



CISCO INTEGRATED MANAGEMENT CONTROLLER 3.0(3a) Test Report for Japanese

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CIMC-3.0(3a) System Testing

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Overview

Our testing mainly focuses on identifying the issues and the areas of enhancement for the Japanese environment. Cisco Integrated Management Controller (CIMC) is used for management/monitoring of UCS- C Series Rack servers.

CIMC provides options like WebGUI, CLI and IPMI for management/monitoring tasks. CIMC runs on a separate chip on the C-Series servers and thus is able to provide services in case of any major hardware failure or system crash. CIMC also does user management tasks and supports user access levels of Admin (Full access), User/Operator (can change host features but not CIMC) and Read Only (can only see information). CIMC uses IPMI to monitor thermal and voltage sensors in the servers.

CIMC will perform the following server management tasks:

- Power on, power off, power cycle, reset and shut down the server
- Configure the server boot order
- View server properties and sensors
- Manage remote Management

Acronyms

Acronym	Description
HDD	Hard Disk Drive
IPMI	Intelligent Platform Management Interface
IMC	Integrated Management Controller
LDAP	Lightweight Directory Access Protocol

Acronym	Description
NTP	Network Time Protocol
OS	Operating System
PXE	Preboot eXecution Environment
RAID	Redundant Array of Independent Disks
SNMP	Simple Network Management Protocol
USB	Universal Serial Bus
UCS	Unified Computing System
VD	Virtual Disk
vHBA	Virtual Host Bus Adapter
vNIC	Virtual Network Interface Card

Components

Component Name	Version
Cisco Integrated Management Controller(CIMC)	3.0(3a)

CIMC reduce costs and increase efficiency in managing Cisco standalone server's traditional method of traversing an entire file system file-by-file. CIMC provide comprehensive visibility and management capabilities for compute, network, storage, and virtualization. CIMC is useful for initial configuration of the server and troubleshooting any problems in server operation, however CIMC cannot be used for tasks like deploying an OS, deploying software patches, install software applications and manage external storage on SAN or NAS.

Testing Strategy

CIMC team validates the functionality on Japanese Environments by integrating with IMC Supervisor

- Validate the CIMC in Windows Server 2012 R2/2016 R2, and Windows 10 Japanese OS
- Integration and Validation of Japanese LDAP Authentication
- Validation of Role Base Access control with Japanese AD
- Validation of User groups Authentication with Japanese AD
- Validation of Storage (RAID, VD) configuration and Input parameters in Japanese environment
- Validation of Network Configuration and input parameters in Japanese environment
- Validation of SNMP
- Validation of Enhanced scheduler capabilities

- Support for multiple diagnostic images
- Validation of BIOS policy
- Validation of Boot-order policy and Virtual interface card (VIC) configuration policy
- Validation of Disk group policy
- Validation of Intelligent Platform Management Interface (IPMI) over LAN



Environment Matrix

- [Environment Matrix, page 5](#)

Environment Matrix

Component	Test Setup Details
Web Browser	Internet Explorer 11.0
	Google Chrome 57.0
	Mozilla Firefox 52.0
Servers	UCS C220 M4
	UCS C240 M4
	UCS C460 M4
	UCS C3160 M4
	UCS C3260 M4
Windows OS	Windows 2016/2012 R2 Japanese OS (64 bits)
	Windows 2010 R2 Japanese OS (64 bits)



Test Coverage and Features Tested

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- [Features Tested, page 7](#)

Test Coverage

S.No	Cisco Integrated Management Controller	Test Coverage
1	Validating the functionality of Cisco Integrated Management controller	This test mainly focus on the Validating the functionality of Cisco IMC
2	Validating Boot order configuration of CIMC	This test focus on the end-to-end solution test boot order Configuration of CIMC
3	Validating Storage Functionality support for CIMC	This test focus on the Storage functionality of CIMC
4	Validating Multi-LDAP	This test focus on the functionality of CIMC Japanese Active Directory users.
5	Validating of Role Base Access control	This test focus on the functionality of Role Based Access with AD
6	Validating Japanese locale in Cisco IMC	This test focus on validating the functionality of CIMC with Japanese Input

Features Tested

Following key features are tested during the execution phase

Validating the functionality of CIMC

- Power On the Server
- Power Off the Server

- Associate the Server
- Disassociate the server
- Ping Details
- Set Time Zone

Validating Network related configuration for CIMC

- Export vNIC
- Import vNIC
- Add vNICs in Host Ethernet Interfaces
- Delete vNICs in Host Ethernet Interfaces
- Clone vNICs in Host Ethernet Interfaces
- Add vHBA in Host Ethernet Interfaces
- Clone vHBA in Host Ethernet Interfaces
- Delete vHBA in Host Ethernet Interfaces

