

ucd_root

Package in package "

ucd_root
Version 1.0 Phase 1.0 Proposed
fljat created on 25.03.2022. Last modified 25.03.2022

main

Package in package 'ucd_root'

main
Version 1.0 Phase 1.0 Proposed
fljat created on 16.03.2022. Last modified 25.03.2022

main diagram

Use Case diagram in package 'main'

main
Version 1.0
fljat created on 25.03.2022. Last modified 25.03.2022

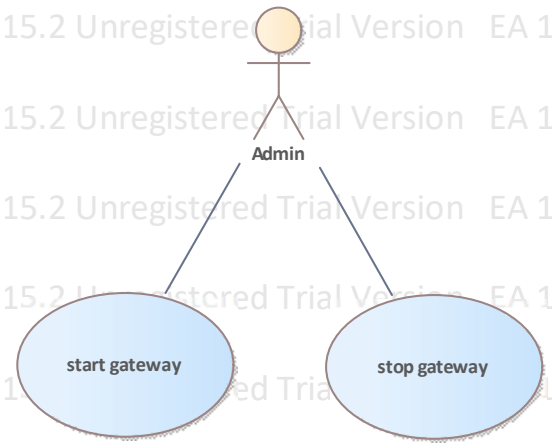


Figure 1: main

config

Package in package 'main'

config
Version 1.0 Phase 1.0 Proposed
fljat created on 16.03.2022. Last modified 25.03.2022

config diagram

Use Case diagram in package 'config'

config

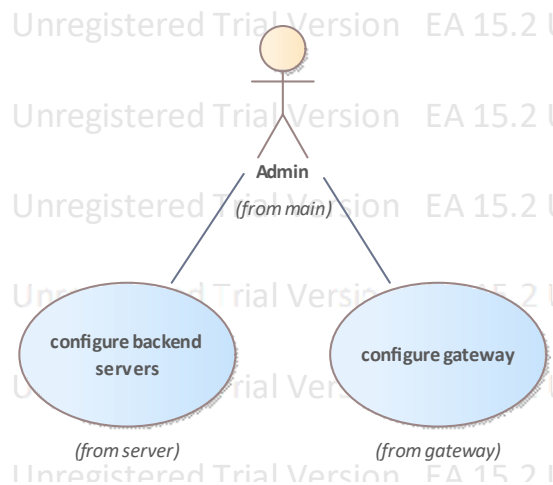


Figure 2: config

Admin

Actor in package 'main'

Admin

Version 1.0 Phase 1.0 Proposed

fljat created on 16.03.2022. Last modified 16.03.2022

ASSOCIATIONS

Association (direction: Unspecified)

Source: Public (Actor) Admin

Target: Public (UseCase) configure gateway

Association (direction: Unspecified)

Source: Public (Actor) Admin

Target: Public (UseCase) start gateway

Association (direction: Unspecified)

Source: Public (Actor) Admin

Target: Public (UseCase) retrieve logs

Association (direction: Unspecified)

Source: Public (Actor) Admin

Target: Public (UseCase) stop gateway

Association (direction: Unspecified)

Source: Public (UseCase) configure backend servers


Target: Public (Actor) Admin

configure backend servers

UseCase in package 'server'

configure backend servers
 Version 1.0 Phase 1.0 Proposed
 fljat created on 16.03.2022. Last modified 25.03.2022

CONNECTORS

 **Include** «include» Source -> Destination
 From: configure backend servers : UseCase, Public
 To: configure server : UseCase, Public

ASSOCIATIONS


 Association (direction: Unspecified)
 Source: Public (UseCase) configure backend servers Target: Public (Actor) Admin

configure gateway

UseCase in package 'gateway'

configure gateway
 Version 1.0 Phase 1.0 Proposed
 fljat created on 25.03.2022. Last modified 25.03.2022

CONNECTORS

 **Include** «include» Source -> Destination
 From: configure gateway : UseCase, Public
 To: add listening port : UseCase, Public

