# Firewall


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## Introduction

By accessing *Firewall* page on your workspace you can manage access to your servers.

Each server has its own security group. To control access to all servers in bulk, use __**common**__ group.

By clicking *Show rules* link next to each security group you will access firewall rules for specific group.

You can set following properties for every rule:

- Protocol - TCP, UDP, ICMP, Any
- Remote IP/Mask
- Port from - not available for ICMP
- Port to - not available for ICMP
- Note - to improve readability

## Workspace Firewall

TDS project Firewall shows security groups where user can manage security rules.

### Workspace Firewall

Project Firewall view shows all server security groups and common security group attached to all servers.

Each security group is created or removed automatically with project or servers. Users cannot create or remove groups and cannot assign them to other servers.

### Common security group

Common security group called "__common__" is attached to all project servers and by default it is empty.

Users can manage rules in common security group the same way as for any servers.

Rules defined here are applied to all servers in project, work with them responsibly!

### Server security group

Server security group contains security rules for a relevant server.

Each server security group name is equal to server name.

### Managing security rules

Basics:

- User can add a new security rule into security group byusing button "Add rule".
- User can cancel his actions in security group view simply by going away.
- User can save changes Server Security Group using button "Save".

All security rules are applied for incoming (ingress) connections only. By default NO incoming connection is allowed. Outgoing (egress) connections were always open on all servers, we have removed this option from FW settings.

Security Rule includes the following fields:

- Protocol
  - Possible values:
    - Any
    - TCP
    - UDP
    - ICMP
- Remote IP
  - Source of the traffic to be allowed via this rule. Expected values should be entered in the form of an IP address block. For all IPs 0.0.0.0 /0 can be used.

- Port from
    - The field means a single port or beginning of the range of ports which will be used for the rule
    - Valid only for TCP and UDP protocols
    - Integer value between 1 and 65535 can be used only
- Port to
    - The field means a single port or end of the range of ports which will be used for the rule
    - Valid only for TCP and UDP protocols
    - Integer value between 1 and 65535 can be used only
- Action - every rule can offer following actions
    - Remove
        - action removes rule from view. Requires pressing Save to actually get removed.
    - Add
        - Special action for re-adding rules that are currently in removing state. During waiting for removal it allows you to re-add rule back if you changed your mind.

User can modify existing Security Rules and save all changes pressing "Save" button.