

System 800xA

Public Address System

User Manual

System Version 6.0

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System Version 6.0

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Release: September 2016
Document number: 2PAA114295-600 A

Table of Contents

About This User Manual

User Manual Conventions	3
Warning, Caution, Information, and Tip Icons	3
Terminology.....	4
Released User Manuals and Release Notes.....	4

Section 1 - Introduction

System Overview	7
-----------------------	---

Section 2 - Installation and Configuration

PAS Connectivity Service Provider Node	12
Security Permissions	15
PAS Announcement Permission.....	15
Send Announcement Permission.....	21
PAS Information Aspect	27
PAS Global Setting Aspect.....	29
PAS Message Template Aspect	34
Alarm and Event List (Alarm Grouping)	36
PAS Configuration Aspect	36
Channel Configuration	36
Configured Alarm and Event	38
PAS Announcement Aspect.....	41
Sound Scheme	43

Section 3 - Typical Plant Configurations

Configuring Announcement Messages 45

 Scenario 1 45

 Option 1 45

 Option 2 49

 Scenario 2 52

 Scenario 3 53

Section 4 - Runtime Operations

Announcement Overview 55

Alert Message Announcement 57

PAS Announcement Status 60

Section 5 - System Health Monitoring

PAS Channel Mapping Aspect 63

Revision History

Updates in Revision Index A 69

About This User Manual



Any security measures described in this User Manual, for example, for user access, password security, network security, firewalls, virus protection, etc., represent possible steps that a user of an 800xA System may want to consider based on a risk assessment for a particular application and installation. This risk assessment, as well as the proper implementation, configuration, installation, operation, administration, and maintenance of all relevant security related equipment, software, and procedures, are the responsibility of the user of the 800xA System.

This user manual describes the Installation and Configuration of *ABB 800xA Public Address System* in 800xA System.

User Manual Conventions

Microsoft Windows conventions are normally used for the standard presentation of material when entering text, key sequences, prompts, messages, menu items, screen elements, etc.

Warning, Caution, Information, and Tip Icons

This User Manual includes Warning, Caution, and Information where appropriate to point out safety related or other important information. It also includes Tip to point out useful hints to the reader. The corresponding symbols should be interpreted as follows:



Electrical warning icon indicates the presence of a hazard that could result in *electrical shock*.



Warning icon indicates the presence of a hazard that could result in *personal injury*.



Caution icon indicates important information or warning related to the concept discussed in the text. It might indicate the presence of a hazard that could result in *corruption of software or damage to equipment/property*.



Information icon alerts the reader to pertinent facts and conditions.



Tip icon indicates advice on, for example, how to design your project or how to use a certain function

Although Warning hazards are related to personal injury, and Caution hazards are associated with equipment or property damage, it should be understood that operation of damaged equipment could, under certain operational conditions, result in degraded process performance leading to personal injury or death. Therefore, fully comply with all Warning and Caution notices.

Terminology

A complete and comprehensive list of Terms is included in the *System 800xA System Guide Functional Description (3BSE038018*)*. The listing includes terms and definitions that apply to the 800xA System where the usage is different from commonly accepted industry standard definitions and definitions given in standard dictionaries such as Webster's Dictionary of Computer Terms. Terms that uniquely apply to this User Manual are listed in the following table.

Term/Acronym	Description
800xA	ABB automation system (eXtended Automation).
PAS	Public Address System

Released User Manuals and Release Notes

A complete list of all User manuals and Release notes applicable to System 800xA is provided in *System 800xA Released User Documents (3BUA000263*)*.

System 800xA Released User Documents (3BUA000263)* is updated each time a document is updated or a new document is released. It is in PDF format and is provided in the following ways:

- Included on the documentation media provided with the system and published to ABB SolutionsBank when released as part of a major or minor release, Service Pack, Feature Pack, or System Revision.
- Published to ABB SolutionsBank when a User manual or Release note is updated in between any of the release cycles listed in the first bullet.



A product bulletin is published each time *System 800xA Released User Documents (3BUA000263*)* is updated and published to ABB SolutionsBank.

Section 1 Introduction

ABB 800xA Public Address System is delivered as an add-on to the 800xA System for announcing the information, instructions and messages through the public address system to all plant personnel. 800xA Public Address System comprises of the following main node functions

- 800x PAS Connectivity
- 800xA PAS Announcement Node

System Overview

Figure 1 shows Public Address System in System 800xA Plant Network.

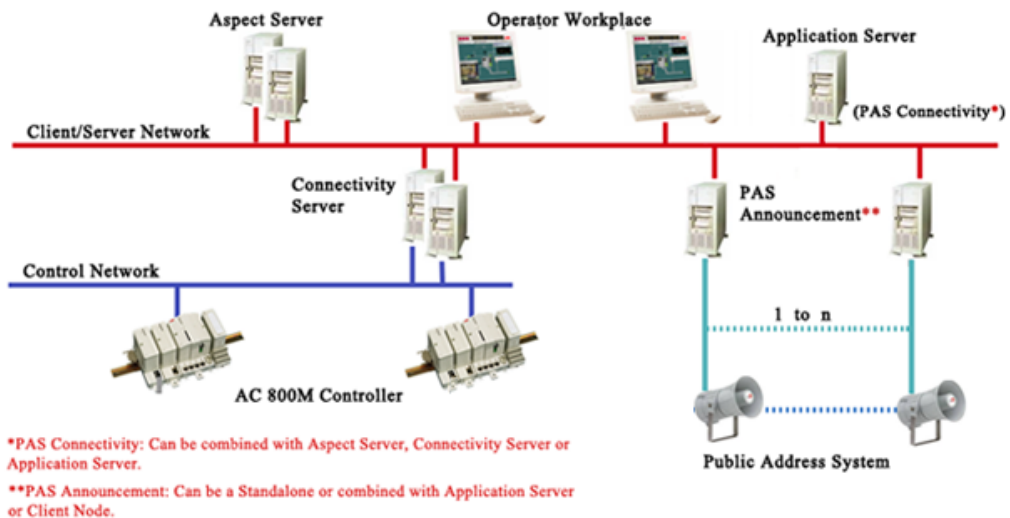


Figure 1. PAS in System 800xA Plant Network

Table 1 describes the PAS Components in 800xA System:

Table 1. PAS Components

PAS Components	Description
PAS Connectivity	<p>PAS Connectivity is responsible for monitoring the Alarm Lists and adding the announcement messages to the announcement queue.</p> <p>There will be one PAS Connectivity Server per 800xA System. PAS Connectivity can be a dedicated Application Server or can be combined with any Application Server or Connectivity Server in the System.</p> <p>In addition, PAS Connectivity includes client components that will be installed in all 800xA nodes including Aspect Server (from where the system extension is loaded).</p>
PAS Announcement	<p>The PAS Announcement is responsible for picking messages from announcement queue, perform text to speech conversion and do the actual announcement via the output channel.</p> <p>There can be multiple PAS Announcement nodes in a system, typically corresponding to different plant areas.</p> <p>The PAS Announcement node can be combined with any 800xA node or can also be a non-800xA Windows server or workstation node.</p>

Section 2 Installation and Configuration

This section describes the Installation and Configuration steps required for *ABB 800xA Public Address System (PAS)* in 800xA System.

System Installer supports PAS. During installation, PAS is selected as a System Function (see [Figure 2](#)) and PAS Announcement Server is selected as a System Node (see [Figure 3](#)). For general requirements on installation and recommended hardware, refer *System 800xA Installation and Upgrade Getting (2PAA111708*)*.



Ensure that Public Address System is installed and System Extension is loaded into 800xA System.

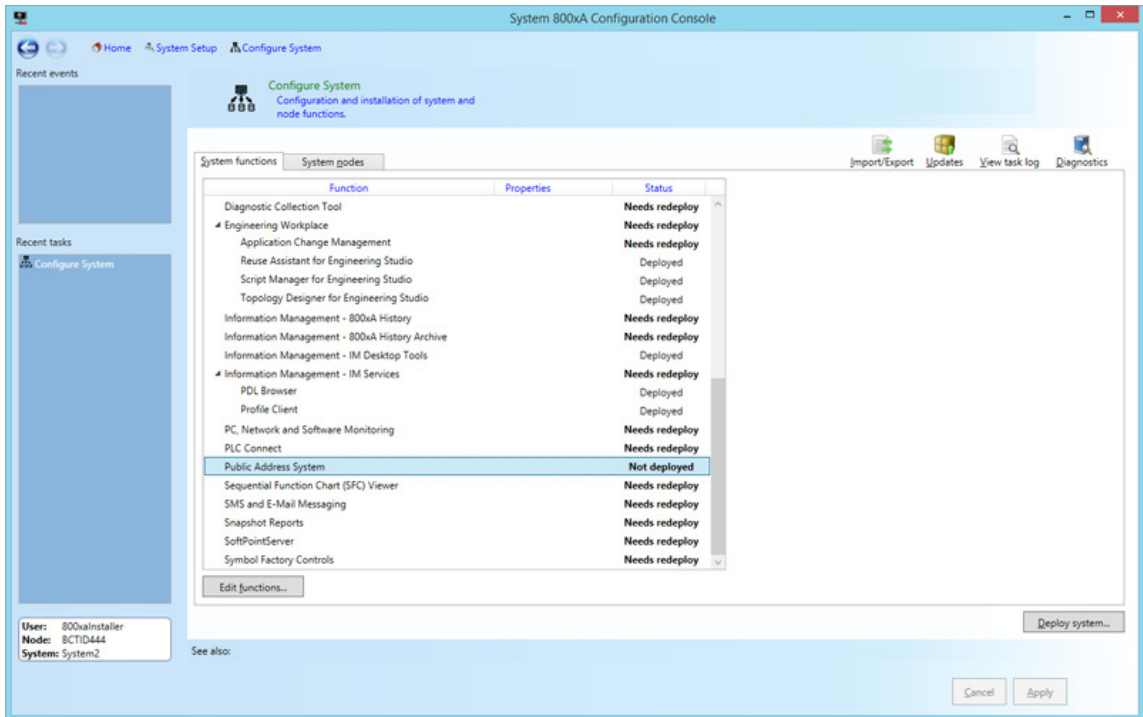


Figure 2. Public Address System - System Function

Section 2 Installation and Configuration

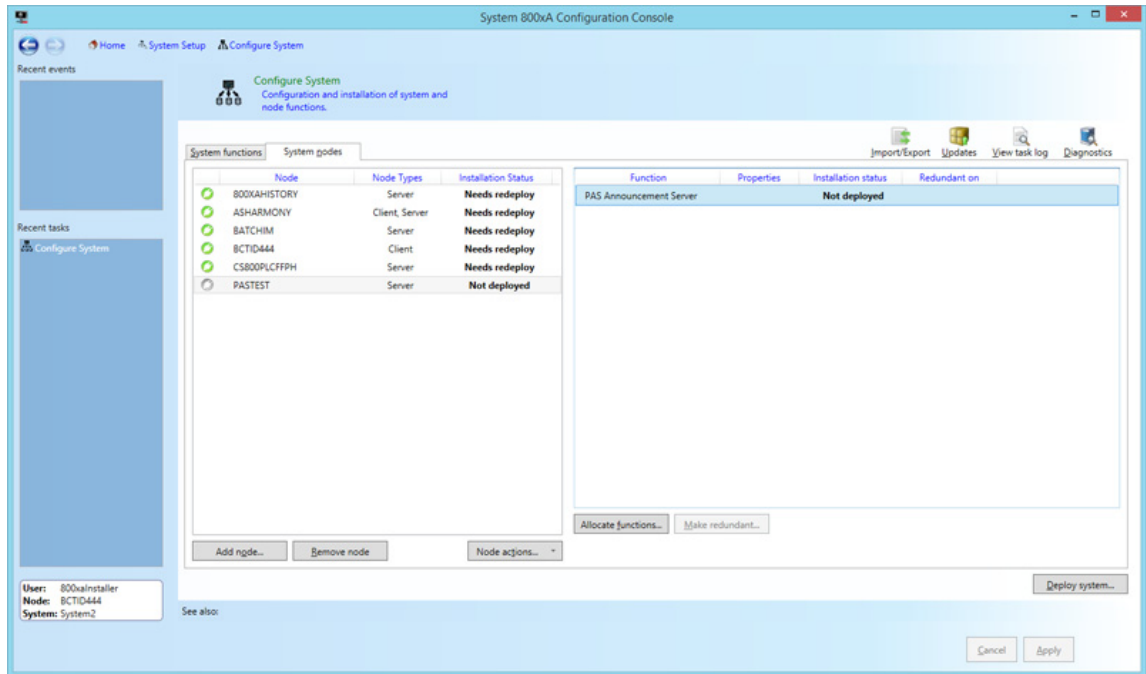


Figure 3. Public Address System - System Node

Figure 4 shows the configuration workflow for the Public Address System in 800xA System. Click on a box with blue text to take you to the associated procedure.

