



TIBCO Substation ES™

Release Notes

Software Release 2.14.0
April 2020

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Contents

TIBCO Documentation and Support Services	6
New Features	8
Changes in Functionality	10
Deprecated and Removed Features	11
Migration and Compatibility	12
Migrating to Release 2.14.0	12
Migrate INTF Data Set in Release 2.14.0	12
Migrating to Release 2.13.0	12
Transformer Configuration File Conversion in Release 2.13.0	12
Migrating from Release 2.7 and Later	13
New and Changed Parameters in Release 2.14.0	13
New and Changed Members in Release 2.14.0	14
New and Changed Parameters in Release 2.13.0	15
New and Changed Parameters in Release 2.12.0	15
New and Changed Parameters in Release 2.11.1	16
New and Changed Parameters in Release 2.11.0	16
New and Changed Members in Release 2.11.0	16
New and Changed Parameters in Release 2.10.0	17
New and Changed Members in Release 2.10.0	19
Migrating from Release 2.6	20
Transformer Configuration File Conversion in Release 2.7.0	20
Migrating from Release 2.6	20
Migrating from Release 2.1 through 2.5	21
Migrating from Release 2.0	21
Migrating from Release 1.x	22
Parameter Keyword Changes	23
Migrating to Release 2.6.0	24
Transformer Configuration File Conversion in Release 2.6.0	24
System Startup and Initialization Parameter Changes in Release 2.6.0	24
New and Changed Members in Release 2.6.0	25
Migrating to Release 2.5.0	26
System Startup and Initialization Parameter Changes in Release 2.5.0	26
New and Changed Members in Release 2.5.0	27
Migrating to Release 2.4.0	27
System Startup and Initialization Parameter Changes in Release 2.4.0	28
New and Changed Members in Release 2.4.0	29

Migrating to Release 2.3.0	30
System Startup and Initialization Parameter Changes in Release 2.3.0	30
Migrating to Release 2.2.0	31
New and Changed Members in Release 2.2.0	31
Migrating to Release 2.1.0	31
System Startup and Initialization Parameter Changes in Release 2.1.0	31
New and Changed Members in Release 2.1.0	32
Transformer Configuration File Conversion in Release 2.1.0	32
Migrating to Release 2.0.0	33
System Initialization Parameters Change in Release 2.0.0	33
New and Changed Members in Release 2.0.0	33
Transformer Configuration File Conversion in Release 2.0.0	33
Migrating from Release 1.x	34
Closed Issues	35
Known Issues	38

TIBCO Documentation and Support Services

How to Access TIBCO Documentation

Documentation for TIBCO products is available on the TIBCO Product Documentation website, mainly in HTML and PDF formats.

The TIBCO Product Documentation website is updated frequently and is more current than any other documentation included with the product. To access the latest documentation, visit <https://docs.tibco.com>.

Product-Specific Documentation

Documentation for TIBCO Substation ES is available on the [TIBCO Substation ES](#) Product Documentation page.

Documentation for TIBCO products is bundled with the software. It is also available on the TIBCO Documentation site at <https://docs.tibco.com/products/tibco-substation-es>. To directly access documentation for this product, double-click the following file:

`TIB_substation_version_docinfo.html`

where this file is shipped with the software package .zip file.

The following documents for this product can be found on the TIBCO Documentation site or after extracting the documentation .zip file:

- *TIBCO Substation ES Concepts*
- *TIBCO Substation ES Mainframe Logger User's Guide*
- *TIBCO Substation ES Installation*
- *TIBCO Substation ES Operations and Administration*
- *TIBCO Substation ES Configuration and Resources*
- *TIBCO Substation ES Messages and Codes*
- *TIBCO Substation ES Release Notes*

The following documents provide additional information and can be found on the TIBCO Documentation site:

- *TIBCO Rendezvous for z/OS Installation and Configuration*
- *TIBCO Rendezvous for z/OS COBOL Reference and TIBCO Rendezvous C Reference*
- *TIBCO Enterprise Message Service User's Guide*
- *TIBCO Enterprise Message Service C & COBOL API Reference*
- *TIBCO Mainframe RED User's Guide*
- *TIBCO Mainframe RED Installation*

How to Contact TIBCO Support

You can contact TIBCO Support in the following ways:

- For an overview of TIBCO Support, visit <http://www.tibco.com/services/support>.
- For accessing the Support Knowledge Base and getting personalized content about products you are interested in, visit the TIBCO Support portal at <https://support.tibco.com>.

- For creating a Support case, you must have a valid maintenance or support contract with TIBCO. You also need a user name and password to log in to <https://support.tibco.com>. If you do not have a user name, you can request one by clicking Register on the website.

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<https://community.tibco.com>

New Features

The following features have been added in this release of TIBCO Substation ES™.

Logging and Tracing:

TIBCO Substation ES™ now supports writing log, tracing messages and/or statistical messages directly to the IBM SYSLOG stream facility. This is more efficient than using the current VSAM facility. All Substation ES™ subtasks and associated applications have been enabled to use this facility. User programs can also write to the z/OS Log Streams by using the Mainframe Logger to preserve the context, which provides true end-to-end visibility for a business execution. Substation ES™ also writes additional information such as, the correlation ID, unit-of-work, execution markers, resource and environment for each message that is applicable for each execution.

A Log Viewer is included for the log streams, supporting the viewing of messages and events captured by Substation ES™ and applications. The viewer is available in option 3 of the standard Substation ES™ SDSF panel. The TIBCO Mainframe Logger Log Viewer is used to view messages directly from the IBM SYSLOG in real-time.

Substation Operational commands:

SET, RVFT for RV Daemon Endpoints

When using RV as the transport, TIBCO Substation ES™ now supports using the console command 'SET, RVFT' to switch URLs, when you have configured the FT interface with multiple daemon endpoints, per interface.

RED Interface

Added a new RED interface operational command, **SET, RED, ABEND-RESET** to dynamically reset the #RED transaction abend counter to 0 (zero).

Added a new RED interface operational command, **SET, RED, TRCLVL**. This command replaces the existing **SET, RED, TRCLVL-SSRED** command. It sets the tracing on only for the Substation RED Interface.

Added a new RED interface operational command, **SET, RED, TRCLVL-CICS** to dynamically change the trace level of the RED Interface system related messages.

Added a new RED interface operational command, **SET, RED, TRCLVL-#RED** to dynamically change the trace level for #RED transaction and its program.

Added a new RED interface operational command, **SET, RED, TRCLVL-TRG** to dynamically change the trace level for OTRED, the trigger processes related messages.

Added a new RED interface operational command, **SET, RED, TRCLVL-VIEW** to dynamically change the trace level for VIEW transaction related messages.

TIBCO Interface for RED now supports both IBM Cross-Memory (XM) and IBM XCF modes for communicating between source and targets applications. This happens automatically and you are not required to specify any setting. The RED interface makes choices based on the most efficient method.

CICS initiated request/reply service now supports both requests and replies where the payload can be greater than 32K. Communications using DFHCOMMAREA, containers and storage is also supported.

If you do not specify a correlation Id when using the CICS Fire-and-Forget or CICS request/reply services, the RED interface will inject this automatically based on the node that the message was sent from and the transaction ID of that service invocation.

CICS Interface:

Added a new CICS interface operational command, **SET, CICS, STATS** to dynamically start and stop the CICS EXCI interface statistics recording.

