



## Knowledge Base Article #ETM57712, Rev B

### ETM<sup>®</sup> (Enterprise Telephony Management) System v9.0.0 Build 22 Release Notes

This document contains important information about release v9.0.0 build 22 of the ETM<sup>®</sup> System. The ETM System includes the ETM Communications Applications and software, Application Appliances, ETM Server software, and the ETM applications: the Performance Manager, the Voice Firewall, the Usage Manager, the Voice IPS (Intrusion Prevention System), and the Call Recorder.

#### New Capabilities in this Release

- **Oracle TNS Names format in twms.properties and the ETM<sup>®</sup> Database Maintenance Tool**—This release provides the ability to specify Oracle connection strings using the “TNS Names” format in addition to the existing “EZ Connect” format in the **twms.properties** file and the ETM Database Maintenance Tool. See the configuration instructions below for more information about setting the connection string, and other required configuration steps to use the TNS Names format connection string.
- **Ability to Connect to the Oracle Database using Service Name rather than SID**—When using TNS Names format connection strings, the Service Name parameter can be specified to identify/connect to the given Oracle database. This provides an alternative to the Oracle SID. The ETM Database creation scripts have also been modified to set the Service Name parameter in the **tnsnames.ora** and **listener.ora** files in order to enable connections based on Service Name.

#### Issues Resolved in this Release

- **ETM-27436**—This fix allows CDR files externally uploaded to a CDR Importer folder to use any file extension or not to have a file extension. Without this fix, the CDR Importer application required the CDR file extension to use the **.txt** extension that is used by the SMDR Recorder function.
- **ETM-27437**—This fix allows the ETM Database Maintenance Tool to properly connect to and verify the contents of an Oracle 18/19 database for cases that previously failed verification due to a timestamp format mismatch.
- **ETM-27438**—When running 9.0.0b17 and using the TNS Names format connection string in the **twms.properties** file, CCMI imports hang shortly after starting, and an exception is created in the **esc\_client** log. This fix allows the CCMI import process to complete normally without error.

#### Oracle TNS Names Connection String Configuration

If desired or required, Oracle TNS Names connection strings can be used when running ETM System v9.0.0 build 17 or later. These connection strings can be used in the **DatabaseURL** of the **twms.properties** file, and also in the **Specify a custom connection string** field in the Database or Repository creation GUI in the ETM Database Maintenance Tool.

- The following line shows an example Oracle TNS Names connection string. Note that the actual Oracle TNS Names format does not include a leading **@** character, but in the two places in the ETM System that specify the TNS Names format, a leading **@** character is required, so note that in the ETM System configuration examples below:

```
(DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=172.17.2.56)(PORT=1521))(CONNECT  
_DATA=(SID=ORA19c)(SERVER=DEDICATED)))
```

