

Oracle® Secure Global Desktop

Platform Support and Release Notes for Release 5.1



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Abstract

This document describes the new and changed features for this release of Oracle Secure Global Desktop. Information on supported platforms and known bugs and issues are included.

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Preface

The *Oracle Secure Global Desktop Platform Support and Release Notes* provide information about the system requirements and support, and the new features and changes, for this version of Oracle Secure Global Desktop (SGD). This document is written for system administrators.

1 Audience

This document is intended for new users of SGD. It is assumed that readers are familiar with Web technologies and have a general understanding of Windows and UNIX platforms.

2 Document Organization

The document is organized as follows:

- [Chapter 1, *New Features and Changes*](#) describes the new features and changes for this version of Oracle Secure Global Desktop.
- [Chapter 2, *System Requirements and Support*](#) includes details of the system requirements and supported platforms for this version of Oracle Secure Global Desktop.
- [Chapter 3, *Known Issues, Bug Fixes, and Documentation Issues*](#) contains information about known issues, bug fixes, and documentation issues for this version of Oracle Secure Global Desktop. Details on providing feedback and reporting bugs are also included.

3 Related Documents

The documentation for this product is available at:

<http://www.oracle.com/technetwork/documentation/sgd-193668.html>

For additional information, see the following manuals:

- *Oracle Secure Global Desktop Administration Guide*
- *Oracle Secure Global Desktop Installation Guide*
- *Oracle Secure Global Desktop Gateway Administration Guide*
- *Oracle Secure Global Desktop User Guide*
- *Oracle Secure Global Desktop Security Guide*

4 Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.

Convention	Meaning
<code>monospace</code>	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Chapter 1 New Features and Changes

This chapter describes the new features and changes in Oracle Secure Global Desktop (SGD) Release 5.1.

Changes for the next release of SGD are also described.

1.1 New Features in Release 5.1

This section describes the features that are new in the SGD 5.1 release.

1.1.1 Support for Android Client Devices

This release introduces support for using an Android device to access SGD. Android devices use the lightweight HTML5 client, which was introduced in SGD release 5.0.

See [Table 2.4, “Android Client Devices Tested With SGD”](#) for the supported Android client platforms.

See [Using a Tablet Device](#) in the *Oracle Secure Global Desktop User Guide* for more details of how to use an Android device with SGD.

1.1.2 HTML5 Support for Chrome Browsers on Desktop Platforms

This release introduces support for displaying the *tablet workspace* on desktop platforms. The tablet workspace is the default workspace shown when you log in from a tablet device, such as an iPad or Android device. This workspace uses an HTML5 page and does not require Java technology to be installed on the client device.

The tablet workspace is available when using the Google Chrome browser on supported Windows and Mac OS X desktop client platforms.

See [Deploying the Tablet Workspace on Desktop Platforms](#) in the *Oracle Secure Global Desktop Administration Guide*.



Note

Some features of SGD may be unavailable when using the tablet workspace. See [Limitations of Using the Tablet Workspace](#) in the *Oracle Secure Global Desktop User Guide*.

1.2 Changes in Release 5.1

This section describes the changes for the SGD 5.1 release.

1.2.1 Retirement of rpm Command for Installation on Linux Platforms

The `rpm` command is no longer used to install the main SGD software component on Linux platforms.

To install SGD on Linux platforms, Administrators should use the `yum` command as follows:

```
# yum install --nogpgcheck tta-version.i386.rpm
```

Using `yum` means that all package dependencies are resolved automatically.

See [Installing the Main SGD Component](#) in the *Oracle Secure Global Desktop Installation Guide*.

1.2.2 Retirement of Webtop Terminology

From this release, the term *webtop* is no longer used. The webtop is now called the *workspace*.

A workspace is the term used to describe a user's applications, documents, and desktops. The workspace term is now used in the SGD software and documentation.

See the Glossary appendix in the *Oracle Secure Global Desktop Administration Guide* for definitions of the new terms used in SGD.

1.2.3 Changes to Supported LDAP Directories

This release introduces support for Oracle Unified Directory as an LDAP directory server.

See [Section 2.1.4.2, "Supported LDAP Directories"](#) for the supported versions of Oracle Unified Directory.

1.2.4 Performance Improvements for Large SGD Datastores

Performance improvements have been made for when large numbers of SGD objects are stored in the local repository. For example, in deployments where there are large numbers of user profile and application objects.

Start up times for such deployments have been improved. A new command, `tarantella array synchronize` has been introduced to enable Administrators to manage array synchronisation.

1.2.5 Changes for the Tablet Certificate Profile Script

As part of the introduction of support for Android tablets, changes have been made for the script used to generate certificate configuration profiles. The configuration profiles are used for secure connections to iOS tablet devices when using untrusted certificates.

- The script name has changed from `ios_profile_create.sh` to `mobile_profile_create.sh`.
- The script has been extended to handle the required certificate configuration for connections to Android devices.

Android devices do not use configuration profiles, instead they use `.crt` certificate files. The script generates the required `.crt` certificate files automatically and installs them on the SGD host.

[Secure Connections to Tablet Devices Using Untrusted Certificates](#) in the *Oracle Secure Global Desktop Administration Guide* describes the required configuration when using untrusted certificates.

1.2.6 Using Forced Authentication on the Tablet Workspace

Forced authentication is when SGD prompts you for a user name and password before starting an application.

To enable support for using forced authentication on all tablet platforms, a new Forced Authentication icon has been added to the tablet workspace. Tapping this icon before starting an application displays the Application Authentication dialog.

See [Using Forced Authentication on the Tablet Workspace](#) in the *Oracle Secure Global Desktop User Guide*.

1.3 Changes in Future Releases of SGD

The following features may not be available in future releases of SGD.

1.3.1 Retirement of 32-bit Installation Platforms

Support for installing the SGD software on 32-bit platforms may no longer be available. This may apply for the following SGD software components:

- The main SGD component
- The SGD Gateway
- The SGD Enhancement Module

Administrators can install these software components on 64-bit platforms.

Chapter 2 System Requirements and Support

This chapter includes details of the system requirements and supported platforms for Oracle Secure Global Desktop (SGD) version 5.1.

2.1 SGD Server Requirements and Support

This section describes the supported platforms and requirements for SGD servers.

2.1.1 Supported Installation Platforms for SGD

[Table 2.1, “Supported Installation Platforms for SGD”](#) lists the supported installation platforms for SGD.

Table 2.1 Supported Installation Platforms for SGD

Operating System	Supported Versions
Oracle Solaris on SPARC platforms	Solaris 10 8/11 (update 10)
	Solaris 10 1/13 (update 11)
	Solaris 11, 11.1
	Trusted Extensions versions of the above
Oracle Solaris on x86 platforms	Solaris 10 8/11 (update 10)
	Solaris 10 1/13 (update 11)
	Solaris 11, 11.1
	Trusted Extensions versions of the above
Oracle Linux (32-bit and 64-bit)	5.8
	5.9
	5.10
	6.2
	6.3
	6.4



Note

For up to date information on supported platforms, see [knowledge document ID 1416796.1](#) on My Oracle Support (MOS).

Oracle products certified on Oracle Linux are also certified and supported on Red Hat Enterprise Linux due to implicit compatibility between both distributions. Oracle does not run any additional testing on Red Hat Enterprise Linux products.

2.1.1.1 Virtualization Support

SGD is supported and can be installed in an Oracle virtualized environment. If you encounter a problem when using an unsupported virtualization environment, you may be asked to demonstrate the issue on a non-virtualized operating system to ensure the problem is not related to the virtualization product.

Installation in zones is supported for Oracle Solaris platforms. SGD can be installed either in the global zone, or in one or more non-global zones. Installation in both the global zone and a non-global zone is not supported.

On Oracle Solaris Trusted Extensions platforms, you must install SGD in a labeled zone. Do not install SGD in the global zone.

2.1.2 Supported Upgrade Paths

Upgrades to version 5.1 of SGD are only supported from the following versions:

- Oracle Secure Global Desktop Software version 5.00.907
- Oracle Secure Global Desktop Software version 4.71.913
- Oracle Secure Global Desktop Software version 4.70.909
- Oracle Secure Global Desktop Software version 4.63.907
- Oracle Secure Global Desktop Software version 4.62.913

If you want to upgrade from any other version of SGD, contact Oracle Support.

2.1.3 Third Party Components for SGD

SGD includes the following third party components:

- **Java technology.** This release of SGD includes Java 6 update 65.
- **SGD web server components.** The SGD web server consists of an Apache web server and a Tomcat JavaServer Pages (JSP) technology container preconfigured for use with SGD.

The SGD web server consists of several components. The following table lists the web server component versions for this release of SGD.

Component Name	Version
Apache HTTP Server	2.2.25
OpenSSL	1.0.0k
mod_jk	1.2.37
Apache Tomcat	7.0.42
Apache Axis	1.4

The Apache web server includes all the standard Apache modules as shared objects.

The minimum Java Virtual Machine (JVM) software heap size for the Tomcat JSP technology container is 256 megabytes.

