

Training anSwitch V7

# CLICK-TO-CALL WEB CLIENT

Classification: For Internal Use  
Status: Released  
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Author: D. Bochsler



# INTRODUCTION & MOTIVATION

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This training covers the topics:

- ▶ Introduction to the Click-To-Call feature
- ▶ Configuring Click-To-Call as terminal in the PBX Extension
- ▶ Implementing Click-To-Call in an HTML web page
- ▶ Preparing Click-To-Call in the anSwitch V7 system configuration

After this training, the trainee is enabled:

- ▶ To enable and configure the Click-To-Call feature on the anSwitch V7
- ▶ To advise the customer's web designer about the HTML integration of Click-To-Call



*IT'S NOT  
MAGIC  
IT'S "KNOW  
HOW"*

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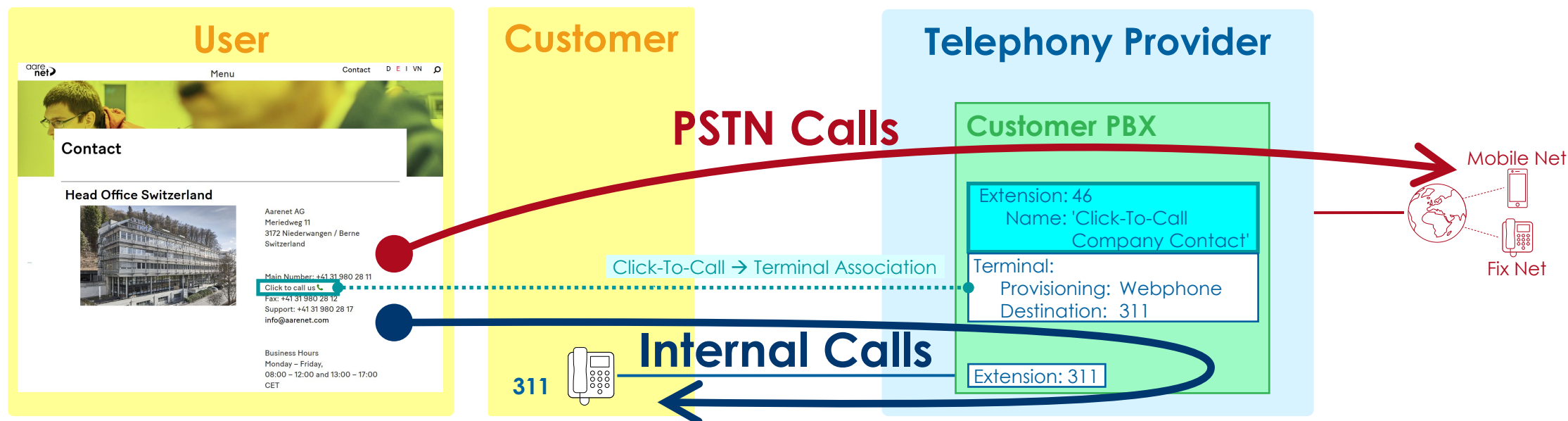
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# 1 OVERVIEW OF CLICK-TO-CALL

# OVERVIEW OF THE CLICK-TO-CALL FEATURE

- ▶ Click-To-Call allows a Web designer to integrate a direct call button in a HTML page.
- ▶ Click-To-Call destinations can be any dialable phone number, e.g., calling up a support directly out of a Web page of the customer.
- ▶ The users web browser needs to support the WebRTC technology.
- ▶ Click-To-Call can support audio and video transmission.



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# 2 ACTIVATION OF CLICK-TO-CALL FOR A PBX EXTENSION

# OVERVIEW ACTIVATION OF CLICK-TO-CALL FOR A PBX EXTENSION

- ▶ The following configurations and tasks must be done by a PBX Administrator when a Click-to-Call destination must be activated

1. Create a specific PBX Extension for each Click-to-Call destination.

- ▶ For example: "Click-To-Call Company Contact", internal number 46
- ▶ Assign a Portal UI user account to this PXB Extension

**Note**

Per PBX Extension only 1 Click-To-Call destination can be configured.