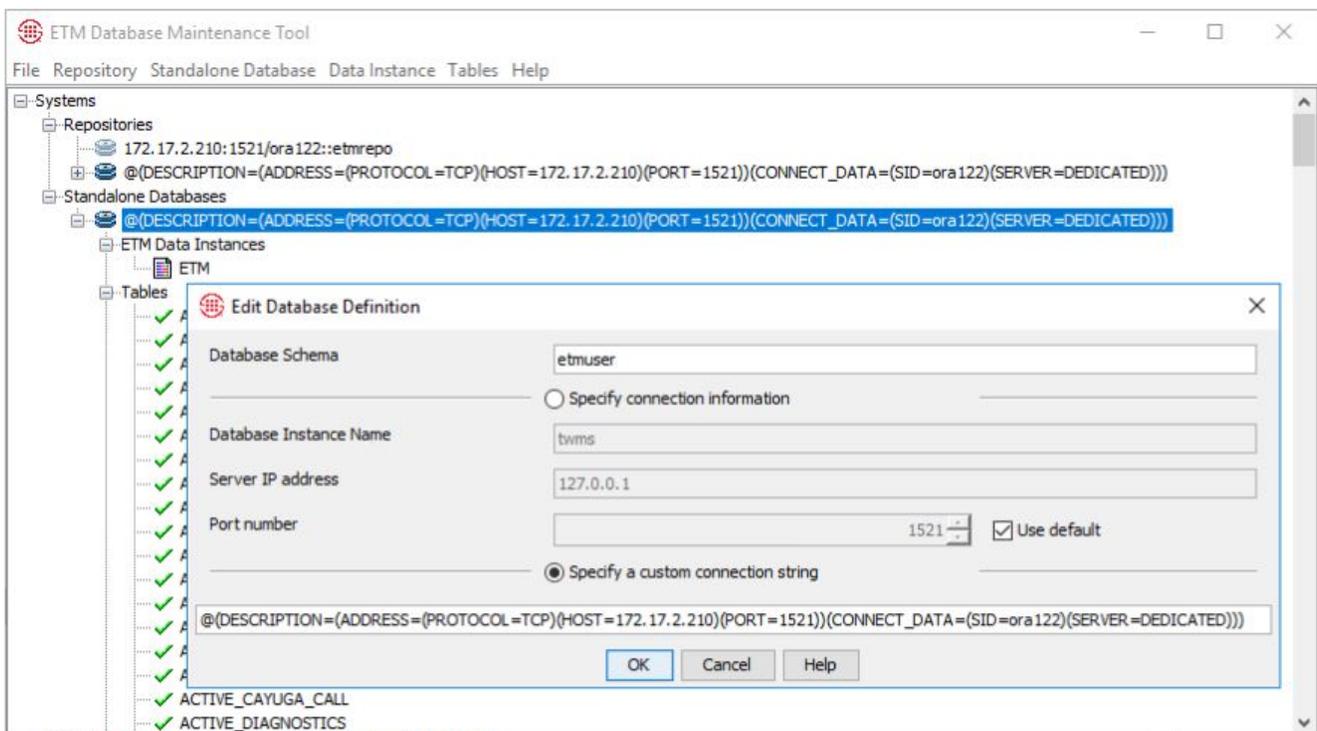
- The following line is an example of the above connection string when used in **twms.properties** (take note of the leading @):

```
DatabaseURL=jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=172.17.2.56)(PORT=1521))(CONNECT_DATA=(SID=ORA19c)(SERVER=DEDICATED)))
```

- The following line is an example of a TNS Names format connection string using Service Name. (As noted above, a leading @ is required when using this connection string in the ETM System):

```
DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=172.17.2.56)(PORT=1521))(CONNECT_DATA=(SERVICE_NAME=ORA19c.example.com)(SERVER=DEDICATED))
```

- The following screenshot is an example of a custom connection string used in the ETM Database Maintenance Tool GUI (again note the leading @):



### ***Updating the Database to Allow Use of a TNS Names Connection String***

These steps are needed when upgrading to v9.0.0 build 22 on a system that already requires the new connection string format, and also when immediately going to the new connection string format (such as when migrating to a new database that only allows the new format). If you are upgrading a system where you can use the “quick connect” string to install and configure the Database, or upgrading a system that does not use the TNS Names format, these steps are not required.

#### **To update the Database to use the TNS Names format connection string**

1. Upgrade the ETM Management Server to build 22.
2. Connect to the Database Instance in SQL Plus, and issue the `describe parent_db;` command. Output similar to the following appears:

```
SQL> describe parent_db;
```

| Name          | Null?    | Type           |
|---------------|----------|----------------|
| PARENT_ID     | NOT NULL | VARCHAR2(1024) |
| IP_ADDR       | NOT NULL | VARCHAR2(255)  |
| PORT          | NOT NULL | NUMBER         |
| INSTANCE_NAME | NOT NULL | VARCHAR2(255)  |
| SCHEMA_NAME   | NOT NULL | VARCHAR2(255)  |

```
SQL>
```

### 3. Issue these commands:

```
SQL> ALTER TABLE PARENT_DB ADD ( custom_connection_string VARCHAR(255) NULL );
```

Table altered.

```
SQL> ALTER TABLE PARENT_DB ADD ( use_custom_connection_string CHAR(1) DEFAULT '0' NOT NULL );
```

Table altered.

