

HEART use case involving remote patient monitoring device

Sharing pulse oximeter data in a consented way with third parties

The following use case is illustrated with screenshots from a demonstration that was implemented using the ForgeRock Identity Platform, Qualcomm Life's 2Net Services, and a Nonin 2320 pulse oximeter device.

The screenshot shows the ForgeRock Admin console interface. The top navigation bar includes 'OpenIDM', 'ForgeRock Access Management', and 'Welcome to the ACME Medical'. The main content area is titled '2NET DEVICE' and 'Nonin 3230 - Lynda Wallace'. Below this, there are tabs for 'Details' and 'DeviceReadings'. The 'Details' tab is active, showing a form with the following fields:

- Name: Nonin 3230 - Lynda Wallace
- Serial Number: 502419786
- MAC Address: 00:1C:05:FF:85:A8
- Virtual Hub ID: FORGE001V0009765
- Owner: Lynda, Wallace, lwallace (with 'Update Owner' and 'Remove Owner' buttons)
- Active Status: true
- Device Model: Nonin 3230
- UMA Resource ID: e6716120-b22a-4b59-9c17-b95a44c4ba2f0
- UMA Resource Owner Credentials: llohcbe2107

1. Dr. Lopez prescribes a pulse oximeter to Lynda Wallace; an administrator provisions it electronically
2. When Lynda first logs in to the ACME Medical patient portal, her device is inactive

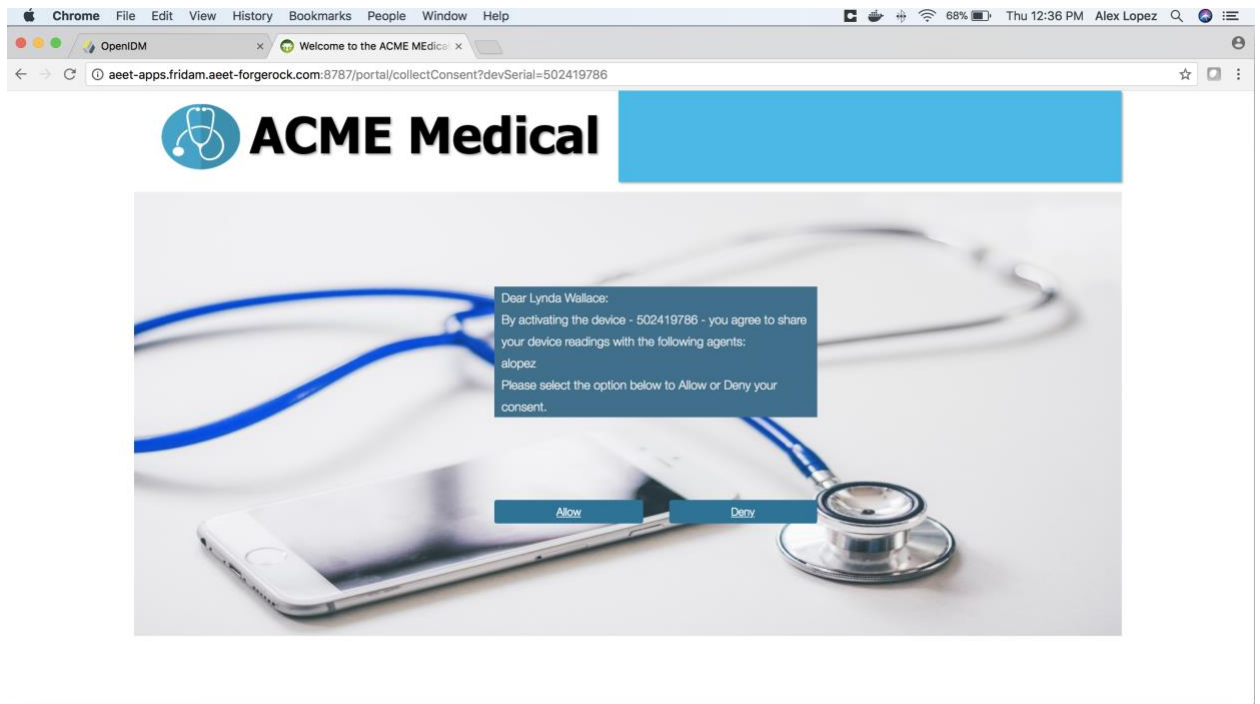
The screenshot shows the ACME Medical patient portal. The top navigation bar includes 'ACME Medical' and a 'Logout' button. The main content area is titled 'User Information' and 'Device Information'. The 'User Information' section displays:

- User Name: lwallace
- First Name: Lynda
- Last Name: Wallace
- E-Mail: lynda.wallace@forgerock.com
- Contact Phone: (empty)

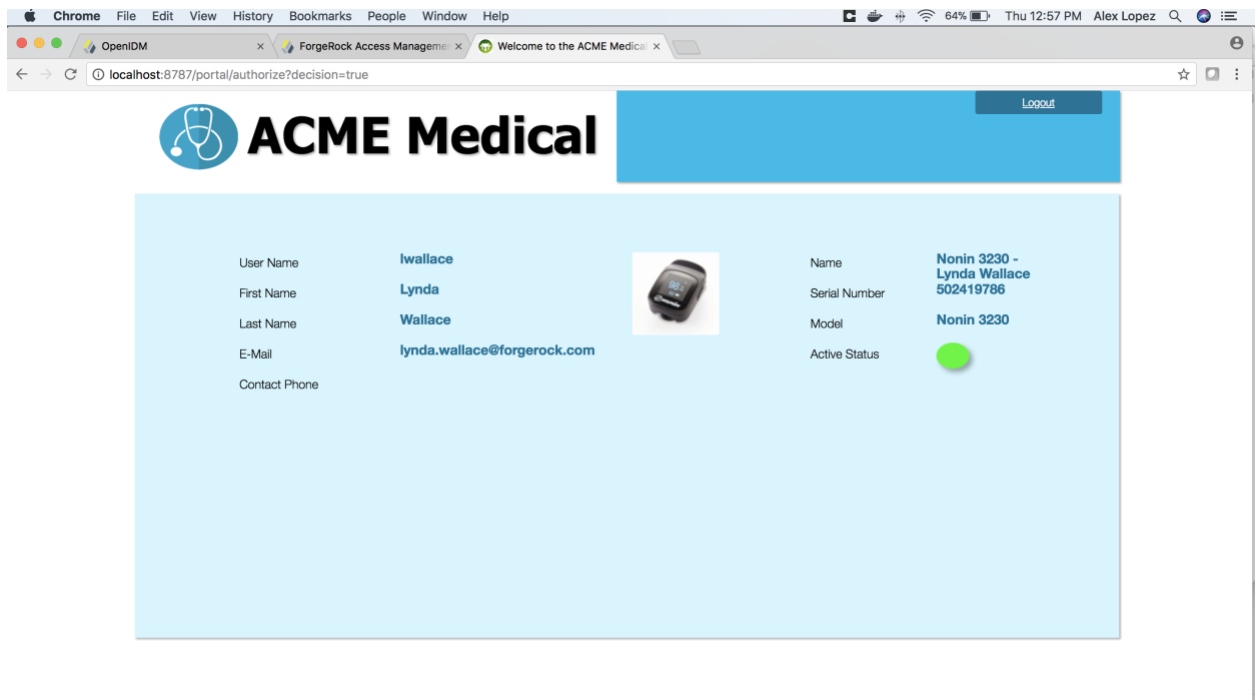
The 'Device Information' section displays:

- Name: Nonin 3230 - Lynda Wallace
- Serial Number: 502419786
- Model: Nonin 3230
- Active Status: (red circle icon)

