identv™

11/13/2017

SUNet Server Access

v1.3

Technical Documentation Team
IDENTV, LLC

SUNet Server Access

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2. Revision History

Date	Revision	Author	Document Changes
11/06/2017	1.0	Stephen	Revision 1.0

Table 1: Revision History

3. Approvals

Role	Name	Title	Signature	Date
Project Sponsor:	ECS			
Project Manager:	Nikki	Project Manager		
System Engineer:	Erick Wipprecht			
Development Lead:				
User Experience				
Quality Lead:				
Content Lead:	Stephen Mitchell	Sr. Technical	SWM	11/13/2017

Table 2: Approvals

4. Points of Contact

Name	Title	Email	Contact Number
Erick Wipprecht	Sr. System	erick@identv.com	

Table 3: Points of Contact

4.1. Help Desk

In the event of a question about the operation of the systems, users should contact the office of Nikki Maquindang at (702) 460-5622, or via email nikki@identv.com

5. Acronyms and Abbreviations Used in this Document

Term	Definition
GPU	Graphical Processing Unit. A programmable logic chip (processor) specialized for display functions.
Jump Server	A jump server or jump host or jumpbox or secure administrative host is a (special-purpose) computer on a network typically used to manage devices in a separate security zone. The most common example is managing a host in a DMZ from trusted networks or computers.
RDP	Remote Desktop Protocol (RDP) is a proprietary protocol, which provides a user with a graphical interface to connect to another computer over a network connection.
SSH	Also known as Secure Socket Shell, is a network protocol that provides administrators with a secure way to access a remote computer. SSH also refers to the suite of utilities that implement the protocol.
SIPRNet	Secret Internet Protocol Router Network.
VPN	A virtual private network (VPN) is a network that is constructed using public wires — usually the Internet — to connect remote users or regional offices to a company's private, internal network.
X11 forwarding	X11 forwarding is a special case of remote tunneling.
XFCE4	XFCE4 is a free and open-source desktop environment for Unix and Unix-like operating systems, such as Xubuntu.
XRDP	XRDP is an open source remote desktop protocol (RDP) server.

Table 4: Acronyms and Abbreviations

6. Server Addresses

Server	Address
Jump Server:	192.168.100.102
GPU Node 1:	192.168.53.11
GPU Node 2:	192.168.53.12
GPU Node 3:	192.168.53.13
GPU Node 4:	192.168.53.14
GPU Node 5:	192.168.53.15
GPU Node 6:	192.168.53.16
Data Node	192.168.53.101

Table 5: Server Addresses

7. Accessing Servers via Firefox

The first step in accessing the servers in SUNet is to access https://www.761link.net/gpu-i using Firefox (that is the recommended browser – others may work but are unsupported). After logging in you should see a list of servers on the right side of the page. This list appears to be populated manually by ECS, and not all servers that have been provisioned may be listed there. The JumpBox server is, however, an easy way to access all provisioned servers. The **RDP JumpBox** link presents an **X11** desktop interface while the **SSH** link presents a shell session. Both of these connect to the same server.

After logging into the jump server, you should be able to SSH to the other servers in the environment (addresses are listed at the top of this document). X11 forwarding has been configured on the Jump Server so if you connect to the RDP instance you should be able to open a terminal window, SSH to the server relevant server, and display X11 applications on the other servers via **SSH** tunneled **X11** forwarding.

8. Pulse Secure Client

The Pulse Secure **VPN** client can also be used to connect to the **SUNet** environment. Direct access to the grid servers is not available – only the jump server can be accessed. Once on the Jump Server, however, you can connect to the grid servers. Connecting via this method will allow **X11** applications on the grid servers to be displayed on your desktop via **SSH** tunneling. Desktop applications will not be able to directly connect to the grid servers, however configuring an **SSH** port forward may allow functional connections to be established. Instruction on port forwarding can be found here and here.

9. GPU Desktop Access

XRDP and XFCE4 are installed on all GPU servers. You'll need to connect to a desktop session on the Jump Server first as there is no direct access to the GPU servers from a VPN connection; that can be done either via the HTML5 client from a browser VPN connection or using a local RDP client when connecting using the Pulse VPN client:

