



DHCP Option 66 Auto Provisioning Guide

Overview

UniFi VoIP Phones can be configured using a *Configuration File* through TFTP or HTTP/HTTPS download.

When a UniFi VoIP Phone boots up or reboots, it attempts to get the provisioning server URL from DHCP option 66 and fetch the configuration file named **uvpMAC.xml** from the provisioning server (*MAC* is the MAC address of the UniFi VoIP Phone and should be in upper case, for example **uvp24A43C065D85.xml**).

The provisioning process outlined in this document is compatible with UniFi VoIP Phone platform/Phone app version 4.6.5 or later.

Setup DHCP Option 66

DHCP option 66 (TFTP Server Name) needs to be configured on the DHCP server to provide the provisioning server URL in the DHCP offer packet.

Protocol	Example
TFTP	192.168.100.1
HTTP	http://192.168.100.1/provisioning
HTTPS*	https://192.168.100.1/provisioning

* Without Verification Certificate

Put the Configuration File to the Provisioning server.

Configuration File Filename Format

uvp{UVP_MAC_UPPER_CASE}.xml

Example: **uvp24A43C065D85.xml**

Data Model and Terminology

Profile A group of lines with common characteristics.

Line A separately addressable voice line with a distinct directory number.

One profile can have multiple lines. Profile parameters are under **VoiceService.{i}.VoiceProfile.{j}.SIP**.

Line parameters are under

VoiceService.{i}.VoiceProfile.{j}.Line.{k}.SIP. Where *i* is the number in the format non-negative integers (>=0 number).

Profile Parameters

Parameter	Description	Example
RegistrarServer	PBX SIP server	192.168.10.1
RegistrarServerPort	PBX SIP server port (default to 5060)	5060
OutboundProxy	SIP proxy server for registration, controlling of call routing.	192.168.10.2
OutboundProxyPort	SIP proxy server port (default to 5060)	5060
RegistrationPeriod	Subscription expiry (seconds)	3600

Line parameters

Parameter	Description	Example
URI	Digest username/SIP URI. The value should be sip: prefixed, Ex. sip:UserName@Domain*	sip:user1
AuthUserName	Auth ID used for authentication purposes.	auth_user1
AuthPassword	Digest password	pass1
DisplayName	The CallerID name for calls from this user	User1's Full Name
Voicemail	Voicemail extension	9999

* If URI is empty, the actual SIP URI will be "sip:UserName@Domain" where UserName is username given for AuthUserName.





Configuration File Content Examples

Following are three configuration file examples: Single Account Provisioning (One SIP Account), Multiple Account Provisioning (Two SIP Accounts), and Advanced SIP Account with Authentication Username and Outbound Proxy.

Single Account Provisioning (One Profile, One Line)

```
<soapenv:Envelope soapenv:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:soap="http://schemas.xmlsoap.org/soap/encoding/" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:cwmp="urn:dslforum-org:cwmp-1-0">
```

```
<soapenv:Body>
  <cwmp:SetParameterValues>
    <ParameterList>
      <ParameterValueStruct>
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.SIP.RegistrarServer</Name>
        <Value>192.168.10.1</Value>
      </ParameterValueStruct>
      <ParameterValueStruct>
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.SIP.RegistrarServerPort</Name>
        <Value>5060</Value>
      </ParameterValueStruct>
      <ParameterValueStruct>
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.SIP.OutboundProxy</Name>
        <Value></Value>
      </ParameterValueStruct>
      <ParameterValueStruct>
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.SIP.OutboundProxyPort</Name>
        <Value></Value>
      </ParameterValueStruct>
      <ParameterValueStruct>
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.SIP.RegistrationPeriod</Name>
        <Value>3600</Value>
      </ParameterValueStruct>
      <ParameterValueStruct>
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.1.SIP.URI</Name>
        <Value></Value>
      </ParameterValueStruct>
      <ParameterValueStruct>
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.1.SIP.AuthUserName</Name>
        <Value>username1</Value>
      </ParameterValueStruct>
      <ParameterValueStruct>
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.1.SIP.AuthPassword</Name>
        <Value>pass1</Value>
      </ParameterValueStruct>
      <ParameterValueStruct>
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.1.SIP.DisplayName</Name>
        <Value>Office User1</Value>
      </ParameterValueStruct>
      <ParameterValueStruct>
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.1.SIP.Voicemail</Name>
        <Value>9999</Value>
      </ParameterValueStruct>
    </ParameterList>
  </cwmp:SetParameterValues>
</soapenv:Body>
</soapenv:Envelope>
```