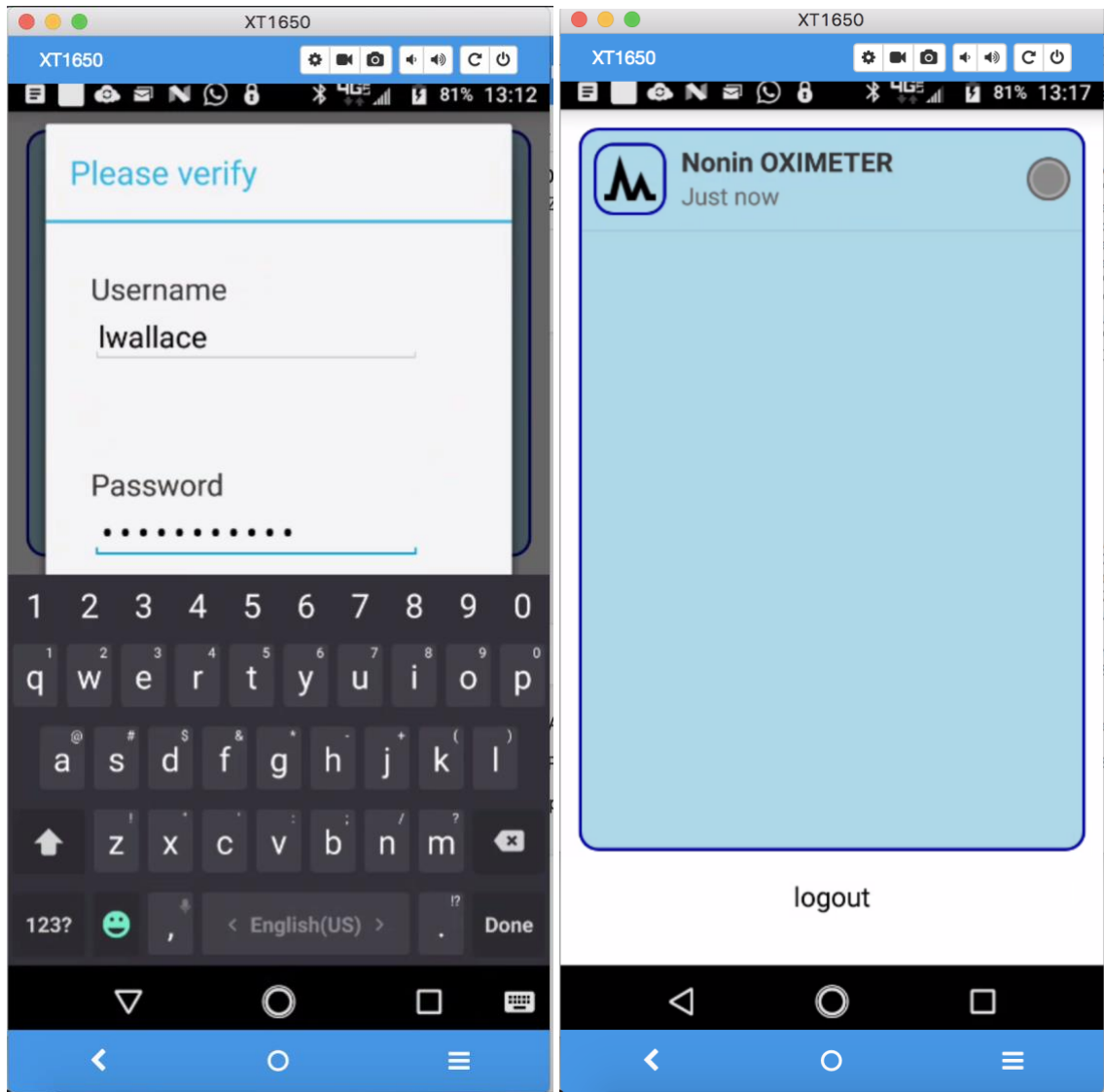
- After she clicks on the red light, she is asked to consent to device activation and data reading by Dr. Lopez



- After she consents, her device now shows as active, meaning a policy is lodged to allow data sharing and her smartphone is prepared to be a hub

