



E GROUPWARE



Apache Guacamole™



jitsi.org



EGroupware Advertising

- EGroupware GmbH (D-Kaiserslautern, data centre in D-Frankfurt/D-Karlsruhe) offers EGroupware as [SaaS solution](#) and [On Premises](#)
- E-mail server (with deep integration) included
- [Collabora Online](#), [Rocket.Chat-server](#), [Jitsi-server](#)
- Reseller for: [Collabora Online-Licences](#), [bbbserver.de](#),
[Outlook CalDAV Synchronizer](#)
- Version with functional enhancements and support (EPL)
- [Support](#) (migration and update support, ...) also for community users
- Organisation consulting
- Special programming, masks, functions, ...

Jitsi and Guacamole in EGroupware



Topics

- EGroupware
- Integration of web applications in EGroupware
- Jitsi (integrated in EGroupware)
- Guacamole (integrated in EGroupware)
- Live

EGroupware – What is that?



EGroupware is...



E G R O U P W A R E

- A standard groupware
- An extended groupware
- A platform for own applications
- An integration platform for web applications
- Rich in functions
- Many setting options (especially as admin...)
- Overview in the flyer: [EGroupware Community Flyer](#)

Modules in EGroupware



InfoLog
(tasks/notes/...)



Calendar



Address book



e-mail

Icons are linked!



Modules in EGroupware

Project manager



Timesheet



**Tracking system
(Ticket system)**



Bookmarks



smallPART



Resources



File manager



Icons are linked!

Modules in EGroupware

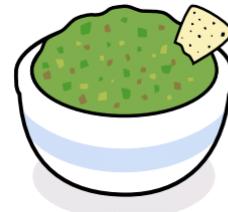


**Video conference
(Jitsi)**

**Chat
(Rocket.Chat)**



**Remote Desktop
(Guacamole)**



Discourse?



BBB?

Icons are linked!



Integration of web applications

So far integrated:

- (Collabora Online / CODE)
- **Rocket.Chat**
- **Guacamole**

Collabora Online is installed in a standard installation if not explicitly suppressed.

Rocket.Chat and Guacamole can be installed later:

[GitHub Wiki: Installation Rocket.Chat](#) [Installation Guacamole](#)



Integration of web applications

Integration possibilities of web applications:

- Integration as iframe
- Integration as iframe + authentication with OpenID/OAuth2
- Integration as iframe + authentication with OpenID/OAuth2 + more
- ...

... your own application?



Integration of web applications

Iframe?

An area of a website that embeds another website (or parts of it).
The contents are isolated from each other!

Since embedding "foreign" content is always a security risk, the embedding application (ECW) must explicitly allow the application to be embedded.

The embedding application must also allow the integration.



Integration of web applications

OpenID/OAuth2?

Standard for the authentication of (distributed) web applications to realise Single Sign-On (SSO).

Data exchange via the interface is also possible.

An OpenID/OAuth2 server is integrated in EGroupware and allows systems to authenticate themselves against the user database of EGroupware. EGroupware in turn can authenticate against AD, Mail, LDAP, Shibboleth, ...



Integration of web applications

Requirements

In order to "embed" applications in EGroupware as an app, the application must allow to be embedded as iframe.

For an SSO the application must be able to handle OAuth2.

The application must be accessible from the (user browser) location.

Integration of web applications



Example:
Proxmox as App
in EGroupware

The screenshot shows the EGroupware interface with the Proxmox application integrated. The left sidebar has icons for various apps like Guacamole, Dateimanager, and Admin. The main area has tabs for Guacamole, Dateimanager, Proxmox, Rocket.Chat, Kalender, E-Mail, and Admin. The Proxmox tab is active, displaying the 'Rechenzentrum' (Virtual Environment) interface. It shows a list of virtual machines (vm02, vm100, vm101, etc.) and their details. On the right, there are sections for 'Virtuelle Maschinen' (with 5 running, 10 stopped, 6 templates), 'LXC Container' (0 running, 0 stopped), and 'Ressourcen' (CPU usage 13%, 4 cores, 8.80 GiB memory, 3.07 TiB storage). Below that is a 'Knoten' (Node) table for 'vm02'. At the bottom, there's a 'Cluster log' table with entries for package updates and backups.

Name	ID	Online	Support	Server-Adresse	CPU-Auslast...	Speicherverb...	Betriebs...
vm02	0	✓	-	192.168.178.82	13%	57%	9 Tage 01:...

