

Online Contacts Configuration Guide

Introduction

Grandstream's Online Contacts feature allows Grandstream devices to retrieve contact details dynamically from an external HTTP/HTTPS server. This enables centralized contact management for large organizations, with real-time updates and remote access to staff directories.

In this this guide, we will cover how to configure a WP8X6 Wi-Fi Phone to retrieve and search contacts dynamically using:

- A PHP script for server-side logic.
- A static `all_contacts.xml` file as your contact directory
- A softkey or contact menu triggering this integration.

Please note that the example is going to cover the configuration on the WP8x6 device, the same configuration will be applied on other models that support the feature, under the online contacts webui configuration, refer to [supported devices](#) section to find out the devices that support the feature.

Objectives

- Display all contacts when accessing Online Contacts from the phone.
- Enable search by **work number** (`workNum`) field.
- Retrieve results in the required Grandstream XML response format on the phone.

Requirements

- A Grandstream device that supports the Online contacts feature.
- Local HTTP server with PHP support (e.g. XAMPP)
- Local (or remote) network access between server and phone.

Server Side Configuration

The first step is to set up an HTTP/HTTPS server, that will be the source where the phone is going to retrieve the contacts from, the server can be hosted locally , and use a private local ip address, or remotely, however, if set remotely, additional NAT configurations will need to be configured to reach the server, in our example we will set up a local http xampp server, where the device is going to retrieve the contacts stored in an XML file

On the Xampp server, place these two files:

```
/xampp/  
├── all_contacts.xml  
└── getUserInfoByNumber.php
```

- **all_contacts.xml**: This is a static XML file that stores all predefined contact details including name, title, department, email, and work number.
- **getUserInfoByNumber.php**: A PHP script that reads `all_contacts.xml` and returns either all contacts or a specific one based on the `remoteNumber` value received in the URL.

Static Contact Directory

In this file, we will populate an example of a list of contacts that will be stored on our server, with their corresponding information :

```
<?xml version="1.0" encoding="UTF-8"?>
<responce>
  <success>true</success>
  <directory>
    <item_list>
      <item>
        <fn>John Doe</fn>
        <lb>Manager</lb>
        <dp>Sales</dp>
        <em>john.doe@example.com</em>
        <workNum>1001</workNum>
      </item>
      <item>
        <fn>Jane Smith</fn>
        <lb>Engineer</lb>
        <dp>R&D</dp>
        <em>jane.smith@example.com</em>
        <workNum>1002</workNum>
      </item>
      <item>
        <fn>Ali Ben</fn>
        <lb>Technician</lb>
        <dp>Support</dp>
        <em>ali.ben@example.com</em>
        <workNum>1003</workNum>
      </item>
      <item>
        <fn>Sara Lim</fn>
        <lb>HR Manager</lb>
        <dp>HR</dp>
        <em>sara.lim@example.com</em>
        <workNum>1004</workNum>
      </item>
      <item>
        <fn>Youssef K.</fn>
        <lb>CTO</lb>
        <dp>IT</dp>
        <em>youssef.k@example.com</em>
        <workNum>1005</workNum>
      </item>
    </item_list>
  </directory>
</responce>
```

Note

The {workNum} field is used for matching with the phone’s {remoteNumber} search input.

Dynamic Contact Lookup

The next step is to create a PHP script that reads the contacts lists in the “**all_contacts.xml**” file and:

- Returns **all contacts** when {remoteNumber} is empty.
- Returns **only the matching contact** if a specific workNum is searched.

An example of script that allows the above conditions:

```

<?php
header('Content-Type: application/xml');

$contactsFile = 'all_contacts.xml';
$searchNumber = $_GET['remoteNumber'] ?? '';

if (!file_exists($contactsFile)) {
    echo "<responce><success>>false</success><error>Contacts file missing</error></responce>";
    exit;
}

$xml = simplexml_load_file($contactsFile);
$response = new SimpleXMLElement('<responce></responce>');

// If no remoteNumber provided, return all contacts
if ($searchNumber === '') {
    $response->addChild('success', 'true');
    $directory = $response->addChild('directory');
    $itemList = $directory->addChild('item_list');
    foreach ($xml->directory->item_list->item as $contact) {
        $item = $itemList->addChild('item');
        $item->addChild('fn', $contact->fn);
        $item->addChild('lb', $contact->lb);
        $item->addChild('dp', $contact->dp);
        $item->addChild('em', $contact->em);
    }
} else {
    // Search for match by workNum
    foreach ($xml->directory->item_list->item as $contact) {
        if ((string)$contact->workNum === $searchNumber) {
            $response->addChild('success', 'true');
            $directory = $response->addChild('directory');
            $itemList = $directory->addChild('item_list');
            $item = $itemList->addChild('item');
            $item->addChild('fn', $contact->fn);
            $item->addChild('lb', $contact->lb);
            $item->addChild('dp', $contact->dp);
            $item->addChild('em', $contact->em);
            echo $response->asXML();
            exit;
        }
    }
    // No match found
    $response->addChild('success', 'false');
    $response->addChild('reason', 'Contact not found');
}

echo $response->asXML();
?>

```

Note

If {remoteNumber} is empty, the entire contact directory is returned. This allows the phone to display all contacts without a manual search.

