

1. SSH to the DB System.

```
ssh -i <private_key_path> opc@<db_system_ip_address>
```

2. Log in as opc and then sudo to the root user.

```
login as: opc  
[opc@dbsys ~]$ sudo su -
```

3. Save a copy of iptables as a backup.

```
[root@dbsys ~]# iptables-save > /tmp/iptables.orig
```

(If necessary, you can restore the original file by using the command `iptables-restore < /tmp/iptables.orig`.)

4. Dynamically add a rule to iptables to allow inbound traffic on the console port, as shown in the following sample. Change the port number and comment as needed.

```
[root@dbsys ~]# iptables -I INPUT 8 -p tcp -m state --state NEW -m tcp  
--dport 5500 -j ACCEPT -m comment --comment "Required for EM Express."
```

5. Make sure the rule was added.

```
[root@dbsys ~]# service iptables status
```

6. Save the updated file to `/etc/sysconfig/iptables`.

```
[root@dbsys ~]# /sbin/service iptables save
```

The change takes effect immediately and will remain in effect when the node is rebooted.

7. Update the DB system's security list as described in [Updating the Security List for the DB System](#).

 root@fpe:~

```
[opc@fpe ~]$ sudo su -
```

```
[root@fpe ~]# service iptables status | grep 1521
```

```
6      ACCEPT      tcp    --  0.0.0.0/0          0.0.0.0/0          state NEW tcp dpt:1521
```

```
[root@fpe ~]# █
```

sudo su -

service iptables status | grep 1521

## Opening Ports on the DB System

Open the following ports as needed on the DB system:

- 6200 - For Oracle Notification Service (ONS).
- 5500 - For EM Express. 5500 is the default port, but each additional EM Express console enabled on the DB system will have a different port. If you're not sure which port to open for a particular console, see [Monitoring a Database with Enterprise Manager Express](#).
- 1158 - For Enterprise Manager Database Control. 1158 is the default port, but each additional console enabled on the DB system will have a different port. If you're not sure which port to open for a particular console, see [Monitoring a Database with Enterprise Manager Database Control](#).

For important information about critical firewall rules, see [Essential Firewall Rules](#).

### To open ports on the DB system

## Updating the Security List for the DB System

Review the list of ports in [Opening Ports on the DB System](#) and for every port you open in iptables, update the security list used for the DB system, or create a new security list.

Note that port 1521 for the Oracle default listener is included in iptables, but should also be added to the security list.

### To update an existing security list

1. In the Console, click **Database** and locate the DB system in the list.
2. Note the DB system's **Subnet** name and click its **Virtual Cloud Network**.
3. Locate the subnet in the list, and then click its security list under **Security Lists**.
4. Click **Edit All Rules** and add an ingress rule with source CIDR=<source CIDR>, protocol=TCP, and port=<port number or port range>.

The source CIDR should be the CIDR block that includes the ports you open for the client connection.

For detailed information about creating or updating a security list, see [Security Lists](#).



Oracle Cloud Infrastructure

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https://console.us-ashburn-1.oraclecloud.com/a/networking/vcns/ocid1.vcn.oc1.iad.aaaaaaaqk2smzp5azx2ayxwrqlopvf33baf4skrzznex80%Search

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TENANCY  
oci\_core\_emea\_sc\_hoff

REGION  
us-ashburn-1

frode.pedersen@oracle.com

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VCN

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Terminate

Apply Tag(s)

VCN Information

Tags

CIDR Block: 10.0.0.0/16

Compartment: FPE

Created: Thu, 26 Apr 2018 12:38:52 GMT

OCID: ...i5jqqq Show Copy

Default Route Table: Default Route Table for fpenet

DNS Domain Name: fpenet... Show Copy

Resources

Subnets (3)

Route Tables (1)

Internet Gateways (1)

Dynamic Routing Gateways (0)

Security Lists (1)

DHCP Options (1)

Local Peering Gateways (0)

List Scope

COMPARTMENT

FPE

Filters

STATE

Subnets in FPE Compartment

Create Subnet

Sort by: Created Date (Desc)

