The purpose of the GUI:

This Graphical User Interface helps the user describe the private cloud system he aspires. The GUI helps the User specify the Hardware specs, Storage (SAS) specs, Servers, Partitioning, Raid systems, and more. It also could provide some templates to suggest from your previous work.

How to Enter your specifications into the System using GUI

1. First download the GUI and all the packages
2. Open the GUI to find two options, choose from Templates or Customized Templates, then Next

Graphical user interface, text, application, Teams

Description automatically generated

1. You can either choose from a Template like that.

Graphical user interface, text, application, email

Description automatically generated

1. Choose the appropriate Template and there is an option to connect via connection Server, then Finish.
2. In the case of using the customized Template, you are going to put the specifications in the required system.
3. Start by putting the Manager Server info and choose to connect via connection Server, then Next.

Graphical user interface, application

Description automatically generated

1. Choose The hardware specs and choose Add Server to add a new server and Refresh to see the current added Servers, then Next

Graphical user interface, application

Description automatically generated

1. In the SAS section you should put all the information related to the storage devices, you have 2 options to choose from Template or Redirection and put the name of the file to save the configuration of the redirection.

Graphical user interface, application

Description automatically generated

1. Select some Servers from the list by checking them, and Choose their Type then click on Specify.

Graphical user interface, application

Description automatically generated

1. Choose some Servers and Choose the type of OS you want to install on, then Next.

Graphical user interface

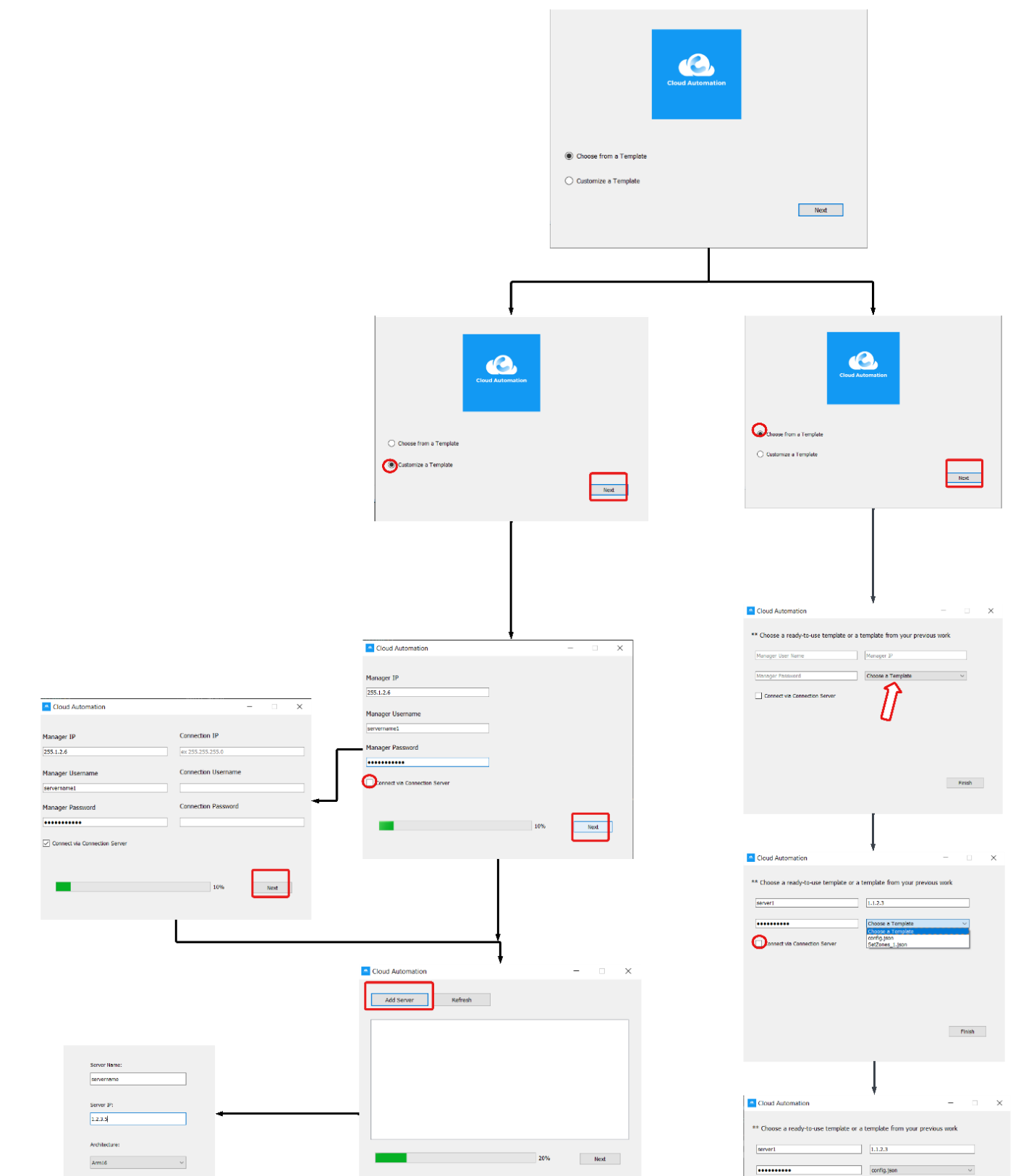
Description automatically generated

1. Then you will choose Partitioning and optionally choose Raid.

Graphical user interface, application, Word

Description automatically generated

GUI User Interactions Diagram



A screenshot of a computer

Description automatically generated with medium confidence

A screenshot of a computer

Description automatically generated with medium confidence

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Using GUI to make a System ready

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First, download the GUI and all the packages

\par

Open the GUI to find two options, choose from Templates or Customized Templates, then Next

\begin{figure} [ht]

\centering

\includegraphics[width=10cm]{figures/GUI/image1.png}

\caption{Welcome Window}

\label{fig:gui1}

\end{figure}

\par You can either choose from a Template like that.

\begin{figure}[ht]

\centering

\includegraphics[width=10cm]{figures/GUI/image2.png}

\caption{User Inputs Server Manager Credentials and, in case of Connecting via a Connection Server, Connection Server Credentials}

\label{fig:gui2}

\end{figure}