ASSOCIATIONS

 Association (direction: Unspecified)
 Source: Public (Actor) Admin Target: Public (UseCase) configure gateway

gateway

Package in package 'config'

gateway
 Version 1.0 Phase 1.0 Proposed
 fljat created on 16.03.2022. Last modified 25.03.2022

gateway diagram

Use Case diagram in package 'gateway'

gateway
Version 1.0
fljat created on 16.03.2022. Last modified 25.03.2022

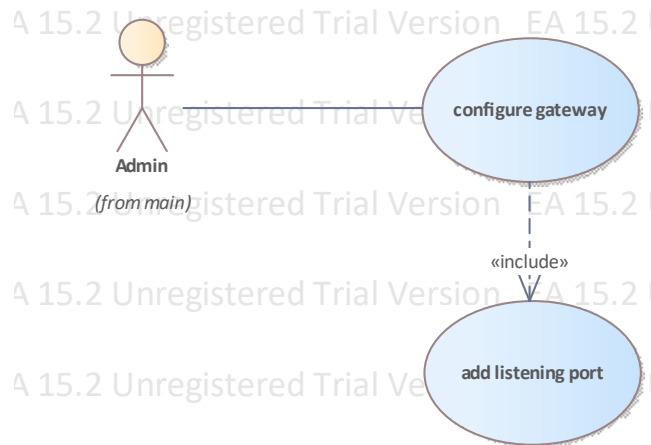


Figure 3: gateway

Admin

Actor in package 'main'

Admin
Version 1.0 Phase 1.0 Proposed
fljat created on 16.03.2022. Last modified 16.03.2022

ASSOCIATIONS	
<p> Association (direction: Unspecified)</p> <p>Source: Public (Actor) Admin</p>	<p>Target: Public (UseCase) configure gateway</p>
<p> Association (direction: Unspecified)</p> <p>Source: Public (Actor) Admin</p>	<p>Target: Public (UseCase) start gateway</p>
<p> Association (direction: Unspecified)</p> <p>Source: Public (Actor) Admin</p>	<p>Target: Public (UseCase) retrieve logs</p>
<p> Association (direction: Unspecified)</p> <p>Source: Public (Actor) Admin</p>	<p>Target: Public (UseCase) stop gateway</p>
<p> Association (direction: Unspecified)</p> <p>Source: Public (UseCase) configure backend servers</p>	<p>Target: Public (Actor) Admin</p>

add listening port


UseCase in package 'gateway'

add listening port

Version 1.0 Phase 1.0 Proposed

fljat created on 16.03.2022. Last modified 16.03.2022

CONNECTORS

 **Include** «include» Source -> Destination
From: configure gateway : UseCase, Public
To: add listening port : UseCase, Public

configure gateway


UseCase in package 'gateway'

configure gateway

Version 1.0 Phase 1.0 Proposed

fljat created on 25.03.2022. Last modified 25.03.2022

CONNECTORS

 **Include** «include» Source -> Destination
From: configure gateway : UseCase, Public
To: add listening port : UseCase, Public

ASSOCIATIONS

 Association (direction: Unspecified)

Source: Public (Actor) Admin

Target: Public (UseCase) configure gateway

server

Package in package 'config'

server

Version 1.0 Phase 1.0 Proposed

fljat created on 16.03.2022. Last modified 25.03.2022

server diagram

Use Case diagram in package 'server'