Added a new CICS interface operational command, **SET, CICS, TRCLVL-ONL** to dynamically change the trace level of the CICS EXCI Interface on-line related messages.

Substation ESB Interface:

EMS Shared Subscriptions

TIBCO Substation ES now supports EMS shared subscriptions for topics. When you use the same method on queues, receiving messages from a topic only once shows a significant performance improvement.

EMS Compressed Messages

TIBCO Substation ES on the EMS messaging interfaces now supports EMS compressed inbound messages.

EMS Dynamic Variable

TIBCO Substation ES EMS dynamic variable for EMS URL or ECF name feature now supports multiple EMS FT servers. This increases the High Availability option, thereby extending it to EMS Messaging components.

ESB Interface Start Wait Time

TIBCO Substation ES now supports longer than normal connection attempts at startup that are encountered when ESB libraries retry unavailable Rendezvous daemons and EMS servers. Values can be changed by specifying the START-WAITTIME-ESB keyword with a value.

Correlation Id

TIBCO Substation ES now supports correlation ID for RV messages when you use the system property **tibss-CorrelationId**. The correlation ID is now included in the messages written for business transactions, so that, true end-to-end view of an execution thread can be monitored and reported. Substation ES continues to support the JMS correlation ID, as it did previously for EMS messages.

EMS Memory Requirements

The Substation ES can now limit the total memory used by any specific EMS ESB Interface by upgrading to current release and setting the parameter **EMS-INTF-MEMORY** in the EMS interface member. This protects the system from over allocating memory used by large messages flowing between network, cloud and mainframe business applications.

Refer to the parameter **EMS-INTF-MEMORY** found in the EMS interface member.

RV-SERVICE

In TIBCO Rendezvous, a new parameter called **RV-SERVICE** is introduced on the interface member.

RV-SERVICE allows you to overwrite the service number specified in the config file. This change is applied to all the RV endpoints for that interface member. It is used to segregate message flow per interface/service without changing the endpoint names or duplicating services such as recipes and triggers.

Changes in Functionality

No functionality changes have been made in this release of TIBCO Substation ES.

Deprecated and Removed Features

The following features have been deprecated or removed as of this release of TIBCO Substation ES.

For deprecated features, if relevant, useful alternatives are listed. Any use of a deprecated feature should be discontinued because it might be removed in a future release. To avoid becoming dependent on deprecated features, ensure that you become familiar with the suggested alternative features.

Deprecated Features

Affected Component	Description	Deprecated Release
CICS Interface	The Interface will be put into maintenance and no additional enhancements will be made.	3.X.X
SXQG and SXQR triggers queues	Triggers queues SXQG and SXQR will be deprecated.	3.X.X
VSAM Disk logging	The VSAM Disk logging option will be removed. Switch to the Mainframe Logger option that uses IBM Syslog.	3.X.X

Removed Features

Affected Component	Description	Deprecated in Release	Removed in Release
EMS ESB	Dropped support for SSL version 3.x	2.12.1	2.13.0
CICS Transaction Server for z/OS	Dropped support for version 3.x	N/A	2.11.0
Active Log	Removed this input field from the Log Viewer of LTA display panel.	N/A	2.11.0
XTUV, CICS Command-line Parameter	This command-line parameter has been removed from RED CICS Control Information Viewer.	N/A	2.11.0
General Substation and the ESB	Transform-Only Data feature	N/A	2.9.0

Migration and Compatibility

The following information provides migration procedures for this release of TIBCO Substation ES.

Migrating to Release 2.14.0

To migrate an earlier TIBCO Substation ES™ installation to release 2.14.0, you must address these changes from version 2.x.x:

- [Migrate INTF Data Set in Release 2.14.0](#)
- [Transformer Configuration File Conversion in Release 2.13.0](#)
- [New and Changed Parameters in Release 2.14.0](#)
- [New and Changed Members in Release 2.14.0](#)

Additionally, see the notes on [Migrating from Release 2.7 and Later](#).

Migrate INTF Data Set in Release 2.14.0

The *USERHLQ.PARM* data set has replaced *USERHLQ.INTF* for Substation ES™ release 2.14.0. Move all the members from *USERHLQ.INTF* to the 2.14.0 version of *USERHLQ.PARM* data set. To retain a specific dataset name, allocate data set with the same data set information as contained in *USERHLQ.PARM* data set.

The *USERHLQ.PARM* data set must be defined as:

Organization	PO
Record format	FB
Record length	240
Block size	27840
1st extent cylinders	10
Secondary cylinders	0
Data set name type	LIBRARY

This will prevent Substation ES startup failure.

Migrating to Release 2.13.0

To migrate an earlier TIBCO Substation ES™ installation to release 2.13.0, you must address these changes from version 2.x.x:

- [Transformer Configuration File Conversion in Release 2.13.0](#)
- [New and Changed Parameters in Release 2.13.0](#)

Additionally, see the notes on [Migrating from Release 2.7 and Later](#).

Transformer Configuration File Conversion in Release 2.13.0

The configuration file structures have changed for Substation ES™ release 2.13.0. You must export all of the entities of the configuration file to a sequential file using the 2.x.x configuration file export utility. You can then import them to the newly allocated and defined configuration file using the 2.13.0 configuration file import utility.

Use the following steps for converting the configuration file:

1. Complete the Substation ES™ release 2.13.0 installation.
2. Ensure the JCL (SXCCFDEF or SXICFDEF or SXXCFDEF) has executed successfully. This job creates and populates the release 2.13.0 file.
3. Edit the JCL member SXSCFC2D and update the SET value of *USERCUR* to the current version of Substation ES HQL, that is, version 2.10.x, or 2.11.x or 2.12.x *USERHQL* of the Substation ES™.
4. In the EXPORT step, update the filename on the CONFIG DD Name to the name of your current Substation ES™ configuration file.
5. In the IMPORT step, update the filename on the CONFIG DD Name to the name of your release 2.13.0 Substation ES™ configuration file created in Step 2 above.
6. Submit the SXSCFC2D JCL for execution. Your existing applications should execute without changes after the export and import activities have completed.

Migrating from Release 2.7 and Later

To migrate an earlier TIBCO Substation ES™ installation to release 2.14.0, you must address the following changes in parameters and members:

- [New and Changed Parameters in Release 2.14.0](#)
- [New and Changed Members in Release 2.14.0](#)
- [New and Changed Parameters in Release 2.13.0](#)
- [New and Changed Parameters in Release 2.12.0](#)
- [New and Changed Parameters in Release 2.11.1](#)
- [New and Changed Parameters in Release 2.11.0](#)
- [New and Changed Parameters in Release 2.10.0](#)
- [New and Changed Members in Release 2.10.0](#)

New and Changed Parameters in Release 2.14.0

In release 2.14.0, some parameter keywords have been changed or added. In addition, some default keyword values or range values have changed. All members are located in the *USERHQL*. PARM data set.

For additional details, see *TIBCO Substation ES Installation*.

