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Integration 103: Accessing The Web Services API

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Jason Petty

- Expert Services for 2 years
  - My Focus is integrations
- What I do for fun
  - Model Airplanes (Building and Flying)
  - Geocaching
  - Guitar
  - Scouting
  - Golfing

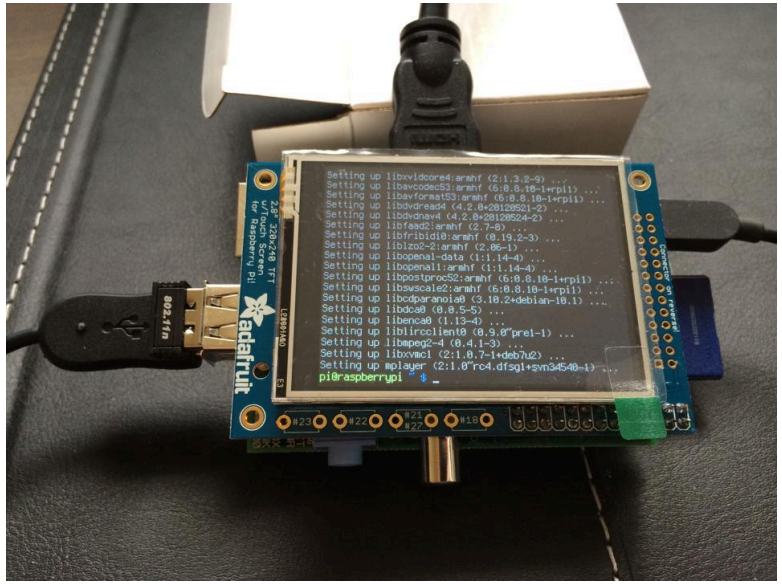


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Josh Nerius

- Expert Services
  - Focused on integrations
  - Based in Chicago area
- What I do for fun
  - Board games
  - Tinkering with Raspberry Pi
  - Snow skiing
  - BLACKHAWKS





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Lab Objectives

1. Learn the basic OOB web services that are available on every ServiceNow table
2. Learn how and when to leverage Web Service Import Sets
3. Learn about some of the many other web services available in a ServiceNow instance

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Direct SOAP Web Services

- Built into the architecture
- Every table (OOB or Custom)
  - <tablename>.do?WSDL
  - <tablename>.do?SOAP
- CRUD Operations

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CRUD Operations

CREATE

- Insert
  - All fields are optional
  - Every non-system field on the table is available
- Update
  - Requires “sys_id” of the record to update
  - All other fields are optional
  - All non-system field on the table is available

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CRUD Operations

READ

- GetKeys
  - Returns sys_id's of records matching the query
  - All fields are optional
  - System and non-system fields are available
  - Special Fields
    - __use_view
    - __encoded_query
    - __limit
    - __first_row
    - __last_row

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CRUD Operations

READ

- GetRecords
  - Returns all data of records matching the query
  - All fields are optional
  - System, non-system, and special fields are available
    - __use_view
    - __encoded_query
    - __limit
    - __first_row
    - __last_row
    - __order_by
    - __order_by_desc
    - __exclude_columns

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CRUD Operations

READ

- Get
  - Requires a sys_id
  - Returns all data of the single record

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CRUD Operations

UPDATE

- Update
  - Requires a sys_id
  - All other fields optional
  - Any set field element will set the value in the record
  - Returns sys_id of the record that was modified

