

Instalando o SUSE Linux Enterprise Server manualmente com o Agama

O QUE É?

Este artigo descreve como instalar o SUSE Linux Enterprise Server com o Agama. As informações apresentadas aqui se aplicam à instalação dos produtos em máquinas tanto virtuais quanto bare metal.

POR QUÊ?

Leia este artigo para entender o processo de instalação do SUSE Linux Enterprise Server com o Agama.

DEDICAÇÃO

A leitura deste artigo pode levar 15 minutos.

META

Saber como instalar manualmente o SUSE Linux Enterprise Server com o Agama.

REQUISITOS

- Um servidor bare metal ou uma máquina virtual. Para instalações de servidor sem nenhum ambiente de área de trabalho, a SUSE recomenda um mínimo de 1 CPU, 2 GB de memória e 32 GB de

armazenamento (que inclui armazenamento para instantâneos Btrfs na partição raiz, espaço de troca (swap) e armazenamento para pacotes de software).

- Um código de registro ativo para o produto que você deseja instalar. Você pode gerar um código de registro para o produto e ativar sua assinatura em sua organização no SUSE Customer Center.



Nota: Registro opcional

Algumas imagens assinadas com a chave do desenvolvedor podem permitir que você ignore o registro antes ou durante a instalação. Além disso, determinadas imagens podem conter todos os pacotes instaláveis para o seu sistema operacional, que você pode usar como um repositório de pacotes offline. Nesses casos, talvez não seja necessário um código de registro ativo antes da instalação. No entanto, se você usa pacotes de software dos repositórios online oficiais, a SUSE recomenda o registro do produto no SUSE Customer Center.

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1 Introdução ao Agama

Esta seção apresenta uma breve visão geral do Agama, o instalador padrão do SUSE Linux Enterprise Server 16.0 e versões mais recentes.

1.1 O que é o Agama?

O Agama é um instalador de código aberto flexível e avançado desenvolvido pela SUSE. Você pode usá-lo para realizar a instalação manual ou automatizada das versões suportadas do SUSE Linux Enterprise Server em uma variedade de arquiteturas de máquina. O método de instalação baseado no Agama oferece uma interface intuitiva para imagens *prontas para uso* em diferentes casos de uso e cargas de trabalho. Em combinação com o Cockpit e o Ansible, ele substitui o YaST no SUSE Linux Enterprise Server.

2 Instalando o SUSE Linux Enterprise Server com o Agama

Esta seção descreve como instalar o SUSE Linux Enterprise Server usando o arquivo de imagem ISO baseado no Agama.

2.1 Introdução

As seções a seguir descrevem o procedimento de instalação manual do SUSE Linux Enterprise Server baseado no Agama. As informações se aplicam à instalação em máquinas tanto virtuais quanto bare metal.

2.2 Requisitos

- Um arquivo de imagem ISO baseado no Agama para versões suportadas do SUSE Linux Enterprise Server. Você pode fazer download dele do SUSE Customer Center e verificar o checksum para garantir a integridade.



Nota: Imagens disponíveis para produtos

A imagem de instalação baseada no Agama está disponível para o SUSE Linux Enterprise Server 16.0 e versões mais recentes.

2.3 Instalando manualmente o SUSE Linux Enterprise Server para s390x com o Agama

Para instalar manualmente o SUSE Linux Enterprise Server com o Agama, siga as etapas abaixo:

PROCEDIMENTO 1: INSTALAÇÃO MANUAL DO SUSE LINUX ENTERPRISE COM O AGAMA

1. Faça download e monte o `SLES-Online-16.0-s390x-Beta2.install.iso`:

```
> sudo mount -o loop SLES-Online-16.0-s390x-Beta2.install.iso ./install/agama/
```

2. (Opcional) Para instalação em um ambiente air-gapped ou sem registro, faça download e monte o `SLES-16.0-s390x-Beta2.install.iso`.

```
> sudo mount -o loop SLES-16.0-s390x-Beta2.install.iso ./install/agama-offline/
install/
```

3. Use o seguinte parmfile para iniciar a instalação:

EXEMPLO 1: PARMFILE DE EXEMPLO

```
root=live:ftp://192.168.3.105/install/LiveOS/squashfs.img ❶
ip=192.168.3.100 ❷ :: 192.168.3.254:24 ❸ :SLE16-Beta2:enc800:none
rd.zdev=qeth,0.0.0800:0.0.0801:0.0.0802,layer2=1,portno=0
cio_ignore=all,!condev,!0.0.0160 nameserver=192.168.1.116 ❹
live.password=linux ❺ rd.zdev=dasd,0.0.0160
```

Ajuste o parmfile de maneira apropriada.

