

Technical Onboarding Guide

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Version: 0.5

Status: Industry Review (this document is under industry review, and it not in its final version).

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1 Document Control

1.1 Version History

Major changes and modifications to this manual are captured in this section.

Version	Date	Description of Change
0.5	20-APR-2022	Industry Review. This document is under industry review, and it isn't in its final version.

Table 1 Document Structure

1.2 Reference Documents

The documents listed in the table below have been directly referenced for the creation of this document.

Document Title	Version
1. Tatmeen_WKI-0060_Technical Guide for Manufacturers	3.0
2. Tatmeen_WKI-0062_Technical Guide for Dispensers	2.0
3. Tatmeen_WKI-0064_Technical Guide for Logistics	2.0
4. Tatmeen_TST-0111_B2B Onboarding Test Scenarios	1.0
5. Tatmeen_TST-0112_B2B Onboarding Test Execution Template	1.0

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4 Introduction

The UAE's Ministry of Health and Prevention - MoHAP has published legislation that defines the Serialisation and Track and Trace (T&T) requirements for all participants involved in manufacturing, distributing, and dispensing pharmaceutical products. This legislation:

- Applies to the entirety of the UAE territory.
- It becomes effective:
 - Immediately prior to foreign product importation into the UAE.
 - Immediately prior to domestic manufacture release into the UAE. (Being implemented)
- Concludes with dispensing to patients/consumers.
- Manages exceptions such as product recalls.

This legislation is driven by the need to maintain and improve patient safety whilst at the same time reducing counterfeits within the UAE.

Tatmeen is the Information Technology (IT) regulatory system that will support the UAE T&T legislation for the pharmaceutical industry. All products placed on the UAE market need to display a serialised unique identifier on the product secondary packaging. Also aggregated packaging (aggregated homogenous products or logistics units) must display a serialised unique identifier. The appropriate serialised identifiers must be used to record the operational and transactional movements of the products throughout the supply chain and during dispensing to the patient/consumer.

The information recorded by the participants must be transmitted to the Tatmeen traceability system where it is stored. The stored data is made available for regulatory purposes to the authorities of the UAE MoHAP departments.

4.1 Scope of Document

The purpose of this document is to define the technical onboarding for partners that expected to transact or connect electronically with the Tatmeen traceability system supporting the MoHAP regulations.

These instructions and guidelines are the first draft of this technical guide, and it is expected that additional content will be added in future versions of this document, as appropriate.

4.1.1 In Scope

This guide covers the technical onboarding of organizations to the Tatmeen solution.

4.1.2 Out of Scope

The guide refers to systems external to the Tatmeen system, and the onboarding to those external systems is not included in this guide.

4.2 Document Structure

The document follows the outline in Table 2.

Section	Content
Section 0	Introduction and Context
Section 5	Technical Overview
Section 6	Partner technical onboarding
Section 7	Glossary

Table 3 Document Structure

4.3 Target Participants

The following stakeholders/participants apply to this guide.

Participant	Description	Responsibilities
3PL	<p>The Third-Party Logistics (3PL) participant is a logistics partner that is:</p> <ul style="list-style-type: none"> • Physically located outside the UAE, and/or • Located in the UAE Free Trade Zone, and/or • Registered with GS1 as a 3PL partner. <p>Like distributors, they may participate in handling and storing imported products immediately prior to the customs clearance process. This is based on the product delivery Incoterms.</p>	<ul style="list-style-type: none"> • Receive shipment from MAH. • Coordinate with Customs for customs clearance processes.
Batch Releaser	<p>Manufacturing organisation or organisation where the finished product release activity is taking place as approved by MoHAP. During product registration, each company submits to the MoHAP Team the identity of the Batch Releaser.</p>	<ul style="list-style-type: none"> • Adhere to GS1 standards by ensuring that the packaging of all products has a 2D matrix barcode.
CMO	<p>Contracted Manufacturing Organisation (CMO) is a manufacturing entity that produces pharmaceutical products on behalf of the MAH. A CMO is a specific case of a foreign manufacturer.</p>	<ul style="list-style-type: none"> • Adhere to GS1 standards by ensuring that the packaging of all products has a 2D matrix barcode.
Dispensers	<p>A partner providing pharmacy services to provide accurate, timely and qualitative medical product dispensing services to registered patients.</p>	<ul style="list-style-type: none"> • Dispense medication to patients and change status on Tatmeen to dispensed. • Perform supply chain activities on shipment, e.g., pack, unpack, sample, destruction, block, unblock, etc.

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Participant	Description	Responsibilities
Distributor	The distributor is a supply chain partner representing a location for storing medical products and can have a MoHAP license for medical product importation; distribution storage.	<ul style="list-style-type: none">Perform supply chain activities on the product: shipment, receiving, pack, unpack, etc.If having a license for importation, coordinate with Customs for customs clearance processes.
Domestic Manufacturer	Domestic manufacture is a manufacturing entity located in the UAE supplying goods to the UAE market. A domestic manufacturer may also be the MAH.	<ul style="list-style-type: none">Adhere to GS1 standards by ensuring that the packaging of all products has a 2D matrix barcode.Ensure that product and master data are up to date in BrandSync.If it is the MAH, Share commission, aggregation, and shipping data to Tatmeen.
Foreign Manufacturer	A foreign manufacturer is a manufacturing entity outside the UAE that produces goods for importation into the UAE. A foreign manufacturer may also be the MAH.	<ul style="list-style-type: none">Adhere to GS1 standards by ensuring that the packaging of all products has a 2D matrix barcode.Ensure that product and master data are up to date in BrandSyncIf it is the MAH, Share commission, aggregation, and shipping data to Tatmeen.
Licensing Agent	Foreign international manufacturers are supported by UAE local agents, who complete registration and customs declarations.	<ul style="list-style-type: none">Obtain a license from MoHAP.Apply for an import permit from MoHAP's import permit system.Receive shipment from MAH.Can also share commission, aggregation, and shipping data to Tatmeen.Coordinate with Customs for customs clearance processes.

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Participant	Description	Responsibilities
MAH	Marketing Authorisation Holder is the company or other legal entity that has the authorization granted by MoHAP to market a medicine in the UAE.	<ul style="list-style-type: none">• Adhere to GS1 standards by ensuring that the packaging of all products has a 2D matrix barcode• Ensure that product and master data are up to date in BrandSync.• Share commission, aggregation, and shipping data to Tatmeen.
MAH Scientific Office	Representing the MAH in the UAE, it constitutes the licensed entity in the country.	<ul style="list-style-type: none">• Same as the corresponding MAH.

Table 4 Document Stakeholders

5 Technical Overview

The following diagram outlines the high-level technical overview of the Tatmeen solution, highlighting the key building blocks and the interaction between partners and the Tatmeen solution.

