SandStorm AppDynamics Integration

Getting Started Guide

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Preface

This document is designed to help you getting started on using SandStorm (AppDynamics plugin) for identifying performance bottlenecks during performance test execution. This plug-in allows users to drill down into performance test results and isolate code bottlenecks that impacts performance. It lists the steps to configure plugin in SandStorm, configuration changes in and result analysis. Should you have any queries, please write to us at sandStorm@impetus.com.pacts

Application Performance Diagnostics using SandStorm AppDynamics plugin

SandStorm AppDynamics integration is used to integrate the performance test execution and diagnostics. It allows user to identify code performance bottlenecks from the performance test results. You need to have the following pre-requisite to use the plug-in.

a) Valid account for SandStorm Cloud application

b) Valid account for AppDynamics SAAS offering or local AppDynamics Pro installation

The steps for analyzing diagnostics information during performance test execution using the plugin are given below.

Step 1) Provide AppDynamics details to SandStorm

Step 2) Download naming appDynamicsConfiguration.xml and import in AppDynamics. If applications are already created in AppDynamics, manual add the naming rules to identify SandStorm transactions

Step 3) Execute scenario and result analysis

Pre-requisite: Register with SandStorm Cloud Application

Register with SandStorm Cloud Application by accessing the URL mentioned below. http://sandstorm.impetus.com/sandstorm_cloud_version. The SandStorm Evaluation page appears. Enter the mandatory details. If you are a new user, then select the 'New User' option and enter the required details, and submit the registration form. Once you are registered user with SandStorm Cloud Application, you can login into the application using the credential shared with you over a mail. Please navigate to SandStorm Cloud Application using the given below https://sandstorm.impetus.co.in/sandstorm/login

To execute any performance test using SandStorm Cloud Application, you need to create a project and a scenario inside that project.

Once you have the pre-requisites set up you can configure SandStorm AppDynamics integration.

Step 1: Provide AppDynamics details to SandStorm

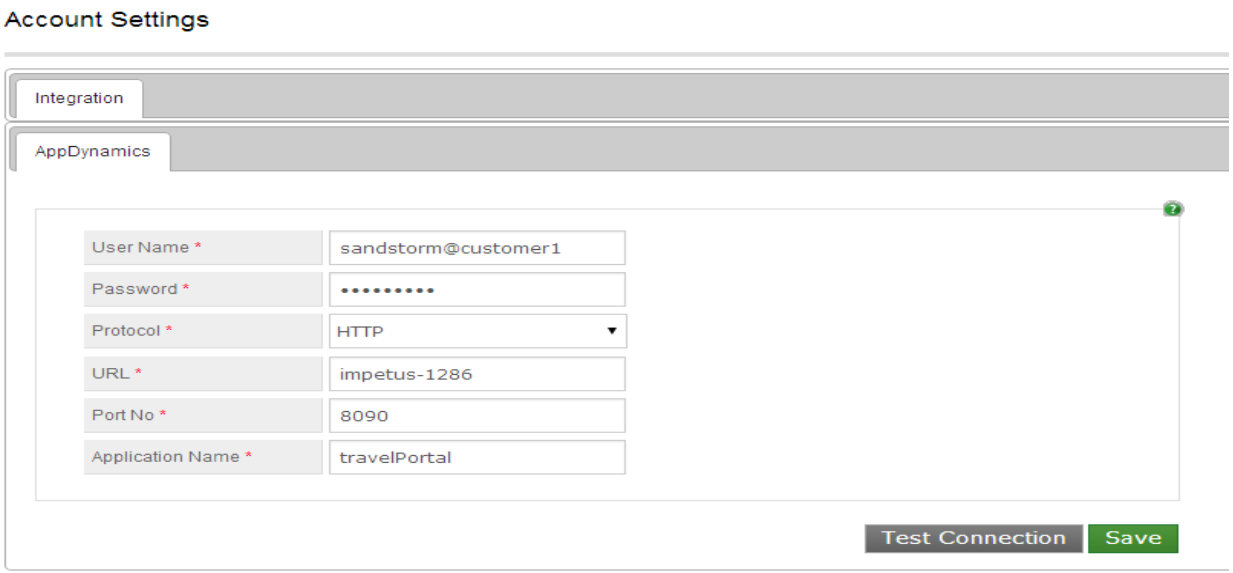
After successful registration with SandStorm Cloud Application, provide the following information related to AppDynamics in SandStorm Account Settings:

1) AppDynamics Controller URL

2) AppDynamics username. (On-Premise AppDynamics users should append @customer1 at the end e.g. if username is sandstorm then provide sandstorm@customer1).

3) AppDynamics password.

