## INTERFACE SPECIFICATION

ON

# DATA MANAGEMENT SYSTEM

## **FOR**

# **BUILDINGS ENERGY EFFICIENCY ORDINANCE**

## **FOR**

# **ENERGY EFFICIENCY OFFICE**

OF

# ELECTRICAL AND MECHANICAL SERVICES DEPARTMENT (EMSD)







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2	Automated Systems (HK) Limited (ASL)			

Prepared By:	Endorsed By:
Date:	Date:

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# 1. ENCRYPTION AND DECRYPTION

According to the "Backend API Specification", AES encryption should be used between WBRS and backend system. Following are the encryption/decryption algorithm details:

Name	Value	Description
Algorithm Name	AES	The encryption algorithm name
Algorithm Mode	CBC	The mode of algorithm
Algorithm	PKCS5Padding	The padding of algorithm
Paddings		
<b>Encryption Key</b>	256-bit Encryption	Generate according to "Backend API
	Key	Specification – Appendix A", and shared
		between WBRS and backend system
Client ID	UUID Version-4	Generate according to "Backend API
		Specification – Appendix A", and shared
		between WBRS and backend system
<b>Client Secret</b>	128-bit Encryption Key	Generate according to "Backend API
		Specification – Appendix A", and shared
		between WBRS and backend system. The
		client secret is specifically chosen 128-bit
		length to use as a random initialization
		vector (IV) for AES CBC mode.

The encrypted content should be encoded to BASE64 format before submitting through the API. Vice versa, the encrypted text should be decoded from BASE64 format before decryption.

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## 2. SIGNATURE CREATION AND VERIFICATION

Name	Value	Description
Algorithm Name	HMAC SHA-256	The encryption algorithm name
Client ID	UUID Version-4	Generate according to "Backend API
		Specification – Appendix A", and shared
		between WBRS and backend system
Client Secret	128-bit Encryption	Generate according to "Backend API
	Key	Specification – Appendix A", and shared
		between WBRS and backend system. The
		client secret is specifically chosen 128-bit
		length to use as a secret key for
		HMACSHA256 encryption to Create
		Signature and Verify Signature.
nonce	UUID Version-4	A nonce is a random string, uniquely generated
		for each response by backend system API, and
		shared between WBRS and backend system. It
		is used to prevent replay attack. A nonce can
		be an ASCII string of any length less than or
		equal to 36 (UUID string length) as long as the
		uniqueness requirement is met.
		For verifying signature, nonce is passed from
		request header of API and used to create a new
		signature to be compared.

## Sample Code for Signature Creation

```
public string CreateSignature(String nonce, String encryptedContent)
{
    String key = WebConfigurationManager.AppSettings["aesIv"];

    using (var hmacsha256 = new HMACSHA256(Encoding.UTF8.GetBytes(key)))
    {
        var hash = hmacsha256.ComputeHash(Encoding.UTF8.GetBytes(nonce + encryptedContent));
        var signature = Convert.ToBase64String(hash);
        return signature;
    }
}
```

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# 3. GET ALL PROFILE(S)

**API Description** 

Name	Description
Service Full	Get profiles from the given account
Name	
URL	<pre><backend_service_domain>/{Version}/GetAllProfiles</backend_service_domain></pre>
Request Type	POST
Service	1
Version	
<b>Description of</b>	This API is to retrieve the role of the given account for WBRS verity or
Service	manage role. Both valid and invalid roles shall be returned to WBRS for
	account management.

**Request Headers** 

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses
			clientSecret to sign the concatenated string of
			<b>nonce</b> and <b>encrypted content</b> to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in
			the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for
			each request by WBRS. It is used to prevent replay
			attack. A nonce can be an ASCII string of any
			length less than or equal to 36 (UUID string length)
			as long as the uniqueness requirement is met.

**Request Parameters** 

Tied trest I ter territorer s	i		
Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description
hkid	String	Required	HKID Number

**Response Parameters** 

	Xesponse 1 at ameters					
Parameter	Type	Condition	Description			
txID	String	Required	Unique ID for logging. Please provide this ID			
			during system support.			
code	Option	Required	Code to indicate the result. Details please			
			refer to below section "Response – Code &			
			Message".			
details	String	Required	Details code (For example: CE2001). Details			
			please refer to below section "Response –			
			Code & Message".			
encryptedContent	String	Optional	Return NULL if the code is not "D00000".			
			Details please refer to below section			
			"Response – Content".			

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#### **Response - Content**

Parameter	Type	Condition	Description
Profile	Profile	Required	Details please refer to below section "Content
	Array		- Profile".

#### **Content - Profile**

Content 110m	<u> </u>		
Parameter	Type	Condition	Description
Type	String	Required	Pre-defined role type.
Identifier	String	Required	For create user account. (REA1, REA3)
ExpiryDate	long	Optional	It will be expressed in the number of milliseconds since January 1, 1970 00:00:00
			GMT.

Response - Code & Message

Response – Co	de & Message	
Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is	The parameter "hkid" is null.
	null.	
D20002	Parameter is	The value of "hkid" is not found.
	wrong.	
D30001	Header is null	The header "clientID" is null.
		The header "signature" is null.
		The header "nonce " is null.
D30002	Header is	The header "clientID" is not found in the list.
	wrong	The header "signature" is incorrect. (MITM Attack)
		The header "nonce " is already used. (Replay Attack)
D90000	Unknown	Runtime Exception.
	Exception	

#### Sample Request (with encryption)

```
{
    "encryptedContent":"sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y= "
}
```

## Sample Request (without encryption)

```
{
    "hkid": "A123456(7)"
}
```

#### Sample Response

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":"0514925f",
    "encryptedContent":"P8cyvYML+Ja+RJ7XUNN6sWjckHBjrQz/pM6rLerzFKbaVNoHK
mRvXIC8qwdVwRi5l92VO0cj4uUon5rekd41Q/uRh6VooY3Dun0ajuN9FAJY1+GuHGhE
1ZubRWIq6ls1urXBR7oLIVHat+aqjhtqmtnwRIdZdMQROH2mx1TrEec="
}
```

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**Sample Response (without encryption)** 

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## 4. GET DISTRICT

**API Description** 

Name	Description
Service Full	Get district from the given account
Name	
URL	<pre><backend_service_domain>/{Version}/ GetDistrict</backend_service_domain></pre>
Request Type	POST
Service Version	1
<b>Description of</b>	This API is to retrieve the role of the given account for WBRS verity
Service	or manage role. Both valid and invalid roles shall be returned to
	WBRS for account management.

**Request Headers** 

Request Heade	13		
Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses
_			clientSecret to sign the concatenated string of
			<b>nonce</b> and <b>encrypted content</b> to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in
			the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for
			each request by WBRS. It is used to prevent replay
			attack. A nonce can be an ASCII string of any
			length less than or equal to 36 (UUID string length)
			as long as the uniqueness requirement is met.

**Response Parameters** 

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID
			during system support.
code	Option	Required	Code to indicate the result. Details please
			refer to below section "Response – Code &
			Message".
details	String	Required	Details code (For example: CE2001). Details
			please refer to below section "Response –
			Code & Message".
encryptedContent	String	Optional	Return NULL if the code is not "D00000".
			Details please refer to below section
			"Response – Content".

**Response - Content** 

Parameter	Type	Condition	Description
District	District	Required	Details please refer to below section "Content
	Array		- District".

**Content - District** 

Parameter	Type	Condition	Description
id	Int		ID
districtCd	String(3)		District Code

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ename	String(255)	English Name
cname	String(255)	Chinese Name
scname	String(255)	Second Chinese Name
areaCd	Int	Area Code
remark	String(255)	Remark
modifyDt	String(8)	Modify Date

Response – Code & Message

Kesponse – C	Jule & Miessage	
Code	Description	Message
D00000	Success Result.	Success Result.
D30001	Header is null	The header "clientID" is null.
		The header "signature" is null.
		The header "nonce " is null.
D30002	Header is	The header "clientID" is not found in the list.
	wrong	The header "signature" is incorrect. (MITM Attack)
		The header "nonce " is already used. (Replay Attack)
D90000	Unknown	Runtime Exception.
	Exception	

#### Sample Response

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":"0514925f",
    "encryptedContent":"P8cyvYML+Ja+RJ7XUNN6sWjckHBjrQz/pM6rLerzFKbaVNoHK
mRvXIC8qwdVwRi5192VO0cj4uUon5rekd41Q/uRh6VooY3Dun0ajuN9FAJY1+GuHGhE
1ZubRWIq6ls1urXBR7oLIVHat+aqjhtqmtnwRIdZdMQROH2mx1TrEec="
}
```

Sample Response (without encryption)

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## **5. GET REA REGISTRY**

**API Description** 

Name	Description
Service Full	GetReaRegistry from the given account
Name	
URL	<pre><backend_service_domain>/{Version}/ GetReaRegistry</backend_service_domain></pre>
Request Type	POST
Service Version	1
<b>Description of</b>	This API is to retrieve the role of the given account for WBRS verity
Service	or manage role. Both valid and invalid roles shall be returned to
	WBRS for account management.

**Request Headers** 

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses
			clientSecret to sign the concatenated string of
			<b>nonce</b> and <b>encrypted content</b> to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in
			the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for
			each request by WBRS. It is used to prevent replay
			attack. A nonce can be an ASCII string of any
			length less than or equal to 36 (UUID string length)
			as long as the uniqueness requirement is met.

**Request Parameters** 

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description
hkid	String	Required	HKID Number

**Response Parameters** 

Parameter	Type	Condition	Description	
txID	String	Required	Unique ID for logging. Please provide this ID	
			during system support.	
code	Option	Required	Code to indicate the result. Details please	
			refer to below section "Response – Code &	
			Message".	
details	String	Required	Details code (For example: CE2001). Details	
			please refer to below section "Response –	
			Code & Message".	
encryptedContent	String	Optional	Return NULL if the code is not "D00000".	
			Details please refer to below section	
			"Response – Content".	

## **Response - Content**

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Parameter	Type	Condition	Description
rearegno	String(25)	Required	REA Registered No
engname	String(256)		English Name
chiname	String(256)		Chinese Name
regdate	String		Registered Date
expirydate	String		Expiry Date
contacttel	String(50)		Contact Telephone
emailaddr	String(256)		Email Address
engremarks	String(256)		English Remarks
chiremarks	String(256)		Chinese Remarks
status	Int		Status
displayemail	String(1)		Display Email Address
displaycontact	String(1)		Display Contact Telephone
emailaddrnotify	String(256)		Email Address for Notification
createdate	String		Create Date
createby	String(50)		Create By
updatedate	String		Update Date
updateby	String(50)		Update By
caseno	String(20)		Case No
regdatefirst	String		Registered Date First
expriydatefirst	String		Expriy Date First
titleId	Int		Title ID
dateOfBirth	String		Date Of Birth
addrSt	String(300)		Address Street
compName	String(300)		Company Name
compAddrSt	String(300)		Company Address Street
compPost	String(300)		Company Post
officeTelNo	String(50)		Office Telephone No
faxNo	String(50)		Fax No
hkid	String		Hong Kong ID

Response - Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is	The parameter "hkid" is null.
	null.	
D20002	Parameter is	The value of "hkid" is not found.
	wrong.	
D30001	Header is null	The header "clientID" is null.
		The header "signature" is null.
		The header "nonce " is null.
D30002	Header is	The header "clientID" is not found in the list.
	wrong	The header "signature" is incorrect. (MITM Attack)
		The header "nonce " is already used. (Replay Attack)
D90000	Unknown	Runtime Exception.
	Exception	

## **Sample Request (with encryption)**

{

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```
"encryptedContent": "sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y=""encryptedContent": "sqS0rzo3U5r8G9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJQnd9rc7nvNJ
```

```
Sample Request (without encryption)
```

```
{
    "hkid": "J1111111"
}
```

#### Sample Response

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":"0514925f",
    "encryptedContent":"P8cyvYML+Ja+RJ7XUNN6sWjckHBjrQz/pM6rLerzFKbaVNoHK
mRvXIC8qwdVwRi5192VO0cj4uUon5rekd41Q/uRh6VooY3Dun0ajuN9FAJY1+GuHGhE
1ZubRWIq6ls1urXBR7oLIVHat+aqjhtqmtnwRIdZdMQROH2mx1TrEec="
}
```

Sample Response (without encryption)

```
" rearegno": "EA01070G",
 " engname": "EA01070G E",
 " chiname": "EA01070G C",
 " regdate": "20211213",
 " expirydate": "20211213",
 " contacttel": "0011 3271",
 " emailaddr": "a@a.com",
 " engremarks": "001",
 " chiremarks": "001",
 " status": 1,
 " displayemail": "",
 " displaycontact": "".
 " emailaddrnotify": "",
 " createdate": "20211213",
 " createby": "ASL99",
 " updatedate": "20211213",
 "updateby": "ASL99",
 " caseno": "01070",
 " regdatefirst": "20211213",
 "expriydatefirst": "20211213",
 "titleId": 1,
 " dateOfBirth": "20211213",
 "addrSt": "Flat B, 8/F., Block 13, Sceneway Garden, 8 Sceneway Road, Lam Tin,
Kowloon",
 "compName": "DFS Group Limited",
 "compAddrSt": "8/F., Chinachem Golden Plaza, 77 Mody Road, Tsim Sha Tsui, Kowloon",
 "compPost": "Senior Manager, Facilities Management",
 " officeTelNo": "0011 3271",
 " faxNo": "2571 9662",
 "hkid": ""
```

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}

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## 6. GET COCR SUBMISSION

**API Description** 

Name	Description
Service Full	GetCocrSubmission from the given account
Name	
URL	<pre><backend_service_domain>/{Version}/ GetCocrSubmission</backend_service_domain></pre>
Request Type	POST
Service Version	1
<b>Description of</b>	This API is to retrieve the role of the given account for WBRS verity
Service	or manage role. Both valid and invalid roles shall be returned to
	WBRS for account management.

**Request Headers** 

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses
			clientSecret to sign the concatenated string of
			<b>nonce</b> and <b>encrypted content</b> to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in
			the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for
			each request by WBRS. It is used to prevent replay
			attack. A nonce can be an ASCII string of any
			length less than or equal to 36 (UUID string length)
			as long as the uniqueness requirement is met.

**Request Parameters** 

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description
caseNo	String	Required	Case Number

**Response Parameters** 

Parameter	Type	Condition	Description	
txID	String	Required	Unique ID for logging. Please provide this ID	
			during system support.	
code	Option	Required	Code to indicate the result. Details please	
			refer to below section "Response – Code &	
			Message".	
details	String	Required	Details code (For example: CE2001). Details	
			please refer to below section "Response –	
			Code & Message".	
encryptedContent	String	Optional	Return NULL if the code is not "D00000".	
			Details please refer to below section	
			"Response – Content".	

## **Response - Content**

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Parameter Parameter	Type	Condition	Description	
submissiontype	Int	Required	Submission Type	
recevieddate	String(8)	<b>.</b>	Received Date	
buildingid	Int		Building ID	
becedition	String(30)		BEC Edition	
developerid	Int		Developer ID	
devdeclaredate	String(8)		Dev Declare Date	
ownerid	Int		Owner ID	
ownerdeclaredate	String(8)		Owner Declare Date	
rearegno	String(25)		REA Reg. No.	
readeclaredate	String(8)		REA Declare Date	
categorycode	String(10)		Category Code	
consentdate	String(8)		Consent Date	
consentref	String(50)		Consent Ref	
commencedate	String(8)		Commence Date	
opdate	String(8)		Op Date	
opref	String(10)		Op Ref	
cocrregno	String(25)		Cocr Register No	
caseno	String(20)		Case No	
esubmissionref	String(50)		E Submission Ref	
esubmissiondate	String(8)		E Submission Date	
statuscode	String(10)		Status Code	
createdate	String(8)	Required	Create Date	
createby	String(50)		Create By	
updatedate	String(8)		Update Date	
updateby	String(50)		Update By	
subjectengineer	String(50)		Subject Engineer	
subjectinspector	String(50)		Subject Inspector	
ackdate	String(8)		Ack Date	
screenby	String(50)		Screen By	
screendate	String(8)		Screen Date	
reviewby	String(50)		Review By	
reviewdate	String(8)		Review Date	
dtClosefile	String(8)		File Closure Date	
cocrregdate	String(8)		Cocr register Date	
lastclarifydate	String(8)		Last Clarify Date	
opyear	Int		Op Year	
opmonth	Int		Op Month	
opday	Int		Op Day	
dateexempreceived	String(8)		Exempt Received Date	
datereject	String(8) Reject Date		ž	
dateapproval	String(8)		Approval Date	
reminderletterissuedatecocr1	String(8)		Reminder letter IssueDate COCR1	
reminderletterissuedatecocr2	String(8)		Reminder letter IssueDate COCR2	
inIssuedate	String(8)		IN Issue Date	
inExpirydate	String(8)		IN Expiry Date	

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inReferenceno	String	IN Reference No	
inRemarks	String	IN Remarks	
cocrIssuedate	String(8)	COCR Issue Date	
cocrExpirydate	String(8)	COCR Expiry Date	
cocrCertno	String	COCR Cert Number	
areainternfloor	double	Intern Floor Area	
gfaNondomestic	double	GFA Non Domestic	
gfaDomestic	double	GFA Domestic	
carparkno	Int	Carpark No	
Party	Array of	Party	
	Objects	Refer to: Response – Content–	
		Party	

**Response – Content–** Party

Response – Content– Party			
Parameter	Type	Condition	Description
partyid	Int	Required	Party ID
partytype	String(1)	Required	Party Type
engname	String(256)		English Name
chiname	String(256)		Chinese Name
salutation	String(10)		Salutation
representid	Int		Represent ID
repposition	String(256)		Rep Position
corraddr	String(1024)		Corr Address
phoneno	String(50)		Phone No
faxno	String(50)		Fax No
emailaddress	String(50)		Email Address
createdate	String(8)		Create Date
createby	String(50)		Create By
updatedate	String(8)		Update Date
updateby	String(50)		Update By
corresAddrFlat	String(50)		Corres Address Flat
corresAddrFloor	String(50)		Corres Address Floor
corresAddrBlock	String(50)		Corres Address Block
corresAddrBldg	String(255)		Corres Address Bldg
corresAddrStartNo	Int		Corres Address StartNo
corresAddrStartNoAlpha	String(10)		Corres Address StartNo Alpha
corresAddrEndNo	Int		Corres Address EndNo
corresAddrEndNoAlpha	String(10)		Corres Address EndNo Alpha
corresAddrSt	String		Corres Address Street
corresAddrDistrictCd	String(3)		Corres Address District Code
corresAddrAreaCd	Int		Corres Address Area Code
roleid	Int		Rold ID

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Response - Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	The parameter "caseNo" is null.
D20002	Parameter is wrong.	The value of "caseNo" is not found.
D30001	Header is null	The header "clientID" is null. The header "signature" is null. The header "nonce" is null.
D30002	Header is wrong	The header "clientID" is not found in the list.  The header "signature" is incorrect. (MITM Attack)  The header "nonce" is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

**Sample Request (with encryption)** 

```
{
    "encryptedContent":"sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y= "
}
```

Sample Request (without encryption)

```
{
    " caseNo": "J1111111"
}
```

#### Sample Response

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":"0514925f",
    "encryptedContent":"P8cyvYML+Ja+RJ7XUNN6sWjckHBjrQz/pM6rLerzFKbaVNoHK
mRvXIC8qwdVwRi5l92VO0cj4uUon5rekd41Q/uRh6VooY3Dun0ajuN9FAJY1+GuHGhE
1ZubRWIq6ls1urXBR7oLIVHat+aqjhtqmtnwRIdZdMQROH2mx1TrEec="
}
```

Sample Response (without encryption)

```
"submissionid":1,
"submissiontype":10,
"recevieddate":"20211213",
"buildingid":204,
"becedition":"2012",
"developerid":1
"devdeclaredate":"20211213",
"ownerid":1,
"ownerdeclaredate":"20211213",
"rearegno":"EA00578G",
"readeclaredate":"20211213",
```

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```
"categorycode":"IN".
"consentdate":"20211213",
"consentref": "BD 2/2055/07",
"commencedate":"20211213",
"opdate":"20211213",
"opref":"NT 53/2013",
"cocrregno":"",
"caseno":"EMSD/EEO/BC/34-06091",
"esubmissionref":"",
"esubmissiondate":"20211213",
"statuscode":"2500",
"createdate":"20211213",
"createby": "SYS",
"updatedate":"20211213",
"updateby": "SYS",
"subjectengineer":"E/EEB15/1",
"subjectinspector":"TO/EEB3",
"ackdate":"20211213",
"screenby": "BSI/EEB7/2",
"screendate":"20211213",
"reviewby":"E/EEB5/1",
"reviewdate":"20211213".
"dtClosefile":"20211213"
"cocrregdate":"20211213",
"lastclarifydate":"20211213",
"opyear":2021,
"opmonth":12,
"opday":13,
"dateexempreceived": "20211213",
"datereject": "20211213",
"dateapproval":"20211213",
"reminderletterissuedatecocr1":"20211213",
"reminderletterissuedatecocr2":"20211213",
"inIssuedate":"20211213",
"inExpirydate":"20211213",
"inReferenceno":"",
"inRemarks":"",
"cocrIssuedate":"20211213",
"cocrExpirydate":"20211213",
"cocrCertno":"",
"areainternfloor":1,
"gfaNondomestic":1,
"gfaDomestic":1,
"carparkno":1
"Party":[{
   "partyid":1,
   "partytype":"C",
   "engname":"MTR Corporation Limited",
   "chiname":"香港鐵路有限公司",
```

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```
"salutation":"",
    "representid":1,
   "repposition":"",
   "corraddr": "7/f, Centre Point, 181-185 Gloucester Road, Wan Chai, Hong Kong",
   "phoneno":"3462 6218",
   "faxno": "3464 0911",
   "emailaddress":"tclam3@mtr.com.hk",
   "createdate":"20211213",
   "createby": "SYS",
   "updatedate":"20211213",
   "updateby": "SYS",
   "corresAddrFlat":"".
   "corresAddrFloor":"7",
   "corresAddrBlock":"",
   "corresAddrBldg":"Centre Point",
   "corresAddrStartNo":1,
   "corresAddrStartNoAlpha":"",
   "corresAddrEndNo":1,
   "corresAddrEndNoAlpha":"",
   "corresAddrSt":"",
   "corresAddrDistrictCd":"",
   "corresAddrAreaCd":1,
   "roleid":1
}]
```

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## 7. GET BEC

**API Description** 

Name	Description			
Service Full	Get Bec from the given account			
Name				
URL	<pre><backend_service_domain>/{Version}/ GetBec</backend_service_domain></pre>			
Request Type	POST			
Service Version	1			
<b>Description of</b>	This API is to retrieve the role of the given account for WBRS verity			
Service	or manage role. Both valid and invalid roles shall be returned to			
	WBRS for account management.			

**Request Headers** 

request freade	13		
Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses
		_	clientSecret to sign the concatenated string of
			<b>nonce</b> and <b>encrypted content</b> to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in
			the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for
			each request by WBRS. It is used to prevent replay
			attack. A nonce can be an ASCII string of any
			length less than or equal to 36 (UUID string length)
			as long as the uniqueness requirement is met.

**Response Parameters** 

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID
			during system support.
code	Option	Required	Code to indicate the result. Details please
			refer to below section "Response – Code &
			Message".
details	String	Required	Details code (For example: CE2001). Details
			please refer to below section "Response –
			Code & Message".
encryptedContent	String	Optional	Return NULL if the code is not "D00000".
			Details please refer to below section
			"Response – Content".

**Response - Content** 

Parameter	Type	Condition	Description
Bec	District	Required	Details please refer to below section "Content
	Array		- Bec".

**Content - Bec** 

Parameter	Type	Condition	Description
becedition	String(30)		BECEdition

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Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D30001	Header is null	The header "clientID" is null.
		The header "signature" is null.
		The header "nonce " is null.
D30002	Header is	The header "clientID" is not found in the list.
	wrong	The header "signature" is incorrect. (MITM Attack)
		The header "nonce " is already used. (Replay Attack)
D90000	Unknown	Runtime Exception.
	Exception	

#### **Sample Response**

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":"0514925f",
    "encryptedContent":"P8cyvYML+Ja+RJ7XUNN6sWjckHBjrQz/pM6rLerzFKbaVNoHKmRvXIC8qwdVwRi5l92VO0cj4uUon5rekd41Q/uRh6VooY3Dun0ajuN9FAJY1+GuHGhE1ZubRWIq6ls1urXBR7oLIVHat+aqjhtqmtnwRIdZdMQROH2mx1TrEec="
}
```

**Sample Response (without encryption)** 

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#### 8. EA1

## 8.1. Request Form Data

**API Description** 

Name	Description
Service Full	To get the form data
Name	
URL	<backend_service_domain>/{Version}/EA1/GetForm</backend_service_domain>
Request Type	POST
Service	1
Version	
<b>Description of</b>	To get the form data
Service	

**Request Headers** 

request Heade	13		
Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses
			clientSecret to sign the concatenated string of
			<b>nonce</b> and <b>encrypted content</b> to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in
			the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for
			each request by WBRS. It is used to prevent replay
			attack. A nonce can be an ASCII string of any
			length less than or equal to 36 (UUID string length)
			as long as the uniqueness requirement is met.

**Request Parameters** 

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID
			during system support.
code	Option	Required	Code to indicate the result. Details please refer to
			below section "Response – Code & Message".
details	String	Required	Details code (For example: CE2001). Details
			please refer to below section "Response – Code &
			Message".

Response – Code & Message

1100 001100	Court of 1/1000000	
Code	Description	Message
D00000	Success Result.	Success Result.