Keyword	Status	Required	Value
Substation System Startup Member (SXSSSP\$1)			
LOGSTREAM-ID		Removed	
TRCSTREAM-ID		Removed	
SYSLOG-MEM	New	Optional	TIBSLOG
Substation EMS ESB (SXSIEWS1)			
START-WAITTIME-ESB	New	Optional	120 to 600 (Def=120)Sec
Substation RV ESB (SXSIRV1) and (SXSIRVR)			

Keyword	Status	Required	Value
START-WAITTIME-RV	Renamed to START- WAITTIME- ESB		
VECTOR-YN	New	Optional	Y/N (Def=Y)
TIBCO Mainframe Syslog Member (TIBSLOG)			
STATISTICS	New	Optional	Y/N (Def=N)
LOGSTREAM-ID	New	Optional	TIBCO.STREAM.TIBLOG
STSSTREAM-ID	New	Optional	TIBCO.STREAM.TIBSTS
TRCSTREAM-ID	New	Optional	TIBCO.STREAM.TIBTRC

New and Changed Members in Release 2.14.0

The following are new and changed members used within the Substation ES installation and runtime environment. If the original installed data sets are retained, the original members are not replaced, and the members of the PARM (INTF for earlier version), CNTL, JCL, and PROC libraries must be copied by the installer from the sample data sets.

Library	Member	Description	Status
CNTL	SXCSDERD	The RED CICS resource definitions	New in 2.14.0
PARM	TIBSLOG	Parameters for TIBCO Mainframe Syslog processing	New in 2.14.0
	SXXHUBSA	HUB Standalone Initialization Parameters	New in 2.14.0
JCL	RUNWLOG	The batch write to Syslog samples run JCL	New in 2.14.0
	RUNXLOG	The statistics Syslog extraction run JCL	New in 2.14.0
	SXLANAB	The batch Syslog samples Assembler program assembly JCL	New in 2.14.0
	SXLCNCB	The batch Syslog samples COBOL program compile JCL	New in 2.14.0
	SXL3NCB	The batch Syslog samples C program compile JCL	New in 2.14.0
	SXR3NCPL	The batch RV IVP C program compile JCL	New in 2.14.0
	SXXCSDUP	The RED CICS resource definitions JCL	JCL Updated
	SXXHUBSA	The RED standalone HUB startup JCL	New in 2.14.0
PROC	TIBANAB	The batch Assembler assembly and bind procedure	New in 2.14.0

Library	Member	Description	Status
	TIBCNCB	The batch COBOL compile procedure	New in 2.14.0
	TIB3NCB	The batch C compile procedure	New in 2.14.0

New and Changed Parameters in Release 2.13.0

In release 2.13.0, some parameter keywords have been changed or added. In addition, some default keyword values or range values have changed. All members are located in the *USERHLQ.INTF* data set.

For additional details, see *TIBCO Substation ES Installation*.

Keyword	Status	Required	Value
Substation System Startup Member (SXSSSP\$1)			
LOGDEST	Updated	Optional	P/D/S (Def=P)
LOGSTREAM-ID	New	Optional	SSES-LOGGER
TRCDEST	Updated	Optional	P/D/S (Def=P)
TRCSTREAM-ID	New	Optional	SSES-TRACER
RED Interface (SXCIREDD)			
CICS-ABEND-VALUE	New	Optional	1 to 5 (Def=5)
Substation EMS ESB (SXSIEWS1)			
EMS-INTF-MEMORY	New	Optional	20 to 600 (Def=200)MB
Substation RV ESB (SXSIRV1) and (SXSIRVR)			
START-WAITTIME-RV	New	Optional	120 to 600 (Def=120)Sec

New and Changed Parameters in Release 2.12.0

In release 2.12.0, some parameter keywords have been changed or added. In addition, some default keyword values or range values have changed. All members are located in the *USERHLQ.INTF* data set.

For additional details, see *TIBCO Substation ES Installation*.

Keyword	Status	Required	Value
RED Interface (SXCIREDD)			
CICS-MAIN-MAX	Updated	Optional	0 to 500 (Def=50)
CICS-TWA-CLEAR-YN	New	Optional	Y/N (Def=N)
MY-CICS-GROUP	New	Optional	Def=APPLID

New and Changed Parameters in Release 2.11.1

In release 2.11.1, some parameter keywords have been changed or added. In addition, some default keyword values or range values have changed. All members are located in the *USERHLQ*.INTF data set.

For additional details, see *TIBCO Substation ES Installation*.

Keyword	Status	Required	Value
RED Interface (SXCIREDD)			
AMSG-STRESS-DELAY	Updated	Optional	1 to 10000 (Def=300ms)
CICS-MAIN-MAX	Updated	Optional	5 to 800 (Def=21)

New and Changed Parameters in Release 2.11.0

In release 2.11.0, some parameter keywords have been changed or added. In addition, some default keyword values or range values have changed. All members are located in the *USERHLQ*.INTF data set.

For additional details, see *TIBCO Substation ES Installation*.

Keyword	Status	Required	Value
RED Interface (SXCIREDD)			
AMSG-MODE	New	Optional	F/R (Def=F) First, Round Robin
AMSG-PRIORITY	New	Optional	1 to 99
AMSG-STRESS-DELAY	New	Optional	100 to 10000
CMSG-BUFF-OFLOW	Removed		
GROUP-NAME	Removed		
TCP Interface (SXSITCP)			
SELECT-TO	Renamed to TIMEOUT in 2.11.0		
TRCLVL-GSK	Renamed to GSK- TRCLVL in 2.11.0		
WEBUI-BUFFER-SIZE	New	Optional	8192 to 128000

New and Changed Members in Release 2.11.0

The following are new and changed members used within the Substation ES installation and runtime environment. If the original installed data sets are retained, the original members are not replaced, and

the members of the INTF, CNTL, JCL, and PROC libraries must be copied by the installer from the sample data sets.

Library	Member	Description	Status
JCL	SXCCJCPL	The CICS COBOL compile JCL	JCL Updated
	SXXBMON	The batch RED State Monitor utility run JCL	New in 2.11.0
	SXX3JCPL	The CICS RED C IVP program compile JCL	Renamed from SXX3JCL
PROC	TIBCCCB	The CICS COBOL compile procedure	Replaces TIBCCCL

New and Changed Parameters in Release 2.10.0

In release 2.10.0, some parameter keywords have been changed or added. In addition, some default keyword values or range values have changed. All members are located in the *USERHLQ*.INTF data set.

For additional details, see *TIBCO Substation ES Installation*.

Keyword	Status	Required	Value
Substation Initialization Member (SXSSIP\$1)			
STACK-NAME	New in 2.8.0	Optional	TCP/IP stack name
STGSIZE-MAX	New in 2.9.0	Optional	4000 to 200000
Substation Administration Interface (SXSADM)			
HEARTBEAT-COMMAND	New in 2.8.0	Optional	Console Commands
LOG-REMOTE	New in 2.8.0	Optional	Y/N
Substation EMS ESB (SXSIEMS1)			
SERVICE-SUSPEND	New in 2.9.0	Optional	Y/N
WORKERS-EOT	New in 2.8.0	Optional	5 to 40
Substation EMS ESB (SXSIRV1)			
RVDQ-IDENTITY	New in 2.8.0	Optional	0 to 3
RVDQ-MEM-LIMIT	New in 2.8.0	Optional	0 to 3
RVDQ-MSG-LIMIT	New in 2.8.0	Optional	0 to 3
RVDQ-SCHEDULER	New in 2.8.0	Optional	0 to 3