Startzeit ↓	Endzeit	Knoten	Benutzername	Beschreibung	Status
Sep 14 02:34:02	Sep 14 02:34:08	vm02	root@pam	Paket-Datenbank aktualisieren	OK
Sep 13 22:30:02	Sep 13 22:59:34	vm02	root@pam	Backup-Job	OK

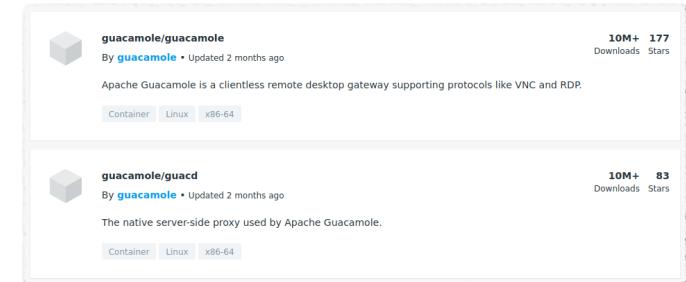
Integration of web applications



Post installation Guacamole (and Rocket.Chat)

Will be reinstalled per installation package on the EGroupware host:
HTTP_HOST=Example.org apt install egroupware-guacamole

- Config reverse proxy (<https://example.org/guacamole>)
- Installation Docker Container from dockerhub.com
- Configuration EGroupware



Integration of web applications



Example:

Configuration masks Guacamole as app in EGroupware with Auth

Name **Guacamole**

Allgemein Gemanagt als EGroupware Anwendung Dokumentation

Kennung (Identifier) **guacamole**

Geheimnis

Weiterleitungsadresse **https://egw. [REDACTED] de/guacamole/**

Erlaubte Verfahren (Grants) **Implicit**

Gültigkeit (Scope) einschränken
Optionen auswählen

Status **Aktiv**

Gültigkeit Zugangs-(Access-)Token
Benutze Vorgabe von: 1 Stunde

Gültigkeit Erneuerungs-(Refresh-)Token
Benutze Vorgabe von: 1 Monat

Angelegt 17.04.2020 10:39
Letzte Änderung 17.04.2020 10:39

Speichern **Übernehmen** **Abbruch** **Deaktivieren**

Name **Guacamole**

Allgemein **Gemanagt als EGroupware Anwendung** Dokumentation

— Wenn der OAuth Client als EGroupware Anwendung gemanagt wird —
- ist die Anmeldung nur möglich wenn der Benutzer Ausführungsrechte für diese hat
- beim OAuth Login ist keine explizite Zustimmung des Benutzers erforderlich
- wird die OAuth Anwendung innerhalb der EGroupware angezeigt (iframe)

Anwendungsname **guacamole** Reihenfolge **5**

Start Adresse (URL) **guacamole.EGroupware\Guacamole\Ui.index&ajax=true**

Erlaubt für **Gruppe Guacamole** **Gruppe Default**

Icon
Optionen auswählen **Hochladen**

Angelegt 17.04.2020 10:39
Letzte Änderung 17.04.2020 10:39

Speichern **Übernehmen** **Abbruch** **Deaktivieren**

Integration of web applications

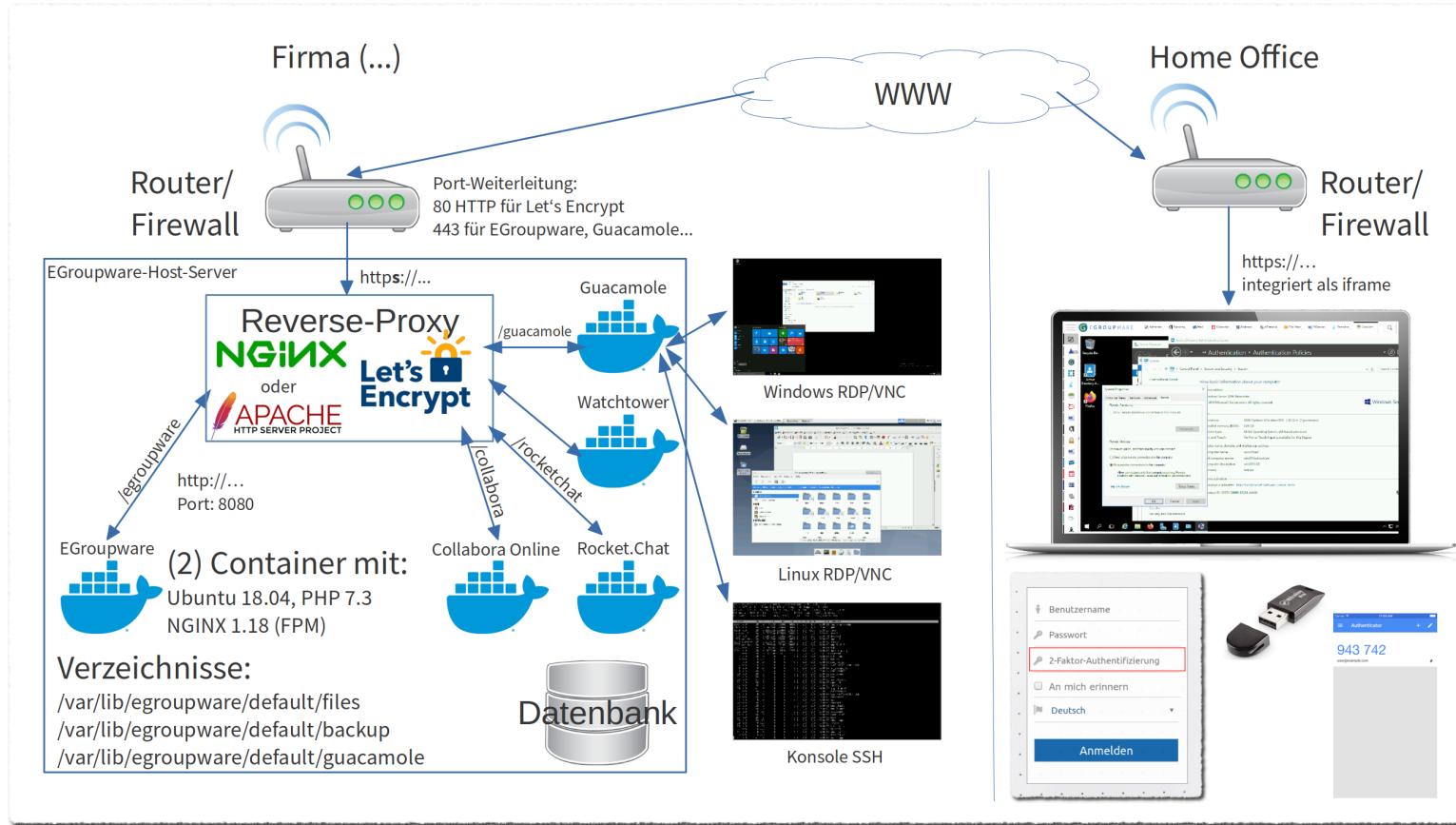
Example:

Configuration mask Proxmox as app in EGroupware

The screenshot shows the 'Allgemein' tab of the configuration interface for a new application named 'Proxmox'. The 'Name' field contains 'Proxmox'. The 'Gemanagt als EGroupware Anwendung' tab is selected. A note below it states: 'Wenn der OAuth Client als EGroupware Anwendung gemanagt wird' followed by three bullet points: '- ist die Anmeldung nur möglich wenn der Benutzer Ausführungsrechte für diese hat', '- beim OAuth Login ist keine explizite Zustimmung des Benutzers erforderlich', and '- wird die OAuth Anwendung innerhalb der EGroupware angezeigt (iframe)'. The 'Anwendungsname' field is set to 'Proxmox'. The 'Reihenfolge' dropdown shows '2'. The 'Start Adresse (URL)' field contains 'https://192.168.178.82:8006'. Under 'Erlaubt für', there is a user entry for 'Stefan'. The 'Icon' section shows a placeholder icon for 'Proxmox' and a 'Hochladen' button. At the bottom, the 'Angelegt' field shows 'Unverricht, Stefan' and the date '11.05.2020 15:17'. The 'Letzte Änderung' field shows 'Unverricht, Stefan' and the date '07.06.2020 16:12'. The footer features buttons for 'Speichern', 'Übernehmen', 'Abbruch', and 'Deaktivieren'.



Integration of web applications

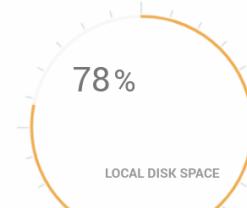
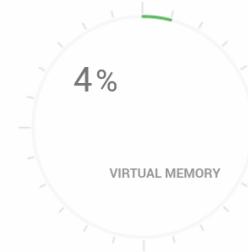
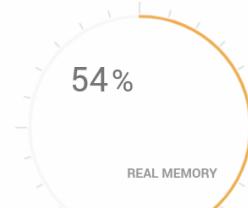


Integration of web applications



Resource requirements full installation EGroupware with Collabora Online, Rocket.Chat, Guacamole and data

System Information



System hostname	egw191deb. ███████████ .de (192.168.178.60)	Operating system	Debian Linux 10
Webmin version	1.960	Authentic theme version	19.61 ███████████
Time on system	Sunday, November 8, 2020 12:58 PM	Kernel and CPU	Linux 4.19.0-11-amd64 on x86_64
Processor information	Common KVM processor, 2 cores	System uptime	5 days, 15 hours, 17 minutes
Running processes	130	CPU load averages	0.27 (1 min) 0.17 (5 mins) 0.14 (15 mins)
Real memory	2.04 GiB used / 1.63 GiB cached / 3.85 GiB total	Virtual memory	38.41 MiB used / 1021.99 MiB total
Local disk space	22.21 GiB used / 6.2 GiB free / 28.41 GiB total	Package updates	3 package updates are available



Integration of web applications

The applications provided on the host (Rocket.Chat, Guacamole) can also be called directly through the reverse proxy:

<https://example.org/guacamole/#/client>

<https://example.org/rocketchat>

Thus, these applications can be linked directly to a user or made available as a web app.

