Review Document
Document version: 1.0 – 2015-12-02

INTERNAL

SAP Networked Logistics Hub 1.0

Document History

> **Caution**
> Before you start the implementation, make sure you have the latest version of this document. You can find the latest version at the following location:xxx /xxx

The following table provides an overview of the most important document changes.

Table 1

Version	Date	Description
0.1	2015-12-02	Preliminary Version

Content

1 SAP Networked Logistics Hub 1.0

2 SAP Networked Logistics Hub - Overview

The SAP Networked Logistics Hub is a solution that helps to increase goods or container volume at a logistics hub (for example, seaport, airport, large production site, or warehouse) by ensuring congestion-free traffic on roads leading to the hub. It helps to track planned or unplanned traffic incidents. The application is notified of possible incidents by integration of automation systems at the production site. In addition, the application receives the traffic information from the traffic message channel (TMC).

The truck drivers must be notified about the traffic incidents in advance so that the driver can take an alternate route or decide to park the truck in a parking space and travel later. For certain traffic incidents that occur at a source location or within a particular geofence, rules are set up in the system to notify drivers within a certain targeted distance from the source location.

The solution helps carrier companies to participate in a business network, by tracking the movement of trucks. The business network can manage the truck tours, which capture data of stops and goods to be picked or dropped at the stops. This tour data can be manually created or imported through integration from a typical management system.

The tour can be assigned to trucks and the driver can post events into the system about the progress of tour completion through their mobile application or onboard device. The mobile application or onboard device integration is provided by the T-Systems connected car platform.

In addition, the dispatcher can interact with the driver by exchanging messages.

A parking company can participate in the business network. The parking company or logistic hub, which owns the parking spaces can publish the availability of parking spaces, and send messages advertising offers to the drivers. Such messages can be targeted at trucks travelling within a specific distance from the spaces being advertised. The solution helps truck drivers locate an appropriate vacant parking space.

An organization participating in the business network can invite other organizations to share trucks. They can also invite additional users within their organization in different roles. For more information, see SAP Networked Logistics Hub - User Roles [page 12]. The SAP Networked Logistics Hub thereby provides the way to efficiently manage port logistics.

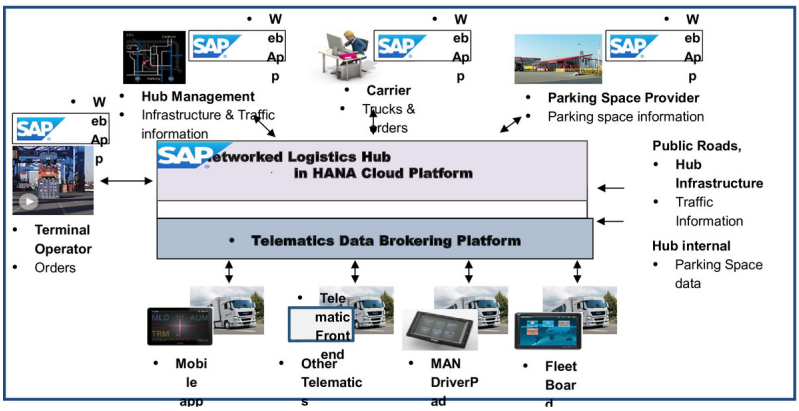


Figure 1

The SAP Networked Logistics Hub solution comprises the following applications:

- **Traffic Status** – A central application to monitor, track, and communicate with trucks and business partners. This application also helps in providing automatic updates about incidents to the trucks. For more information, see Monitor Traffic and Communicate with Trucks [page 29].
- **Incidents** – Enables the Hub manager to maintain data of incidents that are related to the hub. For more information, see Manage Incidents Data [page 46].
- **Users** – Register users within the SAP Networked Logistics Hub. For more information, see Add Users [page 52].
- **Business Partners** - Helps maintain a network of business partner for collaboration and communication. For more information, see Maintain Business Partners [page 36].
- **Trucks** – Set up trucks and associate mobile or onboard devices. Also helps carrier companies to maintain relevant information of their trucks. For more information, see Manage Trucks and Share with Business Partners [page 48].
- **Tours** – Create basic tour data that are communicated to the truck drivers for completion. The tour data is sent to the device in truck. For more information, see Manage Tours [page 39].

> **Note**
>
> The applications are accessible only if the SAP Networked Logistics Hub user is assigned the privilege to view or work using them. For instance, a Hub manager cannot work with the *Tours* application and therefore cannot view it on his launchpad. A dispatcher does not have access to the *Incidents* application.

The individual roles and access credentials for each application is given below:

Table 2

Roles / Application	Traffic Status	Business Partners	Incidents	Trucks	Tours	Users	Help
Administrator at Hub	Yes	Yes	Yes	No	No	Yes	Yes
Hub Manager	Yes	Yes	Yes	No	No	Yes	Yes
Administrator at Carrier	Yes	Yes	No	Yes	Yes	Yes	Yes
Dispatcher	Yes	Yes	No	Yes	Yes	Yes	Yes
Parking Space Administrator	Yes	Yes	No	No	No	Yes	Yes
Container Terminal Administrator /Depot	Yes	Yes	No	No	No	Yes	Yes

For more information about user roles, see SAP Networked Logistics Hub - User Roles [page 12].

Subscriptions

You can register a company with SAP or Hub as owner. The owners have defined subscription products. An administrator is provided an option to register a carrier company as a basic or premium user, at the time of registration. When a company is registered with SAP as owner, the company can select any of the defined subscription products. The administrator can change the subscription from basic to premium or the reverse.

Using the options in the *Subscription Name* dropdown in the *Company Profile* page, the administrator can switch the subscription from basic to premium or the reverse.

> **Note**
>
> By default, the subscription package for the container terminal and parking space administrator is *Premium*.

Table 3

		Administrator at Carrier		Dispatcher	
Application	**Action**	**Basic**	**Premium**	**Basic**	**Premium**
Traffic Status	Add geofence	No	Yes	No	Yes
	Manage geofence	No	Yes	No	Yes
	View parking space availability	Yes	Yes	Yes	Yes
	Send messages to geofences	No	Yes	No	Yes
	Send/receive messages to specific trucks	Yes	Yes	Yes	Yes
	Send messages to other carriers, parking operators	No	Yes	No	Yes
	Send messages to hub	Yes	Yes	Yes	Yes
	Send messages to drivers	Yes	Yes	Yes	Yes
	Receive hub messages	Yes	Yes	Yes	Yes
	Receive traffic messages	Yes	Yes	Yes	Yes
	Receive messages from driver	Yes	Yes	Yes	Yes
	Receive tour messages	Yes	Yes	Yes	Yes
	Receive messages from other business partners	No	Yes	No	Yes
	Search for geofences, point of interest, incidents, trucks, drivers, tours	Yes	Yes	Yes	Yes

	Search for entities	Yes	Yes	Yes	Yes
	Create and edit radar geofence	No	Yes	No	Yes
	View radar geofence	Yes	Yes	Yes	Yes
Users	Invite dispatcher or another administrator in your organization	Yes	Yes	No	No
	Add drivers	Yes	Yes	Yes	Yes
Business Partners	Invite other carriers to SAP Networked Logistics Hub	No	Yes	No	No
	Invite other parking space providers to SAP Networked Logistics Hub	No	Yes	No	No
	Search for business partners, users	Yes	Yes	No	Yes
	Maintain external ID	Yes	Yes	Yes	Yes
Trucks	Assign devices to trucks	Yes	Yes	Yes	Yes
	Deactivate trucks/ devices	Yes	Yes	Yes	Yes
	Reactivate trucks/ devices	Yes	Yes	Yes	Yes
	Deregister trucks/ devices	Yes	Yes	Yes	Yes
	Create/manage trucks	Yes	Yes	Yes	Yes
	Filter/group trucks	Yes	Yes	Yes	Yes
	Share trucks	No	Yes	No	Yes
Tours	Create/Manage tours	Yes	Yes	Yes	Yes

	Monitor tour status	Yes	Yes	Yes	Yes
	Maintain/stop order ID	Yes	Yes	Yes	Yes
Company Profile	Maintain company profile	Yes	Yes	No	No
	Maintain wallet from company profile	Yes	Yes	No	No
	View and edit usage log	Yes	Yes	No	No
User Profile & Settings	Maintain plan effectiveness threshold	Yes	Yes	Yes	Yes

Related Information:

- Register with SAP Networked Logistics Hub [page 25]
- Launch Applications [page 26]

3 Prerequisite

This information helps you to use SAP Networked Logistics Hub (SNLH):

- To launch the *Traffic Status* application in Internet Explorer (IE) 11, you need to enable the following settings in the *Internet options* in Microsoft IE:

1. Navigate to *Internet Options* > *Security* > *Custom Level*
2. Enable the following options:
   - Access data sources across domains
   - Display mixed content
3. Click the *Trusted Site* tab
4. Click *Sites*
5. Add the following sites:
   - //*.hana.ondemand.com
   - //otile1.mqcdn.com
   - //otile2.mqcdn.com
   - //otile3.mqcdn.com
   - //otile4.mqcdn.com
6. The above settings will enable the browser to:
   - Accept resources coming from http protocol in the https environment
   - Accept the above mentioned tile domains as trusted sites

- The recommended resolution for the optimal usage of the application is 1280/800.