Validating Storage Functionality support in CIMC

- Create Virtual Drive from an Existing Virtual Drive group
- Create RAID Groups
- Modify Drive Security
- Initialize Virtual Drive
- Configure operational Profile for Cisco Flex Flash
- Configure cards for Cisco Flex Flash
- Configure Firmware Mode for Cisco Flex Flash

Launching Remote Management in CIMC

- Launch Java Based KVM console
- Launch HTML Based KVM console

Validating Boot Order in CIMC

- Add Local HDD
- Add PXE Boot
- Modify SAN Boot
- Clone SAN Boot
- Add NVME
- Add USB
- Add SD card

Validation of SNMP in Japanese environment

- Add User
- Modify User
- Delete User
- Restore Password Expiration Details

Validation of Storage VD configuration and Input parameters in Japanese environment

- Create virtual drive from unused physical drive
- Clear boot drive
- Get storage firmware log
- Delete virtual drive
- Edit virtual drive

Integration and Validation of Japanese LDAP Authentication

- Configuring LDAP Server
- Configuring LDAP Group Authorization
- Delete LDAP Group Authorization

Validating Inventory and Sensors in CIMC

- Power Supplies
- Cisco VIC Adapters
- Dynamic Storage
- LEDs Sensors

Validating power Cap Configuration

- Run Power Characterization
- Power Monitoring
- Configure Suspend Period

Validation of Role Base Access control with Japanese AD

- Read only user
- Normal user
- Admin user

IMC - CIMC Integration Features

- Network Time Protocol (NTP) policy
- IMC network settings policy

- Network security policy
- Validating Boot order Policy
- Validating Bios Policy



CIMC-3.0(3a) Test Results

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Test Results

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- [Validating networking related configuration for CIMC, on page 12](#)
- [Validating Storage Functionality support in CIMC, on page 12](#)
- [Launching Remote Management in CIMC, on page 13](#)
- [Validating Configure Boot Order in CIMC, on page 13](#)
- [Validation of SNMP in Japanese environment, on page 14](#)
- [Integration and Validation of Japanese LDAP Authentication, on page 14](#)
- [Validating Inventory and Sensors in CIMC, on page 14](#)
- [Validating power Cap Configuration, on page 14](#)
- [Validation of Role Base Access control with Japanese AD, on page 15](#)
- [IMC - CIMC Integration Features, on page 15](#)

Validating the functionality of CIMC

Title	Description	Status
Power On the Server	Verify Power On the Server is done successfully	Pass
Power Off the Server	Verify Power Off the Server is done successfully	Pass
Associate the Server	Verify association of the Server done successfully	Pass
Disassociate the server	Verify disassociation of the Server done successfully	Pass
Ping	Verifying Ping option to ping in a particular IP address successfully	Pass

Title	Description	Status
Set Time Zone	Verify Set Time Zone done successfully	Pass
Locator LEDs	Verify Locator LEDs Turn On/Turn OFF successfully	Pass

Validating networking related configuration for CIMC

Title	Description	Status
Export vNIC	Verify Cisco IMC Exports the adapter configuration as an XML file successfully	Pass
Import vNIC	Verify Cisco IMC Imports the adapter configuration as an XML file successfully	Pass
Add vNICs in Host Ethernet Interfaces	Verify vNIC is added in Host Ethernet successfully	Pass
Delete vNICs in Host Ethernet Interfaces	Verify vNIC is Deleted in Host Ethernet successfully	Pass
Clone vNICs in Host Ethernet Interfaces	Verify vNIC is Cloned in CIMC successfully	Pass
Add vHBA in Host Ethernet Interfaces	Verify vHBA is added in CIMC successfully	Pass
Clone vHBA in Host Ethernet Interfaces	Verify vHBA is cloned in CIMC successfully	Pass
Delete vHBA in Host Ethernet Interfaces	Verify vHBA is Deleted in CIMC successfully	Pass

Validating Storage Functionality support in CIMC

Title	Description	Status
Create Virtual Drive from an Existing Virtual Drive group	Verify Virtual Drive created from an Existing Virtual drive group successfully	Pass
Create RAID Groups	Verify RAID Groups Created in CIMC successfully	Pass
Modify Drive Security	Verify Drive Security Modify in CIMC successfully	Pass
Initialize Virtual Drive	Verify Virtual Drive initialize in Cisco IMC successfully	Pass

