

# **ITSM Automation NG Express**

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# Administration Guide

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This section describes administration tasks that the IT Administrator and Suite Administer user roles can perform in ITOM Container Deployment Foundation (CDF) and ITSMA NG Express.

- Administer ITOM CDF
- Administer the ITSMA suite

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# Administer ITOM CDF

The ITOM Container Deployment Foundation (CDF) Administrator user role can perform administration tasks in the following areas in ITOM CDF.

- Access ITOM CDF
- Change your password
- Logs
- Manage users
- Management
- Monitor infrastructure status
- Nodes
- Manage licenses
- View the existing images
- Manage Resourses
- Security
- Restart ITOM CDF

# Access ITOM CDF

### Logon

To access ITOM Container Deployment Foundation (CDF), follow these steps:

1. Launch the ITOM CDF from your browser: https://*<master node FQDN*>:5443

You must use the master node host's FQDN instead of its IP address in this URL. That is, the name you specified for EXTERNAL\_ACCESS\_HOST in the **install.properties** file.

You access the application using a supported web browser, from any computer with a network connection (intranet or Internet) to the servers. It is recommended to restore your browser settings to default.

You will be asked to change the password at first logon. See Change your password.

2. Log in to ITOM CDF as the **admin** user.

Use the out-of-box password **cloud** if this is your first login or use the password that you specified at your initial login after installation. See <u>Verify the installation</u>.

# Logout

To log out:

- 1. Click the **[User Name]** button the top right corner of the application and select **Logout**.
- 2. The application closes and the LOGON screen is redisplayed.

When you have completed your session, it is recommended that you log out to prevent unauthorized use.

# Change your password

To change your password, follow these steps:

1. Click the **[User Name]** button in the top right corner and select **Change Password**. The following page opens:

Enterprise	75 ADMIN
RESOURCES V Original password *	
New password *	
Codem new rassword+	
UPDATE PASSWORD	

- Enter the original password, the new password, and verify the new password. The password should have minimum 8 characters and must contain characters the following four categories:
  - Uppercase characters of European languages (A through Z, with diacritic marks, Greek and Cyrillic characters)
  - Lowercase characters of European languages (a through z, sharp-s, with diacritic marks, Greek and Cyrillic characters)
  - Base 10 digits (0 through 9)
  - Nonalphanumeric characters
- 3. Click **UPDATE PASSWORD**.

# Logs

This section describes the logs.

Pod logs show the stderr/stdout of one Kubernetes pod/container.

# Pod logs

- 1. Click **RESOURCES > Workloads > Pods**.
- 2. Click the relevant pod.
- 3. Click **View logs** in the Pod area. The following page is displayed:

	Logs from nginx-ingress-lb 🔹 in nginx-ingress-controller-a9eli	Α	Tr
	WOWA9. AppeNMetKri5373 KK1TML, like Gecko Chrome550 2088 87 Selari553 39 2020 0020 172 7714.7 90P0 656 0022 2020 2017-01-6106-5326 9916973712 16 29150.64 - 16 (29150.64) - 16 (Janr/2017.06-53.26 • 0000) "GET (assert/images/user jop HTTP/11" 200 376 "https://shcdersysim.hpeswlab.net544.3" "Mozilla/50 (Windows NT 6.1: W AppeNetKeir/S373 KK1TML, like Gecko Chrome550 2088 37 Selari553 39 3010 0001 727 7714.7 9090 376 0001 2020 2017-01-6106-6322 52261898/2 16 22150.04 - 16 (Janr/2017.06-63.27 • 00000) "GET (app/Mwerkbad.Gov?itemaPkerlage=106.page=1 HTTP/11" 2017417 "https://shcderaysim.hpeswlab.net544.3" "Mozilla/50 (Windows NT 6.1: W Control 100 - 10	VOW64) illa/5.0 (W	indows
	N 1 0; WWWW Appertext, 132, 26 (41 HL, III.et Leckol, University 253, 263, 242 (101 HZ / 1/kr, XVV) / A31 (101 Z) 2070-01-1610: A33, 38378/3920; 2070-2070; 20705A (- 1: (26)/470/006A33 - 4000); 26E7 (juides pdf HTTP/11*200 23*htps://shcderaysim.hpeswlab.net:5443/**Mozila/50 (Windows NT 61; WOW64) App (KHTML, like Geckol Chrome/550.2883.87 Safar(537.36*3075 0.001 172.7714.79090 23 0.001 200	eleWebKit,	/537.36
	2017-01-bit 06:4222/bi3300502/bi291504-1bi2915044-1-1bi2915044-2-1bi2915044-2-1bi2915044-2-1bi2915044-2-1bi2915044-2-1bi2915044-2-1bi2915044-2-1bi2915044-2-1bi291504-2-1bi291504-2-1bi29150-2-2017-2-2017-2-2000-2-2017-2-2017-2-2000-2-2017-2-2017-2-2000-2-2017-2-2017-2-2000-2-2017-2-2017-2-2000-2-2017-2-2017-2-2000-2-2017-2-2017-2-2000-2-2017-2-2017-2-2000-2-2017-2-2017-2-2000-2-2017-2-201 bi2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-201 bi2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-20 bi2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-20 bi2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-2017-2-201 bi2017-2-201 bi2017-2-20	5.0 (Wind	ows NT
	201-01-bi 00-64-213005000U2 to 22150.04 - 10 22150.04 - 1 10/Jan / 2017/00-64-24 - 00000] Te L / Jap // I/Jaev/cesanddiscovery/core/fitems/er/age=10kpage=11 H 1 P/T / 201 T0/S https://brcderaysim.hpeswida.het	r:544 <i>5/</i> *	
	201-07-16 106/64/395277753721762753026-10.2755064-10.275502683875467257326-4229-02981727714-7969074310.298201 NT 61; WOW64) AppleWeb(1553726 (KHTML, like Gecko) Chrome(550.2883875467257326-4229-02981727114-7969074310.298201	illa/5.0 (W	lindows
	2011-011002694-74205302/10.2730204-10.02730204-10.02730204-0-012730204-0-01200204-0-000-0-01200204-0-0120020	O (windo	WS INT
	2011-0110 00-003105/10/302 1027/3020 1027/30201 - 1027/30201 - 1027/30200 - 1027/	0 (Windows	INT 0.1,
	51, WOW64) AppleVebKit/53736 (KITML, like Gecko) Chrome/550.288387 Safari/5373 de 4224 0159 172.771A.7909 6134 0159 21 0071-0-16105 4587 10567347 1/2 79150.44 - 116/387/071054 458 9 COOIT CET / Indiv/Memory Cetarol Control Cetarol Cetaro	zilla/5.0	
	(Windows NT 61; WOW64) AppleWebKir/537.36 (XHTML, like Gecko) Chrome/55.02883.87 Safar/537.36*4230 0143 172.7714.79090 1/b7 0143 201 2017-01-61706;47(3):217598242 16:2915044 - 16:2915044 16/Jan/2017:06:4703 - 00001 'CET / api/vficonflactore?itemsPerPage=106apae=1 HTTP/11* 201380 "https://shcderavsim.hpesw/ab.net.5443/" 'Mozillai	/5.0 (Wind	iows
	NT 61; WOW64) AppleWebKit/5572.60 (KHTML, like Gecko) Chrome/55.0288387 Safari/55726* 4227 0128 172-7714.79090 380 0128 201 2017-01-6106/47293586975052 16 2915064 - [16/29150.64] [16/Jan/2017.06/4729 =0000] 'CET / api/v/namespace HTTP/11' 201 215 'https://shcderaysim.hpeswlab.net.5443/ "Mozilla/5.0 (Windows NT 61; WOW6	64)	
	AppleWebKirJ53736 (KHTML, like Gecks) Chrome/550 2883 87 Safari/53736* 4202 0134 172.7714.79090 215 0134 201 2017-01-61064/338 99689033972 16 29150 64 - [16/29150 64] [16/Jan/2017.06 4733 + 0000] 'GET / api/v/lconfig/defaulf?itemsPerPage=10&page=1 HTTP/1* 201 336 'https://shcderaysim.hpeswiab.net5443/ *Mozi	lla/5.0 (W	indows
	NT 61; WOW64) AppleWebKiif537.36 (KHTML, like Gecko) Chrome/550.288587 Safari/537.36 4230 0.164 172.7714.79090 336 0.164 201 2017-01-16106.4808.473646627Z W0116 06-48:08.493393 1 controller go 6555 iservice core/suite-conf-svc-itsma does not have any active endpoints		
ļ	2017-01-16106/4808.495427302Z W0116.064&08.495280 1 controller.go?92] upstream core-suite-conf-svc-itsma-8080 does not have any active endpoints. Using default backend 2017-01-16106.4808.496678412Z W0116.064.808.495374 1 utilis.go.231] system net.core.somaxconn=128. Using NGINX default (511)		
	Logs from 1/16/17 8.03 AM to 1/16/17 8.48 AM	< >	×

You can use the following tools:

- . Tr Toggles to change the size of the font used in the log.
- A Toggles to change the colors of the log: white characters on black background or black characters on white background.
- Logs from 10/31/16 7:23 AM to 10/31/16 7:37 AM Timestamp of the currently displayed log.
- . IC C > > > Use the relevant buttons to navigate between logs.

### Manage Suite Export Logs

This section shows how to export the suite logs by gathering the logs from the suite persistent volume(s) and ZIP them up.

### **Export Suite Logs**

 Click SUITE > Management > Export Logs. The log package is downloaded to your local disk.

### Manage users

ITOM Container Deployment Foundation supports two user roles (or user groups):

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#### **IT Administrator**

Manages the shared services infrastructure and all suite products, as well as the grow/shrink functions, and adding and removing working nodes (machines). The IT Administrator is a super administrator. This user has ability to request or add resources and has wide access permissions.

#### **Suite Administrator**

Manages a specific suite product. The Suite Administrator does not have access to the Admin menu and has the privileges with other operations only under a specific namespace. The Suite Administrator is responsible for the relevant suite deployment, configuration, health, images, and more.

In ITSMA, the seeded user **sysadmin** has full privileges of the suite and is responsible for suite administration from the ITSMA user interface. We recommends that you configure a Suite Administrator user named **sysadmin** in ITOM CDF so that the same user can administer the ITSMA suite from both the ITOM CDF and ITSMA user interfaces.

This section provides information on how to manage users.

- Click ADMIN > User Management. The User page opens.
   For each user, this page displays the user name, password, email, and user group.
   ITOM CDF support two user groups: Administrators and Suite Administrators.
- 2. To create a user, click **ADD**. The following dialog box opens. Enter the relevant information, and click **SAVE**.

etter <b>SAVE</b> .
Create user
Username*
Password*
Email*
Group' Administrators
Display Name
SAVE

- 3. To delete a user, click the right-side ACTION icon for the user, select **Delete**, and then click **Delete** again to confirm the deletion.
- To edit or view a user information, click the ACTION icon for the user, and then select View/ Edit.

# Management

The Management page provides information on how to manage and configure the installed suites.

Before the suite is installed, click **SUITE** > **Management**. The following page opens.

Hewlett Packard Enterprise		8 admin
SUITE		
Management	No suite is currently installed	
ADMINISTRATION	Currently, there is no installed suite. Once a suite is installed you will be able to manage and configure the suite here.	
RESOURCES	v	

After installed suite, click **SUITE** > **Management**. The following page opens.



Click : then

- Click **Export logs** to download the suite installation log to local registry.
- Click Uninstall, then UNINSTALL to uninstall the installed suite.
- Click **Reconfigure** to reconfigure the installed suite.

# Monitor infrastructure status

The Infrastructure page displays:

- **Namespaces.** The list of the current default namespaces as well as the namespaces for the suites. Every suite on the same Kubernetes cluster is deployed in a different namespace.
- **Nodes.** The composition of the Kubernetes cluster in terms of servers on which the cluster were installed (master and worker nodes, the physical servers or the VMs).

• **Persistent Volumes.** The persistent volume configuration for one or more suites. These volumes contain the data that needs to live outside of the containers.

To access, click **ADMIN** > **Infrastructure**.

Name	espaces									
Na	ame				Labels				Status	Age
<b>o</b>	pre				-				Active	3 hours
🕑 de	efault				-				Active	3 hours
🕑 ku	ube-system				-				Active	3 hours
Node	s									
Na	ame				Labels				Ready	Age
	107100100				beta.kuber	rnetes.io/arch: amd64	beta.kubernetes.io/os	linux	T	7.1
V 10.	0.187.190.180				kubernete	s.io/hostname: 16.187.190.1	80 master: true	role: loadbalancer	True	3 nours
•	107100101				Label: Wor	rker beta.kubernetes.i	o/arch: amd64 bet	a.kubernetes.io/os: linux	T	7.1
V 10.	0.187.190.181				kubernete	s.io/hostname: 16.187.190.1	81		True	3 nours
Persis	stent Volumes									
Name		Labels	Capacity	Access modes		Status	Claim	Reason	Age	
itom-vol	ł	kubernetes.io/cluster	50Gi	ReadWriteMany		Bound	itom-vol-claim	-	3 hours	:

### Nodes

The Nodes page provides the CPU and Memory usage history of the selected Namespace, a list of the predefined labels, and the list of nodes of the selected Namespace.

When the CPU load is over 80%, it significantly impacts the efficiency of network transmission between the base infrastructure environment. It is recommended to control the CPU load so it is less than 80% by separating the suite instance into multiple worker nodes: adding more worker nodes and killing the pods on heavy-load nodes and deploying those pods on the newly added worker nodes.

### View the existing nodes

To view existing nodes:

#### CPU usage history Memory usage history 0.45 11.2 G 0.30 7.45 0 Time Time Predefined Labels (You can drag a label onto a node Label:Worker [-] key:valu Nodes + ADD REFRESH Name CreationTi 16187190180 2016-12-20T08:16:44Z 16.187.190.181 True 2016-12-20T08:27:33Z beta kubernetes io/os/linux etes.io/hostname:16.183

1. Click ADMIN > Nodes. The following page opens.

- 2. The area displays the CPU and memory usage of the selected namespace during the past 15 minutes, the list of the node labels, and the status, labels, readiness, and creation timestamp of the nodes corresponding to the selected namespace. You can do the following:
  - Define a set of labels you want to use and then assign them to nodes by dragging them to the node. See Add/delete labels and Assign labels to nodes.
  - Add a node. See Add a node.
  - **REFRESH.** Click to refresh the display.
  - Click the relevant node to see its details. See View the node details.

# Add/delete labels

To add or delete labels:

- 1. Click ADMIN > Nodes.
- 2. To add a label in the **Predefined Labels** area, enter the **value** and click **[+]**. The label is added to the list.
- 3. To delete a label: in the **Predefined Labels** area, click [-] for the relevant label.

### Assign labels to nodes

To manage node labels:

- 1. Click ADMIN > Nodes.
- 2. To assign a label to a node: drag the relevant label the **Predefined Labels** area to the relevant node in the **Nodes** area.
- 3. To unassign a label: in the Nodes area, click [-] for the relevant label and node.
- 4. **To filter the labels:** enter the relevant string or keyword in the Labels box in the table header. The labels with names that include the relevant string are listed.

# Add a node

- 1. lick ADMIN > Nodes.
- 2. In the Nodes area, click + ADD.

Add worker	node	
Host*		
		0 / 32
Username *		0/32
Password *		0 / 32
	ADD	CANCEL

Enter the name of the node, the name of a user that can remotely execute commands on the host - typically the root user, and the password of a user that can remotely execute commands on the host - typically the root user, and click **ADD** to remotely install the extra node.

You can also add a remote node manually as follows:

- 1. Copy the core platform binary file to the remote (worker) node as well as the client certificates that are required so the worker node can talk to the master node.
- 2. Unzip the core platform binary file.
- 3. Change to the relevant directory:
  - cd HPESW\_ITOM\_Suite\_Platform\_<timestamp\_ID>.

The install.properties file is the same as on the master node.

- Copy the files specified in the CLIENT\_CA\_FILE, the CLIENT\_CERT\_FILE, and the CLIENT\_KEY\_FILE parameters in the install.properties file from the master node to the worker node:
  - a. **scp root@<master node ip>:/opt/kubernetes/ssl/ca.crt /tmp** when prompted, enter the password.
  - b. **scp root@<master node ip>:/opt/kubernetes/ssl/server.crt /tmp** when prompted, enter the password.
  - c. **scp root@<master node ip>:/opt/kubernetes/ssl/server.key /tmp** when prompted, enter the password.
  - d. **Is /tmp** to verify that the files have been copied.
- 5. Run the installation: ./install.
- 6. Run **docker ps** to list the current container.
- 7. To see what workloads are running.

Go to the master node and run **kubectl get nodes**. You should see two nodes. Go to the master node and run **kubectl describe nodes <worker\_node\_IP>** to get detailed information about the worker node. It is only running two pods **kube-proxy** and **kube-registry**.

### View the node details

#### 1. Click ADMIN > Nodes.

2. In the Nodes area, select a node name from nodes list.



The page displays the CPU and memory usage history of the selected node for the past 15 minutes.

The **Details** area displays details about the selected node as well as system information. The **Allocated resources** area displays the minimum CPU requests, CPU limits, memory requests, and memory limits for the container as well as the percentage of <what is in use>/ <what is available>. By default, pods run with unbounded CPU and memory limits. The format is: <what is in use>/<what is available>.

Allocated resources									
CPU requests (cores)	%	CPU limits (cores)	%	Memory requests (bytes)	%	Memory limits (bytes)	%	Pods	%
0.41 / 4	10.25	0.41 / 4	10.25	770 Mi / 7.797 Gi	9.64	870 Mi / 7.797 Gi	10.90	17 / 110	15.45

The **Conditions** area displays the type, status, last heartbeat and transaction time, reason, and message.