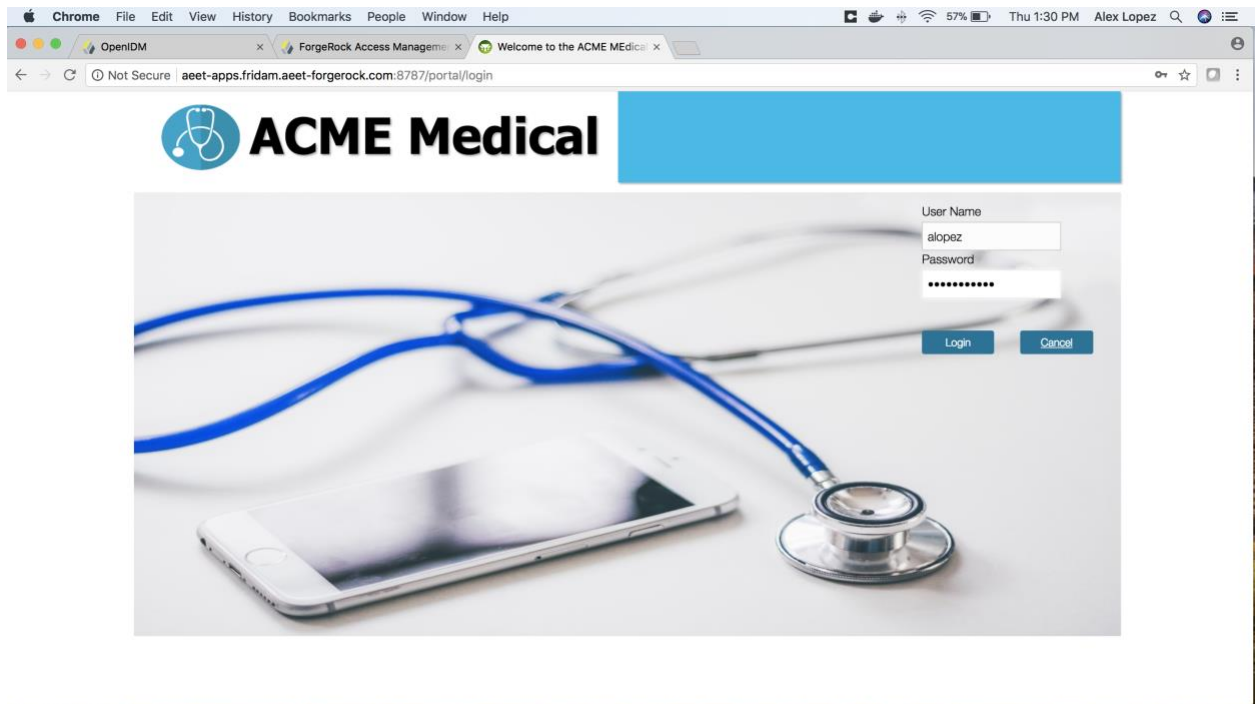


5. After pairing the oximeter device to her phone, she logs in to her ACME Medical mobile app using the same identity credentials as on the portal



6. The mobile app securely mediates an oximeter data reading, and shows that the reading was successful

7. Dr. Lopez logs in to the ACME Medical portal



8. Dr. Lopez's view once authenticated is this home screen




9. In his My Patients view, Dr. Lopez sees a listing with Lynda Wallace and others

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OpenIDM ForgeRock Access Management Welcome to the ACME Medical

aeet-apps.fridam.aet-forgerock.com:8787/portal/myPatients



ACME Medical

[Logout](#)

User Name	First Name	Last Name	E-Mail	Contact Phone
ahall	Andrew	Hall	andy.hall@forgerock.com	447768698961
bgoodman	Ben	Goodman	ben.goodman@forgerock.com	917 951-1809
jane.doe	Jane	Doe	alex.lopez@forgerock.com	1234567890
wallace	Lynda	Wallace	lynda.wallace@forgerock.com	
dmarino	David	Marino	david.marino@forgerock.com	307-782-1902


Button 1
Button 2
Button 3

10. Dr. Lopez selects Lynda Wallace as the patient whose data he wants to view

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ForgeRock Logo - Google Search Welcome to the ACME Medical

aeet-apps.fridam.aet-forgerock.com:8787/portal/patientData/eba2e2d9-9bbe-44d1-8901-f517653a93a4



ACME Medical

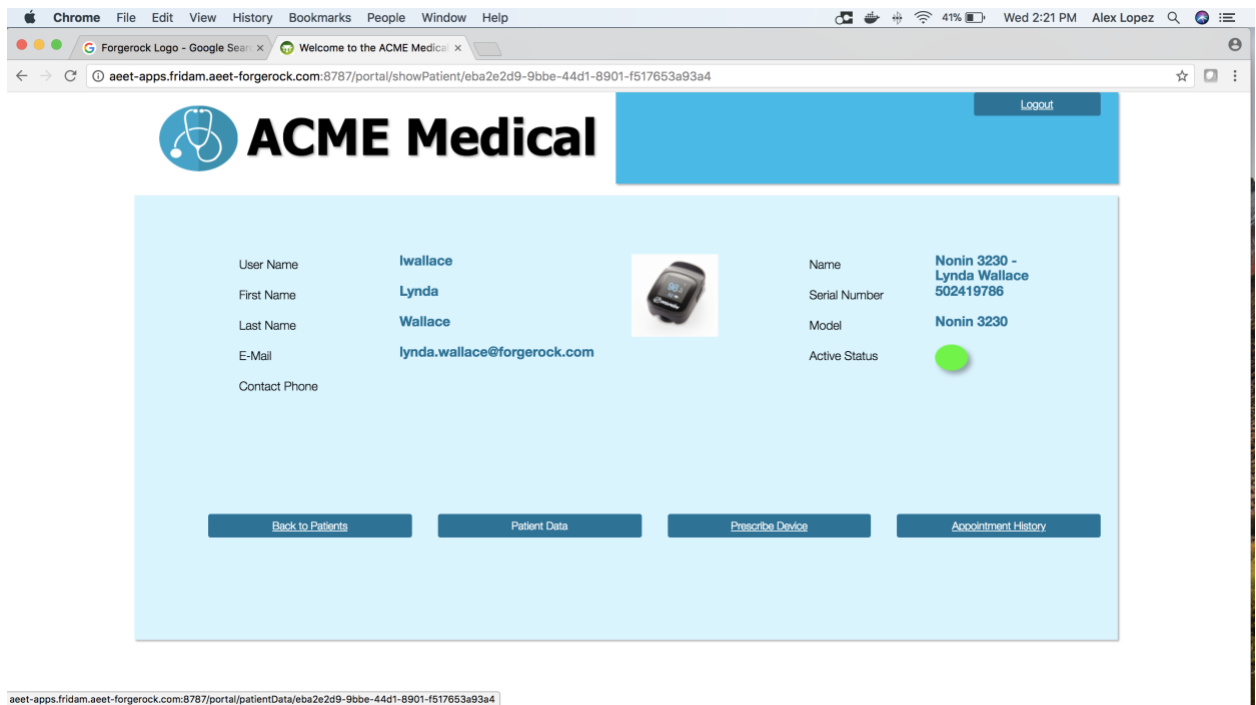
[Logout](#)