Title	Description	Status
Configure operational Profile for Cisco Flex Flash	Verify the configuration of operational Profile for Cisco Flex Flash successfully	Pass
Configure cards for Cisco Flex Flash	Verify Configure cards for Cisco Flex Flash successfully	Pass
Configure Firmware Mode for Cisco Flex Flash	Verify Configure Firmware Mode for Cisco Flex Flash successfully	Pass

Launching Remote Management in CIMC

Title	Description	Status
Launch Java Based KVM console	Verify Launch Java from C240 M4, C220 M4, C460 M4, C3260, and C3160 servers from CIMC done successfully	Pass
Launch HTML Based KVM console	Verify Launch HTML from C240 M4, C220 M4, C460 M4, C3260, and C3160 servers from CIMC done successfully	Pass

Validating Configure Boot Order in CIMC

Title	Description	Status
Add Local HDD	Verify Add Local HDD are Configured in BIOS successfully	Pass
Add PXE Boot	Verify Add PXE Boot are Configured in BIOS successfully	Pass
Modify SAN Boot	Verify Modify SAN Boot are Configured in BIOS successfully	Pass
Clone SAN Boot	Verify Clone SAN Boot are Configured in BIOS successfully	Pass
Add NVME	Verify Add NVME are Configured in BIOS successfully	Pass
Add SD Card	Verify Add card are Configured in BIOS successfully	Pass

Validation of SNMP in Japanese environment

Title	Description	Status
Add User	Verify Add User is created in SNMP successfully	Pass
Modify User	Verify Modify User is modified in SNMP successfully	Pass
Delete User	Verify Delet User is deleted in SNMP successfully	Pass

Integration and Validation of Japanese LDAP Authentication

Title	Description	Status
Configure LDAP Server	Verify pre configure LDAP servers are successfully created in CIMC	Pass
Configure LDAP group Authorization	Verify LDAP group Authorization are successfully created in CIMC	Pass
Delete LDAP group Authorization	Verify delete LDAP group authorization are Successfully done in CIMC	Pass

Validating Inventory and Sensors in CIMC

Title	Description	Status
Power Supplies	Verify power supplies are successfully created in CIMC	Pass
Cisco VIC Adapters	Verify Cisco VIC Adapters are successfully created in CIMC	Pass
Dynamic Storage	Verify Dynamic Storage are successfully added in CIMC	Pass
LEDs Sensors	Verify LEDs Sensors are successfully added in CIMC	Pass

Validating power Cap Configuration

Title	Description	Status
Run Power Characterization	Verify Run Power Characterization are successfully created in CIMC	Pass
Power Monitoring	Verify Power Monitoring are successfully created in CIMC	Pass
Configure Suspend Period	Verify Configure Suspend Period are Successfully added in CIMC	Pass

Validation of Role Base Access control with Japanese AD

Title	Description	Status
Read only user	Verify Read only user are successfully login in CIMC	Pass
Normal user	Verify Normal user are successfully login in CIMC	Pass
Admin user	Verify Admin user are successfully login in CIMC	Pass

IMC - CIMC Integration Features

Title	Description	Status
Network Time Protocol (NTP) policy	Verify NTP policy are successfully created in IMC-CIMC Supervisor	Pass
IMC network settings policy	Verify IMC network settings policy are successfully created in IMC-CIMC Supervisor	Pass
Network security policy	Verify Network security policy are successfully added in IMC-CIMC Supervisor	Pass
Validating Boot order policy	Verify Boot order policy are successfully added in IMC-CIMC Supervisor	Pass
Validating Bios Policy	Verify Bios Policy are successfully added in IMC-CIMC Supervisor	Pass



CHAPTER

5

Open Caveats and Resolved Caveats

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- [Verified Caveats, page 17](#)
- [Caveats Images, page 19](#)
- [Related Documentation, page 27](#)

Open Caveats

Defect ID	Issues Description	Regional Specific issues
CSCve12463	Cisco Global Home page gets failed to open by clicking on Cisco Symbol in CIMC Chrome Browser	Yes
CSCve14711	Add tags from created tags were failed to list out in Cisco IMC Supervisor Rack Servers	Yes
CSCve13916	Help page throwing error message in IMC Supervisor	Yes
CSCve14271	Validation require for contact Email in administration	Yes
CSCve00915	vNIC is not accepting inbound value for Memory Region field	Yes
CSCve12381	Additional Information required in help for vhba and vnic	Yes

