



# Infoblox Network Automation

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*Dynamically Controlling Your Network*



# Infoblox Network Automation

## Automated Network Discovery



## Change & Configuration Management



Discover

Automate

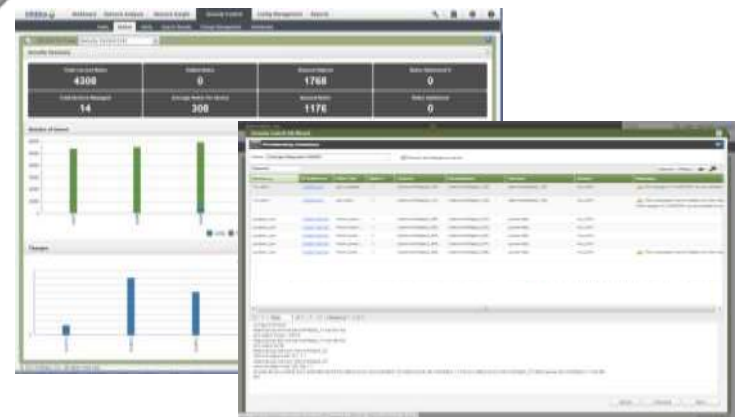
Maintain

Control

## Compliance & Policy Standardization



## Firewall ACL & Rule Automation



# Benefits of Infoblox Network Automation



Reduce risk  
and provision  
services  
faster



Enforce a  
compliant and  
standard  
network



Improve staff  
efficiency via  
automation &  
delegation



# What's On and Connected to My Network?

Manual, spreadsheets and/or scanning tools

- Often out of date

Tight budgets and stretched teams

- Multi-vendor network devices
- Proliferation of IP devices

Ever-changing questions

- What's on my network?
- Which ports are active?
- Do I need more capacity?
- What device is using which port?
- When & where did they connect?





