CMM Advanced Failover - CMM が冗長構成時の拡張フ

ェイルオーバー設定について

ヒント集

CMM Advanced Failover - CMM が冗長構成時の拡張フェイルオーバー設定について

CMM が 2 台で冗長構成となっている場合は、通常ひとつの IP アドレスを割当それぞれプ ライマリとスタンバイの冗長構成になります。 これに拡張フェイルオーバー設定を行い、スタンバイ CMM にも IP アドレスを割当ること

これに拡張フェイルオーバー設定を行い、スタンバイ CMM にも IP アトレスを割当ること でより拡張性のある冗長構成とすることが可能になります。

CMM の拡張フェイルオーバーの設定は以下の3種類あります。

off - スタンバイ CMM のネットワーク・インターフェースを使用不可に する swap - スタンバイ CMM のネットワーク・インターフェースを使用可能にし、 フェイルオーバー中に 2 つの CMM 間で IP アドレスをスワップする noswap - スタンバイ CMM のネットワーク・インターフェースを使用可能にし、 フェイルオーバー中に 2 つの CMM 間で IP アドレスをスワップしない

当ガイドでは CMM の IP アドレスはデフォルトの IP アドレス、ユーザ ID の前提でご説明 します。

(1)CMM の拡張フェイルオーバー off 通常の設定です。 デフォルトは拡張フェイルオーバーの設定は「off」であり、ひとつの IP アドレスを割当、 それぞれプライマリ、セカンダリの構成になります。

(2)CMM の拡張フェイルオーバー swap CMM にログイン後、メニューから[Mgt Module Management]-[Properties]を選択し、 [Advanced Failover]タブで拡張フェイルオーバーの設定を行います。

IBM Chassis Management Module		USERID Settings Log Out Help 🎛	М.
System Status Multi-Chassis Monitor Events + Service and Support + Chassis Management +	Hgt Hodule Hanagement +	Search Wed, 13 Feb 2013 15:1	7:20
	User Accounts	Create and modify user accounts that will have access to this web conspie	
Chassis Charge chassis name System Information *	Firmware	View CHMI firmware information and update firmware	
	Security	Configure security protocols such as SSL and SSH	
Chassis Active Events	Network	Network settings such as SNMP and LOAP used by the CMM	
Table View	Configuration	Badiup current configuration and restore a configuration	
	Properties	Properties and settings such as Date and Time and Palevier	
	License Key Management	Licenses for additional functionality	
	Restart	Restart the CMM. Typically only needed when experiencing problems	
	Reset to Defaults	Sets all current configuration settings back to default values	
	File Hanagement	View or delete flec in the CHM local storage file system.	

[Use Advanced Failover]にチェックを入れると「swap」、「noswap」が選択できるようになります。



[Swap]を選択し[Apply]ボタンを押下して構成を保存します。

ton cleases menufications module
System Status Multi-Chasis Monitor Events • Service and Support • Chasis Hanagement • Hgt Module Hanagement • Search Wed, 13 Feb 2013 15:18:52
Management Module Properties
General Date and Time Advanced Palover
Narmaly, when a primary management module fails, the standay module assumes control automatically, takes the IP address of the primary module, and causes no downtime.
In some stuations, howeves control might not fail over to the standby management module when it in fact should. This includes, for example, stuations in which the primary module is running but not reliably responding. To protect against these stuations, you can configure additional network settings for failovers that will allow you to manually access the standby module when automatic failover does not happen. Specifically, this means you will assign a distinct IP address to the standby module, instead of just specifying a single IP address to be used for both.
Indicate below whether or not you wish to use advanced fallover.
Advanced failover current setting is Off
2 Use Advanced Relover
Do not swap Nanagement Module IP addresses - In a fallover situation, you will need to log on to the management module using the IP address that you have specified below for the standby module.
Swap Management Module IP addresses - In a fallower situation, the IP address that you use for the management module will remain the same. The IP address of the falled management module will be transferred to the standby module, and back from the standby module to the primary module.
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IBM Chassis Management Module USERED Settings Log Cut Help LE/L.
System Status Multi-Chassis Monitor Exents + Service and Support + Chassis Management + Mgt Module Management + Search Wed, 13 Feb 2013 15:19:12
Management Module Properties

General Date and Time Advanced Palaver		
Normally, when a primary management module fails, the standby mo- In some stuations, however, control might not fail over to the stand reasonation. To overact catanist these stuations, you can configure a	fule assumes control automatically, takes the ₽ address of the primary module, and causes by management module when it in fact should. This includes, for example, stuations in whit a load or mo	no downtime. th the primary module is running but not relativ dule when automatic failower does not happen.
Specifically, this means you will assign a distinct $\mathbb P$ address to the str Indicate below whether or not you wish to use advanced follows:	Save advanced follows settings? Advanced follows settings have been changed. These configuration changes will be come active after the next reso of the CMM.	
Advanced fallover current setting is Off	OK Carcel	
 Do not swap Management Module IP addresses - In a fallow 	er situation, you will need to log on to the management module using the IP address that $\boldsymbol{\gamma}$	ou have specified below for the standby module.
Swap Management Module D addresses - In a falover stual transferred to the standby module, and back from the stan (Apply)	tion, the 3D address that you use for the management module will remain the same. The 3D dby module to the primary module.	address of the failed management module will be