Device Configuration

In our example we will test with the WP8x6 device, login to the phone’s web interface, and follow the below steps:

- Go to: **Application**→ **Online Contacts**
- Set the Contacts Search URL to “**http://192.168.6.10:8080/xampp/getUserInfoByNumber.php?remoteNumber={remoteNumber}**”: this URL is for GET request that retrieves full or filtered contacts, depending on the value of **{remoteNumber}**
- Leave the Contacts Search HTTP POST option empty, since we will be using GET method, which is sufficient for basic parameter passing.
- The Contact Search Response Syntax must be set as shown below, it ensures the phone parses fields correctly from the XML response:

```
success:/responce/success,
name:/responce/directory/item_list/item/fn,
title:/responce/directory/item_list/item/lb,
department:/responce/directory/item_list/item/dp,
email:/responce/directory/item_list/item/em
```

- Additionally, If the server (Apache, Nginx, etc.) hosting your contact resources (like `getUserInfoByNumber.php` or `all_contacts.xml`) is protected by **HTTP Basic Authentication**, the Grandstream phone must send valid credentials to access those files. the user then will need to provide the **Contacts Search Auth Username and Password**.
- In case you want to test if the URL will return correct values, you can use the Request URL, to to check the response content of the query.

Online Contacts

Contacts Search

Contacts Search URL ?

http://192.168.6.10:8080/xampp/getUserInfoByI

Contacts search HTTP POST ?

Contacts Search Auth Username ?

Contacts Search Auth Password ?

Contact Search Response Syntax ?

Response Syntax

success:/responce/success,
name:/responce/directory/item_list/item/fn,
title:/responce/directory/item_list/item/lb,
department:/responce/directory/item_list/item/d
p,

Request URL

Response Content

Save

Save and Apply

Reset

- Click Save and Apply to apply the settings

Results

To be able to retrieve the online contacts from the LCD settings of the WP8x6 phone, we will need to create a softkey that triggers the online contacts search, we can configure that through the navigate keys:

Softkey Configuration

1. Login to the phone’s web interface.
2. Go to **Programmable Keys**→ **Navigate Keys**
3. Set the Long Press Function to “**Online Contacts**”

Navigate Keys

Navigate Keys	Short Press Function	Long Press Function
Up Navigate Key	Info	Online Contacts
Down Navigate Key	Missed notifications	None
Left Navigate Key	Contacts	None
Right Navigate Key	Account Settings	None

Save

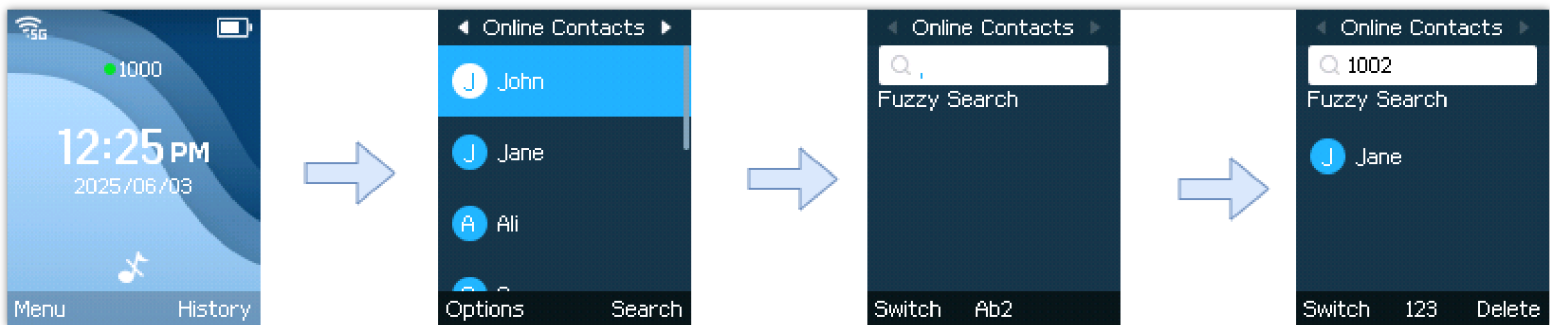
Reset

Online Contacts Retrieval

1. Once the softkey is configured, on the LCD menu, Long press the UP navigate key.

2. The online contacts list will display the lists of contacts stored in the “all_contacts.xml” configuration file.

3. You can search for contacts using their work number, which is treated as the remote number in the search query. The phone then retrieves and displays the contact details that match that work number. (You can switch between Exact Search, and Fuzzy Search)



Optional Improvements

Use MySQL instead of static XML

- Dynamically store and manage contacts in a database instead of manually editing an XML file.
- Makes updates scalable, faster to manage, and easier to integrate with web-based admin panels.

Add search by name or department

- Extend the PHP script to allow searching by fields like contact name or department, not just work number.
- Useful when the caller doesn’t know the exact number but wants to browse based on a role or team.

Implement auth system for secure access

- Protect the contact endpoint with basic authentication or a token system (e.g., API key).
- Prevents unauthorized users or devices from accessing sensitive contact data.

Supported Devices

Supported Devices	Firmware Version
WP816	1.0.1.9+

WP826	1.0.1.9+
WP836	1.0.1.9+
WP856	1.0.1.9+
GRP2601 (P/W)	1.0.5.19+
GRP2602 (P/W/G)	1.0.5.19+
GRP2603(P)	1.0.5.19+
GRP2604(P)	1.0.5.19+

Need Support?

Can't find the answer you're looking for? Don't worry we're here to help!

[CONTACT SUPPORT](#)