App Delivery Manager

Lab Guide

TechXchange 2023

Version 1

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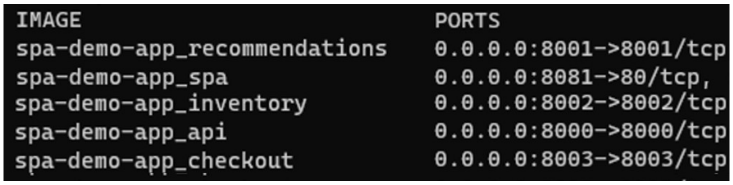
Module 1 – Simple HTTP Deployment

Learn how to create a simple HTTP deployment that securely load balances between several apps including microservices apps

High Level Business Objective

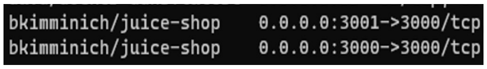
- You work in the information technology department for a global drinks company, and you have been tasked with delivering the following critical business applications reliably, securely, and with high performance:
  - **Brewz**
  - **Juiceshop**

Brewz lives on **www.bigtechdojo.com** server, and consists of multiple microservices a shown here:



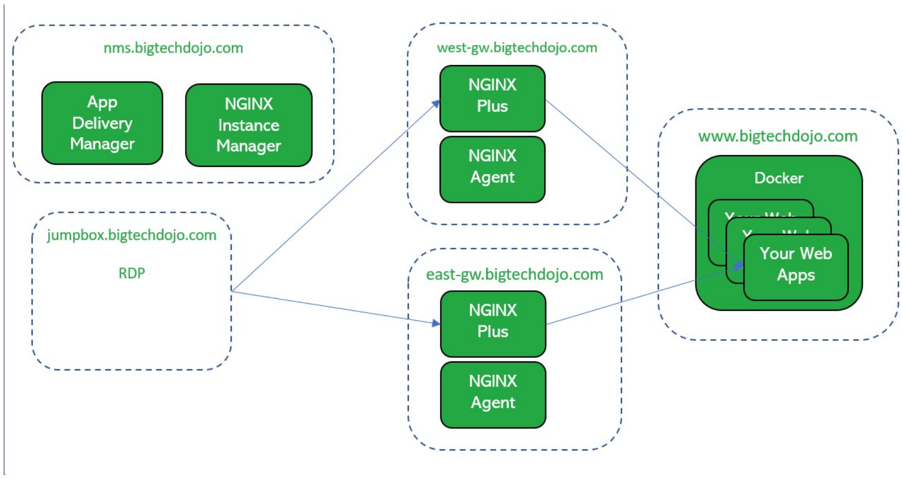
```
IMAGE                           PORTS
spa-demo-app_recommendations    0.0.0.0:8001->8001/tcp
spa-demo-app_spa                0.0.0.0:8081->80/tcp,
spa-demo-app_inventory          0.0.0.0:8002->8002/tcp
spa-demo-app_api                0.0.0.0:8000->8000/tcp
spa-demo-app_checkout           0.0.0.0:8003->8003/tcp
```

Juiceshop also lives on **www.bigtechdojo.com**, is containerized, but is monolithic, deployed on a single port, but there are two instances of Juiceshop on ports **3000** and **3001** as shown here:



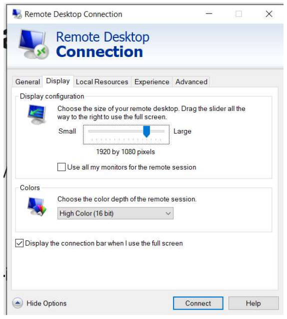
```
bkimminich/juice-shop    0.0.0.0:3001->3000/tcp
bkimminich/juice-shop    0.0.0.0:3000->3000/tcp
```

Diagram



List of Components

1. NMS - this is your NMS and ADM management platform. Creds are shown in the UDF deployment->NMS component->details
2. WEST-GW - this is one of your NGINX+ and NGINX-AGENT instances.
3. EAST-GW - this is another
4. WWW - this is a box of web servers, with one listening on port 80
5. UBUNTU - this is simply a jumpbox. creds are creds are shown in the UDF deployment->Ubuntu component->details.
    1. Access via RDP, and then do all your work from the jumpbox.
    2. This box is faster, smoother, more fun and easier than a Windows Jumpbox. Don't worry it has Firefox on it.
    3. Pro Tip: When you download the RDP file, right-click and edit the file and set color depth to 16-bit, set the screen resolution to slightly less than your monitor, set the username to ubuntu, and enable saving username. Use Ctrl-Shift-V to paste.



Display configuration

Choose the size of your remote desktop. Drag the slider all the way to the right to use the full screen.

Small — Large

1920 by 1080 pixels

□ Use all my monitors for the remote session

Colors

Choose the color depth of the remote session.

High Color (16 bit)

☑ Display the connection bar when I use the full screen

Commented [FF1]: NIM password is NIM123!@# and kali password is KALI123!@# as per NMS-ADM documentation in the udf blueprint. Could we update this drawing?

Commented [BW2R1]: Done, thank you.

Detailed Requirements & Information

- The platform infrastructure team has already configured the software and hardware for you, including NGINX Management Suite, App Delivery Manager, the NGINX instances, and the application servers.

