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For The Next 50 Years

iStrobe Configuration Guide

Release 19.03

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Introduction

This guide provides instructions to complete the configuration of iStrobe after it has been installed via Compuware Enterprise Services (see the *Compuware Web Products Installation and Configuration Guide* for the installation of iStrobe and other Compuware products that use that service).

iStrobe is an application performance analysis product designed to interface with the Strobe MVS Application Performance Measurement System and runs in the Compuware Enterprise Services web application server.

After installing iStrobe, you will be able to view the sample Performance Profile data packaged with it.

Intended Audience

This installation guide is intended for the administrator or individual installing iStrobe. You should be familiar with administering the operating system and your network security policies. If you are unfamiliar with any of the prerequisite software, contact your administrator for help.

How This Guide is Organized

This guide contains the following chapters and appendixes:

Chapter 1, “iStrobe System Overview”

Chapter 2, “iStrobe Configuration”

Appendix A, “iStrobe APIs”

Appendix B, “iStrobe Plug-in for Topaz Workbench”

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Chapter 1.

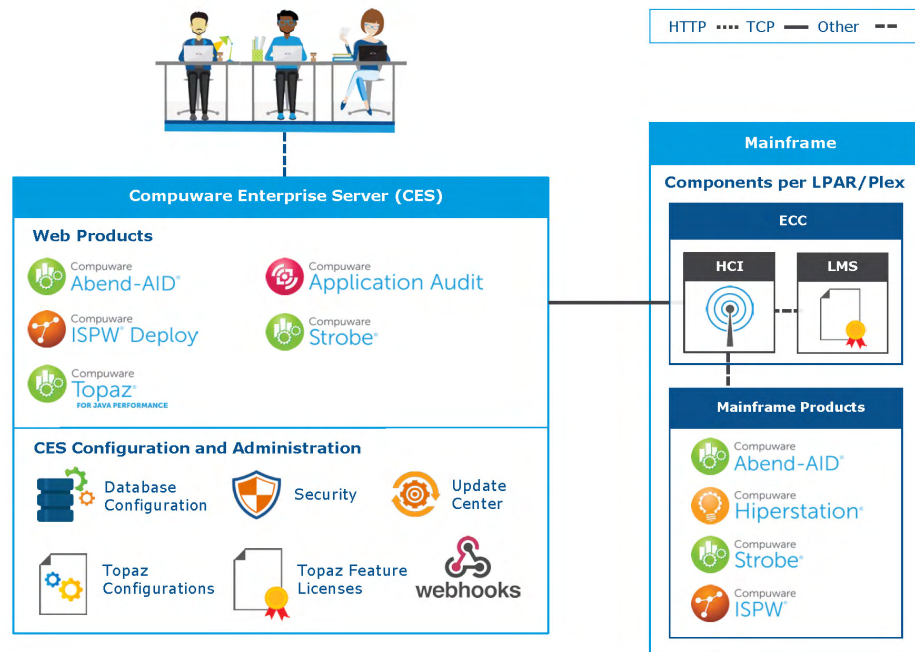
iStrobe System Overview

The diagram below is an overview of the components and data flow in iStrobe.

iStrobe is required to be installed in the same operating system environment as that in which CES was installed so that iStrobe's files are contained within the CES installation directory.

Refer to the operating systems-specific installation chapters for setup and security considerations.

Figure 1-1. iStrobe Components and Data Flow



Software and Hardware Requirements

For complete software and hardware requirements, refer to the details described in the *iStrobe Release Notes* for this version.

Individuals to Participate in the Installation

This section identifies individuals who should participate in the installation and the information needed to complete the installation.

Installation Environment

The installation environment requires an administrator familiar with either a Windows, z/OS Unix, or zLinux environment, as is appropriate for your site. The user performing the installation needs to have the appropriate authorizations in the selected environment.

Chapter 2.

iStrobe Configuration

By default, the iStrobe installation, through Compuware Web Products, sets up much of the application configuration. Compuware recommends reviewing all the configuration parameters after initially installing the application. Refer to the iStrobe online help for detailed configuration instructions.

After installing iStrobe, Compuware recommends configuring the following:

- SMF Manager Settings (within General Configuration)
- Profile Email Settings (within General Configuration)

You may also optionally configure the following:

- Auto Delete
- SMF Data Management
- Profile History
- General Configuration
 - Profiles
 - Usage Data
 - BMC Mainview Explorer

Starting iStrobe

1. Open the iStrobe application by pointing your web browser to:

```
<host address>:<application server port number>/istrobe
```

- *host address* is the name of the server where you just installed iStrobe.
 - *application server port number* is the port on which the application server is listening.
2. Start iStrobe in your browser and click the **iStrobe Administration** button. The **iStrobe Administration** page appears.
 3. Login to iStrobe by providing any user name. From the iStrobe landing page, click **iStrobe Administration** and provide the default password **isadministration**.