Conditions					
Туре	Status	Last heartbeat time	Last transition time	Reason	Message
OutOfDisk	False	-	a day	KubeletHasSufficientDisk	kubelet has sufficient disk space available
MemoryPressure	False	-	a day	KubeletHasSufficientMemory	kubelet has sufficient memory available
DiskPressure	False	-	a day	KubeletHasNoDiskPressure	kubelet has no disk pressure
Ready	True		a day	KubeletReady	kubelet is posting ready status

The **Pods** area displays the CPU and memory usage history of the pod for the past 15 minutes, the name of the pod, the status, number of restarts in the cycle, the amount of time passed since the pod has been created, the cluster IP, as well as the CPU and memory usage of the

#### pod. You can:

- Click a Pod name to open the Workloads Pods page for the pod. See Pods.
- Click to view the pod log.
- Click and select **Delete** to delete the pod.

The **Events** area displays the message, source, sub-object, count, first seen and last seen information.

I	Events					
I	Message	Source	Sub-object	Count	First seen	Last seen
I	(events with common reason combined)	kubelet 16.187.191.60	-	354	7/11/16 06:25 UTC	8/11/16 11:50 UTC

# Manage licenses

The License page enables you to manage your suite licenses. Note that you might have already set up some of the licenses during installation.

### View existing licenses

By default, there is no license installed. You can view the existing licenses only after you have installed them.

1. Click ADMINISTRATION > License.

The following page opens:

	Hew Ente	erprise Auto	Pass License Server					Last Login Time: 17 Mar	17 05:21:32 U	TC User	: admin   Logo
ICE	(💞; NSE USAGE			RESERVATIO		ENT REMOTE COM	Lo MUTER USER MANA	GEMENT CONFIG	URATION	(j) about	
nsta	II Licenses	View Licenses	Archived Licenses B	orrow License	Li	cense Clean Up					
iev	v Licenses										?
elect	t Product 🛛 🖌	JI	÷								
	Feature ID: V	ersion		* Product	Capacity	y Start Date	Expiry Date	Installed On	Installed	Lock	Remark
	720000259 IT Automation S Concurrent U	SMA-EXPRESS-CC 2017.01 uite Express: 2017.01 option ser E-LTU CIT Default User	HPE IT Service Management al CONTAINER USE ONLY ( 3712:1 )	ITSMA- EXPRESS CC_P	5- 100	26 Feb 17 10:15:52 UTC	27 Feb 20 10:04:37 UTC	10 Mar 17 07:13:55 UTC	admin	4C44C63- 469F06A	Invalid License License locked to other lock
0	ITOM IT Serv	ce Management Automation	n Suite Express Edition ( 23136	ITSMA- EXPRESS CC_P	6- 100	26 Feb 17 10:15:52 UTC	27 Feb 20 10:04:37 UTC	10 Mar 17 07:13:55 UTC	admin	4C44C63- 469F06A	Value. Invalid License. License locked to other lock
0	720000259 IT Automation S Concurrent U	SMA-EXPRESS-CC 2017.01 uite Express: 2017.01 option ser E-LTU CIT Default Serve	HPE IT Service Management al CONTAINER USE ONLY r ( 3714:1 )	ITSMA- EXPRESS CC_P	5- 100	26 Feb 17 10:15:52 UTC	27 Feb 20 10:04:37 UTC	10 Mar 17 07:13:55 UTC	admin	4C44C63- 469F06A	value. Invalid License. License locked to other lock
											value. Invalid License

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Select the relevant product in **Select Product**. The page displays the feature ID: version, product number, capacity, start date, expiry Date, the date when it was installed, and who installed it, as well as the Lock Code.

### Install licenses

1. Click **ADMINISTRATION** > **License**. The following page opens:

Hewlett Packard AutoPass License Server				Last Login Time: 16 Mar 17 07:12:01 UTC User: admin   Logout					
C:         L:         Lo         D           LICENSE USAGE         LICENSE MANAGEMENT         LICENSE REPORT         RESERVATION MANAGE	MENT REMOTE COMMUTER			() about					
Install Licenses View Licenses Archived Licenses Borrow License License C	ean Up								
Install Licenses Lock Code: 73F05F4-63955AE									
1. Plesse Enter/Browse License File 2. Install Licenses									
Choose File No file chosen									
Add More Files Next Cancel	I agri I aufi governe	e to the <u>Hewlett Packard Enterpr</u> orize Hewlett Packard Enterprise d by <u>HPE privacy policy</u>	rise End User License Agree e to collect suite and produc	ment tusage data. Collection of suite/product usage data is					
OR	License	can also be redeemed on HPE so	ftware entitlement portal.						
1. Activate Products Using Activation Code 2. Install Licenses Enter Activation Code	Sav								
Next Cancel									

The following information is displayed:

Lock Code. The lock code and lock ID are the same.

- 2. Click **Choose file** to select the license file in your local system
- 3. Click Add More Files to select another license file in your local system.
- 4. Click the boxes to agree to the HPE End User License Agreement and authorize the suite and product usage data collecting.
- 5. Click Next.

The following page opens and displays the licenses that have been installed. You can select the license keys and click **Install Licenses** to install the licenses (you can also select to go back to the previous Install Licenses page by clicking the **Back** button).

	Hewl Enter	ett Packard Auto	Pass License Server				Last Login 7	Time: 17 Mar 17 05:21:32 UTC 1	Jser: admin   Logout
LICE	(🏹 ENSE USAGE			RESERVA		REMOTE COMMUTER		CONFIGURATION ABOL	) лт
Inst	all Licenses	View Licenses	Archived Licenses	Borrow Licens	e License Clean U	qL			
Inst	all Licenses	Lock Code: 72	3B11E-AF71FE						?
1. Ple	ase Enter/Brow	se License File / Activate	Products Using Activation	n Code 2. In	stall Licenses				
	Feature ID: Ve	sion	Product Number	Capacity	Start Date	Expiry Date	Lock Code	Remarks	
	243:1 (720000) 2017.01 HPE IT Automation Su optional CONT Concurrent Us Analytics 1 CC	259 ITSMA-EXPRESS-CC Service Management ite Express: 2017.01 AINER USE ONLY er E-LTU SM Smart User)	ITSMA-EXPRESS-CC_P	100	26 Feb 17 10:15:52 UTC	27 Feb 20 10:04:37 UTC	4C44C63-469F06A	License locked to other Lock	c Code
	218:1 (720000) 2017.01 HPE IT Automation Su optional CONT Concurrent Us 1 CC User) 224:1 (720000) 2017.01 HPE IT	159 ITSMA-EXPRESS-CC Service Management ite Express: 2017.01 AINER USE ONLY er E-LTU SM Know Mgmt 259 ITSMA-EXPRESS-CC Service Management	ITSMA-EXPRESS-CC_P	100	26 Feb 17 10:15:52 UTC	27 Feb 20 10:04:37 UTC	4C44C63-469F06A	License locked to other Lock	< Code
	nstall Licenses	Back							

The page displays the licenses in the selected file. You must select the licenses you want to install out of the displayed licenses. After selecting, click **Install Licenses**.

### Archive a license

- 1. In the View Licenses tab, select the unused licenses you want to archive.
- 2. Click Archive.

The licenses are removed from the list of installed licenses in the License Management table and become unavailable for customers to fetch and activate the products.

### Restore an archived license

- 1. In the Archived License tab, select the product whose archived licenses you want to restore.
- 2. Select the relevant licenses that you want to restore.
- 3. Click Restore.

The licenses are again displayed in the License Management pane and customers can check them out.

If ID locked licenses are auto archived, they cannot be restored unless all the licenses locked to a lock value belonging to same feature are either deleted or archived.

### Delete a license from the License Manager

- 1. In the Archived Licenses tab, select the product whose licenses you want to delete.
- 2. Select the license to delete.
- 3. Click **Delete** and confirm the deletion.

# View the Licenses Report

### 1. Click ADMINISTRATION > LICENSE REPORT.

#### The following page opens:

Hewlett P Enterprise	acka	rd AutoPa	ss License Server						Last Login	Time: 17 Mar 17 0	5:21:32 UTC	User: admin   Lo
( <b>?</b> ; LICENSE USAGE LIC	ENSE		LICENSE REPORT	RESE		RE	EMOTE COMMUTER	USE	Lo ER MANAGEMENT	CONFIGURAT	TION	() about
sued Licenses Rep	ort											<b>∑1</b>   C
Product Name	Ŧ	Product Version		F	lequester IP Address				Last Access Time			
HP Operations Manager i		10.11		1	6.155.199.13				17 Mar 17 05:57:58	3 UTC		
HP Operations Manager i		10.11		1	5.155.195.191				17 Mar 17 05:58:50	O UTC		
											2 items four	nd, displaying all iter

#### The following information is displayed:

**LICENSE REPORT.** The license report page tracks and displays the licenses currently installed and used on the License Manager. It also displays specific check out information about a feature license including the product name and version, the requester ID, and the timestamp of when it was accessed last.

You can export the license report details to Excel. You can also search a license with the product name, product version or requester IP address.

### Replace an ITSMA trial license

#### User role: Suite Administrator

If you have not installed a perpetual license before the ITSMA installation, a built-in 30-day trial license (InstantOn) is used for the installation. If you purchase a perpetual license after installation, you can replace the trial license with the perpetual one.

To do this, follow these steps:

- 1. Install your new license. For details, see the "Install the suite license" section in Install an ITSMA suite license.
- 2. Restart the Service Management RTE application controllers:
  - a. Click **RESOURCES**, and then select your <namespace>. For example, **itsma1**.
  - b. Click **Workloads** > **Replication Controllers**, go to the next page, and then locate one of the following controllers:

sm-rte sm-rte-integration sm-rte-irque sm-rte-scheduler

### sm-rte-emailout sm-rte-integration-cit sm-rte-report-export sm-rte-sync sm-rte-gossip

The **sm-rte-gossip** controller must be the last one to stop. No sequence is required for the rest.

- c. Click the action icon (<sup>‡</sup>), and then click **Scale**.
- d. Make a note of the value of the **Number of pods** field.

In the next steps, you will need to change the value of this field to zero (0) and then change it back to the current value.

e. Type 0 for Number of pods, and then click OK.

Ignore the error message in red on the page after you click the **OK** button.

- f. Repeat the steps above to stop all the replication controllers in step **b**. The **sm-rtegossip** controller must be the last one to stop.
- g. Wait until the **Pods** field for each replication controller is changed to 0/0.
- h. Change the value of the **Number of pods** field from 0 back to their original number for all the controllers.

You must start the **sm-rte-gossip** controller first. No sequence is required for the rest.

# View the existing images

To view the existing images, click **ADMINISTRATION > Local Registry**. The following page is displayed.

Search images		
Local Images		
itsma/itom-itsma-smarta-installer	tags	
itsma/itsma-installer	tags	
First Previous Page 1 of 1 N	t Last 2 Records	
L		

This section lists the images that are in the local registry.

### Manage Resourses

The RESOURCES menu enables you to deploy containerized applications to a Kubernetes cluster, troubleshoot them, and manage the cluster and its resources itself. You can use it for getting an overview of applications running on the cluster, as well as for creating or modifying individual Kubernetes resources and workloads, such as Daemon sets, Pet sets, Replica sets, Jobs, Replication controllers and corresponding Services, or Pods.

It also provides information on the state of Pods, Replication controllers, etc. and on any errors that might have occurred. You can inspect and manage the Kubernetes resources, as well as your deployed containerized applications. You can also change the number of replicated Pods, delete Pods, and deploy new applications using a deploy wizard.

- Namespace
- Workloads
- Services and discovery
- Persistent Volume Claims
- Configuration

#### Namespace

This section provides details about the selected Namespace.

Kubernetes supports multiple virtual clusters backed by the same physical cluster. These virtual clusters are called namespaces. See Glossary.

#### Select the namespace

You select a namespace to filter the information in the pages of the UI and display only the items related to the namespace.

# 1. Click **RESOURCES** > **Namespace** and select the relevant namespace.

The following page opens:

					X ADMI
CPU usage history		Memory usage history			
00000 0155 1355 1356 1400 Time	14.03 14.08	002 11222 12 002 Wi 202 C 202 C 20	56	14:00 14:03 Time	14:06 14:0
Name	Labels	Pods	Age	Images	
🖉 autopass-Im	app: autopass-Im-app	1/1	3 hours	localhost:5000/autopass-Ims:10.0 localhost:5000/kubernetes-vault-renew:0.2	u 1
eapster-apiserver	k8s-app: heapster module: apiserver versio	on: vó 1/1	14 hours	gcr.io/google_containers/heapster:v1.0.2	:
🕑 idm	app: idm-app	1/1	14 hours	localhost:5000/idm-pfs:latest localhost:5000/kubernetes-vault-renew:0.2	u 1
🤡 idm-postgresql	app: idm-postgresql-app	1/1	14 hours	localhost:5000/itom-platform-postgresql:9 localhost:5000/kubernetes-vault-renew:0.2	4.11 11
V kubernetes-vault	run: kubernetes-vault	1/1	14 hours	localhost:5000/kubernetes-vault:0.2.1	:
S mng-portal	app: mng-portal version: v1.0	1/1	14 hours	localhost:5000/mng-portal:1.4 localhost:5000/kubernetes-vault-renew:0.2	a 1
📀 postgresql-apim	app: postgresql-aplm-app	1/1	3 hours	localhost:5000/itom-platform-postgresql:9 localhost:5000/kubernetes-vault-renew:0.2	4.11 51
Suite-db	app: suite-db-app	1/1	14 hours	localhost:5000/itom-platform-postgresql:9 localhost:5000/kubernetes-vault-renew:0.2	4.11 :1
Suite-installer	app: suite-installer-app	1/1	14 hours	localhost:5000/suite-installer:1.0 localhost:5000/kubernetes-vault-renew:0.2	a - E

The page shows the CPU and memory usage history for the selected namespace, for the past 15 minutes, the name of the namespace, its labels, pods, the timestamp of the creation of the namespace and its images.

Click the relevant namespace to display more details. See View the namespace details.

#### View the namespace details

1. Click **RESOURCES** > **Namespace** and select the relevant namespace. You can also click **RESOURCES** > **Namespaces**, and click the relevant namespace.

Details					
Name: default					
Labels: -					
Age: 15 hours					
Status: Active					
Events					
Message	Source	Sub-object	Count	First seen	Last seen
Starting kubelet.	kubelet 15.119.81.122	-	1	17/3/17 05:44 UTC	17/3/17 05:44 UTC
Node 15.119.81.122 status is now: NodeHasSufficientDisk	kubelet 15.119.81.122	-	2	17/3/17 05:44 UTC	17/3/17 05:44 UTC
Node 15.119.81.122 status is now: NodeHasSufficientMemory	kubelet 15.119.81.122	-	2	17/3/17 05:44 UTC	17/3/17 05:44 UTC
Node 15.119.81.122 status is now: NodeHasNoDiskPressure	kubelet 15.119.81.122	-	2	17/3/17 05:44 UTC	17/3/17 05:44 UTC
Node 15.119.81.122 event: Registered Node 15.119.81.122 in NodeCo ntroller	controllermanager	-	1	17/3/17 05:44 UTC	17/3/17 05:44 UTC
Starting kube-proxy.	kube-proxy shclitym0368.hpeswlab.net	-	1	17/3/17 05:44 UTC	17/3/17 05:44 UTC

The page shows details about the namespace and details about the events occurring in the namespace.

# Workloads

This section displays information about Namespaces, Deployments, Replica Sets, Replication Controllers, Daemon Sets, Jobs, Pods, filtered by the selected namespace.

CPU usage history	Memor	y usage histor	y		
0405 0300 01522 1123 1126 1130 Time	11.33 11.37 0 11	22 11:23	11:26	1130 1133 Time	11:37
Deployments					
Name Labels		Pods	Age	Images	
autopass-Im app: a	utopass-Im-app	1/1	a day	localhost:5000/autopass-Ims:MR localhost:5000/kubernetes-vault-renew:0.2.1	:
heapster-apiserver     k8s-ap	pp: heapster module: apiserver version: v6	1/1	a day	gcr.io/google_containers/heapster:v1.0.2	:
idm app: id	dm-app	1/1	7 hours	localhost:5000/idm-pfs:latest localhost:5000/kubernetes-vault-renew:0.2.1	:
idm-postgresql epp: id	dm-postgresql-app	1/1	7 hours	localhost:5000/postgresql-hlinux:9.4.10 localhost:5000/kubernetes-vault-renew:0.2.1	:
V kubernetes-vault run: ku	ubernetes-vault	1/1	a day	localhost:5000/kubernetes-vault:0.2.1	:
📀 mng-portal app: m	nng-portal version: v1.0	1/1	4 hours	localhost:5000/mng-portal:1.4 localhost:5000/kubernetes-vault-renew:0.2.1	:
postgresql-apim app: p	oostgresql-aplm-app	1/1	a day	localhost:5000/postgresql-hlinux:9.4.10	:

#### Click RESOURCES > Workloads.

The page displays all the resources filtered by the selected namespace.

#### Pods

The Pods page provides information about the pods that are currently running or that have been running for the past 15 minutes. You can also access details about a specific pod as well as its log.

By default, pods run with unbounded CPU and memory limits. This means that any pod in the system will be able to consume as much CPU and memory on the node that executes the pod.

You may want to impose restrictions on the amount of resources a single pod in the system may consume for a variety of reasons.

See Glossary.

