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Provider Information as a Component of Trust
DHV, California's Service Registry, and PULSE

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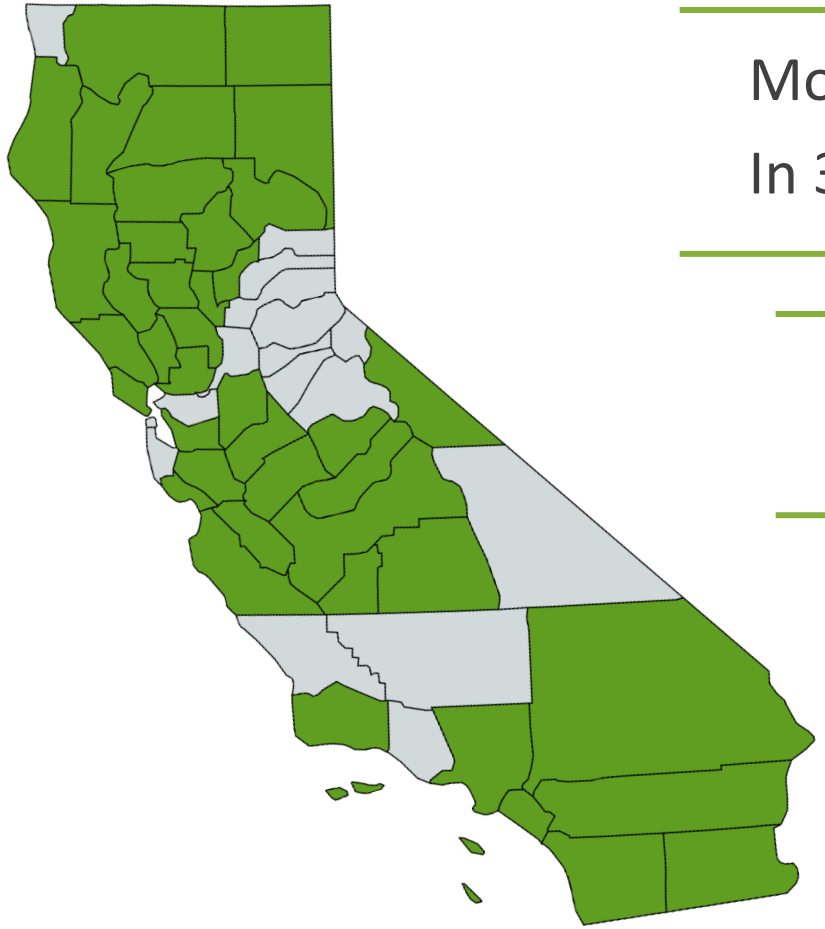
What is HIE in California?



More than 15 community HIEs

In 39 of 58 counties statewide

Plus large hospital systems and state agencies

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Problem…

- How do you coordinate care across so many disparate stakeholders?
- How do you remain agile?
- How do you remain flexible?

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What is CTEN?

California Trusted Exchange Network

Purpose

Voluntary self-governance of statewide health information exchange among HIOs, health systems, state agencies

Features

- Technically lightweight
- Enabling rather than prescriptive
- Transport and content agnostic

Find out more about the CTEN at
http://www.ca-hie.org/initiatives/cten/

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Problem…

- How do you establish trust in a lightweight manner?
- How do you identify network participants in a computable fashion?

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What is the Service Registry?

- An authoritative listing of CTEN Participants
- A directory of their participating organizations

Accessible via an open FHIR API

HL7 FHIR

- Based on last candidate to STU3
- Includes
  - Organizations to describe CTEN Participants and their participants
  - Endpoints to describe the means by which to connect to CTEN Participants