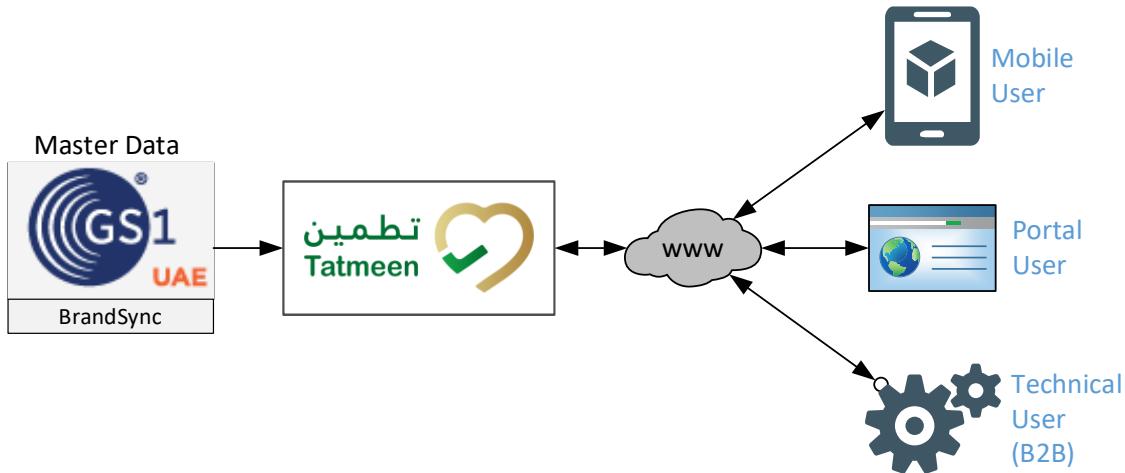


Figure 1 Basic Technical Solution Overview

The following key principles apply to this technical overview.

1. Master data contained in existing MoHAP systems (e.g., Drug Registration System, MoHAP/DHA/DoH Licensing Systems) feeds into the GS1 BrandSync system. This master data is supplemented in the BrandSync solution with additional data required by the Tatmeen solution.
2. No master data maintenance is done directly in the Tatmeen solution as BrandSync is the single source of master data for Tatmeen.
3. Tatmeen provides Portal and Mobile App that can be used by the partners to interact with the Tatmeen solution.
4. Additionally, Tatmeen provides B2B connectivity for which a service user can be created by the SPOC (single point of contact), to connect business partners to the Tatmeen APIs to access Tatmeen services.

5.1 Master Data Overview

From the overview in Figure 1, the following master data objects are administered for the Tatmeen solution by GS1 BrandSync. Source systems to BrandSync are varied and data is expected to be supplemented in BrandSync to meet the Tatmeen data standards. Only fully qualified data will support the Tatmeen solution.

- Product Master Data: All products (registered and unregistered) subject to the UAE MoHAP legislation need to be shared with Tatmeen via BrandSync.
- Partner Master Data:
 - All partners that participate directly in the supply of pharmaceutical products to the UAE; distribution of these products within the UAE and dispensing to patients/consumers should be allocated a GS1 Global Location Number (GLN).
 - Any MoHAP or other UAE government department that participates in the customs clearance; product inspections and oversights and general compliance responsibility for pharmaceutical products should be allocated a GS1 Global Location Number (GLN) in BrandSync.

5.2 Technical Onboarding Prerequisites

5.2.1 Download Onboarding Technical Guides

Download the latest versions of the appropriate technical guides from the link below.

<https://tatmeen.ae/documents>

These documents are limited to Arabic and English language versions. Study the content to identify the activities and processes that your organisation participates in for pharmaceutical products. The details for technical reporting to the Tatmeen solution for relevant processes and activities are detailed in this guide and the associated supply chain partner guides.

5.2.2 Familiarise with Tatmeen Reporting

The following table contains an illustrative view of the relevant technical guides.

Partner Type	Comments	Suggested Guide
Dispensers	Pharmacy or similar organisation involved in dispensing medical products.	Tatmeen Technical Guide for Dispensers Tatmeen Technical Guide for Logistics
3PL	Like distributors, will participate in transporting or storing medical products.	Tatmeen Technical Guide for Logistics
Distributor	Partner participating in transporting or storing medical products.	Tatmeen Technical Guide for Logistics Tatmeen Technical Guide for Manufacturers
Domestic Manufacturer	Factory located in the UAE manufactures medical products for the UAE market.	Tatmeen Technical Guide for Manufacturers Tatmeen Technical Guide for Logistics
Importer of Foreign Manufactured Goods	The registered partner involved in the importation of medical products into the UAE.	Tatmeen Technical Guide for Manufacturers Tatmeen Technical Guide for Logistics

Table 5 Associated Guides for Supply Chain Partners

Each supply chain partner must familiarise themselves with the Tatmeen reporting requirements contained in their relevant guides from Table 5.

5.2.3 Review Master Data

In preparation for technical onboarding, the master data that is transmitted to the Tatmeen solution from BrandSync needs to be adequate and complete to support the supply chain processes at each business location.

Inaccurate or missing master data will significantly impact the business' ability to transact on pharmaceutical products, resulting in technical message failures. The root cause of any failed messages must be corrected before the transaction can be successfully concluded. If there is missing, incomplete or inaccurate master data as the root cause of any failure, then the master data must be corrected in:

- The MoHAP source system, e.g., Licensing Systems (partner master), Drug Registration System (registered products master data).
- Directly in BrandSync for supplementary master data elements.

Displayed below are the fields that would be transmitted to Tatmeen from such systems:

Product Master Data (Registered Drugs)

Field Name	Mandatory/Optional	Description	Source System
MoHAP Registration Number	Mandatory	Drug's registration number in UAE MoHAP system.	MoHAP Drug Registration System
Trade Name	Mandatory	Branded Name of the product. Used by MAH, Agents and downstream users.	MoHAP Drug Registration System
Common Name (INN)	Optional	International Non-proprietary Names (INN) facilitate the identification of pharmaceutical substances or active pharmaceutical ingredients. Each INN is a unique name that is globally recognized and is public property. A non-proprietary name is also known as a generic name. This will help in aggregating similar products for viewing stock.	MoHAP Drug Registration System
Product Description	Mandatory	Description of the product. Useful for describing the product.	MoHAP Drug Registration System

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Field Name	Mandatory/Optional	Description	Source System
Brand Name	Optional	Optional field. For combining all products under a given brand. For example, all Panadol variants.	MoHAP Drug Registration System
Product Category	Mandatory	Helps to differentiate between various categories.	MoHAP Drug Registration System
Target Market	Optional	By default, this would be UAE (AE). But can be used to indicate products that are multi-country.	BrandSync
Country of Batch Release	Optional	Country of origin.	MoHAP Drug Registration System
Strength	Optional	Strength of API in the drug.	MoHAP Drug Registration System
Packaging Type	Optional	Will designate the package type (e.g., bottle, blister).	MoHAP Drug Registration System
Shelf Life	Mandatory	Standard Shelf Life.	MoHAP Drug Registration System
Shelf Life UOM	Mandatory	UOM on which the Shelf Life is expressed (e.g., Months).	MoHAP Drug Registration System
WHO ATC Codes	Optional	WHO classification of the API.	BrandSync
MAH Name	Mandatory	Name of the MAH of the product.	MoHAP Drug Registration System
MAH Country	Mandatory	Country of the MAH.	MoHAP Drug Registration System
MAH GLN	Mandatory	GLN of the MAH of the product.	BrandSync

