



# SECURITY OVERVIEW

## OneScreen Swap Security Overview

### Sharing Security

- OneScreen Swap servers encrypt all data in transit with AES256 encryption.
- Presenter can share screen to multiple people and take back control instantly
- All shared screens are digitally signed.
- Presenter and viewer can simultaneously take control and work together securely.

### Account Security

- Users are protected by unique, verified email addresses.
- Passwords are stored in encrypted form.

### Server Security

- Standard Linux security features or SSL Certificate.

### Network Security

- Can be protected by a Linux iptables firewall (default), an external firewall or third party firewall software. Note that third party software may require additional configuration to ensure proper OneScreen Swap server operation.

- The OneScreen Swap initiates an outbound connection to the OneScreen Swap server to establish communication. Clients typically do not need to make any firewall changes, as outbound traffic is generally allowed through firewalls. Desktop and mobile clients have the most robust firewall penetration technology and can communicate over a single TCP port (5000 or 5001), if that is all that is available. OneScreen Swap automatically selects the optimal firewall traversal method based on available ports. Ports will be used in combination, if they are available, for improved loss and latency performance. Standard RTSP traffic can be used and inspected by firewalls.

All clients are assumed to have access to the OneScreen Swap server via:

- TCP 80 (TCP/UDP)
- TCP 443 (TCP/UDP)
- 5003 (TCP/UDP)
- 8081 (TCP/UDP)
- 8082 (TCP/UDP)
- 8080 (TCP/UDP)
- 8843 (TCP/UDP)

- 5000 (TCP/UDP)
- 5001 (TCP/UDP)

Preferred media port for desktop & mobile clients:

- UDP Port 46000

Alternate media ports for desktop & mobile clients:

- TCP Port 46000
- RTSP TCP Port 554
- UDP Ports 10000 - 65535

## Recommended Port Openings If Hosting OneScreen Swap server Behind a Firewall

Inbound Ports:

- TCP 80 (TCP/UDP)
- TCP 443 (TCP/UDP)
- 5000 (TCP/UDP)
- 5001 (TCP/UDP)
- 5003 (TCP/UDP)
- 8080 (TCP/UDP)
- 8081 (TCP/UDP)
- 8082 (TCP/UDP)

- 8843 (TCP/UDP)
- RTSP TCP Port 554
- TCP and UDP Ports 10000 - 65535
- Allow all outbound TCP & UDP traffic