

# Schluss mit Rucklern – Deep Dive für UC&C und BCR optimiertes End-User Computing

# HOUSEKEEPING

- Alle Teilnehmer sind „stumm“ geschaltet
- Fragen können über das Modul in Ihrem Controlpanel gestellt werden.
- Dieser Vortrag wird aufgezeichnet und als gestreamtes Video zur Verfügung gestellt.

UNICON



# Referenten



**Denis Brendelberger**

Senior Partner Manager  
Unicon



**Eric Schreyer**

Requirements Manager  
Unicon



**Michael Broos**

Business Development Manager Virtual  
Infrastructure  
ADN

# Agenda

01 Über Unicon / ADN

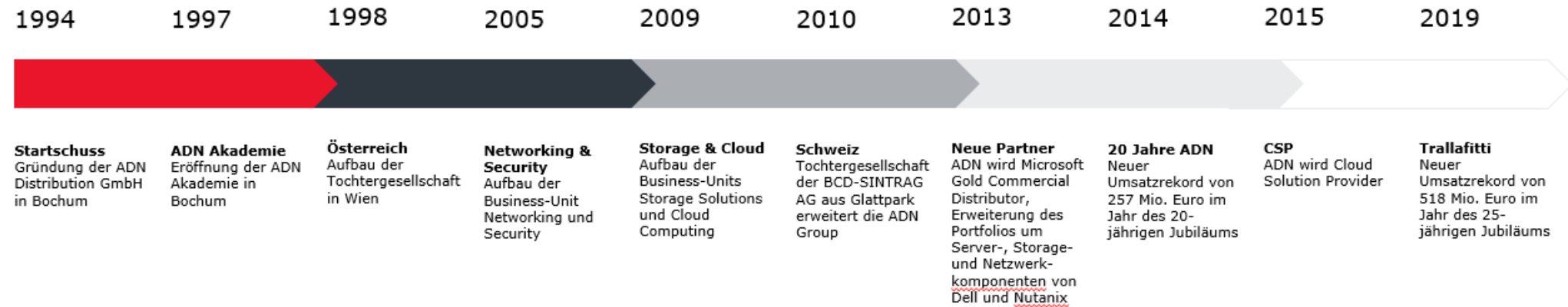
02 Markt Trends

03 BCR & UCC

04 Demo

05 Q&A

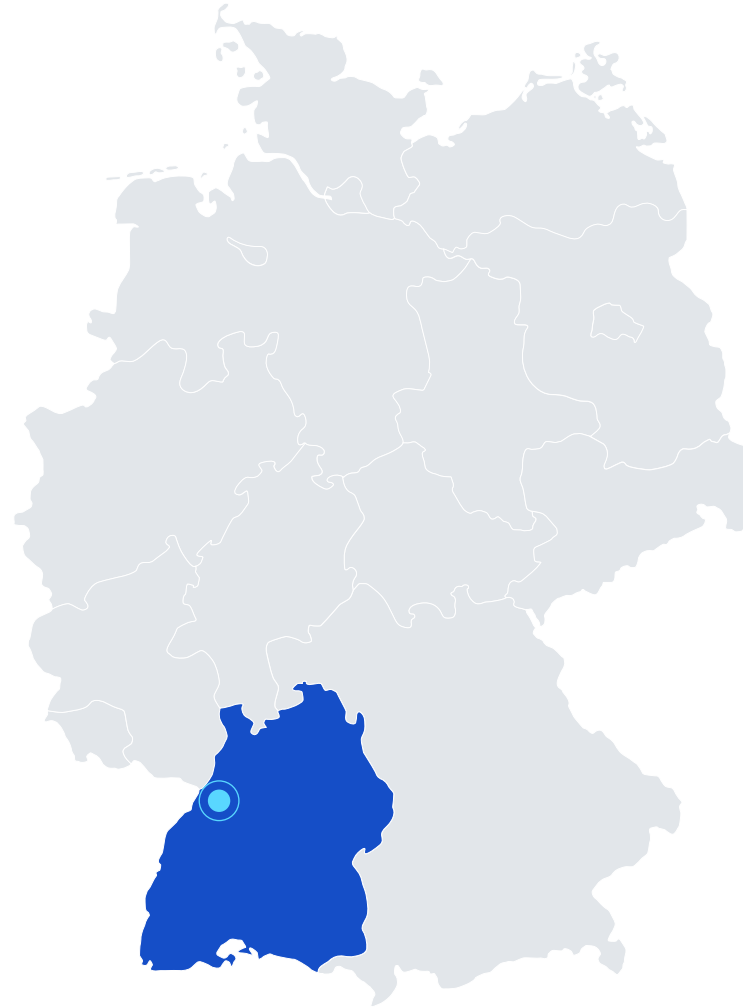
# Meilensteine der Erfolgsgeschichte



# 01 Über Unicon

# Auf einen Blick

# UNICON



Sitz in Karlsruhe, DE



100% Channel



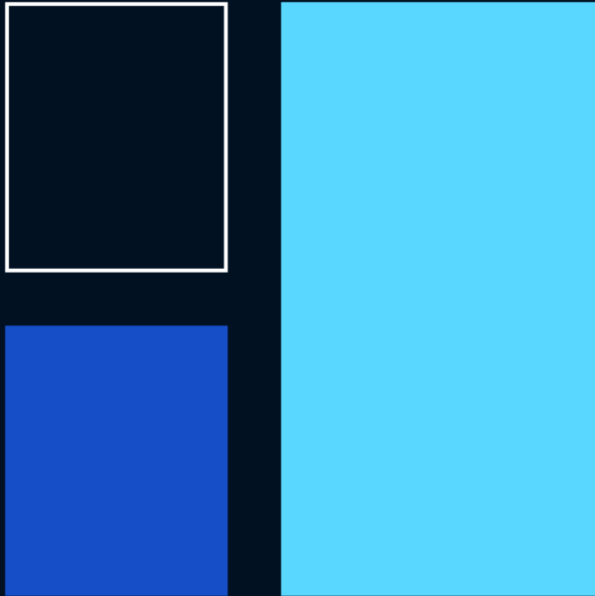
Starke Technologie Partnerschaften

OEM

VAD

VAR

TP



# Unternehmen im Überblick

Als Experten für Endpoint-Betriebssysteme und Endpoint-Management unterstützen wir Unternehmen in einer digitalen Gesellschaft.

- Hardware- und plattformunabhängig
- Einfaches Lizenzierungsmodell
- Erfahrung im Banken- und Finanzsektor, Öffentlichen Sektor und vielen anderen Branchen
- Produktfokus
- Langfristiger Produktsupport
- Kurze Entwicklungszyklen
- Hybrides Arbeiten



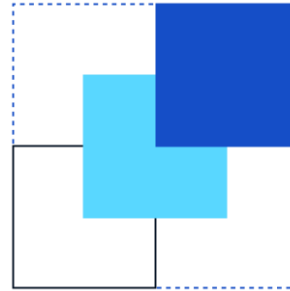
# Produktübersicht



## eLux®

Linux-basiertes, Hardware-unabhängiges Betriebssystem

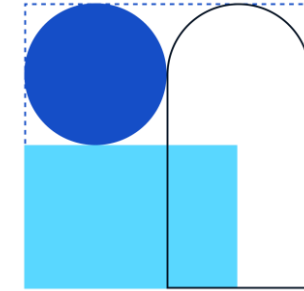
- Durchgängige Benutzerfreundlichkeit
- Leicht und flexibel
- Stabil und sicher
- Ideal für Citrix-VDI und DaaS-Szenarien
- Modular für schnelle, schlanke Updates



## Scout

Intuitive, schlanke Endpoint-Management-Lösung

- Verbesserte Business-Agilität
- Höhere Effizienz im IT-Betrieb
- Detaillierte Endpoint-Konfiguration
- Schlankes Gerätemanagement



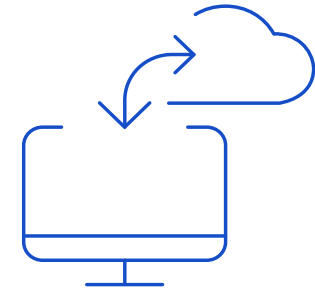
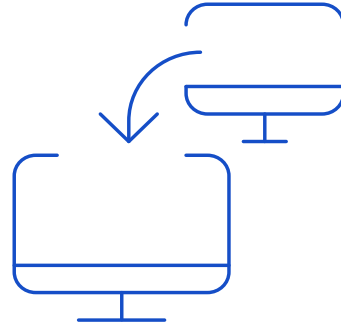
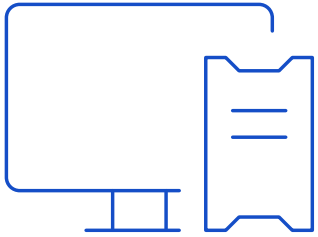
## Scout Cloud Gateway (SCG)

Remote-Arbeitsplatz-Strategie absichern

- Zeit und Kosten sparen
- Sicherheit bei Remote-Arbeitsplätzen erhöhen
- Tagesgeschäft weiterführen
- Dynamischer sicherer Zugang
- Integriertes VPN-Backend

# 02 Markt Trends

# Desktopbereitstellung verändert sich



## Physischer Desktop

Endpoint Management, geringe Flexibilität, begrenzte Skalierung

## VDI

Zentrales Management, Flexibilität und Skalierung abhängig von Kapazität des Rechenzentrums

