BlueCat

Asset Manager can now exchange data with a BlueCat Address Manager (BAM) connected to a BlueCat Gateway (BG).

Prerequisite

A BlueCat Gateway server has already been installed at your workplace.

Process

1. Configure the BlueCat Integration in Asset Manager
2. Install the Asset Manager plug-in on the BlueCat gateway server
3. Review the results on the BlueCat Management dashboard.
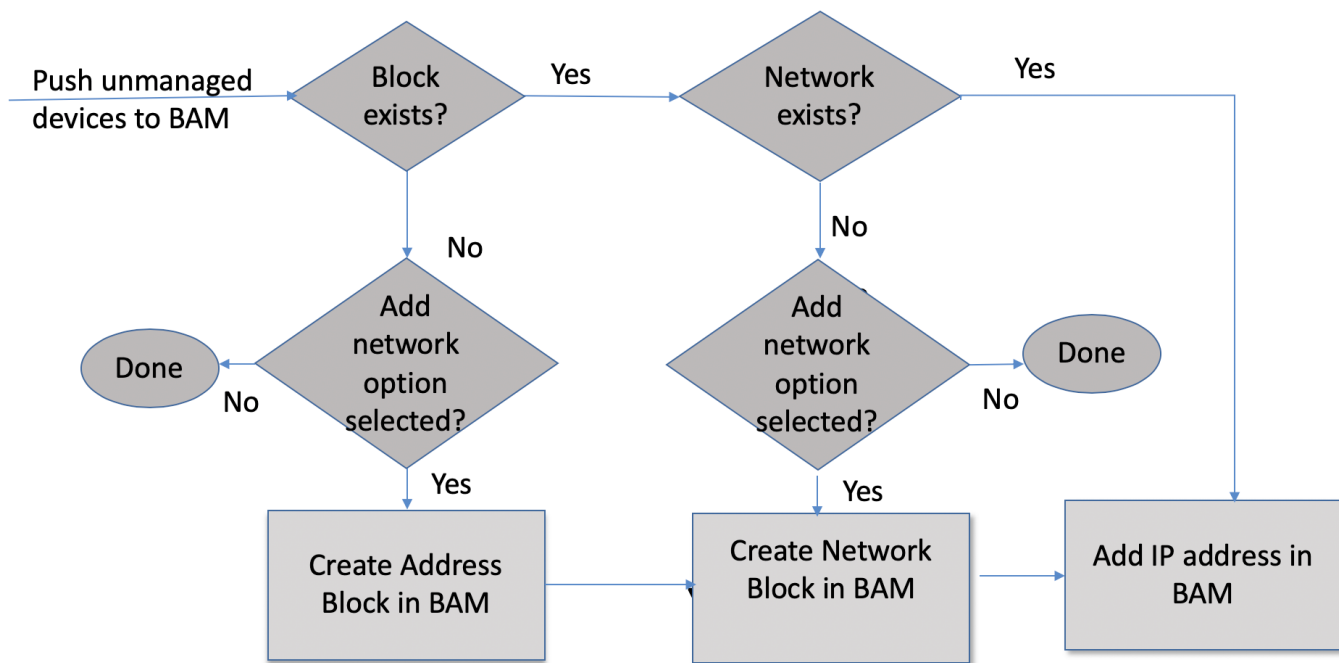
About Integration

1. Asset Manager authenticates against the BG and retrieves all results via this gateway. Asset Manager does not communicate directly with the BAM server.
2. Address blocks with /30 (for IPv4) and /32 are added to BAM when the "add unmanaged devices with no network block defined" option has been selected and BAM does not already have an address block containing the IP address.
3. Network blocks with /32 (for IPv4) are added to BAM when the "add unmanaged devices with no network block defined" option has been selected and BAM does not already have an address block containing the IP address.

High Level Flow Design
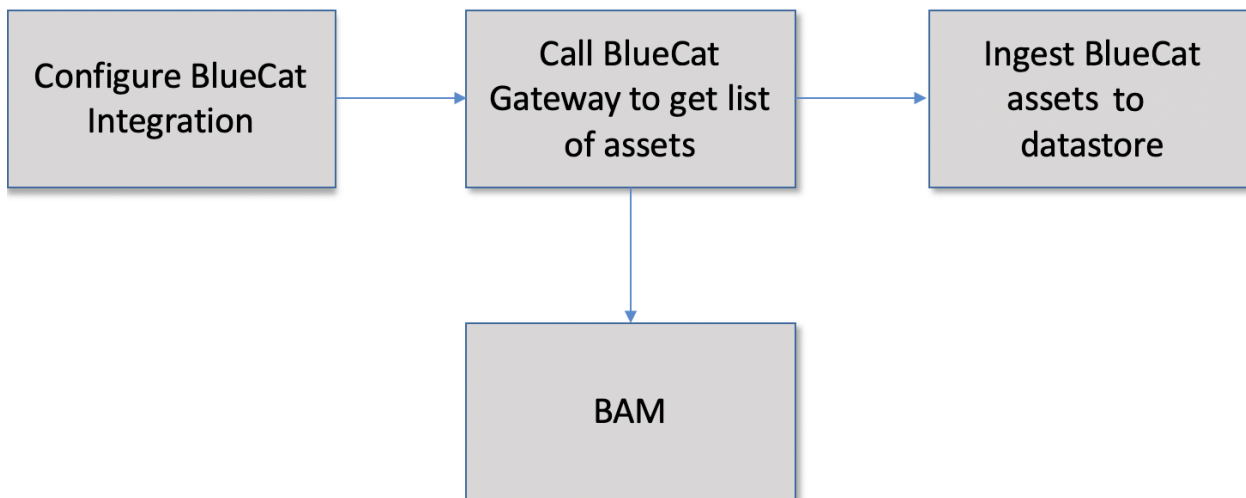
1. Asset Manager pulls list of networks from BAM
2. For each configured network, Asset Manager calls REST APIs against Gateway to retrieve list of IPv4 addresses. Those addresses are ingested into a managed primary table on Asset Manager called *bluecat_managed_hosts*.
3. Asset Manager analyzes the data and identifies devices in each selected zone (provided the Asset Mapping by Zone checkbox is selected).
4. Asset Manager populates the BlueCat Management dashboard.
5. Asset Manager calls the BG API to create these devices in BAM under a selected configuration.