### 4. Issue the describe parent\_db; command again. The new format below is displayed:

```
SQL> describe parent_db;
```

| Name                         | Null?    | Type           |
|------------------------------|----------|----------------|
| PARENT_ID                    | NOT NULL | VARCHAR2(1024) |
| IP_ADDR                      | NOT NULL | VARCHAR2(255)  |
| PORT                         | NOT NULL | NUMBER         |
| INSTANCE_NAME                | NOT NULL | VARCHAR2(255)  |
| SCHEMA_NAME                  | NOT NULL | VARCHAR2(255)  |
| CUSTOM_CONNECTION_STRING     |          | VARCHAR2(255)  |
| USE_CUSTOM_CONNECTION_STRING | NOT NULL | CHAR(1)        |

```
SQL>
```

5. Connect to the Database Instance in the Database Maintenance Tool using the new connection string. It will ask if you want to change the format of the connection string from the old format to the new format. Click **Yes**. It will then say the Database is out of date and needs to be updated Click **Yes**. After the validation completes, the Database is updated and ready for use.
6. After successful upgrade of the Database, start the ETM Management Service, ETM Report Service, and ETM System Console and verify system operations.

## Special Configuration Instructions for this Release

- **Upgrading from a previous version—**

- You must have v7.1.1 Build 41 or later installed prior upgrading to v9.0.0.Build 22.
- You cannot upgrade the UTA Appliance from a previous version to v9.0.0, due to the operating system upgrade. You must uninstall the previous version and then install the 9.0.0 UTA appliance.

- **Follow published upgrade instructions**--Ensure that you obtain and follow published upgrade instructions. See the SecureLogix Knowledge Base at <https://support.securelogix.com/knowledgebase.htm> or contact SecureLogix Technical Support to obtain a copy.
- **New permission required when using an Oracle 18/19 database**—When using an Oracle 18/19 Database, a new permission is required. "GRANT CREATE JOB" to the User (or Run-As User if in use). This allows Scheduled Tasks in the Database Maintenance Tool to run properly for Oracle 18/19 Databases. This permission is added by default when using the ETM Database creation scripts (for any type of Database), but if you are upgrading from an older version of the ETM System with an existing Oracle 11/12 Database to an Oracle 18/19 Database and not rerunning the scripts, or are creating the Database manually without using the scripts, you must manually add that permission.
- **Run As User must be granted CREATE SEQUENCE permission**—If you are using a Run-As (non-owner) database account for the ETM Server, grant that account CREATE SEQUENCE permission or the Call and Policy Log tools will be unavailable.
- **IMPORTANT INFORMATION for installing on Windows**—The ETM System is installed by default at **C:\apps\SecureLogix**. If you choose a different installation directory, be aware of the following. A feature called User Account Control (UAC) in Windows 7 and later and Server 2008 and later limits application software to standard user privileges and only provides administrator level privileges if authorized by an Administrator-level user. In addition to requiring administrator privileges to perform administrative functions, UAC also introduced File and Registry Virtualization, which causes user-level programs to write data and registry settings to a virtual area for the given user, rather than to a system directory (such as Program Files) or the registry. Various functions, scripts, and installations in the ETM System may be adversely affected.