server

Version 1.0

fljat created on 16.03.2022. Last modified 25.03.2022

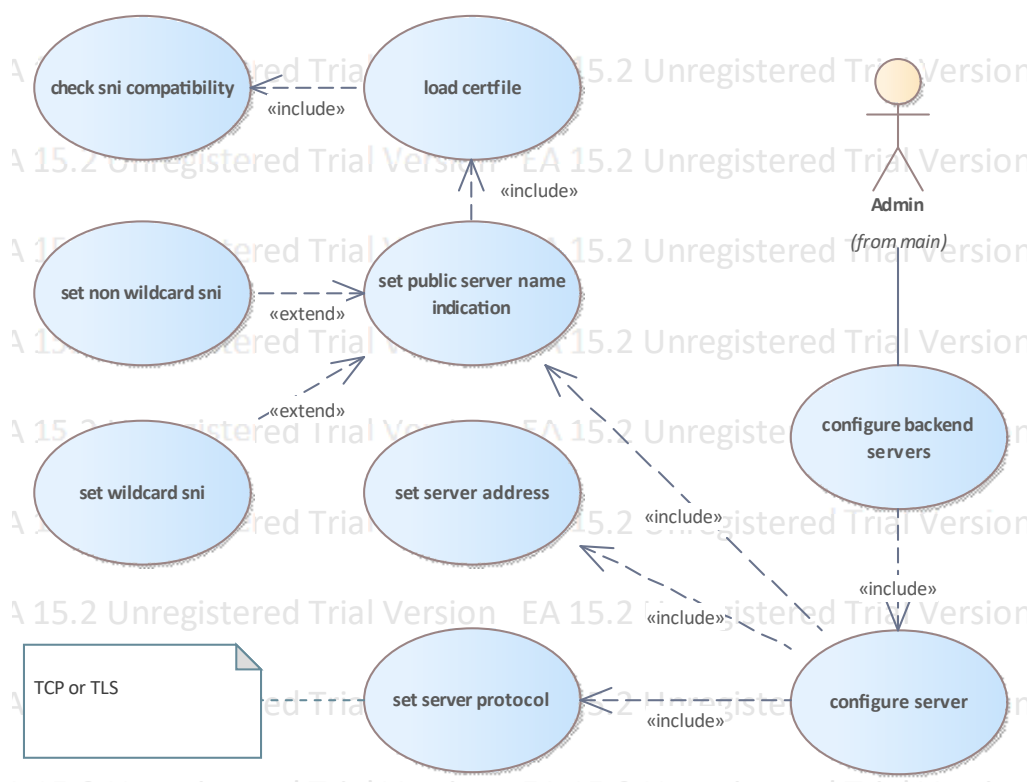


Figure 4: server

Admin

Actor in package 'main'

Admin

Version 1.0 Phase 1.0 Proposed

fljat created on 16.03.2022. Last modified 16.03.2022

ASSOCIATIONS

Association (direction: Unspecified)


Source: Public (Actor) Admin

Target: Public (UseCase) configure gateway

Association (direction: Unspecified)

Source: Public (Actor) Admin

Target: Public (UseCase) start gateway

ASSOCIATIONS	
 Association (direction: Unspecified)	
Source: Public (Actor) Admin	Target: Public (UseCase) retrieve logs
 Association (direction: Unspecified)	
Source: Public (Actor) Admin	Target: Public (UseCase) stop gateway
 Association (direction: Unspecified)	
Source: Public (UseCase) configure backend servers	Target: Public (Actor) Admin

Note

Note in package 'server'


TCP or TLS

Note
Version 1.0 Phase 1.0 Proposed
fljat created on 16.03.2022. Last modified 16.03.2022
Extends

check sni compatibility

UseCase in package 'server'

check sni compatibility
Version 1.0 Phase 1.0 Proposed
fljat created on 25.03.2022. Last modified 25.03.2022

CONNECTORS	
 Include «include» Source -> Destination From: load certfile : UseCase, Public To: check sni compatibility : UseCase, Public	


configure backend servers

UseCase in package 'server'

configure backend servers
Version 1.0 Phase 1.0 Proposed
fljat created on 16.03.2022. Last modified 25.03.2022

CONNECTORS

CONNECTORS

 **Include** «include» Source -> Destination
 From: configure backend servers : UseCase, Public
 To: configure server : UseCase, Public

ASSOCIATIONS

 Association (direction: Unspecified)

Source: Public (UseCase) configure backend servers


Target: Public (Actor) Admin


configure server


UseCase in package 'server'


configure server
 Version 1.0 Phase 1.0 Proposed
 fljat created on 16.03.2022. Last modified 25.03.2022

CONNECTORS

 **Include** «include» Source -> Destination
 From: configure server : UseCase, Public
 To: set server protocol : UseCase, Public

 **Include** «include» Source -> Destination
 From: configure server : UseCase, Public
 To: set server address : UseCase, Public

 **Include** «include» Source -> Destination
 From: configure server : UseCase, Public
 To: set public server name indication : UseCase, Public

 **Include** «include» Source -> Destination
 From: configure backend servers : UseCase, Public
 To: configure server : UseCase, Public


load certfile


UseCase in package 'server'

load certfile
 Version 1.0 Phase 1.0 Proposed
 fljat created on 16.03.2022. Last modified 25.03.2022