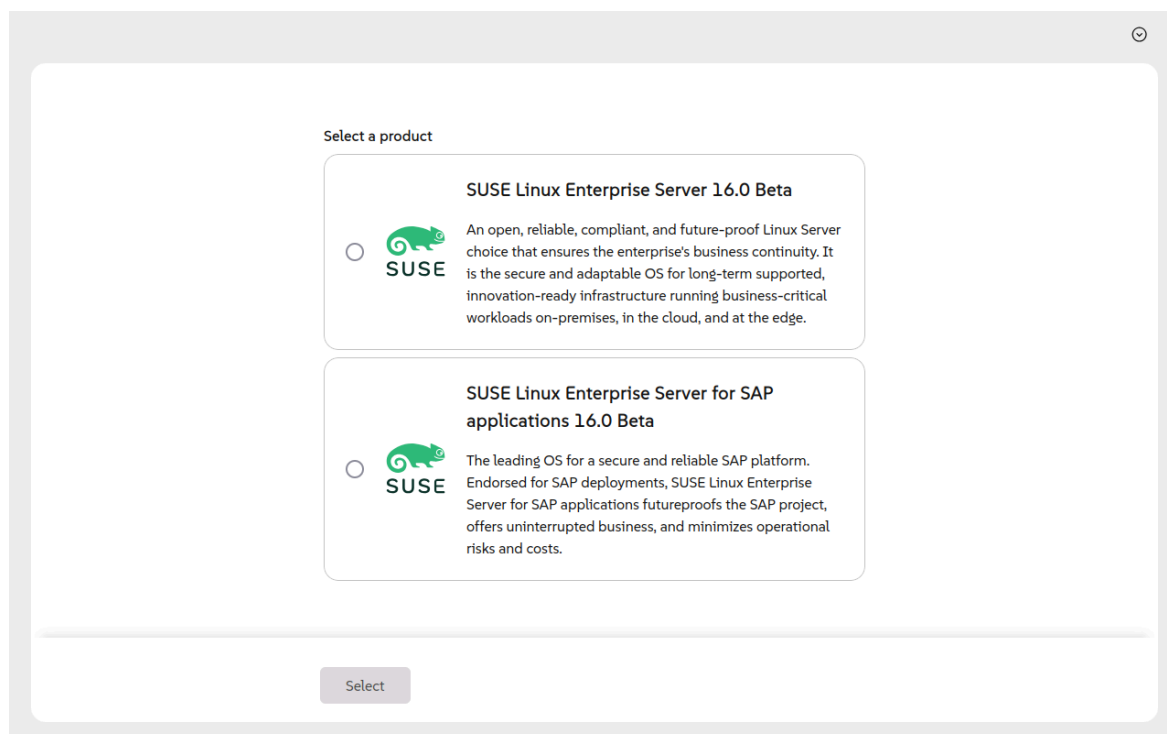
- ❶ URI da ISO do instalador montada no *Passo 1*.
- ❷ Endereço IP do sistema que será instalado. Se você não definir um endereço, ele será atribuído com DHCP e exibido no console após a inicialização. Como o console é difícil de ler no `x3270`, recomenda-se configurar a rede no parmfile.
- ❸ Endereço IP do gateway para o sistema.
- ❹ Endereço IP do servidor DNS para o sistema.
- ❺

5. Senha do administrador do sistema root. Se você não definir uma senha, uma senha aleatória será gerada e exibida no console após a inicialização. Como o console é difícil de ler no x3270, recomenda-se definir uma senha de usuário root no parmfile.
4. (Opcional) Para instalação em um ambiente air-gapped ou sem registro, adicione o parâmetro agama.install_url ao parmfile para instalar do SLES-16.0-s390x-Beta2.install.iso montado no *Passo 2*:

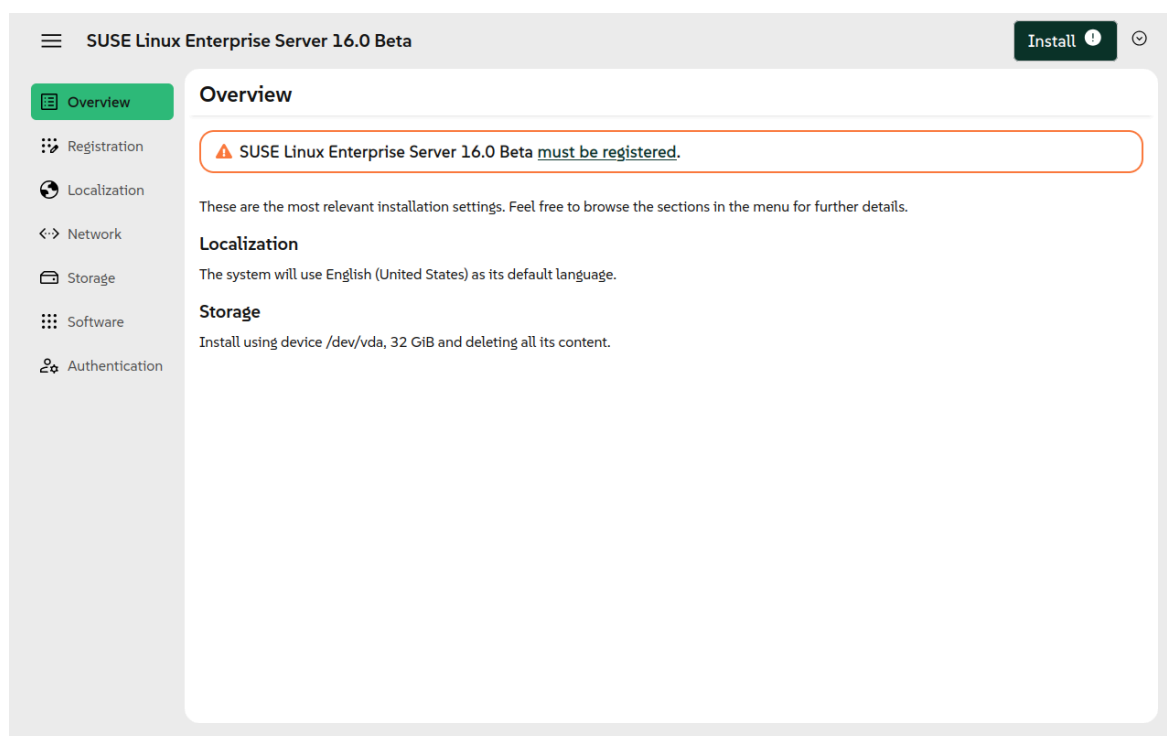
EXEMPLO 2: PARMFILE DE EXEMPLO PARA INSTALAÇÃO EM AMBIENTE AIR-GAPPED

```
root=live:ftp://192.168.3.105/install/LiveOS/squashfs.img
agama.install_url=ftp://192.168.3.105/install/agama-offline/install
ip=192.168.3.100::192.168.3.254:24:SLE16-Beta2:enc800:none
rd.zdev=qeth,0.0.0800:0.0.0801:0.0.0802,layer2=1,portno=0
cio_ignore=all,!condev,!0.0.0160 nameserver=10.144.53.53
live.password=linux rd.zdev=dasd,0.0.0160
```

5. Abra um navegador da Web apontando para o endereço IP fornecido no parmfile. Insira a senha de usuário root e prossiga com a instalação.
6. Selecione o SUSE Linux Enterprise Server 16.0 para instalação e aceite a licença para continuar.



