

Cherry C. Hudgins
Smart Energy Policy

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August 17, 2011

VIA EMAIL

North American Energy Standards Board
Attn: Mr. Jonathan Booe, Deputy Director
801 Travis Street
Suite 1675
Houston, TX 77002

North American Energy Standards Board
Retail Electric Quadrant Executive Committee
Attn: Mr. Phil Precht, Chairman
801 Travis Street
Suite 1675
Houston, TX 77002

Re: Energy Services Provide Interface Standard/Model Business Practices

Ladies and Gentlemen:

Southern Company Services, Inc., as agent for Alabama Power Company, Georgia Power Company, Gulf Power Company and Mississippi Power Company (collectively, "Southern"), is pleased to have had the opportunity to participate in the development of the NAESB Energy Services Provider Interface ("ESPI") draft model business practices and related comment resolution process. Southern would once again like to thank the NAESB ESPI Task Force leadership and members for all of their hard work. Southern now respectfully submits the following late comments on the Task Force's late comments submitted for the ESPI business practices:

- In the third sentence of the second paragraph under the Introduction, revise "This information" to read "EUI".
- In the chart for ApplicationInformation, in order to be consistent with dataCustodianDefaultSubscriptionResource, etc., insert the phrase "by Third

Party” after the word “modified” in the Description column for “dataCustodianThirdPartyID”, dataCustodianThirdPartySecret” and “dataCustodianApplicationStatus”.

- Insert a period at the end of the sentence under “IdentifiedObject”.
- Delete the extra space after the word “protocol” in the last sentence under “ElectricPowerQualitySummary”.
- In the Description after Figure 11, change the “a” before the phrase “Authorized Third Party” to read “an”.
- In the first Pre-Condition after Figure 17, insert a period at the end of the sentence.
- In the third Pre-Condition and the second Post-Condition after Figure 20, insert a period at the end of the sentence.
- In the third Pre-Condition after Figure 21, insert a period at the end of the sentence.

For your convenience, the above changes are also reflected in the attached marked pages.

In addition to the changes noted above, Southern has a more technical comment. In particular, the use of TOU A . . . F in the ESPI model is very ambiguous. The use of TOU A . . . F does not provide sufficient information since, of course, the actual cost could depend on many factors. Associating “A” typically means tier “A” in the meter which varies depending on the programming. Accordingly, it would be helpful to revise the ESPI model to eliminate this ambiguity. While appropriate for further consideration in connection with the ESPI model, Southern understands that this and related issues may have to be ultimately resolved in the IEC 61968 process.

In conclusion, Southern requests that the NAESB REQ Executive Committee refer the Task Force’s comment resolution work and all other late comments to NAESB’s Technical Electronic Implementation Subcommittee (“TEIS”) for further review. Engaging the TEIS would be the most appropriate method for bringing final confirmation to the comment resolution proposed by the Task Force and resolving all other late comments. In addition, and perhaps most importantly, utilizing the TEIS would be consistent with NAESB Operating Practices. In connection therewith, Southern commits to volunteering at least one working member of the TEIS. Southern also would welcome non-NAESB members to participate in the TEIS consistent with NAESB Practice that “[t]here is no requirement that a member of the TEIS be a NAESB Member.”¹

¹ NAESB REQ Technical Electronic Implementation Subcommittee Mission, Feb. 25, 2004, p. 1.

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To the extent you have any questions or concerns about any of Southern's comments, please do not hesitate to contact me.

Respectfully submitted,

 /s/ Cherry C. Hudgins
Cherry C. Hudgins
Smart Energy Policy Manager
Southern Company Services, Inc.



RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE

For Quadrant: Retail Electric Quadrant

Requesters: Open ADE Task Force

Request No.: R10008

Request Title: Energy Services Provider Interface Standard

The purpose of ESPI is to provide a consistent and broadly applicable interface to enable Retail Customer authorization of exchange of EUI from Data Custodians to Third Parties. It is anticipated that Third Parties will desire to offer Retail Customers raw and/or enriched analysis of EUI. ~~This information~~[EUI](#) is expected to reside with a Data Custodian. It is desired that the Third Party can provide this service only through the request or direction of the Retail Customer and in coordination with the Data Custodian. ESPI describes the mechanisms by which this orchestrated exchange may be enabled. Note that the decision to implement ESPI should be applied within the context of existing policies, practices and the requirements of the Applicable Regulatory Authority.