IEM Chassis Management Module	USERID	Settings	Leg Out	Help	IBM.
System Status Multi-Chassis Monitor Events • Senice and Support • Chassis Management • Mgt Module Management • Search			Wedy 13	3 Feb 2013	3 15:19:33
Management Module Properties					
General Date and Time Advanced Palaver					
Normally, when a primary management module fails, the standby module assumes control automatically, takes the IP address of the primary module, and causes In some stuations, howevers control might not fail over to the standby management module when it in fact should. This includes, for example, stuatons in whe responding. To protect against these stuators, you Specifically, this means you will assign a distinct IP address of the properties Indicate below whether or not you wish to use address.	s no downtin ich the prim x when	re. ry module is r automatic faik	unning but r aver does no	iot relably t happen.	
Advanced felover current setting is Off Ube Advanced Relover					
Do not swap Nanagement Module IP addresses - In a fallower situation, you will need to log on to the management module using the IP address that	you have sp	ecfed below	for the stand	by module	
Swap Manapement Module Ø addresses - In a falover stuation, the Ø address that you use for the manapement module will remain the same. The I transferred to the standby module, and back from the standby module to the primary module.	P address of	the failed man	agement m	odule will b	28

[Close]ボタンを押下した後、CMM をリスタートします。 [Mgt Module Management]-[Restart]を選択、[Nomal Restart]を選択して[OK]ボタン を押下してリスタートします。

IBM Chassis Management Medule		USERID Settings Log Out Help IBM.								
System Status Multi-Chassis Monitor Events • Service and Support • Chassis Management •	Hgt Hodule Hanagement +	Search Wed, 13 Feb 2013 15:20:00								
	User Accounts Create									
Management Module Properties	Firmware	View CHM firmware information and update firmware								
	Security	Configure security protocols such as SSL and SSH								
General Date and Time Advanced Palaver	Network	Network settings such as SNMP and LOAP used by the CMM								
	Configuration	Badup current configuration and restore a configuration								
Normally, when a primary management module fails, the standby module assumes control automatically, takes	Properties	Properties and settings such as Date and Time and Pallover								
In some stuations, howeves, control might not fail over to the standby management module when it in fact a respondent. To context pariet these shuckness way can configure additional extransity for failures the	License Key Hanagement	Licenses for additional functionality								
Specifically, this means you will assign a distinct IP address to the standby module, instead of just specifying a	Restart	Restart the CMM. Typically only needed when experiencing problems								
Indicate below whether or not you wish to use advanced fallover.	Reset to Defaults	Sets all current configuration settings back to default values								
Advanced fallower current setting is Off	File Hanagement	View or delete flex in the CHM local storage file system.								
Use Advanced Falover										
 Do not swap Management Module IP addresses - In a failover situation, you will need to log on to the 	e management module using th	e IP address that you have specified below for the standby module.								
Swap Management Module IP addresses - In a fallower situation, the IP address that you use for the transferred to the standby module, and back from the standby module to the primary module.	management module will remain	the same. The $\ensuremath{\mathfrak{V}}$ address of the failed management module will be								
Apply										

IBM	Chassis Manag	gement Module						USERID		IBM.
	System Status	Multi-Chassis Monitor	Events +	Service and Support +	Chassis Management: +	Higt Module Hanagement +	Search		Wed, 13 Feb 201	3 15:20:23

Management Module Properties

General Date and Time Advanced Palover		
	Restart Management Module X	
Normaly, when a primary management module fails, th	@ Mormal Restart	fowntime.
In some situations, however, control might not fail ove responding. To protect against these situations, you o	All existing network connections will be temporarily but as a result. If this is the local system you will need to open a new browser window and login in to the web console again.	te primary module is running but not relably a when automatic fallover does not happen.
Specifically, this means you will assign a distinct IP adds	Restart and Switch to Standby Nanogement, Module This action will cause a restart of this HM, followed by a switch over to the standby HM in bay 2. All existing network connections will be temporarily list as a result. You will need to open a new bravear and relign to get back in to the	
Indicate below whether or not you wish to use advan	user interface. Note: If you have DHCP enabled on the primary MMS external network interface, and the IP address is assigned by the DHCP server, after the anisth over to the standby MM, the DHCP server uil assign a different P address the standby MM. There is not her address the standby address the stand standby MM, the DHCP server uil assign a different P address the standby MM. There is not her address the standby MM, the DHCP server uil assign a different P address the standby MM. There is not her address the standby MM, the DHCP server the address the standby MMS end to be address the standby MMS end to be address the standby MMS end to be address to be address the standby MMS end to be address to be address the standby MMS end to be address to be address to be address to be address to be address to be address to be address to be address to be address to be address to be address to be address to be address t	
Advanced fallover current secting is Om	disable DHOR. Static IP configuration is the recommended setting in this environment.	
Use Advanced Palover	Restart Standby Only Sectors to Standby Western Middle	
 Do not swap Nanagement Module IP address 		have specified below for the standby module.
Sivap Management Module IP addresses - In transferred to the standby module, and back	LOK Cancel	tress of the failed management module will be
Apply		

IBN	Chassis Manag	pement Module					u	SERID	Settings Log Out Help IBM.
	System Status	Multi-Chassis Monitor	Events +	Service and Support \star	Chassis Management +	Hgt Hodule Hanagement 👻	Search		Wed, 13 Feb 2013 15:20:41

Management Module Properties

General Date and Time Advanced Palaver	Restart Management Module ×	
Normally, when a primary management module fails, th In some stuations, howeves, control might not fail ove responding. To protect against these stuations, you of Specifically, this means you will assign a distinct IP addr Indicate below whether or not you wish to use advan	Normal Restart Al existing methods connections will be temporarily tost as a result. If this is the local system you will need to open a new browser window and login in to the web conside again. Restart The dots Connect The dots Connect Connect	townome. Ne primery module is running but not relativ is when automatic fallower does not happen.
Advanced falover current setting is Off Use Advanced falover Do not sinkp Management Module IP address Sinkp Management Module IP addresses - In transferred to the standby module, and back ADDV	Concel	have specified below for the standby module. Ireas of the failed management module will be

リスタート後、CMM にログインしたら再度メニューから[Mgt Module Management]-[Properties]を選択し、[Advanced Failover]タブで拡張フェイルオーバー の設定を確認します。

IBM Chassis Management Medule		USERID Settings Log Out Help IBM.
System Status Multi Chassis Monitor Events + Service and Support + Chassis Management +	Hgt Hodule Hanagement +	Search Wed, 13 Feb 2013 15:32:03
	User Accounts	Create and modify user accounts that will have access to this web console
Chassis Change chassis name System Information *	Firmware	View CHM firmware information and update firmware
	Security	Configure security protocols such as SSL and SSH
Chasse Active Events	Network	Network settings such as SNMP and LDAP used by the CMM
Table Werk	Configuration	Badiup current configuration and restore a configuration
	Properties	Properties and settings such as Date and Time and Palover
	License Key Management	Licenses for additional functionality
	Restart	Restart the CMN. Typically only needed when experiencing problems
	Reset to Defaults	Sets all current configuration settings back to default values
	File Management	Vew or delete fles in the CHM local storage file system.