Default Password

The default password for configuring iStrobe settings is **isadministration**. Enter the administration password and click **OK**.

SMF Manager Settings Configuration

SMF Manager Settings enables SMF data collection. For this functionality to work, you must do the following:

- Configure associated fields in the Strobe Parameter dataset, and set the SMF Port number to match that specified in iStrobe.

- **GM_MONITOR**: Specifies whether to enable Global Monitoring. Must = YES for SMF processing.
 - **GM_SMFDATA**: Specifies that SMF Data is to be collected and sent to iStrobe. Must = YES for SMF processing.
 - **GM_SMFHOST** or **GM_SMFIP**: **GM_SMFHOST** indicates the iStrobe SMF server name. **GM_SMFIP** indicates the iStrobe SMF server IP address. Specify either **GM_SMFHOST** or **GM_SMFIP**. If both are specified, **GM_SMFHOST** is used.
 - **GM_SMFPORT**: Specifies the iStrobe SMF server port number. Must equal the SMF port number applied in iStrobe.
 - **GM_TCPNAME**: Specifies the TCP/IP job name of the IP Stack on the LPAR that Global Monitoring SMF is to use.
 - **MNASPROCNAME**: Specifies the Global Monitoring Address Space (MNAS) startup procedure name. This job comes up with Strobe and must be executing.
1. Start iStrobe in your browser and click the **Administration** button. The **Administration** page appears.
 2. Click **General Configuration**. The **General Configuration** page appears.
 3. In the **SMF Manager Settings** section, enable SMF data collection in iStrobe by placing a check mark in the **Enable SMF data collection** box. Enter an SMF port number, or use the default port number as provided. Click **Apply** to save and apply these settings.

Profile Email Configuration

The Profile Email Settings option allows you to customize the email notifications received when either a measurement completes and a profile is created or when sending profile links by email. These settings are populated by default but can be customized.

Further details for customizing email notifications are provided in the online help for iStrobe.

Appendix A. iStrobe APIs

iStrobe accepts an HTTP request to initiate a Strobe measurement of an active z/OS process. You can use this feature with a performance monitor to start a Strobe measurement when you notice performance problems on the mainframe and would like a deep-dive analysis.

Among the APIs:

- Measurement API
- SQLAF On Demand API
- Alternative Measurement API

iStrobe Configuration

To configure iStrobe you need to specify Host Name or IP address, Port number, and Strobe signature for each System you want to use with the APIs. The z/OS systems programmer who set up Strobe and the HCI will have this information. Go to the **Administration** section and select **Host Connections**. You may configure as many HCIs as needed to connect to your Strobe Release 5.2 and above installations. The connection for an individual measurement is specified in the Web Service request. Refer to the iStrobe online help **Manage HCIs** page for more details about the individual fields.

Measurement API

Authentication via CES

Authentication is accomplished using a personal access token to associate Strobe API requests with TSO credentials that have Strobe authorization. To create a personal access token, select the CES menu button in the upper left corner and, under Administration, select Security. In the Security area, select Personal Access Tokens. The Personal Access Tokens page appears, from which you can create and manage personal access tokens.

Note: Because security and personal access tokens are administrative features, the Personal Access Tokens page may not be accessible for users without administrative privileges. An administrator will need to create tokens for users without administrative access.

The personal access token is stored in CES and is used to make requests to the host on behalf of the authorized user. HTTPS is recommended to ensure this token and all requests are encrypted. Strobe API calls must include the header "Content-Type" with a value of "application/json", and the header "Authorization" with the value of your personal access token. For more information, see "Personal Access Tokens Settings" in the Compuware Enterprise Services help topic Security Settings.

Example Header for Strobe API Calls:

```
Authorization: c343114a-a991-40b9-afe6-4846064175e2  
Content-Type: application/json
```

Web Service Request to iStrobe Server

The JSON expected by the iStrobe Web Service is described below. The requester will receive the return value formatted as JSON. See below for the available request types.

Figure A-1. URL Format of the Web Service Request to the iStrobe Server

```
HTTP://<server>:<port>/strobe/measurement
```

When the message for a request is sent to the iStrobe Web Service, a response will be returned. If the request is successfully processed, the response will include the URL for the iStrobe measurement report.

