RVOC - RTS Voice Over Cloud

RVOC Engine

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1 Important Notices

1.1 Copyright and disclaimer

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1.2 Revision history

Revision	Revision date	Change description
01	04/2025	Initial release

2   Introduction
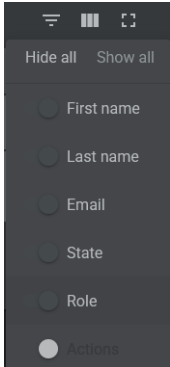
RVOC Engine is a cloud based intercom that offers flexibility and scalability, accommodating the dynamic needs for broadcast, outdoor and remote productions, live events and performance, corporate environments, healthcare, e-sports and many more applications. It will be a pivotal tool in facilitating real-time collaboration and coordination, allowing teams to communicate, receive instructions, and seamlessly coordinate live cues. In order to vacility communication on the move, a virtual keypanel is available as an app for mobile phones called RVOC Edge.

Use RVOC Engine to:
- Manage licenses
- Create and manage RVOC Engine users
- Create and manage connections

2.1   Common UI elements

After successfully deploying the RVOC Engine, a Web management interface is available that uses these icons.

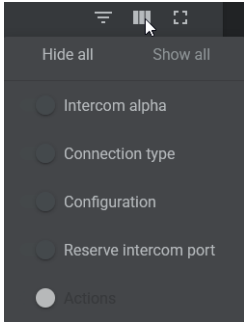| Icon	Name	Description
⩧	Show Filters	Shows the filter parameter for each column.
⩧	Hide Filters	Hides the filter parameter for each column.
▮▮▮	Show columns	Click to open the column visibility menu. Here you can: – Show or hide all columns at once. – Select individual columns to display or hide. RVOC Elevate / RVOC Engine
⌐ ⌐	Toggle full screen	Expands the application to full screen mode, maximizing the viewing area.
⌐ ⌐	Exit full screen	Exits full screen mode.
↑↓	Sort off	Sort is not active.

Icon	Name	Description
↑↓	Sort on	Hover to activate sort with a click.
↓	Sort descending	Sorts from the top down.
↑	Sort ascending	Sorts from the bottom up.
⋮	Column actions	Opens a drop down menu of options for customizing the column.
I<	Go to first page	Goes to the first page.
<	Go to previous page	Goes to the previous page.
>	Go to next page	Goes to the next page.
>I	Go to last page	Goes to the last page.
✎	Edit	Activates editing on an entry.
🗑	Delete	Deletes an entry. **NOTE**: A confirmation message appears before deletion occurs.
↺🔒	Reset user password	Sends a password reset email to the user. **NOTE**: A confirmation message appears before sending resetting a password.

2.2   Log out

If you are using a shared computer, it is crucial to log out of RVOC Engine after you finish your session. This helps protect your personal information and ensures that no one else can access your account. To log out, simply navigate to the Profile menu on the RVOC Engine home page and select the Logout option. Taking this precaution is an important step in maintaining your account's security, especially in environments where multiple users have access to the same device. Always remember to log out to safeguard your data and privacy.

Log out of the application
1.   Click the **Profile** in the upper right corner.
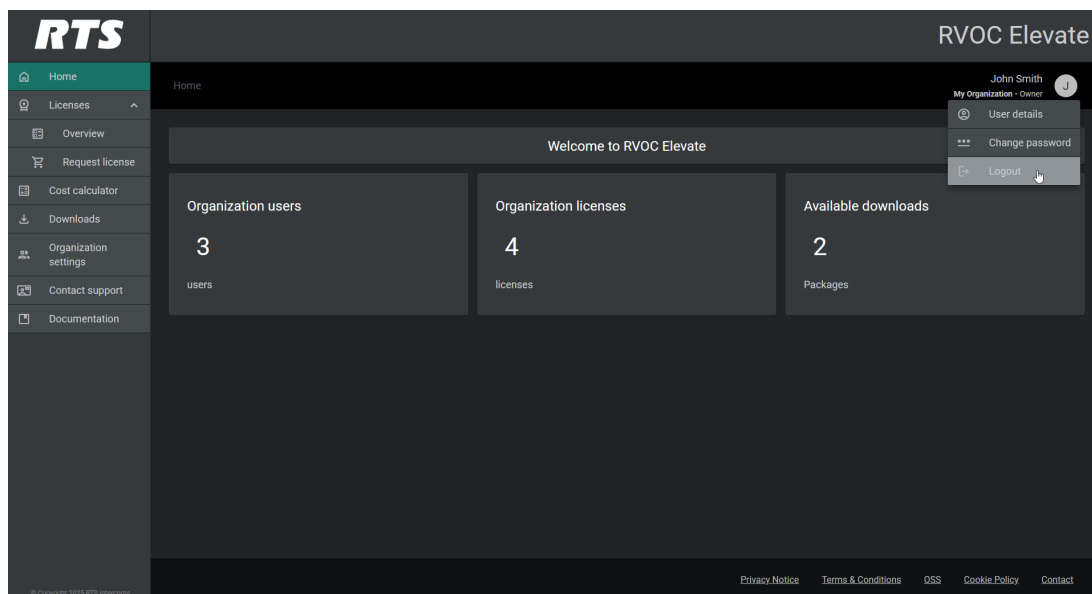
2. Select **Logout**.
   RVOC Engine logs out and returns to the login page.

2.3   Change password

To change your password to RVOC Engine, use the Change password screen. It is advisable to update your password regularly.

> **(i)**
>
> **Notice!**
> Your new password must meet the following criteria:
> - At least 8 characters long
> - Includes one uppercase letter
> - Includes one lowercase letter
> - Includes one number
> - Includes one special character

> **(i)**
>
> **Notice!**
> Use the password visibility icon to show or hide the password in the password field.

Change your password
1. Click the **Profile** in the upper right corner.
2. Select **Change password**.
   The Change password screen opens.
3. Enter your **<current password>**.
4. Enter your **<new password>**.
5. Re-enter your **<new password>**.
6. Click **SAVE**.

3   Cloud formation template definitions

Template Field	Description	Where to get it	Example
General Settings			
Stage	Stage identifier of the deployment, this will be added as a postfix to all resources created by the stack.	Max 10 characters Unique identifier made by the user. If you create 2 intercoms this is needed. Must have at least one character (mandatory)	prod
AssetBucketKey	The S3 bucket name (and optionally the path) were the intercom installers are stored. Note that the bucket must provide access to the instances.	Should contain the intercom installers. Needs to be created in the Amazon S3 service before creating the intercom.	s3://dev-asset-bucket-rts
Sizing Configuration			
MaxAudioConnections	Amount of audio connections. (Warning: This should be the MAXIMUM size as resizing will cause interruptions)	This is the number of RVON KPs, mobile apps and IFL connections, combined.	64/128/256/512/1024/2048
OverrideInstanceType	Override the instance type. By default, the instance type is determined by the number of audio connections.		c86.xlarge
Network Configuration			
IntercomTerminationInPublicSubnet	Determines whether the intercom termination points (e.g. for configuration software and keypanel connections) should be deployed in the public subnet		

Template Field	Description	Where to get it	Example
VPCID	VPC ID (Must contain the passed subnets)	From AWS VPC service.	vpc-09d2bbca22a1e05e2
PublicSubnetID	Public Subnet ID (must be in the same AZ as the Private Subnet)	From VPC service in AWS	subnet-0a14a8f11e4a609ad
PrivateSubnetID	Private Subnet ID (must be in the same AZ as the Public Subnet)	From VPC service in AWS	subnet-0cb3fa4075e8e19cf
AvailabilityZone (AZ)	Availability Zone (must be the AZ of the passed Subnets)	Select the area where the desired subnet is available. Must choose two for redundant system. (availability a and b)	us-east-1a
EnableIPv6	Enabled IPv6 on the application (e.g. turn server). Should only be set to true when the public subnets have IPv6 CIDR ranges associated with them.	Choose true or false Only choose true if IPv6 is supported in VPC	true/false
EnableGlobalAccelerator	Enable the AWS global accelerator. Note: AWS Global Accelerator will help in certain redundancy use cases as well in optimizing the latency in a highly distributed system.	This Determine based on system design Ensures high redundancy	true/false
IngressCIDRBlock	A CIDR range used to restrict ingress traffic.		54.13.0.0/16
DNS Configuration			
IntercomDomainName	The domain name of the intercom. If passed (together with the hosted zone id) DNS will be configure in Route53. When not passed you	From your DNS setup	prodintercom.intercoms.cloud.rtsintercoms.com

Template Field	Description	Where to get it	Example
	could setup DNS yourself as per user manual.		
IntercomHostedZoneID	The hosted zone id of the intercom. If passed (together with the domain) DNS will be configure in Route53. When not passed you could setup DNS yourself as per user manual."	Get from route 53 service	Z04490714O0S00GWEKADS
ManagementAPIDomainName	Management API domain name. If passed (together with the certificate) the API Gateway will be deployed on a custom domain.	From your DNS setup	prod.intercoms.cloud.rtsintercoms.com
ManagementAPIDomainCertificateARN	Management API domain SSL certificate ARN. If passed (together with the domain) the API Gateway will be deployed on a custom domain.	AWS certificate manager service	arn:aws:acm:us-east-1:851275182736:certificate/b1a88034-554b-45be-b506-e5b4b24c4c75
ManagementAPIHosedZoneID	The hosted zone id of the management API. If passed (together with the domain and certificate) the API Gateway will be deployed on a custom domain. When not passed you could setup DNS yourself as per user manual.	From route 53	Z04490714O0S00GWEKADS
Email Configuration			
EmailFromAddress	The email address that will be used as the 'From' address for emails sent by the system. Note that it		reply@cloud.rtsintercoms.com

Template Field	Description	Where to get it	Example
	is expected SES has been setup to allow emails to be sent from this address and SES is in production mode		
EmailReplyToAddress	(Optional) The email address that will be used as the 'Reply To' address for emails sent by the system.		Reply-to@cloud.rtsintercoms.com
EmailProvider	Select the email provider. Available options are None, AWS-SES, and SMTP.		
SMTPHostname	The hostname of the email server (required if SMTP is selected).		
SMTPPort	The port of the email server (required if SMTP is selected).		
SMTPUsername	The username for the email server (required if SMTP is selected, can be overriden in the AWS Secret Manager).		
SMTPPassword	The password for the email server (required if SMTP is selected, can be overriden in the AWS Secret Manager).		
Advanced Settings			
DeployCoturn	Deploy Coturn as part of the stack. When deployed the intercom is as well configured with all properties to setup		true/false

Template Field	Description	Where to get it	Example
	the STUN/TURN server in front of the traffic. Note that in most use cases it is required to run a STUN/TURN server to make the intercom function.		
DeployCoturnNetworkLayer	Determines in which network layer to deploy the TURN server. When deploying the turnserver in the public subnet, the turnserver is directly associated with a public IP address, when deploying the turn server in a private subnet, the turnserver is associated with a Network Load Balancer. Note that placing the TURNserver in a private subnet considerably increases the Total Cost of Ownership.	Align with you cloud security department.	Public
OverrideInstanceAmi	Override the instance AMI. Note that we only support Ubuntu 2024 and Ubuntu 2022.		
LicenseServerHostName	The Backoffice endpoint.		api.cloud.rtsintercoms.com

4   Installation

Before proceeding with the RVOC Engine installation, you must:
1.   Sign up for RVOC Elevate.
2.   Download the RVOC Engine package.

> **Notice!**
> You can download the package and install RVOC Engine, however, you cannot use RVOC Engine until you have a license. If you have not received your license yet, please contact support team for assistance.

For more information, see the Initial setup chapter in the RVOC Elevate technical manual.

4.1   Requirements and Recommendations

–   AWS account
–   VPC
    –   One public subnet
    –   One private subnet (with NAT Gateway / internet connectivity)
–   At least 2 Elastic IP's available for a non-high available system
–   Minimum 1 iPhone (iOS 16 or later) or Android (version 9 or later)device
–   RTS Cloud formation template
–   Optional, but strongly recommended: Email sending service (AWS SES and SMTP supported)
–   Optionally: DNS (e.g. Route53) and an SSL certificate (in AWS ACM)

4.2   Download installer package
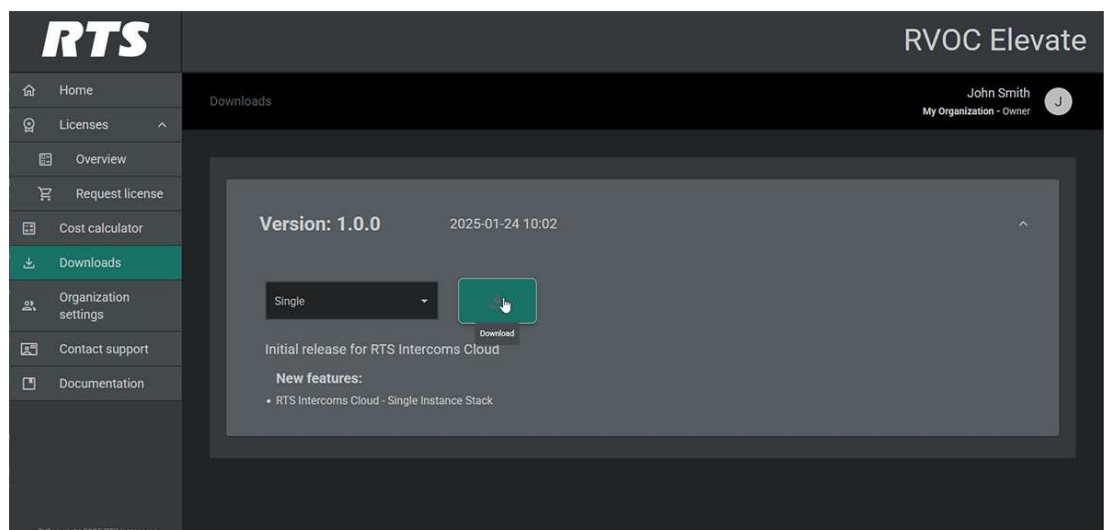
Before you can create RVOC Engine, you must download the installer package from RVOC Elevate.

> **Notice!**
> Downloads are only visible when you have a license.

1.   Open RVOC Elevate.
2.   Navigate to **Downloads**.

3.   Select **Single** from the drop down menu.
4.   Click the **Download** icon.
     The system sends the installer package to your computer.
Package contents:
–   Intercom-core-single.json - This template file is used with the AWS CloudFormation service. It provides the details of the AWS infrastructure as shown in RTS template.

4.3   Deploy the intercom

Deploying an intercom in the cloud includes configuring AWS services and creating RVOC Engine Intercom elements.

1.   Log in to **AWS**.
2.   Navigate to CloudFormation.
3.   From the Create stack menu, select **With new resources (standard)**.
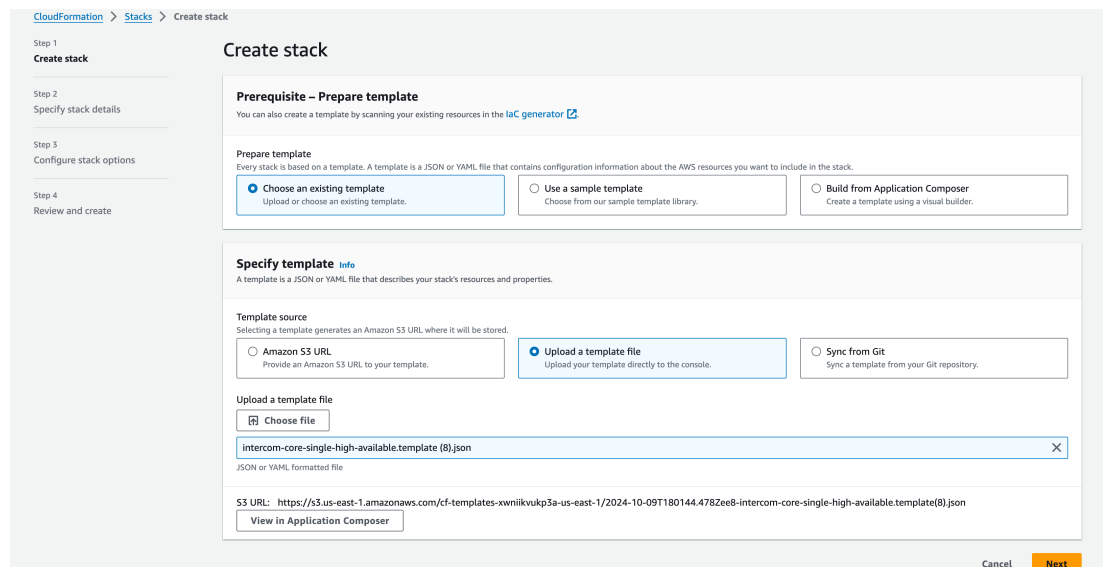

4.   Under Prepare template, select **Choose an existing template**.
5.   Under Specify template, select **Upload the template file**.
6.   Click **Choose file**.
7.   Navigate to the **intercom core template.json** file.
     For more information on the RTS template, see *Cloud formation template definitions, page 8*.