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D20001	Parameter is	The parameter "applicationNo" is null.
	null.	
D30001	Header is null	The header "clientID" is null.
		The header "signature" is null.
		The header "nonce " is null.
D30002	Header is	The header "clientID" is not found in the list.
	wrong	The header "signature" is incorrect. (MITM Attack)
		The header "nonce " is already used. (Replay Attack)
D90000	Unknown	Runtime Exception.
	Exception	

## Sample Request (with encryption)

```
{
    "encryptedContent":"sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y= "
}
```

## Sample Request (without encryption)

```
{
    "applicationNo": "L160000001"
}
```

#### Sample Response

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":"0514125f"
}
```

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#### 8.2. Create Form Data

**API Description** 

Name	Description
Service Full	For submitting application form data.
Name	
URL	<pre><backend_service_domain>/{Version}/EA1/SubmitApplication</backend_service_domain></pre>
<b>Request Type</b>	POST
Service	1
Version	
Description	This API is to submit the application from WBRS to the backend. It
of Service	should not return a custom form validation error.

**Request Headers** 

Parameter	Type	Condition	Description	
signature	String	Required	It is a signature of the submitted data. WBRS uses	
			clientSecret to sign the concatenated string of	
			<b>nonce</b> and <b>encrypted content</b> to get the signature.	
clientID	String	Required	Client identifier for finding out the client secret in	
			the backend.	
nonce	String	Required	A nonce is a random string, uniquely generated for	
			each request by WBRS. It is used to prevent replay	
			attack. A nonce can be an ASCII string of any	
			length less than or equal to 36 (UUID string length)	
			as long as the uniqueness requirement is met.	

**Request Parameters** 

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description
applicationNo	String(20)	Required	WBRS Application
			Number
applicationType	String(20)	Required	Application Type (New /
			Renew / Change of
			particulars)
regNo	String(20)	Optional	REA Registration Number
expiryDate	String(8)	Optional	REA Expiry
			Date(yyyyMMdd)
engName	String(100)	Required	Applicant English Name
chiName	String(100)		Applicant Chinese Name
titleId	Int		Applicant Title (Mr. / Miss
			/ Ms.)
dateOfBirth	String(8)		Applicant Date of
			Birth(yyyyMMdd)
hkid	String(30)		Applicant HKID Number
travelDocNo	String(30)		Applicant Travel
			Document Number

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addrLang	String(1)	Applicant Correspondence
addrFlat	String(50)	Address Language Applicant Correspondence
		Address Flat
addrFloor	String(50)	Applicant Correspondence Address Floor
addrBlock	String(50)	Applicant Correspondence Address Block
addrBlg	String(300)	Applicant Correspondence Address Building
addrStartNo	Int	Applicant Correspondence Address Start Street No
addrStartNoAlpha	String(10)	Applicant Correspondence Address Start Street Alpha
addrEndNo	Int	Applicant Correspondence Address End Street No
addrEndNoAlpha	String(10)	Applicant Correspondence Address End Street Alpha
addrSt	String(300)	Applicant Correspondence Address Street
addrDistrict	String(3)	Applicant Correspondence Address District Code
addrAreaId	Int	Applicant Correspondence Address Area ID
compName	String(300)	Current Company Name
compAddrLang	String(1)	Current Company Address Language
compAddrFlat	String(50)	Current Company Address Flat
compAddrFloor	String(50)	Current Company Address Floor
compAddrBlock	String(50)	Current Company Address Block
compAddrBlg	String(300)	Current Company Address Building
compAddrStartNo	Int	Current Company Address Start Street No
compAddrStartNoAlpha	String(10)	Current Company Address Start Street Alpha
compAddrEndNo	Int	Current Company Address End Street No
compAddrEndNoAlpha	String(10)	Current Company Address End Street Alpha
compAddrSt	String(300)	Current Company Address Street
compAddrDistrict	String(3)	Current Company Address District Code
compAddrAreaId	Int	Current Company Address Area ID

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compPost	String(300)	Current Position
emailAddr	String(100)	Email address
telNo	String(20)	Applicant Contact Phone
faxNo	String(20)	Fax Number
officeTelNo	String(20)	Office Telephone Number
qualRe	String(1)	Professional Qualifications - Registered Professional Engineer
qualReDate	String(8)	Qualified Date of Registered Engineer Qualifications(yyyyMMdd)
qualReNo	String(50)	Membership Number of Registered Engineer Qualifications
qualReBss	String(1)	Building Services Discipline of Registered Engineer Qualifications
qualReEll	String(1)	Electrical Discipline of Registered Engineer Qualifications
qualReEnv	String(1)	Environmental Discipline of Registered Engineer Qualifications
qualReMcl	String(1)	Mechanical Discipline of Registered Engineer Qualifications
qualHkie	String(1)	Professional Qualifications - Corporate member of HKIE
qualHkieDate	String(8)	Qualified Date of HKIE membership(yyyyMMdd)
qualHkieNo	String(50)	Membership Number of HKIE
qualHkieBss	String(1)	Building Services Discipline of HKIE Qualifications
qualHkieEll	String(1)	Electrical Discipline of HKIE Qualifications
qualHkieEnv	String(1)	Environmental Discipline of HKIE Qualifications
qualHkieMcl	String(1)	Mechanical Discipline of HKIE Qualifications
qualEqv	String(1)	Professional Qualifications - Equivalent qualification recognized by HKIE
qualEqvDate	String(8)	Qualified Date of Equivalent qualification(yyyyMMdd)
qualEqvNo	String(50)	Membership Number of

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SERVICES DEFARTMENT (EMSD)	,		Equivalent qualification
qualEqvBss	String(1)		Building Services
quiiiiiqvibss			Discipline of Equivalent
			qualification
qualEqvEll	String(1)		Electrical Discipline of
qualEqvEn	Sumg(1)		Equivalent qualification
qualEqvEnv	String(1)		Environmental Discipline
quinzqvznv			of Equivalent qualification
qualEqvMcl	String(1)		Mechanical Discipline of
44	(-)		Equivalent qualification
qualEqvMembership	String(300)		Professional Membership
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	8(-11)		of Equivalent qualification
declareKnowledge	String(1)	Required	Declaration of having the
		1	knowledge required
declareConvictedStatus	String(1)	Required	Declaration of convicted
			status in Hong Kong
declareHavebeenConvicted	String(1)	Required	Declaration of have been
			convicted or not
declareInfoCorrect	String(1)	Required	Declaration of information
			stated are true and correct
qualOther	String(1)		Professional Qualifications
			- Other
qualOtherText	String(300)		Professional Qualifications
			– Other Details
chgName	String(1)		Change of particulars -
			Name
chgAddr	String(1)		Change of particulars -
	G : (4)		Correspondence Address
chgQual	String(1)		Change of particulars -
	G. (1)		Professional Qualification
chklistExp	String(1)		Checklist of Supporting
			Documents - relevant practical experience
chklistQual	String(1)		Checklist of Supporting
ChristQual	Sumg(1)		Documents - professional
			qualifications
chklistSubst	String(1)		Checklist of Supporting
			Documents - substantiate
			documents
receiveDate	String(8)	Required	Application Receive
		1	Date(yyyyMMdd)
wbrsStatus	String(20)	Required	WBRS Status
exp	exp Array		Relevant Practical
			Experience
			Refer to: Resquest –
			Content-Exp
substantiate	Substantiate		Photocopy of the
	Array		documents that substantiate

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the application
Refer to: Resquest – Content– Substantiate

Request - Content-Exp

Parameter	Type	Condition	Description
expFrom	String(8)		Exp From Date
			(yyyyMMdd)
expTo	String(8)		Exp To Date
			(yyyyMMdd)
post	String(100)		Post
compName	String(300)		Comp Name
description	String(1000)		Description of exp
seq	Int		Sequence
originalName	String(300)		Original Name of
			Substantiate

Request - Content- Substantiate

reduced Content Substantiate			
Parameter	Type	Condition	Description
description	String(300)		Description of
			Substantiate
seq	Int		Sequence
originalName	String(300)		Original Name of
			Substantiate

**Response Parameters** 

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID
			during system support.
code	Option	Required	Code to indicate the result. Details please refer to
			below section "Response – Code & Message".
details	String	Required	Details code (For example: CE2001). Details
			please refer to below section "Response – Code &
			Message".

Response - Code & Message

Code	<b>Description</b>	Message	
D00000	Success Result.	Success Result.	
D20001	Parameter is null.	Parameter is null - (parameter name)	
D20002	Already exists.	Parameter already exists - (parameter name)	
D30001	Header is null	The header "clientID" is null.	
		The header "signature" is null.	
		The header "nonce " is null.	
D30002	Header is	The header "clientID" is not found in the list.	
	wrong	The header "signature" is incorrect. (MITM Attack)	
		The header "nonce" is already used. (Replay Attack)	

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D90000	Unknown	Runtime Exception.
	Exception	

#### **Sample Request (with encryption)**

```
{
    "encryptedContent":"sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y= "
}
```

**Sample Request (without encryption)** 

```
"applicationNo": "L160000001",
"applicationType": "NEW",
"regNo": "",
"expiryDate": "20100101",
"engName": "Chan Tai Man",
"chiName": "陳大文",
"titleId": 1,
"dateOfBirth": "20100101",
"hkid": "J1111111",
"travelDocNo": "",
"addrLang": "e",
"addrFlat": "",
"addrFloor": "".
"addrBlock": "".
"addrBlg": "",
"addrSt": "",
"addrDistrict": "",
"addrAreaId": 2,
"compName": "TESTING COMPANY",
"compAddrLang": "e",
"compAddrFlat": "",
"compAddrFloor": "".
"compAddrBlock": "",
"compAddrBlg": "",
"compAddrSt": "",
"compAddrDistrict": "",
"compAddrAreaId": 3,
"compPost": "Post",
"emailAddr": "testing@email.com",
"telNo": "22345678",
"faxNo": "22345678",
"officeTelNo": "23345678",
"qualRe": 1,
"qualReDate": "20100101",
"qualReNo": "",
"qualReBss": 1,
"qualReEll": 0,
"qualReEnv": 0,
"qualReMcl": 0,
"qualHkie": 1,
```

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```
"qualHkieDate": "20100101",
"qualHkieNo": "",
"qualHkieBss": 0,
"qualHkieEll": 1,
"qualHkieEnv": 0,
"qualHkieMcl": 0,
"qualEqv": 1,
"qualEqvDate": "20100101",
"qualEqvNo": "",
"qualEqvBss": 0,
"qualEqvEll": 0,
"qualEqvEnv": 1,
"qualEqvMcl": 0,
"qualEqvMembership": "Testing",
"declareKnowledge": 1,
"declareConvictedStatus": 1,
"declareHavebeenConvicted": 0,
"declareInfoCorrect": 1,
"qualOther": 0,
"qualOtherText": "",
"chgName": 0,
"chgAddr": 0,
"chgQual": 0,
"chklistExp": 1,
"chklistQual": 1,
"chklistSubst": 1,
"receiveDate": "20100101",
"wbrsStatus": 0,
"exp": [
           "expFrom": "20100101",
           "expTo": "20100101",
           "post": "",
           "compName": "",
           "description": "",
           "seq": 1,
           "originalName": ""
"substantiate": [
           "description": "",
           "seq": "",
           "originalName": ""
]
```

#### **Sample Response**

\_\_\_\_\_

```
"code":"D00000",
"message":"D00000",
"txID":"0514125f"
}
```

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#### 8.3. Validation Form Data

**API Description** 

Name	Description
Service Full	For validating the application data before submission.
Name	
URL	<pre><backend_service_domain>/{Version}/EA1/ValidateFormData</backend_service_domain></pre>
<b>Request Type</b>	POST
Service	1
Version	
Description	This API is to validate the application data before submission and to
of Service	check if the applicant already exists or not.

**Request Headers** 

Parameter	Type	Condition	Description	
signature	String	Required	It is a signature of the submitted data. WBRS uses	
			clientSecret to sign the concatenated string of	
			<b>nonce</b> and <b>encrypted content</b> to get the signature.	
clientID	String	Required	Client identifier for finding out the client secret in	
			the backend.	
nonce	String	Required	A nonce is a random string, uniquely generated for	
			each request by WBRS. It is used to prevent replay	
			attack. A nonce can be an ASCII string of any	
			length less than or equal to 36 (UUID string length)	
			as long as the uniqueness requirement is met.	

**Request Parameters** 

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description
applicationNo	String(20)	Required	WBRS Application Number
applicationType	String(20)	Required	Application Type (New / Renew
			/ Change of particulars)
regNo	String(20)	Optional	REA Registration Number
expiryDate	String(8)	Optional	REA Expiry Date(yyyyMMdd)
engName	String(100)	Required	Applicant English Name
chiName	String(100)		Applicant Chinese Name
titleId	Int		Applicant Title (Mr. / Miss /
			Ms.)
dateOfBirth	String(8)		Applicant Date of
			Birth(yyyyMMdd)
hkid	String(30)		Applicant HKID Number
travelDocNo	String(30)		Applicant Travel Document
			Number
addrLang	String(1)		Applicant Correspondence
			Address Language
addrFlat	String(50)		Applicant Correspondence

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SERVICES DEL'ARTIMENT (EMSI		Address Flat
addrFloor	String(50)	Applicant Correspondence
		Address Floor
addrBlock	String(50)	Applicant Correspondence
		Address Block
addrBlg	String(300)	Applicant Correspondence
	8(11)	Address Building
addrStartNo	Int	Applicant Correspondence
		Address Start Street No
addrStartNoAlpha	String(10)	Applicant Correspondence
		Address Start Street Alpha
addrEndNo	Int	Applicant Correspondence
		Address End Street No
addrEndNoAlpha	String(10)	Applicant Correspondence
		Address End Street Alpha
addrSt	String(300)	Applicant Correspondence
		Address Street
addrDistrict	String(3)	Applicant Correspondence
		Address District Code
addrAreaId	Int	Applicant Correspondence
		Address Area ID
compName	String(300)	Current Company Name
compAddrLang	String(1)	Current Company Address
	~ · (50)	Language
compAddrFlat	String(50)	Current Company Address Flat
compAddrFloor	String(50)	Current Company Address Floor
compAddrBlock	String(50)	Current Company Address
4 1 1 DI	G. (200)	Block
compAddrBlg	String(300)	Current Company Address
compAddrStartNo	Int	Building  Commany Address Start
compAddrStartNo	IIIt	Current Company Address Start Street No
compAddrStartNoAlpha	String(10)	Current Company Address Start
CompAddi Stai tivoAipiia	String(10)	Street Alpha
compAddrEndNo	Int	Current Company Address End
compridui Endi (o		Street No
compAddrEndNoAlpha	String(10)	Current Company Address End
The same of the sa		Street Alpha
compAddrSt	String(300)	Current Company Address
•		Street
compAddrDistrict	String(3)	Current Company Address
		District Code
compAddrAreaId	Int	Current Company Address Area
		ID
compPost	String(300)	Current Position
emailAddr	String(100)	Email address
telNo	String(20)	Applicant Contact Phone
faxNo	String(20)	Fax Number
officeTelNo	String(20)	Office Telephone Number

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qualRe	String(1)	Professional Qualifications -
quanxc	String(1)	Registered Professional
ID D 4	G( ; (0)	Engineer
qualReDate	String(8)	Qualified Date of Registered
		Engineer
		Qualifications(yyyyMMdd)
qualReNo	String(50)	Membership Number of
		Registered Engineer
		Qualifications
qualReBss	String(1)	Building Services Discipline of
		Registered Engineer
		Qualifications
qualReEll	String(1)	Electrical Discipline of
4		Registered Engineer
		Qualifications
qualReEnv	String(1)	Environmental Discipline of
quanterny		Registered Engineer
ID M I		Qualifications
qualReMcl	String(1)	Mechanical Discipline of
		Registered Engineer
		Qualifications
qualHkie	String(1)	Professional Qualifications -
		Corporate member of HKIE
qualHkieDate	String(8)	Qualified Date of HKIE
		membership(yyyyMMdd)
qualHkieNo	String(50)	Membership Number of HKIE
qualHkieBss	String(1)	Building Services Discipline of
•		HKIE Qualifications
qualHkieEll	String(1)	Electrical Discipline of HKIE
1		Qualifications
qualHkieEnv	String(1)	Environmental Discipline of
qualitimezh		HKIE Qualifications
qualHkieMcl	String(1)	Mechanical Discipline of HKIE
quantikicivici	String(1)	Qualifications
qualEqu	String(1)	Professional Qualifications -
qualEqv	String(1)	Equivalent qualification
analEavPata	String (8)	recognized by HKIE
qualEqvDate	String(8)	Qualified Date of Equivalent
III. N	G. (50)	qualification(yyyyMMdd)
qualEqvNo	String(50)	Membership Number of
		Equivalent qualification
qualEqvBss	String(1)	Building Services Discipline of
		Equivalent qualification
qualEqvEll	String(1)	Electrical Discipline of
		Equivalent qualification
qualEqvEnv	String(1)	Environmental Discipline of
		Equivalent qualification
qualEqvMcl	String(1)	Mechanical Discipline of
1		Equivalent qualification
		24 million damillonion

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SERVICES DEPARTMENT (EMSD)	·		
qualEqvMembership	String(300)		Professional Membership of
			Equivalent qualification
declareKnowledge	String(1)	Required	Declaration of having the
			knowledge required
declareConvictedStatus	String(1)	Required	Declaration of convicted status
			in Hong Kong
declareHavebeenConvicted	String(1)	Required	Declaration of have been
			convicted or not
declareInfoCorrect	String(1)	Required	Declaration of information
			stated are true and correct
qualOther	String(1)		Professional Qualifications -
-			Other
qualOtherText	String(300)		Professional Qualifications –
			Other Details
chgName	String(1)		Change of particulars - Name
chgAddr	String(1)		Change of particulars -
			Correspondence Address
chgQual	String(1)		Change of particulars -
			Professional Qualification
chklistExp	String(1)		Checklist of Supporting
			Documents - relevant practical
			experience
chklistQual	String(1)		Checklist of Supporting
			Documents - professional
			qualifications
chklistSubst	String(1)		Checklist of Supporting
			Documents - substantiate
			documents
receiveDate	String(8)	Required	Application Receive
			Date(yyyyMMdd)
wbrsStatus	String(20)	Required	WBRS Status
exp	exp Array		Relevant Practical Experience
			• Refer to: Resquest –
			Content-Exp
substantiate	Substantiate		Photocopy of the documents
	Array		that substantiate the application
			Refer to: Resquest – Content–
			<b>Substantiate</b>

Request - Content-Exp

Parameter	Type	Condition	Description
expFrom	String(8)		Exp From Date
			(yyyyMMdd)
ехрТо	String(8)		Exp To Date
			(yyyyMMdd)
post	String(100)		Post
compName	String(300)		Comp Name

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description	String(1000)	Description of exp
seq	Int	Sequence
originalName	String(300)	Original Name of
		Substantiate

#### **Request – Content– Substantiate**

Parameter	Type	Condition	Description
description	String(300)		Description of
			Substantiate
seq	Int		Sequence
originalName	String(300)		Original Name of
			Substantiate

**Response Parameters** 

response i ai ai	10001 5		
Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID
			during system support.
code	Option	Required	Code to indicate the result. Details please refer to
		_	below section "Response – Code & Message".
details	String	Required	Details code (For example: CE2001). Details
		_	please refer to below section "Response – Code &
			Message".

Response – Code & Message

Code	Description	Message
D00000	Success	Success Result.
	Result.	
D20001	Parameter is	Parameter is null - (parameter name)
	null.	
D20002	Already	Applicant already exists
	exists.	
D30001	Header is null	The header "clientID" is null.
		The header "signature" is null.
		The header "nonce " is null.
D30002	Header is	The header "clientID" is not found in the list.
	wrong	The header "signature" is incorrect. (MITM Attack)
		The header "nonce " is already used. (Replay Attack)
D40001	Form	Parameter not found - (parameter name)
	Validation	
D90000	Unknown	Runtime Exception.
	Exception	

### Sample Request

```
{
    "encryptedContent":"sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y= "
}
```

### Sample Request (without encryption)

```
{
    "applicationNo": "L160000001",
```

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```
"applicationType": "NEW",
"registrationNo": "",
"expiryDate": "20100101",
"engName": "Chan Tai Man",
"chiName": "陳大文",
"titleId": 1,
"dateOfBirth": "20100101",
"hkid": "J1111111",
"travelDocNo": "".
"addrLang": "e",
"addrFlat": "",
"addrFloor": "",
"addrBlock": "",
"addrBlg": "",
"addrSt": "",
"addrDistrict": "",
"addrAreaId": 2,
"compName": "TESTING COMPANY",
"compAddrLang": "e",
"compAddrFlat": "",
"compAddrFloor": "",
"compAddrBlock": "",
"compAddrBlg": "",
"compAddrSt": "",
"compAddrDistrict": "",
"compAddrAreaId": 3,
"compPost": "Post",
"emailAddr": "testing@email.com",
"telNo": "22345678",
"faxNo": "22345678",
"officeTelNo": "23345678",
"qualRe": 1,
"qualReDate": "20100101",
"qualReNo": "",
"qualReBss": 1,
"qualReEll": 0,
"qualReEnv": 0,
"qualReMcl": 0,
"qualHkie": 1,
"qualHkieDate": "20100101",
"qualHkieNo": "",
"qualHkieBss": 0,
"qualHkieEll": 1,
"qualHkieEnv": 0,
"qualHkieMcl": 0,
"qualEqv": 1,
"qualEqvDate": "20100101",
"qualEqvNo": "",
"qualEqvBss": 0,
"qualEqvEll": 0,
```

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```
"qualEqvEnv": 1,
"qualEqvMcl": 0,
"qualEqvMembership": "Testing",
"declareKnowledge": 1,
"declareConvictedStatus": 1,
"declareHavebeenConvicted": 0,
"declareInfoCorrect": 1,
"qualOther": 0,
"qualOtherText": "",
"chgName": 0,
"chgAddr": 0,
"chgQual": 0,
"chklistExp": 1,
"chklistQual": 1,
"chklistSubst": 1,
"receiveDate": "20100101",
"wbrsStatus": 0,
"exp": [
           "expFrom": "20100101",
           "expTo": "20100101",
           "post": "",
           "compName": "",
           "description": "",
           "seq": 1,
           "originalName": ""
"substantiate": [
           "description": "",
           "seq": "",
           "originalName": ""
]
```

Sample Response

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":"0514125f"
}
```

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#### 8.4. Create Attachment

**API Description** 

THE Description	
Name	Description
Service Full	For submitting the attachment to backend
Name	
URL	<pre><backend_service_domain>/{Version}/EA1/CreateAttachment</backend_service_domain></pre>
<b>Request Type</b>	POST
Service	1
Version	
Description	This API is to validate the application data before submission.
of Service	

**Request Headers** 

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses
			clientSecret to sign the concatenated string of
			<b>nonce</b> and <b>encrypted content</b> to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in
			the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for
			each request by WBRS. It is used to prevent replay
			attack. A nonce can be an ASCII string of any
			length less than or equal to 36 (UUID string length)
			as long as the uniqueness requirement is met.

**Request Parameters** 

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description		
applicationNo	String	Required	WBRS Application No.		
fileName	String	Required	File name with extension of the attachment		
shaFileChecksum	String	Required	The SHA file checksum of the attachment		
type	String	Required	The type of the attachment		
fileContent	String	Required	Base64 encoded content of the attachment		
description	String	Required	Description of attachment		

**Response Parameters** 

	Parameter	Type	Condition	Description			
--	-----------	------	-----------	-------------	--	--	--

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txID	String	Required	Unique ID for logging. Please provide this ID
			during system support.
code	Option	Required	Code to indicate the result. Details please refer to
			below section "Response – Code & Message".
details	String	Required	Details code (For example: CE2001). Details
		_	please refer to below section "Response – Code &
			Message".

Response – Code & Message

<u> Response – (</u>	<u>Code &amp; Message</u>	
Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is	The parameter "Key" is null.
	null.	The parameter "applicationNo" is null.
		The parameter "FileName" is null.
		The parameter "File" is null.
D20002	Application is	The application is not found.
	invalid	Application status is invalid.
D20003	File is invalid	File extension is invalid.
		File name is too long.
		File Name is invalid.
D30001	Header is null	The header "clientID" is null.
		The header "signature" is null.
		The header "nonce " is null.
D30002	Header is	The header "clientID" is not found in the list.
	wrong	The header "signature" is incorrect. (MITM Attack)
		The header "nonce" is already used. (Replay Attack)
D90000	Unknown	Runtime Exception.
	Exception	

### **Sample Request (with encryption)**

```
{
    "encryptedContent":"sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y= "
}
```

**Sample Request (without encryption)** 

```
{
    "applicationNo": "L160000001",
    "fileName": "",
    "shaFileChecksum": "",
    "type": ""
    "content": ""
    "description": ""
}
```

### **Sample Response**

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":"0514125f"
```

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}

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## 8.5. Acknowledge Submission Completed

**API Description** 

Name	Description				
Service	To acknowledge the backend submission has been completed.				
Full Name					
URL	<pre><backend_service_domain>/{Version}/EA1/Status/SubmissionCompleted</backend_service_domain></pre>				
Request	POST				
Type					
Service	1				
Version					
Description	To acknowledge the backend after all attachments are submitted				
of Service	successfully.				

**Request Headers** 

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses
			clientSecret to sign the concatenated string of
			<b>nonce</b> and <b>encrypted content</b> to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in
			the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for
			each request by WBRS. It is used to prevent replay
			attack. A nonce can be an ASCII string of any
			length less than or equal to 36 (UUID string length)
			as long as the uniqueness requirement is met.

**Request Parameters** 

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

**Response Parameters** 

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID
		during system support.	
code	Option	Required Code to indicate the result. Details please refer to	
			below section "Response – Code & Message".
details	String	Required Details code (For example: CE2001). Details	
			please refer to below section "Response – Code &
			Message".

Response - Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is	The parameter "applicationNo" is null.