4 SAP Networked Logistics Hub - User Roles

The SAP Networked Logistics Hub allows the following personas to perform different actions:

- **Hub Manager**: Responsible for traffic related activities; uses the *Traffic Status* application to send messages to trucks; send/receive messages to carriers and parking operators, geofences, and specific trucks; monitor tour status and movement of trucks; search geofences, point of interest, incident occurrence on map, business partners, users, and incidents
- **Administrator at Hub**: Administrator and point of contact of the hub; maintain company profile; invite Hub manager to SAP Networked Logistics Hub
- **Administrator at Carrier**: Works for the carrier company; monitor trucks registered with warehouse and send messages to truck drivers; maintain company profile; create/manage geofences; monitor tour status; send and receive messages to specific trucks, other carriers, parking operators, hub, and geofences; maintain wallet from company profile; monitor tour status and truck movements
- **Dispatcher**: Responsible for dispatching trucks and order management; manages account, devices, vehicles; assigns telematics devices to trucks and book services for different trucks; maintain company profile; monitor truck movement; send and receive messages from truck drivers; view parking space and container terminal availability
- **Parking Space Administrator**: Create and maintain parking space; invite carriers, parking providers, and container terminals to SAP Networked Logistics Hub; maintain company profile; receive and filter messages; create and manage one's own geofences; view parking space
- **Container Terminal Administrator/Depot**: Create and maintain container terminal and container depots, private geofences, and private display areas; invite other container terminal administrator roles to SAP Networked Logistics Hub; connect with more than one hub; deregister own company; interact with hub and other connected business partners

The roles and actions that they can perform using each application is given below:

Administrator at Hub

Table 4

Company Profile page	
Edit	Yes
View	

Table 5

Traffic Status		
Entity	**Action**	**Authorization**
Geofence	Edit	Yes
	View	
	Make public	
	View public geofences	

	Create display area	
Bridge	Edit	Yes
	View	
Parking Space	Edit	Yes
	View	
	Set availability	
Container Terminal/Depot	Edit	Yes
	View	
	Set availability	
Messages send to	Other business partners	Yes
	Trucks	
	Copy incident template	
	Geofences	

Table 6

Feed		
Entity	**Action**	**Authorization**
Receive messages from	Administrator	No
	Users	
	Other business partners	Yes
	Hub	No
Port Road Management System (PRMS) incidents	Get notified	Yes
	View incident on map	
	Track on map	
Public Traffic incidents	Get notified	Yes
	View icons on map	

Table 7

Incidents		
Entity	**Action**	**Authorization**
Incident Master Data	Edit	Yes
	View on geofences	
	Display incident	
	Assign location	
	Assign geofences	

	View details of geofence	

Table 8

Business Partners		
Parking Operator	Invite	No
	View	Yes
Carrier	Invite	No
	View	Yes
Container Terminal Administrator/ Depot	Invite	No
	View	Yes

Table 9

Users		
Administrator at Hub	Edit	Yes
	Register on behalf	
	View	
Hub Manager	Invite	Yes
	View	
	Edit	

Hub Manager

Table 10

Company Profile	
Edit	No
View	Yes

Table 11

Traffic Status		
Geofence	Edit	Yes
	View	
	Make Public	
	View public geofences	
	Create display area	
	Create radar geofence	No
Point of Interests	Edit	Yes
	View	
Parking Space	Edit	Yes

	View	
	Set availability	
Container Terminal/Depot	Edit	Yes
	View	
	Set availability	
Messages send to	Other business partners	Yes
	Trucks	
	Copy incident template	
	Geofences	

Table 12

Feed		
Entity	**Action**	**Authorization**
Receive messages from	Administrator	No
	Users	
	Other business partners	Yes
	Hub	
Port Road Management System (PRMS) incidents	Get notified	Yes
	View incident on map	
Public Traffic incidents	Get notified	Yes
	View icons on map	

Table 13

Incidents		
Entity	**Action**	**Authorization**
Incident Master Data	Edit	Yes
	View geofences	
	Display incident	
	Assign location	
	Assign geofences	

Table 14

Business Partner		
	Invite	No
	View	Yes

Table 15

Users		
	Invite	No
	View	Yes

Administrator at Carrier

Table 16

Company Profile page	
Edit	Yes
View	
Connect with other hub	

Table 17

Traffic Status		
Entity	**Operation**	**Authorization**
Geofence	Edit	Yes
	View	
	Make Public	No
	View public geofences	Yes
	Create display area	
	Create radar geofence	
Bridge	Edit	No
	View	Yes
Parking Space	Edit	No
	View	Yes
	Set availability	No
Container Terminal/Depot	Edit	No
	View	Yes
	Set availability	No

Table 18

Feed		
Entity	**Action**	**Authorization**
Receive messages from	Administrator	No
	Users	
	Other business partners	Yes

Port Road Management Systems (PRMS) incidents	Get notified	Yes
	View incident on map	
Public Traffic incidents	Get notified	Yes
	View icons on map	
Tours/Order Estimated Time of Arrival (ETA)	View	Yes
Trucks	Get notified	Yes
	View truck on map	
	See truck details	
Shared trucks	Get notified	Yes
	View truck on map	

Table 19

Trucks	
Edit	Yes
View	
Deactivate/Deregister	
Reactivate	
Share	

Table 20

Tours	
Edit	Yes
View	
Accept	
Mark as Completed	
Dispatch	
Maintain plan effectiveness threshold	

Table 21

Users		
Administrator at Carrier	View	Yes
	Edit	
	Invite	
	Change role	
Dispatcher	View	Yes

	Edit	
	Invite	
	Change role	
Driver	View	Yes
	Edit	
	Invite	
	Change role	No

Dispatcher

Table 22

Company Profile	
Edit	No
View	Yes
Connect with other hub	No

Table 23

Traffic Status		
Entity	**Action**	**Authorization**
Geofence	Edit	Yes
	View	
	Make public	No
	View public geofences	Yes
	Create radar geofence	
	Create display area	
Bridge	Edit	No
	View	Yes
Parking space	Edit	No
	View	Yes
	View availability	
Container Terminal/Depot	Edit	No
	View	Yes
	View availability	
Messages send to	Other business partners	Yes
	Trucks	Yes
	Shared trucks	

	Copy incident template	No
	Geofences	Yes
	Hub administrator, Hub manager	

Table 24

Feed		
Entity	**Action**	**Authorization**
Receive messages from	Administrator	No
	Users	
	Other business partners	Yes
	Hub	
Incident occurrences	Get notified	Yes
	View incident on map	
Tours/Order Estimated Time of Arrival (ETA)	View	Yes
Trucks	Get notified	Yes
	View incident	
Shared Trucks	Get notified	Yes
	View incident	

Table 25

Business Partner	
View	Yes

Table 26

Trucks	
Edit	Yes
View	
Deactivate/Deregister	
Reactivate	
Share	

Table 27

Tours	
Create	Yes
View	
Accept	
Mark as Completed	

Dispatch	

Table 28

Users		
Administrator at Carrier	View	Yes
	Invite	No
Dispatcher	View	Yes
	Invite	No
Driver	View	Yes
	Invite	
	Edit	

Parking Space Administrator

Table 29

Company Profile page	
Edit	Y e s
View	

Table 30

Traffic Status		
Entity	**Action**	**Authorization**
Geofence	Edit	Yes
	View	
	Make public	No
	View public geofences	Yes
	Create display area	
Bridge	Edit	No
	View	Yes
Parking Space	Edit	Yes
	View	
	Set availability	
Container Terminal/Depot	Edit	No
	View	Yes
	View availability	
Messages sent to	Trucks	No

	Geofences	Yes
	Hub administrator, Hub manager	
	Other business partners	Yes
	Copy incident template	

Table 31

Feed		
Entity	**Action**	**Authorization**
Receive messages from	Other business partners	Yes
	Hub	
	Users	No
Port Road Management System (PRMS) Incidents	Get notified	Yes
	View incident on map	
Tours/Order Estimated Time of Arrival (ETA)	View	No
Public Traffic incidents	Get notified	Yes
	View incident	

Table 32

Business Partners		
Parking Space Administrator	Invite	Yes
	View	
Carrier	Invite	Yes
	View	
Container Terminal	Invite	Yes
	View	

Table 33

Users		
Parking Space Administrator	Invite	Yes
	View	
	Edit	

Container Terminal Administrator

Table 34

Company Profile page	
Edit	Yes

View	
Connect with other hub	

Table 35

Traffic Status		
Entity	**Action**	**Authorization**
Geofence	Edit	Yes
	View	
	Make Public	No
	View public geofence	Yes
	Create radar geofence	
	Create display area	
Bridge	Edit	No
	View on map	Yes
	View details on map	
Parking Space	Edit	No
	View	Yes
	Set availability	No
Container Terminal/Depot	Edit	Yes
	View	
	Set availability	

Messages send to	Other business partners	Yes
	Through radar geofence	
	Truck individually	No
	Copy incident template	
	Geofences	Yes
	Hub administrator, Hub manager	
	Display area	

Table 36

Feed		
Entity	**Action**	**Authorization**
Receive messages from	Other business partners	Yes
Port Road Management System (PRMS) Incidents	Get notified	Yes
	View incident on map	
Tours/Order Estimated Time of Arrival (based on radar rule evaluation	View	No
	View using radar rule	Yes
Public Traffic Incidents	Get notified	Yes
	View incident	

Table 37

Business Partners		
Parking Space Administrator	Invite	Yes
	View	
Carrier	Invite	Yes
	View	
Container Terminal Administrator	Invite	Yes
	View	

Table 38

Users		
Container Terminal Administrator	Invite	Yes
	View	
	Edit	

Related Information:

- SAP Networked Logistics Hub - Overview [page 6]
- Register with SAP Networked Logistics Hub [page 25]

- Launch Applications [page 26]

5 Register with SAP Networked Logistics Hub

You can register with SAP Networked Logistics Hub as an Administrator at Hub, Administrator at Carrier, Parking Space Administrator, or as Container Terminal Administrator.