To prevent issues, do one of the following when installing on Windows:

- Ensure that a user with Administrator privileges installs the ETM System applications and then run the applications as Administrator rather than local user.
- Install the ETM System in a directory that is not a system directory (for example, not in Program Files).
- Disable the UAC feature on your operating system.
- **Enhanced Policy Push**—Depending on various factors such as the size of the policy, the number of spans to which the policy is being pushed, and network throughput, it is possible to exhaust the Java heap space on the Management Server if the number of Policy Threads is set too high. If the Management Server fails due to an out of memory condition while pushing policy, reduce the number of policy threads (and/or increase the amount of Java heap space).
- **Deadlock prevention**—In rare cases, a database deadlock error may occur. If this error is seen, a mechanism to prevent its recurrence can be enabled. To enable the locking mechanism when creating the working tables, perform the following steps.
  1. In the Management Server configuration file (**ETMManagementService.cfg/ETMManagementServer.cfg**), add the following value the Switches line:
 

```
-Dslc.report_dbtable_locks=true
```

2. In the Report Server configuration file (**ETMReportService.cfg/ETMReportServer.cfg**), add the following entry to the **RMID\_Switches** line:

-C-Dslc.report\_dbtable\_locks=true

- **Java Heap Space settings on a Linux Management Server**—The **ETMManagementService.cfg** file contains settings related to the Java Heap space. These settings are as follows:
  - **-Xms** = the initial (and minimum) java heap size. **Xms** value cannot exceed **Xmx** value.
  - **-Xmx** = the maximum java heap size.
  - **PermSize** = initial (and minimum) additional separate heap space to support the **Xmx** value mentioned above. The heap space stores the objects and the **PermSize** space keeps required information about those objects. Therefore, the larger the heap space, the larger the **PermSize** must be.
  - **MaxPermSize**=the maximum perm space allocated.
- By default, **MaxPermSize** is 32MB for **-client** and 64MB for **-server**. However, if you do not specifically set both **PermSize** and **MaxPermSize**, the overall heap size does not increase unless it is needed. If you set both **PermSize** and **MaxPermSize**, the extra heap space is allocated at server startup and remains allocated.
- **Collection Server search database**—The ETM Collection Server uses a database to store Call Recording information for searches using the Web Portal. This database is built when the Collection Server is installed and by request from the user. Depending on the number of recordings stored on the Collection Server, this operation could take several hours. A rough estimate (that varies based on the performance of the given server) is that it takes approximately 1 hour to build the database for every 500,000 call recordings. During the time that the Collection Server is building the database, it will be unavailable for all other actions such as uploading new recordings. Therefore, choose an appropriate time to install the Collection Server or to initiate rebuilds of the database. Note that a rebuild of the database on a periodic basis may be useful to keep the database in sync with the stored recordings if call recordings are periodically moved or removed from the Collection Server using processes outside of the Collection Server.
- **SS7 Signaling Listener Ports**—When configuring fully-associated signaling links on SS7 Bearer Spans, ensure that a unique listener port is selected for each Span on a Card, or port conflicts will occur. During the "out-of-the box" configuration of Cards, the Appliance software selects unique listener ports based on the Span number on the Card. If you change these port assignments, assign a distinct value for each Span. See the *ETM® System Installation Guide* for details.
- **Delayed interface responsiveness**—On Windows, an additional delay averaging 20 seconds may be encountered when any of the ETM System Software Components attempts to open a network connection to a remote machine. This delay is due to the lack of a DNS Server definition or an invalid DNS server definition in the Windows Internet Protocol (TCP/IP) Properties for the applicable networking interface.

To avoid this delay, do one of the following:

- Specify a valid DNS Server in the Windows Internet Protocol (TCP/IP) Properties for the applicable networking interface.

- On each remote client computer, add an entry for the ETM Server computer to the **HOSTS** file. For example, if the Server is **zephyr.securelogix.com** with an IP address of 10.1.1.202, you would add the following entry:

```
10.1.1.202 zephyr    zephyr.securelogix.com
```

- **Imported SMDR recording file lock**—When recording imported SMDR data to a file, the recording mechanism locks the file until the maximum record count is reached (10,000). While the file is locked for writing, the CDR importer cannot import the file. This is intended behavior. However, in low-volume environments, the amount of time the file is locked to reach the max record count may be unacceptable. If a smaller count is needed, add the following command-line switch to the # Java switches to supply to the Java Virtual Machine line in the **ETMManagementService.cfg** file and then restart the Server:

```
-Dsmdr.RecorderRecordsPerFile=<value>
```