Integration of web applications



Security

- 2FA: Google-Authenticator (or other App), in EPL also U2F-Key, can be switched off for the local network
- SSL: EGroupware is naturally operated via https...
- Brut-Force: Blocking of access (user/IP) after unsuccessful access attempts



Jitsi is an **open source video conferencing solution** based on the **WebRTC** standard. Jitsi can be installed/hosted by the user or purchased as SaaS from a trusted provider.

- The most important functions include
- Audio and video conferencing,
- Desktop Sharing
- Chat

- Password protection
- Telephone dial-up (if integrated)
- Recording of conferences



Installation possibilities

Jitsi can be installed on Debian/Ubuntu servers, run as a docker container or you can install all components manually.

There are some good installation guides available on the net.

By running it yourself **you can influence the privacy settings and the technical settings.**

Clients

A web browser is used on Linux, Apple and Windows desktops (**no app/plug-in required**). Apps are available for iOS and Android mobile devices.



Jitsi conference without own Jitsi server

Free public Jitsi servers are often offered. There are some lists:

Jitsi Meet Instances

<https://github.com/jitsi/jitsi-meet/wiki/Jitsi-Meet-Instances>

CCC list of free servers

<https://pads.ccc.de/jitsiliste>

The Jitsi project itself provides a server at <https://meet.jit.si/>.

Jitsi



Jitsi in EGroupware



Configuration

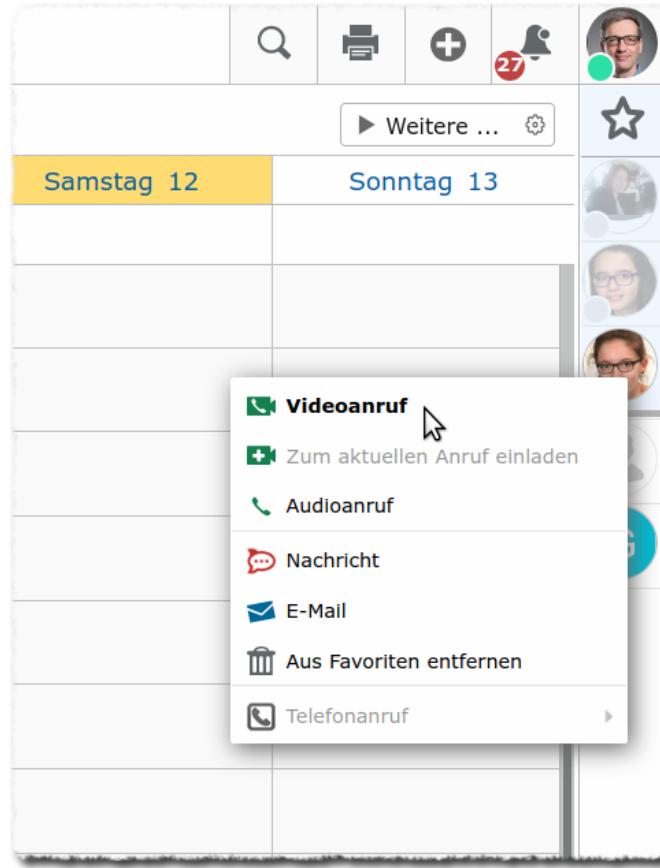
The screenshot shows the EGroupware configuration interface with the following details:

- Left Sidebar:** Shows a tree view of available applications: Projektmanager, Registrierung, Ressourcen, Rocket.Chat, smallPART, Status, Konfiguration der Anwendung (selected), Stundenzettel, Verfolgungssystem, Wiki, and Wissensdatenbank.
- Top Bar:** Includes links for Guacamole, Projektmanager, Dateimanager, and Admin.
- Main Content Area:**
 - Konfiguration der Anwendung** tab is selected.
 - Videokonferenz** tab is active.
 - Videokonferenz:** A dropdown menu is open, showing "einschalten ▾".
 - Videokonferenz-System:** Set to "Jitsi-Server" (with a remove button).
 - Jitsi Server-Einstellungen**
 - Jitsi Domain:** Set to "meet.nitrokey.com" (with a remove button).
 - Benutze JWT Authentifizierung:** Enabled.
 - Jitsi Application ID:** An empty input field.
 - Jitsi Secret:** An empty input field.
- Bottom Buttons:** Speichern, Übernehmen, Abbruch.

