

Grandstream Networks, Inc.

WP820

Enterprise Portable Wi-Fi Phone

XML Based Downloadable Phonebook Guide



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OVERVIEW

The WP820 supports a phone book that can hold up to 1000 records. Entering 1000 phone book records through the phone keypad is a time-consuming and error-prone task. The WP820 supports an XML-based downloadable phone book that could be easily shared and maintained remotely via its built-in web interface. In addition, the WP820 supports importing and exporting of both XML and vCard formats.

For efficient deployment and management, XML phonebook files can be stored on a web server for mobile phone downloads. This allow organizations to have a centralized directory server, and all phones in the organization can periodically synchronize the phone book from the server.

A sample XML phone book file is provided at the end of this article. Users can reference the sample XML file to create a phone book for uploading to the device.



FIRMWARE REQUIREMENTS

Before using the XML phone book on WP820, please make sure the firmware on the device is upgrade to the latest version. Please refer to the following link for firmware upgrading information:

Link: <http://www.grandstream.com/support/firmware>

WEB CONFIGURATION

Phonebook Download from Web GUI

XML phone book can be set up on the web UI under Applications->Contacts->Download Contacts. After configuring the above configuration items, click “Save” and then click “Download” to start downloading the phone book file.

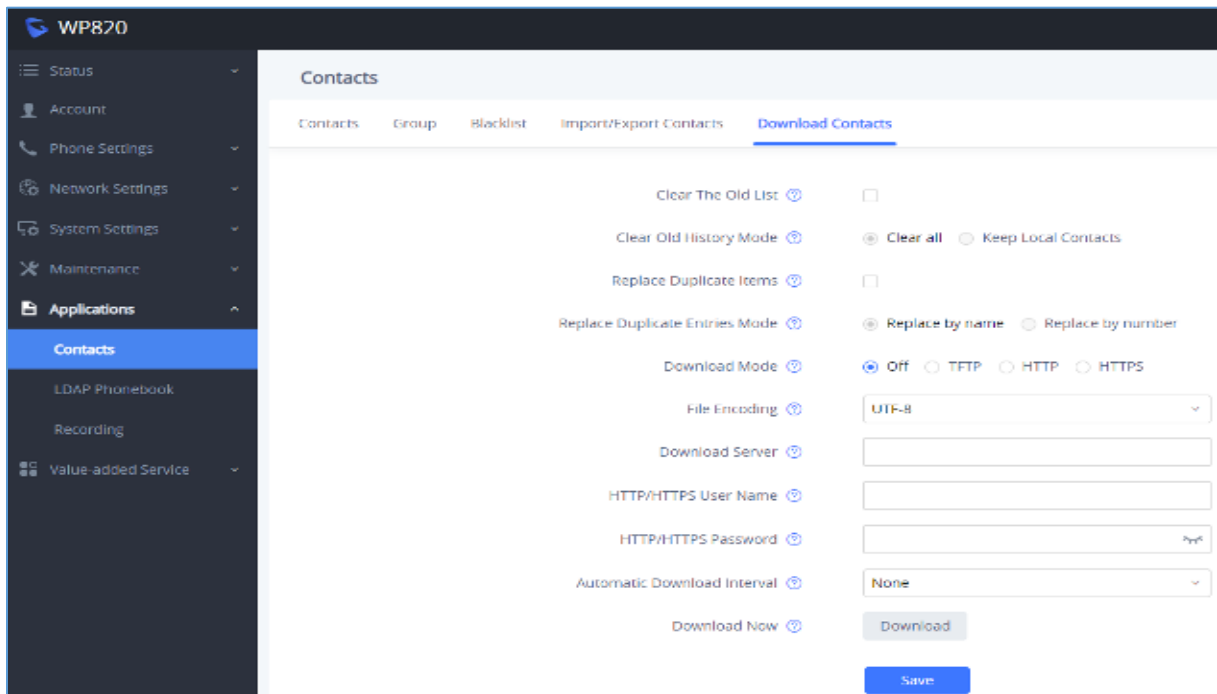


Figure 1: Phonebook Download

Table 1: Download Contacts from Web GUI

Option	Description
Clear The Old List	If set to "Yes", the phone will clear the old list before downloading the new file.
Clear Old History Mode	If set to "Clear all", the phone will delete all previous records before downloading the new records. If set to "Keep Local Contacts", the newly added local new contacts will not be deleted when downloading new records.