  You are the application delivery team, and in that role, you will consume the platform to deliver the application. The business wants the Juice application deployed in the West, and the Brewz application deployed in the East.

  Apps need to be accessed securely over the Internet at the domains as shown in the diagram.

  You will know you have succeeded when you can browse securely to the West gateway and use the Brewz app, and you can browse securely to the East gateway and use the Juice app.

  You will do everything from the Ubuntu RDP jumpbox

Spoiler Alert – Do not proceed unless you want to see the step-by-step solution

Solution

In the NGINX Management Suite web interface, you access the App Delivery Manager (ADM) features by performing the following operations. You will do everything from the Ubuntu RDP jumpbox.

1. Log into the Ubuntu jumpbox via RDP: credentials can be found in UDF under “Ubuntu JumpBox RDP”, “Details” and then “Documentation” tab
2. Start Firefox on the Ubuntu jumpbox
3. Click on the “West Gateway” book mark link in Firefox, and notice nothing is there. This is because West Gateway is a totally unconfigured nginx instance.
4. Click on the NMS bookmark in the bookmark bar and login. Credentials can be found in UDF under “NMS-ADM”, “Details” and then “Documentation” tab
5. From the Launchpad, select the **NGINX Instance Manager** card to see your instances that have already been deployed for you.
    1. These have been put into two Instance Groups, region-1 and region-2.
    2. Click on one of the instance groups and click “edit config” to see the “blank” configuration.
6. Now, go back to the Launchpad and select the **App Delivery Manager** card

Create an Environment

The first resource you need to create, if one doesn’t already exist, is an Environment resource. This can be accomplished by taking the following steps:

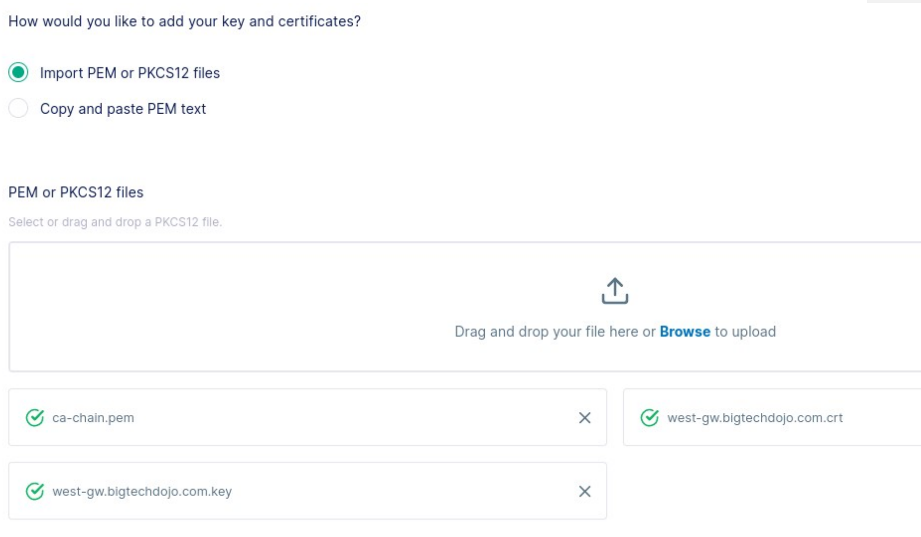
1. Select **Environments** from the **App Delivery Manager** list in the left-hand sidebar. The list of existing environments will then display.
2. Select **Create Environment** on the right-hand side of the list. A panel will appear that allows you to configure the environment.
3. Enter the value **Production** for the **Name** field. This logical environment is not just for one app, but for all your internet-facing websites. You can take the defaults for all the other fields (this exercise does not require customized templates).
4. Select **Submit** to finish creating the environment.

Create a Gateway for Juice Shop

The gateway controls how traffic will route through an NGINX instance to get to the app workloads.

1. Select **Gateways** from the **App Delivery Manager** list in the left-hand sidebar. The list of existing gateways will then display.
2. Select **Create Gateway** on the right-hand side of the list. A panel will appear that allows you to configure the gateway.

3. From the Configuration page of Create Gateway, enter the gateway name as **West Gateway**. You can accept defaults for the next two fields.
4. For the environment field, select the environment **Production** that you previously created.
5. Select **Next** to get to the **Placements** page.
6. The platform team should have created an instance group **region-1**. Select **Add Placement** and from the Instance Group **Refs** dropdown, select **region-1**. Then click **Done**.
7. Select **Next** to get to the **Hostnames** page.
8. Select **Add Hostname** then enter **https://west-gw.bigtechdojo.com** for the Hostname.
9. In the Shared TLS Settings section, select **Create New**
10. In the **Create Certificate** page enter the name as **west-gw.bigtechdojo.com**
11. Select Import **PEM or PKCS12 files** and upload **ca-chain.pem**, **west-gw.bigtechdojo.com.pem** and **west-gw.bigtechdojo.com.key** found on the ubuntu Jumphost under /home/ubuntu
12. **Only** if you receive some error with the previous step (Do **NOT** do this if the browsing to /home/ubuntu step worked) download same certificates from the **Docker VM** in UDF by clicking on the **NGINX** access method. Again, no need to do this if the previous step already worked.