Logic to Create Assets in BAM

Flowchart

Push unmanaged devices to BAM → **Block exists?**

- Block exists? — **Yes** → **Network exists?**
  - Network exists? — **Yes** → **Add IP address in BAM**
  - Network exists? — **No** → **Add network option selected?**
    - Add network option selected? — **No** → **Done**
    - Add network option selected? — **Yes** → **Create Network Block in BAM** → **Add IP address in BAM**
- Block exists? — **No** → **Add network option selected?**
  - Add network option selected? — **No** → **Done**
  - Add network option selected? — **Yes** → **Create Address Block in BAM** → **Create Network Block in BAM**

Gateway Workflow API details:

Purpose	API	Payload	Response

Gateway Authentication	https://172.18.1.123/rest_login
	
	`curl -v -H "Accept: application/json" -H 'Content-type: application/json' -d@creds.json -k -X POST 'https://172.18.1.123/rest_login'`
		`{`
		`"username" : "gateway",`
		`"password" : "admin"`
		`}`
			`{`
			`"access_token": "BAMAuthToken: cdnGuMTU3Mjk5MDkyODI0OTTpnYXRId2F5"`
			`}`

Get list of networks /configurations	Asset Manager /getnetworklist
	
	`curl -X GET \`
	`https://172.18.1.123/Asset Manager/getnetworklist \`
	
	`-H 'Accept: application/json' \`
	
	`-H 'Auth: Basic I6vp7MTU3Mjg4MjM2NzU5NjpnYXRId2F5'`
		None	`[{"id":100880,"name":"Somerset","type":"Configuration","properties":null}]`

| Get list of devices | `Asset Manager /getiplist \`

It retrieves devices for all networks

`curl -X GET \`
  https://172.18.1.123/AssetManager/getiplist `\`
`  -H 'Accept: application/json' \`

`-H 'Auth: Basic O2MsBMTU3Mjg4NTI2MDUwMDpnYXRld2F5' \` | None | [{"config_id":100880,"config_name":"Somerset","id":100895,"ip_address":"172.18.1.1","properties":{"address":"172.18.1.1","locationCode":"US MOO","locationInherited":"true","state":"GATEWAY"}},{"config_id":100880,"config_name":"Somerset","id":100901,"ip_address":"172.18.1.37","properties":{"address":"172.18.1.37","locationCode":"US MOO","locationInherited":"true","state":"STATIC"}},{"config_id":100880,"config_name":"Somerset","id":100902,"ip_address":"172.18.1.42","properties":{"address":"172.18.1.42","locationCode":"US MOO","locationInherited":"true","state":"STATIC"}}] |

[{"config_id":100880,"config_name":"Somerset","id":100895,"ip_address":"172.18.1.1","properties":{"address":"172.18.1.1","locationCode":"US MOO","locationInherited":"true","state":"GATEWAY"}},{"config_id":100880,"config_name":"Somerset","id":100901,"ip_address":"172.18.1.37","properties":{"address":"172.18.1.37","locationCode":"US MOO","locationInherited":"true","state":"STATIC"}},{"config_id":100880,"config_name":"Somerset","id":100902,"ip_address":"172.18.1.42","properties":{"address":"172.18.1.42","locationCode":"US MOO","locationInherited":"true","state":"STATIC"}}]

| Add list of devices | http://172.18.1.123/Asset Manager/addiplist

```
curl -X POST \
  http://172.18.1.123/Asset Manager/addiplist \
  -H 'Accept: application/json' \
  -H 'Accept-Encoding: gzip, deflate' \
  -H 'Authorization: Basic AFJ9RMTU3NDQ0NjEzMDY0NjpnYXRld2F5F5'
``` | array of configuration with each configuration containing list of devices that need to be added

```
[{"config_name": "Somerset",
"add_network_block": true,
"deviceList": [
      {
        "ip": "10.28.1.14",
        "mac": "00:20:58:ae:05:a5",
        "family": "4"
      },
      {
        "ip": "10.28.1.39",
        "mac": "",
        "family": "4"
      }
    ]
},{
"config_name": "Dallas",
"add_network_block": true,
"deviceList": [
      {
        "ip": "10.28.1.21",
        "mac": "00:20:59:ab:05:a5",
        "family": "4"
      },
      {
        "ip": "10.28.1.59",
        "mac": "",
        "family": "4"
      }
    ]
}
]
``` | ```
{
"Dallas": {
"added_ips": 0,
"dup_ips": 2
},
"Somerset": {
"added_ips": 0,
"dup_ips": 2
}
}
``` |