For the purpose of the descriptions of interactions in ESPI, actions of contracted agents of a Distribution Company are considered the actions of the Distribution Company. However, ESPI is not necessarily intended to apply specifically to interactions between contracted agents of Distribution Company and the corresponding Distribution Company.

These Model Business Practices are voluntary and do not address policy issues that are the subject of state legislation or regulatory decisions. These voluntary Model Business Practices have been adopted by NAESB with the realization that, as the industry evolves, additional and amended Model Business Practices may be necessary. Any industry participant seeking additional or amended Model Business Practices (including principles, definitions, data elements, process descriptions, and technical implementation instructions) should submit a request to the NAESB office, detailing the change, so that the appropriate process may take place to amend the Model Business Practice.



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Name	Type	Description
thirdPartyDefaultBatchResource	<i>anyURI [0..1]</i>	The default endpoint for asynchronous delivery of Batch data using push.
thirdPartyDefaultNotifyResource	<i>anyURI [0..1]</i>	The default endpoint for Third Party notification of Batch data availability, that is then requested from the Data Custodian via the Batch resource.
dataCustodianThirdPartyId	<i>String32 [0..1]</i>	A key to be associated with this application, to be provided in OAuth requests. This value is provided by dataCustodian, and cannot be modified by Third Party .
dataCustodianThirdPartySecret	<i>String32 [0..1]</i>	A secret to be associated with this application, used to sign OAuth requests. This value is provided by dataCustodian, and cannot be modified by Third Party .
dataCustodianDefaultSubscriptionResource	<i>anyURI [0..1]</i>	The default endpoint for Subscription requests. This value is provided by dataCustodian, updated in approved applications objects, cannot be modified by Third Party.
dataCustodianDefaultBatchResource	<i>anyURI [0..1]</i>	The default endpoint for Batch requests. This value is provided by dataCustodian, updated in approved applications objects, cannot be modified by Third Party.
dataCustodianApplicationStatus	<i>UInt8 [0..1]</i>	A code indicating the current status of the application. This value is provided by dataCustodian, cannot be modified by Third Party . Defined statuses are: 1 - Review 2 - Production (Live) 3 - On hold 4 - Revoked

Authorization

Represents a permission granted by an owner for access to a resource.

Name	Type	Description
authorizationServer	<i>anyURI [0..1]</i>	Contains the URI link to the authorization endpoint associated with this authorization.
authorizedPeriod	<i>DateTimeInterval [0..1]</i>	Restricts access to requests or subscriptions within this date time interval.
accessToken	<i>String32 [0..1]</i>	Contains the access token associated with this authorization.



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Name	Type	Description
publishedPeriod	<i>DateTimeInterval [0..1]</i>	Restricts access to the objects within the associated resource that were published within this date time interval.
resource	<i>anyURI [0..1]</i>	Contains the identifier of the resource, same as was specified in OAuth "scope".
status	<i>UInt8 [0..1]</i>	The status of this authorization. 0 - Revoked 1 - Active
thirdParty	<i>String32 [0..1]</i>	Contains the identifier for the Third Party.

IdentifiedObject

This is a root class to provide common naming attributes for all classes needing naming attributes.

ElectricPowerQualitySummary

A summary of power quality events. This information represents a summary of power quality information typically required by customer facility energy management systems. It is not intended to satisfy the detailed requirements of power quality monitoring. All values are as defined by measurementProtocol during the period. The standards typically also give ranges of allowed values; the information attributes are the raw measurements, not the "yes/no" determination by the various standards. See referenced standards for definition, measurement protocol and period.