How would you like to add your key and certificates?

● Import PEM or PKCS12 files

○ Copy and paste PEM text

PEM or PKCS12 files

Select or drag and drop a PKCS12 file.

Drag and drop your file here or **Browse** to upload

✓ ca-chain.pem ✕

✓ west-gw.bigtechdojo.com.crt

✓ west-gw.bigtechdojo.com.key ✕

13. Under **Associated Instances** select **west-gw.bigtechdojo.com**
14. Select **Submit** to create the certificate
15. Back to the **Create Gateway** page select **Submit** to complete the Gateway
16. When Gateway deployment is completed, Status will be shown as **Configured**

Create your Application for Juice Shop

Follow these steps to create the applications:

1. Select **Apps** from the **App Delivery Manager** list in the left-hand sidebar. The list of existing apps will then display.
2. Select **Create App** on the right-hand side of the list. A panel will appear that allows you to configure the app.
3. Enter the value **Juice** for the Name field. Select **Production** for the **Environment** field. You can take the defaults for all the other fields.
4. Select **Submit** to finish creating the app.
5. Status will be displayed as **Configured**

Create the Juice Shop Production Web Component

The app we just created is a wrapper that can be composed of multiple components, each potentially referencing a unique service or microservice. To create the production component, perform these steps:

1. You should be on the **Apps Overview** page at this point. Select the app that was just created in the list by clicking the app name.
2. The main display will now show basic metrics for the app. We are not, at this point, interested in the metrics, but from this page we can create a component. At the top of the page, select Web Components.
3. The list of web components will appear, but should be empty.
4. Select **Create Web Component** on the top right-hand side of the display. A panel will appear that allows you to configure the component. There will be several pages of configuration that will need to be performed.
5. On the first page (Configuration), enter the value **Juice** for the Name field.
6. The only other field that needs to be set on this page is the **Gateway Refs** field. Under this field, select **West Gateway**.
7. Click **Next** to advance to the URIs page.
8. Enter **/** for the URI (if you are not able to enter a value, click the pencil icon to edit the URI).
9. Click **Next** to proceed to the Workload Groups page and select **Add Workload Group**
    a. In the **Workload Group Name** field, enter **Juice Servers**
    b. In the Backend Workload URIs section, enter for the URI field and click Done:
    http://www.bigtechdojo.com:3000
    c. Select Add Backend Workload URI to add another workload, and enter:
    http://www.bigtechdojo.com:3001
    d. Click **Done**, then Click **Done** for the overall Workload Groups page.
10. Select the **Submit** button to complete the component configuration.
11. When the configuration is applied **Status** will be shown as **Configured**

Testing

1. Select the **West-gw** bookmark, or refresh the tab if you had one open, and you will see the application.
2. In NMS, navigate to Instance Manager, go to Instance group **region-1**, click on “Edit Config” and you will see the configuration that ADM has created.

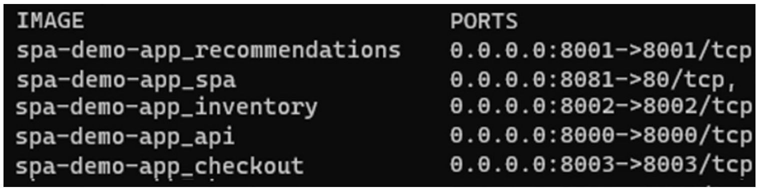
Create a Gateway for Brewz

Follow the steps as shown above in the “Create a gateway for Juice Shop” section, with the following changes:

1. Configuration: name the gateway **East Gateway**
2. Placements: Place this gateway in **region-2** of the country, for low latency.
3. Hostnames: Enter https://east-gw.bigtechdojo.com for the **Hostname**, and then click **Done**.
4. Upload the correct cert and key (follow the instructions previously shown for the West Gateway) but this time choose **east-gw.bigtechdojo.com.pem** and **east-gw.bigtechdojo.com.key** respectively. Certificate name shall be **east-gw.bigtechdojo.com**

Create your Application for Brewz

Now that you have the hang of a simple monolithic application, you are going to deploy the microservices application Brewz. Brewz lives on the following ports:



```
IMAGE                            PORTS
spa-demo-app_recommendations     0.0.0.0:8001->8001/tcp
spa-demo-app_spa                 0.0.0.0:8081->80/tcp,
spa-demo-app_inventory           0.0.0.0:8002->8002/tcp
spa-demo-app_api                 0.0.0.0:8000->8000/tcp
spa-demo-app_checkout            0.0.0.0:8003->8003/tcp
```

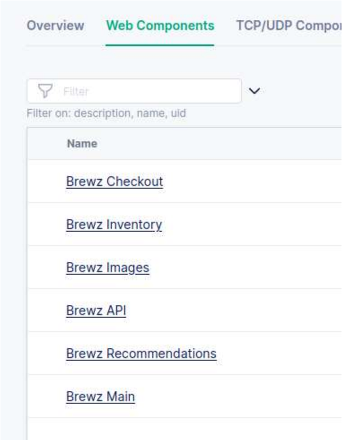
1. Create a new application
2. Enter **Brewz** for the **Name** field and select **Production** in the **Environment** field