2. Assign a phone with provisioning type "Click to Call" and define the destination number

- ▶ For example: Destination number 311

3. Check the phone setup for getting the created Terminal-Id

- ▶ For example: Terminal-Id 572

4. Inform the web designer about:

- ☐ CTI domain name of the anSwitch V7, e.g.: [provider.com](#)
- ☐ Internal phone number of the Click-To-Call PBX Extension, e.g.: [46](#)
- ☐ Terminal-Id of the Click-To-Call terminal e.g.: [572](#)

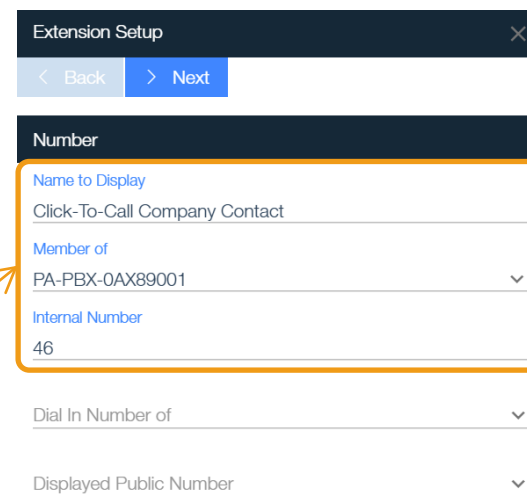


# CONFIGURE AND ACTIVATE A CLICK-TO-CALL DESTINATION

## ► Login to the Portal UI as PBX Administrator

### 1. Create a PBX Extension

- > Click menu: PBX
  - > Click sub-menu: Extensions
    - > Click button: + New
      - > Configure only:
        - Configure a name
        - Define the member ship
        - Configure the internal number, e.g.: 46



Extension Setup

< Back > Next

Number

Name to Display  
Click-To-Call Company Contact

Member of  
PA-PBX-0AX89001

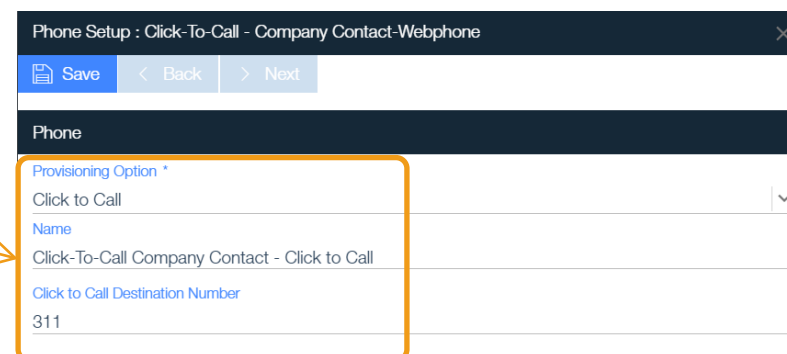
Internal Number  
46

Dial In Number of

Displayed Public Number

### 2. Assign the Click-To-Call terminal

- > Go to the page "Extension Setup" of e.g. 46
  - > At tile 'Assigned Phones' click: + New
    - > Configure in dialog 'Phone Setup':
      - Select Provisioning Option: Webphone
      - Configure a name for the terminal
      - Configure the destination number, e.g.: 311
- > Click button: Save



Phone Setup : Click-To-Call - Company Contact-Webphone

Save < Back > Next

Phone

Provisioning Option \*  
Click to Call

Name  
Click-To-Call Company Contact - Click to Call

Click to Call Destination Number  
311

## Warning

For the Click-to-Call use case always configure a destination number!  
Else the extension could be misused by a fraudulent web application that can dial any destination number.