Keyword	Status	Required	Value
RVDQ-WORKERS	New in 2.8.0	Optional	0 to 3
SERVICE-SUSPEND	New in 2.9.0	Optional	Y/N
WORKERS-EOT	New in 2.8.0	Optional	5 to 40
CICS Interface (SXCINTF)			
HVS-BATCH-YN	Renamed as HVS-BATCH in 2.8.0.	Optional	Y/N
HVS-BATCH-SIZE	New in 2.8.0	Optional	5 to 2048
TRCLVL-HVS	New in 2.8.0	Optional	0 to 3
RED Interface (SXCIREDD)			
AMSG-BUFFER-64	Renamed as AMSG-BUFF64-YN in 2.9.0	Optional	Y/N
CMSG-BUFFER-SZ	Renamed as CMSG-BUFFLEN in 2.9.0	Optional	1024 to 500000
CMSG-BUFFER-64	Renamed as CMSG-BUFF64-YN in 2.9.0	Optional	Y/N
CMSG-CICS-WAIT	New	Optional	5 to 60
CMSG-CHECK-STG	New	Optional	0 to 10000
P#-AMSG-BUFFERS	Renamed as POOL#-AMSG-BUFFERS in 2.9.0	Optional	5 to 50000
P#-AMSG-BUFFER-SZ	Renamed as POOL#-AMSG-BUFFLEN in 2.9.0	Optional	256 to 500000
P#-AMSG-NAME	Renamed as POOL#-AMSG-NAME in 2.9.0	Optional	RED target member name
P#-AMSG-PACING	Renamed as POOL#-AMSG-PACING in 2.9.0	Optional	0 to 5000000
P#-AMSG-TRCLVL	Renamed as POOL#-AMSG-TRCLVL in 2.9.0	Optional	0 to 5

Keyword	Status	Required	Value
P#-AMSG-WORKERS	Renamed as POOL#-AMSG-WORKERS in 2.9.0	Optional	0 to 40
SMSG-BUFFER-SZ	Renamed as SMSG-BUFFLEN in 2.9.0	Optional	1024 to 500000
IMS Interface (SXIINTF)			
OTMA-SMEM	New in 2.9.0	Optional	<i>smem</i>
TIMEOUT-SYNC	New in 2.9.0	Optional	1 to 120 seconds
TRCLVL-TRIG	New in 2.7.0	Optional	0 to 3
WAIT-OTMA	New in 2.9.0	Optional	10 to 500 in hundredths of seconds
WAIT-TRANS-TO	New in 2.9.0	Optional	1 to 3000 in hundredths of seconds

New and Changed Members in Release 2.10.0

The following are new and changed members used within the Substation ES installation and runtime environment. If the original installed data sets are retained, the original members are not replaced, and the members of the CNTL, JCL, and PROC libraries must be copied by the installer from the sample data sets.

Library	Member	Description	Status
JCL	SSLCODES	Authorize the EMS client job to execute system SSL modules.	New in 2.9.0
	SSLGCERT	Generate the client certificate.	New in 2.9.0
	SSLRACFA	Define RACF profiles for those system SSL modules which require signature verification.	New in 2.9.0
	SXCASME0	Compile suppress CICS messages exit.	New in 2.9.0
	SXIJCIVS	IMS conversational IVP program.	New in 2.9.0
	SXWXMLUI	Configuration file extract utility for WebUI	New
	SXXCSDUP	RED CICS CSD resources.	New in 2.9.0
	TIBSSES	Substation startup.	JCL Updated
INTF	SXCIRE0	CICS RED Interface.	New in 2.9.0
	SXSIRVR	RV ESB Interface for RED.	New in 2.9.0

Library	Member	Description	Status
	SXSITCP	TCP Interface	New
CNTL	SXCSDARD	CICS RED CSD resource definitions.	New in 2.9.0
	SXCSDURD	CICS RED CSD required definitions.	New in 2.9.0

Migrating from Release 2.6

To migrate an earlier TIBCO Substation ES installation to release 2.10.0, you must address these changes from version 2.6.0:

- [Transformer Configuration File Conversion in Release 2.7.0](#)
- [Parameter Keyword Changes](#)

Additionally, see the notes on [Migrating from Release 2.7 and Later](#).

Transformer Configuration File Conversion in Release 2.7.0

The configuration file structures have changed for Substation ES release 2.7.0 and later.

This release includes a utility that can assist the conversion of configuration files used in release 2.6.0 to the requirements of 2.7 and later.

If you are migrating from a release earlier than 2.6.0, you must convert your configuration file to 2.6.0 before using the utility:

- If migrating from software release 2.1 through 2.5, see [Migrating from Release 2.1 through 2.5](#).
- If migrating from software release 2.0, see [Migrating from Release 2.0](#).
- If migrating from software release 1.x, see [Migrating from Release 1.x](#).

Migrating from Release 2.6

Follow these instructions if your current installation of TIBCO Substation ES is software release 2.6.0.

Follow these steps to convert the configuration file:

1. Install TIBCO Substation ES release 2.10.0, as documented in the *TIBCO Substation ES Installation* guide.

Substation ES is delivered in the form of a module for independent installation. Your existing Substation ES installation does not have to be removed or modified.

2. Run the JCL member, either SXCCFDEF or SXICFDEF (depending on whether your interface is for CICS or IMS). This JCL creates a named release 2.10.0 configuration file.



The JCL is located in the <USERHLQ>.JCL library.

3. Edit the JCL member SXSCFC26 in the Substation ES 2.10.0 installation.
 - a. In the EXPORT step, update the filename on the CONFIG DD Name to specify the name of your Substation ES version 2.6 configuration file. This step exports the contents of the Substation ES 2.6 configuration file to a sequential file.
 - b. In the IMPORT step, change the filename on the IMPORT DD Name statement to specify the name of the sequential file created in [step a](#).

Ensure that the filename of the CONFIG DD Name points to the named release 2.7.0 configuration file created in [step 2](#).

For details on the utilities, see "Configuration File Utilities" in *TIBCO Substation ES Configuration and Resources*.

4. Execute the JCL member SXSCFC26. This JCL member converts the Substation ES 2.6 configuration file to a version 2.7.0 configuration file. Your existing applications have to execute without changes after the export and import have completed.

Migrating from Release 2.1 through 2.5

Follow these instructions if your current installation of TIBCO Substation ES is software release 2.1 through 2.5.

In these instructions, your installation of TIBCO Substation ES, release 2.1 through 2.5, is referred to as your existing Substation ES installation. These steps convert your existing Substation ES configuration file for use with release 2.7.

1. Install TIBCO Substation ES release 2.7.0, as documented in the *TIBCO Substation ES Installation* guide.

Substation ES is delivered in the form of a module for independent installation. Your existing Substation ES installation does not have to be removed or modified.

2. Run the JCL member, either SXCCFDEF or SXICFDEF (depending on whether your interface is for CICS or IMS). This JCL will create a named release 2.6.0 configuration file.



The JCL is located in the <USERHLQ>.JCL library.

3. Edit the JCL member SXSCFC24 in the Substation ES 2.7.0 installation.
 - a. In the EXPORT step, update the filename on the CONFIG DD Name to specify the name of your existing Substation ES installation configuration file (version 2.1 through 2.5). This step exports the contents of the Substation ES configuration file to a sequential file.
 - b. In the IMPORT step, change the filename on the IMPORT DD Name statement to specify the name of the sequential file created in [step a](#).
Ensure that the filename of the CONFIG DD Name points to the named release 2.6.0 configuration file created in [step 2](#).
4. Execute the JCL member SXSCFC24. This JCL member converts your Substation ES configuration file to a version 2.6 configuration file.
5. Convert the new version 2.6 configuration file to 2.7. These steps are covered in depth in [Migrating from Release 2.6](#).

Migrating from Release 2.0

Follow these instructions if your current installation of TIBCO Substation ES is software release 2.0.