If you choose *SAP* as the owner from the *Owner* dropdown, you can register as an Administrator at Hub. If you choose logistics hub as the owner, you can register as an Administrator at Carrier or Parking Space Administrator or Container Terminal Administrator. Only an Administrator at Carrier can subscribe for basic or premium features of the application. By default, an Administrator at Carrier can register the company only as a premium user. This user subscription, however, can be changed to basic. For this, the Administrator at Carrier must select the option from the *Subscription Name* dropdown.

To register, you must enter mandatory details such as the first name, last name, organization name, email, owner, and role. When you have registered, you will receive an invitation email. Accepting the invite redirects you to the registration page. Enter your password and access SAP Networked Logistics Hub.

> **Note**
>
> If your customer account is under creation, the message *Creation of customer account in progress. You will be notified once done* displays when the application is launched. For more information, see Launch Applications [page 26]

Related Information:

- SAP Networked Logistics Hub - Overview [page 6]
- SAP Networked Logistics Hub - User Roles [page 12]

6 Launch Applications

The applications are available on the launchpad based on the user roles. Click the individual application to launch. For example, click the *Traffic Status* application to monitor traffic and communicate with the trucks and other business partners.

> **Note**
>
> If you register for the first time and the account creation is in progress, the message *Creation of customer account in progress. You will be notified once done* displays, when the application is launched. If the account creation fail, the message *Creation of customer account failed. Contact administrator* displays. Navigate to the *Company Profile* screen and click *Refresh account creation status* link to view the status of account creation. You can also view the account creation status on the right corner of the *Company Profile* screen.
>
> Click the *Notifications* option to view all the notifications related to the creation of customer account and device assignment to the trucks.

For more information about applications, see the below links:

- Monitor Traffic and Communicate with Trucks [page 29]
- Manage Incidents Data [page 46]
- Maintain Business Partners [page 36]
- Add Users [page 52]
- Manage Tours [page 39]
- Manage Trucks and Share with Business Partners [page 48]

For more information about user roles, see SAP Networked Logistics Hub - User Roles [page 12].

You can access the *Profile & Settings* and *Company Profile* screens and log out from the application by clicking the user name button on the top right. Use the *Notifications* option to view all the notifications related to the creation of customer account and device assignment to trucks.

Maintain User Profile and Settings

Any user of the organization can edit personal details such as the first name, last name using the *Profile & Settings* screen. Use the *Edit* option. The user can also remove oneself from the SAP Networked Logistics Hub network using the *Delete* link. If the user is the last administrator of the organization, then the same administrator cannot be deleted. The account is permanently deleted and all the user data and track records are removed from the network.

> **Note**
>
> The email address, once registered cannot be changed.

Using this page, the administrator at carrier and dispatcher can select or subscribe the specific trucks from which they want to receive the messages. This enables the dispatcher from receiving messages only from the trucks drivers who are servicing their tours. The administrator at carrier or dispatcher can click the *Follow Trucks* option to view the trucks with their details. Then, click the *Group By* or *Filter* option to filter the trucks according to the truck status. To subscribe or select a truck, click the *Edit* option. Select the checkbox and save. The respective

roles can view the selected trucks on the map in the *Traffic Status* application. The messages from the trucks are visible in the live feed.

The *Themes* option provides all users an option to change the page theme. Click *Edit* and select the respective radio button to change. The available options are the blue crystal and high contrast black.

Manage Company Profile

Using the *Company Profile* screen, any user of organization can view details of their own organization. For example, an Administrator at Carrier can view details such as the web site, country, and town of his own carrier organization. Only an administrator has the privilege to maintain and edit the organization details. To view this screen, click the user name button on the top right and choose *Company Profile*.

The logistics hub offers subscription packages such as basic and premium to the carriers. As an Administrator at Carrier, you can also view details including billable days depending on the subscription, whether basic or premium in the *Usage Log* screen. This enables verification of usage details against those entered within the system. Some of the available details are time frame within which billable days are identified, number of active trucks, and total users.

The Administrator at Carrier is provided the following options:

> **Note**
> The options are available only in the edit mode.

- maintain user IDs and passwords of telematics accounts in T-Systems connected car platform using wallet maintenance
- hide their respective companies so that the companies do not display in the search results when a business partner try to connect. The Parking Space Administrator also is provided this option. By default, the *Visible on Search* checkbox is selected, allowing the business partners to search for the company to connect.
- change the subscription. By default, the premium subscription is selected. The Administrator at Carrier must confirm the terms and conditions once the option is changed
- various options to create tours. The options are to manually create tour data using the *Tours* application, automatically import tour data, or manually create and automatically import the tour data. By default, the option, *Manually create tours in SCL* is selected. The Administrator at Carrier must confirm the terms and conditions once any other option is selected
- add and edit other hubs using the *Add Hub* button and edit icon, respectively. The Parking Space Administrator and Container Terminal Administrator are also provided this option. The *Hub* and *Subscription* dropdown lists all the hubs in the network and subscriptions available, respectively.

  > **Note**
  > The *Add Hub* button is enabled only if hubs are available to connect. The *Add* button is enabled only if the *Agree to end user agreement* checkbox is selected.

- using the *Deregister* option, deregister the hub from the list. A dialog box detailing the result of deregistering such as the trucks and tours data and location object data displays. On confirmation, the message *Hub deregistered* display. If multiple hubs are connected and the last hub is deregistered, the company is deregistered from SAP Networked Logistics Hub. The Container Terminal Administrator and Parking Space Administrator is also provided this option.

Set Threshold Rules for Tours

The Administrator at Carrier is provided an option to set rules for the effective planning of tours. The *Add Rules* button in the *Tour Settings* tab is used to maintain the lower and upper thresholds that determine an effective

planning of tour. The Administrator at Carrier can enter the tour duration and the percentage beyond which the tour plan duration is considered as critical or warning. The color of the chart reflects the variation in the tour duration. For example, the tour duration of a truck is between one and three hours. Depending on the percentage entered, the plan effectiveness of the tour duration is indicated as critical or warning. If the percentage entered is 10, it indicates that if the actual tour duration exceeds the planned duration by 10 percentage, the plan effectiveness is considered critical.

Maintain Wallet

The SAP Networked Logistics Hub interfaces with the Android mobile or onboard devices on the trucks to receive data about truck position and send and receive messages, notification, orders, and route events. If the device is an Android mobile, T-Systems provide a mobile application and also enable communication with the mobile device. For this, a unique ID is generated that is visible in the info dialog of the mobile application. If device is an onboard device in the truck, the manufacturer of the truck enables telematics with their own portal or cloud solutions and accounts.

An Administrator at Carrier can work with any of the devices corresponding to the fleet owned. The T-Systems Connected Car platform, therefore, enables single point of integration with all the telematics providers. For this integration to work successfully, the carrier company being owner of the trucks and mobile devices must have telematics account with the respective manufacturer. The credentials for these accounts are handed over to the T-Systems Connected Car platform for the platform to interface with devices. The mobile application can be registered directly using the generated unique ID.

Click the *Open Wallet* option to open a dialog where the telematics account user name and password can be maintained for those telematics providers for which you have trucks in your fleet or mobile devices. This results in communication channel between the T-Systems connected car platform and Telematics providers. This also enables receiving the truck positions, exchange of messages, and tours with the trucks once trucks are added using the *Trucks* application.

Log out

You can log out from all the screens within the application. On the Launchpad, choose the user name dropdown on the top right to log out. When you log out, the application displays the welcome screen. Click *Login*, if you want to log in again as the same user. To log in as a different user, clear the browser cache, restart, and click *Login*. Enter your email address and password on the *Login* screen.

> **Note**
>
> It is recommended not to select the *Remember me* checkbox on the *Login* screen to ensure secured password. Do not select the option to save a password.

Related Information:

- SAP Networked Logistics Hub - Overview [page 6]
- SAP Networked Logistics Hub - User Roles [page 12]
- Register with SAP Networked Logistics Hub [page 25]

7 Monitor Traffic and Communicate with Trucks

The *Traffic Status* application is a central application to monitor traffic and communicate with the trucks and other business partners. This application also helps in tracking the truck positions, sending messages targeted at geofences, trucks, or other partners. The messages targeted towards geofences are automatically dispatched if any truck passes through the geofence.

The active logistic hub incidents are automatically notified by appropriate software integration of logistic hub automation infrastructure with SAP Networked Logistics Hub. The incidents are communicated automatically to the trucks through the telematics platform that is integrated with SAP Networked Logistics Hub.

By default, the *Traffic Status* screen displays the map of the logistics hub location. On the screen, you are provided options to create geofences, bridges, parking spaces, and container terminals. You can also contact business partners, send and receive messages to and from the trucks, and view the truck movements on the map. All active (planned or unplanned) logistic hub incidents and traffic incidents are highlighted on the map. They are also visible in the right pane. In addition, the right pane shows the active communications with the truck drivers and other business partners.