The front-end of the Single-Page Application directs traffic to each of these containers based on the following routes:

URI	Port	Web Component
/	8081	Brewz Main
/recommendations	8001	Brewz Recommendations
/inventory	8002	Brewz Inventory
/api	8000	Brewz API
/images	8000	Brewz Images
/checkout	8003	Brewz Checkout

1. Create each of the 6 Brewz Web Components

You are going to create a web component for each Brewz microservice so that you end up with the following 6 web components:



Name
Brewz Checkout
Brewz Inventory
Brewz Images
Brewz API
Brewz Recommendations
Brewz Main

The detailed steps are provided for the **/checkout** route, you are going to learn from these steps and create the other routes.

Follow the steps you did above for the Juice app, with the following changes:

12. On the first page (Configuration), enter the value **Brewz Checkout** for the **Name** field.
13. The only other field that needs to be set on this page is the **Gateway Refs** field. Under this field, select **East Gateway**. Then click **Next** to advance to the URIs page.
14. Enter **/checkout** for the URI (click the pencil icon to edit the URI).
15. Click **Done** to save the URI

16. Click **Next** to proceed to the Workload Groups page.
    a. In the **Workload Group Name** field, enter **Brewz Checkout**
    b. In the Backend Workload URIs section, enter for the URI field:

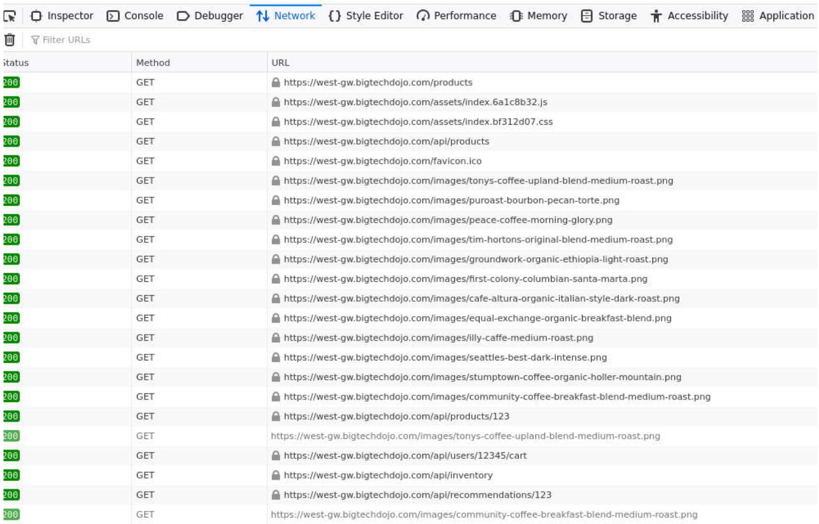
       http://www.bigtechdojo.com:8003

    c. Click **Done**, then click **Done** for the overall Workload Groups page.
17. Select the **Submit** button to complete the component configuration.
18. Create the remaining five routes to Brewz microservices as per the table above. Make sure the Backend Workload URI port is configured based on the table.

Testing

1. Select the **West-gw** bookmark, or refresh the tab if you had one open, and you will see the application.
2. In NMS, navigate to Instance Manager, go to Instance group **region-1**, click on “Edit Config” and you will see the configuration that ADM has created.