# CONFIGURE AND ACTIVATE A CLICK-TO-CALL DESTINATION

## 3. Check the assigned unique CTI Device ID

- ▶ After clicking button: Save

> Check the value of: CTI Device ID

- ▶ Variant:

> Click menu: PBX

> Click sub-menu: Phones

> Click the row of the newly created Webphone for this Click-to-Call

- ▶ Check the parameter: CTI Device ID  
e.g.: term.245

## 4. Inform the web designer about the configurations for the click-to-call button configuration:

- ▶ URI of the CTI domain e.g.: company.com
- ▶ Internal number e.g.: 46
- ▶ CTI Device ID e.g.: term.400

Phone Setup : Click-To-Call - Company Contact-Webphone

Save < Back > Next

Phone

Provisioning Option \*

Click to Call

Name

Click-To-Call Company Contact - Click to Call

CTI Device ID:

term.400

Click to Call Destination Number

311

Phone Setup : Click-To-Call Company Contact - Click to Call

Extension Related Features

Save

Phone

Provisioning Option \*

Click to Call

Name

Click-To-Call Company Contact - Click to Call

CTI Device ID:

term.400

Click to Call Destination Number

311

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# 3 CLICK-TO-CALL PORTAL UI CUSTOMIZATION

# RENAME CLICK-TO-CALL DUE TO A CUSTOMIZED ANDESKTOP

- ▶ In order that a customized anDesktop with own customer specific application name can be assigned it must be enabled at the desired OrgUnit level, e.g. tenant, PBX.

1. As Operator configure the customized application name, e.g. **ourClickToCall**:

OrgUnit Attribute Name	Value	Remark / Example
clickToCallLabel	Click to Call	Example: <b>ourDesktopPhone</b>
	Default: Click to Call	

- > Click menu: Operations
- > Click sub-menu: Organization Units
- > Select the desired OrgUnit
- > Add and configure new attribute: **ourClickToCall**

The customized Click-to-Call name is displayed as phone selection option.

Attribute

Save

Name  
clickToCallLabel

Value  
ourClickToCall

Phone Setup : Click-To-Call Company Contact - Click to Call

Save < Back > Next

Phone

Provisioning Option \*

Auto-Provisioning

Configuration of the provisioning file URL

Manual configuration of SIP-Credentials

ourMobilePhone

ourDesktopPhone

**ourClickToCall**

MAC Address \*

Time Zone

Europe/Zurich



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# 4 IMPLEMENTATION OF CLICK-TO-CALL IN A HTML PAGE

# IMPLEMENTATION OF CLICK-TO-CALL IN A HTML PAGE

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- ▶ The CTI Web interface provides a simple way to implement a Click-To-Call service.
  - ▶ Use the [anCTI JavaScript library](#) to implement a "Click to Call" button in a HTML page.
  
- ▶ For implementing a specific button, the web designer needs the following information from the PBX Administrator
  - ☐ URI or CTI domain name of the anSwitch V7, e.g.: `provider.com`
  - ☐ Internal phone number of the Click-To-Call PBX Extension, e.g.: `46`
  - ☐ Terminal-Id of the Click-To-Call terminal e.g.: `term.245`
  - ☐ Video transmission e.g.: `yes`

# EXAMPLE OF "CLICK TO CALL" IMPLEMENTATION

- ▶ Example of a bi-directional video call using the ancti.js JavaScript library
  - ▶ The example shows the relevant concepts of Click-To-Call

```
1  <html>
2  <head>
3    <script src="https://provider.com/cti/ancti/ancti.min.js"></script>
4  </head>
5  <body>
6    <button onclick="toggleCall()">toggle call</button>
7    <video id="camera" autoplay playsInline></video>
8    <video id="view" autoplay playsInline></video>
9    <script>
10     const agent = AnCti.newAgent();
11
12     // register event-handler for the remote-stream
13     agent.on('remotestream',(event) => {
14       // automatically attach stream to video element
15       document.getElementById('view').srcObject = event.stream;
16     });
17
18     function toggleCall() {
19       if (!agent.connected) {
20         // start session and automatically start call
21         agent.startApplicationSession({
22           clickToCall: {
23             deviceId: "sip:46@term.400",
24             audio: true,
25             video: true // try to send video-stream
26           });
27       } else {
28         // terminate call and stop session
29         agent.stopApplicationSession();
30       }
31     }
32   </script>
33 </body>
34 </html>
```