Multiple Account Provisioning (One Profile, Two Lines)

```
<soapenv:Envelope soapenv:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:soap="http://schemas.xmlsoap.org/soap/encoding/" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:cwmp="urn:dslforum-org:cwmp-1-0">
```

```
<soapenv:Body>  
  <cwmp:SetParameterValues>  
    <ParameterList>  
      <ParameterValueStruct>  
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.SIP.RegistrarServer</Name>  
        <Value>192.168.10.1</Value>  
      </ParameterValueStruct>  
      <ParameterValueStruct>  
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.SIP.RegistrarServerPort</Name>  
        <Value>5060</Value>  
      </ParameterValueStruct>  
      <ParameterValueStruct>  
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.SIP.OutboundProxy</Name>  
        <Value></Value>  
      </ParameterValueStruct>  
      <ParameterValueStruct>  
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.SIP.OutboundProxyPort</Name>  
        <Value></Value>  
      </ParameterValueStruct>  
      <ParameterValueStruct>  
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.SIP.RegistrationPeriod</Name>  
        <Value>3600</Value>  
      </ParameterValueStruct>  
      <ParameterValueStruct>  
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.1.SIP.URI</Name>  
        <Value></Value>  
      </ParameterValueStruct>  
      <ParameterValueStruct>  
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.1.SIP.AuthUserName</Name>  
        <Value>1001</Value>  
      </ParameterValueStruct>  
      <ParameterValueStruct>  
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.1.SIP.AuthPassword</Name>  
        <Value>1001</Value>  
      </ParameterValueStruct>  
      <ParameterValueStruct>  
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.1.SIP.DisplayName</Name>  
        <Value>Extension-1</Value>  
      </ParameterValueStruct>  
      <ParameterValueStruct>  
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.1.SIP.Voicemail</Name>  
        <Value>9999</Value>  
      </ParameterValueStruct>  
      <ParameterValueStruct>  
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.2.SIP.URI</Name>  
        <Value></Value>  
      </ParameterValueStruct>  
      <ParameterValueStruct>  
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.2.SIP.AuthUserName</Name>  
        <Value>1002</Value>  
      </ParameterValueStruct>
```



```
<ParameterValueStruct>
  <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.2.SIP.AuthPassword</Name>
  <Value>1002</Value>
</ParameterValueStruct>
<ParameterValueStruct>
  <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.2.SIP.DisplayName</Name>
  <Value>Extension-2</Value>
</ParameterValueStruct>
<ParameterValueStruct>
  <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.2.SIP.Voicemail</Name>
  <Value>9999</Value>
</ParameterValueStruct>
</ParameterList>
</cwpmp:SetParameterValues>
</soapenv:Body>
</soapenv:Envelope>
```



Advanced SIP Account with Authentication Username and OutboundProxy Example

```
<soapenv:Envelope soapenv:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:soap="http://schemas.xmlsoap.org/soap/encoding/" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:cwmp="urn:dslforum-org:cwmp-1-0">
```

```
<soapenv:Body>
  <cwmp:SetParameterValues>
    <ParameterList>
      <ParameterValueStruct>
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.SIP.RegistrarServer</Name>
        <Value>pbx.ubnt.com</Value>
      </ParameterValueStruct>
      <ParameterValueStruct>
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.SIP.RegistrarServerPort</Name>
        <Value>5060</Value>
      </ParameterValueStruct>
      <ParameterValueStruct>
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.SIP.OutboundProxy</Name>
        <Value>sip.ubnt.com</Value>
      </ParameterValueStruct>
      <ParameterValueStruct>
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.SIP.OutboundProxyPort</Name>
        <Value>5060</Value>
      </ParameterValueStruct>
      <ParameterValueStruct>
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.SIP.RegistrationPeriod</Name>
        <Value>3600</Value>
      </ParameterValueStruct>
      <ParameterValueStruct>
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.1.SIP.URI</Name>
        <Value>sip:jeremy</Value>
      </ParameterValueStruct>
      <ParameterValueStruct>
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.1.SIP.AuthUserName</Name>
        <Value>ubnt_jeremy</Value>
      </ParameterValueStruct>
      <ParameterValueStruct>
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.1.SIP.AuthPassword</Name>
        <Value>0123456789abcdef</Value>
      </ParameterValueStruct>
      <ParameterValueStruct>
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.1.SIP.DisplayName</Name>
        <Value>Jeremy Chang</Value>
      </ParameterValueStruct>
      <ParameterValueStruct>
        <Name>InternetGatewayDevice.Services.VoiceService.1.VoiceProfile.1.Line.1.SIP.Voicemail</Name>
        <Value>9999</Value>
      </ParameterValueStruct>
    </ParameterList>
  </cwmp:SetParameterValues>
</soapenv:Body>
</soapenv:Envelope>
```