Introduction to OpenDaylight

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NANOG 58
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Agenda

• OpenDaylight intro

• OpenDaylight architecture overview

• Getting involved in the OpenDaylight Project
What is OpenDaylight?

• OpenDaylight is an open source project under the Linux Foundation with the mutual goal of furthering the adoption and evolution of SDN through the creation of a common industry supported framework.

• Tiered Membership
  – Platinum, Gold, Silver
  – Platinum: Cisco, Brocade, Juniper, Citrix, Ericsson, IBM, Microsoft, redhat
OpenDaylight goals

- **Code:** To create a robust, extensible, open source code base that covers the major common components required to build an SDN solution

- **Acceptance:** To get broad industry acceptance amongst vendors and users

- **Community:** To have a thriving and growing technical community contributing to the code base, using the code in commercial products, and adding value above, below and around

- **Key Principles:** Open, transparent, fair
OpenDaylight code

- A wide array of technologies contributed by leading companies and developers
- Open Source: Any developer can contribute code as an individual
- Robust framework/platform for new apps and tools
  - Eclipse Public License (EPL)
- So what is the ODP architecture?
OpenDaylight SDN platform
Architectural Framework

OpenDaylight APIs (REST)

GUI
CLI

multi-tenant virtual networks

L4-L7 service abstractions

integration

OpenStack Quantum
CloudStack
oVirt

network applications, orchestration, and services

controller platform

southbound interfaces & protocol plugins

data plane interfaces and enhancements (virtual switches, physical device interfaces)

base network service functions

virtual network manager

storage services

L4-L7 service manager

extensions / addn’l svcs

service abstraction layer (plug-in mgr., capability abstractions, …)

inter-controller comm

OpenFlow
1.0
1.3

Open switch API

SAN (SMI-S)

other std. protocols (ONF, IETF, …)

vendor-specific interfaces

hardware-independent interfaces and data models

virtual forwarding enhancements
Getting started with OpenDaylight

• Developer documentation: wiki.opendaylight.org
  – list of current projects in various states
  – links to documentation on current projects, e.g., how to get/build code, architecture, etc.
  – information on proposing new projects for OpenDaylight
Getting involved in OpenDaylight

• Open mailing lists: lists.opendaylight.org
  – discussion groups on specific projects

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OpenDaylight governance – 10K view

- Bylaws: [http://www.opendaylight.org/project/bylaws](http://www.opendaylight.org/project/bylaws)

- ODP *Board of Directors* will manage business leadership for OpenDaylight including governance, marketing and operational decisions
  - Initial BOD populated by Platinum members + 1 gold + 1 silver

- ODP *Technical Steering Committee* sets technical direction
  - TSC provides technical leadership for OpenDaylight
  - TSC members are elected and is comprised of developers and project leaders
    - Initially seeded with Platinum member representatives
  - TSC chair ex-officio member of the Board
  - TSC chair elected annually with no term limits

- Importantly: *OpenDaylight is open to anyone.* In particular
  - Anyone can develop and contribute code
  - Anyone get elected to the Technical Steering Committee
  - Anyone can get elected to the Board
  - Anyone can help steer a project forward in any number of ways
A Little More on the TSC

• Technical direction set by the Technical Steering Committee
  – Responsible for maintaining platform codebase
  – Sets release train scope and schedule

• TSC membership
  – Initialized with representatives from platinum member companies
  – Will evolve to be comprised of core project leads and community representatives

• TSC meetings and mailing list are open to the community
  – See lists.opendaylight.org to subscribe to the TSC mailing list
  – Meetings currently Thursdays at 1000 PDT
    • Dial in information: https://wiki.opendaylight.org/view/TSC:Main
  – Minutes
    • All decisions documented and recorded, posted on public web site

• Technical work stream calls
Thanks!