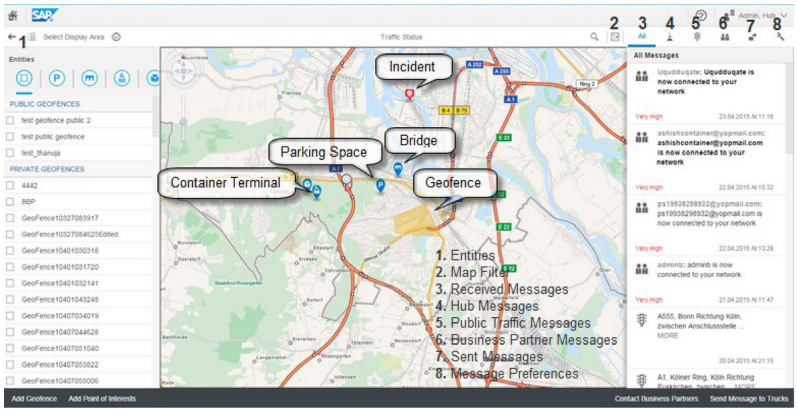


Figure 2

Using this application, you can perform the following actions:

- **Manage Point of Interests**

  You can add bridges, parking spaces, container terminals, and container depots as points of interest on the map. For this, click *Add Point of Interest* and choose the respective option. Mark a location on the map and enter mandatory details and save. You can also edit and delete these points of interest. Click the respective icon on the map to edit or delete. Use the Webcam URL field to enter a link to a public portal where you can view images of parking space, bridge, container terminal, container depot. Use the *Search* option to identify the details of points of interest on the map. For more information about user roles, refer SAP Networked Logistics Hub - User Roles [page 12]

  > **Note**
  >
  > When creating a container terminal or depot, you can set it's availability status to automatic. Select the *Automatic Status* checkbox.

- **Clustering of Point of Interests and Trucks**

  It is possible to group or cluster all points of interest and trucks separately. Based on the zoom level, the points of interest, that is, parking spaces, container terminals, depots, and bridges are clustered as a single blue icon on the map with the stipulated number. Click the respective points of interest in the *Entities* panel to view them as a cluster on the map. In the case of clustering of trucks, the icon display in black. The trucks are grouped based on three criteria: trucks with associated orders and on time, trucks with orders but not on time, and trucks with no orders associated. Click the individual cluster or icon to view details of point of interests or trucks in the cluster. Click each item to view them on the map.

- **Manage Geofences**

  The *Traffic Status* application enables you to add a geofence, which is a geographical area. Such areas are defined with boundaries and gates, and identified by a name. They are used for geospatial rule-based messaging of incidents to the trucks. Any active incidents within these geofences are notified to the truck driver when the truck passes through the geofence.

  To create a geofence, click *Add Geofence* and mark the points on the map. Enter mandatory details in the *Add Geofence* dialog box. Select the *Public* checkbox to enable other organizations also to view or use your geofence. This option is available only to the Administrator at Hub and Hub Manager.

  Optionally, you can add one or more gates to the geofence. A single side of the geofence (line joining two successive points) is designated as a gate. A gate gives directional reference to the geofence. If an active incident is associated with a particular gate of the geofence, a truck entering the geofence through that gate receives the particular incident message. To add points to a geofence, right-click the edge of the geofence; to delete a point, right-click on the point. You can edit and assign incidents to only those geofences that are created by you.

  To edit, click the edge of a geofence to view the geofence details. Then, choose the *Edit* button.

  You can also optionally assign incidents to a geofence. The incidents can be single or multiple. Use the *Incidents Assigned* column to view the incidents and assign them to the geofence.

- **Observation or Radar Geofences and Messages**

  The Administrator at carrier or Container Terminal Operator must be informed about the entry or exit of a truck into and out of a geofence. With the help of radar geofence, an Administrator at Carrier or Container Terminal Operator is able to keep track of the truck movement with or without a tour attached, within a specific area. They receive messages from SAP Networked Logistics Hub about the truck movement.

  The Container Terminal Operator can also view all the details of the truck by clicking the truck icon on the map. The details such as the order ID and items associated with the tour of the truck displays. In case of multiple stops for a particular tour, an Administrator at Carrier or Container Terminal can receive information about the truck approaching their respective destination. For example, there are two stops (S1) and (S2) owned by the Container Terminal (CT) to be serviced by the truck (A), belonging to Carrier (C). When the truck approaches the stop S1 or S2, the SAP Networked Logistics Hub receives an information. The truck is visible to the owner of stop (S1), that is Container Terminal (CT) only if a business partner relationship exists between the Carrier C, and owner of the stop S1.

  If the truck enters or leaves a radar geofence created by the Container Terminal (CT) when approaching a particular destination, for example, the stop S1, the CT receives a message in the live feed.

  A radar geofence performs the same functionalities as a standard geofence. But, when the rule of receiving messages regarding the truck movement is set, the geofence is termed *radar* or *observation* geofence. A carrier owns the trucks. The observation geofence or radar geofence is owned either by a carrier or container terminal operator.

  - **Carrier and Radar Geofence**

    Using a standard geofence, the Administrator at Carrier who owns the truck can send messages to the truck drivers from the geofence. The Carrier can also assign the rule to receive messages when an owned

truck with or without tours enters or leaves a geofence. The message displays in the *Business Partner* messages and *All* tabs in live feed of the carrier. When a rule is set, the geofence is termed as *radar.* To create a standard geofence, click the *Add Geofence* button and mark the points on the map. Enter the relevant details and save.

- **Container Terminal and Radar Geofence**

  In order to view the details and movement of truck owned by its carriers, the container terminal must be connected to the respective carrier. The container terminal can establish a relation or connect to a carrier using the *Business Partner* application. For more information, refer Maintain Business Partners [page 36]. Once connected, the container terminal can view all the trucks with details such as the truck number and tour ID, within a specified area on the map. When a container terminal operator creates a radar geofence, the Administrator at Carrier to whom a connection is established receives a message in the live feed. The carrier can accept or reject the option for the container terminal to view the truck details and movement.

  The Container Terminal Operator can also click the newly created radar geofence to view the geofence and gate details. Clicking the *Business Partners Tracking Status* link enables the Container Terminal Operator to view the different carriers and the tracking status. The statuses are tracked, not tracked, and awaiting approval.

  The following scenario's exist:

  - When an Administrator at Carrier accepts the radar geofence from a container terminal, the *Reject* button is enabled for the carrier.
  - When an Administrator at Carrier rejects a radar geofence, the message *Geofence rejected* displays on the map for the Container Terminal Operator. The Container Terminal Operator receives a notification and can initiate a discussion using the chat. Click the *Contact Business Partner* option to initiate a discussion. To send the radar geofence for approval again to the carrier, click the reject message in the live feed. Then, edit the coordinates of geofence displaying on the map.
  - When a Container Terminal Operator modifies the coordinates of a radar geofence, the respective carrier whose trucks are being tracked within the radar geofence receives a message. An approval from the carrier is required to proceed.

  To create a radar geofence, click the *Add Geofence* button. Enter the relevant details. Select the *Receive Messages* checkbox. The respective option must be selected to receive messages when a truck with tours enter or leaves the newly created radar geofence.

- **Notifications**

  The following are the scenario’s wherein an Administrator at Carrier receives messages or notifications from a Container Terminal Operator:

  - Container terminal creates a new radar geofence
  - Container terminal edits the geofence coordinates

  The following are the scenario's wherein a Container Terminal Operator receives messages or notifications from an Administrator at Carrier:

  - Administrator at Carrier rejects a radar geofence
  - Administrator at Carrier rejects a geofence with modified coordinates. When a container terminal changes any other geofence details, an Administrator at Carrier does not receive any message.

  The Administrator at Carrier or Container Terminal Operator can view the geofences by clicking the *Entities* option on the top left of the screen. The geofences can be filtered based on type (geofence/radar) and grouped based on sharing (public/private/shared) and company (my company/other companies.

  - Administrator at Carrier can view the private and public geofences and radar geofences shared by container terminals and in pending or approved status.

- Container Terminal Operator can view the private and public geofences, and radar geofences created by them.

- **Search**

  The *Search* option enables easy free text search of all items related to the map. For a given search term, related points of Interests, geofences, trucks, tours or active incidents are displayed as a quick list. When you click a search result item, it displays the respective object on the map. When you click *View on the map* on the quick list, all the respective objects display on the map. The objects are visible without changing the zoom level of the map. The *View all in list* option displays only when the search results in more than five matching items. When you click this option, the resulting items display in the right pane.

  > **Note**
  >
  > You can search entering the entire search term, part of the search term with asterisk (*) as suffix or prefix, or enter a major part of the search term. You must enter atleast three characters to search.

- **Send Messages to Business Partners**

  Using the *Contact Business Partner* option, you can send messages to specific business partners. You can choose one or more recipient business partners and specify the message text and priority. If you are a Logistic Hub Manager or Administrator at Hub, you can pick the message text from an existing incident. Click the *Send* button to send the message to the business partner.

  These messages are displayed in the live feed of the recipient business partner.

  - A logistic hub manager can send messages to a carrier, parking operator, container terminal and depot.
  - A carrier can send messages to any other carrier or parking operator, container terminal/depot, and administrator at hub, who is the partner.
  - A parking operator can send messages to carrier or parking operator, container terminal/depot, and administrator at hub, who is the partner.

- **Send Messages to Trucks**

  You can choose the trucks to send alerts or messages related to incidents through the map or geofences. The Administrator at Carrier and Dispatcher also receives all the messages on their live feed sent to the truck. Whereas, in the live feed, the messages sent by the truck drivers are displayed, when the truck driver reply to the messages.

  - To send messages to all the trucks, choose the *Select All My Trucks* option from *Send Messages to Trucks*. The application displays the *Send Message* dialog box with the available trucks displayed in the *Trucks* field. The trucks are highlighted on the map. Specify the message text and priority. Click the *Send* button to send the message.

    > **Note**
    >
    > To send messages to all trucks within a cluster, you must first decluster and then select the individual trucks.

  - You can also send messages to trucks using the display area. Choose the *Select Truck via Display Area* option from *Send Messages to Trucks*. The application displays the *Send Messages* dialog box with the available trucks displayed in the *Trucks* field. The trucks also display on the map. Enter the message and select the priority.
  - To send messages to a particular truck, choose the *Select Trucks on Map* option from *Send Messages to Trucks*. The application displays the *Send Message* dialog box. Click one or more trucks on the map to choose or display the trucks in the *Trucks* field. Specify the message text and priority. If you are a

Logistic Hub Manager or Administrator at Hub, you can select the message text from an existing incident. Click the *Send* button to send the message to the truck through the telematics platform.