CONNECTORS

CONNECTORS

 **Include** «include» Source -> Destination
 From: load certfile : UseCase, Public
 To: check sni compatibility : UseCase, Public


 **Include** «include» Source -> Destination
 From: set public server name indication : UseCase, Public
 To: load certfile : UseCase, Public

set non wildcard sni

UseCase in package 'server'

set non wildcard sni
 Version 1.0 Phase 1.0 Proposed
 fljat created on 16.03.2022. Last modified 16.03.2022

CONNECTORS


 **Extend** «extend» Source -> Destination
 From: set non wildcard sni : UseCase, Public
 To: set public server name indication : UseCase, Public


set public server name indication


UseCase in package 'server'


set public server name indication
 Version 1.0 Phase 1.0 Proposed
 fljat created on 16.03.2022. Last modified 16.03.2022

CONNECTORS

 **Include** «include» Source -> Destination
 From: set public server name indication : UseCase, Public
 To: load certfile : UseCase, Public

 **Include** «include» Source -> Destination
 From: configure server : UseCase, Public
 To: set public server name indication : UseCase, Public

 **Extend** «extend» Source -> Destination
 From: set non wildcard sni : UseCase, Public
 To: set public server name indication : UseCase, Public


 **Extend** «extend» Source -> Destination
 From: set wildcard sni : UseCase, Public
 To: set public server name indication : UseCase, Public

set server address

UseCase in package 'server'

set server address
Version 1.0 Phase 1.0 Proposed
fljat created on 16.03.2022. Last modified 17.03.2022

CONNECTORS


 **Include** «include» Source -> Destination
From: configure server : UseCase, Public
To: set server address : UseCase, Public

set server protocol

UseCase in package 'server'

set server protocol
Version 1.0 Phase 1.0 Proposed
fljat created on 16.03.2022. Last modified 16.03.2022

CONNECTORS


 **Include** «include» Source -> Destination
From: configure server : UseCase, Public
To: set server protocol : UseCase, Public

set wildcard sni

UseCase in package 'server'

set wildcard sni
Version 1.0 Phase 1.0 Proposed
fljat created on 16.03.2022. Last modified 16.03.2022

CONNECTORS

 **Extend** «extend» Source -> Destination
From: set wildcard sni : UseCase, Public
To: set public server name indication : UseCase, Public

update server

UseCase in package 'server'

update server
Version 1.0 Phase 1.0 Proposed
fljat created on 16.03.2022. Last modified 16.03.2022

gateway

Package in package 'main'

gateway
Version 1.0 Phase 1.0 Proposed
fljat created on 16.03.2022. Last modified 16.03.2022

gateway diagram

Use Case diagram in package 'gateway'