Verified Caveats

Defect ID	Issues Description	Regional Specific issues
CSCvd63234	Request for drop down list for LDAP is not validating in CIMC Chrome Browser on C460 server	Yes

Defect ID	Issues Description	Regional Specific issues
CSCvd63265	Severity Filter is not performing under faults and logs in Chassis on C460 server	Yes
CSCvd83259	RATOV field is not accepting the value in specified range while adding vHBA on C3260 Server	Yes
CSCvd63200	Request for navigating to Fault entries from Alert option failed in CIMC Chrome Browser	Yes
CSCvd73456	Request for select all component option in Firmware Management failed to enable in CIMC Chrome Browser	Yes
CSCvd87264	Home button is failed to get navigate from any pages to Chassis Summary in CIMC Chrome Browser	Yes
CSCvd89999	Default vlan should throw error message for character while adding vHBAs in c3260 server C3260 Server	Yes
CSCve14694	vNICs Page is continuously loading in Adapter Card1	Yes
CSCve08276	LDAP Tables are overlapped under windows 16 Japanese OS in CIMC	Yes

Caveats Images

CSCvd63234

Cisco Integrated Management Controller

admin@10.78.240.163 - C3260-FOX1928GSPY

更新 | ホスト電源 | KVMの起動 | Ping | リポート | ロケータLED

ローカルユーザ管理 | **LDAP** | セッション管理

暗号化の有効化:
バインド証明書の有効化:
タイムアウト: 45 (0~180)秒
パスワード:

ユーザ検索の優先順位 LDAPユーザデータベース (優先度 1)
ローカルユーザデータベース (優先度 2)

▼ LDAPサーバの設定

▼ グループ認証

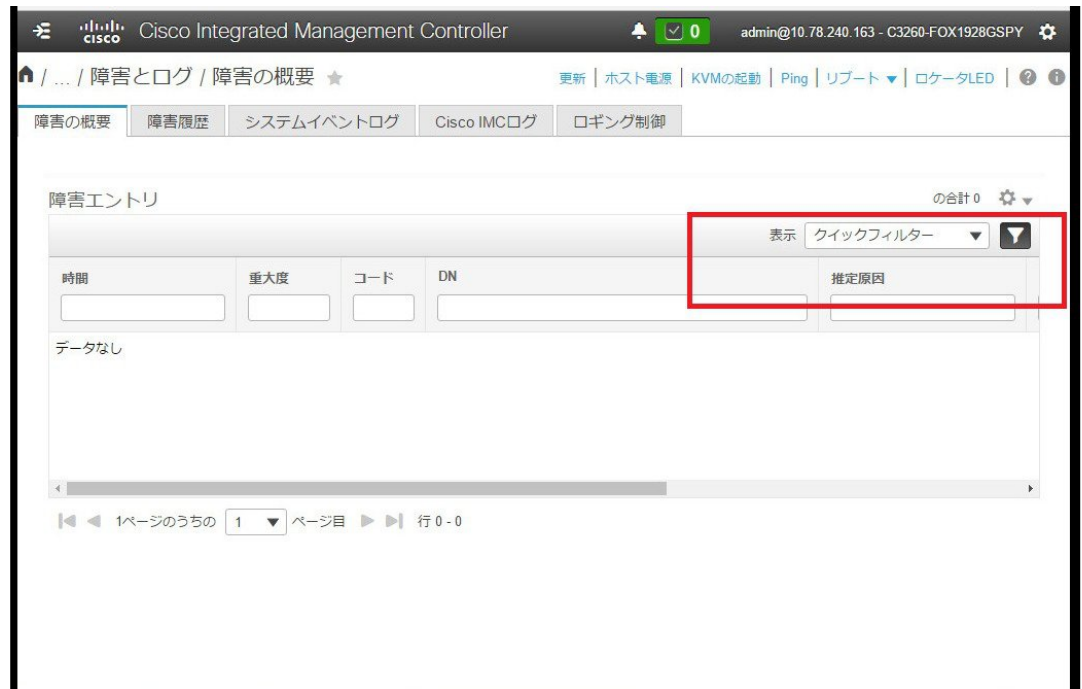
LDAPサーバの事前設定
LDAPサーバ

LDAPグループ認証:

1. [] 389

変更の保存 値のリセット

CSCvd63265



Cisco Integrated Management Controller

admin@10.78.240.163 - C3260-FOX1928GSPY

障害とログ / 障害の概要

更新 | ホスト電源 | KVMの起動 | Ping | リポート | ロケータLED

障害の概要 | 障害履歴 | システムイベントログ | Cisco IMCログ | ログ制御

障害エントリ の合計 0

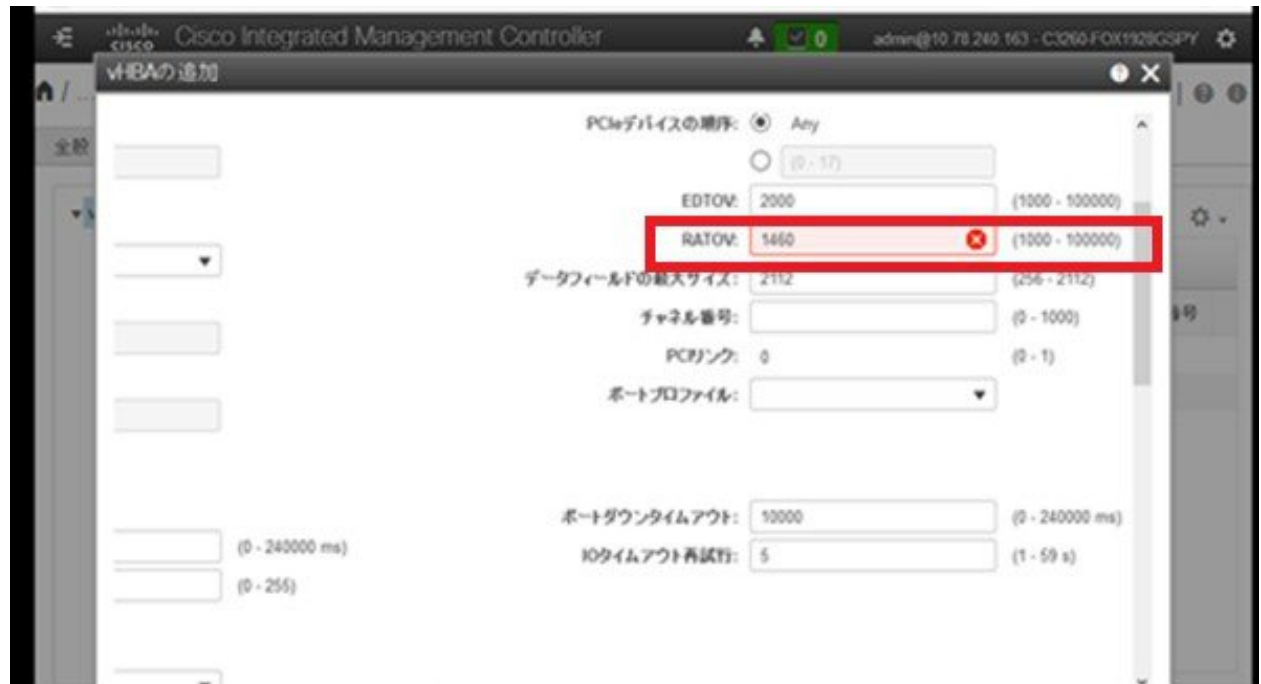
表示: クイックフィルター

時間	重大度	コード	DN	推定原因

データなし

1ページうちの 1 ページ目 行 0 - 0

CSCvd83259



Cisco Integrated Management Controller

admin@10.78.240.163 - C3260-FOX1928GSPY

vHBAの追加

PCIeデバイスの順序: Any (0 - 17)

EDTOV: 2000 (1000 - 100000)

RATOV: 1460 (1000 - 100000)

データフィールドの最大サイズ: 2112 (256 - 2112)

チャンネル番号: (0 - 1000)