Figure A-2. Example Web Service Request JSON Body Format

```
{
  "reqType": "addActive",
  "jobName": "AMIDWW0",
  "system": "CW09",
  "tags": "list of tags",
  "profileName": "profile name to be created",
  "emailto": "email.to.notify@example.com",
  "duration": "minimum measurement time",
  "samples": "number of samples",
  "limit": "number of sample dataset to be created",
  "finalAction": "quit|stop|continue",
  "hlq": "MY.GROUP",
  "tranid": "transaction id mask"
}
```

Descriptions of Elements

reqType

addActive. Adds a request for measurement of an active job.

jobname

Required. Jobname to be measured.

system

Required. Host Connection name defined by the iStrobe HostConnections configuration screen.

tags

Optional. Tags to be assigned to profile.

profileName

Optional. Name of the profile. The default is the jobname.

emailto

Optional. SMTP e-mail address to notify when the measurement is complete and the profile is ready to view. iStrobe should be configured to use email notifications if this field is provided. iStrobe should be configured to use email notifications if this field is provided.

duration

Optional. Estimated minimum measurement time in minutes. See the *Strobe User Guide* for details.

samples

Optional. The target number of samples to take during the measurement session. See the *Strobe User Guide* for details.

limit

Optional. Suspends sampling when the target number of samples is reached. See the *Strobe User Guide* for details.

finalAction

Optional. Controls the measurement session when the final dataset has been completed. Value can be one of the following: {QUIT | STOP | CONTINUE}. See the *Strobe User Guide* for details.

hlq

Optional. High Level Qualifier. DSNNAME High level qualifier - Temporary dataset prefix.

trandid

Optional. May occur up to 5 times. Used for transaction profiling, the tranids are transaction ID masks used to specify the transactions to be measured.

Figure A-3. Example of Returns: JSON Body Format

```
{
  "returnCode": 0,
  "messageList": {
    "message": [
      "STR6300I Input = ADD
      AMIDWWO,STEP=*,GOMIN=1,SAMPLES=1000,LIMIT=(1,QUIT),RJCLFILE=( _YES_ ),INITBY=UR",
      "STR6261I 0674 AMIDWWO ACTIVE/RUNNING CW09 STEP=*/ATSOWPA.ATSOWPA CREATED=(11:58:39 10/26/2017)
      GOMIN=1 SAMPLES=1000 LIMIT=(1,QUIT)",
      "STR6261I EXPIRATION=(11/02/2017) INITBY=UR",
      "STR6142I STROBE.AMIDWWO.S038D001 PRD942 0/0 OPEN",
      "STR6200I Strobe measurement session initialized for job AMIDWWO at 11:58:39 10/26/2017",
      "STR6801I Strobe sample data set allocated volser=PRD942",
      "STR6800I DSN=STROBE.AMIDWWO.S038D001",
      "STR5301I Strobe running",
      "STR8746I STRBDSNA: Environment Active per User Request(NNNNN)",
      "STR8749I STRBDSNA: DB2 IFI Trace requested: Accounting/Performance",
      "STR6130I ADD operation completed",
    ],
  },
  "statusList": ""
}
```

If there is an error in the addActive request, the return code will be non-zero with an appropriate message.

SQLAF On Demand API

The SQLAF On Demand API executes the Strobe for Db2 SQL Analysis Feature on the supplied SQL statement. The output will be a browser window with the analysis. There is no parsing of the statement to determine if it is syntactically correct.

Issue a post request:

<http://<server>:<port>/istrobe/jsp/public/sqlaf.jsp?lpar=X&sqlText=Y&ssid=Z>

lpar:

This is the LPAR where Strobe is installed. Required to find an appropriate HCI connection to use.

sqlText:

This is the SQL text. Because of the length of the text, it is recommended that the URL be submitted using a POST operation.

ssid:

This is the Db2 subsystem ID (like DB09, not the location, like DB09CW09).

Alternative Measurement API

The Alternative Measurement API allows the user to initiate a measurement from iStrobe. Unlike the Measurement API, the Alternate Measurement API allows the user to determine if the measurement parameters are correct in the iStrobe user interface before it is submitted.

Issue a post request:

```
http://<server>:<port>/istrobe/jsp/measurement/preMeasurementCheck.jsp?  
jobname=<jobname>&system=<system>&profilename=<profilename>
```

jobname:

The name of the job to be measured.

system:

The LPAR where Strobe is installed.

profilename:

The name of the profile to view in iStrobe. It's assumed that the parameter values will be URL encoded as part of the request.

Appendix B.

iStrobe Plug-in for Topaz Workbench

The iStrobe plug-in to Topaz Workbench allows iStrobe to be launched from within the Topaz Workbench browser. The plug-in can also be installed into a supported version of Eclipse or RDz instance. To install the iStrobe plug-in into Topaz Workbench, refer to the *Topaz Workbench Installation Guide* for installation instructions.