2.1.4 Supported Authentication Mechanisms

The following are the supported mechanisms for authenticating users to SGD:

- Lightweight Directory Access Protocol (LDAP) version 3
- Microsoft Active Directory
- Network Information Service (NIS)

- RSA SecurID
- Web server authentication (HTTP/HTTPS Basic Authentication), including public key infrastructure (PKI) client certificates

2.1.4.1 Supported Versions of Active Directory

Active Directory authentication and LDAP authentication are supported on the following versions of Active Directory:

- Windows Server 2003
- Windows Server 2003 R2
- Windows Server 2008
- Windows Server 2008 R2

2.1.4.2 Supported LDAP Directories

SGD supports version 3 of the standard LDAP protocol. You can use LDAP authentication with any LDAP version 3-compliant directory server. However, SGD only supports the following directory servers:

- Oracle Unified Directory 11gR1 (11.1.1.x), 11gR2 (11.1.2.x)
- Oracle Internet Directory 11gR1 (11.1.1.x), 11gR2 (11.1.2.x)
- Oracle Directory Server Enterprise Edition 11gR1 (11.1.1.x)
- Microsoft Active Directory, as shown in [Section 2.1.4.1, “Supported Versions of Active Directory”](#)

Other directory servers might work, but are not supported.

2.1.4.3 Supported Versions of SecurID

SGD works with versions 4, 5, 6, and 7 of RSA Authentication Manager (formerly known as ACE/Server).

SGD supports system-generated PINs and user-created PINs.

2.1.5 SSL Support

SGD supports TLS version 1.0 and SSL version 3.0.

SGD supports Privacy Enhanced Mail (PEM) Base 64-encoded X.509 certificates. These certificates have the following structure:

```
-----BEGIN CERTIFICATE-----  
...certificate...  
-----END CERTIFICATE-----
```

SGD supports the Subject Alternative Name (`subjectAltName`) extension for SSL certificates. SGD also supports the use of the `*` wildcard for the first part of the domain name, for example `*.example.com`.

SGD includes support for a number of Certificate Authorities (CAs). The `/opt/tarantella/etc/data/cacerts.txt` file contains the X.509 Distinguished Names (DNs) and MD5 signatures of all the CA certificates that SGD supports. Additional configuration is required to support SSL certificates signed by an

unsupported CA. Intermediate CAs are supported, but additional configuration might be required if any of the certificates in the chain are signed by an unsupported CA.

SGD supports the use of external hardware SSL accelerators, with additional configuration.

SGD supports the following cipher suites:

- RSA_WITH_AES_256_CBC_SHA
- RSA_WITH_AES_128_CBC_SHA
- RSA_WITH_3DES_EDE_CBC_SHA
- RSA_WITH_RC4_128_SHA
- RSA_WITH_RC4_128_MD5
- RSA_WITH_DES_CBC_SHA

2.1.6 Printing Support

SGD supports two types of printing: PDF printing and Printer-Direct printing.

For PDF printing, SGD uses [Ghostscript](#) to convert print jobs into PDF files. Your Ghostscript distribution must include the [ps2pdf](#) program. For best results, install the latest version of Ghostscript on the SGD host.

SGD supports Printer-Direct printing to PostScript, Printer Command Language (PCL), and text-only printers attached to the user's client device. The SGD [tta_print_converter](#) script performs any conversion needed to format print jobs correctly for the client printer. The [tta_print_converter](#) script uses Ghostscript to convert from Postscript to PCL. To support this conversion, Ghostscript must be installed on the SGD server. For best results, download and install the additional fonts.

Ghostscript is not included with the SGD software.

2.2 Client Device Requirements and Support

This section describes the supported platforms and requirements for client devices.

2.2.1 Supported Client Platforms

The following tables list the supported client platforms and browsers for the SGD Client.

- For supported desktop client platforms, see [Table 2.2, “Supported Desktop Client Platforms for SGD”](#).
- For supported iPad tablet devices, see [Table 2.3, “Supported iPad Client Devices for SGD”](#).
- For a list of Android tablet devices which have been tested with SGD, see [Table 2.4, “Android Client Devices Tested With SGD”](#).



Caution

The client platform for SGD must be a full operating system. An individual application, such as a browser, is not a supported client platform.

Table 2.2 Supported Desktop Client Platforms for SGD

Supported Client Platform	Supported Browsers
Microsoft Windows 8, 8.1 (32-bit and 64-bit) ^{a b}	Internet Explorer 11 ^c

Supported Client Platform	Supported Browsers
Microsoft Windows 7 (32-bit and 64-bit)	Internet Explorer 10
	Mozilla Firefox 17.0.2:ESR, 22
	Chrome 27 ^d
Microsoft Windows XP Professional SP3 (32-bit)	Internet Explorer 9 ^{e f}
	Internet Explorer 8 ^e
	Mozilla Firefox 17.0.2:ESR, 22
	Chrome 27 ^d
Microsoft Windows XP Professional SP3 (32-bit)	Internet Explorer 7, 8
	Mozilla Firefox 17.0.2:ESR, 22
	Chrome 27 ^d
Sun Ray Software on Oracle Solaris (x86 and SPARC platforms):	Mozilla Firefox 10.0.7:ESR
	• Solaris 10 8/11 (update 10)
	• Solaris 10 1/13 (update 11)
	• Solaris 11, 11.1
Sun Ray Software on Oracle Linux (32-bit and 64-bit):	Mozilla Firefox 17.0.2:ESR, 22
	• Oracle Linux 5.8, 5.9, 5.10, 6.2, 6.3, 6.4 ^g
Oracle Linux 5.8, 5.9, 5.10, 6.2, 6.3, 6.4 (32-bit and 64-bit) ^g	Chrome 27
	Mozilla Firefox 17.0.2:ESR, 22
Ubuntu Linux 10.04, 12.04 (32-bit and 64-bit) ^h	Chrome 27
	Mozilla Firefox 17.0.2:ESR, 22
Mac OS X 10.7 and 10.8	Chrome 27
	Safari 6
	Mozilla Firefox 17.0.2:ESR, 22
	Chrome 27 ^d

^a Windows 8 is supported in desktop mode only. "Metro" mode is not supported.

^b On 64-bit Windows 8 platforms, the 32-bit version of the Java Plug-in software is required.

^c Supported only with specific versions of SGD. Please contact Oracle Support for details.

^d HTML5 client is supported for Chrome browsers.

^e On 64-bit client platforms, the 32-bit and 64-bit versions of Internet Explorer are supported.

^f Compatibility View is supported for Internet Explorer 9.

^g On Oracle Linux 64-bit client platforms, additional packages may be required. See [Bug 17454752](#).

^h On 64-bit Ubuntu Linux 12.04 platforms, the [ia32-libs](#) package is required.



Note

This table shows the browser versions that Oracle has tested with this release of SGD. For up to date information on supported browser versions, see [knowledge document ID 1950093.1](#) on My Oracle Support (MOS).

Oracle products certified on Oracle Linux are also certified and supported on Red Hat Enterprise Linux due to implicit compatibility between both distributions. Oracle does not run any additional testing on Red Hat Enterprise Linux products.

iPad Client Platforms

Table 2.3 Supported iPad Client Devices for SGD

Supported Devices	Generation	Operating System	Supported Browsers
Apple iPad	2	iOS 6, 7	Safari ^a
	3		
	4		
	mini		

^a Private browsing mode is not supported.

Android Client Platforms



Note

Oracle has tested SGD with the following preferred models of Android devices. Other devices may work with SGD, but have not been tested.

Table 2.4 Android Client Devices Tested With SGD

Device Name	Operating System	Supported Browsers
Google Nexus 7	Android 4.0.3 and later ^a	Chrome
Google Nexus 10		
Samsung Galaxy Tab 2 10.1		
Toshiba AT300		
Fujitsu M702		

^a Android device must support WebSocket technology.

Browser Requirements

- The SGD Administration Console is not supported on Safari browsers, either on Mac OS X or iPad client devices.
- Beta versions or preview releases of browsers are not supported.
- Browsers must be configured to accept cookies.
- Browsers must have the JavaScript programming language enabled.

Java Technology Requirements

- On *desktop computer platforms*, browsers must have Java technology enabled to support the following functionality:
 - Downloading and installing the SGD Client automatically
 - Determining proxy server settings from the user's default browser

If Java technology is not available, the SGD Client can be downloaded and installed manually. Manual installation is available for all supported desktop platforms.

- On *tablet device platforms*:
 - Java technology is not required on the browser
 - Manual installation of the SGD Client is not supported

Java Plug-in software versions 1.6, 1.7, and 1.8 are supported as a plug-in for Java technology.

**Note**

For details of known issues when using Java Plug-in software versions 1.7 and 1.8, see [knowledge document ID 1487307.1](#) on My Oracle Support (MOS).

For best results, client devices must be configured for at least thousands of colors.

The SGD Client and workspace are available in the following supported languages:

- English
- French
- German
- Italian
- Japanese
- Korean
- Portuguese (Brazilian)
- Spanish
- Chinese (Simplified)
- Chinese (Traditional)

2.2.1.1 Virtualization Support

SGD is supported and can be installed in an Oracle virtualized environment. If you encounter a problem when using an unsupported virtualization environment, you may be asked to demonstrate the issue on a non-virtualized operating system to ensure the problem is not related to the virtualization product.

2.2.1.2 Retirements to Supported Client Platforms

The following table shows the SGD Client installation platforms and browsers that have been retired for this release.

SGD Version	Platforms No Longer Supported
5.1	Firefox 18
	Chrome 24

2.2.2 Supported Proxy Servers

To connect to SGD using a proxy server, the proxy server must support tunneling. You can use HTTP, Secure Sockets Layer (SSL) or SOCKS version 5 proxy servers.