- To send messages to all trucks within a particular geofence, choose the *Select Trucks via Geofence* option from *Send Messages to Trucks*. The application displays the *Send Message* dialog box. Click one or more geofences on the map or from the list to display them in the *Geofences* field. You can use the *All* checkbox to select all geofences. Specify the message text and priority. If you are a Logistic Hub Manager or Administrator at Hub, you can select the message text from an existing incident. Click the *Send* button to send the message to the truck through the telematics platform.

  > **Note**
  >
  > The Container Terminal Administrator and Parking Space Administrator can send messages to the trucks only through the geofences. The Administrator at Carrier can send messages to only those trucks that are owned by it or shared with it, within a normal geofence.

- You can also send messages to individual trucks by choosing the truck on the map and clicking *Send Message*. The application displays the *Send Message* dialog box. Specify the message text and priority. If you are a Logistic Hub Manager or Administrator at Hub, you can select the message text from an existing incident. Click the *Send* button to send the message to the truck through the telematics platform.

- **View or Assign Tours**

  You can assign tours to a truck or view the existing assigned tours of a truck. Select a truck on the map. If a tour is assigned, the *View Tour(s)* button displays. Click to view all the associated tours. To assign tours, click the *Assign Tour(s)* button to display a list of unassigned tours.

- **Control Visibility of Objects on Map and Apply Display Filter**

  Use the *Entities* option on the top left of the screen to view the geofences and points of interest on the map.Select the respective entities you want to view on the map. For example, when you select the *Parking space* option, the left panel lists all the parking spaces. Select an individual parking space or entity to highlight them on the map.

- **Define Display Areas on Map**

  You can define specific areas on the map as display areas, enabling to view the precise area. A display area is a screenshot of a specific area on the map with defined coordinates. This allows you to monitor trucks in the specific locations and message them promptly. To create or define a display area, pan or zoom the map to mark the precise area. Then, click the icon next to the *Entities* option and choose *Create*. Enter the required details and mark the defined area as the default display area. By default, when you launch the *Traffic Status* application, the display area you selected previously displays.

  > **Note**
  >
  > When logged in a hub manager, you are provided the option to make the display public. Click the *Public* checkbox to enable viewing of the display area.

  You can also select a display area of your company from the dropdown. Accordingly, the map displays the precise area. Choose the *Settings* option in the *Create Display Area* dialog box to mark any of the display area as favorite or default. Choose the respective icon to delete.

- **View Availability of Parking Space and Container Terminal**

  The following colors indicate the status of parking space and container terminal availability:

> **Note**
>
> You can manually select the availability option of container terminal or set the availability as automatic. Select the *Automatic Status* when creating a container terminal or depot to enable the automatic setting of the container terminal or depot availability.

Table 39

Colors	Parking Space	Container Terminal
Green	Available	Servicing Fine
Yellow	--	Servicing but Expect Delay
Red	Full	Servicing not Possible
Orange	Filling up Fast	--
Grey	--	Outside Work Hours

Click the respective icons on the map to view the details and availability status.

- **Overview of Active Incidents, Tour Completion, Communication with Truck Drivers/Business Partners**

  The right pane has different options to display the different communication messages. These messages are sorted according to time. The following are the type of messages:

Table 40

Message Type	Function
All	View all the incidents and received messages. You can interact only with an individual recipient. If there are multiple recipients in a group, you cannot interact with any of them. All the unread messages display in bold.
Hub Messages	View all messages from the logistic hub
Public Traffic Messages	View all messages from the traffic message channel
Messages from my Drivers	View all messages from the truck drivers and respond to them
All Order	View all the tour completion events as the truck completes a tour
Business Partner Messages	View and respond to messages from other business partners
Sent Messages	View all the messages and incidents that you sent.
Message Preferences	Filter messages based on priority and time. By default, all the hub and public traffic messages display.

You are provided with context specific actions. For business partner and driver messages, you can reply and a chat is initiated. You can copy the message in the chat. You can also accept or reject any invitations by other business partners to connect and collaborate. This pane also displays all the messages sent to trucks or business partners by users of a company. These messages are visible to all users of a company.

Business Value

- Promotes effective communication with the driver
- Effective tracking of the truck movements on the map
- Business value for various roles:
  - **Hub Manager**: Monitor traffic around the logistics hub, notify trucks and communicate with the carriers and parking operators
  - **Administrator at Carrier**: Monitor truck movements, tour completion, communicate with the truck drivers, and communicate with the Hub manager and other carriers, and parking operators
  - **Parking Space Operator**: Publish availability of parking spaces, communicate with the carriers and Hub manager

Related Information

- SAP Networked Logistics Hub - Overview [page 6]
- SAP Networked Logistics Hub - User Roles [page 12]
- Register with SAP Networked Logistics Hub [page 25]
- Launch Applications [page 26]

8 Maintain Business Partners

With SAP Networked Logistics Hub *Business Partners* application, you can maintain your business network by connecting with other organizations that are registered with SAP Networked Logistics Hub. Once a connection is established, carrier organizations can sub-contract trucks to each other. On self-registration, you receive an invitation email.

To request a connection with an organization that is already registered, you must search within the SAP Networked Logistics Hub database for the organization using the email addresses that the organization has registered with SAP Networked Logistics Hub. The organization must accept your request in order for a connection to be established. A partner ID is used to identify a business partner relationship between two entities. For example, a Container Terminal establishes a connection with an organization and also gets the created radar geofence approved from the Administrator at Carrier. This partnership is maintained by a partner ID in this application. The Administrator at Carrier can select the respective Container Terminal and enter the ID in the *External ID* field.

You can also terminate a connection with another business partner using the *Terminate Connection* button. If trucks with tours assigned are shared with the business partner, a notification detailing the trucks and consequence of termination is provided. On confirmation, all the trucks shared mutually are unshared.

In addition, when you search for an organization already connected, the respective organization displays in the search results, with the organization selected. The checkbox is disabled.

> **Note**
>
> You cannot terminate connection of a pending business partner.

The following roles can connect with a carrier or parking provider:

Table 41

Organization	Role
Logistics Hub	Administrator at Hub and Hub Manager
Carrier organization	Administrator of organization
Parking provider organization	Administrator of organization
Container Terminal organization	Administrator of organization

Business Value

- Establish collaboration connections with other organizations

Available Features

- Add business partners
- Search business partners. You can search either entering the entire search term, part of search term with asterisk (*) as suffix or prefix, or enter a major part of the search term. You must enter at least three characters to search.

Example

Business Partner details:

- Organization Name - Basic FF
- Main Contact - Admin, Basic
- Email - cbasic83@yahoo.in
- Street Name - streetName
- Town - town
- District - newDistrict
- Country - Germany
- Telephone - 1234567891

To search for the entire term, enter *Basic FF*, *Germany*, *newDistrict*

To search using part of a term, enter *Basic**, *newDis**, *Ger**

To search using a major part of the term, enter *Basic Adm*, *newDistric*, *German*

- Invite business partners. For more information, refer Invite Business Partner [page 37]
- View trucks shared with other business partners

Related Information:

- SAP Networked Logistics Hub - Overview [page 6]
- SAP Networked Logistics Hub - User Roles [page 12]
- Launch Applications [page 26]
- Register with SAP Networked Logistics Hub [page 25]

8.1 Invite Business Partners

You can add carriers or parking operators as business partners to share or sub-contract trucks. If the business partners already exist in SAP Networked Logistics Hub, you can enter their email address and connect to the respective partners. The business partners must self register using the registration page, if they do not exist in SAP Networked Logistics Hub.

Prerequisites

- Relevant subscription is required

Procedure

1. Click the plus sign on the *Business Partner* screen.
2. Select *Carrier* or *Parking Operator*.

3. Connect to an existing partner. To connect, you must enter the business partner's email address in the *Search* column. The invited partner must accept or reject the invitation in the *Business Partner messages* tab screen in the *Traffic Status* application.

Related Information:

- Maintain Business Partners [page 36]

9 Manage Tours

The job of a carrier involves shipping goods or containers. A carrier, generally considers different orders in hand, combines or optimizes the shipment requirements for specific location over time, and arrives at a tour plan for his trucks.

A tour completion for truck or driver comprises travelling to different destinations, picking up or dropping goods at particular destinations. Having planned for the tours in external systems, the data of tours can be replicated into SAP Networked Logistics Hub either manually or through integration.

Once tour data is maintained in SAP Networked Logistics Hub, it can be assigned to a truck and the truck driver is notified about the tour assignment on his onboard device or telematic systems mobile application. The driver can accept the assignment and complete the shipment process. The telematic systems also provides the Estimated Time of Arrival (ETA) information for arrival at specific destinations of the tour.

A tour is completed in the following scenario's: an Administrator at Carrier or Dispatcher mark the tour as completed using the *Mark as Completed* button and when the driver complete serving the order in all stops, the tour is automatically set as completed. The truck driver can also cancel serving orders in any of the stops and the tour is automatically set to completed, still.

It is also possible for the Administrator at Carrier or Dispatcher to analyze the efficiency of tour planning. The color of the plan effectiveness bar helps by reflecting the time taken by a truck to complete its tour. If the truck completes the tour within the stipulated timeframe, the bar displays as green. If the truck exceeds the planned time for tour completion, the bar displays as red. The actual and planned duration of a tour in time also displays on the *Tour Details* screen.