In these instructions, your installation of TIBCO Substation ES release 2.0 is referred to as your existing Substation ES installation. These steps convert your existing Substation ES configuration file for use with release 2.7.

1. Install TIBCO Substation ES release 2.7.0, as documented in the *TIBCO Substation ES Installation* guide.

Substation ES is delivered in the form of a module for independent installation. Your existing Substation ES installation does not have to be removed or modified.

2. Run the JCL member, either SXCCFDEF or SXICFDEF (depending on whether your interface is for CICS or IMS). This JCL will create a named release 2.1.0 configuration file.



The JCL is located in the <USERHLQ>.JCL library.

3. Edit the JCL member SXSCFC21 in the Substation ES 2.7.0 installation.
 - a. In the EXPORT step, update the filename on the CONFIG DD Name to specify the name of your existing Substation ES version 2.0 configuration file. This step exports the contents of the Substation ES configuration file to a sequential file.
 - b. In the IMPORT step, change the filename on the IMPORT DD Name statement to specify the name of the sequential file created in [step a](#).
 Ensure that the filename of the CONFIG DD Name points to the named release 2.1.0 configuration file created in [step 2](#).
4. Execute the JCL member SXSCFC21. This JCL member converts your Substation ES configuration version 2.0 file to a version 2.1 configuration file.
5. Convert the new 2.1 configuration file to 2.6.
 These steps are covered in depth in [Migrating from Release 2.1 through 2.5](#).
6. Convert the 2.6 configuration file to 2.7.
 These steps are covered in depth in [Migrating from Release 2.6](#).

Migrating from Release 1.x

Follow these instructions if your current installation of TIBCO Substation ES is software release 1.x.

In these instructions, your installation of TIBCO Substation ES release 1.x is referred to as your existing Substation ES installation. These steps convert your existing Substation ES configuration file for use with release 2.7.

1. Install TIBCO Substation ES release 2.7.0, as documented in the *TIBCO Substation ES Installation* guide.
 Substation ES is delivered in the form of a module for independent installation. Your existing Substation ES installation does not have to be removed or modified.
2. Run the JCL member, either SXCCFDEF or SXICFDEF (depending on whether your interface is for CICS or IMS).

This JCL will create a named release 2.0.0 configuration file.



The JCL is located in the <USERHLQ>.JCL library.

3. Edit the JCL member SXSCFC20 in the Substation ES 2.7.0 installation.
 - a. In the EXPORT step, update the filename on the CONFIG DD Name to specify the name of your existing Substation ES version 1.x configuration file. This step exports the contents of the Substation ES configuration file to a sequential file.
 - b. In the IMPORT step, change the filename on the IMPORT DD Name statement to specify the name of the sequential file created in [step a](#).
 Ensure that the filename of the CONFIG DD Name points to the named release 2.0.0 configuration file created in [step 2](#).
4. Execute the JCL member SXSCFC20. This JCL member converts your Substation ES configuration version 1.x file to a version 2.0 configuration file.
5. Convert the new 2.0 configuration file to 2.1. These steps are covered in depth in [Migrating from Release 2.0](#).
6. Convert the 2.1 configuration file to 2.6. These steps are covered in depth in [Migrating from Release 2.1 through 2.5](#).
7. Convert the 2.6 configuration file to 2.7. These steps are covered in depth in [Migrating from Release 2.6](#).

Parameter Keyword Changes

Some parameter keywords have been changed or added in Release 2.7.0. Either update to use the versions of these members that are included with the latest product release, or update your existing members using to the information provide here.

Keyword	Status	Required	Value
Substation Initialization Parameters (SXSSIP\$1)			
CONSOLE-TYPE=W	Removed		
WORKERS-EOT	New	Optional	2-20
Substation Administration Interface (SXIADM)			
ESB-INTF-ID	New	Optional	<i>intf-id</i>
HEARTBEAT-SERVICE	New	Optional	<i>Service-Name</i>
HEARTBEAT-INTERVAL	New	Optional	0-300 Seconds
CICS Interface Member (SXCINTF)			
HVS-BATCH	New	Optional	Y/N
HVS-WORKERS	New	Optional	0-4
IMS Interface Member (SXIINTF)			
TRIG-SYNC	New	Optional	SXITSYNC
Substation EMS ESB member (SXSIEMS1)			
SSL-REQ	Removed		
SSL-YN	Removed		
SSL-PASSWORD	Removed		
SSL-IDENTITY-DDN	Removed		
SSL-KEY-DDN	Removed		
START-WAIT	Removed		
Substation EMS ESB member (SXSIRV1)			
RV-EQ-POLICY	New	Yes	2
RV-EQ-MAX-EVENTS	New	Yes	20000
START-WAIT	Removed		

Migrating to Release 2.6.0

For upgrading from releases before 2.5.0, refer to the instructions in this section for installing release 2.5.0 and perform the necessary upgrades to that release.

Transformer Configuration File Conversion in Release 2.6.0

The configuration file structures have changed for Substation ES release 2.6.0. You must export all of the entities of the configuration file to a sequential file using the 2.6.0 configuration file export utility. You can then import them to the newly allocated and defined configuration file using the 2.6.0 configuration file import utility.

Use the following steps for converting the configuration file:

1. Complete the Substation ES release 2.6.0 installation.
2. Ensure the JCL (SXCCFDEF or SXICFDEF) has executed successfully. This job creates and populates the release 2.6.0 file.
3. Edit the JCL member SXSCFEXP and update the filename on the CONFIG DD Name to the name of your Substation ES release 2.2.x or higher configuration file.
4. When the modifications have been made, execute the JCL. This JCL member exports the contents of the Substation ES 2.2.x or higher configuration file to a sequential file.
5. Populate the Substation ES release 2.6.0 configuration file using the import utility, specifying the newly created sequential file. To do this, edit the JCL member SXSCFIMP.
 - a. Change the filename on the IMPORT DD Name statement to that of the sequential file created in [Step 3](#).
 - b. Ensure that the filename of the CONFIG DD Name points to the release 2.6.0 configuration file created in [Step 2](#).

For details on the utilities, refer to Chapter 3, Configuration File Utilities, in *TIBCO Substation ES Configuration and Resources*.

6. Submit the SXSCFIMP JCL for execution. Your existing applications have to execute without changes after the import has completed.

System Startup and Initialization Parameter Changes in Release 2.6.0

In release 2.6.0, some parameter keywords have been changed or added. In addition, some default keyword values or range values have changed. All members reside in the <USERHLQ>.CNTL data set.

For additional details, see *TIBCO Substation ES Installation*.

Substation Administration Member (SXSIADM)

Keyword	Status	Required	Value
TRCLVL-OPS	New	No	0 – 5

Substation Rendezvous ESB Member (SXSIRV1)

Keyword	Status	Required	Value
RVDQ-YN	New	No	N, Y



Important: Review v2.5 updates in [Migrating to Release 2.5.0](#).

