Axeda® ServiceLink™

Axeda® Desktop Viewer

User's Guide

Version 6.1
updated May 2011

This program is based on UltraVNC Win32 Server 1.0.8.2.

Copyright © 2002-2009 Ultr@VNC Team

This program is licensed under the GNU General Public License Version 2, June 1991.

UltraVNC Win32 Viewer 1.0.8.2

For more Information and links please visit: http://ultravnc.sf.net
- Copyright © 2002-2009 Ultr@VNC Team
- Copyright © 2001-2002 Sam - eSVNC
- Copyright © 1999-2002 Rudi D. V. - VdaccVNC
- Copyright © 1999-2002 Const. Kaplinsky - TightVNC
- Copyright © 2002 RealVNC Ltd. – RealVNC
- Copyright © 2002 VNC QuickDesk
  Copyright © 1999-2002 Tridia Corporation - TridiaVNC
  Copyright © 1994-2001 AT&&T Laboratories Cambridge/Olivetti Research Ltd. – VNC
- Copyright © 1990-2002 Info-ZIP
  Copyright © 1996-2002 Markus Franz Xaver Johannes Oberhumer - Mini LZO library

Document Number: DesktopViewer/UserGuide/6.1/0511

GNU GENERAL PUBLIC LICENSE Information

GNU GENERAL PUBLIC LICENSE

Version 2, June 1991

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Library General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

GNU GENERAL PUBLIC LICENSE
TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program

is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program.

   You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

   a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.

   b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.

   c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

   These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

   Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.

   In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:

    a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,

    b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,

    c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

    The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

    If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.

6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.

7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.

    If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

9. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

    Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

    <one line to give the program's name and a brief idea of what it does.>
    Copyright (C) 19yy <name of author>

This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this program; if not, write to the Free Software Foundation, Inc., 59 Temple Place - Suite 330, Boston, MA 02111-1307, USA.

Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

    Gnomovision version 69, Copyright (C) 19yy name of author
    Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'.
    This is free software, and you are welcome to redistribute it under certain conditions; type `show c' for details.

The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than `show w' and `show c'; they could even be mouse-clicks or menu items--whatever suits your program. You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the program, if necessary. Here is a sample; alter the names:

    Yoyodyne, Inc., hereby disclaims all copyright interest in the program `Gnomovision' (which makes passes at compilers) written by James Hacker.

     <signature of Ty Coon>, 1 April 1989
     Ty Coon, President of Vice

This General Public License does not permit incorporating your program into proprietary programs. If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library. If this is what you want to do, use the GNU Library General Public License instead of this License.

Table of Contents

Chapter 3
Connecting to a Desktop Server 3-1

Chapter 4
Using Axeda Desktop Viewer 4-1

Chapter 5
Troubleshooting 5-1

Chapter 1
Using This Guide

This chapter contains the following major sections:

- ◆ *About This Guide* explains the intended audience of this guide and summarizes the contents of each chapter contained in this guide.

- ◆ *Getting Help* explains where to find answers to your questions about Axeda® Desktop Viewer, aside from this guide.

- ◆ *Documentation Feedback* explains how you can help us improve Axeda documentation.

About This Guide

This section describes the intended audience for this guide (including assumptions about prerequisites) and presents a summary of the contents of this guide.

Audience

This guide assumes that users are familiar with the Axeda ServiceLink system and its components. It assumes that users know whether additional authentication is required for accessing remote devices and what they need to use for credentials in order to access the devices using Axeda Desktop Viewer.

Contents

This guide describes the features of Axeda Desktop Viewer and explains how to obtain the executable file. It then explains how to connect to remote devices and how to use the features of Desktop Viewer.

In addition to this chapter, this guide contains the following chapters and appendices:

Chapter 2, "Introducing Axeda® Desktop Server", presents an overview of Axeda Desktop Viewer and explains how to obtain the executable file.

Chapter 3, "Connecting to a Desktop Server", provides instructions for establishing connections with remote devices using Desktop Viewer.

Chapter 4, "Using Axeda Desktop Viewer", explains the activities that you can perform on the remote desktop during a session. It explains how to start a chat session, transfer files, close a session, and more.

Chapter 5, "Troubleshooting", provides some tips for troubleshooting problems that you may encounter.

Getting Help

If you still have questions after reading the documentation for your Axeda product, you can contact Axeda at http://help.axeda.com for help or more information.

Axeda Developer Connection

The Axeda Platform is open to the worldwide M2M developer community at the Axeda Developer Connection: http://developer.axeda.com. This site includes lots of sample business applications, examples of building applications, code snippets, and more. Registration is free. See http://developer.axeda.com for complete information.

Documentation Feedback

As part of our ongoing efforts to produce effective documentation, Axeda asks that you send us any comments, additions or corrections for the documentation. Your feedback is very important to us and we will use it to improve our products and services.

Please send your comments to documentation@axeda.com. Thank you for your help.

Chapter 2
Introducing Axeda® Desktop Server

This chapter introduces Axeda® Desktop Viewer and its desktop sharing features in the following sections:

♦ **Overview** presents an overview of Axeda Desktop Viewer.

♦ **Security Features** explains the security features of Desktop Viewer.

♦ **Desktop Sharing Through Axeda® Service** explains desktop sharing through the Axeda® Service application.

♦ **How to Install Desktop Viewer** explains how to download Desktop Viewer from the Axeda® ServiceLink™ Applications.

Overview

Axeda® Desktop Viewer is a desktop sharing program that enables users to view and operate remote devices. It makes a remote computer's user interface (screen area) available for viewing and use by someone at another computer. For example, IT department technicians can help computer users experiencing problems in another building by asking the users to share their desktops. When a desktop is shared, the IT technician can operate the computer to troubleshoot the problem, without ever going to the other building. As another example, a support technician responsible for maintaining multiple remote devices can view the desktop of a remote computer running an Axeda Gateway project that provides an interface to those devices, even if there is no user at the remote computer to initiate the sharing. When a computer desktop is shared, the operator viewing the remote desktop can do anything that the local operator can do, such as viewing e-mail messages and starting applications.

The Axeda Desktop Viewer application (a client) lets you view the desktop of a computer running the Axeda® Desktop Server. You can share a desktop through a direct network connection on your network or through the Axeda® Service application. Once the desktop of the computer running Axeda Desktop Server is shared to the computer running Axeda Desktop Viewer, the operator can view and operate the remote desktop, including uploading log files, downloading software patches, starting applications, viewing configurations, and more. Support technicians can also open chat sessions with remote operators to assist in troubleshooting a problem or in performing routine maintenance. Remote operators can also initiate chat sessions with support technicians.

The Axeda® Global Access Server provides a secure Web server through which the Desktop Server and Viewer computers can communicate. Both computers may be hidden from the Internet through firewalls and proxy servers; however, as long as they can both browse to the Axeda® Enterprise server, they can share a session. Because the Axeda Enterprise server is Firewall-Friendly™, IT departments do not need to assign external IP addresses, reconfigure firewalls, or install direct telephone lines. The Axeda Enterprise server authenticates users and manages sessions to make administration centralized and easy.

> **Important!** *Axeda Desktop Viewer does not support remote sessions with* devices *running Axeda® IDM Agents (formerly Questra® Service Agents). The Axeda IDM Agents use the TotalAccess™ Server. For more information, refer to the documentation for these products and to the topic in the online help for the Axeda ServiceLink Applications, called "Axeda® IDM Agents."*

Security Features

This section describes security features for desktop sessions. A Desktop Server machine is typically hidden behind a firewall and cannot be addressed directly. In addition, the organization that owns the machines or devices may require authentication for remote sessions through their RADIUS authentication server. The Axeda® Deployment Utility enables Service Technicians to configure the Axeda ServiceLink Agents running on the devices to support the on-site RADIUS server. Once the Agents are configured this way, a Desktop Viewer operator must provide authentication credentials (user name and password) before a remote session can begin.

Desktop Server Security

The Desktop Server provides ways to limit access to the device or computer through its Admin Properties. These properties let you specify a variety of options, including:

- The type of incoming connections to accept
- Authentication requirements
- Actions remote users can take, such as file transfers
- Whether to prompt a local user to accept an incoming request for a session
- What to do if a local user does not respond in the timeout period
- What to do with multi-viewer connections
- What to do when the last remote user disconnects

For complete information, refer to the *Axeda® Desktop Server User's Guide*.

Authentication

The Desktop Server application can be configured with a password for desktop sharing. If a password is configured, the Desktop Viewer operator must know and type that password to share the desktop of that Desktop Server computer. The Desktop Server can also be configure to require MS Logon, with a user name, password, and domain.

Encryption

During sessions shared through the Axeda Service application, all data passed between the Desktop Viewer and Desktop Server computers is confidential and made secure with AES (Advanced Encryption Standard) data encryption.

Axeda® Policy Server and Desktop Server

If a Desktop Server computer has an Axeda® Agent installed (which is required for sessions initiated through Axeda Service), and the agent is configured with Axeda Policy Server support, then the Desktop Server device is subject to any Axeda Policy Server settings. For example, desktop sharing may not be allowed for that device.

Runtime Security and Control of the Connection

An operator at a Desktop Server computer can cancel any active connections or sessions at any time. Also, the Admin properties for the Desktop Server application allow you to prevent more than one connection at a time and to limit the actions of both the local user and a remote user during the shared session to view-only. You can also prevent loss of access to the device by preventing remote users from shutting down the Desktop Server. If desired, you can configure the Desktop Server to lock the workstation or log off the current user when the last Desktop Viewer client disconnects.

Desktop Sharing Through Axeda® Service

The Axeda Service application provides a device dashboard for every device that is either manually configured in the Axeda® ServiceLink system or that registers itself with the Axeda Enterprise server. On the Device dashboard, you can view information about and sent in by the device. If, for example, alarms have been generated by the Axeda ServiceLink Agent running on the device, you may want to troubleshoot the device by establishing a Remote Desktop session with the device. The Device dashboard provides a Remote Sessions module, from which you can start a Remote Desktop session and download the latest version of the Desktop Viewer application.

Note: *The project for the Axeda ServiceLink Agent must be configured for Desktop sessions (on port 5920 for the Windows version or 5820 for the Java version) for the Desktop session to be available on the Device dashboard.*

Remote Sessions Module

When starting up, an Axeda ServiceLink Agent includes the list of the remote sessions configured in its project when it registers with the Enterprise server. Once the Agent registers with the Enterprise server, the Remote Sessions module on the Device dashboard displays the names of these remote sessions. For Remote Desktop sessions, the name is always "Desktop." In general, the module shows the session most recently used at the top of the list. If you do not see the session you want to start, you can click **View all** to display the complete list of remote sessions registered for this device (Remote Sessions page).

When a remote session is active, the Remote Sessions module displays the login name of the user who started or currently owns the session. If the login name is longer than the module space allows, you can point to the partial name to see the entire login name in a tool tip. In addition, an End link appears next to an active remote session. To close the session, click the End link. When prompted to confirm the action, click OK to end the session. Depending on how often the Agent contacts the Enterprise server, it may take a minute or so (check the ping rate shown for the device on the dashboard) for the Agent to receive the message to End the session and respond; to refresh the dashboard page, click the name of the device.

The Remote Sessions module and the Remote Sessions page both provide access to the Quick Launch feature for Remote Desktop sessions. In addition, they provide a Download Viewer link that will download the viewer application that is appropriate for the device.

Quick Launch

As of release 5.2 of the Axeda ServiceLink system, the Quick Launch feature makes it easy to start a Remote Desktop or Remote Application session from the Device dashboard. As long as you are accessing the Service application from a Windows or Linux computer, you can take advantage of Quick Launch to start Axeda Desktop Viewer to share the desktop of a remote device or to start an application on the device. When necessary, the system can also download the appropriate version of Desktop Viewer to your client computer. If you already have a copy of Desktop Viewer, the system checks that your version is correct for the Desktop Server running on the device. If not, the system downloads the correct version.

> **Note:** *A system administrator must configure the Desktop or Application type of session for the model of the device to launch automatically, using the Model Remote Interfaces page of the Axeda Device application. Otherwise, the system does not automatically start Desktop Viewer or the configured application. The rest of this section focuses on how Quick Launch applies to Desktop Viewer.*

Configuring Quick Launch

Configuring Quick Launch is a multi-step process that system administrators perform. The main steps are to copy the viewer application files to the appropriate directory on the Enterprise server, configure the properties for downloading the viewer applications, and then configure the Desktop remote interface for each model in the Axeda Device application. The *Axeda® Enterprise Server Installation and Maintenance Guide* explains how to perform these steps in the chapter on configuring applications.

Using Quick Launch

To use Quick Launch for a Desktop session, first navigate to the Device dashboard for the device that you want to access. From the Remote Sessions module of the Device dashboard, click the **Desktop** link. The system sends your request for a Desktop session to the device and starts the Application Bridge applet. When the device next contacts the Enterprise server, the remote session is started.

The system determines the correct viewer for the desktop server that is running on the device. For you to use Desktop Viewer, the device must be running Desktop Server. If Desktop Viewer is not already on your computer, the system determines which version of Desktop Viewer to download for your operating system and the version of Desktop Server. The system then downloads the viewer to your computer. As long as it is configured to do so, the system also launches Desktop Viewer automatically. Refer to *Example of Using Desktop Viewer Through Axeda Service* for a complete picture of establishing a Desktop session.

> **Note:** *The connection options that you select when launching Desktop Viewer through Quick Launch are saved in your Windows user account folder, in C:\Documents and Settings\<your user account>\Application Data\AxedaDesktopViewer\options.vnc.*

When you are ready to end the session, you can close Desktop Viewer and then click End in the Remote Sessions module. If Quick Launch is configured to stop Desktop Viewer once you click End, then you can simply click End Sessions in the Remote Session window or End in the Remote Sessions module to stop Desktop Viewer automatically.

Timeout Periods

For desktop sharing through the Axeda Service application, two timeout periods affect sessions. First, the Desktop Server device must contact the Axeda Enterprise server to start the session within a default period of 120 seconds of the session's creation. If the device does not contact the Axeda Enterprise server within that time period, the session is closed. For example, if the device is offline for more than three minutes, the session would time out. For this reason, it is important for system administrators to coordinate this timeout period with the ping rate (or "heartbeat") for the devices. This rate is displayed in the Device dashboard (with the general information about the device). Second, once the session starts, if 60 seconds (the editable default) of inactivity elapse for the session, the session is closed.

