Learn the basics needed to setup and manage a Ghost system landscape.

GHOST NODES

Installation Guide

Version 1.0 October 2020

Contents

1. Pre-Requisites

The be able to install Ghost Gateway & Ghost Agent, you need:

- Windows, Linux or macOS
- .Net Core 3.1 SDK

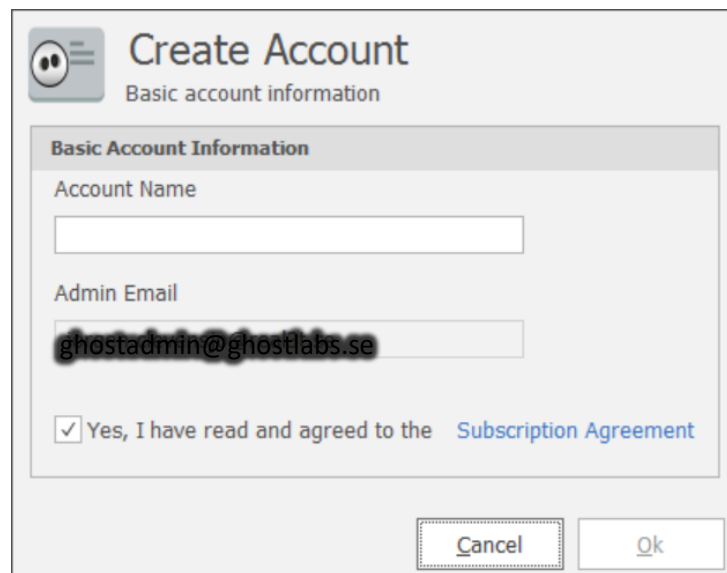To be able to install Ghost Nodes Studio you will need:

- .Net Framework 4.8

For more details see: https://dotnet.microsoft.com/download

2. Download the installer

To get started, download the Ghost installer from https://ghostnodes.com/download or https://azuremarketplace.microsoft.com

3. Run the installer

Start the installer, and select an authentication provider. Provide your email address and password, and create an account. The account name could be any name. The account you create is of type Basic and is free of charge. This can be changed later on by the account administrator, the person who created the account.
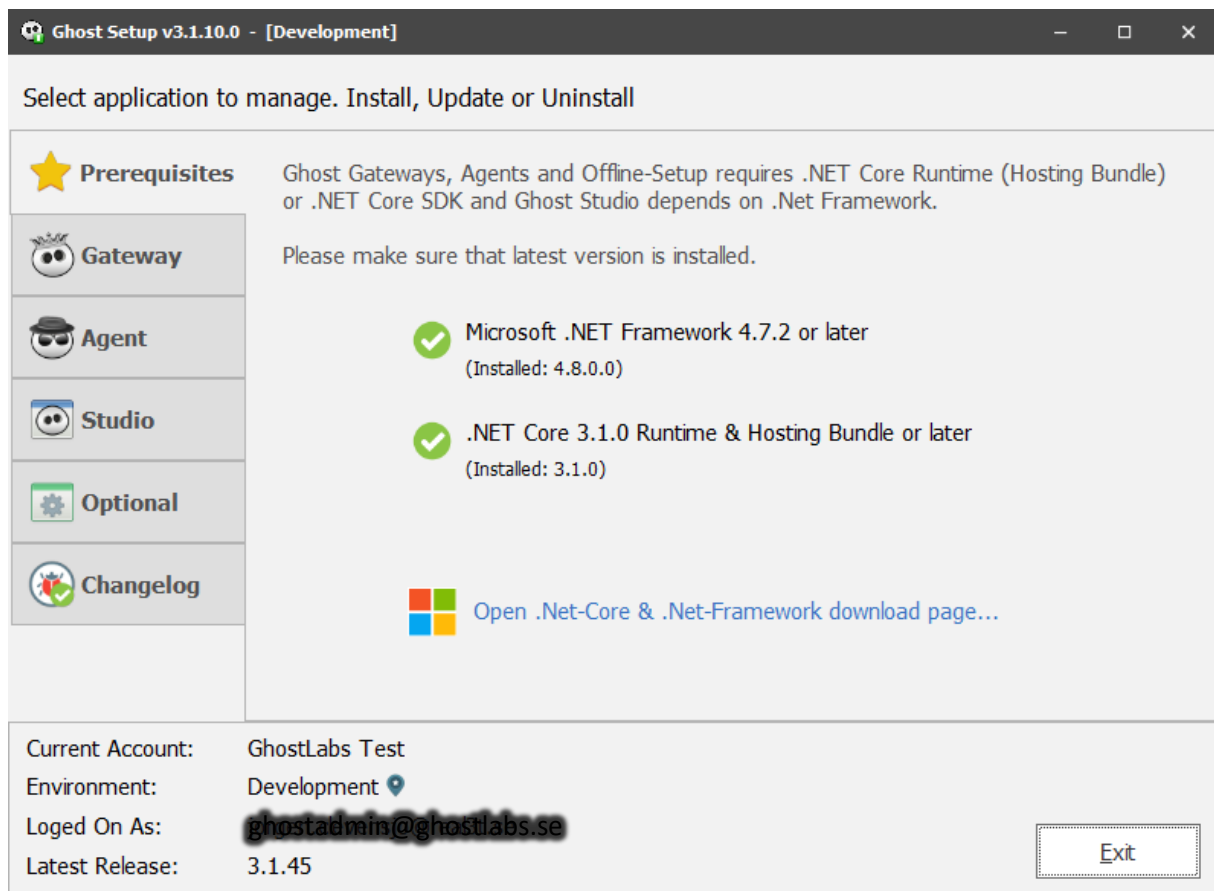