Replace Duplicate Items	If set to "Yes", the phone will replace any duplicate items in the phone with the item in the new file.
Replace Duplicate Entries Mode	If set to "Replace by name", replace the records of the same name automatically when downloading new records. If set to "Replace by number", replace the records of the same number automatically when downloading new records.
Download Mode	Selects the file download mode for the download server.
File Encoding	Selects the file encoding for import/export.
Download Server	The URL/IP address of the download server.
HTTP/HTTPS Username	The username for the config HTTP/HTTPS server.
HTTP/HTTPS Password	The password for the config HTTP/HTTPS server.
Automatic Download Interval	The interval at which the phonebook will be downloaded from the download server (in hours).

Phonebook Download using Provisioning Config File

When Users can also use the configuration file to set up the above XML phone book download option for the phone. In this case, the phone may require a reboot before the configuration takes effect. The corresponding p-values are listed in the table below:

Table 2: List of P- Values for Phonebook download

P-Value	Description	Possible Values
P330	Download Mode	0 - No, 1 - YES, HTTP, 2 - YES, TFTP, 3 - Yes, HTTPS. Default is 0
P1435	Clear The Old List	0 - Disabled, 1 - Enabled and 'Clear Old History Mode' is 'Clear all', 2 - Enabled and 'Clear Old History Mode' is 'Keep Local Contacts.' Default is 0.
P1436	Replace Duplicate Items	0 - disabled, 1 – Enabled, replace by name, 2 – Enabled, replace by number



P1681	File Encoding	UTF-8, GBK, UTF-16, UTF-32, Big5, Big5-HKSCS, SHIFT-JIS, ISO8859-1, ISO8859-15, Windows 1251, EUC-KR
P331	Download Server	Set the IP address or domain name of firmware server.
P6713	HTTP/HTTPS Username	Set the user name for the firmware HTTP/HTTPS server.
P6714	HTTP/HTTPS Password	Set the password for the firmware HTTP/HTTPS server.
P332	Automatic Download Interval	0 - None, 5 - 5 min, 30 - 30 min, 60 - 1 Hour, 120 - 2 Hours, 240 - 4 Hours, 360 - 6 Hours, 480 - 8 Hours, 720 - 12 Hours. Default is 0.

The phone will use the P-value in the config file to set the corresponding web parameters. It will attempt to download the phone book XML file located in the download server path and following the configured interval. If the time interval is not set to 0, the device will check the phone book periodically.

Import/Export Phonebook

In addition to downloading phone book files from a remote server, users can also import or export phone book files from the web UI. WP820 supports file import and export in two formats: vCard and XML.

This function can be found on the web UI under **Applications → Contact → Import/Export Contacts:**