To configure these timeouts, your system administrator needs to edit the configuration file for the Enterprise server, *DRMConfig.properties*. For more information, system administrators should refer to the chapter on configuring Axeda ServiceLink Applications in the *Axeda® Enterprise Server Installation and Maintenance Guide*. It contains a section on configuring properties for Axeda Service and the desktop viewing applications.

Example of Using Desktop Viewer Through Axeda Service

Let's assume a user is experiencing problems with the ACME application installed on his computer. The user contacts the Service and Support department at ACME. To troubleshoot the problem, the ACME Service Technician needs to share the desktop of the problematic computer. The Service Technician can connect to the Axeda Desktop Server computer through Axeda Service.

With an Axeda ServiceLink Agent installed on the Desktop Server device or on the gateway managing the device, Desktop Server started on that device, and a remote desktop configuration (listening on port 5920) in the project that the Agent is running, the Service Technician starts her local browser. She logs into Axeda ServiceLink Applications and opens the Axeda Service application. In the Axeda Service application, the Technician opens the Device dashboard for the particular device, and clicks the **Desktop** link in the Remote Sessions module.

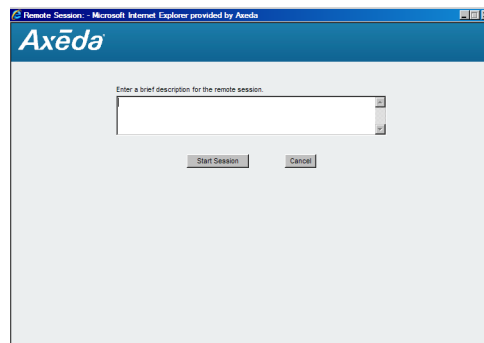Axeda Service starts the Application Bridge applet and displays the following window:

Figure 2-1. Starting a remote desktop session

The Service Technician types a brief explanation of the activity she intends to perform during the session and clicks **Start Session**.
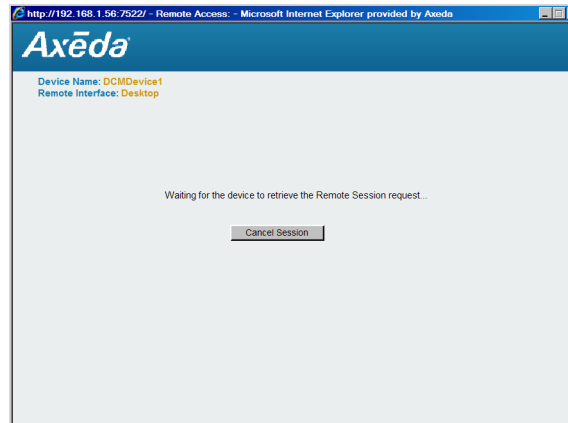
The following screen appears:

Figure 2-2. Waiting for device *to retrieve request*

Depending on how often the device contacts the Enterprise server ("ping rate" or "heartbeat"), 30 seconds or five minutes may pass before the connection is ready. For this reason, it is important for system administrators to coordinate the timeout for remote sessions with the ping rate set for the devices running Desktop Server.

This screen displays the name of the device and the type of remote session (Desktop). The Enterprise server is waiting for the device to contact it so that it can pass the request for the remote session to the device. Once the device contacts the Enterprise server, the following screen appears:
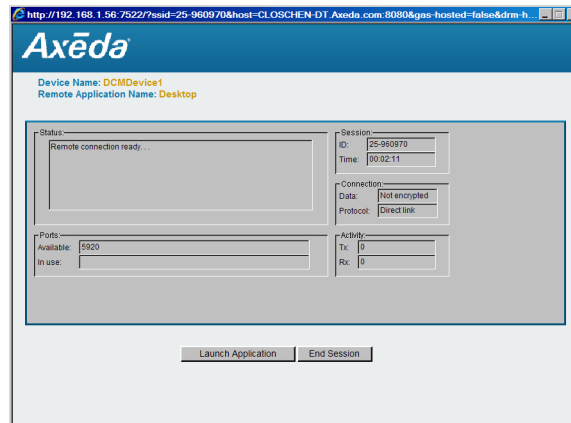

Figure 2-3. Remote connection ready

When the Status message area displays the message, "Remote connection ready," the ACME Service Technician clicks the Launch Application button to request the Enterprise server to start the Desktop Viewer application. When it finds that the Desktop Viewer is not on her computer, the system downloads its current version of Desktop Viewer to the technician's computer. As long as the viewer has been configured to launch automatically for the model, the system starts the application. The Desktop Viewer Authentication dialog box appears:

Figure 2-4. Desktop Viewer Authentication dialog box

The ACME Service Technician types the password for the Desktop Server running on the device, and clicks the Log On button. As long as the authentication succeeds, the desktop of the remote computer appears in a window of the monitor on the Service Technician's computer. She can now operate the remote desktop using her mouse and keyboard. She can start programs, initiate a chat session with the Desktop Server user, close and open windows, browse the computer's folders and files, and transfer files to and from the remote computer.

If the Service Technician's supervisor wants to review something on the Desktop Server desktop, he would follow the same procedure to make a connection. At that point, there would be two Desktop Viewer computers viewing the same remote desktop.

If the supervisor wants to compare the user's ACME application settings to that of another computer, he can create a connection to a second Desktop Server computer from the current session. At that point, he would be operating two different remote desktops through two different remote sessions on his computer.

Support for Multiple Languages

Desktop sharing through Axeda Service accommodates computers using different languages and character sets. The computers running the client and server applications for desktop sharing must be configured to support the applicable character sets.

How to Install Desktop Viewer

Axeda Desktop Viewer consists of a single executable file, *AxedaDesktopViewer_vNNNNN.exe*, where NNNNN represents the release number and the build number (for example, 61605 is release 6.1, build 605). As you have seen in the preceding section, starting a remote desktop session can download Desktop Viewer to your computer. If you do not want to run a session immediately, you can also copy Desktop Viewer from the Axeda installation media, or you can download it from the Axeda Enterprise server. The Device dashboard for any device and the Remote Sessions page in the Axeda Service application for any device provide a link to download a viewer application. As long as the device is running Desktop Server, when you click the Download link and confirm that you want to save the file, Desktop Viewer will be downloaded to your computer.

> **Note:** *System administrators should refer to the Axeda® Enterprise Server Installation and Maintenance Guide to learn how to set up the viewer applications for downloading.*

Chapter 3
Connecting to a Desktop Server

This chapter explains how to start Axeda Desktop Viewer and connect to a remote Desktop Server. It also explains how to start a new connection while running a session and how to change the connection options. This chapter contains the following sections:

♦ **How to Start and Use Axeda Desktop Viewer** explains how to start Desktop Viewer. It also explains how to start a remote session.

♦ **Starting a New Connection During a Session** explains how to start an additional connection during a remote session. It also explains how to change the connection options during a session and provides details concerning the connection options.

♦ **Saving Connection Information** explains how to save the connection options to a file that you can use each time you connect to a particular Desktop Server machine.

♦ **Viewing Connection Information** explains how to view information about the current connection.

♦ **Changing Connection Options During a Session** explains how to change connection options while you are running a remote session.

> **Important!** Axeda Desktop Viewer does not support remote sessions with devices running Axeda® IDM Agents (formerly Questra® Service Agents). The Axeda IDM Agents use the TotalAccess™ Server. For more information, refer to the documentation for these products and to the topic in the online help for the Axeda ServiceLink Applications, called "Axeda® IDM Agents."

How to Start and Use Axeda Desktop Viewer

You can start the Desktop Viewer program (*AxedaDesktopViewer.exe*) directly on your computer in the following ways:

♦ Using Windows Explorer, navigate to the directory where you downloaded the *AxedaDesktopViewer.exe* file, and double-click the file name or icon to launch it.

♦ Create a shortcut to *AxedaDesktopViewer.exe* and place it on your desktop or in the quick launch area of your taskbar. Then you can start Desktop Viewer by clicking the shortcut.

♦ Open a Command Prompt window, navigation to the directory where you downloaded the executable file, and type `AxedaDesktopViewer`.

Alternatively, you can launch Desktop Viewer directly from the Device dashboard of the device in the Axeda Service application, as explained in *"Example of Using Desktop Viewer Through Axeda Service"* on page 2-7. The online help for the Service application also explains how to start a remote desktop session.

When you start Desktop Viewer directly on your computer (rather than through the Service application), Desktop Viewer displays the Connection dialog box:
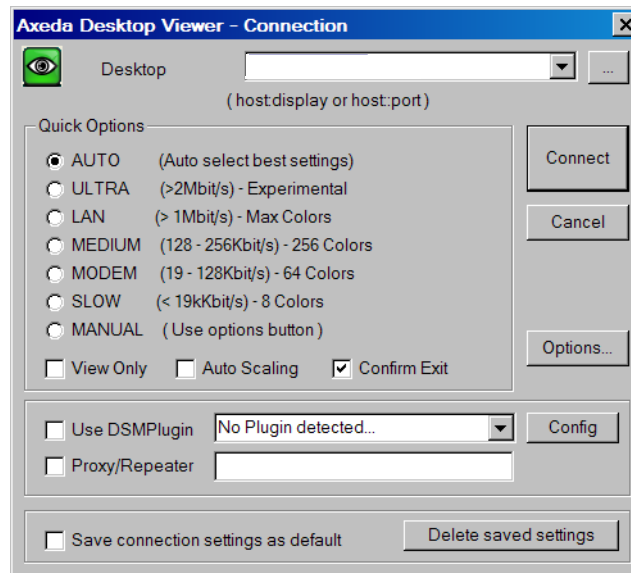

Figure 3-1. Desktop Viewer Connection dialog box

Note: *When you launch Desktop Viewer through the Service application, the Connection dialog box is not displayed because the Axeda Application Bridge applet supplies the hostname (the* device*) and port number (by default, 5920) to Desktop Viewer.*

To start the connection

1. In the Connection dialog box, type the IP address, a colon, and then either a Display number or the Port number used on the Desktop Server device for Desktop connections. If you type only the IP address, the Desktop Viewer uses the default port number, 5920, to start the connection.

2. For the quickest connection, leave the default settings and click **Connect**. If you plan to connect to this IP address most of the time, you may want to select the **Save connection settings as default** check box before clicking Connect.

   If you need to change the default settings for your environment, follow the procedure, *To start a new connection with custom settings*.

   The Connection Status dialog box appears, showing the connection information you provided.

The IP address appears in the title bar and
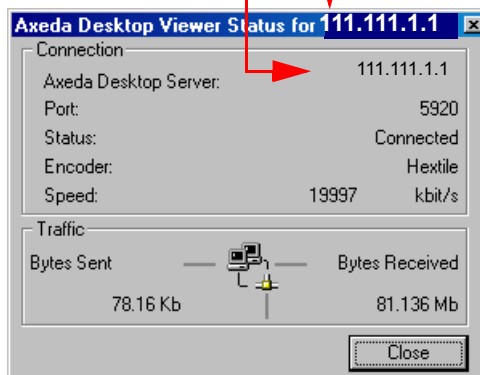in the Axeda Desktop Server field.

Axeda Desktop Viewer Status for **111.111.1.1**	
Connection	
Axeda Desktop Server:	111.111.1.1
Port:	5920
Status:	Connected
Encoder:	Hextile
Speed:	19997 kbit/s
Traffic	
Bytes Sent	Bytes Received
78.16 Kb	81.136 Mb

Figure 3-2. Desktop Viewer - Connection Status dialog box

3. Check the IP address to be sure that you are connecting to the correct device. If not, click **Cancel** to start over.

Then, if a password is set on the Desktop Server, the Axeda Desktop Authentication dialog box appears, as shown in Figure 3-3.
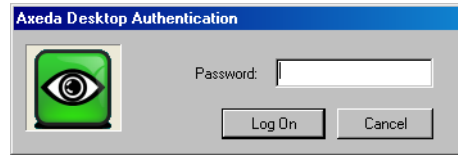

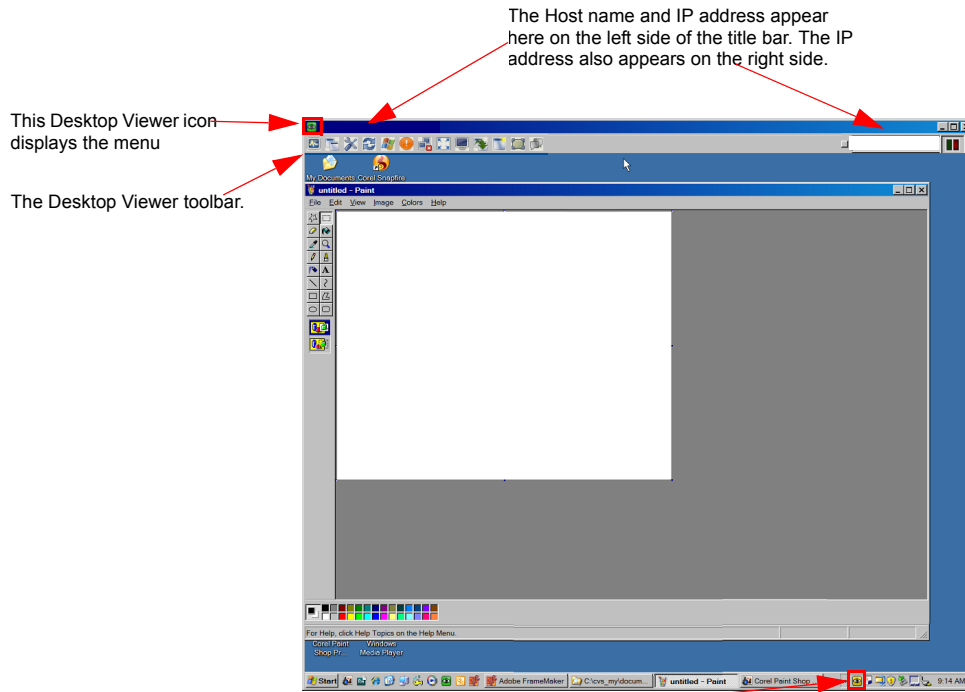*Figure 3-3. Axeda Desktop Authentication dialog box*

4. In the Authentication dialog box, type the **Password** for the remote Desktop Server and click **Log On**.

   Tip   *Pressing **Enter** after typing the password also starts the logon process.*

   If you receive a message that Viewer failed to connect to Desktop Server and you know that the machine is a 64-bit Windows 7 machine, check that the machine has been configured for Wake On LAN or Wake On Wireless LAN (instructions are in the Axeda® Desktop Server User's Guide). If it has been configured properly, close the Viewer and launch it again.