Name	Serial Number	Model	Active Status
Nonin 3230 - Lynda Wallace	502419786	Nonin 3230	True

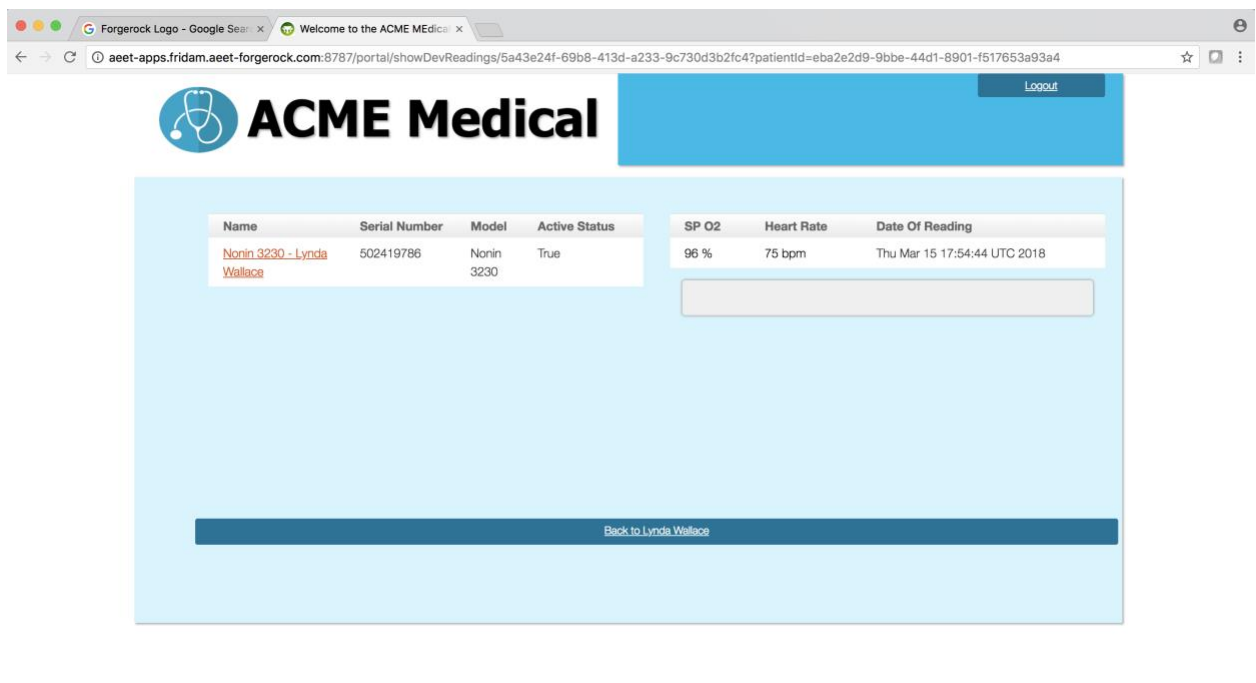
Select a device to Display its Readings.

Back to Lynda Wallace

11. He chooses Lynda's device profile



12. Because of the policy she consented to activate, Dr. Lopez is able to proceed to view her data



Some background: HEART profiles the User-Managed Access (UMA) 2.0 grant of OAuth, which: a) gives Dr. Lopez's client app a permission ticket on first resource attempt; b) requires an ID token for proof; c) issues an access token; and d) requires it for data access.