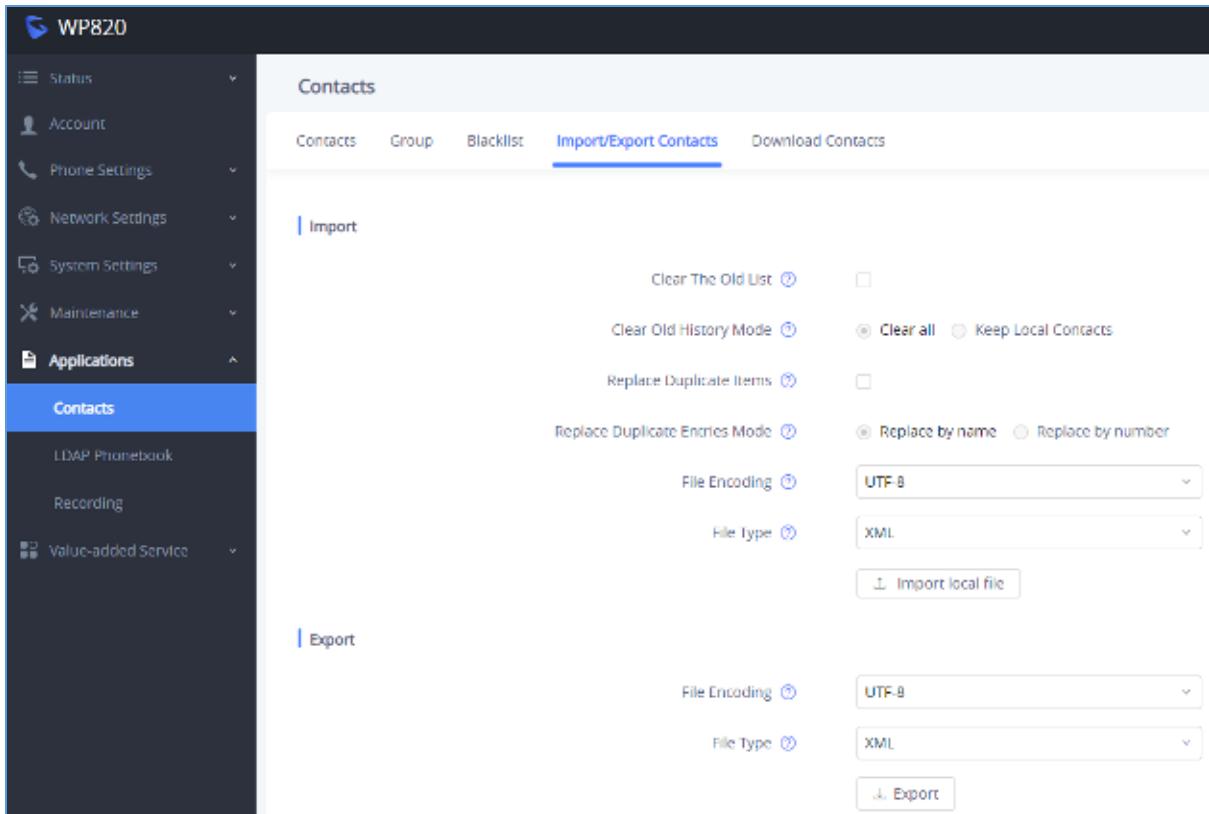


Figure 2: Import/Export Contacts

Phonebook Import

Table 3: Phonebook Import Configuration Parameters

Option	Description
Clear The Old List	If set to "Yes", the phone will clear the old list before importing the new file.
Clear Old History Mode	If set to "Clear all", the phone will delete all previous records before importing the new records. If set to "Keep Local Contacts", the newly added local new contacts will not be deleted when importing new records.
Replace Duplicate Items	If set to "Yes", the phone will replace any duplicate items in the phone with the item in the new file.
Replace Duplicate Entries Mode	If set to "Replace by name", replace the records of the same name automatically when importing new records. If set to "Replace by number", replace the records of the same number automatically when importing new records.
File Encoding	Selects the file encoding for import.
File Type	Selects the file type for import.



After making the desired selections, click “Import local file” and a prompt will display to choose the file to import. Make sure the file to be imported matches the specified file encoding and file type.

Phonebook Export

Table 4: Phonebook Export configuration parameters

Option	Description
File Encoding	Selects the file encoding for export.
File Type	Selects the file type for export.

After making the desired selections, click “Export” and a prompt will display to export the phone book.

