

**PKeys Window** 

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The PKeys window allows users to create new groups of ports and provides information about existing PKeys.



This window offers one predefined PKey (highlighted in the list of PKeys): Management key 0x7fff with Read permissions only.

For further information about InfiniBand partitioning (Pkeys management), please refer to the <u>Partitioning Appendix</u>.

### **Creating New PKey**

1. Click the "New" button under "PKeys". Please note that the yellow highlighted PKeys are predefined ones.

				+ New Displayed Columns - CSV -
	PKey Hex 🗸 ↑		Partition	IP Over IB
		Filter		□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □
0x7fff		management		<b>O</b>
0x7ff		api_pkey_0x7ff		<b>O</b>

- 2. In the New PKey wizard, fill in the required information under the General tab:
  - Name—must be between 0x1 and 0x7fff, inclusive

- Index-0 attribute—True/False
- IP Over IB attribute—True/False

New PKey			×
1 General		2 Members	
Pkey	Ox PKey Name		
Index-0			
✓ IP Over IB			

Next

- 3. Click "Next."
- 4. Under Members tab, select the device of which ports you would like to group in one PKey, and move the members (ports) from the **Available** list to the **Selected** list. For each member (port) you may specify a membership type (Full/limited).

New PKey		×
1 General	2 Members	
Click on a device to select the members ports from the Available Devices	Available Ports	Selected Ports
System Name V ↑ Filter V ufm-host40 ufm-host43	Name ▼ ↑       Filter       ▼       HCA-1/1	Name ▼ ↑     Membership Full       Filter     ▼       Filter     ▼       HCA-1/1     Full       Full     Limited
Viewing 1-2 of 2 M    M  8	Viewing 1-1 of 1 M    M 10	< ► ► ► ► ► ► ► ► ► ► ► ► ► ► ► ► ► ► ►
Previous		Finish

5. Click "Finish". The new PKey will become available under the PKey window.

When selecting a PKey from the PKeys table, **PKey Information** table will appear on the right side of the screen. This table provides information on the PKey's members and QoS settings.

#### **PKey Members Tab**

Provides details on the PKey members: port's hostname (node), device's IP address, port GUID, port number, membership and index-0 attributes values.

		< 0x7ff - Information
	+ New Displayed Columns - CSV -	Members Partition Parameters
PKey Hex	Partition IP Over IB	Displayed Columns -
0x7fff	management I	S I V GUID Membership Index-0 Port Type
0x7ff	api_pkey_0x7ff	Filter $\nabla$ Filter $\nabla$ Filter $\nabla$
		smg-ib-apl 0x248a0703003f18bb Full 🔇 Physical
		smg-ib-apl 0xb8599f03005681a0 Full 🔇 Physical
		smg-ib-apl 0xb8599f03005681a1 Full 🔇 Physical
	Viewing 1-2 of 2 H ← → H 10 •	✓ Viewing 1-3 of 3 M ← M 10 ✓

#### **PKey QoS Tab**

Displays the current partitioning parameter settings of the selected PKey: MTU Limit, Service Level and Rate limit. These settings can be modified by the user.

					<	Ox	x7ff - Informat	tion								
			+ New	Displayed C	olumns 🗸 🛛 CSV 🗸		Members	Parti	tion Parameters							
	PKey Hex 🗸 †		Partition		IP Over IB		MTU Limit		2 KB	~						
0x7fff		→ ♥   Filter management			⊘		Service Level		0	~						
0x7ff		api_pkey_0x7ff			Ø		Rate Limit		2.5 Gbps	~						
							🛕 Changing	g one of	f the above partition	paramet	ers requires	restarting	UFM in orde	r for the cha	inges to take	effect.
			Viewing 1-	-2 of 2 H	< > H 10 V											Update

#### **PKey Actions**

Right-clicking one PKey from the list enables performing the following actions:

- **Modify Members** PKeys can be modified either by editing the attributes under **General** tab, or updating the members under **Members** tab. Including updating ports memberships.
- Remove existing PKeys can be deleted from the list.



#### (i) Note

For information on partitioning, refer to <u>Appendix – Partitioning</u>.



Note that restarting OpenSM is required for the QoS parameters change to take effect.

## **Support Pkey with Virtual Ports**

Creating a pkey with virtual ports is supported, so pkey can contain the following types of port:

- Physical
- Virtual
- Both physical and virtual

The create new pkey wizard dropdown includes port types.

General		2 Members		
k on a device to select the members ports from the	Available list:			
evices	Available Ports	Show: Physical ~	Se	lected Ports
System Name V	GUI		>>	GUID × ↑ Memb Full ×
Filter	Z   (Filter			Filter
	0x0c62a103007aca90	¥		riter
-ufm254-hyp-05	0X0C42d103007dCd70		<	
ufm-host87			"	
				No items were found
Manuface 1 2 of 2 Hd d b Hd 0				
viewing 1-3 of 3 M M P M o	Viewing 1=1 of 1			viewing u-u or u Pit Pit Pit Pit
revious				Fi
revious				Fit
revious w PKey				Fir
revious w PKey		2 Members		Fir
revious w PKey ) General k on a device to select the members ports from the	Available list:	2 Members		Fit
revious w PKey General k on a device to select the members ports from the evices	Available list: Available Ports	2 Members       Show:     Virtual	Se	Fit elected Ports
revious w PKey General k on a device to select the members ports from the evices System Name > ↑	Available list:	2 Members       Show:     Virtual ∨	Se	elected Ports
revious w PKey General k on a device to select the members ports from the evices System Name	Available list:	2 Members       Show:     Virtual →	Se >>>	elected Ports
revious w PKey General K on a device to select the members ports from the evices System Name	Available list:	2 Members       Show: Virtual ▼	Sa >> >	Elected Ports  GUID → ↑ Memb Full →  Filter ♡ Filter
evious w PKey General k on a device to select the members ports from the evices System Name	Available list:	2 Members       Show:     Virtual ∨	Se >> <	elected Ports  GUID → ↑ Memb Full →  Filter ♥   Filter
revious w PKey General k on a device to select the members ports from the evices System Name   r-ufm254-hyp-03 r-ufm254-hyp-04 wice heat?	Available list: Available Ports GU Filter 0x1122334477667700 0x1122334477667701	2 Members       Show:     Virtual ✓	Se S	elected Ports  GUID → ↑ Memb Full →  Filter ♥ Filter
evious W PKey General K on a device to select the members ports from the evices System Name  ↑ Filter * -ufm254-hyp-03ufm254-hyp-04 ufm-host87	Available list: Available Ports GU Filter 0x1122334477667701 0x1122334477667701 0x1122334477667701	2 Members       Show: Virtual ∨	Se >> < < <	elected Ports

Viewing 1-4 of 4 № → ⊮ 10 ~

Viewing 1-3 of 3 🕅 ◀ → 🕅 8 ∽

Finish

Viewing 0-0 of 0 № 4 → № 10 ~

#### New PKey

evices		Available Ports	Show: Both ~		Selected Ports
System Name 🗸 🕆		GUID	) ∨ ↑	>>	GUID → ↑ Memb Full →
Filter	7	Filter	<b>▽</b>	>	Filter
r-ufm254-hyp-03		0x0c42a103007aca90			
r-ufm254-hyp-04		0x1122334477667700			
ufm-host87		0x1122334477667701		<<	
		0x1122334477667710			
		0x1122334477667711			No items were found
			M		

Previous

Finish

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