Name	Type	Description
flickerPlt	<i>Int48 [0..1]</i>	A measurement of long term Rapid Voltage Change in hundredths of a Volt. flickerPlt is derived from 2 hours of Pst values (12 values combined in cubic relationship).
flickerPst	<i>Int48 [0..1]</i>	flickerPst is a value measured over 10 minutes that characterizes the likelihood that the voltage fluctuations would result in perceptible light flicker. A value of 1.0 is designed to represent the level that 50% of people would perceive flicker in a 60 watt incandescent bulb. The value reported is represented as an integer in hundredths.
harmonicVoltage	<i>Int48 [0..1]</i>	A measurement of the Harmonic Voltage during the period. For DC, distortion is with respect to a signal of zero Hz.



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2: Retail Customer Authorizes Authorized Third Party Resource Access via Data Custodian

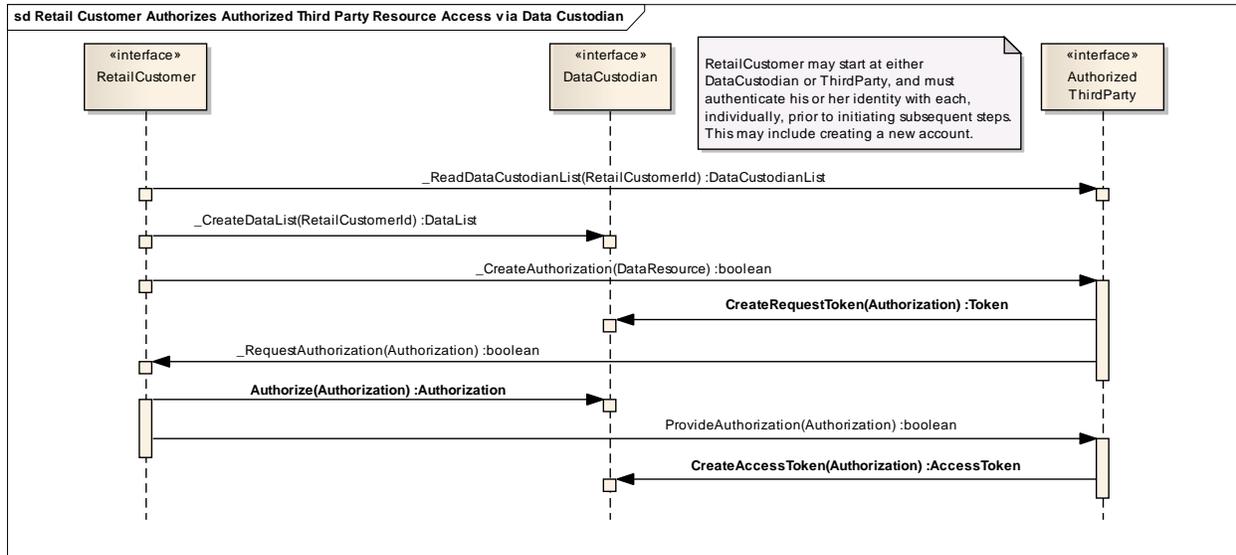


Figure 11: Retail Customer Authorizes Authorized Third Party Resource Access via Data Custodian

Description

A Retail Customer wants to grant permission for a Data Custodian to share a particular EUI resource with an Authorized Third Party. The Retail Customer initiates the process through the Data Custodian.

Pre-Condition: Retail Customer has established accounts with Data Custodian and Authorized Third Party.

Pre-Condition: Authorized Third Party has an established account with Data Custodian.

Pre-Condition: Data Custodian and Authorized Third Party have published and made Retail Customer aware of their privacy policy related to collection and handling of customer information.

Post-Condition: A Shared Resource Key is generated to allow all three roles to refer to the same shared resource. This key is known to all three roles.

Post-Condition: The Authorized Third Party has the Retail Customer's permission to get the specified EUI from the Data Custodian.

Post-Condition: The Data Custodian sends the Retail Customer confirmation of establishment of the Authorized Third Party EUI access relationship.