In a moment or two, the Desktop Server computer shares its desktop to the Desktop Viewer computer.

The desktop of the Desktop Server computer appears in a separate window on the Desktop Viewer computer's desktop, as shown in Figure 3-4.

The Host name and IP address appear here on the left side of the title bar. The IP address also appears on the right side.

This Desktop Viewer icon displays the menu

The Desktop Viewer toolbar.

This icon shows that Desktop Server is running on this remote computer. Note that the color changes to yellow when a remote Desktop Viewer is connected. If you connected but do not see this icon, it means that Desktop Server is configured to hide the icon.

Figure 3-4. Example of a remote desktop shared through Desktop Viewer

The Desktop Viewer icon appears in the top left corner of the Viewer window. Click that icon to display the Desktop Viewer menu, shown in Figure 3-5 on page 3-6. The menu contains commands to configure connection settings, transfer files between the two computers, start a chat session with the Desktop Server operator, stop the session, and more.

By default, the toolbar appears along the top of the Desktop Viewer window, just below the icon (see Figure 3-4). This toolbar provides quick access to the most commonly used tasks, most of which are also available from the menu. The rest of this chapter explains the various activities involving connections that you can perform using the menu or toolbar. The next chapter explains how to perform additional activities, such as file transfers and chat sessions, in detail.
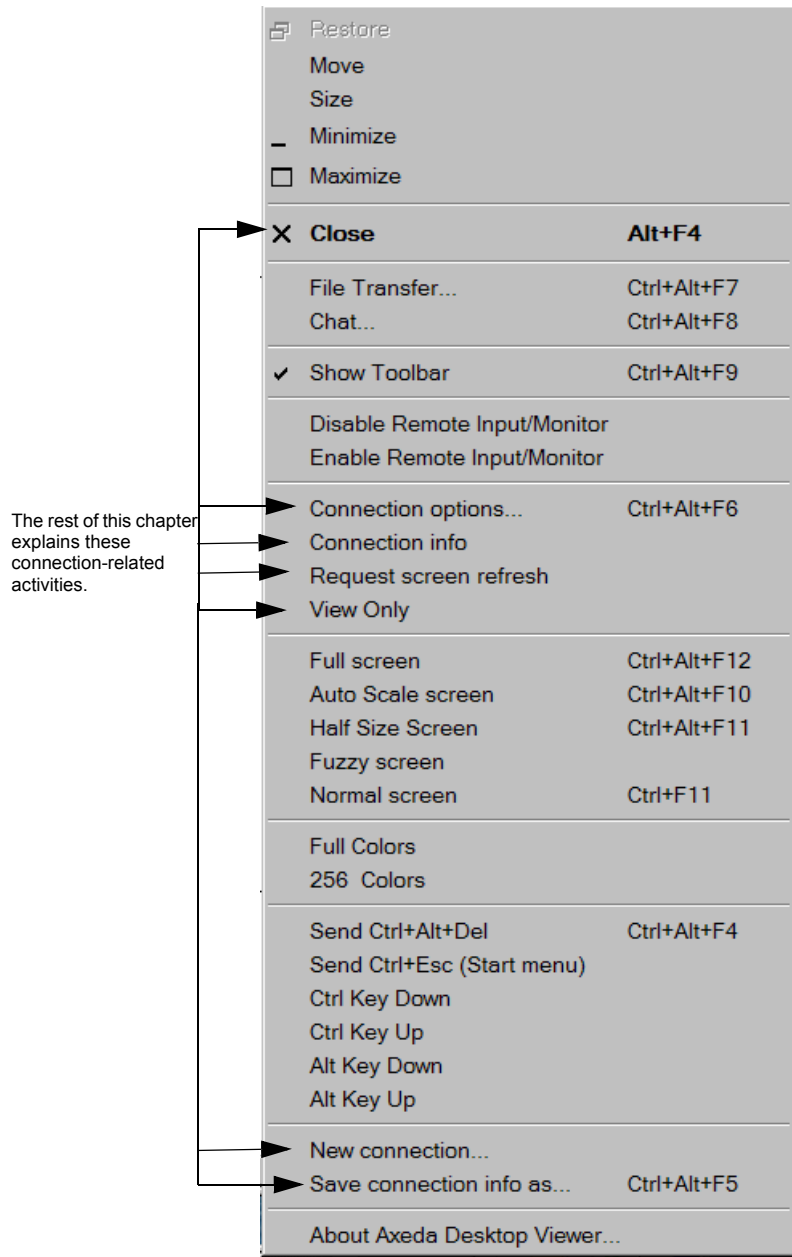
|		
⊟	Restore	
	Move	
	Size	
–	Minimize	
☐	Maximize	
✕	**Close**	**Alt+F4**
	File Transfer...	Ctrl+Alt+F7
	Chat...	Ctrl+Alt+F8
✓	Show Toolbar	Ctrl+Alt+F9
	Disable Remote Input/Monitor	
	Enable Remote Input/Monitor	
	Connection options...	Ctrl+Alt+F6
	Connection info	
	Request screen refresh	
	View Only	
	Full screen	Ctrl+Alt+F12
	Auto Scale screen	Ctrl+Alt+F10
	Half Size Screen	Ctrl+Alt+F11
	Fuzzy screen	
	Normal screen	Ctrl+F11
	Full Colors	
	256 Colors	
	Send Ctrl+Alt+Del	Ctrl+Alt+F4
	Send Ctrl+Esc (Start menu)	
	Ctrl Key Down	
	Ctrl Key Up	
	Alt Key Down	
	Alt Key Up	
	New connection...	
	Save connection info as...	Ctrl+Alt+F5
	About Axeda Desktop Viewer...	

The rest of this chapter explains these connection-related activities.

Figure 3-5. Desktop Viewer menu

Starting a New Connection During a Session

While you are running a remote session with one computer, you can start another remote session with the same or a different computer. (If you close the current session first, you need to start Desktop Viewer again.)

When starting a new connection, you can use the default settings, settings that you have saved to a file, or custom settings. The quickest way to start a session is to use the default settings. However, when the default settings do not suffice, you can change the settings once and save them as the default settings. If you need different settings for different connections, you can save the settings for each connection to a file and then open that file every time you need to start a connection. The procedures that follow explain how to start a new connection using saved settings and with custom settings.

To start a new connection from the toolbar

1. In the text field on the right side of the toolbar, either keep the current IP address and port to open a new connection with the same machine or type the IP address for a different machine, a colon, and the port number, 5920, for the Desktop Server. For example, 111.111.1.11:5920. The following figure shows this area of the toolbar:

Text Field
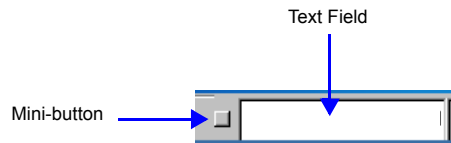
Mini-button

2. Click the mini button to the left of the text field.

Whether you launch Desktop Viewer through Quick Launch (Axeda Service application) or from the directory, c:\Program Files\Axeda\Desktop\Viewers, on your computer, if you previously saved the connection options, you can use them again by selecting the file in which they were saved.

1. In the Axeda Desktop Viewer window, click the Axeda Desktop Viewer icon at the top, left of the window.

2. When the menu appears, select **New Connection…**. The Connection dialog box appears, as shown in the following figure:
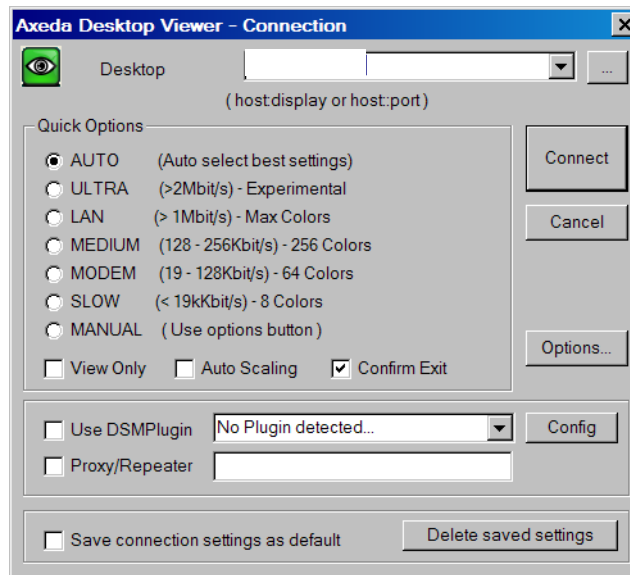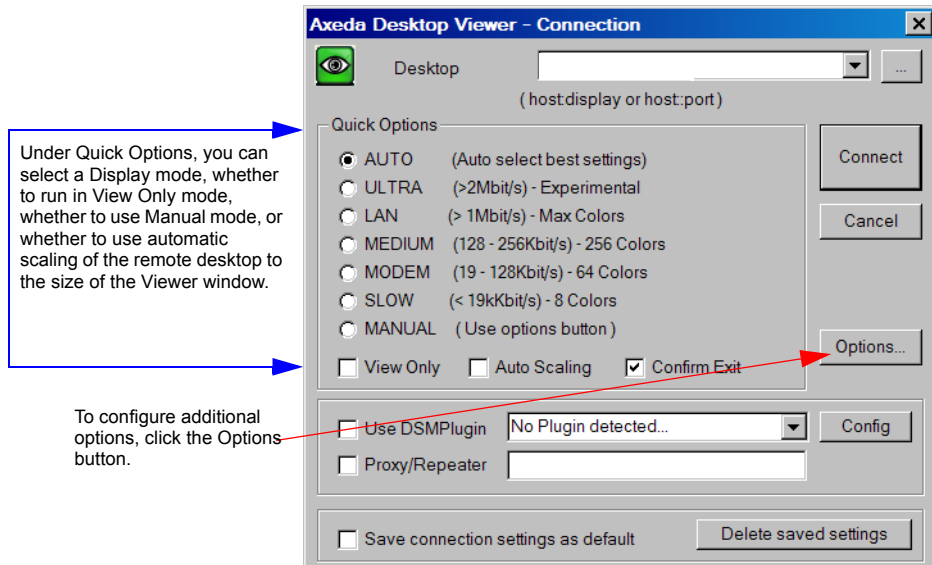
Figure 3-6. Connection dialog box

3. In the Desktop Viewer Connection dialog box, click the ellipsis button next to the **Desktop Server** field. The standard system Open file dialog box appears.

4. In the Open dialog box, navigate to the directory, C:\Documents and Settings\<*your_user_login_name*>\Application Data\AxedaDesktopViewer, and select the options.vnc file, which contains the saved settings.

5. Once the settings appear in the Connection dialog box, click the **Connect** button to start the session.

To start a new connection with custom settings

1. In the Axeda Desktop Viewer window, click the Axeda Desktop Viewer icon at the top, left of the window.

2. When the menu appears, select **New Connection…**. The Connection dialog box appears, as shown in the following figure:

Under Quick Options, you can select a Display mode, whether to run in View Only mode, whether to use Manual mode, or whether to use automatic scaling of the remote desktop to the size of the Viewer window.

To configure additional options, click the Options button.

Figure 3-7. Connection dialog box, customizing settings

3. In the **Desktop Server** field, type the IP address of the remote device that you want to access. If you are using the default port number (5920) for all Desktop Servers, you do not need to type the port number. Otherwise, type a colon and the port number.

4. Under **Quick Options**, select the encoding and format options to use for the connection:

    *   AUTO -- this option is the default. It allows Desktop Viewer and Desktop Server to negotiate the best format and encoding for the session. Axeda recommends that you keep this setting.

    *   Select among the other options, as appropriate to your network: ULTRA, LAN, MEDIUM, MODEM, or SLOW.

    *   If you want to set the Connection options for this particular session, select MANUAL and click the **Options** button. Refer to the next section, *Connection Options Details*, for information about the available connection settings.

5. If you want to open the session in View Only mode, select the **View Only** check box under **Quick Options**.

6. If you want the Desktop Viewer window to scale the view of the remote desktop to the size of the Viewer window, select the **Auto Scaling** check box under **Quick Options**.

7. Leave the **Use DSMPlugin** and **Proxy/Repeater** check boxes empty.

8. If you changed the settings from the default and want to keep using them, select the **Save connection settings as default** check box.

9. If you want to delete existing saved settings for establishing remote sessions, click the **Delete saved settings** button.

10. When ready to start the session, click **Connect**. If you click **Cancel**, your changes will be lost.

Connection Options Details

When the default settings do not suffice, you can change the settings for the Desktop Viewer connection. Axeda Desktop Viewer and Axeda Desktop Server use RFB protocol (Remote framebuffer) for providing access to the graphical user interfaces of remote desktops. The Connection Options dialog box is available in the following ways:

♦ From the dialog box for a new connection, select MANUAL and click the **Options** button.

♦ From the Desktop Viewer menu, select Connection Options.

♦ From anywhere in the Viewer window, press Ctrl+Alt+F6.

♦ On the Viewer toolbar, click .

The following figure shows the Connection Options dialog box. If you are viewing this document online, click a link to read about the section of the dialog box.

