

Konfigurieren eines Remote-Desktop-Servers unter SUSE Linux Enterprise Server 16.0

WAS?

Dieser Artikel beschreibt die Einrichtung eines GNOME-Desktop-Servers mit Fernanmeldung unter SUSE Linux Enterprise Server.

WARUM?

Ein Remote-Desktop-Server kann mehrere Benutzer auch ohne dedizierte Grafikhardware hosten.

AUFWAND

Fünf Minuten für die Konfiguration.

ZIEL

Erfahren Sie, wie Sie einen Desktop-Server für die Fernanmeldung für mehrere Benutzer einrichten.

ANFORDERUNGEN

- Ein System mit GNOME-Installation, die als Remote-Desktop-Server fungiert
- Ein oder mehrere Clients für den Zugriff auf den Server über eine RDP-Anzeige

Veröffentlicht: 11.12.2025

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1 Was ist GNOME Remote Desktop?

GNOME Remote Desktop unterstützt den Betrieb als Remote-Hilfe-Desktop-Server, als Remote-Desktop-Server für einzelne Benutzer und als Desktop-Server für die Fernanmeldung. Dies funktioniert sogar im Headless-Modus, d. h. der Server benötigt keinen Grafikprozessor (GPU). Dies ist besonders nützlich für Server, bei denen ein leistungsstarkes System für mehrere Benutzer bereitgestellt wird, ohne dass Grafikhardware erforderlich ist.

GNOME Remote Desktop hat zwei Protokoll-Backends – RDP und VNC. Nicht alle Betriebsmodi werden von allen Protokoll-Backends unterstützt.

2 Konfigurieren von GNOME Remote Desktop?

Dieser Abschnitt beschreibt, wie Sie GNOME Remote Desktop für die Integration in GNOME Display Manager (GDM) konfigurieren.

2.1 Einführung

GNOME Remote Desktop unterstützt die Integration in GNOME Display Manager, um eine Fernanmeldung zu ermöglichen. Dabei muss sich der Remotebenutzer zunächst mit systemweiten Berechtigungsnachweisen authentifizieren, um auf den grafischen Anmeldebildschirm zuzugreifen, auf dem er sich dann mit seinen benutzerspezifischen Berechtigungsnachweisen anmelden kann.

2.2 Anforderungen

- Ein SUSE Linux Enterprise-System mit der GNOME-Desktopumgebung, das als Server fungiert. Sie können GNOME während der Installation mit *Software > Auswahl ändern > GNOME-Desktopumgebung (Wayland)* auswählen. Auf einem ausgeführten System installieren Sie GNOME mit `zypper in -t pattern gnome`.
- Ein oder mehrere Client(s) mit `gnome-connections`, `remmina` oder einer anderen Anzeige, die das RDP-Protokoll unterstützt.

2.3 Konfiguration

Das folgende Verfahren beschreibt, wie Sie GNOME Remote Desktop für die Integration in GNOME Display Manager konfigurieren.

VORGEHEN 1: KONFIGURIEREN VON GNOME REMOTE DESKTOP

1. Erstellen Sie ein Verzeichnis für den TLS-Verschlüsselungsschlüssel und das Zertifikat:

```
> sudo -u gnome-remote-desktop mkdir -p ~/.local/share/gnome-remote-desktop/
```

Der `gnome-remote-desktop`-Benutzer wird automatisch erstellt, wenn das `gnome-remote-desktop`-Paket installiert wird. Das `home`-Verzeichnis lautet `/var/lib/gnome-remote-desktop`.

2. Generieren Sie einen TLS-Schlüssel und ein Zertifikat für die Verschlüsselung. Dazu gibt es verschiedene Möglichkeiten:
 - Mit `openssl`. Um einen 4096-Bit-RSA-Schlüssel mit einer Gültigkeit von 365 Tagen zu erzeugen, führen Sie Folgendes aus:

```
> sudo -u gnome-remote-desktop openssl req -new -newkey rsa:4096 -days 365 -nodes -x509 -subj \ /C=COUNTRY_CODE/ST=STATE/L=LOCALITY/O=ORGANIZATION/CN=example.net \ -out ~/.local/share/gnome-remote-desktop/tls.crt \ -keyout ~/.local/share/gnome-remote-desktop/tls.key
```

Ersetzen Sie den Ländercode, das Bundesland, den Ort, die Organisation und den allgemeinen Namen oder lassen Sie nicht benötigte Parameter aus. Verwenden Sie für den Ländercode einen zweistelligen *ISO 3166-1 alpha-2*-Code von <https://www.iso.org/obp/ui/#search/code/>.

- Wenn Sie einen interaktiven Befehl bevorzugen, der Sie durch die Zertifikatgenerierung führt, verwenden Sie `certtool` aus dem `gnutls`-Paket:

```
> sudo zypper in gnutls
> sudo -u gnome-remote-desktop certtool --generate-privkey --outfile ~/.local/share/gnome-remote-desktop/tls.key
> sudo -u gnome-remote-desktop certtool --generate-self-signed --load-privkey ~/.local/share/gnome-remote-desktop/tls.key
```

3. Konfigurieren Sie GNOME Remote Desktop mit `grdctl`.

- a. Konfigurieren Sie die Verschlüsselung für GNOME Remote Desktop:

```
> sudo grdctl --system rdp set-tls-key ~gnome-remote-desktop/.local/share/gnome-remote-desktop/tls.key> sudo grdctl --system rdp set-tls-cert ~gnome-remote-desktop/.local/share/gnome-remote-desktop/tls.crt
```

- b. Legen Sie die Systemberechtigungsnaehweise für den Zugriff auf den Anmeldema-nager über RDP fest:

```
> sudo grdctl --system rdp set-credentials
```

Diese Kombination aus Benutzername und Passwort ist nicht zu verwechseln mit den individuellen Benutzerberechtigungsnaehweisen. Die RDP-Systemberechti-gungsnaehweise werden von allen Benutzern für den Zugriff auf GNOME Display Manager verwendet, wo sie sich mit ihren Benutzerberechtigungsnaehweisen anmel-den können.