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	null.		
D30001	Header is null	The header "clientID" is null.	
		The header "signature" is null.	
		The header "nonce" is null.	
D30002	Header is	The header "clientID" is not found in the list.	
	wrong	The header "signature" is incorrect. (MITM Attack)	
	_	The header "nonce" is already used. (Replay Attack)	
D90000	Unknown	Runtime Exception.	
	Exception	_	

```
Sample Request (with encryption)
```

```
{
    "encryptedContent":"sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y= "
}
```

```
Sample Request (without encryption)
```

```
{
    "applicationNo": "L160000001"
}
```

### **Sample Response**

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":"0514125f"
}
```

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## 9. EA3

## 9.1. Request Form Data

**API Description** 

Name	Description			
Service Full	To get the form data			
Name				
URL	<backend_service_domain>/{Version}/EA3/GetForm</backend_service_domain>			
Request Type	POST			
Service	1			
Version				
<b>Description of</b>	To get the form data			
Service				

**Request Headers** 

Parameter	Type	Condition	Description	
signature	String	Required	It is a signature of the submitted data. WBRS uses	
			clientSecret to sign the concatenated string of	
			<b>nonce</b> and <b>encrypted content</b> to get the signature.	
clientID	String	Required	Client identifier for finding out the client secret in	
			the backend.	
nonce	String	Required	A nonce is a random string, uniquely generated for	
			each request by WBRS. It is used to prevent replay	
			attack. A nonce can be an ASCII string of any	
			length less than or equal to 36 (UUID string length)	
			as long as the uniqueness requirement is met.	

**Request Parameters** 

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID
			during system support.
code	Option	Required	Code to indicate the result. Details please refer to
			below section "Response – Code & Message".
details	String	Required	Details code (For example: CE2001). Details
			please refer to below section "Response – Code &
			Message".

Response - Code & Message

1100001100	Court of Illebourge	
Code	<b>Description</b>	Message
D00000	Success Result.	Success Result.

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D20001	Parameter is	The parameter "applicationNo" is null.	
	null.		
D30001	Header is null	The header "clientID" is null.	
		The header "signature" is null.	
		The header "nonce " is null.	
D30002	Header is	The header "clientID" is not found in the list.	
	wrong	The header "signature" is incorrect. (MITM Attack)	
		The header "nonce " is already used. (Replay Attack)	
D90000	Unknown	Runtime Exception.	
	Exception		

## Sample Request (with encryption)

```
{
    "encryptedContent":"sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y= "
}
```

## Sample Request (without encryption)

```
{
    "applicationNo": "L160000001"
}
```

### Sample Response

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":"0514125f"
}
```

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### 9.2. Create Form Data

**API Description** 

Name	Description
Service Full	For submitting application form data.
Name	
URL	<pre><backend_service_domain>/{Version}/EA3/SubmitApplication</backend_service_domain></pre>
<b>Request Type</b>	POST
Service	1
Version	
Description	This API is to submit the application from WBRS to the backend. It
of Service	should not return a custom form validation error.

**Request Headers** 

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses
			clientSecret to sign the concatenated string of
			<b>nonce</b> and <b>encrypted content</b> to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in
			the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for
			each request by WBRS. It is used to prevent replay
			attack. A nonce can be an ASCII string of any
			length less than or equal to 36 (UUID string length)
			as long as the uniqueness requirement is met.

**Request Parameters** 

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description
applicationNo	String(20)	Required	WBRS Application Number
applicationType	String(20)	Required	Application Type (New /
			Change of particulars)
regNo	String(20)	Optional	REA Registration Number
chgName	String(1)		Change of particulars - Name
chgAddr	String(1)		Change of particulars -
			Correspondence Address
engName	String(100)	Required	Applicant English Name
chiName	String(100)		Applicant Chinese Name
titleId	Int		Applicant Title (Mr. / Miss /
			Ms.)
hkid	String(30)		Applicant HKID Number
addrLang	String(1)		Applicant Correspondence
			Address Language
addrFlat	String(50)		Applicant Correspondence
			Address Flat
addrFloor	String(50)		Applicant Correspondence

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SERVICES DETARTMENT (EMSD)			Address Floor
addrBlock	String(50)		Applicant Correspondence
www.biocir			Address Block
addrBlg	String(300)		Applicant Correspondence
audi Dig			Address Building
addrStartNo	Int		Applicant Correspondence
	1110		Address Start Street No
addrStartNoAlpha	String(10)		Applicant Correspondence
	Sumg(10)		Address Start Street Alpha
addrEndNo	Int		Applicant Correspondence
			Address End Street No
addrEndNoAlpha	String(10)		Applicant Correspondence
r i	5(1)		Address End Street Alpha
addrSt	String(300)		Applicant Correspondence
			Address Street
addrDistrict	String(3)		Applicant Correspondence
			Address District Code
addrAreaId	Int		Applicant Correspondence
			Address Area ID
deptName	String(300)		Department Name
compAddrSame	String(1)	Required	Office Address is same as the
			Correspondence Address or not
compAddrLang	String(1)	Optional	Office Address Language
compAddrFlat	String(50)	Optional	Office Address Flat
compAddrFloor	String(50)	Optional	Office Address Floor
compAddrBlock	String(50)	Optional	Office Address Block
compAddrBlg	String(300)	Optional	Office Address Building
compAddrStartNo	Int		Current Company Address Start Street No
compAddrStartNoAlpha	String(10)		Current Company Address Start
T I I I I I I I I I I I I I I I I I I I	5(1)		Street Alpha
compAddrEndNo	Int		Current Company Address End Street No
compAddrEndNoAlpha	String(10)		Current Company Address End
CompAddi EnditoAipna	String(10)		Street Alpha
compAddrSt	String(300)	Optional	Office Address Street
compAddrDistrict	String(3)	Optional	Office Address District Code
compAddrAreaId	Int	Optional	Office Address Area ID
compPost	String(300)		Current Position
emailAddr	String(100)		Email address
telNo	String(20)		Applicant Contact Phone
			Number
faxNo	String(20)		Fax Number
officeTelNo	String(20)		Office Telephone Number
declareConvictedStatus	String(1)	Required	Declaration of convicted status
Jackson Harris C. 14	C4(1)	D 1	in Hong Kong
declareHavebeenConvicted	String(1)	Required	Declaration of have been
doolowoInfoCowest	Stairs ~(1)	Dogwing 1	convicted or not
declareInfoCorrect	String(1)	Required	Declaration of information

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			stated are true and correct
nomiName	String(100)		Full Name of Nominator
nomiRank	String(100)		Rank (D1 or above) of
			Nominator
nomiPost	String(300)		Post of Nominator
nomiDept	String(300)		Name of Department of
			Nominator
nomiTel	String(20)		Contact Number of Nominator
receiveDate	String(8)	Required	Application Receive
			Date(yyyyMMdd)
wbrsStatus	String(20)	Required	WBRS Status

**Response Parameters** 

response i ai ai	iicter 5		
Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID
			during system support.
code	Option	Required	Code to indicate the result. Details please refer to
			below section "Response – Code & Message".
details	String	Required	Details code (For example: CE2001). Details
		_	please refer to below section "Response – Code &
			Message".

Response – Code & Message

110000000	Cour of Hirosouge	
Code	Description	Message
D00000	Success	Success Result.
	Result.	
D20001	Parameter is	Parameter is null - (parameter name)
	null.	
D20002	Already	Parameter already exists - (parameter name)
	exists.	
D30001	Header is null	The header "clientID" is null.
		The header "signature" is null.
		The header "nonce " is null.
D30002	Header is	The header "clientID" is not found in the list.
	wrong	The header "signature" is incorrect. (MITM Attack)
		The header "nonce " is already used. (Replay Attack)
D90000	Unknown	Runtime Exception.
	Exception	

### Sample Request

```
{
    "encryptedContent":"sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y= "
}
```

**Sample Request (without encryption)** 

```
{
    "applicationNo": "L16000000",
    "applicationType": "NEW",
    "regNo": "",
```

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```
"chgName": 0,
"chgAddr": 0,
"engName": "Chan Tai Man",
"chiName": "陳大文",
"titleId": 1,
"hkid": "J1111111",
"addrLang": "e",
"addrFlat": "",
"addrFloor": "".
"addrBlock": "",
"addrBlg": "",
"addrSt": "",
"addrDistrict": "",
"addrAreaId": 1,
"deptName": "TESTING DEPT",
"compAddrSame": 0,
"compAddrLang": "e",
"compAddrFlat": "",
"compAddrFloor": "",
"compAddrBlock": "",
"compAddrBlg": "",
"compAddrSt": "",
"compAddrDistrict": "",
"compAddrAreaId": 2,
"compPost": "Post",
"emailAddr": "testing@email.com",
"telNo": "22345678",
"faxNo": "22345678".
"officeTelNo": "23345678",
"declareConvictedStatus": 1,
"declareHavebeenConvicted": 0,
"declareInfoCorrect": 1,
"nomiName": "".
"nomiRank": "",
"nomiPost": "",
"nomiDept": "",
"nomiTel": "",
"receiveDate": "20100101",
"wbrsStatus": 0
```

#### Sample Response

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":"0514125f"
}
```

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# 9.3. Validation Form Data

**API Description** 

Name	Description
Service Full	For validating the application data before submission.
Name	
URL	<pre><backend_service_domain>/{Version}/EA3/ValidateFormData</backend_service_domain></pre>
<b>Request Type</b>	POST
Service	1
Version	
Description	This API is to validate the application data before submission and to
of Service	check if the applicant already exists or not.

**Request Headers** 

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses
			clientSecret to sign the concatenated string of
			<b>nonce</b> and <b>encrypted content</b> to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in
			the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for
			each request by WBRS. It is used to prevent replay
			attack. A nonce can be an ASCII string of any
			length less than or equal to 36 (UUID string length)
			as long as the uniqueness requirement is met.

**Request Parameters** 

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description	
applicationNo	String(20)	Required	WBRS Application Number	
applicationType	String(20)	Required Application Type (New /		
			Change of particulars)	
regNo	String(20)	Optional	REA Registration Number	
chgName	String(1)		Change of particulars - Name	
chgAddr	String(1)		Change of particulars -	
			Correspondence Address	
engName	String(100)	Required	Applicant English Name	
chiName	String(100)		Applicant Chinese Name	
titleId	Int		Applicant Title (Mr. / Miss /	
			Ms.)	
hkid	String(30)		Applicant HKID Number	
addrLang	String(1)		Applicant Correspondence	
			Address Language	
addrFlat	String(50)		Applicant Correspondence	
			Address Flat	
addrFloor	String(50)		Applicant Correspondence	

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SERVICES DETARTMENT (EMSD)			Address Floor
addrBlock	String(50)		Applicant Correspondence
uudi biock			Address Block
addrBlg	String(300)		Applicant Correspondence
audi Dig	Sumg(300)		Address Building
addrStartNo	Int		Applicant Correspondence
			Address Start Street No
addrStartNoAlpha	String(10)		Applicant Correspondence
www.sourer.or.ap.nu			Address Start Street Alpha
addrEndNo	Int		Applicant Correspondence
			Address End Street No
addrEndNoAlpha	String(10)		Applicant Correspondence
			Address End Street Alpha
addrSt	String(300)		Applicant Correspondence
			Address Street
addrDistrict	String(3)		Applicant Correspondence
			Address District Code
addrAreaId	Int		Applicant Correspondence
			Address Area ID
deptName	String(300)		Department Name
compAddrSame	String(1)	Required	Office Address is same as the
			Correspondence Address or not
compAddrLang	String(1)	Optional	Office Address Language
compAddrFlat	String(50)	Optional	Office Address Flat
compAddrFloor	String(50)	Optional	Office Address Floor
compAddrBlock	String(50)	Optional	Office Address Block
compAddrBlg	String(300)	Optional	Office Address Building
compAddrStartNo	Int		Current Company Address Start Street No
compAddrStartNoAlpha	String(10)		Current Company Address Start
			Street Alpha
compAddrEndNo	Int		Current Company Address End Street No
compAddrEndNoAlpha	String(10)		Current Company Address End
			Street Alpha
compAddrSt	String(300)	Optional	Office Address Street
compAddrDistrict	String(3)	Optional	Office Address District Code
compAddrAreaId	Int	Optional	Office Address Area ID
compPost	String(300)		Current Position
emailAddr	String(100)		Email address
telNo	String(20)		Applicant Contact Phone
			Number
faxNo	String(20)		Fax Number
officeTelNo	String(20)		Office Telephone Number
declareConvictedStatus	String(1)	Required	Declaration of convicted status
	G. : (1)	D : 1	in Hong Kong
declareHavebeenConvicted	String(1)	Required	Declaration of have been
	G. (1)	D : 1	convicted or not
declareInfoCorrect	String(1)	Required	Declaration of information

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			stated are true and correct
nomiName	String(100)	00) Full Name of Nominator	
nomiRank	String(100)		Rank (D1 or above) of
			Nominator
nomiPost	String(300)		Post of Nominator
nomiDept	String(300)		Name of Department of
			Nominator
nomiTel	String(20)		Contact Number of Nominator
receiveDate	String(8)	Required	Application Receive
			Date(yyyyMMdd)
wbrsStatus	String(20)	Required	WBRS Status

**Response Parameters** 

response i ai ai	1100015		
Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID
			during system support.
code	Option	Required	Code to indicate the result. Details please refer to
	_		below section "Response – Code & Message".
details	String	Required	Details code (For example: CE2001). Details
			please refer to below section "Response – Code &
			Message".

Response – Code & Message

response (	Joue & Message	
Code	Description	Message
D00000	Success	Success Result.
	Result.	
D20001	Parameter is	Parameter is null - (parameter name)
	null.	-
D20002	Already	Applicant already exists
	exists.	
D30001	Header is null	The header "clientID" is null.
		The header "signature" is null.
		The header "nonce " is null.
D30002	Header is	The header "clientID" is not found in the list.
	wrong	The header "signature" is incorrect. (MITM Attack)
		The header "nonce" is already used. (Replay Attack)
D40001	Form	Parameter not found - (parameter name)
	Validation	
D90000	Unknown	Runtime Exception.
	Exception	

## Sample Request

```
{
    "encryptedContent":"sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y= "
}
```

### **Sample Request (without encryption)**

```
{
    "applicationNo": "L16000000",
```

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```
"applicationType": "NEW",
"regNo": "",
"chgName": 0,
"chgAddr": 0,
"engName": "Chan Tai Man",
"chiName": "陳大文",
"titleId": 1,
"hkid": "J1111111",
"addrLang": "e",
"addrFlat": "",
"addrFloor": "",
"addrBlock": "",
"addrBlg": "",
"addrSt": "",
"addrDistrict": "",
"addrAreaId": 1,
"deptName": "TESTING DEPT",
"compAddrSame": 0,
"compAddrLang": "e",
"compAddrFlat": "",
"compAddrFloor": "",
"compAddrBlock": "",
"compAddrBlg": "",
"compAddrSt": "",
"compAddrDistrict": "",
"compAddrAreaId": 2,
"compPost": "Post",
"emailAddr": "testing@email.com",
"telNo": "22345678",
"faxNo": "22345678".
"officeTelNo": "23345678",
"declareConvictedStatus": 1,
"declareHavebeenConvicted": 0,
"declareInfoCorrect": 1,
"nomiName": "",
"nomiRank": "",
"nomiPost": "",
"nomiDept": "",
"nomiTel": "",
"receiveDate": "20100101",
"wbrsStatus": 0
```

#### **Sample Response**

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":"0514125f"
}
```

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## 9.4. Create Attachment

**API Description** 

Name	Description
Service Full	For submitting the attachment to backend
Name	
URL	<pre><backend_service_domain>/{Version}/EA3/CreateAttachment</backend_service_domain></pre>
<b>Request Type</b>	POST
Service	1
Version	
Description	This API is to validate the application data before submission.
of Service	

**Request Headers** 

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses
			clientSecret to sign the concatenated string of
			<b>nonce</b> and <b>encrypted content</b> to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in
			the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for
			each request by WBRS. It is used to prevent replay
			attack. A nonce can be an ASCII string of any
			length less than or equal to 36 (UUID string length)
			as long as the uniqueness requirement is met.

**Request Parameters** 

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description			
applicationNo	String	Required	WBRS Application No.			
fileName	String	Required	File name with extension of the attachment			
shaFileChecksum	String	Required	The SHA file checksum of the attachment			
type	String	Required	The type of the attachment			
fileContent	String	Required	Base64 encoded content of the attachment			
description	String	Required	Description of attachment			

**Response Parameters** 

Parameter	Type	Condition	Description		

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txID	String	Required	Unique ID for logging. Please provide this ID
			during system support.
code	Option	Required	Code to indicate the result. Details please refer to
			below section "Response – Code & Message".
details	String	Required	Details code (For example: CE2001). Details
			please refer to below section "Response – Code &
			Message".

Response – Code & Message

	Code & Message	
Code	Description	Message
D00000	Success	Success Result.
	Result.	
D20001	Parameter is	The parameter "Key" is null.
	null.	The parameter "applicationNo" is null.
		The parameter "FileName" is null.
		The parameter "File" is null.
D20002	Application is	The application is not found.
	invalid	Application status is invalid.
D20003	File is invalid	File extension is invalid.
		File name is too long.
		File Name is invalid.
D30001	Header is null	The header "clientID" is null.
		The header "signature" is null.
		The header "nonce " is null.
D30002	Header is	The header "clientID" is not found in the list.
	wrong	The header "signature" is incorrect. (MITM Attack)
		The header "nonce" is already used. (Replay Attack)
D90000	Unknown	Runtime Exception.
	Exception	

**Sample Request (with encryption)** 

```
{
    "encryptedContent":"sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y= "
}
```

Sample Request (without encryption)

```
{
    "applicationNo": "L160000001",
    "fileName": "",
    "shaFileChecksum": "",
    "type": ""
    "content": ""
    "description": ""
}
```

Sample Response

```
{
  "code":"D00000",
  "message":"D00000",
```

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	 /		
"txID":"0514125f"			
}			

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## 9.5. Acknowledge Submission Completed

**API Description** 

Name	Description
Service	To acknowledge the backend submission has been completed.
Full Name	
URL	<pre><backend_service_domain>/{Version}/EA3/Status/SubmissionCompleted</backend_service_domain></pre>
Request	POST
Type	
Service	1
Version	
Description	To acknowledge the backend after all attachments are submitted
of Service	successfully.

**Request Headers** 

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses
			clientSecret to sign the concatenated string of
			<b>nonce</b> and <b>encrypted content</b> to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in
			the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for
			each request by WBRS. It is used to prevent replay
			attack. A nonce can be an ASCII string of any
			length less than or equal to 36 (UUID string length)
			as long as the uniqueness requirement is met.

**Request Parameters** 

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

**Response Parameters** 

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID
			during system support.
code	Option	Required	Code to indicate the result. Details please refer to
			below section "Response – Code & Message".
details	String	Required	Details code (For example: CE2001). Details
			please refer to below section "Response – Code &
			Message".

Response - Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is	The parameter "applicationNo" is null.

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	null.		
D30001	Header is null	Ill The header "clientID" is null.	
		The header "signature" is null.	
		The header "nonce " is null.	
D30002	Header is	The header "clientID" is not found in the list.	
	wrong	The header "signature" is incorrect. (MITM Attack)	
		The header "nonce" is already used. (Replay Attack)	
D90000	Unknown	Runtime Exception.	
	Exception		

```
Sample Request (with encryption)
```

```
{
    "encryptedContent":"sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y= "
}
```

```
Sample Request (without encryption)
```

```
{
    "applicationNo": "L160000001"
    }
```

### **Sample Response**

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":"0514125f"
}
```

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### **10. EE1**

## 10.1. Request Form Data

**API Description** 

Name	Description		
Service Full	For submitting application form data.		
Name			
URL	<pre><backend_service_domain>/{Version}/EE1/ GetForm</backend_service_domain></pre>		
Request Type	POST		
Service Version	1		
<b>Description of</b>	This API is to submit the application from WBRS to the backend. It		
Service	should not return a custom form validation error.		

**Request Headers** 

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses
		-	clientSecret to sign the concatenated string of
			<b>nonce</b> and <b>encrypted content</b> to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in
			the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for
			each request by WBRS. It is used to prevent replay
			attack. A nonce can be an ASCII string of any
			length less than or equal to 36 (UUID string length)
			as long as the uniqueness requirement is met.

**Request Parameters** 

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

**Response Parameters** 

Parameter	Type	Condition	Description	
txID	String	Required	Unique ID for logging. Please provide this ID	
			during system support.	
code	Option	Required	Code to indicate the result. Details please refer to	
			below section "Response – Code & Message".	
details	String	Required	Details code (For example: CE2001). Details	
			please refer to below section "Response – Code &	
			Message".	

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is	The parameter "applicationNo" is null.

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	null.		
D30001	Header is null	The header "clientID" is null.	
		The header "signature" is null.	
		The header "nonce " is null.	
D30002	Header is	The header "clientID" is not found in the list.	
	wrong	The header "signature" is incorrect. (MITM Attack)	
		The header "nonce" is already used. (Replay Attack)	
D90000	Unknown	Runtime Exception.	
	Exception		

Sample Request (with encryption)

```
{
    "encryptedContent":"sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y= "
}
```

**Sample Request (without encryption)** 

```
{
    "applicationNo": "L160000001"
}
```

**Sample Response** 

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":"0514125f"
}
```

**Response - Content** 

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgEname	String(255)		Name of Proposed
_			Building: English
bldgCname	String(255)		Name of Proposed
			Building: Chinese
startNo	Int		Street No
startNoAlpha	String(10)		Street No Alpha
endNo	Int		End No
endNoAlpha	String(10)		End No Alpha
stEname	String(255)		Street English
stCname	String(255)		Street Chinese
			r
districtCd	String(3)		Options of District
			English Chinese
areaCd	Int		Options of Area
			English Chinese
			[1=Hong Kong 2 =
			Kowloon 3 = New
			Territories]
lotNo	String(200)		Lot No.

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SERVICES DEPARTMENT (EMSD)		
compBecEdition	String(30)	Company BEC Edition
compEname	String(256)	-Company Name of Developer Name
		English
compCname	String(256)	Company Name of
•		Developer Name
		Chinese
represenTitleId	Int	Options of
		Representative Person
		Salutation,
		[1=Mr.,2=Miss,3=Ms.
represenEname	String(256)	Representative Person
_		English Name
represenCname	String(256)	Representative Person
		Chinese Name
represenPost	String(256)	Representative
A 11 Y	C1 (1)	Position
corresAddrLang	Char(1)	Options of
		Correspondence Address Language,
		[E,C]
corresAddrFlat	String(50)	Correspondence
		Address Room/Flat
corresAddrFloor	String(50)	Correspondence
		Address Floor
corresAddrBlock	String(50)	Correspondence
A LL DIL	G. (255)	Address Block
corresAddrBldg	String(255)	Correspondence Address Building
corresAddrStartNo	Int	Correspondence
corresponding that the		Address Street No.
corresAddrStartNoAlpha	String(10)	Correspondence
_		Address Street No.
corresAddrEndNo	Int	Correspondence
	2 1 (12)	Address Street No.
corresAddrEndNoAlpha	String(10)	Correspondence
corresAddrSt	String(255)	Address Street  Correspondence
CorresAddrSt	String(255)	Address Street
corresAddrDistrictCd	String(3)	Options of
		Correspondence
		Address District
corresAddrAreaCd	Int	Options of
		Correspondence
		Address Area English
(F) NY	g.: (20)	Chinese
corresTelNo	String(20)	Correspondence

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SERVICES DEL'ARTMENT (EMSD)		Telephone No.
corresFaxNo	String(20)	Correspondence Fax
COTTOST WAT (O	Sumg(20)	No.
corresEmailAddr	String(100)	Correspondence E-
Corresponding	Sumg(100)	mail Address
becEdition	String(10)	REA BEC Edition
reaTitleId	Int	Options of REA
rearmen	IIIt	Salutation,
		[1=Mr.,2=Miss,3=Ms.
		1
reaEname	String(256)	Electrical Discipline
Tea Enume	Sumg(250)	of Registered
		Engineer
		Qualifications
reaCname	String(256)	REA Chinese Name
reaAddrLang	Char(1)	Options of REA
	(-)	Correspondence
		Address Language,
		[E,C]
reaAddrFlat	String(50)	REA Correspondence
		Address Room/Flat
reaAddrFloor	String(50)	REA Correspondence
		Address Floor
reaAddrBlock	String(50)	REA Correspondence
		Address Block
reaAddrBldg	String(255)	REA Correspondence
G .		Address Building
reaAddrStartNo	Int	REA Correspondence
		Address Street No.
reaAddrStartNoAlpha	String(10)	REA Correspondence
		Address Street No.
reaAddrEndNo	Int	REA Correspondence
		Address Street No.
reaAddrEndNoAlpha	String(10)	REA Correspondence
		Address Street No.
reaAddrSt	String(255)	REA Correspondence
		Address Street
reaAddrDistrictCd	String(3)	REA Correspondence
		District
reaAddrAreaCd	Int	REA Correspondence
		Area English Chinese
reaTelNo	String(20)	REA Correspondence
	2 4 (22)	Telephone No.
reaFaxNo	String(20)	REA Correspondence
		Fax
reaEmailAddr	String(100)	REA Correspondence
	2	E-mail Address
reaRegNo	String(20)	REA Registration No.
reaExpiryDate	String(8)	REA Expiry Date

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receiveDate	String(8)	Receipt Date
eesu	Object	eesu
		Refer to: Response –
		Content- eesu

Response – Content– eesu

Response – Content– eesu			
Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgType	Int		Type of Building
bldgTypeOther	String(255)		Type of Building Other
dateOfDeclarationByRea	String(8)		Date of Declaration by Registered Energy Assessor in Form EE1 / EE2 / EE3 / EE4 *
prevSubNo	String(100)		If EMSD's reference no. for the form submitted before is known, please provide
supersedePreviousForm	String(1)		this submission to supersede a form submitted before? (Please give a "√" in the appropriate box)
dateOfDeclarationByReaInPrevi ousForm	String(8)		Otherwise, please provide the date of declaration by Registered Energy Assessor in the previous form:
consentBldgWorkMaptype	String(1)		1 = plan 2 = map
consentIssueDate	String(8)		Section B(a) Issue date of "consent to the commencement of building works" (see note 5):
consentDocumentNoType	String(1)		Consent Document No. Type 的值分别是 什么<- 1 = Permit No. 2 = =Reference No. 3 = Contract No.
consentDocNo	String(20)		Section B(a) Permit No. / Reference No. / Contract No.* of