For this section, refer to *Mouse and Keyboard*

For this section, refer to *Format and Encoding*

For this section, refer to *Misc*

For this section and the two options below it, refer to *Display*
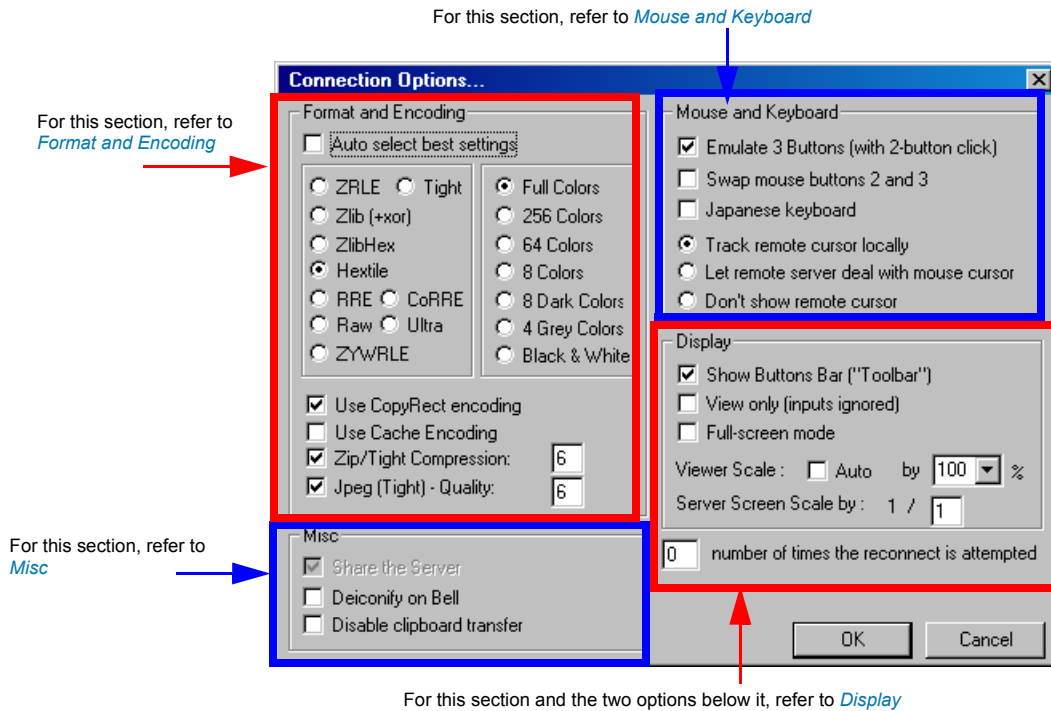
Figure 3-8. Connection Options dialog box

The rest of this section explains the options available in each section of this dialog box, starting with the top left section, moving down the left side, and then from the top right section, down the right side.

Format and Encoding

Auto select best settings – This check box is selected by default. It allows Desktop Viewer to negotiate with Desktop Server the format and encoding with which pixel data will be sent. Axeda recommends that you keep this default setting. Should you need to change the settings, clear this check box to enable the options.

The following definitions may help you make selections:

⬩ Pixel format is the representation of colors by pixel values. For example, 24-bit or 16-bit "true color."

⬩ Encoding is the method used to send a rectangle of pixel data over the network. The Hextile, ZRLE, and Copy Rect encodings provide optimal compression for most desktops.

Choose one of the following encoding types:

- ZRLE or ZRLE Tight (Zlib Run-Length Encoding)
- Zlib (+xor)
- ZlibHex
- Hextile (the default for Auto select)
- RRE (rise-and-run-length encoding) or CoRRE. Do not use RRE for complex desktops.
- Raw (sends each pixel, from left to right) or Ultra
- ZYWRLE (Hitachi)

Choose one of the following color options:

- Full Colors (the default for Auto select)
- 256 Colors
- 64 Colors
- 8 Colors
- 8 Dark Colors
- 4 Grey Colors
- Black & White

Enable (select the check box) or disable (clear the check box) the following encoding options:

- Use CopyRect encoding (default: selected)
- Use Cache Encoding (default: not selected)
- Zip/Tight Compression: 6 (default: selected and 6)
- Jpeg (Tight) – Quality: 6 (default: selected and 6)

Misc

Enable or disable the following options:

- Share the server (unavailable but selected)
- Deiconify on Bell (not selected by default)
- Disable clipboard transfer (not selected by default). To be able to copy content from files from the remote desktop to your desktop, make sure this option is NOT selected.

Mouse and Keyboard

Enable or disable the following options:

- Emulate 3 Buttons (with 2-button click) – selected by default
- Swap mouse buttons 2 and 3 – not selected by default
- Japanese keyboard – not selected by default
- Choose one of the following options:
- Track remote cursor locally (selected by default)
- Let remote server deal with mouse cursor
- Don't show remote cursor

Display

1. Enable or disable the following options:

- Show Buttons Bar ("Toolbar") – selected by default
- View only (inputs ignored) – not selected by default
- Full-screen mode – not selected by default
- Viewer Scale: Auto (not selected) by 100% (default). Choose the ratio if you enable this option.
- Server Screen Scale by 1 / (1 by default). Choose the ratio if you enable this option.

2. Type the number of times the reconnect is attempted. (1 is default)

3-13

Saving Connection Information

If you changed the Connection options when starting the current session, you can save your settings to a file. Later, when you need to make the same connection, you can select that file and connect quickly.

To save connection settings

1. In the Axeda Desktop Viewer window, click the Axeda Desktop Viewer icon ( ) at the top, left of the window.

2. When the menu appears, select **Save connection info as**. Alternatively, press Ctrl+Alt+F5.

3. When the Save As dialog box appears, navigate to the directory where you want to save the connection settings.

4. The default name for a connection settings file consists of part of the IP address of the remote machine, the port number used for the session (by default, 5920), and the extension "vnc". For example, 111.222.1.-5920.vnc.

5. If you want to use another name for the file, type the new name in the **File name** field.

6. Click **Save** to create the file and save your connection settings. The next time you start a session, you can click the ellipsis button next to the **Desktop Server** field in the Connection dialog box and select this file.

Viewing Connection Information

During a remote session, you can view information about the connection between the Axeda® Desktop Viewer and Axeda® Desktop Server computers.

To view connection information

1. In the Axeda Desktop Viewer window, click the Axeda Desktop Viewer icon at the top, left of the window.

2. When the menu appears, select **Connection Info**. The **Axeda Desktop Viewer connection info** window appears, showing the name and host IP address for the Axeda Desktop Server computer, as well as some properties of that desktop. The following figure shows an example of this window. Instead of the words "Host Name" and "IP address", the dialog box shows the actual name of the remote machine and its actual IP address (Desktop Viewer supports IP addresses in IPv4 format only):

Figure 3-9. Connection Info window

3. When finished viewing connection information, click **OK**.

Changing Connection Options During a Session

During a remote session, you can edit the Axeda Desktop Viewer settings. All changes made to these settings during a session become effective for the current session as well as for the next session. The Connection options dialog box displays the current settings when you open it.

To change Axeda Desktop Viewer Settings during a session

1. In the Desktop Viewer toolbar, click the **Show Connection Options** icon ( ). If the toolbar is hidden, click the Desktop Viewer icon in the top left corner of the window to display the menu, and then select **Connection options**. The Connection Options dialog box appears, as shown in the following figure:
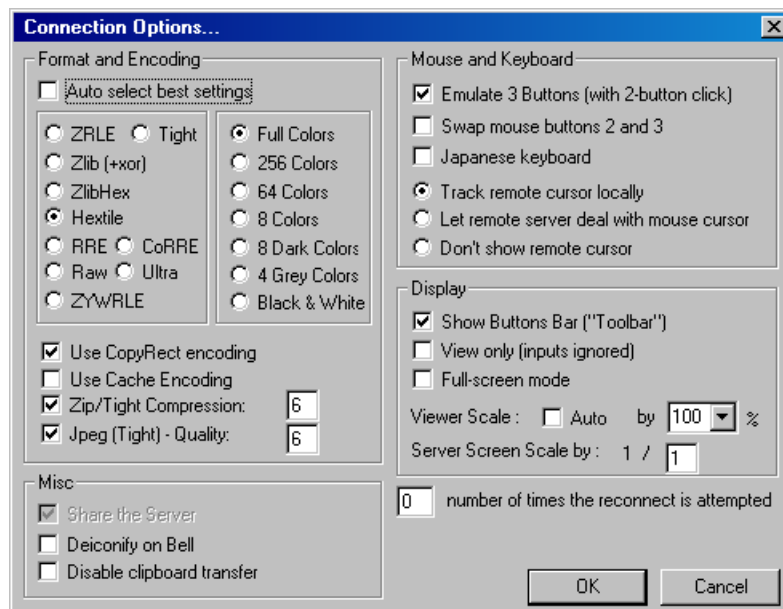
Figure 3-10. Connection Options dialog box

When you are using the default connection settings, the Auto select best settings check box is selected and all the options in that section are unavailable. Figure 3-10 shows this check box cleared so that you can see the additional options more clearly.

2. Edit the settings in the Connection Options dialog box. Refer to the section, *Connection Options Details*, for details.

3. Click **OK** to save the changes or **Cancel** to return to the previously saved settings. The dialog box closes when you click either button. Keep in mind that your changes take effect for the current session as well as the next session.

Chapter 4
Using Axeda Desktop Viewer

This chapter explains the various activities you can perform using the Desktop Viewer window in the following sections:

♦ *Overview of Activities* presents a summary of the tasks you can perform using Desktop Viewer. It explains the Viewer menu and the Viewer toolbar.

♦ *Managing Sessions (Connections)* explains activities for managing connections, including closing a connection and viewing information about the current connection.

♦ *Taking Action on the Remote Desktop* explains the actions you can take on the remote desktop through the Desktop Viewer window.

♦ *Managing the Desktop Viewer Window* explains the various options available for changing the display of the Viewer window (for example, auto-scaling).

♦ *Transferring Files and Directories* explains how to use the File Transfer window to transfer files between your computer and the remote device, how to create new directories, rename existing files and directories, and how to delete existing files and directories.

♦ *Starting a Chat Session with a Remote Operator* explains how to start and conduct a Chat session with the operator at the remote Desktop Server device or computer.

♦ *Copying File Content* explains how to copy content of a file from the remote machine to your local computer, or vice versa.

Overview of Activities

When the Axeda Desktop Viewer computer is actively sharing the desktop of an Axeda Desktop Server computer, there are many actions that you can perform using the Axeda Desktop Viewer menu and toolbar. The Axeda Desktop Viewer menu provides access to all the actions you can perform, while the toolbar provides access to the more commonly used actions. Each icon on the toolbar has a tool tip that you can activate by hovering the cursor over the tool when you need a reminder of what action an icon represents.

Among the activities you can perform are

♦ Manage the session – Change settings for connections, view information about the current session, save the connection options for use in a later session, and close the session.

♦ Transfer files and engage in a chat session with a remote operator.

♦ Prevent remote operators from using the machine while you perform diagnostics or maintenance. You do this by simultaneously disabling input at the remote machine and blanking out the monitor. Conversely, you can allow remote operators to use the machine by re-enabling remote input and the remote monitor.

♦ Use the applications on the remote machine as if they were running on your local machine, by sending keystroke combinations, creating and deleting directories and files, and copying content.

♦ Manage the Desktop Viewer window – share only one active window or the entire desktop; show or hide the toolbar; resize, restore, move, and refresh the window; and view the remote desktop in various modes (full screen, half size, fuzzy, auto scale, and normal).

Accessing the Desktop Viewer Menu

To access the Axeda Desktop Viewer menu during a remote session, click the ( ) icon in the title bar, next to the name of the computer you are accessing (top, left of the Axeda Desktop Viewer window). Alternatively, right-click the Desktop Viewer icon in the Windows taskbar to display this menu. Once you select a command from the menu, the menu closes. Depending on the action you select, another dialog box may open. The menu is always available.

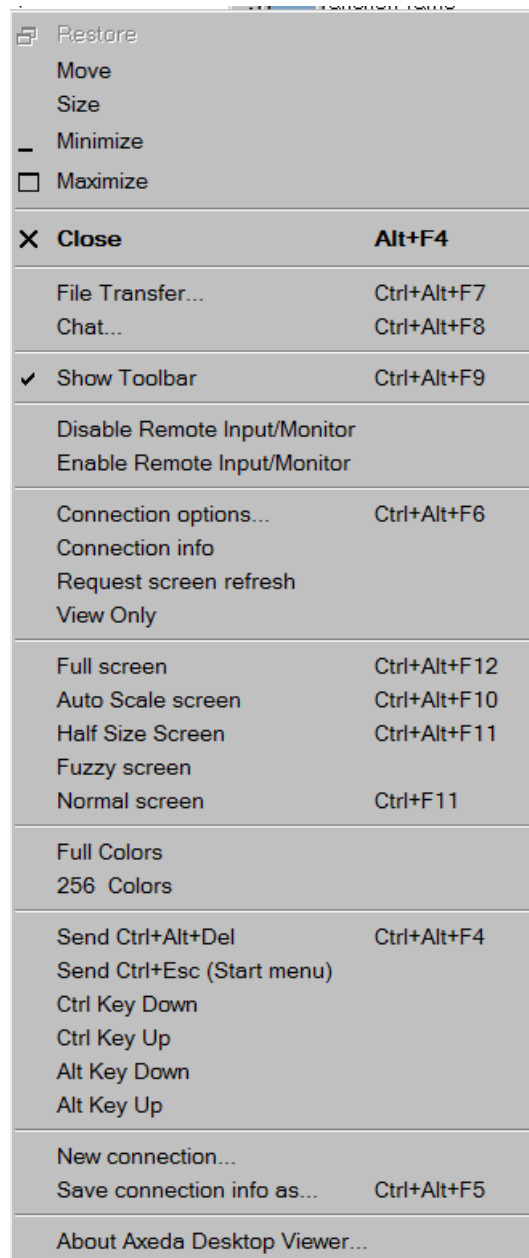The following figure shows the Desktop Viewer menu:

⊟	Restore	
	Move	
	Size	
−	Minimize	
☐	Maximize	
✕	**Close**	**Alt+F4**
	File Transfer...	Ctrl+Alt+F7
	Chat...	Ctrl+Alt+F8
✔	Show Toolbar	Ctrl+Alt+F9
	Disable Remote Input/Monitor	
	Enable Remote Input/Monitor	
	Connection options...	Ctrl+Alt+F6
	Connection info	
	Request screen refresh	
	View Only	
	Full screen	Ctrl+Alt+F12
	Auto Scale screen	Ctrl+Alt+F10
	Half Size Screen	Ctrl+Alt+F11
	Fuzzy screen	
	Normal screen	Ctrl+F11
	Full Colors	
	256 Colors	
	Send Ctrl+Alt+Del	Ctrl+Alt+F4
	Send Ctrl+Esc (Start menu)	
	Ctrl Key Down	
	Ctrl Key Up	
	Alt Key Down	
	Alt Key Up	
	New connection...	
	Save connection info as...	Ctrl+Alt+F5
	About Axeda Desktop Viewer...	