> **i**   **Notice!**
> Values shown in the following graphics are for example only.

8.   Click **Next**.
     The Specify stack details screen appears.
9.   Enter a **<stack name>**.
10. Fill in the necessary fields.

Specify stack details

Provide a stack name

Stack name

> Enter a stack name

Stack name must be 1 to 128 characters, start with a letter, and only contain alphanumeric characters. Character count: 0/128.

Parameters

Parameters are defined in your template and allow you to input custom values when you create or update a stack.

General Settings

Stage

Stage identifier of the deployment, this will be addded as a postfix to all resources created by the stack.

> prd

Asset Bucket Key

The S3 bucket name where the intercom installers are stored. Note that the bucket must provide access to the instances.

> Enter String

Sizing Configuration

Max Audio Connections

Number of audio connections. (Warning: This should be the MAXIMUM size as resizing will cause interruptions)

> 64   ▼

Override Instance Type

(Optional) Override the instance type. By default the instance type is determined by the number of audio connections.

> Enter String

Network Configuration

Intercom Termination In Public Subnet

Determines whether the intercom termination points (e.g. for configuration software and keypanel connections) should be deployed in the public subnet

> true   ▼

VPC ID

VPC ID (Must contain the passed subnets)

> Select AWS::EC2::VPC::Id   ▼

Public Subnet ID

Public Subnet ID (must be in the same AZ as the Private Subnet)

> Select AWS::EC2::Subnet::Id   ▼

Private Subnet ID

Private Subnet ID (must be in the same AZ as the Public Subnet)

> Select AWS::EC2::Subnet::Id   ▼

Availability Zone

Availability Zone (must be the AZ of the passed Subnets)

> Select AWS::EC2::AvailabilityZone::Name   ▼

Enable IPv6

Enabled IPv6 on the application (e.g. turn server). Should only be set to true when the public subnets have IPv6 CIDR ranges associated with them.

> false   ▼

Enable Global Accelerator

Enable the AWS global accelerator. Note that AWS Global Accelerator will help in certain redundancy use cases as well in optimizing the latency in a highly distributed system. Global accelerator is only available when the intercom is terminated in the public network layer.

> false   ▼

Ingress CIDR Block

A CIDR range used to restrict ingress traffic.

> 0.0.0.0/0

DNS Configuration

Intercom domain name

(Optional) The domain name of the intercom. If passed (together with the hosted zone id) DNS will be confiure in Route53. When not passed you could setup DNS yourself as per user manual.

> Enter String

Intercom Hosted Zone ID

(Optional) The hosted zone id of the intercom. If passed (together with the domain) DNS will be confiure in Route53. When not passed you could setup DNS yourself as per user manual.

> Enter String

Management API domain name

(Optional) Management API domain name. If passed (together with the certificate) the API Gateway will be deployed on a custom domain.

> Enter String

Management API domain certificate ARN

(Optional) Management API domain SSL certificate ARN. If passed (together with the domain) the API Gateway will be deployed on a custom domain.

> Enter String

Management API hosted zone ID

(Optional) The hosted zone id of the management API. If passed (together with the domain and certificate) the API Gateway will be deployed on a custom domain. When not passed you could setup DNS yourself as per user manual.

> Enter String

Email Configuration

Email From Address
The email address that will be used as the 'From' address for emails sent by the system. Note that it is expected SES has been setup to allow emails to be sent from this address and SES is in production mode

> Enter String

Email Reply To Address
(Optional) The email address that will be used as the 'Reply To' address for emails sent by the system.

> Enter String

Email provider choice
Select the email provider.

> NONE   ▼

SMTP Hostname
The hostname of the email server (required if SMTP is selected).

> Enter String

SMTP Port
The port of the email server (required if SMTP is selected).

> 587   ⇕

SMTP Username
The username for the email server (required if SMTP is selected, can be overriden in the AWS Secret Manager).

> Enter String   🔲

SMTP Password
The password for the email server (required if SMTP is selected, can be overriden in the AWS Secret Manager).

> Enter String   🔲

Advanced Settings

Deploy Coturn
Deploy a TURN server (Coturn) as part of the stack. When deployed the intercom is automatically configured to setup the STUN/TURN server. Note that in almost all usecases it is required to run a STUN/TURN server to make the intercom function. Defaults to true

> true   ▼

Deploy Coturn Network Layer
Determines in which network layer to deploy the TURN server. When deploying the turnserver in the public subnet, the turnserver is directly associated with a public IP address, when deploying the turn server in a private subnet, the turnserver is associated with a Network Load Balancer. Note that placing the TURNserver in a private subnet considerably increases the Total Cost of Ownership.

> public   ▼

Override Instance AMI
(Optional) Override the instance AMI. Note that we only support Ubuntu 2024 and Ubuntu 2022.

> Enter String

License Server Host Name
(Optional) Hostname of the license server, only change this when requested by RTS.

> api.cloud.rtsintercoms.com

11. Click **Next**.
12. Click **Next**.
13. Review the modifications.
14. Scroll down and select **I acknowledge that AWS CloudFormation might create IAM resource with customized names** check box located at the bottom of the page.
15. Click **Submit**.
     It can take up to 10 minutes to create the resources. The progress of the stack creating is displayed on the screen.
     The URL to the RVOC Cloud intercom is available in the Output tab of the stack formation template.
16. Log into the intercom for the first time.

4.4   Log in to the intercom for the first time

After completing the AWS stack creation, use the link from the Outputs section of the stack output to perform your initial login to the intercom.

ⓘ   **Notice!**
    The first login to the intercom, by default, becomes the administrator of the intercom. You can add additional users with administrator rights after the initial login.

Perform an initial login

1.   Click the **RTSManagementAPI link** that was created in the output stack in AWS.
     The Welcome page appears.

ℹ️   **Notice!**
     This URL allows you to connect through RVOC Edge in the absence of AWS SES (Amazon
     Simple Email Service). Additionally, system administrators may find this link useful for
     troubleshooting connectivity issues in the future.

---

2.   Click **NEXT**.
     The Set up administrative profile page appears.

3.   Enter your **<first name>**.
4.   Enter your **<last name>**.
5.   Enter your **<email address>**.
6.   Enter a **<password>**.
7.   Re-enter the **<password>**.
8.   Click **NEXT**.
     The Log-in page appears.

Notice!

You will receive the email only if email service was configured during the stack creation in the previous steps. We will send an email to your registered address containing access information to RVOC Engine. This email serves as your login credentials for future access to the intercom.


9.   Enter your **<email address>**.
10. Enter your **<password>**.
11. (Optional) Select **Keep me signed in**.
     This option allows the system to remember your login information.
12. Click **NEXT**.
     The Import license page appears. You may skip this step for now and complete it later.
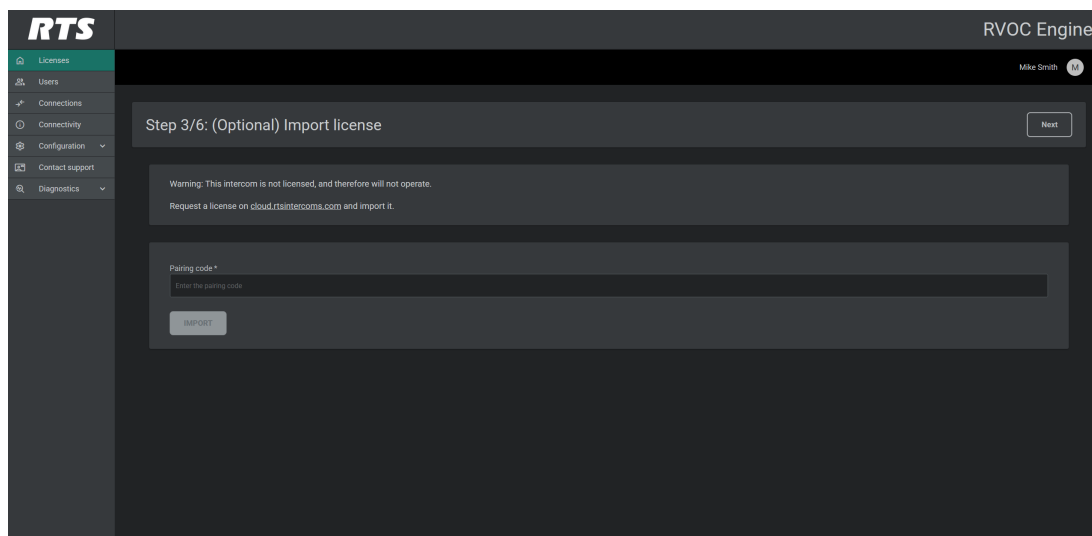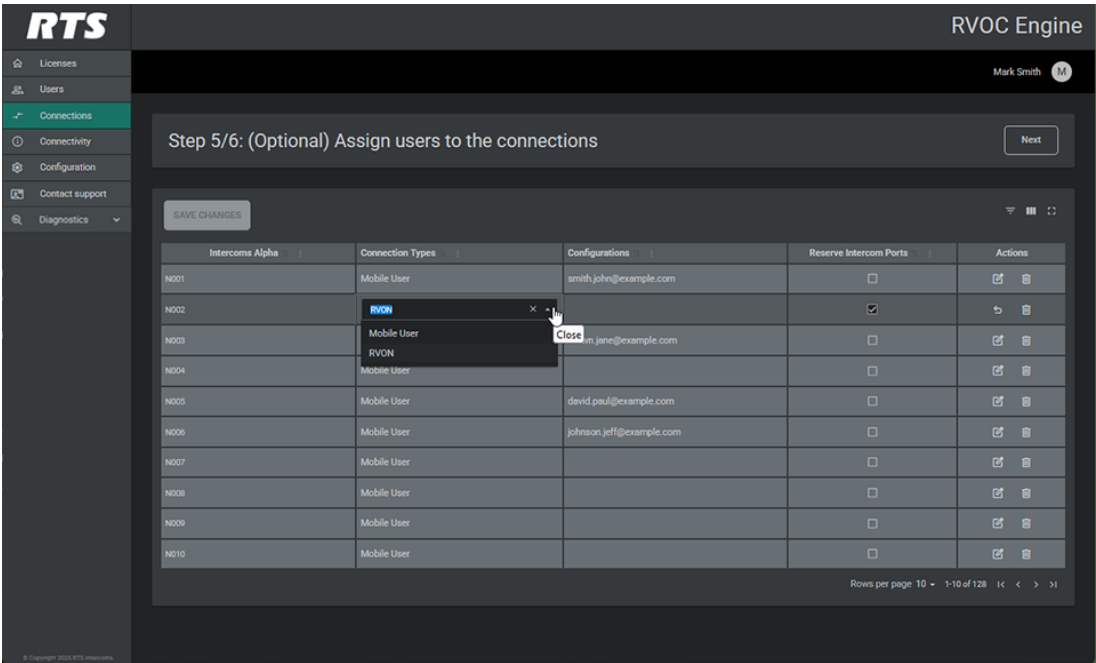
13. Click **NEXT**.

   The Add users screen appears. You may skip this step for now and complete it later. For more information on adding users, see *Users, page 31*.
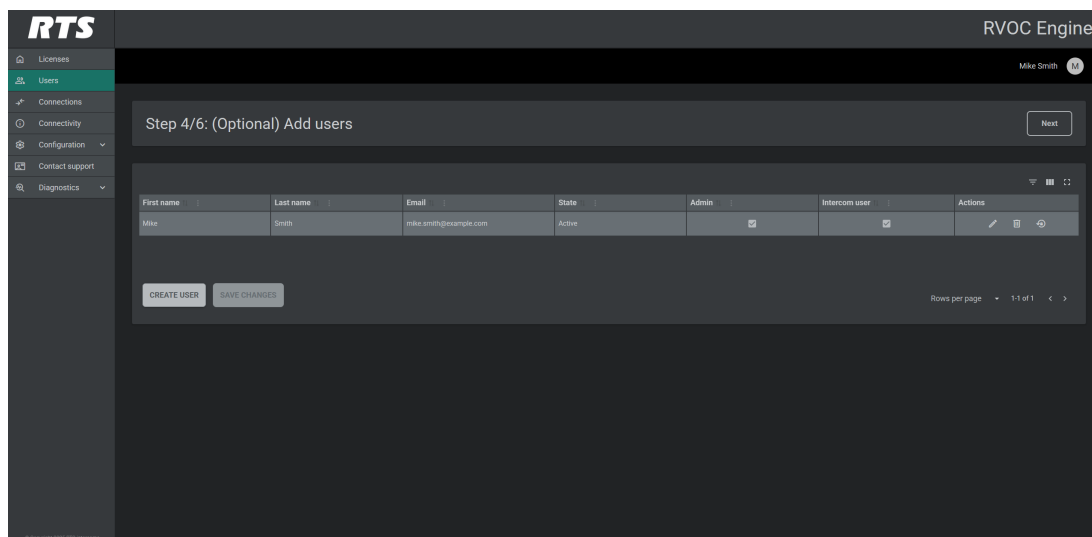

14. Click **NEXT**.

   The Assign users to the connections screen appears. You may skip this step for now and complete it later. For more information on assigning connections, see *Connections, page 37*.
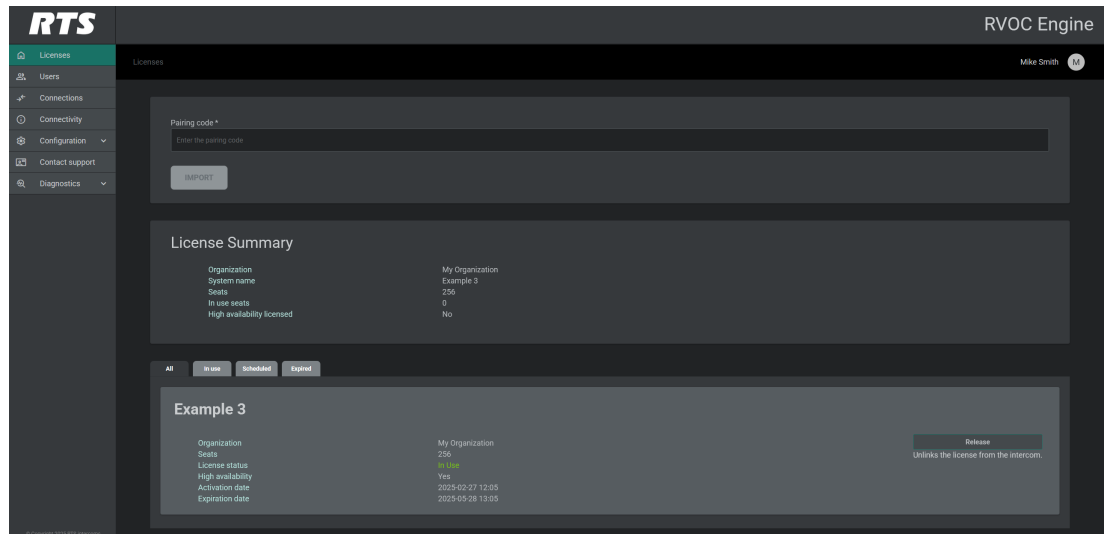
15. Click **NEXT**.

