



# **XML Based Downloadable Phonebook**

## **Rev 1.1**

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### **1. Introduction**

Starting from release version 1.1.0.X, Grandstream GXP-2000 supports a phonebook that stores up to 100 entries. Users are required to enter all entries via keypad which is inefficient and error prone.

There are also applications where organizations wish to be able to have a centralized directory server and have all phones in the organization to sync up with the server periodically.

### **2. How It Works and Configuration**

A new set of configuration options will be introduced as following:

- Enable Downloadable Phonebook (P330): NO/YES-HTTP/YES-TFTP (default NO). Possible values 0 (NO)/1 (HTTP)/2 (TFTP), other values ignored.
- Phonebook XML Path (P331): This is a string of up to 128 characters that should contain a path to the XML file. It MUST be in the host/path format. For example: “directory.grandstream.com/engineering”
- Phonebook Download Interval (P332): This is an integer variable in hours. Valid value range is 0-720 (default 0), and greater values will default to 720.
- Remove manually edited entries on download: YES/NO (default NO) P333, possible values 0/1, other values ignored

The feature will be activated when “Enable Downloadable Phonebook” is set to YES (HTTP or TFTP) AND a valid “Phonebook XML Path” is set.

When the device boot up and completed the provisioning routine, it will attempt to download the gs\_phonebook.xml file specified in “Phonebook XML Path” and process it as described in the next chapter. Please note that the phonebook file name is fixed, so you can not alter the phonebook file name based on your preference. During this process the LCD should display some messages to indicate that XML Phonebook download is in progress.



## XML Based Downloadable Phonebook

If the “Phonebook Download Interval” is set to a non-zero value a recurring timer will be fired to periodically check that would repeat this process automatically.

When the XML file is downloaded, we will parse it and extract the entries from it. If the “Remove manually edited entries on download” option is set to No (by default), the device will keep ALL stored entries manually edited before, and insert the downloaded entries, and then save the phonebook. Otherwise ALL the existing phonebook entries on the phone will be erased and filled with the downloaded entries.

At any time, you can trigger an immediate download from by choosing the “Download Phonebook” in the GUI Phone Book Menu (you can use the down arrow key when the phone is on-hook).

### 3. XML Syntax

#### XSD file

```
<?xml version="1.0"?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <xsd:element name="AddressBook">
    <xsd:complexType>
      <xsd:sequence>
        <xsd:element name="Contact" minOccurs="1" maxOccurs="unbounded">
          <xsd:complexType>
            <xsd:sequence>
              <xsd:element name="LastName" type="xsd:string" minOccurs="1"/>
              <xsd:element name="FirstName" minOccurs="0" type="xsd:string" nillable="true"/>
              <xsd:element name="Address" minOccurs="0" nillable="true">
                <xsd:complexType>
                  <xsd:sequence>
                    <xsd:element name="address1" type="xsd:string" minOccurs="1" maxOccurs="1"/>
                    <xsd:element name="address2" type="xsd:string" minOccurs="0" maxOccurs="1"/>
                    <xsd:element name="city" type="xsd:string" minOccurs="1" maxOccurs="1"/>
                    <xsd:element name="state" type="xsd:string" minOccurs="1" maxOccurs="1"/>
                    <xsd:element name="zipcode" type="xsd:string" minOccurs="1" maxOccurs="1"/>
                    <xsd:element name="country" type="xsd:string" minOccurs="1" maxOccurs="1"/>
                  </xsd:sequence>
                </xsd:complexType>
              </xsd:element>
            <xsd:element name="Phone">
              <xsd:complexType>
                <xsd:sequence>
                  <xsd:element name="phonenummer" type="xsd:string" minOccurs="1" maxOccurs="1"/>
                  <xsd:element name="accountindex" type="xsd:integer" minOccurs="1" maxOccurs="1" default="1"/>
                </xsd:sequence>
              </xsd:complexType>
            </xsd:element>
          </xsd:sequence>
        </xsd:complexType>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
<xsd:element name="Email" type="xsd:string" minOccurs="0" nillable="true"/>
<xsd:element name="Department" type="xsd:string" minOccurs="0" nillable="true"/>
<xsd:element name="Company" type="xsd:string" minOccurs="0" nillable="true"/>
<xsd:element name="Icon" type="xsd:base64Binary" minOccurs="0" nillable="true"/>
</xsd:sequence>
</xsd:complexType>
</xsd:element>
</xsd:sequence>
</xsd:complexType>
</xsd:element>
</xsd:schema>
```



## 4. Example Phonebook File

```
<?xml version="1.0"?>
<AddressBook>
  <Contact>
    <LastName>Doe</LastName>
    <FirstName>John</FirstName>
    <Phone>
      <phonenumber>8000</phonenumber>
      <accountindex>0</accountindex>
    </Phone>
  </Contact>
  <Contact>
    <LastName>Smith</LastName>
    <FirstName>Alan</FirstName>
    <Phone>
      <phonenumber>8001</phonenumber>
      <accountindex>0</accountindex>
    </Phone>
  </Contact>
  <Contact>
    <LastName>Lee</LastName>
    <FirstName>Lily</FirstName>
    <Phone>
      <phonenumber>6000</phonenumber>
      <accountindex>1</accountindex>
    </Phone>
  </Contact>
</AddressBook>
```