\par Choose the appropriate Template and there is an option to connect via the connection Server, then Finish.

\par In the case of using the customized Template, you are going to put the specifications in the required system.

\par Start by putting the Manager Server info and choose to connect via connection Server, then Next.

\begin{figure}[ht]

\centering

\includegraphics[width=10cm]{figures/GUI/image3.png}

\caption{\textit{ }}

\label{fig: gui}

\end{figure}

\par Choose The hardware specs and choose Add Server to add a new server and Refresh to see the current added Servers, then Next

\begin{figure}[ht]

\centering

\includegraphics[width=10cm]{figures/GUI/image4.png}

\caption{\textit{ }}

\label{fig: gui}

\end{figure}

\par In the SAS section you should put all the information related to the storage devices, you have 2 options to choose from Template or Redirection and put the name of the file to save the configuration of the redirection.

\begin{figure}[ht]

\centering

\includegraphics[width=10cm]{figures/GUI/image5.png}

\caption{\textit{ }}

\label{fig: gui}

\end{figure}

\par

Select some Servers from the list by checking them, and choose their Type then click on Specify.

\par

\begin{figure}[ht]

\centering

\includegraphics[]{figures/GUI/image6.png}

\caption{\textit{ }}

\label{fig: gui}

\end{figure}

\par

Choose some Servers and Choose the type of OS you want to install on, then Next.

\par

\begin{figure}[ht]

\centering

\includegraphics[]{figures/GUI/image7.png}

\caption{\textit{ }}

\label{fig: gui}

\end{figure}

\par

Then you will choose Partitioning and optionally choose Raid.

\par

\begin{figure}[ht]

\centering

\includegraphics[width=10cm]{figures/GUI/image8.png}

\caption{\textit{ }}

\label{fig: gui}

\end{figure}

@misc{private\_cloud,

title = {Implementing a cloud-based decision support system in a private cloud: The infrastructure and the deployment process, International Journal of Decision Support System Technology},

author = {Benatia I. et al. (2016)},

howpublished = {\url{https://www.igi-global.com/article/implementing-a-cloud-based-decision-support-system-in-a-private-cloud/148625}},

note = {Accessed: February 12, 2023}

}

@misc{HPC,

title = {GPU cluster for high performance computing},

howpublished ={\url{https://ieeexplore.ieee.org/abstract/document/1392977}},

author = {IEEE conference},

note = {Accessed: February 12, 2023}

}

@misc{gpu,

title = {GPU},

howpublished ={\url{https://ieeexplore.ieee.org/document/6650978}},

author = {IEEE conference},

note = {Accessed: February 12, 2023}

}

@misc{fai\_inst,

title = {CentOS and Scientific Linux Cern Installation with FAI},

howpublished = {\url{https://lists.uni-koeln.de/pipermail/linux-fai/2011-September/009243.html}},

note = {Accessed: 2022-07-17}

}

@misc{ks,

title = {Installing Linux OS over network in area of using Kickstart},

author = {Benatia, I. et al. (2016)},

howpublished = {\url{https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=4089437}},

note = {Accessed: February 12, 2023}

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