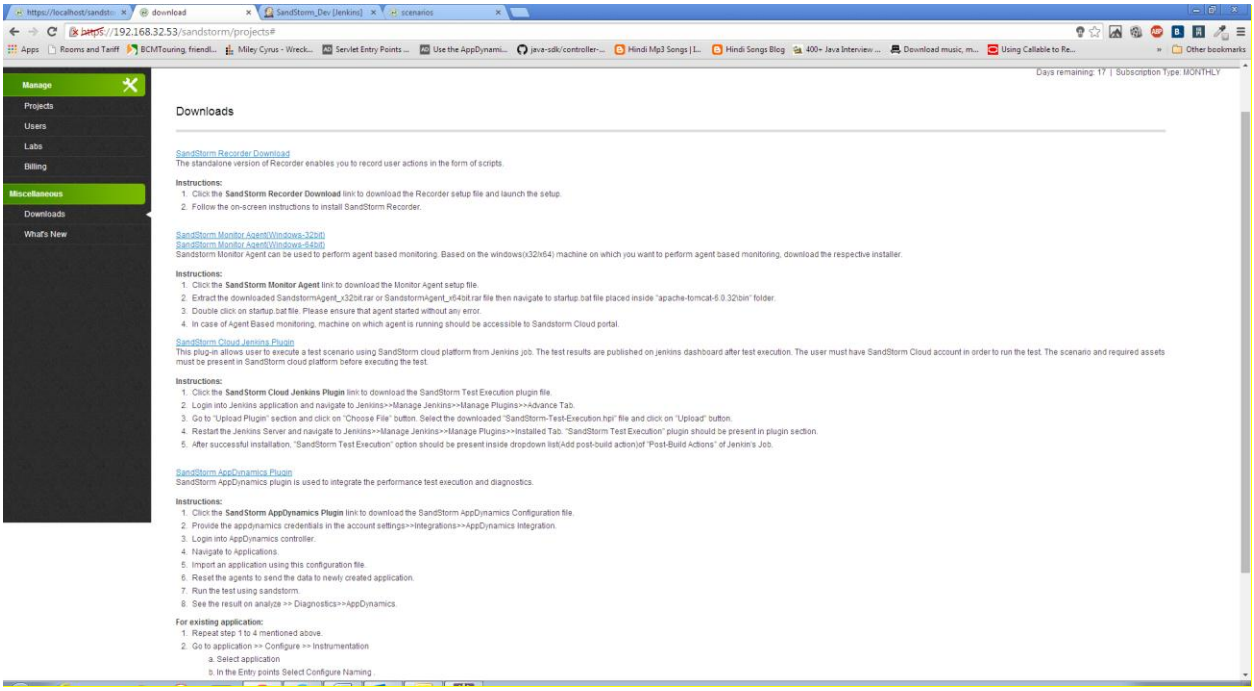
4) AppDynamics application (Application in which diagnostic data is stored).



Screen 1: AppDynamics configuration in SandStorm

Step 2: Configure naming rules

Download the sandstorm-appdynamics configuration file from downloads.



Screen 2: AppDynamics SandStorm Business Transaction Rules XML download

Once the appDynamicsConfiguration.xml is downloaded successfully, import the application in appdynamics using this xml file.

Based on the AppDynamics applications, you need to import the naming rules to detect SandStorm transactions. The following two cases might arise:

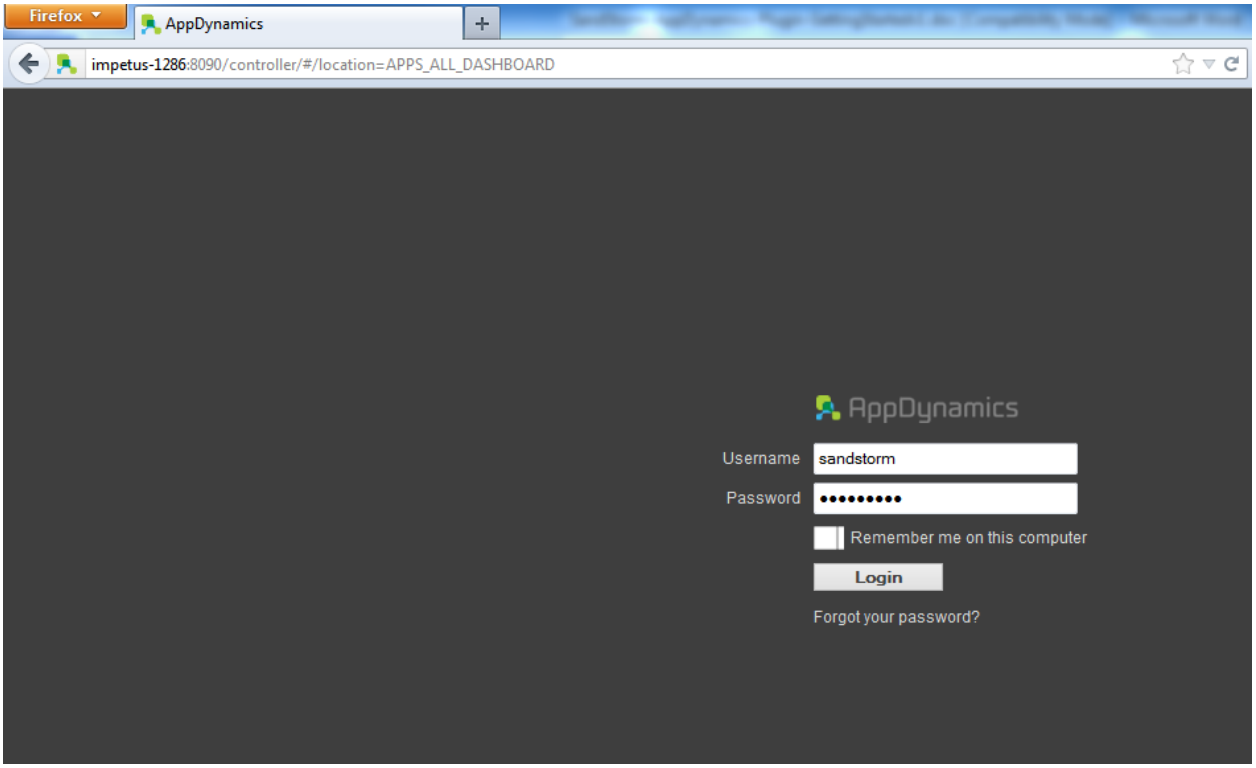
a) Applications do not exist in AppDynamics
b) Applications exists in AppDynamics

If you are creating a new application, then follow the below steps to configure naming rules:

1) Download the rules xml file from SandStorm Download section.