For SOCKS version 5 proxy servers, SGD supports the Basic and No Authentication Required authentication methods. No server-side configuration is required.

2.2.3 PDF Printing Support

To be able to use PDF printing, a PDF viewer must be installed on the client device. SGD supports the following PDF viewers by default.

Client Platform	Default PDF Viewer
Microsoft Windows platforms	Adobe Reader, at least version 4.0
Sun Ray Software on Oracle Solaris (SPARC platforms)	GNOME PDF Viewer (gpdf) Adobe Reader (acroread)
Sun Ray Software on Oracle Solaris (x86 platforms)	GNOME PDF Viewer (gpdf)
Oracle Linux	GNOME PDF Viewer (gpdf) Evince Document Viewer (evince) X PDF Reader (xpdf)
Mac OS X	Preview App (/Applications/Preview.app)



Note

The Adobe Reader PDF viewer must support the `-openInNewWindow` command option. The Preview App PDF viewer must support the `open -a` command option.

On Windows 8 platforms, the Reader app is not supported as a PDF viewer.

On tablet devices, the browser plug-in is used to display PDF files.

To be able to use a supported PDF viewer, the application must be on the user's [PATH](#).

Support for alternative PDF viewers can be configured in the user's client profile.

2.2.4 Supported Smart Cards

SGD works with any Personal Computer/Smart Card (PC/SC)-compliant smart card and reader supported for use with Microsoft Remote Desktop services.

2.3 SGD Gateway Requirements and Support

This section describes the supported platforms and requirements for the SGD Gateway.

2.3.1 Supported Installation Platforms for the SGD Gateway

The supported installation platforms for the *SGD Gateway host* are shown in [Table 2.5, "Supported Installation Platforms for the SGD Gateway"](#).

Table 2.5 Supported Installation Platforms for the SGD Gateway

Operating System	Supported Versions
Oracle Solaris on SPARC platforms	Solaris 10 8/11 (update 10)
	Solaris 10 1/13 (update 11)
	Solaris 11, 11.1
Oracle Solaris on x86 platforms	Solaris 10 8/11 (update 10)
	Solaris 10 1/13 (update 11)
	Solaris 11, 11.1
Oracle Linux (32-bit and 64-bit)	5.8
	5.9
	5.10
	6.2
	6.3
	6.4

**Note**

For up to date information on supported platforms, see [knowledge document ID 1416796.1](#) on My Oracle Support (MOS).

Oracle products certified on Oracle Linux are also certified and supported on Red Hat Enterprise Linux due to implicit compatibility between both distributions. Oracle does not run any additional testing on Red Hat Enterprise Linux products.

**Note**

If your users connect to SGD from a tablet device, using the SGD Gateway is the only supported method of firewall traversal.

By default, the SGD Gateway is configured to support a maximum of 100 simultaneous HTTP connections, 512 simultaneous Adaptive Internet Protocol (AIP) connections, and 512 simultaneous websocket connections. Websocket connections are AIP connections to tablet devices. The JVM memory size is optimized for this number of connections. The *Oracle Secure Global Desktop Gateway Administration Guide* has details of how to tune the Gateway for the expected number of users.

2.3.1.1 Virtualization Support

The SGD Gateway is supported and can be installed in an Oracle virtualized environment. If you encounter a problem when using an unsupported virtualization environment, you may be asked to demonstrate the issue on a non-virtualized operating system to ensure the problem is not related to the virtualization product.

Installation in zones is supported for Oracle Solaris platforms. The SGD Gateway can be installed either in the global zone, or in one or more non-global zones. Installation in both the global zone and a non-global zone is not supported.

2.3.2 SGD Server Requirements for the SGD Gateway

The following requirements apply for the SGD servers used with the SGD Gateway:

- **Secure mode.** By default, the SGD Gateway uses secure connections to SGD servers. You must enable secure connections on your SGD servers. Firewall forwarding must not be enabled.

In a standard installation, an SGD server is configured automatically to use secure connections.

- **SGD version.** It is best to use version 5.1 of SGD with version 5.1 of the Gateway. Use the latest version of the Gateway, where possible.
- **Clock synchronization.** It is important that the system clocks on the SGD servers and the SGD Gateway are in synchronization. Use Network Time Protocol (NTP) software, or the `rdate` command, to ensure that the clocks are synchronized.

2.3.3 Third Party Components for the SGD Gateway

The SGD Gateway includes the following third party components:

- **Apache web server.** The Apache web server supplied with the SGD Gateway is Apache version 2.2.25.

The web server includes the standard Apache modules for reverse proxying and load balancing. The modules are installed as Dynamic Shared Object (DSO) modules.

- **Java technology.** The SGD Gateway includes Java 6 update 65.

2.3.4 SSL Support

SSL support for the SGD Gateway is provided by the Java Runtime Environment (JRE) supplied with the Gateway. See the [Java Platform documentation](#) for more details.

The SGD Gateway supports Privacy Enhanced Mail (PEM) Base 64-encoded X.509 certificates. These certificates have the following structure:

```
-----BEGIN CERTIFICATE-----  
...certificate...  
-----END CERTIFICATE-----
```

The SGD Gateway supports the use of external hardware SSL accelerators, with additional configuration.

By default, the SGD Gateway is configured to support the following high grade cipher suites for SSL connections:

- SSL_RSA_WITH_RC4_128_MD5
- SSL_RSA_WITH_RC4_128_SHA
- TLS_RSA_WITH_AES_128_CBC_SHA
- TLS_RSA_WITH_AES_256_CBC_SHA
- TLS_DHE_RSA_WITH_AES_128_CBC_SHA
- TLS_DHE_RSA_WITH_AES_256_CBC_SHA

- TLS_DHE_DSS_WITH_AES_128_CBC_SHA
- TLS_DHE_DSS_WITH_AES_256_CBC_SHA
- SSL_RSA_WITH_3DES_EDE_CBC_SHA
- SSL_DHE_RSA_WITH_3DES_EDE_CBC_SHA
- SSL_DHE_DSS_WITH_3DES_EDE_CBC_SHA

The following cipher suites are also supported, but must be configured by the user, as shown in the *Oracle Secure Global Desktop Gateway Administration Guide*.

- SSL_RSA_WITH_DES_CBC_SHA
- SSL_DHE_RSA_WITH_DES_CBC_SHA
- SSL_DHE_DSS_WITH_DES_CBC_SHA
- SSL_RSA_EXPORT_WITH_RC4_40_MD5
- SSL_RSA_EXPORT_WITH_DES40_CBC_SHA
- SSL_DHE_RSA_EXPORT_WITH_DES40_CBC_SHA
- SSL_DHE_DSS_EXPORT_WITH_DES40_CBC_SHA

2.4 Application Requirements and Support

This section describes the supported platforms and requirements for displaying applications through SGD.

2.4.1 Supported Applications

You can use SGD to access the following types of applications:

- Microsoft Windows
- X applications running on Oracle Solaris, Linux, HP-UX, and AIX application servers
- Character applications running on Oracle Solaris, Linux, HP-UX, and AIX application servers
- Applications running on IBM mainframe and AS/400 systems
- Web applications, using HTML and Java technology

SGD supports the following protocols:

- Microsoft Remote Desktop Protocol (RDP) at least version 5.2
- X11
- HTTP
- HTTPS
- SSH at least version 2
- Telnet VT, American National Standards Institute (ANSI)

- TN3270E
- TN5250

2.4.2 Supported Installation Platforms for the SGD Enhancement Module

The SGD Enhancement Module is a software component that can be installed on an application server to provide the following additional functionality when using applications displayed through SGD:

- Advanced load balancing
- Client drive mapping (UNIX or Linux platforms only)
- Seamless windows (Windows platforms only)
- Audio (UNIX or Linux platforms only)

Table 2.6, “Supported Installation Platforms for the SGD Enhancement Module” lists the supported installation platforms for the SGD Enhancement Module.

Table 2.6 Supported Installation Platforms for the SGD Enhancement Module

Operating System	Supported Versions
Microsoft Windows (64-bit)	Windows Server 2008 R2
Microsoft Windows (32-bit and 64-bit)	Windows Server 2008
	Windows Server 2003 R2
	Windows Server 2003
Oracle Solaris on SPARC platforms	Solaris 8, 9, 10, 11, 11.1
	Trusted Extensions versions of the above
Oracle Solaris on x86 platforms	Solaris 10, 11, 11.1
	Trusted Extensions versions of the above
Oracle Linux (32-bit and 64-bit)	5, 6
SUSE Linux Enterprise Server (32-bit and 64-bit)	10, 11

Oracle products certified on Oracle Linux are also certified and supported on Red Hat Enterprise Linux due to implicit compatibility between both distributions. Oracle does not run any additional testing on Red Hat Enterprise Linux products.

On Oracle Solaris Trusted Extensions platforms, only advanced load balancing is supported. Audio and CDM are *not supported*.



Note

The SGD Enhancement Module no longer provides functionality that is supported on Windows 7 and Windows XP platforms. These platforms are still supported as an application server platform, see [Section 2.4.3, “Microsoft Windows Remote Desktop Services”](#).

Application servers that are not supported platforms for the SGD Enhancement Module can be used with SGD to access a supported application type using any of the supported protocols.