# Network Auto-Discovery

Automatic device discovery

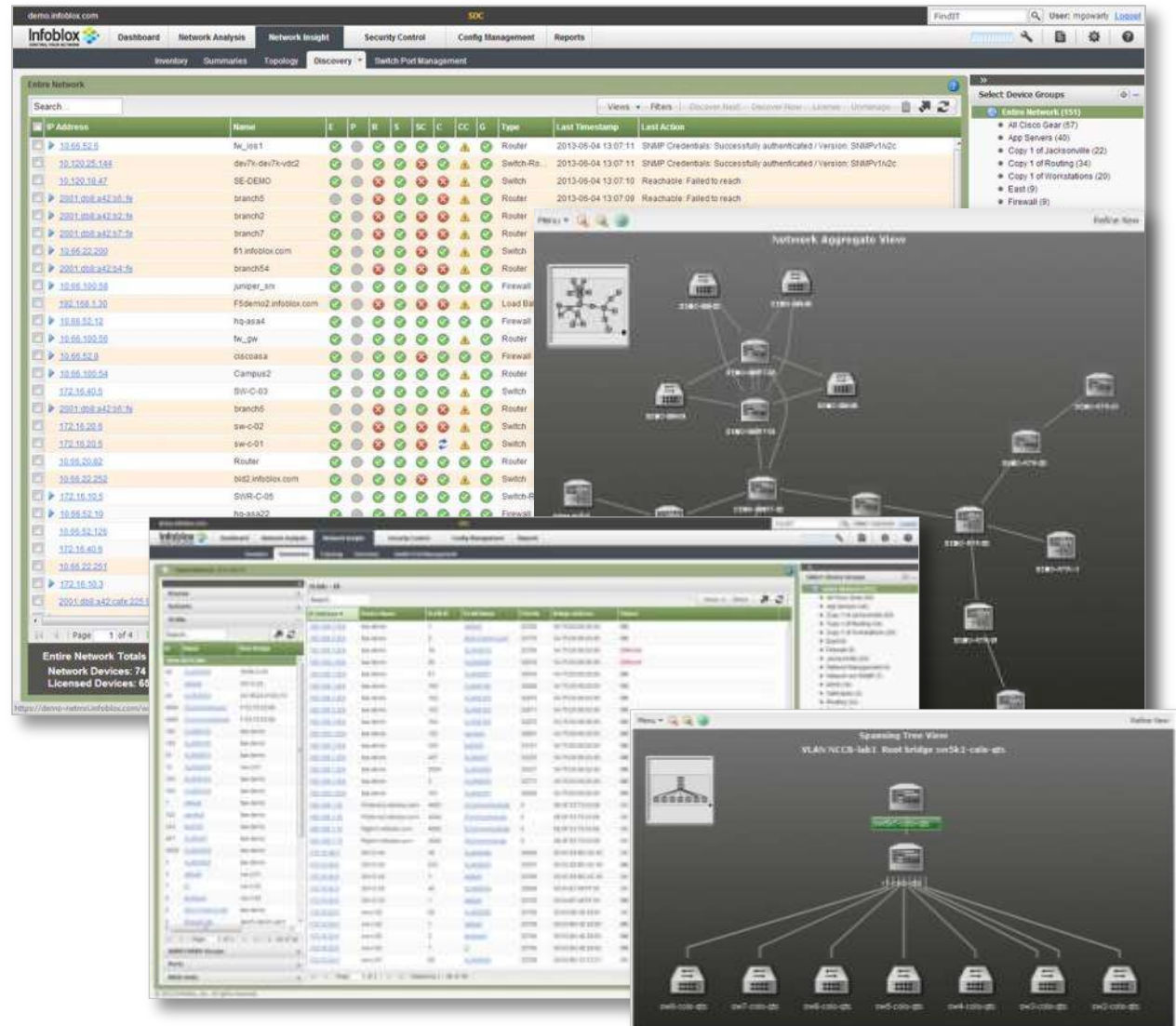
Extensive multi-vendor support

Layer 2 physical & 3 logical data

New device detection

Integrated topology views

Detailed VLAN information



# Switch Port Management

Track free vs. available port

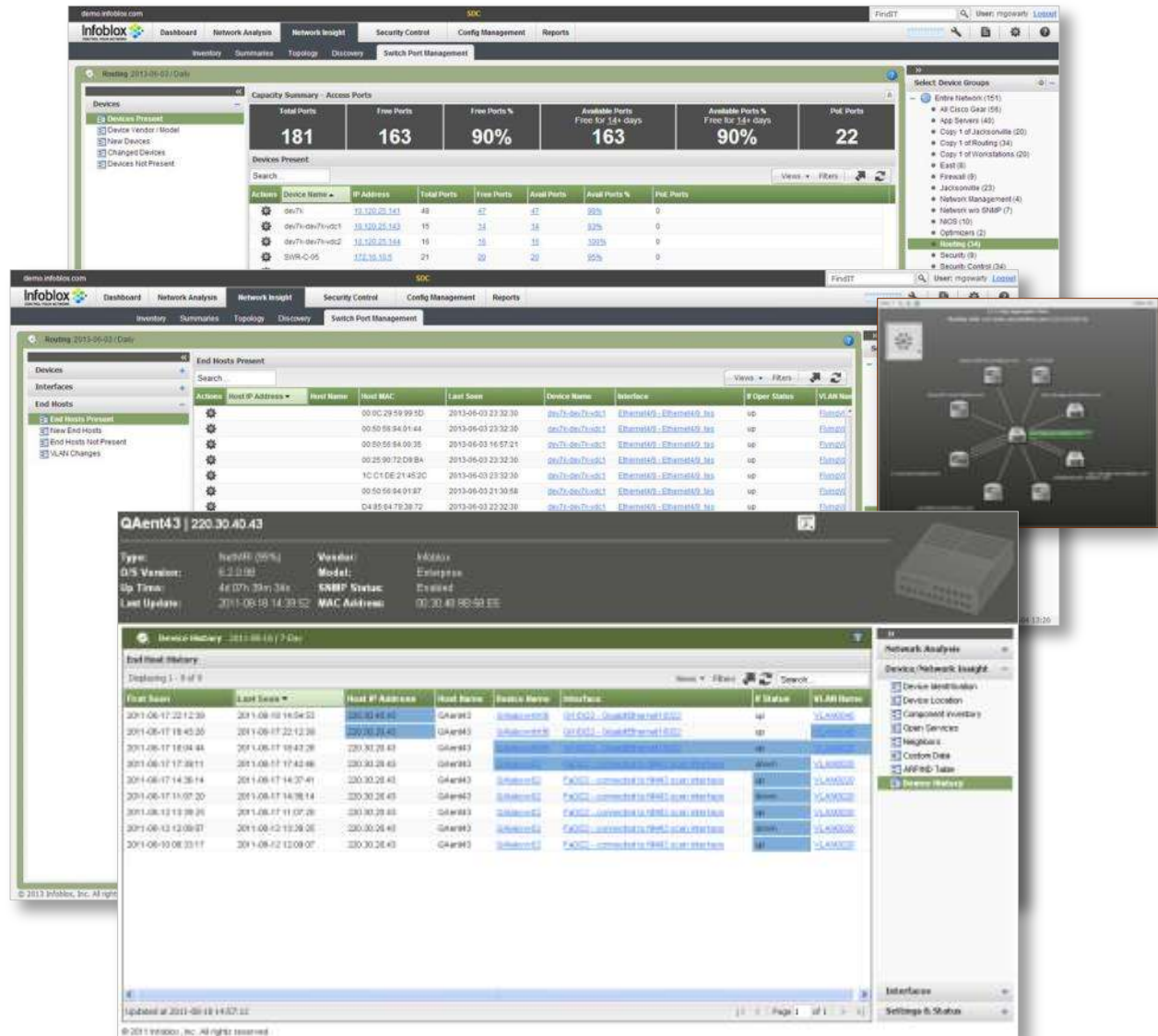
Identify unused ports

Capacity planning & management

Track connected end-hosts/devices

History of what connected when and where

Track devices/MACs by specific VLANs



# Automated IPAM Sync

Integrated with  
Infoblox IPAM

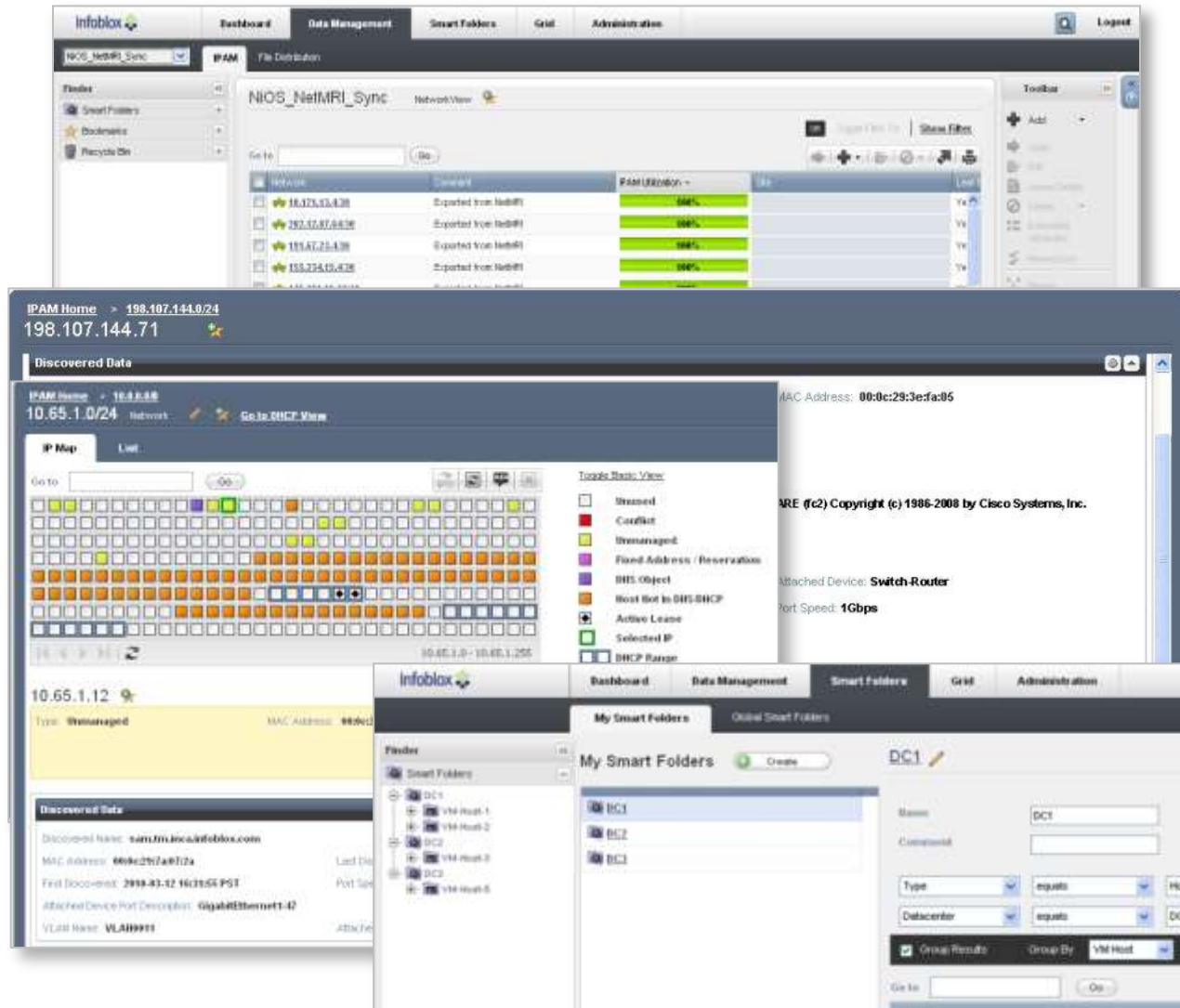
Auto-created  
networks

Synced device  
details within IPAM

IP map correlation

Updated smart  
folders

All automated – no  
manual steps



# Keeping Up with Daily Changes

## Extensive manual processes

- CLI
- Scripting

## Limited functionality

- Configuration scrapes
- Basic change automation
- Vendor-specific tools

## Minimal control & documentation

- Limited work-flow
- Admin or nothing access rights
- Massive files require extensive manual digging and compiling





# Change Management



Automatic change detection

Accurate job flow and control

Every change at fingertips

Saved historical configurations

Simple side by side comparisons

Powerful configuration search

# Change Automation

The image displays three overlapping screenshots of the Infoblox NetMRI Change Automation web interface. The top screenshot shows a 'Jobs' table with columns for Name, Language, Role, User, Created By, Updated By, Updated On, and Last Run. The middle screenshot shows a 'Scripts' table with columns for Name, Script, Modified By, Modified On, and Last Run. The bottom screenshot shows a 'Roles' table with columns for Name and Description, and a sidebar with navigation links like Setup, Issue Analysis, Notifications, NetMRI Settings, and NetMRI Database.