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SERVICES DEPARTMENT (EMSD)		
		"consent to the commencement of building works":
commenceDateType	String(1)	1=Anticipated 2=Actual
commenceDate	String(10)	Section B(a) Anticipated/Actual* construction commencement date (m/yyyy):
occupationDate	String(10)	Section B(a) Anticipated occupation approval date (m/yyyy):
consetBldgArea	decimal	Total internal floor area of building EE1
exemptGrant	String(1)	section b(e) Exemption previously granted by the Director of Electrical and Mechanic
exemptRefNo	String(20)	section b(e) Reference No.
exemptDate	String(8)	section b(e) Date(yyyyMMdd)
exemptInstallations	String(300)	section b(e) Installation(s) exempted
chklistConsent	String(1)	ee1, section c checkbox 1
chklistLocMap	String(1)	ee1, section c checkbox 2
organizationEname	String(255)	section c Organization Name of Responsible Person# ENG
organizationCname	String(255)	section c Organization Name of Responsible Person# CHI
organizationResEname	String(255)	section c Name of Responsible Person' Representative# ENG
organizationResCname	String(255)	section c Name of Responsible Person' Representative# CHI

**Sample Response** 

{

```
"applicationNo": "EE10000001",
"bldgEname": "",
"bldgCname": "",
"startNo": 1
"startNoAlpha": "",
"endNo": 1,
"endNoAlpha":"",
"stEname": "",
"stCname": "",
"districtCd": "",
"areaCd": 1,
"lotNo": "".
"compBecEdition": "",
"compEname": "",
"compCname": "",
"represenTitleId": 1,
"represenEname": "",
"represenCname": "",
"represenPost": "",
"corresAddrLang": "".
"corresAddrFlat": "",
"corresAddrFloor": "".
"corresAddrBlock": "",
"corresAddrBldg": "",
"corresAddrStartNo": 1,
"corresAddrStartNoAlpha": "",
"corresAddrEndNo": 1,
"corresAddrEndNoAlpha": "",
"corresAddrSt": "",
"corresAddrDistrictCd": "",
"corresAddrAreaCd":1,
"corresTelNo": "",
"corresFaxNo": "",
"corresEmailAddr": "",
"becEdition": "",
"reaTitleId": 1,
"reaEname": "",
"reaCname": "",
"reaAddrLang": "",
"reaAddrFlat": "",
"reaAddrFloor": "",
"reaAddrBlock": "".
"reaAddrBldg": "",
"reaAddrStartNo": 1,
"reaAddrStartNoAlpha": "",
"reaAddrEndNo": 0,
"reaAddrEndNoAlpha": "",
"reaAddrSt": "",
"reaAddrDistrictCd": "",
"reaAddrAreaCd": 1,
```

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```
"reaTelNo": "".
"reaFaxNo": "",
"reaEmailAddr": "",
"reaRegNo": "",
"reaExpiryDate": "20100101",
"receiveDate": "20100101",
"eesu":
           "applicationNo": "111",
           "bldgType": 1,
           "bldgTypeOther": "",
           "dateOfDeclarationByRea": "20100101",
           "prevSubNo": "",
           "supersedePreviousForm": "1",
           "dateOfDeclarationByReaInPreviousForm": "20100101",
           "consentBldgWorkMaptype": "",
           "consentIssueDate":"20100101",
           "consentDocumentNoType":"1",
           "consentDocNo": "",
           "commenceDateType": "",
           "commenceDate": "",
           "occupationDate":"",
           "consetBldgArea":100.00,
           "exemptGrant": "",
           "exemptRefNo": "",
           "exemptDate": "20100101",
           "exemptInstallations": "",
           "chklistConsent": "".
           "chklistLocMap": "",
           "organizationEname":"".
           "organizationCname":"",
           "organizationResEname":"",
           "organizationResCname":""
```

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### 10.2. Create Form Data

**API Description** 

Name	Description
Service Full	For submitting application form data.
Name	
URL	<pre><backend_service_domain>/{Version}/EE1/SubmitApplication</backend_service_domain></pre>
<b>Request Type</b>	POST
Service	1
Version	
Description	This API is to submit the application from WBRS to the backend. It
of Service	should not return a custom form validation error.

**Request Headers** 

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses
			clientSecret to sign the concatenated string of
			<b>nonce</b> and <b>encrypted content</b> to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in
			the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for
			each request by WBRS. It is used to prevent replay
			attack. A nonce can be an ASCII string of any
			length less than or equal to 36 (UUID string length)
			as long as the uniqueness requirement is met.

**Request Parameters** 

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgEname	String(255)		Name of Proposed
			Building: English
bldgCname	String(255)		Name of Proposed
			Building: Chinese
startNo	Int		Street No
startNoAlpha	String(10)		Street No Alpha
endNo	Int		End No
endNoAlpha	String(10)		End No Alpha
stEname	String(255)		Street English
stCname	String(255)		Street Chinese
			r
districtCd	String(3)		Options of District
			English Chinese
areaCd	Int		Options of Area
			English Chinese
			[1=Hong Kong 2 =

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SERVICES DEPARTMENT (EMSD)		1 1
		Kowloon 3 = New Territories]
lotNo	String(200)	Lot No.
compBecEdition	String(30)	Company BEC Edition
compEname	String(256)	-Company Name of Developer Name English
compCname	String(256)	Company Name of Developer Name Chinese
represenTitleId	Int	Options of Representative Person Salutation, [1=Mr.,2=Miss,3=Ms.]
represenEname	String(256)	Representative Person English Name
represenCname	String(256)	Representative Person Chinese Name
represenPost	String(256)	Representative Position
corresAddrLang	String(1)	Options of Correspondence Address Language, [E,C]
corresAddrFlat	String(50)	Correspondence Address Room/Flat
corresAddrFloor	String(50)	Correspondence Address Floor
corresAddrBlock	String(50)	Correspondence Address Block
corresAddrBldg	String(255)	Correspondence Address Building
corresAddrStartNo	Int	Correspondence Address Street No.
corresAddrStartNoAlpha	String(10)	Correspondence Address Street No.
corresAddrEndNo	Int	Correspondence Address Street No.
corresAddrEndNoAlpha	String(10)	Correspondence Address Street
corresAddrSt	String(255)	Correspondence Address Street
corresAddrDistrictCd	String(20)	Options of Correspondence Address District
corresAddrAreaCd	Int	Options of Correspondence

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SERVICES DEPARTMENT (EMSD)		
		Address Area English Chinese
corresTelNo	String(20)	Correspondence
		Telephone No.
corresFaxNo	String(20)	Correspondence Fax No.
corresEmailAddr	String(100)	Correspondence E- mail Address
becEdition	String(10)	REA BEC Edition
reaTitleId	Int	Options of REA Salutation, [1=Mr.,2=Miss,3=Ms.]
reaEname	String(256)	Electrical Discipline of Registered Engineer Qualifications
reaCname	String(256)	REA Chinese Name
reaAddrLang	String(1)	Options of REA Correspondence Address Language, [E,C]
reaAddrFlat	String(50)	REA Correspondence Address Room/Flat
reaAddrFloor	String(50)	REA Correspondence Address Floor
reaAddrBlock	String(50)	REA Correspondence Address Block
reaAddrBldg	String(255)	REA Correspondence Address Building
reaAddrStartNo	Int	REA Correspondence Address Street No.
reaAddrStartNoAlpha	String(10)	REA Correspondence Address Street No.
reaAddrEndNo	Int	REA Correspondence Address Street No.
reaAddrEndNoAlpha	String(10)	REA Correspondence Address Street No.
reaAddrSt	String(255)	REA Correspondence Address Street
reaAddrDistrictCd	String(20)	REA Correspondence District
reaAddrAreaCd	Int	REA Correspondence Area English Chinese
reaTelNo	String(20)	REA Correspondence Telephone No.
reaFaxNo	String(20)	REA Correspondence Fax
reaEmailAddr	String(100)	REA Correspondence

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			E-mail Address
reaRegNo	String(20)		REA Registration No.
reaExpiryDate	String(8)		REA Expiry
			Date(yyyyMMdd)
receiveDate	String(8)		Receipt
			Date(yyyyMMdd)
eesu	eesu Array	Required	eesu
			Refer to: Request –
			Content- eesu

Request - Content- eesu

Request – Content– eesu			
Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgType	Int		Type of Building
bldgTypeOther	String(255)		Type of Building Other
dateOfDeclarationByRea	String(8)		Date of Declaration by Registered Energy Assessor in Form EE1 / EE2 / EE3 / EE4 *
prevSubNo	String(100)		If EMSD's reference no. for the form submitted before is known, please provide
supersedePreviousForm	String(1)		this submission to supersede a form submitted before? (Please give a "√" in the appropriate box)
dateOfDeclarationByReaInPrevi ousForm	String(8)		Otherwise, please provide the date of declaration by Registered Energy Assessor in the previous form:
consentBldgWorkMaptype	String(1)		1 = plan 2 = map
consentIssueDate	String(8)		Section B(a) Issue date of "consent to the commencement of building works" (see note 5):
consentDocumentNoType	String(1)		Consent Document No. Type 1 = Permit No. 2 = =Reference No. 3 = Contract No.

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(D. N.	Gt : (20)	
consentDocNo	String(20)	Section B(a)
		Permit No. /
		Reference No. /
		Contract No.* of
		"consent to the
		commencement of
		building works":
commenceDateType	String(1)	1=Anticipated
V 1		2=Actual
commenceDate	String(10)	Section B(a)
		Anticipated/Actual*
		construction
		commencement date
		(m/yyyy):
occupationDate	String(10)	Section B(a)
occupationDate	String(10)	Anticipated
		occupation approval
comectDldm4 was	decimal	date (m/yyyy):  Total internal floor
consetBldgArea	decimal	
10	G( : (1)	area of building EE1
exemptGrant	String(1)	section b(e)
		Exemption previously
		granted by the
		Director of Electrical
		and Mechanic
exemptRefNo	String(20)	section b(e)
		Reference No.
exemptDate	String(8)	section b(e)
		Date(yyyyMMdd)
exemptInstallations	String(300)	section b(e)
•		Installation(s)
		exempted
chklistConsent	String(1)	ee1, section c
		checkbox 1
chklistLocMap	String(1)	ee1, section c
· · · · · · · · · · · · · · · · · · ·		checkbox 2
organizationEname	String(255)	section c
o Sameanon Duame		Organization Name of
		Responsible Person#
		ENG
organizationCname	String(255)	section c
organization Chaine	Sumg(233)	Organization Name of
		Responsible Person#
auganizationDacE	String (255)	
organizationResEname	String(255)	section c Name of
		Responsible Person'
i di Di C	G.: (255)	Representative# ENG
organizationResCname	String(255)	section c Name of
		Responsible Person'

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		Representative# CHI

**Response Parameters** 

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID
			during system support.
code	Option	Required	Code to indicate the result. Details please refer to
			below section "Response – Code & Message".
details	String	Required	Details code (For example: CE2001). Details
			please refer to below section "Response – Code &
			Message".

Response – Code & Message

Code	Description	Message		
D00000	Success Result.	Success Result.		
D20001	Parameter is null.	Parameter is null - (parameter name)		
D20002	Already exists.	Parameter already exists - (parameter name)		
D30001	Header is null	The header "clientID" is null. The header "signature" is null. The header "nonce " is null.		
D30002	Header is wrong	The header "clientID" is not found in the list. The header "signature" is incorrect. (MITM Attack) The header "nonce " is already used. (Replay Attack)		
D90000	Unknown Exception	Runtime Exception.		

## **Sample Request (with encryption)**

```
{
    "encryptedContent":"sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y= "
}
```

**Sample Request (without encryption)** 

```
{
"applicationNo": "ee107021458",
"bldgEname": "string",
"bldgCname": "string",
"startNo": 0,
"startNoAlpha": "string",
"endNo": 0,
"endNoAlpha": "string",
"stEname": "string",
"stCname": "string",
"districtCd": "string",
"areaCd": 0,
"lotNo": "string",
"compBecEdition": "2012",
"compEname": "string",
"compCname": "string",
```

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```
"represenTitleId": 0,
"represenEname": "string",
"represenCname": "string",
"represenPost": "string",
"corresAddrLang": "1",
"corresAddrFlat": "string",
"corresAddrFloor": "string",
"corresAddrBlock": "string",
"corresAddrBldg": "string",
"corresAddrStartNo": 0,
"corresAddrStartNoAlpha": "string",
"corresAddrEndNo": 0,
"corresAddrEndNoAlpha": "string",
"corresAddrSt": "string".
"corresAddrDistrictCd": "string",
"corresAddrAreaCd": 0,
"corresTelNo": "string",
"corresFaxNo": "string",
"corresEmailAddr": "string",
"becEdition": "2012",
"reaTitleId": 0,
"reaEname": "string",
"reaCname": "string",
"reaAddrLang": "1",
"reaAddrFlat": "string".
"reaAddrFloor": "string",
"reaAddrBlock": "string",
"reaAddrBldg": "string",
"reaAddrStartNo": 0,
"reaAddrStartNoAlpha": "string",
"reaAddrEndNo": 0,
"reaAddrEndNoAlpha": "string",
"reaAddrSt": "string",
"reaAddrDistrictCd": "string",
"reaAddrAreaCd": 0,
"reaTelNo": "string",
"reaFaxNo": "string".
"reaEmailAddr": "string",
"reaRegNo": "string",
"reaExpiryDate": "20211124",
"receiveDate": "20211124",
"eesu": {
 "applicationNo": "ee107021458",
 "bldgType": 0,
 "bldgTypeOther": "string",
 "dateOfDeclarationByRea": "20211124",
 "prevSubNo": "string",
 "supersedePreviousForm": "1",
 "dateOfDeclarationByReaInPreviousForm": "20211124",
 "consentBldgWorkMaptype": "1",
```

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```
"consentIssueDate": "20211124",
  "consentDocumentNoType": "1",
  "consentDocNo": "string",
  "commenceDateType": "1",
  "commenceDate": "string",
  "occupationDate": "string",
  "consetBldgArea": 0,
  "exemptGrant": "1",
  "exemptRefNo": "string",
  "exemptDate": "20211124",
  "exemptInstallations": "string",
  "chklistConsent": "1",
  "chklistLocMap": "1",
  "organizationEname": "string",
  "organizationCname": "string",
  "organizationResEname": "string",
  "organizationResCname": "string"
 }
}
```

Sample Response

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":"0514125f"
}
```

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#### 10.3. Validation Form Data

**API Description** 

Name	Description		
Service Full	For validating the application data before submission.		
Name			
URL	<pre><backend_service_domain>/{Version}/EE1/ValidateFormData</backend_service_domain></pre>		
<b>Request Type</b>	POST		
Service	1		
Version			
Description	This API is to validate the application data before submission.		
of Service			

**Request Headers** 

Parameter	Type	Condition	Description	
signature	String	Required	It is a signature of the submitted data. WBRS uses	
			clientSecret to sign the concatenated string of	
			<b>nonce</b> and <b>encrypted content</b> to get the signature.	
clientID	String	Required	Client identifier for finding out the client secret in	
			the backend.	
nonce	String	Required	A nonce is a random string, uniquely generated for	
			each request by WBRS. It is used to prevent replay	
			attack. A nonce can be an ASCII string of any	
			length less than or equal to 36 (UUID string length)	
			as long as the uniqueness requirement is met.	

**Request Parameters** 

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgEname	String(255)		Name of Proposed
			Building: English
bldgCname	String(255)		Name of Proposed
			Building: Chinese
startNo	Int		Street No
startNoAlpha	String(10)		Street No Alpha
endNo	Int		End No
endNoAlpha	String(10)		End No Alpha
stEname	String(255)		Street English
stCname	String(255)		Street Chinese
districtCd	String(20)		Options of District
			English Chinese
areaCd	Int		Options of Area
			English Chinese
			[1=Hong Kong 2 =
			Kowloon 3 = New

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SERVICES DEPARTMENT (EMSD)		Territories]
lotNo	String(200)	Lot No.
	String(200)	
compBecEdition	String(30)	Company BEC Edition
compEname	String(256)	-Company Name of
		Developer Name
	(0.5.6)	English
compCname	String(256)	Company Name of
		Developer Name
	*	Chinese
represenTitleId	Int	Options of
		Representative Person
		Salutation,
		[1=Mr.,2=Miss,3=Ms.
represenEname	String(256)	Representative Person
Tepresenguante	String(230)	English Name
represenCname	String(256)	Representative Person
Tepresentiame	Sumg(230)	Chinese Name
represenPost	String(256)	Representative
represent ost	String(250)	Position
corresAddrLang	String(1)	Options of
correst taur Lang	String(1)	Correspondence
		Address Language,
		[E,C]
corresAddrFlat	String(50)	Correspondence
		Address Room/Flat
corresAddrFloor	String(50)	Correspondence
		Address Floor
corresAddrBlock	String(50)	Correspondence
		Address Block
corresAddrBldg	String(255)	Correspondence
		Address Building
corresAddrStartNo	Int	Correspondence
	2 4 (10)	Address Street No.
corresAddrStartNoAlpha	String(10)	Correspondence
A I I D INT	T .	Address Street No.
corresAddrEndNo	Int	Correspondence Address Street No.
corresAddrEndNoAlpha	String(10)	Correspondence
CorresAddrEndiNoAipha	Sumg(10)	Address Street
corresAddrSt	String(255)	Correspondence
Correstiunist	5tillg(255)	Address Street
corresAddrDistrictCd	String(20)	Options of
		Correspondence
		Address District
corresAddrAreaCd	Int	Options of
		Correspondence
		Address Area English
		1

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SERVICES DEPARTMENT (EMSD)		Chinese
corresTelNo	String(20)	Correspondence
Correstento	String(20)	1 *
	String (20)	Telephone No.
corresFaxNo	String(20)	Correspondence Fax
70 00 00	(100)	No.
corresEmailAddr	String(100)	Correspondence E-
		mail Address
becEdition	String(10)	REA BEC Edition
reaTitleId	Int	Options of REA
		Salutation,
		[1=Mr.,2=Miss,3=Ms.
		]
reaEname	String(256)	Electrical Discipline
		of Registered
		Engineer
		Qualifications
reaCname	String(256)	REA Chinese Name
reaAddrLang	String(1)	Options of REA
		Correspondence
		Address Language,
		[E,C]
reaAddrFlat	String(50)	REA Correspondence
		Address Room/Flat
reaAddrFloor	String(50)	REA Correspondence
TCaAddi Floor	String(50)	Address Floor
reaAddrBlock	String(50)	REA Correspondence
TCAAddi Diock	String(50)	Address Block
reaAddrBldg	String(255)	REA Correspondence
TeaAuui Diug	String(233)	Address Building
reaAddrStartNo	Int	
reaAddrStartNo	IIIt	REA Correspondence Address Street No.
A J JC4 ANJ - A J L -	String (10)	
reaAddrStartNoAlpha	String(10)	REA Correspondence Address Street No.
A I I TO INI	T	
reaAddrEndNo	Int	REA Correspondence
	G. (10)	Address Street No.
reaAddrEndNoAlpha	String(10)	REA Correspondence
A 11 G	G.: (255)	Address Street No.
reaAddrSt	String(255)	REA Correspondence
A 11 B:	G. 1 (20)	Address Street
reaAddrDistrictCd	String(20)	REA Correspondence
		District
reaAddrAreaCd	Int	REA Correspondence
		Area English Chinese
reaTelNo	String(20)	REA Correspondence
		Telephone No.
reaFaxNo	String(20)	REA Correspondence
		Fax
reaEmailAddr	String(100)	REA Correspondence
		E-mail Address

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reaRegNo	String(20)		REA Registration No.
reaExpiryDate	String(8)		REA Expiry
			Date(yyyyMMdd)
receiveDate	String(8)		Receipt
			Date(yyyyMMdd)
eesu	Object	Required	eesu
			Refer to: Request –
			Content- eesu

Request - Content- eesu

Request – Content– eesu			
Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgType	Int		Type of Building
bldgTypeOther	String(255)		Type of Building Other
dateOfDeclarationByRea	String(8)		Date of Declaration by Registered Energy Assessor in Form EE1 / EE2 / EE3 / EE4 * (yyyyMMdd)
prevSubNo	String(100)		If EMSD's reference no. for the form submitted before is known, please provide
supersedePreviousForm	String(1)		this submission to supersede a form submitted before? (Please give a "\square" in the appropriate box)
dateOfDeclarationByReaInPrevi ousForm	String(8)		Otherwise, please provide the date of declaration by Registered Energy Assessor in the previous form: (yyyyMMdd)
consentBldgWorkMaptype	String(1)		1 = plan 2 = map
consentIssueDate	String(8)		Section B(a) Issue date of "consent to the commencement of building works" (see note 5):
consentDocumentNoType	String(1)		Consent Document No. Type 1 = Permit No. 2 = =Reference No.

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SERVICES DEFARITIENT (ENISD)		3 = Contract No.
consentDocNo	String(20)	Section B(a) Permit No. / Reference No. / Contract No.* of "consent to the commencement of building works":
commenceDateType	String(1)	1=Anticipated 2=Actual
commenceDate	String(10)	Section B(a) Anticipated/Actual* construction commencement date (m/yyyy):
occupationDate	String(10)	Section B(a) Anticipated occupation approval date (m/yyyy):
consetBldgArea	decimal	Total internal floor area of building EE1
exemptGrant	String(1)	section b(e) Exemption previously granted by the Director of Electrical and Mechanic
exemptRefNo	String(20)	section b(e) Reference No.
exemptDate	String(8)	section b(e) Date(yyyyMMdd)
exemptInstallations	String(300)	section b(e) Installation(s) exempted
chklistConsent	String(1)	ee1, section c checkbox 1
chklistLocMap	String(1)	ee1, section c checkbox 2
organizationEname	String(255)	section c Organization Name of Responsible Person# ENG
organizationCname	String(255)	section c Organization Name of Responsible Person# CHI
organizationResEname	String(255)	section c Name of Responsible Person' Representative# ENG
organizationResCname	String(255)	section c Name of

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	Responsible Person'
	Representative# CHI

**Response Parameters** 

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID
			during system support.
code	Option	Required	Code to indicate the result. Details please refer to
			below section "Response – Code & Message".
details	String	Required	Details code (For example: CE2001). Details
			please refer to below section "Response – Code &
			Message".

**Response Parameters** 

response i ai ai			
Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID
			during system support.
code	Option	Required	Code to indicate the result. Details please refer to
		_	below section "Response – Code & Message".
details	String	Required	Details code (For example: CE2001). Details
			please refer to below section "Response – Code &
			Message".

Response - Code & Message

Response	Coue & Message	
Code	Description	Message
D00000	Success	Success Result.
	Result.	
D20001	Parameter is	Parameter is null - (parameter name)
	null.	-
D20002	Already	Parameter already exists - (parameter name)
	exists.	
D30001	Header is null	The header "clientID" is null.
		The header "signature" is null.
		The header "nonce " is null.
D30002	Header is	The header "clientID" is not found in the list.
	wrong	The header "signature" is incorrect. (MITM Attack)
		The header "nonce " is already used. (Replay Attack)
D40001	Form	Parameter not found - (parameter name)
	Validation	
D90000	Unknown	Runtime Exception.
	Exception	

#### Sample Request

```
{
    "encryptedContent":"sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y= "
}
```

## **Sample Request (without encryption)**

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```
"applicationNo": "EE10000001",
"bldgEname": "",
"bldgCname": "",
"startNo": 1
"startNoAlpha": "",
"endNo": 1,
"endNoAlpha":"".
"stEname": "",
"stCname": "",
"districtCd": "".
"areaCd": 1,
"lotNo": "",
"compBecEdition": "",
"compEname": "",
"compCname": "",
"represenTitleId": 1,
"represenEname": "",
"represenCname": "",
"represenPost": "",
"corresAddrLang": "".
"corresAddrFlat": "",
"corresAddrFloor": "".
"corresAddrBlock": "".
"corresAddrBldg": "",
"corresAddrStartNo": 1,
"corresAddrStartNoAlpha": "",
"corresAddrEndNo": 1,
"corresAddrEndNoAlpha": "",
"corresAddrSt": "",
"corresAddrDistrictCd": "",
"corresAddrAreaCd":1,
"corresTelNo": "".
"corresFaxNo": "",
"corresEmailAddr": "",
"becEdition": "",
"reaTitleId": 1,
"reaEname": "",
"reaCname": "",
"reaAddrLang": "".
"reaAddrFlat": "",
"reaAddrFloor": ""
"reaAddrBlock": "".
"reaAddrBldg": "",
"reaAddrStartNo": 1,
"reaAddrStartNoAlpha": "",
"reaAddrEndNo": 0,
"reaAddrEndNoAlpha": "",
"reaAddrSt": "",
"reaAddrDistrictCd": "",
```

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```
"reaAddrAreaCd": 1,
"reaTelNo": "",
"reaFaxNo": "".
"reaEmailAddr": "",
"reaRegNo": "",
"reaExpiryDate": "20100101",
"receiveDate": "20100101",
"eesu":
           "applicationNo": "111",
           "bldgType": 1,
           "bldgTypeOther": "",
           "dateOfDeclarationByRea": "20100101",
           "prevSubNo": "",
           "supersedePreviousForm": "1",
           "dateOfDeclarationByReaInPreviousForm": "20100101",
           "consentBldgWorkMaptype": "".
           "consentIssueDate": "20100101".
           "consentDocumentNoType":"1",
           "consentDocNo": "",
           "commenceDateType": "",
           "commenceDate": "",
           "occupationDate":"",
           "consetBldgArea":100.00,
           "exemptGrant": "",
           "exemptRefNo": "",
           "exemptDate": "20100101",
           "exemptInstallations": "",
           "chklistConsent": "".
           "chklistLocMap": "",
           "organizationEname":"".
           "organizationCname":"",
           "organizationResEname":"",
           "organizationResCname":""
```

Sample Response

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":"0514125f"
}
```

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## 10.4. Create Attachment

**API Description** 

Name	Description
Service Full	For submitting the attachment to backend
Name	
URL	<pre><backend_service_domain>/{Version}/EE1/CreateAttachment</backend_service_domain></pre>
<b>Request Type</b>	POST
Service	1
Version	
Description	This API is to validate the application data before submission.
of Service	

**Request Headers** 

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses
			clientSecret to sign the concatenated string of
			<b>nonce</b> and <b>encrypted content</b> to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in
			the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for
			each request by WBRS. It is used to prevent replay
			attack. A nonce can be an ASCII string of any
			length less than or equal to 36 (UUID string length)
			as long as the uniqueness requirement is met.

**Request Parameters** 

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.
fileName	String	Required	File name with extension of the attachment
shaFileChecksum	String	Required	The SHA file checksum of the attachment
type	String	Required	The type of the attachment
fileContent	String	Required	Base64 encoded content of the attachment
description	String	Required	Description of attachment

**Response Parameters** 

Parameter	Type	Condition	Description	

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txID	String	Required	Unique ID for logging. Please provide this ID
			during system support.
code	Option	Required	Code to indicate the result. Details please refer to
			below section "Response – Code & Message".
details	String	Required	Details code (For example: CE2001). Details
			please refer to below section "Response – Code &
			Message".

Response - Code & Message

<u> Response – (</u>	<u>Code &amp; Message</u>	
Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is	The parameter "Key" is null.
	null.	The parameter "applicationNo" is null.
		The parameter "FileName" is null.
		The parameter "File" is null.
D20002	Application is	The application is not found.
	invalid	Application status is invalid.
D20003	File is invalid	File extension is invalid.
		File name is too long.
		File Name is invalid.
D30001	Header is null	The header "clientID" is null.
		The header "signature" is null.
		The header "nonce " is null.
D30002	Header is	The header "clientID" is not found in the list.
	wrong	The header "signature" is incorrect. (MITM Attack)
		The header "nonce" is already used. (Replay Attack)
D90000	Unknown	Runtime Exception.
	Exception	

#### **Sample Request (with encryption)**

```
{
    "encryptedContent":"sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y= "
}
```

**Sample Request (without encryption)** 

```
{
    "applicationNo": "L160000001",
    "fileName": "",
    "shaFileChecksum": "",
    "type": ""
    "content": ""
    "description": ""
}
```

## Sample Response

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":"0514125f"
```

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}

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# 10.5. Acknowledge Submission Completed

**API Description** 

Name	Description
<b>Service Full</b>	To acknowledge the backend submission has been completed.
Name	
URL	<pre><backend_service_domain>/{Version}/EE1/Status/SubmissionCompleted</backend_service_domain></pre>
Request	POST
Type	
Service	1
Version	
Description	To acknowledge the backend after all attachments are submitted
of Service	successfully.