View the Pods

1. Click **RESOURCES** > **Workloads** > **Pods**. The following page is displayed.

CPU usage history					Memory usage history	y				
0,270 0,240 0,000 0,000 0,000 0,000 0,000 0,000	09:10 Time	00:13	09:16	00:10	4.40 Gi 4.00 Gi 2.05 Gi 2.05 Gi 00:05 00:00	0010 Time	06:12	09:16		09:19
Name	Status	Restarts	Age		Cluster IP	CPU (cores)	Memory (bytes)			
apiserver-16.187.190.180	Running	0	23 hours		16.187.190.180	0.009		189.480 Mi	₽	:
🥑 autopass-Im	Running	0	23 hours		172.77.26.12	0	Mi	963.398	₽	:
controller-16.187.190.180	Running	0	23 hours		16.187.190.180	0.008		100.441 Mi	₽	:
heapster-apiserver-1280400	Running	0	23 hours		172.77.26.13	A A A O		35.656 Mi	≡	:
🥑 idm	Running	0	23 hours		172.77.26.7	0.001		553.441 Mi	₽	:
idm-postgresql	Running	0	23 hours		172.77.26.5	0		91.906 Mi	₽	:
kube-dns-v19-15jic	Running	0	23 hours		172.77.26.4	0.003		42.914 Mi	₽	:
kube-proxy-16.187.190.180	Running	0	23 hours		16.187.190.180	0.033		81.25 Mi	₽	:
kube-proxy-16.187.190.181	Running	0	22 hours		16.187.190.181	0.048		107.551 Mi	₽	:
kube-registry-proxy-16.187.19	Running	0	23 hours		172.77.26.6	0		14.797 Mi	₽	:

The page displays the CPU and memory usage history of the namespace the pod belongs to, namespace the pod belongs to, the name, status, number of restarts during the lifecycle of the pod, the amount of time passed since the creation of the pod, the IP address of the pod, the CPU and memory usage of the pod itself in the last 15 minutes.

You can:

- Click to display the log of a pod. See View log.
- Click and select to delete the pod or to view and edit its YAML. See Pods.
- Click a pod itself to display its details. See View pod details.

CPU usage history					Memory usage	e history			
8000 00000 00000 9517 1520	15:23 Time	15:26	15:30	15.32	120 M 107 M 801 M 28,7 M 905,17	15:20	15:23 Time	15:26	19
Pod					Network				
Name: nginx-ingress-controller-n53cd					Node: 16.187.19	0.180			
Namespace: default					IP: 172.77.26.14	÷			
Start time: 20/12/16 08:17									
Labels: k8s-app: nginx-ingress-lb									

View pod details

Containers
nginx-ingress-lb
Image: localhost:5000/nginx-ingress:0.8.2
Environment variables: POD_NAME: POD_NAMESPACE:
Commands: -
Args: /nginx-ingress-controller default-backend-service=core/mng-portal v=0 nginx-configmap=default/nginx-load-balancer-conf watch-namespace=core
View logs

The page displays the CPU and memory usage history of the pod in the last 15 minutes, the pod details, and the network details. To display the log of the pod. See View log. The page also displays information about the pod containers such as the name, image, environment variables, commands, arguments, and more. To display the log of the container. See View log.

#### View log

- 1. Click **RESOURCES** > Workloads > Pods.
- 2. Click the relevant pod.
- 3. Click in the Pod page or **View logs** in the Pod Details page or click **View logs** in the Container area. The page displays the information for the pod.



You can use the following tools:

**Tr** Toggles to change the size of the font used in the log.

- A Toggles to change the colors of the log: white characters on black background or black characters on white background.
- Logs from 10/31/16 7:23 AM to 10/31/16 7:37 AM The timestamp of the currently displayed log.
- IC C > > Use the relevant buttons to navigate between logs.

#### Namespaces

The Namespaces page displays information about the existing namespaces, their labels, status, and age.

- 1. Click **RESOURCES** > Workloads > Namespaces.
- 2. The page displays the existing namespaces, their labels, status, and age.

Name	Labe	els	Status	Ape
S core			Active	4 hours
S default			Active	4 hours
🖉 kube-system			Active	4 hours

3. Click the relevant namespace to view more details:

	1.000									
	100710700									

The page shows details about the namespace and details about the events occurring in the core such as messages, source, count, first seen and last seen.

#### Deployments

You create and manage sets of replicated containers (actually, replicated Pods) using Deployments.

A Deployment provides declarative updates for Pods and Replica Sets (the next-generation Replication Controller).

A Deployment simply ensures that a specified number of pod "replicas" are running at any one time. If there are too many, it will kill some. If there are too few, it will start more.

You can select another namespace.

View the deployments

#### 1. Click **RESOURCES** > Workloads > Deployments.

The following page is displayed:

СР	CPU usage history				Memory usage history						
CPU (cores)	00-39 00-39 0.146	09.43	00:46 Time	09.50	09:54	300 267 200 5 134 8 8 8 8 8		09.43	09:46 Time	0950	09:54
	Name			Labels			Pods	Age	Images		
0	heapster-apiserver			k8s-app: heapster	module: apiserver	version: v6	1/1	23 hours	gcr.io/google_conta	iners/heapster:v1.0.2	:
0	kubernetes-vault			run: kubernetes-var	ult		1/1	23 hours	localhost:5000/kub	ernetes-vault:0.2.1	:
0	mng-portal			app: mng-portal	version: v1.0		1/1	23 hours	localhost:5000/mng localhost:5000/kub	)-portal:1.4 ernetes-vault-renew:0.2.1	:

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The page displays the CPU and memory usage history of the selected namespace during the past 15 minutes, the name of the available deployments, their labels, the number of pods, the creation timestamp of the deployment, and its images. You can:

- Click a deployment to display its details. See View a deployment details.
- Click and **Delete**, to delete the deployment.
- Click and **View/edit YAML**, to view or edit a deployment.

View a deployment details

 Click RESOURCES > Workloads > Deployments, and then click the relevant deployment. The following page is displayed:



The page displays the CPU and memory usage history of the selected deployment during the past 15 minutes, and details about the selected deployment.

Details						
Name: kubernetes-vault						
Namespace: core						
Labels: run: kubernetes-vault						
Label selector: run: kubernetes-vault						
Strategy: RollingUpdate						
Min ready seconds: 0						
Revision history limit: Not set						
Rolling update strategy: Max surge: 1. Max unavailable: 1						
Status: 1 updated, 1 total, 1 available, 0 unavailable						
New Replica Set						
Name	Namespace	Labels	Pods	Age	Images	
Indexester could 2047( 00010)		pod-template-hash: 3867489819	1.(1	15 h a	Is as the set E0.00 //where sets a courted 2.1	
kubernetes-vault-3867489819	core	pod-template-hash: 3867489819 run: kubernetes-vault	1/1	15 hours	localhost:5000/kubernetes-vault:0.2.1	-
kubernetes-vault-3867489819	core	pod-template-hash: 3867489819 run: kubernetes-vault	1/1	15 hours	localhost:5000/kubernetes-vault:0.2.1	:
kubernetes-vsult-3807489819  Old Replica Sets	core	pod-template-hash: 3867489819 run: kubernetes-vault	1/1	15 hours	localhost:5000/kubernetes-vault:0.2.1	:
tubernetes-vault-3867409819 Old Replica Sets	core	pod-template-hash: 3807499819 run: kubernetes-veult	1/1	15 hours	localhost:5000/kubernetes-vault:0.21	:
kubernetes-vault-3867409919  Old Replica Sets	core	pod-template-hash; 380/149810 run: kubernetes-vault is nothing to display here	1/1	15 hours	localhost 5000/kubernetes-vault 0.23	:
kubernetes-vault-3867499819     Old Replica Sets	core There There are current	pod-template-hash; 382/149819 run: kubernetes-vault is nothing to display here yro old Replation Controllers on the Deployment	1/1	15 hours	localhost 5000/kubernetes-vault 0.23	:
kubernetes-vault 3805/499819     Old Replica Sets	core There There are currently	ped-templare-back; 3887489319 run kubernetes-vault is nothing to display here vio old Replication Controllers on this Deployment	1/1	15 hours	localhost:5000/vubernetes-vault:0.23	:
kubernates-vault-3845/200910  Old Replica Sets	core There There are currently	ped-template-hash: 3887/189819 run: kuberneter-veult is nothing to display here y no old Replication Controllers on this Deployment	1/1	15 hours	localhost5000/kubernetes-vault:0.21	:
kubernetes-vault-38/5/200910  Old Replica Sets  Events	core There There are currently	ped-template-back 3887489819 run: kubernetez-vault is nothing to display here no old Replication Controllers on this Deployment	1/1	15 hours	localhost5000/kubernetes-vault:0.21	:
kubernetes-vault-38/5/200910  Old Replica Sets  Events	core There There are correctly There	ped-template-back 3887489319 run: kubernete-veult is nothing to display here no old Replacation Controllers on this Deployment is nothing to display here	1/1	15 hours	localhost5000/kubernetes-vault:0.21	:
kubernetes-vault 38/5749919  Old Replica Sets  Events	core There There are currently There	ped-template-heals 388/189810 run: kuberneter-veult is nothing to display here v no old Replication Controllers on this Deployment is nothing to display here	1/1	15 hours	locathost:5000/kubernetes-vault:0.23	:

The page displays details about the new replica set, the old replica sets, and the events that took place.

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#### **Daemon Sets**

The Daemon Sets page provides information about the Daemon Sets for the selected Namespace. See Glossary.

#### **Replica Sets**

Replica Set is the next-generation Replication Controller. The only difference between a ReplicaSet and a Replication Controller right now is the selector support. ReplicaSet supports the new set-based selector requirements as described in the labels user guide whereas a Replication Controller only supports equality-based selector requirements.

This section displays information about replica sets of the selected namespace. See Glossary.

View replica sets

#### 1. Click RESOURCES > Workloads > Replica Sets.

The following page opens:

Γ	Name	Labels	Pods	Age	Images	
	heapster-apiserver-3397433252	k8s-app: heapster module: apiserver pod-template-hash: 3397433252 version: v6	1/1	a day	gcr.io/google_containers/heapster:v1.0.2	:
	kubernetes-vault-3703396274	pod-template-hash: 3703396274 run: kubernetes-vault	1/1	a day	localhost:5000/kubernetes-vault:0.2.1	:
	omng-portal-1440095749	app: mng-portal pod-template-hash: 1440095749	1/1	a day	localhost:5000/mng-portal:1.4 localhost:5000/kubernetes-vault-renew:0.2.1	:

The page shows the CPU and memory usage history of the selected namespace during the past 15 minutes, the name of the available replica sets for the selected namespace, its labels, pods, images and creation timestamp.

You can:

- Click a replica set to display its details. See View a replica set details.
- Click and **Delete**, to delete the replica set.
- Click and View/edit YAML, to edit the replica set.

#### View a replica set details

- 1. Click **RESOURCES** > Workloads > Replica Sets.
- 2. Click the relevant replica set.

Pods											
Name	Namespace	Status	Restarts	Age	Cluster IP	CPU (cores)	Memory (bytes)				
autopass-Im-1627857185-t0pg8	core	Running	0	3 hours	172.77.22.12	0.002	942.277 Mi	=	:		
Events											
There is nothing to display here It is possible that all events have expired.											

The details page shows details about the selected replica set, the services (see Services), pods (see Pods), and events related to the replica set.

#### **Replication controllers**

The Replication Controllers page provides details about the Replication Controllers.

See Glossary.

View the Replication Controllers

 Click RESOURCES > Workloads > Replication Controllers to display the current Replication Controllers.

The following page is displayed.

CPU usage history	Memory usage	history		
0.001 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.000000	120 Mi 107 Mi 801 Mi 801 Mi 2 207 Mi 2 207 Mi 2 207 Mi	15:13	15:10 15:20 Time	15:23 15:25
Name La	bels Pods	Age	Images	
orginx-ingress-controller	8s-app: nginx-ingress-Ib 1/1	4 hours	localhost:5000/nginx-ingress:0.8.2	:

The page displays the CPU and memory usage of the selected namespace during the past 15 minutes, and the list of replication controllers with their name, labels, pods, age, and images of the replication controllers associated with the selected namespace. You can:

- Click the relevant replication controller to view its details. See View the replication controller details.
- Click <sup>‡</sup> and select:

**View details.** You can also click the relevant replication controller. See Scale the number of pods linked to the replication controller.

**Scale.** See View the replication controller details.

**View/edit YAML** You can edit a Replication Controller. **Delete.** The replication controller is deleted.

Scale the number of pods linked to the replication controller

1. Click **RESOURCES** > **Workloads** > **Replication Controllers**, click and then select **Scale**. Enter the relevant number of pods and click **OK**.

Set desired number of pods	,
Replication controller nginx-ingress-controller will be upda Current status: 1 created, 1 desired	ted to reflect the desired count.
Number of pods*	
	CANCELOK

View the replication controller details

- 1. Click **RESOURCES** > Workloads > Replication Controllers.
- 2. Click and select **View details**, or click the relevant Replication Controllers. The following page opens.

CPU usage history	Memory usage history	
	191 Ma 192 Ho 192 Ho 192 Ho 192 Ho 192 Ho 193 Ho	19
Details	Status	
Name: nginx-ingress-controller	Pods: 1 running	
Namespace: default		
Label selector: k8s-app: nginx-ingress-lb		
Labels: k8s-app: nginx-ingress-lb		
Images: localhost:5000/nginx-ingress:0.8.2		
		_
Services		
There is nothir	ng to display here	
There are currently no Services with the sa	ame label selector as this Replication Controller	

It displays the CPU and memory usage history of the selected replication controller for the past 15 minutes, the details of the selected replication controller, and the services provided by the selected replication controller.

#### Pet Sets

The Pet Sets page provides information about pet sets. See Glossary.

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#### Jobs

The Jobs page provides information about jobs. See Glossary.

### Services and discovery

Click Services and discovery to display information about:

- Services
- Ingress

#### Services

The Services page provides information about services.

See Glossary.

#### View services

1. Click **RESOURCES** > **Services and Discovery** > **Services**. The following page is displayed.

	Name	Labels	Cluster IP	Internal endpoints	External endpoints	
0	autopass-Im-svc		172.78.78.116	autopass-lm-svc.kube-system:5814 T autopass-lm-svc.kube-system:0 TCP		:
0	heapster-apiserver	kubernetes.io/name: Heapster-apis	172.78.78.190	heapster-apiserver,kube-system:80 T heapster-apiserver,kube-system:0 TCP heapster-apiserver,kube-system:443 heapster-apiserver,kube-system:0 TCP		*
0	idm-postgresql-svc		172.78.78.95	idm-postgresql-svc.kube-system:5432 idm-postgresql-svc.kube-system:0 TCP	-	:
0	idm-svc	-	172.78.78.66	idm-svc.kube-system:443 TCP idm-svc.kube-system:0 TCP	-	:
0	kube-dns	k8s-app: kube-dns kubernetes.io/cluster-service: true kubernetes.io/name: KubeDNS	172.78.78.78	kube-dns.kube-system:53 UDP kube-dns.kube-system:0 UDP kube-dns.kube-system:53 TCP kube-dns.kube-system:0 TCP		•
0	kube-registry	k8s-app: kube-registry kubernetes.io/cluster-service: true kubernetes.io/name: KubeRegistry	172.78.78.81	kube-registry.kube-system:5000 TCP kube-registry.kube-system:0 TCP		:
0	kubernetes-vault	run: kubernetes-vault	None	kubernetes-vault.kube-system:80 TCP kubernetes-vault.kube-system:0 TCP	-	:
0	mng-portal	app: mng-portal	172.78.78.2	mng-portal.kube-system:80 TCP mng-portal.kube-system:0 TCP	-	:
0	postgresql-aplm-svc		172.78.78.233	postgresql-aplm-svc.kube-system:543 postgresql-aplm-svc.kube-system:0 T	-	:
0	suite-db-svc	-	172.78.78.214	suite-db-svc.kube-system:5432 TCP suite-db-svc.kube-system:0 TCP	-	:
				Rows per pag	e: 10 ▼ 1 - 10 of 11  < < >	×

The page displays the name of the services attached to the selected namespace, the labels assigned to the service, the IP address of the related cluster, and the internal and external endpoints.

You can:

- Click <sup>‡</sup> and select **Delete** to delete the service.
- Click <sup>‡</sup> and select **View/edit YAML** to edit the service.
- Click the relevant service to display its details. See View a Service Details.

View service details

 Click RESOURCES > Services and Discovery > Services , and then click the relevant Service.

The following page is displayed:

Resource Details									
Details				Connection					
Name: autopass-Im-svc				Cluster IP: 172.78	3.78.102				
Namespace: core				Internal endpoin	ts: autopass-Im-svc.core:5814 TC	τ <b>Ρ</b>			
Label selector: app; autopass-Im-app					autopass-Im-svc.core:0 TCP				
Labels: none									
Type: ClusterIP									
									_
Pods									
Name	Status	Restarts	Age		Cluster IP	CPU (cores)	Memory (bytes)		
autopass-Im-1627857185-t0pg8	Running	0	4 hours		172.77.22.12	0.001	948.863 Mi	₽	:

The page displays details about the service and the connection as well as information about the related pods.

#### Ingress

The Ingress page provides details about the ingresses. See Glossary.

View ingresses

#### 1. Click **RESOURCES** > Services and Discovery > Ingress.

Name	Endpoints	Age
autopass-Im	16.155.199.219	23 hours
idm-svc	16.155.199.219	23 hours
mng-portal	16.155.199.219	23 hours
suite-installer	16.155.199.219	23 hours

The page displays the names of the ingresses attached to the selected namespace, the labels assigned to the ingress, the IP of the related cluster, and the internal and external endpoints. You can click the relevant ingress to display its details. See View an Ingress Details.

View an Ingress Details

Click **RESOURCES** > **Services and discovery** > **Ingress**, and then click the relevant Ingress. The following page is displayed:

Defails	
Name: autopa	iss-Im
Namespace: o	tore
Labels: -	
Annotations:	ingress.kubernetes.io/secure-backends: true

.

The page displays details of the selected ingress and its related pods.

## **Persistent Volume Claims**

The Persistent Volume Claims page displays information about the currently running persistent volumes.