Displaying 3 Subnets

<div><div>S</div><div>AVAILABLE</div></div>	<div>Public Subnet YoHC:US-ASHBURN-AD-3</div> <div>OCID: ...5rddfq <a>Show</a> <a>Copy</a></div>	<div>CIDR Block: 10.0.2.0/24</div> <div>Virtual Router MAC Address: 00:00:17:40:C8:01</div>	<div>Availability Domain: YoHC:US-ASHBURN-AD-3</div> <div>DNS Domain Name: sub0426123... <a>Show</a> <a>Copy</a></div> <div>Subnet Access: Public Subnet</div>	<div>Route Table: <a>Default Route Table for fpenet</a></div> <div>Security Lists: <a>Default Security List for fpenet</a></div> <div>DHCP Options: <a>Default DHCP Options for fpenet</a></div>	<div>...</div>
<div><div>S</div><div>AVAILABLE</div></div>	<div>Public Subnet YoHC:US-ASHBURN-AD-2</div> <div>OCID: ...zwtuyq <a>Show</a> <a>Copy</a></div>	<div>CIDR Block: 10.0.1.0/24</div> <div>Virtual Router MAC Address: 00:00:17:40:C8:01</div>	<div>Availability Domain: YoHC:US-ASHBURN-AD-2</div> <div>DNS Domain Name: sub0426123... <a>Show</a> <a>Copy</a></div> <div>Subnet Access: Public Subnet</div>	<div>Route Table: <a>Default Route Table for fpenet</a></div> <div>Security Lists: <a>Default Security List for fpenet</a></div> <div>DHCP Options: <a>Default DHCP Options for fpenet</a></div>	<div>...</div>
<div><div>S</div><div>AVAILABLE</div></div>	<div>Public Subnet YoHC:US-ASHBURN-AD-1</div> <div>OCID: ...bugofa <a>Show</a> <a>Copy</a></div>	<div>CIDR Block: 10.0.0.0/24</div> <div>Virtual Router MAC Address: 00:00:17:40:C8:01</div>	<div>Availability Domain: YoHC:US-ASHBURN-AD-1</div> <div>DNS Domain Name: sub0426123... <a>Show</a> <a>Copy</a></div> <div>Subnet Access: Public Subnet</div>	<div>Route Table: <a>Default Route Table for fpenet</a></div> <div>Security Lists: <a>Default Security List for fpenet</a></div> <div>DHCP Options: <a>Default DHCP Options for fpenet</a></div>	<div>...</div>

https://console.us-ashburn-1.oraclecloud.com/a/networking/vcns/ocid1.vcn.oc1.iad.aaaaaaaqk2smzp5azx2ayxwrqlopvf33baf4skrzznextnwpu3oumi5jqqq/security-lists/ocid1.securitylist.oc1.iad.aaaaaaaatuj2pbmrvvg3oo3ffrdonp5yolavghgaidea5mc4rz4gcha6iaviq00.0507.05.2018





### Edit Security List Rules [help](#) [cancel](#)

SECURITY LIST NAME  
Default Security List for fpenet

#### Allow Rules for Ingress

<input checked="" type="checkbox"/>	<input type="checkbox"/>	SOURCE CIDR 0.0.0.0/0	IP PROTOCOL TCP <a href="#">(more information)</a>	SOURCE PORT RANGE (OPTIONAL) All Examples: 80, 20-22 or All <a href="#">(more information)</a>	DESTINATION PORT RANGE (OPTIONAL) 22 Examples: 80, 20-22 or All <a href="#">(more information)</a>
STATELESS <a href="#">(more information)</a>					
Allows TCP traffic for ports: 22 SSH Remote Login Protocol					
<input checked="" type="checkbox"/>	<input type="checkbox"/>	SOURCE CIDR 0.0.0.0/0	IP PROTOCOL ICMP <a href="#">(more information)</a>	TYPE AND CODE (OPTIONAL) 3, 4 Examples: '0', '3', '5' or 'All' <a href="#">(more information)</a>	
STATELESS <a href="#">(more information)</a>					
Allows ICMP traffic for: 3, 4 Destination Unreachable: Fragmentation Needed and Don't Fragment was Set					
<input checked="" type="checkbox"/>	<input type="checkbox"/>	SOURCE CIDR 10.0.0.0/16	IP PROTOCOL ICMP <a href="#">(more information)</a>	TYPE AND CODE (OPTIONAL) 3 Examples: '0', '3', '5' or 'All' <a href="#">(more information)</a>	
STATELESS <a href="#">(more information)</a>					
Allows ICMP traffic for: 3 Destination Unreachable					
<a href="#">+ Add Rule</a>					

#### Allow Rules for Egress

<input checked="" type="checkbox"/>	<input type="checkbox"/>	DESTINATION CIDR 0.0.0.0/0	IP PROTOCOL All Protocols		



AVAILABLE

## Resources

Ingress Rules (3)

Egress Rules (1)

Edit Security List Rules [help](#) [cancel](#)

SECURITY LIST NAME  
Default Security List for fpenet

Allow Rules for Ingress

☒

SOURCE CIDR  
0.0.0.0/0

IP PROTOCOL  
TCP

SOURCE PORT RANGE (OPTIONAL)  
All

DESTINATION PORT RANGE (OPTIONAL)  
22

STATELESS  
[\(more information\)](#)  
Allows TCP traffic for ports: 22 SSH Remote Login Protocol

☒

SOURCE CIDR  
0.0.0.0/0

IP PROTOCOL  
ICMP

TYPE AND CODE (OPTIONAL)  
3, 4

STATELESS  
[\(more information\)](#)  
Allows ICMP traffic for: 3, 4 Destination Unreachable: Fragmentation Needed and Don't Fragment was Set