gateway
Version 1.0
fljat created on 16.03.2022. Last modified 25.03.2022

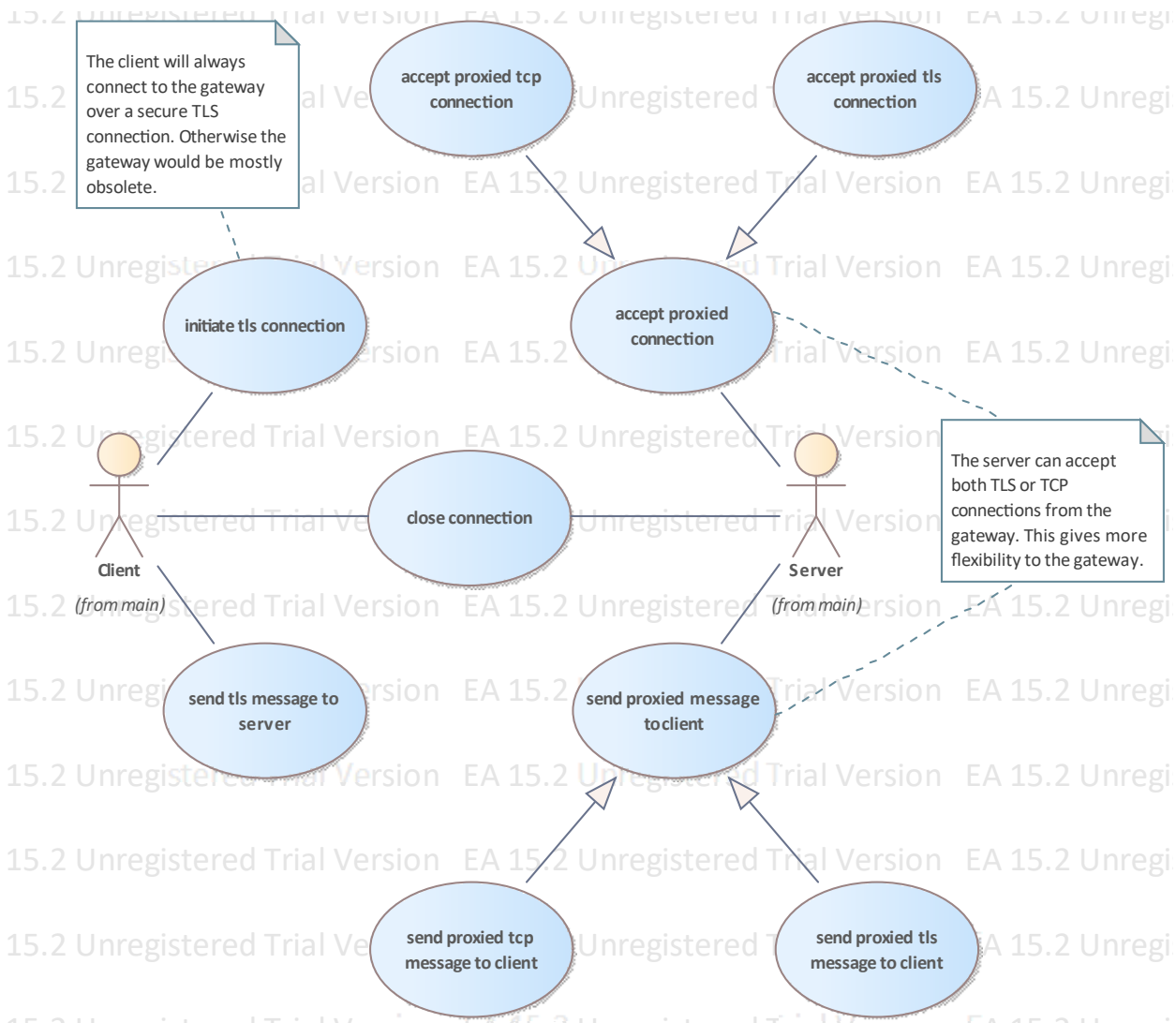


Figure 5: gateway

Client

Actor in package 'main'

Client
Version 1.0 Phase 1.0 Proposed
fljat created on 16.03.2022. Last modified 16.03.2022

ASSOCIATIONS	
 Association (direction: Unspecified) Source: Public (Actor) Client	Target: Public (UseCase) initiate tls connection
 Association (direction: Unspecified) Source: Public (Actor) Client	Target: Public (UseCase) send tls message to server
 Association (direction: Unspecified) Source: Public (Actor) Client	Target: Public (UseCase) close connection

Server

Actor in package 'main'

Server
Version 1.0 Phase 1.0 Proposed
fljat created on 16.03.2022. Last modified 16.03.2022

ASSOCIATIONS	
 Association (direction: Unspecified) Source: Public (Actor) Server	Target: Public (UseCase) close connection
 Association (direction: Unspecified) Source: Public (Actor) Server	Target: Public (UseCase) accept proxied connection
 Association (direction: Unspecified) Source: Public (Actor) Server	Target: Public (UseCase) send proxied message to client

Note

Note in package 'gateway'

The server can accept both TLS or TCP connections from the gateway. This gives more flexibility to the gateway.

Note
Version 1.0 Phase 1.0 Proposed
fljat created on 16.03.2022. Last modified 16.03.2022
Extends

Note

Note in package 'gateway'

The client will always connect to the gateway over a secure TLS connection. Otherwise the gateway would be mostly obsolete.