Please read the subscription agreement, and check the box to continue.
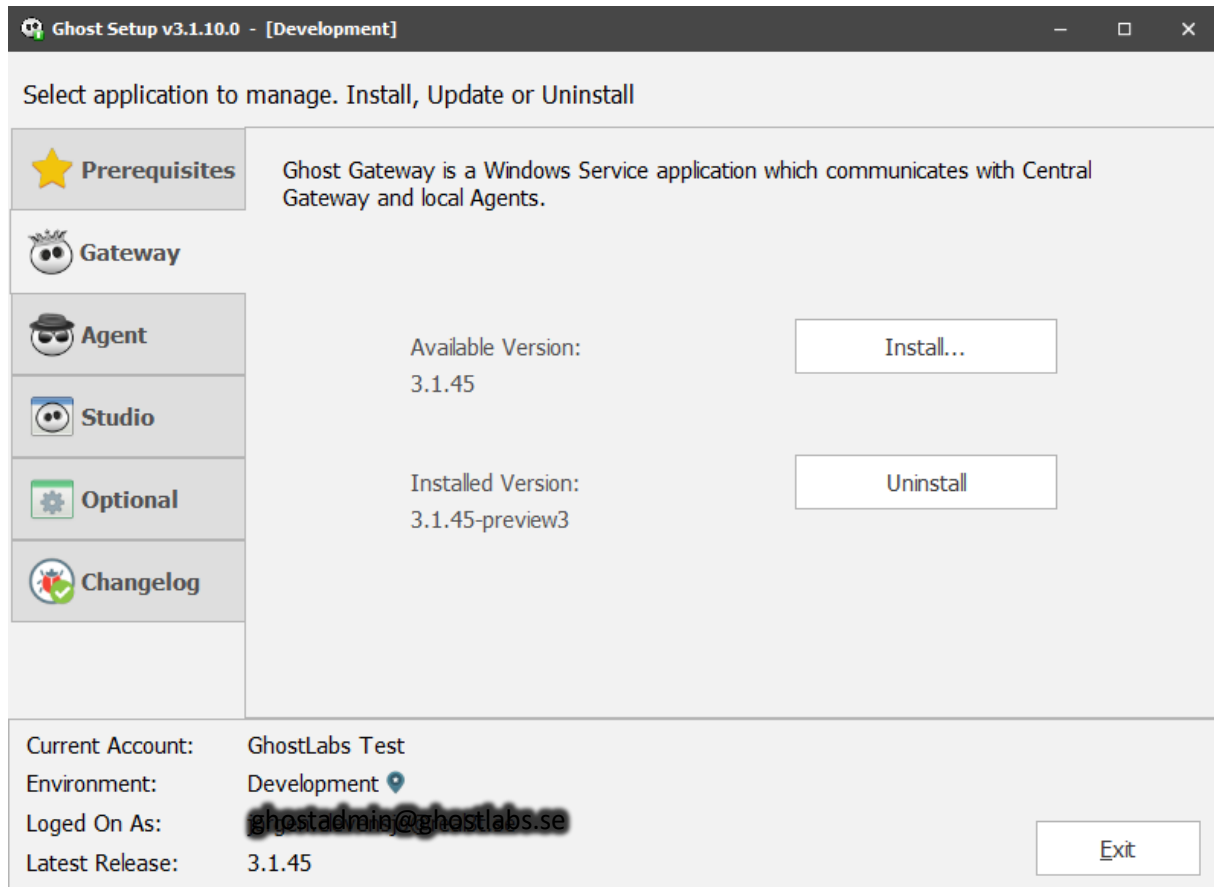