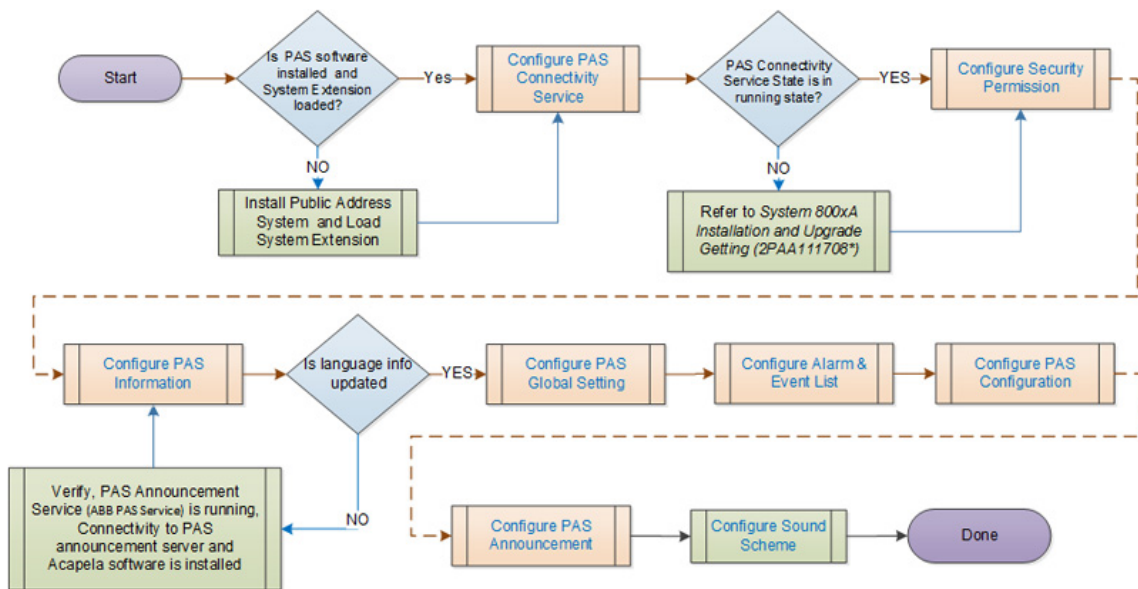


Figure 4. PAS Configuration Flow chart

PAS Connectivity Service Provider Node

Perform the following steps to set the PAS Connectivity Service Provider node:

1. Open **Plant Explorer Workplace** and navigate to **Service Structure**.
2. Use the object browser to navigate to and right click on;
 - Services > PAS_Manager_Service, Service
3. Select **New Object** from the context menu to open a **New Object** dialog box.
4. Select **Service Group** from the list on the left, type a name and then click **Create**.

5. Use the object browser to navigate to and right-click on the newly created **Service Group**.
6. Select **New Object** from the context menu to open the **New Object** dialog box.
7. Select **Service Provider** from the list on the left, type a name and click **Create**.
8. Select **Service Provider Definition** in the aspect list area for the newly created **Service Provider**.
9. Select the node identified to host this **PAS Connectivity Service** from the Node: drop-down list box. There can only be one PAS Connectivity Service per System.
10. Click **Apply**. This will set the **Service Provider** host name for this **PAS Connectivity Server**.

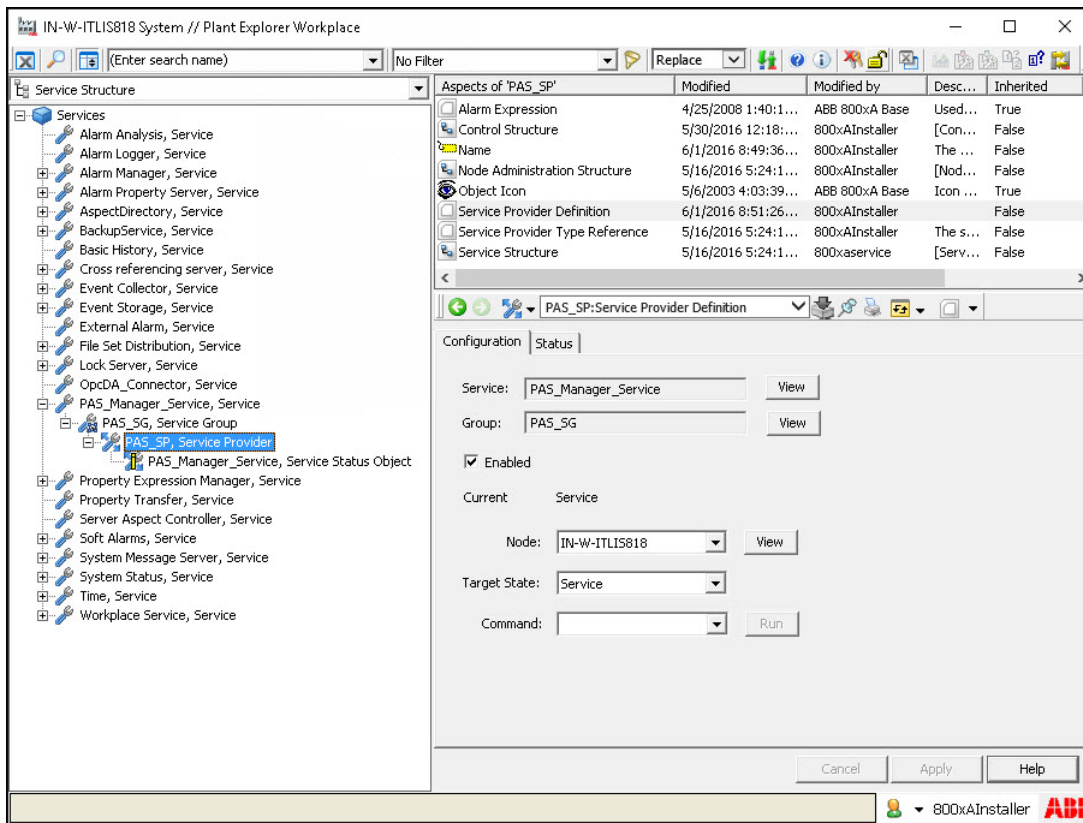


Figure 5. PAS Service Configuration

Security Permissions

The security permissions are configured under **Security Definition** aspect. To open this aspect, navigate to **Admin Structure > Administrative Objects > System Domain Name**.

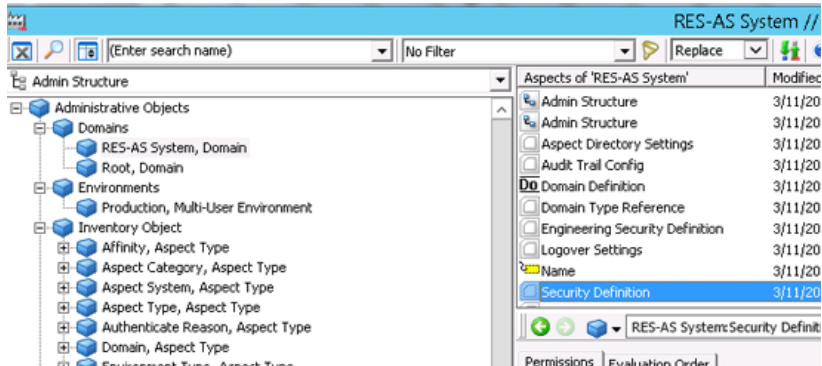


Figure 6. Security Definition Aspect

The following subsections details the permissions required for a PAS user.

PAS Announcement Permission

Users with this permission can perform operational tasks in the Announcement overview aspect during run time operations. Perform the following for configuring PAS Announcement permission:

1. Open **Security Definition** aspect (see [Figure 7](#)).

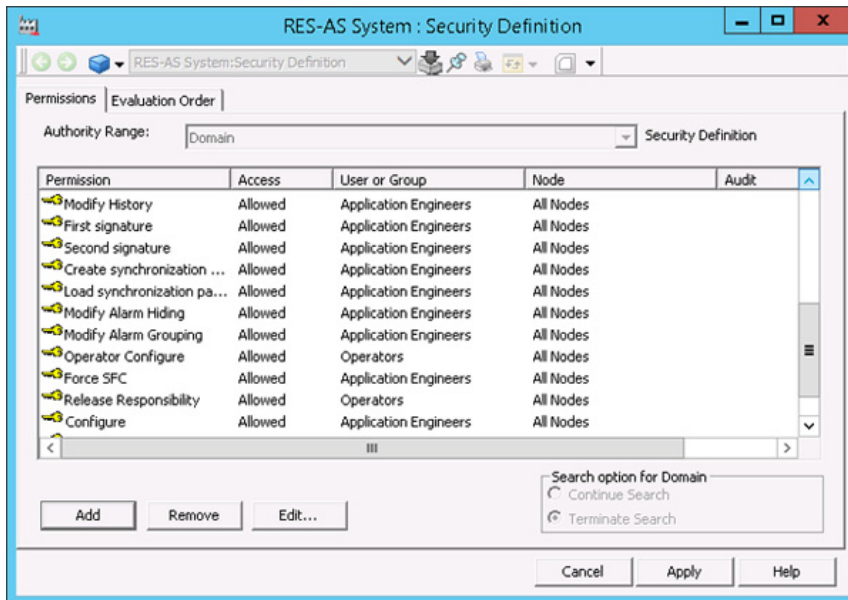


Figure 7. Security Definition aspect

2. Click **Add** to open the **Permission Configuration** window.

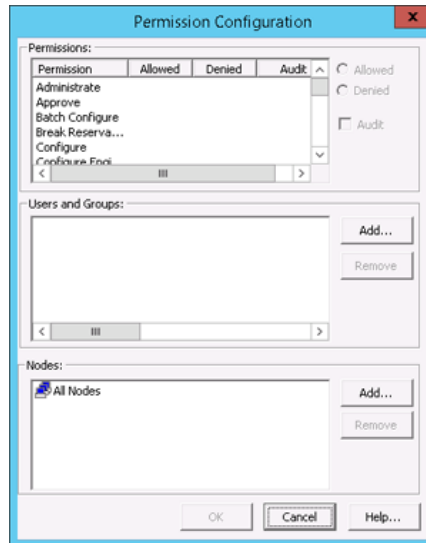


Figure 8. Permission Configuration

3. Select **PAS Announcement** and select **Allowed** permission option.

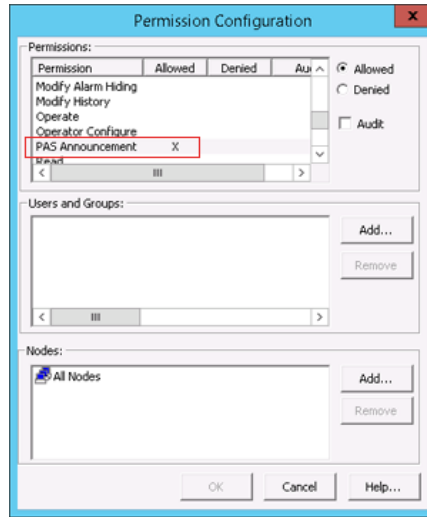


Figure 9. PAS Announcement Permission

4. Click **Add** in **Users and Groups** pane.

5. Select the user type and click **Add**. You can also add **Members** to this group.

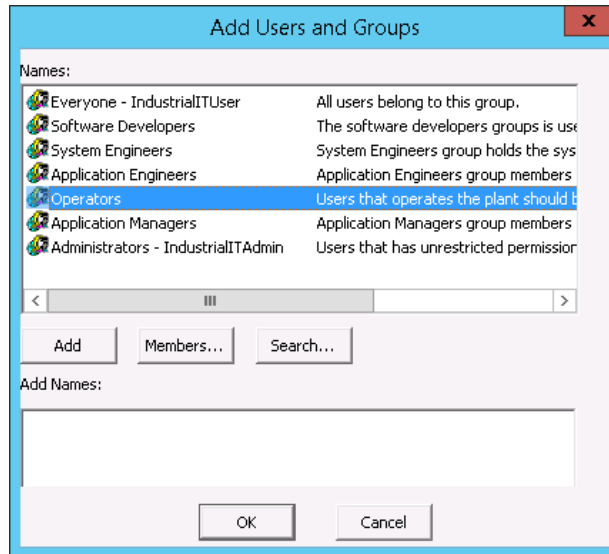


Figure 10. Add Users and Groups

- The selected user type is added for this permission. Click **OK**.

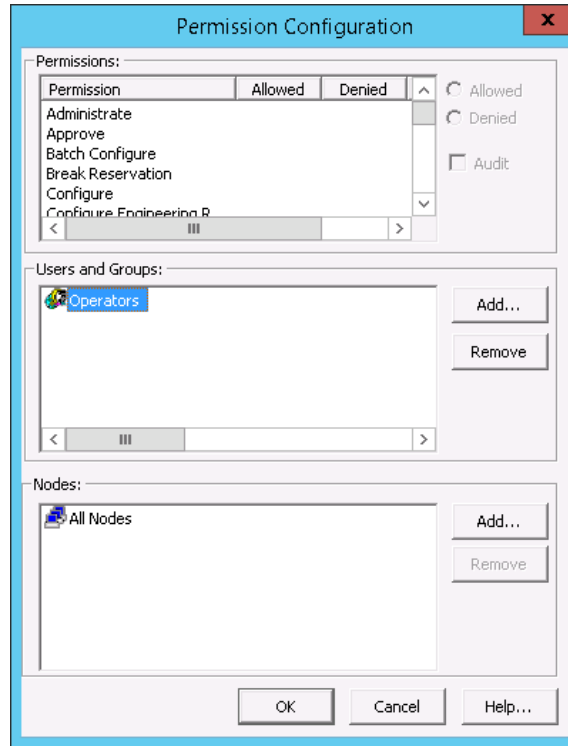


Figure 11. User Group

- Click **OK** and the permission for PAS Announcement is listed in the **Security Definition** aspect. Click **Apply** to activate the Permission for the user.

