Technical User Group Agenda

May 2nd, 2017 *10:00 a.m. – 11:00 a.m. (Pacific Time)*

Web Conference Information	Conference Call Information
URL: https://www.connectmeeting.att.com Meeting Number: 8665282256 Access Code: 6085978	Domestic Call In: (866) 528-2256 International Call In: (216) 706-7052 Pass Code: 6085978

Time	Topic	Facilitator
10:00 – 10:05	Agenda & ISO Roll call	Sean Crimmins
10:05 – 10:25	OMS Acceptable Use Policy	John Huetter
10:25 – 10:35	Sftp Provisioning	Tom Williams
10:35 – 10:45	New Direct Telemetry Option	Tom Williams
10:45 – 10:50	Fall 2017 OASIS/CMRI Tech Spec updates	Arul Jayaraman
10:50 – 10:55	TLS Retirement	Tom Williams
10:55 – 11:00	Adjourn	Sean Crimmins

OMS Customer Partnership Group
Acceptable Use Policy

Enforcement of the AUP will be applied for each service per certificate user.

Service Level Agreement	
Expected size of payload (average and maximum)	Variable (1KB to 1MB+)
Expected frequency (average and maximum)	On demand (50/day – 1,000/day).
Longest time the service can be unavailable before business is impacted	30 minutes
Business impact if is unavailable	Outage Coordinators can call the ISO directly with critical near-term outages.
Expected response time for the service	Variable (.1 sec – 30 sec)
Expected time to exchange	Variable (.1 sec – 30 sec)

OMS Customer Partnership Group
Acceptable Use Policy

For service consumption, the ISO has the following acceptable use agreement.

> For each identity and service, the consumer shall invoke the service no more often than once every 5 seconds. ISO production services may only be consumed for production purposes.

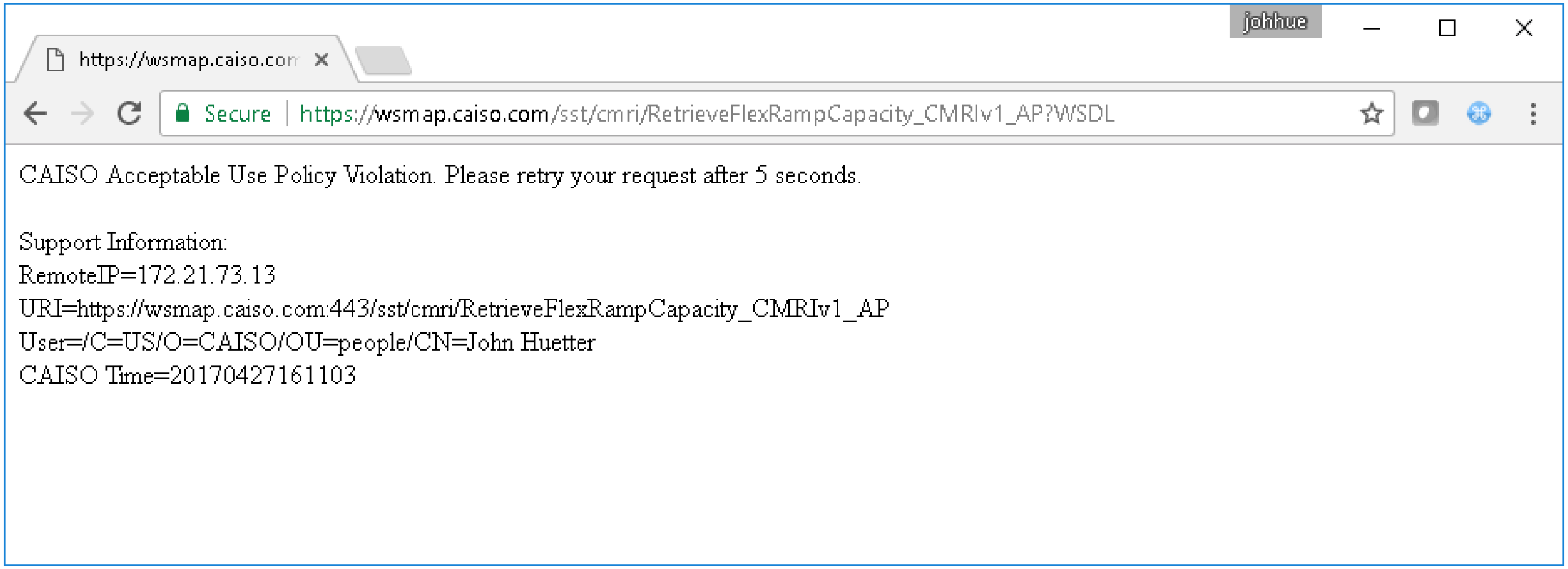
OMS Customer Partnership Group
Acceptable Use Policy

