Syncsort Ironstream® CICS® Health Check

Introduction

The Ironstream® CICS® Monitor dashboard has been supplied for you to add to your Splunk® installation. This dashboard includes some panels intended to give a flavor of what is possible with Ironstream and the data feed from your z/OS™ platform.

Note: These instructions are based on the latest (6.3+) versions of Splunk. Steps may vary depending upon the version you are using and different setup may be required to achieve a successful deployment.

App Installation and Setup

Before beginning you should have installed a copy of Ironstream. If this is not the case, contact your Syncsort representative. You can obtain further information from:

https://www.syncsort.com/en/products/ironstream

Install the App

Sign in to Splunk as an administrative user and follow these steps to install the app:

On the Splunk home page, click the **Manage Apps** cogwheel (top left, above the list of current apps):

1. On the **Apps** page, click **Install app from file**.
2. Click **Browse** or **Choose File** on the **Upload app** dialog and locate the downloaded **Syncsort_Ironstream_CICS_nnn.spl** file. Select it and click **Open**.
3. Leave the **upgrade app** option unchecked.
4. Click **Upload**. The app and its associated components will be installed into Splunk.
5. The installation file will be processed, and you may be prompted to restart Splunk.

Reference an Ironstream Index

The CICS app processes **SMF** data. A Splunk index containing SMSF 110 (CICS) performance data is required.

Please refer to the **Ironstream Configuration** section below or the Ironstream documentation for configuration steps to allow the index to be populated with this data type.

Set the CICS Region Name and Splunk Index Name

The app contains a single dashboard which uses inputs for the CICS Region name and the name of the Splunk index containing the SMF data delivered by Ironstream. These input field values are initially set to:

Region: CICS_REGION
Index: SYNCSORT_IRONSTREAM_INDEX

You will most likely have to set these to match the names of an appropriate CICS Region and index containing the your SMF data. This can be done either by editing the input controls or the underlying XML dashboard source.

Customize the App

The app is an example of what can be achieved with Ironstream, Splunk and the CICS SMF data. You are free to change any aspect of the app to suit your own requirements.

You can add, remove or modify the dashboard panels and charts as follows:

1. Sign in to Splunk as an administrative user.
2. Select a dashboard within the app.
3. Click **Edit** to reveal the menu below and choose **Edit Panels**
4. You can now interact with the dashboard panels and charts:
    a. Change their titles, size, location etc.
    b. Make search and timescale changes.
    c. Alter chart types and options.
5. Click **Done** to commit any changes.

Alternatively, you can modify the source XML of the dashboard. This is achieved as follows:

1. Sign in to Splunk as an administrative user. You should see an **Edit** button top, right of the dashboard.
2. Click **Edit** to reveal the menu below and choose **Edit Source XML**
3. The dashboard XML source is displayed.

    You are advised to take a copy of the XML source before making any changes

4. Make your changes and click **Save**.

App Compatibility

The app was created and tested with Splunk version 7.0+. It may not be 100% compatible with earlier Splunk versions.

If you are running a version of Splunk prior to 7.0 you may wish to unzip the package file and extract the XML from the following view to check for compatibility:

.. default\data\ui\views\syncsort_ironstream_cics_health_check.xml

Ironstream Configuration

The dashboard requires Ironstream to forward certain z/OS messages and information in order for them to be processed and reported correctly. Ironstream is delivered with appropriate messages filters in place but we recommend the ASMFILTR job be run with the following messages specified for filtering in the SSDFFSMF step:

```
//SSDFFSMF EXEC ASMSSDF
//ASM.SYSIN DD *
SSDFFSMF TITLE '- IRONSTREAM MESSAGE SELECTION TABLE'
*-------------------------------------------------------------
* THIS SAMPLE TURNS ON ALL SMF RECORD TYPES SUPPORTED IN
* IRONSTREAM VERSION 1.2
*-------------------------------------------------------------
      SSDFFSMF 00, 14, 15, 19, 30, 42, 60, 61, 62, 64, 65, 66,
            70, 71, 72, 73, 75, 76, 77, 80, 100, 101, 102,
            110, 113, 117, 118, 119, 120, 208
      END
//*-------------------------------------------------------------
```

SMF type 110 is required for the CICS Monitor dashboard to function.

About the App

This application allows for basic monitoring of Customer Information Control System® (CICS) regions and transactions supporting critical business services.

It provides visibility into CICS key performance metrics to determine whether business services are being met or impacted.

CICS writes record type SMF 110 to record transaction data collected at event monitoring points.

CICS monitoring collects data related to the performance of all user and CICS supplied transactions during online processing. This dashboard examines the following metrics:

- Average Transaction Response Time
- Average Transactions per Second
- Average Number of Transactions by CICS Region
- Total Transaction Count by CICS Region
- Average Time to First Dispatch by Region
- Abend Codes
- Abend Count

The following SMF 110 fields are used within this dashboard:

Field	Description
USRCPUT_MICROSEC	Transaction response time in microseconds
CURTASKS	Current number active transactions within system at a given time
TRAN	Transaction name
DSPDELAY_MICROSEC	Average time to first dispatch by transaction
JOBNAME	CICS Region
OTRAN	Transaction name
ABCCODEO	Transaction abend code

Special Note about CICS Field: CURTASKS

The CURTASKS field is used in the dashboard(s) for charts such as “Average Transactions per Sec”.

This field will only be available if:

1. It contains a non-zero value.
2. The CICS installation is at version **greater than** 4.2.

Feedback, Questions, Problems

We welcome your questions, comments and feedback. Please do not hesitate to contact your Syncsort representative.