

ACI API Specification: *Checkpoint Wait Times*

New global standard for open access
to passenger queue information

Business Drivers

Better information for everyone on wait times at security checkpoints in every airport.

Better metrics for airport operators and regulators on checkpoint performance.

More accessible real-time information for all stakeholders.

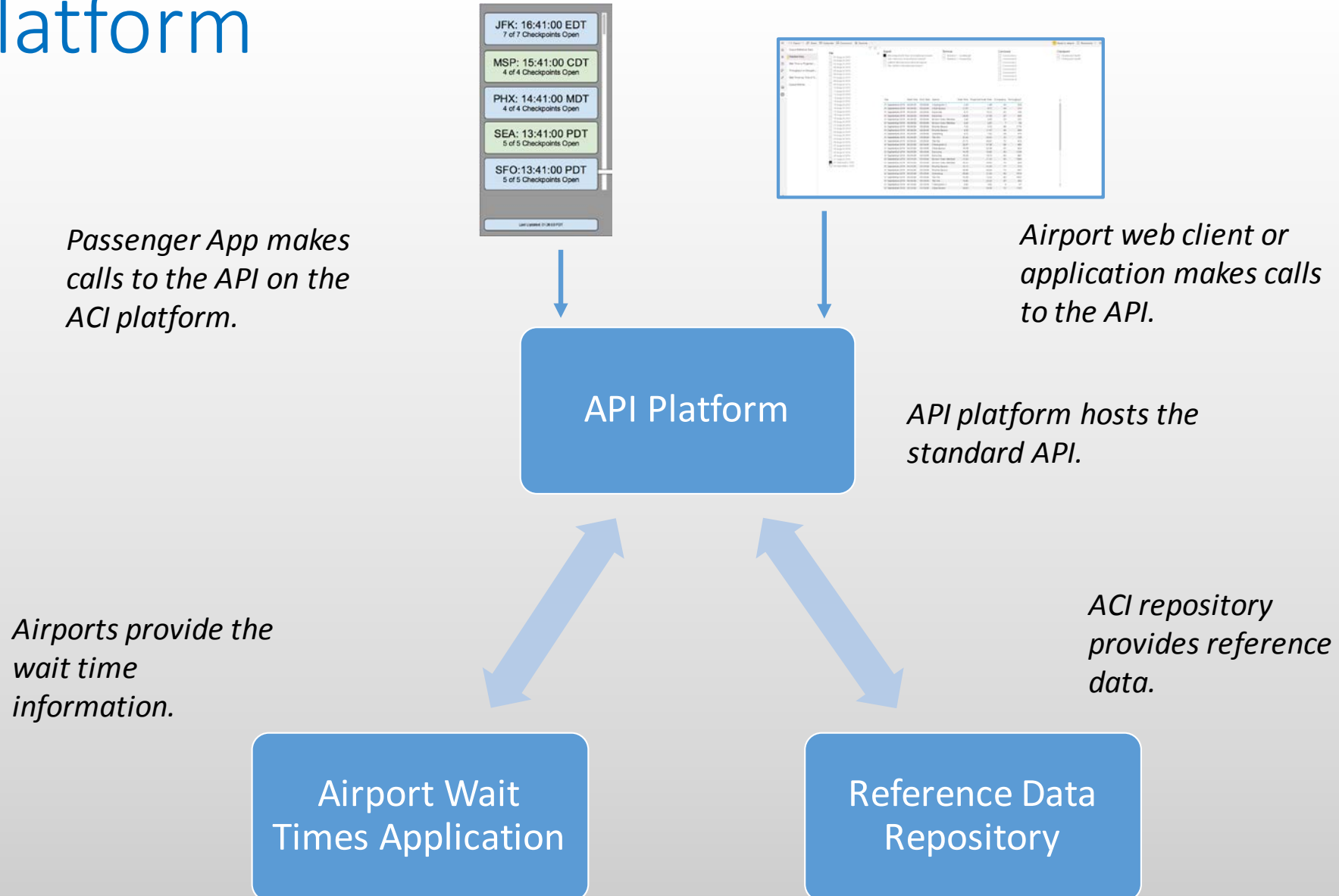
ACI API Dev Team



Available Measures

Measure	Description
Occupancy	The count of people in the queue.
Projected Wait Time	The estimated time that a person entering the queue can expect to wait.
Throughput	The average number of passengers processed over the past hour.
Wait Time	The duration that a person exiting the queue has experienced. The amount represents the average number of seconds experienced by people exiting the queue in the last five minutes.