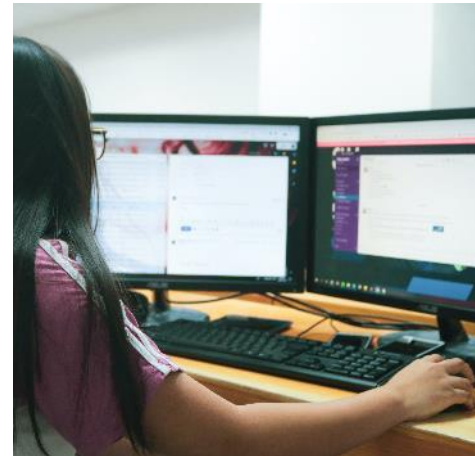
## Desktop as a Service

Cloud Management, hohe Flexibilität und on-demand Skalierung

# Hybrides Arbeiten gehört die Zukunft



**Traditionelles Büro**



**Büro**

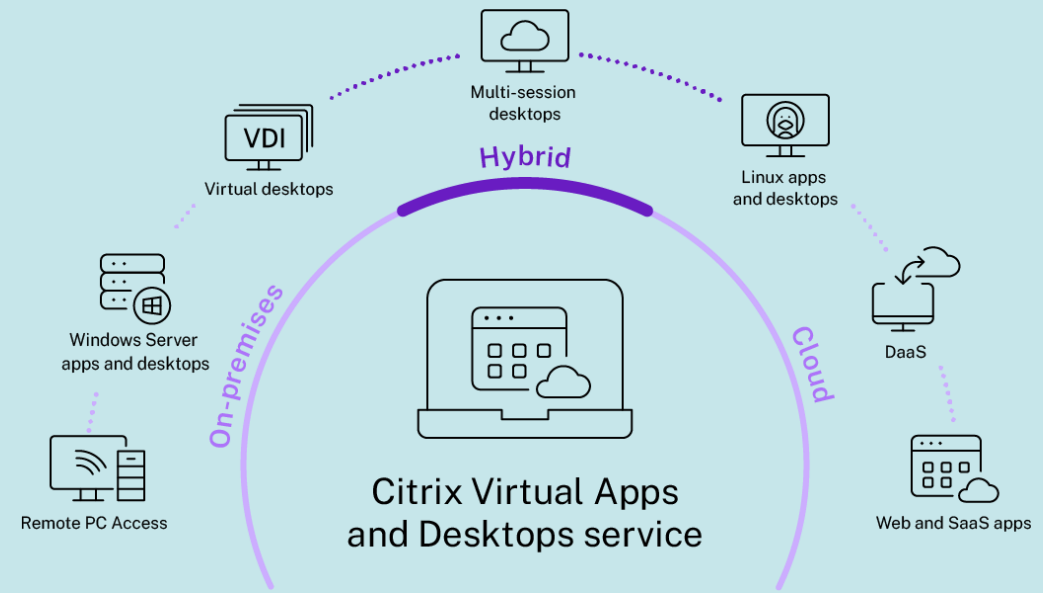


**Home Office**



**Remote / Unterwegs**

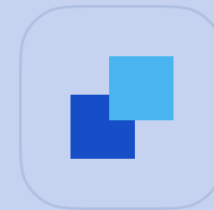
# Unicon & Citrix gemeinsam für Hybrides Arbeiten



Betriebssystem &  
Geräte Verwaltung



eLux



Scout

Jedes x86 Gerät



FUJITSU



lenovo

# 03 BCR & UCC

# Browser Content Redirection

## Wer nutzt BCR in VDI-/DaaS-Umgebungen?

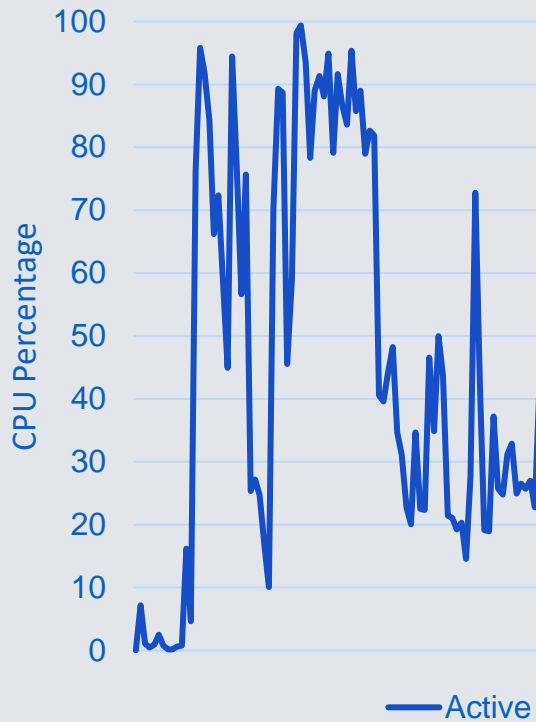
- Nein, ist nicht bekannt
- Nein, ist geplant
- Nein, ist nicht geplant
- Ja, läuft zufriedenstellend
- Ja, läuft nicht zufriedenstellend