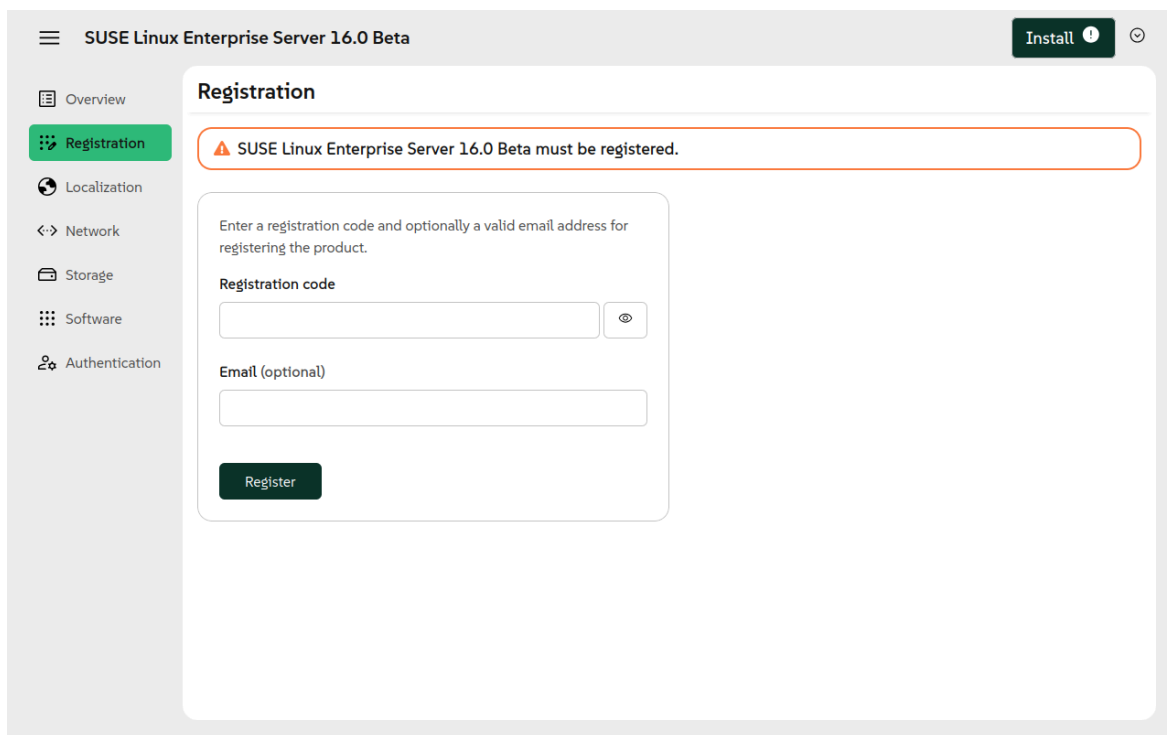
7. A visão geral aparece com as configurações de instalação mais relevantes. Ajuste as configurações selecionando a categoria no menu à esquerda ou prossiga diretamente com a instalação.



Dica: Idioma do instalador e teclado

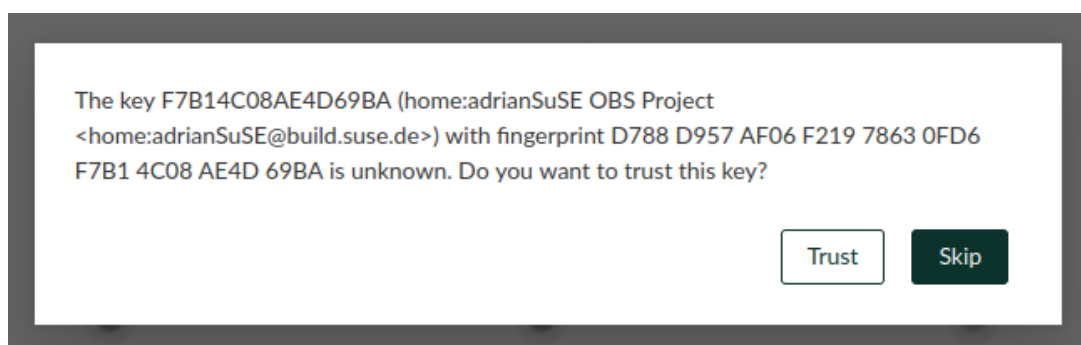
Clique no menu de seta no canto superior direito e selecione *Opções do instalador* para alterar o idioma e o mapa do teclado usados pelo instalador. É possível alterar o idioma apenas em instalações locais. Se você usa um navegador da Web para instalação remota, defina o idioma do conteúdo de sua preferência nas configurações do navegador e recarregue o instalador.

8. Registre seu produto. Insira um código de registro e, opcionalmente, um endereço de e-mail válido.



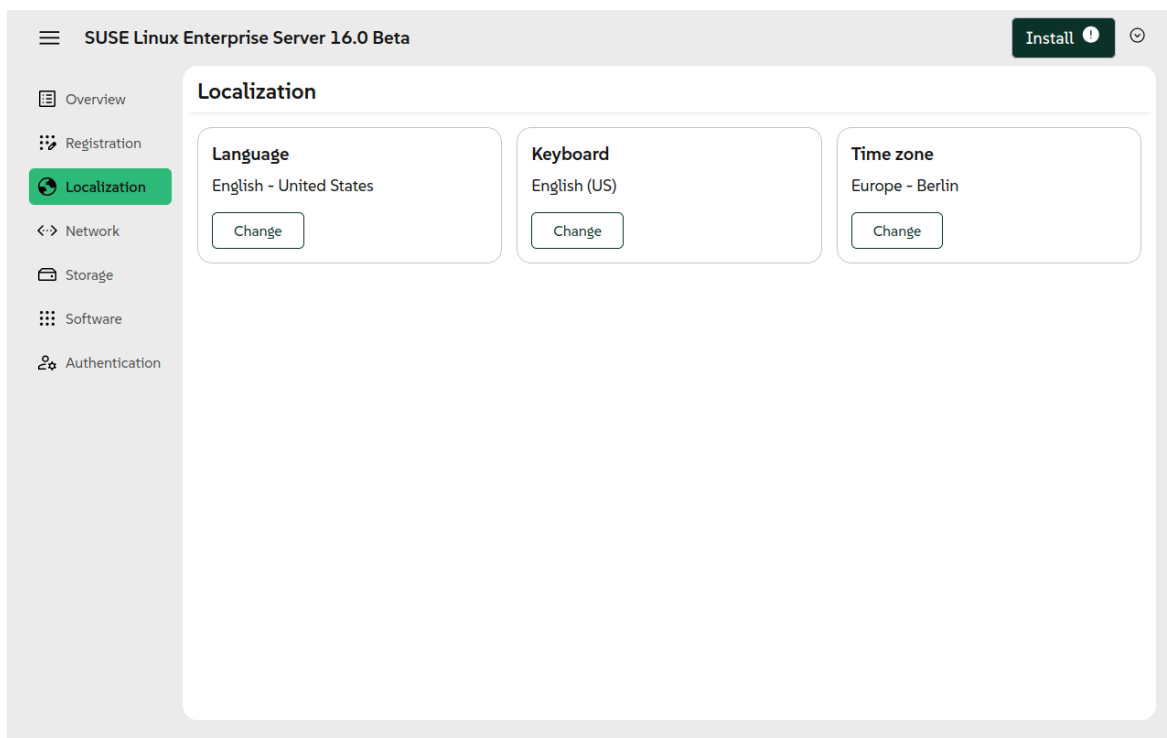
 **Nota: Registro opcional para imagens assinadas com a chave do desenvolvedor**