2.4.2.1 Virtualization Support

SGD is supported and can be installed in an Oracle virtualized environment. If you encounter a problem when using an unsupported virtualization environment, you may be asked to demonstrate the issue on a non-virtualized operating system to ensure the problem is not related to the virtualization product.

Installation in zones is supported for Oracle Solaris platforms. SGD can be installed in the global zone, or in one or more non-global zones. Installation in both the global zone and a non-global zone is *not supported*.

On Oracle Solaris Trusted Extensions platforms, you must install SGD in a labeled zone. Do not install SGD in the global zone.

2.4.3 Microsoft Windows Remote Desktop Services

SGD does not include licenses for Microsoft Windows Remote Desktop Services. If you access Remote Desktop Services functionality provided by Microsoft operating system products, you need to purchase additional licenses to use such products. Consult the license agreements for the Microsoft operating system products you are using to determine which licenses you must acquire.



Note

Before Microsoft Windows Server 2008 R2, Remote Desktop Services was called Terminal Services.

SGD supports RDP connections to the following versions of Microsoft Windows:

- Windows Server 2008 R2
- Windows Server 2008
- Windows Server 2003 R2
- Windows Server 2003
- Windows 7 SP1
- Windows XP Professional SP3

On Windows 7 and Windows XP platforms, only full Windows desktop sessions are supported. Running individual applications is not supported. Seamless windows are also not supported.

The features supported by SGD depend on whether you connect using RDP or Oracle VM VirtualBox RDP (VRDP), as shown in the following table.

Table 2.7 Comparison of Features Supported by SGD When Using RDP and VRDP

Feature	RDP	VRDP
Audio recording (input audio)	✓	✓
Audio redirection	✓	✓
Clipboard redirection	✓	✓
COM port mapping	✓	✗
Compression	✓	✗
Drive redirection (client drive mapping)	✓	✗
Multi-monitor	✓	✗

Feature	RDP	VRDP
Network security (encryption level)	✓	✓
Session directory	✓	✗
Smart card device redirection	✓	✗
Time zone redirection	✓	✗
Windows printer mapping (client printing)	✓	✗

2.4.3.1 Audio Quality

Windows Server 2008 R2 and Windows 7 support audio bit rates of up to 44.1 kHz. By default, SGD supports bit rates of up to 22.05 kHz. To support bit rates of up to 44.1 kHz, in the Administration Console go to the Global Settings, Client Device tab and select the Windows Audio: High Quality option.

2.4.3.2 Audio Recording Redirection

Audio recording redirection is supported for the following application servers:

- Windows Server 2008 R2
- Windows 7 Enterprise
- Windows 7 Ultimate

To record audio in a Windows Remote Desktop Services session, audio recording redirection must be enabled on the application server. By default, audio recording redirection is disabled.

To enable audio recording for Microsoft Windows 7 Enterprise application servers, you also need to set the `HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Terminal Server\WinStations\RDP-Tcp\fdDisableAudioCapture` registry subkey to 0.

2.4.3.3 Color Depth

SGD supports 8-bit, 16-bit, 24-bit, and 32-bit color depths in a Windows Remote Desktop Services session.

32-bit color is available on Windows Server 2008, Windows Server 2008 R2, and Windows 7 platforms. To display 32-bit color, the client device must be capable of displaying 32-bit color.

15-bit color depths are not supported. If this color depth is specified on the Remote Desktop Session Host, SGD automatically adjusts the color depth to 8-bit.

2.4.3.4 Encryption Level

You can only use the Low, Client-compatible, or High encryption levels with SGD. SGD does not support the Federal Information Processing Standards (FIPS) encryption level.

2.4.3.5 Transport Layer Security

From Microsoft Windows Server 2003, you can use Transport Layer Security (TLS) for server authentication, and to encrypt Remote Desktop Session Host communications.

2.4.3.6 Network Level Authentication

If the Remote Desktop Session Host supports Network Level Authentication (NLA) using CredSSP, you can use NLA for server authentication.

2.4.4 X and Character Applications

To run X and character applications, SGD must be able to connect to the application server that hosts the application. SGD supports SSH and Telnet as connection methods. SSH is the best for security.

SGD works with SSH version 2 or later. Because of SSH version compatibility problems, use the same major version of SSH, either version 2 or version 3, on all SGD hosts and application servers.

If you are using SSH to connect to X applications, you must enable X11 forwarding. You can do this either in your SSH configuration or by configuring the application in SGD. The *Oracle Secure Global Desktop Administration Guide* has details on using SSH with SGD.

SGD supports the X Security extension. The X Security extension only works with versions of SSH that support the `-Y` option. For OpenSSH, this is version 3.8 or later

2.4.4.1 X11 Software

SGD includes an X protocol engine (XPE) implementation based on the X.Org Foundation X Server release X11R7.6.

The XPE implementation is based on the following X.org foundation sources:

- `xorg-server 1.9.3`
- `xrandr 1.3`
- `xkeyboard-config 2.1`

The following versions of X.org dependencies are used:

- `Mesa 7.9.2`
- `pixman 0.20.2`

2.4.4.2 Supported X Extensions

SGD supports the following X extensions for X applications:

- BIG-REQUESTS
- BLINK
- DAMAGE
- DEC-XTRAP
- DOUBLE-BUFFER
- Extended-Visual-Information
- GLX
- MIT-SCREEN-SAVER
- MIT-SHM
- MIT-SUNDRY-NONSTANDARD

- NATIVE-WND
- RDP
- RECORD
- RENDER
- SCO-MISC
- SECURITY
- SGI-GLX
- SHAPE
- SYNC
- TOG-CUP
- X-Resource
- XC-APPGROUP
- XC-MISC
- XFIXES
- XFree86-Bigfont
- XTEST
- XTTDEV
- KEYBOARD
- RANDR
- XINERAMA

The following X extension is *not* supported:

- XVIDEO

2.4.4.3 Character Applications

SGD supports VT420, Wyse 60, or SCO Console character applications

2.4.5 Virtual Desktop Infrastructure

SGD uses a type of object called a *dynamic application server* to represent a virtual server broker (VSB). SGD uses the VSB to obtain a list of application servers that can run an application.

SGD includes brokers that enable you to give users access to desktops provided by an Oracle Virtual Desktop Infrastructure (Oracle VDI) server.

Integration with Oracle VDI is also supported by configuring a Windows application object, as described in the *Oracle Secure Global Desktop Administration Guide*.

This release of SGD supports the following versions of Oracle VDI:

- Oracle VDI 3.5
- Oracle VDI 3.4.1
- Oracle VDI 3.3.2

Chapter 3 Known Issues, Bug Fixes, and Documentation Issues

This chapter contains information about known issues, bug fixes, and documentation issues for Oracle Secure Global Desktop (SGD). Details on providing feedback and reporting bugs are also included.

3.1 Known Bugs and Issues

This section lists the known bugs and issues for the SGD 5.1 release.

3.1.1 2205237 – Seamless Windows Display Problems When Restarting a Disconnected Session

Problem: Issues with seamless windows might be encountered when the user restarts a Windows application after closing it down. The problem is seen when the application is hosted on a Windows Server 2008 R2 server.

Cause: A known problem with some versions of the SGD Enhancement Module.

Solution: Ensure that the version of the SGD Enhancement Module running on the Windows application server is the same as the SGD server version.

3.1.2 6555834 – Java Technology is Enabled For Browser But Is Not Installed On Client Device

Problem: If Java technology is enabled in your browser settings, but Java Plug-in software is not installed on the client device, the SGD workspace does not display. The login process halts at the splash screen.

Cause: SGD uses the browser settings to determine whether to use Java technology.

Solution: Install the Java Plug-in software and create a symbolic link from the browser plug-ins directory to the location of the Java Virtual Machine (JVM) software. Refer to your browser documentation for more information.

3.1.3 6831480 – Backup Primaries List Command Returns an Error

Problem: Using the `tarantella array list_backup_primaries` command on an SGD server that has been stopped and then detached from an array returns a "Failed to connect" error.

Cause: A known issue.

Solution: Restart the detached SGD server before using the `tarantella array list_backup_primaries` command.

3.1.4 6863153 – HyperTerminal Application Hangs in a Relocated Windows Desktop Session

Problem: Users running the HyperTerminal application in a Windows desktop session experience problems when they try to resume the desktop session from another client device. The HyperTerminal application is unresponsive and cannot be closed down.

Cause: A known issue with HyperTerminal when resuming Windows desktop sessions from another client device (also called "session grabbing").

Solution: Close down the HyperTerminal application before you resume the Windows desktop session from another client device.

3.1.5 6937146 – Audio Unavailable for X Applications Hosted on 64-Bit Linux Application Servers

Problem: Audio might not play in X applications that are hosted on 64-bit Linux application servers. The issue is seen for X applications that are hard-coded to use the `/dev/dsp` or `/dev/audio` device, and the Audio Redirection Library (`--unixaudiopreload`) attribute is enabled.

Cause: A known issue. A 64-bit SGD Audio Redirection Library is not included in the SGD Enhancement Module.

Solution: No known solution at present.

3.1.6 6942981 – Application Startup is Slow on Solaris Trusted Extensions

Problem: On Oracle Solaris Trusted Extensions platforms, startup times for Windows applications and X applications might be longer than expected.