A persistent volume claim is bound to a persistent volume. The claim is subsequently used inside a container volume specification. This provides volume technology abstraction for the suite deployment as suites request size and access type rather than a certain specific storage provider.

A volume is a directory, possibly with some data in it, which is accessible to the containers in a pod.

See Glossary.

#### View the Persistent Volume Claims

1. Click **RESOURCES** > **Persistent Volume Claims**. The following page opens:



The page displays the name of the persistent volume, the volume it belongs to, the labels, and the timestamp of the creation of the persistent volume.

Each suite will have at least one persistent volume but may have more depending on the suite. You can click the relevant volume to display its details. See View a persistent volume claim details.

#### View a persistent volume claim details

- 1. Click **RESOURCES** > **Persistent Volume Claims**, and then click the relevant Persistent Volume Claims. The page that opens displays detailed information about the persistent volume claim.
  - Details Name: Itom-vol-claim Namespace: core Status: Bound Volume: Itom-vol Labels: kubemetesio/cluster-service: true Capacity: ("storage";50G(r) Access modes: ReadWriteMany

To see the contents of **itom-vol**, go to the master node (the NFS server) and enter **cd /var/vols/ itom/**. It contains the **baseinfra-<version-number>** and the **suite-install** subdirectories. Enter **ls -R baseinfra-<version-number>**; this shows the **PrivateRegistry**.

Enter **ls** -**R** suite-install/; this shows information about the containers that includes the configuration information to deploy the supported suites.

### Configuration

Click **RESOURCES > Configuration** to display information about:

• Secrets. See Secrets.

• Config Maps. See Config Maps.

#### Secrets

The Secrets page provides information about Secrets that are currently running.

See Glossary.

View the Secrets

Click **RESOURCES** > **Configuration** > **Secrets**.

The following page opens:

Name	Age
default-toket-7605r	16 hours
nginx-default-secret	16 hours

The page displays the list of secrets and their age. You can click the relevant secret to display its details. See View a Secret details.

#### View a Secret details

Click **RESOURCES** > **Configuration** >**Secrets**. In the page that opens, click the relevant secret.



The page displays the details of the selected secret and its data.

### **Config Maps**

The Config Maps page provides information about the config maps that are currently running.

See Glossary.

View the Config Maps

1. Click **RESOURCES** > **Configuration** > **Config Maps**. The following page opens:

Name	Labels	Age	
autopass-config		16 hours	:
base-configmap		16 hours	:
kube-vault-configmap		16 hours	:
suite-conf-cm-itsma		4 hours	:

The page opened displays the names of the configuration map and its labels, and the amount of time passed since the configuration map was created. You can:

- Click <sup>i</sup> and select **Delete** to delete the config map.
- Click and select **View/edit YAML** to edit the config map.
- Click the relevant config map to display its details. See View a Config Map details.

View a Config Map details

- Click RESOURCES > Configuration > Config Maps to display the currently running Config Maps.
- 2. In the page that opens, click the relevant name. The following page opens:

Detais
Name base-configmap
Namespace: core
Labels: -
Data
ABI (\$50/\$5.151)
EICU_enoPoint:miliparistmatize4001
EXTERNAL_ACCESS_HOST: shclitvm0367.hpeswlab.net
INGRESS_HOST: 1511981121
MASTER_APLPORT: 8080
MASTER_APLSSL_PORT: 8443
NF5_SERVER: I51198121
SYSTEM_INAMESPACE_core

The page opened displays the selected config map details, and its related data.

# Security

This section is intended for ITOM Container Deployment Foundation (CDF) implementers and system administrators who need to implement their ITOM CDF environment in a secure manner.

### Secure implementation and deployment

This section provides information on implementing and deploying the ITOM Container Deployment Foundation (CDF) in a secure manner.

#### Technical system landscape

ITOM CDF is a container that integrates with other Suites. ITOM CDF is written in Java and JavaScript and Go.

This document is an export from the HPE Software Documentation Portal. For the latest documentation, refer https:// docs.software.hpe.com.

For more information about typical deployment schemes and options, see Overview of HPE ITOM CDF.

### Security in ITOM CDF configurations

ITOM CDF configurations may be deployed in the following three implementations. See Overview of HPE ITOM CDF.

- Single mode.
- Distributed mode 1 (one master node and multiple worker nodes)
- Distributed mode 2 (multiple master nodes and multiple worker nodes)

All of these implementations share the same basic out-of-the-box security configuration options.

- 1. In an out-of-the-box default installation, the Transport Layer Security/Secure Socket Layer (TLS/SSL) security is enabled between the browser and the ITOM CDF server by default.
- 2. In an out-of-the-box default installation, ITOM CDF requires users to enter username and password credentials to gain access to the application.

#### **External Authentication**

With additional configuration, it is possible to supplement or replace the default authentication & authorization provider for ITOM CDF by using a variety of industry-standard protocols and tools such as LDAP and Single Sign-On.

#### Common security considerations

ITOM CDF can only be deployed on supported operating systems.

It is recommended to follow vendor-provided best practices and security hardening guides for each of the thirdparty components used in support of your ITOM CDF deployment, which includes Docker, Kubernetes, Vault and Nginx, NFS. Below are some resources that can serve as a starting point for researching these recommended security considerations:

Docker Security Tips

https://www.docker.com/docker-security

Kubernetes Security Tips http://kubernetes.io/docs/troubleshooting/ Vault Security Tips https://www.hashicorp.com/security.html Nginx Security Tips http://nginx.org/en/security\_advisories.html NFS Security Tips

http://www.cert.org/historical/advisories/

# ITOM CDF security parameters

This section contains reference to some of ITOM Container Deployment Foundation (CDF) parameters that are relevant to security.

#### Secure file storage

ITOM CDF allows users to upload files (suite installation binary) to the ITOM CDF Server. All files uploaded to the server must be validated, since they can contain viruses, malicious code, or Trojans.

As a result, it is strongly recommended to implement proper antivirus protection for the file storage.

### Installation security

This section provides information on aspects of installation security.

### Supported operating systems

See Support matrix.

#### Harden SSH on OS

On each node, the SSH server is configured with weak cipher and weak KexAlgorithms by default.

Set the values of **KexAlgorithms**, **Ciphers** and **MACs** in file: /etc/ssh/sshd\_config as follows:

- KexAlgorithms ecdh-sha2-nistp521,ecdh-sha2-nistp384,ecdh-sha2-nistp256
- Ciphers aes256-gcm@openssh.com,aes128-gcm@openssh.com,aes256-ctr,aes192-ctr,aes128-ctr
- MACs hmac-sha2-256

#### Database security recommendations

For PostgreSQL, see http://www.openscg.com/postgresql-security-guidelines/ for information about PostgreSQL database security solutions.

#### Application server security recommendations

Always change default passwords.

Always use the minimal possible permissions when installing and running ITOM Container Deployment Foundation (CDF).

Action	Permissions needed for user
Installing or running the HPE ITOM CDF	You must install and run root permissions using the sudo command.
# Network and communication

This section provides information on network and communication security.

# Secure topology

ITOM CDF is designed to be part of a secure architecture, and can meet the challenge of dealing with the security threats to which it could potentially be exposed.

Several measures are recommended to securely deploy ITOM Container Deployment Foundation (CDF):

• Use of the TLS/SSL communication protocol

# Replace the Certificate of Ingress Service with a Customized Certificate

Users can replace the certificate and private key of **Ingress Service** with a customized certificate and private key. Follow the steps below:

- 1. Generate a certificate and private key for the **host name**, of which host the **Ingress Service** is running on. And put it somewhere on the master node.
- 2. On master node, delete a secret with command: kubectl delete secret nginx-default-secret -n core
- 3. On the master node, recreate the secret with a new certificate and private key. echo "

```
apiVersion: v1
kind: Secret
metadata:
name: nginx-default-secret
namespace: core
data:
tls.crt: `base64 <certificate file name with absolute path> |tr -d \"\n\"`
tls.key: `base64 <private key file name with absolute path> |tr -d \"\n\"`
" | kubectl create -f -
```

 On master node, delete and recreate the ingress service. kubectl delete -f \${K8S\_HOME}/objectdefs/nginx-ingress.yaml kubectl create -f \${K8S\_HOME}/objectdefs/nginx-ingress.yaml

# FAQ

## Question

Are exceptions required to be added to the firewall policy?

#### Answer

Browsers access HPE ITOM Container Deployment Foundation (CDF) via HTTPS ports (TCP/5443). End users need to add it to the firewall exception policy.

# Authorization

This section provides information related to user authorization in ITOM Container Deployment Foundation (CDF).

# Authorization model

Access to ITOM CDF resources is authorized based on the user's following settings:

- User name
- · Session & Inactivity timer timeouts

# Authorization Configuration

For detailed information on authorization configuration, refer to the ITOM CDF Online Help Center in the ITOM CDF Portal top right corner.

## FAQ

## Question

Can ITOM CDF inherit users' information and authorization profiles from an external repository, such as LDAP?

#### Answer

No.

# Data integrity

The database server is used as a simple data store and is responsible for all persistent storage. While the database contains definitions describing business logic, no processing is actually performed in this tier, other than create, read, update, and delete (CRUD) operations in response to requests from ITOM Container Deployment Foundation (CDF). Referential integrity is enforced by the application, thereby protecting transactions. In addition, the database captures a complete audit log of all changes to data.

The data backup procedure is also an integral part of data integrity and while ITOM CDF does not provide native backup capabilities, the following guidelines should be considered:

- Database backup is especially important before critical actions such as upgrades.
- Backup files should be stored properly according to the industry best practices to avoid unauthorized access.
- Since database backup can be a resource intensive process, it is strongly recommended to avoid running backups during peak demand times.

# Encryption

This section provides information on data encryption in ITOM Container Deployment Foundation (CDF).

# TLS/SSL Data Transmission

ITOM CDF was configured to use TLS/SSL to transmit data between the server and browsers.

Customers can change the default value of SSL CIPHER through the following steps:

- 1. On the master node, change the ssl-ciphers value in file \$K8S\_HOME/objectdefs/nginxingress.yaml.
- Recreate the ingress container with the commands below: kubectl delete -f \$K8S\_HOME/objectdefs/nginx-ingress.yaml kubectl create -f \$K8S\_HOME/objectdefs/nginx-ingress.yaml

For detailed information, please refer to the online help topic, Working with Secure Sockets Layer (SSL) in a Production Environment. See the ITOM CDF Online Help Center in the ITOM CDF top right corner.

# Encryption of stored database fields

ITOM CDF uses proprietary algorithms when encrypting data stored in the database and uses HPE Identity Manager (IDM) to manage user passwords.

# Security logs

This section provides information related to logs.

# Log and Trace Model

Recommendations:

- Pay attention to the log level and do not leave tracing or debug parameters enabled unnecessarily.
- Pay attention to log rotation/switching.

For detailed information, please refer to the online help topic, Tracing and Logging in the ITOM Container Deployment Foundation (CDF) Online Help Center in the ITOM CDF top right corner.

# Network and Communication Security

HPE recommends that you add the iptables rules listed below to the following below tables.

Apart from the listed ports, all	other ports should be blocked at the localhost level.
----------------------------------	---

Required ports	Service	Target server to configure the rules	Direction	Short description
111	NFS	NFS server	Nodes -> NFS Server	NFS server port access by all nodes

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2049	NFS	NFS server	Nodes -> NFS Server	NFS server port access by all nodes
2380	Etcd	Master Node	Master <-> Master	Etcd service port for etcd cluster communication
4194	Kuberne tes	All Nodes in Cluster	Localhost only	Cadvisor for local kubelet
5000	Private Registry	All Nodes in Cluster	Localhost only	Registry port for local host
5443	MngPort al	Ingress Node	All -> Ingress Node	The port exposed on ingress node. All clients could access this port
8443	kuberne tes	Master Node	Nodes -> Master	API server port for client connection
10250	kuberne tes	All Nodes in Cluster	Nodes -> Nodes	Kubernete port for internal communication
10251	kuberne tes		Nodes -> Nodes	Kubernete port for internal communication
10252	kuberne tes		Nodes -> Nodes	Kubernete port for internal communication
10255	kuberne tes		Nodes -> Nodes	Kubernete port for internal communication
20048	NFS	NFS server	Nodes -> NFS Server	NFS server port access by all nodes

#### Example:

The cluster is installed on 10.10.10.10, 10.10.10.11, 10.10.10.12. The Master Node on: 10.10.10.10

To add an iptable rules to port 8443 on the master node, do the following:

iptables	-I	INPUT	1	-p	tcp	-m	tcp -s 0.0.0.0/0dport 8443 -j DROP
iptables	-I	INPUT	1	-p	tcp	-s	127.0.0.1dport 8443 -j ACCEPT
iptables	-I	INPUT	1	-p	tcp	-s	10.10.10.10dport 8443 -j ACCEPT
iptables	-I	INPUT	1	-p	tcp	-s	10.10.10.11dport 8443 -j ACCEPT
iptables	-I	INPUT	1	-p	tcp	-s	10.10.10.12dport 8443 -j ACCEPT

# **Restart ITOM CDF**

To restart ITOM Container Deployment Foundation (CDF), stop and then start it.

Follow the steps below to stop ITOM

1. On the master node:

cd \$K8S\_HOME/bin

- ./kube-stop.sh
- 2. On each worker node: cd \$K8S\_HOME/bin ./kube-stop.sh

Follow the steps below to start ITOM CDF:

- 1. On the master node: cd \$K8S\_HOME/bin ./kube-start.sh
- 2. On each worker node: cd \$K8S\_HOME/bin ./kube-start.sh

# Administer the ITSMA suite

The Suite Administrator user role can perform the following administration tasks.

- Change the ITSMA suite administrator password
- Configure an external LDAP server
- Master data onboarding
- Configure Email
- Configure log level for debugging
- Add Smart Analytics content groups
- Set up Service Portal
- Bind the internal PostgreSQL database to a dedicated worker node
- Apply PostgreSQL parameter updates in ITSMA
- ITSMA node ports
- Customize the ITSMA login page
- Configure users for the internal LDAP server

# Change the ITSMA suite administrator password

## User role: Suite Administrator

The **sysadmin** user has full administrator privileges for the suite. During the installation, you configured a password for this user. You can change this password after the installation.

To change the password for the **sysadmin** user, follow these steps:

- 1. On the suite landing page, click **Suite Configuration**.
- 2. Click **Operation > Admin Password.**
- 3. Enter your old and new passwords for the "sysadmin" user.

The password must be 10 to 30 characters in length and contain all of the following characters: uppercase letters, lowercase letters, numbers, and special characters.

4. Click Update.

# Configure an external LDAP server

## User role: Suite Administrator

The ITSMA suite is designed to integrate with an LDAP server for user authentication.

The internal LDAP server in the suite is only for demonstration purposes. For production environment, you can configure an external LDAP server from the **Suite Configuration** page.

The ITSMA suite has a seeded user named **sysadmin**, which is stored in the suite's IdM database. Make sure that your external LDAP server does NOT contain a **sysadmin** user account.

To configure an external LDAP server, follow these steps:

- 1. On the suite landing page, click **Suite Configuration**.
- 2. Navigate to **CONFIGURATION > Accounts > LDAP**.
- 3. Configure your external LDAP server settings as described in the following table.

Setting	Description
Hostname or IP Address	The fully-qualified domain name (server.domain.com) or IP address of the LDAP server.
Port	The port used to connect to the LDAP server (by default, 389).
User ID	The fully distinguished name of any user with authentication rights to the LDAP server. If the LDAP server does not require a User ID or password for authentication, this value can be omitted.
Password	Password of the User ID. If the LDAP server does not require a User ID or password for authentication, this value can be omitted.
Base DN	Base distinguished name. The Base DN is the top level of the LDAP directory that is used as the basis of a search.
User Name Attribute	The name of the attribute of a user object that contains the username that will be used to log in. The value for this field can be determined by looking at one or more user objects in the LDAP directory to determine which attribute consistently contains a unique user name. Often, you will want a User Name Attribute whose value in a user object is an email address.
Enable SSL	Select this option to enable SSL connection to the LDAP server.

4. Click **Test** to make sure you can successfully connect to the LDAP server.

5. Click **Apply** to save your configuration.

After your confirmation for applying the changes, the system restarts the related services. If the system fails to restart some of the services, click **Revert** to revert all changes that you just made.

# 6. Wait until the background services are restarted. Go to Service Management, Service Portal, and CMDB to check the LDAP settings and perform additional configurations.

For Service Management LDAP settings, you need to perform the following additional tasks after you apply the changes in this Suite Configuration page:
For the "contacts" file from Service Management LDAP settings (System
Administration > Ongoing Maintenance > System > LDAP Mapping), update the

**operator.id** field mapping to the value as specified in the **User Name Attribute** parameter in the table in step 4.

- For the "operator" and "contacts" files, make sure that the existing LDAP mapping for the SM fields matches the attributes of your new LDAP server. For more information, see "Define file and field-level mappings to an LDAP server" in the Service Manager help center.

For Service Portal, you need to perform some additional tasks in the Service Portal Management Console to set up external LDAP. For details, see Configure LDAP for Service Portal.

For CMDB, make sure that all the necessary LDAP parameters are correctly configured in CMDB before using LDAP users for login. For more information, see the "LDAP Mapping" section in the UCMDB help center.

7. Log out of the ITSMA Suite Portal and try logging in using an LDAP account to verify the LDAP server.

# Configure LDAP for Service Portal

- Log on to Service Portal Management Console: https://<master node FQDN>/propel/launchpad/org/Provider (user name/password: admin/propel)
- 2. Click the **Identity** application in the Launchpad.
- 3. In the Organization List view, click the **ITSMA**.
- 4. Update LDAP in Service Portal to use external LDAP:
  - a. In the Organization Details view, click **Authentication**. The Authentication view is displayed and all of the authentication configurations for the organization are listed.
  - b. Click the **Edit** button of **ITSMALDAP**.
  - c. Update the LDAP settings to be consistent with what you have updated for the suite level LDAP changes in the Suite Configuration page, and then click **Save**.