Figure 4-1. Desktop Viewer menu

Showing or Hiding the Toolbar

The toolbar is available by default. A check mark appears next to the Show toolbar command on the Desktop Viewer menu when the toolbar is visible. You can choose to hide it by selecting this command. Alternatively, you can set the toolbar to show automatically using the Connection Options dialog box. Once the toolbar is shown, it remains visible at the top of the window until you hide it. The following figure shows the Desktop Viewer toolbar:
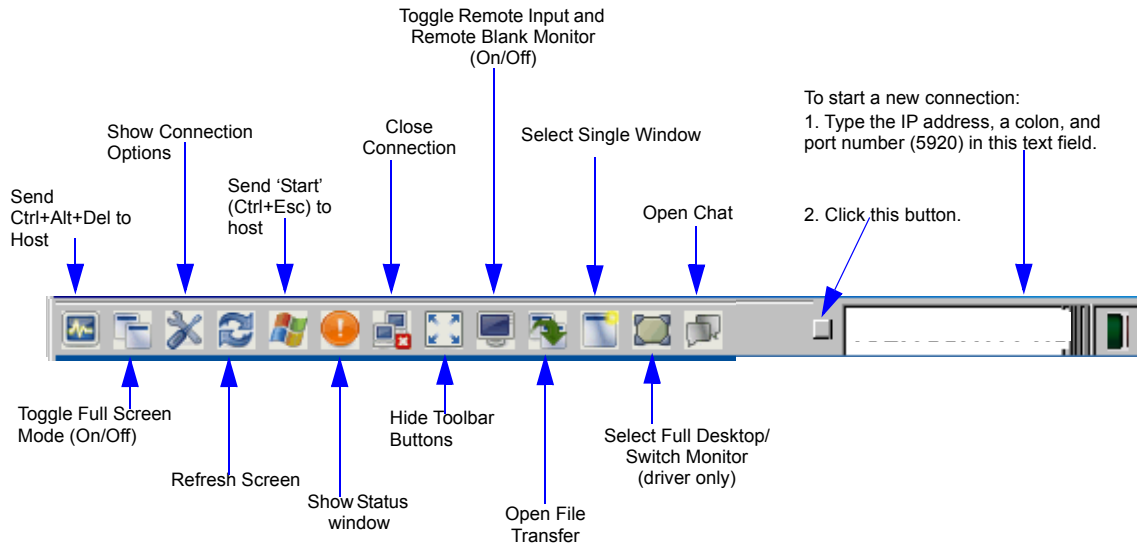
Figure 4-2. Desktop Viewer toolbar

Refer to the following sections to learn more about using the menu and toolbar for the activities:
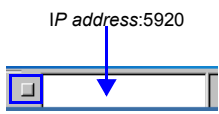
♦ *Managing Sessions (Connections)*

 • *Closing a Remote Session*

 • *Viewing Desktop Viewer Version Information*

 • *Viewing Connection Information*

♦ *Taking Action on the Remote Desktop*

 • *Simulating Key Sequences on the Remote Desktop*

- *Managing the Desktop Viewer Window*
  - *To turn on Full Screen mode*
  - *To turn off Full Screen mode*
  - *To view the remote desktop at half size*
  - *To scale the remote desktop automatically to the Desktop Viewer window*
  - *To disable remote input and blank the remote monitor*
  - *To enable remote input and the remote monitor*
  - *To blur the view of the remote desktop*
  - *To refresh the content of the window during a remote session*
  - *Showing or Hiding the Axeda® Desktop Viewer Toolbar*
    - *To show the toolbar*
    - *To hide the toolbar*
- *Transferring Files and Directories*
  - *.To transfer files and directories between the Axeda Desktop Viewer and Axeda Desktop Server computers*
  - *To create a new directory*
  - *To rename a file or directory*
  - *To delete a file or directory*
- *Starting a Chat Session with a Remote Operator*
  - *To chat with an Desktop Server operator*
- *Copying File Content*
  - *To copy file content to or from the Axeda Desktop Server desktop*

Managing Sessions (Connections)

Session or connection management activities that are available from the Desktop Viewer menu and toolbar are listed in Table 4-1. Note that some activities are NOT available from the toolbar. For details, click the link in the To column of the table.

Table 4-1. Session management activities

To	Select from menu	Click the toolbar icon
Close the session	Close	
Change settings (Connection Options)	Connection options…	
View information about the connection to the remote computer	Connection info	None
View the status of the current connection	None	
Start a new connection	New connection…	IP address:5920
Save connection information to a file for reuse	Save connection info as	None

Closing a Remote Session

To close a remote session from the Axeda Desktop Viewer computer

On the Desktop Viewer toolbar, click the **Close Connection** icon ( ).

If the toolbar is hidden, click the Desktop Viewer icon ( ) in the top left corner of the window. When the menu appears, select **Close**.

Viewing Desktop Viewer Version Information

During a remote session, you can view version and copyright information for the Axeda® Desktop Viewer application.

To view version and copyright information

1. In the Axeda Desktop Viewer window, click the Axeda Desktop Viewer icon ( ) in the top left corner of the window.

2. When the menu appears, select **About Desktop Viewer**.

3. After reading the version information, click **OK**.

>   ***Tip*** *You can also view version information for Axeda Desktop Viewer when you first start the application. To do so, click **About** in the **Desktop Viewer - New Connection** dialog box.*

Viewing Status of Connection

During a remote session, you can view the status of the current connection. This window also appears when you first request the connection. The information in this window includes the IP address and port number, the actual status (Password requested, Connected, Failed), the Encoder and Speed for the connection. You can also view the traffic between the two computers (Bytes Sent and Bytes Received).

To display the Status window

In the toolbar, click the Show Status window icon ( ).

The **Axeda Desktop Viewer Status for** *<ip_address>* window appears. shows an example of this window.
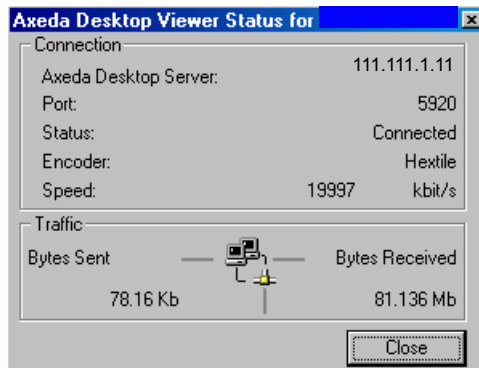
Figure 4-3. Axeda Desktop Viewer Status for <ip_address> window

Viewing Connection Information

During a remote session, you can view information about the connection between the Axeda® Desktop Viewer and Axeda® Desktop Server computers.

To view connection information

1. In the Axeda Desktop Viewer window, click the Axeda Desktop Viewer icon ( ) at the top, left of the window.

2. When the menu appears, select **Connection Info**.

   The **Axeda Desktop connection info** window appears, showing the name and host IP address for the Axeda Desktop Server computer, as well as some properties of that desktop.
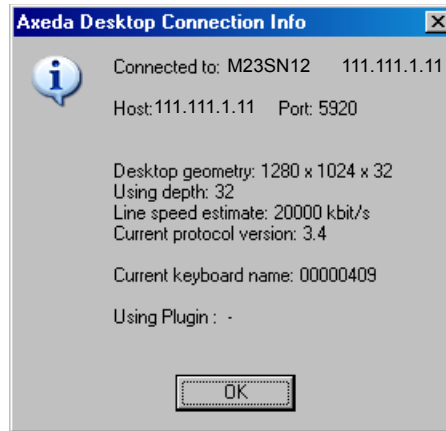
Figure 4-4. Connection Info window

3. After viewing the connection information, click **OK** to close the window.

Taking Action on the Remote Desktop

Table 4-2 shows actions you can perform on the remote desktop using the Desktop Viewer menu and/or toolbar. Note that some menu items are not available on the toolbar. In addition to the actions listed in the table, you can also perform any operation on the Axeda Desktop Server desktop that is permitted by configured security, such as copying file content to or from the Axeda Desktop Viewer computer.

Table 4-2. Actions for the remote desktop

To	Select from the menu	Click the toolbar icon
Enable and disable remote input and remote blank monitor **Note:** If the devices you are servicing have been set up with an image to display during service, follow the steps in the procedure that follows this table, *To display the image during service*.	Disable Remote Input/ Monitor	
	Enable Remote Input/ Monitor	
Simulate Ctrl+Alt+Del (shutting down) on the remote desktop	Send Ctrl+Alt+Del	
Simulate Ctrl+Esc (Start menu) on the remote desktop [a]	Send Ctrl+Esc (Start menu)	
Send the Ctrl plus arrow key combinations to the active application (window of the application must be the active window on the remote desktop)	Ctrl Key Down Ctrl Key Up	None
Send the ALT plus arrow key combinations to the active application (window of the application must be the active window on the remote desktop)	Alt Key Down Alt Key Up	None

a. If you blank the remote monitor and subsequently select the menu item or click the toolbar icon for the Start menu, it is normal for the Start menu to flicker on the remote monitor. In addition, tool tips may appear as black rectangles on the remote monitor (tool tips and menus in Windows take precedence over anything else).

1. From a remote location, start a Desktop Viewer session with the device.

2. Select the Toggle Remote Input/Remote Blank Monitor tool ( ) on the tool bar. The image will appear on the device monitor, and the operators at the device location will not be able to use the device.

3. When the service session is complete, remember to select the Toggle Remote Input/Remote Blank Monitor ( ) tool to enable remote input and the remote monitor at the device.

   Note: *If you blank the remote monitor and subsequently select this menu option or click the toolbar icon, it is normal for the Start menu to flicker on the remote monitor. In addition, tool tips may be visible as black rectangles on the remote monitor. (Tool tips and menus take precedence over anything else on a display in Windows.)*

Simulating Key Sequences on the Remote Desktop

During a remote session, if Axeda Desktop Server is running as a service, you can simulate the Ctrl+Alt+Del key combination on the remote desktop. The Axeda Desktop Server computer behaves as if the local operator had typed Ctrl+Alt+Del. For example, on a Windows XP computer, the **Windows Security** dialog box appears. At this point, the Axeda Desktop Viewer operator sharing the desktop has the option of stopping specific processes on the Axeda Desktop Server computer, changing the Axeda Desktop Server computer's password, or of shutting down the Axeda Desktop Server computer.

To simulate Ctrl+Alt+Del on the Axeda Desktop Server desktop

On the Desktop Viewer toolbar, click the **Send Ctrl+Alt+Del** icon ( ).

If the toolbar is hidden, click the Axeda Desktop Viewer icon ( ) at the top, left of the window. When the menu appears, select **Send Ctrl+Alt+Del**.

   Important! *To simulate Ctrl+Alt+Del (CAD) successfully, Axeda Desktop Server must be running as a service on Windows machines. If you cannot issue a CAD successfully and you know that the remote machine is running Windows, it may be that Desktop Server is not running as a service and/or that CAD has been disabled on that machine. CAD security can be disabled by a policy. Contact an IT or system administrator to resolve the problem.*

On the Desktop Viewer toolbar, click the **Send 'Start' (Ctrl+Esc)** icon ( ).

If the toolbar is hidden, click the Desktop Viewer icon ( ) in the top left corner of the window. When the menu appears, select **Send Ctrl+Esc (Start menu)**.

On the Axeda Desktop Server desktop, the Start menu appears.

Note: *If you blank the remote monitor and subsequently select this menu option or click the toolbar icon, it is normal for the Start menu to flicker on the remote monitor. In addition, tool tips may be visible as black rectangles on the remote monitor. (Tool tips and menus take precedence over anything else on a display in Windows.)*

Managing the Desktop Viewer Window

During a remote session, you can change the Axeda Desktop Viewer window to Full Screen, so that it fills the monitor screen completely, and you can change it back to normal viewing size. You can also display the window at half the size or scale the remote desktop to the size of the Viewer window automatically. To blur the content of the remote desktop, choose the Fuzzy screen option. Finally, you can display the remote desktop on your computer and use your keyboard and mouse to perform whatever actions are needed, and at the same time, prevent a remote operator from using the keyboard and mouse and blank out the monitor on the remote computer. When you have completed your work, you can enable remote input and the monitor again.

Table 4-3. Desktop Viewer window actions

To	Select from the menu	Click the toolbar icon
Restore the window to its original size	Restore	None
Move the window	Move	None
Change the size the window	Size	None
Minimize the window	Minimize	None
Maximize the window	Maximize	None
Show or hide the toolbar	Show toolbar	
Refresh the screen	Request screen refresh	

Table 4-3. Desktop Viewer window actions *(continued...)*

To	Select from the menu	Click the toolbar icon
Set View Only mode	View only	None
Show the remote desktop on the Full screen	Full screen	
Automatically scale the view of the remote desktop to fit the size of the Desktop Viewer window	Auto scale screen	None
Show the remote desktop at half size (reduces the size of the Desktop Viewer window to half size)	Half size screen	None
Blur the screen	Fuzzy screen	None
Restore the screen to its original view size and quality	Normal screen	None
Change the display of colors. See also Connection options	Full Colors 256 Colors	None
Share only one window of the remote desktop	None	
Share the full desktop of the remote computer. Toggle between two display components of the same desktop (for example, between two monitors configure to work as an extended desktop)	None	

To turn on Full Screen mode

In the Axeda Desktop Viewer toolbar, click the **Show Full Screen** icon ( ).

If the toolbar is hidden, click the Desktop Viewer icon ( ) in the top left corner of the window, and then select **Full screen** from the menu.

To turn off Full Screen mode

From the Axeda Desktop Viewer toolbar, select the **Toggle Full Screen** icon ( ).

If the toolbar is hidden, press CTRL+ESC, ESC to show the Windows taskbar. Right-click the Axeda Desktop Viewer icon ( ) in the Windows taskbar to bring up the Axeda Desktop Viewer menu. From that menu, select **Normal screen**.