Next Steps:

- CAISO will enable AUP for MAPStage in the next week
- Limited to OMS API Retrieves only
  - Not API Submits and not UI traffic
- The limit which will be enforced initially will be one transaction, per certificate, per service every 5 seconds in MAPStage

OMS Customer Partnership Group
Acceptable Use Policy

Example AUP Error Message (this one is for CMRI):


johhue
https://wsmap.caiso.com
Secure
https://wsmap.caiso.com/sst/cmri/RetrieveFlexRampCapacity_CMRIv1_AP?WSDL

CAISO Acceptable Use Policy Violation. Please retry your request after 5 seconds.

Support Information:
RemoteIP=172.21.73.13
URI=https://wsmap.caiso.com:443/sst/cmri/RetrieveFlexRampCapacity_CMRIv1_AP
User=/C=US/O=CAISO/OU=people/CN=John Huetter
CAISO Time=20170427161103

Secure File Transfer Protocol (SFTP)

Primary SFTP use: MRI-S invoices

SFTP authentication: SSH keys

Change coming: UAAs will provision their own SSH authentication keys

Change will not affect existing SFTP access

Currently piloting the change with multiple participants

There will be a market notice prior to the change

California ISO

New Direct Telemetry Option

May 2017

Direct Telemetry

Through direct telemetry of a generator or load participant the ISO manages power in real time.

The New Resource Implementation (NRI) process requires choice of a secure telecommunications option.

https://www.caiso.com/participate/Pages/NewResourceImplementation/Default.aspx

Participants have a new option: Dispersive™ Critical Infrastructure Software-Defined Network (CISDN).

https://www.dispersivetechnologies.com/scada-dispersive-cisdn

Applicability

Dispersive™ CISDN is particularly suitable for DERs

Does not use ECN

No participant-managed digital certificates

Packet-level encryption

Available now for DNP3 links

Metering coming

Energy Data Acquisition Specialist: EDAS@caiso.com (916-608-5826)

OASIS Fall 2017 Technical Specification

- New service CSP_OFFER_SET for Competitive Solicitation Process Offer Set.(Part of RSI Phase I B)
- New service ENE_FLEX_RAMP_INPUT for Flexible Ramp Requirements Input data. (Part of EIM 2017)
- New service PRC_RTM_LAP for Hourly RTM LAP prices (Part of EIM 2017)
- New service for Control Area Generating Capability List (Part of Gas Burn & GenDB)

CMRI Fall 2017 Technical Specification

- New Service for Daily Electricity Price Index service (Part of BREB)
- New Service for Actual Limitation Values service   (Part of CCE 3)
- New Service for Resource Opportunity Cost (Part of CCE 3)
- New Service for External Default Commitment Cost (Part of EIM 2017)
- New Service for GasBurnResourceData service (Part of Gas Burn & GenDB)
- New Service for GasBurnSummaryData service (Part of Gas Burn & GenDB)

Retiring the TLS 1.0 Protocol

This is an initial communication regarding disabling version 1.0 of TLS (Transport Layer Security) for ISO Market applications.

TLS version 1.0 is no longer considered secure.

In 2014, the ISO enacted a similar process to disable version 3.0 of SSL (Secure Sockets Layer).

Participants will need to enable TLS 1.1 and 1.2 in browsers and APIs.

Participants do not need to disable TLS 1.0 because the TLS handshake will negotiate the highest mutually available version.

Wrap-up

Please send agenda items to scrimmins@caiso.com