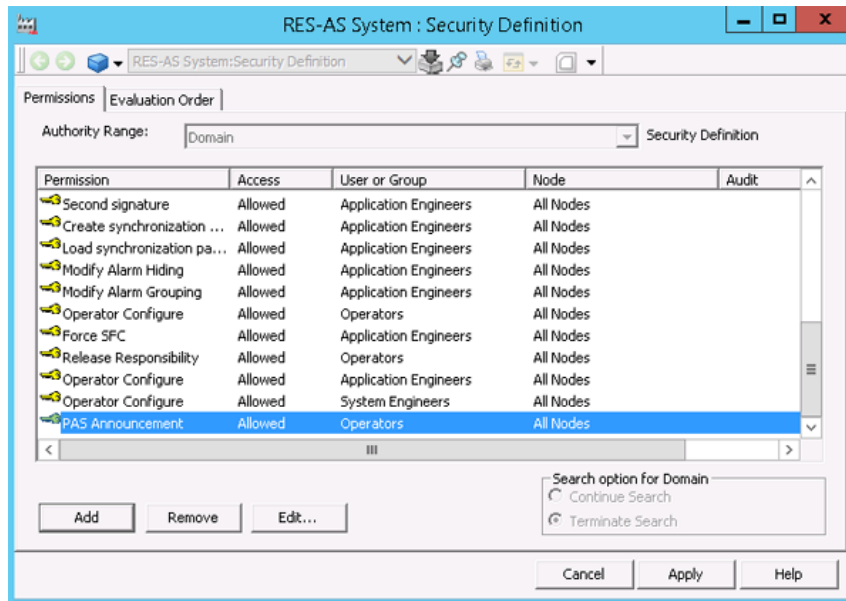


Figure 12. Security Definition- PAS Announcement

Send Announcement Permission

User with this permission can send an alert message announcement during run time operation. Perform the following to configure **Send Announcement** permission:

1. Open Security Definition aspect (see Figure 13).

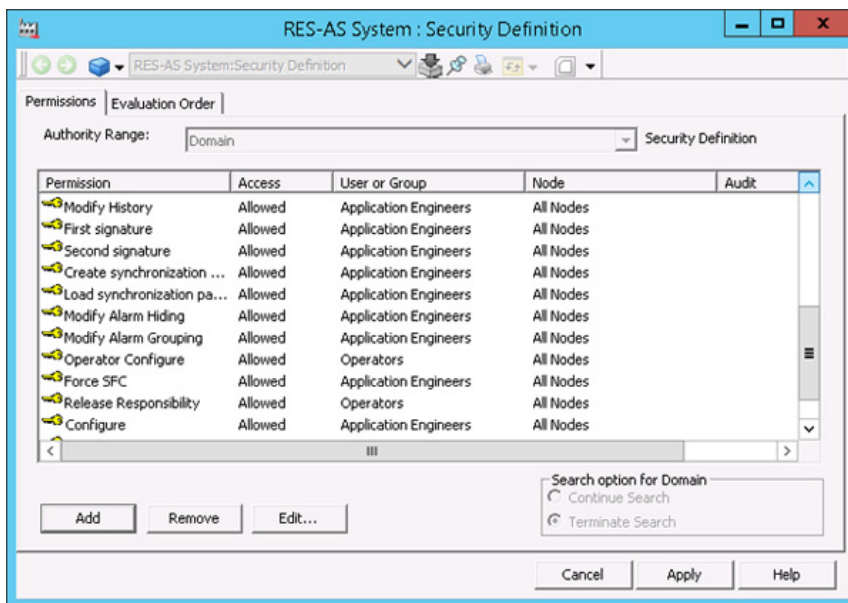


Figure 13. Security Definition aspect

2. Click **Add** to open the **Permission Configuration** window.

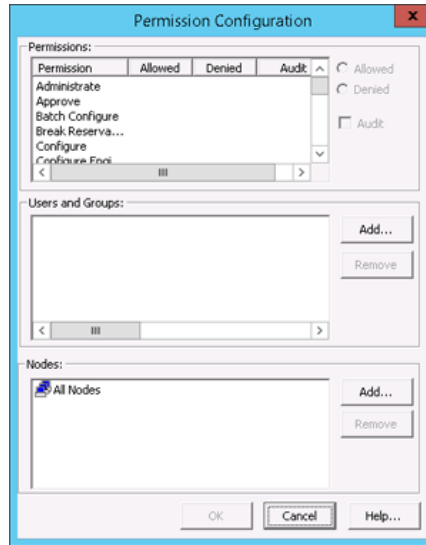


Figure 14. Permission Configuration

3. Select **Send Announcement Permission** and select **Allowed** permission option.

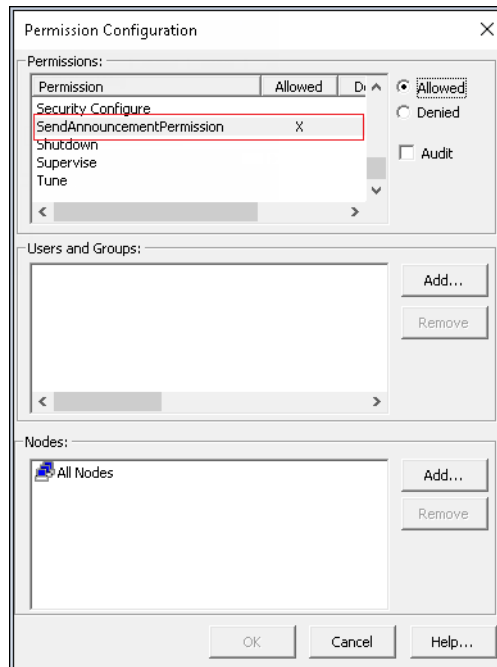


Figure 15. Send Announcement Permission

4. Click **Add** in **Users and Groups** pane.

5. Select the user type and click **Add**. You can also add **Members** to this group.

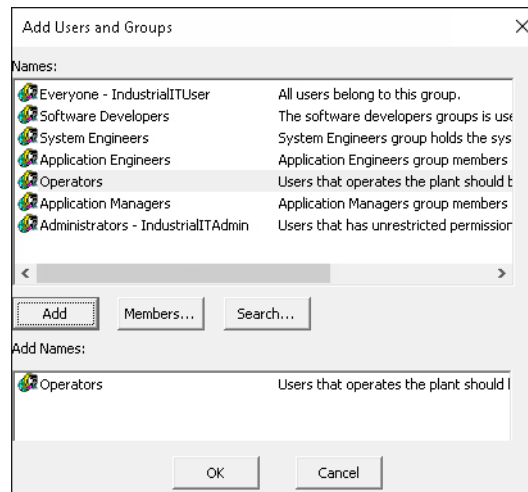


Figure 16. Add Users and Groups

- The selected user type is added for this permission. Click **OK**.

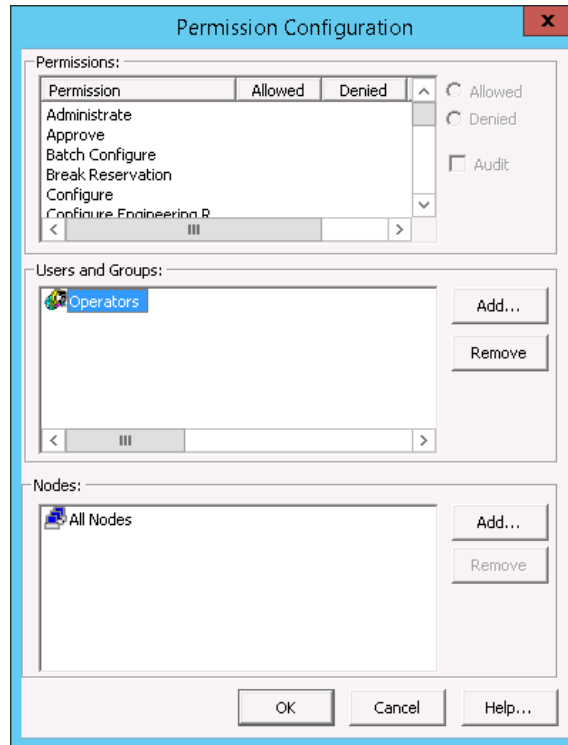


Figure 17. User Group

- Click **OK** and the permission for Send Announcement is listed in the **Security Definition** aspect. Click **Apply** to activate the permission for the user.

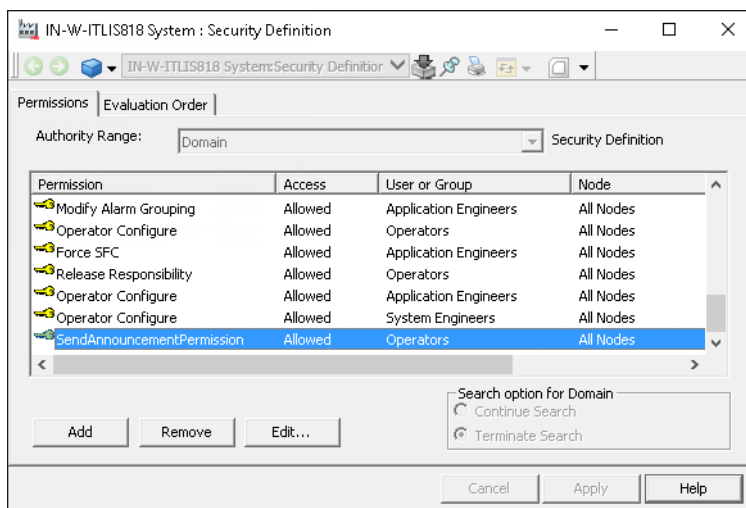


Figure 18. Security Definition - PAS Announcement

PAS Information Aspect

PAS information aspect is used for selecting the announcement node and to update the language and voice information from Acapela tool, which is installed on PAS announcement server.



Before performing the steps, ensure that PAS announcement service is up and running.

Perform the following steps to create and configure PAS Information aspect in Admin Structure.

- Open **Plant Explorer Workplace** and navigate to **Admin Structure**.
- Use the object browser to navigate to and right click on;
Administrative Objects > PAS General Configuration
- Select **New Aspect** from the context menu to open the **New Aspect** dialog box.

4. Select the **List Presentation** option, select **PASInformation** aspect and then click **Create**.
5. In the PAS Information aspect window select the *PAS Announcement Node*, and then click **Update Language Info** to update the supported languages and then click **Apply**.

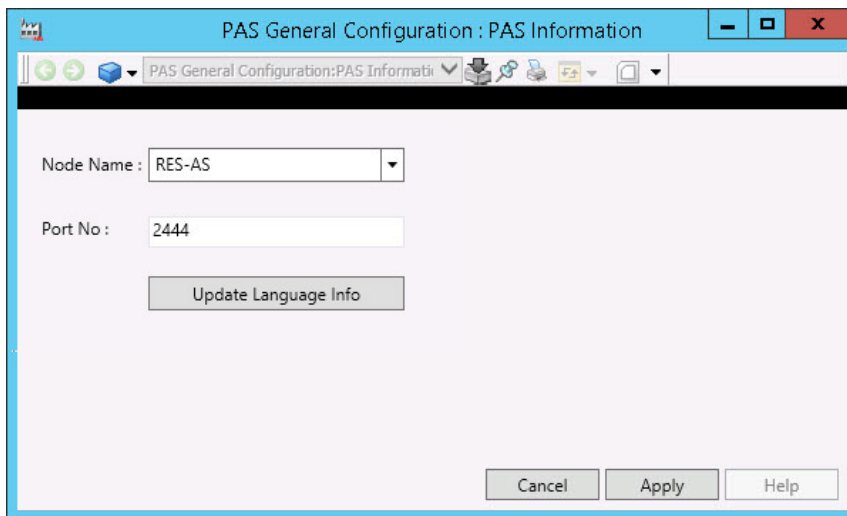


Figure 19. PAS Information Aspect



Update Language Info must be done first before creating the *PAS Global Setting* aspect, otherwise languages cannot be configured in *PAS Global Setting* aspect. This update must also be done each time a new language or a language package is added in the PAS system.

PAS Global Setting Aspect



Users with *Application Engineer* role can only configure **PAS Global Setting** aspect.

PAS Global Setting aspect is used for configuring Voice settings and Announcement mode.

Perform the following steps to create and configure PAS Global Setting aspect in Admin Structure.

1. Open **Plant Explorer Workplace** and navigate to **Admin Structure**.
2. Use the object browser to navigate to and right click on;
Administrative Objects > PAS General Configuration
3. Select **New Aspect** from the context menu to open the **New Aspect** dialog box.
4. Select the **List Presentation** option, select **PAS Global Setting** aspect and then click **Create**.
5. In the **PAS Global Setting** aspect configure the following tabs:

a. Configure System Settings tab.

