

Configuring DNSSEC

Configuring DNSSEC

- Enable DNSSEC for a Server
- Enable DNSSEC for a Zone
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 - Update Registrar and Confirm
- For BIND server(s)
- For Secure64 and PowerDNS

Additional Information

Enable DNSSEC for a Server

DNSSEC may be enabled on a per-server basis in the DNS Server Settings.

Navigate to the [DNS](#) Tab, and select the **DNS Servers** section.

Find the desired server in the DNS Server List, and then click on the server name to open the settings for that server.

A New Server	ISC BIND	master	Delete	Push	Perms
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In the server settings page, scroll to the bottom of the second section, containing server-specific settings.

Near the bottom of the section is a toggle to "Enable DNSSEC" for the server; click the toggle to the "ON" position.

Pre Command:

Post Command:

Enable DNSSEC: ☒

Enable Dynamic Updates: ☒

Enable DNSSEC for a Zone

DNSSEC may be enabled on a per-zone basis in the Zone Advanced Settings.

Before you enable DNSSEC for a zone, make sure that do the following:

- Make sure DNSSEC is enabled on the DNS server(s) you will be pushing zones to (see "Enable DNSSEC for a Server", above)
- run **configTest.php** to make sure that your directories/permissions are correct
- Set external server for Authenticated Data verification
- Create/Edit a zone - see [Working with DNS Zones](#) for additional information.
- Ensure that the zone is associated with a DNS server(s)

Enabling DNSSEC (for a single zone)

Navigate to the [DNS](#) Tab, and select the **DNS Groups** section.

Find the desired Group and Zone in the Groups List, and then click on the zone name to open the details for that zone.

example.com.	02/21/2019 15:17:35	02/21/2019 15:59:46	1	Delete	Push	Check	Perms
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The view zone details page will open. Expand the zone details section "Advanced Settings" by clicking on the expansion arrow.

example.com.

Default Group Example Group +

Push Zone Now Schedule Push Export Zone Import Zone

Some Comment Here.

Advanced Settings >

At the top of the "Advanced Settings" section will be a toggle to "Enable DNSSEC". Click the toggle to enable to the ON position.

example.com.

Default Group Example Group +

Push Zone Now Schedule Push Export Zone Import Zone

Some Comment Here.

Advanced Settings

Parent Resource: Example Group
The new zone resource will be a child of the Parent Resource.

Enable DNSSEC: OFF

Enable Dynamic Updates: OFF
This feature is using the dynamic update functionality of the DNS Server. Every record that you modify/remove/create will be updated on the servers automatically without pushing the zone if the queue is not enabled.

Once enabled, the toggle will show as "ON", and a "Show DS Records" button will appear. At this point, no records exists, so clicking "Show DS Records" will result in a message telling you so.

example.com.

Default Group Example Group +

Push Zone Now Schedule Push Export Zone Import Zone

Some Comment Here.

Advanced Settings

Parent Resource: Example Group
The new zone resource will be a child of the Parent Resource.

Enable DNSSEC: ON
Show DS Records

Enable Dynamic Updates: OFF
This feature is using the dynamic update functionality of the DNS Server. Every record that you modify/remove/create will be updated on the servers automatically without pushing the zone if the queue is not enabled.

In order for DS Records to be created, the zone must be successfully pushed. Push the zone, Group, or Server containing the zone successfully and DS records will be created (see [Working with DNS Zones](#) and [Working with DNS Groups](#) for details on how to schedule and push zones).

To quickly push just a single zone, go back to the DNS Groups section, and click on the "Push" button for the zone.