Notes:

1. When the imported file exceeds the number of supported contacts (1000), the import will fail and display a corresponding warning prompt.
2. When there is a field that is not supported by WP820 in the imported file, the file can be successfully imported, but the field will not be displayed on the phone.
3. The ringtone setting in “Contacts” has a higher priority than the “Group” ringtone setting.
4. Currently, the fields supported by the WP820 address book contacts are:
First name, last name, work phone, home phone, mobile phone, group (does not support export), ringtone (does not support export), outgoing account, address, company, title, department, position.
Unsupported field cannot be displayed after the supported fields are imported, but the contacts can still be imported successfully.



XML PHONEBOOK SYNTAX

XML Header

In the first line of the XML document, you can set the following headings to XML declarations. It defines the XML version and encoding. For WP820, UTF-8, GBK, UTF-16, UTF-32, Big5, Big5-HKSCS, SHIFT-JIS, ISO8859-1, ISO8859-15 Windows 1251, EUC-KR can be correctly displayed as an encoding method.

Example:

```
<?xml version="1.0" encoding="UTF-8"?>
```

Figure 3: XML Header

Main Structure of the XML Phonebook

An XML phone book example for WP820 can be found in the last section of this document. The main structure is represented as below:

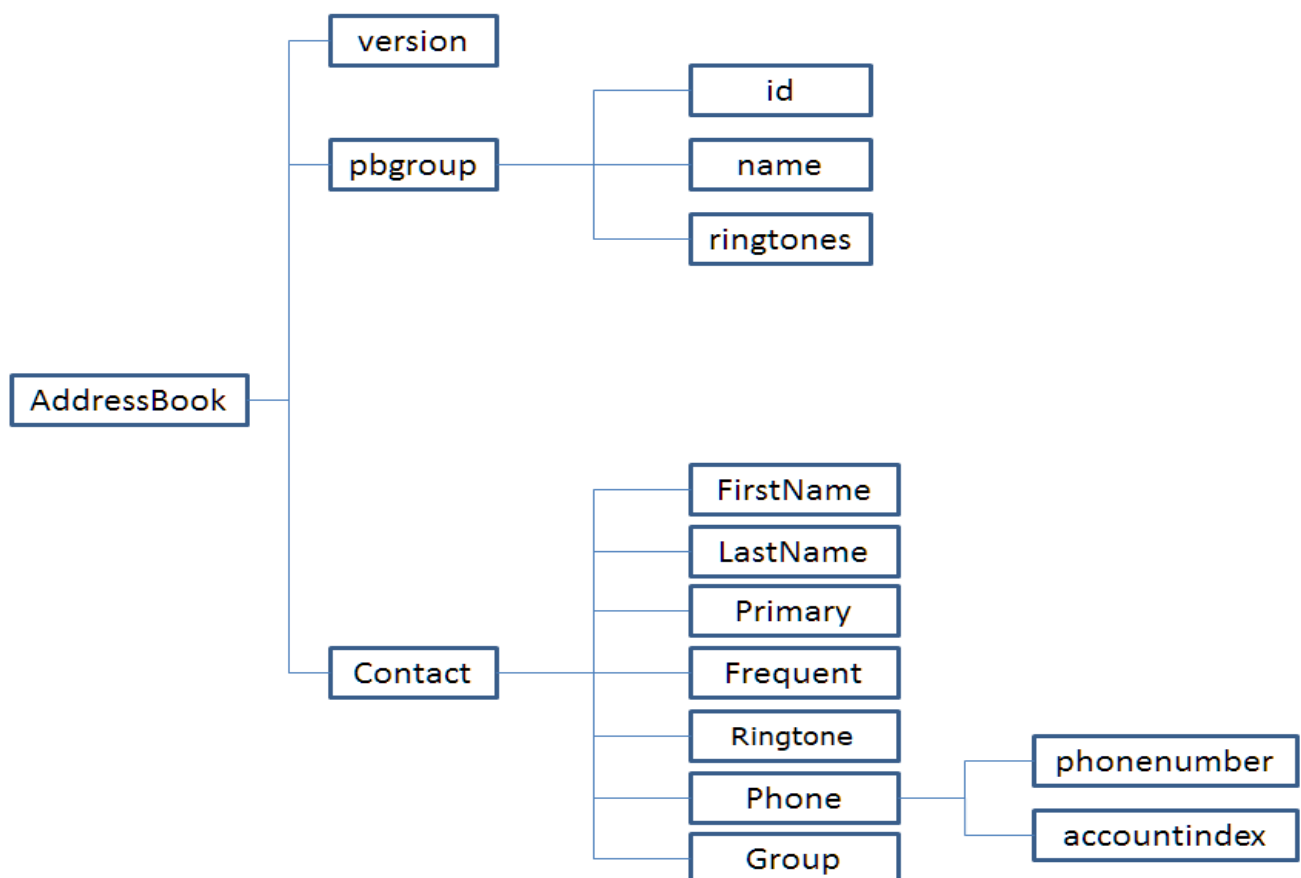


Figure 4: Main XML Hierarchy



```

<AddressBook>
  <version>Enter version number here. Usually 1</version>
  <pbgroup>
    <id>Enter group id here</id>
    <name>Enter group name here</name>
    <ringtones>Enter ring tone URL for the group</ringtones>
  </pbgroup>
  <pbgroup>
    <!-- Enter another group information here, same format as above -->
  </pbgroup>
  <Contact>
    <FirstName>Enter first name here</FirstName>
    <LastName>Enter last name here</LastName>
    <Phone type="Specify phone type here">
      <phonenumber>Enter phone number here</phonenumber>
      <accountindex>Enter account index here</accountindex>
    </Phone>
    <Mail type="Specify phone type here">Enter Email address here</Mail>
    <Group>Enter group ID here</Group>
  </Contact>
  <Contact>
    <!-- Enter another contact information here, same format as above -->
  </Contact>
</AddressBook>

```

Figure 5: XML File Format

XML Phonebook Elements

This section describes details of the XML element used in WP820 XML phone book file. Please note that the element name is case-sensitive when being used in XML document.