As imagens assinadas com a chave do desenvolvedor podem permitir que você ignore o registro antes da instalação. Se a imagem do seu produto suportar a instalação sem registro, você poderá ver uma janela popup semelhante a esta:

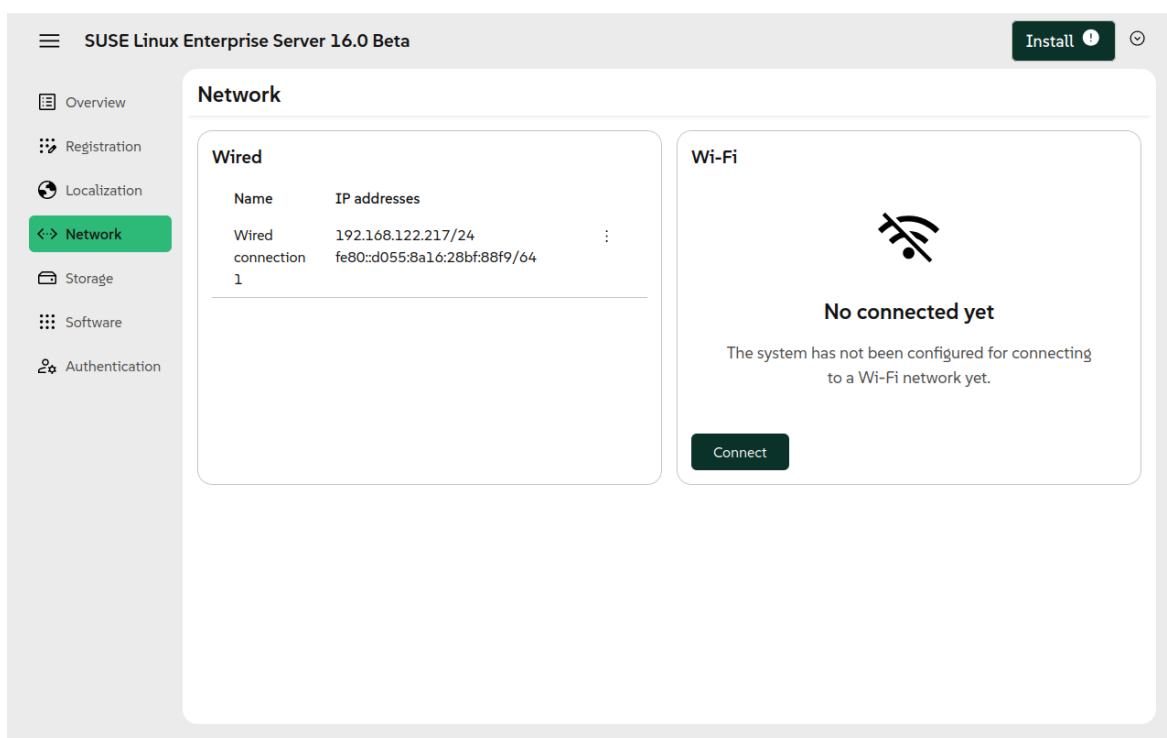


Para instalar sem registro, selecione *Trust* (Confiar) na janela popup.

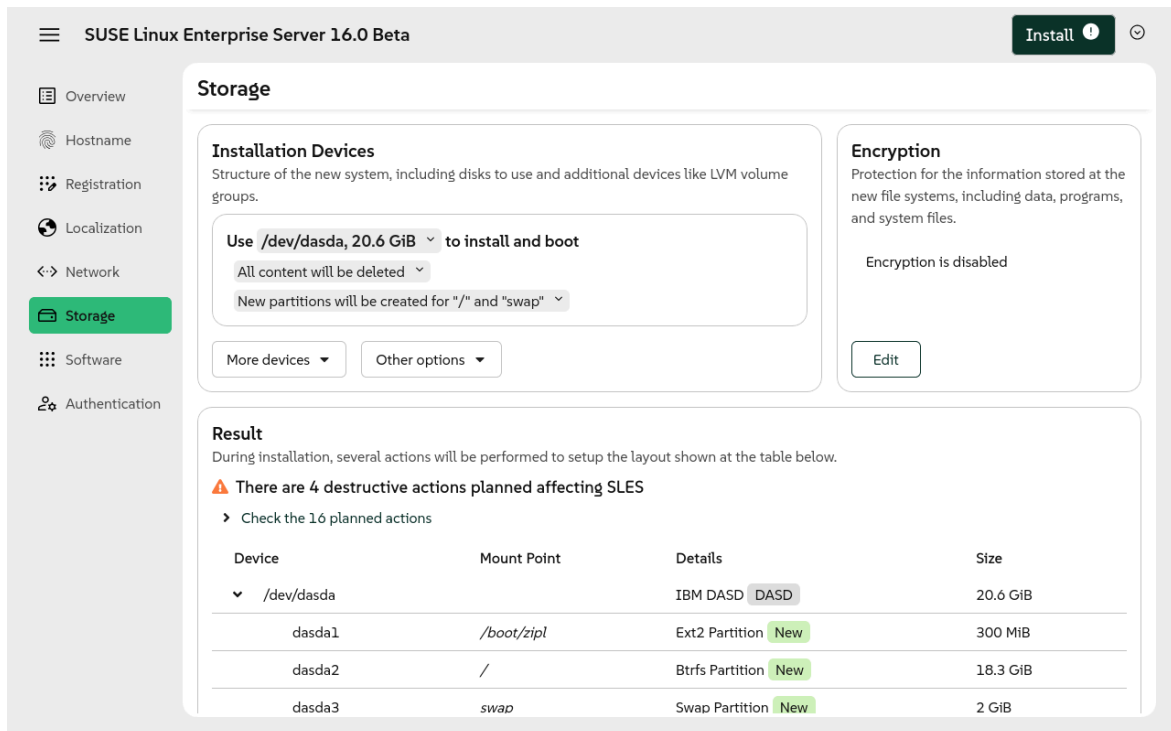
9. (Opcional) Ajuste as configurações de localização, como idioma, mapa do teclado e fuso horário.



