

Network Infrastructure Configuration & Archiving

version : 2.0

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Acknowledgement

- Original slides prepared by Randy Bush

Configuration (Templates)

```
!configure timezone
service timestamps debug uptime
service timestamps log datetime localtime
service password-encryption
clock timezone UTC +6
```

```
! turn off unnecessary services (global)
no ip domain-lookup
no cdp run
no ip http server
no ip source-route
no service finger
no ip bootp server
no service udp-small-servers
no service tcp-small-servers
```

```
! turn off unnecessary services (interface)
Interface GigabitEthernet0/0
no ip redirects
no ip directed-broadcast
no ip proxy arp
no cdp enable
```

```
! turn on logging and snmp
logging 192.168.253.56
snmp-server communityTxo~QbW3XM ro 98
!
access-list 99 permit 192.168.253.0 0.0.0.255
access-list 99 deny any log
access-list 98 permit host 192.168.253.51
access-list 98 deny any log
!
```

Configuration (Templates)

```
line vty 0 4
access-class 99 in
exec-timeout 2 0
transport input ssh
!
line con 0
access-class 99 in
exec-timeout 2 0
!
banner motd #
!!!! WARNING !!!!
You have accessed a restricted device.
All access is being logged and any
unauthorized access will be prosecuted to
the full extent of the law.
#
```

```
!Turn on NTP
ntp authenticate
ntp authentication-key 1 md5 -UN&/6[oh6
ntp trusted-key 1
ntp access-group peer 96
ntp server 192.168.254.57 key 1
access-list 96 permit host 192.168.254.57
access-list 96 deny any log
```

Configuration change logging

```
Router# configure terminal
Router(config)# archive
Router(config-archive)# log config
Router(config-archive-log-config)# logging enable
Router(config-archive-log-config)# logging size 200
Router(config-archive-log-config)# hidekeys
Router(config-archive-log-config)# notify syslog
```

```
768962: Feb  1 20:59:45.081 UTC: %PARSER-5-CFGLOG_LOGGEDCMD: User:fakrul
logged command:!exec: enable
768963: Feb  1 21:03:17.160 UTC: %PARSER-5-CFGLOG_LOGGEDCMD: User:fakrul
logged command:no ipv6 prefix-list dhakacom_AS23956_IN_IPv6 description
768965: Feb  1 21:03:19.182 UTC: %SYS-5-CONFIG_I: Configured from console by
fakrul on vty0 (2405:7600:0:6::250)
```

RANCID

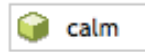
- The "Really Awesome New Cisco conflg Differ"
- A configuration management tool:
 - Keeps track of changes in the configs of your network equipment (Cisco, HP, Juniper etc.)
 - Works on routers and switches

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- Run (manually or automated)
- Lookup list of groups
- For each device in each list of groups
 - Connect to the equipment (telnet, ssh, ...)
 - Run "show" commands – config, inventory, ...
 - Collect, filter/format data
 - Retrieve the resulting config files
 - CVS check-in the changes
 - Generate a diff from the previous version
 - E-mail the diff to a mail address (individual or group)

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OUTERS




◀ Rev 291 | ✎ Last modification | 📄 Compare with Previous | 📅 View Log | 📡 RSS feed

Path	
<input type="checkbox"/>	bdhub/
<input type="checkbox"/>	└─ configs/
<input type="checkbox"/>	└─ aggr01.bdhub.com
<input type="checkbox"/>	└─ aggr01.newtexbd.com
<input type="checkbox"/>	└─ core01.bdhub.com
<input type="checkbox"/>	└─ core02.bdhub.com


Compare Paths

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SUBVERSION REPOSITORIES  ROUTERS