Name	Language	Role	User	Created By	Updated By	Updated On	Last Run
2008 Extended DUT Compliance	CCS	high	admin	admin	admin	2013-02-15 14:27	
4-000 Switch Upgrade	CCS	high	admin	admin	admin	2013-02-15 14:27	
4-000 Image Upgrade	CCS	high	admin	admin	admin	2013-02-15 14:27	
4-000	CCS	high	admin	admin	admin	2013-02-15 14:27	
4-000 Command Batch	CCS	high	admin	admin	admin	2013-02-15 14:27	
4-000 Add Po Logging	CCS	high	admin	admin	admin	2013-02-15 14:27	
4-000 Add Po Logging	CCS	high	admin	admin	admin	2013-02-15 14:27	
4-000 Add Po Logging	CCS	high	admin	admin	admin	2013-02-15 14:27	

Name	Script	Modified By	Modified On	Last Run
Example 1 - Cisco IOS	Example 1 - Cisco IOS	admin	2013-02-15 14:27	2013-02-15 14:27
Example 2 - Cisco IOS	Example 2 - Cisco IOS	admin	2013-02-15 14:27	2013-02-15 14:27
Example 3 - Cisco IOS	Example 3 - Cisco IOS	admin	2013-02-15 14:27	2013-02-15 14:27
Example 4 - Cisco IOS	Example 4 - Cisco IOS	admin	2013-02-15 14:27	2013-02-15 14:27
Example 5 - Cisco IOS	Example 5 - Cisco IOS	admin	2013-02-15 14:27	2013-02-15 14:27
Example 6 - Cisco IOS	Example 6 - Cisco IOS	admin	2013-02-15 14:27	2013-02-15 14:27
Example 7 - Cisco IOS	Example 7 - Cisco IOS	admin	2013-02-15 14:27	2013-02-15 14:27
Example 8 - Cisco IOS	Example 8 - Cisco IOS	admin	2013-02-15 14:27	2013-02-15 14:27
Example 9 - Cisco IOS	Example 9 - Cisco IOS	admin	2013-02-15 14:27	2013-02-15 14:27
Example 10 - Cisco IOS	Example 10 - Cisco IOS	admin	2013-02-15 14:27	2013-02-15 14:27

Name	Description
AnalysisAdmin	Create and manage NetMRI issues
ChangeEngine High	Author, execute and schedule scripts designated High or Unknown Level
ChangeEngine Low	Execute and schedule scripts designated Low Level
ChangeEngine Medium	Execute and schedule scripts designated Medium Level
ConfigAdmin	Allows users to view sensitive device information including config information and pa
Default View Role	Default Role
EventAdmin	Create and manage event symptoms
FindIT	User will only have access to the FindIT NetMRI interface
GroupManager	Create and manage device groups, interface groups and result sets in NetMRI
PolicyManager	Define and deploy policies for one or more groups within NetMRI
Report Admin	Enables users to have full control of NetMRI Reports
sandbox	TAC testing role
SysAdmin	NetMRI System Administration Role. Allows access to all sections of NetMRI

Embedded jobs and scripts

Templates for easy customization

Easily import existing Perl scripts

Powerful variable-based jobs

User-based, role access controls

Scheduled and triggered jobs

# Intuitive Change Control

The screenshot displays the Infoblox NIOS GUI interface. At the top, there's a navigation bar with tabs like Dashboard, Network Analysis, Network Model, Security Control, Config Management, and Reports. Below this, a sidebar on the left shows a tree view of network elements. The main area features a table with columns for IP Address, Host Name, Port Name, and other network details. A modal window titled 'Edit Interface VLAN Membership' is open, showing a list of VLANs to be assigned to a specific interface. Below the main table, there's a section titled 'Automation Tasks' with several task cards: 'VLAN Reassignment', 'Port Activation', 'Bare Metal Provisioning', 'Rogue DHCP Server Remediation', and 'Network Provisioning'. Each card includes a brief description of the task and a gear icon for configuration.

**Automation Tasks**

- VLAN Reassignment**  
Use this task to reassign a VLAN.
- Port Activation**  
Use this task to activate/deactivate ports.
- Bare Metal Provisioning**  
Configure provisioning of new network devices.
- Rogue DHCP Server Remediation**  
Configure identification and remediation of unauthorized DHCP servers.
- Network Provisioning**  
Use this task to provision IPv4/IPv6 networks.