If the **User Name Attribute** in the suite configuration page is set to sAMAccountName, you need to manually change the **User Search Filter** parameter in the Service Portal LDAP settings to sAMAccountName={0}.

Make sure that the **Full Name** field in the Service Portal LDAP Attributes is the same as the mapping value specified for the contact.name field of the "contacts" file in the Service Management LDAP mapping.

For more information on configuring LDAP settings, see the "Configure an LDAP server" section in the "Configure LDAP" topic from the Service Manager Help Center.

- 5. Add Group that is used to assign roles:
  - a. In the Organization Details view, click **Groups**.
  - b. In the Groups view, click **Add Group**.
  - c. In the **Add Group** dialog, provide the following required information:
    - i. Type a descriptive Group Name.
    - ii. In the Group Representation Type field, select either of the following:
       LDAP Representation for which you type the Distinguished Name and select the Authentication configuration.

**Database Representation** - for which you manually add Associated Users to the group. Note, see Concepts for details of manually adding users to a Database Representation group.

**Calculated Representatio**n - for which you first specify a Reference User, and then a set of User Profile Attributes is displayed. Next, you add attributes to the Calculation Criteria. Finally, to complete the criteria for the Calculated Representation group, you select the Combining Criteria — either all criteria must match or at least one criteria must match.

- d. Click the **Save** button to finish and save your new group.
- 6. Add groups created above to the corresponding roles. By default, Consumer and Organization Administrator roles are available.
  - a. In the Organization Details view, click **Permissions**.
  - b. In the Permissions view, for the role that you want to associate with a group, click **Add Group**.
  - c. In the Add Group dialog, select the group, and then click **Save**. The specified group is associated with the role and listed under the role.

For more information on Service Portal LDAP related tasks, see the "Configure LDAP" topic from the <u>Service Manager Help Center</u>.

# Master data onboarding

A master data onboarding tool set ships with the ITSMA suite release. This tool set can help you import master data from an existing Classic ITSMA system to ITSMA NG Express.

- Purge demonstration data
- Use the data onboarding tool set to import master data
- User data onboarding in ITSMA

This tool set supports master data onboarding for Service Management only.

This tool set supports incremental data import, which means you can always import new data after an initial data import.

# Purge demonstration data

Before your ITSMA system goes live, you need to purge the out-of-box demonstration data from Service Manager, Smart Analytics, and UCMDB.

To purge demonstration data, you must log in to the ITSMA Suite Portal as a suite administrator first. For details, see Log in to the ITSMA Suite Portal. The following tasks assume you are already logged in to the suite portal.

## Purge data from Service Manager

To purge the demonstration data from Service Manager, follow these steps:

- 1. On the suite landing page, click **Service Management**.
- 2. You are automatically logged in to the Service Manager web tier client.
- 3. On the left-side navigator, click **System Administration** > **Base System Configuration** > **Miscellaneous** > **Purge Production Data**.
- 4. Make sure the **All Out of Box Data** option is selected, and then click **Next**.
- 5. Select the I wish to purge all out of box data from the system option to confirm the purge action.
- 6. Click **Next** to purge the data.

Next, continue with purging indexes from Smart Analytics.

## Purge indexes from Smart Analytics

To purge the indexes of the Service Manager demonstration data from Smart Analytics, follow these steps:

- 1. Make sure you have already purged the demonstration data from Service Manager.
- Click Tailoring > Integration Manager, and make sure the SMIDOL integration instance is enabled.

The **SMIDOL** instance is for the training, testing, index, and tuning processes, which are triggered in Smart Analytics Configuration. Normally, one Service Manager Server has only one SMIDOL instance named as SMIDOL\*. The asterisk sign is the sequence number, which is usually 0.

- 3. From the navigator, click **System Status** and make sure the **KMReindex** schedule is started.
- 4. Perform indexing for each Hot Topic Analytics configuration record:
  - a. Click System Administration > Ongoing Maintenance > Smart Analytics > Hot Topic Analytics.
  - b. Click Search.
  - c. Select a configuration record, and then click **Start Index**.
  - d. Click **Yes** in the confirmation dialog that is displayed:

Question	×
Starting an index process with option whether to delete previous indexed record or not. Yes: Delete all indexed records and start a new index from the scratch. No: Keep all indexed records and append new records. Cancel: Quit this action. Yes No Cancel	

- 5. Perform a full re-index for each Smart Ticket task:
  - a. Click System Administration > Ongoing Maintenance > Smart Analytics > Smart Ticket.
  - b. From the Current Configuration List, select a task.
  - c. Click Training.
  - d. Click **Yes** to confirm the training action.
- 6. Perform a full re-index for each Smart Search library:
  - a. Click System Administration > Ongoing Maintenance > Smart Analytics > Smart Search.
  - b. From the Current Knowledgebase List, select a knowledgebase.
  - c. Click Full Reindex.

## Purge data from UCMDB

To purge the demonstration data from UCMDB, follow these steps:

- 1. On the suite landing page, click **UCMDB Administrator**. You are automatically logged in to UCMDB.
- 2. Click Modeling, and then click IT Universe Manager.

3. In the CI Type field, select Managed Object. Click OK.



4. Click the search icon (magnifying glass) next to the CI Name field. A list of CIs is displayed.

5. Select all CIs, right-click the mouse, and then select **Delete from CMDB**.



# Use the data onboarding tool set to import master data

If you have an existing Service Manager implementation, you can import the master data into your ITSMA system by using a tool set that ships with the ITSMA suite as a .zip file. This tool set comprises the following tools:

- An Microsoft Excel spreadsheet with a macro for exporting data to CSV files (located in the **Excel** subfolder)
- A set of files for use with HPE Connect-It, including a scenario file (DataOnBoarding.scn) and configuration files required for running the scenario (located in the **SM-CIT** subfolder)
- Sample CSV files (located in the **CSV** subfolder)

In this release, this tool set supports data migration only for Service Manager. For known issues with this tool set, see Known issues.

## Understand the Excel spreadsheet

To migrate data by using the data onboarding tool set, you need to enter your supporting data first in the Excel spreadsheet provided by HPE.

This section describes the "ITSMA\_Suite\_Supporting\_Data" spreadsheet used to capture the supporting data for each of the modules for the ITSMA suite.

The Excel spreadsheet is located in the **Excel** subfolder of the data onboarding package (.zip). Click each tab (worksheet) and read the following instructions.

#### Color codes

The Excel sheet uses the color codes described in the following table.

olor	Explanation													
ellow	Cells with this cold	Cells with this color contain sample data, which is NOT imported												
Red	Cells in red, allow	to specify ad	ditional data to imp	ort										
Grey	These cells are au	itomatically p	opulated based on	the value select	ed in another cell									
Green	These cells indicate imported into the s color. For example:	These cells indicate that they only require you to select a value. The selected value does not get imported into the solution; instead, it is normally used to populate a cell marked with the grey color. For example:												
			-	D	F									
	A	В	C	U U	Companies									
	A Companies Notes:	B Contains contact in	formation and preferences about	ut the companies you work	with. This area typically contain									
	A Companies Notes: Definition Service Manager Label	B Contains contact in Customer ID	C formation and preferences abou	It the companies you work	with. This area typically contain									
	A Companies Notes: Definition Service Manager Label Fieldname	B Contains contact in Customer ID customer id	C formation and preferences abou Company Code Company	t the companies you work	with. This area typically contain									
	A Companies Notes: Definition Service Manager Label Fieldname Data Type	Contains contact in Customer ID Customer.id Character	C formation and preferences abou	t the companies you work	with. This area typically contain           Default SLA for Company ID           default.sla           number									
	A Companies Notes: Definition Service Manager Label Fieldname Data Type Data Requirement	Contains contact in Customer ID Customer.id Character mandatory	C formation and preferences abou Company Code company character mandatory	Company Name company.full.name character mandatory	with. This area typically contain           Default SLA for Company ID           default.sla           number           optional									
	A Companies Notes: Definition Service Manager Label Fieldname Data Type Data Requirement Maximum Characters	Contains contact in Customer ID customer.id character mandatory 60	C formation and preferences abou Company Code company character mandatory 70	Company Name company.full.name character mandatory 50	with. This area typically contain           Default SLA for Company ID           default.sla           number           optional									
	A Companies Notes: Definition Service Manager Label Fieldname Data Type Data Requirement Maximum Characters Index	Contains contact in Customer ID Customer.id Character mandatory 60 Unique	C formation and preferences abou Company Code company character mandatory 70 Not Null	Company Name company.full.name character mandatory 50	with. This area typically contain  Default SLA for Company ID  default.sla  number  optional									
	A Companies Notes: Definition Service Manager Label Fieldname Data Type Data Requirement Maximum Characters Index Notes Format Rules	B       Contains contact in       Customer ID       customer.id       character       mandatory       60       Unique       The ID	C           formation and preferences about           company Code           company           character           mandatory           70           Not Null           The short name of the customer	t the companies you work Company Name company.full.name character mandatory 5 The long name of the customer	with. This area typically contain  Default SLA for Company ID  default.sla  number optional  The default SLA to be used for this customer Calculated based on column F									
	A Companies Notes: Definition Service Manager Label Fieldname Data Type Data Requirement Maximum Characters Index Notes Format Rules Example Data	B Contains contact in Customer ID Customer.id character mandatory 60 Unique The ID CUST000001	C formation and preferences abou Company Code Company Character mandatory 70 Not Null The short name of the customer ABC	t the companies you work Company Name company.full.name character mandatory 50 The long name of the customer ABC Company Limited	with. This area typically contain  Default SLA for Company ID  default.sla  number optional  The default SLA to be used for this customer Calculated based on column F 168									
	A Companies Notes: Definition Service Manager Label Fieldname Data Type Data Requirement Maximum Characters Index Notes Format Rules Example Data Data	B Contains contact in Customer ID Customer.id Character mandatory 60 Unique The ID CUST000001 CUST000001	C       formation and preferences about       Company Code       company       character       mandatory       70       Not Null       The short name of the customer       ABC	t the companies you work Company Name company.full.name character mandatory 50 The long name of the customer ABC Company Limited	with. This area typically contain  Default SLA for Company ID  default.sla  number  optional  The default SLA to be used for this customer Calculated based on column F  168									
	A Companies Notes: Definition Service Manager Label Fieldname Data Type Data Requirement Maximum Characters Index Notes Format Rules Example Data Data Please list your data here in	B       Contains contact in       Customer ID       customer.id       character       mandatory       60       Unique       The ID       CUST000001       Company 1	C formation and preferences abou Company Code Company Character mandatory 70 Not Null The short name of the customer ABC k	t the companies you work Company Name company.full.name character mandatory 50 The long name of the customer ABC Company Limited Company 1	with. This area typically contain  Default SLA for Company ID  default.sla  number optional  The default SLA to be used for this customer Calculated based on column F  168  168									
	A Companies Notes: Definition Service Manager Label Fieldname Data Type Data Requirement Maximum Characters Index Notes Format Rules Example Data Data Please list your data here in this area	B       Contains contact in       Customer ID       customer.id       character       mandatory       60       Unique       The ID       CUST000001       Company 1       Company 2	C Company Code Company Code Company Code Company Character mandatory 70 Not Null The short name of the customer ABC k Company 1	t the companies you work Company Name company.full.name character mandatory 50 The long name of the customer ABC Company Limited Company 1 Company 2	With. This area typically contain         Default SLA for Company ID         default.sla         number         optional         The default SLA to be used for this customer         Calculated based on column F         168         168         168									

#### The Selections worksheet

The **Selections** worksheet contains predefined data from the solution. The data is used as reference in all the other worksheets to ensure the entered data is matching the data that the tool set requires.

Data available in this worksheet is described in the following table.

This document is an export from the HPE Software Documentation Portal. For the latest documentation, refer https:// docs.software.hpe.com.

Column	Explanation
TimeZones	All available time zones of the suite products
Country Name	All available countries
Language Name	All available languages
Language ID	The language ID matching the language name
Customer SLA Name	The customer specific SLA Names
Customer SLA ID	The SLA ID matching the customer SLA Name
Service SLA Name	The service specific SLA Names
Service SLA ID	The SLA ID matching the service SLA Name
Location Site Category	The location site category
User Work Type	The different user types, site, home, mobile
Security Roles	The security roles to give user the correct access in the modules
Contract Profiles	The user profile for the contract management module
Configuration Profiles	The user profile for the configuration management module
Operator Templates	The operator template to set basic details of the operator record, like dashboard, default menu.
CI Display Name	The CI display name
CI Identifier	The CI ID matching the display name
Job Titles	The available job titles per department

#### Dependencies between the worksheets

Some worksheets reference data from other ones. Their cross references are put in place to ensure that the entered data is correctly referenced. The ITSMA solution will import the same references between the data records into the ITSMA suite components.

The references help to allow the selection of the correct record.

For example, the **Contacts** worksheet is referencing the following worksheets:

- Companies
- Location
- Departments

	А	D	E	F	G	Н	I			
1	Contact									
2	<u>Notes</u>	ontact the servio	e desk to initiat	e a service desk interaction	a service desk interaction, incident, or change, or a person who uses com					
3										
4	Definition									
5	Label	First Name	Last Name	Title	Employee ID	Company	Dept Name			
6	Fieldname	first.name	last.name	title	user.id	company	dept.name			
7	Data Type	character	character	character	character	character	character			
8	Data Requirement	mandatory	mandatory	optional	mandatory	mandatory	mandatory			
9	Field Length	80	80	140	140	60	50			
10	Unique				Unique					
				Need to match drop down values	A unique identifier					
				field. Please select a Department	tor the contact, using letters and	To be the same as Company	Has to match Dept Name field from the			
11	Field Note	The first name	The last name	first.	numbers.	Code in company table	department table			
10										
12	Format Rules									
13	Example Data	Joe	Bloggs	Admin Manager	1234567	ABC	ABC HR Department			
14	Data									
15	Please list your data	Jan	Steube	Administrative Assistant	231541235	Company 1	Dept 1			
16	here in this area	Klaus	Meier	Manager, General	sdfsdf	Company 1	Dept 2			

This means, in some cases, that a worksheet can only be completed when some data is correctly entered in the other worksheets.

Worksheets

The following describes the worksheets in the Excel spreadsheet.

#### Information

This worksheet contains some basic information.

#### Companies

The Company record represents the highest organizational unit for which a complete self-contained set of accounts can be drawn. A company will represent a customer and RIT itself as organization. It contains contact information and preferences about the companies you work with.

Examples:

- Customer A
- Customer B
- Customer C

#### Locations

Contains addresses and organizational information about the location of the companies. It is a hierarchy of records to document the following information of a company: locations, sites, buildings, and so on. The data can be used in contact records to see in which place a person is located.

Examples:

Company: Customer A

/AT/City/Street1

/AT/City/Street1/Building A/Floor 1

#### Contacts

Contains contact information about users who contact the service desk to initiate a service desk interaction, incident, or change, a person orders from the Service Request Catalog or someone who uses components tracked in Configuration Management.

A contact record is linked to a company, department and location. The Unique id for contacts is the contact name. The contact name is used as reference in many places in the system and creates the link to the operator

object. To easily link contacts with operators it's recommended to use clear identifier for Contact and Operator Names (see examples below).

Examples:

Contact Name: firstname.lastname@customera.com (Email address, in this example)

Company: Customer A

Department: Group 1

HP Service Manager ID: this is the operator Id to logon in Service Manager

Location: Floor 1

#### Departments

The department shows the data we would expect for the master data entities related to the Business-Organization of a company, as per the model of the overview section. I should be ensured that organizational structure is built within the department table. The department represents the next level of organizational units, after the company record. The department structure is hierarchical organized, which means each level is referenced with a parent department.

Each department is related to a company as a first level. This allows a clear distinction and selection of the required data.

Departments are important for the correct relation of the following records:

- SLA records with the Business Services in the Subscription Table.
- Contact records to the correct Organizational Unit, whereas each contact can only be linked to one department

Examples:

Company:	CL	JS1	comer	А					
Customer	А	/	Unit	1					
Customer	А	/	Unit	1					
Customer	А	/	Unit	1	/	Department	1		
Customer	А	/	Unit	1	/	Department	2		
Customer	А	/	Unit	1	/	Department	1/	Group	1
Customer	А	/	Unit	1	/	Department	1/	Group	2
Customer	А	/	Unit	1	/	Department	2/	Group	3
Customer	А	/	Unit	1	/	Department	2/	Group	4
Customer	А	/	Unit	2					

#### **Operators**

The operator represents a person (internal and external), which actively works with the system. In theory every person having access to a computer has an active directory entry may have access to the ITSMA Suite. The import process should focus on operators actively working in the different modules in the ITSMA Suite. End Users which only access the end user portal don't need to be imported. End Users are created automatically within the suite, upon first login.

To import and successfully create operator records the following data should be provided:

• Name

- Contact ID
- Company
- Security Roles / Profiles

Other required attributes are set through a template operator and are populated at the creation of the operator record.

- Menu (Navigation Tree items)
- Time zone (should be taken from the contact record)
- Date format (defaulted date format of the time zone)

To ensure successful authentication, the operator name has to match the <ID> in the HPE Identity Manager (IdM) server used by the ITSMA suite.

#### Example:

Name: WZRXX212 (Windows Login ID. E.g. Unique value in the LDAP structure)

Company: Customer A

ContactID: firstname.lastname@customera.com (link to the contact record)

#### Template operators

As part of this solution template operators are provided to ease the creation of operator records. Template operators are used to prefill some of the required attributes, such as the startup menu, capability words, currency or query groups. Out-of-box template operators are described in the following table.