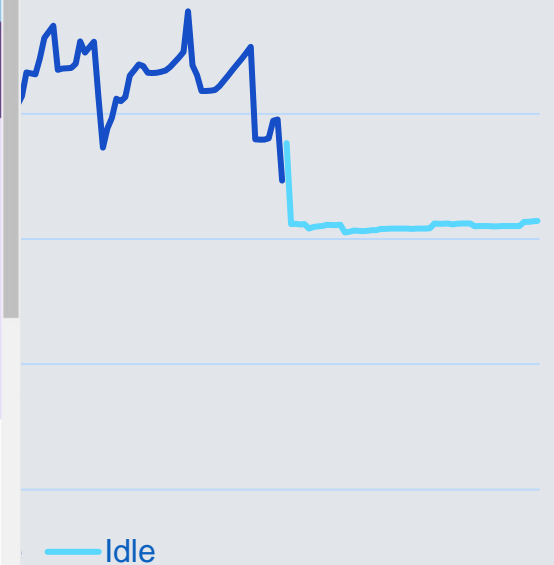
# Browser Content Redirection

## Browsers and Resource Consumption

### Browser CPU Utilization



### Browser RAM Consumption

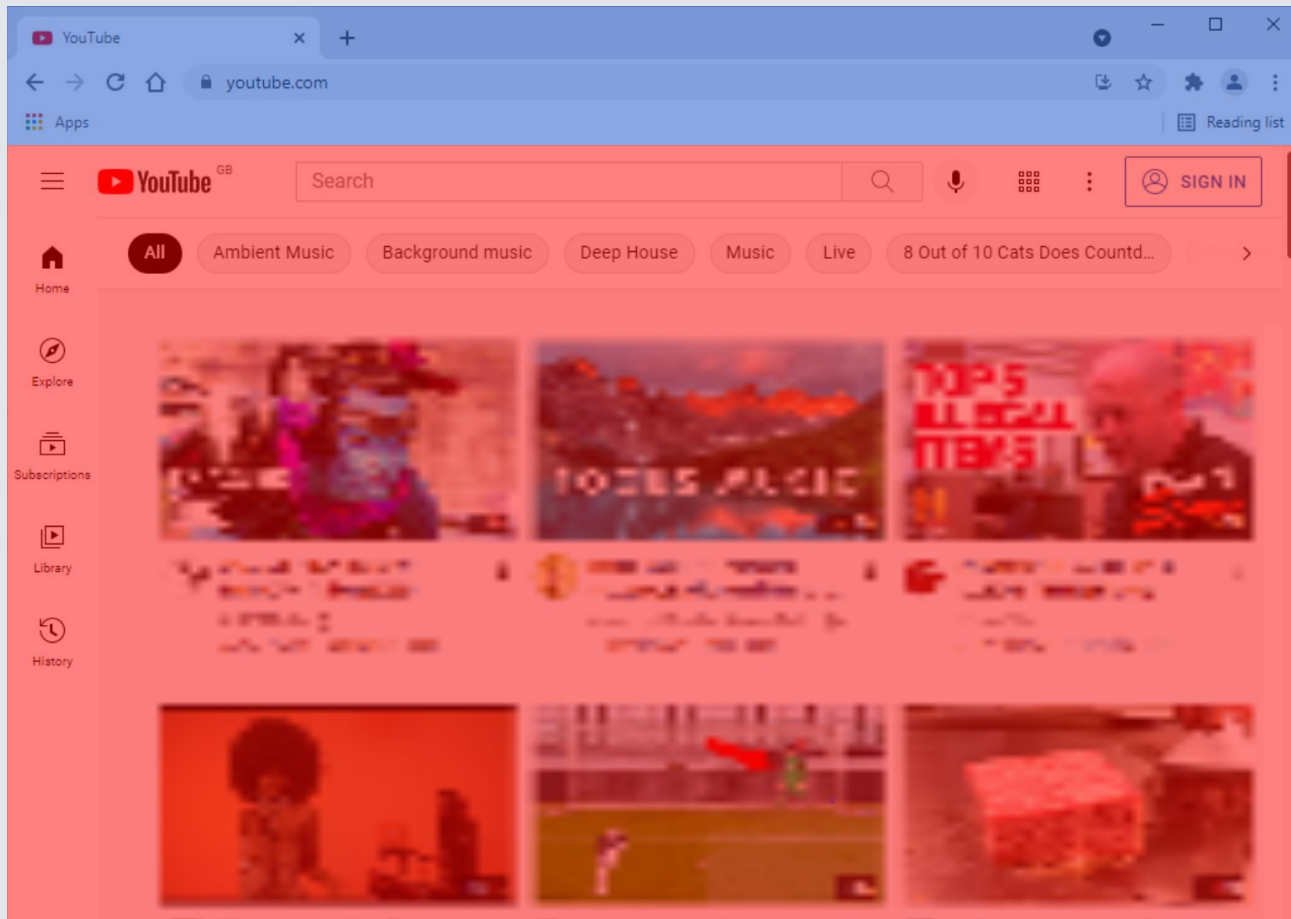


Name	Status	60% CPU	87% Memory	0% Disk	0% Network	Power
Google Chrome (22)		32.9%	1,369.5 MB	0.3 MB/s	0 Mbps	Very
Microsoft Edge (22)		1.4%	828.4 MB	0 MB/s	0 Mbps	Very
Microsoft Teams (9)		0.4%	523.5 MB	0 MB/s	0 Mbps	Very
Antimalware Service Executable		0.9%	308.9 MB	0 MB/s	0 Mbps	Very
Windows Defender Advanced T...		2.2%	193.9 MB	0 MB/s	0 Mbps	Very
Microsoft Outlook (32 bit)		0.3%	182.2 MB	0.1 MB/s	0 Mbps	Very
Slack		0.9%	181.6 MB	0 MB/s	0 Mbps	Very
Citrix WEM Agent Host Service		0%	165.9 MB	0 MB/s	0 Mbps	Very
Microsoft PowerPoint (32 bit) (2)		0%	81.3 MB	0 MB/s	0 Mbps	Very
Slack (4)		0.2%	81.1 MB	0.1 MB/s	0 Mbps	Very
Citrix Graphics Engine		7.2%	73.0 MB	0 MB/s	0 Mbps	Low
Registry		0%	71.1 MB	0 MB/s	0 Mbps	Very
Citrix XenDesktop Broker Agent ...		0%	67.0 MB	0 MB/s	0 Mbps	Very



# Browser Content Redirection

## Overview



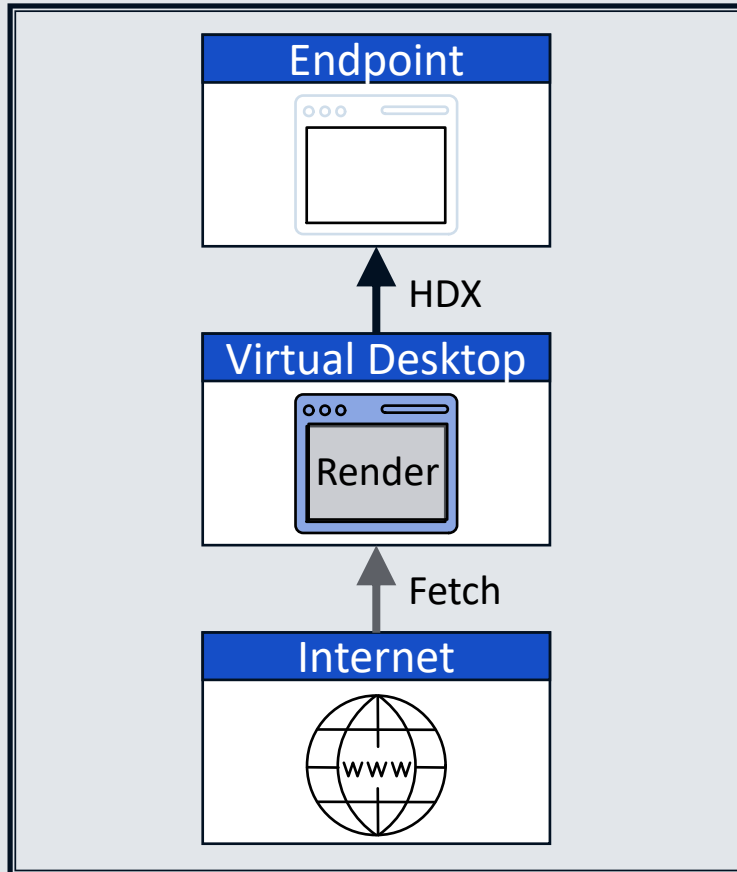
User interface:  
Rendered on Virtual desktop's browser



