Clearswift Secure ICAP Gateway
Amazon Machine Image (AMI)
Version 5.7.0
Installation Guide
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1. Before you begin

We recommend being familiar with Amazon Web Services (AWS) and Amazon Machine Images (AMI) before you deploy Secure ICAP Gateway.

In this guide, we use:

- **AWS Marketplace** to subscribe to the AMI
- **Amazon Elastic Compute Cloud (Amazon EC2)**, and the **Amazon EC2 console** to launch the instance

You must have an AWS account to complete all the steps described in this guide.

We assume that your AWS Regions supports the new launch instance wizard which Amazon EC2 implemented in 2022. If your AWS Regions does not support the new wizard, instructions in this guide may not be applicable to you. In that case, you can use our [previous guide](#) as a reference.
2. Subscribe to the Secure ICAP Gateway AMI

Subscribe to the AMI from AWS Marketplace

1. Sign in to AWS Marketplace.
2. Locate the Secure ICAP Gateway product page.
   You can either:
   - type Clearswift in the search field
   - from the Categories menu, select Infrastructure Software > Security. Refine the search results further by selecting Fortra from the Publisher section

   AWS offers AMIs on a subscription basis. Secure ICAP Gateway uses a BYOL (Bring Your Own License) model.

3. Select the product.
4. In the product page, check the information and click Continue to Subscribe.
5. In the Subscribe to this software page, check the information and click Continue to Configuration.
6. In the Configure this software page, select the following:
   - Fulfillment option: 64-bit (x86) Amazon Machine Image (AMI)
   - Software Version: 5.7.0
   - Region: an appropriate regional data center for your organization

   AWS Regions may vary according to proximity and cost, and should be selected carefully.

7. In the Configure this software page, click Continue to Launch.
8. In the Launch this software page, select the Launch through EC2 from the Choose Action drop-down menu and click Launch.
9. You are redirected to the Amazon EC2 console.
3. Launch the Secure ICAP Gateway instance

Initiate the launch instance wizard from the Amazon EC2 console

By following the previous steps, you should automatically be redirected from AWS Marketplace to the Amazon EC2 console. Alternatively, you can access the Amazon EC2 console directly, click Launch instance in the dashboard, and configure your instance in the Launch an instance page.

Configure the Launch an instance page

Name and tags
You can tag the name of your instance.
1. In the Name field, enter a name for the instance.
2. Click Add additional tags.
3. Enter a corresponding Key and a Value, then click Add new tag.

Application and OS Images (Amazon Machine Image)

Specify an OS image (AMI) you are launching. This should be the AMI you have subscribed to.

Instance type
From the drop-down menu, select an instance type. There is a number of available options for building your machine.

<table>
<thead>
<tr>
<th>Instance</th>
<th>vCPU</th>
<th>CPU Credits/hour</th>
<th>Mem (GiB)</th>
<th>Storage</th>
<th>Network Performance (GB/s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>t3.xlarge</td>
<td>4</td>
<td>96</td>
<td>16</td>
<td>EBS only</td>
<td>up to 5</td>
</tr>
<tr>
<td>t3.2xlarge</td>
<td>8</td>
<td>192</td>
<td>32</td>
<td>EBS only</td>
<td>up to 5</td>
</tr>
<tr>
<td>t3a.xlarge</td>
<td>4</td>
<td>96</td>
<td>16</td>
<td>EBS only</td>
<td>up to 5</td>
</tr>
<tr>
<td>t3a.2xlarge</td>
<td>8</td>
<td>192</td>
<td>32</td>
<td>EBS only</td>
<td>up to 5</td>
</tr>
</tbody>
</table>
Use an **xlarge** or larger instance for production workloads.

**Key pair (login)**

Select or create a key pair to ensure secure connection to your AMI.

**Network settings**

1. Click **Edit** in the **Network settings** panel.
2. From the VPC drop-down menu, select a VPC your instance belongs to.
3. From the **Subnet** drop-down menu, select an existing subnet from your VPC that matches your requirements.

For further information on Amazon Virtual Private Cloud, see [https://aws.amazon.com/vpc/](https://aws.amazon.com/vpc/) and its documentation.

