ATOLL

Wireless Network Engineering Software

Atoll ALIC License Management

Technical Note

Forsk

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Introduction

This document is aimed at system administrators who need to configure ALIC licenses for Atoll. The *Atoll ALIC License Management* technical note provides detailed guidelines for configuring a Windows license server for Atoll to use ALIC hardware license keys with a HASP licensing server.

> **ℹ** If your Forsk representative has provided or will provide you with V2C license key files that use the Sentinel LDK licensing framework, then this document does not apply.
>
> Instead, see *TN058 Atoll V2C License Management*.

ALIC licenses can be used with older versions of Atoll on:

- Computers with fixed license keys plugged in to USB ports on the computers themselves.
- Computers that are connected to a license server with a floating license key plugged in to a physical USB port on the server or a network-attached USB hub.

The driver for fixed license keys is installed at the same time as Atoll and does not require any further action. For information about installing Atoll, see the *Atoll Administrator Manual*.

The software for managing floating license keys must be installed on a server accessible to all computers on which Atoll runs. For more information on configuring a floating license server, see "Working with HASP Licenses" on page 9.

In addition, an Atoll Security Module is available for administrating both fixed and floating licenses. For information on the Atoll Security Module utility, see "Installing the Atoll Security Module" on page 13.

About Atoll

Atoll is a multi-technology wireless network design and optimisation platform that supports wireless operators throughout the network lifecycle, from initial design to densification and optimisation.

Atoll includes advanced multi-RAT RAN design capabilities for 2G, 3G, 4G, and 5G radio access technologies. It supports the latest technology advances including massive MIMO, 3D beamforming, and mmWave propagation for the design and roll-out of 5G networks.

Atoll provides operators and vendors with a powerful and unique framework for designing and optimising indoor & outdoor radio access networks.

Atoll's integration and customisation features help operators smoothly streamline planning and optimisation processes. Atoll supports a wide range of implementation scenarios, from standalone to enterprise-wide server-based configurations.

About Forsk

Forsk is an independent software company providing operators and vendors with wireless network design and optimisation products.

With more than 11 000 active licenses installed with 500+ customers in 140 countries, the company's flagship solution Atoll has become the industry standard for wireless network design and optimisation.

Since the first release of Atoll, Forsk has been known for its capability to deliver tailored and turn-key radio planning and optimisation environments. Today, Forsk provides comprehensive, scalable and automated RAN planning solutions that combine Naos, Atoll, integration and customisation.

Forsk distributes and supports Atoll and Naos directly from offices and technical support centres in France, USA, and China as well as through a worldwide network of distributors and partners.

Getting Help

The online help system that is installed with Atoll is designed to give you quick access to the information you need to use the product effectively. The Online Help system provides information and guidance for using Atoll as well as context-sensitive help about elements of the user interface. It contains the same material as the *Atoll 3.4.0 User Manual*.

> ✚ You can open the Online Help in Atoll from the **Help** menu or you can get context-sensitive help about any dialog box by pressing **F1** or clicking **'?'**.

You can browse the online help from the **Contents** view, the **Index** view, or you can use the built-in **Search** feature.

You can click the **Feedback** button at the bottom of each page to send comments and suggestions to Forsk to help us improve our documentation. Do not use the Documentation Feedback form for help using the product or for technical support.

You can also download Atoll documentation from the Forsk web site at:
http://downloads.forsk.com/

About Atoll Documentation

PDF manuals are available to customers with a valid maintenance contract and can be downloaded from the Forsk web site at:
http://downloads.forsk.com/

To read PDF manuals, download Acrobat Reader from the Adobe web site at:
http://get.adobe.com/reader/

Contacting Technical Support

Forsk provides global technical support for its products and services. To contact the Forsk support team, visit the Forsk web site at:
http://downloads.forsk.com

Alternatively, depending on your geographic location, contact one of the following support teams:

Forsk US	For North and Central America, contact the Forsk US support team: ■ Tel.: 1-888-GO-ATOLL (1-888-462-8655) ■ Email: support_us@forsk.com Opening Hours: Monday to Friday 8.00 am to 8.00 pm (Eastern Standard Time)
Forsk China	For Asia (except Japan), contact the Forsk China support team: ■ Tel: +86 20 8557 0016 ■ Email: atollsupport@forsk.com.cn
Forsk Head Office	For all other regions, contact the Forsk Head Office support team: ■ Tel.: +33 562 747 225 ■ Email: support@forsk.com Opening Hours: Monday to Friday 9.00 am to 6.00 pm (GMT +1:00)

When encountering an issue, you are encouraged to share any files or information that might help better understand the situation. You can automatically create an archive containing files that are important for the support team. The generated files are saved to a temporary location on your computer.