In order to have an efficient tour planning and completion, the Administrator at Carrier must analyze the tour progression, reason for delays, if any, and the minimum and maximum stop turnaround time of trucks at the various stops. The stop turnaround time is the time taken for a specific stop to service a truck with the orders or items. If the servicing time is less, it indicates that the turnaround time at the specific stop is efficient. For more information about the tour time estimation, plan effectiveness, and calculating the minimum and maximum turnaround time at stops, refer Tour Analysis - Plan Effectiveness and Turnaround Time [page 41]

Click the *Navigate to Traffic Status* button to navigate to the *Traffic Status* application.

Using the *Tours* application, you can create tours that are expected to be completed by your organization. The tour data comprises:

- stops or destinations to be visited

  Depending on the roles that create the stops, the following scenarios exist:

  - If an Administrator at Carrier creates a stop, the Partner column remains empty, indicating that the tour is tracked only by the respective Administrator at Carrier.
  - If a Container Terminal creates a stop, the stop displays in the list of *Stop* dropdowns. If the Container Terminal is connected to the Administrator at Carrier in a business partner relationship, the name of the owner displays in the *Partner* column. In such a scenario, the truck with the tour can be tracked by the Container Terminal. If a business partner relationship does not exist, then the Container Terminal cannot track the truck with the tours. But, the name of the owner displays in the *Partner* column.
  - The Administrator at Carrier can also enter the order ID and destination details of the tour in the respective fields in the *Assign Freight Items* dialog box. The Carrier must enter an order ID issued by the Container Terminal for that particular stop. For example, if Carrier (A), require a particular item (I) to be

picked up from a particular stop (S), the order ID for the stop (S) issued by the Container Terminal must be entered.

- goods or containers to be picked up or dropped
- arrival and departure time of trucks at stops
- assignment of truck to execute the tour. The assigned truck can be removed

You can create a tour independently without assigning a truck to it. Using the *Save For Later* button, you can assign a truck to the newly created tour later. The first screen of the application displays the unassigned, active, and completed tours.

- unassigned – tour details not sent to any truck
- active – tour sent to truck
- completed – tour confirmed as completed by truck driver via associated device

Click each tour to view details of tours comprising the status, stops, and goods. You can also edit the tour details using the *Edit* button. You can add and move the stops when creating or editing the tour details. When a stop is deleted, the freight items with the stop are unassigned. You must define a stop for pickup and drop of freight item. You cannot move up the stop with drop defined before the stop with pickup defined.

> **Note**
>
> You cannot assign the same stop for the pickup and drop of freight items. If you assign the same stop, the freight items will be unassigned.

You can also view the truck to which the selected tour is assigned in the *Traffic Status* application. Click the *View in Traffic Status app* button to navigate. If the truck reaches the specific destination at the scheduled time (ETA), the icon displays in green in the *Traffic Status* application. If the truck is delayed, the icon displays in red.

> **Note**
>
> In the *Tours* application, only trucks with the active and assigned tours are visible on the map. If a tour assigned to a truck is in progress, you can view the start time and tour progress on the map. The path traversed by the truck displays on the map as bolded line.

Analyze Tour Completion Plan

As the driver completes the tour using the mobile or onboard device, he can post events about arrival at a destination, pickup and drop off of goods and departure from a destination. These events are tracked by the Administrator at Carrier and Dispatcher to view the actual progress of the tour completion. Using this application, any delay in arrival or departure of the truck at a destination can be tracked. For example, a truck arrives at a scheduled destination 5 minutes behind the stipulated time. The details of delay such as the arrival and departure time are visible to the Administrator at Carrier and Dispatcher. The number of delays in completing the tour also displays.

> **Note**
>
> The effectiveness of tour completion can be analyzed only for a completed tour.

To view the progress of tours at the various destinations, click the individual tours. As and when the truck driver posts events about the tour, the color of the process flow changes to green. For example, when the goods are delivered at a particular destination, the color of the respective action in the process flow change to green. If not, the color remains grey.

Business Value

- Bridges the gap between tour planning and completion
- Provides real-time visibility of tour movement and completion

Features

- Quick overview of unassigned, active, and completed tours
- Search tour (according to the freight item, location, truck assignment, driver name, and container ID)
- Create new tour. For more information, see Create Tours [page 44]
- Add a stop
- Assign truck or driver to a tour
- Select trucks of companies
- Monitor tour status

Related Information:

- SAP Networked Logistics Hub - Overview [page 6]
- SAP Networked Logistics Hub - User Roles [page 12]
- Launch Applications [page 26]
- Register with SAP Networked Logistics Hub [page 25]

9.1 Tour Analysis - Plan Effectiveness and Turnaround Time

An Administrator at Carrier or tour planner optimizes his tour planning by considering factors such as the overall planned execution time against overall actual execution time and the stops in the tour that serviced the order effectively. This provides better insight to the planner of the actual situation with a specific tour and all the tours and helps to plan tours efficiently. The most important KPIs for a Administrator at Carrier are:

- Plan effectiveness
- Turnaround time index

Plan Effectiveness

Plan Effectiveness defines how effectively an Administrator at Carrier organizes the planned start time of tours and end time of the tours. It is a comparison between the actual duration needed to execute the tour as compared to the time the planner has considered.

This KPI is a negative trending KPI. If the actual value of time duration exceeds the planned value, the KPI results in a negative outlook of that tour for the planner. In case of key figure analysis, it is always recommended to take one threshold(s) for analysis, as this eliminates the instances of KPI always being in red. For example, If the actual execution time is five minutes more than the planned execution time, it should not impact the tour planning of Administrator at Carrier. The thresholds help isolate tours that should be strictly planned, thereby reducing the chances of alerts being raised for all tours. When defined as a percentage (%) of the planned execution time, it helps to achieve a more flexible method of calculating the key figures.

Table 42

Duration	Lower Threshold	Upper Threshold

> 2 hours	5%	10%
2 - 10 hours	10%	15%
> 10 hours	17%	20%

The above rule set evaluates to:

Table 43

Duration	Planned Tour Duration	Lower Threshold (% of planned)	Upper Threshold (% of planned)	Actual Tour Duration	Plan Effectiveness
< 2 hours	1 hour and 55 minutes	2 hours and 1 minute	2 hours and 6 minutes	2 hours and 0 minutes	
				2 hours and 5 minutes	
				2 hours and 14 minutes	
2 hours - 10 hours	5 hours and 30 minutes	6 hours and 3 minutes	6 hours and 9 minutes	5 hours and 45 minutes	
				6 hours and 8 minutes	
				6 hours and 20 minutes	
> 10 hours	11 hours and 45 minutes	0 hour and 0 minutes	0 hours and 0 minutes	11 hours and 44 minutes	
				11 hours and 66 minutes	

Plan Effectiveness - Formula

Table 44

Measures	Comments
Planned Start Time (PST)	Arrival time at a stop as planned by the Administrator at Carrier
Planned End Time (PET)	Time of departure from the last stop, as planned by the Administrator at Carrier
Actual Start Time (AST)	Time when the first event *Arrived at Stop* is received from the device
Actual End Time (EDT)	Time when the last event is received from the device
Lower Threshold (LT)	Percentage of planned tour duration
Upper Threshold (UT)	Percentage of planned tour duration

Formula

- Planned Duration Time (PDT) = Planned End Time - Planned Start Time

- Actual Duration Time (ADT) = Actual End Time - Actual Start Time

KPI bar

- ADT <= (PDT* LT [%]) + PDT = **Good**
- (PDT *LT [%]) + PDT < ADT <= (PDT* UT [%]) + PDT = **Warning**
- ADT > (PDT* UT[%]) + PDT = **Critical**

Turnaround Time Index

Turn Around Time (TAT) is the time for which a truck is stationed at a stop during a tour. A stop is the place where the items are either loaded or unloaded. There is time associated with the loading and unloading of items (for example, customs check, security inspection, and goods movement). An Administrator at Carrier or planner gets a better insight about the stop wherein a delay resulted by analyzing the turnaround time. Using this information, the Administrator at Carrier can:

- Identify the stop that took more time to service items than the others in the leg
- Gain information about the stop that exceeded the planned stay duration and to what percentage
- Consider this data for better planning in future

A higher value of TAT Index means that the servicing delay at the stop is contributing to the overall delay of the tour. A lower value of TAT Index indicates that the stop is servicing the particular leg of the tour efficiently. This could be due to sophisticated loading/unloading method at the stop, efficient labour management, and well planned traffic and goods movement within the stop.

A turnaround time index more than one indicates that the actual stay duration at the stop has exceeded the planned stay duration. An optimal value for TAT index is <= 1. An example is provided below:

Table 45

Tour	Stop	Planned Arrival	Actual Arrival	Planned Departure	Actual Departure	Planned TAT	Actual TAT	TAT Index
Tour 1	Stop 1	01.02.2015 10:40	01.02.2015 11:01	01.02.2015 10:55	01.02.2015 11:30	15 minutes	29 minutes	1.93
	Stop 2	01.02.2015 14:30	01.02.2015 14:35	01.02.2015 15:35	01.02.2015 15:20	1 hour and 5 minutes	45 minutes	0.69
	Stop 3	01.02.2015 18:00	01.02.2015 18:15	01.02.2015 19:30	01.02.2015 20:00	1 hour 30 minutes	1 hour 45 minutes	1.16

Based on the above calculation, it is clear that the TAT index for stop 1 is 1.93, stop 2 is 0.69 and for stop 3, it is 1.16. This indicates that an efficient servicing of items is done at stop 2 and that stop 1 has contributed more to the delay of the tour.