**Request Headers** 

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses
			clientSecret to sign the concatenated string of
			<b>nonce</b> and <b>encrypted content</b> to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in
			the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for
			each request by WBRS. It is used to prevent replay
			attack. A nonce can be an ASCII string of any
			length less than or equal to 36 (UUID string length)
			as long as the uniqueness requirement is met.

**Request Parameters** 

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

**Response Parameters** 

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID
			during system support.
code	Option	Required	Code to indicate the result. Details please refer to
			below section "Response – Code & Message".
details	String	Required	Details code (For example: CE2001). Details
			please refer to below section "Response – Code &
			Message".

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is	The parameter "applicationNo" is null.

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	null.		
D30001	Header is null	The header "clientID" is null.	
		The header "signature" is null.	
		The header "nonce " is null.	
D30002	Header is	The header "clientID" is not found in the list.	
	wrong	The header "signature" is incorrect. (MITM Attack)	
		The header "nonce" is already used. (Replay Attack)	
D90000	Unknown	Runtime Exception.	
	Exception	-	

```
Sample Request (with encryption)
```

```
{
    "encryptedContent":"sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y= "
}
```

```
Sample Request (without encryption)
```

```
{
    "applicationNo": "L160000001"
}
```

## **Sample Response**

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":"0514125f"
}
```

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### 11. EE2

## 11.1. Request Form Data

**API Description** 

Name	Description
Service Full	To get the form data
Name	
URL	<backend_service_domain>/{Version}/EE2/GetForm</backend_service_domain>
Request Type	POST
Service	1
Version	
<b>Description of</b>	To get the form data
Service	

**Request Headers** 

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses
			clientSecret to sign the concatenated string of
			<b>nonce</b> and <b>encrypted content</b> to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in
			the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for
			each request by WBRS. It is used to prevent replay
			attack. A nonce can be an ASCII string of any
			length less than or equal to 36 (UUID string length)
			as long as the uniqueness requirement is met.

**Request Parameters** 

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

Response Parameters

Parameter	<b>Type</b>	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID
			during system support.
code	Option	Required	Code to indicate the result. Details please refer to
			below section "Response – Code & Message".
details	String	Required	Details code (For example: CE2001). Details
			please refer to below section "Response – Code &
			Message".

Response - Code & Message

1100 001100	C C GRE GE 1/120000000	
Code	Description	Message
D00000	Success Result.	Success Result.

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D20001	Parameter is	The parameter "applicationNo" is null.
	null.	
D30001	Header is null	The header "clientID" is null.
		The header "signature" is null.
		The header "nonce " is null.
D30002	Header is	The header "clientID" is not found in the list.
	wrong	The header "signature" is incorrect. (MITM Attack)
		The header "nonce " is already used. (Replay Attack)
D90000	Unknown	Runtime Exception.
	Exception	

## **Sample Request (with encryption)**

```
{
    "encryptedContent":"sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y= "
}
```

## Sample Request (without encryption)

```
{
    "applicationNo": "L160000001"
}
```

#### Sample Response

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":"0514125f"
}
```

#### **Response - Content**

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgEname	String(255)		Name of Proposed
			Building: English
bldgCname	String(255)		Name of Proposed
			Building: Chinese
startNo	Int		Street No
startNoAlpha	String(10)		Street No Alpha
endNo	Int		End No
endNoAlpha	String(10)		End No Alpha
stEname	String(255)		Street English
stCname	String(255)		Street Chinese
			r
districtCd	String(20)		Options of District English
			Chinese
areaCd	Int		Options of Area English
			Chinese
			[1=Hong Kong 2 =
			Kowloon 3 = New
			Territories]

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lotNo	String(200)	Lot No.
compBecEdition	String(10)	Company BEC Edition
compEname	String(256)	-Company Name of Developer Name English
compCname	String(256)	Company Name of Developer Name Chinese
represenTitleId	String	Options of Representative Person Salutation, [1=Mr.,2=Miss,3=Ms.]
represenEname	String(256)	Representative Person English Name
represenCname	String(256)	Representative Person Chinese Name
represenPost	String(256)	Representative Position
corresAddrLang	String(1)	Options of Correspondence Address Language, [E,C]
corresAddrFlat	String(50)	Correspondence Address Room/Flat
corresAddrFloor	String(50)	Correspondence Address Floor
corresAddrBlock	String(50)	Correspondence Address Block
corresAddrBldg	String(255)	Correspondence Address Building
corresAddrStartNo	Int	Correspondence Address Street No.
corresAddrStartNoAlpha	String(10)	Correspondence Address Street No.
corresAddrEndNo	Int	Correspondence Address Street No.
corresAddrEndNoAlpha	String(10)	Correspondence Address Street
corresAddrSt	String(255)	Correspondence Address Street
corresAddrDistrictCd	String(20)	Options of Correspondence Address District
corresAddrAreaCd	Int	Options of Correspondence Address Area English Chinese
corresTelNo	String(20)	Correspondence Telephone No.
corresFaxNo	String(20)	Correspondence Fax No.
corresEmailAddr	String(100)	Correspondence E-mail Address
inspectDate	String(8)	Inspection Date(yyyyMMdd)
reaTitleId	Int	Options of REA Salutation, [1=Mr.,2=Miss,3=Ms.]
reaEname	String(256)	Electrical Discipline of

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SERVICES DEPARTMENT (EMSD	')	D 1 1 1 1
		Registered Engineer
		Qualifications
reaCname	String(256)	REA Chinese Name
reaAddrLang	String(1)	Options of REA
		Correspondence Address
		Language, [E,C]
reaAddrFlat	String(50)	REA Correspondence
		Address Room/Flat
reaAddrFloor	String(50)	REA Correspondence
		Address Floor
reaAddrBlock	String(50)	REA Correspondence
		Address Block
reaAddrBldg	String(255)	REA Correspondence
		Address Building
reaAddrStartNo	Int	REA Correspondence
		Address Street No.
reaAddrStartNoAlpha	String(10)	REA Correspondence
_		Address Street No.
reaAddrEndNo	Int	REA Correspondence
		Address Street No.
reaAddrEndNoAlpha	String(10)	REA Correspondence
_		Address Street No.
reaAddrSt	String(255)	REA Correspondence
		Address Street
reaAddrDistrictCd	String(20)	REA Correspondence
		District
reaAddrAreaCd	Int	REA Correspondence Area
		English Chinese
reaTelNo	String(20)	REA Correspondence
		Telephone No.
reaFaxNo	String(20)	REA Correspondence Fax
reaEmailAddr	String(100)	REA Correspondence E-
		mail Address
reaRegNo	String(20)	REA Registration No.
reaExpiryDate	String(8)	REA Expiry
• •		Date(yyyyMMdd)
receiveDate	String(8)	Receipt Date(yyyyMMdd)
eesu	Object	eesu
		Refer to: Response –
		Content- eesu

Response – Content - eesu

Parameter	Type	Conditio n	Description
applicationNo	String(20)		Reference Number
bldgType	Int		Type of Building
bldgTypeOther	String(255		Type of Building Others

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DERVICES DEFACTMENT (EMBD)	T a · · · (0)	
dateOfDeclarationByRea	String(8)  String(100 )	Date of Declaration by Registered Energy Assessor in Form EE1 / EE2 / EE3 / EE4 *(yyyyMMdd)  If EMSD's reference no. for the form submitted before is known, please
supersedePreviousForm	String(1)	provide  this submission to supersede a form submitted before?  (Please give a "\sqrt{"} in the appropriate box)
dateOfDeclarationByReaInPreviousFor m	String(8)	Otherwise, please provide the date of declaration by Registered Energy Assessor in the previous form:  (yyyyMMdd)
encloseEeel	String(1)	Form EE-EL
encloseEelg	String(1)	Form EE-LG
encloseEeac	String(1)	Form EE-AC
encloseEele	String(1)	Form EE-LE
encloseEepb	<del>                                     </del>	Form EE-PB
stageOneNo	String(1) String(20)	Section B (b) Reference No. of Stage One Declaration
occuApprovalDate	String(10)	Section B (b) Issue date (m/yyyy) of "occupation approval" (see note 6):
occuApprovalNo	String(20)	Section B(b) Permit No. / Reference No. / Contract No.* of "occupation approval"
consetBldgArea	decimal	Total internal
		1

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SERVICES DEPARTMENT (EMSD)		
		floor area of building EE2
exemptGrant	String(1)	section b(e) Exemption previously granted by the Director of Electrical and Mechanic
exemptRefNo	String(20)	section b(e) Reference No.
exemptDate	String(8)	section b(e) Date(yyyyMMdd )
exemptInstallations	String(1)	section b(e) Installation(s) exempted
chklistOccpApproval	String(1)	ee2,section c checkbox 3
organizationEname	String(255	section c Organization Name of Responsible Person# ENG
organizationCname	String(255	section c Organization Name of Responsible Person# CHI
organizationResEname	String(255	section c Name of Responsible Person' Representative# ENG
organizationResCname	String(255	section c Name of Responsible Person' Representative# CHI

# Sample Response

```
{
    "applicationNo": "EE10000001",
    "bldgEname": "",
    "bldgCname": "",
    "startNo": 1
    "startNoAlpha": "",
    "endNo": 1,
    "endNoAlpha":"",
    "stEname": "",
```

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```
"stCname": "",
"districtCd": "",
"areaCd": 1,
"lotNo": "",
"compBecEdition": "",
"compEname": "",
"compCname": "",
"represenTitleId": 1,
"represenEname": ""
"represenCname": "",
"represenPost": "",
"corresAddrLang": "",
"corresAddrFlat": "",
"corresAddrFloor": "".
"corresAddrBlock": "",
"corresAddrBldg": "",
"corresAddrStartNo": 1,
"corresAddrStartNoAlpha": "",
"corresAddrEndNo": 1,
"corresAddrEndNoAlpha": "",
"corresAddrSt": "",
"corresAddrDistrictCd": "",
"corresAddrAreaCd":1,
"corresTelNo": "",
"corresFaxNo": "".
"corresEmailAddr": "",
"inspectDate": "20100101",
"reaTitleId": 1,
"reaEname": ""
"reaCname": "",
"reaAddrLang": "",
"reaAddrFlat": "",
"reaAddrFloor": "".
"reaAddrBlock": "".
"reaAddrBldg": "",
"reaAddrStartNo": 1,
"reaAddrStartNoAlpha": "",
"reaAddrEndNo": 0,
"reaAddrEndNoAlpha": "",
"reaAddrSt": "",
"reaAddrDistrictCd": "",
"reaAddrAreaCd": 1,
"reaTelNo": "",
"reaFaxNo": "",
"reaEmailAddr": "",
"reaRegNo": "",
"reaExpiryDate": "20100101",
"receiveDate": "20100101",
"eesu":
```

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```
"applicationNo": "111",
"bldgType": 1,
"bldgTypeOther": "",
"dateOfDeclarationByRea": "20100101",
"prevSubNo": "",
"supersedePreviousForm": "1",
"dateOfDeclarationByReaInPreviousForm": "20100101",
"encloseEeel": "",
"encloseEelg": "",
"encloseEeac": "",
"encloseEele": "",
"encloseEepb": ""
"stageOneNo":"",
"occuApprovalDate": "",
"occuApprovalNo": "",
"consetBldgArea":100.00,
"exemptGrant": "",
"exemptRefNo": "",
"exemptDate": "20100101",
"exemptInstallations": "",
"chklistOccpApproval": "",
"organizationEname":"",
"organizationCname":"",
"organizationResEname":"",
"organizationResCname":""
```

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#### 11.2. Create Form Data

**API Description** 

Name	Description		
Service Full	For submitting application form data.		
Name			
URL	<pre><backend_service_domain>/{Version}/EE2/SubmitApplication</backend_service_domain></pre>		
<b>Request Type</b>	POST		
Service	1		
Version			
Description	This API is to submit the application from WBRS to the backend. It		
of Service	should not return a custom form validation error.		

**Request Headers** 

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses
			clientSecret to sign the concatenated string of
			<b>nonce</b> and <b>encrypted content</b> to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in
			the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for
			each request by WBRS. It is used to prevent replay
			attack. A nonce can be an ASCII string of any
			length less than or equal to 36 (UUID string length)
			as long as the uniqueness requirement is met.

**Request Parameters** 

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgEname	String(255)		Name of Proposed
			Building: English
bldgCname	String(255)		Name of Proposed
			Building: Chinese
startNo	Int		Street No
startNoAlpha	String(10)		Street No Alpha
endNo	Int		End No
endNoAlpha	String(10)		End No Alpha
stEname	String(255)		Street English
stCname	String(255)		Street Chinese
districtCd	String(3)		Options of District English
			Chinese
areaCd	Int		Options of Area English
			Chinese
			[1=Hong Kong 2 =
			Kowloon 3 = New

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SERVICES DEPARTMENT (EMSD)		Territories]
lotNo	String(200)	Lot No.
compBecEdition	String(200) String(10)	Company BEC Edition
compEname	String(256)	-Company Name of
сопредате	Sumg(230)	Developer Name English
compCname	String(256)	Company Name of
compenante	String(230)	Developer Name Chinese
represenTitleId	String	Options of Representative
	Sumg	Person Salutation,
		[1=Mr.,2=Miss,3=Ms.]
represenEname	String(256)	Representative Person
•		English Name
represenCname	String(256)	Representative Person
		Chinese Name
represenPost	String(256)	Representative Position
corresAddrLang	String(1)	Options of Correspondence
		Address Language, [E,C]
corresAddrFlat	String(50)	Correspondence Address
		Room/Flat
corresAddrFloor	String(50)	Correspondence Address
4 11 DL 1	G. (50)	Floor
corresAddrBlock	String(50)	Correspondence Address
acurac A dduDlda	Stain a (255)	Block Companyed and Address
corresAddrBldg	String(255)	Correspondence Address Building
corresAddrStartNo	Int	Correspondence Address
correst tuti star trivo	IIIt	Street No.
corresAddrStartNoAlpha	String(10)	Correspondence Address
P		Street No.
corresAddrEndNo	Int	Correspondence Address
		Street No.
corresAddrEndNoAlpha	String(10)	Correspondence Address
		Street
corresAddrSt	String(255)	Correspondence Address
		Street
corresAddrDistrictCd	String(3)	Options of Correspondence
	T	Address District
corresAddrAreaCd	Int	Options of Correspondence
		Address Area English Chinese
corresTelNo	String(20)	Correspondence Telephone
COLLECTION	Sumg(20)	No.
corresFaxNo	String(20)	Correspondence Fax No.
corresEmailAddr	String(100)	Correspondence E-mail
	(200)	Address
inspectDate	String(8)	Inspection
		Date(yyyyMMdd)
reaTitleId	Int	Options of REA Salutation,
		[1=Mr.,2=Miss,3=Ms.]

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reaEname	String (256)		Electrical Discipline of
геавлате	String(256)		Electrical Discipline of
			Registered Engineer
	Gr : (256)		Qualifications
reaCname	String(256)		REA Chinese Name
reaAddrLang	String(1)		Options of REA
			Correspondence Address
	- (FO)		Language, [E,C]
reaAddrFlat	String(50)		REA Correspondence
	- (50)		Address Room/Flat
reaAddrFloor	String(50)		REA Correspondence
			Address Floor
reaAddrBlock	String(50)		REA Correspondence
			Address Block
reaAddrBldg	String(255)		REA Correspondence
			Address Building
reaAddrStartNo	Int		REA Correspondence
			Address Street No.
reaAddrStartNoAlpha	String(10)		REA Correspondence
			Address Street No.
reaAddrEndNo	Int		REA Correspondence
			Address Street No.
reaAddrEndNoAlpha	String(10)		REA Correspondence
			Address Street No.
reaAddrSt	String(255)		REA Correspondence
			Address Street
reaAddrDistrictCd	String(3)		REA Correspondence
			District
reaAddrAreaCd	Int		REA Correspondence Area
			English Chinese
reaTelNo	String(20)		REA Correspondence
			Telephone No.
reaFaxNo	String(20)		REA Correspondence Fax
reaEmailAddr	String(100)		REA Correspondence E-
			mail Address
reaRegNo	String(20)		REA Registration No.
reaExpiryDate	String(8)		REA Expiry
			Date(yyyyMMdd)
receiveDate	String(8)		Receipt Date(yyyyMMdd)
eesu	Object	Required	eesu
			Refer to: Request –
			Content- eesu

Request - Content - eesu

Parameter	Type	Conditio n	Description
applicationNo	String(20)		Reference Number
bldgType	Int		Type of Building
bldgTypeOther	String(255		Type of Building

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		Others
dateOfDeclarationByRea	String(8)	Date of
		Declaration by
		Registered
		Energy Assessor
		in Form EE1 /
		EE2 / EE3 / EE4 *
CIN	Gt : (100	
prevSubNo	String(100	If EMSD's reference no. for
	)	the form
		submitted before
		is known, please
		provide
supersedePreviousForm	String(1)	this submission to
	(-)	supersede a form
		submitted before?
		(Please give a
		"√" in the
		appropriate box)
dateOfDeclarationByReaInPreviousFor	String(8)	Otherwise, please
m		provide the date
		of declaration by
		Registered
		Energy Assessor
		in the previous
	(a)	form:
encloseEeel	String(1)	Form EE-EL
encloseEelg encloseEeac	String(1)	Form EE-LG Form EE-AC
encloseEele	String(1) String(1)	Form EE-LE
encloseEepb	String(1)	Form EE-PB
stageOneNo	String(20)	Section B (b)
suge one (o		Reference No. of
		Stage One
		Declaration
occuApprovalDate	String(10)	Section B (b)
		Issue date
		(m/yyyy) of
		"occupation
		approval" (see
	(20)	note 6):
occuApprovalNo	String(20)	Section B(b)
		Permit No. /
		Reference No. /
		Contract No.* of
		"occupation approval"
consetBldgArea	decimal	Total internal
ConstiblingAlea	GCCIIIIII	Total internal

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SERVICES DEPARTMENT (EMSD)		
		floor area of building EE2
exemptGrant	String(1)	section b(e) Exemption previously granted by the Director of Electrical and Mechanic
exemptRefNo	String(20)	section b(e) Reference No.
exemptDate	String(8)	section b(e) Date(yyyyMMdd )
exemptInstallations	String(1)	section b(e) Installation(s) exempted
chklistOccpApproval	String(1)	ee2,section c checkbox 3
organizationEname	String(255	section c Organization Name of Responsible Person# ENG
organizationCname	String(255	section c Organization Name of Responsible Person# CHI
organizationResEname	String(255	section c Name of Responsible Person' Representative# ENG
organizationResCname	String(255	section c Name of Responsible Person' Representative# CHI

**Response Parameters** 

response I ai ai	incter 5		
Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID
			during system support.
code	Option	Required	Code to indicate the result. Details please refer to
			below section "Response – Code & Message".
details	String	Required	Details code (For example: CE2001). Details
			please refer to below section "Response – Code &
			Message".

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### Response - Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	Parameter is null - (parameter name)
D20002	Already exists.	Parameter already exists - (parameter name)
D30001	Header is null	The header "clientID" is null.
		The header "signature" is null.
		The header "nonce " is null.
D30002	Header is	The header "clientID" is not found in the list.
	wrong	The header "signature" is incorrect. (MITM Attack)
		The header "nonce " is already used. (Replay Attack)
D90000	Unknown	Runtime Exception.
	Exception	

**Sample Request (with encryption)** 

```
{
    "encryptedContent":"sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y= "
}
```

Sample Request (without encryption)

```
"applicationNo": "ee207021447",
"bldgEname": "bldgEname",
"bldgCname": "中文名",
"startNo": 0,
"startNoAlpha": "string",
"endNo": 0,
"endNoAlpha": "string",
"stEname": "string",
"stCname": "string",
"districtCd": "string",
"areaCd": 0,
"lotNo": "string",
"compBecEdition": "2012",
"compEname": "compEname",
"compCname": "compCname 中文名",
"represenTitleId": 0,
"represenEname": "string",
"represenCname": "string",
"represenPost": "string",
"corresAddrLang": "1",
"corresAddrFlat": "string",
"corresAddrFloor": "string",
"corresAddrBlock": "string",
"corresAddrBldg": "string",
"corresAddrStartNo": 0,
"corresAddrStartNoAlpha": "string",
```

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```
"corresAddrEndNo": 0,
"corresAddrEndNoAlpha": "string",
"corresAddrSt": "string",
"corresAddrDistrictCd": "string",
"corresAddrAreaCd": 0,
"corresTelNo": "string",
"corresFaxNo": "string",
"corresEmailAddr": "string",
"inspectDate": "20211124",
"reaTitleId": 0,
"reaEname": "reaEname",
"reaCname": "rea 中文名",
"reaAddrLang": "1",
"reaAddrFlat": "string",
"reaAddrFloor": "string"
"reaAddrBlock": "string",
"reaAddrBldg": "string",
"reaAddrStartNo": 0,
"reaAddrStartNoAlpha": "string",
"reaAddrEndNo": 0,
"reaAddrEndNoAlpha": "string",
"reaAddrSt": "string",
"reaAddrDistrictCd": "string",
"reaAddrAreaCd": 0,
"reaTelNo": "string",
"reaFaxNo": "string",
"reaEmailAddr": "string",
"reaRegNo": "string",
"reaExpiryDate": "20211124",
"receiveDate": "20211124",
"eesu": {
 "applicationNo": "ee203012221413",
 "bldgType": 0,
 "bldgTypeOther": "string",
 "dateOfDeclarationByRea": "20211124",
 "prevSubNo": "string",
 "supersedePreviousForm": "1",
 "dateOfDeclarationByReaInPreviousForm": "20211124",
 "encloseEeel": "1",
 "encloseEelg": "1",
 "encloseEeac": "1".
 "encloseEele": "1",
 "encloseEepb": "1",
 "stageOneNo": "EMSD/EEO/BC/34-00002",
 "occuApprovalDate": "string",
 "occuApprovalNo": "string",
 "consetBldgArea": 0,
 "exemptGrant": "1",
 "exemptRefNo": "string",
 "exemptDate": "20211124",
```

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```
"exemptInstallations": "1",
  "chklistOccpApproval": "1",
  "organizationEname": "string",
  "organizationCname": "string",
  "organizationResEname": "string",
  "organizationResCname": "string"
}
```