To generate an environment archive:

1. In Atoll, select **Help** > **Support**. The **Support** dialog box opens.

2. Select the type of information that you want to share.

3. Click **Generate an environment archive**. If you are experiencing stability issues, you can also click **Generate a memory dump file**.

4. Attach the archive to your support request.

1 Working with HASP Licenses

Floating HASP license keys can be used when multiple users work with Atoll on a network.

When using a hardware license key, a HASP license key dongle is plugged into a single computer, which is known as the license server. The license server runs the floating license management software and can be one of the computers on which Atoll is installed.

The license server controls the number of potential Atoll licenses that are used at a given time. A floating license system offers a number of tokens that are available for each Atoll module. The number of tokens corresponds to the maximum number of Atoll sessions that can run simultaneously.

For example:

- One user running several Atoll sessions on the same computer uses one token.
- Several users running Atoll on the same computer use one token per user.
- One user running Atoll on several computers uses one token per computer.

A token is released and made available for other users when all the Atoll sessions used by a user on the computer are closed.

Fixed licenses are also available, in the case of standalone configurations where a single user runs both Atoll and the license server on the same machine.

> ℹ️ If a computer is connected to a floating license server and also has a fixed license key plugged in, the fixed license key is accessed first.

If the fixed or the floating license key becomes unavailable, Atoll automatically tries to restore the connection. If the key becomes available again, Atoll allows users to resume their sessions. At anytime during the reconnection process, users can save their documents and close the Atoll session.

If the license server runs low on resources, the floating license key can become unavailable, causing a key protection error message to appear in Atoll.

1.1 Installing the Sentinel HASP Licensing System

Atoll uses a 3rd-party floating license management system called Thales Sentinel HASP. The floating license management system includes:

- **HASP floating license key:** A hardware USB dongle programmed with the number of tokens available for each module.
- **HASP/LDK run-time driver**: Interface between the license manager and floating license key.
- **HASP license manager:** Interface between Atoll and the floating license key.
- **Atoll Security Module:** Enables you to manage your license keys.
- **nhsrv.ini file:** Installed on the license server computer. Parameter file for configuring the floating license server.
- **nethasp.ini file:** Installed on the Atoll client machines when using a HASP to indicate which license server to connect to.

> ℹ️ This document applies to HASP licenses. If you are using an LDK license key, see the technical note *TN058 Atoll V2C License Management*

The license management software and the USB license key must be installed on the server.

> **ℹ** A USB port must be available on the license server for plugging in the floating license key. For virtual machines and computers that do not have a physical USB port, Atoll licensing supports network-attached USB hubs such as Digi AnywhereUSB.
>
> If the floating license server is protected by a firewall, you must open port 475 for UDP traffic.

1.1.1 Installing the HASP/LDK Run-time Driver

The HASP/LDK Run-time driver enables communication between the hardware HASP floating license key and the License Manager software.

> **ℹ** ■ Do not plug the floating license key into the server before installing the run-time driver.
> ■ Wait for the HASP license manager setup to indicate when to plug in the key.
> ■ Ensure that no Atoll sessions are running when you perform this operation.

The computer that runs the server must comply with the following requirements:

CPU	RAM	Operating System	Connectivity	Storage
64-bit x86 CPU (1 core or vCPU)	2 GB	Windows 10 (22H2) Windows 11 (23H2) Windows Server 2016, 2019, 2022	1 Gigabit Ethernet 10 Gigabit Ethernet	46 GB (System)

The latest service packs and security updates must be installed. Microsoft Internet Explorer is not supported. For detailed information on supported platforms, see the *Release Notes* for the latest Sentinel HASP/LDK Run-time Environment.

To install the licensing software on the license server:

1. Log on to the license server with an administrator account.

2. Download and decompress the latest **Sentinel HASP/LDK Windows GUI Run-time Installer** from the following web site:
   https://supportportal.thalesgroup.com/csm?id=kb_search&query=KB0018320

3. Right-click **HASPUserSetup.exe** and select **Run as Administrator**. Follow the instructions provided by the installer.

4. Once the run-time driver is successfully installed, plug in the floating license key.

1.1.2 Installing the HASP License Manager

The HASP License Manager controls the allocation and retrieval of license tokens available on a HASP floating license key.

The HASP License Manager must be installed on the license server to which the Atoll floating license key is connected.

> **ℹ** After installing the HASP License Manager, the floating license key must always remain plugged into the license server.

To install the HASP License Manager:

1. Download and decompress the **HASP License Manager** from the Forsk Downloads web site:
   https://downloads.forsk.com/Lic

1. Before running the installer, right-click the **lmsetup.exe** installer and select **Properties**. The **Properties** dialog box opens.