Cause: By default, the X Protocol Engine attempts to connect to X display port 10. This port is unavailable when using Solaris Trusted Extensions. After a period of time, the X Protocol Engine connects on another X display port and the application starts successfully.

Solution: Do either of the following:

- Change the default minimum display port used by the SGD server.

Configure the following setting in the `xpe.properties` file in the `/opt/tarantella/var/serverconfig/local` directory on the SGD server:

```
tarantella.config.xpeconfig.defaultmindisplay=11
```

Restart the SGD server after making this change.

- Exclude the unavailable port from use by the X Protocol Engine.

In the Administration Console, go to the Protocol Engines, X tab for each SGD server in the array and type `-xport portnum` in the Command-Line Arguments field, where `portnum` is the TCP port number to exclude.

Alternatively, use the following command:

```
$ tarantella config edit --xpe-args "-xport portnum"
```

For example, to exclude X display port 10 from use by the X Protocol Engine:

```
$ tarantella config edit --xpe-args "-xport 6010"
```

The changes made take effect for new X Protocol Engines only. Existing X Protocol Engines are not affected.

3.1.7 6957820 – SGD Client Hangs When Using Smart Card Authentication for Windows Applications

Problem: When using a smart card to log in to a Windows application session from a Ubuntu Linux 10.04 client device, the SGD Client hangs after the user exits the authenticated application session. The user might not be able to start any further applications or log out from SGD.

Cause: A known issue with version 1.5.3 of PCSC-Lite on Ubuntu client platforms.

Solution: Update to the latest version of PCSC-Lite on the client device.

3.1.8 6962970 – Windows Client Device Uses Multiple CALs

Problem: A Windows client device is allocated multiple client access licences (CALs). A CAL is incorrectly allocated each time a Windows application is started.

Cause: A known issue if the `HKEY_LOCAL_MACHINE\Software\Microsoft\MSLicensing` key or any of its subkeys are missing from the Windows registry on a client device. This issue affects Microsoft Windows 7 platforms.

Solution: Recreate the missing keys, by starting the Remote Desktop Connection with administrator privileges. See Microsoft Knowledge Base article 187614 for more details.

3.1.9 6970615 – SecurID Authentication Fails for X Applications

Problem: SecurID authentication for X applications fails when using the RSA Authentication Agent for PAM. The issue is seen with X applications that are configured to use telnet as the Connection Method.

Cause: A known issue when using the RSA Authentication Agent for PAM.

Solution: Configure the X application object to use SSH as the Connection Method.

3.1.10 7004887 – Print to File Fails for Windows Client Devices

Problem: When users select the Print to File menu option in a Windows application displayed through SGD, the print job remains on hold in the print queue on the client device. The issue has been seen on Windows 7 client devices.

Cause: A known issue with some versions of Windows.

Solution: A workaround is described in Microsoft Knowledge Base article 2022748.

3.1.11 12300549 – Home Directory Name is Unreadable For Some Client Locales

Problem: When using client drive mapping in SGD, the name of the user's home directory may include unreadable characters. By default, a user's home directory is mapped to a drive called "My Home".

The issue has been seen on non-Windows client devices configured with a non-English client locale, such as `ja_JP.UTF-8`.

Cause: A known issue for some client locales.

Solution: No known solution at present.

3.1.12 13068287 – 16-bit Color OpenGL Application Issues

Problem: OpenGL applications, such as three-dimensional graphics programs, do not start or do not display correctly when published through SGD. The issue is seen when the X application object is configured with a 16-bit Color Depth setting.

Cause: A known issue when displaying OpenGL applications using 16-bit color.

Solution: The workaround is to display the application using a 24-bit Color Depth setting.

3.1.13 13117149 – Accented Characters in Active Directory User Names

Problem: Active Directory authentication fails for user names that contain accented characters, such as the German umlaut character (ü). The issue has been seen when using Windows Server 2003 R2.

The following error is shown in the log output when using the `server/login/info` log filter:

```
javax.security.auth.login.LoginException: Integrity check on decrypted field failed (31)
```

Cause: Active Directory authentication uses the Kerberos authentication protocol. This is a known issue when Kerberos authentication is configured to use DES encryption.

Solution: The workaround is to disable the use of DES encryption in the `krb5.conf` Kerberos configuration file on the SGD server.

Include the following lines in the `[libdefaults]` section of the `krb5.conf` file.

```
[libdefaults]
  default_tgs_etypes = rc4-hmac des3-cbc-sha1 aes128-cts aes256-cts
  default_tkt_etypes = rc4-hmac des3-cbc-sha1 aes128-cts aes256-cts
```

3.1.14 13354844, 14032389, 13257432, 13117470, 16339876 – Display Issues on Ubuntu Client Devices

Problem: The following display issues might be seen on client devices running Ubuntu Linux.

- The kiosk mode minimize button does not work if you are not using a window manager or if you are using a minimalist window manager, such as `evilwm`.
- The button for toggling between kiosk mode and an Integrated Window display does not work.
- The SGD Client task bar icon is not shown when using the Unity desktop.
- A seamless windows application that should span multiple monitors is instead displayed with scroll bars on a single monitor.
- Terminal windows, such as a VT420 application, may not be sized correctly.

Cause: Known issues when using a Ubuntu Linux client device.

Solution: Use one of the following workarounds.

- To use the kiosk mode window decoration, the window manager must implement the change state protocol from Normal to Iconify. Ensure that you are running a suitable window manager.
- Use the Ctrl+Alt+Break keyboard shortcut to toggle between kiosk mode and an Integrated Window display.
- To show the SGD Client task bar icon, add the SGD Client application to the whitelist for the Unity desktop.

Start the `dconf-editor` and go to the Desktop → Unity → Panel dialog. Add `Oracle Secure Global Desktop` to the list of applications.

- There is no known solution for the seamless windows issue on multiple monitors.
- To ensure that VT420 terminal windows are sized correctly, you may need to install the required fonts. For example, on Ubuntu Linux 12.04 client platforms install the following font packages:


```
$ sudo apt-get install xfonts-traditional
$ sudo apt-get install xfonts-100dpi
$ sudo apt-get install xfonts-75dpi
```

3.1.15 13971245 – Package Removal Issues on Oracle Solaris 11

Problem: SGD might not uninstall cleanly on Oracle Solaris 11 platforms. After uninstalling SGD, entries for SGD packages are still present in the Solaris package database.

Cause: A known issue when you are using the Image Packaging System (IPS) included with Oracle Solaris 11 and you remove SGD.

Solution: The workaround is to use the SGD package database repair script `pkgdbfix.sh` after uninstalling SGD. This script is included in the `/opt/tarantella/etc/data` directory on an SGD server.

Log in as superuser (root) and do the following:

- Uninstall SGD and check for SGD package entries in the Solaris package database.

```
# pkgchk -l tta
# pkgchk -l tta.2
```

- If any package entries are reported using either of the previous commands, repair the package database.

```
# sh pkgdbfix.sh package-instance
```

where *package-instance* is the reported package instance, either `tta` or `tta.2`.

3.1.16 14026511 – VDI Broker Connections Fail After an Oracle VDI Upgrade

Problem: After an Oracle Virtual Desktop Infrastructure (Oracle VDI) host has been upgraded or reconfigured, users might not be able to connect to their Oracle VDI desktops using the VDI broker.

Cause: When using the VDI broker, connections to the Oracle VDI host are secured using a self-signed SSL certificate for the web services API.

Whenever you reconfigure or upgrade Oracle VDI on a host, the web services self-signed certificate is regenerated and the existing SSL certificate is not preserved. In addition, when you upgrade, the host name (subject) used in the web services SSL certificate might change.

Solution: Use one of the following workarounds:

- Upgrade to Oracle VDI version 3.5. This issue was fixed for Oracle VDI release 3.5.
- Back up the web services certificate keystore on the Oracle VDI host before upgrading or reconfiguring. Restore the keystore from backup after you have made changes to the Oracle VDI installation.

This process is described in the Oracle VDI documentation.

- Reconfigure the VDI broker as follows:
 - Import the web services SSL certificate for *each Oracle VDI host* into the certificate truststore on *each SGD server*. Depending on your configuration, the truststore is either the CA certificate truststore or a dedicated truststore.
 - Reconfigure the VDI broker to use the host names that appear in the web services SSL certificates.

Change the `preferredhosts` and `failoverhosts` settings to use the new host names.

3.1.17 14021467 – Workspace Language Selection Issue

Problem: Typically, users can select a preferred language from the list on the SGD web server Welcome page. They then click Log in to access a workspace in that language.

After selecting a language at the Welcome page, users may not be able to select a different language for subsequent logins.

Cause: A known issue with caching of the preferred language selection.

Solution: A workaround is to clear your browser cache before selecting a different language.

3.1.18 14147506 – Array Resilience Fails if the Primary Server is Changed

Problem: Array resilience may fail if you change the primary server while the array is in a repaired state. The array is in a repaired state when the failover stage has completed.

After the recovery stage of array resilience, when uncontactable servers rejoin the array, communications to the other array members may not work.

The issue is seen when secure intra-array communication is enabled for the array.

Cause: A known issue with array resilience when secure intra-array communication is used. By default, secure intra-array communication is enabled for an SGD server.

Solution: No known solution. If possible, avoid changing the array structure during the array resilience process.

3.1.19 14221098 – Konsole Application Fails to Start on Oracle Linux

Problem: The KDE `Konsole` terminal emulator application fails to start when configured as an X application object in SGD.