Viewport:  
Rendered on Endpoint

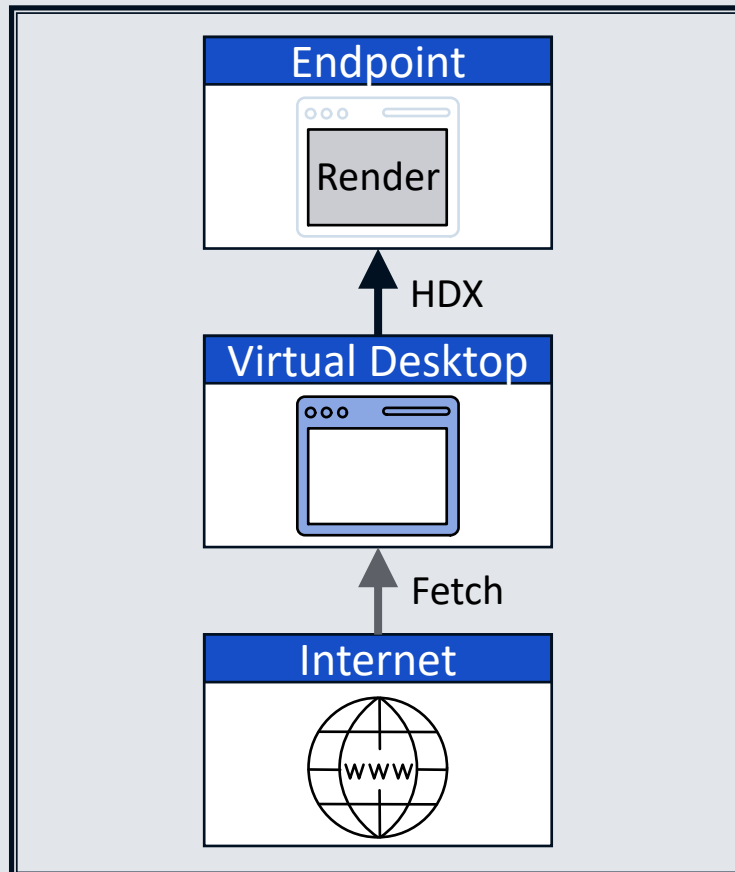
# Browser Content Redirection

## Design Considerations

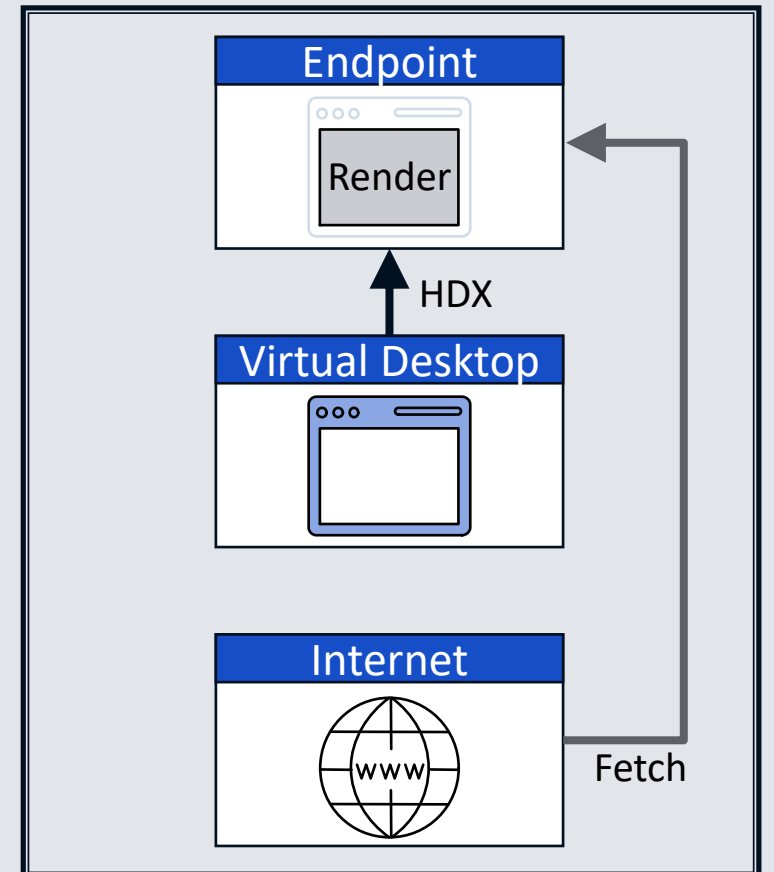


unicon **ADN**

Server-Side Render  
Server-Side Fetch



Client-Side Render  
Server-Side Fetch



Client-Side Render  
Client-Side Fetch

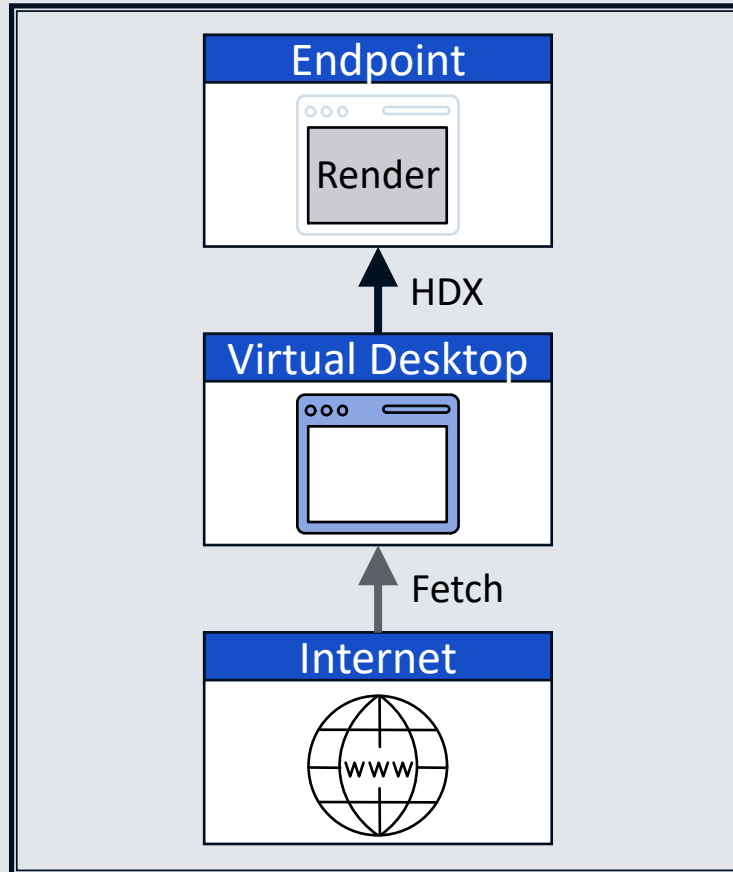
# Browser Content Redirection

## Design Considerations

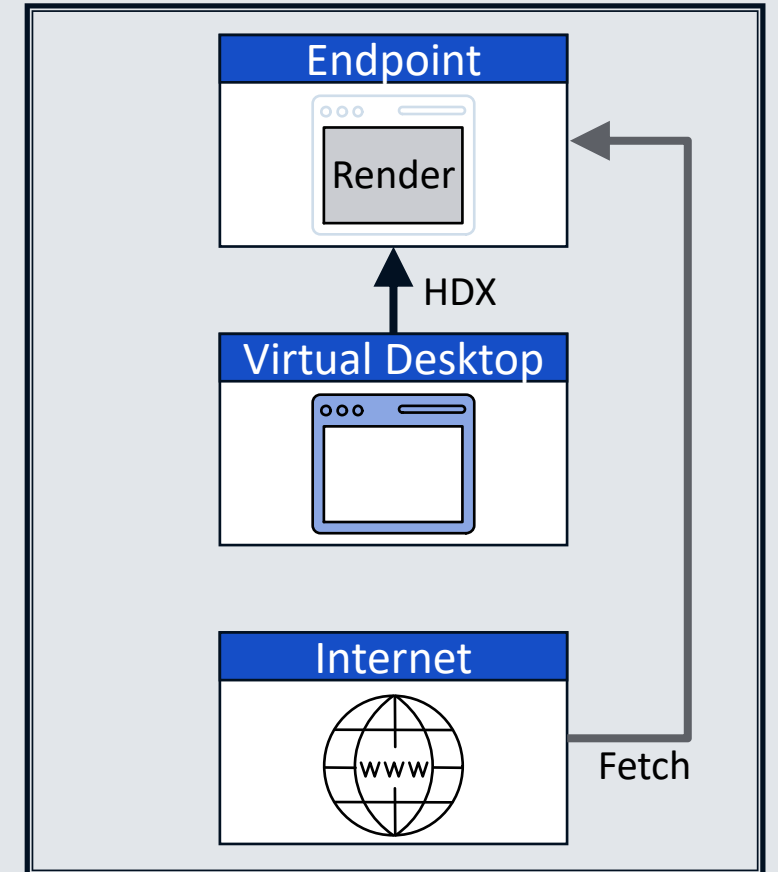
VDA CPU/RAM Impact: **HIGH**

VDA Network Impact: **HIGH**

Endpoint Requirements:  
None



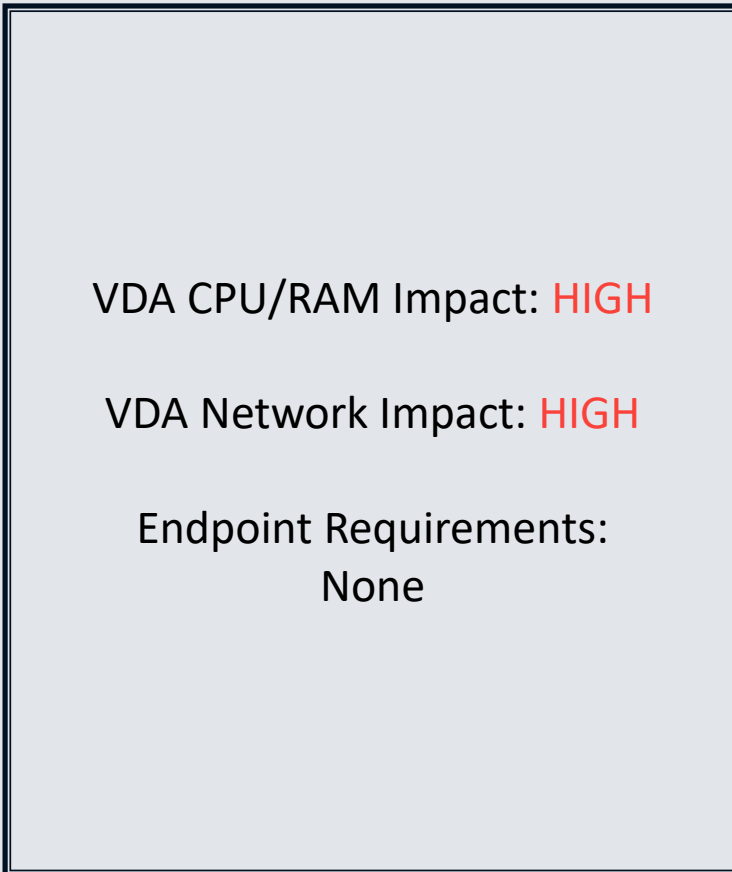
Client-Side Render  
Server-Side Fetch



Client-Side Render  
Client-Side Fetch

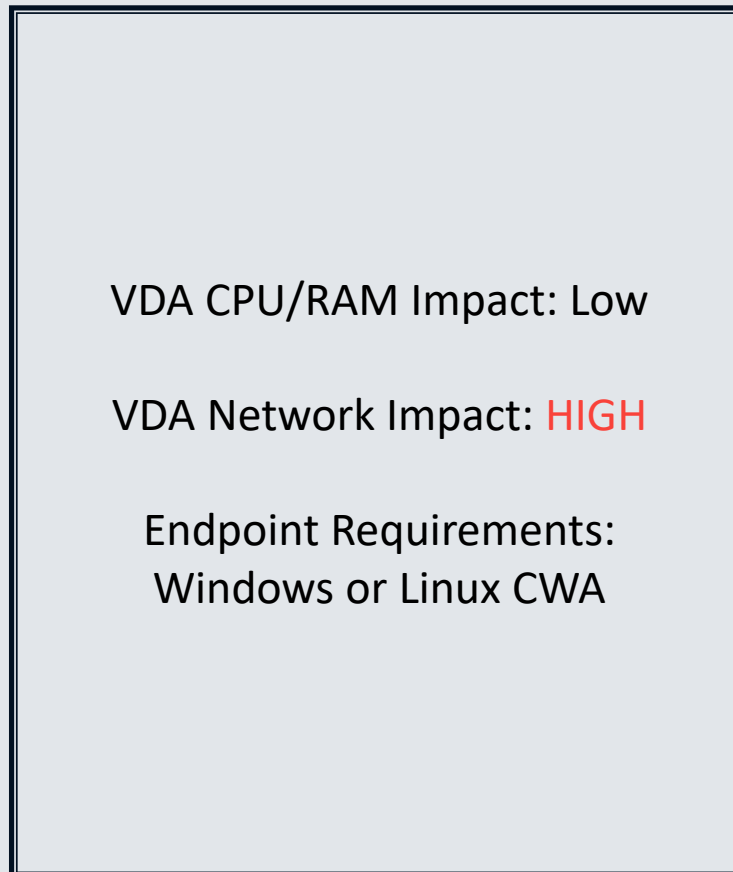
# Browser Content Redirection

## Design Considerations

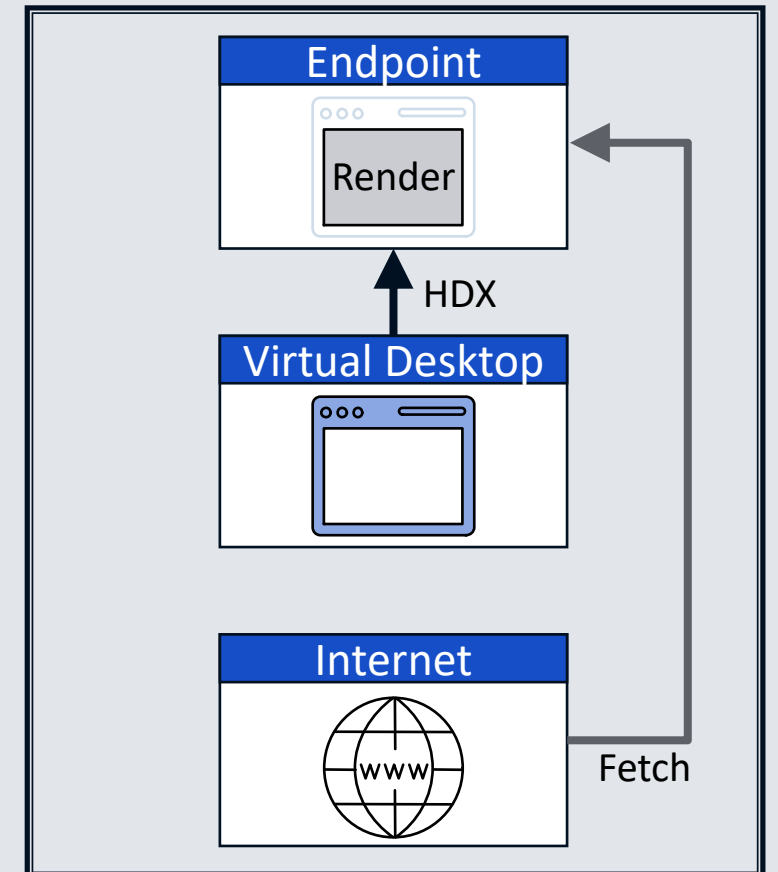


unicon **ADN**

Server-Side Render  
Server-Side Fetch



Client-Side Render  
Server-Side Fetch



Client-Side Render  
Client-Side Fetch

# Browser Content Redirection

## Design Considerations

VDA CPU/RAM Impact: **HIGH**

VDA Network Impact: **HIGH**

Endpoint Requirements:  
None

VDA CPU/RAM Impact: Low

VDA Network Impact: **HIGH**

Endpoint Requirements:  
**Windows or Linux CWA**

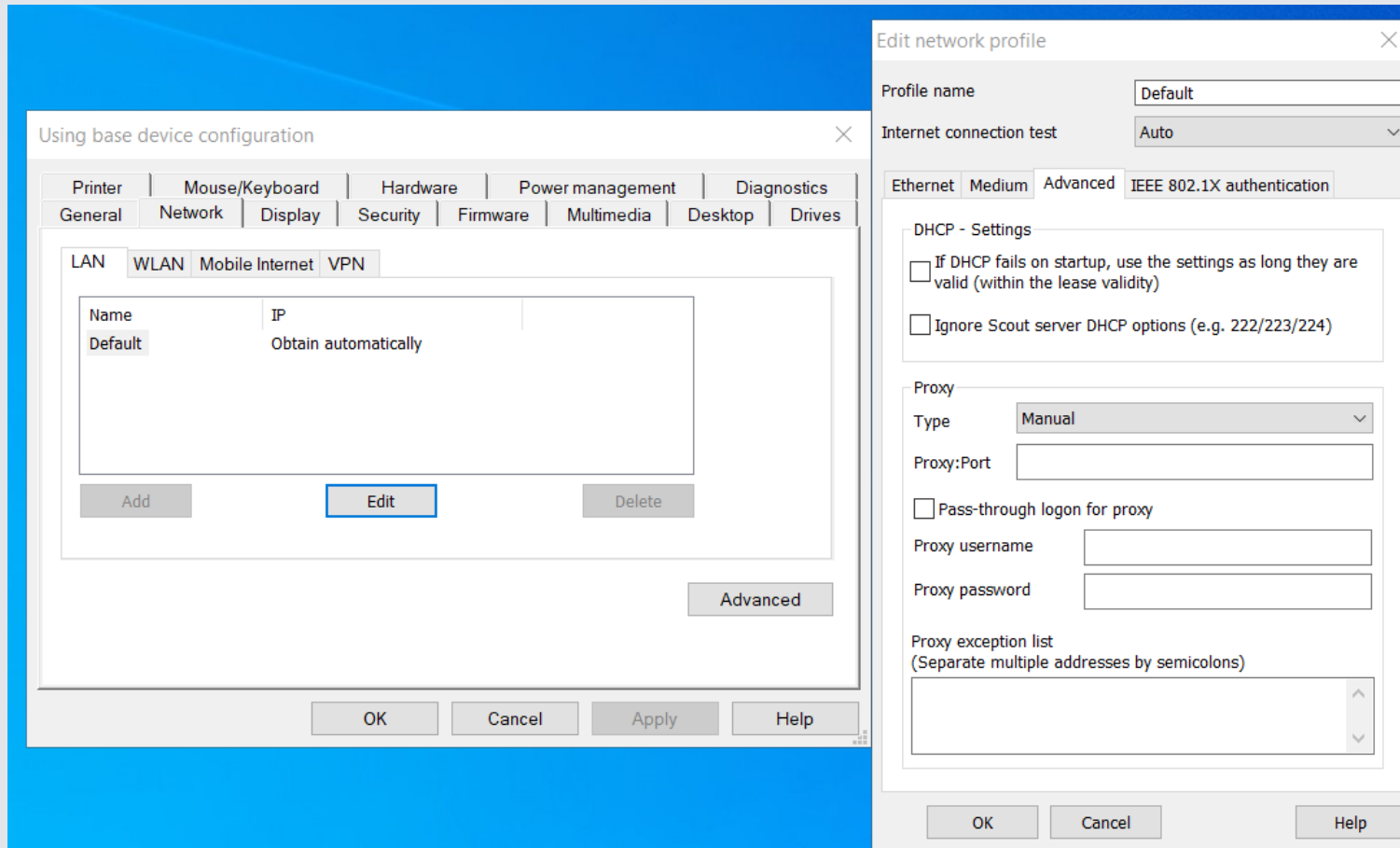
VDA CPU/RAM Impact: Low

VDA Network Impact: Low

Endpoint Requirements:  
**Windows or Linux CWA / Internet**

# Browser Content Redirection

## Client Fetch & Client Render (Proxy Configuration)



# Browser Content Redirection

## Server Fetch & Client Render (Proxy Authentication)

Edit Setting

### Browser Content Redirection Server Fetch Proxy Auth

Allowed  
This setting will be enabled

Prohibited  
This setting will be disabled

▼ Applies to the following VDA versions  
Virtual Delivery Agent: 2103 Multi-session OS, 2103 Single-session OS, 2106 Multi-session OS, 2106 Single-session OS, 2109 Multi-session OS, 2109 Single-session OS, 2112 Multi-session OS, 2112 Single-session OS, 2203 Multi-session OS, 2203 Single-session OS

▼ Description  
Controls Browser Content Redirection(BCR) so that HTTP traffic originating at the overlay can be routed through Web Proxies configured to authorize HTTP traffic authenticated with the VDA user's domain credentials via the HTTP "Negotiate" auth scheme.