Note
Version 1.0 Phase 1.0 Proposed
fljat created on 16.03.2022. Last modified 16.03.2022
Extends

accept proxied connection

UseCase in package 'gateway'

accept proxied connection
Version 1.0 Phase 1.0 Proposed
fljat created on 16.03.2022. Last modified 16.03.2022

INCOMING STRUCTURAL RELATIONSHIPS

➡ Generalization from accept proxied tcp connection to accept proxied connection
[Direction is 'Source -> Destination'.]

➡ Generalization from accept proxied tls connection to accept proxied connection
[Direction is 'Source -> Destination'.]

ASSOCIATIONS

 Association (direction: Unspecified)

Source: Public (Actor) Server

Target: Public (UseCase) accept proxied connection

accept proxied tcp connection

UseCase in package 'gateway'

accept proxied tcp connection
Version 1.0 Phase 1.0 Proposed
fljat created on 16.03.2022. Last modified 16.03.2022

OUTGOING STRUCTURAL RELATIONSHIPS

⬅ Generalization from accept proxied tcp connection to accept proxied connection
[Direction is 'Source -> Destination'.]

accept proxied tls connection

UseCase in package 'gateway'

accept proxied tls connection
 Version 1.0 Phase 1.0 Proposed
 fljat created on 16.03.2022. Last modified 16.03.2022

OUTGOING STRUCTURAL RELATIONSHIPS

← Generalization from accept proxied tls connection to accept proxied connection
 [Direction is 'Source -> Destination'.]

close connection*UseCase in package 'gateway'*

close connection
 Version 1.0 Phase 1.0 Proposed
 fljat created on 16.03.2022. Last modified 16.03.2022

ASSOCIATIONS

✎ Association (direction: Unspecified)

Source: Public (Actor) Server

Target: Public (UseCase) close connection

✎ Association (direction: Unspecified)

Source: Public (Actor) Client

Target: Public (UseCase) close connection

initiate tls connection*UseCase in package 'gateway'*

initiate tls connection
 Version 1.0 Phase 1.0 Proposed
 fljat created on 16.03.2022. Last modified 16.03.2022

ASSOCIATIONS

✎ Association (direction: Unspecified)

Source: Public (Actor) Client

Target: Public (UseCase) initiate tls connection

send proxied message to client*UseCase in package 'gateway'*

send proxied message to client
 Version 1.0 Phase 1.0 Proposed
 fljat created on 16.03.2022. Last modified 16.03.2022

INCOMING STRUCTURAL RELATIONSHIPS

⇒ Generalization from send proxied tls message to client to send proxied message to client
[Direction is 'Source -> Destination'.]

⇒ Generalization from send proxied tcp message to client to send proxied message to client
[Direction is 'Source -> Destination'.]

ASSOCIATIONS

 Association (direction: Unspecified)

Source: Public (Actor) Server

Target: Public (UseCase) send proxied message to client

send proxied tcp message to client

UseCase in package 'gateway'

send proxied tcp message to client
Version 1.0 Phase 1.0 Proposed
fljat created on 16.03.2022. Last modified 16.03.2022

OUTGOING STRUCTURAL RELATIONSHIPS

⇐ Generalization from send proxied tcp message to client to send proxied message to client
[Direction is 'Source -> Destination'.]

send proxied tls message to client

UseCase in package 'gateway'

send proxied tls message to client
Version 1.0 Phase 1.0 Proposed
fljat created on 16.03.2022. Last modified 16.03.2022

OUTGOING STRUCTURAL RELATIONSHIPS

⇐ Generalization from send proxied tls message to client to send proxied message to client
[Direction is 'Source -> Destination'.]

send tls message to server

UseCase in package 'gateway'

send tls message to server
Version 1.0 Phase 1.0 Proposed
fljat created on 16.03.2022. Last modified 16.03.2022

