



Web Services for “My Account” functions

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Virgo: the UVA Library discovery platform

- “VIRGO” originally was the branded name for Sirsi’s “Webcat” OPAC
- The name was retained when we built our own discovery system
 - Approximately 2005
 - Built on Blacklight
 - Many search sources
- Sirsi source came from catalogdump: MARC, callnum, item data
- Nightly update
- Used direct Oracle query for real-time availability (status of items)



A new version of Virgo

- “Version 4” is a total re-write
 - 2019
 - Ruby
 - Locally written API based back-end
 - Many search sources
 - For Symphony catalog, use catalogdump to provide MARC, callnum, item data



Symphony SaaS migration

- In 2018, before Virgo 4 work
- When local hosted, Virgo made direct connection to Symphony Oracle tables for real-time availability
- Not allowed with the Oracle license offered to SaaS customers
- So Symphony Web Services instead!
 - Needed to make the SWS methods work before SaaS migration



About the SWS requests...

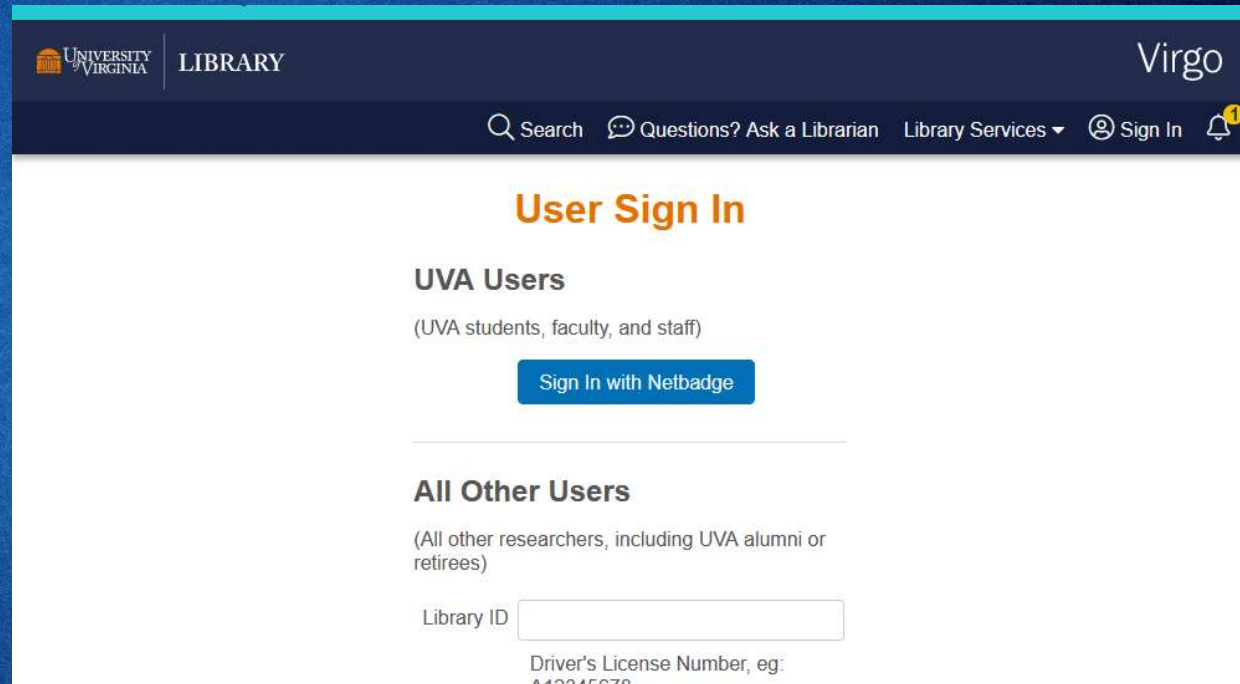
- Question:
 - Which SWS style?
- Answer:
 - ROA, not RESTful
- First generation Symphony Web Services were RESTful
- One day support for RESTful style will end
- So we knew we wanted to use the newer style: ROA
 - ROA = resource-oriented architecture



Initial sign-in

UVA users use UVA's SSO "Netbadge".

Others use Library ID and Password stored in Symphony.



The screenshot shows the top navigation bar of the University of Virginia Library website. On the left, it features the University of Virginia logo and the word "LIBRARY". On the right, it says "Virgo". Below the navigation bar, there are links for "Search", "Questions? Ask a Librarian", "Library Services", "Sign In", and a notification bell icon with a "1" badge. The main content area is titled "User Sign In" in orange. Underneath, there are two sections: "UVA Users" (for students, faculty, and staff) with a "Sign In with Netbadge" button, and "All Other Users" (for other researchers, alumni, or retirees) with a "Library ID" input field and a "Driver's License Number, eg: A12345678" input field.