API Platform



Reference Data – Miami International

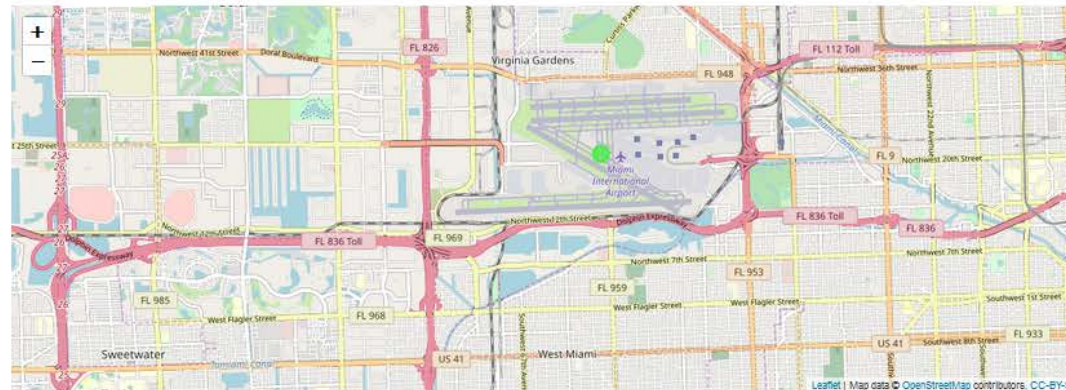
Search Reference Data Agreements ▾ Controls ▾ Events ▾ Interactions ▾ Offerings ▾ Parties ▾ Places ▾ Plans ▾ Resources ▾

Sign Out  AIRPORTS COUNCIL
INTERNATIONAL **ROCKPORT**
SOFTWARE

Airport Details

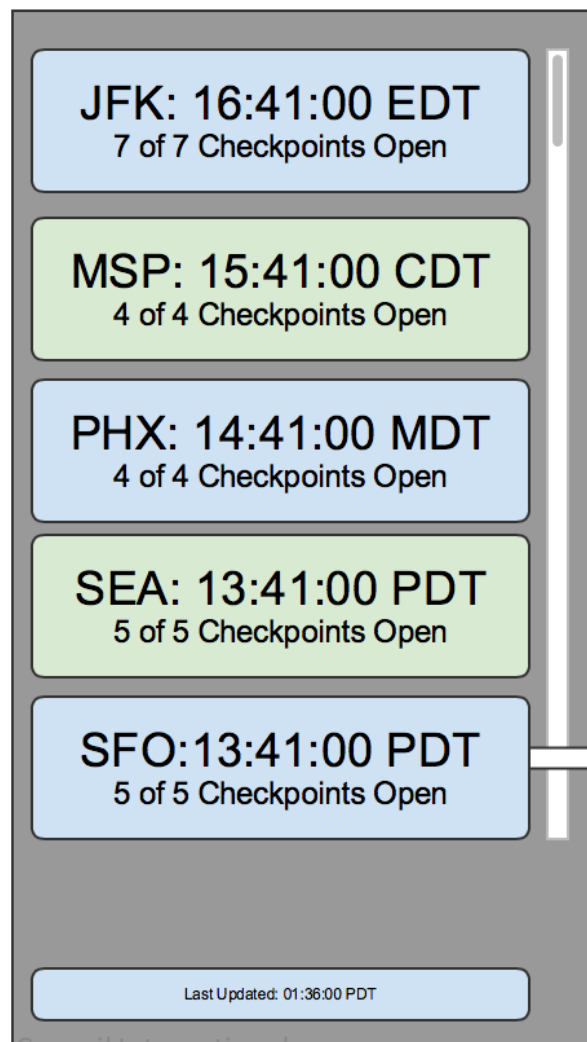
Airport Name	Miami International Airport
IATA Code	MIA
ICAO Code	KMIA
Altitude	2.4384
Latitude	25.79536111
Longitude	-80.29011111
City UN Code	USMIA
City Description	Miami
Country Name	United States of America (the)
Country ISO Alpha-2 Code	US
Subregion Name	North America
Subregion IATA Code	NOA
Region Name	Americas
Region Code	AMER