Scenario: Basic Path

1. The Retail Customer decides to grant permission for the Data Custodian to share his EUI with the Authorized Third Party
2. (Optional) Retail Customer finds his appropriate Data Custodian from Authorized Third Party, and navigates to the appropriate place to begin establishment of sharing relationship.
3. Retail Customer requests that the Data Custodian establish a new EUI access relationship.
4. Data Custodian presents the Retail Customer with a list of resources that can be shared with Third Parties. Any additional attributes (e.g., duration for which permission should be granted) that can be selected are also presented.
5. Retail Customer selects a resource to share, sets any available attributes for the relationship, and specifies an



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- minimum, this information includes a Shared Resource Key identifying the resource whose EUI is to be shared. The information may include additional subscription parameters, as supported by the Data Custodian.
3. The subscription will not be accepted if the Shared Resource Key is invalid.
 4. The Data Custodian saves the subscription information, associating the subscription with the Shared Resource Key and the Authorized Third Party.
 5. The Data Custodian notifies the Authorized Third Party that the subscription request was successful. No acknowledgement or confirmation is required.
 6. The Data Custodian notifies the Retail Customer that the Authorized Third Party has completed a subscription for their EUI. No confirmation is required, as the Authorized Third Party already has permissions as indicated by the valid Shared Resource Key. If the subscription is not acceptable to the Retail Customer, Use Case 3 can be exercised to modify permissions for the Authorized Third Party.

8: Authorized Third Party Requests EUI from Data Custodian - Asynchronous

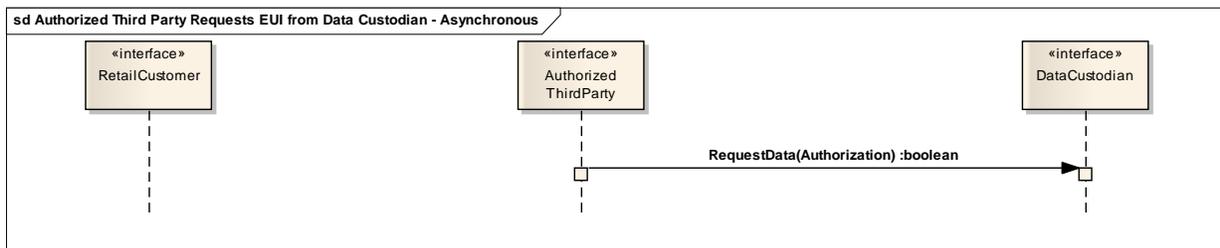


Figure 17: Authorized Third Party Requests EUI from Data Custodian - Asynchronous

Description

The Retail Customer has an existing Authorized Third Party EUI access relationship with a particular Data Custodian and Authorized Third Party. The Authorized Third Party requests specific EUI to be delivered with next transfer.

Pre-Condition: Authorized Third Party has an established account with Data Custodian.

Pre-Condition: Retail Customer has established an Authorized Third Party EUI access relationship with the Data Custodian and the Authorized Third Party with respect to a particular resource, resulting in a unique Shared Resource Key identifying the relationship.

Post-Condition: The Data Custodian records the request on behalf of the Authorized Third Party. Future EUI availability triggers will result in the appropriate information being sent to the Authorized Third Party.

Post-Condition: Data Custodian sends the Authorized Third Party confirmation of its EUI request.

Scenario: Basic Path

1. Authorized Third Party decides to request EUI from the Data Custodian.
2. Data Custodian checks validity of request.
3. Data Custodian queues request for next asynchronous transfer.
4. Data Custodian sends confirmation to Authorized Third Party.

9: Data Custodian Sends (Pushes) EUI to Authorized Third Party - Asynchronous



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Authorized Third Party. Notification could be queued, awaiting the next scheduled interaction with the Authorized Third Party (e.g., as part of a response to a regular pull from the Authorized Third Party). No mechanism or timing is specified.

11: Authorized Third Party Receives (Pulls) Requested EUI from Data Custodian - Asynchronous

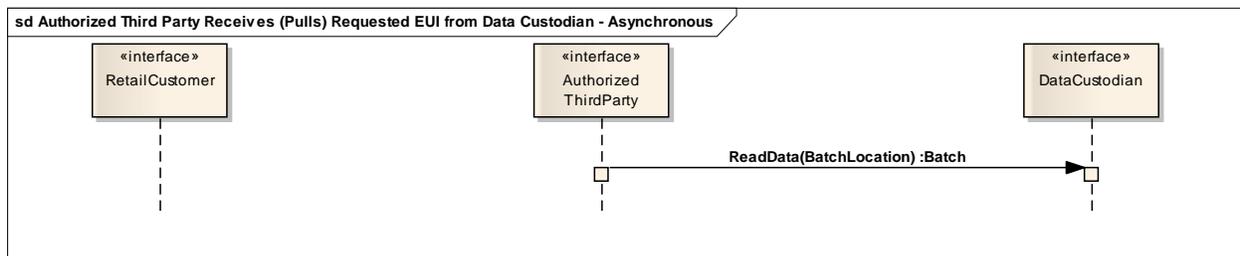


Figure 20: Authorized Third Party Receives (Pulls) Requested EUI from Data Custodian - Asynchronous