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Field Name	Mandatory/Optional	Description	Source System
Agent Name	Mandatory	Name of the Agent representing the MAH in UAE.	MoHAP Drug Registration System
Agent License Number	Mandatory	The license of the Agent representing the MAH in UAE.	MoHAP Drug Registration System
Registered Agent GLN	Mandatory	GLN of the Agent representing the MAH in UAE.	BrandSync
Publisher GLN	Mandatory	GLN of the entity submitting the master data. It can be either the MAH or the Agent.	BrandSync
Active Pharmaceutical Ingredient(s)	Optional	Individual Ingredients of the drug.	MoHAP Drug Registration System
Controlled Drug	Mandatory	Y/N Flag.	MoHAP Drug Registration System
Semi-Controlled Drug	Optional	Y/N Flag.	MoHAP Drug Registration System
Controlled Narcotics	Mandatory	Y/N Flag.	MoHAP Drug Registration System
Base Unit of Measure	Mandatory	Base UOM for the product.	MoHAP Drug Registration System
Quantity of Base Unit of Measure	Mandatory	Number with the amount of base of UOM units.	MoHAP Drug Registration System
Registration Valid From	Mandatory	Drug's registration validity from date.	MoHAP Drug Registration System

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Field Name	Mandatory/Optional	Description	Source System
Registration Valid To	Mandatory	Drug's registration validity to date.	MoHAP Drug Registration System
GTIN of Packaging Level	Mandatory	GTIN number of the packaging level.	BrandSync
SKU Packaging Level	Mandatory	Packaging level SKU.	BrandSync
Unit of Measure	Mandatory	UOM for the packaging level.	BrandSync
Numerator	Mandatory	Used for linking the UOM with the base UOM.	BrandSync
Denominator	Mandatory	Used for linking the UOM with the base UOM.	BrandSync
Status	Mandatory	Status of the product (Active, Recalled, Locked for Imports, etc.).	MoHAP Drug Registration System
Batch Releaser	Mandatory	Batch releaser of the product.	MoHAP Drug Registration System
Dispensing Mode	Mandatory	Type of dispensing (e.g., hospital only).	MoHAP Drug Registration System

Table 6 Product Master Data (Registered Drugs)

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Partner Master Data

Field Name	Mandatory/Optional	Description	Source System
MoHAP/DHA/DOH License Number	Mandatory	Partner License Number.	Licensing System
Business Partner Name	Mandatory	Registered Business Name.	Licensing System
Group Name	Optional	Name of the partner group.	GS1-UAE Salesforce
Registration Authority	Optional	Authority issuing the license.	Licensing System
Registration Valid From	Mandatory	Partner registration validity date from.	Licensing System
Registration Valid To	Mandatory	Partner registration validity date to.	Licensing System
Establishment Type	Mandatory	Type of registered establishment.	Licensing System
Roles	Mandatory	Roles assigned to the partner.	Licensing System
GS1 Global Company Prefix	Mandatory	Partner company prefix.	GS1-UAE Salesforce
GLN	Mandatory	Partner GLN.	GS1-UAE Salesforce
Contact	Mandatory	Name of the partner contact person.	Licensing System
Contact Email	Mandatory	Email of the partner contact person.	Licensing System
Contact Phone Number	Mandatory	Phone number of the partner contact person.	Licensing System
Contact 2	Optional	Name of the partner alternative contact person.	Licensing System
Contact 2 Email	Optional	Email of the partner alternative contact person.	Licensing System
Contact 2 Phone Number	Optional	Phone number of the partner alternative contact person.	Licensing System
Status	Mandatory	Partner Status.	Licensing System
Additional GCPs	Optional	Additional GCPs assigned to the partner.	GS1-UAE Salesforce
Additional GLNs	Optional	Additional GLNs assigned to the partner.	GS1-UAE Salesforce

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Field Name	Mandatory/Optional	Description	Source System
SPOC First Name	Mandatory	First Name of the partner SPOC.	GS1-UAE Salesforce
SPOC Last Name	Mandatory	Last Name of the partner SPOC.	GS1-UAE Salesforce
SPOC Work Phone	Mandatory	Office Phone of the partner SPOC.	GS1-UAE Salesforce
SPOC Mobile Phone	Mandatory	Mobile Phone Number of the partner SPOC.	GS1-UAE Salesforce
SPOC Email	Mandatory	Email of the partner SPOC.	GS1-UAE Salesforce
SPOC Role	Mandatory	Role of the partner SPOC in the partner organization.	GS1-UAE Salesforce
Address Street Name	Mandatory	Partner address street name.	Licensing System
Address House Number	Mandatory	Partner address house number.	Licensing System
City Name	Mandatory	Partner address city name.	Licensing System
Postal Code	Mandatory	Partner address postal code.	Licensing System
Country Code	Mandatory	Partner address country code.	Licensing System
Region (State, Province)	Mandatory	Partner address region.	Licensing System
GPS Coordinates	Mandatory	Latitude and Longitude of partner address.	GS1-UAE Salesforce

Table 7 Partner Master Data

5.3 Environment User Administration

The user environment for the Tatmeen solution consists of:

1. Dialogue Users, that belong to four categories:
 - a. Business Partner Single-Point-of-Contact (SPOC).
 - b. Business Partner operational users, being those users at a specific business partner location where they conduct/capture transactions for the Tatmeen solution.
 - c. MoHAP and UAE Government Agency users that only view Tatmeen information.
 - d. Tatmeen Administrator users.
2. Service (also called B2B) Users for business partners. These are used to access predefined Tatmeen electronic Application Programming Interface services.