- c. Aktivieren Sie das RDP-Protokoll:

```
> sudo grdctl --system rdp enable
```

4. Aktivieren und starten Sie den GNOME Remote Desktop-Dienst:

```
> sudo systemctl enable --now gnome-remote-desktop.service
```

5. Öffnen Sie die Firewall für Verbindungen über den Standard-RDP-Port:

```
> sudo firewall-cmd --permanent --add-service=rdp
> sudo firewall-cmd --reload
```

2.4 Zusammenfassung

Sie haben nun einen GNOME Remote Desktop-Server konfiguriert. Stellen Sie mit **gnome-con-nections**, **remmina** oder einer anderen Anzeige, die das RDP-Protokoll unterstützt, eine Ver-bindung mit dem System her.

2.5 Fehlerbehebung

Wenn Sie Probleme beim Herstellen der Verbindung mit dem Remote-Desktop-Server haben, befolgen Sie diese Schritte zur Fehlerbehebung.

1. Wenn Sie sich mit GNOME Display Manager verbinden können, aber Probleme haben, sich als Benutzer anzumelden, versuchen Sie, mit **ssh** eine Verbindung herzustellen, um Ihr Benutzerpasswort zu überprüfen.
2. Wenn Sie eine Verbindung mit dem Remote-Desktop-Server herstellen können, GNOME Remote Desktop jedoch die Systemberechtigungsnaehweise für die RDP-Verbindung nicht akzeptiert, haben Sie diese möglicherweise konfiguriert, während der Dienst bereits ausgeführt wurde. Nehmen Sie einen Neustart vor, damit die Änderungen übernommen werden:

```
> sudo systemctl restart gnome-remote-desktop.service
```

3. Wenn die RDP-Systemberechtigungsnaehweise weiterhin nicht akzeptiert werden, setzen Sie sie zurück:

```
> sudo grctl --system rdp clear-credentials  
> sudo grctl --system rdp set-credentials  
> sudo systemctl restart gnome-remote-desktop.service
```

4. Wenn Sie den Remote-Desktop-Server mit Ihrer RDP-Anzeige nicht erreichen können, überprüfen Sie, ob der Gnome Remoted Desktop-Dienst ausgeführt wird:

```
> sudo systemctl status gnome-remote-desktop
```

- Wenn der Dienst nicht ausgeführt wird, starten Sie ihn.

```
> sudo systemctl start gnome-remote-desktop.service
```

- Wenn **systemd** Sie warnt, dass die Konfiguration von **gnome-remote-desktop.service** geändert wurde, lassen Sie **systemd** die Konfiguration neu laden und starten Sie den Dienst neu:

```
> sudo systemctl daemon-reload  
> sudo systemctl restart gnome-remote-desktop.service
```

5. Überprüfen Sie, ob GNOME Display Manager ausgeführt wird:

```
> sudo systemctl status display-manager.service
```

Wenn irgendwelche Warnungen angezeigt werden, starten Sie Display Manager neu:

```
> sudo systemctl restart display-manager.service
```

6. Überprüfen Sie, ob `gnome-remote-desktop` den Standard-RDP-Port 3389 überwacht:

```
> sudo ss -tulnp | grep :3389
```

7. Überprüfen Sie, ob die Firewall-Ports offen sind:

```
> sudo firewall-cmd --query-service=rdp
```

8. Überprüfen Sie, ob der Client den Remote-Desktop-Server erreichen kann.

a. Wenn Sie über den Hostnamen eine Verbindung mit dem Server herstellen, überprüfen Sie, ob dieser vom Client richtig aufgelöst wird:

```
> hostSERVER_HOST_NAME
```


Wenn der Name des Servers nicht aufgelöst wird, versuchen Sie stattdessen, eine Verbindung mit der IP-Adresse herzustellen.

b. Wenn die RDP-Anzeige den Remote-Desktop-Server nicht über die IP erreichen kann, versuchen Sie, den Server anzupingen:

```
> ping -c 5 SERVER_IP
```

Wenn Sie die IP-Adresse anpingen können, versuchen Sie, über die IP-Adresse eine Verbindung mit dem Remote-Desktop-Server herzustellen. Wenn Sie die IP-Adresse nicht anpingen können, überprüfen Sie Ihre Netzwerkeinrichtung.

3 Weitere Informationen

- Weitere Konfigurationsbeispiele sind in der README-Datei von GNOME Remote Desktop beschrieben. Wenn das `gnome-remote-desktop`-Paket installiert ist, befindet sich diese Datei unter `/usr/share/doc/packages/gnome-remote-desktop/README.md`. Sie ist auch online unter <https://github.com/GNOME/gnome-remote-desktop/blob/master/README.md>  verfügbar.
- Eine vollständige Liste der Optionen für `grdctl` finden Sie in `man 1 grdctl`.

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