10. (Optional) Defina as configurações de rede. Para editar uma conexão de rede existente, clique nos três pontos.



11. Selecione um dispositivo de armazenamento para instalação.



The screenshot displays the 'Storage' configuration page in the SUSE Linux Enterprise Server 16.0 Beta installer. The left sidebar contains navigation options: Overview, Hostname, Registration, Localization, Network, Storage (highlighted), Software, and Authentication. The main content area is titled 'Storage' and includes an 'Install' button in the top right corner.

Installation Devices
Structure of the new system, including disks to use and additional devices like LVM volume groups.

Use `/dev/dasda, 20.6 GiB` to install and boot
All content will be deleted
New partitions will be created for "/" and "swap"

More devices | Other options

Encryption
Protection for the information stored at the new file systems, including data, programs, and system files.
Encryption is disabled
Edit

Result
During installation, several actions will be performed to setup the layout shown at the table below.

⚠ There are 4 destructive actions planned affecting SLES
▶ Check the 16 planned actions

Device	Mount Point	Details	Size
▼ /dev/dasda		IBM DASD DASD	20.6 GiB
dasda1	/boot/zipl	Ext2 Partition New	300 MiB
dasda2	/	Btrfs Partition New	18.3 GiB
dasda3	swap	Swap Partition New	2 GiB

Atualmente, há suporte para instalações em discos únicos ou gerenciamento de volumes lógicos. Para mudar o disco ou usar o gerenciamento de volumes lógicos, clique no botão *More devices* (Mais dispositivos) do nome do dispositivo na seção *Installation devices* (Dispositivos de instalação).

Para usar dispositivos DASD, iSCSI ou zFCP, você precisa configurá-los primeiro. Clique em *Other options* (Outras opções) e selecione a tecnologia desejada. As opções DASD e zFCP estarão disponíveis apenas com os dispositivos correspondentes anexados.

Para ativar um disco DASD, selecione-o na lista e clique em *Perform an action > Activate* (Executar uma ação > Ativar). Assim que o disco for ativado, você poderá selecioná-lo para instalação na tela anterior.

Para ativar um disco zFCP, selecione-o na lista e clique no menu de três pontos para ativá-lo.

Para detectar um disco iSCSI, selecione o iniciador iSCSI e clique em *Discover iSCSI targets* (Descobrir destinos iSCSI).

Por padrão, os sistemas de arquivos serão alocados como novas partições no dispositivo selecionado. Você pode alterar esse comportamento na lista suspensa chamada *All content will be deleted* (Todo o conteúdo será excluído) na seção *Installatin devices* (Dispositivos de instalação). As seguintes políticas de espaço estão disponíveis:

POLÍTICAS DE ESPAÇO

Excluir conteúdo atual

Todas as partições serão removidas, e todos os dados nos discos serão perdidos.

Diminuir partições existentes

Os dados são mantidos, mas as partições atuais serão reduzidas conforme necessário.

Utilize o espaço disponível

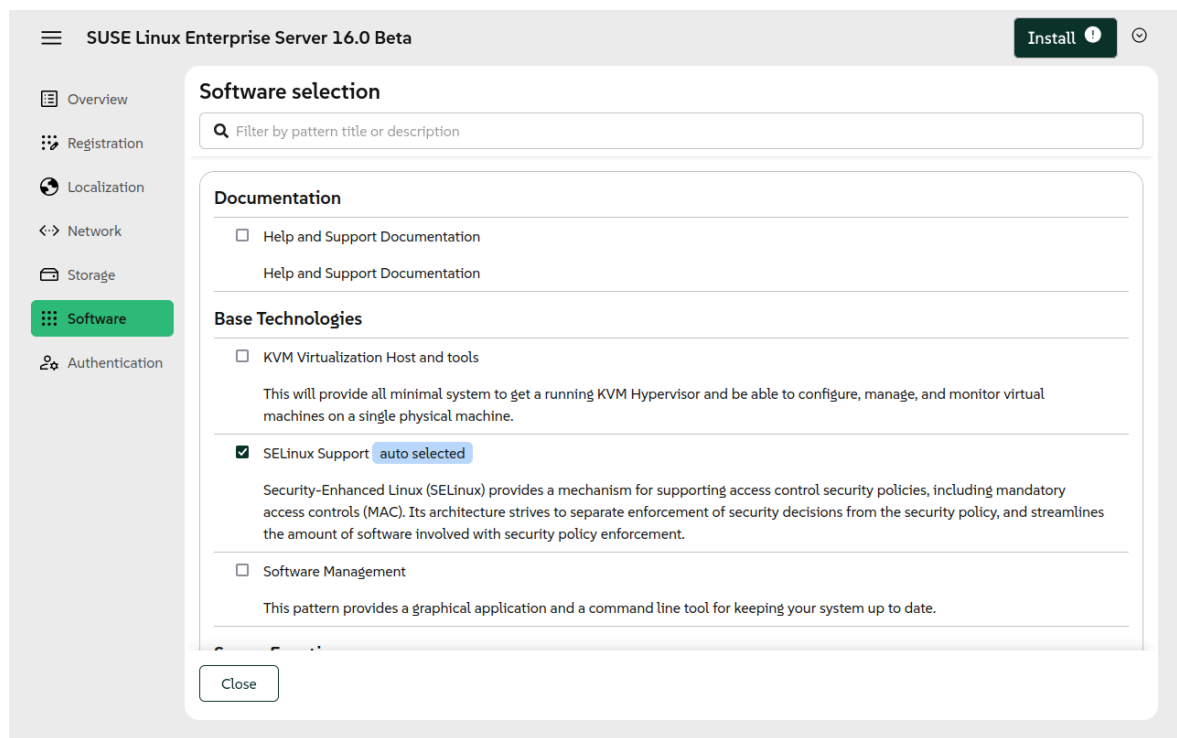
Os dados são mantidos. Apenas o espaço não atribuído a nenhuma partição será usado.