Description

The Retail Customer has an existing Authorized Third Party EUI access relationship with a particular Data Custodian and Authorized Third Party. The Authorized Third Party requests the relevant subscribed and requested EUI from the Data Custodian, who replies with the EUI if the request is valid.

Pre-Condition: Authorized Third Party has an established account with Data Custodian

Pre-Condition: Retail Customer has established an Authorized Third Party EUI access relationship with the Data Custodian and the Authorized Third Party with respect to a particular resource, resulting in a unique Shared Resource Key identifying the relationship.

Pre-Condition: Data Custodian has EUI relevant to the Authorized Third Party.

Post-Condition: The Data Custodian replies with the requested EUI.

Post-Condition: Only the requested EUI is provided by the Data Custodian.

Scenario: Basic Path

1. Authorized Third Party receives notification or periodically attempts to pull EUI from the Data Custodian.
2. Data Custodian checks validity of request.
3. Data Custodian replies with requested and subscribed EUI to Authorized Third Party.
4. Authorized Third Party persists EUI for use in performing services for Retail Customer.



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12: Authorized Third Party Requests EUI from Data Custodian - Synchronous

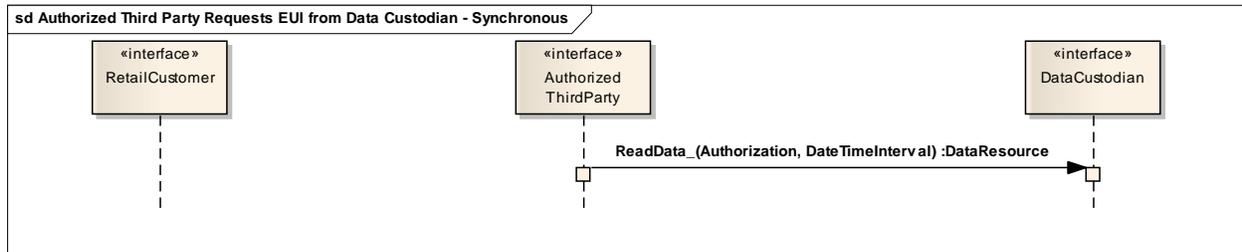


Figure 21: Authorized Third Party Requests EUI from Data Custodian - Synchronous

Description

The Retail Customer has an existing Authorized Third Party EUI access relationship with a particular Data Custodian and Authorized Third Party. The Authorized Third Party directly requests specific EUI from the Data Custodian, who replies with the requested EUI synchronously if the request is valid.

Pre-Condition: Authorized Third Party has an established account with Data Custodian

Pre-Condition: Retail Customer has established an Authorized Third Party EUI access relationship with the Data Custodian and the Authorized Third Party with respect to a particular resource, resulting in a unique Shared Resource Key identifying the relationship

Pre-Condition: Authorized Third Party requests authorized EUI.

Post-Condition: The Data Custodian replies with the requested EUI.

Post-Condition: Only the requested EUI is provided by the Data Custodian.

Scenario: Basic Path

1. Authorized Third Party decides to pull EUI from the Data Custodian.
2. Authorized Third Party specifies the EUI being requested. The request must contain the Shared Resource Key. It may also contain parameters (e.g., the period over which the specified EUI is requested), if permitted by Data Custodian.
3. Data Custodian checks validity of request (e.g., Shared Resource Key is still valid and registered with this Authorized Third Party or validity of any additional parameters).
4. Data Custodian sends requested EUI to Authorized Third Party.
5. Authorized Third Party persists EUI for use in performing services for Retail Customer.