TAT Index Formula

Table 46

Measures	Comments
Planned Arrival (PA)	Planner defined Time of Arrival (ToA) at Stop
Planned Departure (PD)	Planner defined Time of Departure (ToD) from Stop
Actual Arrival (AA)	Time of arrival at destination
Actual Departure (AD)	Time of departure and departure events

- Planned Turnaround Time = Planned Departure - Planned Arrival

- Actual Turnaround Time = Actual Departure - Actual Arrival
- TAT Index = Actual Turnaround Time/Planned turnaround Time
- Maximum TAT Index = MAX (TAT INDEX) = 1.93 = Stop 1
- Minimum TAT Index = MIN (TAT INDEX) = 0.69 = Stop 2

Related Information

- Manage Tours [page 39]

9.2 Create Tours

You use the *Create New Tour* button to add new tour details such as the freight items, stops, and truck. The tour name and stops are mandatory entries. The steps involved are:

- Assigning freight items
- Adding stops
- Assigning tours to truck

Prerequisites

- Trucks must be registered so that the Administrator at Carrier can assign tours
- Relevant subscription is required

Procedure

1. On the *Manage Tour*s screen, click *Create New Tour*.
2. Click the *Add freight item* link to add freight items. You can also edit and delete the freight item.
3. Add new stop by entering details in the *Enter New Location* dialog box. Use the *Edit Stop* button to edit the stop details.

   > **Note**
   > - You can add multiple stops to a single tour.
   > - You can also select existing stops, date and time of arrival and departure of the trucks.
   > - The deviation in arrival and departure time of trucks is displayed on the map in the *Traffic Status* application.

4. Assign freight item to the newly created stop.
5. Using the *Assign Freight Item* dialog box, decide whether freight items needs to be picked up or dropped off. Use the *No Action* button to not assign pickup or drop of the freight items.
6. Assign a truck to the tour.

> **Note**
>
> Use the *Save For Later* button to assign a truck to tour later. The tour details are available to the truck drivers in their mobile or onboard devices.

7. Enter the tour name, ID, and any additional comments.
8. Click the *Assign Now* button to assign the tour to selected truck.

> **Note**
>
> The *Assign Now* button is enabled only when the picked up items are dropped, stops are defined, and a truck is selected.

Related Information

- Manage Tours [page 39]

10 Manage Incidents Data

Description

The *Incidents* application helps you to maintain master data of incidents, which occur frequently on the roads around the logistics hub.

For example, when a river bridge is opened and roads are subsequently closed. To avoid the traffic congestion, the trucks on that road must be informed in advance so that they take alternate routes. By integrating automation systems at the logistics hub, such incidents are reported to SAP Networked Logistics Hub. The hub forwards the incident messages to the telematic systems. These incidents are maintained in the PRMS system, which inturn communicates with the T systems regarding an incident occurrence. When an incident occurs, it is displayed on the map at the assigned source location with the priority assigned to it. Accordingly, the messages are conveyed to the truck drivers. In a target geofence, the gates are also defined, using which a truck entering this gate is notified.

The *Incidents* application also helps to associate source location with an incident data and associate multiple target geofence. Every incident is linked to an event type and location. An incident is linked to one or more geofences, one or more gates within the geofences, an incident category, and a message priority. The category types are interference, parking, and container. When creating an incident, the incident category and name and message priority and text is mandatory.

By assigning incidents to geofences with specific gates, the incident message communication is restricted only to those trucks entering the geofence through the particular gate.

> **Note**
>
> The application is accessible to the Administrator at Hub and Hub Manager.

Using this application, you can also:

- Search for incidents. You can search entering the entire search term, part of the search term with asterisk (*) as suffix or prefix, or enter a major part of the search term. You must enter at least three characters to search.
- Group incidents based on the category or priority. Based on grouping, filters are applied
- Sort incidents numerically
- Assign geofences and gates to the incidents. For more information, see Assign Geofences [page 47]

Business Value

- Ensure smooth traffic movement
- Enable automated geospatial messaging

Related Information:

- Register with SAP Networked Logistics Hub [page 25]
- SAP Networked Logistics Hub - User Roles [page 12]
- Launch Applications [page 26]
- Assign Geofences [page 47]

10.1 Assign Geofences

With SAP Networked Logistics Hub *Incidents* application, you can assign a geofence to an existing incident or to a new incident.

Features

On the *Incident* screen, when you click the *Locate Incident Source* button, the system displays a map. Select a location on the map and click *Ok*. The selected source location is assigned to the incident. Click the *Assign Geofence* button to view or select the geofence. Navigate to the *Incidents* screen. Click the *View* link to view the assigned geofences and gates on the map. You can also view and change the incident source and unassign the assigned geofences.

Related Information:

- Manage Incidents Data [page 46]

11 Manage Trucks and Share with Business Partners

You use the *Trucks* application to set up trucks and mobile or onboard devices, and share trucks with the business partners. This application is accessible to the Administrator at Carrier and Dispatcher.

The trucks have mobile or onboard device to receive messages about the incidents, tour assignments, and for communication from the administrator, dispatcher, or hub manager. The trucks automatically send the location information to SAP Networked Logistics Hub, which can be switched off by the driver by deactivating the associated device. Using the device, the driver can send messages to the dispatcher and post tour progress events.

> **Note**
>
> If assignment of device to a truck fail, the message *Cannot assign truck to device* displays. You can also view the status of device assignment to the truck on the right corner of the screen. Click the *Notifications* option on the top of the screen to view the various notifications. Use the *Refresh* option in the *Notifications* dropdown to view the current status of device assignment.

For the trucks to receive messages, the mobile or onboard device must be set in the corresponding company profile of the telematic systems. For more information about the company profile, see Launch Applications [page 26]. In addition, a truck added to SAP Networked Logistics Hub is registered with the telematic platform. This enables communication to and from the truck.

You can also view and edit the truck and device details. Using the *Deactivate* button, the trucks can be temporarily deactivated. When the truck is inactive, the truck positions are not tracked and it cannot send or receive messages and tour data. Use the *Deregister* button to remove the truck from the application. You can also share trucks with other carriers to whom you want to sub-contract or share your truck. If a truck belonging to another carrier is shared with your organization and if a tour is assigned to that particular truck, then the truck is visible in the *Traffic Status* application.

> **Note**
>
> - A truck can be active only if a device is assigned to it.
> - You can add and save truck details without assigning a device. In this scenario, the truck is *Inactive*.
> - You can activate only those trucks with a device assigned. If not, an error message displays.
> - A dispatcher can assign tours to a shared truck and monitor the tour completion.
> - Sharing of trucks can be revoked by the truck owner at any time.

Business Value

- Maintain and view master data of trucks
- Share trucks with business partners

Features

- Search for trucks (according to the registration number, device type, device number, and public name). You can search entering the entire search term, part of the search term with asterisk (*), as suffix or prefix, or enter a major part of the search term. You must enter at least three characters to search.

  Example

  Truck details:

  - Registration Number - EN-UK 100
  - Vehicle Type - Low bed truck
  - Public Name - ENUK100
  - Device Type - Mobile
  - Device ID - 12345

  To search for the complete term, enter *EN-UK 100*, *Mobile*, or *12345*

  To search using a part of term, enter *EN-UK**, *Mob** , *123**, or *UK 100**

  To search using a major part of term, enter *EN-UK 10*, *Mobil*, or *1234*

- Add new trucks. For more information, see Add Trucks [page 49].
- Share/unshare trucks with business partners. For more information, see Share Trucks [page 50].
- Unassign shared trucks
- Activate/deactivate and deregister a truck

Related Information:

- SAP Networked Logistics Hub - Overview [page 6]
- SAP Networked Logistics Hub - User Roles [page 12]
- Launch Applications [page 26]
- Register with SAP Networked Logistics Hub [page 25]

11.1 Add Trucks

Using the *Trucks* application, you can add trucks.

Prerequisites

- Mobile or onboard device must be registered and available through the telematic platform

Procedure

1. Click the plus sign on the *Trucks* screen.
2. In the *Truck Details* section, enter the registration number and public name. Select vehicle type from the drop-down.

3. Click the *Select Driver* link.
4. From the *Drivers* dialog box, select the truck driver.

   The name of driver displays in *Driver Name* column.
5. Select the device type.

> **Note**
>
> If you select mobile as the device type, you must enter the IMEI number. If you select an onboard device, you must provide the device ID. Use the *Select Device* link to select a device ID. You are provided with a list of vehicle identification numbers as device IDs from which you can choose an identification number that corresponds to the given registration number. Use the *Select Device* link to select a device ID.

6. Click *Save*.

> **Note**
>
> If a device is assigned to a truck, the truck is saved in an active state. If a device is not assigned, the truck is saved in an inactive state.

Related Information:

- Manage Trucks and Share with Business Partners [page 48]
- Share Trucks [page 50]

11.2 Share Trucks

The trucks are shared or subcontracted with the business partners to pick up and drop goods or containers. These business partners are added to your network using the *Business Partners* application. You can allocate business partners to an already existing truck or a newly added truck.

> **Note**
>
> - A business partner can be allocated to an inactive or active truck.
> - A truck can be shared with one or more business partners.
> - Only an Administrator at Carrier and dispatcher with the premium subscription can share the trucks. For more information about subscription, see Register with SAP Networked Logistics Hub [page 25]

Prerequisites

- Relationship with other business partners must be maintained

Procedure

1. Add or select a truck from the *Trucks* panel. For more information, see Add Trucks [page 49].

2. Click the *Share* icon in the right panel. If no trucks are shared, the message *Truck not shared. Choose Edit to share truck with business partner* is displayed.

> **Note**
>
> Click *Unshare* to temporarily discontinue sharing of truck with specific business partner. In this scenario, the business partner cannot track the truck position nor assign orders. A notification message is sent to the Administrator at Carrier. The partner relation with the business partner is active.