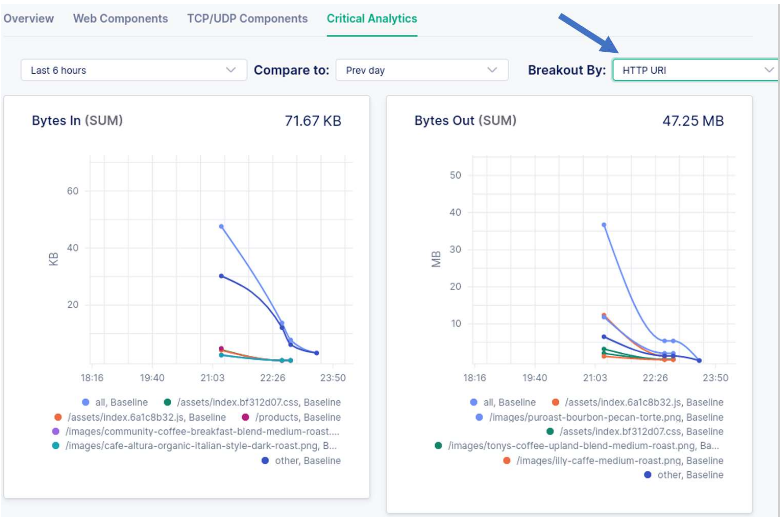
View Paths in Network Inspector



Status	Method	URL
200	GET	https://west-gw.bigtechdojo.com/products
200	GET	https://west-gw.bigtechdojo.com/assets/index.6a1c8b32.js
200	GET	https://west-gw.bigtechdojo.com/assets/index.bf312d07.css
200	GET	https://west-gw.bigtechdojo.com/api/products
200	GET	https://west-gw.bigtechdojo.com/favicon.ico
200	GET	https://west-gw.bigtechdojo.com/images/tonys-coffee-upland-blend-medium-roast.png
200	GET	https://west-gw.bigtechdojo.com/images/puroast-bourbon-pecan-torte.png
200	GET	https://west-gw.bigtechdojo.com/images/peace-coffee-morning-glory.png
200	GET	https://west-gw.bigtechdojo.com/images/tim-hortons-original-blend-medium-roast.png
200	GET	https://west-gw.bigtechdojo.com/images/groundwork-organic-ethiopia-light-roast.png
200	GET	https://west-gw.bigtechdojo.com/images/first-colony-columbian-santa-marta.png
200	GET	https://west-gw.bigtechdojo.com/images/cafe-altura-organic-italian-style-dark-roast.png
200	GET	https://west-gw.bigtechdojo.com/images/equal-exchange-organic-breakfast-blend.png
200	GET	https://west-gw.bigtechdojo.com/images/illy-caffe-medium-roast.png
200	GET	https://west-gw.bigtechdojo.com/images/seattles-best-dark-intense.png
200	GET	https://west-gw.bigtechdojo.com/images/stumptown-coffee-organic-holler-mountain.png
200	GET	https://west-gw.bigtechdojo.com/images/community-coffee-breakfast-blend-medium-roast.png
200	GET	https://west-gw.bigtechdojo.com/api/products/123
200	GET	https://west-gw.bigtechdojo.com/images/tonys-coffee-upland-blend-medium-roast.png
200	GET	https://west-gw.bigtechdojo.com/api/users/12345/cart
200	GET	https://west-gw.bigtechdojo.com/api/inventory
200	GET	https://west-gw.bigtechdojo.com/api/recommendations/123
200	GET	https://west-gw.bigtechdojo.com/images/community-coffee-breakfast-blend-medium-roast.png

Critical Analysis

Select Breakout By: HTTP URI



Overview
Web Components
TCP/UDP Components
Critical Analytics

Last 6 hours

Compare to: Prev day

Breakout By: HTTP URI

Bytes In (SUM) 71.67 KB

60
40
20
KB
18:16
19:40
21:03
22:26
23:50
● all, Baseline
● /assets/index.bf312d07.css, Baseline
● /assets/index.6a1c8b32.js, Baseline
● /products, Baseline
● /images/community-coffee-breakfast-blend-medium-roast....
● /images/cafe-altura-organic-italian-style-dark-roast.png, B...
● other, Baseline

Bytes Out (SUM) 47.25 MB

50
40
30
20
10
MB
18:16
19:40
21:03
22:26
23:50
● all, Baseline
● /assets/index.6a1c8b32.js, Baseline
● /images/puroast-bourbon-pecan-torte.png, Baseline
● /assets/index.bf312d07.css, Baseline
● /images/tonys-coffee-upland-blend-medium-roast.png, Ba...
● /images/illy-caffe-medium-roast.png, Baseline
● other, Baseline

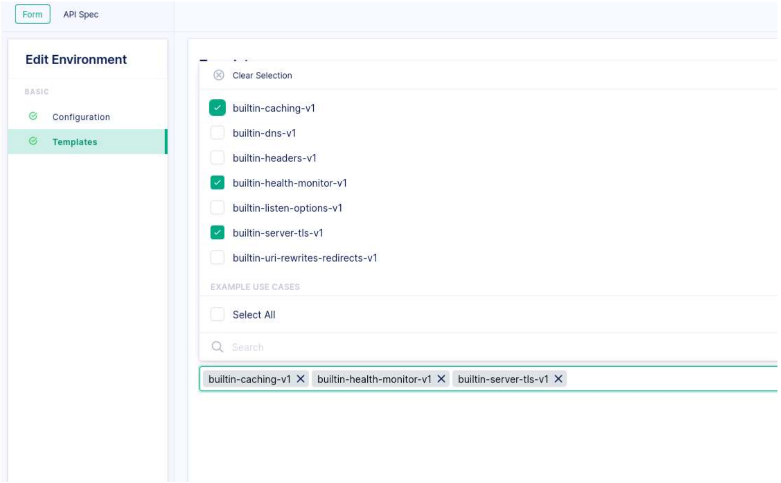
Module 2 - Templates

Templates allow a customer to extend ADM. In this module, you are going to enable existing templates. After that, you will install new templates into ADM that professional services has created to enable remote syslog logging to a rsyslog server.

Enabling Templates

You are going to enable the Caching, Health Monitoring, and Server TLS templates.

