Red Hat Network Satellite in a Nutshell....

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What is RHN Satellite?

A systems management platform designed to provide complete lifecycle management of the operating system and applications.

- Inventory your systems (hardware & software information)
- Install and update software on your systems
- Collect and distribute custom software packages
- Provision (Kickstart) your systems
- Manage and deploy configuration files
- Monitor your systems
- Provision/Manage virtual guests
Satellite Deployment

- Local database stores all packages, profiles, and system information
- Syncs content from RHN Hosted
- Custom content distribution
- Can run disconnected from the Internet

RHN Hosted
- Software Distribution
- Subscription Management

RHN Satellite
- Software Distribution
- Account Management
- Channel Management
- Monitoring
- Provisioning

WEB INTERFACE
RHN Proxy
MANAGED SYSTEMS

API LAYER
IT Applications
Custom Content
Architecture Overview

- Frontend Web Interface
  - for client utilities
- Backend API
  - for scheduled tasks
- Taskomatic
  - for scripting and integration
- Frontend API
  - for scripting and integration
- All connect to an Oracle DB
  - Embedded
  - External
Life Cycle of a System

- Provision a new system (on hardware or virt)
- Install software/updates
- Configure software
- Continued management of system
- Re-provision for a new purpose
How can I provision a new virtual machine?

Satellite v5.0 introduced virt provisioning and management:

- Provisioning
  - Creation and kickstart of virtualized guests on host systems
- Management
  - Software updates (RHSA & RHBA) for virtualized guests
  - Instant Actions – Start, Stop, Pause, Resume
  - Real-time update of Max memory and # of VCPUs
- Monitoring
  - VM's state, CPU utilization, memory util, & disk space
- API Support
- Demo
How can I manage my custom software?

- Create custom channels
- Allows control over latest software a system can install
- Store custom software within custom channels
- Easily install/update/remove packages from web interface
- Demo
How can I configure my software?

- Built in configuration management
- Rank configuration channels based on priority
- Can be deployed at provisioning/registration time
- Local overrides for individual systems
- Supports multiple revisions of files/directories
- Import existing files from systems
- Diff configuration files between actual and stored revisions
- Demo
How can I manage these systems across my organizations?

- Multiple Organizations feature new in Satellite 5.1
- Completely separate content and systems
- Manage entitlements across organizations
- Restrict entitlement usage
- Upcoming features
  - Custom Channel Sharing between orgs
  - Migrate registered systems between orgs
- Demo

Check out the MultiOrg Best Practices Whitepaper:
Road Map

v5.2
- Oracle 10g (embedded & external)
- Satellite/Proxy on Red Hat Enterprise Linux 5.x

v6.0
- Reporting (integration with Jasper Reports)
- Support User (Read-Only)
- Multi-Org (Phase II) – Content Sharing, System Migration, APIs
- Inter-Satellite Sync II (direct via sat-sync)
- Solaris hardware support - x86_64 & sun4v
- Search Improvements (errata, systems, users, and documentation)
- Delta RPMs Support
- Cobbler/Koan Integration
Questions
Spacewalk

- Upstream open source project
- Satellite will pull from Spacewalk for future releases
- Visit website http://spacewalk.redhat.com
- Wiki available at https://fedorahosted.org/spacewalk
  - #spacewalk on FreeNode

For more information please attend the Spacewalk Campground, scheduled for Thursday @ 3pm at the back of the Exhibition Hall.
Backup Slides
Satellite v5.0 Features

- Virtualization management
- Updated configuration management
- Support for RHEL5 Clients (yum)
Satellite v5.1 Features

- Multi-org
- API Enhancements (more than doubled)
- UI Enhancements (Improved Package Search)
- Support for more platforms. Now runs on:
  - x86
  - x86_64
  - s390
  - S390x
- PPC provisioning
- Extended Update Support
Vendor-to-Third-Party-Customers Satellite

**RED HAT**
- Subscriptions & Entitlements

**VENDOR ORG**
- Create & manage organizations across Satellite
- Modify subscription, software channel, and entitlement allocations to orgs as customer payments received / not received
- Modify Satellite's configuration (for example, enable monitoring support)

**SATELLITE ADMIN**
- Registering systems and adding users to this organization is not recommended.

**LARGE BUSINESS CUSTOMER**
- Systems register to organization for updates; Access control via System Groups
- **RHN Modules**: Management, Provisioning, Monitoring & Virtualization
- **Software**: Red Hat Directory Server, Red Hat Cluster Suite, Enterprise Linux Advanced Platform, custom content

**MEDIUM BUSINESS CUSTOMER**
- Systems register to organization for updates
- **RHN Modules**: Management, Provisioning
- **Software**: Red Hat Enterprise Linux Client, Red Hat Enterprise Linux

**SMALL BUSINESS**
- Systems register to organization for updates
- **RHN Modules**: Management, Provisioning, Virtualization
- **Software**: Red Hat Enterprise Linux

**SUB-ORGANIZATIONS**
- Organization administrator manages entire organization
- System & system group management
- User creation & management
- Content Management: software channels, kickstart profiles, configuration channels, activation keys, etc.