The Configure intercom using RTS configuration software screen appears. For more information on configuring the intercom with a configuration software, see *Connectivity, page 43*.
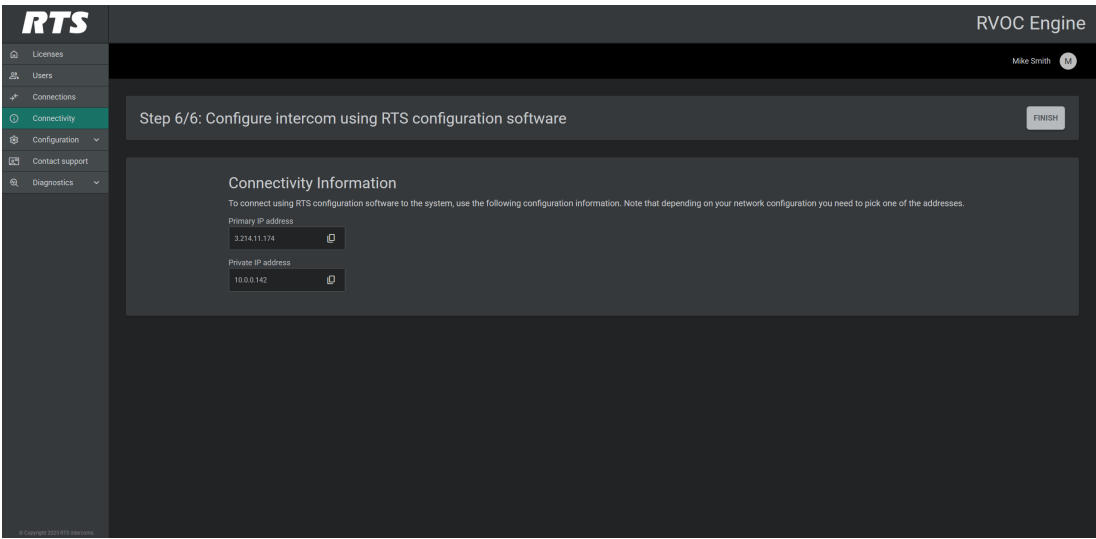
16. Click **FINISH**.

RVOC Engine is ready.

4.4.1   Generate a pairing code

To validate the intercom license, you will need a pairing code. Generate this code in RVOC Elevate, and then enter it in RVOC Engine.

For more information, see *License Lifecycle, page 27*.

1.   Open RVOC Elevate.
2.   Select **Licenses | Overview** from the left navigation.
3.   Select an **available license**.

     Be sure to verify it is the correct organization and system name.
4.   Click **Generate Pairing Code** on the appropriate license.

     A Pairing code window with the assigned pairing code appears.
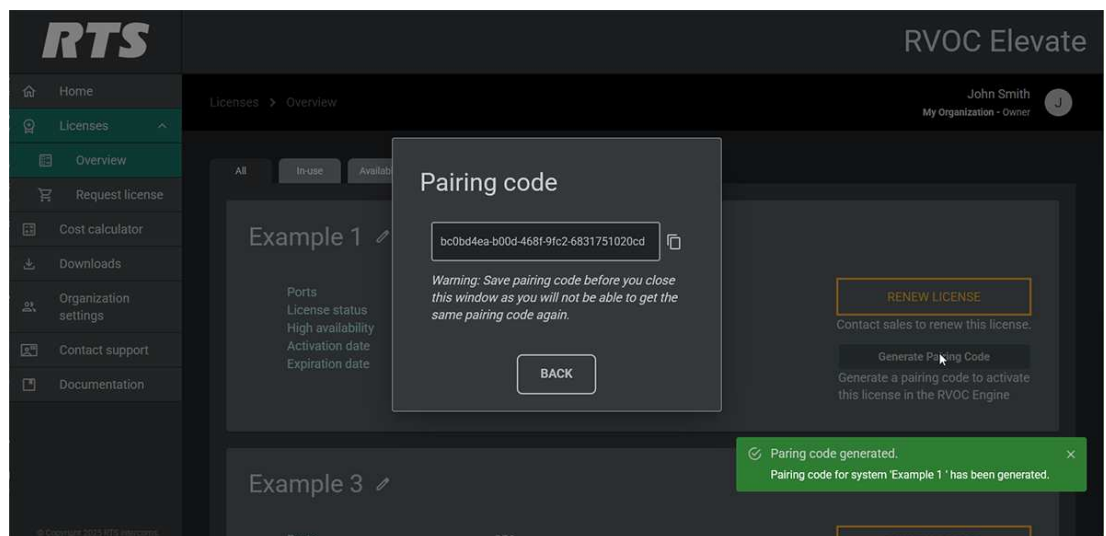
5.   Click the **copy icon** to copy the pairing code to clipboard.
6.   Go to RVOC Engine to activate the license.

     You may need to send the license to the administrator of RVOC Engine.

4.4.2   Enter the pairing code

Use the code you generated in RVOC Elevate to pair the license to the intercom in RVOC Engine.

1.   Open RVOC Engine.
2.   From the left navigation, click **Licenses**.

> **(i)** **Notice!**
> The error presented in the screenshot reflects whether your AWS account is sufficient for
> the number of licenses. For more information, see *License Lifecycle, page 27*.

3.   Enter the **\<pairing code\>** provided by the RVOC Elevate administrator.
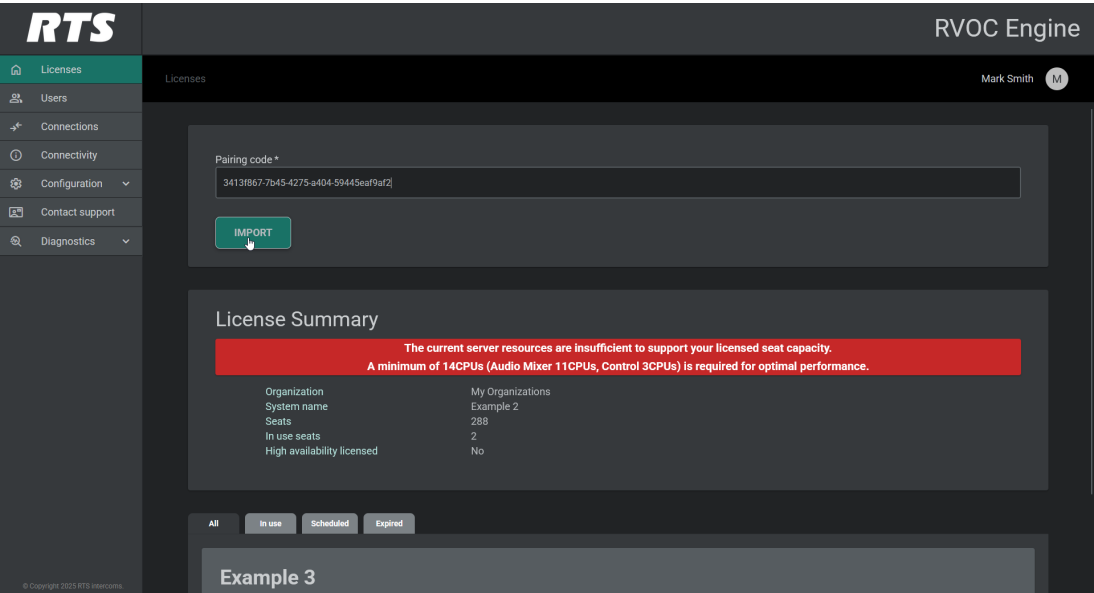
4.   Click **IMPORT**.
      The License information screen appears.

5.   Click **Confirm**.
      A success message appears.

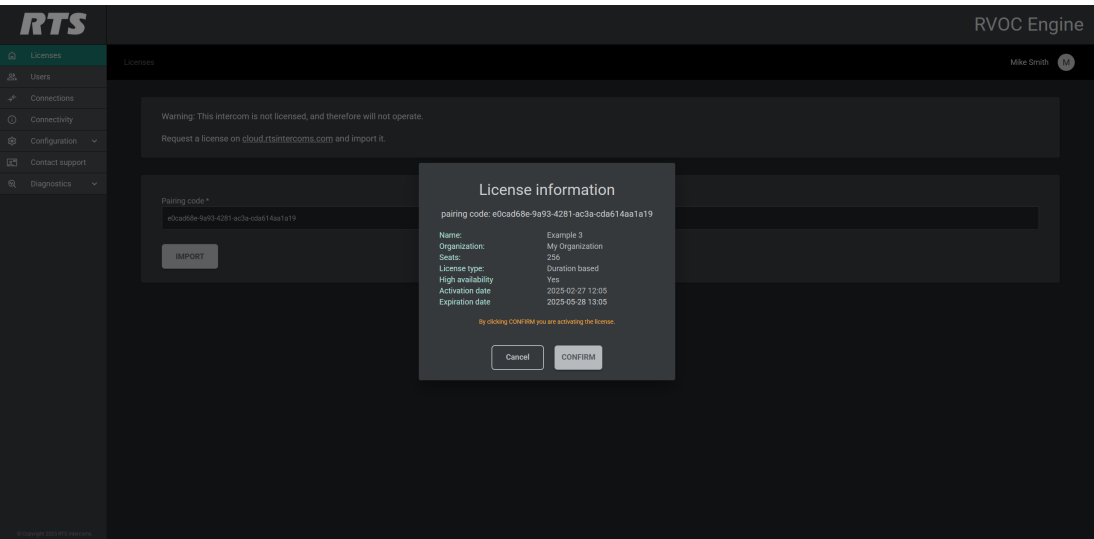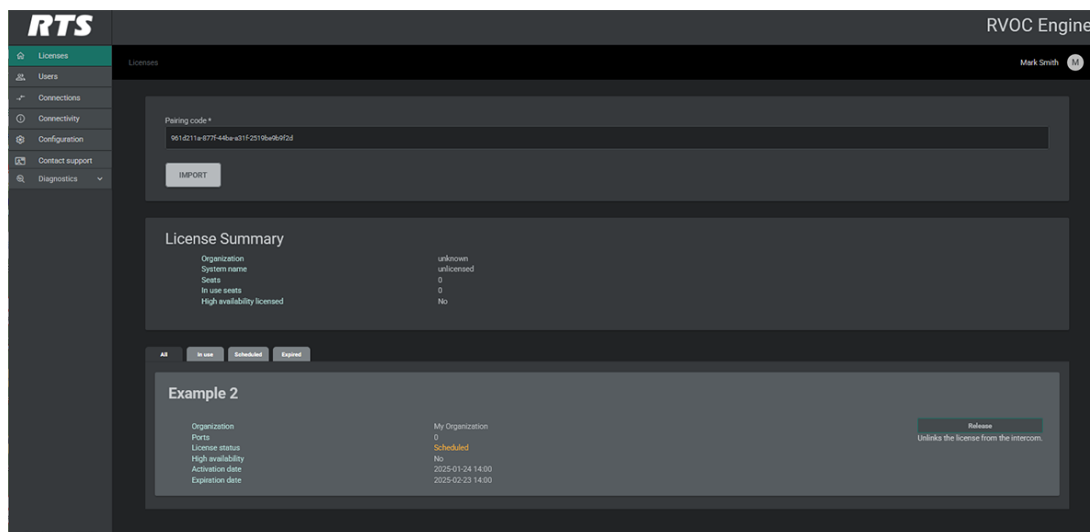### 4.4.3   Connect the cloud intercom to the intercom configuration software

Connect with AZedit

> **i**   **Notice!**
> Use AZedit to program the system, such as keypanel keys, party lines, etc.

1.   Open **AZedit**.
2.   Select **Options | Communications**.
3.   Select **Network** under Connection.
4.   In the Main field, enter the **<IP address>** or **<domain name>** (created during stack formation) of the cloud intercom.
     This IP address or domain name is available on the Connectivity screen in the Cloud Intercom Manager
5.   Click **OK**.
6.   Select **Online | Connect**.

Connect with NEO Intercom Configuration Software

> **i**   **Notice!**
> Use RTS NEO to program the system, such as keypanel keys, party lines, etc.

1.   Open **NEO**.
2.   Click the **Connect** button.
     The Available Intercoms screen opens.
3.   Click the **Enter IP address manually** button.
     The Connect to Intercom screen opens.
4.   Click inside the **Connect to** field.
5.   Enter the **<IP address>** of the cloud intercom.
     Find this IP address on the Connectivity screen in the Cloud Intercom Manager.
6.   Click **Connect**.
     A success message appears. The software populates with intercom data.

7.   Click **Cancel** to close the screen.

Connect with IPedit

> **Notice!**
> Use IPedit to configure Cloud ports and remote keypanels, so that the connection can be established.

1.   Open **IPedit**.
2.   Navigate to **Devices | Add**.
     The Add Devices screen opens.
3.   Enter the **<IP address>** from the Connectivity screen in RVOC Engine.
4.   Click **Add**.
     The cloud intercom appears in the Device Catalog.

5   Licensing Model

Licensing manages access to RVOC Engine. The licensing model RVOC Engine uses allows organizations to purchase and assign user licenses based on the time duration and number of seats needed. RVOC Engine uses the information in licenses to determine the number of seats and duration of time those seats are available for use..

The RVOC licensing model is duration-based, giving you complete control over how long your license remains valid.

– You can specify the exact number of days for which the license is active, allowing you to tailor your usage to fit specific project timelines, such as short-term events or seasonal productions.

– You have the option to choose between standard licensing and high availability licensing, ensuring that you can select the level of service that best meets your needs.

Type	Description
Standard	The Standard model focuses on basic operational functionality using a single instance of RVOC Engine. – No fail over security – The system continuously monitors health and performance to identify and address potential issues before they lead to downtime.
High Availability (HA)	The High Availability (HA) model's primary goal is to provide continuous service availability. High availability is another feature that can be added on top of the AWS S3 module to guarantee the highest availability by eliminating single-point-of-failure (SPOF) and providing continuous service availability. – The system automatically fails over when it detects an issue, such as AWS EC2 instance not available or application failure. – It supports deployment across two zones within the same region. – The system continuously monitors health and performance to identify and address potential issues before they lead to downtime.

For information on requesting a license, see the RVOC Elevate technical manual.

Available licenses

Daily

# of Seats	High Availability	License
10		RVOC IaaS-DY-S-ST
10	X	RVOC IaaS-DY-S-HA
25		RVOC IaaS-DY-M-ST
25	X	RVOC IaaS-DY-M-HA
75		RVOC IaaS-DY-L-ST
75	X	RVOC IaaS-DY-L-HA

Weekly

# of Seats	High Availability	License
10		RVOC IaaS-WK-S-ST
10	X	RVOC IaaS-WK-S-HA
25		RVOC IaaS-WK-M-ST
25	X	RVOC IaaS-WK-M-HA
75		RVOC IaaS-WK-L-ST
75	X	RVOC IaaS-WK-L-HA

Monthly

# of Seats	High Availability	License
10		RVOC IaaS-MO-S-ST
10	X	RVOC IaaS-MO-S-HA
25		RVOC IaaS-MO-M-ST
25	X	RVOC IaaS-MO-M-HA
75		RVOC IaaS-MO-L-ST
75	X	RVOC IaaS-MO-L-HA

Yearly

# of Seats	High Availability	License
10		RVOC IaaS-YR-S-ST
10	X	RVOC IaaS-YR-S-HA
25		RVOC IaaS-YR-M-ST
25	X	RVOC IaaS-YR-M-HA
75		RVOC IaaS-YR-L-ST
75	X	RVOC IaaS-YR-L-HA

6   License Lifecycle

You can easily add, remove, or reassign licenses as the system requirements change, providing flexibility in managing software access and costs.
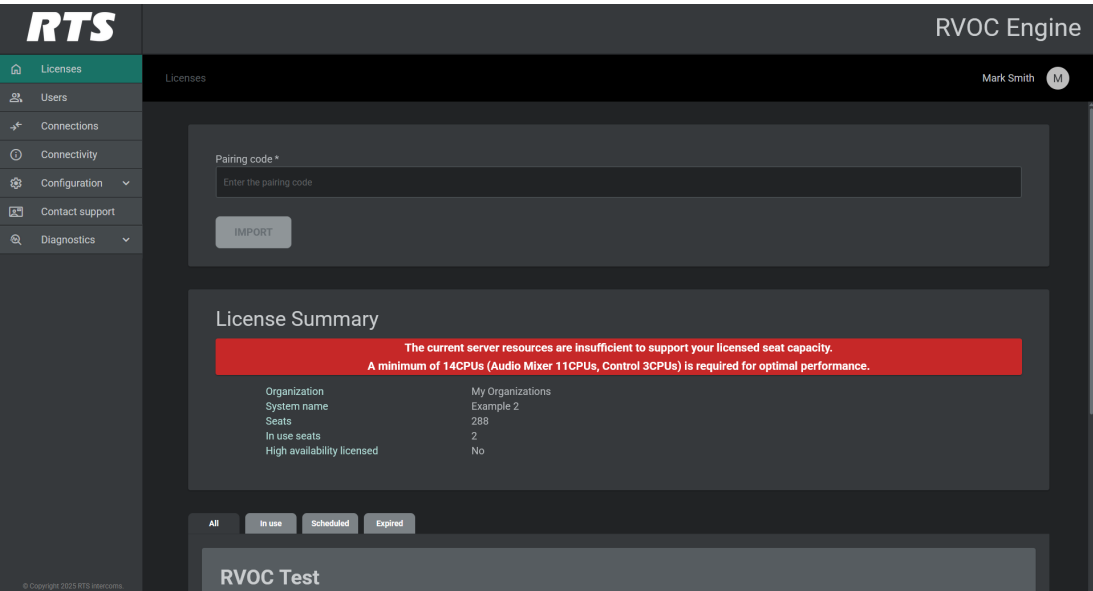

Figure 6.1: Licenses page

Important:	The current server resources are insufficient to support your licensed seat capacity. A minimum of 14CPUs (Audio Mixer 11CPUs, Control 3CPUs) is required for optimal performance.
	If you receive this message, it means the hardware you are running on does not have enough capacity to support the licenses. You need more CPU. If you do not fix this error, you may experience audio degradation. To fix this error, go to the AWS CloudFormation and change the max audio channels to match the licensed audio channels.