Personalizado

Selecione o que fazer com cada partição.

Para editar partições individuais, expanda a seção *Partições e sistemas de arquivos* clicando em **>**. Se preferir, configure instantâneos Btrfs, opções de boot e habilite a criptografia completa de disco (FDE, Full Disk Encryption).

12. *(Opcional)* Adicione outro software para instalação, como o hipervisor KVM ou o serviço de gerenciamento de sistema Cockpit.



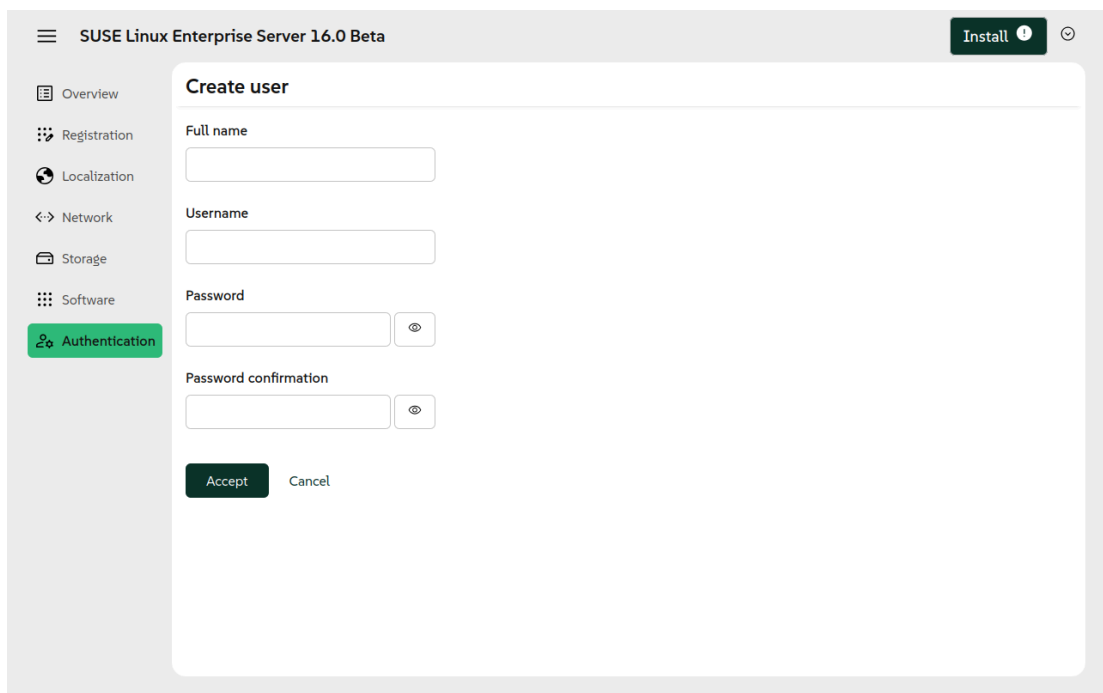
13. Defina as configurações de autenticação.



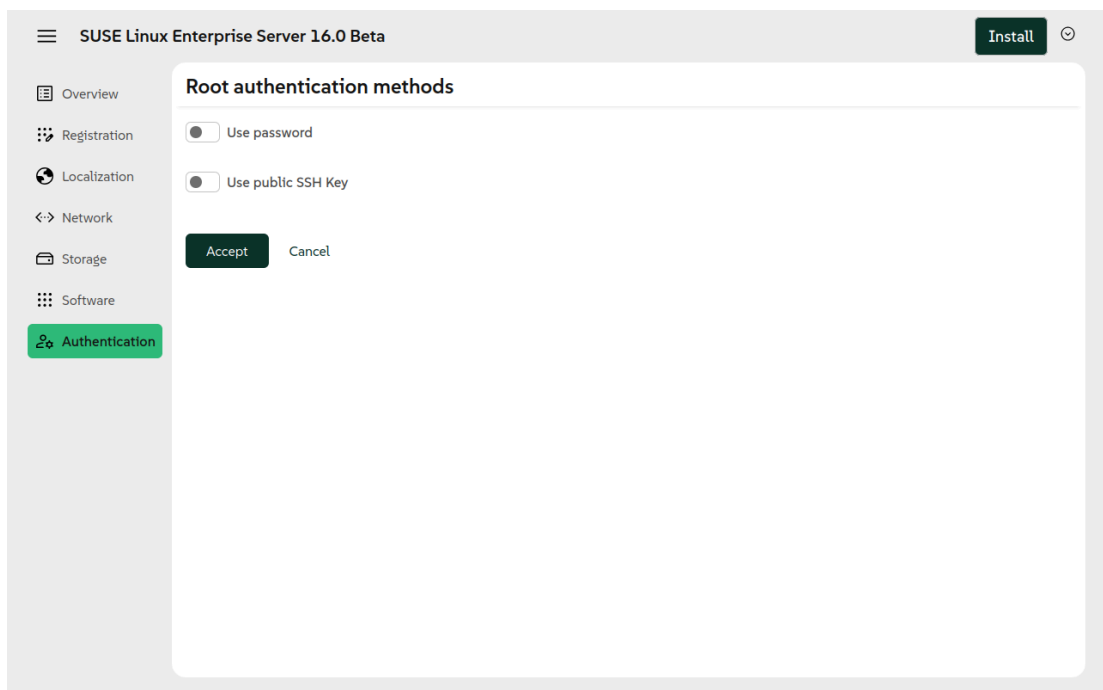
Importante: Sem acesso SSH de root

Por padrão, o acesso SSH para root está desabilitado. Portanto, é altamente recomendado criar um usuário do sistema. O primeiro usuário do sistema recebe automaticamente os privilégios de sudo e também pode ser usado para acessar o Cockpit.