Initial sign-in: the SWS request

- We use UVA's single sign-on platform for students, faculty, staff
- For community (non-UVA) patrons, we use SWS

URI =

`/user/patron/authenticate`

Request payload =

```
{"alternateID": "RNE123", "password": "<* REDACTED *>"}
```



"My Information"

- Name & address from SWS for community users; from NetBadge for UVA users
- Password change (PIN in Symphony) for community borrowers only
 - UVA users change password in UVA's "Netbadge system"
- Bills on main My Information page.
- Different advice on paying bills for UVA vs. community users

UNIVERSITY OF VIRGINIA LIBRARY Virgo

Search Questions? Ask a Librarian Library Services Signed in as rne123

My Account

[My Information](#) | [Checkouts](#) | [Digital Deliveries](#) | [Requests](#) | [Bookmarks](#) | [Searches](#) | [Preferences](#) | [Sign Out](#)

Enright, Reed (rne123)
- Faculty

LEO Delivery Location: None specified
Please contact 4leo@virginia.edu to set up LEO Delivery.

[Change Password](#)

Billing

Your account currently has an outstanding balance. Click the totals below to see more details.

Total Bills: \$85.00 +

Payment Information

All fines must be paid at Clemons Library using cash for the exact amount or personal check. We do not take credit cards or any online payments at this time.

Clemons Library
164 McCormick Road
Charlottesville, VA
22904

My Information: the SWS request

```
/user/patron/search?  
q=ALT_ID:$uva_computing_service_id  
&includeFields=barcode,  
  primaryAddress{emailAddress},  
  displayName,  
  profile{description},  
  patronStatusInfo{standing,amountOwed},  
  library
```



Getting outstanding bills: SWS request

```
/rest/patron/lookupPatronInfo
```

```
?alternateID=$uva_computing_service_id
```

```
&json=true
```

```
&includeFeeInfo=UNPAID_FEES
```

This is actually a RESTful request. Will change to ROA one day ... soonish?



Checkouts

- Sort options
- Overdues and recalled checkouts are highlighted
- Renew one or renew all ("Renew All" button at top of list)
- Failed renewal displays error from SWS response

The screenshot shows the 'My Account' page for the University of Virginia Library. The page title is 'UVA Checkouts (5)'. A 'Sort by' dropdown menu is open, showing options: 'Overdue / Recalled', 'Author (Ascending)', 'Author (Descending)', 'Title (Ascending)', 'Title (Descending)', 'Due Date (Ascending)', 'Due Date (Descending)', and 'Overdue / Recalled'. The 'Overdue / Recalled' option is selected. A 'Renew All' button is visible at the top right of the list. Below the list, there is a warning icon and the text 'One month after November'. The details for a checkout are shown: 'Author: Cember, Dee', 'Call number: ZZ311 .M36 2020', and 'Due date: 2021-08-19'. A yellow highlight is under the text 'Recalled 2021-07-15'. A 'Renew' button is at the bottom right of the details. Orange arrows point from the list items to the 'Renew All' button and from the 'Recalled' text to the 'Renew' button.

Getting checkouts: the SWS request

```
/user/patron/search?
```

```
q=ALT_ID:$uva_computing_service_id
```

```
&json=true
```

```
&includeFields=circRecordList{dueDate,
```

```
overdue,estimatedOverdueAmount,recalledDate,
```

```
renewalDate,library{description},
```

```
item{barcode,call{dispCallNumber},
```

```
bib{key,author,title}}}
```