Simplified switch  
port changes

Strong user access  
rights

Network tasks within  
NIOS GUI

Enable single touch  
for common changes

User initiated and  
triggered tasks

Automatic detailed  
updates and sync

# Is My Network Still Compliant?

## Different drivers

- External mandates
- Internal security policies
- Networking best practices

## Typically reactive

- When something breaks
- When audit is required

## Manually intensive

- Massive log files
- CLI access
- Manually collect, aggregate, tabulate and present findings





# Policy and Compliance Management

Embedded  
compliance rules

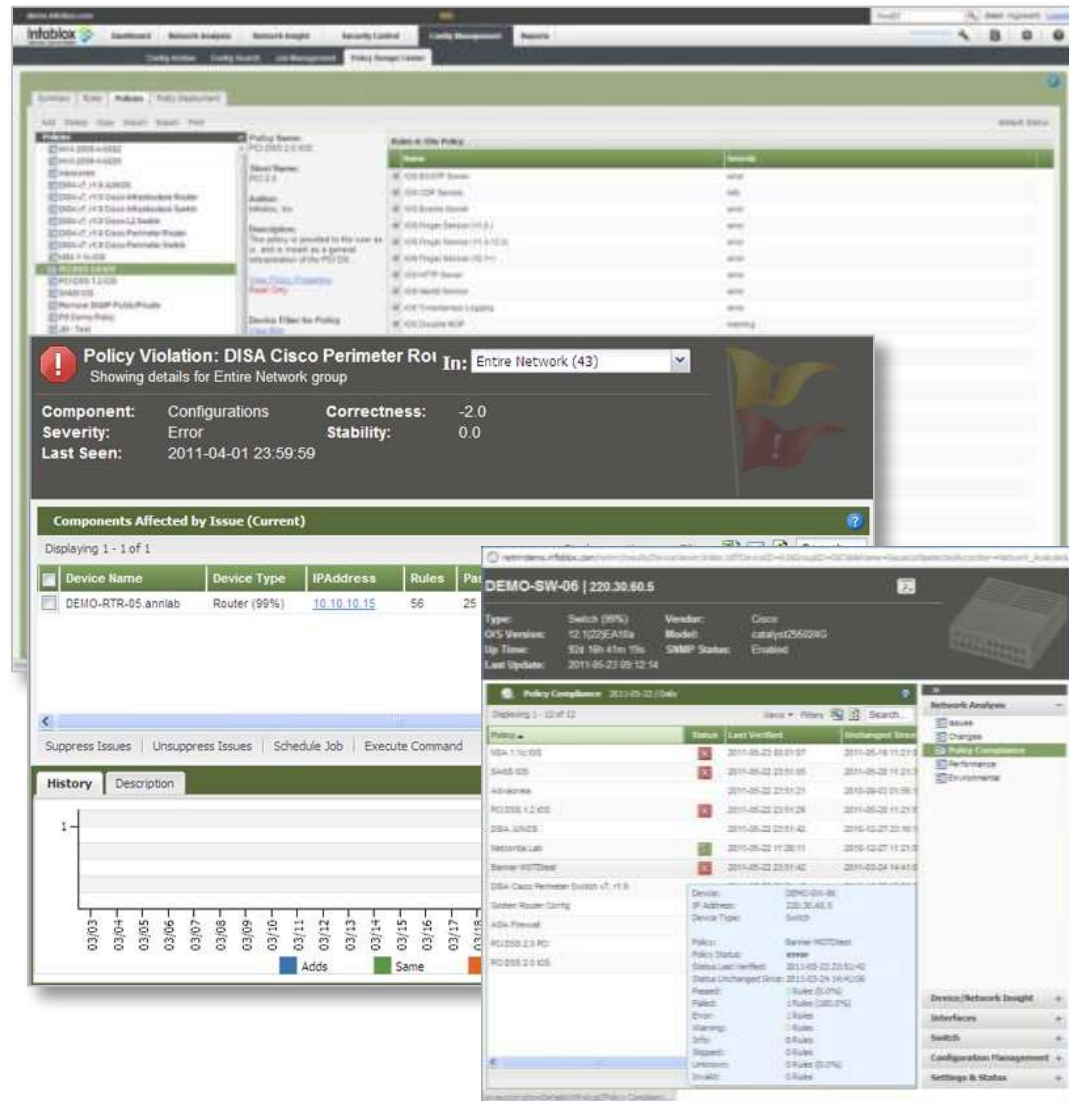
Customizable best  
practice templates

Manage multiple  
policies

Proactive violation  
detected

Multiple remediation  
options

Current and  
historical views



# Configuration Analysis

Unique pre-packaged expertise

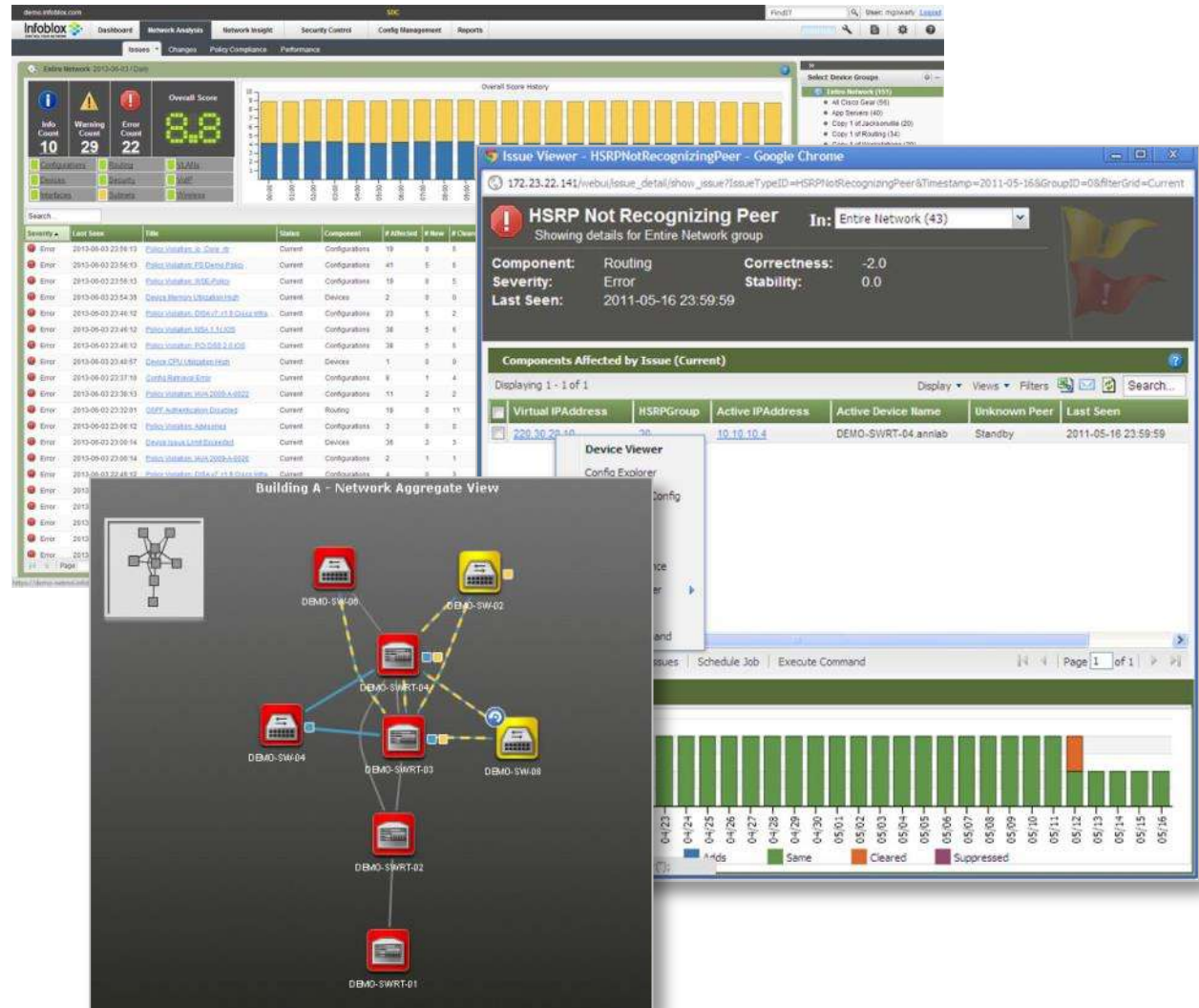
Identifies common misconfigurations

Customizable alerting

Recommended remediation options

Understand concept of the network

Network Scorecard views