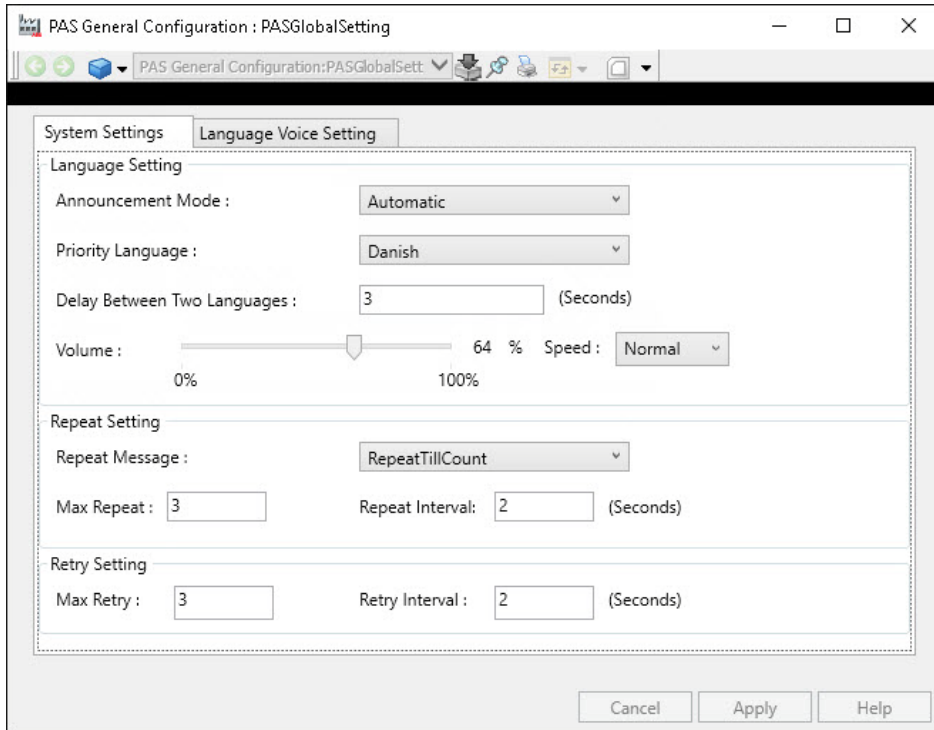


Figure 20. PAS Global Setting aspect - System Settings

Item	Description
Announcement Mode	<p>The mode in which the announcement is made.</p> <p>Manual: If selected, the announcement is manually done using the announcement overview aspect.</p> <p>Automatic: if selected, the announcement is made as soon as the alarm is generated.</p> <p>Note: PAS Connectivity service must be restarted, if user changes the mode of announcement on a running system.</p>
Priority Language	<p>The priority of the language for the announcement.</p> <p>Note: The Priority Language setting is only applicable for newly created PAS Configuration aspect.</p> <p>If a Priority Language is modified on an instance of PAS Global Setting aspect, then its configuration changes will not be inherited to already existing PAS configuration aspects.</p>
Delay Between Two Languages	Time interval (seconds) between two language announcements.
Volume	The volume at which the announcement is made.
Speed	The speed at which the announcement is made.
Repeat Message	<p>Number of repeats of the announcements.</p> <p>RepeatTillCount: the announcement is made till the maximum repeat is reached.</p> <p>RepeatTillAcknowledge: the announcement is made till the alarm is acknowledged.</p>
Max Repeat	Maximum number of repeats of the announcements.
Repeat Interval	Time interval (seconds) between two repeats.
Max Retry	Maximum number of retries during failure of the announcement.
Retry Interval	Time interval (seconds) for a retry, during failure of the announcement.

b. Configure **Language Voice Setting**.

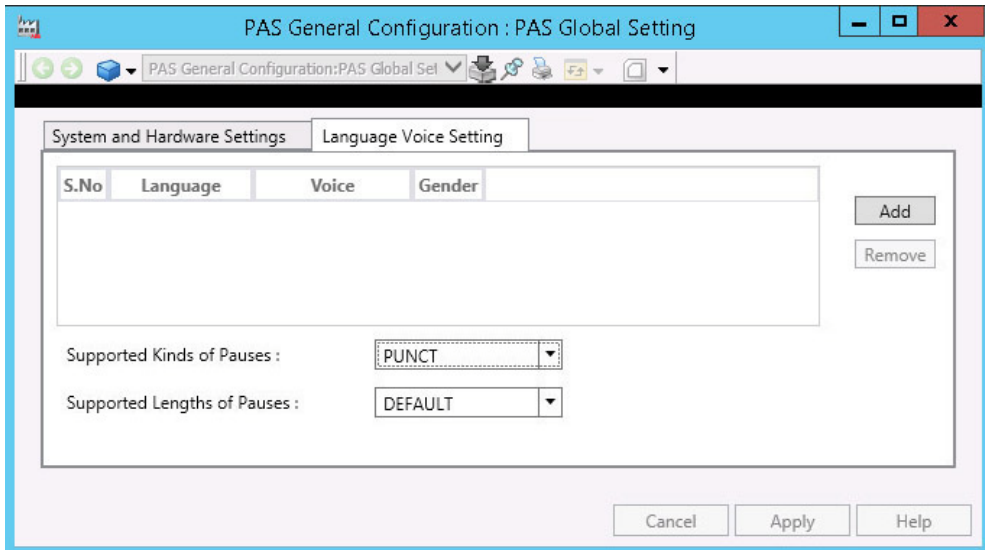


Figure 21. PAS Global Setting aspect - Language Voice Setting

Item	Description
Add	Click Add to select the language along with the corresponding voice. The Gender is automatically displayed and non editable.
Remove	Click Remove to delete the selected language along with the corresponding voice.

Item	Description
Supported Kinds of Pauses	<p>The voice is paused based on the parameter selected from the drop-down list.</p> <p>Select the following kind of pauses from the list:</p> <ul style="list-style-type: none">• Punct - Pauses for ., ! and ?• Semicolon - Pauses for ;• Comma - Pauses for , and :• Bracket - Pauses for ", (, [, {, },] and)• Spell - Pauses between words or letters in spell mode
Supported Lengths of Pauses	<p>The length of text is paused based on the parameters selected from the list.</p> <p>Select the following length of pauses from the drop down:</p> <ul style="list-style-type: none">• Default• Very short• Short• Medium• Long• Very Long

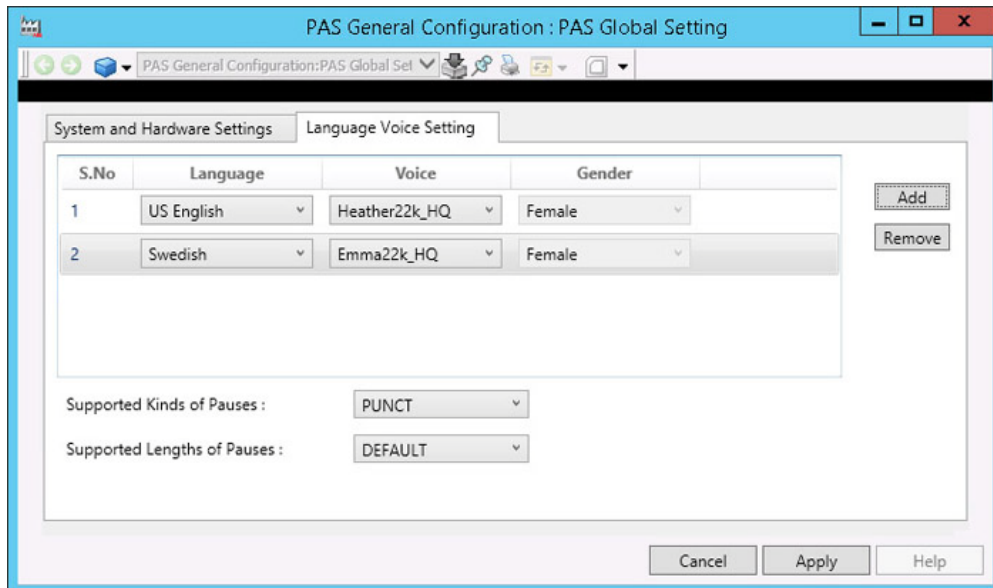


Figure 22. Language Voice Setting

6. Click **Apply** to save the changes.

PAS Message Template Aspect

PAS Message Template aspect is used to create pre-configured announcement messages. These pre-configured messages can be reused in Alert Announcement.

Perform the following steps to create and configure PAS Message Template aspect in the Admin Structure.

1. Open **Plant Explorer Workplace** and navigate to Admin Structure.
2. Use the object browser to navigate to and right-click on, **Administrative Objects > PAS General Configuration**
3. Select **New Aspect** from the context menu to open the **New Aspect** dialog box.

4. Select the **List Presentation** option, select **PASMessageTemplate** aspect and then click **Create**.

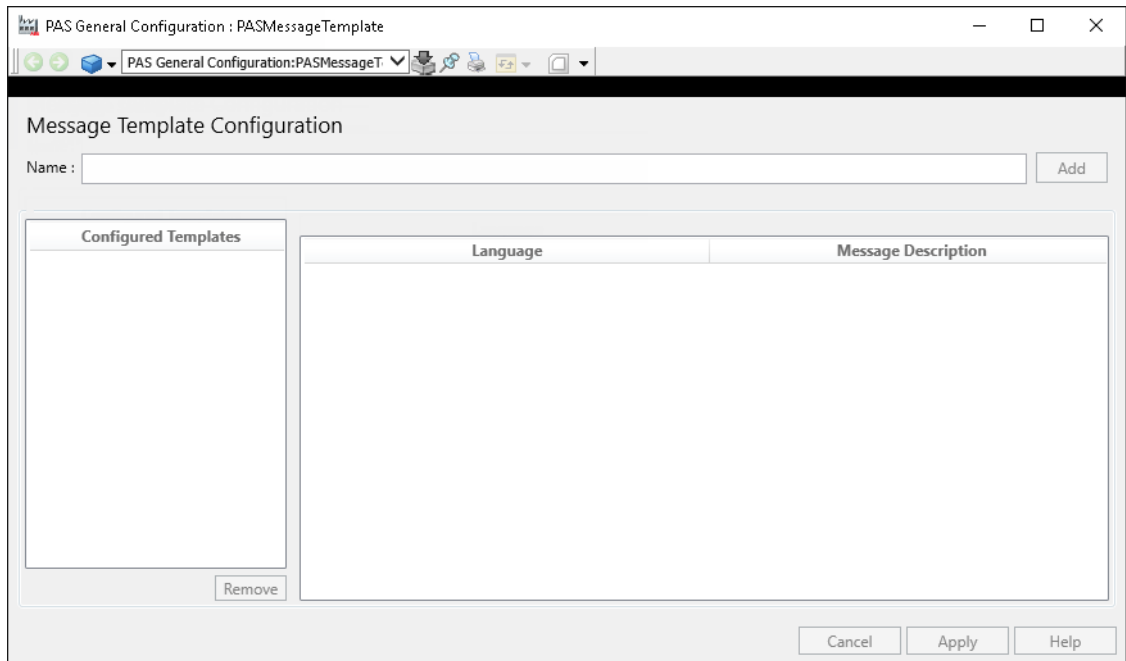


Figure 23. PAS Message Template aspect

5. In the PAS Message Template configure the pre-configured announcement messages.
 - Type a name in the Name field and click **Add**.
 - Configure language and message description and click **Apply**.

Alarm and Event List (Alarm Grouping)

To make Public Address System operational, it is necessary to configure Alarm and Event list in 800xA System.

The Alarm and Event Lists are used to group alarms together. They define the list of Alarms and Events being sent as an announcement message. Alarm and Event List are part of the 800xA system and are added to the objects while creating applications. For more information on Alarm and Event configuration, refer to the *System 800xA Configuration (3BDS011222*)* manual.

PAS Configuration Aspect



Users with *Application Engineer* role can only configure **PAS Configuration** aspect.

PAS Configuration aspect is used to configure announcement details for Alarm and Event list aspects on a particular object.

Perform the following steps to create and configure PAS Configuration aspect:

1. Open **Plant Explorer Workplace** and navigate to a desired object.
2. Right-click on an object and select **New Aspect** from the context menu to open the **New Aspect** dialog box.
3. Select the **List Presentation** option, select **PAS Configuration** aspect and then click **Create**.
4. Select the **Enabled** check box to enable configuration for the Channel, and Alarm and Event.
5. In the PAS Configuration aspect configure the following tabs:

Channel Configuration

- a. Click **Add** to add a PAS announcement node.

- b. Select the PAS announcement node from the drop-down list and then click **Apply**.

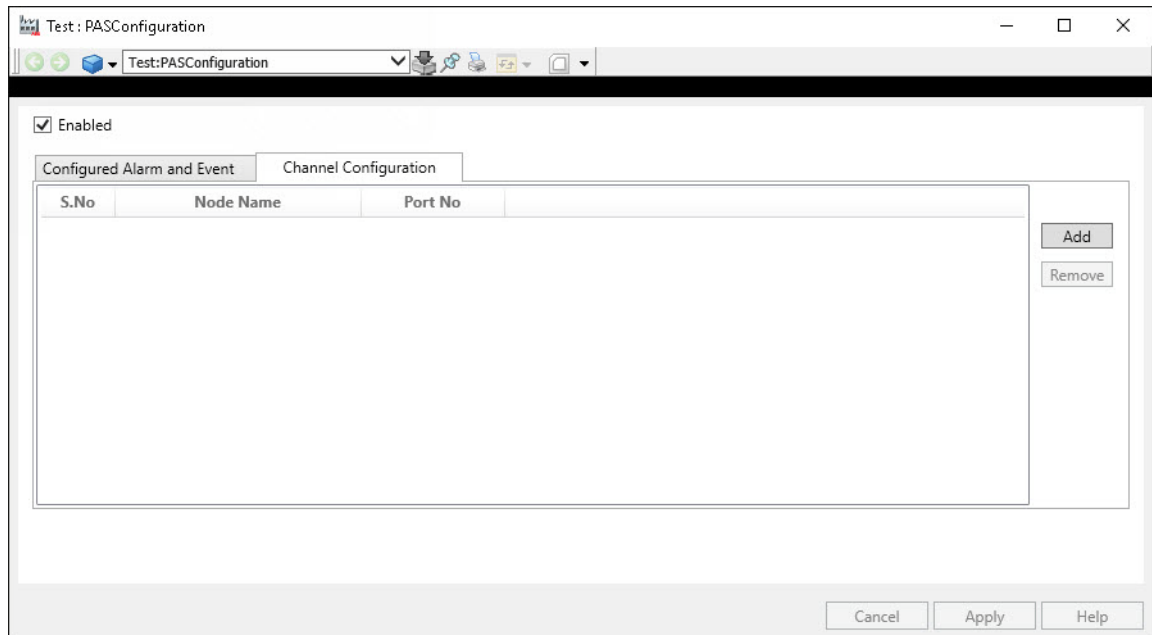


Figure 24. Channel Configuration

Label	Description
Add	Add a PAS Announcement node.
Node Name	Initially all 800xA System nodes are listed in the Drop down box. User can select any one as an announcement node. User can manually type the node to configure non 800xA node as an announcement node.
Port No.	Enter the port no. on which the PAS announcement service is running, by default the number is 2444. The range is between 1 - 9999.