Root Element <AddressBook>

<AddressBook> is the root element of an XML document. This element is mandatory.

```

<AddressBook>
  <!-- Enter phone book information here -->
</AddressBook>

```

Figure 6: <AddressBook> Root Element



Table 5: Address Book Element

Object	Position	Type	Values	Comments
AddressBook	Root element	Mandatory	-	Root element of the XML document
version	Child element	Optional	Number	XML format version number. Usually 1.
pbgroup	Child element	Optional	-	Define groups.
Contact	Child element	Mandatory	-	Each contact is a phone book entry.

<pbgroup> element

```

<pbgroup>
  <id>Enter group id here</id>
  <name>Enter group name here</name>
  <ringtones>Enter ring tone URL for the group</ringtones>
</pbgroup>
  
```

Figure 7: <pbgroup> Element

Table 6: <pbgroup> Element

Object	Position	Type	Values	Comments
pbgroup	Element	Optional	-	Each pbgroup is a group. More than 1 group can be defined
id	Child element	Optional	Number	To specify group ID.
name	Child element	Mandatory	String	Group name.
ringtones	Child element	Optional	String	The directory/path to the ring tone file stored in the GXV3275.

<Contact> Element

```

<Contact>
  <FirstName>Enter first name here</FirstName>
  <LastName>Enter last name here</LastName>
  <Primary>Primary number or not</Primary>
  <Frequent>Favorite contact or not</Frequent>
  <Ringtone>Enter ring tone URL here</Ringtone>
  <Phone type="Specify phone type here">
    <phonenumber>Enter phone number here</phonenumber>
    <accountindex>Enter account index here</accountindex>
  </Phone>
  <Group>Enter group ID here</Group>
</Contact>
  
```

Figure 8: <Contact> Element



Table 7: <Contact> Element

Object	Position	Type	Values	Comments
Contact	Element	Mandatory	-	Each contact is an entry
FirstName	Child element	Optional	String	Specify first name and last name. At least one of them has to be specified.
LastName	Child element	Optional	String	
Primary	Child element	Optional	Number	Specify the default phone number. For example, the contact has 3 different phone numbers saved. If <Primary> value is 0, the first number will be used as default when dialing out. If <Primary> value is 1, the second number will be used as default when dialing out.
Frequent	Child element	Optional	Number	0: Default 1: Mark this contact as frequent/favorite
Ringtone	Child element	Optional	String	The directory/path to the ring tone file stored in the GXV3275.
Phone	Child element	Optional	-	Phone number information
Group	Child element	Optional	number	Specify group ID for this contact.