Pairing code field
Enter the pairing code you copy from the RVOC Elevate application.

Import button
Initiates the pairing of the license with the Engine.

License Summary
Displays the Organization, system name, the number of seats, the number of seats in use, and if the license has high availability capabilities.

License Overview Notebook
The License Overview notebook lets you view and manage your system's licenses in a logical arrangement, allowing you to easily see all licenses at once or filter by different stages such as in-use, available, or expired.

State	Description
All	Shows all licenses in the system regardless of state.
In-use	Shows licenses currently active and in use by the intercom.
Available	Shows licenses currently active but not in use by the intercom.

State	Description
Expired	The term of the license has expired and the license needs renewal.

Table 6.1: Overview Pages

Release button

Releases the license from use. Once you release the license, it is available for use by another intercom system within the organization, if needed.
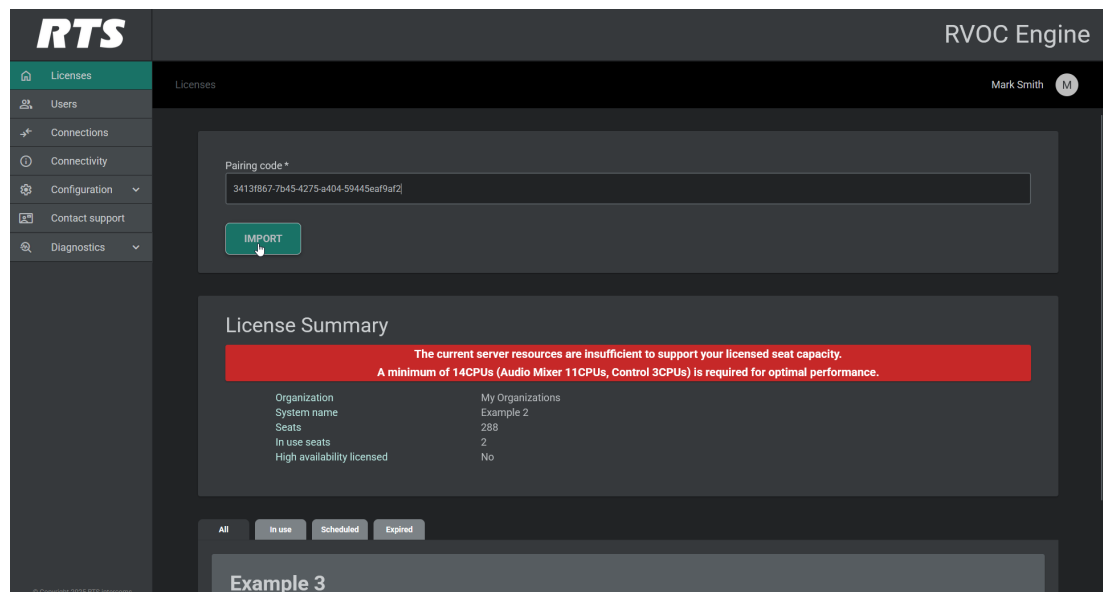
6.1   Pair a license

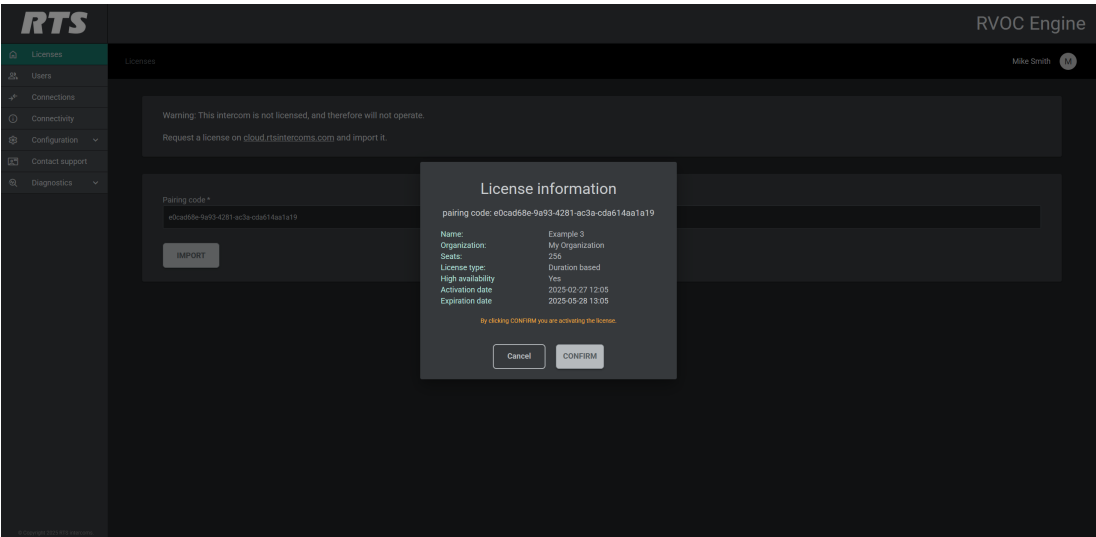Pairing the license allows RVOC Engine to start. You can pair an unlimited number of licenses to the system.

Pair a license
1.   Open RVOC Engine.
2.   Navigate to the **Licenses page**.
3.   Enter the **<pairing code>** you receive from the RVOC Elevate administrator.

---

i   **Notice!**
The system permits you to pair a code only once.

---

4.   Click **IMPORT**.
The License information screen appears.

5.   Click **Confirm**.
     A green success message appears.

6.2   Release a license

You may need to unpair a license from a cloud application for several reasons:
–   Reallocation to different Intercom
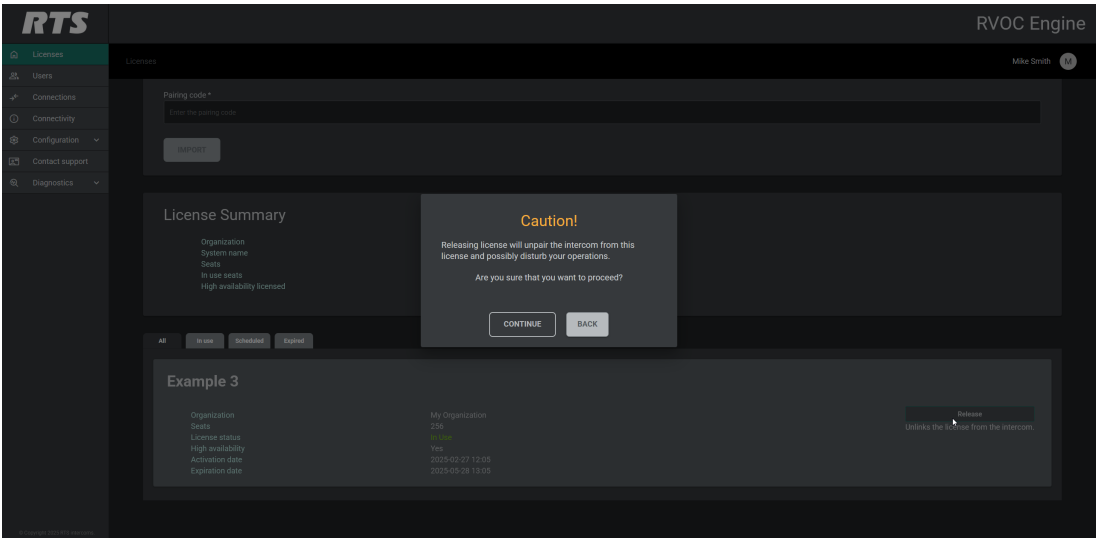–   Efficient use of resources

Notice!

Once you release a license, you must generate a new pairing code in RVOC Elevate.

Releasing a licenses disconnects all existing connected users.
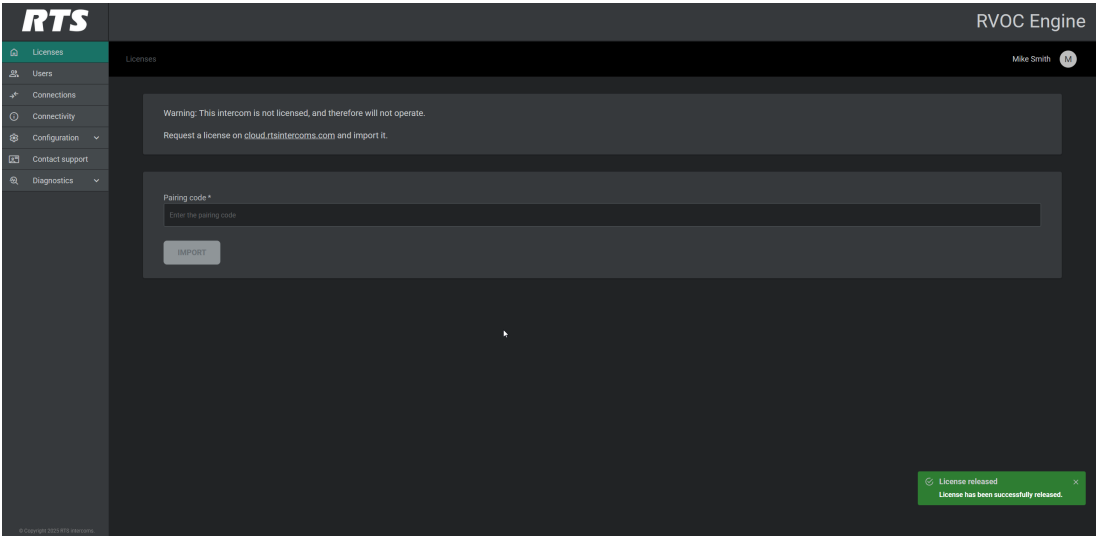
Release a license
1.   Navigate to the **Licenses page**.
2.   Find the **license** you want to release.
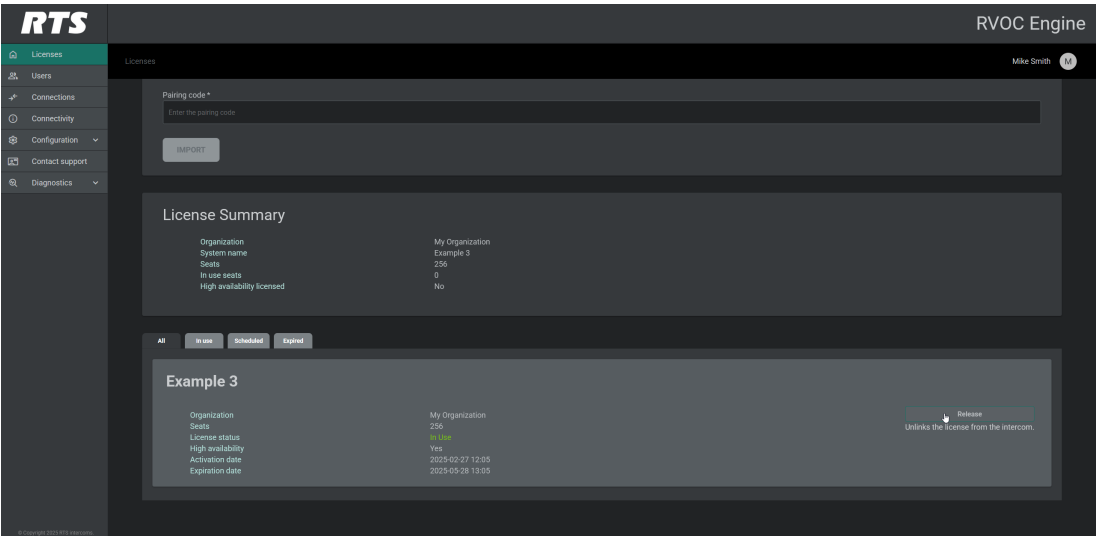
3.   Click **Release**.
     A confirmation message appears.

4.   Click **CONTINUE**.
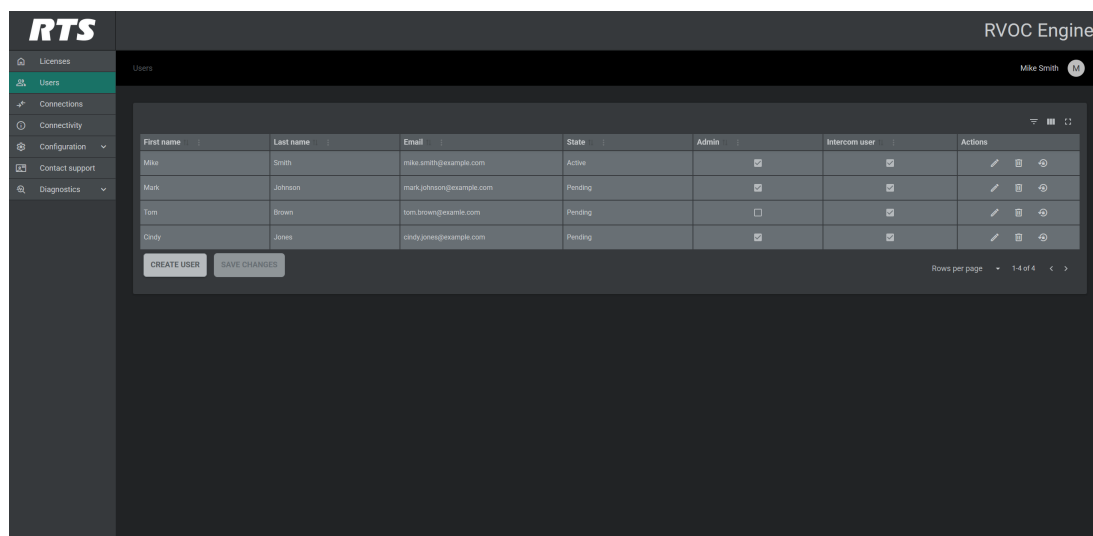   A success message appears.

7   Users

The Users page allows you to create and manage users within RVOC Engine.

There are two available profiles in RVOC Engine:

–   **Administrator profile**: only this profile can log into the intercom and create user profiles.
–   **Intercom User profile**: this profile allows users to use RVOC Edge, but cannot access RVOC Engine.

Figure 7.1: Users page

First names column

Displays the first name of the user.

Last names column

Displays the last name of the user.

Emails column

Displays the email address of the user.

States column

Displays the state of the user.

–   **Pending** - the system has sent an email with login credentials, but the user has not logged in and not authenticated to RVOC Engine.
–   **Active** - the user credentials are validated and authorized to use RVOC Engine.

Admins column

Identifies the user has administrator privileges and is allowed to log in RVOC Engine. It is possible to have both Administrator and Intercom User privileges.
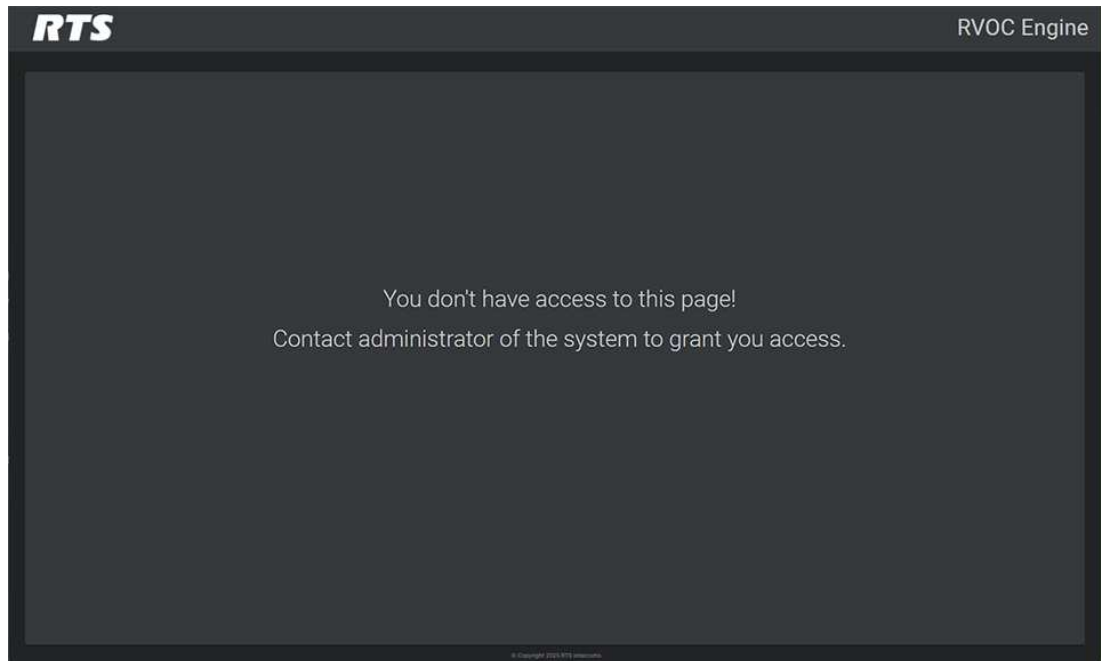
Administrators are able to:

–   Edit user profiles
–   Delete user profiles
–   Reset user passwords

Intercom users column

Identifies the user has intercom user privileges. Users can use RVOC Edge, but cannot access RVOC Engine.