## OVERVIEW ANCTI JAVASCRIPT LIBRARY

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- ▶ The anCTI ancti.js library provides easy access to the CTI services of the anSwitch V7.
- ▶ It establishes a web socket connection to the CTI server to control normal phones or even write phone-like applications running within the web browser.
- ▶ The AnCTI library allows to turn the web browser into a soft-phone using WebRTC.
- ▶ The AnCTI manual and code examples are available:
  - ▶ Aarenet: <https://aanvpbx.aarenet.com/cti/ancti/docs/ancti.html>
  - ▶ Your anSwitch V7: <https://provider.com/cti/ancti/docs/ancti.html>



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# 5 CLICK-TO-CALL ANSWITCH V7 & VOIP SYSTEM CONFIGURATION

## OVERVIEW OF THE ANSWITCH SYSTEM LEVEL CONFIGURATIONS

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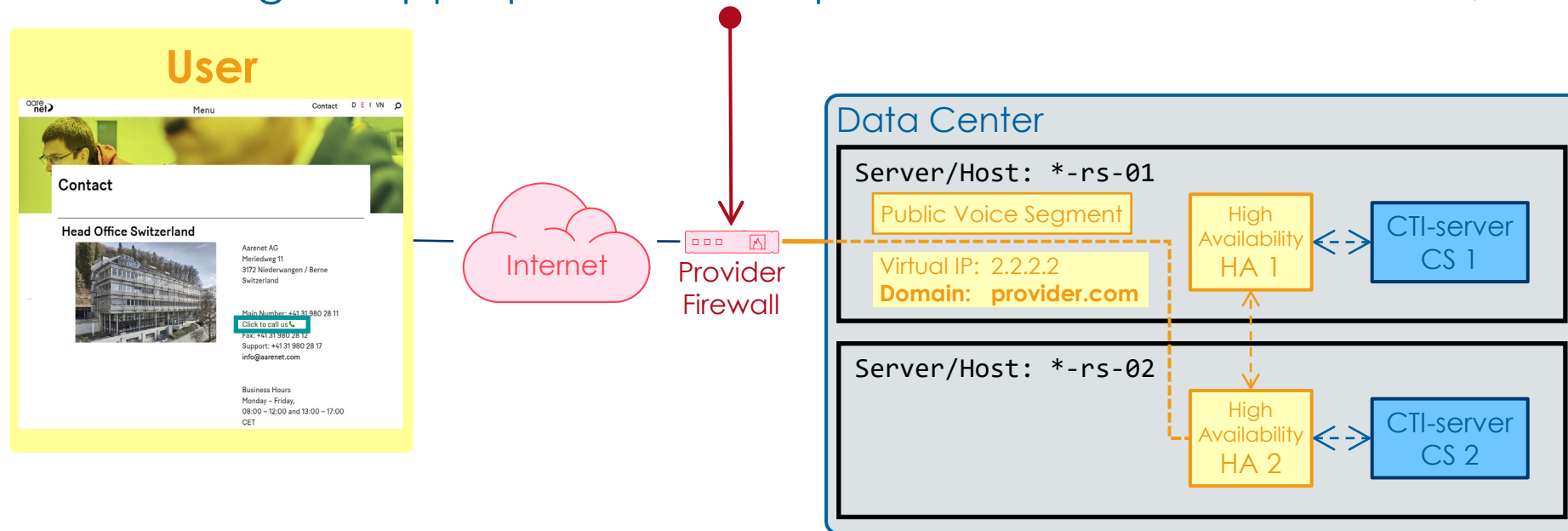
- ▶ Click-To-Call uses the CTI API feature of the anSwitch V7. This needs the following configurations on system level:
  1. Make sure the IP routing toward the anSwitch CTI-Server.
  2. Configure the High Availability HA on anSwitch V7 component level.