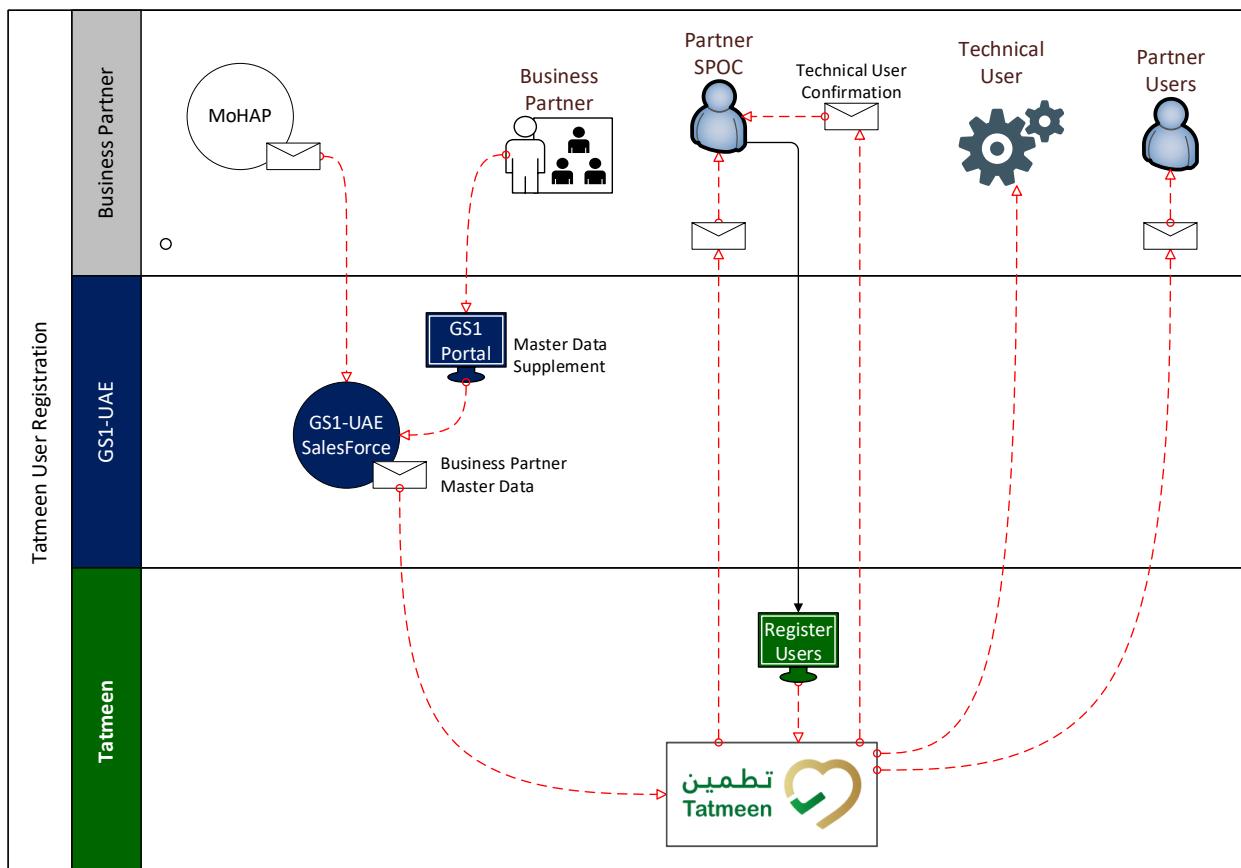


Figure 2 Business Partner User Administration

5.3.1 User Identity

The dialogue users are always identified by an individual person's email address from their parent organisation or personal account. Group email address usernames are not permitted for any dialogue users.

The same restrictions do not apply to technical users where a service email address is required.

5.3.2 Business Partner Single-Point-of-Contact (SPOC)

Each business partner entity in the Tatmeen solution must have a Single-Point-of-Contact (SPOC) defined within the business partner master data. The SPOC uses one of the following dialogue tools to complete their registration to the Tatmeen solution once they receive an invitation message.

- Tatmeen Mobile App based on the minimum operating system versions:
 - iOS, minimum iOS 11.
 - Android, minimum Android 4.1 (Jelly Bean).
- Tatmeen Portal App based on approved browsers as follows:
 - Chrome
 - Safari
 - Edge
 - Firefox

The Tatmeen solution manages the messaging and self-service screens to onboard the SPOC for the business partner.

5.3.1 Service User

After the SPOC completes their registration, they can request creating one or more service users (sometimes referred to as technical users). Note that the service user is not able to use any portal and mobile. Any technical user is only able to interface with the Tatmeen technical integration platform for electronic messaging.

5.3.1 Organisation/Partner Operational User

After the SPOC completes their registration, they will be able to initiate creating additional dialog users for the Tatmeen solution. All the dialog users for the organisation are created against the specific business partner reference (GLN) that is administered by the SPOC.

5.4 Technical Release Environments

5.4.1 Tatmeen Release Environments

The Tatmeen environment consists of a test environment and a single highly available production environment as illustrated in Figure 3.

- STAGING (Pre-Production Test)
- PRODUCTION (Live Environment)

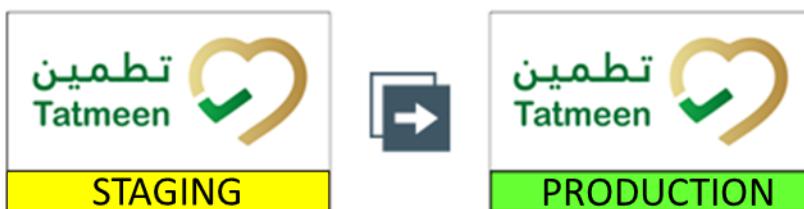


Figure 3 Tatmeen Release Environments

- The STAGING (Pre-Production Test) environment will be used by onboarding partners to test the connection to the Tatmeen API from their own test systems. Successful connection to Tatmeen needs to be tested in the STAGING environment, and evidence of testing gathered and then signed off for release before connecting to PRODUCTION.
- Signed-off releases are then deployed in the PRODUCTION environment for live transactions and messaging.

5.4.2 GS1 Release Environments

The GS1-UAE master data systems are connected to both Tatmeen STAGING and PRODUCTION systems:

- GS1-UAE BrandSync
This master data system is supplied with data from MoHAP; DOH; and DHA drug registration systems and contains product information.
- GS1-UAE Salesforce
This GS1-UAE managed master data system contains partner and facility location information.

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Figure 4 GS1-UAE BrandSync System Release Environment



Figure 5 GS1-UAE Salesforce System Release Environment

6 Technical Onboarding

For those organisations that interact with the Tatmeen solution only using the Tatmeen Mobile and Portal solutions, then this section does not apply.

Technical onboarding is dependent on the nature of the organisation represented by the business partner. Many organisations will choose to share electronic records with the Tatmeen system to meet the UAE MoHAP legislation, and this section defines how the business partner manages that requirement. Since technical onboarding requires a structured approach, the following onboarding environment overview applies.