Template	Description
TEMPLATE_IM	Set the basic details for the Incident module
TEMPLATE_SM	Set the basic details for the Service Desk module
TEMPLATE_CM	Set the basic details for the Change module
TEMPLATE_RM	Set the basic details for the Request module
TEMPLATE_ADM	Set the basic details for Administrators

If the default settings in these template operators are not covering your requirements, adjust these template operators or create new ones.

#### **Operator Security**

This worksheet helps to associate the correct authorization rights to users using the suite.

The security model provides a consistent method of assigning permissions to users across all facets of ITSMA data and accounts for out-of-box rights that can be configured for a specified role within an area. It also provides standardized methods to manage user rights.

#### Security Roles:

A role has a set of rights and settings assigned to it. Each operator is assigned a role or roles which, along with area, determine the access rights for the operator.

Contract Profile:

The profile determines the access right for the contract management module.

Configuration Profile:

The profile determines the access right for the configuration management module.

Security Groups:

The operator record is used to determine the security groups of which the operator is a member and uses this information to determine the files to which the operator has limited access. When an operator queries a restricted file, Service Manager reads the security group records to determine the filtering conditions to apply to the query. Service Manager then returns only those records that match the filtering conditions in the security group records.

Examples:

change manager, change analyst

#### Vendors

The Vendor master data contains the list of suppliers (vendors and service providers) that help supporting the IT solutions. This allows defining:

- To which supplier a ticket was sent to in the case there is no specific Assignment Group for it
- To which supplier the Assignment Group is related in the case it is a service provider

Examples

HPE, SAP, MICROSOFT

#### Assignment Groups

The Assignment group represents a team of people involved in Service Management process to which tickets can be assigned. Incidents, Problems, Changes, Requests, etc. are assigned to these groups as work from their members is required.

The naming convention for the Assignment Group is a very important aspect, since it allows all parties of the "Support Organization" to have harmonized group names which allow faster and more accurate (re)assignment. However, the group name is only one main characteristic of the group that should allow finding the right home for a ticket. Additional attributes like 1st level, 2nd level or further classifications, are the ones making the difference, as the user can search for Assignment Groups based on their attributes (for example, find all Assignment Groups that provide second-line support and that support the Service "Email").

Examples:

Service Desk EUR Service Desk APJ Exchange Team Level 2 Exchange Team Level 3 Exchange Team vendor

#### Assignments

This worksheets is allowing to easily setup the group members and other attributes for the assignment group. You can specify the members or approvers of each group, but also other attributes like supported languages, supported departments or locations.

Languages, departments, and locations are required to make best use of the Assignment Rule engine.

KM Groups

The KM Group is similar to an Assignment Group; however the specialty is that it allows relating the group with a specific KM profile and KM Category to give the group members rights for the creation, review and approval of KM Documents.

Examples:

```
KCS1 - All documents; KCSII - All documents; KCS1 - SAP; KCS2 - Service Manager
```

#### KM Group Assignment

This worksheets is allowing to easily setup the group members and other attributes for the KM group. You can specify the members of each group.

#### Holidays

The following diagram illustrates how Holidays and Holiday Groups are related. In the example below we have two holiday groups, Germany and China. Each group is linked with the particular holidays in each country.



#### Holiday Group

Service Manager allows to organize holidays into different groups. For example, one group of holidays might list all holidays observed in France. This group would include worldwide holidays like Christmas and New Year's Day and those unique to France. A second group might also list the worldwide holidays, but add those unique to North America.

#### Holidays

The Holidays worksheet allows you to enter all holidays relevant for you and your partners.

#### Holiday Groupings

This worksheet is used to link the Holiday Group entries with the data in the Holidays table.

#### Work schedules

A work schedule defines the work hours for one or more operators. HPE Service Manager can generate a complex 24x7 schedule that spans multiple time zones, includes all shift and break information, accommodates any regional shift to Daylight Savings time, and automatically accounts for local or national holidays. Service Manager uses the following information to create a work schedule:

• Shift and break information

#### • Holiday information (optional)

Service Manager Uses work schedule information in various calculations. One of the more important calculations is when to trigger a SLA alert that an incident is about to breach a SLA.

Work schedules can apply to a group, such as an assignment group, or to an individual named in the operator or contacts table. When you create schedule records, start and stop times must not overlap, and breaks must occur within the defined work shift.

#### Subscriptions

Service subscriptions track the relationships between IT customers and the services they use. A service subscriber, either an individual user or an entire department, can request subscriptions to various services listed in Service Catalog. A subscriber's list of subscriptions may reference access to shared services and individually assigned CIs. Subscriptions can include SLAs, history, custom options, and pending change requests.

Each subscription can be associated with one Service SLA. The subscription table stores the SLA ID for the Service SLA associated with the subscription. HPE Service Manager supports multiple Service SLAs when an interaction, a change request, an incident, or a problem record is created.

A power user can search for and view the Service SLA title when viewing a subscription record. A self-service user can view the Service SLA in a read-only find field. When a self-service user clicks the Find button, a detail window opens that contains the Service SLA ID, title, and description.

The following diagram depicts the relationships between SLA, Subscriptions and Business Services.



#### Customizing the data fields

The Excel spreadsheet should suffice to collect customer data in most cases; however, you can customize the tool if you have extra custom fields to collect.

Most of the worksheets therefore have at least one RED section to capture the extra customer fields:

	A	В	С	D	E	F	
1	Holidays				Customer Field		
2	Notes						
3							
4	Definition						
5	Label	Holiday Name	Start Date	End Date			
6	Fieldname	holiday	start.date	end.date			
7	Data Type	character	Date/Time	Date/Time			
8	Data Requirement	mandatory	mandatory	mandatory			
9	Field Length	50					
10	Unique	Unique					
11	Field Note		Day of holiday	One day after - to signify 1 day holiday			
12	Field Note						
13	Related to Requirement						
14	Format Rules	UPPER CASE	dd/mm/yyyy	dd/mm/yyyy			
15	Example Data	Christmas 2011	25/12/2011	26/12/2011			
16	Example Data	Boxing Day 2011	26/12/2011	27/12/2011			
17	Example Data	School Holidays	18/07/2011	02/09/2011			
18	Data						
19							
20							
21							
22							
н	N N 2 8.0perator Assignment of the second	nment 🏑 9.Holiday G	iroup 10.Holidays	11.Holiday Groupings / 12.T	<u>.</u>		

For each of the tabs (worksheets), there is a line of code in the Visual Basic Macro to export the data to a CSV file. See also the comments in the macro code itself.

```
Call CreateITSMACSV(BRwin, 1, "1.Companies",
"B5:E5,G5:U5,B15:E999,G15:U999", "1_Company", "")
```

- It is clear from the above code line that only one extra field is expected (column E). You need to customize this code line if you have more customer fields.
- Furthermore, the macro only exports up to line 999. Therefore, you also need to customize this code line if you have more data lines.

Next, you are ready to enter supporting data in the Excel spreadsheet and export the data to CSV files. For details, see Export data to CSV files .

## Export data to CSV files

This section explains how the "ITSMA\_Suite\_Supporting\_Data" spreadsheet provided by HPE can be used to generate a number of CSV files that you can import into your ITSMA suite system.

The import files are CSV files that must be loaded into the ITSMA solution through HPE Connect-It. The user to import the data will require sufficient rights to execute these imports, and is therefore typically reserved to those who have administration rights.

The spreadsheet contains only the main options that dictate the minimum required settings in the ITSMA suite, and hence is in no way a complete replacement for direct entry into the ITSMA solution. There are a multitude of other factors and data that can be fine tuned. These settings cannot be entered through simple Yes or No answers and are hence not part of the spreadsheet.

To export the CSV files, follow these steps:

This document is an export from the HPE Software Documentation Portal. For the latest documentation, refer https:// docs.software.hpe.com.

The following steps are based on Excel 2013. If you are using a different version of Excel, the steps may slightly differ.

1. Unzip the data onboarding tool set package to a temporary directory on your local drive. For example:

C:\DataOnBoarding

When unzipping the package, keep the folder structure of the .zip file. Later, you will need to export data to CSV files and put the CSV files in the **CSV** subfolder. You may want to make a backup copy of the sample CSV files in the **CSV** folder, because your own CSV files will overwrite them.

- 2. Open the Excel spreadsheet in the **Excel** subfolder.
- 3. Enable macros in the spreadsheet.

If macros are disabled, you should see a security warning. Click **Enable content** to enable macros.

4. Enter supporting data in the spreadsheet. For detailed instructions, see Understand the Excel spreadsheet.

For example, in the Contacts worksheet, we add a customer field named "Region".

	А	AH	AI	AJ	AK	AL
1	Contact					Customer Field
2	<u>Notes</u>					
3						
4	Definition					
5	Label	Misc_Aristocratic Title	Misc_Form of Address	Valid From	Valid To	Region
6	Fieldname	aristocratic.title	form.of.address	valid.from	valid.to	
7	Data Type	character	character	Date/Time	Date/Time	
8	Data Requirement	optional	optional	optional	optional	
9	Field Length	50	30			
10	Unique					
11	Field Note	e.g. Lord; Lady; Your Worship	e.g. Mr; Mrs; Miss; Ms			
10	Formert Bulles					
12	Example Data	Lord	Mr			
14	Data Data	Lord				
14	Place list your data here				1	Amoricas
16	in this area					EMEA
17	in this area					LIVILA
18						
10						
20						
21						

- 5. If needed, customize the "PrepareITSMAImport" macro as needed. For detailed instructions, see Understand the Excel spreadsheet.
  - a. On the View tab, click Macros and then select View Macros.
  - b. If needed, select the "PrepareITSMAImport" macro and click **Edit** to edit it.

Before editing, copy the code lines of the macro to a text file for backup. If the code is lost, you can recreate the macro using the text file.



If a worksheet contains more than one customer field or more than 999 lines, you need to update the "Call CreateITSMACSV" code line for the worksheet.



6. Once you have finished editing the macro, click **Run**.

This will generate 12 CSV files in the current directory, which in theory is "My Documents" or the directory from which you opened the spreadsheet.

If you execute the macro several times, the macro will overwrite existing files in the folder.

- 7. Verify the CSV files contain the correct data.
- 8. Copy the CSV files to the CSV subfolder. For example: C:\DataOnBoarding\CSV.

CSV file	Description		
1_Company.csv	List of Companies		
2_Locations.csv	List of Locations		

3_Contacts.csv	List of Departments (in a Company above)				
4_Departments.csv	List if Contacts (in a Company and Dept above)				
5_Operators.csv	List of Operators against Contacts				
6_Vendors.csv	List of Vendors				
7_Assignments.csv	List of Assignment group names				
8_KMgroups.csv	The KM group names				
9_Holiday Groups.csv	List of Holiday Group names				
10_Holidays.csv	Calendar Holidays (name and date)				
11_Workschedules.csv	List of Work Schedules				
12_Subscriptions.csv	Business Service Subscription against above Dept				
You can follow the progress in the status bar:					
▲ ▶ 1.Companies 2.1					

7\_Assignments

If you execute the macro several times, the macro overwrites existing files in the folder.

Next, you need to import the CSV files into the suite. See Import data from the CSV files into the ITSMA suite.

#### Import data from the CSV files into the ITSMA suite

Together with the data onboarding Excel spreadsheet, HPE provides a Connect-It scenario for you to easily import the generated CSV files into the ITSMA suite.

Once the CSV files for import are ready, you can run this Connect-It scenario to import the files into the ITSMA suite.

In this release, this tool supports data import only for the Service Manager capability in the ITSMA suite.

The Connect-It scenario consists of three main elements:

• A source connector, which helps to read the CSV files

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- A destination connector, which connects to the ITSMA suite to insert and update the data
- Data mapping between the source and destination connectors to map the data from the CSV files with the database fields in the ITSMA suite

This scenario is designed for a one-time import; however, it can be used to import data on a regular basis.

To do this, perform the following steps.

#### Step 1: Install Connect-It

You are recommended to install Connect-It 9.70, which you can download from http://www.hpe.com/software/entitlements.

For installation instructions, see the installation chapter in the Connect-It User Guide.

You can use a 120-day InstantOn license for one-time data onboarding. For information about how to activate a Connect-It InstantOn license, see the Connect-It documentation.

Step 2: Import the CSV files to the ITSMA suite

This step consists the following tasks.

#### Task 1: Configure the source connectors

To do this, follow these steps:

1. Double-click **DataOnBoarding.scn** located in the C:\DataOnBoarding\SM-CIT directory.

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12 source connectors are displayed.

2. Configure the source connectors.

a. Right-click the Company source connector, and then select **Configure connector**.



b. Click **Next** repeatedly until you see the "Select files or folders" page. Click the **File name** field and then browse to the corresponding CSV file.

*		Wizard: 'Configure the connector'.	_ <b>_</b> ×			
Select files or folders						
Specify the location of the files or folders						
(° F	ead files					
CF						
Narr	e of the files	" File came C: Ub als/Differenting(CS/N1_Company cav	<u>स्</u> र			
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This document is an export from the HPE Software Documentation Portal. For the latest documentation, refer https:// docs.software.hpe.com. c. Click **Next** repeatedly until you see the "Choose a description file" page. Browse to the corresponding description file on your local drive.



d. Click the Edit button to the right of the **Use this DSC file** field to open the "Select a document type" window.

		wizard: 'Lonfigure the connector'.	
		Choose a description file	
16	Enter the location of the DS The DSC file describes how create or edit the DSC file. Use this DSC file	iC file for the text file(s). • data in the flat text file is organized (delimited, fixed width, etc.). Click t <u>CND:stDirBosetry/SMC0TNDstmitedText_Compared to</u>	he magnifier to
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e. Click **Next**. The following page is displayed.



#### Click Next.

f. Make sure **Delimiter** and **Comma** are selected.

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Click Next.

g. Make sure that the **Import column titles from first line** option is selected and the **Quote character** field is set to the double-quotation mark (").

🔨 Wizard: "Create/Modify a description file". 📃 🗖 💌								
	Specify the data-processing options							
Write the column headers								
✓ Import column titles from first line								
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Click Next.

🔨 Wizard: 'Create/Modify a description file'. 📃 🗖							
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		< Previous Mext>	Cancel				

Click Finish.

h. Check that the rest of the source connectors are automatically updated.

Next, continue with configuring the data mappings between each source connector and the destination connector.

#### Task 2: Configure field mapping

In this task, you will configure mapping for customer fields that you entered in the Excel spreadsheet.

Manual mapping for the out-of-box fields are not required.

To do this, follow these steps:

1. In the scenario diagram, double-click the Company mapping.



- 2. Double-click the mapping destination.
- 3. For the customer field ("Customer Field" on the left-side pane), locate the mapping field on the right-side pane (**companyold** in this example). Drag and drop the mapping field from right-side pane to the middle pane.

				Editi	napping *
e - '1.Company (File - Text)'	Mapping			Destination - 'ServiceCenter/Service h	lanager (localho:
nt	+ 🔉 🛛 🖬 🛄 🙀	n 🗣 📴 🐯		Element	T3
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- W Cdy	- address2	[Address 2]		and company	
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Fields on the left-side pane are from the CSV file, and those on the right-side pane are from the **company** table in Service Manager.

4. Map the customer field you entered in the Excel spreadsheet to a Service Manager field. If the customer field is a text field, drag the customer field from the left-side pane to the middle pane to map it to the Service Manager field.

				Edit mapping	٠
e - 11.Company (File - Text) X	1 Mapping		De	estination - "ServiceCenter/Service Manager (loca	alhos
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Company Code	address3	léddwss 31		company.full.name	
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Country Country	city	[City]		country	
Customer Field	Code	[Post Code]		customer.id	
Eustomer ID	COMPANY	[Company Code]		customer.since	
Default SLA for Company ID	company.full.name	[Company Name]		delauit.sla	
Fax Number	- Ca III companyold	[Customer Field]		dellag	
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Show Company in Multi-Company Lists	II tax	[Fax Number]		servicedesk.email	
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	styc.manager	[Service Manager]	-	ucmdb.customer.id	
,		· · ·		ucndb.bassword	

If the customer field is an array field in Service Manager, you should use a mapping script instead of the mapping method described above.

As an example, here is a mapping script for the out-of-box **secRole** field in Service Manager: Dim path as String

```
Dim myValue as String
Dim total as Long
Dim iCounter As Integer, lSum As Long
path = ['Security Role(s)']
```

```
total=CountValues(path, "|", "")
```

```
For iCounter = 1 To total
myValue=GetListItem(path, "|", iCounter, "")
RetVal=PifSetStringVal("secRole.secRole(" & cstr(iCounter) &
").secRole", myValue)
Next
```

- 5. Click **OK** at the lower right corner of the window and then save the scenario.
- 6. Repeat the same steps for the rest of the mappings in the scenario.

Next, continue with configuring the destination connector so that Connect-It can connect to the ITSMA suite.

#### Task 3: Configure the destination connector

To do this, follow these steps:

1. In the scenario diagram, right-click the **SericeCenter/Service Manager** connector and then select **Configure connector**.

୍ଦି 8,MMGroups Mapping ସ୍ଟିଲି Basic engine	_
♀ 9 Heldes/Groups Mapping Q Basic engine	Configure connector
V 10 Violitays Mapping	Close connector Favorites Cache Modify the relational model
♀ 11_WorkSchedules_Mapping ●	Edit a document type Edit a mapping Produce now
Q 12_Subscriptions_Mapping	Lette Show tracking lines Show toolbox • Show zeanaio diagram
	Contraction of the second

- 2. Click **Next** to enter the **Define the connection parameters** page, and then enter the following information:
  - Server name: Enter a value with the following format: <*host FQ*DN>.31191. Here, <*host FQ*DN> is the fully qualified domain name or IP address of the ITSMA master node, and 31191 is the SM-CIT integration port.
  - Login and Password: Enter the user name and password of an ITSMA suite administrator user (for example, the sysadmin user).
  - Service Manager server port: enter 31191.