- **SMDR Recording File Directory not automatically created**— When you configure an Appliance to record raw SMDR, the directory where the files are stored is not automatically created. Manually create the following directory before enabling SMDR recording on the Switch:<INSTALL\_DIR>/ps/smdr-recording

## Known Limitations

- **Management Server and Report Server do not start on an IPv6-only system**—If IPv4 networking is removed or disabled on the system on which the Management Server and Report Server are installed, the services will not start. When using IPv6, ensure that IPv4 networking is also installed and enabled.
- **Delayed database connection with “spinning globe” when running reports**—If you encounter this issue, old database partitions need to be removed. Contact SecureLogix Technical Support for assistance.
- **No Dirty Policy indicator for Call Recorder Policies when URIs are changed in the Directory**—When a URI associated with a Listing used in an installed Call Recorder Policy is changed, the Dirty Policy indicator fails to display for the Policy. The Dirty Policy indicator displays correctly when phone numbers are changed and for other Policy types. If you modify the URI in a Listing used in an installed Call Recorder Policy, ensure that you reinstall the Policy.
- **SIP Offline Mode**—SIP offline mode does not support SIP Trunk configurations in which multiple trunks are defined that use the same IP address and port for the ETM appliance node.
- **“Redirected” Policy Disposition only effective for inline SIP applications**—A Policy Disposition of **Redirected** is provided and appears as available for all application types. However, this Disposition is only processed for inline SIP applications.
- **Cannot authenticate user when LDAP server is using IPv6**—If the LDAP server uses an IPv6 IP address, LDAP authentication fails. Only IPv4 LDAP servers are supported in this release.
- **Serial SMDR GUI settings available for SIP Spans, but only IP SMDR is supported**—Ignore the Serial SMDR settings.
- **CAC Card Login under Windows 64-bit and Linux OS**—CAC Card login is not supported when running the ETM Management Server under Windows 64-bit systems or Linux systems.

- **Scheduled Reports "Save to Tree"**—On some client systems, an error has been seen while attempting to save a Scheduled Report to the Tree. Workarounds include scheduling the report from a different client or using other actions such as Email or Save to Disk.
- **UTA Call Manager sometimes fails to reconnect to Call Processor**—On some UTA appliances, an issue has been seen following appliance package push or Call Processor restart in that the Call Manager will not always reconnect to the Call Processor. To resolve this issue, restart the Call Manager service.
- **UTA: Tracking of non-phone number URIs**—Calls that use non-phone number URIs (the user portion of the URI does not contain a phone number) are not tracked by the UTA appliance.
- **ETM-27398—Reports:** Exceptions occur when saving to tree and when viewing/printing/save as from tree.
- **ETM-27368—Reports:** SQLSyntaxError occurs querying data by the **Egress Trunk Channel** field.
- **ETM-27327**—Calls terminated by an IPS Rule that includes **Call Duration** are not included in the **Prevented Count** in the IPS Real-Time Monitor, but they are correctly terminated.
- **ETM-27350**—UTA:: CID Restricted calls do not trigger IPS or Recording Policy Rules.
- **BAMS**—The BAMS feature is not supported in this release.

## Version History

For information about previous releases of the ETM System, see the SecureLogix Knowledgebase at <http://support.securelogix.com/knowledgebase.htm>, keyword "release notes."

## Current Application Versions as of this Release

- ETM Client and Server applications—9.0.0 Build 22
- Appliance packages:
  - UTA—9.0-12
  - All other Appliance types\*—7.1.90

*\*Does not apply to the EOL 1060.*

**Note:** For SIP Proxy installations, refer to [APP258 - SIP Proxy Appliance Build 7.1.91 Release Notes](#) for information about a special case regarding the way TCP response messages are handled by some SBCs running older versions of their software.

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