Subversion Repositories

 calm

 English - English


(root)/bdhub/configs/core01.bdhub.com - Rev 292

Rev


[◀ Rev 291](#) | [👤 Blame](#) | [🔍 Compare with Previous](#) | [🕒 Last modification](#) | [📖 View Log](#) | [📰 RSS feed](#)

```
!RANCID-CONTENT-TYPE: cisco
!
!Chassis type: ASR1013 - a ASR1013 router
!CPU: RP2
!
!Memory: main 4231048K/6147K
!Memory: nvram 32768K
!
!Processor ID: FOX1512GTJT
!
!
!Image: Software: X86_64_LINUX_IOSD-ADVENTERPRISEK9-M, 15.2(4)S1, RELEASE SOFTWARE (fc3)
!Image: Compiled: Sat 06-Oct-12 13:01 by mcpre
!Image: bootflash:asr1000rp2-adventerprisek9.03.07.01.S.152-4.S1.bin
!
!
!BootFlash: BOOT variable = bootflash:asr1000rp2-adventerprisek9.03.07.01.S.152-4.S1.bin,12;
!BootFlash: CONFIG_FILE variable does not exist
!BootFlash: BOOTLDR variable does not exist
!BootFlash: Configuration register is 0x2102
!BootFlash: Standby not ready to show bootvar
!
!Flash: nvram: Directory of nvram:/
!Flash: nvram: 32769 -rw-      50703          <no date>  startup-config
!Flash: nvram: 32770 ----      1946          <no date>  private-config
!Flash: nvram: 32771 -rw-      50703          <no date>  underlying-config
!Flash: nvram: 1 ----        239          <no date>  persistent-data
!Flash: nvram: 2 -rw-        17           <no date>  ecfm_ieee_mib
!Flash: nvram: 3 -rw-       1198          <no date>  ifIndex-table
!Flash: nvram: 33554432 bytes total (31 MB free)
!
```

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VERSION REPOSITORIES  ROUTERS



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 English - English

bdhub/configs/core01.bdhub.com - Rev 291 → 292

Rev 292

[◀ Rev 291](#) | [🔍 Show entire file](#) | [🔇 Ignore whitespace](#) | [📄 Details](#) | [👤 Blame](#) | [📅 Last modification](#) | [📖 View Log](#) | [📡 RSS feed](#)

Rev 291	Rev 292
Line 1161...	Line 1161...
permit ip host 117.58.243.58 host 212.174.34.58	1161 permit ip host 117.58.243.58 host 212.174.34.58
permit ip host 117.58.247.42 host 212.174.34.58	1162 permit ip host 117.58.247.42 host 212.174.34.58
permit ip host 117.58.247.42 host 82.222.53.242	1163 permit ip host 117.58.247.42 host 82.222.53.242
permit ip 17.58.246.64 0.0.0.15 any	1164 permit ip 17.58.246.64 0.0.0.15 any
permit ip host 117.58.243.228 host 203.76.117.98	1165 permit ip host 117.58.243.228 host 203.76.117.98
	1166  permit ip host 202.4.114.228 83.175.120.32 0.0.0.31
ip access-list extended PORT_BLOCK	1167 ip access-list extended PORT_BLOCK
deny udp any 72.44.64.0 0.0.15.255 eq 2427	1168 deny udp any 72.44.64.0 0.0.15.255 eq 2427
deny udp any 72.44.64.0 0.0.15.255 eq 4569	1169 deny udp any 72.44.64.0 0.0.15.255 eq 4569
deny udp any 72.44.64.0 0.0.15.255 eq 5036	1170 deny udp any 72.44.64.0 0.0.15.255 eq 5036
permit ip any any	1171 permit ip any any
Line 1448...	Line 1449...
ip prefix-list AS7473_SINGTEL-OUT permit 103.12.176.0/22 le 24	1449 ip prefix-list AS7473_SINGTEL-OUT permit 103.12.176.0/22 le 24
ip prefix-list AS7473_SINGTEL-OUT permit 115.69.208.0/21 le 24	1450 ip prefix-list AS7473_SINGTEL-OUT permit 115.69.208.0/21 le 24
ip prefix-list AS7473_SINGTEL-OUT permit 202.4.105.0/24	1451 ip prefix-list AS7473_SINGTEL-OUT permit 202.4.105.0/24
ip prefix-list AS7473_SINGTEL-OUT permit 202.59.136.0/24	1452 ip prefix-list AS7473_SINGTEL-OUT permit 202.59.136.0/24
ip prefix-list AS7473_SINGTEL-OUT deny 118.179.29.0/24	1453 ip prefix-list AS7473_SINGTEL-OUT deny 118.179.29.0/24
	1454  ip prefix-list AS7473_SINGTEL-OUT permit 58.145.184.0/21 le 24
ip prefix-list AS7473_SINGTEL-OUT permit 103.7.112.0/22 le 24	1455 ip prefix-list AS7473_SINGTEL-OUT permit 103.7.112.0/22 le 24
ip prefix-list AS7473_SINGTEL-OUT permit 103.26.136.0/23 le 24	1456 ip prefix-list AS7473_SINGTEL-OUT permit 103.26.136.0/23 le 24
ip prefix-list AS7473_SINGTEL-OUT permit 115.127.22.0/24	1457 ip prefix-list AS7473_SINGTEL-OUT permit 115.127.22.0/24
	1458

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- <http://shrubby.net/rancid/>