Configured Alarm and Event

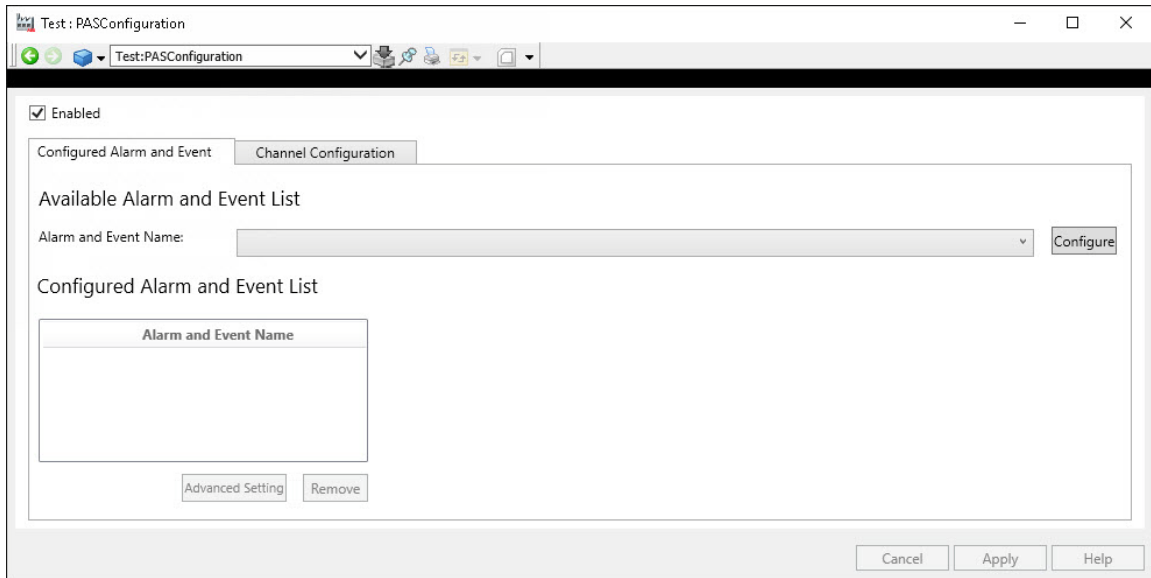


Figure 25. Configured Alarm and Event



Configured Alarm and Events aspect in the selected object will be listed in the **Alarm and Event Name** drop-down list for PAS announcement.

- a. Select the Alarm and Events aspect from the **Alarm and Event Name** drop-down list.
- b. Click **Configure** for selected Alarm and Events aspect to appear in **Configured Alarm and Event List** pane.
- c. Click **Add** to add the languages for the Alarm and Event list along with the message description.

- d. Type a message description in the **Message Description** test box and click **Apply**.

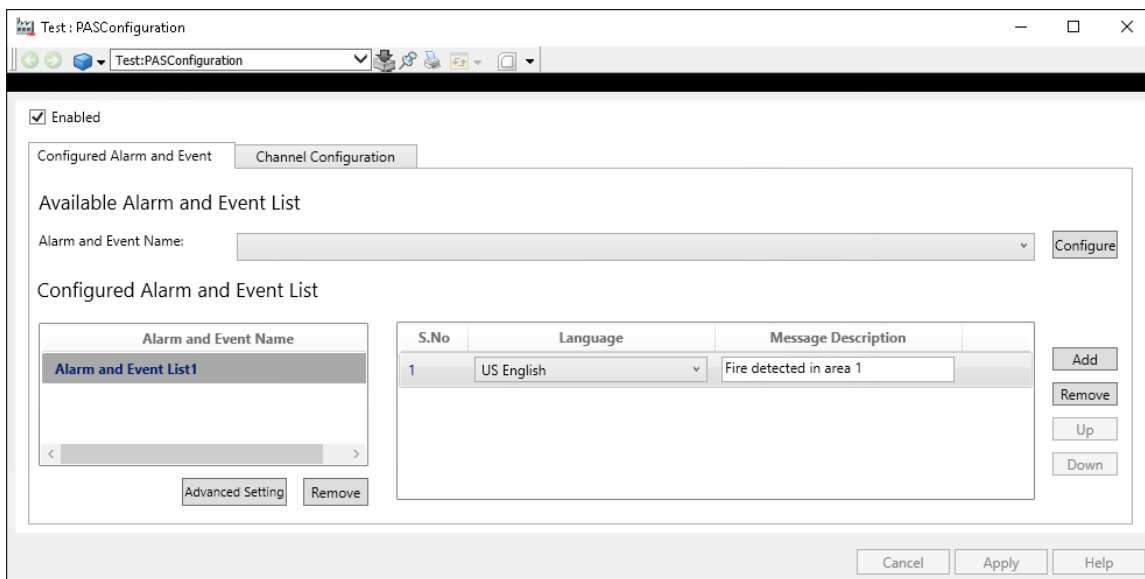


Figure 26. Configured Alarm and Event

Item	Description
Configure	Select an <i>Available Alarm and Event</i> aspect and then click Configure . The Alarm and Events appear in <i>Configured Alarm and Event List</i> pane for configuring language and message description.
Remove	Click Remove to remove the selected Alarm and Event Name.
Add Remove	Click Add to create one or multiple Alarm descriptions in multiple languages. Click Remove to delete a specific language for the selected Alarm and Event Name.
Up	Announcement for the selected language and message description is incrementally prioritized.
Down	Announcement for the selected language and message description is prioritized low.

- e. Click **Advanced Setting** to override Global setting configuration.
- **Advanced Settings:** By enabling Override Global Setting check box the information will not be inherited from PAS Global Setting. The Override Global setting is applicable only in case of automatic mode.

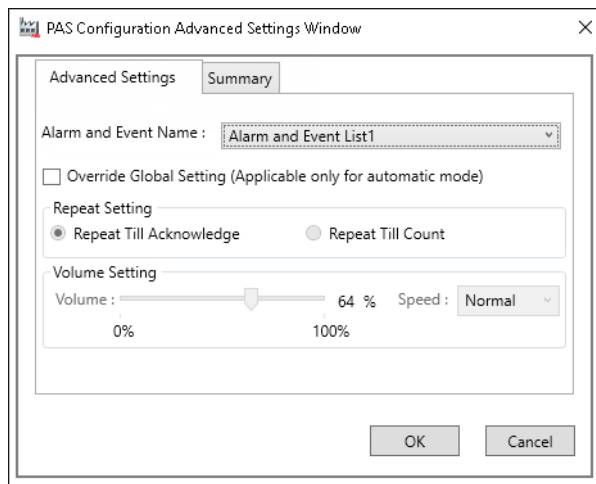


Figure 27. Configured Alarm and Event - Advance Setting

- **Summary:** Provides summary of configured Alarm and Event list including repeat messages and volume in percentage.

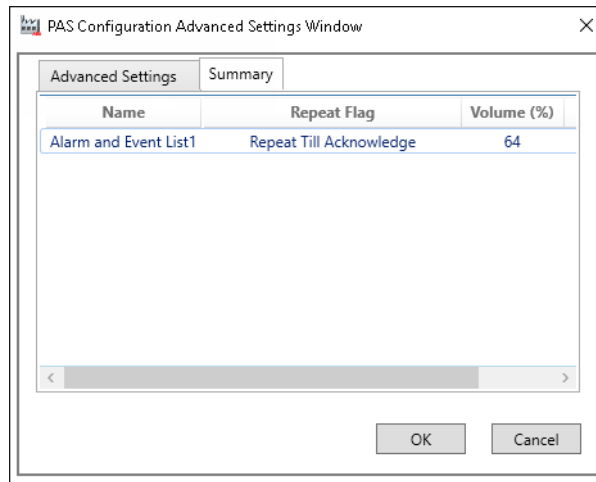


Figure 28. Configured Alarm and Event - Summary

PAS Announcement Aspect

PAS Announcement aspect display the list of announcement, details and their status of Alarm and Event at any point of time. This aspect can be created under any object in plant explorer.

1. Open **Plant Explorer Workplace** and navigate to a desired object.
2. Right-click on an object and select **New Aspect** from the context menu to open the **New Aspect** dialog box.

3. Select the **List Presentation** option, select **PAS Announcement** aspect and then click **Create** to view *PAS Announcement* window.

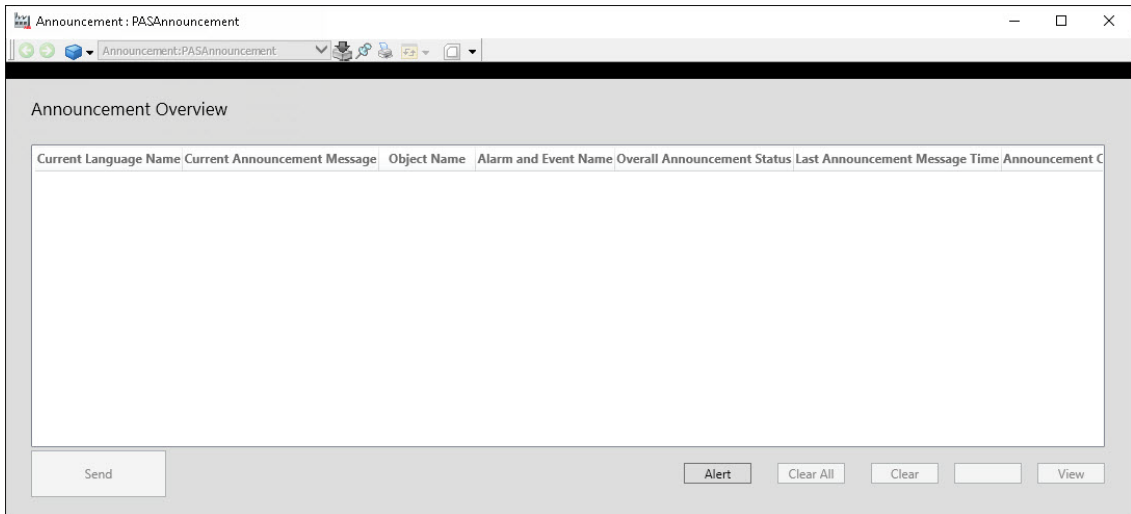



Figure 29. PAS Announcement aspect - Main View

4. Click  to swap the Announcement overview from **Main** view to **Config** view.

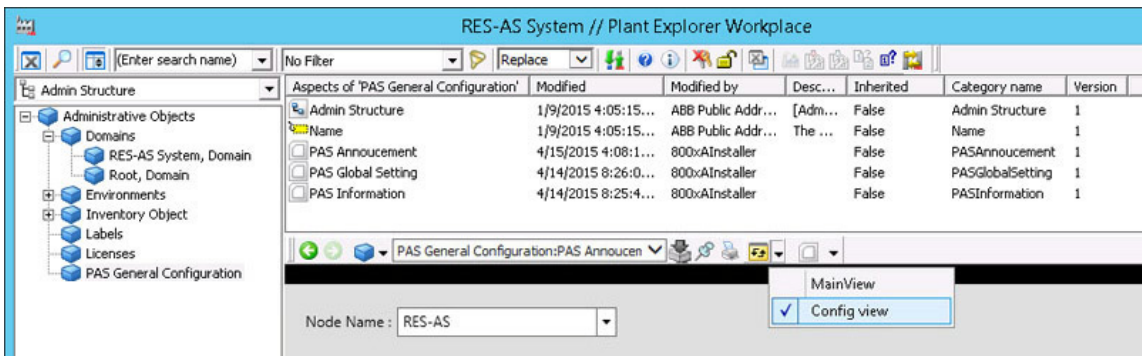


Figure 30. PAS Announcement Aspect - Config View


5. In **Config** view, select the **Announcement Node** and then click **Apply**. Announcement pertaining to this node is only listed in the Announcement overview aspect.



This configuration must be done at least once before viewing the announcement overview aspect for a particular node. This configuration can be modified in case user wants to view announcements from other nodes.

Sound Scheme

In Announcement server node **Sound Scheme** must be configured.

1. Navigate to **Control Panel > Sound** or Right click  from Notification area to open **Sound** properties window. Select **Sound Scheme** as **No sounds** (see [Figure 31](#)).

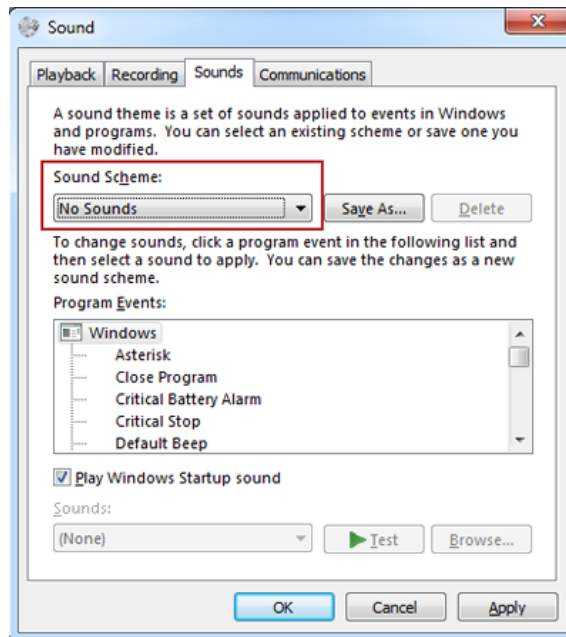


Figure 31. Sound Scheme

Section 3 Typical Plant Configurations

This chapter describes a typical plant configuration using PAS *ABB 800xA Public Address System* in 800xA System.