10. Remote Desktop Viewer

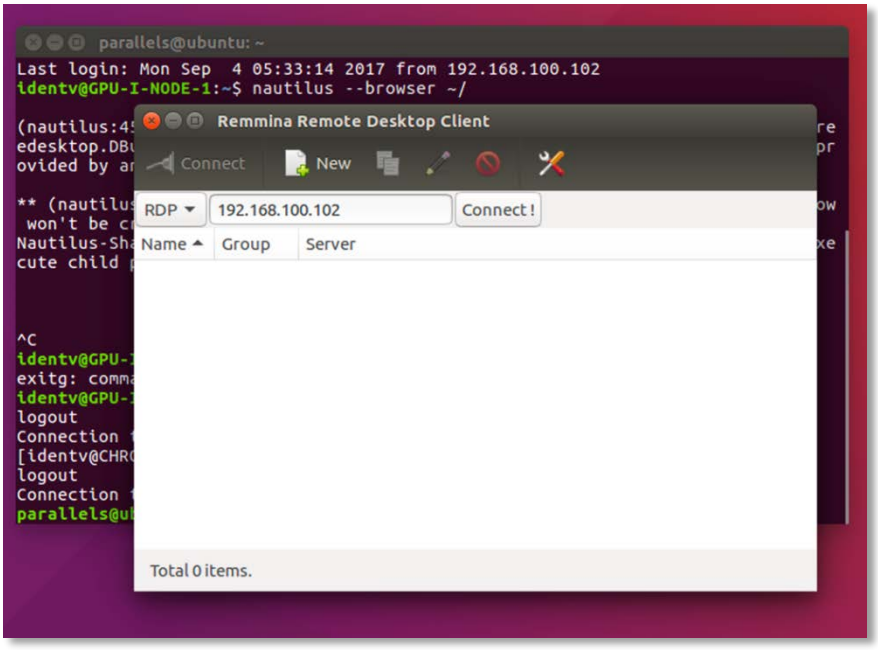

Figure 1: 11: Remote Desktop Viewer

Once you've got a desktop session on the Jump Server you should be able to connect to the GPUs using the **Remote Desktop Viewer** application:

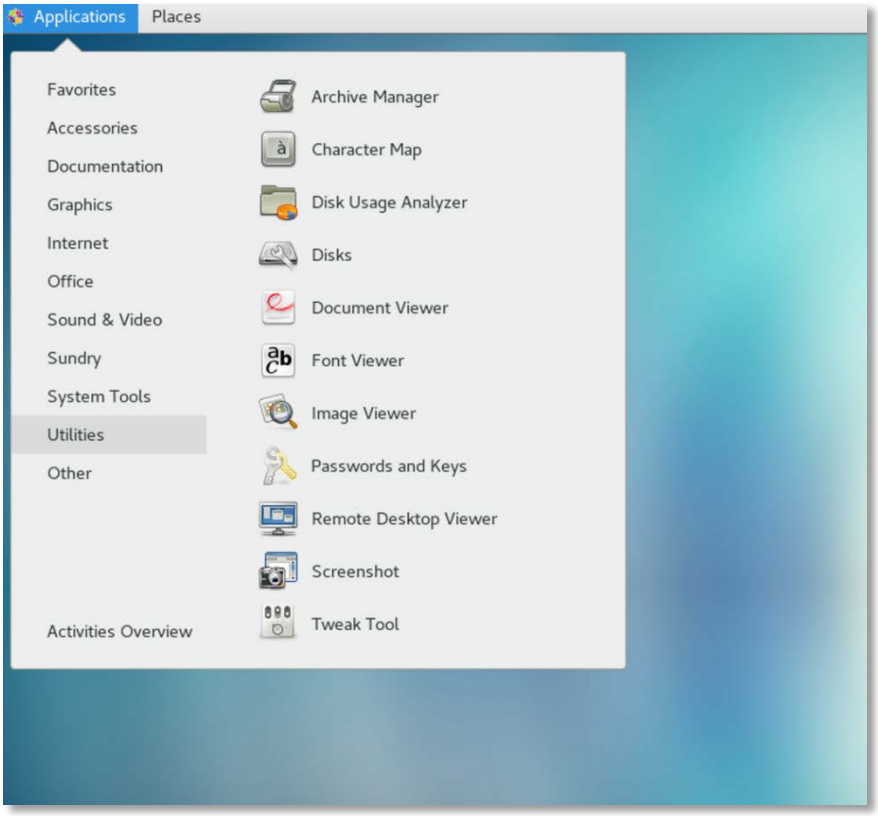

Figure 2: Access

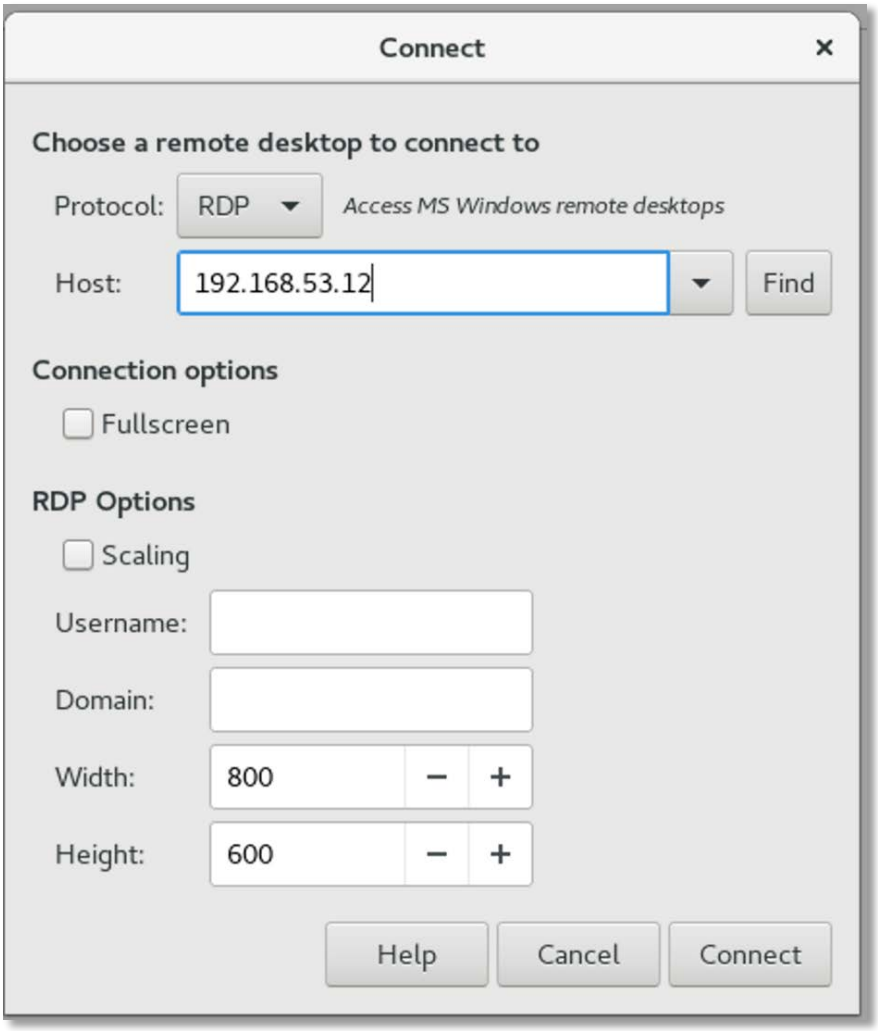

Figure 3: Access

Multiple users can connect to the same GPU server, but only one session per user is allowed.

Always remember to log out when ending your session.

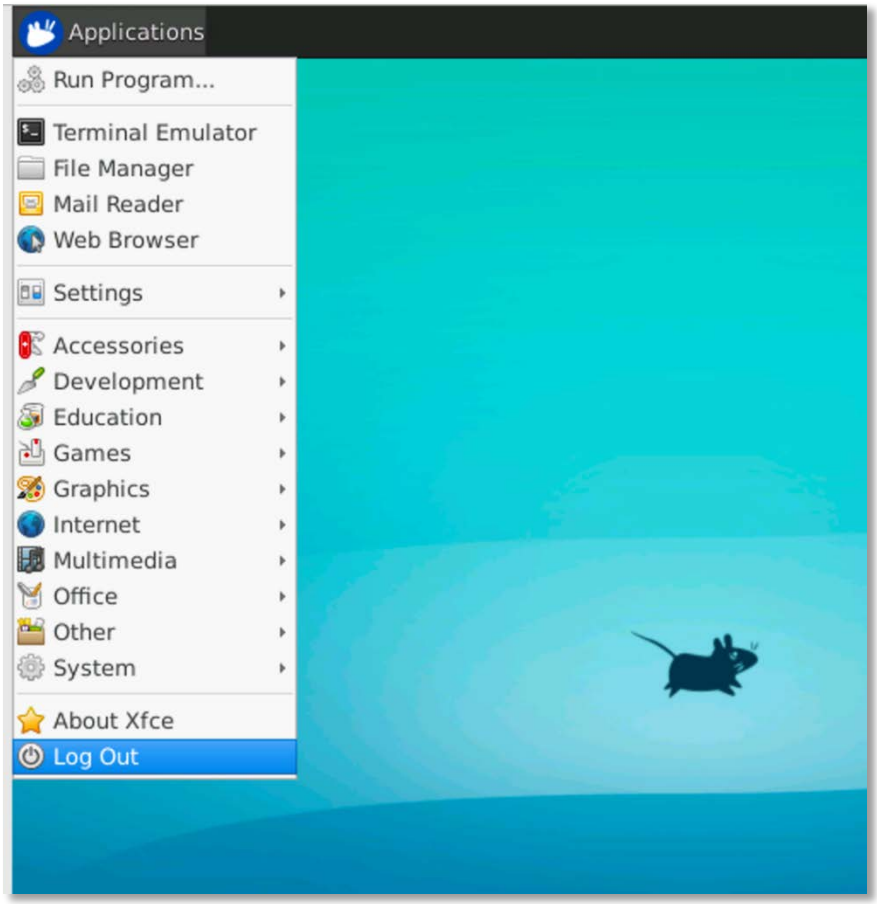

Figure 4: Access

Important Points

1. Your initial password on the GPU servers is not the same as the VPN password. The initial password is “P@$$w0rd123456” and you will be prompted to change it the first time you log into a server.
2. X11 forwarding is enabled by default on the jump server and the GPU servers, so using the GPU’s desktop environment is not required to display X11 applications.

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