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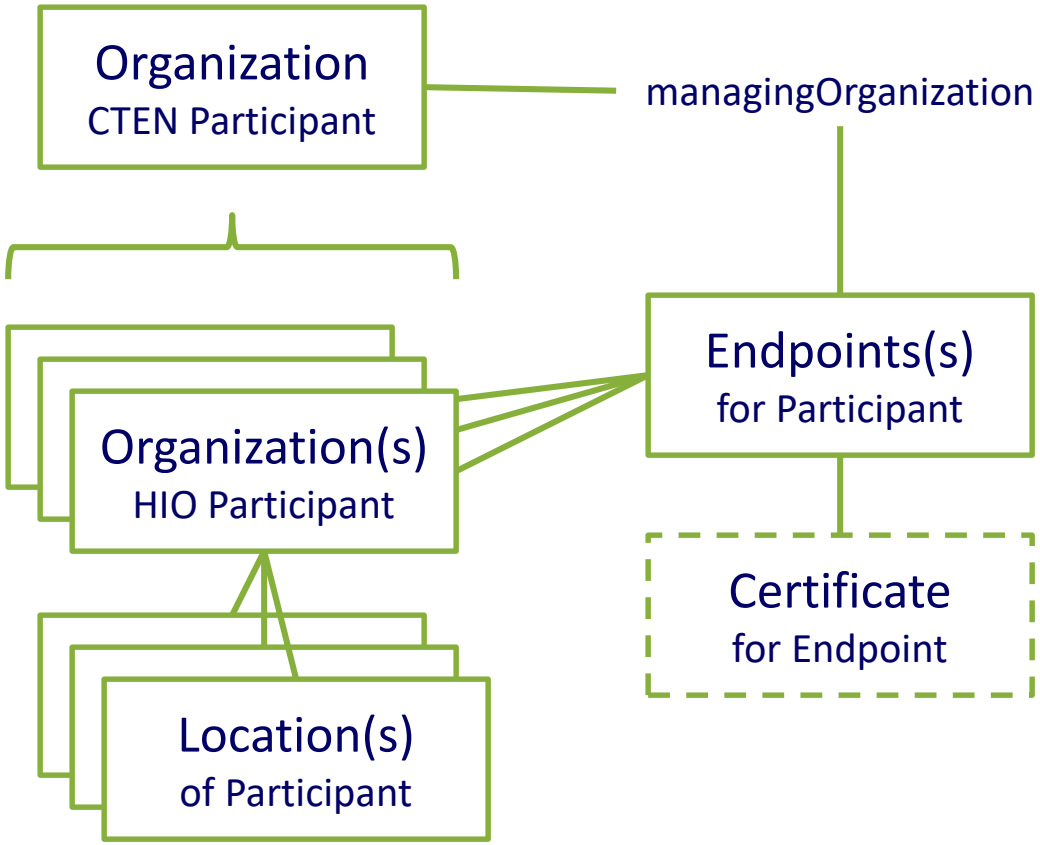
What is the Service Registry?



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What is the Service Registry?

https://cten.ca-hie.net/fhir/Endpoint?_count=100&status=active&_include=Endpoint:managingOrganization


```
{
  "type" : "searchset",
  "total" : 27,
  "resourceType" : "Bundle",
  "link" : [ {
    "relation" : "self",
    "url" : "https://cten.ca-hie.net/fhir/Endpoint?status=active&_count=100"
  }, {
    "relation" : "last",
    "url" : "https://cten.ca-hie.net/fhir/Endpoint?status=active&_page=1&_count=100"
  } ],
  "entry" : [ {
    "resource" : {
      "status" : "active",
      "meta" : {
        "lastUpdated" : "2018-09-17T11:33:51.000-0700",
        "versionId" : "1315372092306128551"
      },
      "name" : "OCPRHIO / SCHIO Patient Discovery",
      "address" : "https://ocprhio.prod.myhie.com:9070/Gateway/PatientDiscovery/1_0/NhinService/NhinPatientDiscovery",
      "managingOrganization" : {
        "display" : "OCPRHIO and Santa Cruz HIO",
        "reference" : "Organization/19"
      },
      "connectionType" : {
        "system" : "http://ca-hie.net/fhir/endpoint-connection-type",
        "code" : "nwhin-xcpd",
        "display" : "NwHIN Patient Discovery"
      },
      "resourceType" : "Endpoint",
      "id" : "13"
    },
    "fullUrl" : "https://cten.ca-hie.net/fhir/Endpoint/13",
    "search" : {
      "mode" : "match"
    }
  },
  ...
```

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How does the Service Registry work?

1. Access the open directory via FHIR API (automated) or portal (manual)
2. Identify organizations with which you wish to exchange (hopefully all)
3. Retrieve endpoint information (profile, content, URL, certificate public key)
4. Configure your endpoint

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Problem…

- How do you efficiently access health information in time of widespread emergency or disaster?

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What is PULSE?