Substation EMS ESB Member (SXSIEMS1)

Keyword	Status	Required	Value
SSL-YN	New	No	N, Y

CICS Interface Member (SXCINTF)

Keyword	Status	Required	Value
TRIG-TRCLVL	Deprecated		Version 2.0
TRCLVL-TRIG	Replacement	No	Since v2.2
DPL-CONNECT	New	No	SPECIFIC/GENERIC
D-NODENAME	New	No	SXCSSDPL
HVT-G-WORKERS	New	No	0 – 10
HVT-R-WORKERS	New	No	0 – 4
TRIG-HVT-GDQ	Deprecated		Version 2.6
TRIG-HVT-RDQ	Deprecated		Version 2.6

There are no changes to the following members:

- Substation Initialization Interface Member (SXSSIP\$1)
- Substation Startup Member (SXSSSP\$1)
- IMS Interface Member (SXIINTF)

New and Changed Members in Release 2.6.0

The following are new and changed members used within the Substation ES installation and runtime environment. If the original installed data sets are retained, the original members are not replaced, and the members of the CNTL, JCL and PROC libraries must be copied by the installer from the sample data sets.

Library	Member	Description	Status
JCL	SXSCFDEF	Define configuration	Replaced
	SXCCFDEF	Define configuration for CICS	New
	SXICFDEF	Define configuration for IMS	New
	TIBSSES	Substation Startup JCL	Updated
CNTL	SXSIXFRE	EMS ESB Interface	Renamed to SXSIEMS1

Library	Member	Description	Status
	SXSIXFRR	Rendezvous ESB Interface	Renamed to SXSIRV1
	SXSKEYS	Product key	Deprecated

You must update your Substation ES startup JCL or procedure with that provided in version 2.6. The changes that have to be inserted are as follows:

```
//TIBLEMSG DD SYSOUT=*
//TIBUOESB DD SYSOUT=*
//TIBUOMSG DD SYSOUT=*
//TIBUOSXC DD SYSOUT=*
```



If you do not insert the preceding changes, it might result in an end-of-job dump.

Migrating to Release 2.5.0

For upgrading from releases prior to 2.4.0, refer to the instructions in this section for installing release 2.4.0 and perform the necessary upgrades to that release.

There are no configuration file changes when migrating to release 2.5.0 from 2.4.0.

System Startup and Initialization Parameter Changes in Release 2.5.0

In release 2.5.0, some parameter keywords have been changed or added. In addition, some default keyword values or range values have changed. All members reside in the <USERHLQ>.CNTL data set.

For additional details, see *TIBCO Substation ES Installation*.

Substation Initialization Member (SXSSIP\$1)

Keyword	Status	Required	Value
SKEY-MEMBER	Deprecated		

Substation Startup Member (SXSSSP\$1)

Keyword	Status	Required	Value
LOG2-SYSLOG	New	No	Default 0

Substation ES Transformer (SXSIXFRE)

Keyword	Status	Required	Value
ERROR-MSG-TYPE	New	No	Default (M)
UFLDS-FORMAT	New	No	Default (1)
EMS-DMQ-NAME	New	No	Default (none)

IMS Interface Member (SXIINTF)

Keyword	Status	Required	Value
BUFF-GROUP	New	No	Default (8)
BUFF-SRB	New	No	Default (64)
BUFF-TRANS	New	No	Default (20)
BUFFLEN-GROUP	New	No	Default (2048)
BUFFLEN-SRB	New	No	Default (4096)
BUFFLEN-TRANS	New	No	Default (4096)
If you are going to use the existing Substation ES .CNTL members, delete the following parameters:			
BUFF-CMDS	Removed		
BUFF-GRP-NTFY	Removed		
BUFF-TRANS	Removed		

There are no changes to the following member:

- CICS Interface Member (SXCINTF)

New and Changed Members in Release 2.5.0

The following are new and changed members used within the Substation ES installation and runtime environment. If the original installed data sets are retained, the original members are not replaced, and the members of the CNTL, JCL and PROC libraries must be copied by the installer from the sample data sets.

Library	Member	Description	Status
CNTL	SXSKEYS	Secure key no longer required.	Deprecated

Migrating to Release 2.4.0

For upgrading from releases prior to 2.3.0, refer to the instructions in this section for installing release 2.3.0 and perform the necessary upgrades to that release.

There are no configuration file changes when migrating to release 2.4.0 from 2.3.0.

System Startup and Initialization Parameter Changes in Release 2.4.0

In release 2.4.0, some parameter keywords have been changed or added. In addition, some default keyword values or range values have changed. All members are located in the <USERHLQ>.CNTL data set.

Substation Initialization Member (SXSSIP\$1)

Keyword	Status	Required	Value
SNAPSHOT-YN	New	No	Defaults (N)
SNAPSHOT-NUM	New	No	

Substation ES Transformer (SXSIXFR[E / R])

Keyword	Status	Required	Value
EMS-USE-PROP	New	No	Defaults (N)

CICS Interface Member (SXCINTF)

Keyword	Status	Required	Value
TRIG-HVT (old) TRIG-HVT-GDQ (new)	Renamed	No	Defaults (N)
TRIG-HVT-REL	New	No	Defaults (N)
TRIG-GMQ (old) TRIG-GDQ (new)	Renamed	No	Defaults (N)
TRIG-RMQ (old) TRIG-RDQ (new)	Renamed	No	Defaults (N)
QNAME-DMQ	Removed		
QNAME-TGMQ (old) QNAME-TGDQ (new)	Renamed	No	Defaults (SXQG)
QNAME-TRMQ (old) QNAME-TRDQ (new)	Renamed	No	Defaults (SXQT)

IMS Interface Member (SXINTF)

Keyword	Status	Required	Value
TRIG-REL-NAME (old) TRIG-RDQ-NAME (new)	Renamed	No	

Keyword	Status	Required	Value
TRIG-GUA-NAME (old)	Renamed	No	
TRIG-GDQ-NAME (new)			

Substation Startup Member (SXSSSP\$1)

Keyword	Status	Required	Value
SNAPSHOT-YN =N	New	No	Create and initialize snapshot
SNAPSHOT-NUM =100	New	No	Number of entries to snap

There are no changes to the Substation Secure Keys member (SXSKEYS).



- User programs that used HVT copybooks or header files in 2.3.0 have to use the 2.4.0 layouts, and programs have to be recompiled.
- A configuration file opened using 2.4.0 panels can no longer be used by a 2.3.0 system.

New and Changed Members in Release 2.4.0

The following are new and changed members used within the Substation ES installation and runtime environment. If the original installed data sets are retained, the original members are not replaced, and the members of the CNTL, JCL and PROC libraries must be copied by the installer from the sample data sets.

Library	Member	Description	Status
C	SXC3I012	IVP example using TSQ Method of Invocation	New
	SXC3I013	IVP example using Storage Pointer Method of Invocation	New
	SXC3I032	HVT Publisher	Changed
COB	SXCCI012	IVP example using TSQ Method of Invocation	New
	SXCCI013	IVP example using Storage Pointer Method of Invocation	New
	SXCCI014	IVP example using Container Method of Invocation	New
	SXCCCI032	HVT Publisher	Changed
H	SXCHSTG1	Header file for Storage Pointer Method	New
	SXCHTDQW	Header file for HVT	Changed
COPY	SXCCSTG1	Copy Book for Storage Pointer Method	New
	SXCCTDQW	HVT copy book	Changed



Programs using the copybook SXCCTDQW or the header file SXCHTDQW must be recompiled; the length of the **SERVICE** field has been increased to 40 characters, as well as some of the offsets of other fields.

Migrating to Release 2.3.0

For upgrading from releases prior to 2.2.0, refer to the instructions in this section for installing release 2.2.0 and perform the necessary upgrades to that release.

There are no configuration file changes when migrating to release 2.3.0 from 2.2.0.