Jitsi in EGroupware



Ad-hoc calls from the status sidebar



Jitsi in EGroupware



Scheduled video conference with invitation of external participants

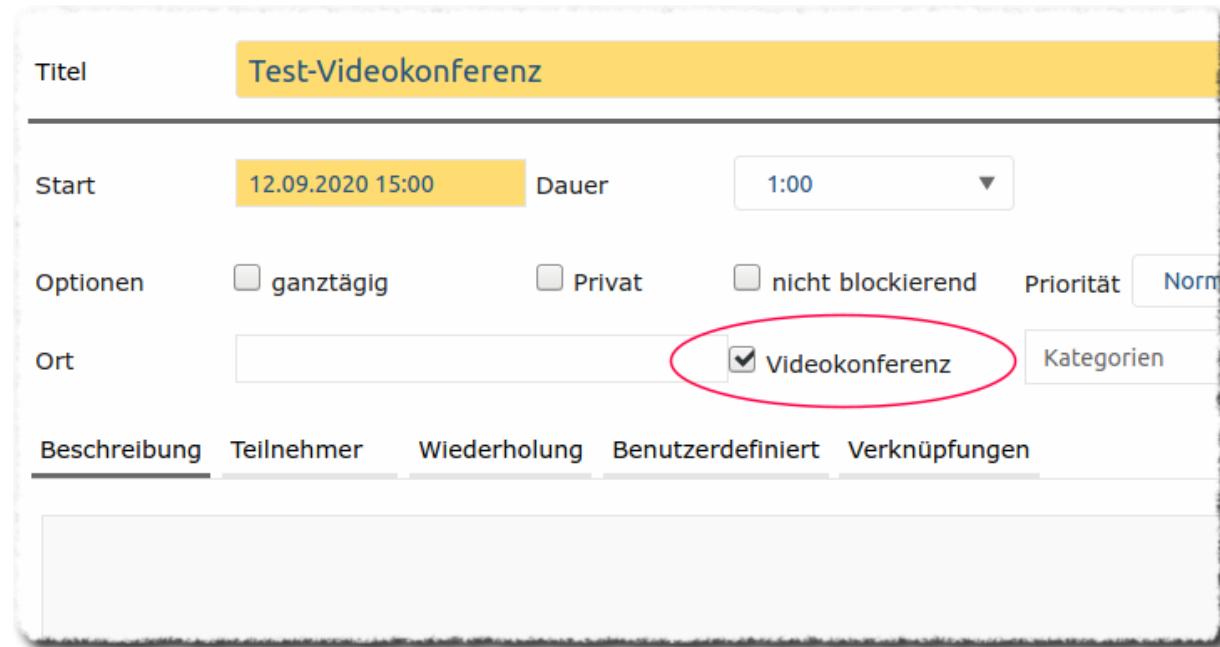
Test-Videokonferenz

Start 12.09.2020 15:00 Dauer 1:00

Optionen ganztägig Privat nicht blockierend Priorität Norm

Ort Videokonferenz Kategorien

Beschreibung Teilnehmer Wiederholung Benutzerdefiniert Verknüpfungen



Jitsi in EGroupware



Result:

The screenshot shows a calendar entry for a video conference and its corresponding appointment details.

Calendar View (Left):

- Event: **Test-Videokonferenz** (17:00 - 18:00: 1h)
- Details:
 - Uhrzeit:** 17:00 - 18:00: 1h
 - Ort:** Videokonferenz (Video camera icon)
 - Teilnehmer:** Unverricht, Stefan (Vorsitz)

Appointment Details (Right):

Diese Nachricht enthält eine Terminanfrage

Zusagen Vorläufige Zusage Absagen Bearbeiten

Terminanfrage

Titel	Test-Videokonferenz
Ort	
Datum	12.09.2020 17:00 - 12.09.2020 18:00
Organisator	Stefan Unverricht
Beschreibung	Videokonferenz: https://meet.nitrokey.com/egw.12.09.2020.17.00.12.09.2020.18.00.de-9HjmSwPEnpuE74JpDTyn#
Teilnehmer	EGroupware GmbH: Unverricht, Stefan (Keine Antwort), Unverricht, Stefan (Keine Antwort), Unverricht, Stefan (Zugesagt) Vorsitz



Jitsi in EGroupware

More about Jitsi and the integration into EGroupware in the flyer:

<https://www.egroupware.org/wp-content/uploads/2020/11/EGroupware-Flyer-Jitsi-EN.pdf>

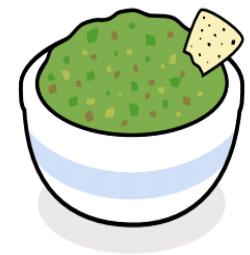
Category Videoconference in the Forum:

<https://help.egroupware.org/c/apps/videoconference>

Apache Guacamole



Apache Guacamole™ (hereinafter only Guacamole) is a **clientless remote desktop gateway**.



This gateway accesses desktops/terminal servers/consoles via **VNC**, **RDP** or **SSH** on one side and makes them available in a browser on the other side.

Clientless means in this case that no software has to be installed on the PC/tablet or a browser add-on. You only need a browser!



Apache Guacamole

Possible applications

- Home office (work at home) for "office workers"
- Access for IT admins (customer systems ...)
- Training on systems
- In-house access to server systems
- Access for students to laboratory systems
- ...

Apache Guacamole



Functions

- Distribution Desktops/Console
- Distribution Applications
- Remote Print (opens PDF on the client)
- Exchange directory
- Clipboard
- Audio
- Screen recording
- (Wake-on-Lan)
- ...

Apache Guacamole in EGroupware



Guacamole stores its configuration in a database.