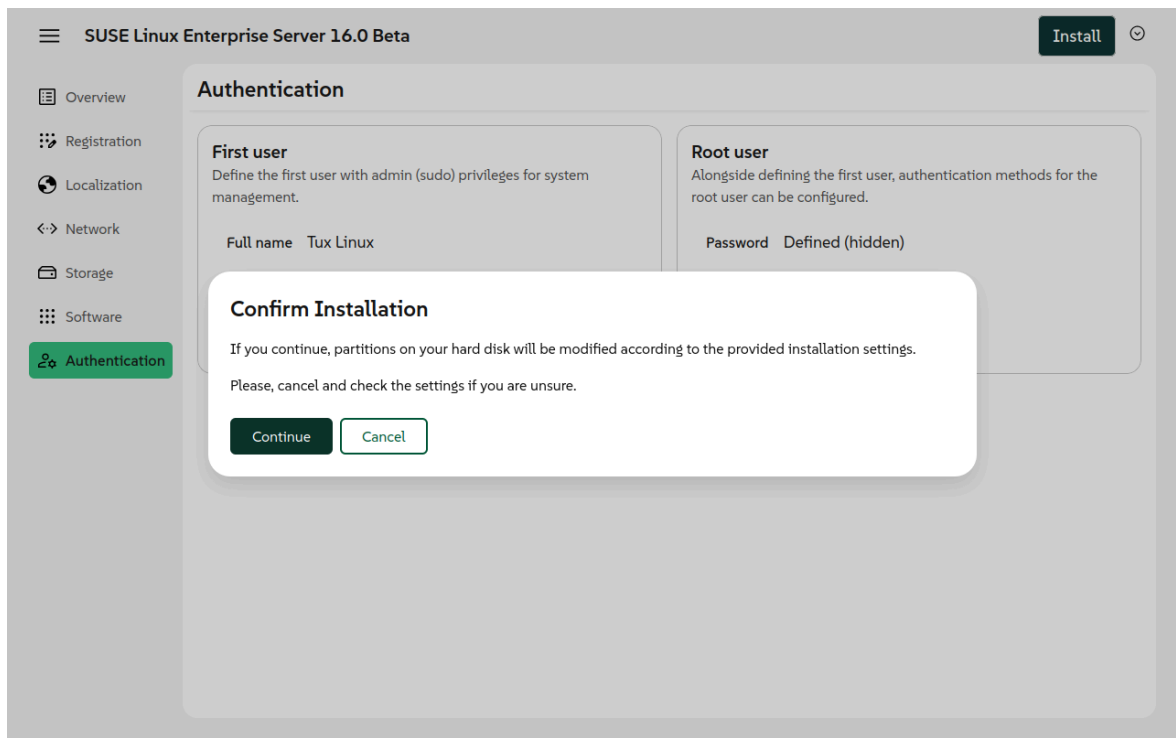
- a. Crie um usuário não root. Clique em *Define a user now* (Defina um usuário agora) e insira os detalhes, como nome de usuário e senha.



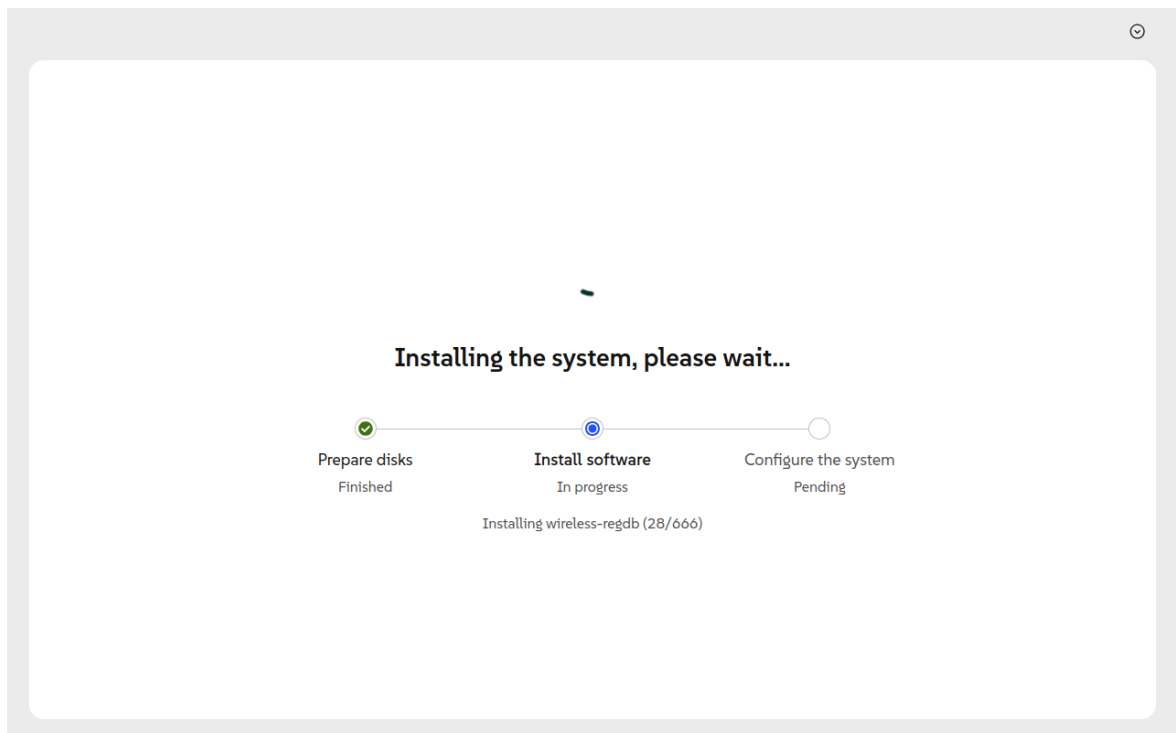
- b. Configure os métodos de autenticação para o usuário root. Você pode usar uma senha segura, uma chave pública SSH ou as duas opções.