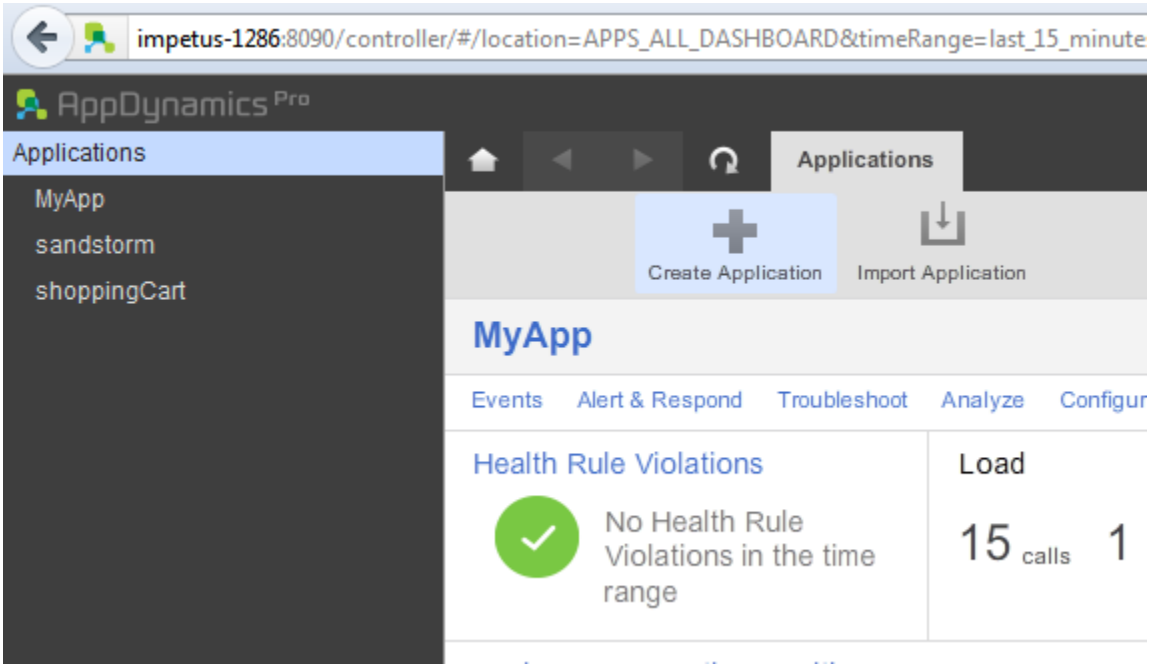
Screen 2: Download naming rules XML

2) Login to AppDynamics controller



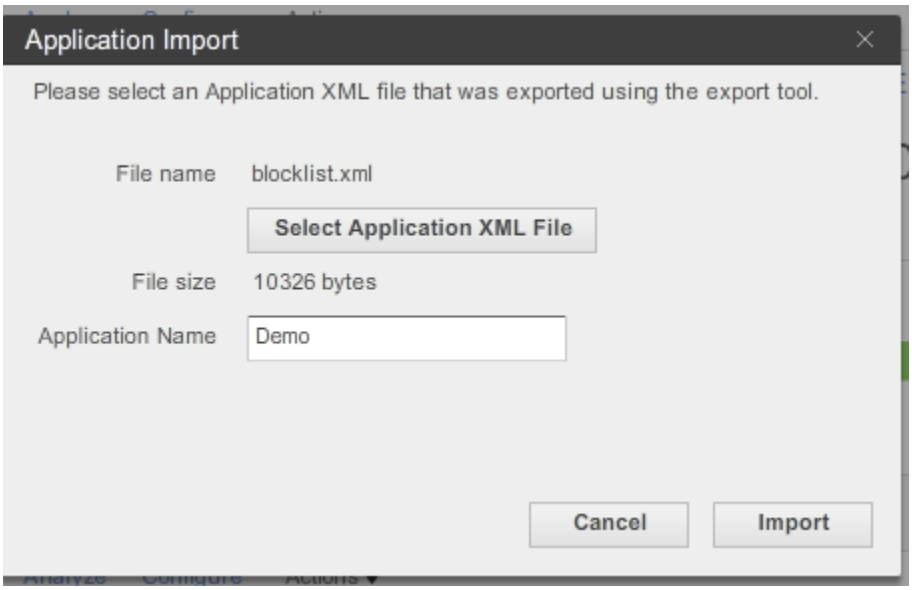
Screen 3: AppDynamics Controller

3) Click on Import Application



Screen 4: Import Application in AppDynamics

4) Browse and select the rules XML downloaded from SandStorm and provide a name to the application