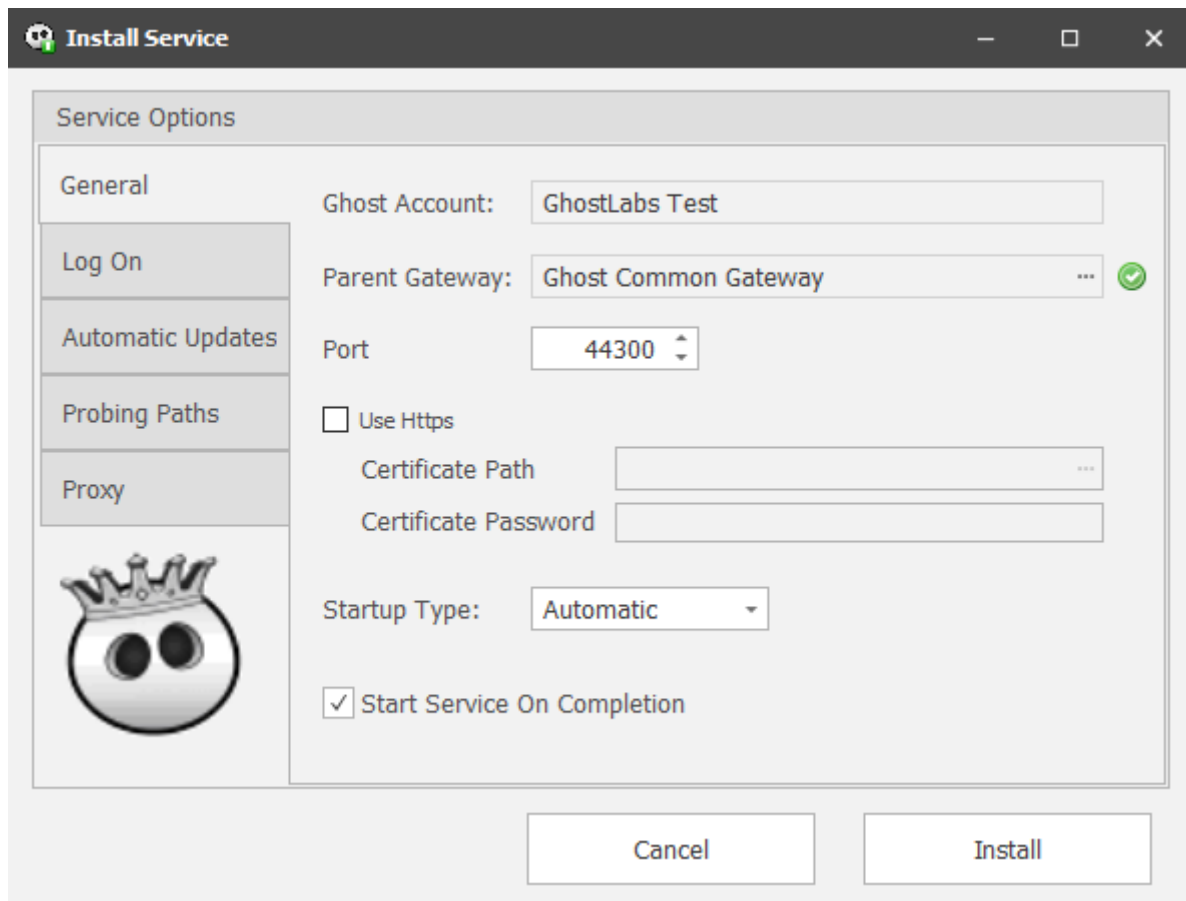Once the installer starts, you should see the following screen:

Once your target system meets the requirements, you are ready to start installing components.

4. Ghost Gateway

To install a Gateway, click the **Gateway** tab and then the **Install...** button.


If you would like to uninstall a previously installed Gateway you can do so by pushing the **Uninstall** button.

In the **General** tab you can change the default properties, like the **Parent Gateway** you want to connect to, and the **Port** used. You can also define if you want your connection to be covered by LTS by clicking the **Use HTTPS** checkbox, and assigning a **Certificate Path** and a **Certificate Password.**

The **Startup Type** determines how you want the gateway to start, it defaults to Automatic, meaning the service will auto-start whenever the computer is rebooted.

If you check **Start Service On Completion**, the Gateway you are installing will start up when the installation has finished.
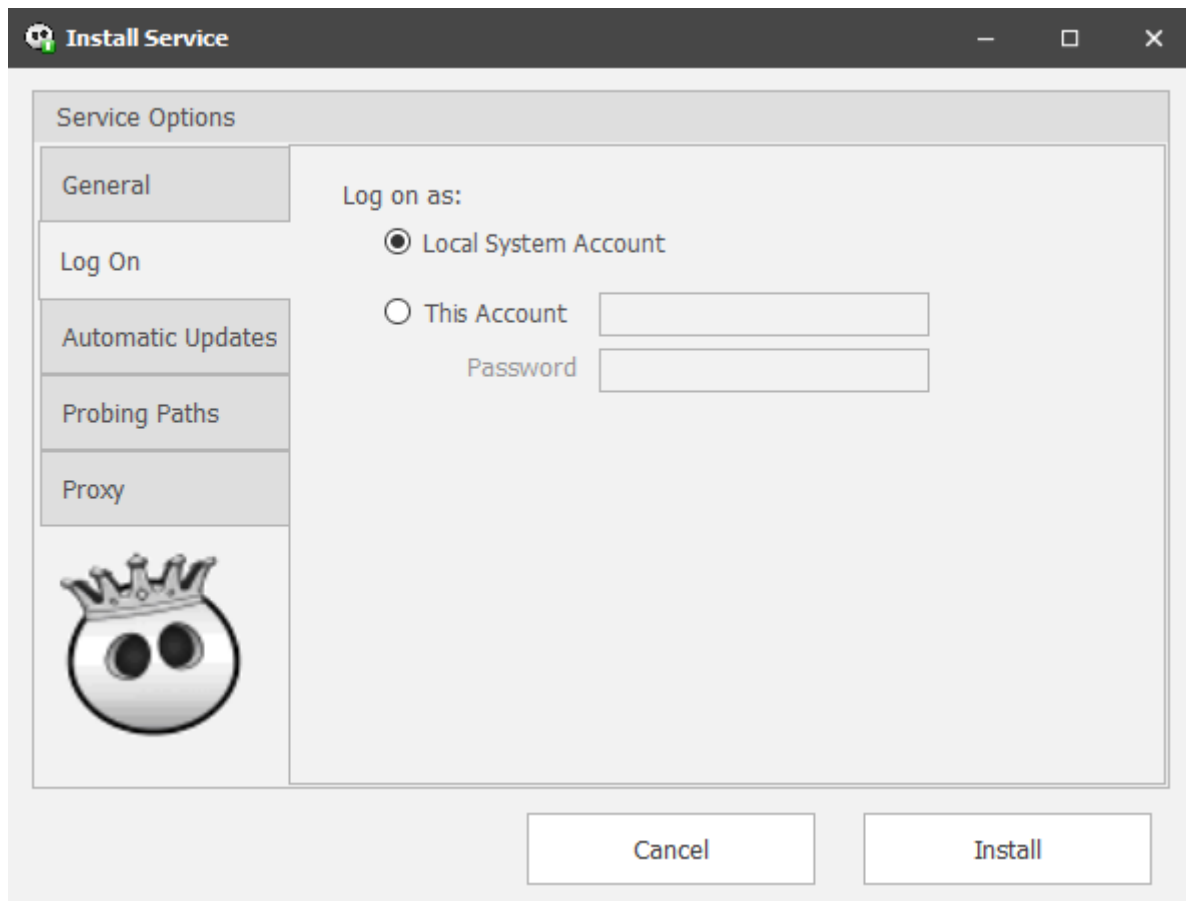
In the **Log On** tab, you have the option to change the user account that will be used to run the service, it defaults to Local System. If you change this, make sure the account you are using have sufficient rights to run the Gateway service.
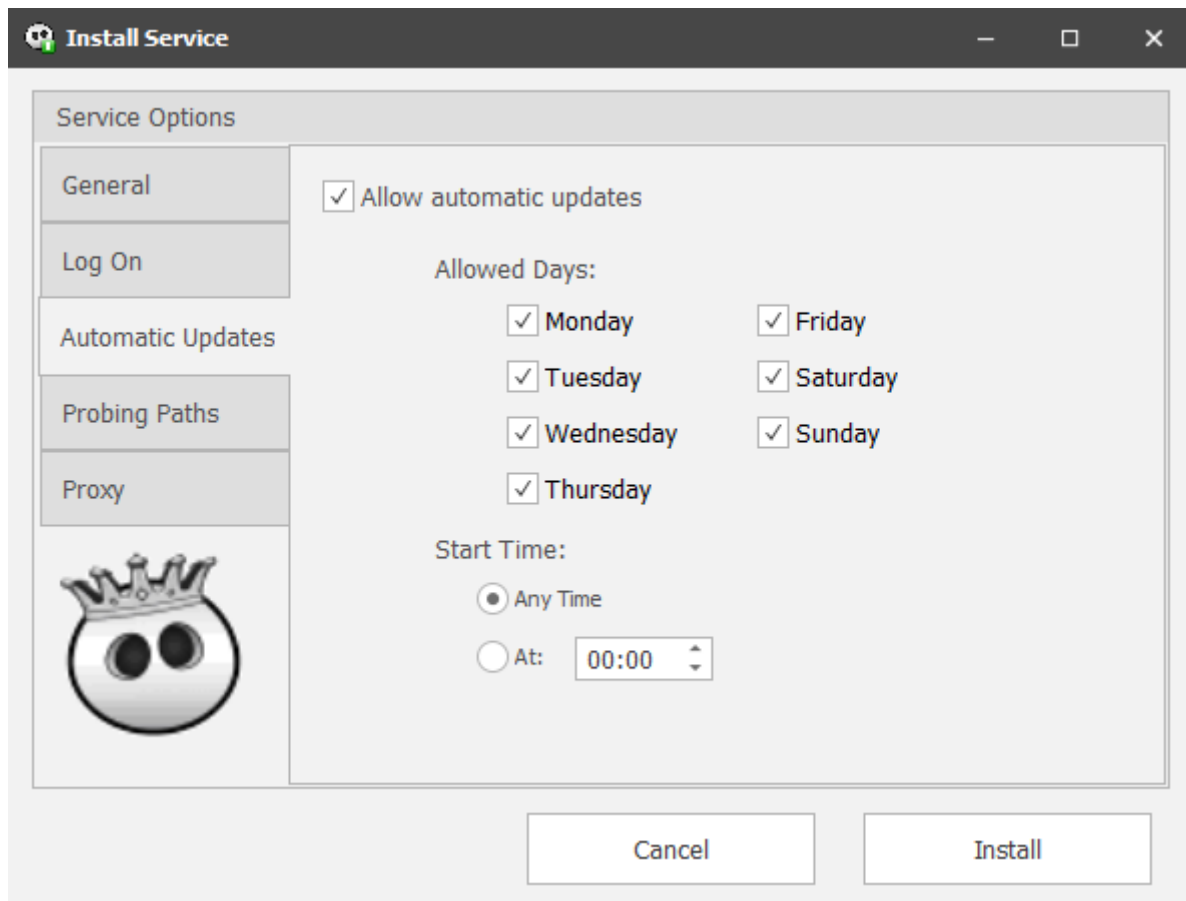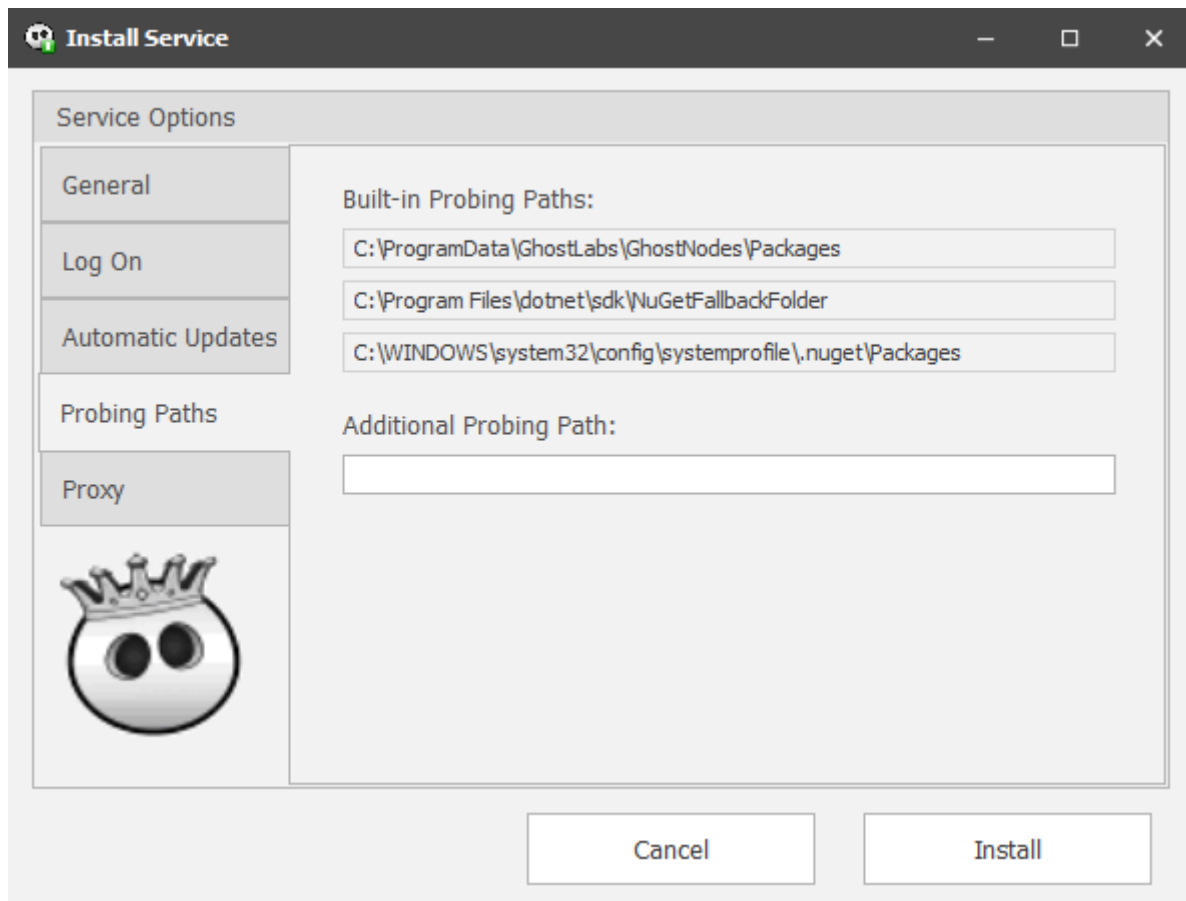
The Ghost Gateway will automatically check for updates if the **Allow automatic updates** checkbox is checked.