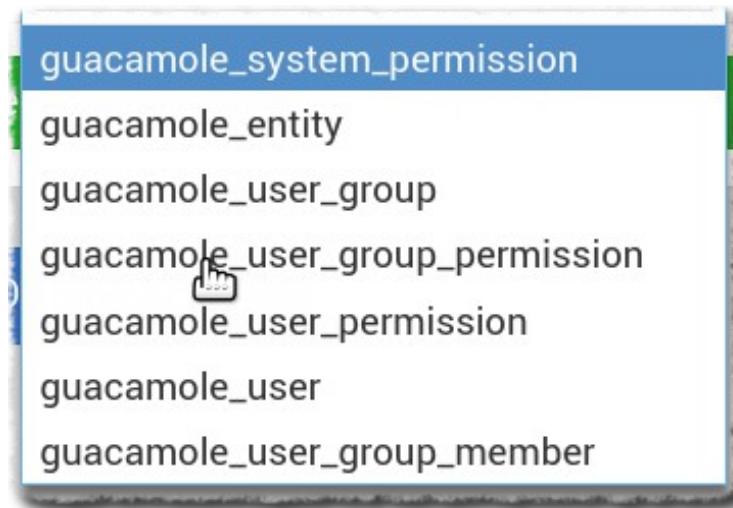
In this case we use this and configure Guacamole so that the data in the EGroupware-DB is stored in newly created tables:

egw_zpush_settings
egw_zpush_states
egw_zpush_users
guacamole_connection
guacamole_connection_attribute
guacamole_connection_group
guacamole_connection_group_attribute
guacamole_connection_group_permission
guacamole_connection_history
guacamole_connection_parameter
guacamole_connection_permission
guacamole_sharing_profile
guacamole_sharing_profile_attribute
guacamole_sharing_profile_parameter
guacamole_sharing_profile_permission
guacamole_user_attribute
guacamole_user_group_attribute
guacamole_user_history
guacamole_user_password_history
shpwv_mydmo_ACLs

Apache Guacamole in EGroupware



Users and groups are made available to Guacamole via database view:



The guacamole data is therefore also included in the EGroupware own data backup!

Apache Guacamole in EGroupware



The execution rights for the Guacamole app are assigned to users/groups in EGroupware similar to the standard modules.

Anwendung	Daten von	Zu du	Lesen	Hinzufügen	Bearbeiten	Löschen	Privat	Cust
CalDAV / CardDAV Sync	Gruppe Default		Ausführen					
Guacamole	Gruppe Default		Ausführen					
Home	Gruppe Default		Ausführen					
Import/Export	Gruppe Default		Ausführen					

Apache Guacamole in EGroupware



Connections

In connections, connection data to the client and parameters are saved.

The connections can be set up in Guacamole, but also in EGroupware. We have provided the essential parameters in a mask (as shown above).

Apache Guacamole in EGroupware



Connections

Parameters and Rights

The screenshot shows the EGroupware interface with the 'Guacamole' module selected in the sidebar. A modal window is open for editing a connection named 'DebDesktop'. The connection details are as follows:

Name	Protokoll	Hostname
DebDesktop	RDP	192.168.178.96
Windows 10 RDP	RDP	192.168.178.73
Win7_VNC	VNC	192.168.178.74
Win7_RDP	RDP	192.168.178.74
Proxmox	RDP	192.168.178.82
EGroupware	RDP	192.168.178.60
Wind	RDP	192.168.178.38

The modal window also displays 'RDP Einstellungen' (RDP Settings) and 'Rechte' (Permissions) tabs. Under 'RDP Einstellungen', the following options are set:

- Tastaturlayout: Deutsch (Qwertz)
- Zeitzone: Europe / Berlin
- Farbtiefe: Hohe Farbtiefe (16 Bit)
- Optionen:
 - Schriftartglättung (ClearType) aktivieren (unchecked)
 - Serverzertifikat ignorieren (checked)
- Größenänderungs-Methode: "Display Update" virtual Channel (RDP 8.1+)

