MVP1 Demo Oct25 Create "French Press" vService: - Compute latency for BGP table across 3 peers as data collector vService and associate with topology - Provide API to query lowest-latency path to destination x.x.x.x Paterwise law latency and the service and associate with topology Provide API to query lowest-latency path to destination x.x.x.x Paterwise law latency and the service and associate with topology API/Schema Algorithm Alsonian Algorithm Alsonian Algorithm

Enable Creation of "French Press" vService:

- Return MPLS label stack {PeeringRouter,

- Build templates for API vService and Collection vService
- Build network topology in graph DB based on BMP

- Determine low latency path

SP Peer EPE}

- Monitor vServices through simple state machine
- Create automation for packaging and deployment

Create blueprint for Voltron deployment:

- Deploy k8s cluster in AWS and in-house
- Bringup baseline services (frontend, Kafka, Graph DB)
- Deploy k8s monitoring (Heapster or equiv.)
- Build k8s+openshift templates for Deployment

Service Template Constraint Enforcement Service Lifecycle

Services

Data Needs

Matt Steve Mike

Anush

Voltron Framework

Frontend Message bus Topo DB AWS-ify

Omar Erez Paul?

Voltron Infrastructure

(*Not essential)

Create models for "French Press" prediction:

- Tie topology with TSDB for storing historical values
- Incorporate temporal fluctuations in Metrics into model
- Build visualization of metrics over time

Frontend Topo DB TSDB Message bus

Drew Rachael Remington

Network Analytics Collection

Automate Skeleton for "French Press" vService build and test:

- Automate French Press testbed build
- Report steps of entire toolchain into DB via scripts
- Start nightly builds + test of Voltron on Jenkins and store
- Define performance metrics for next phase of implementation

Test Harness Performance Measurement Build/Test/Deploy/Measure Toolchain

Platform
Automation and Validation

Rachael Paul