The issue is seen when the application is hosted on an Oracle Linux 6 platform.

Cause: A known issue when running `Konsole` on Oracle Linux 6. The issue is caused by the application process forking on start up.

Solution: The workaround is to use the `--nofork` command option when starting `Konsole`.

In the Administration Console, go to the Launch tab for the X application object and enter `--nofork` in the Arguments for Command field.

3.1.20 14237565 – Page Size Issue When Printing on Non-Windows Client Devices

Problem: Print jobs are not delivered to the client printer in the correct page format. For example, a print job for an A4 page size document is delivered to the client printer as a Letter page size document. Depending on the client printer configuration, this might cause the print job to fail.

The issue is seen when using Linux and Mac OS X client devices.

Cause: A known issue when printing to some non-Windows client devices.

Solution: Some client printers can be configured to ignore the page size format.

A workaround is to use PDF printing when printing from SGD.

3.1.21 14287570 – Microsoft Windows Server 2003 Applications Limited to 8-Bit Color Depth for Large Screen Resolutions

Problem: For Microsoft Windows Server 2003 applications, the display color depth on the client device is limited to 8-bit for large screen resolutions. The issue is seen when screen resolutions are higher than 1600 x 1200 pixels.

Cause: A known issue with Windows Server 2003 Remote Desktop Services sessions.

Solution: See Microsoft Hotfix 942610 for details of how to increase the color depth to 16-bit.

Ensure that the `HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Terminal Server\AllowHigherColorDepth` registry entry described in the Microsoft hotfix procedure is set to 1.

3.1.22 14287730 – X Error Messages When Shadowing From the Command Line

Problem: Error messages similar to the following might be seen when shadowing an application session from the command line, using the `tarantella emulatorsession shadow` command.

```
X Error: BadImplementation
Request Major code 152 (RANDR)
Request Minor code 8 ()
Error Serial #209
Current Serial #209
```

Shadowing works as expected, despite the error messages.

Cause: A known issue if the X server on the client device does not implement session resizing.

Solution: The errors are benign and can be ignored.

3.1.23 14404371 – User Input Characters in the Authentication Dialog Are Unreadable

Problem: When a user attempts to enter authentication credentials using the SGD authentication dialog, some input characters might be unreadable. The issue is seen on non-Windows client devices where the user credentials contain multibyte characters, such as European language characters.

The SGD authentication dialog is shown when the user holds down the Shift key when clicking an application link on the workspace.

Cause: A known issue with how the SGD Client sets the font list on some client devices.

Solution: Use the following workaround.

- On the client device, create a font specification file with the following contents:

```
*XmTextField*fontList: -*-medium-r-normal--*-120-***-***-
```

- Make the fonts available on the client device.

```
# xrdp -merge filename
```

where *filename* is the name of the font specification file.

Alternatively, you can add the font specification to an `.Xresources` file in your home directory.

3.1.24 14690706 – Display Issues on a Tablet Device When the RANDR X Extension is Disabled

Problem: The user experience on a tablet device may be poor if the RANDR X extension is disabled for the application. For example, you may notice that a desktop application does not fill the screen if you rotate the display.

Cause: A known issue if the RANDR X extension is disabled for the application. The RANDR extension provides enhanced display support for applications.

Solution: Enable the RANDR extension for the application object. This is described in the [Enabling the RANDR Extension for Applications](#) section in the *Oracle Secure Global Desktop Administration Guide*.

3.1.25 15903850 – Printing From a Tablet Device Fails Sometimes

Problem: Tablet device users may not be able to print from some applications.

Error messages such as the following may be seen:

```
Nov 27, 2012 11:56:59 AM com.oracle.sgd.webserver.printing.PrintServlet processRequest
SEVERE: Exception occurred in servlet javax.net.ssl.SSLHandshakeException:
sun.security.validator.ValidatorException: PKIX path building failed:
sun.security.provider.certpath.SunCertPathBuilderException: unable to find valid
certification path to requested target
```

The issue is seen when the print job and the user session are hosted on different SGD servers in the array. This situation may occur in the following scenarios:

- When an SGD server in the array is also used as an application server.
- When application session load balancing is used for the array.

Cause: This is a certificate trust issue. One or more SGD servers in the array are secured using an untrusted SSL certificate, such as a self-signed certificate.

Solution: On each SGD server, import the SSL certificates from the other array members into the CA certificate truststore. This process is described in the [The CA Certificate Truststore](#) section in the *Oracle Secure Global Desktop Administration Guide*.

The SSL certificate for an SGD server is at `/opt/tarantella/var/tsp/cert.pem`.

The CA certificate truststore for an SGD server is at `/opt/tarantella/bin/jre/lib/security/cacerts`.

3.1.26 16003643, 17043257 – Currency Symbols Are Not Displayed Correctly on a Tablet Device

Problem: When running SGD applications on an iPad or Android tablet, currency symbols such as pound (£), euro (€), and yen (¥) may not display correctly.

Cause: A known issue with displaying extended characters, such as currency symbols, on a tablet device.

Solution: No known solution. Where possible, use characters that are available on a US English keyboard.

3.1.27 16244748 – SGD Client Does Not Install When Using a Sun Ray Client

Problem: When using a Sun Ray Client to log in to SGD, the SGD Client may not install. The issue has been seen when the Sun Ray server is using the scbus v2 smart card bus protocol.

Cause: A known issue if the Sun Ray server is using the scbus v2 protocol.

Solution: A workaround is to disable smart card services on the Sun Ray server host. For example, on Oracle Solaris platforms use the following command:

```
# svcadm disable pcscd
```

3.1.28 16275930 – Unable to Access SGD Servers When Using the SGD Gateway

Problem: When connecting through an SGD Gateway, users are unable to access the SGD servers in the array. When they attempt to log in to an SGD server or use the Administration Console, their browser is redirected to an error page.

The issue is seen when the Gateway is configured as follows:

- The port used for incoming connections is not the default port, port 443.
- Connections between the Gateway and the SGD servers in the array are not secure.

These settings are usually configured during installation of the Gateway.

Cause: A known issue with this specific Gateway configuration.

Solution: Use the following workaround.

On the Gateway host, edit the `opt/SUNWsgdg/httpd/apache-version/conf/extra/gateway/httpd-gateway.conf` file.

Locate the `ProxyPassReverse` directive. For example:

```
ProxyPassReverse / http://gw.example.com:80/
```

Change the port number for the `ProxyPassReverse` directive, as follows:

```
ProxyPassReverse / http://gw.example.com:port-num/
```

where `port-num` is the port number used by the Gateway for incoming connections.

3.1.29 16310420 – External Keyboard Issue for iPad Tablets

Problem: When using an external keyboard with an iPad tablet, some keys may have no effect in SGD applications.

Examples of keys that may not work include modifier keys such as Alt and Ctrl, and function keys.

Cause: A known issue when using an external keyboard with an iPad tablet.

Solution: Use the on-screen keyboard to enter the missing keystroke.

For example, to enter the key combination Ctrl+C:

- Display the on-screen keyboard and tap the Ctrl key.

This key is shown when you tap the `main` key.

- Use the external keyboard to enter the C character.

3.1.30 16420093, 17559489 – Log In Process Fails for Mac OS X Users

Problem: Users on Mac OS X platforms are unable to log in to SGD. Downloading of the SGD Client fails and the login process does not complete.

Cause: The issue is seen when Mac OS X users have not enabled Java Plug-in software for their browser. On other client platforms, warning prompts are usually shown in this case.

On some Safari browsers, the issue may still be seen after enabling Java Plug-in software. This is due to the Safe Mode feature of Safari.

Solution: Users must enable Java plug-in software on the client browser before logging in to SGD.

For example, on Safari browsers ensure that the Enable Java content in browser option is checked. This option is disabled by default on Safari browsers.

On some Safari browsers, additional configuration may be required. Enable the Run in Unsafe Mode option in the Manage Website Settings section of the Security tab.

3.1.31 16613748 – Unable to Generate Mobile Configuration Profiles For Some SGD Gateway Deployments

Problem: For some SGD Gateway deployments, Administrators may not be able to generate the `.mobileconfig` configuration profiles used for secure connections to tablet computers. The `mobile_profile_create.sh` script used to generate the configuration profiles fails.

The issue is seen when unencrypted connections are used between the SGD Gateway and the SGD servers in the array. In this scenario, the SGD servers are configured to use standard, unencrypted connections.

Cause: When security is disabled on an SGD server, the following directories required for the `.mobileconfig` configuration profiles are deleted:

- `/opt/tarantella/var/tsp/certs`. When generating configuration profiles, SSL certificates must be copied to this directory.
- `/opt/tarantella/webserver/apache/apache-version/htdocs/certs`. The generated configuration profiles are stored in this directory.

Solution: Create the required directories manually on the primary SGD host:

```
# mkdir -p /opt/tarantella/var/tsp/certs/gateway
# mkdir -p /opt/tarantella/var/tsp/certs/array
# chown -R ttasys:ttaserv /opt/tarantella/var/tsp/certs
# mkdir /opt/tarantella/webserver/apache/apache-version/htdocs/certs
# chown root:ttaserv /opt/tarantella/webserver/apache/apache-version/htdocs/certs
```

You can then generate the configuration profiles as described in [How to Configure the SGD Gateway for Connections From Tablet Devices Using Untrusted Certificates](#) in the *Oracle Secure Global Desktop Gateway Administration Guide*.