Copy CSV

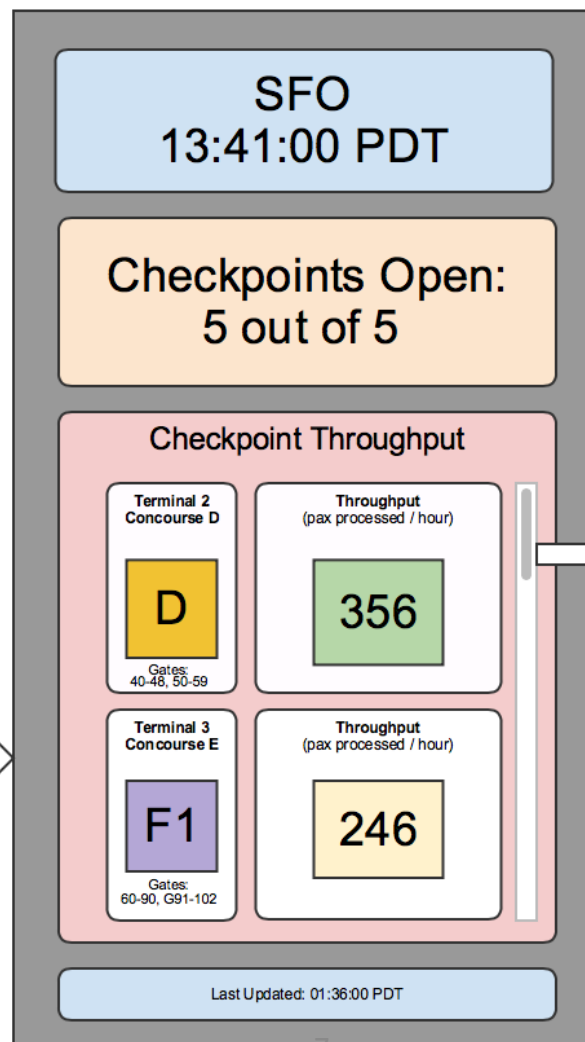


Example App

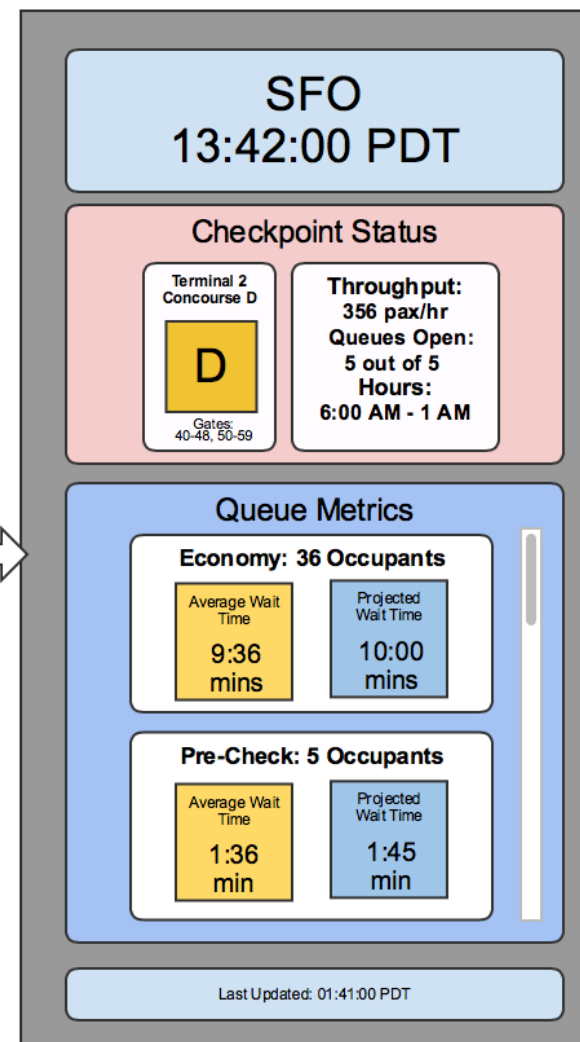
Screen 1



Screen 2

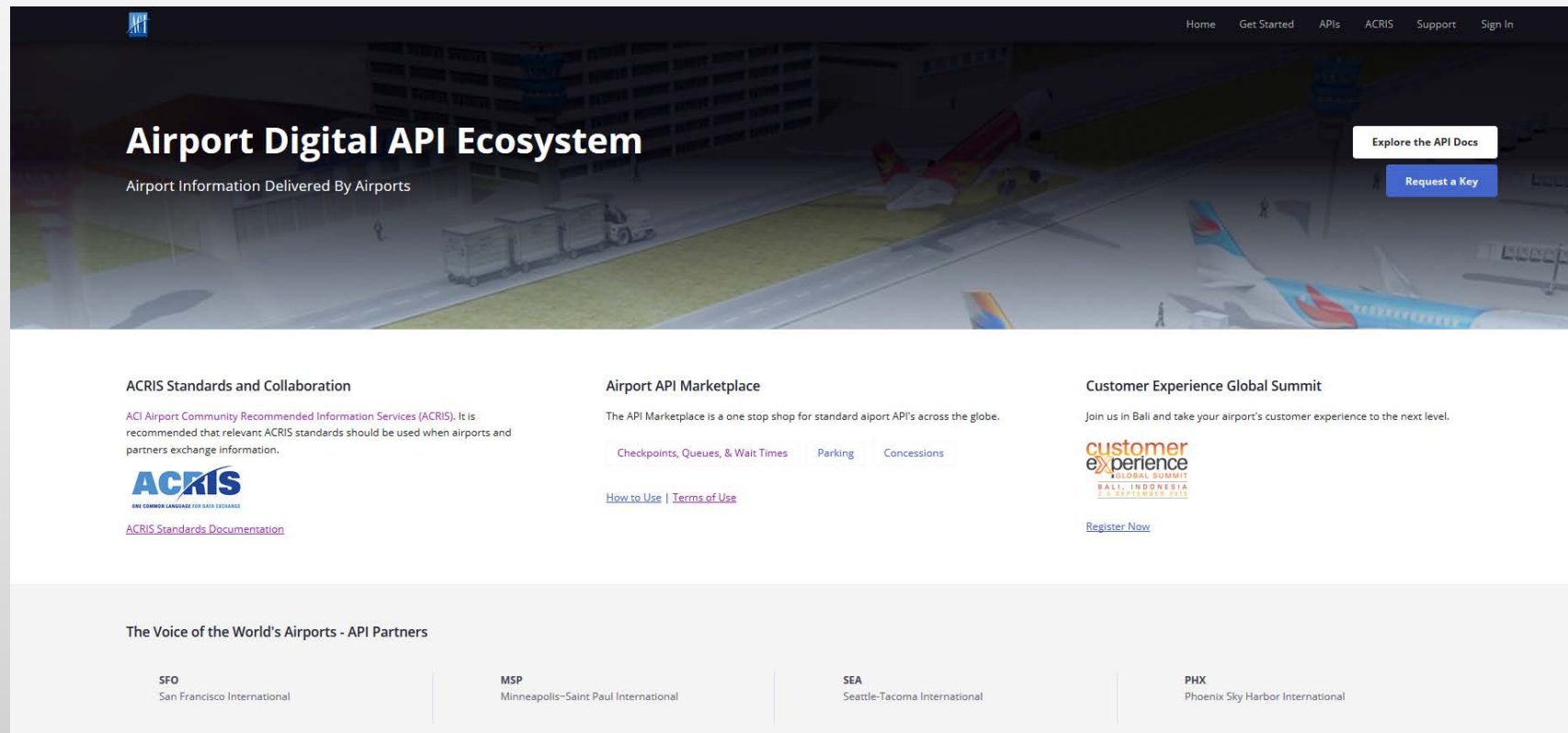


Screen 3




Accessing the API

Navigate to the API Platform



Airport Facility



HomeGet StartedAPIsACRISSupportraymondh@rockportsoft.com

ACI Checkpoints API

DOWNLOAD SPEC

ACI CHECKPOINTS API

Overview

PATHS

/airports/{Airport ICAO Code}/...

RESOURCES

AirportElevation

AirportElevationUnitOfMeasurement

AirportFacility

AirportLocation

CheckpointAreaLocation

CheckpointFacility

CheckpointFacilityOperatorParty

CheckpointFacilityType

AirportFacility


Information about an Airport as buildings or infrastructure used to provide services.

Schema

object ^

IATACode	string
Three character IATA code for the Airport.	
ICAOCode	string
Four character ICAO code for the Airport.	
Name	string
Common name of the Airport.	

Airport Facility -> Checkpoint Facility



[Home](#)
[Get Started](#)
[APIs](#)
[ACRIS](#)
[Support](#)
raymondh@rockportsoft.com

ACI Checkpoints API

DOWNLOAD SPEC

ACI CHECKPOINTS API

[Overview](#)

PATHS

/airports/{Airport ICAO Code}/...