ASSOCIATIONS	
 Association (direction: Unspecified)	
Source: Public (Actor) Client	Target: Public (UseCase) send tls message to server

logging

Package in package 'main'

logging
Version 1.0 Phase 1.0 Proposed
fljat created on 16.03.2022. Last modified 16.03.2022

logging diagram

Use Case diagram in package 'logging'

logging
Version 1.0
fljat created on 16.03.2022. Last modified 25.03.2022

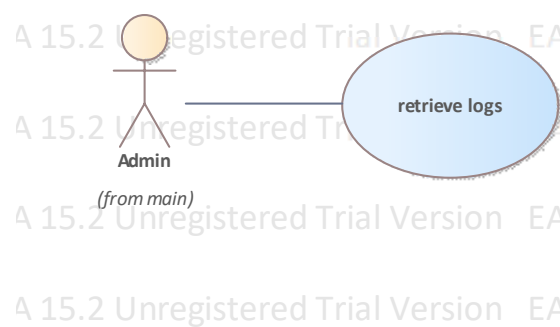


Figure 6: logging

Admin

Actor in package 'main'

Admin
Version 1.0 Phase 1.0 Proposed
fljat created on 16.03.2022. Last modified 16.03.2022

ASSOCIATIONS	
<p> Association (direction: Unspecified)</p> <p>Source: Public (Actor) Admin</p>	Target: Public (UseCase) configure gateway
<p> Association (direction: Unspecified)</p> <p>Source: Public (Actor) Admin</p>	Target: Public (UseCase) start gateway
<p> Association (direction: Unspecified)</p> <p>Source: Public (Actor) Admin</p>	Target: Public (UseCase) retrieve logs
<p> Association (direction: Unspecified)</p> <p>Source: Public (Actor) Admin</p>	Target: Public (UseCase) stop gateway

ASSOCIATIONS

 Association (direction: Unspecified)

Source: Public (UseCase) configure backend servers

Target: Public (Actor) Admin

retrieve logs*UseCase in package 'logging'*

retrieve logs

Version 1.0 Phase 1.0 Proposed

fljat created on 16.03.2022. Last modified 25.03.2022

ASSOCIATIONS

 Association (direction: Unspecified)

Source: Public (Actor) Admin

Target: Public (UseCase) retrieve logs

Admin*Actor in package 'main'*

Admin

Version 1.0 Phase 1.0 Proposed

fljat created on 16.03.2022. Last modified 16.03.2022

ASSOCIATIONS

 Association (direction: Unspecified)

Source: Public (Actor) Admin

Target: Public (UseCase) configure gateway

 Association (direction: Unspecified)

Source: Public (Actor) Admin

Target: Public (UseCase) start gateway

 Association (direction: Unspecified)

Source: Public (Actor) Admin

Target: Public (UseCase) retrieve logs

 Association (direction: Unspecified)

Source: Public (Actor) Admin

Target: Public (UseCase) stop gateway

 Association (direction: Unspecified)

ASSOCIATIONS	
Source: Public (UseCase) configure backend servers	Target: Public (Actor) Admin

Client

Actor in package 'main'

Client
Version 1.0 Phase 1.0 Proposed
fljat created on 16.03.2022. Last modified 16.03.2022

ASSOCIATIONS	
 Association (direction: Unspecified)	
Source: Public (Actor) Client	Target: Public (UseCase) initiate tls connection
 Association (direction: Unspecified)	
Source: Public (Actor) Client	Target: Public (UseCase) send tls message to server
 Association (direction: Unspecified)	
Source: Public (Actor) Client	Target: Public (UseCase) close connection

Server

Actor in package 'main'

Server
Version 1.0 Phase 1.0 Proposed
fljat created on 16.03.2022. Last modified 16.03.2022

ASSOCIATIONS	
 Association (direction: Unspecified)	
Source: Public (Actor) Server	Target: Public (UseCase) close connection
 Association (direction: Unspecified)	
Source: Public (Actor) Server	Target: Public (UseCase) accept proxied connection
 Association (direction: Unspecified)	
Source: Public (Actor) Server	Target: Public (UseCase) send proxied message to client

start gateway

UseCase in package 'main'

start gateway
Version 1.0 Phase 1.0 Proposed
fljat created on 25.03.2022. Last modified 25.03.2022

ASSOCIATIONS

 Association (direction: Unspecified)

Source: Public (Actor) Admin

Target: Public (UseCase) start gateway

stop gateway

UseCase in package 'main'

stop gateway
Version 1.0 Phase 1.0 Proposed
fljat created on 25.03.2022. Last modified 25.03.2022

ASSOCIATIONS

 Association (direction: Unspecified)

Source: Public (Actor) Admin

Target: Public (UseCase) stop gateway