When a user with only Intercom User privileges tries accessing RVOC Engine, a screen appears denying them access.

Actions column

Actions that only users with Admin privileges can perform:

Edit:	Make changes to the user profile.
Delete:	Deletes a user's profile from the system.
Reset user password:	Reset the user's password.

For more information, see *Edit a user, page 33*, *Delete a user, page 34*, *Reset a password, page 35*.

Create User button

Opens the add user details screen, allowing you to create new users.
For more information, see *Create a user, page 32*.

Save Changes button

Saves additions, modifications, and deletions made in the Users screen to the system.
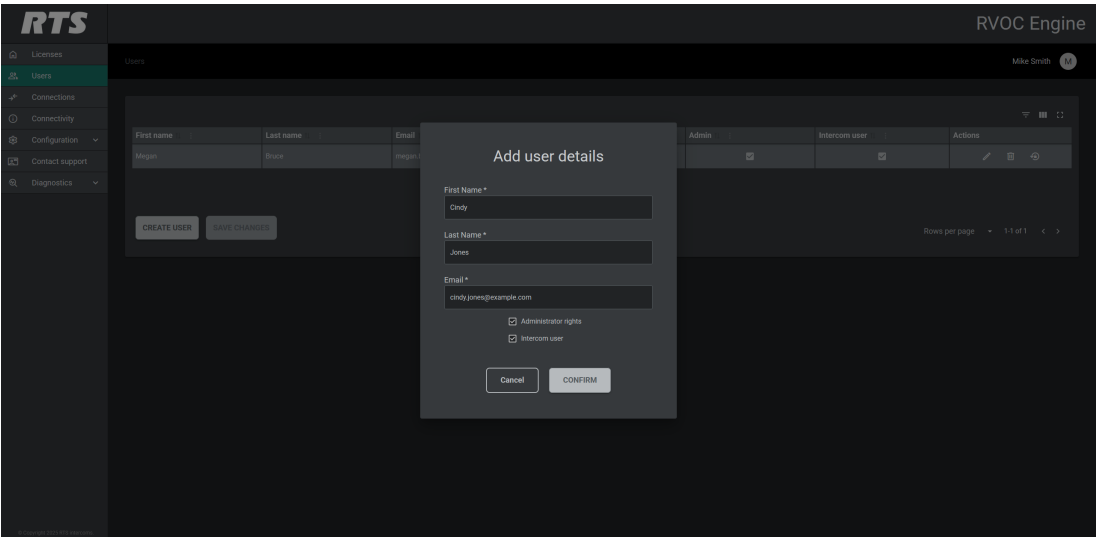
7.1   Create a user

Before you can begin using RVOC Engine, you need to create users in the system.

Create a user

1.   Click the **Create User** button.
   The Add user details window appears.

2. Enter the **<first name>**.
3. Enter the **<last name>**.
4. Enter the **<email address>**.
5. Select **Administrator rights** to give the user administrator privileges.
6. Select **Intercom User to** assign intercom user privileges.

> **ⓘ**
>
> **Notice!**
> For more information on the different profiles, see *Users, page 31*.

7. Click **Confirm**.
    The system creates a user and sends an invitation via email to the newly created user.
    An email is only sent if an email service is configured during the stack process.
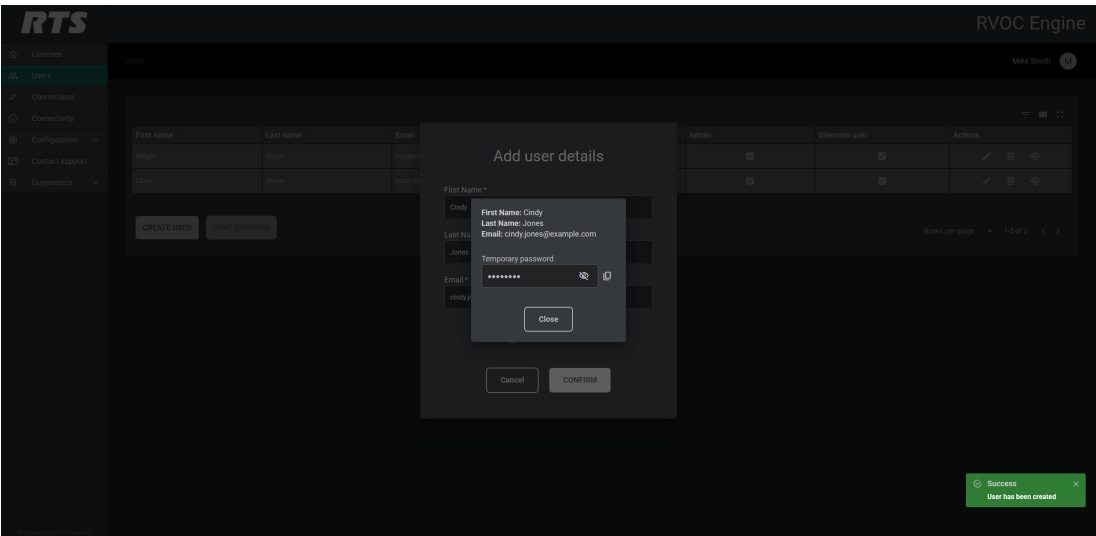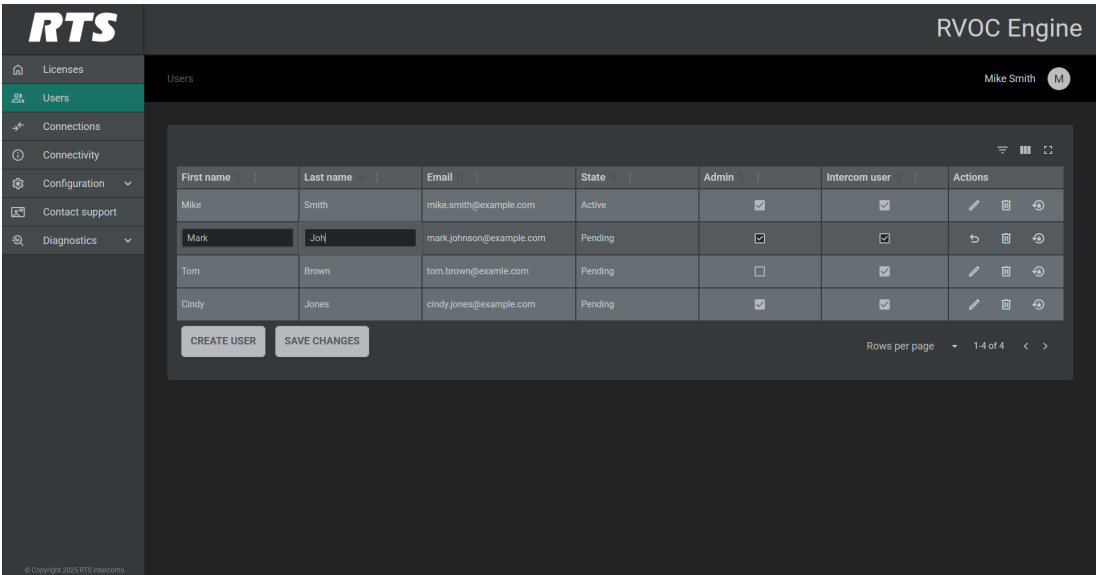

7.2 Edit a user

Sometimes it is necessary to modify a user's profile. You may need to change a person's name or their user role.

Edit a user

1. Click the **Edit icon** in the user profile's row to edit.

2.   Make the necessary modifications.
      The only fields modifiable are First Name, Last Name, Admin Role, and Intercom User
      Role.
3.   Click the **Save Changes** button.
      An Update summary window appears. The update summary shows the number of
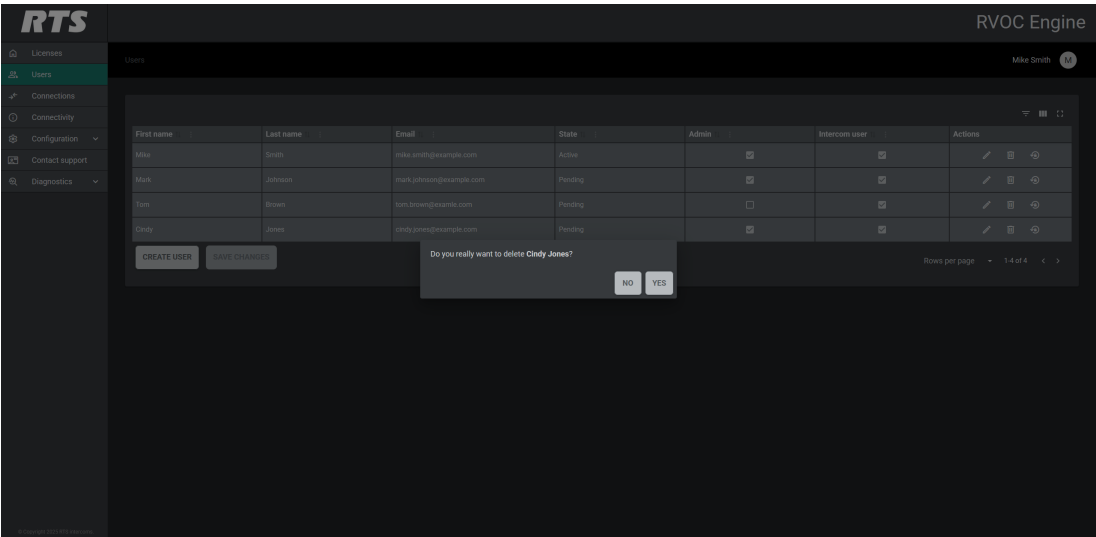   successful and unsuccessful changes and the total number of updates done.
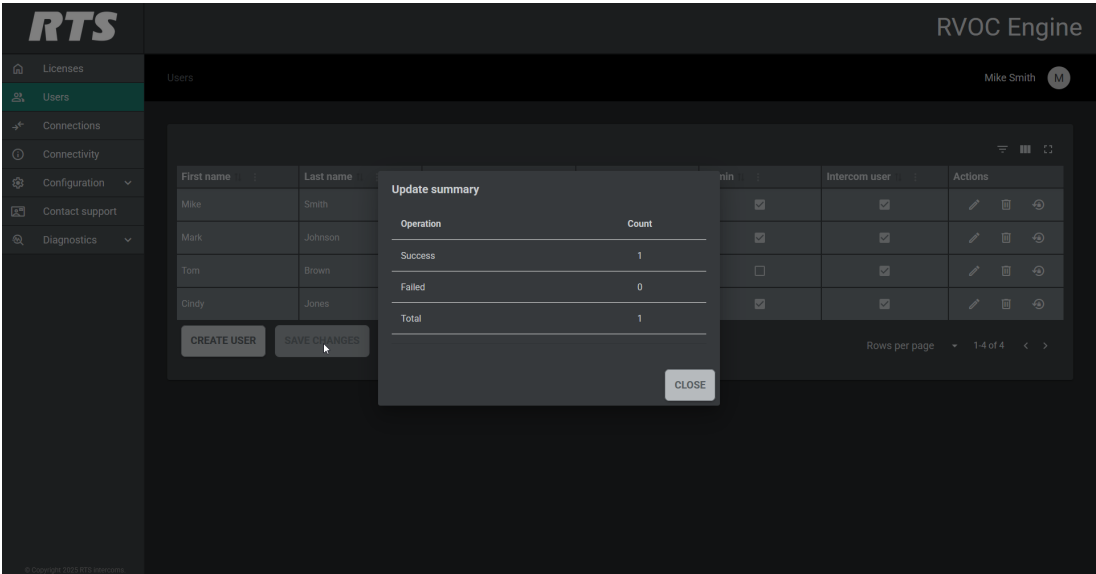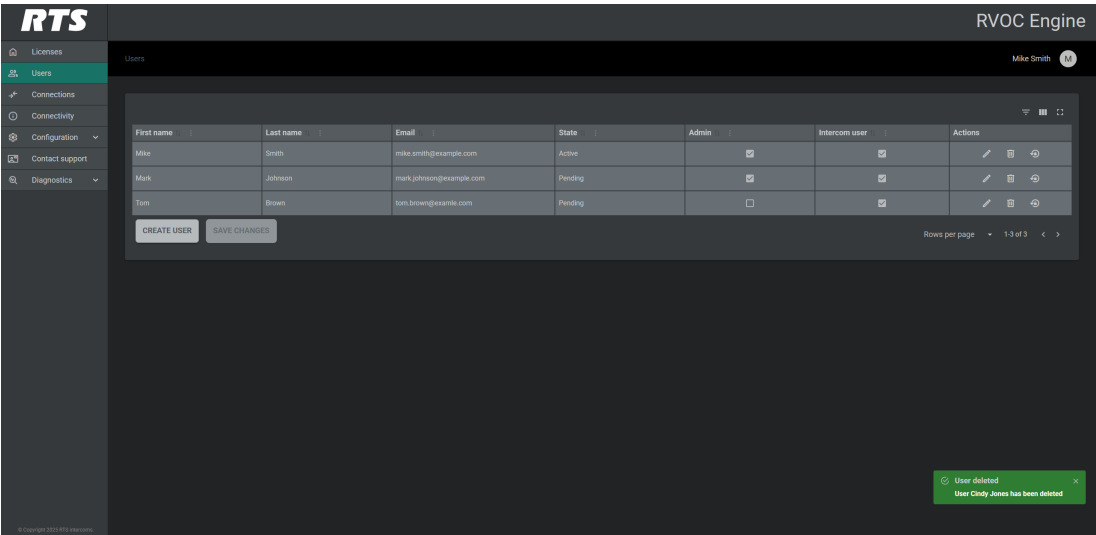

4.   Click **Close**.

7.3   Delete a user

Occasionally, you may need to delete a user to remove them from the intercom.

Delete a user
1.   Click the **Delete icon** in the user row you want to delete.
      A confirmation message appears.

2.   Click **YES** to delete the user or click **NO** to keep the user.
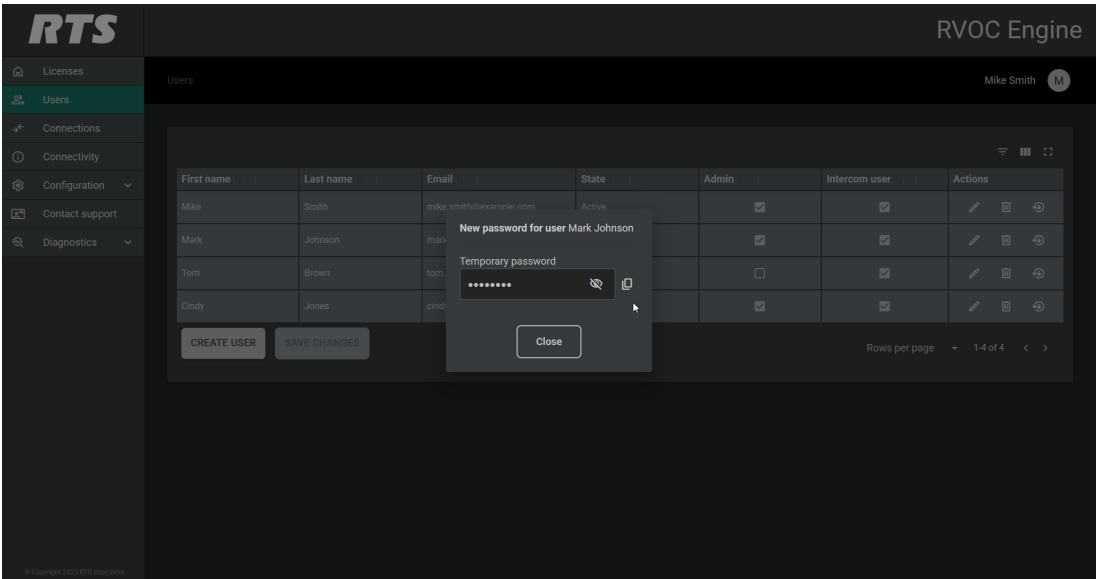   A green confirmation message appears.