**Note**

This anSwitch system wide configuration must be done only one time per anSwitch V7.

# MAKE SURE THE IP ROUTING TOWARD THE ANSWITCH CTI-SERVER

- ▶ Make sure that the ingress IP routing between the user's web client and the Public VoIP segment of the anSwitch is end-to-end:
  - ▶ Configure appropriate firewall policies: anSwitch CTI → **HTTPS, TCP port: 443**



- ▶ The configuration of the High Availability HA component is explained in document: " Using & Managing the CTI API "

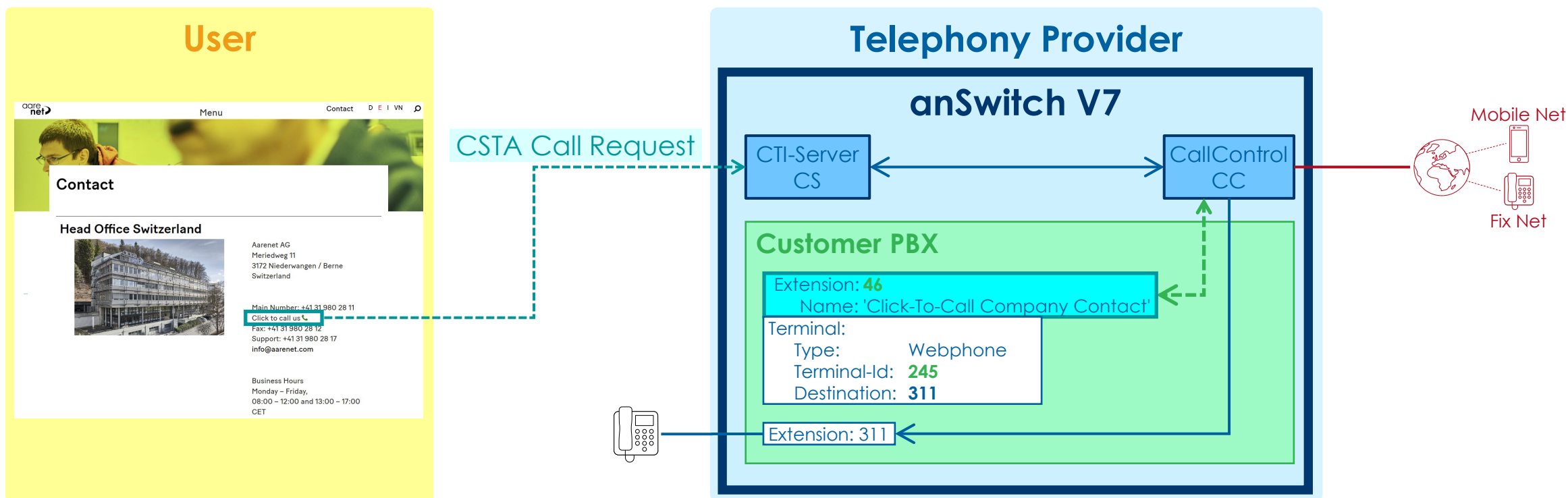
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# 6 BEHIND THE SCENES



# OVERVIEW CLICK-TO-CALL HANDLING

- ▶ The Web page uses the anCTI ancti.js library for placing a CSTA Call Request.
- ▶ The CTI-Server forwards the request to the CallControl.
- ▶ According the provided PBX Extension number and the Terminal-Id the CallControl forwards the call to the configured destination number.



# LAST PAGE

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Date	Doc-ID	Description	Changes
12.2.2024	training_as7_806_click_to_call_e10	V.7.14: Added label name	New chapter 3