Alternatively, you can move the mouse to the top of the screen, wait for the tab to appear, and click the Restore button.

To view the remote desktop at half size

1. Click the Desktop Viewer icon ( ) in the top left corner of the window to display the menu.

2. From the Desktop Viewer menu, select **Half Size screen**.

3. To return the screen to normal size, select **Normal screen** from the menu.

To scale the remote desktop automatically to the Desktop Viewer window

1. Click the Desktop Viewer icon ( ) in the top left corner of the window to display the menu.

2. From the Desktop Viewer menu, select **Auto Scale screen**.

3. To return the screen to normal size, select **Normal screen** from the menu.

To disable remote input and blank the remote monitor

From the Axeda Desktop Viewer toolbar, select the Toggle Remote Input and Remote Blank Monitor icon ( ) to disable input and to blank the monitor at the remote computer.

OR

1. Click the Desktop Viewer icon ( ) in the top left corner of the window to display the menu.

2. From the Desktop Viewer menu, select **Disable remote input/monitor**.

> *Tips*   *To learn how to set up an image to display instead of just blanking the remote monitor, refer to the Axeda® Desktop Server User's Guide. Once this image is set up at the* device*, using either the tool or the menu item will disable remote input and display the image.*
>
> *If you blank the remote monitor and subsequently select this menu option or click the toolbar icon, it is normal for the Start menu to flicker on the remote monitor. In addition, tool tips may be visible as black rectangles on the remote monitor. (Tool tips and menus take precedence over anything else on a display in Windows.)*

To enable remote input and the remote monitor

When you temporarily disable input and blank the monitor at the remote computer while you perform diagnostics or routing maintenance, you can return control to the remote operator by enabling remote input and returning the monitor to its normal display.

From the Axeda Desktop Viewer toolbar, select the Toggle Remote Input and Remote Blank Monitor icon ( ) to enable input and to display the normal view on the monitor at the remote computer.

OR

1. Click the Desktop Viewer icon ( ) in the top left corner of the window to display the menu.

2. From the Desktop Viewer menu, select **Enable remote input/monitor**.

To blur the view of the remote desktop

1. Click the Desktop Viewer icon ( ) in the top left corner of the window to display the menu.

2. From the Desktop Viewer menu, select **Fuzzy screen**.

3. To return the screen to normal view, select **Normal screen** from the menu.

To refresh the content of the window during a remote session

In the Axeda Desktop Viewer toolbar, click the **Request Screen Refresh** icon ( ).

If the toolbar is hidden, click the Desktop Viewer icon ( ) in the top left corner of the window, and then select **Request Screen Refresh**.

To show only one window of the remote desktop

1. In the Axeda Desktop Viewer toolbar, click the Select Single Window icon ( ).

2. When the cursor changes, move it over the window you want to select and click once. The Viewer window resizes to the size of the selected window and displays only that window.

> ***Important!*** *When you select the Single Window and then return to the full desktop, Desktop Viewer will crash. This is an issue with the Ultr@VNC viewer upon which Desktop Viewer is based.*

In the Axeda Desktop Viewer toolbar, click the Select Full Desktop icon (![icon]). The Desktop Viewer window changes to show the full content of the remote desktop.

How Desktop Viewer Handles Extended Desktops

If a remote computer has more than one display component, such as dual monitors, and the components are configured to work as an extended Windows desktop, you can view the content

displayed by all components using the Select Full Desktop icon (![icon]). You can cycle from a full view of the extended desktop through each of its display components and then back to the full view. Figure 4-5 provides an example of such a Windows configuration, using dual monitors.
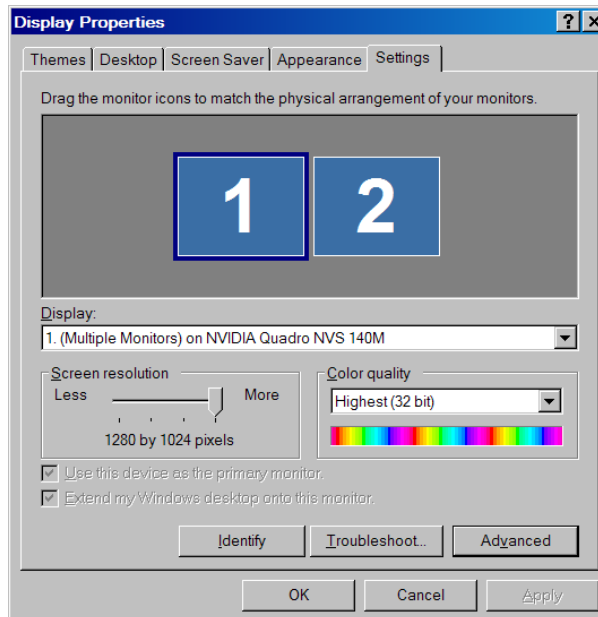
Figure 4-5. Windows Extended Desktop configuration for dual monitors

After starting the Desktop Viewer session with a system configured in this way, click the Select

Full Desktop icon (![icon]). Notice at the bottom of the Desktop Viewer window that a horizontal scroll bar appears. If you scroll to the right, you will display the entire content of the extended desktop (in the example, of both monitors). By clicking the Select Full Desktop icon again, you can view the first display component of the extended desktop by itself. Clicking it a third time displays the second component of the extended desktop by itself. Finally, clicking it a fourth time returns you to the full view of the extended desktop.

In a cycle of four clicks of the Select Full Desktop tool you will see

1. The full extended desktop, but you need to scroll to see all of it. The following example shows most of an extended desktop, with Auto Scale enabled and the Desktop Viewer window reduced to Half Size:

Use this horizontal scroll bar to see the full extended desktop.

Figure 4-6. Full extended desktop

2. The first of the two desktop display components. The following example shows the first of the display components, with Auto Scale enabled and the Viewer window reduced to Half Size:
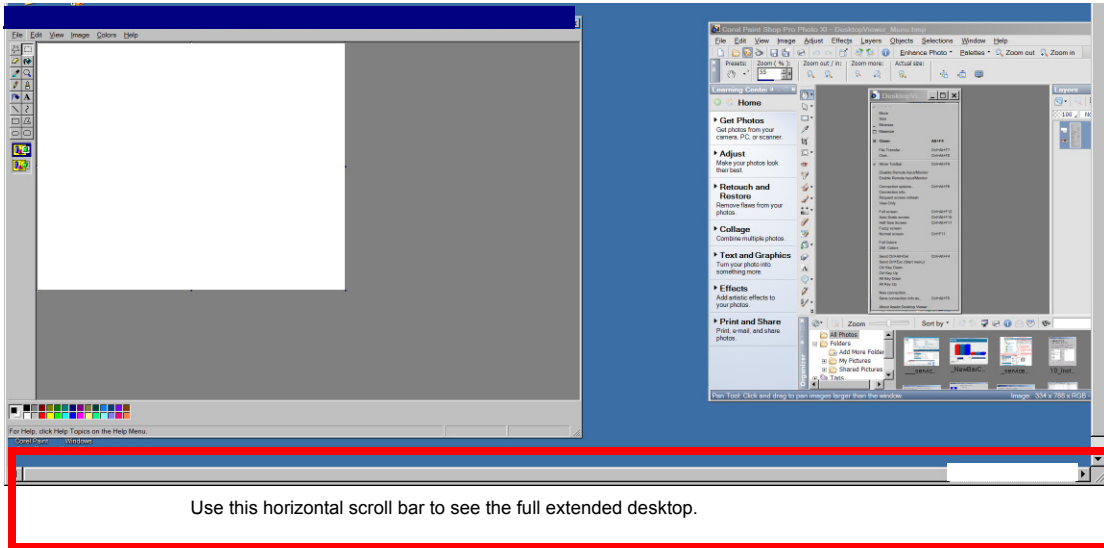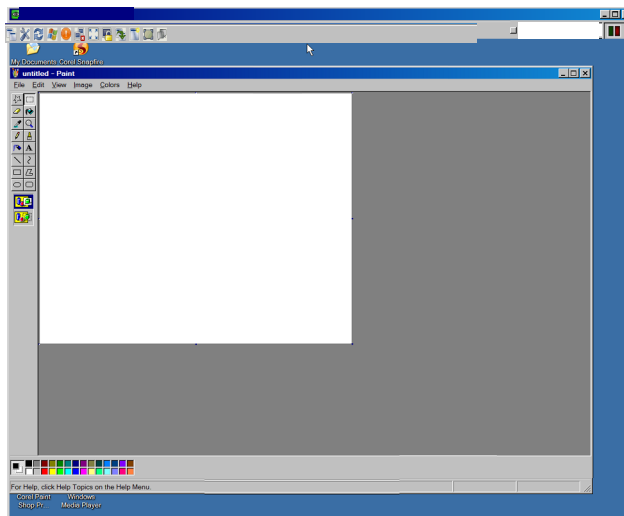

Figure 4-7. Display component 1 of the extended desktop

3. The second of the two desktop display components. The following example shows the second of the display components, with Auto Scale enabled:
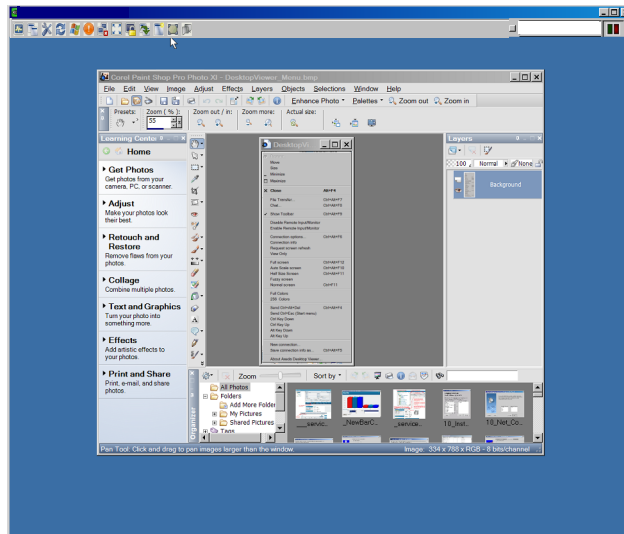
Figure 4-8. Display component 2 of the extended desktop

4. The full extended desktop appears again (as shown in Figure 4-6).

If you have more than two display components, then clicking the Select Full Desktop tool multiple times cycles you through all of the display components. Consider the following example, where four display components comprise the extended desktop:

Figure 4-9. Four display components for an extended desktop

When you connect Desktop Viewer to this computer and click the Select Full Desktop tool, you see the extended desktop as follows:

1. First click — the entire extended desktop is available (by scrolling) in the Desktop Viewer window.

2. Second click — the first display component is available by itself in the Viewer window.

3. Third click — the second display component is available by itself.

4. Fourth click — the third display component is available by itself.

5. Fifth click — the fourth display component is available by itself.

6. Sixth click — the entire extended desktop is available again.

Showing or Hiding the Axeda® Desktop Viewer Toolbar

The Axeda Desktop Viewer toolbar contains a subset of the commands from the menu, plus additional tools. The toolbar, when shown, appears at the top, left of the Axeda Desktop Viewer window during a remote session.

To show the toolbar

1. Click the Desktop Viewer icon ( ) in the top left corner of the window.

2. When the Axeda Desktop Viewer menu appears, select **Show Toolbar**.

   Note: *You can also use the Axeda Desktop Viewer settings to configure the toolbar to appear automatically during remote sessions.*

To hide the toolbar

In the Axeda Desktop Viewer toolbar, click the **Hide Toolbar Buttons** icon ( ).

Alternatively, open the menu and notice that the **Show Toolbar** option is selected (a check mark appears next to it. Click that command to hide the toolbar.

Transferring Files and Directories

During a remote session, you can download one or more files and directories from the Axeda Desktop Viewer computer to the Axeda Desktop Server computer, or upload one or more files and directories from the Axeda Desktop Server computer to the Axeda Desktop Viewer computer. You can also use the **File Transfer** window to create directories, and delete files on either computer. Security settings for either system might limit your capabilities.

> ***Important!*** *If a file transfer starts and subsequently fails before completion (for example, the network cable is unplugged), try the transfer again. Desktop Server can resume the file transfer from the failure point because it does not delete the partially transferred file. Desktop Server verifies the partial file in 8k blocks and resumes the transfer with the first block that fails verification.*
>
> *Axeda Desktop Viewer and Desktop Server support large file transfers, where "large" refers to files larger than 2GB.*

As you perform activities on files and directories, the History field at the bottom of this dialog box shows the action that has been taken. As appropriate, the Progress field shows the status of a file transfer that is active.

You can minimize the File Transfer window (click **Minimize**) if you want to do something else while a file transfer is in progress.

> ***Important!*** *When the File Transfer window is open, the rest of the Desktop Viewer window does NOT update. Minimize the File Transfer window if you want the rest of the Desktop Viewer window to refresh.*

.To transfer files and directories between the Axeda Desktop Viewer and Axeda Desktop Server computers

1. In the Axeda Desktop Viewer toolbar, click the **File Transfer** icon ( ). If the toolbar is hidden, click the Desktop Viewer icon ( ) in the top left corner of the window, and then select **File Transfer**. The File Transfer window appears, as shown in Figure 4-10.

