

Cisco CCNA (200-301)

Interpreting JSON encoded data

Description: JSON data format is very popular in network automation because of readability for non-coders. You will learn to identify this format.

- What is JSON?
 - Data format: e.g. XML, JSON, YAML (all based on audience)
 - `show ip interface brief` (Human audience, API readable)
 - Structured Data (API audience, human readable)
 - JavaScript Object Notation
 - Subset of JavaScript Programming Language
 - used for transferring data between server and client
 - first format that allowed servers and browsers to communicate without a browser plug-in like Flash or Java.
- Why use it?
 - Features of JSON:
 - It is light-weight
 - It is language independent
 - Easy to read and write
 - Text based, human readable data exchange format
 - no extra software required to read it
 - Javascript programs convert JSON into Javascript Objects
- How is it structured?
 - Text Editor
 - Value Pair

```
Value Pair
{"firstName": "ronnie",
 "lastName": "wong",
 "email": "ronnie@itpro.tv"}
```

```

+ Object:

+ * JSON Object Rules
  * Objects use `{}`
  * Value pairs use `:`
  * between value pairs use `,`
  * Values identified by `"`
  * e.g.,
  ...
  {
    "firstName": "Ronnie",
    "lastName": "Wong",
    "email": "ronnie@itpro.tv"
  }
  ...

+ Array

+ JSON Array Rules
  + Arrays use `[ ]`
  + Objects use `,`
  + Value pairs use `:`
  + Values `""`
  + e.g.,
  ...
  [
    {
      "firstName": "Ronnie",
      "lastName": "Wong",
      "email": "ronnie@itpro.tv"
    },
    {
      "firstName": "Lauren",
      "lastName": "Deal",
      "email": "lauren@itpro.tv"
    }
  ]
  ...

```

- Helpful Links

- JSON Parser: <http://json.parser.online.fr/> [do not put sensitive production code in here]
- JSON Evaluator: <https://jsonlint.com/>

Endnotes, External and Etc.

- 6.7 Interpret JSON encoded data