<Phone> Element

```

<Phone type="Specify phone type here">
  <phonenumber>Enter phone number here</phonenumber>
  <accountindex>Enter account index here</accountindex>
</Phone>
  
```

Figure 9: <phone> Element

Table 8 : <Phone> Element

Object	Position	Type	Values	Comments
Phone	Element	Mandatory	-	It has attribute "type". type: Work/Home/Mobile/Fax/Other
phonenumber	Child element	Mandatory	Number	Phone number
accountindex	Child element	Mandatory	Number	From 0 to 5 for account 1 to account 6



XML PHONEBOOK EXAMPLE

```
<?xml version="1.0" encoding="UTF-8"?>
<AddressBook>
  <version>1</version>
  <pbgroup>
    <id>1</id>
    <name>Blacklist</name>
    <ringtones/>
  </pbgroup>
  <pbgroup>
    <id>2</id>
    <name>Work</name>
    <ringtones/>
  </pbgroup>
  <pbgroup>
    <id>3</id>
    <name>Friend</name>
    <ringtones/system/media/audio/ringtones/Bollywood.ogg</ringtones>
  </pbgroup>
  <Contact>
    <FirstName>John</FirstName>
    <LastName>Doe</LastName>
    <Primary>0</Primary>
    <Frequent>0</Frequent>
    <Ringtone>/system/media/audio/ringtones/Backroad.ogg</Ringtone>
    <Phone type="Work">
      <phonenumber>8001</phonenumber>
      <accountindex>1</accountindex>
    </Phone>
    <Phone type="Home">
      <phonenumber>3000001</phonenumber>
      <accountindex>0</accountindex>
    </Phone>
    <Phone type="Mobile">
      <phonenumber>1234567890</phonenumber>
      <accountindex>0</accountindex>
    </Phone>
    <Mail type="Home">JohnDoe@mycompany.com</Mail>
    <Group>1</Group>
  </Contact>
  <Contact>
    <FirstName>Michael</FirstName>
    <LastName>Tsai</LastName>
    <Primary>2</Primary>
    <Frequent>0</Frequent>
    <Phone type="Work">
      <phonenumber>8002</phonenumber>
      <accountindex>1</accountindex>
    </Phone>
  </Contact>
</AddressBook>
```



```
</Phone>
<Phone type="Home">
  <phonenumber>3000002</phonenumber>
  <accountindex>0</accountindex>
</Phone>
<Phone type="Mobile">
  <phonenumber>1234567889</phonenumber>
  <accountindex>0</accountindex>
</Phone>
<Mail type="Other">MichaelTsai@mywebsite.com</Mail>
<Group>2</Group>
</Contact>
<Contact>
  <FirstName>Alex</FirstName>
  <LastName>Smith</LastName>
  <Primary>0</Primary>
  <Frequent>1</Frequent>
  <Ringtone>/system/media/audio/ringtones/bellcore-dr1.ogg</Ringtone>
  <Phone type="Work">
    <phonenumber>8003</phonenumber>
    <accountindex>0</accountindex>
  </Phone>
  <Phone type="Home">
    <phonenumber>3000002</phonenumber>
    <accountindex>0</accountindex>
  </Phone>
  <Phone type="Mobile">
    <phonenumber>2345678888</phonenumber>
    <accountindex>0</accountindex>
  </Phone>
  <Mail type="Work">AlexSmith@myserver.com</Mail>
  <Group>3</Group>
</Contact>
</AddressBook>
```