スタンバイ CMM の IP アドレス設定項目が表示され、スタンバイ側の IP アドレス情報を設 定します。 デフォルトではスタンバイ CMM の IP アドレスは「192.168.70.99」が設定されます。

IBM Chassis Management	Module				USERID	Settings Log Out Help	IBM.
System Status Multi-C	hassis Monitor Events •	Service and Support •	Chassis Nanagement +	Hgt Hodule Hanagement +	Search	Wed, 13 Feb 201	3 15:33:16
Advanced falover current settl Use Advanced Falover Do not sinko Nanager module. Sinko Managerment M Sinko Hanagerment M	, ng is Swap ment Module IP addresses lodule IP addresses - In a fa	In a falover stuation, yo	u will need to log on to th tress that you use for the	te mänägement module using ti mänägement module vill remai	te IP address that you have so the same. The IP address of	ecfied below for the standby the faled management module will	1
Host name Domain name Ipv4 DHCP	NN3440B50F00E8-2	anfiguration	an na ganang ang ang ang ang ang ang ang				
IPv4 Static IP Configura	rtion						
IP address Subnet mask Gateway address IPv6 Link local address Lav6 static IP configuration	192.168.70.99 255.255.255.0 0.0.0.0 fe80::200:#fe00:0 Dsabled						
IP address: Address prefix length: Gateway address: DHCPvd Stateless Auto Configuration Apply	0::0 0 0::0 Enabled Enabled						

ブラウザの新しいウインドウ URL に「https://192.168.70.99/」を入力しアクセスして CMM にログインすると以下の画面が表示されます。

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🔆 (11.55)		×	A (1155)	×	🔆 (10.20)	×	(2 CH 55)	×		×	🔆 (11.55)	×	🔆 (1155)	×		× *	×
IBM Chassis Management Module USERID Log Out IBM.																	
Stand	by Ma	anage	ement Mod	ule													

This is the standby management module for your chassis, and is not currently active.

You cannot access the functionality of this management module unless you make it active. You may want to do this, for example, if you are unable to connect to the primary

In order to make this management module the active one now:

- 1. Ock the "Switch Over" button 2. The primary management module, will then be rebooted as the non-active module, followed by a switch over to the standby management module. All existing network connections will be temporarily lost as a result. 3. Wait until your browser detects that this management module is ready to be used. It will automatically refresh the page when it's ready. You will have to login again to get back in to the management module well
- console. You can then interact with the management module functionality as you normally would.

Switch Over

management module.

ここで「Switch Over」ボタンを押下しフェイルオーバーさせます。

ō ÷	÷	C	A https://102168.30.99/ntandby~index~concole.php								<u></u>	v
		×	(R 0155)	× 🔆 (19.20)	× 42 (00.55)	× 🚓 (19.220)	× 🔆 (11.550)	× (2005)	× 🦛 🗮	80	× •	×
IBM Char	sis Ma	mage	ment Module						USERID		IBM	i.

Standby Management Module

This is the standby management module for your chassis, and is not currently active.

You cannot access the functionality of this management module unless you make it active. You may want to do this, for example, if you are unable to connect to the primary management module.

In order to make this management module the active one now:

- 1. Old: the "Switch Over" button 2. The primary management module, will then be rebooted as the non-active module, followed by a switch over to the standby management module. All existing network connections will be temporarily lost as a

Not until your browser detects that this management module <u>is used</u>, to <u>be used</u>. It will <u>automatically refresh</u> the <u>name when it's ready. You will have to login again to get back in to the management module we</u> console. You can then interact with the management module. **Confirm Switch Over** X Switch Over





Standby Management Module

This is the standby management module for your chassis, and is not currently active.

You cannot access the functionality of this management module unless you make it active. You may want to do this, for example, if you are unable to connect to the primary management module.

In order to make this management module the active one now:

- 1. Cick the "Switch Over" button
- 2. The primary management module will then be reboated as the non-active module, followed by a switch over to the standby management module. All existing network connections will be temporarily lost as a

Wat until your browser detects that this management module is ready to be used. It will automatically refresh the page when it's ready. You will have to login again to get back in to the management module we console. You can then interact with the management module functionality as you normally would.

Switch Over

(3)CMM の拡張フェイルオーバー noswap ブラウザの URL にプライマリ CMM のアドレス「<u>https://192.168.70.100/</u>」を入力し接 続します。

「noswap」の設定は「swap」設定と同様に、メニューから[Mgt Module Management]-[Properties]を選択し、[Advanced Failover]タブで拡張フェイルオーバー の設定をします。

IBM Chassis Management Module		USERID Settings Log Out Help IBM.
🕎 System Status Multi-Chassis Monitor Events • Service and Support • Chassis Management •	Hgt Module Hanagement +	Search Wed, 13 Feb 2013 16:01:05
	User Accounts	Create and modify user accounts that will have access to this web consule
Chassis Change chassis name System Information *	Firmware	View CHMI firmware information and update firmware
	Security	Configure security protocols such as SSL and SSH
Chasse Active Events	Network	Network settings such as SNMP and LDAP used by the CMM
Isole Vew	Configuration	Bedrup current configuration and reatore a configuration
1 St. 1 St. 1	Properties	Properties and settings such as Date and Time and Fallover
	License Key Hanagement	Licenses for additional functionality
	Restart	Restart the CMN. Typically only needed when experiencing problems
	Reset to Defaults	Sets all current configuration settings back to default values
	File Hanagement	View or delete files in the CHM local storage file system.