2. To transfer a file from the Axeda Desktop Viewer computer to the Axeda Desktop Server computer:

   a) Next to **Local Machine** in the File Transfer window, use the list to select the directory where the files you want to transfer exist.

   b) When the contents of the directory appear in the pane below the list, navigate to and then select one or more files and directories to transfer.

   c) From the list next to **Remote Machine**, select the top-level directory where the selected file(s) and directories should be transferred.

   d) If necessary, when the contents of the directory appear in the pane below the list, navigate to the destination directory.
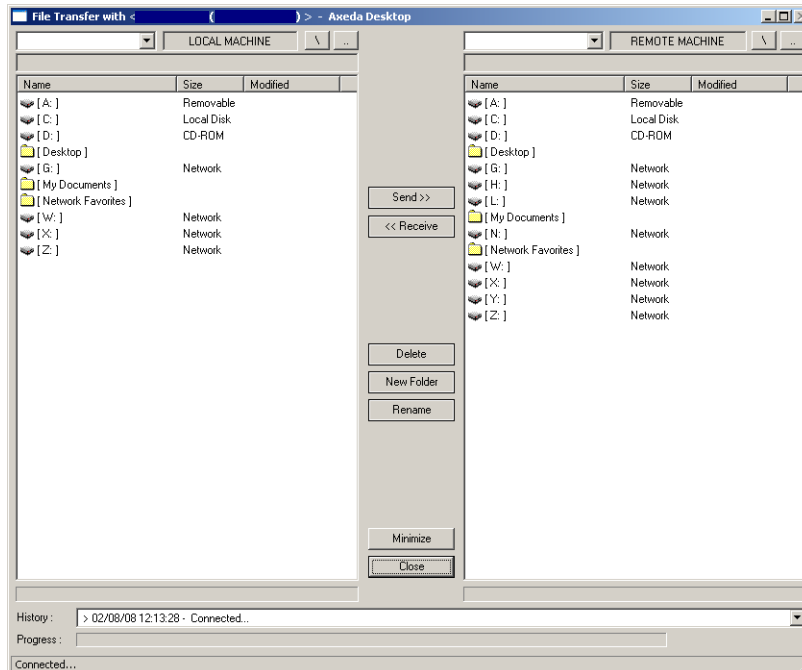
e) Click **Send>>**.

Figure 4-10. File Transfer window

3. To transfer a file from the Axeda Desktop Server computer to the Axeda Desktop Viewer computer:

   a) Next to **Remote Machine** in the File Transfer window, use the list to select the directory where the files you want to transfer exist.

   b) When the contents of the directory appear in the pane below the list, navigate to and then select one or more files and directories to transfer.

   c) From the list next to **Local Machine**, select the top-level directory where the selected file(s) and directories should be transferred.

   d) If necessary, when the contents of the directory appear in the pane below the list, navigate to the destination directory.

   e) Click **<<Receive**.

4. When finished transferring files, click **Close**.

   Important! *If a file transfer starts and subsequently fails before completion (for example, the network cable is unplugged), try the transfer again. Desktop Server can resume the file transfer from the failure point because it does not delete the partially transferred file. Desktop Server verifies the partial file in 8k blocks and resumes the transfer with the first block that fails verification.*

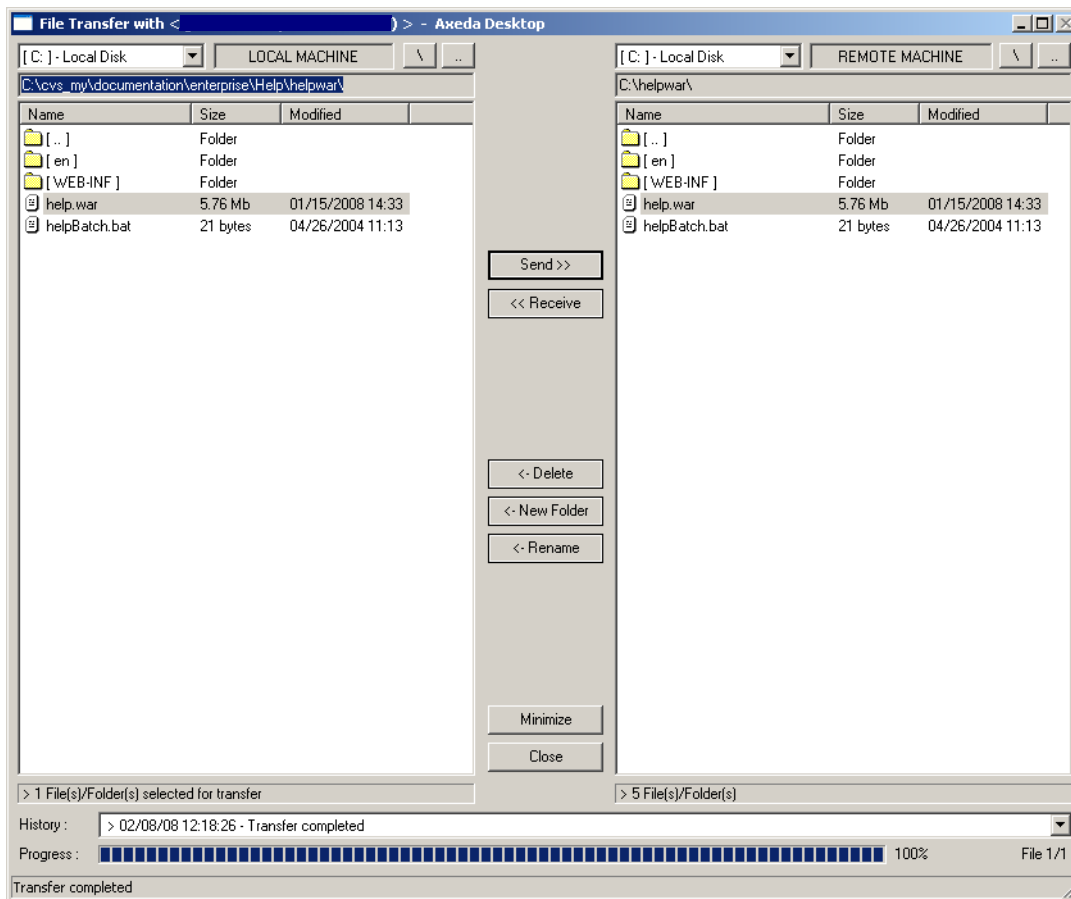The following figure shows an example of a completed file transfer:

Figure 4-11. Completed File Transfer

For sessions shared through the Axeda® Enterprise server, the Audit report of the Axeda® Administration application includes all file transfers.

Note: *When users transfer a directory, all files and sub-directories are transferred; however, the audit message includes the name of the directory only.*

To create a new directory

1. In the Axeda Desktop Viewer toolbar, click the **File Transfer** icon ( ). If the toolbar is hidden, click the Desktop Viewer icon ( ) in the top left corner of the window, and then select **File Transfer**.

2. To create a new directory on the local Axeda Desktop Viewer computer, use the **Local Machine** side of the dialog box to select the Path for the new directory.

3. To create a new directory on the Axeda Desktop Server computer, use the **Remote Machine** side of the dialog box to select the Path for the new directory.

4. Click **New Folder**. A File Transfer dialog box appears, as shown in the following figure:
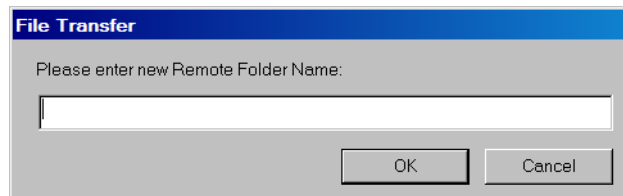
Figure 4-12. New Folder dialog box

5. Type the name of the new folder, and click **OK**. The new folder name appears in the content listing of the destination directory, in alphabetical order.

To rename a file or directory

1. In the Axeda Desktop Viewer toolbar, click the **File Transfer** icon ( ). If the toolbar is hidden, click the Desktop Viewer icon ( ) in the top left corner of the window, and then select **File Transfer**.

2. Navigate to and select the file or directory that you want to rename. To rename a file or directory from the local Axeda Desktop Viewer computer, use the **Local Machine** side of the dialog box and select the item to rename. To rename a file or directory from the Axeda Desktop Server computer, use the **Remote Machine** side of the dialog box to select the item to rename.

3. After selecting the file or directory, click **Rename**. The File & Directory Rename dialog box appears, with the current name of the file or directory in the text field, as shown in the following figure:
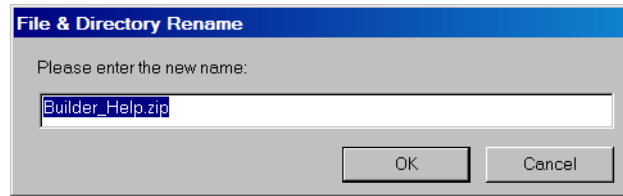
Figure 4-13. File & Directory Rename dialog box

4. Edit the name of the file or directory, and then click **OK**. To cancel the name change, click **Cancel**. The revised name appears alphabetically in the content listing of the parent directory.

To delete a file or directory

1. In the Axeda Desktop Viewer toolbar, click the **File Transfer** icon ( ). If the toolbar is hidden, click the Desktop Viewer icon ( ) in the top left corner of the window, and then select **File Transfer**.

2. To delete one or more files or directories from the local Axeda Desktop Viewer computer, use the **Local Machine** side of the dialog box and select the items to delete. To delete one or more files or directories from the Axeda Desktop Server computer, use the **Remote Machine** side of the dialog box and select the items to delete.

3. Click **Delete**.

4. When prompted, confirm that you want to delete the file(s) by clicking **Yes** or **Yes for All**. You can cancel the deletion by clicking **No** or **No for All**.

Audit Messages for File Transfer Activities

For remote desktop sessions established through the Axeda Service application, all activities in the File Transfer window are audited. Axeda Desktop Server sends audit messages to the Axeda ServiceLink Agent, which forwards the messages to the Enterprise server for display in the Device dashboard and the Axeda Administration application. When a remote desktop session is started from the Service application, the ServiceLink Agent connects to Axeda Desktop Server, listening on port 8330. As file transfer activities occur, Desktop Server writes audit messages to this port. This method of auditing ensures that the Agent associates each remote desktop session with the correct session ID assigned by the Enterprise server.

The messages that you may see include completion and failure messages for uploads and downloads as well as messages that a folder or file was renamed, as follows:

- Folder renamed
- File renamed
- File upload complete
- File upload failed
- File download complete
- File download failed
- Folder upload complete
- Folder upload failed
- Folder download complete
- Folder download failed
- Folder deleted

Note: *Auditing of file transfers made through Axeda Desktop Viewer requires release 5.2 or higher of the Axeda Enterprise server.*

4-25

Starting a Chat Session with a Remote Operator

When sharing to an Axeda® Desktop Server desktop, you can start a chat session with the Desktop Server operator. During a chat session, both Axeda® Desktop Viewer and Remote operators can quickly communicate with each other through text-based messages. Multiple Desktop Viewer operators can chat with a single Desktop Server operator.

To chat with an Desktop Server operator

1. On the Desktop Viewer toolbar, click the **Chat** icon (![chat icon]). If the toolbar is hidden, click the Desktop Viewer icon (![desktop viewer icon]) in the top left corner of the window to display the menu. From the menu, select **Chat**. Either way, the Chat window appears, with the cursor in the text entry box. The following figure shows an example of this window:
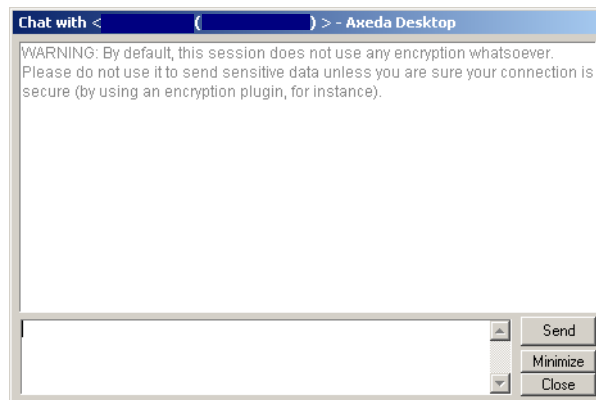
Figure 4-14. Chat window

2. Type your message and click **Send**. At this point, a chat window appears on the Desktop Server computer with your message and your identifier: your computer's name.

   When the Axeda Desktop Server operator sends a message back to you, your chat window will show the name or address of the machine on which Axeda Desktop Server is running.

3. To continue chat communications, type messages and click **Send** each time.

   > ***Important!*** *When you are running a chat session with the remote operator, the rest of the Desktop Viewer window does NOT update while the Chat window is open. If you need the screen to update while communicating with the remote operator, you can use an Instant Messaging (IM) application. Alternatively, you can open Notepad on the remote desktop and use that application to communicate while you are performing other operations. It is the way the application on which Desktop Viewer is based (UltraVNC) works at this time.*
   >
   > *Chat sessions are NOT audited.*

4. To end chat communications, click **Close** in your chat window. The chat window closes on both machines, whether the Desktop Viewer Client or the Desktop Server operator clicks **Close**. If, however, other Axeda Desktop Viewer operators are part of the same chat session, the chat window remains open on the desktops of those operators and on the desktop of the Axeda Desktop Server computer.

> *Tips*   *While users are "chatting", another Axeda Desktop Viewer user can start a chat session with the same Axeda Desktop Server user. In this case, a separate chat window appears on the Desktop Server monitor for the second Axeda Desktop Viewer. Multiple Axeda Desktop Viewer users can connect to the same Axeda Desktop Server at the same time, and the messages are sent back to the appropriate users. The result is multiple chat windows on the Desktop Server monitor.*
>
> *CapsLock key — The Desktop Viewer keyboard has control of the input during a remote session, including a chat session. The CapsLock key on the target Desktop Server device has no effect on the input from the Desktop Viewer keyboard during a remote session.*

Copying File Content

When necessary, you can copy content from files on the Axeda® Desktop Server machine to your computer (which is running the Axeda Desktop Viewer), and vice-versa. For example, a file on the remote computer contains information you want to include in a report. No special command or toolbar icon is necessary. The following procedure explains how to copy content.

To copy file content to or from the Axeda Desktop Server desktop

1. In the desktop that you want to copy from, open the file that contains the data you want to copy.

2. Select and copy the desired data.

3. In the desktop that you want to copy to, open (or create) the file where you want to paste the data.

4. Paste the data.

5. Save the file.

Chapter 5
Troubleshooting

This chapter provides some actions you can take to troubleshoot remote sessions, in the following sections:

♦ *Remote Sessions Through the Axeda Service Application* suggests possible solutions for situations when you cannot communicate with the Axeda Enterprise server or with a remote Desktop Server machine through Axeda Service and Desktop Viewer.

♦ *Problems with Microsoft Windows Systems* explains the requirements for Windows systems that, if not met, may cause problems. For example, check this section if Ctrl+Alt+Del is not working properly from Desktop Viewer.

♦ *If the Connection Closes Unexpectedly* explains the possible causes for an unexpected end to a session.

♦ *Slow Dial-up Connections* explains steps you can take when using a slow dial-up connection from the Desktop Viewer computer to the Desktop Server machine.