3. Click the *Edit* button.
4. Click the *Add Business Partner* button.
5. Select business partner(s).

Related Information:

- Manage Trucks and Share with Business Partners [page 48]
- Add Trucks [page 49]
- Maintain Business Partners [page 36]

12 Add Users

Using the *Users* application, you as a registered user can invite other individuals in your organization in different roles. For example, if you have logged in as an Administrator at Carrier, you can invite other individuals in your organization as dispatchers and administrators. You can choose the role in which you want to invite the new user, specify first and last name and email address. An email is send to the user at the given email address. The user can accept the invite received in the email. The user is guided to choose the password at the SAP ID Service before redirected to the application.

> **Note**
>
> Using the *Delete* button, the Administrator of a company can delete the respective user from the SAP Networked Logistics Hub network.

For more information about roles, see SAP Networked Logistics Hub - User Roles [page 12].

Role and invite scenarios

- Administrator at Carrier can invite a dispatcher and another administrator and add truck drivers
- Administrator at Hub can invite a Hub manager and another administrator

Business Value

- Simplified onboarding of business users
- Lower total cost of ownership due to simplified and distributed administration with business users

Features

- Add or edit user details and change the role of registered user.
  - The Administrator at Carrier can add, edit, and change the role of registered user to dispatcher or driver
  - The dispatcher can add, edit and change the role of registered user to administrator at carrier or driver
  - The parking space administrator and container terminal can only view the user details
- Search for users. You can search entering the entire search term, part of the search term with asterick(*), as suffix or prefix, or enter a major part of the search term. You must enter at least three characters to search.

Related Information:

- SAP Networked Logistics Hub - Overview [page 6]
- SAP Networked Logistics Hub - User Roles [page 12]
- Launch Applications [page 26]
- Register with SAP Networked Logistics Hub [page 25]

13 Communication Log

Using the SAP Networked Logistics Hub *Communication Log* application, the platform service provider (PSP) can analyze all the events or errors related to failures during integration with the Telematics Data Provider. The PSP can download the errors in an excel and analyze. The application details the events or issues based on the time frame, direction (inbound and outbound), response code, and service path. You can also sort or group the events using the various combinations. By default, events are sorted according to end time and in descending order and grouped by object and in descending order. The time frame ranges from the previous ten minutes to previous week. Using the *Custom Range* option, you can also enter a date range. By default, the *Communication Log* page displays all the events or issues entered in the system.

> **Note**
>
> The *Communication Log* application is available only to the platform service provider.

The application also helps the platform service provider in deleting and compiling all the events and its related information over a period of time. Click the *Download as .CSV* option to download the report as a .csv file.

Use the icon on the right of the page to add and remove columns. You can also change the order of display of columns.

Business Value

- Compile report on connectivity related events or issues

Available Features

- View all events or issues

Related Information

- Launch Applications [page 26]

14 Support Notifications

Using the SAP Networked Logistics Hub *Notifications* application, the platform service provider can notify the business partners about the scheduled system maintenance. The notifications sent to the users of SAP Networked Logistics Hub can be about the database upgrade, maintenance, patch, fixes, or reasons and consequences of system not responding. The users receive only notifications that are in the active status in the dialog box when the user starts the application.

> **Note**
>
> The *Notifications* application is visible only to the platform service provider.

The platform service provider can create and edit the active notifications using this application. The notifications can also be filtered by category (patch, hotfix, database upgrade, operating system update and grouped by status (active and expired). When creating a notification, it is mandatory to mention the validity.

> **Note**
>
> - The users cannot reply to the notification or message.
> - In case of multiple messages, all of them are displayed in the dialog box.
> - Both the active and expired messages are visible in the live feed. For more information about live feed, refer Monitor Traffic and Communicate with Trucks [page 29].
> - If the notification is active, it displays as a warning each time the user logs into the application.
> - Every message has a validity timeframe.
> - Only notifications in an active status can be edited

Business Value

- Notify the user in the system about the scheduled maintenance

Available Features

- Create and edit notifications
- Filter and search notifications
- Display notifications

Related Information

- Launch Applications [page 26]

15 Usage Log

Using the SAP Networked Logistics Hub *Usage Log* application, the platform service provider can generate usage information for all the hubs and associated business partners, users, and devices within each hub for the billing purposes. The application details the number of business partners, users, and the telematic units and devices used by the business partners within a stipulated time frame. The time frame can range from the current month to the last quarter. Using the *Custom Range* option, you can also enter a date range. By default, the *Usage Log* page displays the details of the current month.

In short, the application helps the platform service provider in compiling a report about the number of users and telematic units used by the business partners over a period of time within the hub. This report is compiled for Telematic Data Provider (TSI).

> **Note**
>
> The *Usage Log* application is visible only to the platform service provider.

The page also provides details about the number of business partners to be excluded from the report. The report can be downloaded to a .csv file.

Business Value

- Compile report for TSI

Available Features

- View all ports in the system

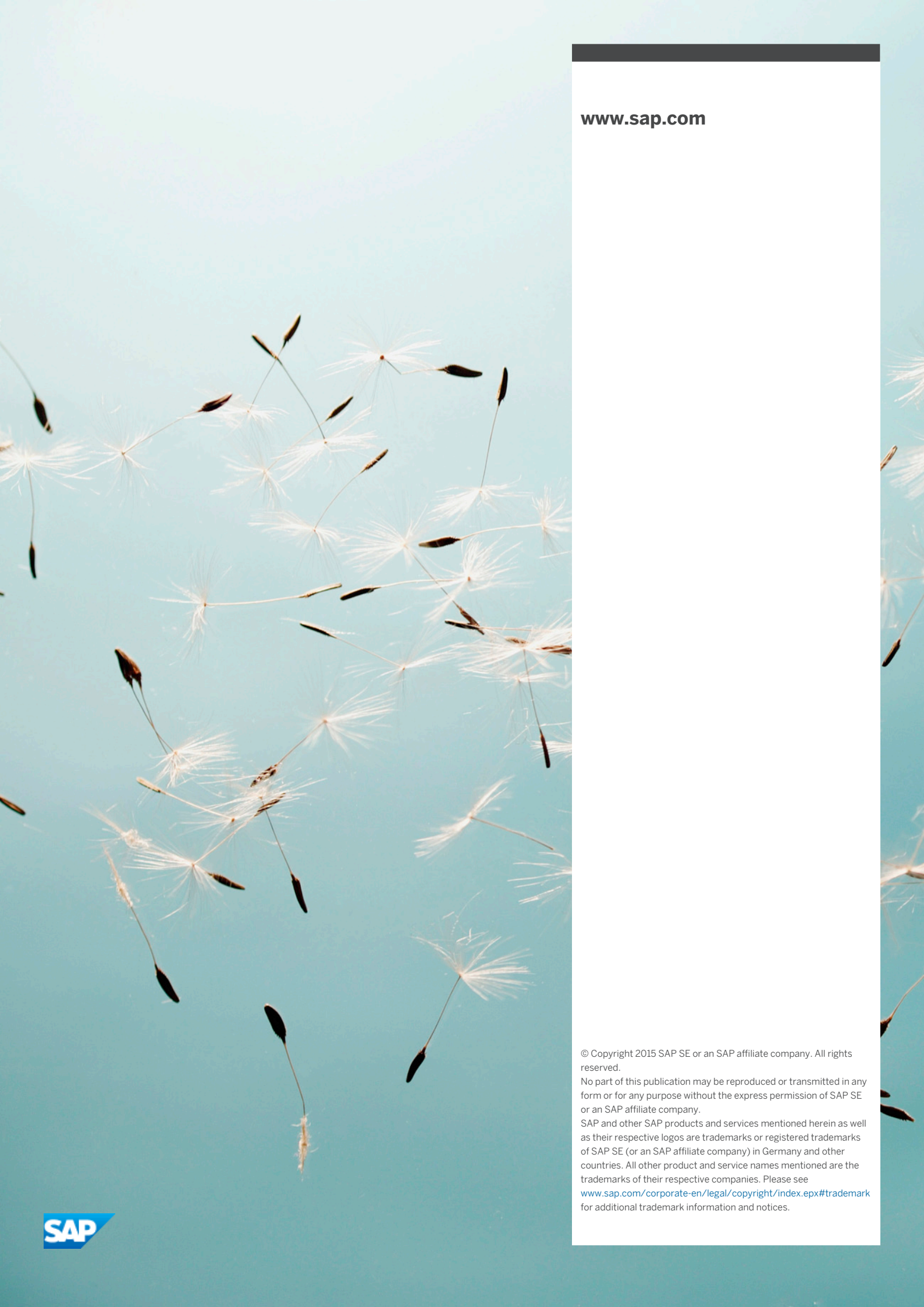
Related Information

- Launch Applications [page 26]

Typographic Conventions

Table 47

Example	Description
<Example>	Angle brackets indicate that you replace these words or characters with appropriate entries to make entries in the system, for example, “Enter your **<User Name>**”.
Example > *Example*	Arrows separating the parts of a navigation path, for example, menu options
Example	Emphasized words or expressions
Example	Words or characters that you enter in the system exactly as they appear in the documentation
www.sap.com	Textual cross-references to an internet address
/example	Quicklinks added to the internet address of a homepage to enable quick access to specific content on the Web
123456	Hyperlink to an SAP Note, for example, SAP Note 123456
Example	• Words or characters quoted from the screen. These include field labels, screen titles, pushbutton labels, menu names, and menu options. • Cross-references to other documentation or published works
`Example`	• Output on the screen following a user action, for example, messages • Source code or syntax quoted directly from a program • File and directory names and their paths, names of variables and parameters, and names of installation, upgrade, and database tools
`EXAMPLE`	Technical names of system objects. These include report names, program names, transaction codes, database table names, and key concepts of a programming language when they are surrounded by body text, for example, `SELECT` and `INCLUDE`
EXAMPLE	Keys on the keyboard



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