Configuring Announcement Messages

User can perform PAS configuration based on the announcement message requirement and the plant layout. Following scenarios depicts the different possible ways to configure PAS.

Scenario 1

Announcement Message configuration can be performed in two different ways.

- **Option 1 - One-to-One:** Each signal is configured with different announcement message.
- **Option 2 - Many-to-One:** More than one signal is configured to send announcement message.

Option 1

Each signal to be announced is configured with PAS Configuration aspect containing corresponding announcement message.

In the following example, there are four signals, FD1_FireDetector1, FD2_FireDetector2, GD1_GasDetector1, and GD2_GasDetector2 for which announcement has to be made. As announcement message is different, a separate PAS Configuration Aspect is configured for each signal.

Figure 32 shows signal for Fire Detection (FD1_FireDetector1) with PAS configuration aspect configured for sending its corresponding announcement message **Fire Detected in Zone 1**.

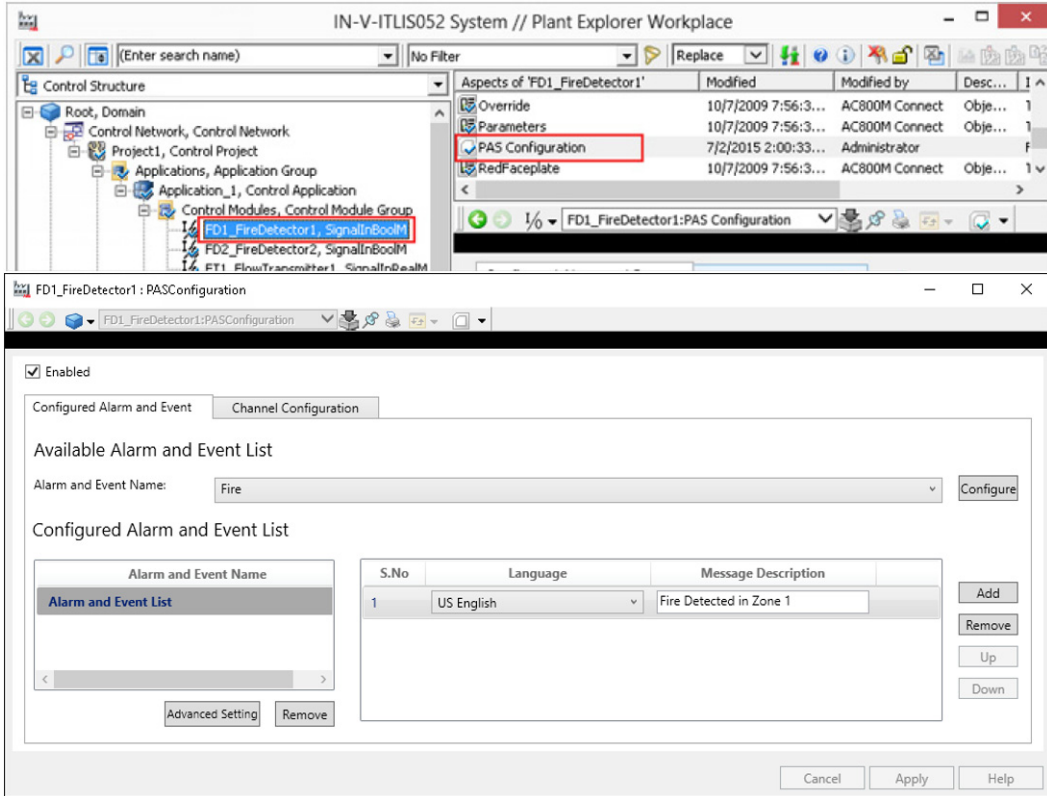


Figure 32. PAS Configuration for signal 1(Fire Detection)

Figure 33 shows signal for Fire Detection (FD2_FireDetector2) with PAS configuration aspect configured for sending its corresponding announcement message **Fire Detected in Zone 2**.

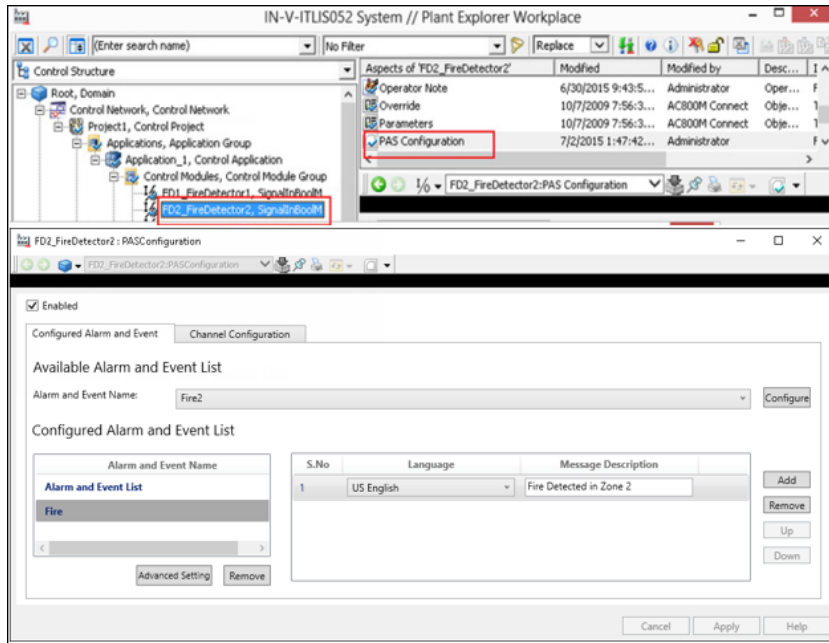


Figure 33. PAS Configuration for signal 2(Fire Detection)

Figure 34 shows signal for Gas Detection (GD1_FireDetector1) with PAS configuration aspect configured for sending its corresponding announcement message **Gas Detected in Zone 1**.

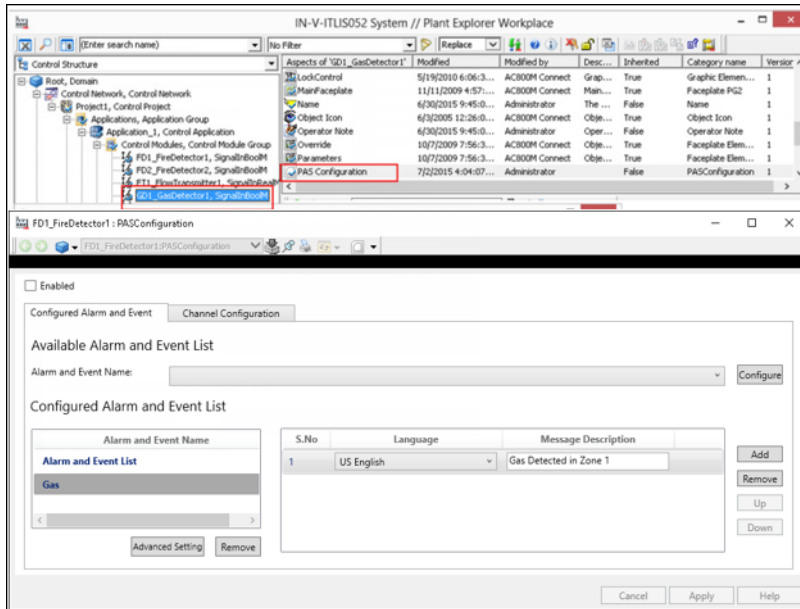


Figure 34. PAS Configuration for signal 1(Gas Detection)

Figure 35 shows signal for Gas Detection (GD2_FireDetector2) with PAS configuration aspect configured for sending its corresponding announcement message **Gas Detected in Zone 2**.

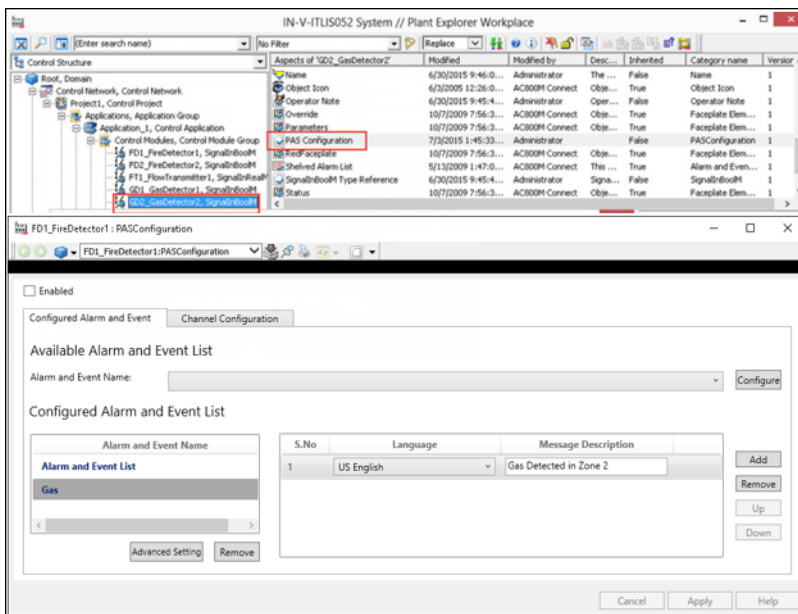


Figure 35. PAS Configuration for signal 2(Gas Detection)

Option 2

Signals to be announced can be grouped and configured with a single PAS Configuration aspect containing an announcement message.

In the following example, the signals, FD1_FireDetector1 and FD2_FireDetector2 are grouped under object **Fire Detectors** (using Insert Object) configured with PAS Configuration aspect containing an announcement message.

Similarly, the signals GD1_GasDetector1 and GD2_GasDetector2 are grouped under object **Gas Detectors** (using Insert Object) configured with PAS Configuration aspect containing an announcement message.



The parent objects (**Fire Detectors** and **Gas Detectors**) needs to be configured with an Alarm List and its filter set to **Object and descendants**.

Figure 36 and Figure 37 shows signals grouped under parent objects where a single PAS configuration aspect is configured.

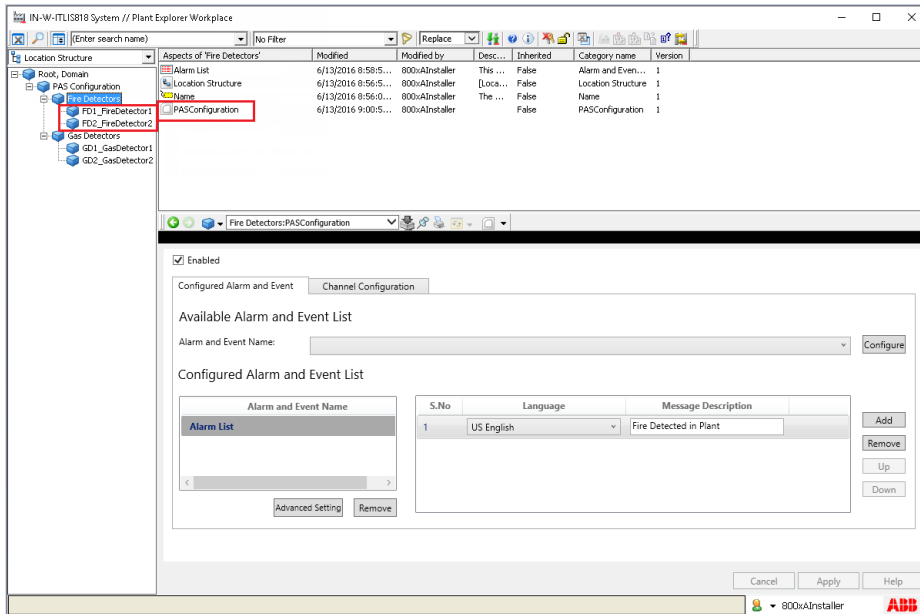


Figure 36. PAS Configuration for Fire Detectors

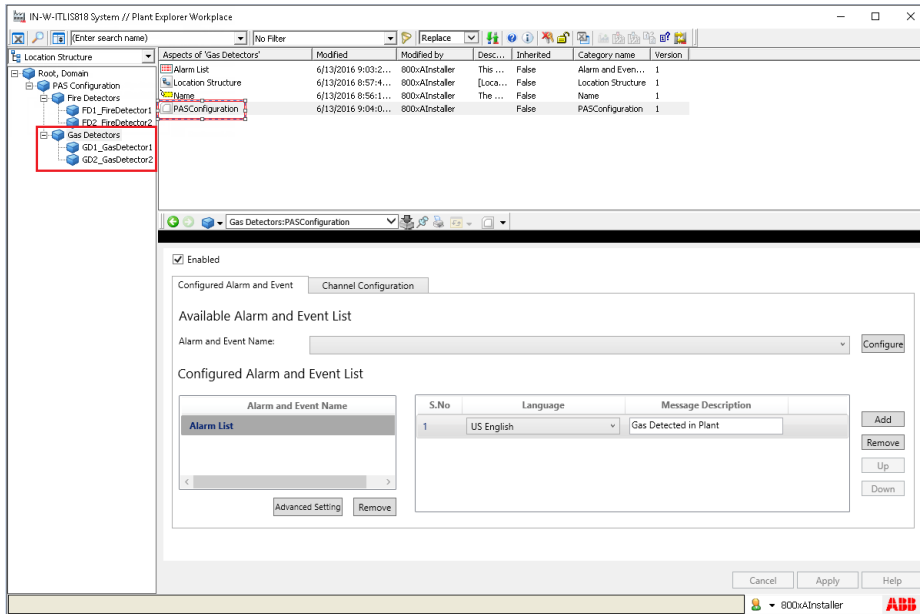


Figure 37. PAS Configuration for Gas Detectors

Scenario 2

Announcement message configured in a PAS Configuration aspect for a signal can be announced through multiple announcement nodes.