In the ITSMA suite, this is the SM-CIT integration port instead of the SM RTE port.

- Make sure the following options are selected:
  - Service Manager 9.20 and later versions
  - Write to a Service Manager database

<b>*</b>		Wizard: 'Configure the connector'.	- • ×				
	Defi	ne the connection parameters					
A second	Enter the connection (using	'computer.port' format), and enter the ServiceCenter/Service Manager lo	gin and password.				
	Server name	demonstrating contrainers 1.31191					
	Login	sysadmin					
( )	Password						
	✓ Service Manager 3.20 and later versions						
	Vrite to a Service Manager d	stabase					
	Service Manager server port	31191					
	Test the connection	Text					
		< <u>P</u> revious <u>N</u> ext> Einish	Cancel				

3. Click Test to make sure that the connection test is successful.



Click Close.

4. Return to the wizard screen, and click **Next** repeatedly until you see the **Define document types** page.

Browse to the **smdb951.cfg** file located in the C:\DataOnBoarding\SM-CIT directory, and then click **Finish**.

<b>*</b>		Wizard: 'Configur	e the connec	ctor'.		- • ×
		Define docu	ment ty	pes		f the server will be loaded
	Extension file for d By default, the des automatically. How	locument types publishe cription file correspond rever, you can specify a	d by the conn ing to the appl a file.	ector. lication versior	of the server	will be loaded
	Extension life	C:\0ata0nBoo	rding\SM-CIT\sr	ndb951.cfg		
			< Previous	<u>N</u> ext >	Einish	Cancel

Next, run the scenario to import the data.

## Task 4: Run the scenario

Each CSV file is prefixed with a sequence number (1, 2, and so on). Be sure to import the CSV files in the correct order (import "1" first, then "2", and so on).

To do this, follow these steps:

1. In the scenario diagram, right-click **Service Center/Service Manager**, and then select **Open connector**.



- 2. Right-click the Company source connector, and select **Produce now**. Wait until the data import is complete.
- 3. Continue to produce data for the rest of the source connectors in the following order:

To produce Subscription data, configuration items (CIs) are required to exist in your ITSMA system. If you have purged the out-of-box data from the system, be sure to create your own CIs in the system. This is because Subscription data is connected with CIs, and subscription data import will fail without CIs.

- 2.Location
- 3.Contacts
- 4.Departments
- 5.Operators
- 6.Vendors
- 7.Assignments
- 8.KMGroups
- 9.HolidayGroups
- 10.Holidays
- 11.WorkSchedules
- 12.Subscriptions

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	V 11.WorkSchedules	11_WorkSchedules_Mapping
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Step 3: Verify the imported data

After the data onboarding scenario is executed, verify the data is successfully imported into the ITSMA suite:

- 1. Log into ITSMA as **sysadmin**:
  - https://<master node FQDN>/main
- 2. Click Service Management.
- 3. Enter **db** in the command line, and press Enter to open the Database Manager.
- 4. In the Table field, enter the name of a corresponding table. For example, enter **company** or **contacts**.
- 5. Verify the data is successfully imported.

				1			
Company Code 🖨	Company Name	\$	Custome 🖨	Custome 🖨	: City	State	Country
DEFAULT	Default Company		00000001	12/31/98 0			
advantage	advantage inc.		0000002		Denver	CO	USA
bac	ABC Company Limited		abc				
<u>k</u>	Company 1		Company 1				Armenia
Company 1	Company 2		Company 2				
1 to 5 of 5	K < 1	> >I			Show	50 records	per page
✓ OK 💌 Cancel 🕇	Previous 🕹 Next	🗎 Sav	e X Delet	e 🔍 Find	I 🗐 Fill	More	<ul> <li>→ </li> </ul>
Company Information							
Customer ID:	00000001						
Company Code:	* DEFAULT			Contac	ts		
Company Name:	Default Company						
Defended a fee Comment	,						
Default SLA for Company:		~					
Contact Na 🌰 Contact E	b A Extension	Dopt Nam	compa		rator Id 🔺	Full Name	A Postcada
	The Contension -	Asia * sait		iy 🖕 Ope	aleni	Ann Sien	- Posicode
STERLAND, P		Asia - Fina	ance advanta	ige Pat.	Sterland	Pat Sterlan	d
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STEWART, IKE		South Am	eric advanta	ige Ike.S	itewart	Ike Stewart	
STOCK, WAR		Africa - Sa	ales advanta	age War	ren.Stock	Warren Sto	ck
STONE, MARL.		South Am	eric advanta	age Mari	sa.Stone	Marisa Stor	ne
451 to 500 of 519 K	< 2 3 4 5	6 7 8	9 <b>10</b> 11	> >	Show	50 records	per page
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Contact Name:	STEUBEJAN		Full Name:		* Jan St	teube	
Employee ID:	231541235		Service Man	ager ID:			[]] :=

If any issues are found, see Troubleshoot data onboarding.

# Extend the tool set to import more customer fields

By default, the data onboarding Excel spreadsheet allows you to specify one customer field. If you have more than one customer field, follow these steps:

The following steps use the Contacts worksheet as an example.

 Enter your data, including the customer fields in the Excel spreadsheet. For instructions, see Understand the Excel spreadsheet. In this example, we enter three customer fields in the Contacts worksheet: Customer Field1,

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## Customer Field2, and Customer Field.

1	Contact								Customer Field
2	Notes								
3									
4	Definition								
5	Label	Fax Number	Misc_Aristocratic Title	Misc_Form of Address	Valid From	Valid To	Customer Field1	Customer Field2	Customer Field
6	Fieldname	fax.phone	aristocratic.title	form.of.address	valid.from	valid.to			
7	Data Type	character	character	character	Date/Time	Date/Time			
8	Data Requirement	optional	optional	optional	optional	optional			
9	Field Length	50	50	30					
10	Unique								
11	Field Note		eg tord; tady; four thanklip	eg. Mr; Mrs; Miss; Ms					
12	Format Rules								
13	Example Data		Lord	Mr					
14	Data								
15	Please list your data here						AA	88	cc
16	in this area						DD	EE	FF
17									
18									
19									
05									

 Update the data onboarding macro according to your data entries. For instructions, see Understand the Excel spreadsheet. In this example, we update the code line for Contacts in the macro as follows:

Call CreateITSMACSV(BRwin, 3, "3.Contacts", "B5:L5,B15:L999,N5:AN5,N15:AN999", "3\_Contacts", "AJ:AK")

- 3. Run the data onboarding macro to export the data to CSV files. See Export data to CSV files.
- 4. Double-click DataOnBoarding.scn located in the C:\DataOnBoarding\SM-CIT directory to open the scenario in Connect-It.
- 5. Reconfigure the source connector. For detailed steps, see Export data to CSV files. In this example, right-click the Contacts connector and select **Configure connector**. Follow the configuration wizard to complete the configuration. Make sure the following page is displayed, which indicates the customer fields that you added are loaded into Connect-It.

x .	Wizard: 'Create/Modify a description file'.	_ <b>_</b> ×
sı	pecify the column names and types	
Enter the column names and types		
* Name	* Type	🔺 🖄
Manager	Text	×
Critical User	Text	
Work Schedule	Text	_
Payroll	Text	
Location	Test	
Building	Text	
Floor	Text	_
Room	Text	_
Office/Cube	Text	
Phone_Work	Text	
Phone_Extension	Text	
Phone_Home	Text	
Phone_Portable	Text	
Pager_Number	lext	
Pager_Pin	lext	
Pager_Malbox	lext	
Fax Number	lext	
Misc_Aristocratic Litle	lext	
Misc_Form of Address	lext	
Valid From	Text	
Vaid to	l ext	
Customer Field	T ext	
Customer Field	T est	
Customer Field	1 031	-
4		
	< Previous Next >	Finish Cancel

6. Reconfigure the mapping.

Double-click the mapping to open the following window, and then double-click the highlighted part.



The field that you added in Excel now appears on the left-side pane. Drag and drop the field to the right-side pane. Click **OK**.


Double-click the Contacts mapping, and then drag and drop the customer fields to the middle pane to map them to their corresponding fields in the Service Manager database. Click **OK**.



7. Run the data onboading scenario and verify the imported data. For details, see Import data from the CSV files into the ITSMA suite.

### Troubleshoot data onboarding

This section provides tips that help you troubleshoot data onboarding issues that you may encounter in Connect-It and the ITSMA suite.

Troubleshoot in Connect-It

The following are some errors that you may encounter in Connect-It.

"Invalid value" error

• *Description*: when running the data onboarding scenario, this error is displayed. See the following figure for an example.

Skiendors File-Text	Mapping cengine
Contail of the connector %_Vendors_Mapping" (view 'Olobal')	
🕰 Scenario search 👔 Patches list 🛕 Connect-R log 🕰 Document log 🖀 Document types 🔯 Mappings	
Element 💩6, Vendors, Mapping (Basic engine) • Filter: 🗣 Normal proces • Tracking line R	er: 🐌 No filter
I USUNAY INDIA I UN UNUMBER UN	
Message	Date
The element Month'=17 is out of limits in the string '17:00'	1/19/2017 2:17:57 PM
Cannot convert '17:00' (type text) to date and time type (invalid value).	1/19/2017 2:17:57 PM
The element 'Dayl-'00' is out of limits in the string '8:00'	1/19/2017 2:17:57 PM
Cannot convert '8:00' (type text) to date and time type (invalid value).	1/19/2017 2:17:57 PM
The element Month'="17" is out of limits in the string "17:00"	1/13/2017 2:17:57 PM
Cannot convert '17:00' (type text) to date and time type (invalid value).	1/13/2017 2:17:57 PM
The element Dayl~00' is out of limits in the string '8:00'	1/13/2017 217:57 PM
Cannot convert 10:00" (type text) to date and time type (invalid value).	ACTIVATE V1/19/2017 217:57 PM
	Go to Action Center to activate Windows

- Root cause: you have entered invalid values in the Excel spreadsheet.
- Solution: check the relevant data entries in the Excel spreadsheet and correct mistakes.

This document is an export from the HPE Software Documentation Portal. For the latest documentation, refer https:// docs.software.hpe.com.

### More columns found than expected

- Description: when running the data onboarding scenario, this error is displayed.
- *Root cause*: you have added one or more columns in the Excel spreadsheet and exported the data to CSV files, and then run the data onboarding scenario without reconfiguring the source connector and mapping. This is because the newly added data is not reloaded to the scenario.
- *Solution*: if a CSV file is updated, you need to reconfigure the source connector and the mapping to reload the updated data, and then run the scenario again.

#### Name is not defined in element

• Description: when running the data onboarding scenario, this error is displayed.



- Root cause: you have update a column header in the Excel spreadsheet and exported the data to CSV files, and then run the data onboarding scenario without reconfiguring the source connector and mapping. This is because the newly added data is not reloaded to the scenario.
- Solution: If the update is correct, you need to reconfigure the source connector and the mapping to reload the updated data, and then run the scenario again; if the update is made by mistake, change the name back to the correct value and then run the scenario again.

#### Troubleshoot in the ITSMA suite

Follow these guidelines to troubleshoot data import problems on the ITSMA suite side.

#### Monitor the eventin queue

Once the data is imported into Service Manager, the system creates **eventin** records to insert the data into the database and executes the records based on a scheduler. You can use the **eventin** queue to monitor the status of the import: once the data is inserted into the SM database, the eventin records should disappear from the **eventin** queue.

To access the *eventin* queue, do the following:

- 1. On the ITSMA suite landing page, click Service Management.
- 2. Type **db** in the command line box, and press Enter to open the Database Manager.
- 3. In the Table field, enter eventin. Click Search.

If **eventin** records remain in the queue, do the following depending on their Status value:

• If the Status is empty: this status indicates that the data is not executed. *Solution*: go to **System Status** on the navigator to restart the **event** process.

0	<b>)</b>	
<u>CITcsvcompany</u>	ac808023b588072b3041 01/18/17 19:50:37	abc^^bac^^^^
<u>CITcsvcompany</u>	ac808023b588072b32e00 01/18/17 19:50:37	Company 1^^k^^
<u>CITcsvcompany</u>	ac808023b588072b32fa0 01/18/17 19:50:37	Company 2^^Co
1 to 3 of 3	K < 1 > >I	Show 50 records per page
✓ OK 🗶 Cancel	↑ Previous ↓ Next + Add 🗎 Save	× Delete ♀ Find  ヺ Fill   More ∽
Status	01/18/ Time Proc	(17 19:50:37
System Sequence:		₽ B
ac808023b588072b	3041002	

• If the Status is "error": this status indicates errors occurred when the system attempted to insert the data into the database.

*Solution*: debug the error according to the error messages. For example, the following figure shows an error caused by an empty primary key value.

Event Code	Time Stamps
CITK/MGroup Status	First Expiration:
error System Sequence:	Time Processed: 01/05/17 18:14:05
eb8153135586ebf8	
Details Or Messages Or Field List Or Attachments	
Attempt to add or update kmgroup record failed; invalid null: Seq #eb8153135586ebf813870086 The record being added contains a NULL key (axces.database,add) filei{kmgroup) key;(id=) (axces.database,add) Key #1 is empty. (axces.database,add)	

Check the Scheduled Event Types global list

For successful data import, make sure the **Scheduled Event Types** global list contains the event registration. To do this, follow these steps:

- 1. On the ITSMA suite landing page, click **Service Management**.
- 2. Type **gl** in the command line and press Enter.
- 3. In the Name field, enter **Scheduled Event Types**.
- 4. Click Search.
- 5. Make sure that the Display List field contains the following values:

```
"CITcontacts", "CITcsvAssignments", "CITcsvcompany",
"CITdepartment", "CITholidaygroup", "CITholidays", "CITKMGroup",
"CITLocation", "CIToperator", "CITSubscriptions", "CITvendors",
"CITWorkShedules"
```

Master data onboarding

	Scheduled Event Types	Times Opdated:	763	
Regen Every:	1 00:00:00	Expiration:	01/19/17 10:24:32	E
Build List on Startup?				
List Variable:		Guard Against Duplicates?		
Display Variable:	\$G.sch.events			
List Field:				
Display Field:	evtype			
Filename:	eventregister			
Limiting SQL:	evftype="input" and (sync.process=NULL or sy	ync.process~=true)		
Sort By:				
Application:				
Server App.:				
Use Localized Values?				
User Defined List?				
Value List:	{NULL, NULL, NULL, NULL, NULL, NULL, NU	LL, NULL, NULL, NULL, NULL, NULL, NUL	L, NULL, NULL, NULL, NULL, NULL	, NULL, I
Display List:	{"CITcontacts", "CITcsvAssignments", "CITcsvcg	ompany", "CITdepartment", "CITholidaygrou	up", "CITholidays", "CITKMGroup", "CIT	<b>FLocatio</b>

6. Go to **System Status**, and then restart the **event** process.

### User data onboarding in ITSMA

User data onboarding in Service Management

When LDAP users attempt to log in to ITSMA for the first time, ITSMA does not automatically synchronize the users to Service Management. You need to use the data onboarding tool set to import user data to Service Management first before LDAP users can log in to Service Management.

For details about how to import user data, see Use the data onboarding tool set to import master data.

- This tool set supports incremental data import. You can always run the tool set to import new user data.
- For Service Portal, no user data onboarding is needed. However, manual LDAP configuration is needed before LDAP users can log in to Service Portal. For more information, see Configure an external LDAP server.

### User data onboarding in CMDB

Users from the LDAP server are created in the CMDB capability on the fly when LDAP users perform the following tasks:

- Access the Service Management capability and launch an embedded UCMDB Browser widget
- Access the CMDB Browser capability
- Access the CMDB capability

However, before these LDAP users can log in to UCMDB, in addition to LDAP configuration in ITSMA, you must configure additional necessary LDAP parameters in the UCMDB JMX Console. For more information, see Configure an external LDAP server.

If you are using the internal LDAP server, users from the LDAP server are created in CMDB with a group named 'itpeople' and a default role (that is, the **SuperAdmin** role inherited from "itpeople"). You must manually create other groups and roles in CMDB and create other user permissions. For more information, see the UCMDB help center.

# **Configure Email**

### User role: Suite Administrator

The email service enables the system to send email notifications to any mail server that supports Simple Mail Transfer Protocol (SMTP). Configuring the email service is mandatory before you can use email related features such as the Service Management email notifications and survey.

To configure email service, follow these steps:

- 1. On the suite landing page, click **Suite Configuration**.
- 2. Click **CONFIGURATION** > **Email Service**.
- 3. Configure your email service settings as described in the following table.

Setting	Description
SMTP Server Host	Specifies the name of the SMTP server host that is used for sending email notifications. The value for the parameter can be the IP address, machine name, or DNS name of the SMTP server .
SMTP Server Port	Specifies the communications port that the SMTP server uses.
User Name Passwor d	Specifies the user name and password of an existing account that the ITSMA suite uses to bind to the SMTP server.
Mail From	Specifies the descriptive name or other identifier of the sender of an e- mail. This parameter should be set in the format of email address.
Enable SSL&TLS	Select this option to enable SSL/TLS for SMTP operations.

4. Click **Test** to make sure you can successfully connect to the SMTP server.

- 5. Click **Apply** to save your configuration. A dialog box that lists the items to be changed is displayed.
- 6. Review the listed items, and then click **Confirm**.

After your confirmation for applying the changes, the system restarts the related services. If the system fails to restart some of the services, click **Revert** to revert all changes that you just made.

# Configure log level for debugging

### User role: Suite Administrator

The suite administrator can configure debugging log level for the following components or features of the suite:

- Service Management
- CMDB
- Smart Analytics
- Service Portal
- IDM

Once debugging is enabled, additional logging information is written to the suite logs, which you can download from ITOM Container Deployment Foundation (CDF). For more information, see Manage Suite Export Logs.