	an chasais manag	gennern nivsdure					v.	-CHLLD	Decords co2	your I weep	1.071
4	System Status	Multi-Chassis Monitor	Events +	Service and Support +	Chassis Management +	Ngt Module Nanagement +	Search]	W	(ed, 13 Feb 2013	16:01:3

Management Module Properties

General	Date and Time	Advanced Falover				
Managemer	rt module name	SN#Y014B627B04W				
Serial baud	rate	115200 -				
Serial party		None -				
Serial stop i	bits	1 -				
Apply						

[Use Advanced Failover]にチェックを入れると「swap」、「noswap」を選択できるようになります。

IBM Chassis Management Module	USERID	Settings Log Out Help IBM.
System Status Multi-Chassis Monitor Events • Service and Support • Chassis Management • Mgt Module Management • Search		Wed, 13 Feb 2013 16:01:48
Management Module Properties		
General Date and Time Advanced Falover		
Normally, when a primary management module fails, the standby module assumes control automatically, takes the IP address of the primary module, and causes	s na downtime	e.
In some situations, however, control might not fail over to the standby management module when it in fact should. This includes, for example, situations in wh responding. To protect against these situations, you can configure additional network settings for failovers that will allow you to manually access the standby m Specifically, this means you will assign a distinct IP address to the standby module, instead of just specifying a single IP address to be used for both.	hich the prima nodule when a	ry module is running but not reliably sutomatic fallover does not happen.
Indicate below whether or not you wish to use advanced falloves		
Advanced fallover current setting to Off		
Use Advanced Palaver		

[Do not swap]を選択し[Apply]ボタンを押下して構成を保存します。

IBM Chassis Management Module	USERID	Settings Log Out Help	IBM.
System Status Multi-Chassis Monitor Events • Service and Support • Chassis Management • Mgt Module Management • Search		Wed, 13 Feb 20	13 16:02:09
Management Module Properties			
General Date and Time Advanced Palover			
Narmally, when a primary management module fails, the standby module assumes control automatically, takes the IP address of the primary module, and causes In some stuations, howeves, control might not fail over to the standby management module when it in fact should. This includes, for example, stuations in wh responding. To protect against these stuations, you can configure additional network settings for failowers that will allow you to manually access the standby m Specifically, this means you will assign a distinct IP address to the standby module, instead of just specifying a single IP address to be used for both.	na downtime ich the primar adule when a	b. ry module is running but not relab sutomatic fallover does not happer	łr L
Indicate below whether or not you wish to use advanced follows:			
Advanced falover current setting a Off			
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On not swap Nanagement Module IP addresses - In a failover situation, you will need to log on to the management module using the IP address that	you have spe	offed below for the standby mod.	ale.
Swap Management Module IP addresses - In a failover situation, the IP address that you use for the management module will remain the same. The IP transferred to the standby module, and back from the standby module to the primary module.	address of t	the failed management module will	be
Apply			

IBM Chassis Management Module		USERID	Settings Log Out Help IBM.
System Status Multi-Chassis Monitor Events + Service :	nd Support + Chassis Hanagement + Higt Module Hanagement + Search	5	Wed, 13 Feb 2013 16:02:26
Management Module Properties			
General Date and Time Advanced Ralover			
Normally, when a primary management module fails, the standby mo	dule assumes control automatically, takes the ${\mathbb P}$ address of the primary module, a	nd causes no downtime	h
In some stuations, howeves, control might not fail over to the starr responding. To protect against these situations, you can configure a Specifically, this means you will assign a distinct IP address to the sta	by management module when it in fact should. This includes, for example, stuation of an example, stuation of a stuation of the set o	ons in which the primar candby module when a	y module is running but not relably utomatic falover does not happen.
Indicate below whether or not you wish to use advanced follows: Advanced failower current setting is Off	Save advanced failover settings? Advanced failover settings have been changed. These configuration changes will become active after the next reset of the CNM.		
Use Advanced Relover	OK Carcel		
Op not swap Management Module IP addresses - In a falo	er stuation, you wil need to log on to the management module using the IP add	iress that you have spe	ofied below for the standby module.
 Swap Management Module IP addresses - In a fallover stud transferred to the standby module, and back from the star 	ton, the IP address that you use for the management module will remain the san dby module to the primary module.	ne. The IP address of t	he faled management module will be
Apply			

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System Status Multi-Chassis Monitor Events + Senice and Support + Chassis Management + Higt Module Management + Search			Wed, 13 Feb 201	3 16:02:4
Management Module Properties				
General Date and Time Advanced Falover				
Normally, when a primary management module fails, the standby module assumes control automatically, takes the IP address of the primary module, and caus	es no downtim	10.		
In some stuations, howeves, control might not fail over to the standby management module when it in fact should. This includes, for example, stuations in w responding. To protect against these situations, you can configure additional network settings for failovers that will allow you to manually access the standby Specifically, this means you will assign a distinct IP ad Management Module Properties	hich the prim module when	ny module is n automatic faio	nning but not relabi var does not happen	,
Indicate below whether or not you wish to use adva 🔽 Advanced Pallover - Management module properties advanced failover values have been a	pplied			
Advanced fallower current setting is Off				
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Swap Management Module D addresses - In a fallower stuation, the D address that you use for the management module will remain the same. The transferred to the standby module, and back from the standby module to the primary module.	12 address of	the failed man	agement module sell	be