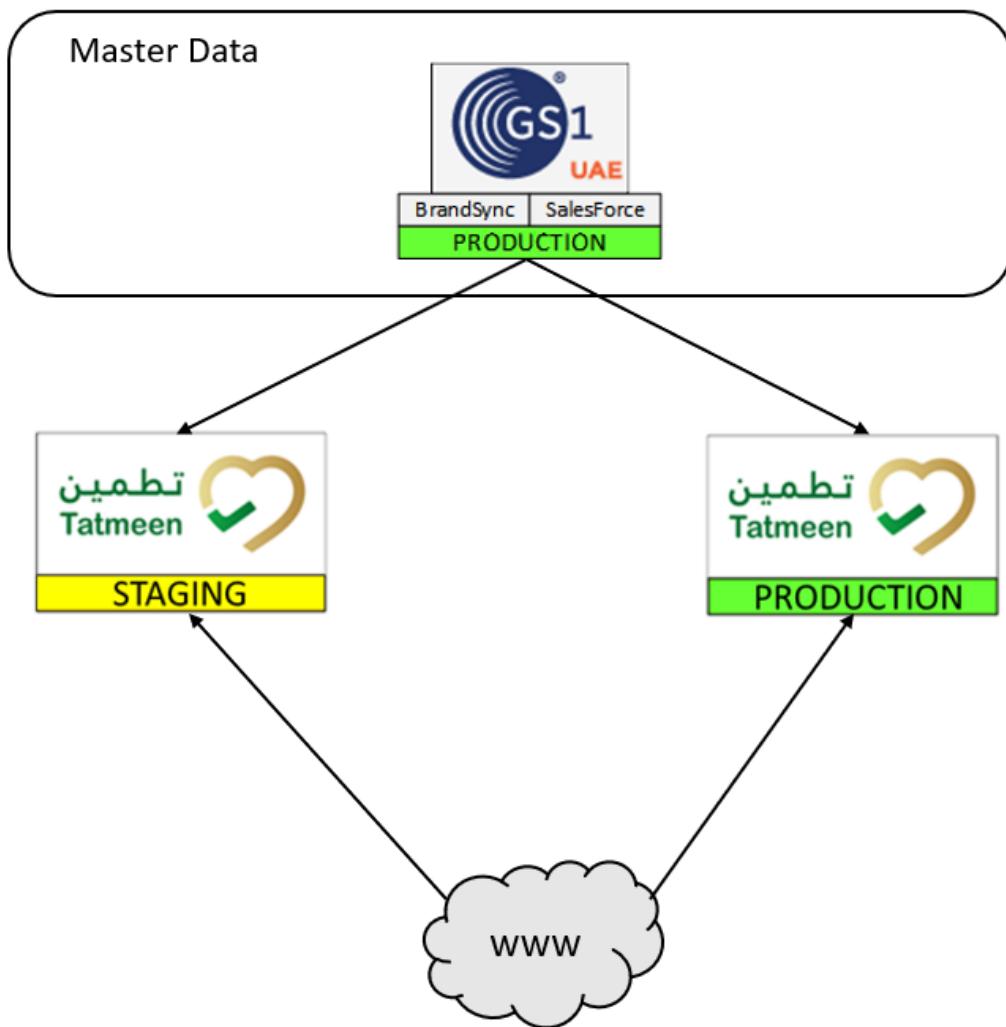


Figure 6 Technical Onboarding Environment

The technical onboarding follows the process overview in the diagram below.

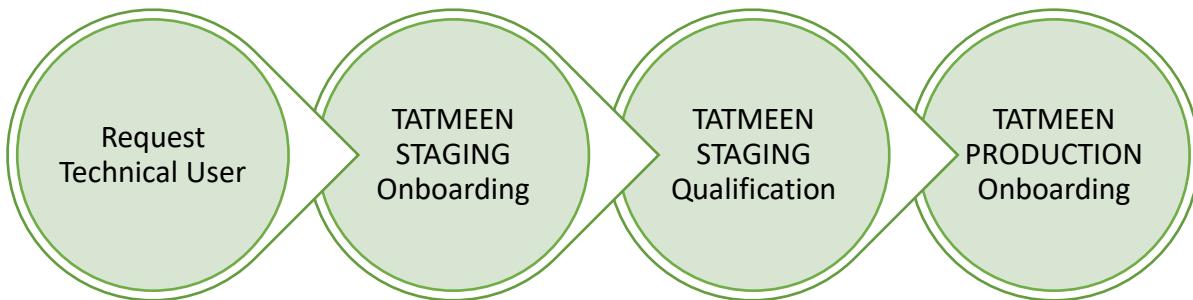


Figure 7 Onboarding Process Overview

6.1 Request Technical User

Section 5 provided an outline of the Tatmeen and GS1-UAE environments and an overview of types of users and some high-level prerequisites. The critical assumption to being able to request a technical user for a partner is:

- The business partner record has synchronised between GS1-UAE master data systems (BrandSync; Salesforce) and the Tatmeen Solution. This business partner record is the trigger to initiate the next bulleted assumption.
- The SPOC is registered in the Tatmeen relevant system (STAGING or PRODUCTION):
 - The SPOC has credentials to access the Tatmeen Self-Service Portal using the Tatmeen Mobile or Portal solution.
 - The SPOC has identified the need to register either a new or existing technical user for the business partner, represented by a specific Global Location Number (GLN).
- The SPOC continues to represent the supply chain partner for all communications regarding technical user creation.

6.1.1 Technical User Preparation

The following details need to be known to the SPOC before requesting the technical user for the business partner GLN.

- GLN for the partner, e.g., 0400123456782
- STAGING (Pre-Production) technical user email address, e.g., pre.tatmeen@pharmaco.ltd
- PRODUCTION technical user email address, e.g., service.tatmeen@pharmaco.ltd

Note that the special case where this technical user services another GLN means that the technical user already exists and should be extended to include this new GLN. The process for an existing technical user remains the same.

6.1.2 Synchronise GS1-UAE Master Data

The Tatmeen solution does not allow any master data manipulation since the GS1-UAE BrandSync and Salesforce systems are the source of all Tatmeen master data.

To support the preparation and qualification of the technical user, the GS1-UAE master data systems (BrandSync; Salesforce) are synchronising master data distribution to both the STAGING (Pre-Production) and PRODUCTION environments.

6.1.3 Tatmeen STAGING (PRE-PRODUCTION) SPOC Creation

The SPOC will receive an invitation from the Tatmeen PRE-PRODUCTION (STAGING) system to complete SPOC registration for the corresponding GLN in BrandSync. Once this registration is complete then the next step is permitted such as service user (technical user) or business user (dialogue user).

Note, that the Tatmeen security credentials for the Tatmeen STAGING system are managed completely independently of the Tatmeen production environment. One SPOC can be responsible for multiple GLNs (locations), which is driven from the SPOC e-mail address maintained in the partner master data in BrandSync.

6.1.4 Tatmeen STAGING (PRE-PRODUCTION) Technical User Creation

The SPOC uses the Tatmeen STAGING system instance of the Tatmeen self-service portal to create the technical user for the Tatmeen STAGING (PRE-PRODUCTION) system with reference to the new GLN. If the technical user already exists, then the SPOC is given the opportunity to extend the existing user to the new GLN. Any communication regarding the Tatmeen STAGING (PRE-PRODUCTION) system provisioning of the user

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account will be sent to the SPOC registered email address. This will include the supplied credentials for the account.

Once successfully provisioned in the Tatmeen STAGING environment the technical user is ready for test and qualification.



6.2 Tatmeen STAGING / PRE-PRODUCTION Onboarding

6.2.1 STAGING (PRE-PRODUCTION) Prerequisites

Before the SPOC continues with the Pre-Production Onboarding, they must have:

1. Staging (Pre-Production) service user e.g., pre.tatmeen@pharmaco.ltd

Note that this username must be used only for the Staging (Pre-Production) environment to ensure segregation of security between technical environments (Pre-Production and Production).

6.2.2 STAGING API Portal Details

API Portal Hub URL	https://prod1devportala1imgmtpae1-cbx8k6mgac.ae1.hana.ondemand.com/
Support Contact	TechSupport@tatmeen.ae

Table 8 Pre-Production Technical End-Point Details

Further details will be provisioned once they are known.