3.1.32 16634591 – Gnome Terminal Application Exits Unexpectedly

Problem: When you close down an X application, any running instances of the Gnome terminal application (`gnome-terminal`) may exit unexpectedly.

The issue may also affect applications other than Gnome terminal.

Cause: A known issue with how some versions of `gnome-terminal` interact with the `dbus` message bus system.

The issue has been seen with later versions of `gnome-terminal`, such as version 2.31. Earlier versions of `gnome-terminal`, such as version 2.16, are unaffected.

Solution: Use one of the following workarounds.

- Configure the Gnome terminal application to run in a separate X Protocol Engine (XPE). The required configuration varies, depending on the display mode of the application:
 - **Independent Window:** Disable the Share Resources Between Similar Sessions (`--share`) attribute for the Gnome terminal application object.
 - **Client Window Management:** For the SGD server, set the value of the Maximum Sessions (`--xpe-maxsessions`) attribute to 1. This attribute limits the maximum number of application sessions that each X Protocol Engine handles.
- Configure the Gnome terminal application to use a different start up option for `dbus`.

Configure the Application Command (`--app`) attribute for the Gnome terminal application object, as follows:

```
/usr/bin/dbus-launch --exit-with-session /usr/bin/gnome-terminal
```

3.1.33 16814553 – Multiple Authentication Prompts When Accessing My Desktop Using a Safari Browser

Problem: Users may see multiple authentication prompts when they try to access the My Desktop application, either from the SGD web server Welcome page or by going to the My Desktop URL.

The issue is seen when the following apply:

- Web authentication is the authentication mechanism for SGD.
- A Safari browser is used to access SGD, from a Mac OS X or iOS client device.

Cause: A known issue with the Safari browser.

Solution: No known solution. The user is logged in to SGD after negotiating the authentication prompts.

3.1.34 16854421 – Unexpected Text Characters When Using Android Client

Problem: When using an Android tablet to enter text in an application displayed through SGD, the displayed text may sometimes not match the input character.

For example, the character following a period (.) may always be displayed in upper case.

Cause: This is caused by the predictive text features of Android. By default, auto-capitalization and auto-correction are enabled for an Android keyboard.

Solution: Turn off Auto-Capitalization and Auto-Correction for the Android keyboard. See your Android documentation for details of how to do this.

3.1.35 17454752 – SGD Client Does Not Start Automatically on 64-bit Oracle Linux Platforms

Problem: Users on 64-bit Oracle Linux client platforms may experience the following issues:

- When logging in to an SGD server, the SGD Client does not download and start automatically.
- Following a manual installation of the SGD Client, the SGD Client does not start. Errors regarding missing libraries may be shown when attempting to start the `ttatcc` binary.

Cause: The Linux version of the SGD Client is a 32-bit binary. To run on a 64-bit client platform, 32-bit compatibility libraries must be present on the client platform.

Solution: Install the following packages on the client device:

```
# yum install openmotif.i686 libXt.i686 libxkbfile.i686 libXpm.i686 libstdc++.i686 \
libXinerama.i686 libXcursor.i686 libXdmpc.i686
```

See also [Table 2.2, “Supported Desktop Client Platforms for SGD”](#).

3.1.36 17601578 – Poor User Experience When Displaying Applications on Mac OS X Platforms

Problem: Users on some Mac OS X platforms may experience screen refresh and other performance issues when displaying SGD applications.

Cause: This is caused by the App Nap power-saving feature introduced in Mac OS X 10.9.

Solution: Turn off the App Nap feature for the SGD Client, as follows:

- Locate the SGD Client application in Finder and Command-click on the application name.
- Choose the Get Info option, then select the Prevent App Nap check box.

3.2 Bug Fixes in Version 5.1

The following table lists the significant bugs that are fixed in the 5.1 release.

Table 3.1 Bugs Fixed in the 5.1 Release

Reference	Description
17607829	FONT CALLS TO SGD CAUSE IMMEDIATE SESSION CRASH
17593473	RDP ISSUES WITH WINDOWS SERVER 2012 AND 2012 R2
17586528	XORG: USE AFTER FREE IN XSERVER HANDLING OF IMAGETEXT REQUESTS
17536445	X-DISPLAY PERFORMANCE IMPROVEMENTS
17536411	INCORRECT MAPPING OF PRINT JOBS
17535993	CONFIGURATION NOT REPLICATED ON ARRAY JOIN
17513440	DOC: UPDATE LINUX INSTALLATION METHOD
17507123	ORACLE LINUX 6 LIBXM.SO.3 IS A DEPENDENCY OF TTA3270 AND TTA5250
17486932	DYNAMIC LAUNCH USING AN INVALID USER-DEFINED HOSTNAME TRIGGERS NULL POINTER EXCEPTION
17481540	WEB SERVICES: CLIENTCOMPONENT.START INCOMPATIBLE WITH SGD 4.7+ AND JAVA 7U25+
17476656	DOC LINK TO CUPS ADMIN MANUAL IS BROKEN
17474412	SOAP RESPONSE LENGTH INCORRECTLY CALCULATED - TRUNCATED RESPONSE
17469805	THIN WEBTOP: CLICKING UPDATE IN GROUP EDITOR CAUSES FIREFOX TO RELOAD INFINITELY

Reference	Description
17468297	LOGOUT AND LOGIN AFTER A WARM RESTART SENDS ALL WEBTOP FRAMES TO SPLASH SCREEN
17463790	H5C.JSP THROWS A NULL POINTER EXCEPTION IF EVENT REGISTRATION HAS NOT TAKEN PLACE
17463049	TTAMULTI PROCESS FAILS TO BIND TO SSL PORT AFTER WARM RESTART
17456157	WEB SERVICE OBJECTCLASS NO LONGER ACCEPTED IN API CALLS
17454752	64-BIT PLATFORMS REQUIRE 32-BIT LIBRARIES FOR THE SGD CLIENT TO RUN
17440183	SGD CLIENT AUTHENTICATES TO HTTP PROXY USING EMPTY CREDENTIALS BEFORE PROMPTING USER
17422532	CONCURRENT MODIFICATION EXCEPTION IN JSERVER
17388276	MOUSE STOPS WORKING IN THE WINDOW DISPLAYED USING ALT+CTRL+END IN SEAMLESS WINDOW RANDR APPLICATIONS
17381562	VARIOUS ERRORS AND WARNINGS IN CATALINA.OUT FILE
17381169	CHOWN ERRORS WHEN USING TARANTELLA CERT REQUEST COMMAND
17379772	REGENERATE_SSLCERT SCRIPT IS NOT PORTABLE, FAILS ON SOLARIS
17338486	WRONG OS IS DISPLAYED IN THE CONNECTION INFO DIALOG FOR WINDOWS 7 AND WINDOWS 8 CLIENTS
17337746	CURSOR IS NOT DISPLAYED PROPERLY ON WINDOWS 2003 AND WINDOWS 2008 DESKTOPS
17328748	SGD CLIENT FAILS WHEN STARTED WITH -USE-JAVA OPTION BUT JAVA IS NOT ENABLED IN THE BROWSER
17328264	WEB SERVER CONFIGURATION TO SKIP CLIENT VERSION COMPATIBILITY CHECK HAS WRONGLY NAMED PARAMETER
17326547	DOC: CLIENT BROWSER VERSIONS INCORRECT
17315686	403 ERROR WHEN STARTING SGD CLIENT FIRST AND USING THIN.JSP
17315470	PRINT SCREEN KEY NOT RECOGNIZED FOR SGD APPLICATIONS
17314057	INSECURE CONTENT BROWSER MESSAGES WHEN MANUALLY LAUNCHING SGD CLIENT
17283656	NULL POINTER EXCEPTION ON TRYING TO UPDATE PASSWORD AFTER IT EXPIRES
17276236	TABLET WORKSPACE: ISSUE WHEN CLICKING CANCEL ON AUTHENTICATION DIALOG
17275256	DOC: THIRD PARTY AUTHENTICATION UPDATE
17270654	TABLET WORKSPACE: AUTHENTICATION DIALOGS ARE POORLY SIZED FOR SOME LANGUAGES
17256136	GATEWAY UPGRADE DOCUMENTATION CHANGES
17241447	UNABLE TO RUN MULTIPLE APPLICATION SESSIONS WHEN USING SCIM
17240871	PRINTING FAILS ON ALL CLIENTS WHEN USING A GATEWAY
17234046	SGD GATEWAY ARCHITECTURE DIAGRAM UPDATES
17229755	"SECURE GLOBAL DESKTOP PASSWORD TRIED" CHECKBOX ISSUE IN ADMIN CONSOLE