[Close]ボタンを押下した後、CMM をリスタートします。 [Mgt Module Management]-[Restart]を選択、[Nomal Restart]を選択して[OK]ボタン を押下してリスタートします。

IBM Chassis Management Module		USERID Settings Log Out Help IBM.
🜌 . System Status Multi-Chassis Monitor Events 🔹 Service and Support 👻 Chassis Management 👻	Ngt Hodule Hanagement +	Search Wed, 13 Feb 2013 16:03:0
	User Accounts	Greate and modify user accounts that will have access to this web consule
Management Module Properties	Firmware	View CHMI firmware information and update firmware
	Security	Configure security protocols such as SSL and SSH
General Date and Time Advanced Relover	Betwork	Network settings such as SMMP and LDAP used by the CMM
	Configuration	Badup current configuration and restore a configuration
Normally, when a primary management module fails, the standby module assumes control automatically, takes	Properties	Properties and settings such as Date and Time and Pallover
In some stuations, however, control might not fail over to the standay management module when it in fact s	License Key Management	Licenses for additional functionality
Specifically, this means you will assign a distinct IP address to the standby module, instead of just specifying a	Restart 🐣	Restart the CMM. Typically only needed when experiencing problems
Indicate below whether or not you wish to use advanced fallover.	Reset to Defaults	Sets all current configuration settings back to default values
Advanced failover current setting a Off	File Management	View or delete fles in the CHM local storage file system.
Use Advanced Falover		
Bo not swap Management Module IP addresses - In a fallover situation, you will need to log on to the	e management module using th	e IP address that you have specified below for the standby module.
 Sinko Management Module IP addresses - In a fallower situation, the IP address that you use for the transferred to the standby module, and back from the standby module to the primary module. Apply 	management module will remain	the same. The ${\bf \mathcal P}$ address of the failed management module will be

IBN	l Chassis Manag	gement Medule						USERID	Settings Log Out Help IBM.
1	System Status	Multi-Chassis Monitor	Events +	Service and Support \star	Chassis Management +	Hgt Module Hanagement +	Search		Wed, 13 Feb 2013 16:03:25

Management Module Properties

General Date and Time Advanced Palover		
Normalia suban a minana mana manta madula falir at	Restart Nanagement Module X	A A LOU A MORE A
inormany, when a primary management module fails, th In some stustions, howeves, control might not fail over responding. To protect against these stuations, you o	(i) Normal Restart All existing network connections will be temporarily lost as a result. If this is the local system you will need to open a new toward window and togoin in to the web conside again.	revinome. he primary module is running but not relably a when automatic falover does not happen.
Specifically, this means you will assign a distinct IP adds Indicate below whether or not you wish to use advan	Restart and Switch to Standby Management Module The action will cause a nector of the MM, followed by a switch over to the ctandby MM in bay 2. All existing network connectors will be temporarily lost as a result. You will need to open a new browser and relign to get back in to the	
Advanced falover current setting is Off	Les de roterbas, notes i ryau tante uno, encodes al rote primary investigations indication, and the privatories la assigned by the DHOS amount, after the autohowing the standard MM, the DHO Persen vill assigned of the encode address to the standby MM. If you want to be able to access both MMs at the same static IP address, you need to cleade DHCP. Static IP configuration is the recommended eating in this environment.	
Do not swap Management Module IP address	Restart Standby Only Restarts the Standby Management Module.	have specified below for the standby module.
Swap Management Module SP addresses - In transferred to the standby module, and back Apply	OK Cancel	tress of the faled management module will be

18	M Chassis Manaj	gement Module						USERID Settings	Log Out Help	IBM.
1	System Status	Multi-Chassis Monitor	Events +	Service and Support \star	Chassis Nanagement +	Ngt Module Hanagement +	Search		Wed, 13 Feb 2013	16:03:42

Management Module Properties

General Date and Time Advanced Pallover		
	Restart Management Module X	
Normally, when a primary management module fails, th		sowntime.
In some stuations, however, control might not fail ove responding. To protect against these situations, you d	(i) Mormal Restart All existing network connections will be temporarily last as a result. If this is the local system you will need to open a new to experive window and togin in to the web console again.	te primary module is running but not relably a when automatic falover does not happen.
Specifically, this means you will assign a distinct IP adds	Restart Management Module X	
Indicate below whether or not you wish to use advan	The active connection of the product	
Advanced fallover current setting is Off	address OK Cancel vou need to	
Use Advanced Falover		
IDD not swap Management Module IP address	Restart Standby Only Restarts the Standby Management Hodule.	have specified below for the standby module.
 Swap Management Module IP addresses - In transferred to the standby module, and back 	OK Cancel	Iress of the faled management module will be
Apply		

リスタート後、CMM にログインしたら再度メニューから[Mgt Module Management]-[Properties]を選択し、[Advanced Failover]タブで拡張フェイルオーバー の設定を確認します。

IBM Chassis Management Nodule		USERID Settings Log Out Help IBM.
System Status Nulti-Chassis Monitor Events • Service and Support • Chassis Management •	Mgt Module Management +	Search Wed, 13 Feb 2013 16:12:29
	User Accounts	Create and modify user accounts that will have access to this web console
Chassis Change chassis name System Information *	Firmware	Vev CMM fimmare information and update firmware
	Security	Configure security protocols such as SSL and SSH
Chasses Active Events	Network	Network settings such as STVMP and LDAP used by the CMM
Table Kew	Configuration	Sackup current configuration and restore a configuration
1574	Properties	Properties and settings such as Date and Time and Palover
	License Key Henegement	Lioenses for additional functionality
	Restart	Restart the CHML Typically only needed when experiencing problems
	Reset to Defaults	Sets all current configuration settings back to default values
	File Hanagement	View or delete files in the CMM local storage file system.