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CRUD Operations

DELETE

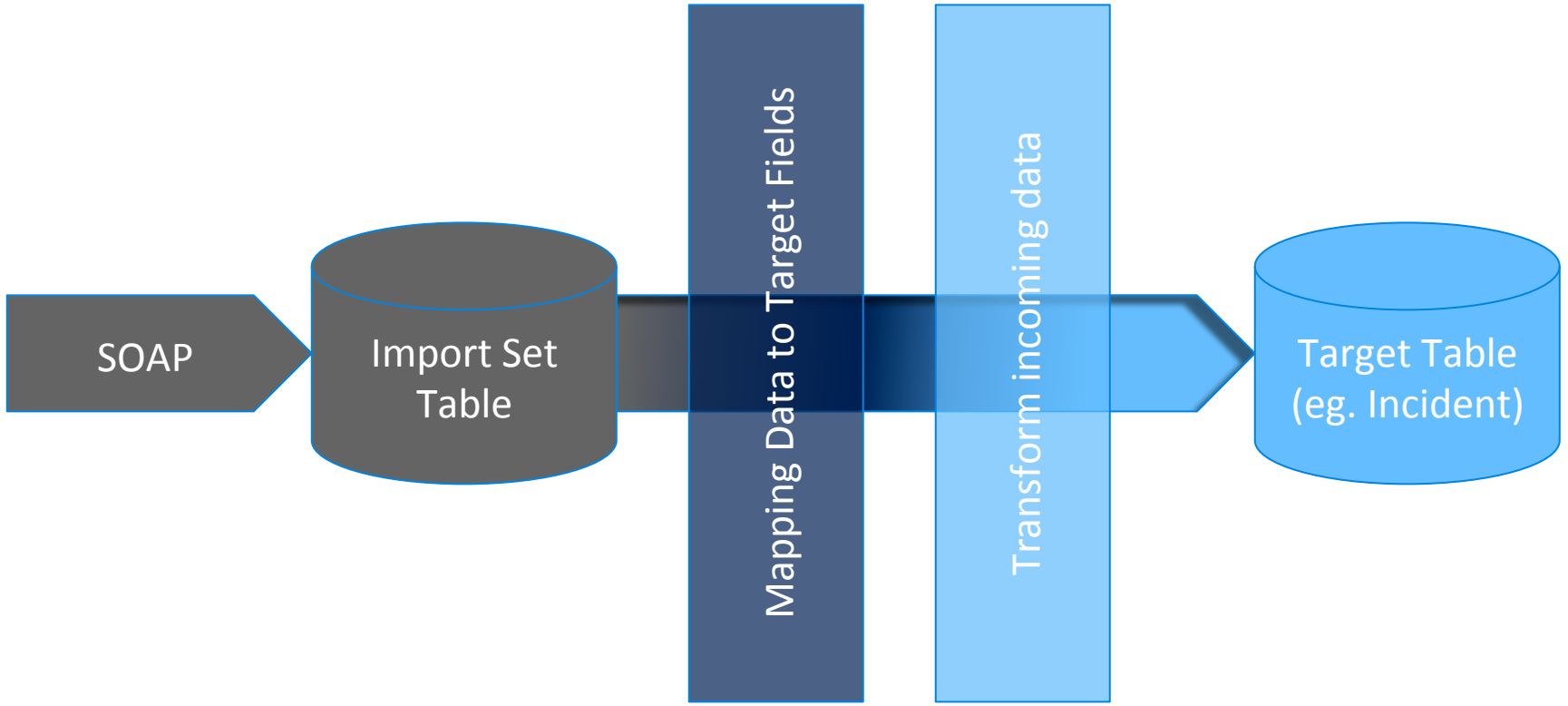
- DeleteRecord
  - Requires a sys_id of record you wish to delete
  - Returns the count of the records that were deleted
    - 0 or 1 in this case
- DeleteMultiple
  - All fields optional
  - System and non-system fields available in query
  - Returns the count of the records that were deleted

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Exercise 1

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SOAP Web Service Import Set Flow



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Web Service Import Sets

- Fancy UI form for Import Sets
  - They really are truly the very same exact thing!
- Enable scripting and mapping around incoming data
- Can view raw data that came in
- Can decide whether or not to accept the data
- Can blank out fields
- Automatically determine if CREATE or UPDATE

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Web Service Import Sets

- Transform results returned to third party
  - Import action that took place (eg. Insert)
  - Table where the record ended up
  - Sys_id of the new record
  - Display value of the new record
  - Can send additional data if desired
- Recommend using Correlation ID & Display

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Operations Available

- Really just another table
- All direct web service functions available
- ONLY USE “INSERT”
  - 99.99999% of the time

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Exercise 2

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Miscellaneous Web Services

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JSON Web Service

- Commonly used as ServiceNow's REST API
- JSONv2 Processor is there by default
- More info in the Integration 102: Discover the Power of REST lab

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CSV Web Service

- URL Parameter: CSV
- Formatted Data
- Large data exports
- Utilize views to control exported fields
- No sys_id or sorting

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XML Web Service

- URL Parameter: XML
- Raw data
- Semi-large exports
- Paging capabilities
- Can show Display Values (optional)

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Other Data Export Web Services

- Excel Web Service
- PDF Web Service
- RSS Web Service

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AttachmentCreator Web Service

- Third parties can send files via SOAP
- We attach them to a specified record
- Insert only
- Wiki Search String: AttachmentCreator

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Exercise 3

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Key Takeaways

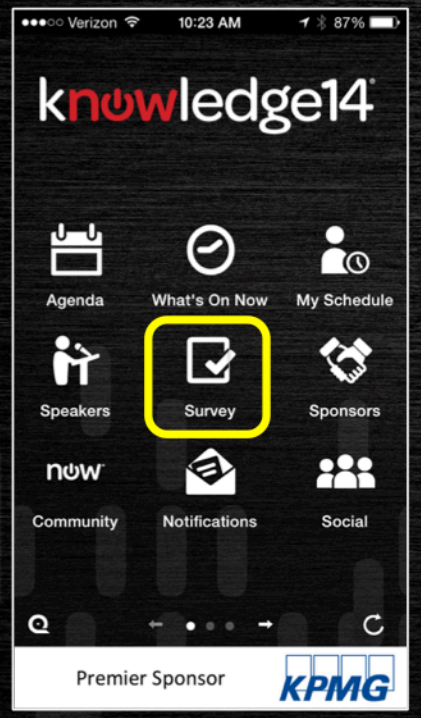
1. Every table (customer or OOB) comes with web services that allow for all CRUD operations

2. Web Service Import Sets typically used to insert new, or modify existing, records via a Web Service call

3. Data is accessible in many different formats using various processor-based web services

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