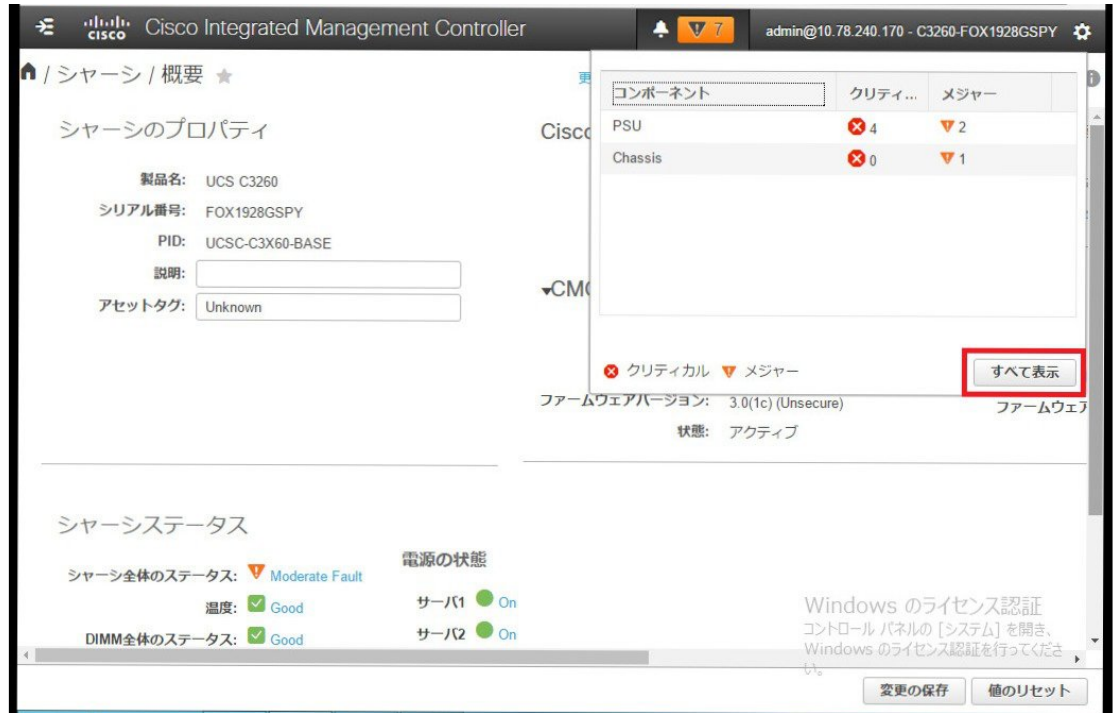
PCIリンク: 0 (0 - 1)

ポートプロファイル:

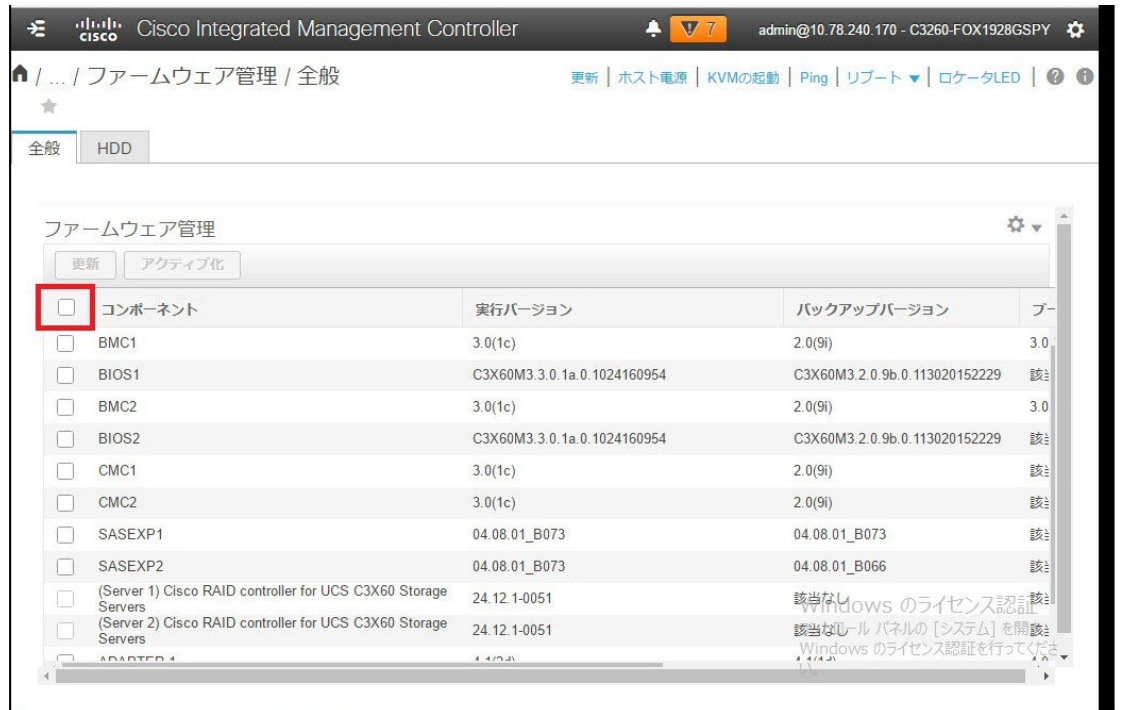
ポートダウンタイムアウト: 10000 (0 - 240000 ms)

I/Oタイムアウト再試行: 5 (1 - 50 s)

CSCvd63200



CSCvd73456



CSCvd87264

The screenshot shows the Cisco IMC web interface for a Cisco FlexFlash device. The breadcrumb navigation path is highlighted with a red box: **Home / Cisco FlexFlash / 全般**. The main content area is divided into sections for general information and drive counts.