**BCR must be configured for server-fetch in PAC File mode** through the Browser Content Redirection Proxy Configuration policy. The PAC script must provide instructions to route the overlay's traffic through a downstream Web Proxy. The downstream Web Proxy must be configured to require authentication of VDA users via the "Negotiate" auth scheme.

When Allowed, if the Web Proxy responds with a 407 Negotiate challenge (i.e. contains a "Proxy-Authenticate: Negotiate" header), then **BCR obtains a Kerberos Service Ticket** by using the VDA user's domain credentials, and includes it in the subsequent request to the web Proxy.

When Prohibited, BCR proxies all TCP traffic between the overlay and the Web Proxy without interfering. Thus, the overlay uses whatever credentials are available to it in order to authenticate to the Web Proxy (e.g. including basic auth credentials).

By default, this setting is Prohibited.

▼ Related settings  
Browser Content Redirection, Browser Content Redirection ACL Configuration, Browser Content Redirection Proxy Configuration, Browser Content Redirection Block List Configuration, Browser

OK Cancel

Edit Setting

### Browser Content Redirection Proxy Configuration

Enabled  
This setting will be enabled.

Disabled  
This setting will be disabled.

Use default value:

keyword "DIRECT" if direct forwarding to a web server is desired.  
This setting is designed for scenarios where a Transparent proxy is configured in your environment, or you simply do not have any proxy at all.

2. Explicit Proxy  
Browser Content Redirection traffic will be routed through the VDA and forwarded to the web proxy URL that has been specified in the text box.  
Allowed pattern: `http://<hostname/ip address>:<port>`  
For example, `http://proxy.example.citrix.com:80` or `http://10.0.0.1:8080`

3. PAC Files  
Browser Content Redirection traffic will be routed through the VDA and forwarded to the web proxy determined by evaluating the PAC file provided at the URL that has been specified in the text box.  
Allowed pattern: `http://<hostname/ip address>:<port>/<path>/<Proxy.pac>`  
For example, `http://proxy.example.citrix.com:80/configuration/pac/Proxy.pac`  
Allowed pattern: `http://<hostname/ip address>:<port>/<path>/<wpad.dat>`  
For example, `http://proxy.example.citrix.com:80/configuration/pac/wpad.dat`

By default, this setting is prohibited.