4. From the **Auto-assign Public IP** drop-down menu, select **Disable**.
5. In the **Firewall (security groups)** and **Inbound security groups rules** sections, you can select a security group to control traffic for your instance.

Use the following as a reference:

- **Type** - SMTP, **Port range** - 25, **Source type** - anywhere
- **Type** - HTTPS, **Port range** - 443, **Source type** - restrict access to your valid IP addresses
- **Type** - ICAP, **Port range** - 1344, **Source type** - restrict access to your valid IP addresses
- **Type** - TCP/UDP, **Port range** - 9090, **Source type** - restrict access to the Red Hat Cockpit UI

When configuring security group **Source type**, make sure you set rules to allow access from known IP addresses only.

6. Click **Advanced network configuration**, and expand the section. **Advanced network configuration** is available only when you select the subnet.
7. For the **Network interface 1**, enter an IP address in the **Primary IP** field, or leave the field empty for an auto-assigned IP address.

**Configure storage**

Configure your device storage. The **Configure storage** panel has two viewing modes; **Simple** and **Advanced**.
With the **Simple** view, you can specify the size and type of the volume. To display all parameters, click **Advanced** and switch the view.

Use the default devices provided with the AMI. These have been specifically partitioned for the deployment of Secure ICAP Gateway. You can increase the **Size (GiB)** but you should not change the **Device** or **Snapshot ID**.

**Advanced details**
Configure any additional parameters you require.

- If you are launching multiple instances of Secure ICAP Gateway, and would like to peer them, you have to configure the following before you launch the instances:
  - **Number of instances** in the **Summary** panel
  - **User data** in the **Advanced details** panel

For detailed instructions, see the next chapter; [Peering within the Gateways](#).

**Launch your instance**
Review your configuration in the **Summary** panel, and click **Launch instance**. The user interface takes a few minutes to start.
4. Peering within the Gateways

You can deploy additional Secure ICAP Gateway instances to provide resilience and scalability. By peering your Gateways, you can manage them all from a single point.

On the **Launch an instance** page:

1. In the **Summary** panel, select a desired value for the **Number of instances** field.

2. Copy the following script, and paste it into the **User data** field in the **Advanced details** panel.

```
#!/bin/bash

NEWUUID=`uuidgen`

echo "machine.uuid=$NEWUUID" > /opt/cs-gateway/cfg/system-id.-properties

xmlstarlet ed -L -u "/System/@uuid" -v "$NEWUUID" /var/cs-gateway/uicfg/system.xml

xmlstarlet ed -L -u "/System/PeerAppliances/Peer/@uuid" -v "$NEWUUID" /var/cs-gateway/uicfg/system.xml
```
5. After you launch

Configure access to Red Hat Cockpit

Before you access the Secure ICAP Gateway's user interface, you must configure your Gateway's Linux user to access Red Hat Cockpit.

1. Access the SSH key pair.
2. Log in to the virtual machine using SSH, for example:

   ```
   ssh -i keyPair.pem ec2-user@<ip-address>
   ```
3. Create a password for the root user in order to access Cockpit, for example:

   ```
   sudo -i
   passwd
   ```

To access the Cockpit administration user interface, open a supported web browser and enter the IP address of your Secure ICAP Gateway, on port 9090:

   `https://<ip-address>:9090`

Configure Secure ICAP Gateway

When you have launched your AMI, navigate to the Secure ICAP Gateway installation wizard.

To access the Secure ICAP Gateway interface, open a supported web browser and enter the IP address of your Gateway:

   `https://<ip-address>/Appliance`

The installation process begins. For information on installation from this point onwards, refer to the Installation and Getting Started Guide, (Configuring Secure ICAP Gateway section).

It may take approximately 15-30 minutes for the anti-virus to install and update. We recommend that you monitor the status of the ICAP Server service from System > Service Control page. The anti-virus
installs appear in the **Upgrade Service** log. The status of the ICAP Server service will change from "Failed" to "Started", indicating progress.
6. Upgrade

If you are upgrading your current version of Secure ICAP Gateway on AWS, refer to the Installation and Getting Started Guide for detailed instructions.