1. Edit your Production environment (click on the three dots) and select **Use Cases** templates and select the following templates:

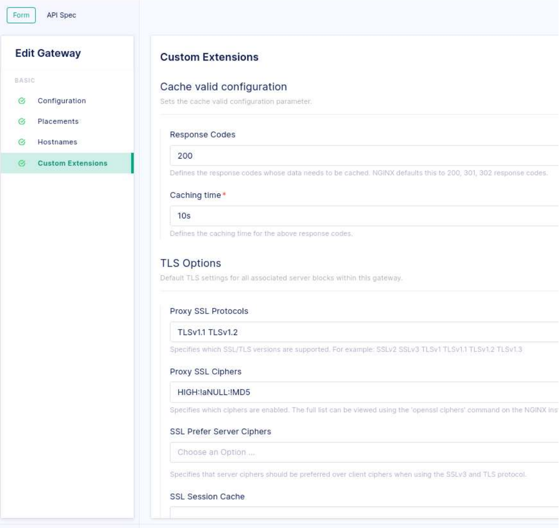


☑ builtin-caching-v1
☐ builtin-dns-v1
☐ builtin-headers-v1
☑ builtin-health-monitor-v1
☐ builtin-listen-options-v1
☑ builtin-server-tls-v1
☐ builtin-uri-rewrites-redirects-v1

☐ Select All

builtin-caching-v1 ✕ builtin-health-monitor-v1 ✕ builtin-server-tls-v1 ✕

2. Edit your **West Gateway** and select **Custom Extensions** and enable the following Server TLS settings:
    1. Caching Response Codes: 200 and Caching Time: 10s
    2. TLS Options Proxy SSL Protocols: TLSv1.1 and TLSv1.2
    3. TLS Options Proxy SSL Ciphers : HIGH:!aNULL:!MD5



Custom Extensions

Cache valid configuration

Sets the cache valid configuration parameter.

Response Codes

200

Defines the response codes whose data needs to be cached. NGINX defaults this to 200, 301, 302 response codes.

Caching time*

10s

Defines the caching time for the above response codes.

TLS Options

Default TLS settings for all associated server blocks within this gateway.

Proxy SSL Protocols

TLSv1.1 TLSv1.2

Specifies which SSL/TLS versions are supported. For example: SSLv2 SSLv3 TLSv1 TLSv1.1 TLSv1.2 TLSv1.3

Proxy SSL Ciphers

HIGH:!aNULL:!MD5

Specifies which ciphers are enabled. The full list can be viewed using the 'openssl ciphers' command on the NGINX ins

SSL Prefer Server Ciphers

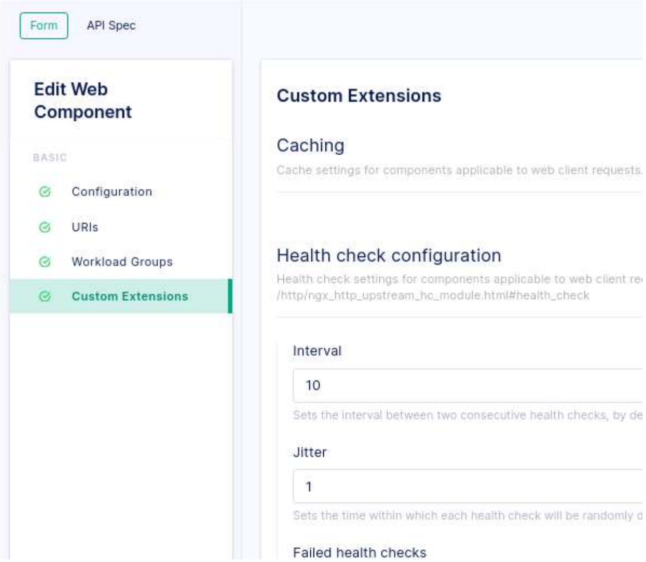
Choose an Option ...

Specifies that server ciphers should be preferred over client ciphers when using the SSLv3 and TLS protocol.

SSL Session Cache

3. Click **Submit**
4. Edit your **Juice Shop** web component and select **Custom Extension**

5. Configure the Health Check **Interval** to 10 **Jitter** to 1, and click **Submit**.



Custom Extensions

Caching

Cache settings for components applicable to web client requests.

Health check configuration

Health check settings for components applicable to web client re
/http/ngx_http_upstream_hc_module.html#health_check