2. In the **Properties** dialog box, select the **Compatibility mode** and set the following settings

- Select **Run this program as an administrator**.
- Click **OK**.

3. Run the **lmsetup.exe** installer and follow the instructions provided by the installer. When asked whether to run the HASP License Manager as an application or as a service, select **Service**.

> 🛈 If an error message is displayed with "akshasp.sys", then close the dialog box and continue.

4. At the end of the installation process, click **Finish** to start the HASP License Manager service.

When running, the HASP License Manager window displays a list of supported protocols which can be modified through the **Load** and **Remove** menus. Closing this window does not stop the license manager. The icon remains available in the taskbar as long as the service is running.

To stop the HASP license manager:

1. Go to **Control Panel** > **Administrative Tools** > **Services**.
2. In the list of services, right-click the **HASP Loader** service, and select **Stop** from the context menu.

1.1.3   Installing a nethasp.ini File for HASP License Keys

If you have a HASP hardware license key, the nethasp.ini file must be installed on each Atoll client computer to locate the license server.

The "nethasp.ini" file must be located either in the installation directory (recommended), or "C:\Windows,", or in a directory listed in the system path variable. A "nethasp.ini" file located in the Atoll installation folder has priority over any "nethasp.ini" file located elsewhere.

The following is an example of the "nethasp.ini" file:

```
[NH_COMMON]
NH_IPX = Disabled
NH_TCPIP = Enabled
NH_NETBIOS = Disabled
[NH_TCPIP]
NH_SERVER_ADDR = <IP address of the license server>
NH_USE_BROADCAST = Disabled
;Do not remove this line
```

> 🛈 Remove any NH_SESSION or NH_SEND_RCV entries from the "nethasp.ini" file if these exist.
>
> These fields define the timeout delays depending to the network. They can be useful in slow networks and should be set only if required.

For more information on the syntax of this file, refer to the HASP documentation provided by Thales.

2 Atoll Security Module (Lic.exe)

You can use the Atoll Security Module, also known as "Lic.exe", for fixed and floating license administration tasks when using single-user and multi-user (network) licenses.

> ℹ️ The Atoll Security Module (Lic.exe) is designed to be compatible with all current and previous versions of Atoll. Always ensure that you are using the latest version of the Atoll Security Module, regardless of the version of Atoll that you have installed.

This section covers the following topics:

2.1 About Atoll Licensing

Atoll licenses are perpetual and are automatically renewed every year by Forsk. Atoll licensing includes a perpetual license and optional maintenance services.

- A perpetual license allows you to run a specific version of Atoll. There is no time limit on using this version, however all licenses must be renewed every year by Forsk.
- A maintenance contract allows you to access to the Forsk helpdesk and download area, which provides product updates, documentation, and add-ins. When you purchase maintenance, Forsk reprograms your license key to allow the use of new versions.

Maintenance is automatically included during the first year following the purchase of a perpetual license. If maintenance is not purchased, the license key is reprogrammed without maintenance and you can continue to work with your current version.

The yearly expiration date for the license is referred to as the "time bomb" date. When the time bomb date expires, the license key stops working and an extension file is required.

> ➕ Atoll can inform you about the approaching time bomb date 30 days in advance. This alert can be configured in the Atoll.ini file. For more information, see the *Atoll Administrator Manual*.

For more information about your license status, contact the Forsk support team at:
http://www.forsk.com/support

2.2 Installing the Atoll Security Module

You can install the Atoll Security Module with the setup program on any computer on the network.

> ℹ️ The Atoll Security Module requires that a "nethasp.ini" file is installed on the license server. For more information, see the "Installing a nethasp.ini File for HASP License Keys" on page 11

To install the Atoll Security Module:

1. Download and decompress the latest Atoll Security Module (**Lic**) from the Forsk web site:

   http://downloads.forsk.com/Lic

2. Run the installer and follow the instructions provided by the installer. It is recommended to install the Atoll Security Module in a separate folder (for example: "C:\Program Files\Forsk\Atoll Security Module").

3. Once the installation is complete, click **Finish** to exit the setup.

To uninstall the Atoll Security Module, open **Uninstall a program** from the Windows Control Panel, select Atoll Security Module, and click **Uninstall**.

2.3 Using the Atoll Security Module

The Atoll Security Module enables you to view, troubleshoot, and update license keys. You must not use the license manager without full instructions and details from the Forsk support team. Modifying parameters in the license manager without proper input from Forsk can damage your fixed or floating licenses and block access of Atoll users to the licenses.