## Sample Response

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":"0514125f"
}
```

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#### 11.3. Validation Form Data

**API Description** 

Name	Description
Service Full	For validating the application data before submission.
Name	
URL	<pre><backend_service_domain>/{Version}/EE2/ValidateFormData</backend_service_domain></pre>
<b>Request Type</b>	POST
Service	1
Version	
Description	This API is to validate the application data before submission.
of Service	

**Request Headers** 

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses
			clientSecret to sign the concatenated string of
			<b>nonce</b> and <b>encrypted content</b> to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in
			the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for
			each request by WBRS. It is used to prevent replay
			attack. A nonce can be an ASCII string of any
			length less than or equal to 36 (UUID string length)
			as long as the uniqueness requirement is met.

**Request Parameters** 

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgEname	String(255)		Name of Proposed
			Building: English
bldgCname	String(255)		Name of Proposed
			Building: Chinese
startNo	Int		Street No
startNoAlpha	String(10)		Street No Alpha
endNo	Int		End No
endNoAlpha	String(10)		End No Alpha
stEname	String(255)		Street English
stCname	String(255)		Street Chinese
			r
districtCd	String(3)		Options of District English
			Chinese
areaCd	Int		Options of Area English
			Chinese
			[1=Hong Kong 2 =

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SERVICES DEPARTMENT (EMSD)		
		Kowloon 3 = New Territories]
lotNo	String(200)	Lot No.
compBecEdition	String(10)	Company BEC Edition
compEname	String(256)	-Company Name of
_		Developer Name English
compCname	String(256)	Company Name of Developer Name Chinese
represenTitleId	String	Options of Representative
		Person Salutation,
		[1=Mr.,2=Miss,3=Ms.]
represenEname	String(256)	Representative Person
•		English Name
represenCname	String(256)	Representative Person
		Chinese Name
represenPost	String(256)	Representative Position
corresAddrLang	String(1)	Options of Correspondence
	<u> </u>	Address Language, [E,C]
corresAddrFlat	String(50)	Correspondence Address
		Room/Flat
corresAddrFloor	String(50)	Correspondence Address
		Floor
corresAddrBlock	String(50)	Correspondence Address
		Block
corresAddrBldg	String(255)	Correspondence Address
		Building
corresAddrStartNo	Int	Correspondence Address
		Street No.
corresAddrStartNoAlpha	String(10)	Correspondence Address
		Street No.
corresAddrEndNo	Int	Correspondence Address
		Street No.
corresAddrEndNoAlpha	String(10)	Correspondence Address
		Street
corresAddrSt	String(255)	Correspondence Address
	(a) (a)	Street
corresAddrDistrictCd	String(3)	Options of Correspondence
111	T .	Address District
corresAddrAreaCd	Int	Options of Correspondence
		Address Area English
TO INI	G.: (20)	Chinese
corresTelNo	String(20)	Correspondence Telephone
D. N.	G.: (CO)	No.
corresFaxNo	String(20)	Correspondence Fax No.
corresEmailAddr	String(100)	Correspondence E-mail
· (D. )	Ct : (0)	Address
inspectDate	String(8)	Inspection Date
wa Tidald	Tot	(yyyyMMdd)
reaTitleId	Int	Options of REA Salutation,

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SERVICES DEPARTMENT (EMSD)			[1 1 2 2 1 2 2 1 2		
	- (5.5.6)		[1=Mr.,2=Miss,3=Ms.]		
reaEname	String(256)		Electrical Discipline of		
			Registered Engineer		
			Qualifications		
reaCname	String(256)		REA Chinese Name		
reaAddrLang	String(1)		Options of REA		
			Correspondence Address		
			Language, [E,C]		
reaAddrFlat	String(50)		REA Correspondence		
			Address Room/Flat		
reaAddrFloor	String(50)		REA Correspondence		
			Address Floor		
reaAddrBlock	String(50)		REA Correspondence		
			Address Block		
reaAddrBldg	String(255)		REA Correspondence		
			Address Building		
reaAddrStartNo	Int		REA Correspondence		
			Address Street No.		
reaAddrStartNoAlpha	String(10)		REA Correspondence		
_			Address Street No.		
reaAddrEndNo	Int		REA Correspondence		
			Address Street No.		
reaAddrEndNoAlpha	String(10)		REA Correspondence		
_			Address Street No.		
reaAddrSt	String(255)		REA Correspondence		
			Address Street		
reaAddrDistrictCd	String(3)		REA Correspondence		
			District		
reaAddrAreaCd	Int		REA Correspondence Area		
			English Chinese		
reaTelNo	String(20)		REA Correspondence		
			Telephone No.		
reaFaxNo	String(20)		REA Correspondence Fax		
reaEmailAddr	String(100)		REA Correspondence E-		
			mail Address		
reaRegNo	String(20)		REA Registration No.		
reaExpiryDate	String(8)		REA Expiry		
			Date(yyyyMMdd)		
receiveDate	String(8)		Receipt Date(yyyyMMdd)		
eesu	Object	Required	eesu		
			Refer to: Request –		
			Content- eesu		

Request - Content - eesu

Request - Content - cesu			
Parameter	Type	Conditio n	Description
applicationNo	String(20)		Reference Number
bldgType	Int		Type of Building

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bldgTypeOther	String(255	Type of Building
oldg 1, peocher	)	Others
dateOfDeclarationByRea	String(8)	Date of
•		Declaration by
		Registered
		Energy Assessor
		in Form EE1 /
		EE2 / EE3 / EE4
		*(yyyyMMdd)
prevSubNo	String(100	If EMSD's
	)	reference no. for
		the form
		submitted before
		is known, please
		provide
supersedePreviousForm	String(1)	this submission to
		supersede a form
		submitted before?
		(Please give a
		"√" in the
		appropriate box)
dateOfDeclarationByReaInPreviousFor	String(8)	Otherwise, please
m		provide the date
		of declaration by
		Registered
		Energy Assessor
		in the previous
		form:
encloseEeel	String(1)	Form EE-EL
encloseEelg	String(1)	Form EE-LG
encloseEeac	String(1)	Form EE-AC
encloseEele	String(1)	Form EE-LE
encloseEepb	String(1)	Form EE-PB
stageOneNo	String(20)	Section B (b)
		Reference No. of
		Stage One
115	G. (10)	Declaration (2)
occuApprovalDate	String(10)	Section B (b)
		Issue date
		(m/yyyy) of
		"occupation
		approval" (see
A IN	G4 : (20)	note 6):
occuApprovalNo	String(20)	Section B(b)
		Permit No. /
		Reference No. /
		Contract No.* of
		"occupation
		approval"

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SERVICES DEPARTMENT (EMSD)	decimal	T . 1 1
consetBldgArea	decimal	Total internal
		floor area of
		building EE2
exemptGrant	String(1)	section b(e)
		Exemption
		previously
		granted by the
		Director of
		Electrical and
		Mechanic
exemptRefNo	String(20)	section b(e)
enemperen (o		Reference No.
exemptDate	String(8)	section b(e)
Campusate	Sumg(0)	Date(yyyyMMdd
		Date(yyyyiviividd
overntInstallations	String(1)	section b(e)
exemptInstallations	String(1)	` '
		Installation(s)
	G( : (1)	exempted
chklistOccpApproval	String(1)	ee2, section c
		checkbox 3
organizationEname	String(255	section c
	)	Organization
		Name of
		Responsible
		Person# ENG
organizationCname	String(255	section c
		Organization
		Name of
		Responsible
		Person# CHI
organizationResEname	String(255	section c Name of
		Responsible
		Person'
		Representative#
		ENG
organizationResCname	String(255	section c Name of
or Same Marie Continue	)	Responsible
	,	Person'
		Representative#
		CHI
		СП

**Response Parameters** 

response I ai a	<u> </u>		
Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID
			during system support.
code	Option	Required	Code to indicate the result. Details please refer to
			below section "Response – Code & Message".
details	String	Required	Details code (For example: CE2001). Details
			please refer to below section "Response – Code &

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	N # 99
	Maccaga'
	1 101055490 .

Response – Code & Message

Code	<b>Description</b>	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	Parameter is null - (parameter name)
D20002	Already exists.	Parameter already exists - (parameter name)
D30001	Header is null	The header "clientID" is null. The header "signature" is null. The header "nonce " is null.
D30002	Header is wrong	The header "clientID" is not found in the list.  The header "signature" is incorrect. (MITM Attack)  The header "nonce" is already used. (Replay Attack)
D40001	Form Validation	Parameter not found - (parameter name)
D90000	Unknown Exception	Runtime Exception.

Sample Request

```
{
    "encryptedContent":"sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y= "
}
```

**Sample Request (without encryption)** 

```
"applicationNo": "EE10000001",
"bldgEname": "",
"bldgCname": "",
"startNo": 1
"startNoAlpha": "",
"endNo": 1,
"endNoAlpha":"",
"stEname": "",
"stCname": "",
"districtCd": "",
"areaCd": 1,
"lotNo": "",
"compBecEdition": "",
"compEname": "",
"compCname": "",
"represenTitleId": 1,
"represenEname": "",
"represenCname": "",
"represenPost": "",
"corresAddrLang": ""
"corresAddrFlat": "",
"corresAddrFloor": "".
```

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```
"corresAddrBlock": "".
"corresAddrBldg": "",
"corresAddrStartNo": 1,
"corresAddrStartNoAlpha": "",
"corresAddrEndNo": 1,
"corresAddrEndNoAlpha": "",
"corresAddrSt": "",
"corresAddrDistrictCd": "",
"corresAddrAreaCd":1,
"corresTelNo": "",
"corresFaxNo": "",
"corresEmailAddr": "",
"inspectDate": "20100101",
"reaTitleId": 1,
"reaEname": ""
"reaCname": "",
"reaAddrLang": "",
"reaAddrFlat": "",
"reaAddrFloor": "".
"reaAddrBlock": "".
"reaAddrBldg": "",
"reaAddrStartNo": 1,
"reaAddrStartNoAlpha": "",
"reaAddrEndNo": 0,
"reaAddrEndNoAlpha": "",
"reaAddrSt": "",
"reaAddrDistrictCd": "",
"reaAddrAreaCd": 1,
"reaTelNo": "",
"reaFaxNo": "",
"reaEmailAddr": "",
"reaRegNo": "",
"reaExpiryDate": "20100101",
"receiveDate": "20100101",
"eesu":
           "applicationNo": "111",
           "bldgType": 1,
           "bldgTypeOther": "",
           "dateOfDeclarationByRea": "20100101",
           "prevSubNo": "",
           "supersedePreviousForm": "1",
           "dateOfDeclarationByReaInPreviousForm": "20100101",
           "encloseEeel": "".
           "encloseEelg": "",
           "encloseEeac": "".
           "encloseEele": "",
           "encloseEepb": "",
           "stageOneNo":"",
```

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```
"occuApprovalDate": "",
    "occuApprovalNo": "",
    "consetBldgArea":100.00,
    "exemptGrant": "",
    "exemptRefNo": "",
    "exemptDate": "20100101",
    "exemptInstallations": "",
    "chklistOccpApproval": "",
    "organizationEname":"",
    "organizationCname":"",
    "organizationResEname":"",
    "organizationResCname":"",
```

#### Sample Response

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":"0514125f"
}
```

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#### 11.4. Create Attachment

**API Description** 

THE BESCH SCION	
Name	Description
Service Full	For submitting the attachment to backend
Name	
URL	<pre><backend_service_domain>/{Version}/EE2/CreateAttachment</backend_service_domain></pre>
<b>Request Type</b>	POST
Service	1
Version	
Description	This API is to validate the application data before submission.
of Service	

**Request Headers** 

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses
			clientSecret to sign the concatenated string of
			<b>nonce</b> and <b>encrypted content</b> to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in
			the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for
			each request by WBRS. It is used to prevent replay
			attack. A nonce can be an ASCII string of any
			length less than or equal to 36 (UUID string length)
			as long as the uniqueness requirement is met.

**Request Parameters** 

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.
fileName	String	Required	File name with extension of the attachment
shaFileChecksum	String	Required	The SHA file checksum of the attachment
type	String	Required	The type of the attachment
fileContent	String	Required	Base64 encoded content of the attachment
description	String	Required	Description of attachment

**Response Parameters** 

Parameter	Type	Condition	Description	

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txID	String	Required	Unique ID for logging. Please provide this ID
			during system support.
code	Option	Required	Code to indicate the result. Details please refer to
			below section "Response – Code & Message".
details	String	Required	Details code (For example: CE2001). Details
			please refer to below section "Response – Code &
			Message".

Response – Code & Message

	Description	Massaga
Code	Description	Message
D00000	Success	Success Result.
	Result.	
D20001	Parameter is	The parameter "Key" is null.
	null.	The parameter "applicationNo" is null.
		The parameter "FileName" is null.
		The parameter "File" is null.
D20002	Application is	The application is not found.
	invalid	Application status is invalid.
D20003	File is invalid	File extension is invalid.
		File name is too long.
		File Name is invalid.
D30001	Header is null	The header "clientID" is null.
		The header "signature" is null.
		The header "nonce " is null.
D30002	Header is	The header "clientID" is not found in the list.
	wrong	The header "signature" is incorrect. (MITM Attack)
		The header "nonce" is already used. (Replay Attack)
D90000	Unknown	Runtime Exception.
	Exception	

**Sample Request (with encryption)** 

```
{
    "encryptedContent":"sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y= "
}
```

Sample Request (without encryption)

```
{
    "applicationNo": "L160000001",
    "fileName": "",
    "shaFileChecksum": "",
    "type": ""
    "content": ""
    "description": ""
}
```

Sample Response

```
{
    "code":"D00000",
    "message":"D00000",
```

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	 /		
"txID":"0514125f"			
}			

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# 11.5. Acknowledge Submission Completed

**API Description** 

Name	Description
<b>Service Full</b>	To acknowledge the backend submission has been completed.
Name	
URL	<pre><backend_service_domain>/{Version}/EE2/Status/SubmissionCompleted</backend_service_domain></pre>
Request	POST
Type	
Service	1
Version	
Description	To acknowledge the backend after all attachments are submitted
of Service	successfully.

**Request Headers** 

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses
			clientSecret to sign the concatenated string of
			<b>nonce</b> and <b>encrypted content</b> to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in
			the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for
			each request by WBRS. It is used to prevent replay
			attack. A nonce can be an ASCII string of any
			length less than or equal to 36 (UUID string length)
			as long as the uniqueness requirement is met.

**Request Parameters** 

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

**Response Parameters** 

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID
			during system support.
code	Option	Required	Code to indicate the result. Details please refer to
			below section "Response – Code & Message".
details	String	Required	Details code (For example: CE2001). Details
			please refer to below section "Response – Code &
			Message".

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is	The parameter "applicationNo" is null.

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	null.	
D30001	Header is null	The header "clientID" is null.
		The header "signature" is null.
		The header "nonce " is null.
D30002	Header is	The header "clientID" is not found in the list.
	wrong	The header "signature" is incorrect. (MITM Attack)
		The header "nonce" is already used. (Replay Attack)
D90000	Unknown	Runtime Exception.
	Exception	-

```
Sample Request (with encryption)
```

```
{
    "encryptedContent":"sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y= "
}
```

```
Sample Request (without encryption)
```

```
{
    "applicationNo": "L160000001"
    }
```

### **Sample Response**

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":"0514125f"
}
```

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# 12. EE3

# 12.1. Request Form Data

**API Description** 

Name	Description				
Service Full	To get the form data				
Name					
URL	<backend_service_domain>/{Version}/EE3/GetForm</backend_service_domain>				
Request Type	POST				
Service	1				
Version					
<b>Description of</b>	To get the form data				
Service					

**Request Headers** 

Request Heade	1 0		
<b>Parameter</b>	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses
			clientSecret to sign the concatenated string of
			<b>nonce</b> and <b>encrypted content</b> to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in
			the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for
			each request by WBRS. It is used to prevent replay
			attack. A nonce can be an ASCII string of any
			length less than or equal to 36 (UUID string length)
			as long as the uniqueness requirement is met.

**Request Parameters** 

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

Response Parameters

Parameter	Type	Condition	Description		
txID	String	Required	Unique ID for logging. Please provide this ID		
			during system support.		
code	Option	Required	Code to indicate the result. Details please refer to		
			below section "Response – Code & Message".		
details	String	Required	Details code (For example: CE2001). Details		
			please refer to below section "Response – Code &		
			Message".		

Response - Code & Message

1100 001100	C C GRE GE 1/120000000	
Code	Description	Message
D00000	Success Result.	Success Result.

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D20001	Parameter is	The parameter "applicationNo" is null.	
	null.		
D30001	Header is null	The header "clientID" is null.	
		The header "signature" is null.	
		The header "nonce " is null.	
D30002	Header is	The header "clientID" is not found in the list.	
	wrong	The header "signature" is incorrect. (MITM Attack)	
		The header "nonce " is already used. (Replay Attack)	
D90000	Unknown	Runtime Exception.	
	Exception		

```
Sample Request (with encryption)
```

```
{
    "encryptedContent":"sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y= "
}
```

```
Sample Request (without encryption)
```

```
{
    "applicationNo": "L160000001"
}
```

#### Sample Response

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":"0514125f"
}
```

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#### 12.2. Create Form Data

**API Description** 

Name	Description
Service Full	For submitting application form data.
Name	2 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
URL	<pre><backend domain="" service="">/{Version}/EE3/SubmitApplication</backend></pre>
Request Type	POST
Service	1
Version	
Description	This API is to submit the application from WBRS to the backend. It
of Service	should not return a custom form validation error.

**Request Headers** 

Parameter	Type	Condition	Description	
signature	String	Required	It is a signature of the submitted data. WBRS uses	
			clientSecret to sign the concatenated string of	
			<b>nonce</b> and <b>encrypted content</b> to get the signature.	
clientID	String	Required	Client identifier for finding out the client secret in	
			the backend.	
nonce	String	Required	A nonce is a random string, uniquely generated for	
			each request by WBRS. It is used to prevent replay	
			attack. A nonce can be an ASCII string of any	
			length less than or equal to 36 (UUID string length)	
			as long as the uniqueness requirement is met.	

**Request Parameters** 

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgEname	String(255)		Name of Proposed
			Building: English
bldgCname	String(255)		Name of Proposed
			Building: Chinese
startNo	Int		Street No
startNoAlpha	String(10)		Street No Alpha
endNo	Int		End No
endNoAlpha	String(10)		End No Alpha
stEname	String(255)		Street English
stCname	String(255)		Street Chinese
districtCd	String(3)		Options of District English
			Chinese
areaCd	Int		Options of Area English
			Chinese
			[1=Hong Kong 2 =
			Kowloon 3 = New

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SERVICES DEFARTMENT (EMSD)		Territories]
compBecEdition	String(30)	Company BEC Edition
compEname	String(256)	-Company Name of
•		Developer Name English
compCname	String(256)	Company Name of
_		Developer Name Chinese
represenTitleId	Int	Options of Representative
		Person Salutation,
		[1=Mr.,2=Miss,3=Ms.]
represenEname	String(256)	Representative Person
	Q. (250)	English Name
represenCname	String(256)	Representative Person
Do not	String (250)	Chinese Name
represenPost	String(256)	Representative Position
corresAddrLang	String(1)	Options of Correspondence Address Language, [E,C]
corresAddrFlat	String(50)	Correspondence Address
Corresadurrat	String(50)	Room/Flat
corresAddrFloor	String(50)	Correspondence Address
	8(1)	Floor
corresAddrBlock	String(50)	Correspondence Address
		Block
corresAddrBldg	String(255)	Correspondence Address
		Building
corresAddrStartNo	Int	Correspondence Address
		Street No.
corresAddrStartNoAlpha	String(10)	Correspondence Address
A I I I IN INT	T	Street No.
corresAddrEndNo	Int	Correspondence Address Street No.
corresAddrEndNoAlpha	String(10)	Correspondence Address
corresAddr EndNoAipha	Sumg(10)	Street
corresAddrSt	String(255)	Correspondence Address
Correstants	String(233)	Street
corresAddrDistrictCd	String(3)	Options of Correspondence
		Address District
corresAddrAreaCd	Int	Options of Correspondence
		Address Area English
		Chinese
corresTelNo	String(20)	Correspondence Telephone
	2	No.
corresFaxNo	String(20)	Correspondence Fax No.
corresEmailAddr	String(100)	Correspondence E-mail
hoaEditio	Stain c (10)	Address  DEA DEC Edition
becEdition	String(10)	REA BEC Edition
becDate	String(8)	REA BEC building services installations covered Date
		*(yyyyMMdd)
reaTitleId	Int	Options of REA Salutation,
1 Ca I IUCIU	11111	Options of KEA Satutation,

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SERVICES DEPARTMENT (EMSI		[1=Mr.,2=Miss,3=Ms.]
reaEname	String(256)	Electrical Discipline of
Теавлаше	Sumg(230)	Registered Engineer
		Qualifications
reaCname	String(256)	REA Chinese Name
	String(256)	
reaAddrLang	String(1)	Options of REA
		Correspondence Address
	Gt : (50)	Language, [E,C]
reaAddrFlat	String(50)	REA Correspondence
	G. (50)	Address Room/Flat
reaAddrFloor	String(50)	REA Correspondence
ALLDI	G. (70)	Address Floor
reaAddrBlock	String(50)	REA Correspondence
ALLDII	G. (255)	Address Block
reaAddrBldg	String(255)	REA Correspondence
and Address (N)	Turk	Address Building
reaAddrStartNo	Int	REA Correspondence
	Q. : (10)	Address Street No.
reaAddrStartNoAlpha	String(10)	REA Correspondence
	Υ .	Address Street No.
reaAddrEndNo	Int	REA Correspondence
	Q (10)	Address Street No.
reaAddrEndNoAlpha	String(10)	REA Correspondence
	G. (255)	Address Street No.
reaAddrSt	String(255)	REA Correspondence
All Bid id Gl	G. : (2)	Address Street
reaAddrDistrictCd	String(3)	REA Correspondence
A 11 A G1	T	District
reaAddrAreaCd	Int	REA Correspondence Area
TE INT	Gt ; (30)	English Chinese
reaTelNo	String(20)	REA Correspondence
TO NI	Gt : (30)	Telephone No.
reaFaxNo	String(20)	REA Correspondence Fax
reaEmailAddr	String(100)	REA Correspondence E- mail Address
waa Dag Na	Stain a (20)	
reaRegNo	String(20)	REA Registration No.
reaExpiryDate	String(8)	REA Expiry
na asiwa Data	Ctuin ~(0)	Date(yyyyMMdd)
receiveDate	String(8)	Receipt Date(yyyyMMdd)
agar	Arroxy of	Refer to: Response_
cocr	Array of Objects	Content-COCR
foc	Array of	
100	Objects	Refer to: Response_
aagu	Object	Content-foc  Pofor to: Posnonse
eesu	Object	Refer to: Response_
		<b>Content-eesu</b>

Request - Content-COCR

Parameter	Type	Condition	Description
submissionId	Int		Application

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		Submission ID
applicationNo	String(20)	WBRS Application
		Number
expiryDate	String(8)	Expiry
		Date(yyyyMMdd)
regNo	String(20)	Registration No.

Request - Content-FOC

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
workloc	String(1024)		Location of Works
commonArea	String(1)		Common Area
unit	String(1)		Unit
isTypeLg	String(1)		Lighting
isTypeAc	String(1)		Air Conditioning
isTypeEl	String(1)		Electrical
isTypeLe	String(1)		Lift & Escalator
issueDate	String(8)		Date of
			Issue(yyyyMMdd)
becEdition	String(20)		Edition of Code of
			Practice applied

Request - Content- eesu

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgType	Int		Type of Building
bldgTypeOther	String(255)		Type of Building
			Other
dateOfDeclarationByRea	String(8)		Date of Declaration
			by Registered Energy
			Assessor in Form
			EE1 / EE2 / EE3 /
			EE4 *(yyyyMMdd)
prevSubNo	String(100)		If EMSD's reference
			no. for the form
			submitted before is
			known, please
			provide
supersedePreviousForm	String(1)		this submission to
			supersede a form
			submitted before?
			Please give a "√" in
			the appropriate box)
dateOfDeclarationByReaInPrevi	String(8)		Otherwise, please
ousForm			provide the date of
			declaration by
			Registered Energy
			Assessor in the
			previous form:
			(yyyyMMdd)

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SERVICES DEFARTMENT (EMSD)		
encloseEeel	String(1)	Form EE-EL
encloseEelg	String(1)	Form EE-LG
encloseEeac	String(1)	Form EE-AC
encloseEele	String(1)	Form EE-LE
encloseEepb	String(1)	Form EE-PB
encloseEepb	String(1)	Form EE-PB
exemptGrant	String(1)	section b(e)
		Exemption previously
		granted by the
		Director of Electrical
		and Mechanic
exemptRefNo	String(20)	section b(e)
		Reference No.
exemptDate	String(8)	section b(e)
		Date(yyyyMMdd)
exemptInstallations	String(300)	section b(e)
		Installation(s)
		exempted
organizationEname	String(255)	section c
		Organization Name of
		Responsible Person#
		ENG
organizationCname	String(255)	section c
		Organization Name of
		Responsible Person#
	G. (255)	CHI
organizationResEname	String(255)	section c Name of
		Responsible Person'
	Chaire a (255)	Representative# ENG
organizationResCname	String(255)	section c Name of
		Responsible Person'
		Representative# CHI

**Response Parameters** 

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID
			during system support.
code	Option	Required	Code to indicate the result. Details please refer to
			below section "Response – Code & Message".
details	String	Required	Details code (For example: CE2001). Details
			please refer to below section "Response – Code &
			Message".

**Response Parameters** 

response i ai ai	110001 5		
<b>Parameter</b>	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID
			during system support.
code	Option	Required	Code to indicate the result. Details please refer to
			below section "Response – Code & Message".

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details	String	Required	Details code (For example: CE2001). Details
			please refer to below section "Response – Code & Message".

#### Response - Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	Parameter is null - (parameter name)
D20002	Already exists.	Parameter already exists - (parameter name)
D30001	Header is null	The header "clientID" is null. The header "signature" is null. The header "nonce " is null.
D30002	Header is wrong	The header "clientID" is not found in the list. The header "signature" is incorrect. (MITM Attack) The header "nonce " is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

### **Sample Request (with encryption)**

```
{
    "encryptedContent":"sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y= "
}
```

Sample Request (without encryption)

```
"category": "1",
"seq": 1,
"applicationNo": "ee307021510",
"bldgEname": "bldgEname",
"bldgCname": "bldgCname 中文",
"startNo": "01",
"startNoAlpha": "string",
"endNo": "22".
"endNoAlpha": "string",
"stEname": "stEname",
"stCname": "stCname 中文",
"districtCd": "001",
"areaCd": "1",
"cocrRegNo": "string",
"compBecEdition": "2012",
"compEname": "compEname",
"compCname": "compCname 中文",
"represenTitleId": 0,
"represenEname": "represenEname",
"represenCname": "represenCname 中文",
"represenPost": "string",
"corresAddrLang": "E",
"corresAddrFlat": "string",
```

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```
"corresAddrFloor": "string",
"corresAddrBlock": "string",
"corresAddrBldg": "string",
"corresAddrStartNo": 0,
"corresAddrStartNoAlpha": "string",
"corresAddrEndNo": 0,
"corresAddrEndNoAlpha": "stirng",
"corresAddrSt": "string",
"corresAddrDistrictCd": "001",
"corresAddrAreaCd": 1,
"corresTelNo": "stirng".
"corresFaxNo": "string",
"corresEmailAddr": "a@a.a",
"becdate": "20211119",
"corresSigndate": "20211119",
"recedate": "20211119",
"becEdition": "2012",
"inspectdate": "20211119",
"reaTitleId": 0,
"reaEname": "reaEname",
"reaCname": "reaCname 名字",
"reaAddrLang": "E",
"reaAddrFlat": "string",
"reaAddrFloor": "string",
"reaAddrBlock": "stirng",
"reaAddrBldg": "stirng",
"reaAddrStartNo": 0,
"reaAddrStartNoAlpha": "string",
"reaAddrEndNo": 0,
"reaAddrEndNoAlpha": "string",
"reaAddrSt": "string",
"reaAddrDistrictCd": "001",
"reaAddrAreaCd": 1,
"reaTelNo": "string",
"reaFaxNo": "string",
"reaEmailAddr": "string",
"reaRegNo": "string",
"reaExpirydate": "20211119",
"reaSigndate": "20211119",
"formstatus": 0,
"forwarduserid": "string",
"statusCode": "1",
"wbrsStatus": "0",
"eesu": {
 "applicationNo": "ee307021510",
 "category": "1",
 "seq": 1,
 "bldgType": 0,
 "submissionId": 0,
 "bldgTypeOther": "string",
```

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```
"dateOfDdeclarationByRea": "20211119",
 "supersedePerviusForm": "1",
 "dateOfDdeclarationByReaInPreviousForm": "20211119",
 "prevSubNo": "string",
 "stageOneNo": "1",
 "encloseEeel": "1",
 "encloseEelg": "1".
 "encloseEeac": "1",
 "encloseEele": "1",
 "encloseEepb": "1".
 "exemptGrant": "1".
 "exemptRefNo": "1".
 "ownerSingdate": "20211119",
 "reaSingdate": "20211119",
 "exemptdate": "20211119",
 "exemptInstallations": "exemptInstallations",
 "organizationEname": "organizationEname",
 "organizationCname": "organizationCname",
 "organizationResEname": "organizationResEname",
 "organizationResCname": "organizationResCname 名字",
 "statusCode": "1"
"foc": [
  "category": "1",
  "seq": 1,
  "applicationNo": "ee307021510",
  "subSeq": 1,
  "refNo": "string",
  "issuedate": "20211119",
  "becEdition": "2012",
  "isTypeLg": "1",
  "isTypeAc": "1",
  "isTypeEl": "1",
  "isTypeLe": "1",
  "statusCode": "1"
],
"cocr": [
  "category": "1",
  "seq": 1,
  "applicationNo": "ee307021510",
  "subSeq": 1,
  "regNo": "string",
  "expirydate": "20211119",
  "statusCode": "1"
```

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```
Sample Response
```

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":" D00000 "
}
```

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#### 12.3. Validate Form Data

**API Description** 

Name	Description
Service Full	For validating the application data before submission.
Name	
URL	<pre><backend_service_domain>/{Version}/EE3/ValidateFormData</backend_service_domain></pre>
<b>Request Type</b>	POST
Service	1
Version	
Description	This API is to validate the application data before submission.
of Service	

**Request Headers** 

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses
			clientSecret to sign the concatenated string of
			<b>nonce</b> and <b>encrypted content</b> to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in
			the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for
			each request by WBRS. It is used to prevent replay
			attack. A nonce can be an ASCII string of any
			length less than or equal to 36 (UUID string length)
			as long as the uniqueness requirement is met.