Figure 38 shows signal for Fire Detection (FD1_Firedetector1) with PAS configuration aspect configured for sending its corresponding announcement message **Fire Detected in Zone 1** through announcement nodes **Node1** and **Node2**.

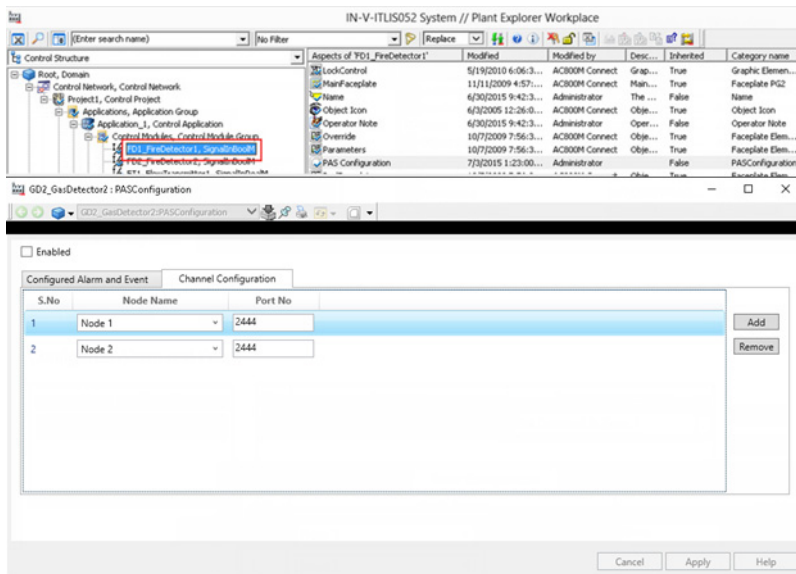


Figure 38. Multiple Node configuration - Announcement message

Scenario 3

Announcement message configured in a PAS Configuration aspect for a signal can be announced through a dedicated announcement node.

Figure 39 shows signal for Fire Detection (Application_1\FD_Firedetector) with PAS configuration aspect configured for sending its corresponding announcement message **Fire Detected in Area 1** through announcement node **Node1** pertaining to a plant area.

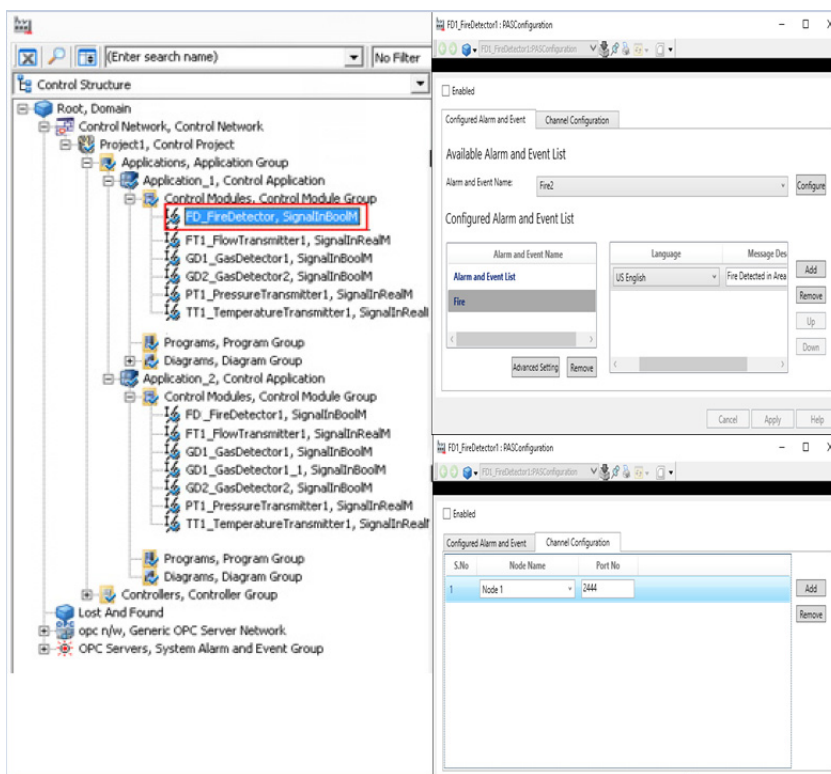


Figure 39. Announcement message to Node 1, Area 1

Figure 40 shows signal for Fire Detection (Application_2\FD1_FireDetector1) with PAS configuration aspect configured for sending its corresponding announcement message **Fire Detected in Area 2** through announcement node **Node2** pertaining to another plant area.

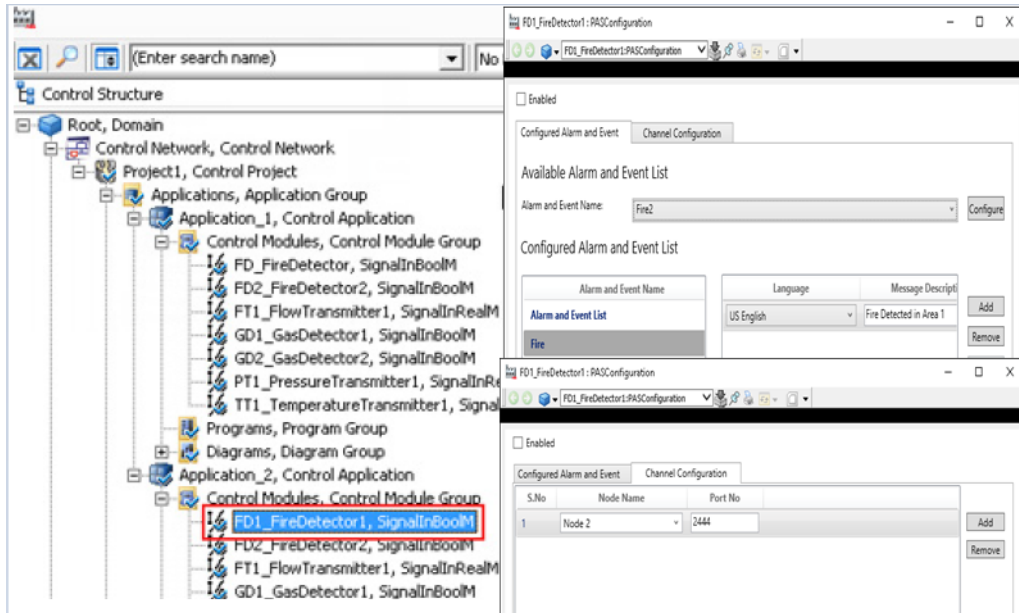


Figure 40. Announcement message to Node 2, Area 1

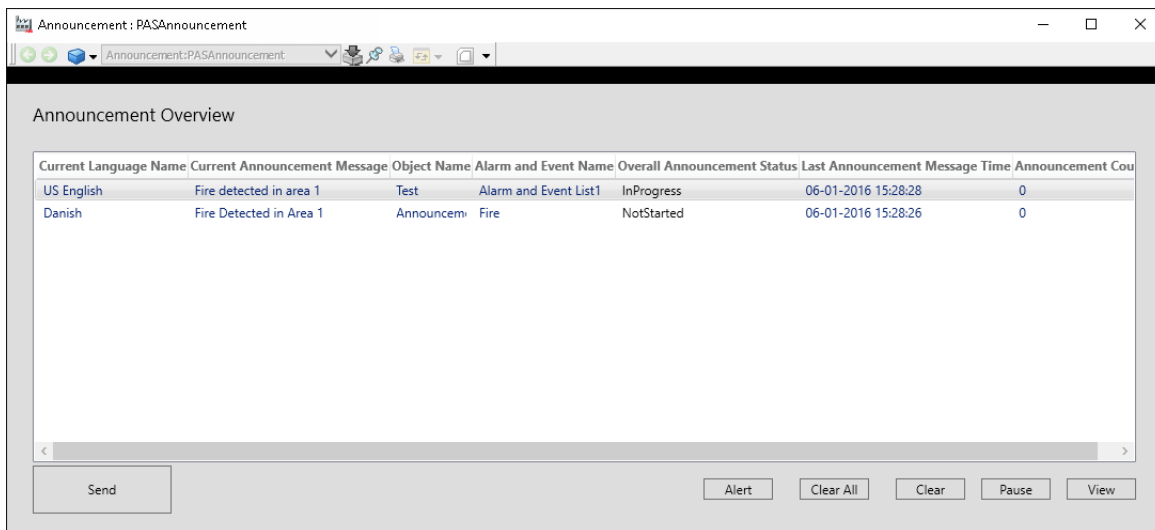
Section 4 Runtime Operations

This section describes the run time operations of *ABB 800xA Public Address System* in 800xA System.

Announcement Overview

PAS Announcement aspect displays the list of announcements, details and their status of Alarm and Event at any point of time. The PAS Announcement makes it possible to send announcement.

Generate an Alarm and verify that the announcement is made on your speakers.



The screenshot shows a software window titled "Announcement: PASAnnouncement". The main content area is titled "Announcement Overview" and contains a table with the following data:

Current Language Name	Current Announcement Message	Object Name	Alarm and Event Name	Overall Announcement Status	Last Announcement Message Time	Announcement Cou
US English	Fire detected in area 1	Test	Alarm and Event List1	InProgress	06-01-2016 15:28:28	0
Danish	Fire Detected in Area 1	Announcem	Fire	NotStarted	06-01-2016 15:28:26	0

Below the table, there is a "Send" button on the left and a row of five buttons on the right: "Alert", "Clear All", "Clear", "Pause", and "View".

Figure 41. PAS Announcement Aspect Overview

Label	Description
Send	Send the selected message from the list of the announcement.
Clear All	Clears all the messages from the list view. This can be configured with PG2 Verb Invokers and Hot Keys.
Clear	Clear the selected message from the list. This can be configured with PG2 Verb Invokers and Hot Keys.
Pause	<p>The selected message is paused from sending to public address system. When a selected message is paused, the message is skipped from making an announcement and the overall status message is pause.</p> <p>Note: In an Automatic mode if overall status message is completed, then the announcement message will be skipped.</p> <p>User cannot pause a message that is in progress (ongoing announcement). That particular message is paused only after the announcement is completed.</p>
View	Click View to see the ongoing announcement in multiple languages (see Figure 42) and the status of the remaining announcements in the PAS Announcement detailed info view.
Alert	Click Alert to send Alert message announcement in the system. Refer to Alert Message Announcement on page 57 for more information.

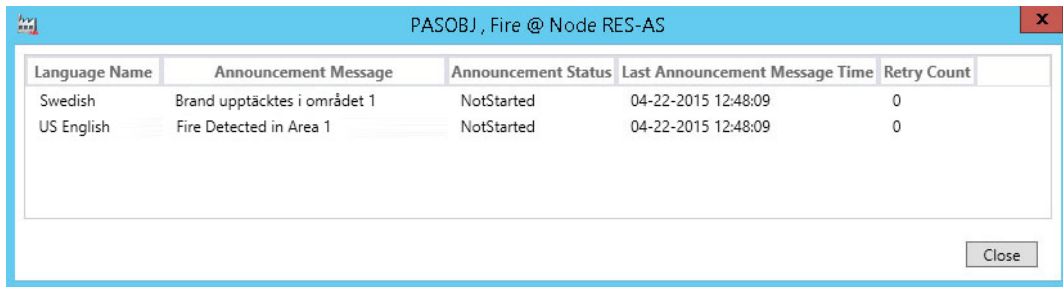


Figure 42. PAS Announcement detailed Info view

In case of the PAS Connectivity Server failure, you will see a red border across the PAS Announcement Overview aspect (see [Figure 43](#)).

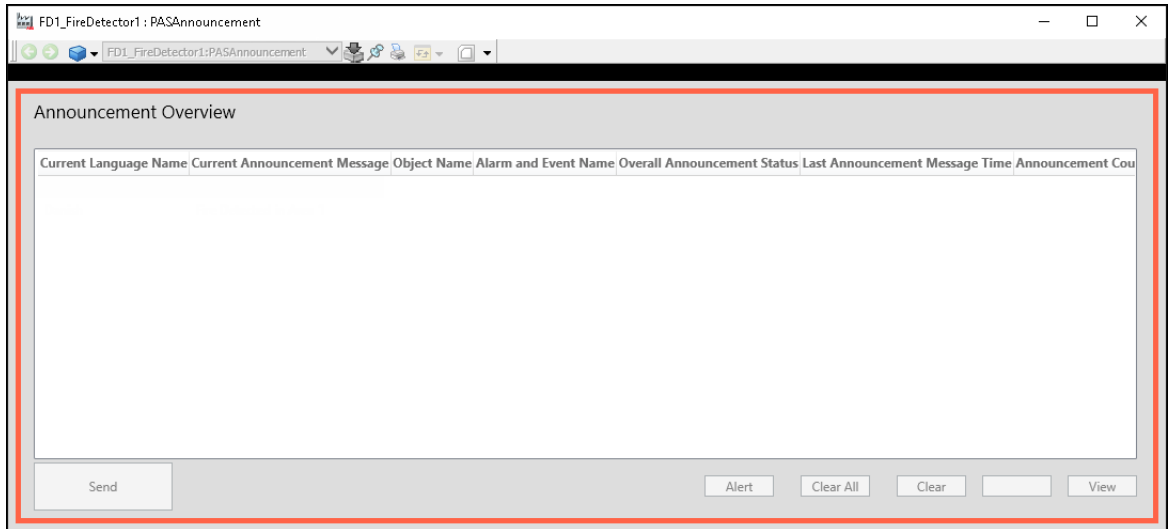


Figure 43. PAS Announcement Overview aspect - Connectivity Server Failure

Alert Message Announcement

The Alert Message feature gives the PAS Operator the ability to create a new announcement message and announce it on demand. The PAS Operator can either enter a new message or select from a predefined message template. The announcement of the newly created message can be done in the following way.