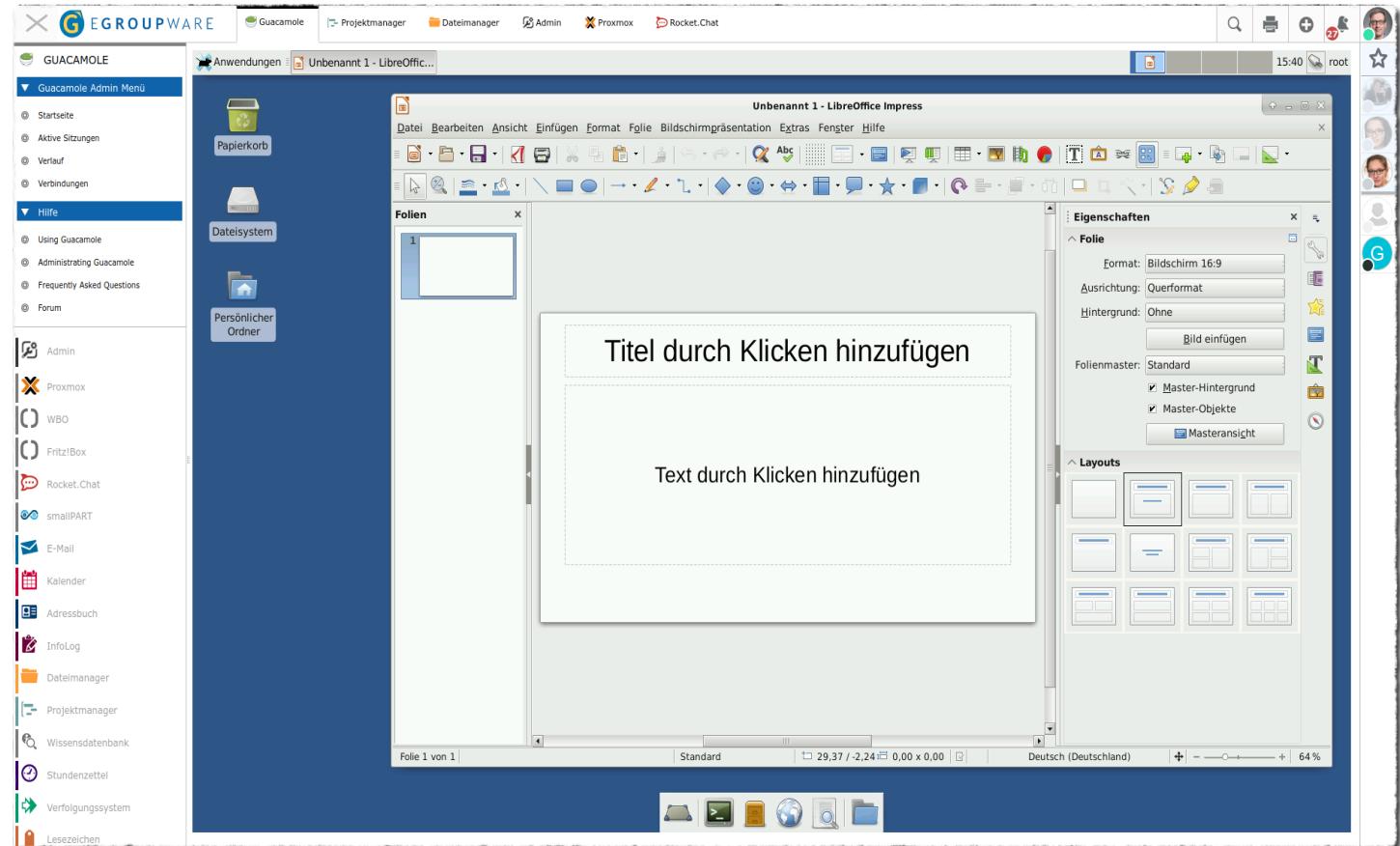
At the bottom of the modal are buttons for 'Speichern' (Save), 'Übernehmen' (Accept), 'Abbruch' (Cancel), and 'Löschen' (Delete).