全般 (General) Information:

- 製品名: Cisco FlexFlash
- コントローラ名: FX3S
- 実行中のファームウェアバージョン: 1.3.2 build 165
- 段階的 ファームウェアバージョン: 1.3.2 build 165
- ベンダー: Cypress
- コントローラステータス: No SDCards Available In Slots
- ファームウェア動作モード: configure
- ファームウェア設定モード: util
- 管理可能なカード: No

物理ドライブ数 (Physical Drive Count): 0

仮想ドライブ数 (Virtual Drive Count): 0

At the bottom right, there is a notice: "Windows のライセンス認証コントロール パネルの [システム] を開き、Windows のライセンス認証を行ってください。"

CSCvd89999

The screenshot shows the "vHBAの追加" (Add vHBA) configuration window in the Cisco IMC. The "デフォルトVLAN" (Default VLAN) setting is highlighted with an orange box. The value is set to "a".

Configuration Details:

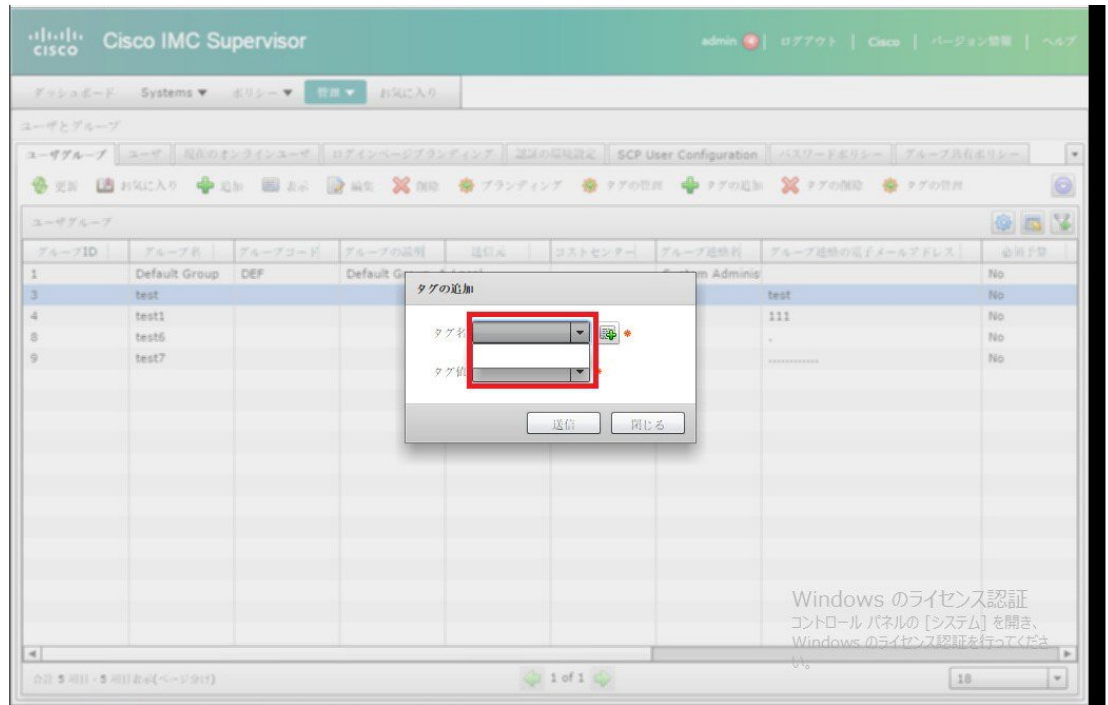
- 名前: [Empty]
- ターゲットWWNN: Auto
- ターゲットWWPN: Auto
- FC SANポート:
- 永続的なLUNマッピング:
- アップリンクポート: 0
- MACアドレス: Auto
- デフォルトVLAN: None, a
- エラーリカバリ:
 - FCPエラーリカバリ:
 - リンクダウンタイムアウト: 30000 (0 - 240000 ms)


Buttons at the bottom: vHBAの追加, 値のリセット, 閉じる

CSCve12463



CSCve14711



CSCve13916**HTTPステータス 404 - /app/cloudmgr/help/a/en_US/index.html** ステータスレポート /app/cloudmgr/help/a/en_US/index.html The requested resource is not available.**Apache Tomcat/7.0.64**

