



Spottune Cloud

Control all of your in-store auditory experience from one place Spottune Cloud is based on the newest technologies and enable worldwide control of the sound experience, support, analytics and music distribution of the Spottune system in one or all locations.



Control

Distribute and control playlists directly from the cloud to one or all locations. Manage input settings.



Support

Get an instant live overview of the transmission quality of your Spottune installations, down to every single speaker. Get notification if changes of settings are locally made or if system is not active.



Routines

Automate your customer experience. Schedule volume settings, playlists, start/stop etc.



Notifications

Get an overview of your Spottune System installations over time. Get a notification if attention is needed.



Sensors

Manage, apply and control sensors like smart buttons, triggers etc.



Streaming Services

Allows for direct integration of streaming links into the Spottune system.



Technical specifications

Network communication Spottune Cloud hosted on AWS region Ireland.

Implemented on serverless architecture.

Uses JWKS tokens for authentication and authorization.

Communication with the SPOTTUNE STREAM is always initiated by the stream, so only outgoing

TCP/IP traffic should be enabled on the customer network.

Management "HQ users" gain access to a complete overview of all locations including support, general management,

playlists, routines etc.

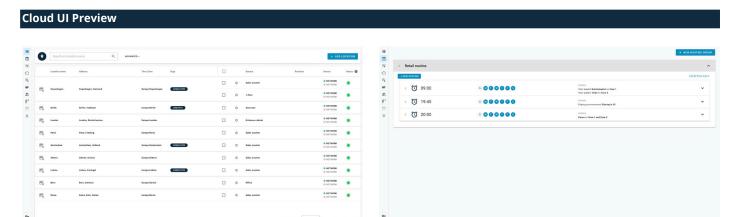
"Location users" users gain access to a specific location with general management of the specific

location.

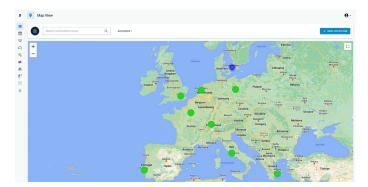
Supported formats zip, .ogg, .mp3, .flac, .mp4, .m4a, .wma, .wav, .ra, .rm, .m4b, .aif, .aiff, .aifc, .dsf, Spotify Connect and

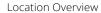
m3u links.

Product codes / SKU C1-L-I



HQ overview - List Routines





NETWORK *

· 0 0 0

HQ overview - Map



CLOUD SECURITY

CONTROL PANE

The SPOTTUNE CLOUD solution is deployed on ISO 27018 certified infrastructure provided by AWS. The AWS infrastructure provides access to the resources via a service called IAM. We are using IAM to control what persons and system components have access to other components, to uphold the principle of least privileged access. Internally between the systems communication is done via SSL and with bearer tokens between APIs to ensure authenticity.

Communication with the SPOTTUNE STREAM is always initiated by the stream, so only outgoing TCP and UDP traffic should be enabled on the customer network.

The SPOTTUNE STREAM uses these TCP ports to communicate to the cloud solution:

The SPOTTUNE STREAM obtains its IP addresses from a DHCP server on the local network. The IP addresses are by nature dynamic and could change if the DHCP decides to switch addresses. This is important in relation to whitelisting of the ports and it is recommended to use the MAC addresses for whitelisting. The MAC addresses can be found by consulting the DHCP lease file on the DHCP server.

PORT NAME	PORT NUMBER
HTTP*	TCP/80
HTTPS	TCP/443
MQTT	TCP/1883
MQTT/TLS	TCP/8883
NTP	UDP/123
DNS	UDP/53
	TCP/53

*For user initiated firmware updates only"

USER PANE

The SPOTTUNE CLOUD solution uses AWS Cognito to handle user authentication. When a user is authenticated, the cloud software uses a hierarchal structure to grant access to different subdomains inside the system. This ensures separation of data between customers, as the user will only be able to access data related to the subtree that it is being granted access to and not any other part of the system.

There are 5 levels of access in the SPOTTUNE CLOUD system:

ТҮРЕ	PRIVILEGES
ADMIN	Access to everything in the system, this is restricted to Spottune Support only.
PARTNER	Access to all customers that the partner has established. This is used for 1st level support. This Partner will not be able to access data from other partners
CUSTOMER	Access to information required for the SPOTTUNE CLOUD HQ. Costumer will not be able to access data for other customers.
LOCATION	Access to information required for the SPOTTUNE CLOUD LOCATION. This Location will not be able to retrieve data for anything but a single location
LOCATION RESTRICTED	For simple SPOTTUNE CLOUD LOCATION view. This Location will not be able to retrieve data for anything but a single location.

Q&A

Q: How many network interfaces does the Stream require?

A: The stream requires 2 IP addresses, one for each zone.

Q: How do I determine the IP address of Zone1?

A: Press and hold "play" & "forward" button simultaneously on the Stream for 10 seconds

Q: What VLAN should I allocate a port on for the Stream?

A: A DMZ or a VLAN with free internet access via a NAT service is recommended and a DHCP server. At a minimum it needs a DHCP server and the ports in the list open for outgoing traffic.