# Powerful Reporting

Single-click  
compliance reports

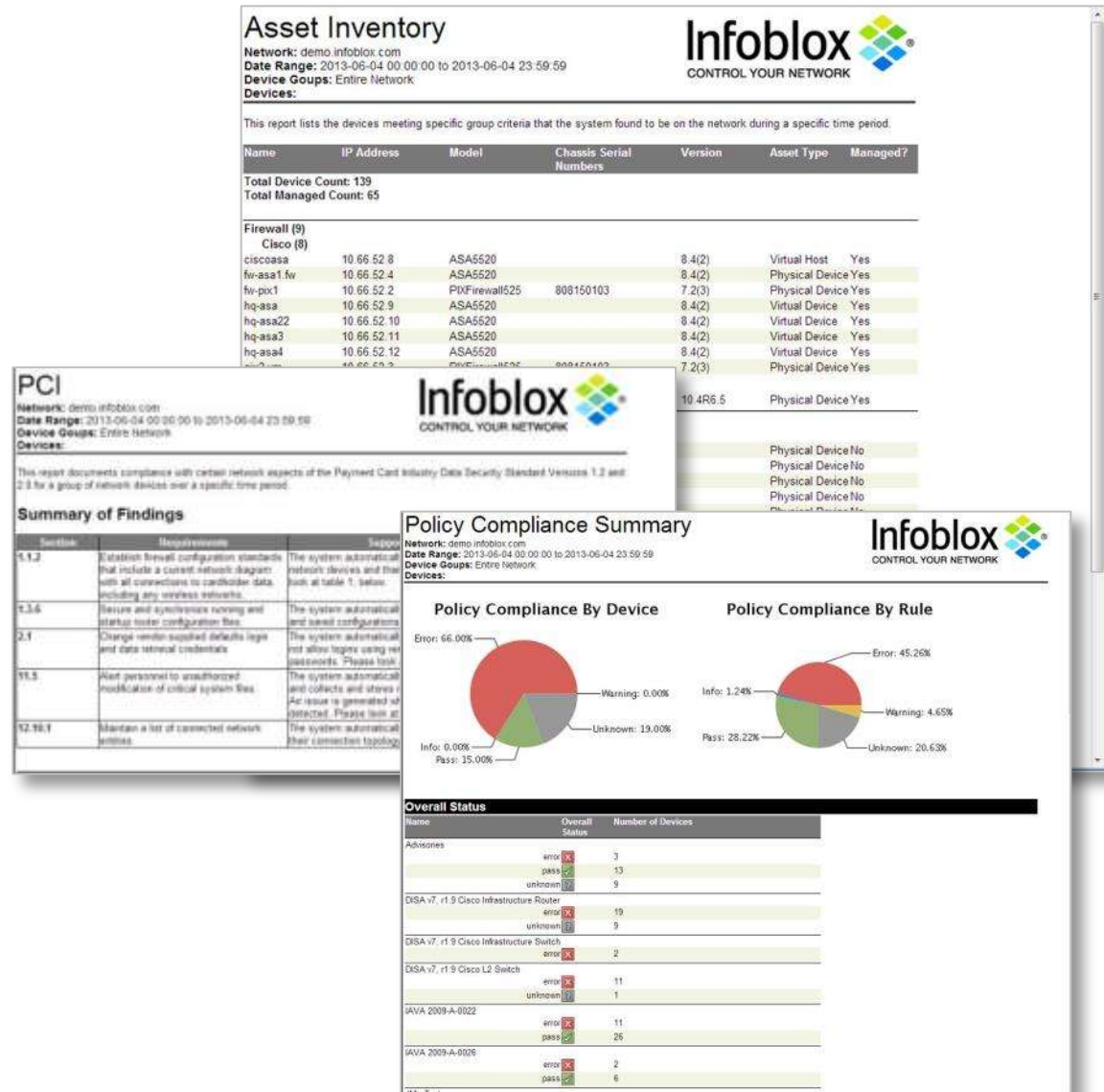
Pre-packaged and  
customizable

Powerful filtering

Executive and  
detailed reports

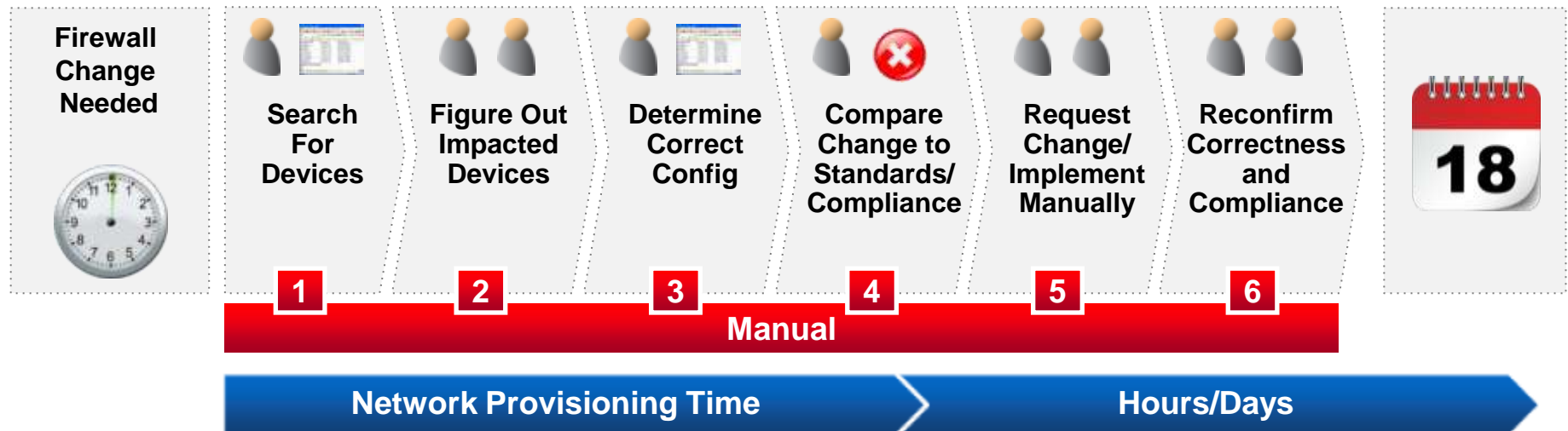
On-demand or  
scheduled

User-based view  
rights



# So Many Firewall Changes – So Little Time

- Spike in number of security policy changes
- IT headcount not keeping pace
- Multiple point products add confusion
- Network SLAs impacted negatively
- Expensive and diminishes security effectiveness