In the **Automatic Updates** tab, you can define your preferred service window, it defaults to **Any Time**, which means that the service window will be set to a random day & time.

If you uncheck **Allow automatic updates**, no updates will be installed.

Probing Paths tab will display the local NuGet repositories that will be searched for packages at runtime. One **Additional Probing Path** can be added if your organization have any special location for stored NuGet packages.

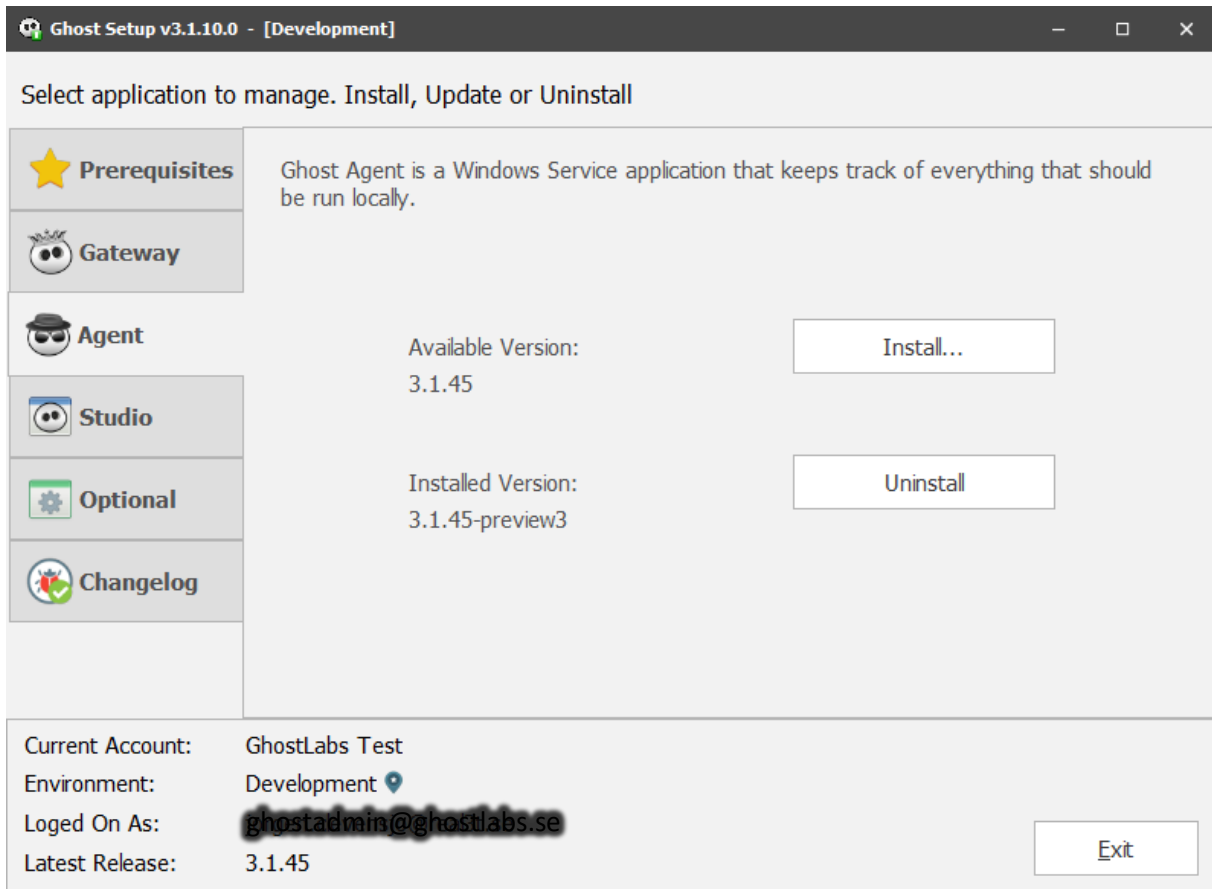If you are running behind a proxy, you need to check to use either **Default System Proxy** or **Custom Proxy** and add the proxy **Address** and proper **Port**.
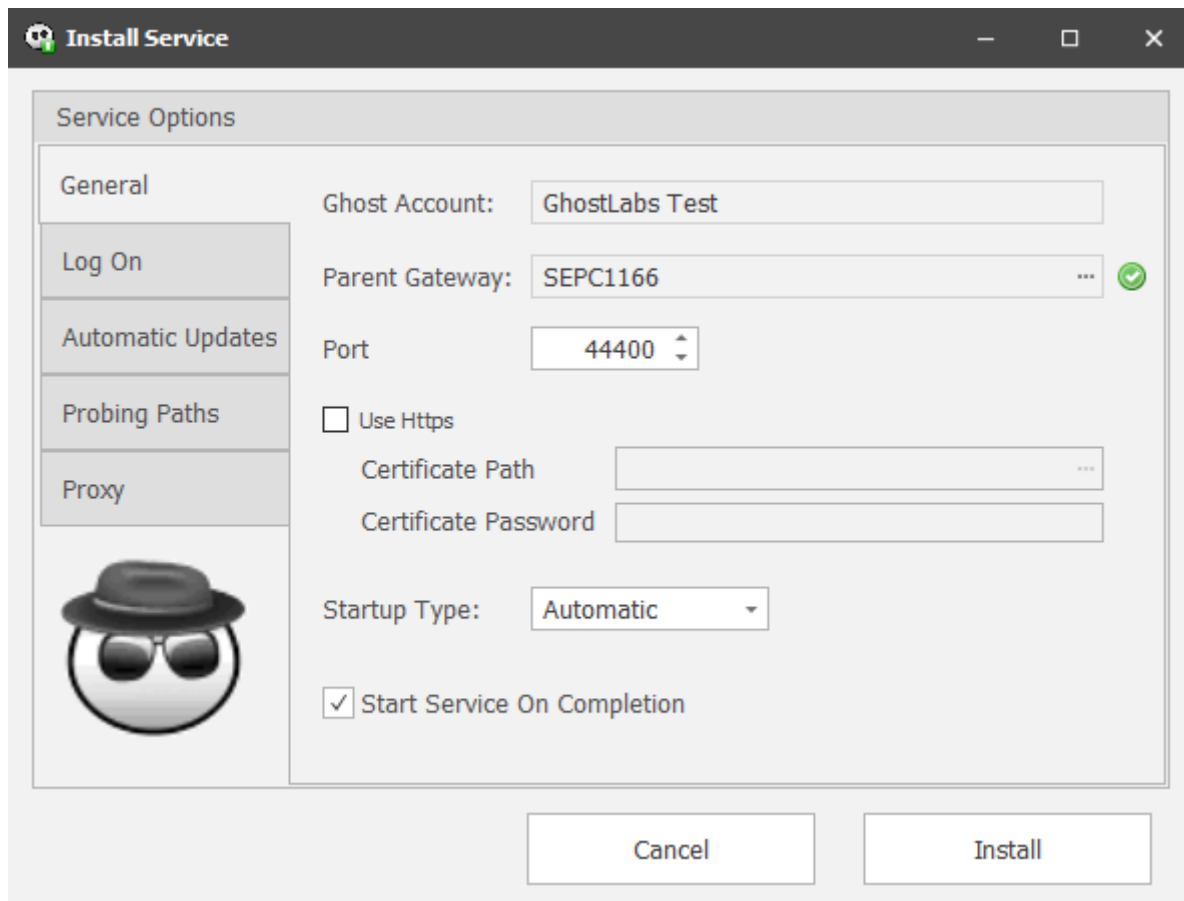
If you have a designated proxy user, check **Custom Credentials** and enter the proxy **User** and **Password**.