RESOURCES

[AirportElevation](#)
[AirportElevationUnitOfMeasurement](#)
[AirportFacility](#)
[AirportLocation](#)
[CheckPointAreaLocation](#)
[CheckPointFacility](#)
[CheckPointFacilityOperatorParty](#)
[CheckPointFacilityType](#)
[ConcourseFacility](#)
[CurrentWaitTime](#)
[MeasurementDevice](#)
[MeasurementDeviceLocation](#)

CheckPointFacility


Information about a Checkpoint in an Airport used to provide services. A Checkpoint facility is any facility where customers and passengers turn up and need to be processed, serviced or screened before proceeding to the next stage of their journey.

Schema

object ^

CheckPointAreaLocation	object v	The geospatial or geopolitical location of a Checkpoint.
CheckPointFacilityOperatorParty	object v	Information that describes the Party responsible for the operation of a Checkpoint in an Airport.
CheckPointFacilityType	object v	Information that describes the classification for a Checkpoint in an Airport. Values are: Security Screening, Customs
ConcourseFacility	object v	Information about an Airport Concourse as buildings or infrastructure used to provide services.

Airport Facility -> Checkpoint Facility -> Passenger Queue


[Home](#)
[Get Started](#)
[APIs](#)
[ACRIS](#)
[Support](#)
raymondh@rockportsoft.com

ACI Checkpoints API
[DOWNLOAD SPEC](#)

- CheckpointAreaLocation
- CheckpointFacility**
- CheckpointFacilityOperatorParty
- CheckpointFacilityType
- ConcourseFacility
- CurrentWaitTime
- MeasurementDevice
- MeasurementDeviceLocation
- MeasurementTimePeriod
- OperationTimePeriod
- PassengerProcess
- PassengerProcessType
- PassengerQueue**
- QueueLocation
- QueueMeasurement
- QueueStatus
- QueueType
- TerminalAreaLocation
- TerminalFacility
- ZoneAreaLocation

PassengerQueue


Information about the Passenger Party Queue.

Schema

object ^

CheckpointFacility	object v
	Information about a Checkpoint in an Airport used to provide services. A Checkpoint facility is any facility where customers and passengers turn up and need to be processed, serviced or screened before proceeding to the next stage of their journey.
Identifier	string
Name	string
PassengerProcess	object v
	Information about the Passenger Party Process.
QueueLocation	object v
	The geospatial or geopolitical location of a Passenger Queue.