▼ Related settings  
Browser Content Redirection, Browser Content Redirection ACL Configuration, Browser Content Redirection Block List Configuration, Browser Content Redirection Authentication Sites

OK Cancel

# Browser Content Redirection

## Activate BCR in Citrix Workspace App for eLux RP 6

The screenshot displays the UNICON management console interface. The top navigation bar shows the user is logged in as 'Global admin'. The main interface is divided into three panels:

- Package Library:** A list of installed packages. The 'Citrix Workspace app for Linux' package is selected.
- Image template:** Shows the configuration for the 'Citrix\_Webinar' image template. The 'Browser Content Redirection (BCR) using Chromium Embedded Framework (CEF)' option is checked and highlighted with a red box. Below this, a note states: 'Activate feature package in Citrix Workspace for image'.
- Details:** Provides metadata for the selected package, including Name, File, Copyright, Licenses included, Build time, and Package size.

At the bottom of the interface, there are buttons for 'IMPORT', 'EXPORT', 'SAVE', and 'SOLVE'.



# DEMO: Browser content redirection

BigBlueButton

Tutorials Teachers Schools Resources Developers Try It Now

**At 8:30 AM The World Begins Teaching With BigBlueButton**

BigBlueButton is virtual classroom software that has been designed around the real-world needs of teachers, students, and schools.

Learn About BigBlueButton Explore Our New Release

Bigbluebutton.org uses cookies to provide necessary website functionality and provide information about our visitors. By hitting "Accept All" you agree to our [Privacy Policy](#) and our cookies usage.

Name	19% CPU	48% Memory
> Citrix CEIP Service	0%	3,9 MB
> Citrix Diagnostic Facility COM S...	0%	1,7 MB
Citrix FTA, URL VDA Redirector (...)	0%	1,5 MB
<b>Citrix Graphics Engine</b>	0%	40,7 MB
> Citrix Group Policy CSE Engine	0%	14,8 MB
> Citrix IMA Secure Service	0%	2,0 MB
Citrix Keyboard and Mouse Ma...	0%	1,7 MB
> Citrix Local User Service	0%	1,5 MB
> Citrix Remote Device Redirector	0%	1,5 MB
> Citrix Service Host Executable	0%	1,9 MB
> Citrix Service Host Executable	0%	1,8 MB
> Citrix Service Host Executable	0%	2,4 MB
> Citrix Service Host Executable	0%	1,7 MB
> Citrix Service Host Executable	0%	1,8 MB
> Citrix Service Host Executable	0%	2,8 MB

# Browser Content Redirection

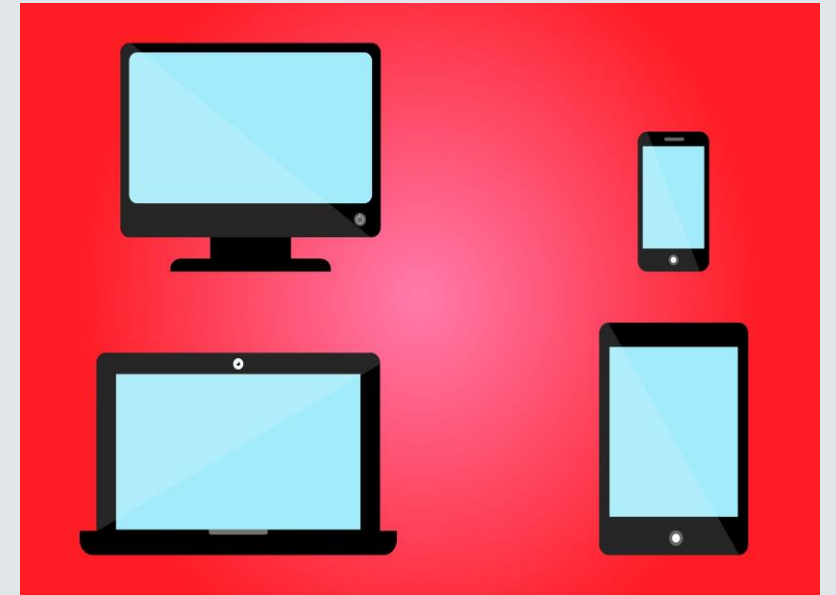
## Limitations



No Downloads on VDA



No Printing on VDA

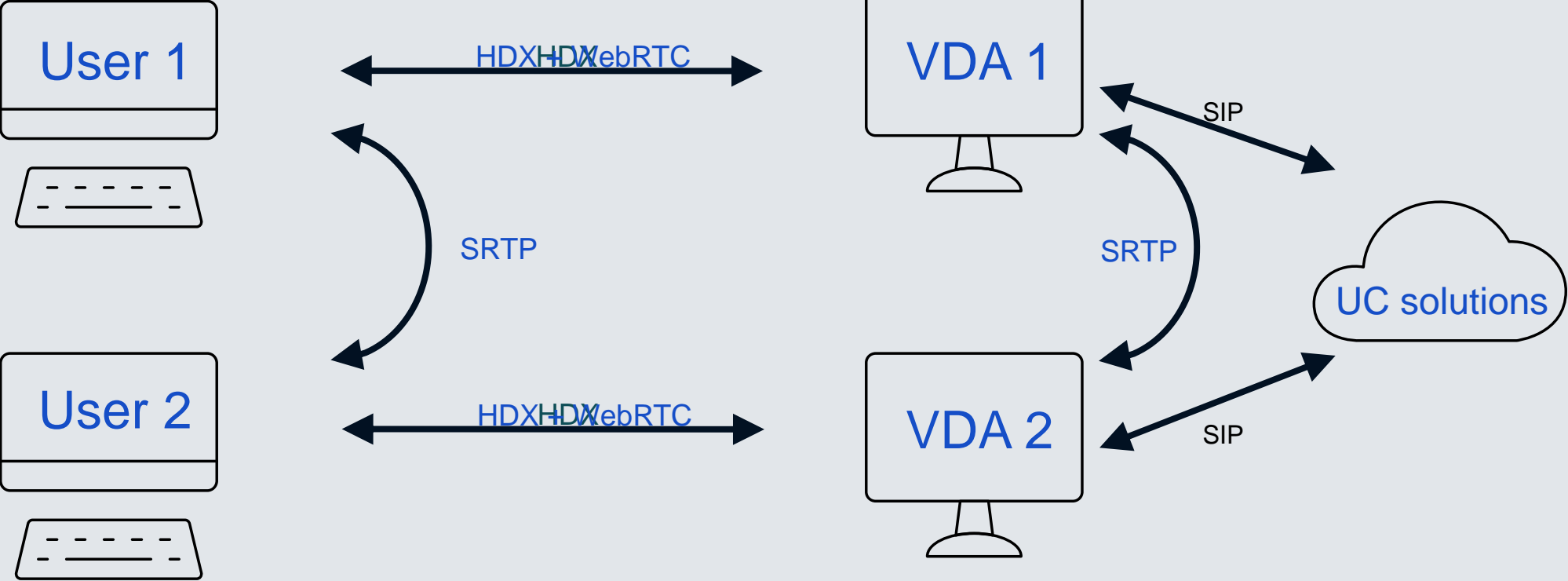


Only Windows & Linux Endpoints

# Unified Communications



# Citrix Optimization for Unified Communications Solutions



# Citrix Unified Communication Solution support in General

	Citrix Minimum Versions	Virtual App/Desktop Optimization	Web App Optimization	Windows Support	Mac Support	Linux Support
Microsoft Teams	VDA 1906.2+ CWA 1907+	Yes	Yes, with BCR (Windows CWA Only)	Yes	Yes	Yes
Skype for Business	RTOP 2.4+	Yes	No	Yes	Yes	Yes
Cisco Jabber Softphone for VDI	7.15+	Yes	No	Yes	No	Yes
Cisco Webex Meetings	7.15+	Yes	Yes with BCR	Yes	No	Yes
Cisco Webex Teams	7.15+	Yes	Yes with BCR	Yes	No	No
Zoom	7.15+	Yes	No	Yes	Yes	Yes
Avaya One-X	7.15+	Yes	No	Yes	No	No

# Citrix & Unicon

## Unified Communications Solutions Support



Microsoft Teams



Cisco Webex Teams



Skype for Business



Cisco Jabber Softphone for VDI



Zoom



Cisco Webex Meetings

# Fragen:

Wer nutzt UC-Lösungen in  
VDI-/DaaS- Umgebungen?