Reference	Description
17219328	SGD SERVER AND GATEWAY CERTIFICATE PROFILES MUTUALLY EXCLUSIVE - CAUSES PROFILE INSTALLATION TO FAIL
17206586	XWARPPONTER CAN BE USED TO PUT THE MOUSE POINTER OUTSIDE OF XWINDOW
17198557	IOS DEVICES DO NOT FIRE THE BEFOREUNLOAD EVENT
17174649	LAIP INIT INTEGER LAUNCH PARAMETERS ARE INCORRECTLY CONSTRUCTED
17163699	IOS_PROFILE_CREATE DOES NOT RUN UNLESS CURRENT WORKING DIRECTORY IS /OPT/TARANTELLA
17080273	UPDATE 3RD PARTY COMPONENTS IN 5.1
17078611	TARANTELLA ARCHIVE CAN STOP JSERVER LOGGING
17072059	KEYBOARD EXTENDER APPEARS IN CENTER OF SCREEN WHEN KEYBOARD IS TRIGGERED
17067221	USER SESSION LOAD BALANCING IS NOT RELIABLE
17061032	USERS SEE "CANNOT CONNECT TO SERVER" MESSAGES WHEN USING GATEWAY
17043795	DISPLAYING THE KEYBOARD USING A GESTURE CAUSES THE VIEW TO SCROLL
17042183	WINDOWS 2003 DESKTOP RENDERING PROBLEMS
17036925	JAR ARCHIVES: SUPPORT FOR EXTENDED RIA ATTRIBUTES FOR JRE 7U25
17028805	SGD START PAGE LOADED IN EACH WORKSPACE FRAME
17021365	ISSUES WITH PANNING OF APPLICATION DISPLAY WHEN RANDR IS DISABLED
17008721	WITHOUT RANDR, PAN OF APPLICATION THAT IS SMALLER THAN SCREEN LEAVES A TRAIL
16996811	ALT KEY GETS INTERCEPTED BY BROWSER, REMOTE DESKTOP SERVICES KEY SHORTCUTS NOT AVAILABLE
16995701	TTALUNCHHELPER SENDS SPURIOUS SIGHUP SIGNALS ON SHUTDOWN
16995626	TABLET WORKSPACE: DO NOT CLOSE TABS OF SUSPENDED APPLICATIONS
16993237	DOCUMENTATION CONTAINS INCORRECT PATH TO WEB.XML FILE
16991204	UNABLE TO USE PINCH ZOOM GESTURE WITH INTEGRATED WINDOW APPLICATIONS
16985718	UNABLE TO LAUNCH WIN 2008R2 APPLICATIONS FOR SGD ON ORACLE LINUX 6.4
16984487	PAN AFTER ROTATION RESULTS IN A RENDERING PROBLEM
16945996	ON SOLARIS 11.1, X APPLICATIONS FAIL TO RUN SUCCESSFULLY IF SGD IS STARTED FROM RC SCRIPT
16941278	DOC: EXAMPLE COMMAND TO MANUALLY START SGD CLIENT ON UNIX IS INCORRECT
16932457	HORIZONTAL LINES WHEN DISPLAYING DIAGRAM IN CLEARCASE
16920200	DOC: RDP AUDIO RECORDING REGISTRY KEY ERROR
16914556	USER SHOULD BE ABLE TO OVERRIDE CLIENTTYPE SETTING WHEN SGD IS IN AUTO MODE
16913391	CANNOT ENTER TEXT INTO THE CLIPBOARD MANAGER FROM A DESKTOP BROWSER

Reference	Description
16899120	SPORADIC CDM FAILURES, RELATED TO PERSISTENCE OF "/MY SGD DRIVES"
16899093	TTAPRINTFIFO SERVICE SPORADICALLY DIES
16897533	EMPTY PULL DOWN HEADER IS DISPLAYED WHEN RESTORING A KIOSK SESSION ON A LINUX CLIENT
16884602	TTAEXECPE FAILS TO EXIT OR TIME-OUT, RESULTING IN INABILITY TO LAUNCH NEW APPLICATION
16861896	GATEWAY FAILS TO START AFTER UPGRADE FROM 4.63 DUE TO FILE NAME ISSUES
16853896	ERROR AFTER GATEWAY UPGRADE FROM 4.60.911 TO 4.71.905
16853705	HTML5 CLIENT DOES NOT HANDLE "MISSING OVERRIDES" FAULTS WHEN STARTING A DYNAMIC APPLICATION
16835872	PREFLIGHT CHECKS FAIL FOR MY DESKTOP APPLICATION START
16827260	NULL POINTER EXCEPTION LOGGING AN INVALID SESSION
16808131	IF MY DESKTOP APP DOES NOT EXIST, DETAILS ARE NOT LOGGED IN CATALINA.OUT
16806550	KEYBOARD TAB EVENT OCCURS WHEN SWITCHING FROM LOCAL TO REMOTE APPLICATION WINDOW
16780512	USE WORKSPACE TERMINOLOGY IN SGD SOFTWARE
16779466	USE WORKSPACE TERMINOLOGY IN SGD DOCUMENTATION
16773630	OPTIMISE THE "FIND \${INSTALLDIR}/VAR" OPERATION USED IN TARANTELLA START COMMAND
16772689	REVERT LOGIC SO THAT DATASTORE UPDATE SCRIPT IS NOT PERFORMED AUTOMATICALLY ON UPGRADE
16759832	TTATSC SILENTLY FAILS IF RANDR IS DISABLED WHEN USING NEW LIBXINERAMA
16755611	HTML5 CLIENT FAILS TO SHOW CHOOSER WHEN MULTIPLE APPLICATION SERVER USERASSIGNMENT STRINGS MATCH
16754500	ABILITY FOR FORCE SYNCHRONISATION OF NAMESPACES
16748384	BATCHED CONFIG EDIT OPERATIONS CAN FAIL DURING UPGRADE
16747503	ARRAY CLEAN COMMAND DOES NOT GIVE EXPECTED RESULTS
16714930	LARGE NUMBERS OF ENS DATASTORE OBJECTS CAUSE PROBLEMS
16714915	VDI BROKER WILL ONLY CONNECT TO A SINGLE VDI ENVIRONMENT
16714671	SERVER KEY REPEAT MODE MAY GET TURNED ON INCORRECTLY
16633697	IOS_PROFILE_CREATE SCRIPT DOES NOT HANDLE INSTALLS IN NON-DEFAULT LOCATION
16613748	TABLET WORKSPACE: IOS PROFILE LINK DOES NOT APPEAR ON INFO PAGE
16599173	DOCS: ADD INFORMATION ABOUT REQUIRED PERMISSIONS FOR ORACLE INTERNET DIRECTORY INTEGRATION
16499891	TABLET WORKSPACE TOOLBAR BUTTONS DO NOT WORK ON IOS
16478708	THE DEFAULT PUBLIC KEY LENGTH FOR SGD SSL CERTIFICATES SHOULD BE INCREASED
16430263	PREFLIGHT PAGE SHOULD CHECK CLIENT CAPABILITIES, NOT THE OS

Reference	Description
16416575	FUNCTION KEYS OVERFLOW KEYBOARD EXTENDER CONTAINER WHEN IN PORTRAIT MODE
16366965	DOCS: H5USERAGENTMATCH PARAMETER IN WEB.XML
16297280	HTML5 CLIENT: EXPERIMENTAL PAN/ZOOM CHANGES
16262523	GESTURES SETTINGS PAGE HAS LOCALIZATION ERRORS
16203938	SECONDARIES JOINING AFTER USING TARANTELLA GATEWAY ADD DO NOT RECEIVE GATEWAY CERTIFICATES
16041236	ACTIVE DIRECTORY LOGIN FAILURE: "NO SERVERS ARE AVAILABLE" ERROR
16016066	HTML5 CLIENT: ZOOM/PANNING GESTURES SHOULD BE RATIONALISED AND REFACTORED
15961632	HTML5 CLIENT: SOME DIALOG WINDOWS EXCEED THE SCREEN SIZE OF THE IPAD SCREEN
15929014	HTML5 CLIENT: SENDING CLIPBOARD DATA IS NOT RELIABLE
15837801	MANUAL START OF SGD CLIENT SHOULD OVERRIDE CLIENTTYPE SETTING
14358788	SUN SERVICE TAG OPERATIONS ARE OBSOLETE AND SHOULD BE REMOVED FROM SGD
14216115	LDAP PASSWORD EXPIRY WARNING DOES NOT WORK WITH ORACLE UNIFIED DIRECTORY 11.1.1.5.0
13331263	GATEWAY SERVER CONFIGURATION NOT REPLICATED TO NEW ARRAY MEMBERS

3.3 Providing Feedback and Reporting Problems

This section provides information about how to provide feedback and contact support for the Oracle Secure Global Desktop product.

To provide feedback or to ask a general question, you can post to the [Secure Global Desktop Software Community Forum](#). Forums are Community-monitored and posting to the Secure Global Desktop Software Community Forum does not guarantee a response from Oracle. If you need to report an issue and have an Oracle Premier Support Agreement, you should open a case with Oracle Support at <https://support.oracle.com>.

If you are reporting an issue, please provide the following information where applicable:

- Description of the problem, including the situation where the problem occurs, and its impact on your operation.
- Machine type, operating system version, browser type and version, locale and product version, including any patches you have applied, and other software that might be affecting the problem.
- Detailed steps on the method you have used, to reproduce the problem.
- Any error logs or core dumps.

3.3.1 Contacting Oracle Specialist Support

If you have an Oracle Customer Support Identifier (CSI), first try to resolve your issue by using My Oracle Support at <https://support.oracle.com>. Your Oracle Premier Support CSI does not cover customization support, third-party software support, or third-party hardware support.

If you cannot resolve your issue, open a case with the Oracle specialist support team for technical assistance on break/fix production issues. The responding support engineer will need the following information to get started:

- Your Oracle Customer Support Identifier.
- The product you are calling about.
- A brief description of the problem you would like assistance with.

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