♦ *Problems Accessing Linux Desktop Server* explains Desktop Viewer behaviors that can occur when accessing the Desktop Server running on a Linux machine.

♦ *File Transfer Problems* explains issues that have arisen with file transfers and provides important information about their resolution or workarounds for them.

♦ *Miscellaneous Issues* explains other issues and provides important information about their resolution or workarounds for them.

> *Important! Axeda Desktop Viewer does not support remote sessions with devices running Axeda® IDM Agents (formerly Questra® Service Agents). The Axeda IDM Agents use the TotalAccess™ Server. For more information, refer to the documentation for these products and to the topic in the online help for the Axeda ServiceLink Applications, called "Axeda® IDM Agents."*

Remote Sessions Through the Axeda Service Application

If you cannot communicate with the Axeda Enterprise server, check the following:

♦ Make sure your Desktop Viewer computer is connected to the Axeda Enterprise server.

♦ Make sure you are using a supported Web browser version for the Axeda ServiceLink Applications.

♦ Make sure the IP address or name you are using to access the Axeda Enterprise server is correct. If you are using the name of the machine, change to the IP address. Occasionally, this change solves the problem.

♦ If a proxy server is configured on the network, make sure you have the correct IP address or name for that server.

♦ Make sure the Axeda license does not restrict your access to the Axeda Enterprise server. (The Axeda Enterprise license may include restrictions on the number of clients who can access the Axeda Enterprise server simultaneously.)

♦ It may be that current configuration settings (specifically, the "masking" setup) in the Axeda Enterprise server are blocking your computer based on your IP address. Ask your Axeda Enterprise server administrator if your computer's IP address is prohibited from accessing the Axeda Enterprise server.

♦ Contact your own IT department if you still cannot access a shared desktop.

If you cannot connect to a shared desktop through Axeda Service, check the following:

♦ Make sure that you are using the correct IP address and port number for the Desktop Server.

♦ Make sure that the remote device or computer is not locked. You can enable Desktop Viewer users to access a remote device or computer even when it is locked by running the Desktop Server as a service.

♦ Check whether Axeda Policy Server settings for the Axeda ServiceLink Agent prevent shared sessions.

♦ Check whether the port configured for LAN connections (5920) is available.

♦ Check if the Axeda Desktop Server computer is down, and check if the version of Axeda Desktop Server is compatible with your version of Axeda Desktop Viewer.

If the Axeda Desktop Viewer window does not accurately reflect the current desktop, refresh the Viewer window. For example, if artifacts from previous windows appear, or if you know that new information is being displayed on the Desktop Server desktop, but you cannot see it, refresh the Viewer window.

To refresh the Viewer window, click the Desktop Viewer menu icon in the title bar of the window to show the Desktop Viewer menu. Then, select **Request Screen Refresh.**

Problems with Microsoft Windows Systems

The following requirements must be met during the installation of Axeda Desktop Server for you to be able to successfully use Desktop Viewer with Microsoft Windows operating systems:

♦ On Windows Vista machines, Axeda Desktop Server MUST be installed in a "secure" directory. If you used the default directory during installation (C:\Program Files\Axeda\Desktop), then you have met this requirement.

♦ Axeda Desktop Viewer cannot "wake up" a 64-bit Windows 7 machine from sleep mode unless the machine is configured to wake up from a LAN or from a wireless LAN. Since this configuration is necessary on the machine running Axeda Desktop Server, you can find the steps in the chapter on installing and configuring Desktop Server in the *Axeda® Desktop Server User's Guide*.

   If the machine has been properly configured and you see a message that Viewer is failing to connect to the server, close Desktop Viewer and launch it again.

♦ Windows 7 only: If you start a file transfer to a remote machine and that machine becomes locked during the file transfer, you (and other users) may be unable to unlock the remote machine once the file transfer is complete. To resolve this issue, you need to configure the system that is running Axeda Desktop Server to allow software to simulate the Secure Attention Sequence (SAS).

   On Windows Vista, Windows 7, and Windows 2008, simulation of the SAS by software is controlled by an option in the Local Computer Policy. The policy option is stored in the registry at HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Policies\System\SoftwareSAS Generation. To allow software SAS generation, set the registry value to either 1 (Services) or 3 (Services and Ease of Access applications). The option is also configurable through the Local Group Policy Editor MMC snap-in (gpedit.msc): Computer Configuration | Administrative Templates | Windows Components | Windows Logon Options | Disable or enable software Secure Attention Sequence.

♦ On any Windows system, Axeda Desktop Server MUST be installed as a service. If you accepted the default setting to install as a service during installation, you have met this requirement.

♦ On any Windows system, User Account Control (UAC) MUST be active for CTRL+ALT+DEL to work.

♦ On any Windows system, CTRL+ALT+DEL (CAD) MUST be active (that is, "require CTRL+ALT+DEL to log on) for Desktop Viewer users to be able to send it to the machine.

♦ On Windows Vista machines, ensure that the group policy settings are such that CTRL+ALT+DEL can work for remote desktop users.

For example, the following group policy setting *is known to prevent* remote desktop users from accessing the machine; *do not use this setting*:

```
User Account Control: Run all users, including
administrators, as standard users.
```

♦ If the Desktop Viewer icons do not display during a session with a machine running Windows Vista, contact an IT or system administrator and request that the icon cache on the machine running Desktop Server be fixed.

♦ Issues with the Windows Security window:

⋄ If the Windows Security window does not display properly when you click the "Send Ctrl+Alt+Del to host" icon ( ), press ESC and then click the Send Ctrl+Alt+Del icon again. The Windows Security window will display correctly this second time.

⋄ If you have configured Desktop Server to display an image when the monitor is blanked (refer to the section in the *Axeda® Desktop Server User's Guide*, "Configuring an Image for Remote Monitors"), your service technicians may notice that the Windows Security window flickers momentarily on the remote monitor when they click the Send Ctrl+Alt+Del button from Desktop Viewer while your image is displayed on that monitor. This behavior of the Security window is normal.

♦ You cannot use Axeda Desktop Viewer to connect to a Microsoft Remote Deskop session.

Contact your system administrator about resolving the problem. System administrators should refer to the release notes for Axeda Desktop and to the *Axeda® Desktop Server User's Guide*.

If the Connection Closes Unexpectedly

If a "Connection Lost…" message appears, the Axeda Enterprise server may have gone down, or the Desktop Server computer may have stopped communicating with the Axeda Enterprise server, or an operator at the Desktop Server computer may have ended the session.

This message can also appear if a dial-up connection ends. Any activity over a dial-up connection, including shared sessions, will last only as long as your ISP will allow.

Slow Dial-up Connections

When using a dial-up connection to transfer files between the Desktop Viewer and Desktop Server computers, reducing activities on the Viewer computer that use system resources will improve speed. For example, minimize windows and avoid unnecessary cursor movements.

Problems Accessing Linux Desktop Server

Mouse Cursor is a dot in the Desktop Viewer window

The Desktop Server on Linux does NOT pass the shape of the mouse cursor to the Desktop Viewer client, no matter which platform the Desktop Viewer client is running on. Therefore, when the Viewer client makes a substitution, it uses the dot. The dot minimizes the potential for the cursor obscuring characters on the remote desktop.

Note that the dot cursor is not visible at the machine you are accessing.

Screensaver on remote Linux device not stopped

Occasionally, the Linux screensaver is not stopped, even though the remote screen is re-activated using the mouse. This problem has been observed on some Linux machines some of the time, but not on others and not all of the time. Until the circumstances that cause the problem are determined so that it can be resolved, you should be aware that it can occur.

File Transfer Problems

This section explains resolutions that have been implemented in response to file transfer issues.

File Transfer Timeout and KeepAlive Interval

When a file transfer is in progress, Axeda Desktop Server and Desktop Viewer exchange small messages, called 'keepalives', to avoid network timeouts. These messages are very small, typically just a few bytes and do not contribute to the overall overhead of the file transfer in any meaningful way. Unfortunately, some firewall appliances misinterpret these packets and block them, resulting in the connection being lost between Desktop Viewer and Desktop Server.

To customize the frequency of the 'keepalive' messages sent during a file transfer, you have configuration options for both Axeda Desktop Server and Desktop Viewer:

♦ Axeda Desktop Viewer has a command line switch '/keepalive nn', where nn is the number of seconds between keepalive messages. The default interval is 5 seconds. If the value specified is greater than the file transfer timeout (by default, 30 seconds), then the keepalive interval is reset to one second less than the file transfer timeout. This value can also be stored in an option file (*options.vnc*) by adding KeepAliveInterval=nn to the [connection] section. The default options file is stored in the directory, *C:\Documents And Settings\<current user>\Application Data\AxedaDesktopViewer*.

♦ To configure the keepalive interval for Axeda Desktop Server, set `KeepAliveInterval=nn` in the AxedaDesktop.ini file (the `[admin]` section). If this property is not present, Desktop Server uses the default of 5 seconds. This value is also constrained to be one second less than the file transfer timeout (by default, 30 seconds).

Refer to the *Table 3-1, Desktop Server properties (ini file and UI)* in the *Axeda® Desktop Server User's Guide* to see the listing for the FileTransferTimeout and KeepAliveInterval properties.

Interactions with QuickLaunch

It is rather inconvenient to create a default options file on each computer used to access a remote system or to edit the Quick Launch command for each model that requires a customized keepalive interval. Therefore, when Axeda Desktop Server detects that a compatible Desktop Viewer has connected, the keepalive interval that Desktop Server is using is transmitted to the Viewer. The new value is then used by both ends of the connection during any file transfers that may occur during that session. This behavior eliminates the need for client-side configuration of the keepalive interval unless further tuning is needed.

File Transfers When Remote Machine Is Locked During Transfer

If an operator at the remote machine locks the desktop while file transfer operations are in progress, the file transfer is allowed to complete. You can continue to use the File Transfer window for new operations as long as you do not close the window. If you minimize the File Transfer window during the transfer, you can see that the workstation has been locked. If you close and re-open the File Transfer window after the remote machine has been locked, you will see the error message, "Permission Denied."

File Transfers When Network Connectivity Is Lost

To improve performance, the Application Bridge buffers a small amount of data before sending it to the Global Access Server for transfer to the remote device. If the connection to the remote device is lost near the end of a file transmission, the Application Bridge buffer may have enough space to hold the remaining data sent from Axeda Desktop Viewer or an FTP client. Since the protocol used for file transfers does not require acknowledgement of each data packet sent, a file transfer can appear to complete successfully even though the connection to the deivce has been lost. This issue can occur not only with FTP or Axeda Desktop Viewer but with all applications that use such a protocol for file transfers.

Chat During File Transfer

You cannot start a Chat session while the File Transfer window is open. In addition, you cannot transfer a file while the Chat window is open. If you attempt to open the Chat window while a file transfer is in progress, you will see the warning message, "Please close the file transfer first."

Limitation on Size of Compressed Folder

If you transfer a folder that is larger than 2GB when compressed, you will see the following error message:

```
Error during compression of local folder <>. Transfer
Aborted
```

This is a known limitation in Desktop Server.

Unable to Transfer Huge Folder

Although the History field in the File Transfer window says, "Transfer complete", a transfer of a folder that is 2GB in size does not work. This problem is a limitation of the zip/unzip library used to create a zip file of the folder. On Windows, this library has a 2GB limit on 32-bit systems, due to UnZip not finding any file that is larger than 2GB from the beginning of the archive. On 64-bit systems, UnZip does not find any file that is larger than 4GB from the beginning. The combined total of all files in a folder must be less than 2GB on 32-bit systems or 4GB on 64-bit systems.

To work around this problem, create a zip file of any folder whose contents are greater than the limit for your system (2GB for 32-bit systems and 4GB for 64-bit systems) *before* attempting to transfer the folder. Then transfer the zip file.

Remote Machine Appears to Hang During File Transfer or Chat

When either the File Transfer or Chat window is open and a file transfer or chat session is in progress, screen updates are not sent from the remote machine, unless the window is minimized. This lack of updates makes it seem as if the remote machine hangs when in fact it does not. You can verify this by minimizing the File Transfer or Chat window. Once you minimize the window, you can perform tasks on the remote desktop and see the results because the screen updates are once again sent. However, keep in mind that minimizing the window pauses the file transfer or chat session. The file transfer or chat session will resume once you restore the window (and screen updates will stop again when you restore the window).

Miscellaneous Issues

Forbid User to Close Desktop Server Not Enforced

In the configuration window that appears for Admin Properties (Desktop Server), the default setting of the property, Forbid user to close Desktop Server, is Enabled. However, the Desktop Server menu makes the commands, Stop Service and Uninstall Service, avalable locally and to the Desktop Viewer session. Only the Close Axeda Desktop Server command is disabled. This behavior is expected for a user who has administrator credentials (which permit the user to stop or uninstall the service). The Forbid property covers ONLY the Close Axeda Desktop Server command. A user with administrator credentials should still have access to the service-related commands on the Desktop Server menu.

Desktop Server Does Not Accept Connections After RDP Session Exits

When a Desktop Viewer user connected to a remote machine using a Microsoft RDP session (Remote Desktop/Terminal Services), the tray icon for Desktop Server disappeared, so that no further connections could be made. In addition, when the RDP session was disconnected, the remote machine became locked and no new connection could be established.

This issue has been addressed so that when an RDP session disconnects, the tray icon becomes available again five to ten seconds after the RDP session is closed. It takes these seconds for the Desktop Server tray icon to return after the RDP session disconnects.

Special Characters Not Passed Through Desktop Viewer (Linux)

This problem occurs when using the ALT key and the numeric keypad to enter special characters in an application running on the remote computer through the WinVNC4-based viewer. The WinVNC4 Viewer and the Desktop Server were modified to handle the ALT key. However, the changes do not solve the ALT+<0nnn> issue. The WinVNC4 viewer sends the keystrokes it detects to the server as individual up and down events, not character-by-character. While a Windows-based Desktop Server supports this type of input, an X11-based Desktop Server does not. When connected to a remote system, keep in mind that the keyboard is emulating the keyboard on the remote system, not the local system (that is, operating system specific functionality does not work as expected on the remote system). The changes made for this issue were to improve the compatibility of non-English keyboard layouts.