Nein, ist geplant

Nein, ist nicht geplant

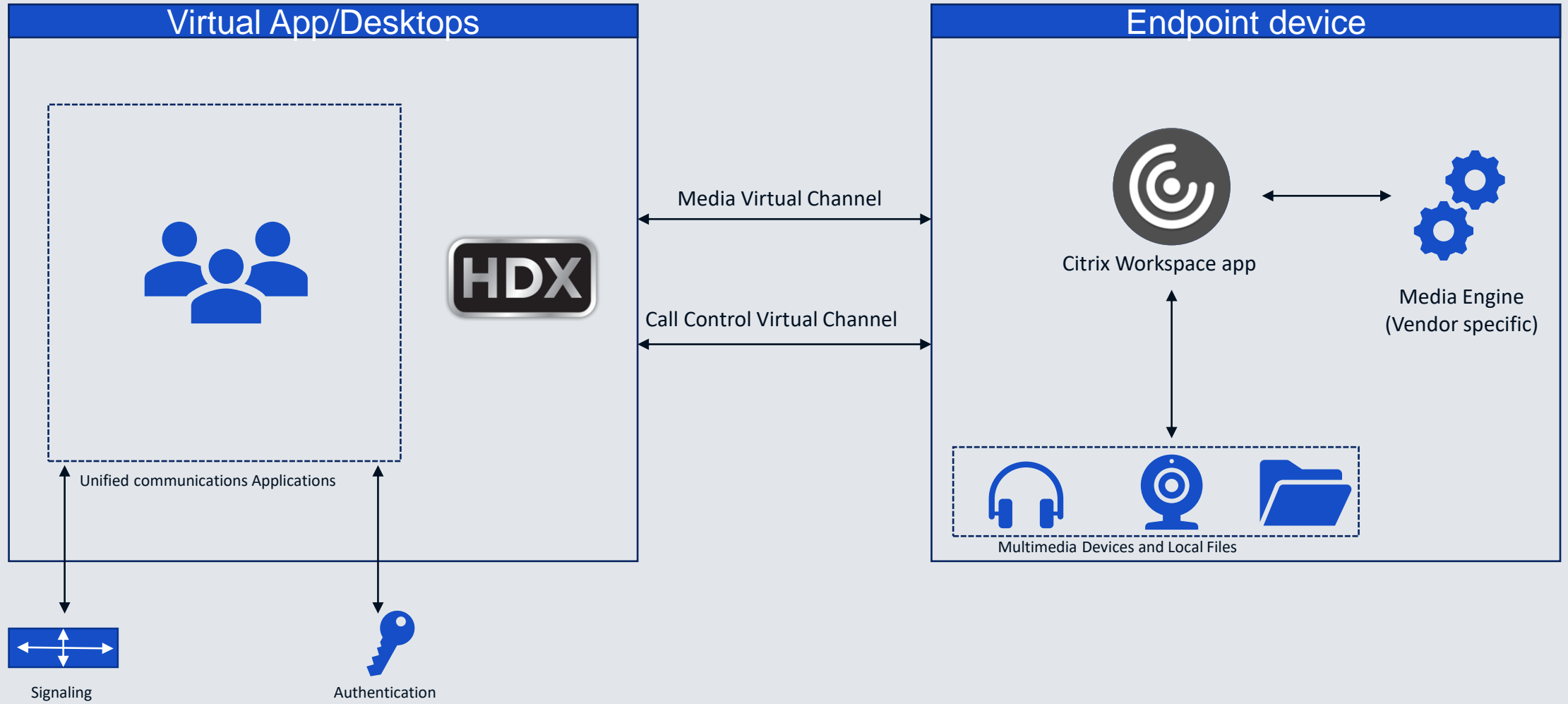
Ja, läuft zufriedenstellend

Ja, läuft nicht zufriedenstellend



# Citrix Optimization for Unified Communications Solutions

## It's a framework (SDK)



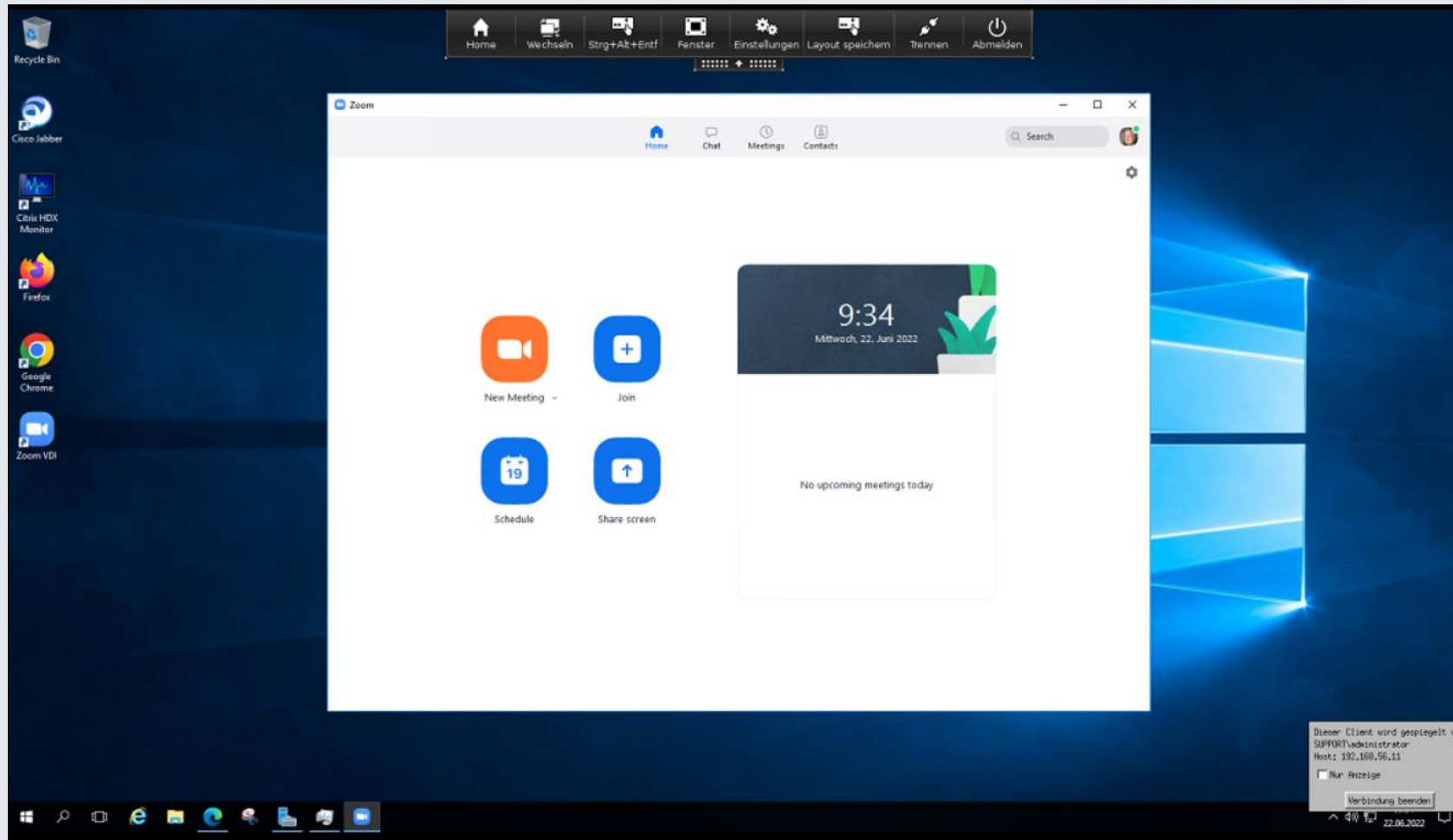


# Demo Time Zoom



# Zoom Demo

## Test Call mit Video und Audio



# Citrix Optimization for Unified Communications Solutions Configuration / Installation (Example: Zoom)

The screenshot displays the UNICON Global admin interface. The top navigation bar shows 'ELIAS' with container details: 'Container Version UC\_RP6\_X64 UC\_RP6\_X64-1.0-1'. The user is logged in as 'admin'. The main interface is divided into three sections:

- Package Library:** A list of available packages on the left, including Firefox Webbrowser, evidian, eLuxRDP, Citrix extensions, Chromium Webbrowser, Security, Communication, Zoom Client for Linux, Zoom Citrix Plugin, Microsoft Teams Client for Linux, Utils package for JVDI, Citrix NetScaler Gateway clients, and Citrix HDX RealTime Media Engine.
- Image template Citrix\_Webinar:** A central list of installed packages for the 'Citrix\_Webinar' image template, including:
  - ica 22.2.0.20 - 1 Citrix Workspace app for Linux
  - citrix\_extensions 2110 - 6 Citrix extensions
  - chromium 90.0.4430.721 - 7 Chromium Webbrowser
  - fluedosv 1.5 - 2 Fluedo System-wide Codec Pack
  - fluedo\_ffmpeg\_enabler 10.2 - 1 Fluedo FFMpeg Enabler
  - zoomcitrixplugin 5.10.0.21068 - 1 Zoom Citrix Plugin
  - Library for Zoom Citrix Plugin
- Details:** A right-hand pane showing details for the 'Zoom Citrix Plugin' package. It includes a description: 'Zoom Media Plugin for Citrix Workspace app. Zoom is the leader in modern enterprise video communications, with an easy, reliable cloud platform for video and audio conferencing, collaboration, chat, and webinars across mobile devices, desktops, telephones, and room systems.' Below this, technical details are listed:
 

Name	zoomcitrixplugin 5.10.0.21068
File	zoomcitrixplugin-5.10.0.21068-1.UC_RP6_X64-1.0.epm
Copyright	Copyright (C) 2012-2022 Zoom Video Communications, Inc. All rights reserved.
Build time	04/12/2022 4:42 AM
Package size	161.6 MB

At the bottom of the interface, there are buttons for 'IMPORT', 'EXPORT', 'LOCK', 'SIGN', 'EXPORT', 'DELETE', 'SAVE AS', and 'SOLVE'.