# **Request Parameters**

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgEname	String(255)		Name of Proposed
			Building: English
bldgCname	String(255)		Name of Proposed
			Building: Chinese
startNo	Int		Street No
startNoAlpha	String(10)		Street No Alpha
endNo	Int		End No
endNoAlpha	String(10)		End No Alpha
stEname	String(255)		Street English
stCname	String(255)		Street Chinese
			r
districtCd	String(3)		Options of District English
			Chinese
areaCd	Int		Options of Area English
			Chinese

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[1=Hong Kong 2 = Kowloon 3 = New Territories]  compBecEdition String(30) Company BEC Edition
Territories]
comp Page dition String (20) Company DEC Edition
complexitudin Suring(50) Company BEC Edition
compEname String(256) -Company Name of
Developer Name English
compCname String(256) Company Name of
Developer Name Chinese
represenTitleId Int Options of Representative
Person Salutation,
[1=Mr.,2=Miss,3=Ms.]
represenEname String(256) Representative Person
English Name
represenCname String(256) Representative Person
Chinese Name
represenPost String(256) Representative Position
corresAddrLang String(1) Options of Correspondence
Address Language, [E,C]
corresAddrFlat String(50) Correspondence Address Room/Flat
corresAddrFloor String(50) Correspondence Address
Floor
corresAddrBlock String(50) Correspondence Address
Block
corresAddrBldg String(255) Correspondence Address
Building
corresAddrStartNo Int Correspondence Address
Street No.
corresAddrStartNoAlpha String(10) Correspondence Address
Street No.
corresAddrEndNo Int Correspondence Address
Street No.
corresAddrEndNoAlpha String(10) Correspondence Address
Street
corresAddrSt String(255) Correspondence Address
Street
corresAddrDistrictCd String(3) Options of Correspondence
Address District
corresAddrAreaCd Int Options of Correspondence
Address Area English
Chinese
corresTelNo String(20) Correspondence Telephone
No.
corresFaxNo String(20) Correspondence Fax No.
corresEmailAddr String(100) Correspondence E-mail
Address
becEditionString(10)REA BEC Edition
becDATE String(8) REA BEC building services
installations covered

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		Date(yyyyMMdd)
reaTitleId	Int	Options of REA Salutation, [1=Mr.,2=Miss,3=Ms.]
reaEname	String(256)	Electrical Discipline of Registered Engineer Qualifications
reaCname	String(256)	REA Chinese Name
reaAddrLang	String(1)	Options of REA Correspondence Address Language, [E,C]
reaAddrFlat	String(50)	REA Correspondence Address Room/Flat
reaAddrFloor	String(50)	REA Correspondence Address Floor
reaAddrBlock	String(50)	REA Correspondence Address Block
reaAddrBldg	String(255)	REA Correspondence Address Building
reaAddrStartNo	Int	REA Correspondence Address Street No.
reaAddrStartNoAlpha	String(10)	REA Correspondence Address Street No.
reaAddrEndNo	Int	REA Correspondence Address Street No.
reaAddrEndNoAlpha	String(10)	REA Correspondence Address Street No.
reaAddrSt	String(255)	REA Correspondence Address Street
reaAddrDistrictCd	String(3)	REA Correspondence District
reaAddrAreaCd	Int	REA Correspondence Area English Chinese
reaTelNo	String(20)	REA Correspondence Telephone No.
reaFaxNo	String(20)	REA Correspondence Fax
reaEmailAddr	String(100)	REA Correspondence E- mail Address
reaRegNo	String(20)	REA Registration No.
reaExpiryDate	String(8)	REA Expiry Date(yyyyMMdd)
receiveDate	String(8)	Receipt Date(yyyyMMdd)
cocr	Array of Objects	Refer to: Request – Content–COCR
foc	Array of Objects	Refer to: Request – Content–FOC
eesu	Object	Refer to: Request – Content–eesu

Request - Content-COCR

Parameter	Type	Condition Description

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submissionId	Int	Application
		Submission ID
applicationNo	String(20)	WBRS Application
		Number
expiryDate	String(8)	Expiry
		Date(yyyyMMdd)
regNo	String(20)	Registration No.

Request - Content-FOC

Request - Content-FOC			
Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
workloc	String(1024)		Location of Works
commonArea	String(1)		Common Area
unit	String(1)		Unit
isTypeLg	String(1)		Lighting
isTypeAc	String(1)		Air Conditioning
isTypeEl	String(1)		Electrical
isTypeLe	String(1)		Lift & Escalator
issueDate	String(8)		Date of
			Issue(yyyyMMdd)
becEdition	String(20)		Edition of Code of
			Practice applied

Request - Content-eesu

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgType	Int		Type of Building
bldgTypeOther	String(255)		Type of Building
			Other
dateOfDeclarationByRea	String(8)		Date of Declaration
			by Registered Energy
			Assessor in Form
			EE1 / EE2 / EE3 /
			EE4 *(yyyyMMdd)
prevSubNo	String(100)		If EMSD's reference
			no. for the form
			submitted before is
			known, please
			provide
supersedePreviousForm	String(1)		this submission to
			supersede a form
			submitted before?
			Please give a "√" in
			the appropriate box)
dateOfDeclarationByReaInPrevi	String(8)		Otherwise, please
ousForm			provide the date of
			declaration by
			Registered Energy
			Assessor in the
			previous form:
			(yyyyMMdd)

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SERVICES DETARTMENT (EMSD)		
encloseEeel	String(1)	Form EE-EL
encloseEelg	String(1)	Form EE-LG
encloseEeac	String(1)	Form EE-AC
encloseEele	String(1)	Form EE-LE
encloseEepb	String(1)	Form EE-PB
exemptGrant	String(1)	section b(e)
		Exemption previously
		granted by the
		Director of Electrical
		and Mechanic
exemptRefNo	String(20)	section b(e)
		Reference No.
exemptDate	String(8)	section b(e)
		Date(yyyyMMdd)
exemptInstallations	String(300)	section b(e)
		Installation(s)
		exempted
organizationEname	String(255)	section c
		Organization Name of
		Responsible Person#
	2 4 (2.2.2)	ENG
organizationCname	String(255)	section c
		Organization Name of
		Responsible Person#
	G. (255)	CHI
organizationResEname	String(255)	section c Name of
		Responsible Person'
······································	String (255)	Representative# ENG
organizationResCname	String(255)	section c Name of
		Responsible Person'
		Representative# CHI

**Response Parameters** 

response I ai a	THE CET 5		
Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID
			during system support.
code	Option	Required	Code to indicate the result. Details please refer to
		_	below section "Response – Code & Message".
details	String	Required	Details code (For example: CE2001). Details
			please refer to below section "Response – Code &
			Message".

Response – Code & Message

	Cour of message		
Code	Description	Message	
<b>D</b> 00000	Success	D00000	Success Result.
	Result.		
D20001	Parameter is	CE2001	The parameter "Key" is null.
	null.	CE2002	The parameter "WBRSApplicationNo" is
			null.

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		CE2003	The parameter "Submission Time" is null.
D20002	Already exists.	CE2011	The value of "WBRSApplicationNo" already
			exists.
D30001	Header is null	CE3001	The header "clientID" is null.
		CE3002	The header "signature" is null.
		CE3003	The header "nonce" is null.
D30002	Header is	CE3011	The header "clientID" is not found in the list.
	wrong	CE3012	The header "signature" is incorrect. (MITM
			Attack)
		CE3013	The header "nonce "is already used. (Replay
			Attack)
D40001	Form	CE4001	Lift location not found.
	Validation		Other Validations
D90000	Unknown	E9999	Runtime Exception.
	Exception		

# Sample Request

```
{
    "encryptedContent":"sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y= "
}
```

Sample Request (without encryption)

```
"category": "4",
"seq": 1,
"applicationNo": "4",
"bldgEname": "4",
"bldgCname": "4",
"startNo": 1,
"startNoAlpha": "4",
"endNo": 1,
"endNoAlpha": "4",
"stEname": "4",
"stCname": "4",
"districtCd": "4",
"areaCd": 1,
"cocrRegNo": "4",
"compBecEdition": "4",
"compEname": "4",
"compCname": "4",
"represenTitleId": 1,
"represenEname": "4",
"represenCname": "4",
"represenPost": "4",
"corresAddrLang": "4",
"corresAddrFlat": "4",
"corresAddrFloor": "4",
"corresAddrBlock": "4".
"corresAddrBldg": "4",
```

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```
"corresAddrStartNo": 1,
"corresAddrStartNoAlpha": "4",
"corresAddrEndNo": 1,
"corresAddrEndNoAlpha": "4",
"corresAddrSt": "4",
"corresAddrDistrictCd": "4",
"corresAddrAreaCd": 1,
"corresTelNo": "4",
"corresFaxNo": "4".
"corresEmailAddr": "4",
"becDate": "20211119",
"becEdition": "4",
"reaTitleId": 1,
"reaEname": "4",
"reaCname": "11".
"reaAddrLang": "4",
"reaAddrFlat": "4",
"reaAddrFloor": "4".
"reaAddrBlock": "4",
"reaAddrBldg": "4",
"reaAddrStartNo": 1,
"reaAddrStartNoAlpha": "4",
"reaAddrEndNo": 1,
"reaAddrEndNoAlpha": "4",
"reaAddrSt": "4",
"reaAddrDistrictCd": "4",
"reaAddrAreaCd": 1,
"reaTelNo": "4",
"reaFaxNo": "4".
"reaEmailAddr": "4",
"reaRegNo": "4",
"reaExpiryDate": "20211119",
"formstatus": 1,
"forwarduserid": "4",
"statusCode": "1
"submissionId": 1,
"receiveDate": "20211119",
"wbrsStatus": "4",
"eesu": {
 "applicationNo": "4",
 "category": "4",
 "seq": 1,
 "bldgType": 0,
 "submissionId": 1,
 "bldgTypeOther": "4",
 "dateOfDdeclarationByRea": "20211122",
 "supersedePerviusForm": "4",
 "dateOfDdeclarationByReaInPreviousForm": "20211122",
 "prevSubNo": "4",
 "encloseEeel": "4".
```

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```
"encloseEelg": "4",
 "encloseEeac": "4",
 "encloseEele": "4",
 "encloseEepb": "4",
 "exemptGrant": "4",
 "exemptRefNo": "4",
 "ownerSingDate": "20211122",
 "reaSingDate": "20211122",
 "exemptDate": "20211122",
 "exemptInstallations": "4",
 "organizationEname": "4",
 "organizationCname": "4",
 "organizationResEname": "4",
 "organizationResCname": "4",
 "statusCode": "1
"foc": [
  "category": "4",
  "seq": 1,
  "applicationNo": "4",
  "subSeq": 1,
  "refNo": "4",
  "issueDate": "20211122",
  "becEdition": "4",
  "isTypeLg": "4",
  "isTypeAc": "4",
  "isTypeEl": "4",
  "isTypeLe": "4",
  "statusCode": "1
  "submissionId": 1,
  "category": "4",
  "seq": 1,
  "applicationNo": "4",
  "subSeq": 1,
  "refNo": "4",
  "issueDate": "20211122",
  "becEdition": "4",
  "isTypeLg": "4",
  "isTypeAc": "4",
  "isTypeEl": "4",
  "isTypeLe": "4",
  "statusCode": "1
  "submissionId": 1,
],
"cocr":
```

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# Sample Response

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":"0514125f"
}
```

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#### 12.4. Create Attachment

**API Description** 

Name	Description
Service Full	For submitting the attachment to backend
Name	
URL	<pre><backend_service_domain>/{Version}/EE3/CreateAttachment</backend_service_domain></pre>
<b>Request Type</b>	POST
Service	1
Version	
Description	This API is to validate the application data before submission.
of Service	

**Request Headers** 

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses
			clientSecret to sign the concatenated string of
			<b>nonce</b> and <b>encrypted content</b> to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in
			the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for
			each request by WBRS. It is used to prevent replay
			attack. A nonce can be an ASCII string of any
			length less than or equal to 36 (UUID string length)
			as long as the uniqueness requirement is met.

**Request Parameters** 

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.
fileName	String	Required	File name with extension of the attachment
shaFileChecksum	String	Required	The SHA file checksum of the attachment
type	String	Required	The type of the attachment
fileContent	String	Required	Base64 encoded content of the attachment

**Response Parameters** 

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID

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			during system support.
code	Option	Required	Code to indicate the result. Details please refer to
			below section "Response – Code & Message".
details	String	Required	Details code (For example: CE2001). Details
		_	please refer to below section "Response – Code &
			Message".

Response - Code & Message

Response –	Code & Message		
Code	Description	Message	
D00000	Success	D00000	Success Result.
	Result.		
D20001	Parameter is	CE2001	The parameter "Key" is null.
	null.	CE2002	The parameter "WBRSApplicationNo" is
			null.
		CE2003	The parameter "Submission Time" is null.
		CE2004	The parameter "FileName" is null.
		CE2005	The parameter "File" is null.
D20002	Application is	CE2011	The application is not found.
	invalid	CE2012	Application status is invalid.
D20003	File is invalid	CE2021	File extension is invalid.
		CE2022	File name is too long.
		CE2023	File Name is invalid.
D30001	Header is null	CE3001	The header "clientID" is null.
		CE3002	The header "signature" is null.
		CE3003	The header "nonce " is null.
D30002	Header is	CE3011	The header "clientID" is not found in the list.
	wrong	CE3012	The header "signature" is incorrect. (MITM
			Attack)
		CE3013	The header "nonce" is already used. (Replay
			Attack)
D90000	Unknown	E9999	Runtime Exception.
	Exception		•

# Sample Request (with encryption)

```
{
    "encryptedContent":"sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y= "
}
```

**Sample Request (without encryption)** 

```
{
    "appno": "L160000001",
    "attpath": "",
    "type": "",
    "remark": ""
}
```

# **Sample Response**

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":"0514125f"
}
```

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# 12.5. Acknowledge Submission Completed

**PI Description** 

Name	Description
Service Full	To acknowledge the backend submission has been completed.
Name	
URL	<pre><backend_service_domain>/{Version}/EE3/Status/SubmissionCompleted</backend_service_domain></pre>
Request	POST
Type	
Service	1
Version	
Description	To acknowledge the backend after all attachments are submitted
of Service	successfully.

**Request Headers** 

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses
			clientSecret to sign the concatenated string of
			<b>nonce</b> and <b>encrypted content</b> to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in
			the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for
			each request by WBRS. It is used to prevent replay
			attack. A nonce can be an ASCII string of any
			length less than or equal to 36 (UUID string length)
			as long as the uniqueness requirement is met.

**Request Parameters** 

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

**Response Parameters** 

Parameter	<b>Type</b>	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID
			during system support.
code	Option	Required	Code to indicate the result. Details please refer to
			below section "Response - Code & Message".
details	String	Required	Details code (For example: CE2001). Details please refer to below section "Response – Code &
			Message".

Response - Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is	The parameter "applicationNo" is null.

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	null.	
D30001	Header is null	The header "clientID" is null.
		The header "signature" is null.
		The header "nonce " is null.
D30002	Header is	The header "clientID" is not found in the list.
	wrong	The header "signature" is incorrect. (MITM Attack)
		The header "nonce" is already used. (Replay Attack)
D90000	Unknown	Runtime Exception.
	Exception	

```
Sample Request (with encryption)
```

```
{
    "encryptedContent":"sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y= "
}
```

```
Sample Request (without encryption)
```

```
{
    "applicationNo": "L160000001"
    }
```

### **Sample Response**

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":"0514125f"
}
```

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# 13. EE4

# 13.1. Request Form Data

**API Description** 

Name	Description
Service Full	To get the form data
Name	
URL	<backend_service_domain>/{Version}/EE4/GetForm</backend_service_domain>
Request Type	POST
Service	1
Version	
<b>Description of</b>	To get the form data
Service	

**Request Headers** 

request Heade	13		
Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses
			clientSecret to sign the concatenated string of
			<b>nonce</b> and <b>encrypted content</b> to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in
			the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for
			each request by WBRS. It is used to prevent replay
			attack. A nonce can be an ASCII string of any
			length less than or equal to 36 (UUID string length)
			as long as the uniqueness requirement is met.

**Request Parameters** 

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

**Response Parameters** 

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID
			during system support.
code	Option	Required	Code to indicate the result. Details please refer to
			below section "Response – Code & Message".
details	String	Required	Details code (For example: CE2001). Details
			please refer to below section "Response – Code &
			Message".

Response – Code & Message

1100001100	Court of Tilebourge	
Code	Description	Message
D00000	Success Result.	Success Result.

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D20001	Parameter is	The parameter "applicationNo" is null.
	null.	
D30001	Header is null	The header "clientID" is null.
		The header "signature" is null.
		The header "nonce " is null.
D30002	Header is	The header "clientID" is not found in the list.
	wrong	The header "signature" is incorrect. (MITM Attack)
		The header "nonce " is already used. (Replay Attack)
D90000	Unknown	Runtime Exception.
	Exception	

```
Sample Request (with encryption)
```

```
{
    "encryptedContent":"sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y= "
}
```

```
Sample Request (without encryption)
```

```
{
    "applicationNo": "L160000001"
}
```

# Sample Response

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":"0514125f"
}
```

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# 13.2. Create Form Data

**API Description** 

Name	Description
Service Full	For submitting application form data.
Name	
URL	<pre><backend_service_domain>/{Version}/EE4/SubmitApplication</backend_service_domain></pre>
<b>Request Type</b>	POST
Service	1
Version	
Description	This API is to submit the application from WBRS to the backend. It
of Service	should not return a custom form validation error.

**Request Headers** 

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses
			clientSecret to sign the concatenated string of
			<b>nonce</b> and <b>encrypted content</b> to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in
			the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for
			each request by WBRS. It is used to prevent replay
			attack. A nonce can be an ASCII string of any
			length less than or equal to 36 (UUID string length)
			as long as the uniqueness requirement is met.

**Request Parameters** 

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description
applicationNo	String(20)		WBRS Application Number
bldgEname	String(255)		Name of Proposed Building:
			English
bldgCname	String(255)		Name of Proposed Building:
			Chinese
stEname	String(255)		Street English Name
stCname	String(255)		Street Chinese Name
streetNo	int		Street no
EndNo	int		END NO
endNoAlpha	string(10)		END NO ALPHA
stEname	String(255)		Street English
stCname	String(255)		Street Chinese
AreaCd	Int		Options of Area English
			Chinese
compEname	String(255)		Company Name of
			Developer Name English
compCname	String(255)		Company Name of

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		Developer Name Chinese
conpFlat	String(50)	Company Flat
	String(50)	Company Floor
conpBlock	String(50)	Company Block
otherDescription	String(255)	Other Description
represenEname	String(255)	Name of Responsible Person
		English
represenCname	String(255)	Name of Responsible Person
	-	Chinese
reaTitleId	Int	Options of Representative
	State = (255)	Person Salutation
responEname	String(255)	Representative Person
represenCname	String(255)	English name Representative Person
representiame	String(233)	Chinese name
represenPost	String(256)	Position
	String(1)	Correspondence Address
		Room/Flat
corresAddrFloor	String(50)	Correspondence Address
		Floor
corresAddrBlock	String(50)	Correspondence Address
		Block
corresAddrBldg	String(256)	Correspondence Address
		Building
corresAddrStartNo	int	Correspondence Address
	G( : (10)	Street No.
corresAddrStartNoAlpha	String(10)	Correspondence Address Street No.
corresAddrDistrictCd	String(3)	Options of Correspondence
correst and District Cu	String(3)	Address District,
corresTelNo	String(100)	Correspondence Telephone
		No
corresFaxNo	String(100)	Correspondence Fax No
corresEmailAddr	String(100)	Correspondence E-mail
		Address
	String(100)	Company BEC Edition
	String(10)	EDITION
inspectDate	String(8)	Personally check the time of
		building equipment
		installation covered by this
reaEname	String(255)	form(yyyyMMdd) English name of registered
Teachianic	String(255)	energy appraiser
reaCname	String(255)	Chinese name of registered
- Cuchame		energy appraiser
reaTitleId	int	Salutation of registered
		energy appraiser
reaAddrFlat	String(50)	REA Correspondence
		Address Room/Flat

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reaAddrFloor	String(50)	REA Correspondence
		Address Floor
reaAddrBlock	String(50)	REA Correspondence
		Address Block
reaAddrBldg	String(50)	REA Correspondence
		Address Building
reaAddrStartNo	String(255)	REA Correspondence
		Address Street No.
reaAddrStartNoAlpha	String(20)	REA Correspondence
		Address Street No.
reaTelNo	String(20)	REA Correspondence
		Telephone No.
reaFaxNo	String(20)	REA Correspondence Fax
reaEmailAddr	String(100)	REA Correspondence E-mail
		Address
reaRegNo	String(20)	REA Registration No.
reaExpiryDate	String(8)	REA Expiry
		Date(yyyyMMdd)
submissionId	Int	Application Submission ID

Response – Content– eesu

Response – Content– eesu			
Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgType	Int		Type of Building
bldgTypeOther	String(255)		Type of Building
			Other
dateOfDeclarationByRea	String(8)		Date of
			Declaration by
			Registered Energy
			Assessor in Form
			EE1 / EE2 / EE3 /
			EE4
			*(yyyyMMdd)
prevSubNo	String(100)		If EMSD's
			reference no. for
			the form submitted
			before is known,
			please provide
supersedePreviousForm	String(1)		this submission to
			supersede a form
			submitted before?
			(Please give a "√"
			in the appropriate
			box)
dateOfDeclarationByReaInPrevi	String(8)		Otherwise, please
ousForm			provide the date of
			declaration by
			Registered Energy
			Assessor in the
			previous form:

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		(yyyyMMdd)
encloseEeel	String(1)	Form EE-EL
encloseEelg	String(1)	Form EE-LG
encloseEeac	String(1)	Form EE-AC
encloseEele	String(1)	Form EE-LE
encloseEepb	String(1)	Form EE-PB
exemptGrant	String(1)	section b(e)
		Exemption
		previously granted
		by the Director of
		Electrical and
		Mechanic
exemptRefNo	String(20)	section b(e)
		Reference No.
exemptDate	String(8)	section b(e) Date
exemptInstallations	String(300)	section b(e)
		Installation(s)
	G : (1)	exempted
declareInfOcorrect1	String(1)	ee4,section c
1 1 1 60 42	G; (1)	checkbox 4
declareInfOcorrect2	String(1)	ee4,section c
	St. (1)	checkbox 5
declareInfOcorrect3	String(1)	ee4, section c
declareInfOcorrect4	Stain of 1)	checkbox 5-1
declareIniOcorrect4	String(1)	ee4,section c checkbox 5-2
declareInfOcorrect5	String(1)	ee4,section c
deciarefinocorrects	Sumg(1)	checkbox 5-3
organizationEname	String(255)	section c
organization Ename	String(255)	Organization
		Name of
		Responsible
		Person# ENG
organizationCname	String(255)	section c
		Organization
		Name of
		Responsible
		Person# CHI
organizationResEname	String(255)	section c Name of
		Responsible
		Person'
		Representative#
· 4: D. E.	C4 : (255)	ENG
organizationResEname	String(255)	section c Name of
		Responsible
		Person'
		Representative#
		СНІ

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Response – Content– WORK

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
seq	Int		
subseq	Int		
workloc	String(1024)		Location of Works
commonArea	String(1)		Common Area
unit	String(1)		Unit
isTypeLg	String(1)		Lighting
isTypeAc	String(1)		Air Conditioning
isTypeEl	String(1)		Electrical
isTypeLe	String(1)		Lift & Escalator
completeDate	String(8)		Work Completion
			Date(yyyyMMdd)

**Response Parameters** 

response I ui ui			
Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID
			during system support.
code	Option	Required	Code to indicate the result. Details please refer to
			below section "Response – Code & Message".
details	String	Required	Details code (For example: CE2001). Details
			please refer to below section "Response – Code &
			Message".