6.2.3 Register to STAGING APIs

Using the credentials (username and password) provided, the SPOC issues them to their organisation's technical IT department (service user) to then register to the STAGING system APIs. The service user logs on to the Tatmeen API Portal. Entering valid credentials then navigates the technical user to the registration page:

- The developer portal lists the set of APIs available to each B2B user
- APIs are grouped into products such as
 - Supply Chain – MAH Reporting
 - Supply Chain – Logistics Reporting
 - Supply Chain – Dispensing Reporting

The service user should follow the instructions for registration as mentioned below:

- Select the relevant product to show the list of APIs e.g.:
 - MAH Serialization B2B
 - Request Token
 - EPCIS Message Status Query
- Before using an API, the specific Product must be subscribed by the B2B user to generate the Application Key
- While in the product page, select the subscribe button
- Select the option to create a new application or add the product to an already created existing application

- Application Key is generated at the application level
- This means if a product is subscribed under an existing application user can reuse the Application Key

The registration request is sent to the registered API Manager administrator for approval.

6.2.4 Subscribe to STAGING APIs

The technical user must use their Staging (Pre-Production) credentials (username and password) provided by the SPOC to log on to the Tatmeen API Portal for the STAGING environment.



Figure 8 Example API Portal Home Screen

Once logged on the service user must select the relevant application product displayed in the API Portal and “**Subscribe**” to the application product.

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Stakeholder	Product	Technical Guide
3PL	Supply Chain – Logistics Reporting	Tatmeen_WKI-0064_Technical Guide for Logistics
DHA/DHCC Warehouse	Supply Chain – Logistics Reporting	Tatmeen_WKI-0064_Technical Guide for Logistics
DoH Warehouse	Supply Chain – Logistics Reporting	Tatmeen_WKI-0064_Technical Guide for Logistics
Distributor / Licensed Agent / Medical Stores	Supply Chain – Logistics Reporting	Tatmeen_WKI-0060_Technical Guide for Manufacturers Tatmeen_WKI-0064_Technical Guide for Logistics
MAH	Supply Chain – MAH Reporting	Tatmeen_WKI-0060_Technical Guide for Manufacturers_v3.0 Tatmeen_WKI-0064_Technical Guide for Logistics
MoHAP Central Stores	Supply Chain – Logistics Reporting	Tatmeen_WKI-0064_Technical Guide for Logistics
MoHAP Peripheral Stores	Supply Chain – Logistics Reporting	Tatmeen_WKI-0064_Technical Guide for Logistics
Private Pharmacies	Supply Chain – Dispense Reporting	Tatmeen_WKI-0062_Technical Guide for Dispensers Tatmeen_WKI-0064_Technical Guide for Logistics
Wholesalers	Supply Chain – Logistics Reporting	Tatmeen_WKI-0064_Technical Guide for Logistics

Table 9 API Mapping by Organisation Type

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The screenshot shows two views of the Application Portal. The top view displays a product page for "Supply Chain - MAH Reporting". It features a "Subscribe" button, three API cards, and tabs for APIs, Rate Plans, and Details. The bottom view shows a modal for creating a new application, with tabs for APIs, Create New Application, Add to Existing Application, and Details.

Supply Chain - MAH Reporting

Subscribe

APIs Rate Plans Details

MAH Serialization Data B2B (Mar 22, 2022)

Request Token (Mar 24, 2022)

EPCIS Message Status Query (Mar 23, 2022)

Supply Chain - MAH Reporting

Subscribe

APIs Create New Application Add to Existing Application Details

Figure 9 Product Subscription Example

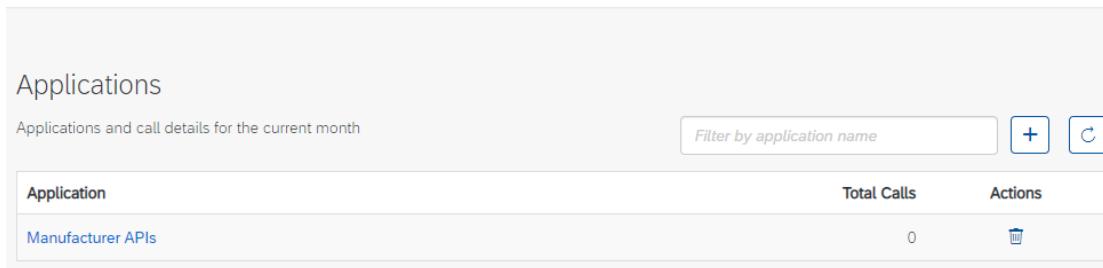
During the initial (first time) subscription, choose the “Create New Application” option, completing all mandatory fields before saving the subscription.

6.2.5 Consume STAGING APIs

To view the APIs in the Application Portal, choose the “My Workspace” menu option at the top left hand of the screen.

My Workspace

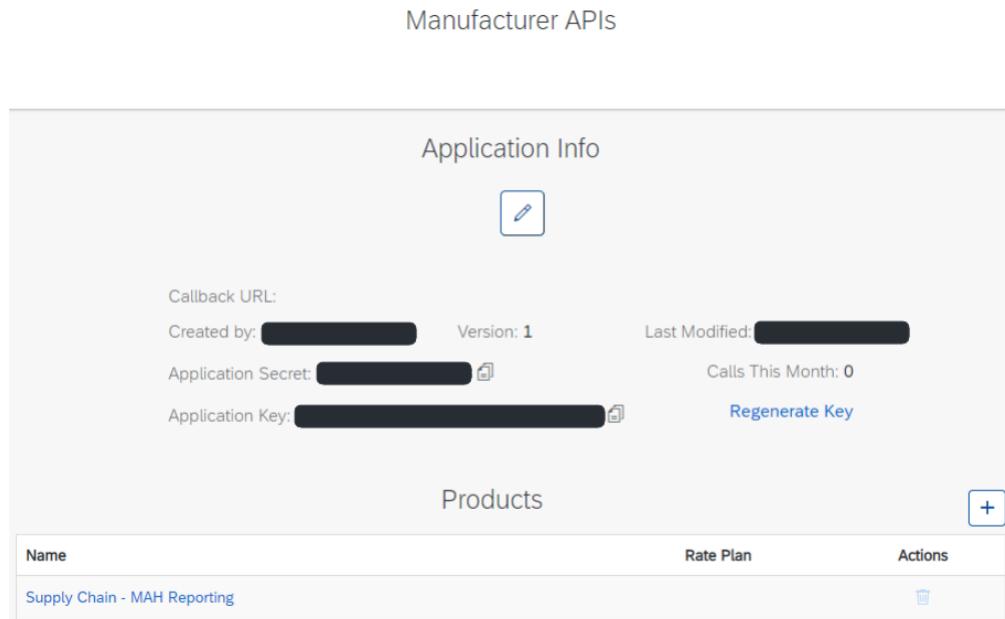
View your applications, costs, and analyze reports



Application	Total Calls	Actions
Manufacturer APIs	0	

Figure 10 Subscribed Applications Example

Selecting the technical users equivalent of the “Manufacturer APIs” application in the Figure 10 example generates the Application Secret and the Application Key (see example in Figure 11).