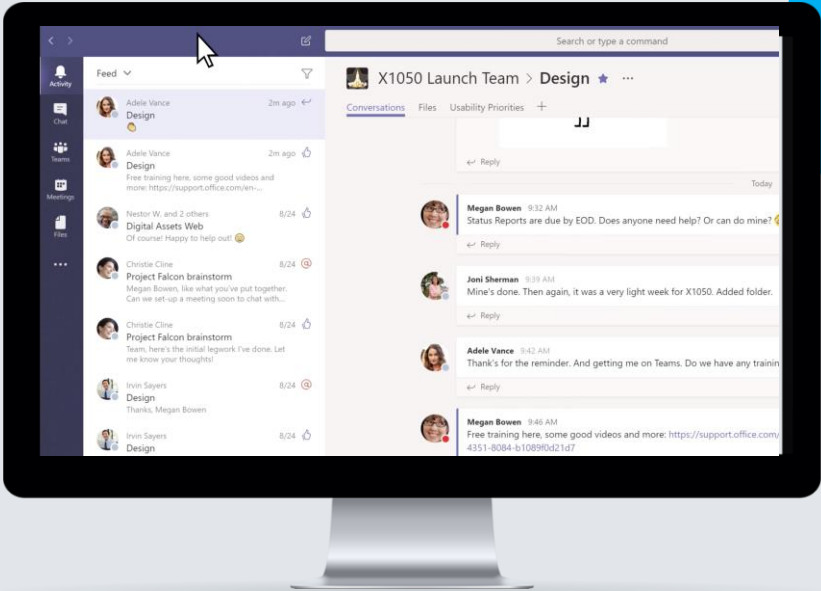
For using Zoom in a Citrix VDI please add the Zoom Citrix Plugin to the image.

As soon as the client has been updated incrementally with this new package the Zoom Optimization is available for the users

# Microsoft Teams Optimization



# Citrix Optimization for Microsoft Teams



Built in  
Workspace  
App Media  
Engine

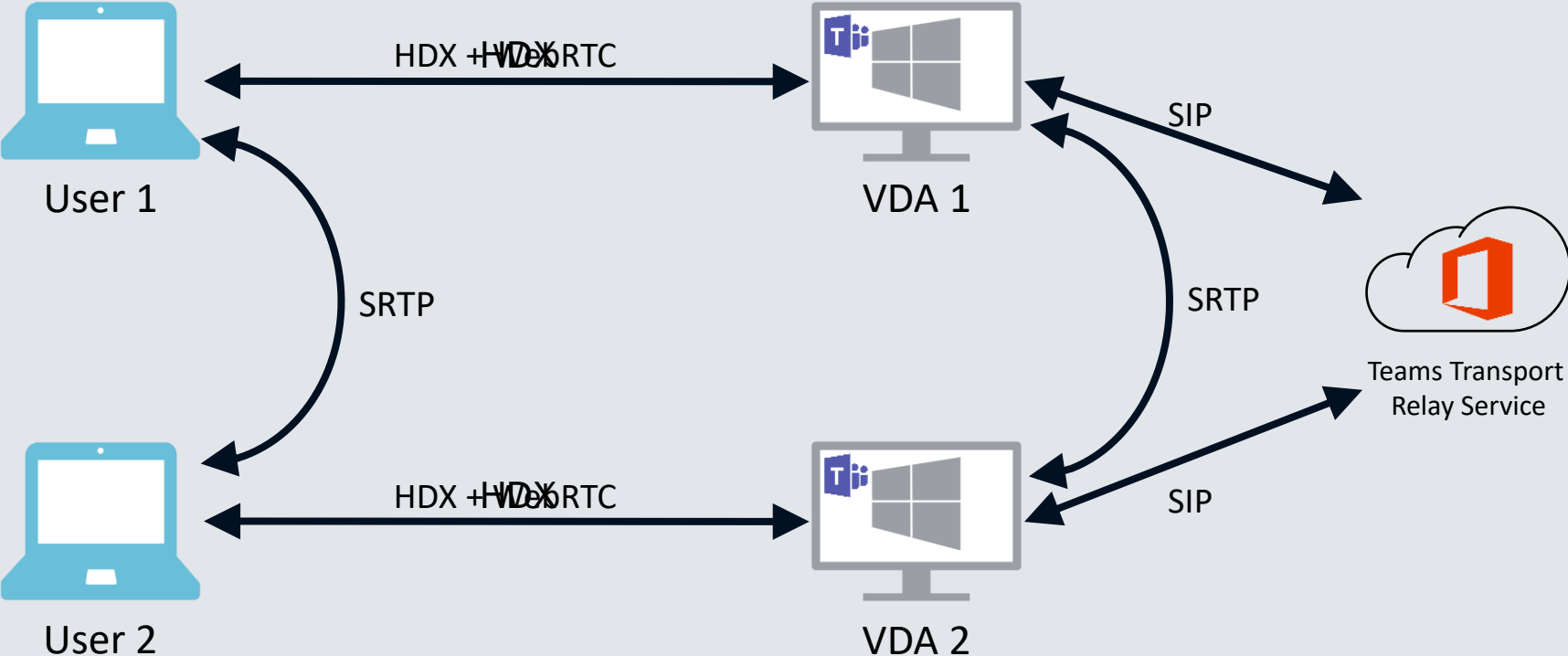
Will support  
all major  
Platforms

Audio, Video,  
and  
Screensharing  
Optimization

Single Point  
Authentication &  
Signaling  
Maximizes  
Reliability and  
Ease of Use

# Citrix Optimization for Microsoft Teams

## Citrix Optimizations for Microsoft Teams



# Citrix Optimization for Microsoft Teams

## Configuration

### Edit Setting

#### Enables Microsoft Teams redirection

- Allowed  
This setting will be allowed.
- Prohibited  
This setting will be prohibited.

Applies to the following VDA versions  
Virtual Delivery Agent: 1906 Server OS, 1906 Desktop OS

Description  
This setting enables or disables redirection support for Microsoft Teams.

OK Cancel

The screenshot shows the Citrix Studio interface for configuring a package. The top bar includes the user 'Global admin' and the container version 'UC\_RP6\_X64 UC\_RP6\_X64-1.0-1'. The main area is divided into three sections: Package Library, Image template, and Details.

- Package Library:** Lists various system and application packages. The selected package is 'ica 22.2.0.20 - 1 Citrix Workspace app for Linux'.
- Image template:** Shows the configuration for 'Citrix\_Webinar'. The 'HDX Microsoft Teams Optimization' feature is highlighted with a red box and a tooltip that reads 'Activate feature package in Citrix Workspace App for image'.
- Details:** Provides metadata for the selected package, including Name, File, Copyright, Licenses included, Build time, and Package size.



# Demo Time – Microsoft Teams



# Demo:

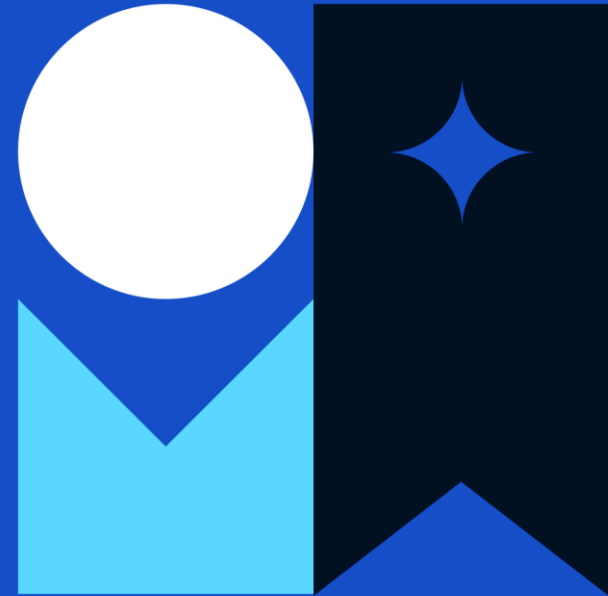
## MS Teams Optimization to leverage local resources

The screenshot shows a Windows desktop environment. The Microsoft Teams application is open, displaying a chat window for a meeting titled "Unicon products workshop (4th session)". The chat history shows meeting events: "2/10 7:55 AM Meeting started", "2/10 8:01 AM Recording has started", "2/10 9:21 AM Recording has stopped. Saving recording...", and "2/10 9:21 AM Meeting ended: 1h 26m 33s". A meeting transcript is visible, including a message from "Unknown User" saying "You: ah, okay" and another saying "You: Danke".

The Windows Task Manager is open, showing the 'Performance' tab. The 'Processes' list is expanded to show background processes. The following table represents the data shown in the Task Manager screenshot:

Name	CPU	Memory
Microsoft Teams	1%	59%
Unicon products workshop (4t...	0%	12,3 MB
Task Manager	0%	12,3 MB
Background processes (87)		
ActivClient Cryptographic Servi...	0%	4,1 MB
Actividentity Cache Server	0%	2,3 MB
Actividentity card event handler	0%	5,0 MB
Actividentity Event Service	0%	4,3 MB
Actividentity Event Service	0%	4,1 MB
Antimalware Service Executable	0%	138,9 MB
AvotListener	0%	5,0 MB
Certificate Expiration Check Util...	0%	3,0 MB
Certstore Application	0%	2,9 MB
Citrix CEIP Service	0%	3,9 MB
Citrix Diagnostic Facility COM S...	0%	1,7 MB
Citrix FTA, URL VDA Redirector (...)	0%	1,5 MB
Citrix Graphics Engine	0%	65,0 MB
Citrix Group Policy CSE Engine	0%	14,9 MB

# 05 Q&A





Vielen Dank!