**LEGACY APPROACH TO FIREWALL POLICY CHANGE IMPLEMENTATION**



# Rule and ACL Analysis



Built-in multi-vendor expertise

Automatic alerts of common issues

Continuous monitoring

Finds hidden, overlapping & duplicates

Automated discovery

Topology path views

# Search and Alerting

The screenshot displays the Infoblox Security Control interface. The top navigation bar includes links for Dashboard, Network Analysis, Network Insight, Security Control, Config Management, and Reports. The main content area shows the 'Add New Blacklist' dialog box, which prompts the user to enter a blacklist rule name. Below the dialog, the 'Search Summary' page is visible, showing a table of matched rules. The table has columns for Name, Device Name, IP Address, Filter Set, Action, Search ID, and Match. The table lists various rules, including 'fw\_rule', 'fw\_rule1', 'fw\_rule2', 'fw\_rule3', 'fw\_rule4', 'fw\_rule5', 'fw\_rule6', 'fw\_rule7', 'fw\_rule8', 'fw\_rule9', 'fw\_rule10', 'fw\_rule11', 'fw\_rule12', 'fw\_rule13', 'fw\_rule14', 'fw\_rule15', 'fw\_rule16', 'fw\_rule17', 'fw\_rule18', 'fw\_rule19', 'fw\_rule20', 'fw\_rule21', 'fw\_rule22', 'fw\_rule23', 'fw\_rule24', 'fw\_rule25', 'fw\_rule26', 'fw\_rule27', 'fw\_rule28', 'fw\_rule29', 'fw\_rule30', 'fw\_rule31', 'fw\_rule32', 'fw\_rule33', 'fw\_rule34', 'fw\_rule35', 'fw\_rule36', 'fw\_rule37', 'fw\_rule38', 'fw\_rule39', 'fw\_rule40', 'fw\_rule41', 'fw\_rule42', 'fw\_rule43', 'fw\_rule44', 'fw\_rule45', 'fw\_rule46', 'fw\_rule47', 'fw\_rule48', 'fw\_rule49', 'fw\_rule50', 'fw\_rule51', 'fw\_rule52', 'fw\_rule53', 'fw\_rule54', 'fw\_rule55', 'fw\_rule56', 'fw\_rule57', 'fw\_rule58', 'fw\_rule59', 'fw\_rule60', 'fw\_rule61', 'fw\_rule62', 'fw\_rule63', 'fw\_rule64', 'fw\_rule65', 'fw\_rule66', 'fw\_rule67', 'fw\_rule68', 'fw\_rule69', 'fw\_rule70', 'fw\_rule71', 'fw\_rule72', 'fw\_rule73', 'fw\_rule74', 'fw\_rule75', 'fw\_rule76', 'fw\_rule77', 'fw\_rule78', 'fw\_rule79', 'fw\_rule80', 'fw\_rule81', 'fw\_rule82', 'fw\_rule83', 'fw\_rule84', 'fw\_rule85', 'fw\_rule86', 'fw\_rule87', 'fw\_rule88', 'fw\_rule89', 'fw\_rule90', 'fw\_rule91', 'fw\_rule92', 'fw\_rule93', 'fw\_rule94', 'fw\_rule95', 'fw\_rule96', 'fw\_rule97', 'fw\_rule98', 'fw\_rule99', 'fw\_rule100'. The table also shows the status of each rule, such as 'ALLOWED' or 'BLOCKED', and the number of matches.

**Customizable searches**

**Flexible multiple device options**

**Blacklisting reduces risk**

**Whitelisting ensures access**

**Automatic alerts**

# Integrated Provisioning

The image displays three screenshots of the Infoblox Integrated Provisioning interface. The top screenshot shows a 'Tracking' view with a table of scheduled jobs, including columns for Job ID, Name, Status, and Scheduled Time. The middle screenshot shows a 'Job Details' view for a specific job, displaying a table of changes and a bar chart showing the number of changed devices. The bottom screenshot shows a 'Job Viewer' view with a table of job details, including columns for Job ID, Name, Status, and Scheduled Time.

**Job Viewer**

Job ID: 3898 Start Time: 2013-05-15 10:03:37  
Script: Security Control End Time: 2013-05-15 10:04:33  
Job Count: 1 Status: OK

**Job Details**  
2013/05/15

allow tcp 3002 - Security Control

Search:

Status	Start Time	End Time	IP Address	Service Name	Actions
OK	2013-05-15 10:03:37	2013-05-15 10:04:33	10.0.0.0/24	3002/tcp	

Page 1 of 1 | Displaying 1 of 1

Cancel All | Rerun Errors | Reschedule Errors | Rollback Changes

Integrated provisioning

Creates vendor-specific syntax

Push changes to one or multiple devices

User-based access controls

Testing and rollback options

Change monitoring and tracking

# Taking Automation to the Next Level

## Dynamic

- Improve capabilities with dynamic value look ups

## Topology

- Better configurations based on understanding neighbours

## Control

- Maintain control with role-based access and rights

## Flexibility

- Reduce time with multi-device coordinated change

## Ease of use

- Eliminate scripts by leveraging intuitive GUI across multiple vendors and devices



# Next steps

- **More info:** Request further information
- **Evaluate:** Take the Infoblox product portfolio for a test drive

## Thank You

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