**Response Parameters** 

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID
			during system support.
code	Option	Required	Code to indicate the result. Details please refer to
			below section "Response – Code & Message".
details	String	Required	Details code (For example: CE2001). Details
			please refer to below section "Response – Code &
			Message".

Response – Code & Message

response	Cour of Michael	
Code	<b>Description</b>	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	Parameter is null - (parameter name)
D20002	Already exists.	Parameter already exists - (parameter name)
D30001	Header is null	The header "clientID" is null.
		The header "signature" is null.
		The header "nonce " is null.
D30002	Header is	The header "clientID" is not found in the list.
	wrong	The header "signature" is incorrect. (MITM Attack)

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		The header "nonce " is already used. (Replay Attack)
D90000	Unknown	Runtime Exception.
	Exception	

# **Sample Request (with encryption)**

```
{
    "encryptedContent":"sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y= "
}
```

Sample Request (without encryption)

```
"applicationNo": "LE08021526",
"bldgEname": "1",
"bldgCname": "1",
"startNo": 0,
"startNoAlpha": "1",
"endNo": 0,
"endNoAlpha": "1",
"stEname": "1",
"stCname": "1",
"districtCd": "1",
"areaCd": 0,
"locEname": "1",
"locCname": "1",
"locFlat": "1",
"locFloor": "1",
"locBlock": "1",
"locDesc": "1",
"isOwnerCommonArea": "1",
"isOwnerCentralBs": "1",
"isTenantUnit": "1",
"isOccuiperUnit": "1",
"isOwnerUnit": "1",
"responTitleId": 0,
"responEname": "1",
"responCname": "1",
"represenTitleId": 0,
"represenEname": "1",
"represenCname": "1",
"represenPost": "1",
"corresAddrLang": "1",
"corresAddrFlat": "1",
"corresAddrFloor": "1".
"corresAddrBlock": "1".
"corresAddrBldg": "1",
"corresAddrStartNo": 0,
"corresAddrStartNoAlpha": "1",
"corresAddrEndNo": 0,
"corresAddrEndNoAlpha": "1",
"corresAddrSt": "1",
```

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```
"corresAddrDistrictCd": "1",
"corresAddrAreaCd": 0,
"corresTelNo": "1",
"corresFaxNo": "1",
"corresEmailAddr": "1",
"becEdition": "1",
"inspectDate": "20211119",
"reaTitleId": 0,
"reaEname": "1",
"reaCname": "1",
"reaAddrLang": "1",
"reaAddrFlat": "1",
"reaAddrFloor": "1".
"reaAddrBlock": "1",
"reaAddrBldg": "1",
"reaAddrStartNo": 0,
"reaAddrStartNoAlpha": "1",
"reaAddrEndNo": 0,
"reaAddrEndNoAlpha": "1",
"reaAddrSt": "1".
"reaAddrDistrictCd": "1",
"reaAddrAreaCd": 0,
"reaTelNo": "1",
"reaFaxNo": "1".
"reaEmailAddr": "1",
"reaRegNo": "1",
"reaExpiryDate": "20211119",
"formstatus": 0,
"seq": 0,
"forwarduserid": "1",
"receiveDate": "20211119",
"wbrsStatus": "1",
"eesu": {
  "applicationNo": "1",
  "seq": 1,
  "bldgType": 0,
  "bldgTypeOther": "1",
  "dateOfDdeclarationByRea": "20211214",
  "supersedePerviusForm": "1",
  "dateOfDdeclarationByReaInPreviousForm": "20211214",
  "prevSubNo": "1",
  "encloseEeel": "1",
  "encloseEelg": "1",
  "encloseEeac": "1",
  "encloseEele": "1",
  "encloseEepb": "1"
  "exemptGrant": "1",
  "exemptRefNo": "1",
  "exemptdate": "20211214",
  "exemptInstallations": "1",
```

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```
"declareInfoCorrect1": "1",
    "declareInfoCorrect2": "1",
    "declareInfoCorrect3": "1",
    "declareInfoCorrect4": "1",
    "declareInfoCorrect5": "1",
    "organizationEname": "1",
    "organizationCname": "1",
    "organizationResEname": "1",
    "organizationResCname": "1"
  "work": [
       "applicationNo": "LE08021526",
       "seq": 1,
       "subSeq": 1,
       "worKoc": "1",
       "commonArea": "1",
       "unit": "1",
       "workArea": 0,
       "isTypeLg": "1",
       "isTypeAc": "1",
       "isTypeEl": "1",
       "isTypeLe": "1",
       "completedate": "20211214"
  ]
}
```

# **Sample Response**

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":"0514125f"
}
```

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# 13.3. Validation Form Data

**API Description** 

Name	Description
Service Full	For validating the application data before submission.
Name	
URL	<pre><backend_service_domain>/{Version}/EE4/ValidateFormData</backend_service_domain></pre>
<b>Request Type</b>	POST
Service	1
Version	
Description	This API is to validate the application data before submission.
of Service	

**Request Headers** 

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses
			clientSecret to sign the concatenated string of
			<b>nonce</b> and <b>encrypted content</b> to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in
			the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for
			each request by WBRS. It is used to prevent replay
			attack. A nonce can be an ASCII string of any
			length less than or equal to 36 (UUID string length)
			as long as the uniqueness requirement is met.

### **Request Parameters**

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description
applicationNo	String(20)		WBRS Application Number
bldgEname	String(255)		Name of Proposed Building:
			English
bldgCname	String(255)		Name of Proposed Building:
			Chinese
stEname	String(255)		Street English Name
stCname	String(255)		Street Chinese Name
streetNo	int		Street no
endNo	int		END NO
endNoAlpha	string(10)		END NO ALPHA
stEname	String(255)		Street English
stCname	String(255)		Street Chinese
areaCd	Int		Options of Area English
			Chinese
compEname	String(255)		Company Name of
			Developer Name English

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conpFlat String(50) Company Flat Company Flat CompBlock String(50) Company Floor CompBlock String(55) Company Block Other Description String(255) Other Description Fepresen Ename String(255) Other Description English Person English Person English Person Chinese Person Chinese Person Chinese Person Salutation Person English Description String(255) Representative Person Salutation Person Chinese Person Chinese Person Chinese Person Chinese Person Chinese Person Salutation Person Salutation Person Salutation Person Salutation Person Chinese name Person String(256) Position CorresAddrFlat String(1) Correspondence Address Room/Flat CorresAddrBlock String(50) Correspondence Address Ploor CorresAddrBlock String(50) Correspondence Address Block CorresAddrBlock String(50) Correspondence Address Block CorresAddrStartNo int Correspondence Address Building CorresAddrStartNo String (10) Correspondence Address Street No. Correspondence Address Street No. String (10) Correspondence Address Street No. String (10) Correspondence English name Person String (100) Correspondence English Person CorresEmail Address String (100) Correspondence English name Person String (100) EDITION inspectDate String (100) EDITION inspectDate String(255) English name of registered energy appraiser Pea TitleId int Salutation of registered corregy appraiser Pea TitleId Salutation of registered corregy appraiser Pea Ti	SERVICES DEPARTMENT (EMSD)	(0.5.5)	
conpFlat conpFloor         String(50)         Company Floor compBlock corpBlock         String(50)         Company Floor compBlock company Floor           conpBlock otherDescription         String(255)         Other Description           represenEname         String(255)         Name of Responsible Person English           represenCname         String(255)         Name of Responsible Person English           reaTitleId         Int         Options of Representative Person Salutation           responEname         String(255)         Representative Person English name           represenCname         String(255)         Representative Person English name           represenPost         String(256)         Position           corresAddrFlat         String(1)         Correspondence Address Room/Flat           corresAddrFloor         String(50)         Correspondence Address Block           corresAddrBlock         String(50)         Correspondence Address Block           corresAddrBlock         String(256)         Correspondence Address Building           corresAddrStartNo         int         Correspondence Address Street No.           corresAddrStartNoAlpha         String (10)         Correspondence Address Street No.           corresPaxNo         String (100)         Correspondence Address Striect No.           correspendence Tele	compCname	String(255)	Company Name of Developer Name Chinese
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represenCname  String(255)  Representative Person Chinese name  Position  CorresAddrFlat  String(1)  Correspondence Address Room/Flat  corresAddrBlock  String(50)  Correspondence Address Floor  Correspondence Address Block  CorresAddrBlock  String(256)  Correspondence Address Block  corresAddrBldg  String(256)  Correspondence Address Building  corresAddrStartNo  int  Correspondence Address Striet No.  corresAddrStartNoAlpha  String (10)  Correspondence Address Street No.  corresAddrDistrictCd  String (3)  Correspondence Address Street No.  Correspondence Fax No  Correspondence Fax No  Correspondence Fax No  Correspondence Fax No  Correspondence E-mail Address  compBecEdition  String (100)  Correspondence E-mail Address  compBecEdition  String (100)  EDITION  inspectDate  String(8)  Personally check the time of building equipment installation covered by this form(yyyyMMdd)  reaEname  String(255)  English name of registered energy appraiser  Chinese name of registered energy appraiser  Chinese name of registered energy appraiser	reaTitleId	Int	
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corresAddrBlock  String(50)  Correspondence Address Block  Correspondence Address Building  corresAddrStartNo  int  Correspondence Address Building  Correspondence Address Street No.  Correspondence Enddress District,  Correspondence Telephone No  Correspondence Fax No  Correspondence Fax No  Correspondence E-mail Address  compBecEdition  String (100)  Correspondence E-mail Address  compBecEdition  String (100)  DecEdition  String (10)  String (10)  EDITION  inspectDate  String(8)  Personally check the time of building equipment installation covered by this form(yyyyMMdd)  reaEname  String(255)  English name of registered energy appraiser  reaCname  String(255)  Chinese name of registered energy appraiser	corresAddrFlat	String(1)	
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Street No.	corresAddrBldg	String(256)	
Street No.	corresAddrStartNo	int	
Address District,  CorresTelNo  String (100)  Correspondence Telephone No  CorresEmailAddr  String (100)  Correspondence Fax No  Correspondence E-mail Address  compBecEdition  String (100)  Company BEC Edition  EDITION  inspectDate  String(8)  Personally check the time of building equipment installation covered by this form(yyyyMMdd)  reaEname  String(255)  English name of registered energy appraiser  reaCname  String(255)  Chinese name of registered energy appraiser  reaTitleId  int  Salutation of registered	corresAddrStartNoAlpha	String (10)	
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reaTitleId int energy appraiser Salutation of registered	reaEname	String(255)	English name of registered
	reaCname	String(255)	
energy appraiser	reaTitleId	int	
reaAddrFlat String(50) REA Correspondence	reaAddrFlat	String(50)	

		Address Room/Flat	
reaAddrFloor	String(50)	REA Correspondence	
		Address Floor	
reaAddrBlock	String(50)	REA Correspondence	
		Address Block	
reaAddrBldg	String(50)	REA Correspondence	
		Address Building	
reaAddrStartNo	String(255)	REA Correspondence	
		Address Street No.	
reaAddrStartNoAlpha	String(20)	REA Correspondence	
		Address Street No.	
reaTelNo	String(20)	REA Correspondence	
		Telephone No.	
reaFaxNo	String(20)	REA Correspondence Fax	
reaEmailAddr	String(100)	REA Correspondence E-mail	
		Address	
reaRegNo	String(20)	REA Registration No.	
reaExpiryDate	String(8)	REA Expiry	
		Date(yyyyMMdd)	

Response – Content– eesu

Response – Content– eesu			
Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgType	Int		Type of Building
bldgTypeOther	String(255)		Type of Building
			Other
dateOfDeclarationByRea	String(8)		Date of
			Declaration by
			Registered Energy
			Assessor in Form
			EE1 / EE2 / EE3 /
			EE4
			*(yyyyMMdd)
prevSubNo	String(100)		If EMSD's
			reference no. for
			the form submitted
			before is known,
			please provide
supersedePreviousForm	String(1)		this submission to
			supersede a form
			submitted before?
			(Please give a "√"
			in the appropriate
			box)
dateOfDeclarationByReaInPrevi	String(8)		Otherwise, please
ousForm			provide the date of
			declaration by
			Registered Energy
			Assessor in the
			previous form:

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SERVICES DEPARTMENT (EMSD)		(yyyyMMdd)
encloseEeel	String(1)	Form EE-EL
encloseEelg	String(1)	Form EE-LG
encloseEeac	String(1)	Form EE-AC
encloseEele	String(1)	Form EE-LE
encloseEepb	String(1)	Form EE-PB
exemptGrant	String (1)	section b(e)
caemptorum	String (1)	Exemption
		previously granted
		by the Director of
		Electrical and
		Mechanic
exemptRefNo	String(20)	section b(e)
		Reference No.
exemptDate	String(8)	section b(e) Date
		(yyyyMMdd)
exemptInstallations	String(300)	section b(e)
		Installation(s)
		exempted
declareInfOcorrect1	String(1)	ee4,section c
		checkbox 4
declareInfOcorrect2	String(1)	ee4,section c
		checkbox 5
declareInfOcorrect3	String(1)	ee4,section c
	G( : (1)	checkbox 5-1
declareInfOcorrect4	String(1)	ee4, section c
declareInfOcorrect5	String(1)	checkbox 5-2 ee4,section c
declarefillOcorrects	String(1)	checkbox 5-3
organizationEname	String(255)	section c
organization Ename	String(233)	Organization
		Name of
		Responsible
		Person# ENG
organizationCname	String(255)	section c
		Organization
		Name of
		Responsible
		Person# CHI
organizationResEname	String(255)	section c Name of
		Responsible
		Person'
		Representative#
	Chris (255)	ENG
organizationResEname	String(255)	section c Name of
		Responsible Person'
		Representative# CHI
		СПІ

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Response - Content- WORK

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
seq	Int		
subseq	Int		
workloc	String(1024)		Location of Works
commonArea	String (1)		Common Area
unit	String (1)		Unit
isTypElg	String (1)		Lighting
isTypeAc	String (1)		Air Conditioning
isTypeEl	String (1)		Electrical
isTypEle	String (1)		Lift & Escalator
completeDate	String(8)		Work Completion
			Date(yyyyMMdd)

**Response Parameters** 

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID
			during system support.
code	Option	Required	Code to indicate the result. Details please refer to
			below section "Response – Code & Message".
details	String	Required	Details code (For example: CE2001). Details
			please refer to below section "Response – Code &
			Message".

Response – Code & Message

<u>Response – </u>	Code & Message		
Code	Description	Message	
<b>D</b> 00000	Success	D00000	Success Result.
	Result.		
D20001	Parameter is	CE2001	The parameter "Key" is null.
	null.	CE2002	The parameter "WBRSApplicationNo" is
			null.
		CE2003	The parameter "Submission Time" is null.
D20002	Already exists.	CE2011	The value of "WBRSApplicationNo" already
			exists.
D30001	Header is null	CE3001	The header "clientID" is null.
		CE3002	The header "signature" is null.
		CE3003	The header "nonce " is null.
D30002	Header is	CE3011	The header "clientID" is not found in the list.
	wrong	CE3012	The header "signature" is incorrect. (MITM
			Attack)
		CE3013	The header "nonce "is already used. (Replay
			Attack)
D40001	Form	CE4001	Lift location not found.
	Validation		Other Validations
D90000	Unknown	E9999	Runtime Exception.
	Exception		

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```
Sample Request
```

```
"encryptedContent": "sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y="
```

Sample Request (without encryption)

```
"applicationNo": "12",
"bldgEname": "12",
"bldgCname": "12",
"startNo": 12,
"startNoAlpha": "12",
"endNo": 12,
"endNoAlpha": "12",
"stEname": "12",
"stCname": "12",
"districtCd": "12",
"areaCd": 12,
"locEname": "12".
"locCname": "12",
"locFlat": "1",
"locFloor": "1",
"locBlock": "1",
"locDesc": "1",
"isOwnerCommonArea": "1",
"isOwnerCentralBs": "1",
"isTenantUnit": "1".
"isOccuiperUnit": "1",
"isOwnerUnit": "1",
"responTitleId": 1,
"responEname": "1",
"responCname": "1",
"represenTitleId": 1,
"represenEname": "1".
"represenCname": "1",
"represenPost": "1".
"corresAddrLang": "1",
"corresAddrFlat": "1",
"corresAddrFloor": "1".
"corresAddrBlock": "1",
"corresAddrBldg": "1",
"corresAddrStartNo": 1,
"corresAddrStartNoAlpha": "11",
"corresAddrEndNo": 1,
"corresAddrEndNoAlpha": "1",
"corresAddrSt": "1",
"corresAddrDistrictCd": "1",
"corresAddrAreaCd": 1,
"corresTelNo": "1",
```

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```
"corresFaxNo": "1",
"corresEmailAddr": "1",
"becEdition": "1",
"inspectDate": "20211117",
"reaTitleId": 1,
"reaEname": "1",
"reaCname": "1",
"reaAddrLang": "1",
"reaAddrFlat": "1",
"reaAddrFloor": "1"
"reaAddrBlock": "1",
"reaAddrBldg": "1",
"reaAddrStartNo": 1,
"reaAddrStartNoAlpha": "1",
"reaAddrEndNo": 1,
"reaAddrEndNoAlpha": "1",
"reaAddrSt": "1",
"reaAddrDistrictCd": "1",
"reaAddrAreaCd": 1,
"reaTelNo": "1",
"reaFaxNo": "1",
"reaEmailAddr": "1",
"reaRegNo": "1",
"reaExpiryDate": "20211117",
"formstatus": 1,
"seq": 1,
"forwarduserid": "1",
"receiveDate": "20211117",
"eesu": {
 "applicationNo": "12",
 "seq": 1,
 "bldgType": 1,
 "bldgTypeOther": "1",
 "dateOfDdeclarationByRea": "20211119",
 "supersedePerviusForm": "1",
 "dateOfDdeclarationByReaInPreviousForm": "20211119",
 "prevSubNo": "1",
 "encloseEeel": "1",
 "encloseEelg": "1",
 "encloseEeac": "1",
 "encloseEele": "1",
 "encloseEepb": "1".
 "exemptGrant": "1",
 "exemptRefNo": "1".
 "exemptDate": "20211119",
 "exemptInstallations": "1",
 "declareInfoCorrect1": "1",
 "declareInfoCorrect2": "1",
 "declareInfoCorrect3": "1",
 "declareInfoCorrect4": "1".
```

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```
"declareInfoCorrect5": "1",
 "organizationEname": "1",
 "organizationCname": "1",
 "organizationResEname": "1",
 "organizationResCname": "1",
"work": [
  "applicationNo": "12",
  "seq": 1,
  "subSeq": 1,
  "worKoc": "1",
  "commonArea": "1",
  "unit": "1",
  "isTypeLg": "1",
  "isTypeAc": "1",
  "isTypeEl": "1",
  "isTypeLe": "1",
  "completeDate": "20211119",
],
```

**Sample Response** 

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":"0514125f"
}
```

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### 13.4. Create Attachment

**API Description** 

THE Description	
Name	Description
Service Full	For submitting the attachment to backend
Name	
URL	<pre><backend_service_domain>/{Version}/EE4/CreateAttachment</backend_service_domain></pre>
<b>Request Type</b>	POST
Service	1
Version	
Description	This API is to validate the application data before submission.
of Service	

**Request Headers** 

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses
			clientSecret to sign the concatenated string of
			<b>nonce</b> and <b>encrypted content</b> to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in
			the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for
			each request by WBRS. It is used to prevent replay
			attack. A nonce can be an ASCII string of any
			length less than or equal to 36 (UUID string length)
			as long as the uniqueness requirement is met.

**Request Parameters** 

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.
fileName	String	Required	File name with extension of the attachment
shaFileChecksum	String	Required	The SHA file checksum of the attachment
type	String	Required	The type of the attachment
fileContent	String	Required	Base64 encoded content of the attachment
description	String	Required	Description of attachment

**Response Parameters** 

Parameter	Type	Condition	Description	

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txID	String	Required	Unique ID for logging. Please provide this ID
			during system support.
code	Option	Required	Code to indicate the result. Details please refer to
			below section "Response – Code & Message".
details	String	Required	Details code (For example: CE2001). Details
			please refer to below section "Response – Code &
			Message".

Response - Code & Message

Response –	Code & Message		
Code	Description	Message	
D00000	Success	D00000	Success Result.
	Result.		
D20001	Parameter is	CE2001	The parameter "Key" is null.
	null.	CE2002	The parameter "WBRSApplicationNo" is
			null.
		CE2003	The parameter "Submission Time" is null.
		CE2004	The parameter "FileName" is null.
		CE2005	The parameter "File" is null.
D20002	Application is	CE2011	The application is not found.
	invalid	CE2012	Application status is invalid.
D20003	File is invalid	CE2021	File extension is invalid.
		CE2022	File name is too long.
		CE2023	File Name is invalid.
D30001	Header is null	CE3001	The header "clientID" is null.
		CE3002	The header "signature" is null.
		CE3003	The header "nonce" is null.
D30002	Header is	CE3011	The header "clientID" is not found in the list.
	wrong	CE3012	The header "signature" is incorrect. (MITM
			Attack)
		CE3013	The header "nonce " is already used. (Replay
			Attack)
D90000	Unknown	E9999	Runtime Exception.
	Exception		

# **Sample Request (with encryption)**

```
{
    "encryptedContent":"sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y= "
}
```

**Sample Request (without encryption)** 

```
{
    "applicationNo": "L160000001",
    "fileName": "",
    "shaFileChecksum": "",
    "type": ""
    "content": ""
    "description": ""
}
```

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# **Sample Response**

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":"0514125f"
}
```

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# 13.5. Acknowledge Submission Completed

**API Description** 

Name	Description
<b>Service Full</b>	To acknowledge the backend submission has been completed.
Name	
URL	<pre><backend_service_domain>/{Version}/EE4/Status/SubmissionCompleted</backend_service_domain></pre>
Request	POST
Type	
Service	1
Version	
Description	To acknowledge the backend after all attachments are submitted
of Service	successfully.

**Request Headers** 

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses
			clientSecret to sign the concatenated string of
			<b>nonce</b> and <b>encrypted content</b> to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in
			the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for
			each request by WBRS. It is used to prevent replay
			attack. A nonce can be an ASCII string of any
			length less than or equal to 36 (UUID string length)
			as long as the uniqueness requirement is met.

**Request Parameters** 

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

**Request - Content** 

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

**Response Parameters** 

Parameter	Type	Condition	Description
txID	String	Required Unique ID for logging. Please provide this ID	
			during system support.
code	Option	Required	Code to indicate the result. Details please refer to
			below section "Response – Code & Message".
details	String	Required Details code (For example: CE2001). Details	
			please refer to below section "Response – Code &
			Message".

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is	The parameter "applicationNo" is null.

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	null.	
D30001	Header is null	The header "clientID" is null.
		The header "signature" is null.
		The header "nonce " is null.
D30002	Header is	The header "clientID" is not found in the list.
	wrong	The header "signature" is incorrect. (MITM Attack)
		The header "nonce " is already used. (Replay Attack)
D90000	Unknown	Runtime Exception.
	Exception	

```
Sample Request (with encryption)
```

```
{
    "encryptedContent":"sqS0rzo3U5r8G9rc7nvNJQnd973fpD3v1k3Qp4u/F8Y= "
}
```

```
Sample Request (without encryption)
```

```
{
    "applicationNo": "L160000001"
}
```

# **Sample Response**

```
{
    "code":"D00000",
    "message":"D00000",
    "txID":"0514125f"
}
```

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# 14. PAYMENT COMPLETED

**API Description** 

Name	Description
Service Full	Payment Completed
Name	
URL	<pre><backend_service_domain>/{Version}/payment/submitData</backend_service_domain></pre>
Request Type	POST
Service	1
Version	
<b>Description of</b>	To change the status of record after payment has been completed and
Service	save payment record to E-payment table.

**Request Headers** 

Parameter	Type	Condition	Description
clientID	String	Required	Client identifier for finding out the client secret in
			the backend.

**Request Parameters** 

Parameter	Type	Condition	Description
action	String	Required	Action to be done
state	String	Required	State
data	Data object	Required	Refer to: Request – Content <u>–</u> Date

Request - Content - Data

Parameter	Type	Condition	Description
division_code	String(20)	Required	Division Code of the form
form_code	String(60)	Required	Form Code
app_no	String(10)	Required	WBRS Application Number
name	String(200)	Optional	Applicant Name
address	String(400)	Optional	Applicant Address
tel	String(17)	Optional	Applicant Telephone Number
email	String(150)	Optional	Applicant Email
lang	String(2)	Required	Language
expiry_date	String(8)	Optional	Expiry Date(yyyyMMdd)
result_return_url	String(400)	Required	Result Return URL
receipt_return_url	String(400)	Optional	Receipt Return URL
remark	String(4000)	Optional	Remarks
sender	String(150)	Optional	Sender

**Response Parameters** 

Parameter	Type	Condition	Description
state	String	Required State of result	
status	String	Required Status of result, "0" for Success Case and "1" for	
			Error Case
expiry_date	String	g Required Expiry Date, returned when Success	
error_code	String	Required	Error Code, returned when have Error
error_message	String	Required Error Message, returned when have Error	

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#### Response – Code & Message

Code	Description	Message
003	Incorrect Parameter	Request parameter not correct

**Sample Request** 

```
"action": "submitRequestByWBRSApplication",
"state": "e893647dc4204eb9b7b8eddd527b687c",
"data": {
       "division code": "EA",
       "form code": "FORM1",
       "app no": "L160000001",
       "name": "Chan Tai Man",
       "address": "address",
       "tel": "21234567",
       "email": "test@email.com.hk",
       "lang": "en",
       "expiry date": "20211122",
       "result_return_url": "https://{end_point}/1/payment/result",
       "receipt return url": "https://{end point}/1/form/receipt",
       "remark": "remarks",
       "sender": "testsender@email.com.hk"
}
```

Sample Response (Success Case)

```
{
    "state": "e893647dc4204eb9b7b8eddd527b687c",
    "status": 0,
    "expiry_date": "20211122"
}
```

**Sample Response (Error Case)** 

```
{
    "state": "e893647dc4204eb9b7b8eddd527b687c",
    "status": 1,
    "error_code": "003",
    "error_message": "Request parameter not correct"
}
```

- End of Document -

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