スタンバイ CMM の IP アドレス設定項目が表示され、スタンバイ側の IP アドレス情報を設 定します。 デフォルトではスタンバイ CMM の IP アドレスは「192.168.70.99」が設定されます。

IBM Chassis Managemen	t Nodule					USERID Settings	Cog Out Help	IBM.
System Status Multi	Chassis Monitor Events -	Service and Support +	Chassis Management +	Mgt Nodule Management +	Search]	Wed, 13 Feb 201	3 16:13:13
Indicate below whether or n	ot you wish to use advanced	failover.						
Advanced fallover current set	tting is No Swap							
Use Advanced Falover								
 Do nat swap Hanag module. 	ement Nodule IP addresses	In a falover stuation, yo	u will need to log on to th	te management module using t	he IP address that yo	u have specified below t	for the standby	
 Swap Nanagement be transferred to th 	Module IP addresses - In a fa e standby module, and back	lover stuation, the IP add from the standby module	dress that you use for the to the primary module.	management module will remai	in the same. The IP a	ddress of the failed man	ragement module will	
Host name	MH0440850F0DE8-2							
Domain name								
Ipv4								
DHCP	Disabled - Use static IP c	onfiguration						
IPv4 Static IP Configu	ration							
IP address	192.168.70.99							
Subnet mask	255.255.255.0							
Gabeway address	0.0.0.0							
IPv6								
Link local address Jov6 static IP configuration	fe80::200:ff:fe00:0 Disabled							
IP address:	0::0							
Address prefix length: flateway address:	0							
DHCPv6	Enabled							
Stateless Auto Configuration	Enabled							
Apply								

ブラウザの新しいウインドウ URL に「https://192.168.70.99/」を入力しアクセスして CMM にログインすると以下の画面が表示されます。

a (ፍ 🔅 C 🔒 Hype//192188.7099/stardayrindexroanallepip 🏠 🕫											
2 0155			×		🔆 (0150) ×	- (11.00) ×	(k 0050) ×	🔆 (0155) ×			× •	×
IBM C	has	sis M	anage	ement Nodule	an an an a		n-uur-uur-aun-auna-		USE	RID Log Out	IB)	٤.

Standby Management Module

This is the standby management module for your chassis, and is not currently active.

You cannot access the functionality of this management module unless you make it active. You may want to do this, for example, if you are unable to connect to the primary management module.

In order to make this management module the active one now:

- 1. Cick the "Switch Over" button The primary management module will then be rebooted as the non-active module, followed by a switch over to the standby management module. All existing network connections will be temporarily lost as a
- result. 3. Wait until your browser detects that this management module is ready to be used. 2: will automatically reflexib the page when this ready. You will have to login again to get back in to the management module web console. You can then interact with the management module functionality as you normally would.

Switch Over

ここで[Switch Over]ボタンを押下しフェイルオーバーさせます。

Ω	۰.	C a http://192183.099/standor-constephp								- 17	12	
200	10		×	- (10.00) ×	42 (00.55) ×	- <u>*</u> (2000) ×	🔆 (855) 🛛 👘	42 (0155) ×	- (1990) ×	🚓 (1935)	× •	x
IBM	Chas	sis Man	age	ment Module					USER		IBM	٤.

Standby Management Module

This is the standby management module for your chassis, and is not currently active.

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In order to make this management module the active one now:

Switch Over

- 1. Click the "Switch Over" button 2. The primary management module will then be rebooted as the non-active module, followed by a switch over to the standby management module. All existing network connections will be temporarily last as a result.
- Wat until your browser detects that this management module k readu to be used. It will automatically reflect the none when it's ready. You will have to logn again to get back in to the management module wet

and well areas interests into a second substance - second	 	
	Are you a	ure



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👷 00.500 × 🕂 🚓 00.500 × 🖂 00.500	10 × 🚓 (11)	× 🚓 (00.55)	× 🕀 (0155)	× 🦛 (1939)	× 🚓 (1935)	× * ×
IBM Chassis Management Nodule					USERID Log O.	IBM.
Standby Management Module						
This is the standby management module for your chassis,	and is not currently active.					
You cannot access the functionality of this management m management module.	odule unless you make it active. You	u may want to do this, for e	stample, if you are unable to	o connect to the primary		
In order to make this management module the active one	naws					
 Click the "Switch Over" button The primary management module will then be reboresuit. 	oted as the non-active module, folo	aved by a switch over to th	e standby management mo	dule. All existing network	connections will be temporari	ridst as a
 Wait until your browser detects that this managem console. You can then interact with the managem 	Switch Over to Redundant MM			🗶 login again to	get back in to the manageme	nt module web
Switch Over	The MM is about to beco The transition from stand	me Primary MM. Therefor dby to primary will take a f	a, your session is being ter ew moments.	minated.		
	Close					

フェイルオーバー後、再度ブラウザで「https://192.168.70.99/」にアクセスして CMM にログインすると今度は通常のプライマリCMMの表示となります。 フェイルオーバーしましたが、IP アドレスの「swap」は起こりません。

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ie (115	Ð		×	🚓 (MAR)	× 🔆 🕅	11) × 4	k (1939) ×	🔆 (1155) 🛛 🖈	🔹 (##) 🛛 🛛 🛛		x	🚓 (1955)	× * ×
IBM	Char	sis Ma	inage	nent Nodule			n-nu-nu-nu-nu			USERID	Settings	Log Out Help	IBM.
2	Syst	em Stat	tus I	fuiti-Chassis Monitor	Events *	Service and Support	 Chassa Management 	• Mgt Module Manager	nent • Search			Wed, 13 Feb 2013	1 16:19:30

Chassis Charge chass name System information *

「<u>https://192.168.70.100/</u>」にアクセスして CMM にログインするとスタンバイ CMM の 表示となります。

ō.	🗟 🔶 🤣 🔮 https://192183.70.100/standoy-index-coreo.kptp 🔅 🐑												
in 1	10		×	**	ND ×	🔆 (1155)	×		🔆 (0150) - ×	🚓 (00.55) 🛛 🛛 🛛	 × 🔆 (1955	þ	× • ×
IBM	Cha	ssis Ma	anage	ment	lodule						USERID	Log Out	IBM.