☒

SOURCE CIDR  
0.0.0.0/16

IP PROTOCOL  
ICMP

TYPE AND CODE (OPTIONAL)  
3

STATELESS  
[\(more information\)](#)  
Allows ICMP traffic for: 3 Destination Unreachable

☒

SOURCE CIDR  
0.0.0.0/0

IP PROTOCOL  
TCP

SOURCE PORT RANGE (OPTIONAL)  
All

DESTINATION PORT RANGE (OPTIONAL)  
1521

STATELESS  
[\(more information\)](#)  
Specified IP addresses: 0.0.0.0-255.255.255.255  
(4 294 967 296 IP addresses)  
Allows TCP traffic for ports: 1521

[+ Add Rule](#)



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AVAILABLE

Resources

Ingress Rules (3)

Egress Rules (1)

Save Security List Rules

[\(more information\)](#)

Allows TCP traffic for ports: 22 SSH Remote Login Protocol

☐ ☐

SOURCE CIDR: 0.0.0.0/0

IP PROTOCOL: ICMP

TYPE AND CODE (OPTIONAL): 3, 4

STATELESS [\(more information\)](#)

Allows ICMP traffic for: 3, 4 Destination Unreachable: Fragmentation Needed and Don't Fragment was Set

☐ ☐

SOURCE CIDR: 10.0.0.0/16

IP PROTOCOL: ICMP

TYPE AND CODE (OPTIONAL): 3

STATELESS [\(more information\)](#)

Allows ICMP traffic for: 3 Destination Unreachable

☐ ☐

SOURCE CIDR: 0.0.0.0/0

IP PROTOCOL: TCP

SOURCE PORT RANGE (OPTIONAL): All

DESTINATION PORT RANGE (OPTIONAL): 1521

STATELESS [\(more information\)](#)

Specified IP addresses: 0.0.0.0-255.255.255.255 (4 294 967 296 IP addresses)

Examples: 80, 20-22 or All

Examples: 80, 20-22 or All

Allows TCP traffic for ports: 1521

+ Add Rule

Allow Rules for Egress

☐ ☐

DESTINATION CIDR: 0.0.0.0/0

IP PROTOCOL: All Protocols

STATELESS [\(more information\)](#)

Allows all traffic for all ports

+ Add Rule

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and Don't Fragment was Set

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Connections

OCI\_frode\_System\_open

New / Select Database Connection

Connection Name	Connection Details
BDC	bdcscce_admin@//127.0.0.1:10002/null
BDCSHive353	bdcscce_admin@//127.0.0.1:10002/null
localoguser	loguser@//127.0.0.1:1521/ord
OCI_frode_System	sys@//127.0.0.1:1523/fpe_jad1gk.sub04261238500.fpenet...
OCI_frode_System_open	sys@//129.213.96.108:1521/fpe_jad1gk.sub04261238500.f...
OCI_trond_System	sys@//127.0.0.1:1524/pdb1.sub02131316230.trvch.Oracle...
opc_frode_loguser	loguser@//140.86.1.55:1521/pdb_frode.gse00000353.Oracle...
opc_frode_loguser2	loguser2@//140.86.1.55:1521/pdb_frode.gse00000353.Oracle...
opc_frode_loguser_pwdtest	loguser@//140.86.1.55:1521/pdb_frode.gse00000353.Oracle...
opc_frode_manager	manager@//140.86.1.55:1521/pdb_frode.gse00000353.Oracle...
Partner_system	system@//141.144.22.65:1521/PDB1.gse00010863.Oracle...
Partner_Vision	dwh_vision@//141.144.22.65:1521/PDB1.gse00010863.Oracle...
rcsystem	rcsystem@//127.0.0.1:1521/ord
rcsystem2	rcsystem@//127.0.0.1:1521/ord
rcsystemOLDLaptop	rcsystem@//127.0.0.1:1521/ord
skagerak	skagerak@//localhost:1521/ord
SkagerakBDCSCetest3	bdcscce_admin@//127.0.0.1:10002/null
SkagerakBDCSCetest4	bdcscce_admin@//127.0.0.1:10002/null
SKDFva1	sys@//1ed2xconn05:1521/BD2ORCL1

Status : Success

Help

Database Schema Service Connections

OCI\_frode\_System\_open

Connection Name: OCI\_frode\_System\_open

Username: sys

Password: .....

☒ Save Password ☐ Connection Color

Oracle Hive

Connection Type: Basic Role: SYSDBA

Hostname: 129.213.96.108

Port: 1521

☐ SID

☒ Service name: fpe\_jad1gk.sub04261238500.fpenet.oraclevcn.com

☐ OS Authentication ☐ Kerberos Authentication Advanced...

Save Clear Test Connect Avbryt

Reports

All Reports

Analytic View Reports

Data Dictionary Reports

Data Modeler Reports

OLAP Reports

TimesTen Reports

User Defined Reports

Messages - Log

Messages Logging Page Statements

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