14. Clique em *Install* (Instalar) e confirme para iniciar a instalação.



15. Aguarde a conclusão da instalação do sistema. A instalação leva cerca de 30 minutos para ser concluída.

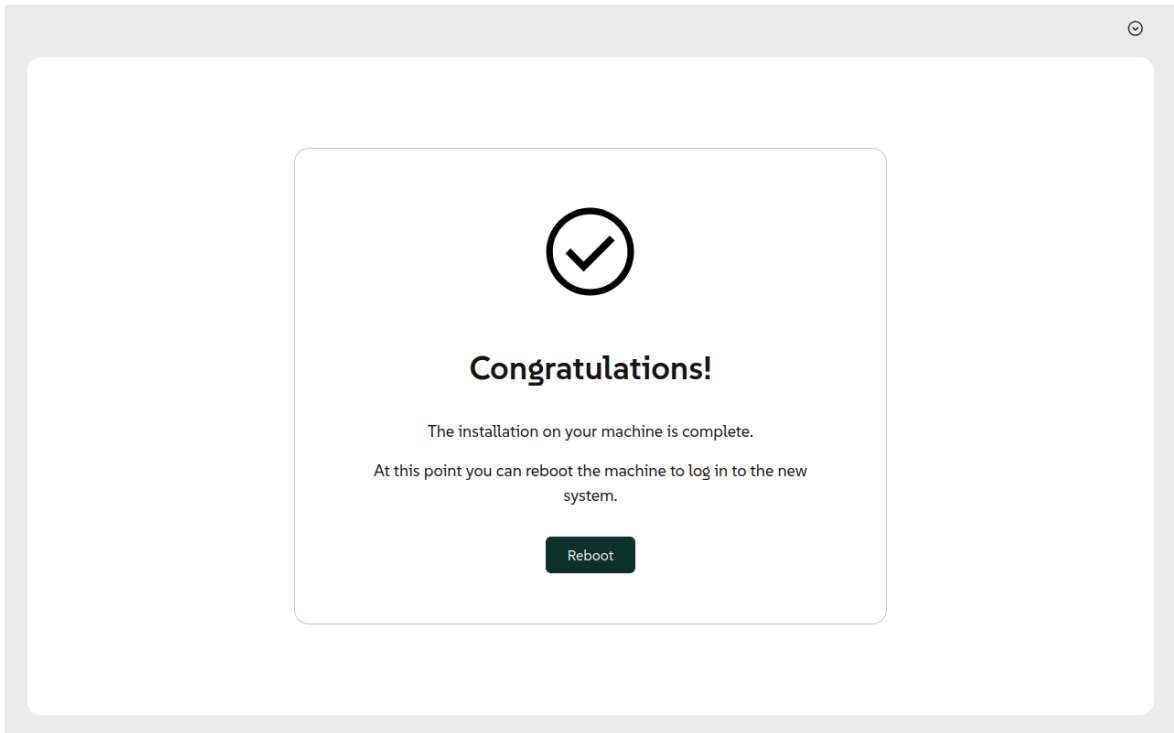




Dica: Registros de instalação

Você pode usar o menu de seta no canto superior direito da janela para ver os registros e as mensagens do sistema.

16. Quando a instalação for concluída, selecione *Reboot* (Reinicializar).



2.4 Resumo

Após as verificações de configuração, o registro do produto, a instalação e a reinicialização bem-sucedidos, verifique se você pode fazer login e usar o sistema.

PROCEDIMENTO 2: VERIFICANDO O SISTEMA APÓS A INSTALAÇÃO

1. Faça login no sistema como usuário root.

```
Welcome to SUSE Linux Enterprise Server 16.0 Alpha3 (x86_64) – Kernel 6.4.0-sifo.1.8-default (tty1).

SSH host key: SHA256:bUpdqEfAYuoIgbMY0s70qIdMEHHC/eKikm7cL3kwCMA (RSA)
SSH host key: SHA256:L5PQdXeaN9edpLw0z29LWxCNKe26EWWWtNFopxMgn3U (ECDSA)
SSH host key: SHA256:CKA9BVCHu5jKhECTUSyBGQRyDQQMReyIfUIOR/nDsXY (ED25519)
enp1s0: 192.168.122.40 fe80::a486:c31a:e64:6c0c

Hint: Num Lock on

localhost login: root
Password: _
```

2. Para verificar se o sistema está funcionando como esperado, execute alguns comandos básicos.

```
Welcome to SUSE Linux Enterprise Server 16.0 Alpha3 (x86_64) – Kernel 6.4.0-sifo.1.8-default (tty1).

SSH host key: SHA256:bUpdqEfAYuoIgbMY0s70qIdMEHHC/eKikm7cL3kwCMA (RSA)
SSH host key: SHA256:L5PQdXeaN9edpLw0z29LWxCNKe26EWWWtNFopxMgn3U (ECDSA)
SSH host key: SHA256:CKA9BVCHu5jKhECTUSyBGQRyDQQMReyIfUIOR/nDsXY (ED25519)
enp1s0: 192.168.122.40 fe80::a486:c31a:e64:6c0c

Hint: Num Lock on

localhost login: root
Password:
Have a lot of fun...
localhost:~ # whoami
root
localhost:~ # pwd
/root
localhost:~ #
```

3 Para obter mais informações

Para obter informações sobre tópicos relacionados, consulte os seguintes recursos:

- Documentação do projeto de código aberto Agama: <https://agama-project.github.io/docs> ↗
- Documentação da IBM para distribuições SUSE: <https://www.ibm.com/docs/en/linux-on-systems?topic=distributions-suse-linux-enterprise-server>

4 Informações legais

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