Table 2. PAS Announcement Modes

	Announcement Mode	
Announcement Type	Manual	Automatic
Alert Announcement	Announcement happens immediately. Any ongoing announcements shall be stopped.	Announcement happens immediately. Any ongoing announcements shall be paused.
Non-Alert Announcement	Announcement shall be added to the announcement queue. For announcing the message, the Operator needs to select the message in queue and click 'Send'	Announcement shall be added to the announcement queue. The message shall be announced automatically

Click **Alert** option in the PAS Announcement aspect to open **Alert Message Window**.

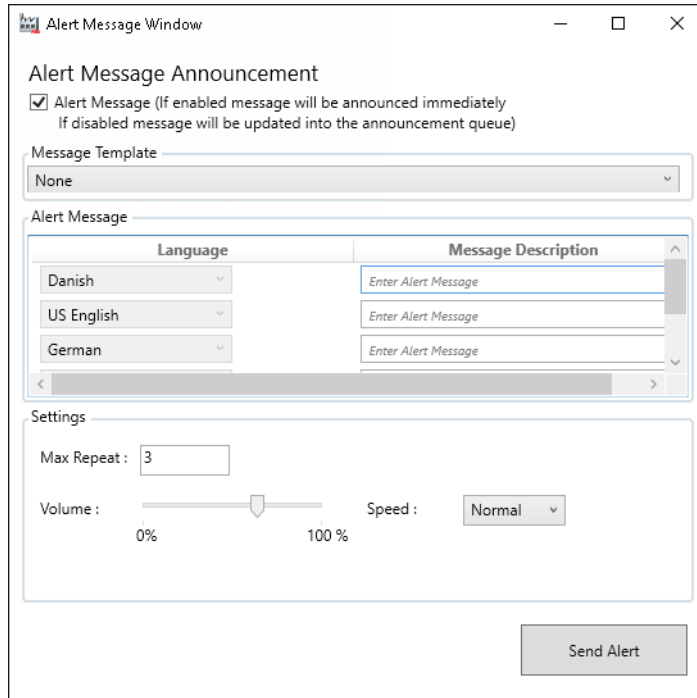


Figure 44. Alert Message Announcement aspect

Section	Description
Message Template	Select the PAS Message Template aspect to use the pre-configured announcement messages. These pre-configured messages can be reused as ad-hoc announcements.
Alert Message	Alert Message section gives the PAS Operator the ability to create a new announcement message. Enter a new message description with preferred languages to send Alert message announcements.
Settings	The maximum number of times the alert has to repeat. After successful completion of the announcement, if the announcement is resent, then announcement will repeat based on the repeat count provided. The volume and speed at which the announcement has to be made.
Send Alert	Click to send an alert announcement message.

PAS Announcement Status

The state diagram (see Figure 45) shows different announcement status displayed, before an announcement message is made to the public address system.

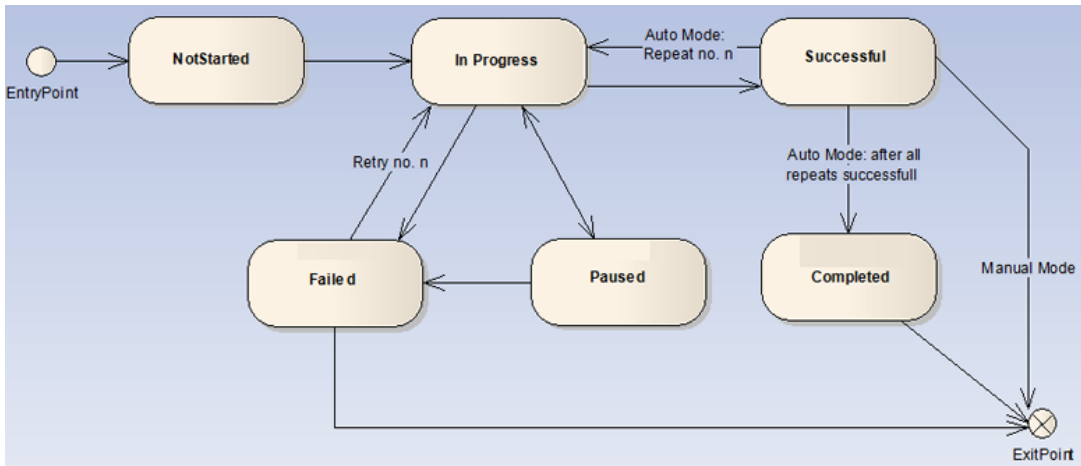


Figure 45. A Typical State Diagram showing Announcement Status

Announcement State	Description
Not Started	This is the initial state of the announcement
In Progress	<p>The announcement moves from “Not Started” to “In Progress” when announcement is initiated. In auto mode, the announcement is initiated automatically while in manual mode it is initiated by clicking the Send button.</p> <p>From this state, the announcement can move to various different states:</p> <ul style="list-style-type: none"> • If announcement is successfully done, the state changes to “Successful”. • If announcement fails due to some reason, the State changes to the “Failed” state. • If a Pause button is clicked, the announcement changes to the “Paused” State.

Announcement State	Description
Successful	<p>From this state, the announcement can move to various different states:</p> <ul style="list-style-type: none">• In automatic mode the announcement repeats n times where the n is the specified number of repeat count where as in manual mode the announcement can be repeated by clicking on the Send button. In case of Repeat the announcement moves to “In Progress”.• When the Specified number of Repeats are successfully done in the automatic mode, the announcement moves to the “Completed” State.• Successful is the logical end of the announcement state in case of the Manual mode.
Failed	<p>In this state, announcement can be retried in automatic mode, whereas in manual mode, announcement can be sent again. In both the cases, the state may move to the “In Progress”.</p>
Paused	<p>In this state, an announcement can be activated using the Active button. If activated, In automatic mode the announcement goes to the “In Progress” automatically if the number of repeats are not done yet, where as in manual mode if the Send button is clicked the announcement moves to the “In Progress”.</p>
Completed	<p>This state is the logical end of the announcement state in Automatic mode.</p>

Section 5 System Health Monitoring

This section provides health monitoring information of the Public Address System.

PAS Channel Mapping Aspect

PAS Channel Mapping aspect is used to monitor the health and provide status of the announcement server.

Perform the following steps to configure PAS Channel Mapping aspect in the Admin Structure:

1. Open **Plant Explorer Workplace** and navigate to **Admin Structure**.
2. Use the object browser to navigate to:
Administrative Objects > PAS General Configuration
3. Select **PAS Channel Mapping** aspect in the Aspect List Area.
4. In the Preview Area, set the **Value** property to the Announcement Server node(s) name.

Name	Value	Type	Description	Readable?	R/Permission	Writable?	W/Permission	Deploy Scheme
Channel1	IN-W-ITLIS81	String		Yes		Yes		Always Repla
Channel2		String		Yes		Yes		Always Repla
Channel3		String		Yes		Yes		Always Repla
Channel4		String		Yes		Yes		Always Repla
Channel5		String		Yes		Yes		Always Repla
Channel6		String		Yes		Yes		Always Repla
Channel7		String		Yes		Yes		Always Repla
Channel8		String		Yes		Yes		Always Repla
Channel9		String		Yes		Yes		Always Repla
Channel10		String		Yes		Yes		Always Repla
Channel11		String		Yes		Yes		Always Repla
Channel12		String		Yes		Yes		Always Repla
Channel13		String		Yes		Yes		Always Repla
Channel14		String		Yes		Yes		Always Repla
Channel15		String		Yes		Yes		Always Repla
Channel16		String		Yes		Yes		Always Repla
Channel17		String		Yes		Yes		Always Repla
Channel18		String		Yes		Yes		Always Repla
Channel19		String		Yes		Yes		Always Repla
Channel20		String		Yes		Yes		Always Repla

Figure 46. PAS Channel Mapping aspect

Perform the following steps to view the status of the configured channels:

1. Open **Plant Explorer Workplace** and navigate to **Service Structure**.
2. Use the object browser to navigate to:
Services > PAS_Manager_Service, Service > PAS Service Group > PAS Service Provider > PAS_Manager_Service, Service Status Object
3. Select **Service Provider Status** aspect in the Aspect List Area.
4. In the Preview Area, set the **Property View** tab and subscribe to the live data.

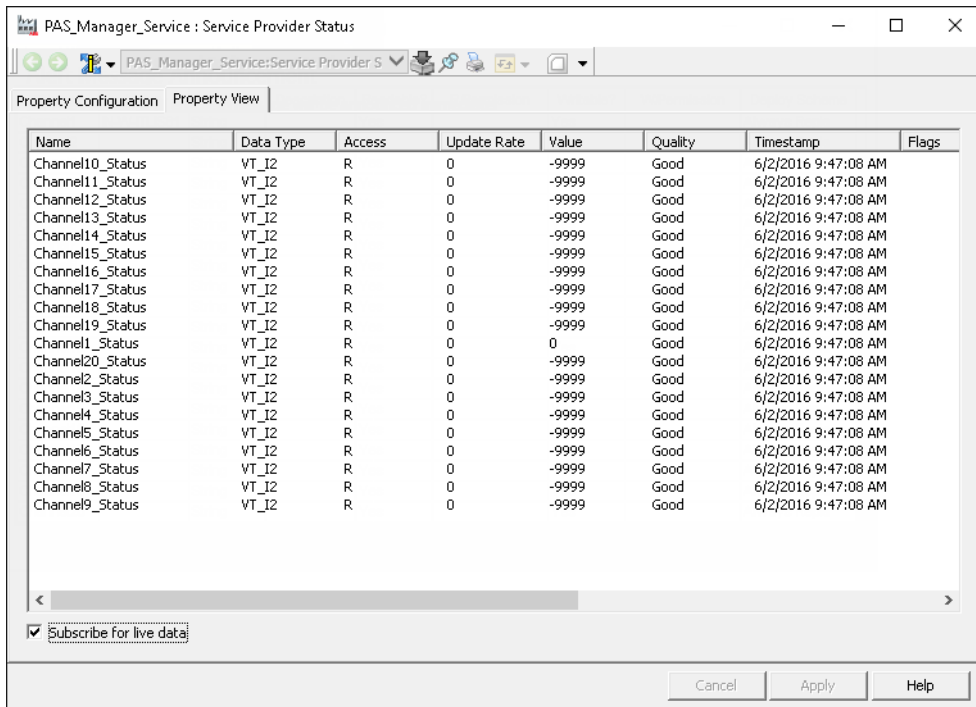


Figure 47. Service Provider Status aspect



Channel Status properties can be configured with Graphics, Alarms, Logs and Trends.

Property Value provides status for each configured channels. Following are the available status.

Value	Status Description
0	No error/ Announcement Succeed
1	The processing was not done
2	The processing was not fully processed
3	No more data error

Value	Status Description
4	Service communication error
5	Service fault error
6	Unknown error
-1	No memory
-2	Memory Free Error
-3	Playing Error
-4	Speak Error
-5	Can't write to the output device or channel is open
-6	Can't open the output device
-7	Generic unhandled error
-8	Registry Error
-9	The required registry keys are not valid / do not exist
-10	A parameter/argument is not valid
-11	Thread Read Error
-12	Invalid Object
-13	Invalid Tag Error
-14	File Write Error
-15	File Open Error
-16	Bad Phoneme
-17	Dictionary Open Error
-18	Dictionary Write Error
-19	Dictionary Read Error
-20	Dictionary No Entry
-21	Not Implemented

Value	Status Description
-22	No Data File
-23	No Dictionary
-24	Not Valid License
-25	Lib Not Initialized
-26	Bad Version

Revision History

The following table lists the revision history of this User Manual.

Revision Index	Description	Date
-	First version published for 800xA 6.0	October 2015
A	Updated for 800xA 6.0.3	September 2016

Updates in Revision Index A

The following table shows the updates made in this User Manual for 800xA 6.0.3.

Updated Section/Sub-section	Description of Update
Section 2 Installation and Configuration	Added: <ul style="list-style-type: none">PAS Announcement PermissionSend Announcement PermissionPAS Message Template Aspect Updated: <ul style="list-style-type: none">PAS Information AspectPAS Global Setting AspectPAS Configuration AspectPAS Announcement Aspect
Section 4 Runtime Operations	Added: <ul style="list-style-type: none">Alert Message Announcement

Updated Section/Sub-section	Description of Update
Appendix A Diagnostic Information	Added: <ul style="list-style-type: none"><li data-bbox="627 321 1040 351">• PAS Channel Mapping Aspect Renamed this section as Section 5 System Health Monitoring
Appendix B Manual Installation	Removed

Index

A

ABB 800xA Public Address System 13

C

Configure Message Description 66

Configured Alarm and Event 65

D

Deployment diagram 13

L

Language Voice Settings 60

N

Node Based Installations 22

Node Name 68

O

Order of Installation 21

P

PAS Announcement aspect 69

PAS Configuration aspect 62

PAS Global Setting 57

PAS Service 45

Port No 68

S

System and Hardware Settings 59

A

ABB 800xA Public Address System 7

C

Configure Message Description 38

Configured Alarm and Event 38

L

Language Voice Settings 32

N

Node Name 37

P

PAS Announcement aspect 41

PAS Service 12

Port No 37

S

System and Hardware Settings 30

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2PAA114295-600 A

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