2.3.1 Using the Atoll Security Module Interface

To open the Atoll Security Module:

1. Open the Atoll installation folder and run **Lic.exe**. The Atoll Security Module opens (see Figure 2.1 on page 14).
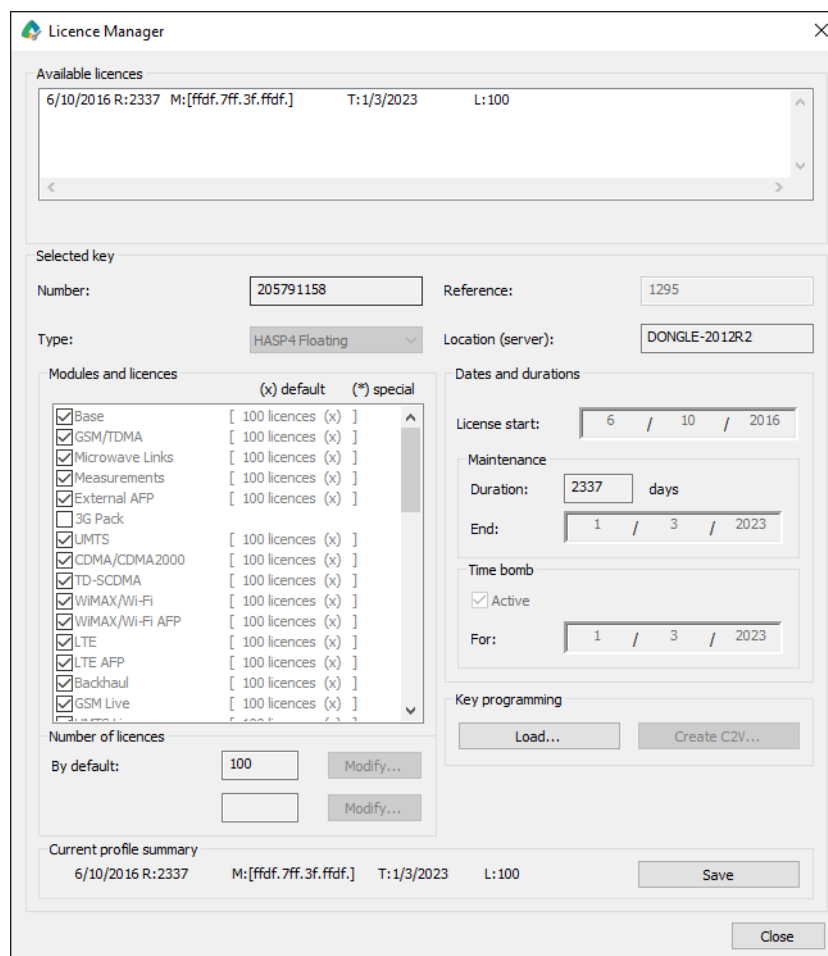

Figure 2.1: : Atoll Security Module

2. Under **Available licenses**, select a license key in order to display the information related to it.

> ℹ️ The **Clear all** button is reserved for Forsk use only.

Under **Selected key** the following information is available for the selected key:

- **Number:** Unique serial number given by the key provider.
- **Type:** The type of key, **Fixed license** or **Floating license**.
- **Reference:** Unique fixed or floating license key provided by Forsk. This number must be communicated to Forsk, when requested, for reprogramming the license key. This reference is also printed on the hardware dongle.
- **Location (server):** Name of the floating license management server on which the floating license dongle is connected.
- Under **Modules and licenses**, all the Atoll modules available on the selected key are listed along with the numbers of license tokens of each.
- Under **Number of licenses**, the **Modify** buttons are reserved for Forsk use only.
- Under **Dates and durations**, the following dates and durations are available:
  - License start date.
  - Maintenance duration and end date.
  - Time bomb date.

> ⚠️ Do not attempt to modify the time bomb settings on the fixed license key. Contact Forsk support.
> Do not change the computer's date.

- Under **Current profile summary**, all of the above information is summarised.

2.3.2 Updating License Keys

The Atoll Security Module enables administrators to update license keys by loading new key programming data from ALIC files provided by Forsk. To update a license key, you must have the ALIC file sent by Forsk.

> ⚠️ Do not attempt to reprogram a license key without full information and support from the Forsk support team.

To update a license key:

1. Close all Atoll sessions.
2. Open the Atoll installation folder and run **Lic.exe**. The Atoll Security Module opens (see Figure 2.1 on page 14).
3. Under **Reference**, check that the key number is correct. If the proper key number is not displayed, check that the hardware dongle is properly connected to the computer.
4. Under **Key programming**, click **Load**. The **Open** dialog box appears.
5. Select the ALIC file provided by Forsk.
6. Click **Save**. The key is updated.