Interval

10

Sets the interval between two consecutive health checks, by de

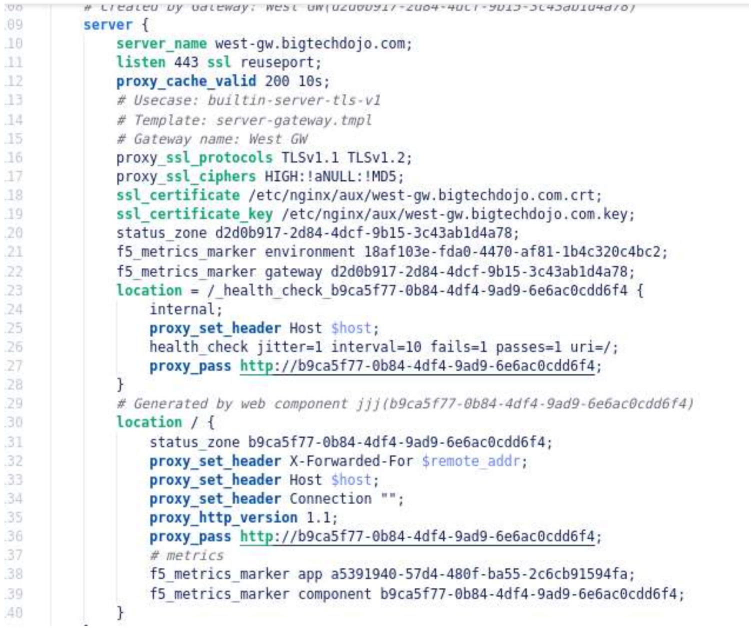
Jitter

1

Sets the time within which each health check will be randomly d

Failed health checks

6. View the resulting configuration in Instance Manager



```
# Created by Gateway: West GW(d2d0b917-2d84-4dcf-9b15-3c43ab1d4a78)
server {
    server_name west-gw.bigtechdojo.com;
    listen 443 ssl reuseport;
    proxy_cache_valid 200 10s;
    # Usecase: builtin-server-tls-v1
    # Template: server-gateway.tmpl
    # Gateway name: West GW
    proxy_ssl_protocols TLSv1.1 TLSv1.2;
    proxy_ssl_ciphers HIGH:!aNULL:!MD5;
    ssl_certificate /etc/nginx/aux/west-gw.bigtechdojo.com.crt;
    ssl_certificate_key /etc/nginx/aux/west-gw.bigtechdojo.com.key;
    status_zone d2d0b917-2d84-4dcf-9b15-3c43ab1d4a78;
    f5_metrics_marker environment 18af103e-fda0-4470-af81-1b4c320c4bc2;
    f5_metrics_marker gateway d2d0b917-2d84-4dcf-9b15-3c43ab1d4a78;
    location = /_health_check_b9ca5f77-0b84-4df4-9ad9-6e6ac0cdd6f4 {
        internal;
        proxy_set_header Host $host;
        health_check jitter=1 interval=10 fails=1 passes=1 uri=/;
        proxy_pass http://b9ca5f77-0b84-4df4-9ad9-6e6ac0cdd6f4;
    }
    # Generated by web component jjj(b9ca5f77-0b84-4df4-9ad9-6e6ac0cdd6f4)
    location / {
        status_zone b9ca5f77-0b84-4df4-9ad9-6e6ac0cdd6f4;
        proxy_set_header X-Forwarded-For $remote_addr;
        proxy_set_header Host $host;
        proxy_set_header Connection "";
        proxy_http_version 1.1;
        proxy_pass http://b9ca5f77-0b84-4df4-9ad9-6e6ac0cdd6f4;
        # metrics
        f5_metrics_marker app a5391940-57d4-480f-ba55-2c6cb91594fa;
        f5_metrics_marker component b9ca5f77-0b84-4df4-9ad9-6e6ac0cdd6f4;
    }
```

Installing Custom Templates

Here you are in the role of the SE helping the Platform Team, so you are going to touch the NMS at the Operating System level.

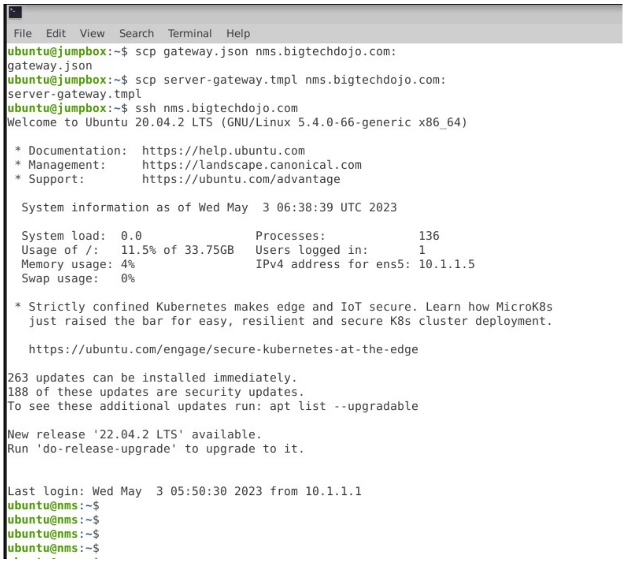
Imagine that your customer has a requirement for a feature that is not included in the product, but can be enabled with Templates.

In this example, the templates have already created by F5 professional services or F5 SA, and are located on your jumpbox in the /home/ubuntu directory.

You just need to help the customer Platform Team install them and configure them in ADM.

1. Open a terminal window on the jumpbox
2. In this terminal window, SCP copy the **gateway.json** and **server-gateway.tmpl** to the NMS system, and then SSH to the NMS system (ssh keys are already set up for you) (you can copy and paste (On a Windows system, use CTRL-SHIFT-V to paste into the RDP window)

```
scp gateway.json nms.bigtechdojo.com:
scp server-gateway.tmpl nms.bigtechdojo.com:
```