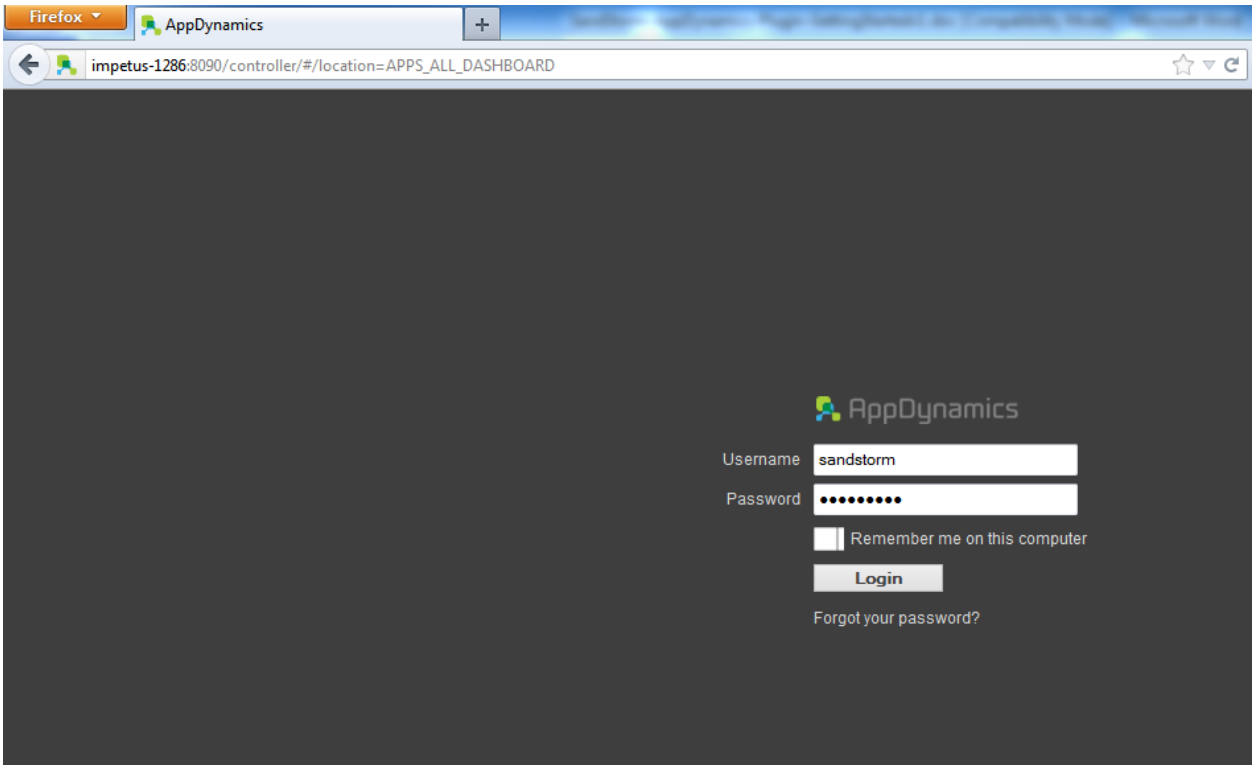
Screen 5: Import Application Dialog

5) Click “Import”.

6) Reset the agents to send the data to this application.

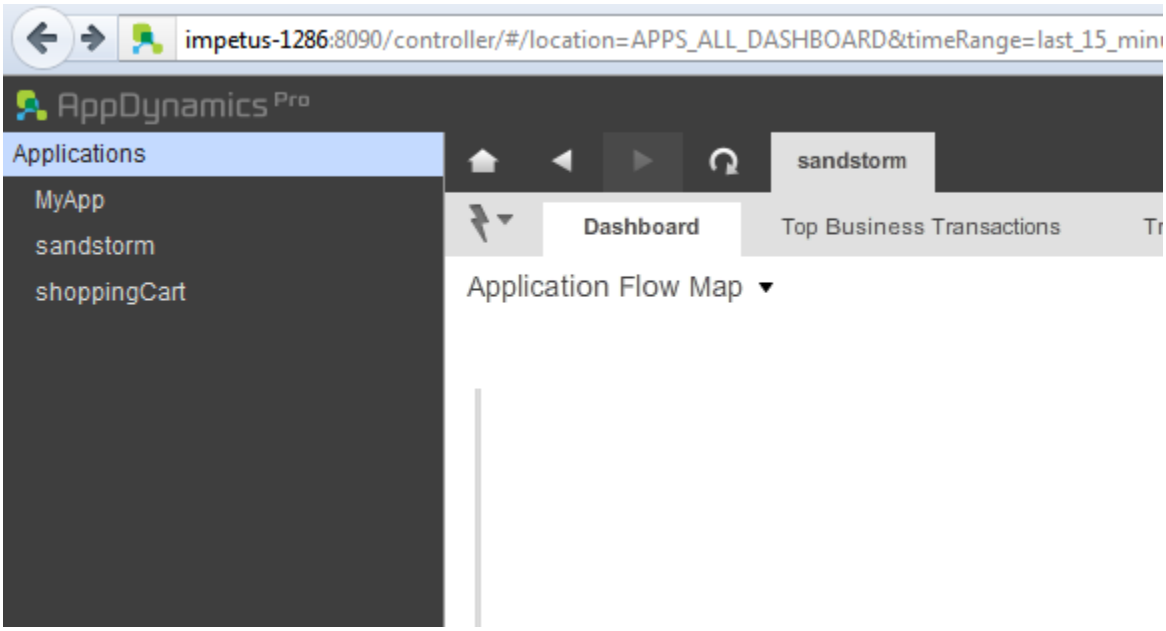
If you have an existing application, then follow the below steps to configure naming rules:

1) Login to AppDynamics controller



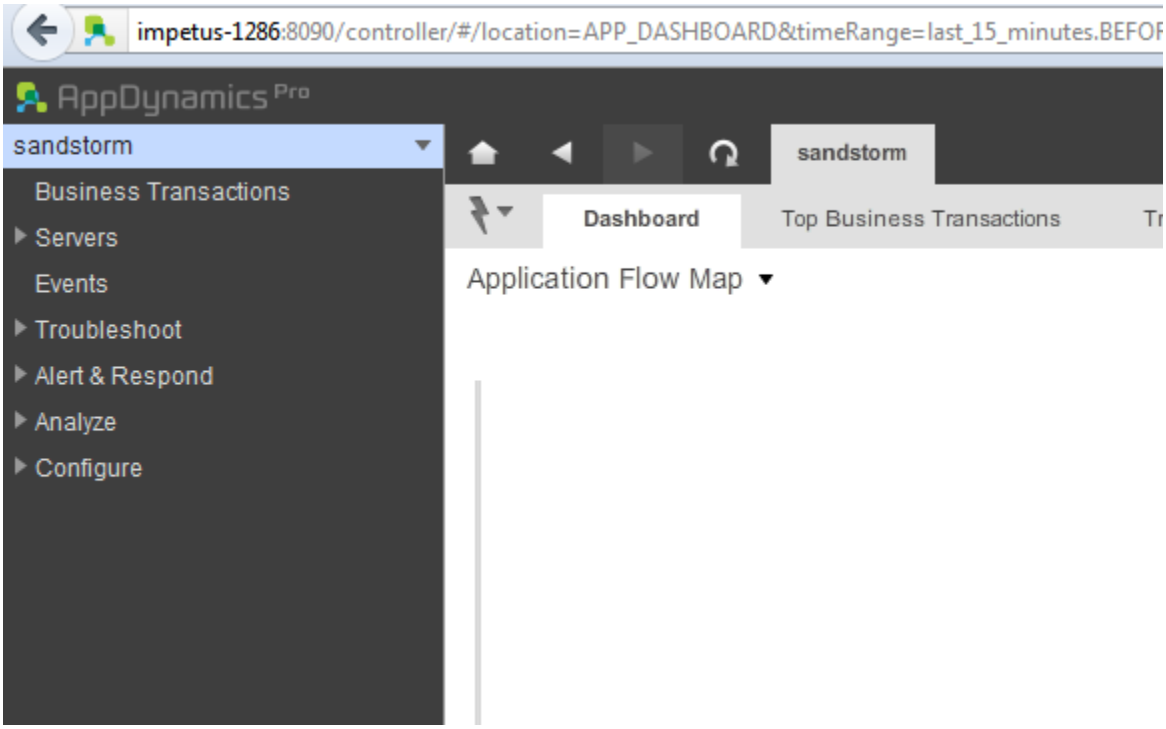
Screen 6: AppDynamics Controller

2) Open the required Application by clicking on the Application name



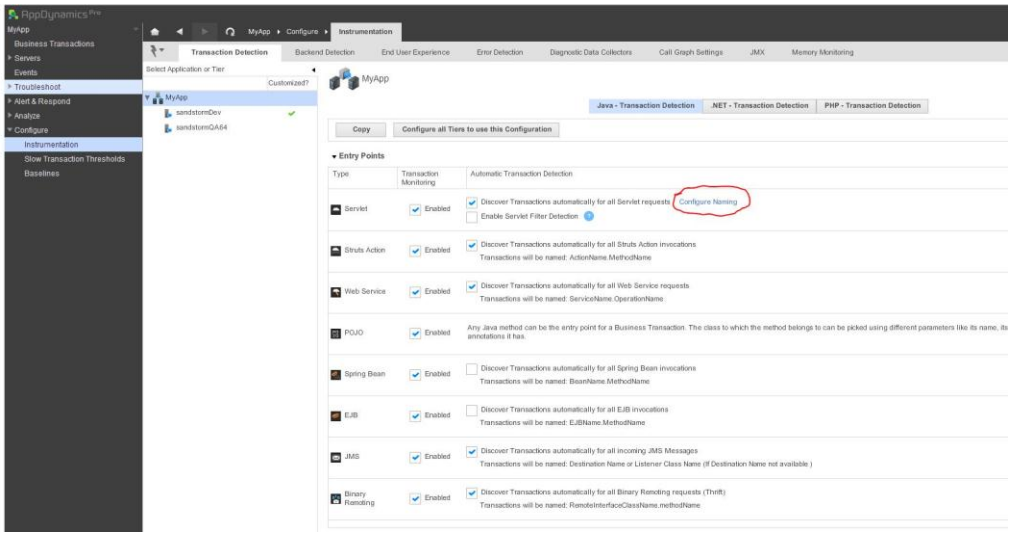
Screen 7: AppDynamics Application

3) Click on Configure



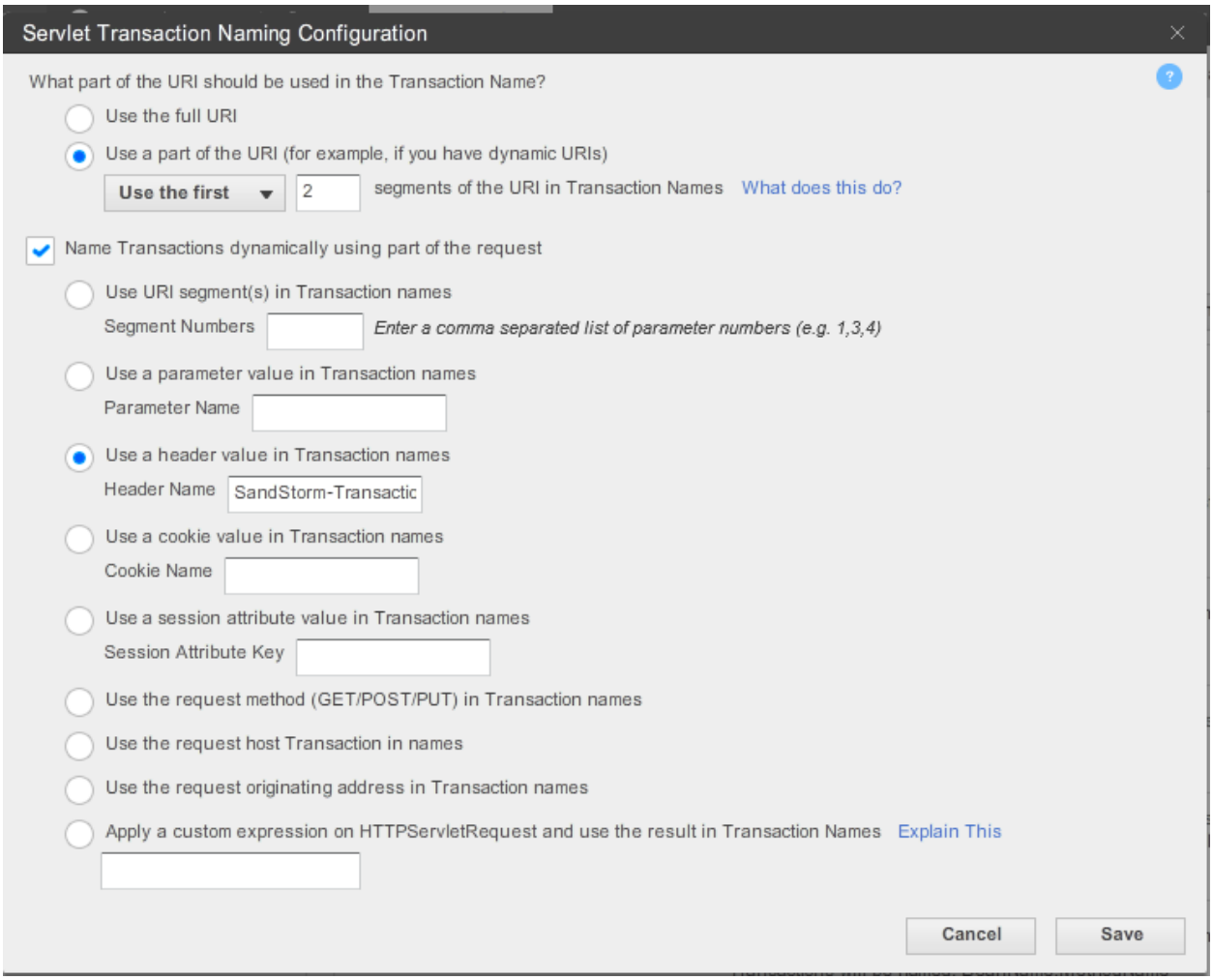
Screen 8: Application Configuration

4) Click Instrumentation and select application



Screen 9: Configuration for Agent

5) Click on Configure Naming Rules



Screen 10: Configure Naming Rules

6) Add the following rules
   a. Use a header value in Transaction name: Header Name : SandStorm-Transaction

After completing the above steps, SandStorm will be able to fetch diagnostics data for performance test execution.

Note:

1. You need to reset all the agents on the appservers to send the data to the specified application.
For more info about agent-appserver runtime configuration visit:
http://docs.appdynamics.com/display/PRO14S/Java+Server-Specific+Installation+Settings

2. If the transactions are more than 50 than you need to increase the no. of transaction in the agent configuration file (), else it will collect data to 'All other transactions'. For more info about agent configuration visit:

http://docs.appdynamics.com/display/PRO14S/App+Agent+for+Java+Configuration+Properties#AppAgentforJavaConfigurationProperties-CreatingandRegisteringTiers)

3. This manual is prepared keeping java-agent in consideration; however for php-agent except agent configuration every step is same as mentioned above.

Step 3: Execute Scenario and Analyze Results.

1. Design the scenario using SandStorm scenario tab
2. Execute the scenario.
3. After the scenario execution, generate Analysis for the scenario from the Results tab.
4. Click on the AppDynamics link under Diagnostics header in the result navigation side bar. You can view the details of app-servers in corresponding tab.