7.4   Reset a password

As an administrator, you can reset users' passwords when necessary.

Reset a password
1.   Click the **reset password icon** in the user's row.
      A confirmation message appears.
2.   Click **Yes** to reset the user password.
      A Temporary password window appears.

3. Click **Close**.
   The system sends an email with the new password to the user.

Notice!

If you do not have an email service set up, you can copy the temporary password and share it with the user.

The user is required to change their password when they access RVOC Engine for the first time.

---

8   Connections

Connections are the dedicated seats used to communicate with other users. There are two ways to configure seats.
- **Mobile User** - designates mobile device user.
- **RVON** - designates keypanel or belt pack user that supports RVON.

Figure 8.1: Connections Page

Save Changes

Saves changes made to the Connections table.

Intercom Alpha

Displays the intercom alpha. This field is not editable from RVOC Engine. If you want to make changes to this field, you must use AZedit or NEO.

Connection Type

Select the type of connection for the port.
This column has two options:
Mobile User: Uses RVOC Edge
RVON: Uses a KP-series panel or DBP/DSPK that supports RVON firmware.

Configurations

Indicates the user email address to associate with the seat. This field is only available with the Mobile User connection type. Once you click the Save Changes button, an email is sent to the user with an invitation to install RVOC Edge and create login credentials.
The Configuration column populates with email addresses entered in the User screen.

Reserve Intercom Ports

By selecting the checkbox, you confirm that the user has access to this seat, ensuring they can effectively use the intercom. Enabling this feature limits the number of 'dynamic' users because it reserves seats that others cannot use. For example, if you have 10 licensed seats and reserve 8, only 2 users can dynamically access the non-reserved ports, as the system allocates 8 ports for dedicated users. While this feature can benefit key users, it also presents challenges by limiting the system's flexibility and overall seat availability.

Actions

Use the Edit icon to make changes to the seat.
Use the Delete icon to delete the seat from the system.

8.1 Configure a connection

There are two ways to configure a port in the Cloud intercom
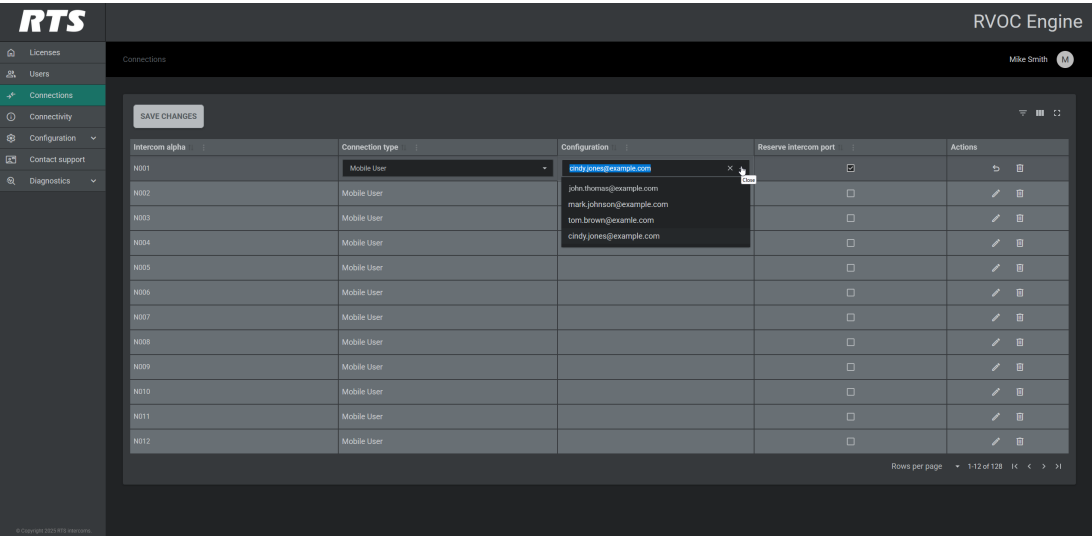– As a mobile user
– As an RVON connection

ⓘ **Notice!**

The intercom alpha is the port number/name in the system of that particular configured user or keypanel. When using software as AZedit and/or NEO, you can modify the user view of that particular user connected to that specific intercom alpha.

The Intercom Alpha is not editable from this page. You can change the alpha in NEO or AZedit.

Configure a mobile user

1. Navigate to Connections.
2. Select the **Intercom Alpha** you want to configure.

3. Click the **Edit icon**.
4. Under connection type, select **Mobile User**.
5. From the Configuration drop down field, select the **user email** you want to assign to the port.

ⓘ **Notice!**

You can only see emails that you previously created on the Users page.

6. Select the **Reserve Intercom Port check box** to guarantee a port for the user.
7. Click **Save Changes**.
   An Update summary messages window appears.
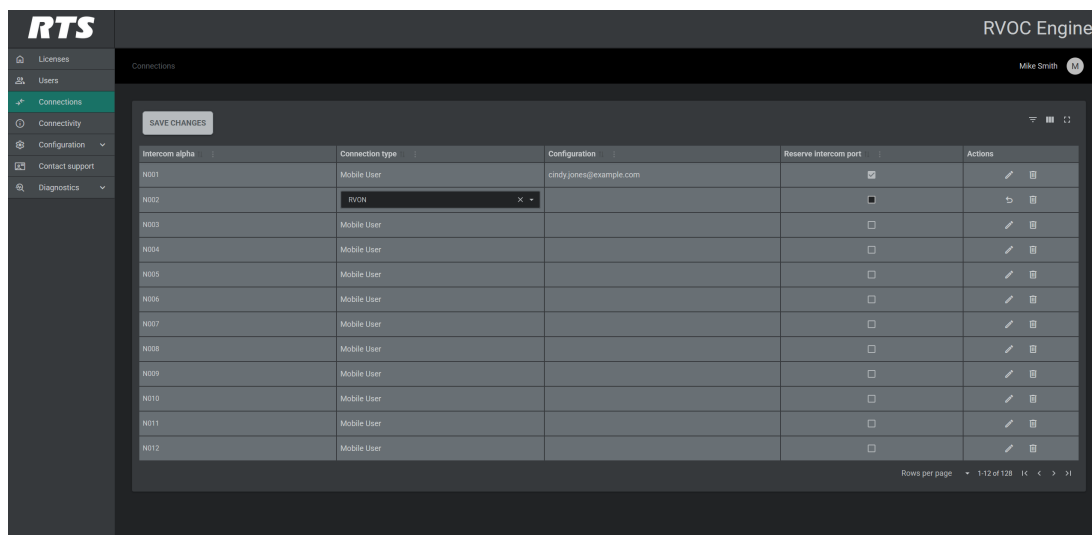8. Click **Close**.

Configure an RVON port

	Notice!
i	Configuring an RVON port requires additional hardware and software, such as an RTS Intercoms keypanel and IPedit to configure the connection details.

1. Navigate to Connections.
2. Select the **Intercom Alpha** you want to configure.

3. Click the **Edit icon**.
4. Under connection type, select **RVON**.
5. Select the **Reserve Intercom Port check box** to guarantee a port for the user.
6. Click **Save Changes**.
    An Update summary messages window appears.
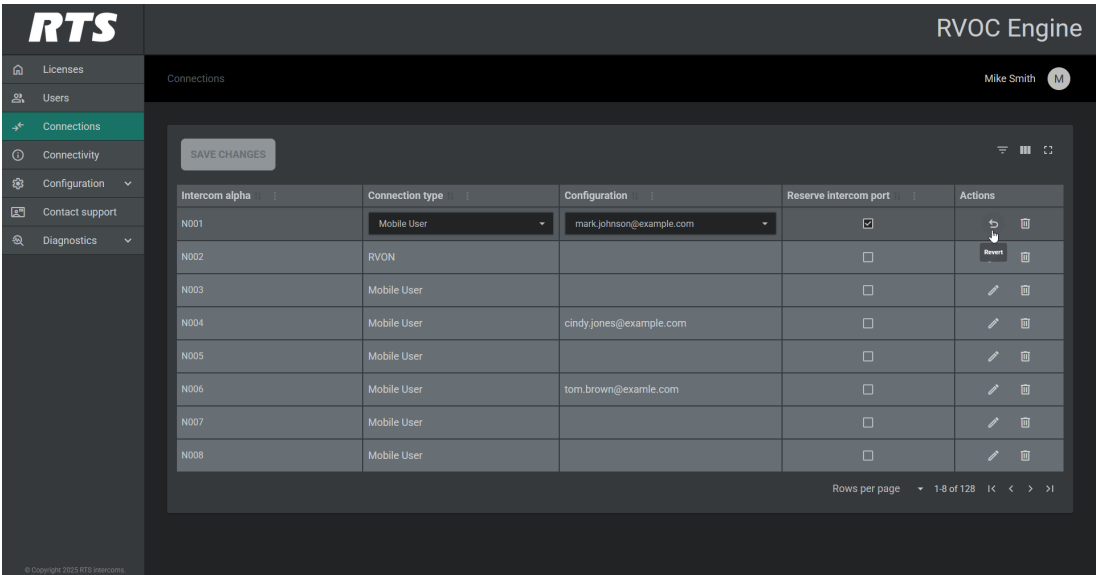7. Click **Close**.

8.2 Modify a connection

You may need to modify channels periodically when people change or port assignments change.
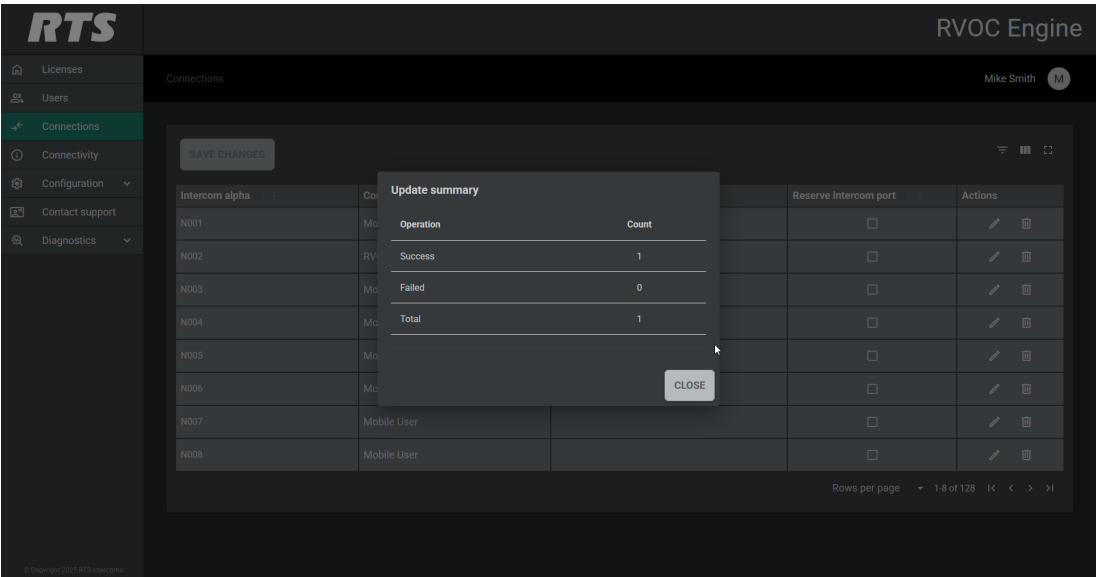
Modify a connection

1. Navigate to Connections.
2. Select the **Intercom Alpha** you want to modify.
3. Click the **Edit icon**.
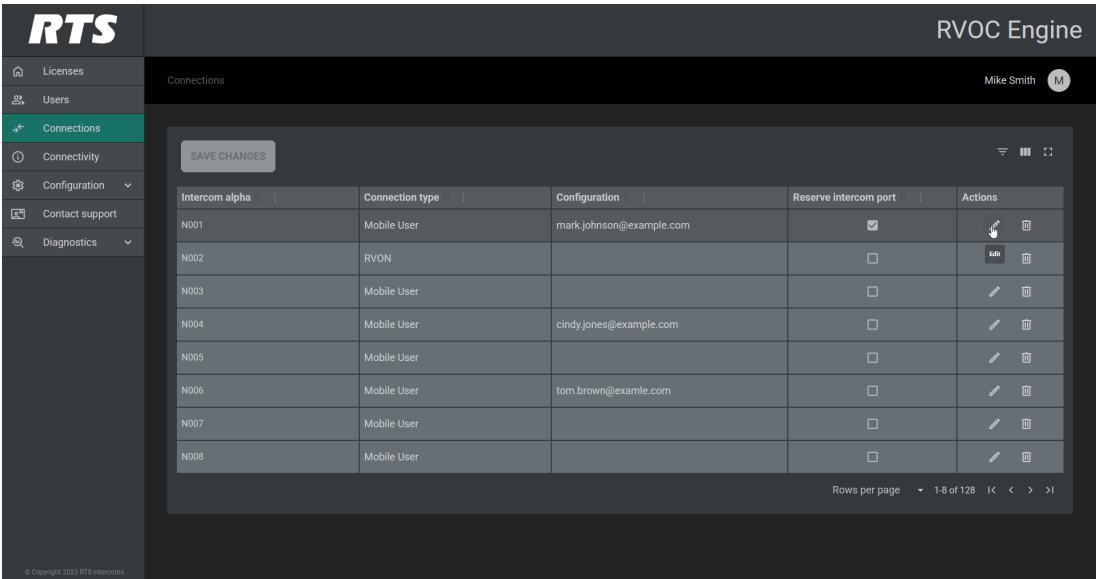
4. Make the **modifications** needed

5. Click **Save Changes**.

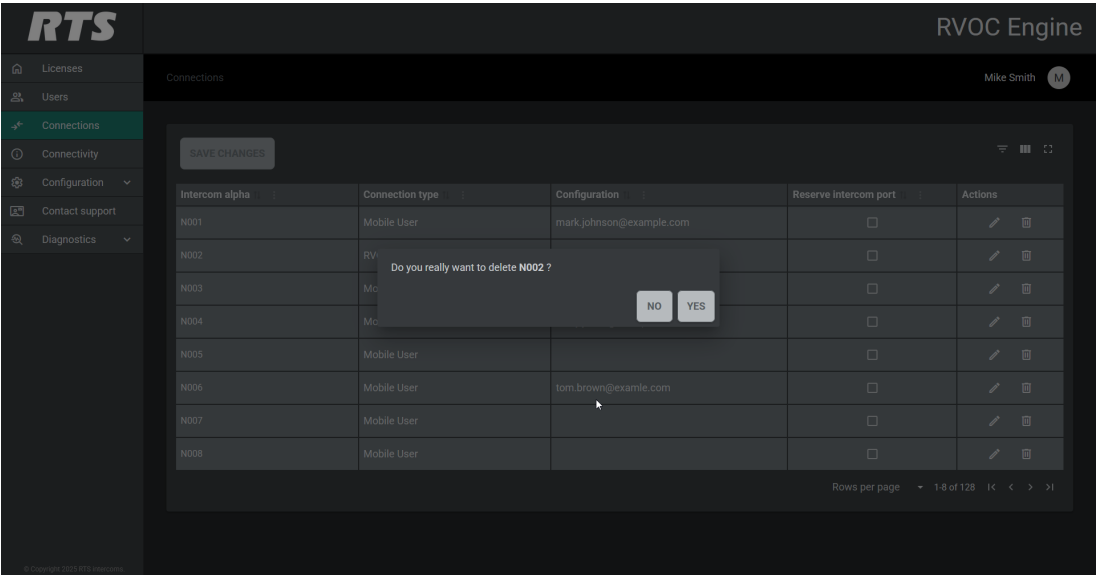An Update summary messages window appears.

6.   Click **Close**.

8.3   Delete a connection

You may want to delete connections to remove them from the intercom.

1.   Navigate to Connections.
2.   Select the **Intercom Alpha** you want to delete.
3.   Click the **Delete icon**.
      A confirmation message appears.