System Startup and Initialization Parameter Changes in Release 2.3.0

In release 2.3.0, some parameter keywords have been changed or added. In addition, some default keyword values or range values have changed. All members are located in the <USERHLQ>.CNTL data set.

IMS Interface Member (SXIINTF)

Keyword	Status	Required	Value
COMMIT-MODE	New	Yes	Defaults (1)
TRIG-NUM	New	Yes	Defaults (5)
TRCLVL-OTMA	New	No	Defaults (0)
TRCLVL-TRIG	New	No	Defaults (0)
TRIG-REL-NAME	New	Yes	Defaults (SXITRG\$R)
TRIG-GUA-NAME	New	Yes	Defaults (SXITRG\$G)

CICS Interface Member (SXCINTF)

Keyword	Status	Required	Value
TRIG-HVT	New	No	Defaults (Y)
TRIG-ORD	New	No	Defaults (N)
RR-MAXSIZE	New	No	Defaults (8192)
QNAME-ORD	New	No	Defaults (SXQ0)
HVT-WORKERS	New	No	Defaults (4)
D-NODENAME	Removed		
TRIG-MAXSIZE	Removed		
EXCI-OPEN	Removed		
QNAME-EMQ	Removed		
QNAME-ORD	Removed		

There are no changes to the following parameter keywords:

- Substation Startup (SXSSSP\$1)
- Substation Initialization (SXSSIP\$1)
- Substation Secure Keys (SXSKEYS)
- Substation ES Transformer (SXSIXFR[E / R])

Migrating to Release 2.2.0

If you are upgrading from a 2.x.x release to 2.2.0, You must first contact TIBCO Software and request a new license key.

To convert the configuration file to release 2.2.0 from 2.0.0, refer to [Transformer Configuration File Conversion in Release 2.1.0](#).

There are no configuration file changes when migrating to release 2.2.0 from 2.1.0.

New and Changed Members in Release 2.2.0

The following are new and changed members used within the Substation ES installation and runtime environment. If the original installed data sets are retained the original members are not replaced and the members of the CNTL, JCL and PROC libraries must be copied by the installer from the sample data sets.

Library	Member	Description	Status
JCL	SXUCSER	Changed JCL to add DDNAME TIBKEYS to reference license key member.	Altered

Migrating to Release 2.1.0

For upgrading from release 1.1.0, 1.2.0, 1.30 and 2.00, begin by referring to the release notes for those releases before installing release 2.1.0.

To convert the configuration file to release 2.1.0 from 2.0.0, refer to [Transformer Configuration File Conversion in Release 2.1.0](#).

System Startup and Initialization Parameter Changes in Release 2.1.0

In release 2.1.0, some parameter keywords have been changed or added. In addition, some default keyword values or range values have changed. All members reside in the <USERHLQ>.CNTL data set.

Substation Secure Keys (SXSKEYS)

Keyword	Status	Required	Value
SXS	Active	Yes	TIBCO supplied
All other product codes	Removed		

Substation ES Transformer (SXSIXFR[E / R])

Keyword	Status	Required	Value
START-WAIT	New	No	180
DAEMON SERVICE NETWORK TPORT-NAME	Removed		

CICS Interface Member (SXCINTF)

Keyword	Status	Required	Value
TRIGGERS TRIG-RMQ	Renamed		Defaults (N)
TRIG-GMQ	New	No	Defaults (N)
QNAME-TRMQ TRIG-TDQNAME	Renamed	No	Defaults (SXQT)
QNAME-TGMQ	New	No	Defaults (SXQG)
TRIG-TRCLVL	Renamed	No	Defaults (0)

There are no changes to the following:

- Substation Startup (SXSSSP\$1)
- Substation Initialization (SXSSIP\$1)
- IMS Interface Member (SXIINTF)

New and Changed Members in Release 2.1.0

The following are new and changed members used within the Substation ES installation and runtime environment. If the original installed data sets are retained the original members are not replaced and the members of the CNTL, JCL and PROC libraries must be copied by the installer from the sample data sets.

Library	Member	Description	Status
JCL	SXJGENSL	General sender or listener using EMS	New
	SXJGIELS	General error listener using EMS	New
	SXSCFC20	Converts v1.x config file to v2.0 config file	New
	SXSCFC21	Converts v2.0 config file to v2.1 config file	New
CNTL	SXJPERLS	EMS transport parameters for error listener	New
	SXSIXFRE	Transformer Interface SIP for EMS	New
	SXSIXFRR	Transformer Interface SIP for RV (previously SXSIXFR)	Renamed

Transformer Configuration File Conversion in Release 2.1.0

The Substation ES Transformer configuration file has changed to support TIBCO EMS. Release 2.1.0 includes a utility that converts a V2.0.0 configuration file to a version 2.1.0 format. You must export all the entities of the configuration file to a sequential file. When the export is successful, you can import them to the newly allocated and defined configuration file.

The following steps are a guideline for converting the configuration file:

1. Complete the Substation ES release 2.1.0 installation.

2. Ensure the JCL (SXSCFDEF) has executed successfully.
This job creates and populates the release 2.1.0 file.
3. Edit the JCL member SXSCFC21 and update the filename on the CONFIG DD Name to the name of your Substation ES release 2.0.0 configuration file.
4. When the modifications have been made, execute the JCL.
This JCL member exports the contents of the Substation ES 2.0.0 configuration file to a sequential file.
5. Populate the Substation ES release 2.1.0 configuration file using the import utility, specifying the newly created sequential file. To do this, edit the JCL member SXSCFIMP.
 - a. Change the filename on the IMPORT DD Name statement to that of the sequential file created in [Step 3](#).
 - b. Ensure that the filename of the CONFIG DD Name points to the release 2.1.0 configuration file created in [Step 2](#).

For detailed information regarding the utility, refer to describing utilities in *TIBCO Substation ES User's Guide*.

6. Submit the SXSCFIMP JCL for execution.

Your existing applications have to execute without changes after the import has completed; however, you must make alterations if you intend using TIBCO EMS.

Migrating to Release 2.0.0

For upgrading from release 1.1.0, 1.2.0, 1.30, begin by referring to the release notes for those releases before installing release 2.0.0.

To convert the configuration file to release 2.0.0 from 1.2.0 and 1.3.0, refer to [Transformer Configuration File Conversion in Release 2.0.0](#).

System Initialization Parameters Change in Release 2.0.0

The following table lists System Initialization Parameters (SIP) changed for 2.0.0.

Keyword	Status	Required	Value
SUBSTATION-ID	New	Yes	Defaults
UFLDS-PREFIX	New	Yes	Defaults
SKEY-MEMBER	New	Yes	SXSKEYS

New and Changed Members in Release 2.0.0

All PDS member names, and CICS and IMS resource names were changed in release 2.0.0. The names conform to a product code structure, where SXS, SXG, SXC, SXI and SXT are the major product codes.

Refer to *TIBCO Substation ES Installation* for a full list and description of the Substation ES product codes.

Transformer Configuration File Conversion in Release 2.0.0

The configuration file structure and the file type have changed for Substation ES release 2.0.0.

Release 2.0.0 includes a utility that can assist the conversion of configuration files used in release 1.2.0 and 1.3.0 to the requirements of 2.0.0.

You export all the entities of the configuration file of previous versions. When the export is successful, you can import them to the newly allocated and defined configuration file.