Name	Rate Plan	Actions
Supply Chain - MAH Reporting		

Figure 11 Consume API Example

As per figure 11, the API portal will provide an application key which is mandatory to pass on each API call.

6.3 Tatmeen STAGING Qualification

To complete the preparation within the Tatmeen Staging system, the Service User credentials are used by the supply chain partner's Technical Team:

1. STAGING (Pre-Production) technical user and password.
2. Application Key.

The usage cases for the service user must be fully tested in the STAGING environment (see Figure 3) providing test evidence before the business partner is permitted to connect to the PRODUCTION environment.

6.3.1 Tatmeen STAGING Environment Testing

The full suite of test scenarios for the partner should be conducted by sending and requesting appropriate messages with the Tatmeen Staging (Pre-Production) system. During this testing, the partner's Technical Team should collect evidence of test results.

The full scope of this testing and the specifics of the test evidence are listed in the following documents:

Tatmeen_B2B_Onboarding Test Scenarios

Tatmeen_B2B_Onboarding Test Execution Template

Once a partner completes the testing, they should capture the evidence using the above execution template and then submit it to TechSupport@tatmeen.ae.

The Tatmeen Administrators will then notify the SPOC to proceed with Onboarding to the Tatmeen Production system when approved for release to Production.

6.4 Tatmeen PRODUCTION Onboarding

6.4.1 PRODUCTION Prerequisites

The creation of the SPOC in the Tatmeen Production environment was described in Section 5.3.2 and the assumption for this guide is that the SPOC is already registered in this environment.

Note, that the security credentials for the Tatmeen PRODUCTION system are managed completely independently.

Before the SPOC continues with the Production Onboarding, they must have:

1. Production service user, e.g., service.tatmeen@pharmaco.ltd

Note, that this username must be used only for the Production environment to ensure segregation of security between technical environments.

6.4.2 Tatmeen PRODUCTION Technical User Creation

The SPOC uses the Tatmeen PRODUCTION system instance of the Tatmeen self-service portal to complete creating the technical user for the Tatmeen PRODUCTION system with reference to the new GLN. If the technical user already exists, then the SPOC is given the opportunity to extend the existing user to the new GLN. Any communication regarding the Tatmeen PRODUCTION system provisioning of the user account will be sent to the SPOC registered email address. This will include the supplied credentials for the account.

Once successfully provisioned in the Tatmeen PRODUCTION environment the technical user is ready onboarding.

6.4.3 PRODUCTION API Portal Details

API Portal Hub URL	TBD
Support Contact	TechSupport@tatmeen.ae

Table 10 Pre-Production Technical End-Point Details

Further details will be provisioned once they are known.

6.4.4 Register to PRODUCTION APIs

Using the credentials (username and password) provided, the SPOC issues them to their organisations technical IT department (service user) to then register to the PRODUCTION system APIs. The service user logs on to the Tatmeen API Portal when prompted at the

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Portal page, using the credentials provided by the SPOC. Entering valid credentials then navigates the service user to the registration page and the service user should follow the instructions for registration. Once the Portal page confirms the registration is being processed, the service user logs out.

The registration request is sent to the registered API Manager administrator for approval.

6.4.5 Subscribe to PRODUCTION APIs

The service user must use their Production credentials (username and password) provided by the SPOC to log on to the Tatmeen API Portal for the Production environment.



Figure 12 Example API Portal Home Screen

Once logged on, the technical user must select the relevant application product displayed in the API Portal and “**Subscribe**” to the application product.

Stakeholder	Product	Technical Guide
3PL	Supply Chain – Logistics Reporting	Tatmeen_WKI-0064_Technical Guide for Logistics
DHA/DHCC Warehouse	Supply Chain – Logistics Reporting	Tatmeen_WKI-0064_Technical Guide for Logistics
DoH Warehouse	Supply Chain – Logistics Reporting	Tatmeen_WKI-0064_Technical Guide for Logistics
Distributor / Licensed Agent / Medical Stores	Supply Chain – Logistics Reporting	Tatmeen_WKI-0060_Technical Guide for Manufacturers Tatmeen_WKI-0064_Technical Guide for Logistics
MAH	Supply Chain – MAH Reporting	Tatmeen_WKI-0060_Technical Guide for Manufacturers Tatmeen_WKI-0064_Technical Guide for Logistics
MoHAP Central Stores	Supply Chain – Logistics Reporting	Tatmeen_WKI-0064_Technical Guide for Logistics
MoHAP Peripheral Stores	Supply Chain – Logistics Reporting	Tatmeen_WKI-0064_Technical Guide for Logistics

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Stakeholder	Product	Technical Guide
Private Pharmacies	Supply Chain – Dispense Reporting	Tatmeen_WKI-0062_Technical Guide for Dispensers Tatmeen_WKI-0064_Technical Guide for Logistics
Wholesalers	Supply Chain – Logistics Reporting	Tatmeen_WKI-0064_Technical Guide for Logistics

Table 11 API Mapping by Organisation Type

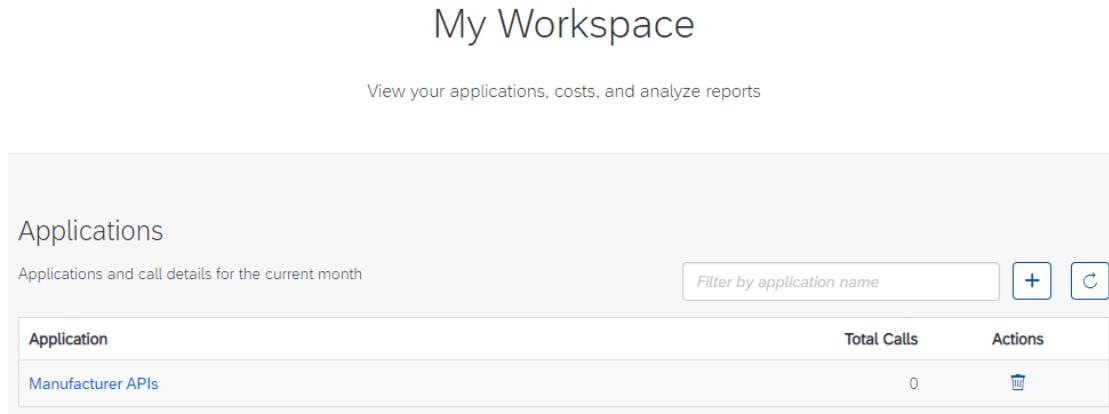
A screenshot of a web-based API subscription interface. At the top center is a small hexagonal icon. Below it is the text "Supply Chain - MAH Reporting". To the right is a blue "Subscribe" button. Below the button are three navigation tabs: "APIs" (which is underlined), "Rate Plans", and "Details". The main area contains three cards, each with a small circular icon and a brief description: "MAH Serialization Data B2B" (Mar 22, 2022), "Request Token" (Mar 24, 2022), and "EPCIS Message Status Query" (Mar 23, 2022).

Figure 13 Product Subscription Example

During the initial (first time) subscription, choose the “Create New Application” option, completing all mandatory fields before saving subscription.