	Sandstorm Transaction	Avg Response Time (s)	Max (s)	Min(s)
+	travelPortal.payment	21.25	52.832	21.014
+	travelPortal.CancelBoooking	21.235	26.112	21.071
+	travelPortal.MyBookings	6.586	41.045	1.898
+	travelPortal.load	6.414	18.658	4.279
+	travelPortal.search	0.395	3.77	0.335
+	travelPortal.book	0.248	6.746	0.085
+	travelPortal.navigate	0.148	2.579	0.096
+	travelPortal.resgisterPage	0.121	2.849	0.082
+	travelPortal.searchSuccess	0.07	0.858	0.055
+	travelPortal.login	0.038	0.565	0.027

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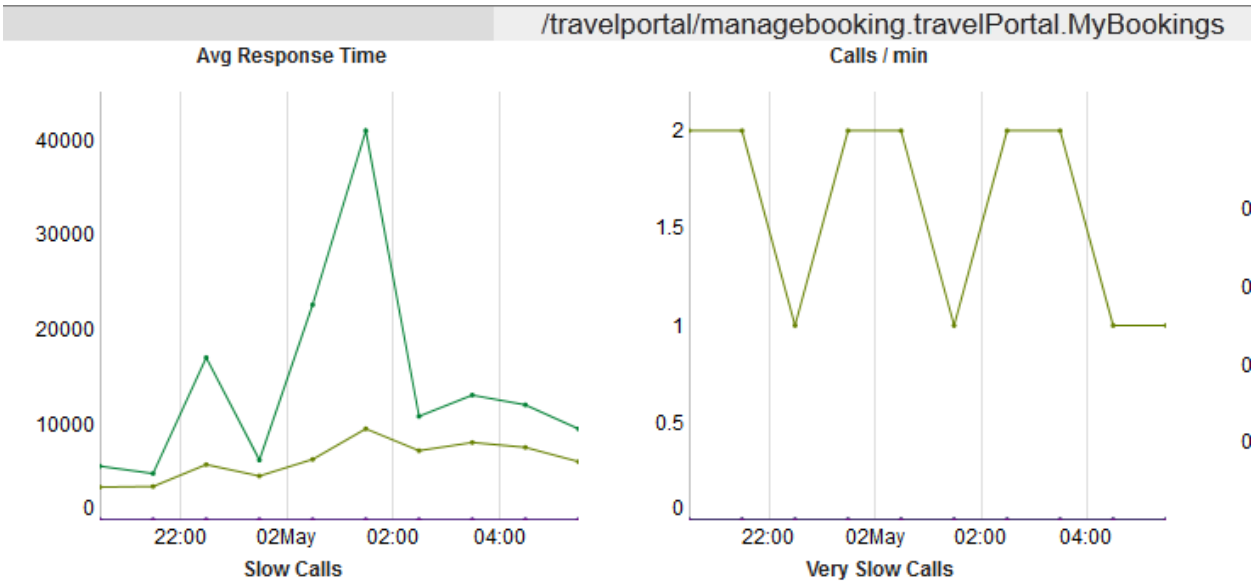
Screen 11: Diagnostic results in SandStorm

5. You can view the transaction results in corresponding tab.
6. Drill down the transaction by clicking the + button.

-	travelPortal.MyBookings		6.586	41.045	1.898
	Business Transaction	Tier	ART(ms)	Calls/min	Errors/mi
	/travelportal/managebooking.travelPortal.MyBookings	travelPortalDev	6241	1	0
	/travelportal/passenger.travelPortal.MyBookings	travelPortalDev	8	1	0

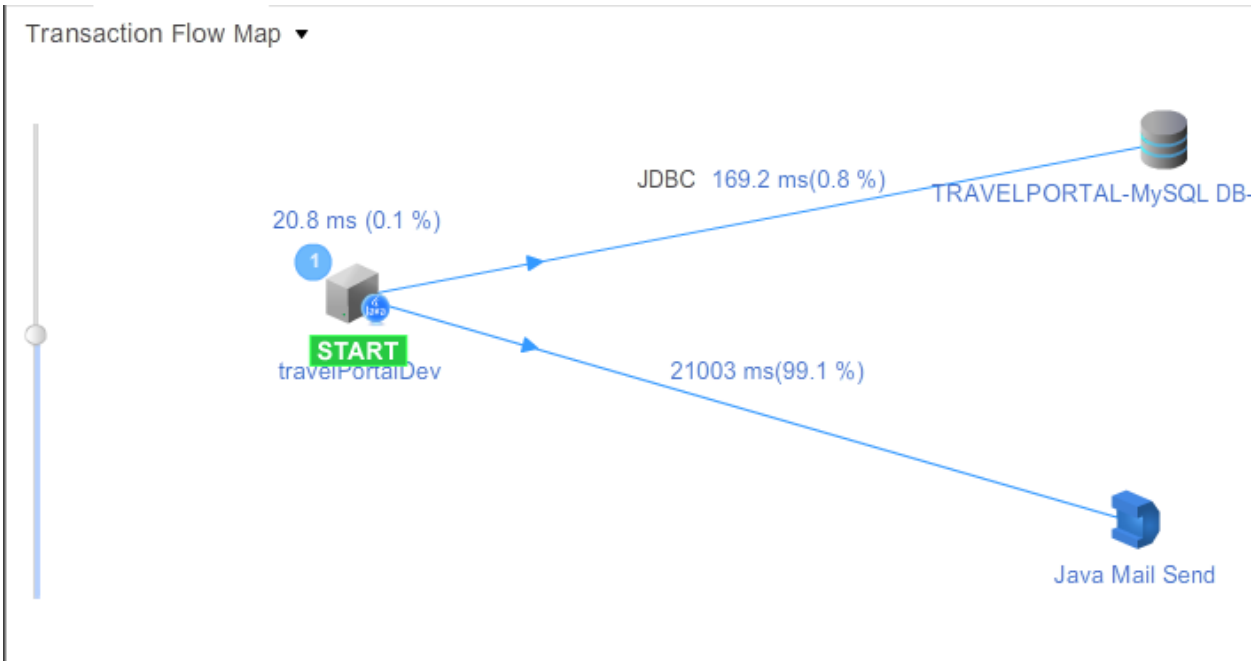
Screen 12: Drill down results in SandStorm