After your confirmation for applying the changes, the system restarts the related services. If the system fails to restart some of the services, click **Revert** to revert all changes that you just made

### Configure Service Management log level

To configure the debugging log level, follow these steps:

- 1. On the suite landing page, click **Suite Configuration**.
- 2. Click **CONFIGURATION** > **Debug** > **Log Level**.
- 3. Click the **Service Management** tab.
- 4. In the **Server** section, update the parameters by selecting a value in the dropdown list and then click the **Update** button. Or, you can directly modify the parameter values in the text area.

For information about the description and values for the Service Management server parameters, search for the parameter in the Service Manager Help Center. Some values are available for quick selection in the the drop-down list. If you wan to specify other possible values that are not in the drop-down list, you can directly modify the values in the in the text box.

Parameter name	Default value	Possible values
sqllimit	10	Number of seconds For example: 1,2,3,4,5,10,20,30,60
debugdbquery	5	Number of seconds or 999 for a full query debug. For example: 1,2,3,4,5,10,20, 999
cache_clean_interval	3600	1800; 2700; 3600;
webservices_sessionti meout	1800	15; 30; 60; 120; 300; 600; 900; 1800; 3600
connectionTimeout	180000	45000; 60000; 90000; 180000
smartemailTimeout	45000	30000; 45000; 60000; 90000; 180000
sqldebug		0 (Disable) ;1 (Enable)
debughttp		0 (Disable) ;1 (Enable)
debugjavascript		1; 2; 3
debugrest		0 (Disable) ;1 (Enable)
logdebuglevel	1	0 = DEBUG; 1 = INFO(default); 2= WARN; 3 = ERROR; 4 = FATAL
debugjni		0 (Disable) ;1 (Enable)
log4jDebug		com.hp.ov.sm.common.oom.LowMemoryHand ler
enablecoredump		0 (Disable) ;1 (Enable)

rtm		0, 1, 2, 3, 4, 5
maxlogsize	20 (Size in MB)	5, 10, 20, 40, 60, 80, 100
numberoflogfiles	10	0 to 100

5. In the **Webtier** section, update the parameters by selecting a value in the dropdown list and then click the **Update** button. Or, you can directly modify the parameter values in the text area.

For information about the description and values for the SM web tier parameters, search for the parameter in the Service Manager Help Center.

If no value is listed in the dropdown list for a parameter, you need to update the value directly in the text area.

Parameter name	Default value	Possible values
session-timeout	15	Number of minutes
viewrecordlist	true	true; false
querySecurity	true	true; false
jsDebug	false	true; false

- 6. Click Apply.
  - The default folder to store customized branding files and settings is **<ITSMA NFS** shared folder>/logs/sm-9.52/webtier.
  - The default path to store the exported dashboard report is **<ITSMA NFS shared** folder>/logs/sm-9.52/report-export.

<ITSMA NFS shared folder> is the directory that you set up for NFS sharing for ITSMA during installation (For example: /var/vols/itom/itsma/itsma-itsma1). For more information, see Configure NFS sharing for ITSMA.

### Configure CMDB log level

- 1. On the suite landing page, click **Suite Configuration**.
- 2. Click CONFIGURATION > Debug > Log Level.
- 3. Click the **CMDB** tab.
- In the Server, UD, and Browser sections, select a module, specify its log level, and then click Update. Repeat this step to add more modules with their log levels specified. Server:

Module name	Default value
ucmdb-api.properties.loglevel	ERROR
mam.properties.loglevel	INFO
security.properties.loglevel	INFO
cmdb-framework.properties.loglevel	ERROR
cmdb.properties.cla.loglevel	INFO
cmdb.properties.loglevel	ERROR
logstash.statistics.properties.loglevel.history	ERROR
cmdb.properties.notification.loglevel	INFO
reconciliation.properties.loglevel	ERROR
cmdb.properties.tqlscheduler.loglevel	INFO
cmdb-framework.properties.urmLogLevel	WARN
cmdb_soaapi.properties.loglevel	ERROR
security.properties.loglevel.cm	INFO

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security.properties.loglevel.lwsso	ERROR
ui-server.properties.loglevel	ERROR
security.properties.loglevel.authorization	INFO
mam.web.properties.loglevel	ERROR
cmdb.properties.search.loglevel	INFO
fcmdb.properties.loglevel	INFO
cmdb.properties.downgrade.loglevel	INFO
cmdb.properties.quota.loglevel	INFO
logstash.statistics.properties.loglevel.datain	ERROR
fcmdb.gdba.properties.loglevel	ERROR
fcmdb.push.properties.loglevel	ERROR
mam.properties.loglevel.monitoring	INFO
multiple.cmdb.properties.loglevel	INFO
security.properties.loglevel.wink	ERROR
ui-server.properties.spring	ERROR
logstash.statistics.properties.loglevel.search	ERROR
logstash.statistics.properties.loglevel.tql	ERROR

Universal Discovery (UD):

Module name	Default value
discovery.framework	INFO
discovery.library	INFO
discovery.probe.agents	INFO
discovery.library.results.resultprocess	INFO
discovery.library.dal	INFO
discovery.probe.agents.probemgr.workflow	INFO

#### **Browser:**

Module name	Default value
ucmdb_browser.level	WARN
ucmdb_browser_search.level	WARN
jvm_stats.level	ERROR
statistics.level	INFO
rpcCalls.level	INFO

You can select from the following log levels for each module:

- INFO: An event for informational purposes.
- WARN: An event that might possible lead to an error.
- TRACE: A fine-grained debug message, typically capturing the flow through the application.
- DEBUG: A general debugging event.
- ERROR: An error in the application, possibly recoverable.
- FATAL: A severe error that will prevent the application from continuing.
- OFF: No events will be logged.
- 5. Click **Apply**.

### Configure Smart Analytics log level

- 1. On the suite landing page, click **Suite Configuration**.
- 2. Click CONFIGURATION > Debug > Log Level.
- 3. Click the **Smart Analytics** tab, and then specify a log level. You can select one of these log levels:
  - INFO (default): An event for informational purposes.
  - DEBUG: A general debugging event.
- 4. Click Apply.

### Configure Service Portal log level

- 1. On the suite landing page, click **Suite Configuration**.
- 2. Click CONFIGURATION > Debug > Log Level.
- 3. Click the **Service Portal** tab, and then specify a log level. You can select from the following log levels:
  - INFO (default)
  - WARN
  - TRACE
  - DEBUG
  - ERROR
- 4. Click Apply.

### Configure IDM log level

- 1. On the suite landing page, click **Suite Configuration**.
- 2. Click CONFIGURATION > Debug > Log Level.
- 3. Click the **IDM** tab, update the parameters by selecting a value in the dropdown list and then click the **Update** button. Or, you can directly modify the parameter values in the text area.

Parameter	Default value	
idm_auth_debug	INFO	
idm_debug	INFO	

You can select from the following log levels:

- INFO (default)
- WARN
- TRACE
- DEBUG
- ERROR

• Click Apply.

### Add Smart Analytics content groups

If the capacity of the existing smart search content groups are not enough for the indexed data, you can easily add content groups for Service Portal search and for Smart Search.

To Smart Analytics content groups, follow these steps:

- 1. On the suite landing page, click **Suite Configuration**.
- 2. Click **Operation** > **Smart Analytics.**
- 3. View the capacity of the current content groups for Service Portal and Smart Search. The system provides on-screen recommendations for adding new content groups based on the current document count and capacity of the existing content groups.
- 4. If you decide to add a new content group, click **Add New Content Group**.

When the system successfully adds a content group, the DIH service will restart so that the Service Portal search and Smart Search features stop working until the process is finished. If the system fails to add a new content group, the DIH service will not restart and you can continue to use Service Portal search or Smart Search feature without any downtime.

5. Click **Redistribute Documents** to balance data distribution.

A fter you add a new content group, you are recommended to redistribute documents to make the new content group active.

### Set up Service Portal

When the ITSMA suite is installed, Service Portal is pre-configured with the following settings:

- Creation of mapping of LDAP groups to the IdM consumer group so that LDAP users are consumers
- Creation of a supplier for Service Management
- Creation of service and support aggregation (with automatic publishing of catalog items)

#### Shared IdM

The ITSMA suite uses HPE Identity Manager (IdM) for user authentication. So does Service Portal. When working as a standalone application, Service Portal uses its own built-in IdM service. In the ITSMA suite, Service Portal and the ITSMA suite share one IdM instance.

#### **Shared Smart Analytics**

Service Portal uses Smart Analytics for its search functionality. In the ITSMA suite, Service Portal shares one Smart Analytics instance with the Service Management capability.

#### **Out-of-box organizations**

### In the out-of-box Service Portal system, there are two organizations.

Organizati on	Description
Provider	<ul> <li>Has type "PROVIDER", which is different than the "CONSUMER" type organization (ITSMA); designed to be used for cross-organization configuration</li> <li>Contains integration users for cross-service communication</li> <li>Allows service-exchange "content-pack" management</li> <li>Allows configuration of all organizations and creation of new ones in idm-admin</li> </ul>
ITSMA	Designed to be used for consumers (end users)

The following are post-installation configurations that are needed for Service Portal to work correctly.

### Enable the Hot News application

Normally, your ITSMA is deployed behind a firewall. In this case, you need to perform the following steps to activate the Hot News application in Service Portal. If you fail to do this, users are not able to open the Hot News application.

- 1. Log in to the master node.
- 2. Add your proxy setting to the configmap file:
  - a. Run the following commands:
     cd /var/vols/itom/core/suite-install/itsma/output/
     vi configmap.yaml
  - b. Configure your proxy in this file: http\_proxy=http://<your proxy>:<port> https\_proxy=https://<your proxy>:<port>
- 3. Run the following commands to restart configmap: kubectl delete -f configmap.yaml kubectl create -f configmap.yaml
- 4. Run the following commands to restart the launchpad service: kubectl delete -f propel-launchpad.yaml kubectl create -f propel-launchpad.yaml
- 5. Verify that the Hot News application is working correctly.
  - a. Log in to ITSMA. For details, see Log in to ITSMA.
  - b. Click Service Portal, and then click Hot News.

# Bind the internal PostgreSQL database to a dedicated worker node

Some applications such as the DB and analytics applications are I/O sensitive, and need to be bound to dedicated worker nodes to ensure their stability in a production environment. This is required only if you are using the internal PostgreSQL database for the ITSMA suite. You need to bind the three internal PostgreSQL instances for Service Management, Service Portal, and CMDB to three dedicated worker nodes. For this reason, three additional worker nodes are required for using the internal PostgreSQL database (see Sizing recommendations).

To do this, follow these steps:

- 1. Add a new label to the dedicated worker node (VM).
  - a. Log in to the Management Portal as **admin**: https://<master node FQDN>:5443.
  - b. Navigate to **ADMINISTRATION** > **Nodes**.
  - c. In the Predefined Labels section, enter a desired label name (for example, enter SMDB for the Service Management DB) and then click the + button.

Prede	fined Lab	oels				
Worker	Database	DB [-]	SMDB	SMDB	[+]	

d. Drag the newly created label to a desired worker node.

Nodes	+ ADD REFR	ESH
Status	Name	Labels filter label
<b>S</b>		Worker [-]
<b>S</b>	1445404-00	Worker [-]
<b>S</b>	1-15549549	Worker [-]
<b>S</b>		Worker [-]
	1	SMDB [-]

2. Change the label from **Worker** to **SMDB** in the sm-db-rc.yaml file: **sm-db-rc.yaml** 



- If your NFS server is on the master node, this yaml file is located in the following path: /var/vols/itom/core/suite-install/itsma/output.

The path can be found by running the following command: mount| grepitom | head-1

- 3. Restart the service:
  - Change to the directory of the yaml file: cd <yaml file location>.

See the previous step for the yaml file location.

 a. Delete and create the service again by running the following commands: kubectl delete -f sm-db-rc.yaml kubectl create -f sm-db-rc.yaml 4. Repeat the previous steps for the PostgreSQL instances for Service Portal and CMDB to bind the instances to another two dedicated worker nodes.

The yaml files that you need to update for Service Portal and CMDB are: propelpostgres.yaml and ucmdb-suite.yaml.

# Apply PostgreSQL parameter updates in ITSMA

The internal PostgreSQL database in ITSMA is recommended for test environments only. However, if you use it in a production environment, you may need to update certain PostgreSQL parameters. The major reasons to do this include the following:

- Performance tuning (for example, by default, the internal PostgreSQL database in this release supports only up to 50 connections)
- Maintenance (autovacuum) rule setting
- Other requirements

Once you have updated parameters of the internal PostgreSQL database, you need to apply these updates. To do this, follow these steps:

- 1. Stop the postgres pod:
  - a. Log in to the Management Portal as **admin**.
  - b. Navigate to **RESOURCES**, and then select the namespace for ITSMA.
  - c. Navigate to Workloads > Replication Controllers.
  - d. Find your postgres service (for example: sm-postgres), and then click the action icon (three dots).

0	sm-postgres	name: sm-postgres	1/1	3 days	localhost:5000/hpeswitomsa	View details
0	sm-rte	app: sm-rte	26 / 26	3 days	shc-harbor-dev.hpeswlab.net	Scale
			Rows	per page: 10	▼ 1 - 10 of 16  < <	Delete

e. Set the number of pods to 0.

Set desired number of pods	
Replication controller sm-postgres will be up Current status: 1 created, 1 desired	odated to reflect the desired count.
Number of pods *	
	CANCEL

2. Update postgresql.conf file.

The file is located in the following path (taking sm-postgres for example): /var/vols/itom/itsma/itsma-<your namespace>/db/sm

Update it with the attached postgresql.conf file . Make sure the owner of the file is still 'itsma'.

- 3. Start the postgres pod:
  - a. Log in to the Management Portal as **admin**.
  - b. Navigate to **RESOURCES**, and then select your namespace.

- c. Navigate to Workloads > Replication Controllers.
- d. Find your postgres service, for example, **sm-postgres**, and then click the action icon.
- e. Set the number of pods to 1.

# ITSMA node ports

The ITSMA suite uses the following ports for connections and communications.

Item	Value
SM RTE port	31181
SM PostgreSQL port	31132
SM Integration port	31190
SM-CIT integration port	31191
SM Openfire port	31199
Smart search DIH	31370
Smart search DIH index port	31371
Internal LDAP port	31389
UCMDB ports	31400, 31401
UCMDB PostgreSQL port	31402

# Customize the ITSMA login page

You can change the text on the out-of-box ITSMA login page to suite your business needs.

The text you can change is highlighted in the following screenshot:

Hewlett Packard Enterprise
Welcome to ITSMA Suite
Username
Password
Log In

To change the text, follow these steps:

- 1. Log in to ITSMA as sysadmin: https://<master node FQDN>/main
- 2. Click Service Portal.
- 3. On the Launchpad, open the **Identity** application.
- 4. Click ITSMA.
- 5. On the **Customization** tab, change the values for the following parameters:
  - portalTitle (default value: ITSMA Suite)
  - portalWelcomeMsg (default value: Welcome to ITSMA Suite)

### Configure users for the internal LDAP server

In the out-of-box system, the internal LDAP server has only five sample users configured. You can configure more users if needed.

The ITSMA suite uses the following port and user to connect Service Manger and UCMDB to the internal LDAP server:

- Port: 31389
- LDAP DN: cn=falcon,ou=people,dc=itsma,dc=com (password: 123456)

To do this, follow these steps:

1. Install an LDAP connection tool. For example, install Apache Directory Studio.

The following steps use Apache Directory Studio as an example.

2. Launch Apache Directory Studio, and specify the following LDAP server connection information:

On the Network Parameter tab, provide the following information:

- **Connection name**: specify a display name for the LDAP server. For example: **internalLdap**.
- Hostname: Enter the fully-qualified domain name or IP address of the master node.
- Port: enter 31389.
- Encryption method: Make sure No encryption is selected.
- Provider: Make sure Apache Directory LDAP Client API is selected.

See the following figure for an example.

type filter text 🛛 🚳	Connection 🔅 🗸	⇔ ~ •
Connection	Network Parameter Authentication Browser Options Edit Options	
	Connection name: internalLdap	
	Network Parameter	
	Hostname:	~
	Port: 31389	~
	Encryption method: No encryption	~
	Server certificates for LDAP connections can be managed the ' <u>Certificate Validation</u> ' preference page.	in
	Provider: Apache Directory LDAP Client API	~
	Check Network Para	meter
	Read-Only (prevents any add, delete, modify or rename operation)	
?	Cancel	ОК

On the **Authentication** tab, provide the following information:

- Authentication Method: Make sure Simple Authentication is selected.
- Bind DN or user: Enter cn=admin,dc=itsma,dc=com.
- Bind password: Enter secret. This is the LDAP server administrator password.

See the following figure for an example.

type filter text 🛛 🚳	Connection $\label{eq:connection} \varphi_{-} \lor \ \varphi_{-} \lor$
Connection	Network Parameter Authentication Browser Options Edit Options
	Authentication Method
	Simple Authentication ~
	Authentication Parameter
	Bind DN or user: cn=admin,dc=itsma,dc=com
	Bind password:
	Save password Check Authentication
	<ul> <li>Kerberos Settings</li> </ul>
?	Cancel OK

Click Check Authentication to make sure the connection information is correct:

	Check Authentication	×
8	The authentication was successful.	
		ОК

Click **OK**.

3. Add users for the LDAP server. For details, see the OpenLDAP documentation.

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#### Feedback on ITSMA documents (ITSMA 201704)

Just add your feedback to the email and click send.

If no email client is available, copy the information above to a new message in a web mail client, and send your feedback to ovdoc-ITSM@hpe.com.

We appreciate your feedback!