Apache Guacamole in EGroupware



Example

Debian Desktop in
the browser as
iframe within
EGroupware



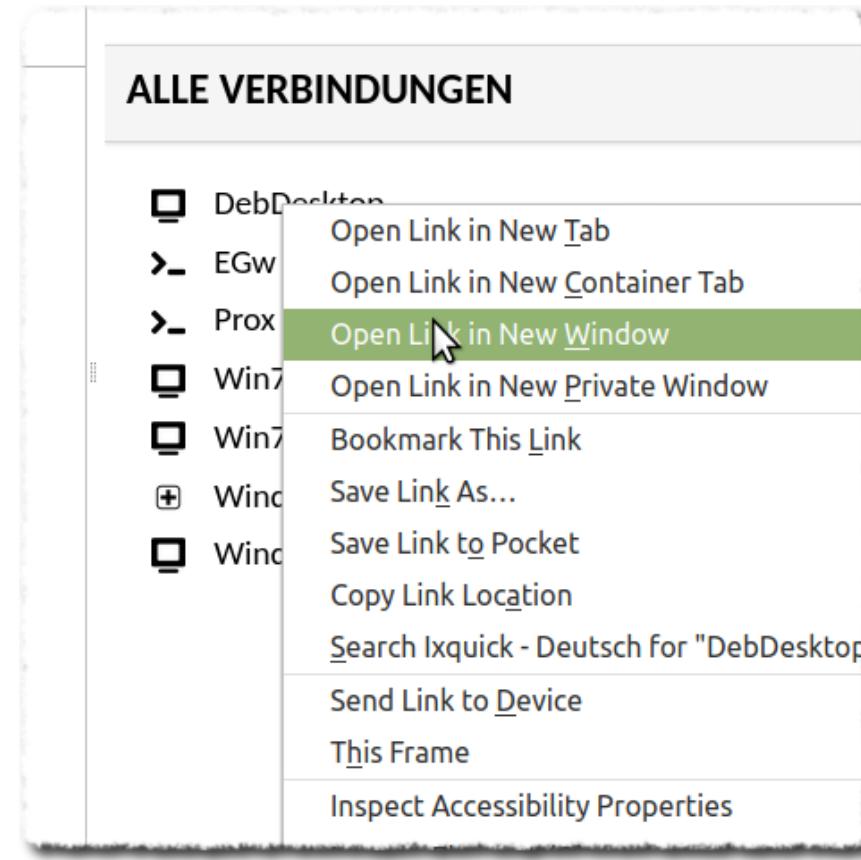
Apache Guacamole in EGroupware



Open as new browser window

=> F11

= full screen (on second monitor?)



Apache Guacamole in EGroupware



Topic Resolution

During RDP sessions, the browser reports the size of the area to the RDP server. To get a sharp picture, it is therefore necessary that neither the web browser nor the client operating system is scaled.

If nothing is scaled, you will get a sharp image. This differs in full screen mode, even in speed, hardly from a local desktop.

Different, fixed resolutions can be configured in the connection.

See also: [Guacamole - Advanced Administration and Tips 1](#)



Apache Guacamole

In the forum <https://help.egroupware.org/c/apps/guacamole> a lot of information about guacamole is documented in several articles:

[Information/Help about Guacamole](#)

[Apache Guacamole - The integration into EGroupware](#)

[Guacamole - Connections and use](#)

[Guacamole - Advanced Administration and Tips 1](#)

[Guacamole - Advanced Administration and Tips 2 \(In progress\)](#)

Guacamole

Forum

Topic	Users	Replies	Views	Activity
🔒🇬🇧 Guacamole - Advanced Administration and Tips 1 In this article we describe a few more administrative points and give tips from practical work with guacamole. If something described does not work, it may be due to the combination of operating systems and web browser.... read more		4	50	Jul 18
🔒🇩🇪 Guacamole - Erweiterte Administration und Tips 1 In diesem Artikel beschreiben wir ein paar weitere administrative Punkte und geben Tipps aus der praktischen Arbeit mit Guacamole. Sollte etwas beschriebenes nicht funktionieren, kann es an der Kombination Betriebssystem... read more		4	68	Jul 17
🔒🇬🇧 Guacamole - Connections and use In this article we describe how to manage connections and how to use them by the user. General information about Guacamole, the installation and integration into EGroupware is described in: You should have read the ... read more		2	107	Jun 11
🔒🇩🇪 Guacamole - Verbindungen und Benutzung In diesem Artikel beschreiben wir die Verwaltung von Verbindungen und die Benutzung durch den Anwender. Allgemeines zu Guacamole, die Installation und Integration in EGroupware ist in beschrieben. Den Artikel sollte... read more		2	163	Jun 4
🔒🇬🇧 Apache Guacamole - The integration into EGroupware What is Apache Guacamole? [grafik] Apache Guacamole (hereinafter only Guacamole) is a clientless remote desktop gateway. This gateway accesses desktops/consoles/terminal servers via VNC, RDP or SSH and makes them avail... read more		2	195	May 31
🔒🇩🇪 Apache Guacamole - Die Integration in EGroupware In diesem Artikel beschreiben wir Guacamole und die Integration in EGroupware. Inhalt: Was ist Apache Guacamole? Anwendungsbeispiel Anwendungsberichte Integration in EGroupware Installation und Konfiguration Weiter führe... read more		2	219	May 27
💡Über die Kategorie Guacamole In dieser Kategorie können/sollen Themen bezüglich der Integration von Guacamole in EGroupware diskutiert werden. Weitere Informationen zu Guacamole: https://guacamole.apache.org		0	81	May 15
🔒🇩🇪 Informationen/Hilfe zu Guacamole In diesem Sammel-Thema stellen wir Informations- und Hilfe-Quelle zusammen. Einige Stellen haben wir in dem Guacamole-Modul direkt verlinkt: [image] User's Guide/Using Guacamole https://guacamole.apache.org/doc/gug/u... read more		2	127	May 10
🔒🇬🇧 Feature requests Guacamole Hallo Zusammen, wir wollen in diesem Thema Anforderungen und Ideen zur Integration von Guacamole sammeln. In der Hauptsache sind für uns natürlich Dinge umsetzbar, welche die Integration in EGroupware betreffen. G... read more		2	122	Apr 19
Neuanlage neuer Nutzer - Zugriff 'flackert'		7	28	16d
<input checked="" type="checkbox"/> Guacamole nach Update keine Verbindung		4	24	Aug 14
e74734/3 - kein per Mobilgerät		5	128	Jul 22





**Jitsi and Guacamole in
EGroupware Live
=> in the video after the
slides**

Jitsi und Guacamole in EGroupware



Many thanks for your interest !

Contact: su@egroupware.org

Community Forum: help.egroupware.org