Standby Management Module

This is the standby management module for your chassis, and is not currently active.

You cannot access the functionality of this management module unless you make it active. You may want to do this, for example, if you are unable to connect to the primary management module.

In order to make this management module the active one now:

1. Clck the "Switch Over" button

2. The prmary management module will then be rebooted as the non-active module, followed by a switch over to the standby management module. All exoting network connections will be temporarily lost as a

The private indexer in the private as the indexers indexe, notice of a sector while the page when it's ready. You will have to login again to get back in to the management module web console. You can their interact with the management module functionality as you normally would.

Switch Over

補足 CMM の仮想 IP アドレス

仮想 IP アドレス・オプションを使用可能にすると、プライマリおよびスタンバイ CMM の IP アドレス設定に関わらず、常にプライマリ CMM にアクセスできるようになります。 CMM にログイン後、メニューから[Mgt Module Management]-[Network]を選択します。

IBM Chassis Management Nodu	de .			USERID	Settings Log Out Help	IBM.
System Status Multi-Chassis	Nonitor Events • Service and Support •	Chassis Management +	Mgt Nodule Management +	Search	Wed, 13 Feb 2013	16:41:13
			User Accounts	Create and modify user account	its that will have access to this web console	2
Chassis Orange chass	is name System Information 💌		Firmware	View CMM firmware information	and update firmware	
			Security	Configure security protocols su	ich as SSL and SSH	
Chassis Active Events			Metwork dis	Network settings such as SNMP	and LDAP used by the CMM	
Table View			Configuration	Backup current configuration ar	nd restore a configuration	
	р 50% и р. 50% и р		Properties	Properties and settings such as	Date and Time and Palover	
			License Key Hanagement	Licenses for additional function	alty	
a <u>2000 000 200</u> 200 200 200 200 200 200 20			Restart	Restart the OHM. Typically only	y needed when experiencing problems	
			Reset to Defaults	Sets all current configuration se	ettings back to default values	
Long Street Long			File Hanagement	Weyl or delete files in the CMM	local storage file system.	
Interior and Interior						_

[Ethernet]タブの[IPv4]または[IPv6]タブで[Floating address]項目に仮想 IP アドレスを 設定します。

Wed, 13 Feb 2013 16:42:05

-

ここでは、例として「192.168.70.254」を設定します。 IBM Chassis Management Module USERIO Settings | Log Out | Help IBM. System Status Multi-Chassis Monitor Events • Service and Support • Chassis Management • Mgt Module Management • Service

Network Protocol Properties

emet SHIP DNS SNTP LDAP Clent TCP Command Node SLP FTB, TFTB; and SFTP Tehet Web Access (HTTP / HTTPS) Part Assignments CM hernet Configuration mass for how the Management Module communicates via Ethernet Image for how the Management Module communicates via Ethernet Image for how the Management Module communicates via Ethernet Image for how the Management Module communicates via Ethernet Image for how the Management Module communicates via Ethernet Image for how the Management Module communicates via Ethernet Image for how the Management Module communicates via Ethernet Image for how the Management Module communicates via Ethernet Image for how the Management Module communicates via Ethernet Image for how the Management Module communicates via Ethernet Image for how the Management Module communicates via Ethernet Image for how the Management Module communicates via Ethernet Image for how the Management Module communicates via Ethernet Image for how the Management Module communicates via Ethernet Image for how the Management Module communicates via Ethernet Image for how the Management Module communicates Image for how the Management Module comm	0											
hernet Configuration mgs for how the Kanagement Hoole communicates via Ethernet t name MME44005010008-2 min name MME44005010008-2 min name MME44005010008-2 min name MME44005010008-2 Dive Advanced Ethernet Currently assigned IPv4 address Information P address: 192.168.70.99 Subnat mask: 255.255.255.0 Default gateway: 0.00.0 DifS permary: 0.00.0 DifS secondry: 0.00.0 DifS seco	net	SNMP	DNS	SINTP	LOAP Clent	TCP Command Mode	SLP	FTP, TFTP, and SFTP	Teinet	Web Access (HTTP / HTTPS)	Port Assignments	CIN
trame HM044085010018-2 Pr4 Pr6 Advanced Ethernet Currently assigned IPv4 address Information Pradies: 192.168.70.99 Subnet make: 255.255.255.0 Default gateway: 0.0.0.0 DHS primary: 0.0.0.0 DHS primary: 0.0.0.0 DHS tertary: 0.0.0.0 DHS tertary: 0.0.0.0 Ethoting address 192.168.70.254 Configure IP address Settings:		t Config the Manageria	guratic	on municates vi	a Ethernet							
Brid Brid Advanced Ethernet Currently assigned IPv4 address Information Ø address: 192.168.70.09 Subat make: 255.255.0 Default gravenare: 0.0.0.0 DHS permary: 0.0.0.0 DHS secondary: 0.0.0.0	name in name	MM0440	85070068-2	2								
Currently assigned IPv4 address information IP address: 192.168,70.09 Subnat mask: 255.255.255.0 Default gateway: 0.0.0.0 Diffs primay: 0.0.0.0	₽v4	IPv6	Advancer	d Ethernet								
DP address: 192.168.70.09 Subnat mask: 255.255.255.0 Default gateway: 0.0.0.0 DHS secondary: 0.0.0.0 DE Secondary: 0.0.0.0 DE Secondary: 0.0.0.0 DHS Secondary: 0.0.0.0 DHS Secondary: 0.0.0.0 DHS Secondary: 0.0.0.0<	urrently	/ assigned	IPv4 add	lress Infor	mation							
Default gateway: 0.0.0.0 DHS permay: 0.0.0.0 DHS permay: 0.0.0.0 DHS secondary: 0.0.0.0 Configure IP address Settings:	address:	Alter	19	2.168.70.9	9							
DHS primary: 0.0.0.0 DHS sectory: 0.0.0.0 DHS tertary: 0.0.0.0 Floating address 192.166.70.254 I Configure IP address Settings:	efault dat	eway:	0.	0.0.0								
DHS secondary: 0.0.0.0 DHS tertary: 0.0.0.0 Floating address 192.168.70.254 I Configure IP address Settings:	NS primar	Y:	0.	0.0.0								
DNS Sectary: 0.0.0.0 Floating address 1992.166.70.254 [Configure IP address Settings:	NS second	daryt	0.	0.0.0								
Floating address Settings:	NS tertiary	Y:	0.	0.0.0								
Configure IP address Settings:	loating ad	ciness	192.1	68.70.254	1							
	onflaury	e IP addre	ss Setting	35:								
Use static # address	ise static	IP address										