Example Group

DNS Zones

Add Zone

Push Group

Schedule Push

Export Zones

Move Zones

Perms

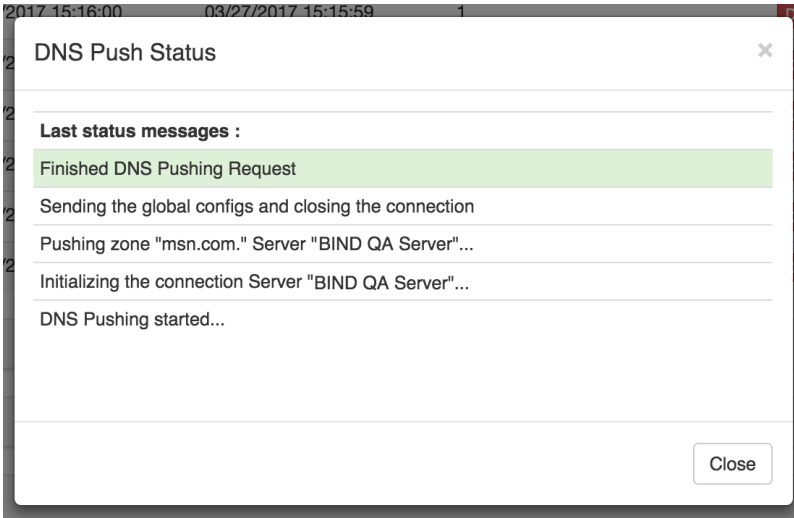
Forward Zones

Reverse Zones

Catalog Zones

Zone Name	Last Pushed	Last Modified	Records	Zone Status	Actions
test.com.	11/02/2021 18:40:05	08/03/2021 18:45:01	3		<div>Delete</div> <div>Push</div> <div>Move</div> <div>Check</div> <div>Perms</div>
test.	11/02/2021 18:40:03	08/04/2021 22:51:28	1		<div>Delete</div> <div>Push</div> <div>Move</div> <div>Check</div> <div>Perms</div>
testadd2.	11/02/2021 18:40:06	08/27/2021 19:38:09	1		<div>Delete</div> <div>Push</div> <div>Move</div> <div>Check</div> <div>Perms</div>

If successfully pushed, a green "Finished DNS Pushing Request" message will appear.



At this point, you will now have DS records available in the view zone details - Advanced Settings section. Open Advanced Settings for the zone and click on the "Show DS Records" button.

example.com.

Default Group

Example Group

+

Push Zone Now

Schedule Push

Export Zone

Import Zone

Some Comment Here.

Advanced Settings

Parent Resource:

Example Group

The new zone resource will be a child of the Parent Resource.

Enable DNSSEC:

ON

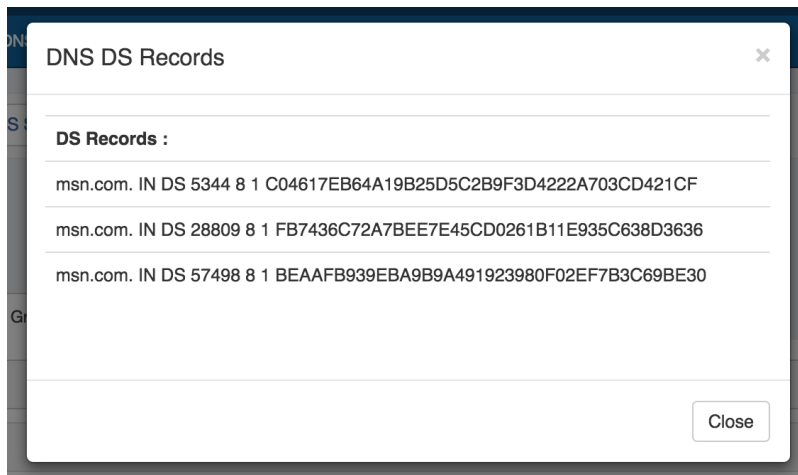
Show DS Records

Enable Dynamic Updates:

OFF

This feature is using the dynamic update functionality of the DNS Server. Every record that you modify/remove/create will be updated on the servers automatically without pushing the zone if the queue is not enabled.

The DS records will be shown in a pop-up. Note these values for Registrar confirmation.



Update Registrar and Confirm

Once DS records have been created, you will need to update and confirm the Zone Registrar:

- Upload these values to your Zone Registrar, obtained from the "Show DS Records" button
 - DS Record #, Key Tag, Algorithm, Digest Type, Digest
- Confirm values are saved at the Zone Registrar
- External sites
 - <http://dnssec-debugger.verisignlabs.com/>
 - <http://dnsviz.net/>

For BIND server(s)

To enable DNSSEC on BIND9 you need to modify **named.conf.options** with following parameters in the **options { }** section:

```
dnssec-enable yes;  
dnssec-validation yes;  
dnssec-lookaside auto;
```

These parameters may already be enabled in some Linux distributions by default, so please confirm before making changes.

Your DNSSEC implementation may need other options for your environment - please contact support@6connect.com if you have any questions.

Please note that you will need to restart the BIND service after these changes.

For Secure64 and PowerDNS

DNSSEC Signatures

In this scenario, ProVision uses the DNSSEC signing functions of the respective environment we write the zones to. We are evaluating how to properly integrate DNSSEC functions to ProVision for these platforms. Please contact support@6connect.com if you have feedback or specific questions.

Additional Information

For additional information on working in DNS, see the following sections:

- [Working with DNS Servers](#)
- [Configuring ISC BIND Support](#)
- [Configuring PowerDNS Support](#)

- [Configuring Secure64 Support](#)
- [Configuring Split Horizon and Views](#)
- [Import DNS Zones](#)
- [DNS Tab](#)