6.4.6 Consume PRODUCTION APIs

To view the APIs in the Application Portal, choose the “My Workspace” menu option at the top left hand of the screen.



The screenshot shows the "My Workspace" interface with the title "My Workspace" at the top. Below it is a subtitle "View your applications, costs, and analyze reports". Underneath is a section titled "Applications" with the subtitle "Applications and call details for the current month". A search bar labeled "Filter by application name" and two buttons ("+" and "C") are visible. A table lists one application: "Manufacturer APIs" with 0 total calls and a delete icon.

Application	Total Calls	Actions
Manufacturer APIs	0	

Figure 14 Subscribed Applications Example

Selecting the technical users equivalent of the “Manufacturer APIs” application in the Figure 14 example generates the Application Secret and the Application Key (see example in Figure 15).

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Manufacturer APIs

The screenshot shows a user interface for managing API applications. At the top, there's a header bar with the title 'Application Info'. Below it, there are several fields: 'Callback URL' (redacted), 'Created by' (redacted), 'Version: 1', 'Last Modified' (redacted), 'Application Secret' (redacted) with a copy icon, 'Calls This Month: 0', 'Application Key' (redacted) with a copy icon, and a 'Regenerate Key' button. Below this is a section titled 'Products' with a '+' icon. A table lists one product: 'Supply Chain - MAH Reporting' under 'Name', with 'Rate Plan' and 'Actions' columns. The 'Actions' column contains a trash icon.

Figure 15 Consume API Example

As per Figure 15, the API portal will provide an application key which is mandatory to pass on each API call.

7 Glossary

General short terms and abbreviations can be found in the Global Glossary (see references).

Short Term	Description
3PL	3 rd Party Logistics.
API	Application Programming Interface.
DHA	Dubai Health Authority.
DOH	Department of Health, Abu Dhabi.
GLN	Global Location Number that is a unique world-wide identifier for an organisational unit or a physical location.
GS1	Standards Organisation for Track and Trace.
IP	Internet Protocol (IP address).
MAH	Marketing Authorization Holder.
MoHAP	Ministry of Health and Prevention.
SPOC	Single Point of Contact, being the individual in a business partner organisation responsible for managing the interactions with the Tatmeen system.
UAE	United Arab Emirates.

Table 12 Glossary

8 Appendix: User Self-Service Technical Guide

This appendix included temporarily as the user guide will only be released once the Pilot is completed. This appendix will provide a brief outline of the user self-service portal and will be removed when the user guide is submitted.

8.1 User Registration – Single Point of Contact (SPOC)

The initiation for the SPOC User Registration begins outside the Tatmeen solution. The SPOC details are maintained against the business partner record in the GS1-UAE Salesforce system for business partner and location records. This business partner record is sent from the GS1-UAE Salesforce system to Tatmeen. On arrival in the Tatmeen system, the master data record is created in Tatmeen. This newly created business partner master data record initiates a workflow to create the SPOC user credentials in the Tatmeen solution.

That workflow sends an email invitation to the SPOC. On first access to the Tatmeen mobile/portal app, the SPOC uses the URL and Hash key sent to their email to access the Tatmeen Registration screen. On the registration screen the following fields should be filled to complete the user registration.

Screen Field	Content	Usage
Email	The email address will be used as the username for the user. This field is pre-populated and cannot be changed.	Required
Password	The user sets a password according to the following rules: <ul style="list-style-type: none"> • A minimum of 14 characters long. • Includes at least one UPPER case Latin letter. • Includes at least one lower case Latin letter. • Includes at least one number. • Includes at least one special character. 	Required
Repeat Password	Repeat the password entered in the previous field. The passwords entered should match identically.	Required

Table 13 Registration Information

Once the SPOC user registration is complete, then the system will allow the SPOC to log on to the Mobile/Portal solution to add operator or technical users.

8.2 SPOC User Administration of Supply Chain Operators

Once the SPOC has registered, they should logon to the Tatmeen Portal to administer the supply chain operator users.

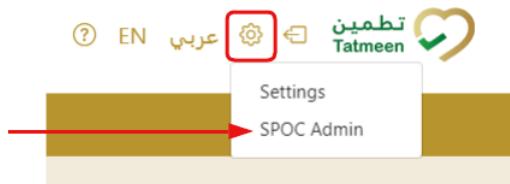
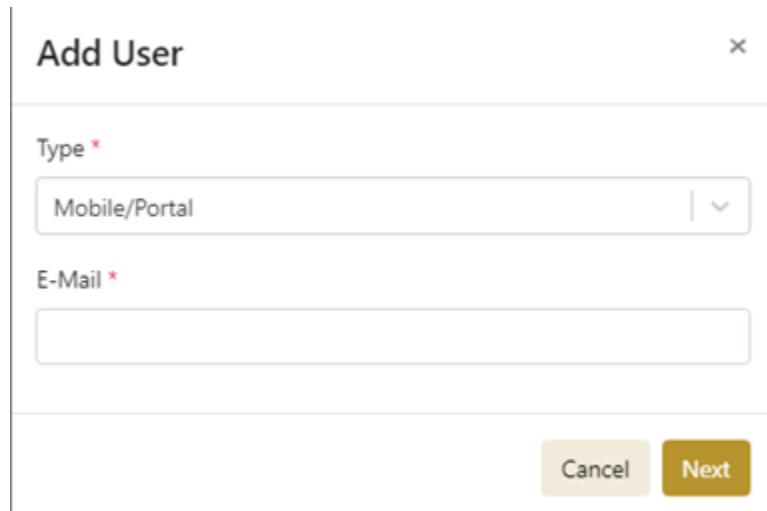


Figure 16 User Administration (SPOC)

Selecting the SPOC Admin menu takes the user to the “Tatmeen – Organisation Administrator/SPOC page. On the Tatmeen – Organisation Administrator/SPOC page, the SPOC administers the users for the organisation

By pressing Invite User  a pop-up window is opened allowing data to be entered for a new user.



Add User	
Type *	Mobile/Portal
E-Mail *	<input type="text"/>
<input type="button" value="Cancel"/> <input type="button" value="Next"/>	

Figure 17 Example "Add User" Screen

After pressing “Next”, the SPOC follows the instructions to complete the user details screen to enter:

Screen Field	Content	Usage
Type	The user type is selected from the drop-down list.	Required
Email	The email address that will be used as the username for the user.	Required
First Name	First name of the user.	Required
Last Name	Last name of the user.	Required
Mobile	Mobile number to receive for multi-factor authentication (for future release).	Required
Location	Location(s) for the user.	Required

Table 14 New User Details

The SPOC can administer the onboarding of supply chain operator users. Once the initial registration invitation sent, the user is visible in the Tatmeen SPOC Admin Portal. All further actions regarding the SPOC own organization users are managed from this Portal page.

- The registration invitation is time limited. If the user does not register within the time deadline, a new invitation should be resent by pressing .
- Active users have this icon  Press on this icon to make user inactive and unable to login to Tatmeen.
- Inactive users have this icon  Press on this icon to make the user active.
- Users' details can be reviewed by pressing .