



Andrew Denner, CIALUG
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CENTRAL IOWA LINUX USER GROUP

A GROUP OF FREE *NIX ENTHUSIASTS WHO ALL HAPPEN TO LIVE IN CENTRAL IOWA

- We meet the third Wednesday of most Months somewhere in the greater Des Moines Area (keep an eye on the email list server)
- Our website: <http://www.cialug.org/>
- Links to the email List, IRC channel and other interesting (not really) things
- We are always looking for people/groups willing to speak or host us



A little bit about me

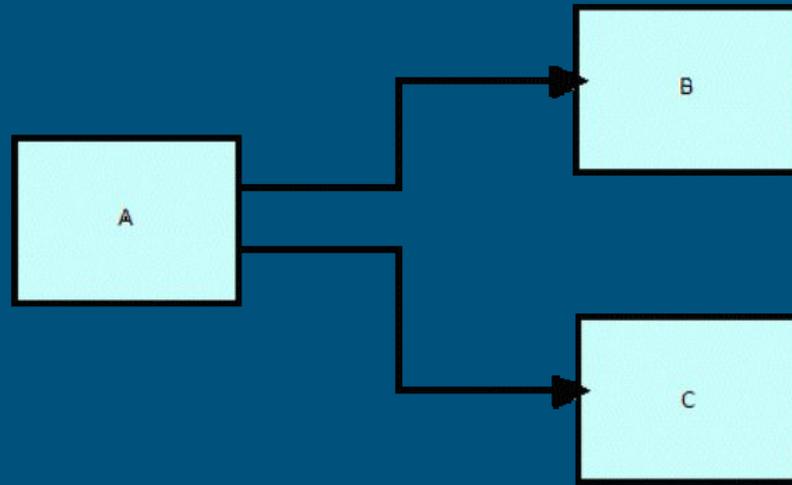
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Slides will be posted at <http://denner.co> later tonight



On to NiFi...



What is NiFi

Go with the flow

“Flow based programming defines applications as networks of ‘black box’ processes, which exchange data across predefined connections by message passing, where the connections are specified externally to the processes. These black box processes can be reconnected endlessly to form different applications without having to be changed internally. FBP is thus naturally component-oriented” -- J. Paul Morrison

What is NiFi

- 2014 NSA Technology Transfer Program 'Niagarafiles'
- Addressed shortcomings in other existing solutions
 - sufficient security,
 - interactivity,
 - scalability and,
 - data lineage/provenance i.e. a data lifecycle measure detailing data's origins & why, how and where it moves over a period of time.



OPEN.

THE APACHE SOFTWARE FOUNDATION

provides support for the Apache Community of open-source software projects, which provide software products for the public good.

INNOVATION.

THE APACHE PROJECTS ARE DEFINED

by collaborative consensus based processes, an open, pragmatic software license and a desire to create high quality software that leads the way in its field.

COMMUNITY.

WE CONSIDER OURSELVES

not simply a group of projects sharing a server, but rather a community of developers and users.

A High Level Overview...

- Web-based user interface
 - Seamless experience between design, control, feedback, and monitoring
- Highly configurable
 - Loss tolerant vs guaranteed delivery
 - Low latency vs high throughput
 - Dynamic prioritization
 - Flow can be modified at runtime
 - Back pressure
- Data Provenance
 - Track dataflow from beginning to end
- Designed for extension
 - Build your own processors and more
 - Enables rapid development and effective testing
- Secure
 - SSL, SSH, HTTPS, encrypted content, etc...
 - Multi-tenant authorization and internal authorization/policy management

Demo

Visit

<https://docs.google.com/presentation/d/1avQvKeMLxIXvhkLajl1nVgH-J3W1GhRrkoJxkqTbPDw/edit?usp=sharing> for the video demo.

Resources

- <https://nifi.apache.org/>
- <http://www.forbes.com/sites/adrianbridgwater/2015/07/21/nsa-nifi-big-data-automation-project-out-in-the-open/>
- <http://www.jpaulmorrison.com/fbp/>
- <https://nifi.apache.org/docs/nifi-docs/html/getting-started.html>