CSCve14271

Group ID	Group Name	Group Code	Group Descri	Source	Cost Center	Group Contai	Group Contact Email Address	Budget Requi	Resource Lim	LDAP Account	Host	Tags	Group
1	Default Group	DEF	Default Group	Local		System Adminis		No	No				
3	test			Local			test	No	No				
4	test1			Local			111	No	No				
8	test6			Local			.	No	No				
9	test7			Local			No	No				

CSCve00915

有効なユーザ名を入力してください

調停時間: i (0-65535us)

CSCve12381

Cisco Integrated Management Controller

admin@10.78.148.88 - C326

アダプタカード 1 / vHBA

更新 | ホスト電源 | KVMの起動 | Ping | リポート

全般 vNIC vHBA

vHBAS

fc0
fc1
test9
test98
sample
sample90

ホストファイバチャネルインターフェイス

vHBAの追加 vHBAの複製 vHBAの削除

名前	WWPN	WWNN	ブート	アップ..	ポートプロ...	チャネル番号
<input type="checkbox"/> fc0	20:00:70:E4:22:C3:F6:50	10:00:70:E4:22:C3:F6:50	disabled	0		3
<input type="checkbox"/> fc1	20:00:70:E4:22:C3:F6:51	10:00:70:E4:22:C3:F6:51	disabled	1		4
<input type="checkbox"/> test9	20:00:70:E4:22:C3:F6:53	10:00:70:E4:22:C3:F6:53	disabled	0		98
<input type="checkbox"/> test98	20:00:70:E4:22:C3:F6:54	10:00:70:E4:22:C3:F6:54	disabled	0		8
<input type="checkbox"/> sample	20:00:70:E4:22:C3:F6:56	10:00:70:E4:22:C3:F6:56	disabled	0		19
<input type="checkbox"/> sampl...	20:00:70:E4:22:C3:F6:5F	10:00:70:E4:22:C3:F6:5F	disabled	0		100

CSCve14694

Cisco Integrated Management Controller

admin@10.78.148.88 - C326

アダプタカード 1 / 全般

更新 | ホスト電源 | KVMの起動 | Ping | リポート

全般 vNIC vHBA

vNICのエクスポート | vNICのインポート | リセット | デフォルトにリセット

アダプタカードのプロパティ

PCIスロット: 1 ハードウェアレビジョン: 3 説明:

ベンダー: Cisco Systems Inc Cisco IMC管理対応: no FIPモードの有効化:

製品名: UCSC-C3260-SIOC 設定の保留: yes LLDPの有効化:

製品ID: UCSC-C3260-SIOC ISCSIブート対応: True VNTAGモードの有効化:

シリアル番号: FCH1941JJ2L CDN対応: True ポート0:

バージョンID: V01 usNIC対応: True ポート1:

リクエストの処理

ファームウェア

実行バージョン: 4.1(2d) ブートロータのバージョン: 4.0(7b)

バックアップバージョン: 4.1(1d) ステータス: Idle

スタートアップバージョン: 4.1(2d)

外部イーサネットインターフェイス

ポート0 ポート1

MACアドレス: MACアドレス:

リンクの状態: リンクの状態:

Encap: Encap:

変更の保存

CSCve08276

Cisco Integrated Management Controller

admin@10.78.240.163 - C3260-FOX1928GSPY

更新 | ホスト電源 | KVMの起動 | Ping | リポート | ロケータLED

ローカルユーザ管理 | LDAP | セッション管理

イン...	グループ名	グループドメイン	ロール
<input type="checkbox"/> 1	1	1	読み取り専用
<input type="checkbox"/> 2			
<input type="checkbox"/> 3			
<input type="checkbox"/> 4			
<input type="checkbox"/> 5			

DNSを使用してLDAPサーバを設定する

DNSパラメータ

送信元: 抽出済み

検索するドメイン:

変更の保存 | 値のリセット

Related Documentation

CIMC Installation and upgrade guide

http://www.cisco.com/c/en/us/td/docs/unified_computing/ucs/c/hw/C3160/install/C3160.pdf

CIMC User Guide 3.1

http://www.cisco.com/c/en/us/td/docs/unified_computing/ucs/c/sw/cli/config/guide/3_0/b_Cisco_UCS_C-Series_CLI_Configuration_Guide_for_C3x60_Servers_301.pdf

CIMC Configuration Guide 3.1

http://www.cisco.com/c/en/us/td/docs/unified_computing/ucs/c/sw/cli/config/guide/3_0/b_Cisco_UCS_C-Series_CLI_Configuration_Guide_for_C3x60_Servers_301.html