The following steps are a guideline for converting the configuration file:

1. Complete the Substation ES release 2.0.0 installation.
2. Ensure the JCL (SXSCFDEF) has executed successfully.
This job creates and populates the release 2.0.0 file.
3. Edit the JCL member SXSCFCVT and change the filename on the CONFIG DD Name to the name of the Substation ES release 1.2.0 or 1.3.0 configuration file.
4. When the modifications have been made, execute the JCL.
This JCL member exports the contents of the Substation ES 1.2.0 or 1.3.0 configuration file to a sequential file.
5. Populate the Substation ES release 2.0.0 configuration file using the import utility and specifying the newly created sequential file. To do this, edit the JCL member SXSCFIMP.
 - a. Change the filename on the IMPORT DD Name statement to that of the sequential file created in [Step 3](#).
 - b. Change the filename on the IMPORT DD Name statement to that of the sequential file created in [Step 2](#).

For more information regarding the utility, refer to describing utilities in *TIBCO Substation ES User's Guide*.

6. Submit the JCL for execution.

Your existing applications have to execute without changes after the import has completed, but the names of the imported entities can have changed during the import.



If you have multiple Back-End systems you must update all recipe and trigger definitions, assigning them to the correct Back-End system or Interface.

Migrating from Release 1.x

When you upgrade from release 1.0 to a later release, it is good practice to replace all Substation ES System Initialization Parameters (SIP) members. The new Substation ES startup sample JCL (TIBSSES) has to be used as well. Extensive changes have been made to the SIP members to accommodate the enhancements made for the current release. If you choose not to replace the SIP members, refer to the table listed below to view the changes that must be applied manually to your existing parameters.

Closed Issues

The following issues have been fixed in this release of TIBCO Substation ES.

Key	Summary
SSES-1977	When RV daemon recycle trigger service continue processing the message and been written to retransmit TDQ (SXQ\$ or SXQ@), CICS interface stops pull off trigger message records from retransmitting queue after an SXC3105E error reported.
SSES-1966	Provide a parameter in the EMS interface to set the wait time for start up.
SSES-1942	Fixed the Substation ES hanging all UoW on the EMS ESB output queue. This happened because of an async send on the EMS side.
SSES-1941	When using MOR-0 recipes, UoW was not being reused. When normally doing a CICS / IMS recipe that has a MOR of 0, it will encounter this issue. This issue has now been resolved.
SSES-1940	A high CPU usage may be experienced when using RV Vectors without providing the correct LE User Options. This issue is now resolved. Switch back using the standard RV dispatcher queue input option. VECTORS-YN = Y will use the vectors. The default is Y (Yes).
SSES-1922	Fixed the DPL process abend in Substation ES. The Recipe service with a MOR of 0 was not handled correctly when an error condition was detected.
SSES-1913	Fixed Substation ES issue that truncates Correlation ID on response messages to 63 characters. We support the Correlation ID up to 4K in length. Substation ES internally will stil only use the first 63 characters for reporting purposes.
SSES-1906	Fixed the RV ESB creates Listeners issue before the ESB transport is ready.
SSES-1794	Fixed the internal buffer sizes failure to handle very large results of the trigger service HEARTBEAT and the administration recipe service.
SSES-1769	At shutdown, Substation ES abends while trying to send a HEARTBEAT to a down interface. This has been fixed by stopping the HEARTBEAT service before other activities are undertaken.
SSES-1750	When XCF or EXCI ran out of session, the displayed error messages were misleading.
SSES-1748	At the Substation ES S startup, SXG1420E, SXG1421E, and SXS2017E messages were sometimes displayed, stopping the CICS interface from starting.
SSES-1738	When you tried to process a very large messages, an EMS ESB was not correctly handled and the memory allocation request failed.

Key	Summary
SSES-1736	The inbound threads of the RED CICS interface failed to pass the transaction to the EIB of the BES.
SSES-1729	The messages displayed incorrect information from #RED transactions.
SSES-1726	When the reply service used RED CICS interface container, extra bytes in the reply message were added.
SSES-1723	#RED transaction did not handle abend recovery.
SSES-1720	An IMS interface allowed a recipe with a blank user ID even when SAF Checking Option was equal to "F".
SSES-1719	Earlier, the RED CICS region startup was forced to use system default HUB and the RED module SXXACRM failed to pass the HUB name correctly.
SSES-1718	#RED transaction failed to handle error message responses to Substation with correct header length.
SSES-1715	The CICS region shutdown stopped during PLT shutdown.
SSES-1712	The updated version of EMS DLL library could not be used with all z/OS SSL functions due to which SSL using EMS failed to work correctly.
SSES-1709	An RV ESB endpoint with fault tolerance setting and with RV daemon re-cycle Substation ES produced SOC4 abend.
SSES-1705	On an EMS server, the connection failed after upgrade from V290 code to V2121 code.
SSES-1703	The <code>tibemsSSLParams_System_SetEnableSSLV3</code> api is invalid in EMS 8.4.1.
SSES-1673	Substation ES used CICS container trigger service and RV ESB. If conversion rules are defined using SZ Buffer, the ESB tried to pass the data from the trigger request message which was larger than the size defined in Buffer field definition of the Opa field.
SSES-1672	Sometimes at runtime, switching RV daemon would cause disabled trigger services which failed to enable again after the daemon was successfully reconnected.
SSES-1659	The CICS region reported multiple SXG_SMF debug messages at the Substation ES startup when there was no TIBCO HUB running on the same LPAR as the CICS interface .
SSES-1658	Excluded the fixes from SSES-1656 for IMS Interface services.
SSES-1656	When a Recipe service used the COMMAREA for communication and the output buffer definition size defined was greater than 32507 bytes, the Substation ES logged a warning message SXT5999W at the startup.

Key	Summary
SSES-1655	An address error (0C4) occurred when the output conversion rule defined the output buffer size greater than 32507 for MOI option 2 or 9 at an ESB interface.
SSES-1653	When the Substation ES was started and the SMF accounting routine was called, it could not find the HUB and reported an error message when no RED modules were present and no HUB had been started.
SSES-1650	An abend occurred when the message size was used by the conversion rule and its buffer size was less than the incoming message size.
SSES-1649	When the input message size was larger than the buffer definition size on the conversion rule, the ESB interface inserted a NULL character 0x00 on output at the buffer size location. This happened only when the Method of Invocation was 9 (DPL MRO) type service and string data types.
SSES-1648	An abend occurred in the command processor, when the SHOW, INTF console command was submitted to a Substation ES which had many endpoint entries.
SSES-492	Substation ES now support all Substation ES log and trace messages to write to System Logger Stream.

Known Issues

The following issues exist in this release of TIBCO Substation ES.

Key	Summary/Workaround
SSES-927	<p>Summary: The Substation ES methods of invocation 10, 11, and 12 do not support multi-execution of application resources in the CICS region.</p> <p>Workaround: None.</p>
1-7ZVJWR	<p>Summary: When configuring Substation ES™ to communicate with a Rendezvous daemon, you specify the host name or host IP address in the transport entity extensions configuration. If an erroneous IP address is specified, it will cause Substation ES™ to abnormally end at shutdown or termination time without successfully connecting to the host.</p> <p>Workaround: Use a host name or ensure that the host IP address is valid (if an erroneous host name is specified, the TCP/IP connection module will be able to handle this error in an appropriate manner).</p>
1-6RB5VF	<p>Summary: Support for Substation CICS Method of Invocation (MOI) where messages can be written to CICS-defined files (files defined as a CICS resource are classified as CICS files) is not implemented yet.</p> <p>Workaround: None.</p>