

WIZCOM LTD.
***VISION* Application Deployment**
Whitepaper v1.0.0

- all contents are subject to change -

1 Introduction

Sending Mobile Applications or Mobile Content (e.g. wallpapers) to a mobile handset can be a complicated process. Mobile content typically comes in many different versions for all the different handsets available, and different handsets support different download processes. The Application Deployment Engine (ADE) streamlines this process by automatically determining the handset and appropriate Application or Content for the handset.

The ADE attempts to automatically determine the target mobile handset. This results in one of three possible outcomes:

Handset Status	Application Version	Result
Recognised	Available	Application downloaded to handset
Recognised	Unavailable	"Handset not supported" message send to handset
Unrecognised	N/A	Handset is presented with a list of all supported handsets for the target application for the user to choose from.

Within ADE, an "Application" represents either a Mobile Application (e.g. Sybian or Java) or some other distributable content (e.g. a Wallpaper). If both the target device and "Application" support DRM¹ then the "Application" is Forward-Locked to prevent copying to other devices.

An "Application" has one or many "Versions". Each "Version" is used to represent the target platform, e.g. there may be one "Application" with a Nokia Series 40 "Version" and a Nokia Series 60 "Version".

Each "Version" in turn will have multiple "Revisions" assigned to it. These "Revisions" represent the development cycles, e.g. Revision 1.0, Revision 1.1, etc... When the Mobile Application is requested, the latest "Revision" is automatically sent.

This separation allows for detailed reporting on the deployment of the "Application". It is possible to see which "Version" is being downloaded most often, and which "Revisions" are currently active.

Below is an example of the "Application" hierarchy.

- Application *"My Test Application"*
 - Version Nokia Series 40 Java
 - Revision 1.0
 - Revision 1.1
 - Revision 1.2
 - Version Nokia Series 60 Symbian
 - Revision 1.0
 - Revision 1.6
 - Revision 1.8
 - Revision 2.0

1 DRM = Digital Rights Management

2 Interface Details

Customers send requests for configuration messages via a SOAP interface to the Wizcom servers.

2.1 Set-up

Wizcom will provide the customer with the following information:

Data	Description	Example
Username	Username of the customer account	user1732
Password	Password for the customer account	password
URL	URL of the Wizcom <i>VISION</i> server	http://ade.wizcommerce.com

2.2 Interface Specification

There is one interface available, provided by a SOAP interface (WSDLs in Appendix)

1. applicationDelivery – this interface enables the customer to make a request to send an Application or Content to a mobile handset.

2.2.1 Application Delivery

This interface is used to send an Application or Content. This triggers a WAP Push to the handset, which analyses the handset to determine supportability and stream the content.

The SOAP interface provides two methods, `sendApplicationById` and `sendApplicationByName`. These methods take 4 parameters, `account` `username` and `password`, `msisdn` to send the content too, and either `applicationId` and `applicationName` respectively.

Both of these methods return a `RequestResults` object, which has the following parameters:

- `isError` - was there an error in the request
- `errorMessage` - the error message, if any
- `errorCode` - the error code if any
- `id` - the ID of this request

2.3 Status Reports

If the URL is specified in the request, then when the Application or Content is successfully downloaded (NOT installed), an HTTP GET request will be made to the supplied URL. The request will contain two parameters:

Parameter	Description
id	The ID of the request, returned when configuration settings are first sent
status	DOWNLOADED

3 Appendix

3.1 WSDLS

3.1.1 Application Delivery

```
<?xml version="1.0" encoding="UTF-8"?>
<wsdl:definitions
  targetNamespace="http://localhost:8081/ade-soap/services/applicationDelivery"
  xmlns:apachesoap="http://xml.apache.org/xml-soap"
  xmlns:impl="http://localhost:8081/ade-soap/services/applicationDelivery"
  xmlns:intf="http://localhost:8081/ade-soap/services/applicationDelivery"
  xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
  xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/"
  xmlns:wsdlsoap="http://schemas.xmlsoap.org/wsdl/soap/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">

  <wsdl:message name="sendApplicationByNameRequest">
    <wsdl:part name="username" type="xsd:string" />
    <wsdl:part name="password" type="xsd:string" />
    <wsdl:part name="applicationName" type="xsd:string" />
    <wsdl:part name="msisdn" type="xsd:string" />
  </wsdl:message>

  <wsdl:message name="sendApplicationByIdRequest">
    <wsdl:part name="username" type="xsd:string" />
    <wsdl:part name="password" type="xsd:string" />
    <wsdl:part name="applicationId" type="xsd:long" />
    <wsdl:part name="msisdn" type="xsd:string" />
  </wsdl:message>

  <wsdl:message name="sendApplicationByNameResponse">
  </wsdl:message>

  <wsdl:message name="sendApplicationByIdResponse">
  </wsdl:message>

  <wsdl:portType name="RequestService">
    <wsdl:operation name="sendApplicationById">
      parameterOrder="username password applicationId msisdn">
      <wsdl:input message="impl:sendApplicationByIdRequest"
        name="sendApplicationByIdRequest" />
      <wsdl:output message="impl:sendApplicationByIdResponse"
        name="sendApplicationByIdResponse" />
    </wsdl:operation>

    <wsdl:operation name="sendApplicationByName">
      parameterOrder="username password applicationName msisdn">
      <wsdl:input message="impl:sendApplicationByNameRequest"
        name="sendApplicationByNameRequest" />
      <wsdl:output message="impl:sendApplicationByNameResponse"
        name="sendApplicationByNameResponse" />
    </wsdl:operation>
  </wsdl:portType>

  <wsdl:binding name="applicationDeliverySoapBinding"
    type="impl:RequestService">
    <wsdlsoap:binding style="rpc"
      transport="http://schemas.xmlsoap.org/soap/http" />
    <wsdl:operation name="sendApplicationById">
      <wsdlsoap:operation soapAction="" />
      <wsdl:input name="sendApplicationByIdRequest">
        <wsdlsoap:body
          encodingStyle="http://schemas.xmlsoap.org/soap/encoding/"
          namespace="http://soap.core.ade.vision.wizcom.com"
        use="encoded" />
      </wsdl:input>
      <wsdl:output name="sendApplicationByIdResponse">
        <wsdlsoap:body
          encodingStyle="http://schemas.xmlsoap.org/soap/encoding/"
          namespace="http://localhost:8081/ade-
soap/services/applicationDelivery"
        use="encoded" />
      </wsdl:output>
    </wsdl:operation>
  </wsdl:binding>
</wsdl:definitions>
```

```

        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="sendApplicationByName">
        <wsdlsoap:operation soapAction="" />
        <wsdl:input name="sendApplicationByNameRequest">
            <wsdlsoap:body
                encodingStyle="http://schemas.xmlsoap.org/soap/encoding/"
                namespace="http://soap.core.ade.vision.wizcom.com"
use="encoded" />
        </wsdl:input>
        <wsdl:output name="sendApplicationByNameResponse">
            <wsdlsoap:body
                encodingStyle="http://schemas.xmlsoap.org/soap/encoding/"
                namespace="http://localhost:8081/ade-
soap/services/applicationDelivery"
                use="encoded" />
        </wsdl:output>
    </wsdl:operation>
</wsdl:binding>

    <wsdl:service name="RequestServiceService">
        <wsdl:port binding="impl:applicationDeliverySoapBinding"
            name="applicationDelivery">
            <wsdlsoap:address
                location="http://localhost:8081/ade-
soap/services/applicationDelivery" />
        </wsdl:port>
    </wsdl:service>
</wsdl:definitions>

```