Airport Facility -> Checkpoint Facility -> Passenger Queue -> Queue Measurement



[Home](#)
[Get Started](#)
[APIs](#)
[ACRIS](#)
[Support](#)
raymondh@rockportsoft.com

ACI Checkpoints API

DOWNLOAD SPEC

CheckpointAreaLocation
CheckpointFacility
CheckpointFacilityOperatorParty
CheckpointFacilityType
ConcourseFacility
CurrentWaitTime
MeasurementDevice
MeasurementDeviceLocation
MeasurementTimePeriod
OperationTimePeriod
PassengerProcess
PassengerProcessType
PassengerQueue
QueueLocation
QueueMeasurement
QueueStatus
QueueType
TerminalAreaLocation
TerminalFacility
ZoneAreaLocation

QueueMeasurement

Information about the measurements (observations) of particular Measures of a Passenger Queue.

Schema

object

MeasurementDevice

object

Information about the device (equipment) used to take measurements (observations).

MeasurementTimePeriod

object

The time period over which a Measurement is taken.

Occupancy

number

The count of people in the queue. The unit of measure is number of people. This metric is updated every five minutes.

PassengerQueue

object

Information about the Passenger Party Queue.

Projected Wait Time

number

Example: GET Checkpoints for Sky Harbor

Home
Get Started
APIs
ACRIS
Support
raymondh@rockportsoft.com

ACI Checkpoints API

DOWNLOAD SPEC

ACI CHECKPOINTS API
Overview
PATHS
/airports/{Airport ICAO Code}/...
checkpoints GET
checkpoints/...
queues GET
RESOURCES
AirportElevation
AirportElevationUnitOfMeasurement
AirportFacility
AirportLocation
CheckpointAreaLocation
CheckpointFacility
CheckpointFacilityOperatorParty
CheckpointFacilityType
ConcourseFacility
CurrentWaitTime

GET /airports/{Airport ICAO Code}/checkpoints

HTTP request

```
https://amer-partner6-prod.apigee.net/aci/airports/{Airport ICAO Code}/checkpoints
```

Path Parameters

Airport ICAO Code (required)	string	Four-letter Airport ICAO Code
------------------------------	--------	-------------------------------

Query Parameters

page	integer (int32)	page
size	integer (int32)	size

Header Parameters

API-KEY (required)	string	Your API key (identifies your approved app)
--------------------	--------	---

Try this API

Request parameters
API-KEY
wMdQ2cEtpLLa0C6DW9wliQMjarPaQjkP

Airport ICAO Code
KPHX

page
integer

size
integer

EXECUTE

Checkpoints Response – Sky Harbor

[Home](#)
[Get Started](#)
[APIs](#)
[ACRIS](#)
[Support](#)
[raymondh@rockportsoft.com](#)

ACI Checkpoints API
[DOWNLOAD SPEC](#)

ACI CHECKPOINTS API
[Overview](#)
PATHS
[/airports/{Airport ICAO Code}/...](#)
 [checkpoints](#) GET
 [queues](#) GET
RESOURCES
[AirportElevation](#)
[AirportElevationUnitOfMeasurement](#)
[AirportFacility](#)
[AirportLocation](#)
[CheckPointAreaLocation](#)
[CheckPointFacility](#)
[CheckPointFacilityOperatorParty](#)
[CheckPointFacilityType](#)
[ConcourseFacility](#)
[CurrentWaitTime](#)

GET /airports/{Airport ICAO Code}/checkpoints

HTTP request

```
https://amer-partner6-prod.apigee.net/aci/airports/{Airport ICAO Code}/checkpoints
```

Path Parameters

Airport ICAO Code (required)	string	Four-letter Airport ICAO Code
------------------------------	--------	-------------------------------

