_name                                       = local.aue1.subnet
28     virtual_network_name                              = local.aue1.vnet
29     location                                          = local.aue1.location
30     virtual_network_resource_group_name               = local.aue1.rg
31     enable_http2                                      = true
32     enable_diagnostic_logs_storage                    = false
33     enable_diagnostic_logs_analytics                  = false
34     storage_resource_group_name                       = local.aue1.storage_rg
35     diagnostics_storage_account_name                  = local.aue1.storage_acc
36     gateway_diagnostic_log_storage_name               = local.aue1.storage_diag_name
37     identity_ids                                      = [azurerm_user_assigned_identity.aue1.id]
38     frontend_ip_configuration                         = local.aue1.frontend_config
39     frontend_port                                     = local.aue1.frontend_ports
40     gateway_ip_configuration                          = local.aue1.gateway_ip_config
41     http_listener                                     = local.aue1.http_listener
42     request_routing_rule                              = local.aue1.request_routing_rule
43     sku_name                                          = local.aue1.sku_name
44     sku_tier                                          = local.aue1.sku_tier
45     sku_capacity                                      = local.aue1.sku_capacity
46     tags                                              = var.tags
47     waf_enabled                                       = false
48     redirect_configurations                           = local.aue1.redirect_configurations
49     rewrite_rule_sets                                 = local.aue1.rewrite_rule_sets
50     apply_rewrite_ruleset_for_azure_ad_authentication = true
51     enable_public_ip                                  = true
52     ssl_certificate_name                              = var.cert_names_aue1
53     key_vault_name                                    = var.keyvault_name
54     key_vault_resource_group_name                     = var.keyvault_rg
55     backend_address_pools                             = local.aue1.backend_address_pools
56     backend_http_settings                             = local.aue1.backend_http_settings
```

3. After you make the changes in the file, respective workspace workflow will be triggered.

4. Go to Terraform workspace and apply the changes.

5. To validate new application gateway, go to Azure portal and search for **Application Gateways** and click on it.

6. New application gateway would be listed here.