7. To view the graph click on transaction name .



Screen 13: Performance analysis of slow business transaction

8. Click on External link to get the detailed diagnostic information. This action will launch the AppDynamics controller in a separate window for detailed performance debugging.



Screen 14: AppDynamics transaction flow map

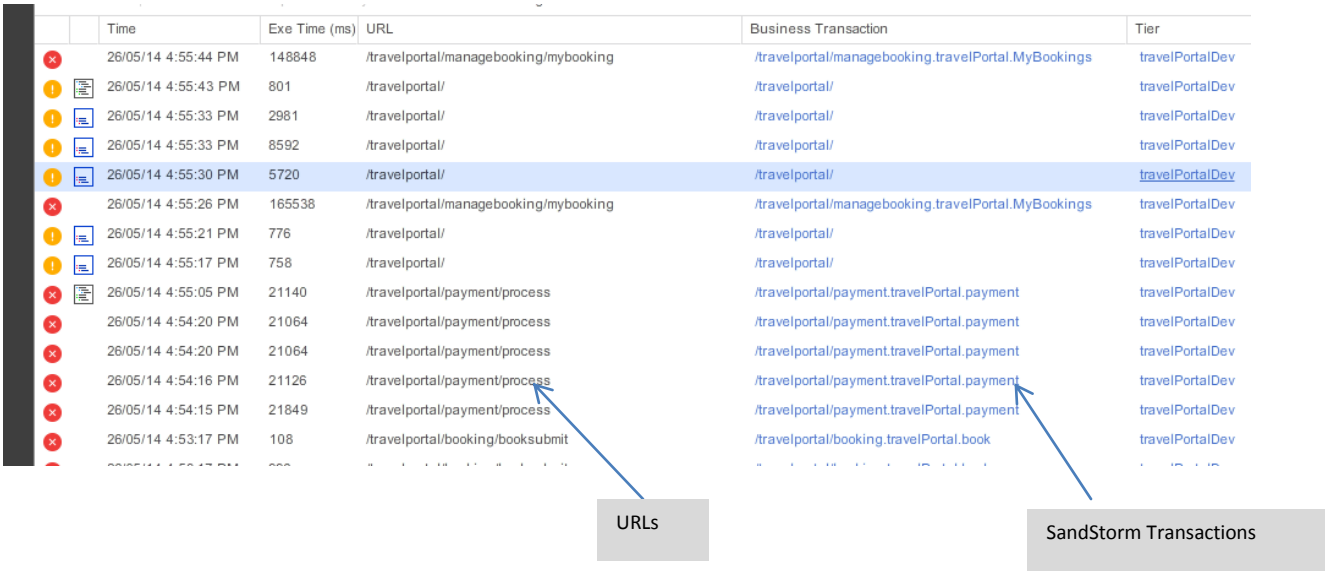


Fig 15: AppDynamics drill down for a slow transaction

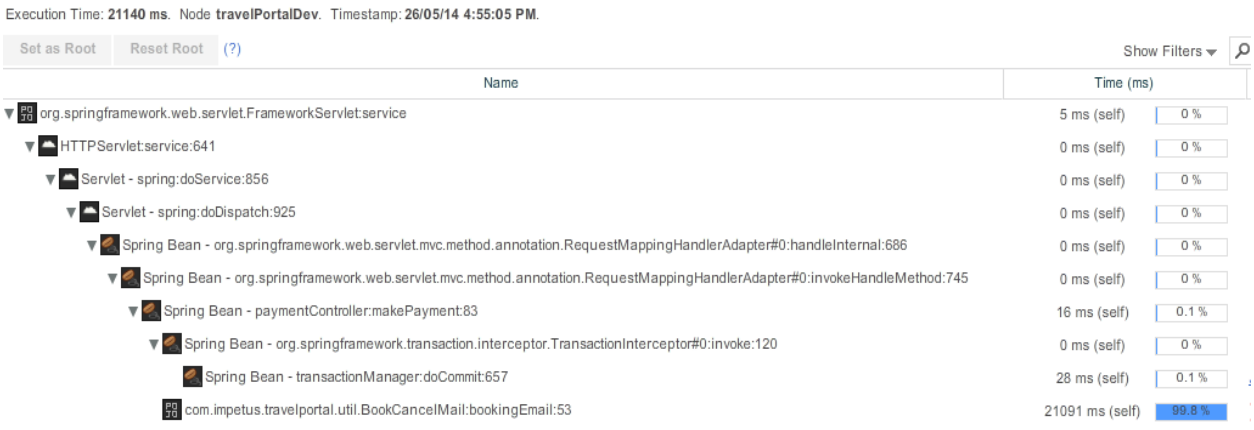


Fig 16: Method call trace for a slow transaction