Query Parameters

page	integer (int32)	page
size	integer (int32)	size

Header Parameters

API-KEY (required)	string	Your API key (identifies your approved app)
--------------------	--------	---


integer

EXECUTE

200 OK

```
{
  "CheckPointFacility": [
    {
      "Description": "Gates 1 - 15",
      "Identifier": "9e3ce61f-cfce-4e17-99de-edaaebe4a8f1",
      "Name": "T2 General",
      "CheckPointAreaLocation": {
        "Latitude": 33.4359,
        "Longitude": -112.0138,
        "Name": "Terminal 2",
        "SRID": 4326,
        "AirportElevation": {
          "Name": "Sky Harbor International Airport",
          "Value": 345.6432,
          "AirportElevationUnitOfMeasurement": {
            "Name": "Meters"
          }
        }
      }
    }
  ]
}
```

Example: GET Measurements for Minneapolis/St Paul



[Home](#)
[Get Started](#)
[APIs](#)
[ACRIS](#)
[Support](#)
raymondh@rockportsoft.com

ACI Checkpoints API
[DOWNLOAD SPEC](#)

ACI CHECKPOINTS API

Overview

PATHS

- ▼ /airports/{Airport ICAO Code}/...
 - checkpoints [GET](#)
- ▼ checkpoints/...
 - {Checkpoint UUID} [GET](#)
- ▼ {Checkpoint UUID}/...
 - measurements [GET](#)
 - queues [GET](#)
- ▼ queues/...
 - {Queue UUID} [GET](#)
- ▼ {Queue UUID}/...
 - measurements [GET](#)
 - measurements [PUT](#)
- queues [GET](#)

RESOURCES

AirportElevation

GET /airports/{Airport ICAO Code}/checkpoints/{Checkpoint UUID}/measurements

HTTP request

```
https://amer-partner6-prod.apigee.net/aci/airports/{Airport ICAO Code}/checkpoints/{Checkpoint UUID}/measurements
```

Path Parameters

Airport ICAO Code (required)	string	Four-letter Airport ICAO Code
Checkpoint UUID (required)	string	32 Hexadecimal Digit Checkpoint UUID, in RFC 4122 defined format

Query Parameters

page	integer (int32)	page
size	integer (int32)	size

Try this API

Request parameters

API-KEY

Airport ICAO Code

Checkpoint UUID

page

size

[EXECUTE](#)

Measurements Response – Minneapolis/St Paul

Home
Get Started
APIs
ACRIS
Support
raymondh@rockportsoft.com

ACI Checkpoints API

DOWNLOAD SPEC

ACI CHECKPOINTS API
Overview
PATHS
/airports/{Airport ICAO Code}/...
checkpoints GET
checkpoints/{Checkpoint UUID}/...
{Checkpoint UUID} GET
{Checkpoint UUID}/...
measurements GET
queues GET
queues/{Queue UUID}/...
{Queue UUID} GET
{Queue UUID}/...
measurements GET
measurements PUT
queues GET
RESOURCES
AirportElevation

GET /airports/{Airport ICAO Code}/checkpoints/{Checkpoint UUID}/measurements

HTTP request

```
https://amer-partner6-prod.apigee.net/aci/airports/{Airport ICAO Code}/checkpoints/{Checkpoint UUID}/measurements
```

Path Parameters

Airport ICAO Code (required)	string	Four-letter Airport ICAO Code
Checkpoint UUID (required)	string	32 Hexadecimal Digit Checkpoint UUID, in RFC 4122 defined format

Query Parameters

page	integer (int32)	page
size	integer (int32)	size

integer
EXECUTE

200 OK

```
{
  "QueueMeasurement": [
    {
      "Occupancy": 9,
      "ProjectedWaitTime": 12,
      "Throughput": 60,
      "WaitTime": 15,
      "MeasurementDevice": {
        "Name": "Camera",
        "MeasurementDeviceLocation": {
          "Name": "T1CPNorth"
        }
      },
      "MeasurementTimePeriod": {
        "EndTime": "< 1 min"
      },
      "PassengerQueue": {
        "Identifier": "f1d6b126-f11f-4b0a-ae69-9be1581dac6f",
        "Name": "Economy",

```


Status

- This is a global initiative
- The platform is live
- Further participants are welcome

Getting Started

- Navigate to the API Platform
 - <https://amer-partner6-aci.apigee.io>
- Request access
- Generate an API key
- Download the API spec
- Start making API calls