4.   Click **YES** to confirm the deletion.
      A green popup message confirms the deletion.

9   Connectivity

The Connectivity page shows the different IP addresses you can use to access the intercom.
The IP Addresses and DNS Server are configured during the stack setup and cannot be
modified from this page.
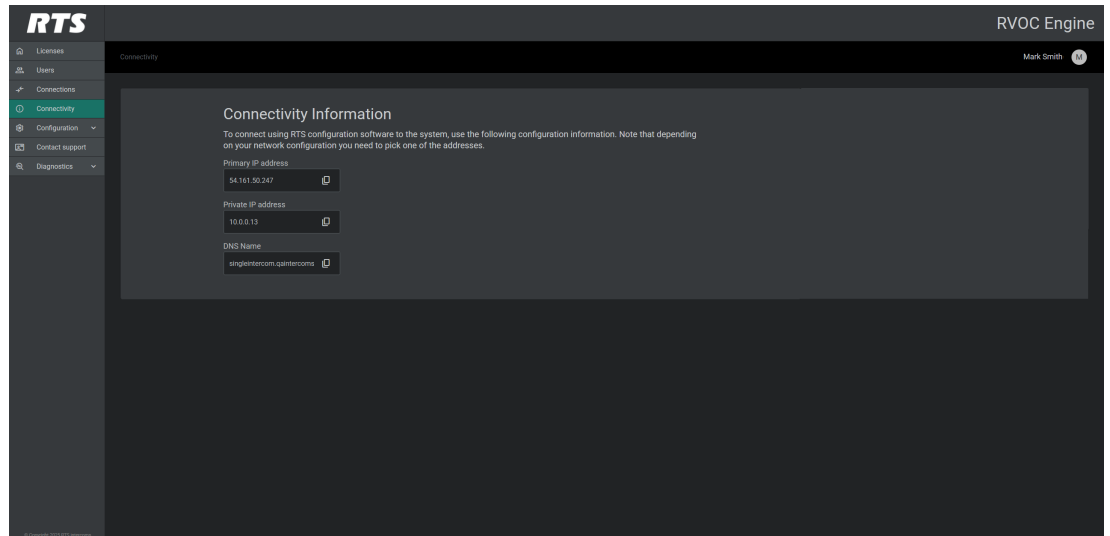
Figure 9.1: Connectivity Page

Primary IP address

The Primary IP address serves as a gateway for external access to the intercom system,
allowing users to connect from anywhere without the need to be physically or have access
to the local network.
Use this IP address when you want to access the intercom through Direct Connect, VPN, or
from a virtual machine in the cloud.

Private IP address

The Private IP address is used within a specific local network, and it is not accessible from
the outside internet. By using a Private IP address, organizations can protect their internal
systems from external threats and unauthorized access.

DNS Name

The DNS Name is an easily read address that corresponds to an IP address on the internet.
It serves as a way to identify and locate resources, such as websites, servers, or services, in
a format that is easier for people to remember and use compared to numerical IP addresses.
You can use the DNS name to connect to the intercom, which helps you avoid remembering
the IP address.

> **Notice!**
> The DNS field displays only when you configure a DNS server.

9.1   Connect the cloud intercom to the intercom configuration software

Connect with AZedit

ⓘ **Notice!**
Use AZedit to program the system, such as keypanel keys, party lines, etc.

1. Open **AZedit**.
2. Select **Options | Communications**.
3. Select **Network** under Connection.
4. In the Main field, enter the **<IP address>** or **<domain name>** (created during stack formation) of the cloud intercom.
   This IP address or domain name is available on the Connectivity screen in the Cloud Intercom Manager
5. Click **OK**.
6. Select **Online | Connect**.

Connect with NEO Intercom Configuration Software

ⓘ **Notice!**
Use RTS NEO to program the system, such as keypanel keys, party lines, etc.

1. Open **NEO**.
2. Click the **Connect** button.
   The Available Intercoms screen opens.
3. Click the **Enter IP address manually** button.
   The Connect to Intercom screen opens.
4. Click inside the **Connect to** field.
5. Enter the **<IP address>** of the cloud intercom.
   Find this IP address on the Connectivity screen in the Cloud Intercom Manager.
6. Click **Connect**.
   A success message appears. The software populates with intercom data.
7. Click **Cancel** to close the screen.

Connect with IPedit

ⓘ **Notice!**
Use IPedit to configure Cloud ports and remote keypanels, so that the connection can be established.
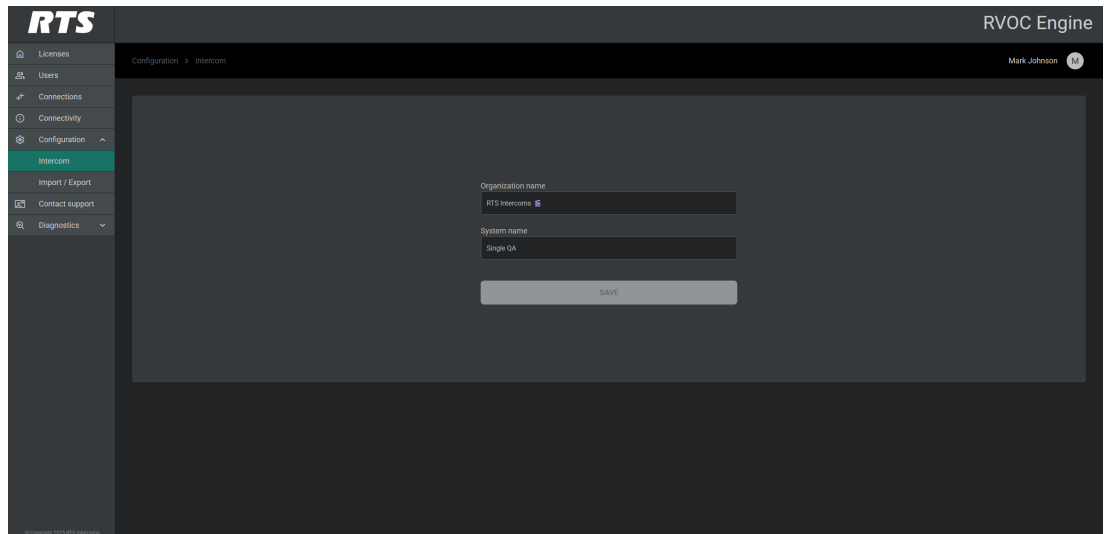
1. Open **IPedit**.
2. Navigate to **Devices | Add**.
   The Add Devices screen opens.
3. Enter the **<IP address>** from the Connectivity screen in RVOC Engine.
4. Click **Add**.
   The cloud intercom appears in the Device Catalog.

10   Configuration

10.1   Intercom

Use the Intercom page to change the organization name or the system name of the intercom.

Figure 10.1: Intercom Page

Organization name

Displays the name of your organization. This is the name of the Intercom and displays in the RVOC Edge Intercom list. You can modify this name to make it more recognizable.

System name

Displays the name of the license. You can modify this name to make it more recognizable.

Save button

Saves the changes you make.

10.2   Import/Export

The **Import/Export** page offers an import/export function that allows you to modify the Intercom's configuration. After making your desired changes to the configuration file, you can upload it back to the intercom, which automatically populates the configuration.
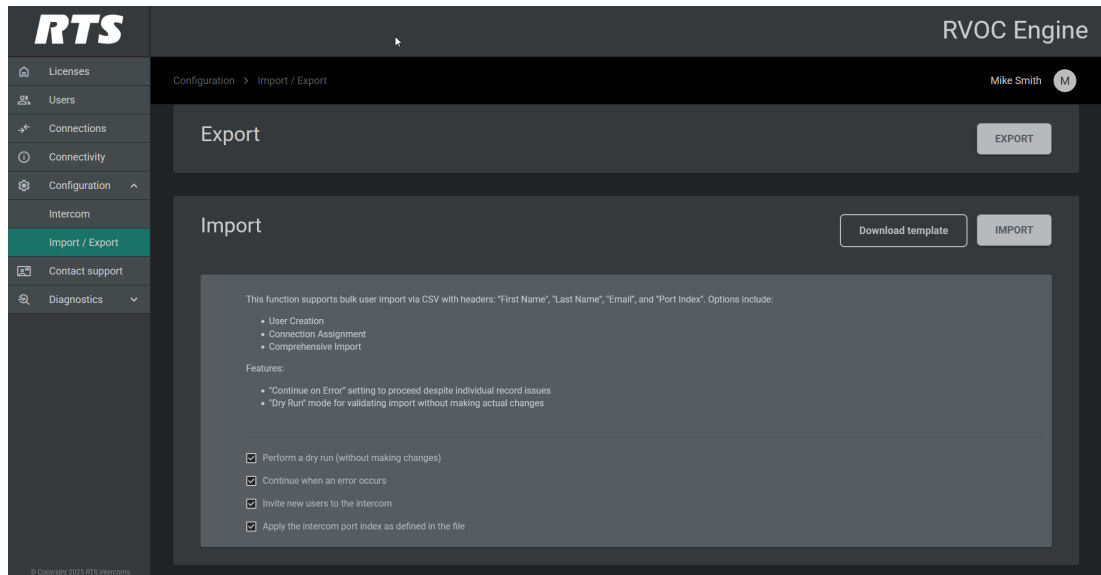
Figure 10.2: Import/Export Page

Export button

Exports the configuration file in .csv format to the Downloads folder on your PC.

Download template

Downloads a CSV file that includes the proper column headers to simplify populating Users and Connections.

Notice!

This feature supports only the CSV file type, other file types are not supported. When you create users using the CSV template and Import function, the system assigns them Intercom User rights by default. You can change their rights to administrator later if needed.

Import button

Imports a .csv file into the system.

Perform a dry run without making changes check box

Validates the import data without making actual changes to the intercom. To update the intercom with the changes, you need to clear the check box.

Continue when an error occurs check box

Continues with the import function even when it encounters an error.

Invite new users to the intercom

Sends an email to new user entries detected after the file has been imported

Apply the intercom port index as defined in the file

Applies the port index as defined in the file. This means the system overwrites the port information in the system if the assignments do not match upon import.

10.2.1   Export the configuration file

Use the Export the Configuration File feature to create a copy of the current users and connections configuration in a .csv-formatted file.

Exporting the configuration file allows you to:

–   Modify the configuration file and import it back into the intercom. This is useful when you have a substantial number of Users and Connections to input in the intercom. Simply add the users and connections to the file.

Notice!

Make sure to maintain the order of the column headers: First Name, Last Name, Email, and Port Index. Keeping these headers in the correct sequence is crucial for a successful import back into the intercom system. If you do not follow this format, the import process will fail, and you may need to start over.


–   Create a backup of the current settings. This is useful in case you need to restore the system to a previous state or recover from an error.

This feature is a valuable tool for managing Users and Connections, facilitating support, and ensuring data integrity.

Export the configuration file

▸   Click **Export**.
    The CSV (Comma Separated Values) file saves to the Downloads folder.
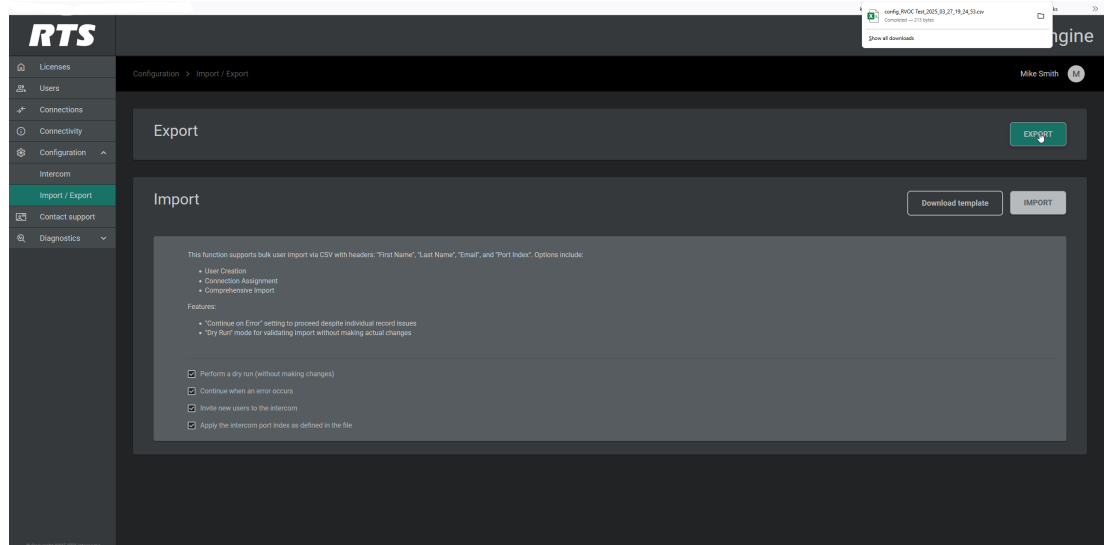
For more information, see *Import the configuration file, page 48*.

10.2.2   Download the template CSV

RVOC Engine provides you a premade CSV file with the proper headings for creating Users and Connections in the intercom.


Notice!

This feature supports only the CSV file type, other file types are not supported. When you create users using the CSV template and Import function, the system assigns them Intercom User rights by default. You can change their rights to administrator later if needed.

Download the template

1.   Click **Download template**.
     The connections-import-template.csv file saves to the Downloads folder.

---
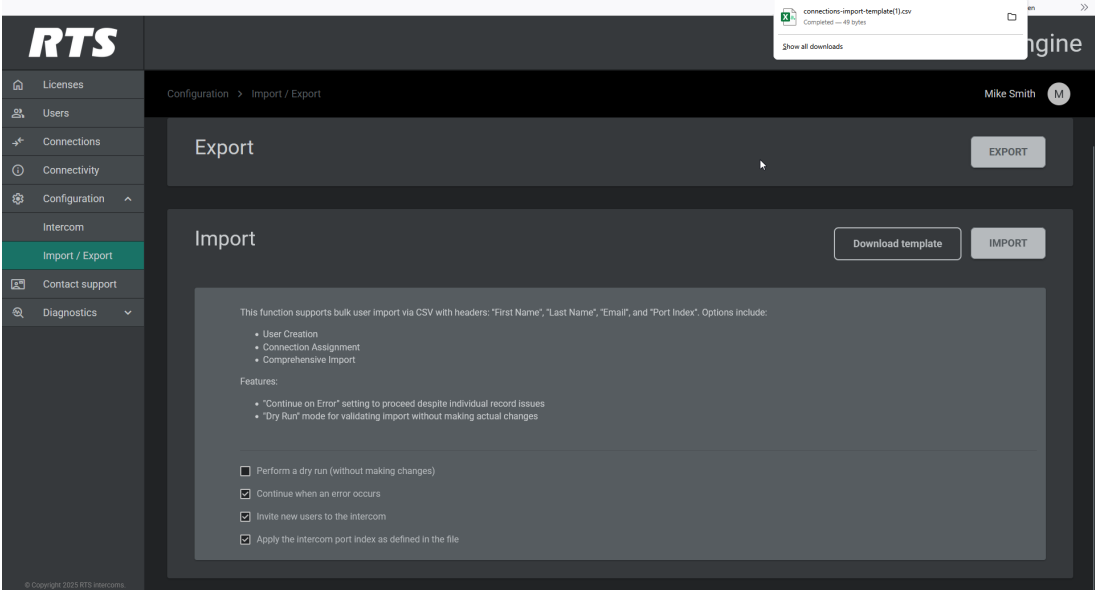
1. Fill out the **template**.
2. Import the **connections-import-template.csv file** into RVOC Engine.

For more information, see *Import the configuration file, page 48*.

Refer to

– *Import the configuration file, page 48*

10.2.3   Import the configuration file

RVOC Engine supports bulk user import through CSV files, requiring headers for First Name, Last Name, Port Index, and Alpha. You can perform various operations including user creation, connection assignment, and comprehensive import.

To enhance the import process, two key features are available: a "Dry Run" setting that lets you validate the import without making actual changes to the system and a "Continue on Error" setting that allows the process to proceed even if individual records encounter issues.