- Provides disaster healthcare volunteers with access to electronic health information for victims and evacuees during time of large-scale emergency
- Information that may be drawn from disparate systems within and outside of the effected region

Sounds like a task for CTEN

Find out more about PULSE at
http://www.ca-hie.org/initiatives/pulse/

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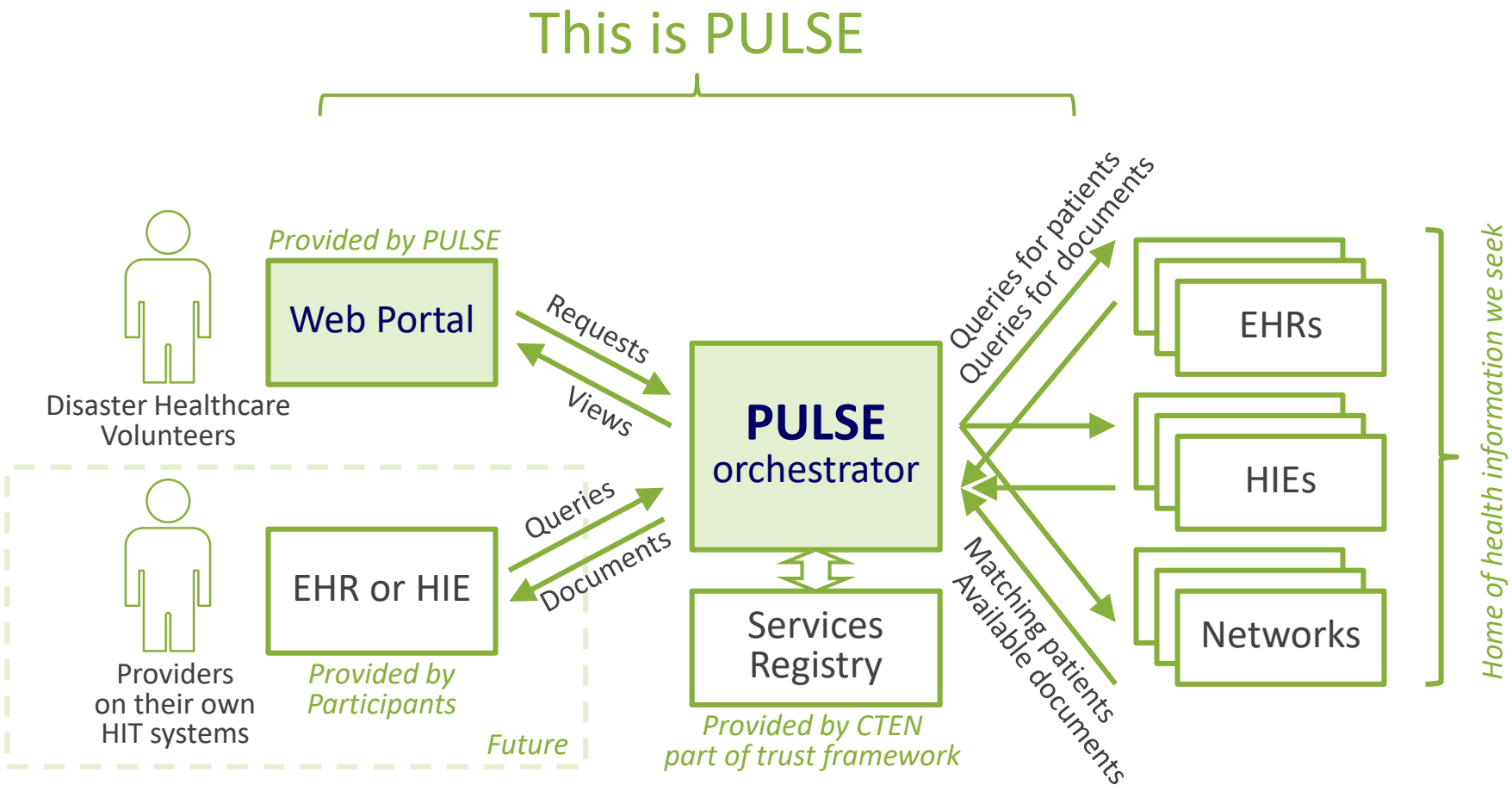
What is PULSE?



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Problem…

- How do you authenticate disaster healthcare volunteers in time of wide-spread emergency?
- How do you remain agile?
- How do you preserve trust?

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What is ESAR-VHP?