[Apply]ボタンを押下後、[OK]ボタンを押下して設定を保存します。

IBM Chassis Management Nodule		usekin seconds out out neth 12014.
System Status Nulti-Chassis Monitor Events • Service	ind Support + Chasse Management + Mgt Module Management + 58	Wed, 13 Feb 2013 16:42:28
Network Protocol Properties		
Ethernet Configuration Settings for how the Management Module communicates via Ethernet	Ethermet configuration / Network settings	X
Nest name MK5440850/0088-2 Domain name Pv4 IPv6 Advanced Ethernet	 The 'Save' operation may take a few moments. Are you sure you want to proceed? Ev4 address settings have been changed. These configuration changes will become active after the next reset of the CMM. 	
Currently assigned IPv4 address information P address: 192.168.70.09 Subnat mask: 255.255.0 Default gateway: 0.0.0.0 DHS primary: 0.0.0.0 DHS primary: 0.0.0.0 DHS tertary: 0.0.0.0 Fixeting address 192.168.70.254 Configure IP address Settings: Use static IP address	ok Cancel	

IBM Chassis Management Nodule	USERID Settings Log Out Help IBM.
System Status Nutli Chassis Monitor Events + Service and Support + Chassis Management + Mgt Module Management + Search	Wed, 13 Feb 2013 16:42:48
Network Protocol Properties	~
Ethemet SILMP DLIS SMTP LDAP Clent TCP Commund Mode SLP FTP, TFTP, and SFTP Tellnet Web Acces	as (HTTP / HTTPS) Part Assignments CIN
Ethernet Configuration Settings for how the Management Module communicates via Ethernet	
Nost name MM344085D/0065-2 Domain name Ethernet configuration data saved	
IPv4 IPv6 Advanced Ethernet	
Currently assigned IPv4 address information IP address: 192.168.70.09 Subnet makit 255.255.0 Defult gateway: 0.0.0.0 DHS primary: 0.0.0.0 DHS tectnay: 0.0.0.0	
Configure IP address Settings: Use static IP address	

ブラウザでそれぞれ「https://192.168.70.254」、「https://192.168.70.99」、 「https://192.168.70.100」にアクセスして CMM にログインすると以下の画面が表示されます。 仮想 IP アドレス-「https://192.168.70.254」

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ā €	÷ 0	🗧 🔒 https://	192168.70.254/index-	onoolaphp#1							<u></u>
(B20) 👷	×	🔆 (11.550	× 🔆 (00.99)	× 🔆 (00.55)	× 🔆 (0150)	× 🚓 (11.550) ×	🔆 (10.550	× 🗼 🕅	10 ×	a (##	× • ×
IBM Ch	assis Man	agement Mod	ule					USERID	Settings	Log Out	Help IBM.
🔽 Sy	stem Statu	Multi-Chasse	Monitor Events •	Service and Support •	Chassis Management •	Ngt Hodule Nanagement *	Search			Wed, 13 8	Feb 2013 16:55:17
Chase table v	SiS Active	Change ches	as name) (System	information -							

プライマリ CMM アドレス-「<u>https://192.168.70.99</u>」 仮想 IP アドレスで表示したのと 同様に操作できます。

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<u>e</u> (11)	ND-		×	an a	×	🔆 (11.55)	×	(B200 🕵	x	🔆 (0155)	×		×	🔆 (10.20)	×	- (m.g	D	- 4	00.55		* *	×
IBM	Char	usis Mi	anag	ement Modul	•										us	RID	Settings	Log	out (Help	IB)	٤.
	Syst	em Sta	rtus	Multi-Chassis R	lontor	Events *	Service an	d Support 🕶	Chassis	Management •	Mgt	Module Manageme	nt 🕶	Search				W	ed, 13 F	eb 2013	16:56	:24



スタンバイ CMM アドレス-「https://192.168.70.100」 スタンバイ CMM の操作画面に なります。

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1 (M.S.	D.	×	-	08.550	×	- (R (R (B))	× 🔆 (1120)	ж	🔆 (0155)	×	- (11 CT)	×	42.00.550	×	- (12.00 🕵	×	- (R CHEMD)		×	• ×
1814	Chas	sis Ma	anag	ement Ma	dule					0				n—nn-			USERID	Log Out	IB	м.

Standby Management Module

This is the standby management module for your chassis, and is not currently active.

Change chases name System Information 👻

You cannot access the functionality of this management module unless you make it active. You may want to do this, for example, if you are unable to connect to the primary management module.

In order to make this management module the active one now:

- 1. Ock the "Switch Over" button 2. The primary management module will then be rebooted as the non-active module, followed by a switch over to the standby management module. All existing network connections will be temporarily lost as a result.
- result. 3. Wat until your browser detects that this management module is ready to be used. It will automatically refresh the page when it's ready. You will have to login again to get back in to the management module well console. You can then interact with the management module functionality as you normally would.

Switch Over

Chassis