Perform a dry run import

1. Navigate to the Configuration page.
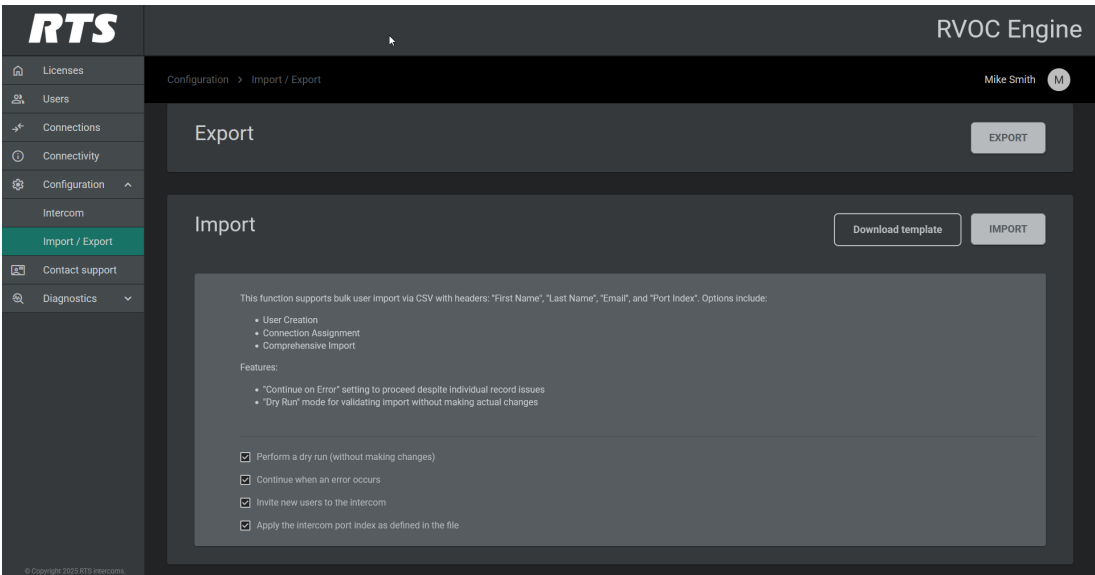
2.   Verify that you have selected all the Import parameter checkboxes.
3.   Click **Import**.
     A file upload window opens.
4.   Navigate to the file you want to upload.
5.   Click **Open**.
     The import begins. A summary report appears once the import finishes.
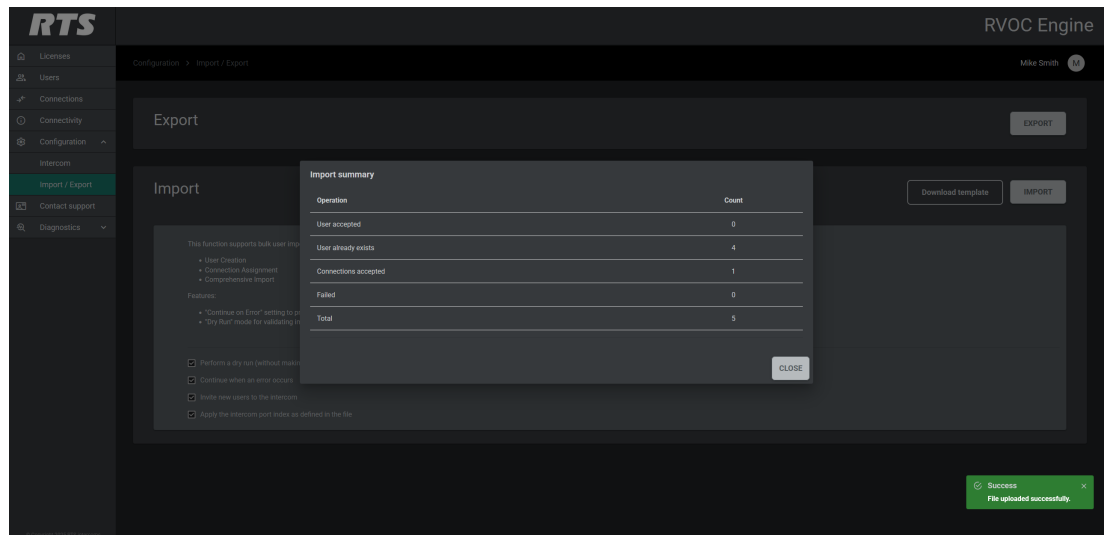
6.   Review the Import summary for errors or inconsistencies.

Perform a production run import

1.   Navigate to the Configuration page.
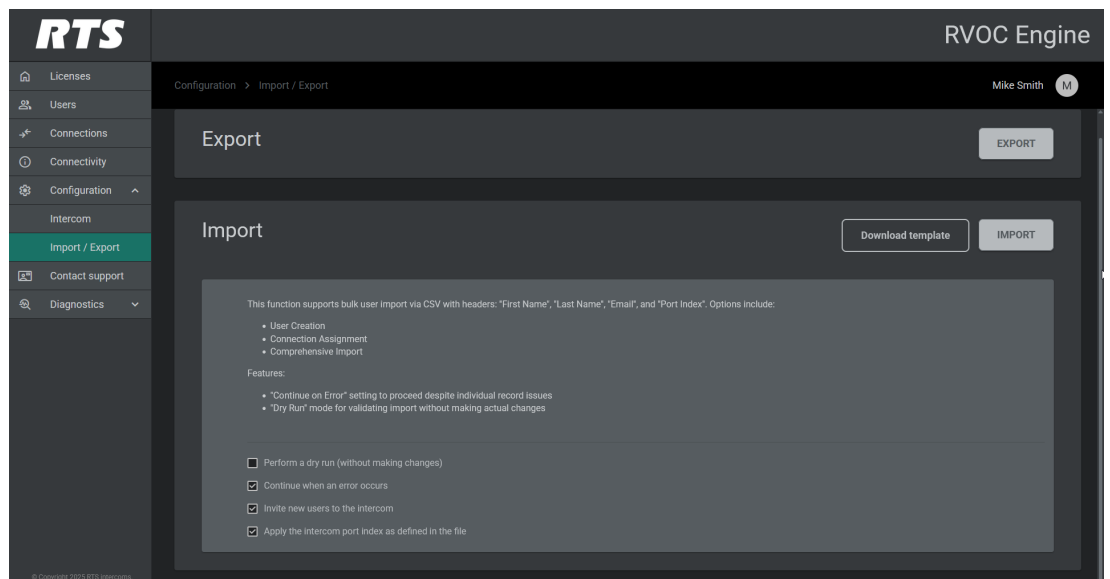
2.   Uncheck the **"Perform a dry run" check box**.
3.   (Optional) To stop the import when an error occurs, select the **"Continue when an error occurs" checkbox**; otherwise, uncheck the box.
4.   Select the **remaining check boxes**.
5.   Click **Import**.
     A file upload window opens.
6.   Navigate to the file you want to upload.

7. Click **Open**.

The import begins. A summary report appears once the import finishes.

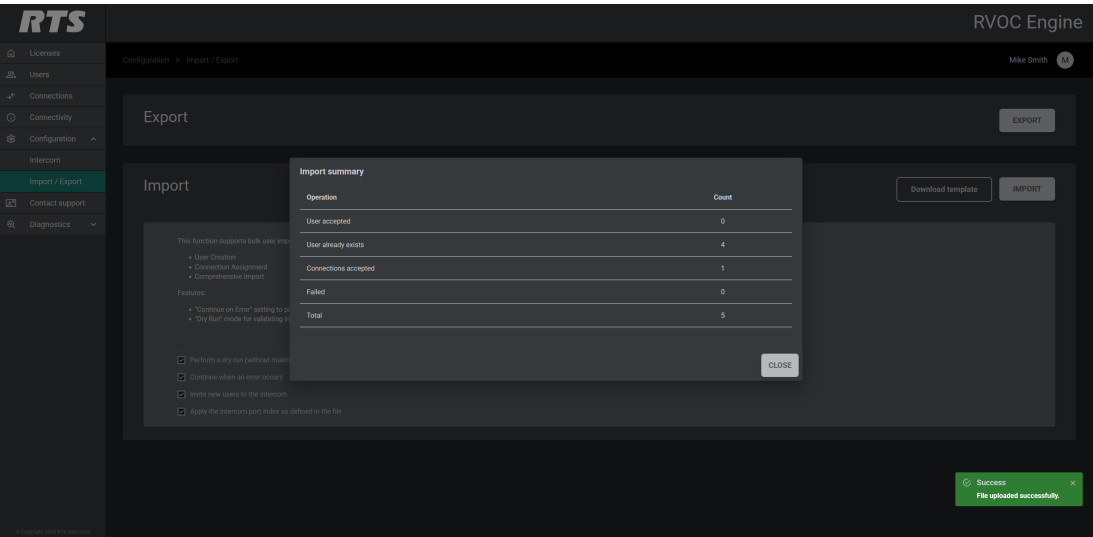8. Review the Import summary for errors or inconsistencies.

11   Contact support

Use the Contact Support page to contact the customer service or technical support team for assistance with issues, inquiries, or feedback related RVOC.

Figure 11.1: Contact support page

Email addresses field

Provide the email addresses where you would like to receive notifications for the support ticket you submit.

Subject field

Enter a title for the support issue you are experiencing.

Issue description field

Provide a detailed description of the support issue you are experiencing. Include any relevant information such as error messages, steps to reproduce the problem, and the impact it has on your work. The more specific you are, the better we can assist you in resolving the issue.

Attach files field

You can attach up to five files, each with a maximum size of 100MB. Acceptable file types include text documents, screenshots, photos, and other relevant formats that can help illustrate your support issue. Please ensure that the attachments are clear and directly related to your inquiry, as this will assist the support team in understanding and resolving your issue more efficiently.

Attach configuration and logs check box

When you select this option, RVOC Engine automatically includes the configuration files and log files as attachments to the support request.

Cancel button

Clears the form and does not send the support request.

Submit button

Submits the support request to the support team.

12 Diagnostics

The Diagnostics pages serve as an essential troubleshooting tool that actively collects system information. By gathering this data, you can effectively monitor the health of your system and gain valuable insights into issues that may arise. This comprehensive information not only helps you identify potential problems but also helps you to take informed actions to resolve them.

The pages in the Diagnostics menu are as follows:

> **i** **Notice!**
> Use scroll within the tables of each section to see all of the events.

Page	Description
Overview	Displays an overview of the intercom including CPUs, general information, health, software versions, and system status. Scroll within this page to see the different sections.
CPUs	Displays a detailed overview of the status of all the CPUs in the intercom system.

Page	Description
Intercom event	Displays the last 100 events that occurred in the intercom.
Intercom audit	Displays the last 40 audit log events.

Page	Description
Redundancy	Displays the status and events that occurred relating to redundancy in the system.
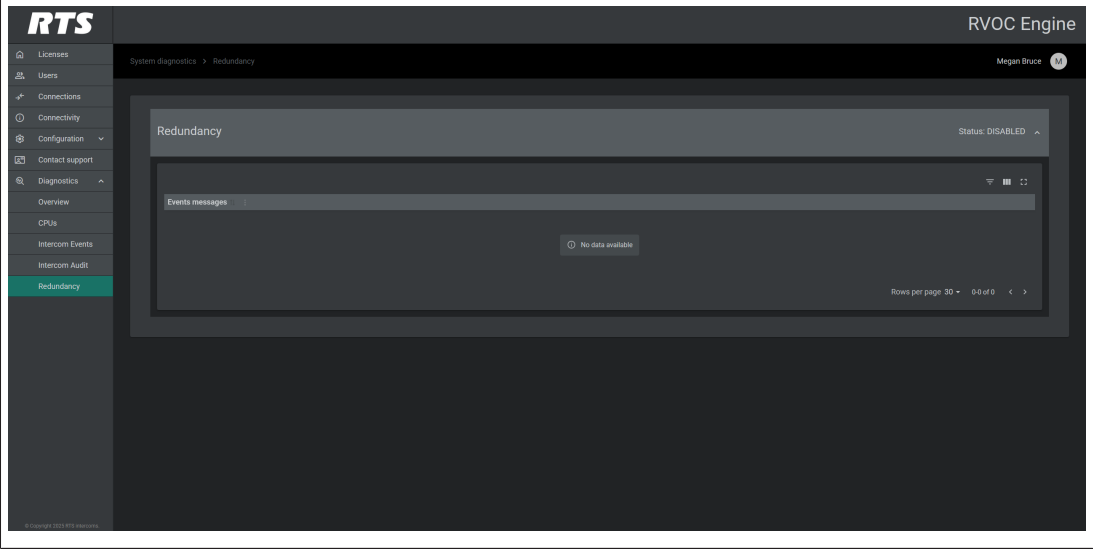
13   Technical data

RVOC Engine is offered as Infrastructure as a Service (IaaS) deployed on AWS.

RVOC Engine is available able as a standalone cloud intercom, as well as a Hybrid intercom with existing RTS hardware-based matrices like ODIN and ADAM.
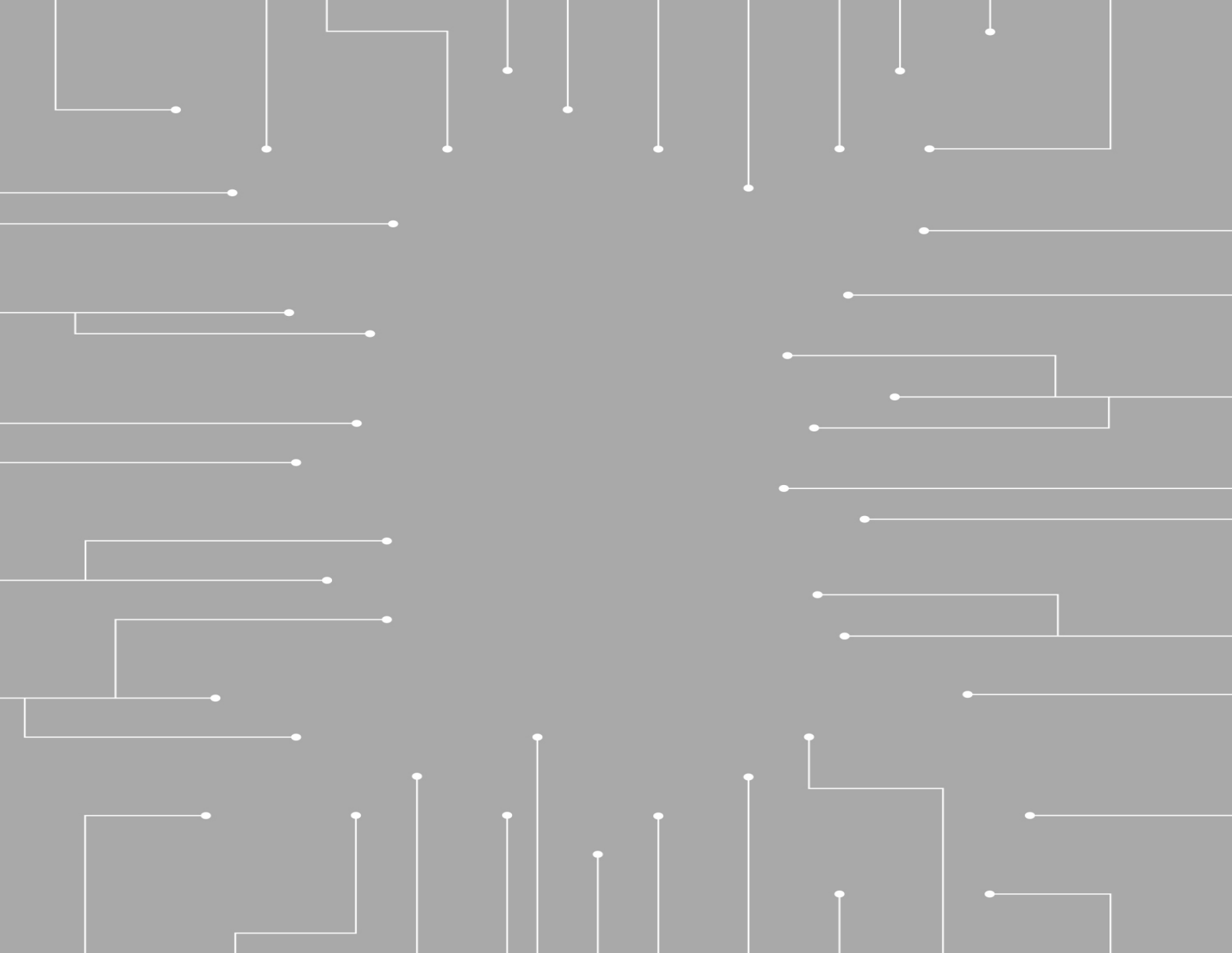
– RVOC Engine supports connection to iPhone as well as Android phones via the new and easy to use RTS Mobile App called RVOC Edge.
– The connections are WebRTC based and supports encryption.
– RVOC Engine supports connection to existing KP-series family, DBP, and DSPK which support RTS RVON functionality.
– RVOC Engine supports all the traditional Intercom Functionality like Point-to Point, Party Lines, IFB's , Special Lists.
– RVOC Engine is interoperable with the patented RTS Intelligent Trunking System
– Cloud deployment is available via AWS's CloudFormation template.
– Configuration of the RVOC Engine and RVOC Edge is available via AZedit, IPedit and Neo.