Emergency System for Advance Registration of Volunteer Health Professionals

- State system for registering volunteers in advance of disasters, public health / medical emergencies
- Verifies identification, credentials, licenses, certifications, and hospital privileges…

  …of health professionals…

  …who volunteer to provide health services during a public health emergency

Housed within California EMS Authority as Disaster Healthcare Volunteers or DHV

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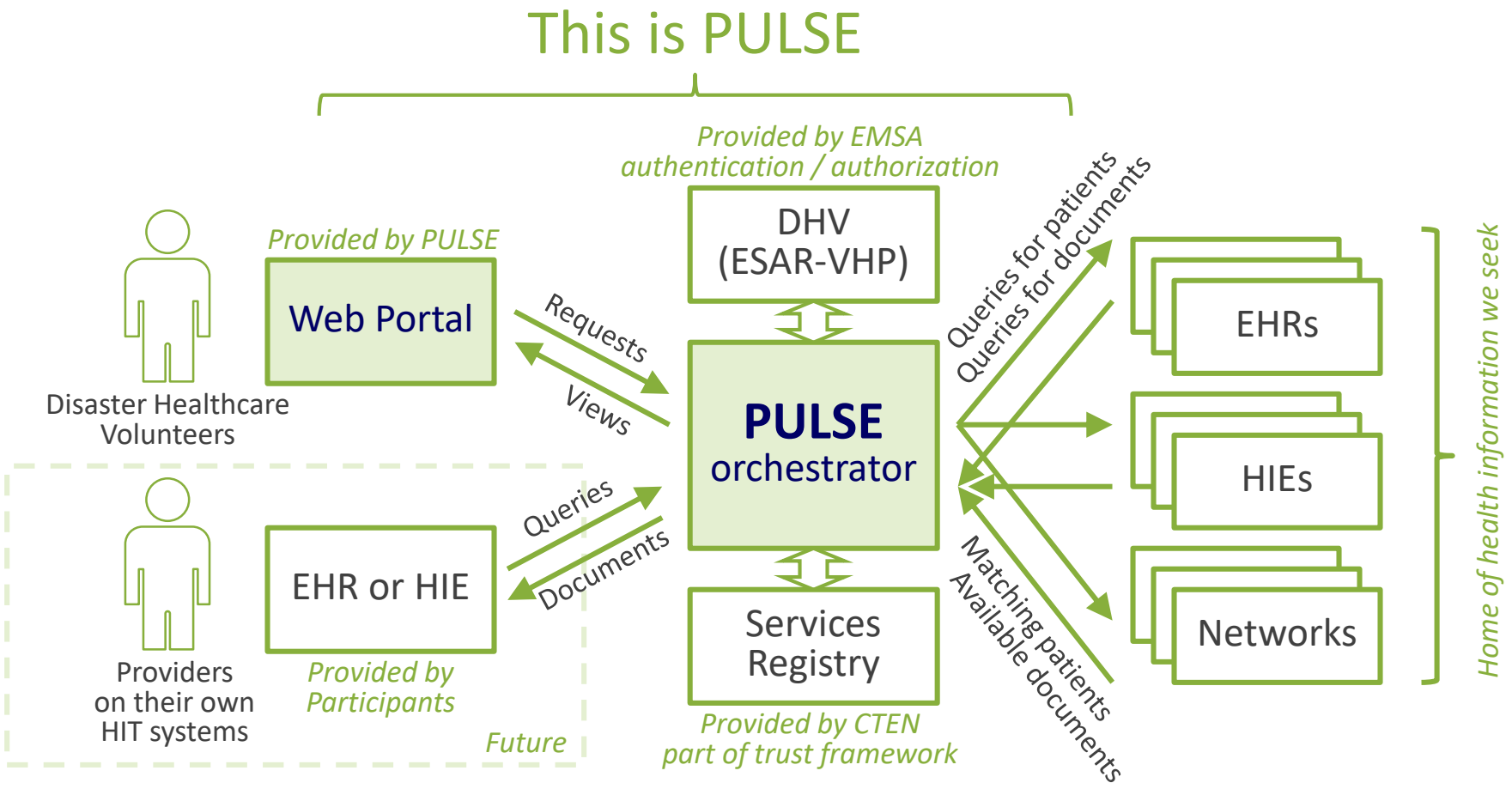

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How does PULSE use it all?

Directories as the basis of trust

- DHV (ESAR-VHP) to provide authentication for authorized, licensed, and verified healthcare volunteers using the portal
- Service Registry to provide listing and information on authorized and verified participating HIOs and health systems

- PULSE Orchestrator to distribute queries and collect results for users and systems

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Questions?

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