Renewals

For each renewal:

```
/circulation/circRecord/renew
```

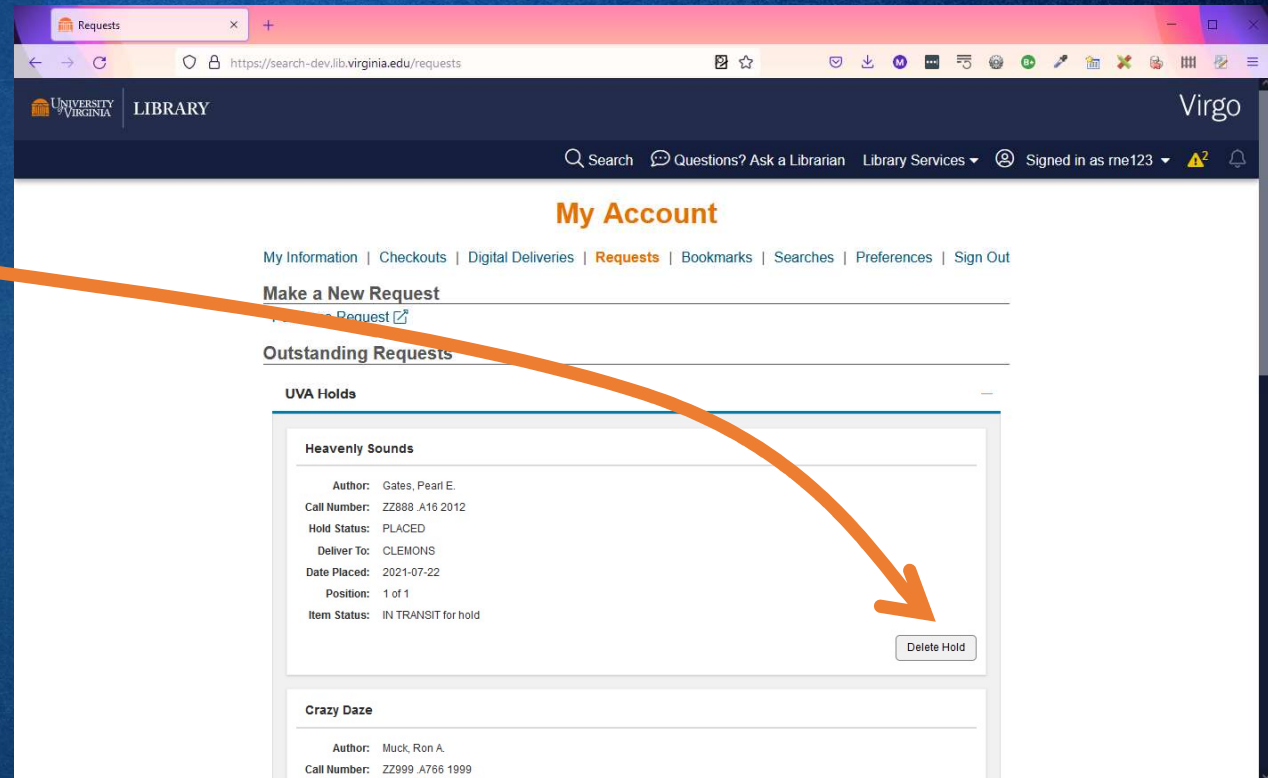
With this message body:

```
{ "itemBarcode": "$item_barcode" }
```



Holds

- “Requests” tab shows Symphony holds
- List and delete holds
- Below UVA Holds are “ILL requests”
 - Virgo also uses ILLiad API!
 - Virgo also uses Aeon API (Special Collections requests)



Holdings: the SWS request

```
/user/patron/search?
```

```
q=ALT_ID:$uva_computing_service_id
```

```
&json=true
```

```
&includeFields=holdRecordList
```

```
{*,bib{title,author},
```

```
item{barcode,currentLocation,library,
```

```
transit{transitReason},
```

```
call{dispCallNumber}}}
```



Delete hold

- A simple ROA request:

`/circulation/holdRecord/key/#{hold_key}`



In theory, getting patron info could all be done in one SWS request:

- Get all components in one SWS request:
 - User information (name, address, user library, user profile)
 - List of checkouts, list of outstanding bills, list of active holds
- I think it would be more efficient
- Currently discussing with the UVA Library “Virgo Team”




```
/user/patron/search?
```

```
q=ALT_ID:$uva_computing_service_id
```

```
&json=true
```

```
&includeFields=
```

Initial user info

```
barcode,primaryAddress{emailAddress},  
displayName,profile{description},  
patronStatusInfo{standing,amountOwed},library,
```

Checkouts

```
circRecordList{dueDate,  
overdue,estimatedOverdueAmount,recalledDate,  
renewalDate,library{description},  
item{barcode,call{dispCallNumber},  
bib{key,author,title}}},
```

Holds

```
holdRecordList  
{pickupLibrary,placedDate,status,  
bib{title,author},  
item{barcode,currentLocation,library,transit  
{transitReason,transitDate,destinationLibrary,  
holdRecord},  
call{dispCallNumber}}},
```

Outstanding bills

```
blockList{createDate,amount,owed,  
block,library,billDate,  
callNumber,title}
```

Academic SIG
A COSUGI Special Interest Group



In conclusion

- Learning to use SWS has been challenging (for me) but rewarding
- I am slowly gaining facility with SWS