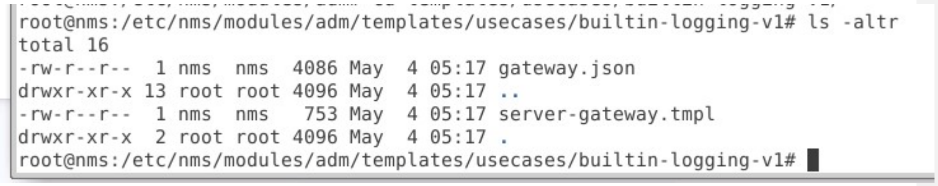


```
ubuntu@jumpbox:~$ scp gateway.json nms.bigtechdojo.com:
gateway.json
ubuntu@jumpbox:~$ scp server-gateway.tmpl nms.bigtechdojo.com:
server-gateway.tmpl
ubuntu@jumpbox:~$ ssh nms.bigtechdojo.com
Welcome to Ubuntu 20.04.2 LTS (GNU/Linux 5.4.0-66-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/advantage

  System information as of Wed May  3 06:38:39 UTC 2023

  System load:  0.0                Processes:             136
  Usage of /:   11.5% of 33.75GB   Users logged in:       1
  Memory usage: 4%                 IPv4 address for ens5: 10.1.1.5
  Swap usage:   0%

 * Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s
   just raised the bar for easy, resilient and secure K8s cluster deployment.

   https://ubuntu.com/engage/secure-kubernetes-at-the-edge

263 updates can be installed immediately.
188 of these updates are security updates.
To see these additional updates run: apt list --upgradable

New release '22.04.2 LTS' available.
Run 'do-release-upgrade' to upgrade to it.


Last login: Wed May  3 05:50:30 2023 from 10.1.1.1
ubuntu@nms:~$
ubuntu@nms:~$
ubuntu@nms:~$
ubuntu@nms:~$
```

3. SSH to the NMS system by running **ssh nms** in the terminal window

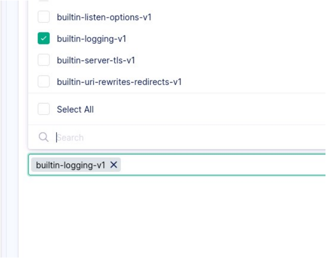
4. Enter exactly the following commands **one-by-one** on the NMS system (On a Windows system, use CTRL-SHIFT-V to paste then **one-by-one** into the RDP window. Do not copy all the lines and paste them at once, you can copy and paste them **one-by-one**)

   ```
   sudo bash
   cd /etc/nms/modules/adm/templates/usecases
   mkdir builtin-logging-v1
   cd builtin-logging-v1
   cp /home/ubuntu/gateway.json .
   cp /home/ubuntu/server-gateway.tmpl .
   chown nms *
   chgrp nms *
   ls -altr
   exit
   ```

   ```
   root@nms:/etc/nms/modules/adm/templates/usecases/builtin-logging-v1# ls -altr
   total 16
   -rw-r--r--  1 nms  nms  4086 May  4 05:17 gateway.json
   drwxr-xr-x 13 root root 4096 May  4 05:17 ..
   -rw-r--r--  1 nms  nms   753 May  4 05:17 server-gateway.tmpl
   drwxr-xr-x  2 root root 4096 May  4 05:17 .
   root@nms:/etc/nms/modules/adm/templates/usecases/builtin-logging-v1#
   ```

5. That is the end of the work for the Platform team.
6. Now, go back to your Browser window. Go to your Production environment, select **Edit** from the "..." link on the right side of the screen. Click on the **Templates** section and select your **builtin-logging-v1** template in the **Use Cases** section, then **Submit** all changes

   □ builtin-listen-options-v1
   ☑ builtin-logging-v1
   □ builtin-server-tls-v1
   □ builtin-uri-rewrites-redirects-v1
   □ Select All

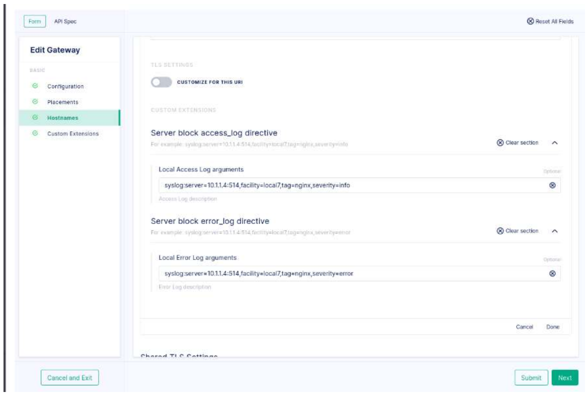
   builtin-logging-v1 ✕

1. Edit your West Gateway, move to the **Custom Extensions** screen and enter the following for the **Global Access Log arguments** field:

   ```
   syslog:server=10.1.1.4:514,facility=local7,tag=nginx,severity=info
   ```

2. Enter the following for the **Global Error Log arguments** field:

```
syslog:server=10.1.1.4:514,facility=local7,tag=nginx,severity=info
```



Server block access_log directive

For example: syslog:server=10.1.1.4:514,facility=local7,tag=nginx,severity=info

Local Access Log arguments

syslog:server=10.1.1.4:514,facility=local7,tag=nginx,severity=info

Access Log description

Server block error_log directive

For example: syslog:server=10.1.1.4:514,facility=local7,tag=nginx,severity=error

Local Error Log arguments

syslog:server=10.1.1.4:514,facility=local7,tag=nginx,severity=error

Error Log description

3. Click **Submit**
4. View the resulting configuration in Instance Manager
5. On your jumpbox, tail -f /var/log/syslog, send web traffic to your gateway by refreshing the browser, and make sure you see nginx access log entries in your syslog