5. Ghost Agent

To install an Agent, click the **Agent** tab and then the **Install…** button.

If you would like to uninstall a previously installed Agent you can do so by pushing the **Uninstall** button.

In the **General** tab you can change the default properties, like the **Parent Gateway** you want to connect to, and the **Port** used. You can also define if you want your connection to be covered by LTS by clicking the **Use HTTPS** checkbox, and assigning a **Certificate Path** and a **Certificate Password.**

The **Startup Type** determines how you want the agent to start, it defaults to Automatic, meaning the service will auto-start whenever the computer is rebooted.

If you check **Start Service On Completion**, the Agent you are installing will start up when the installation has finished.
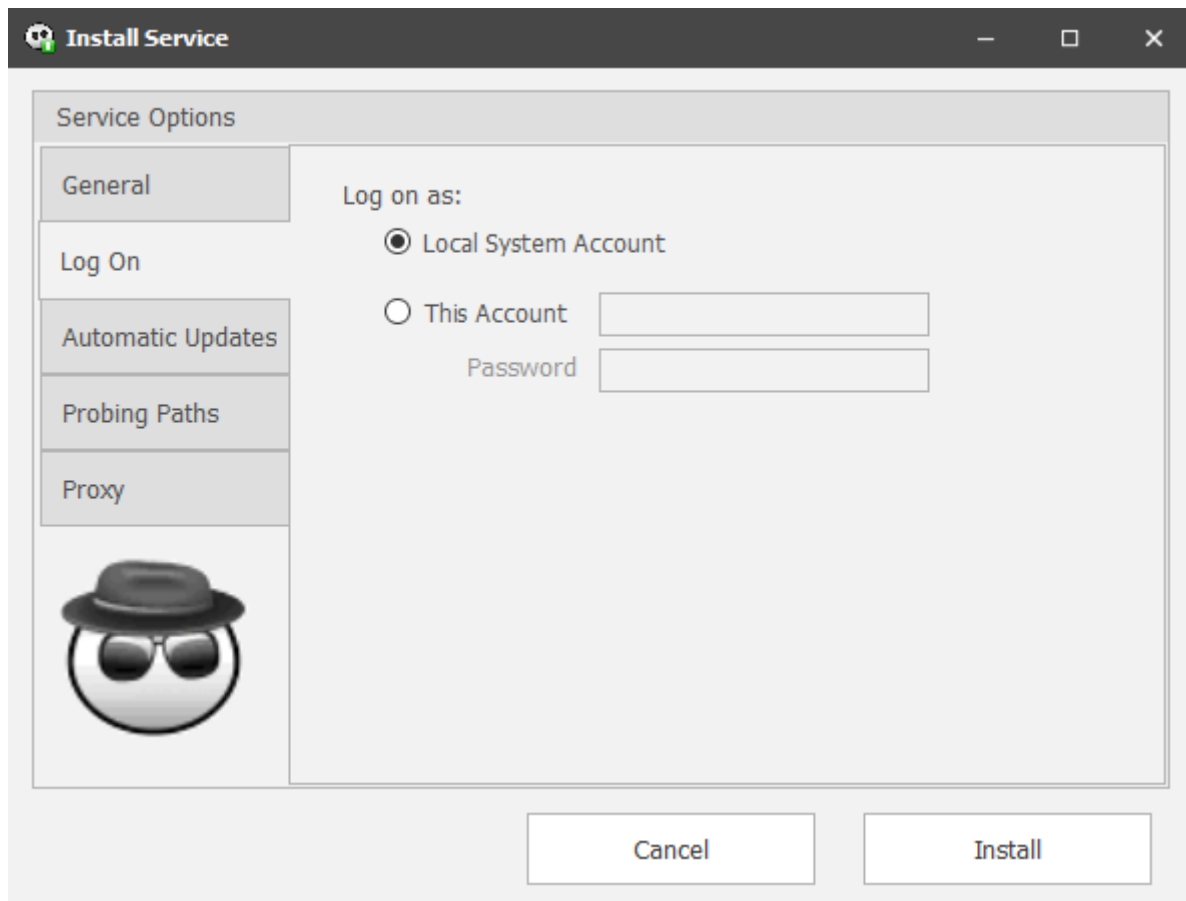
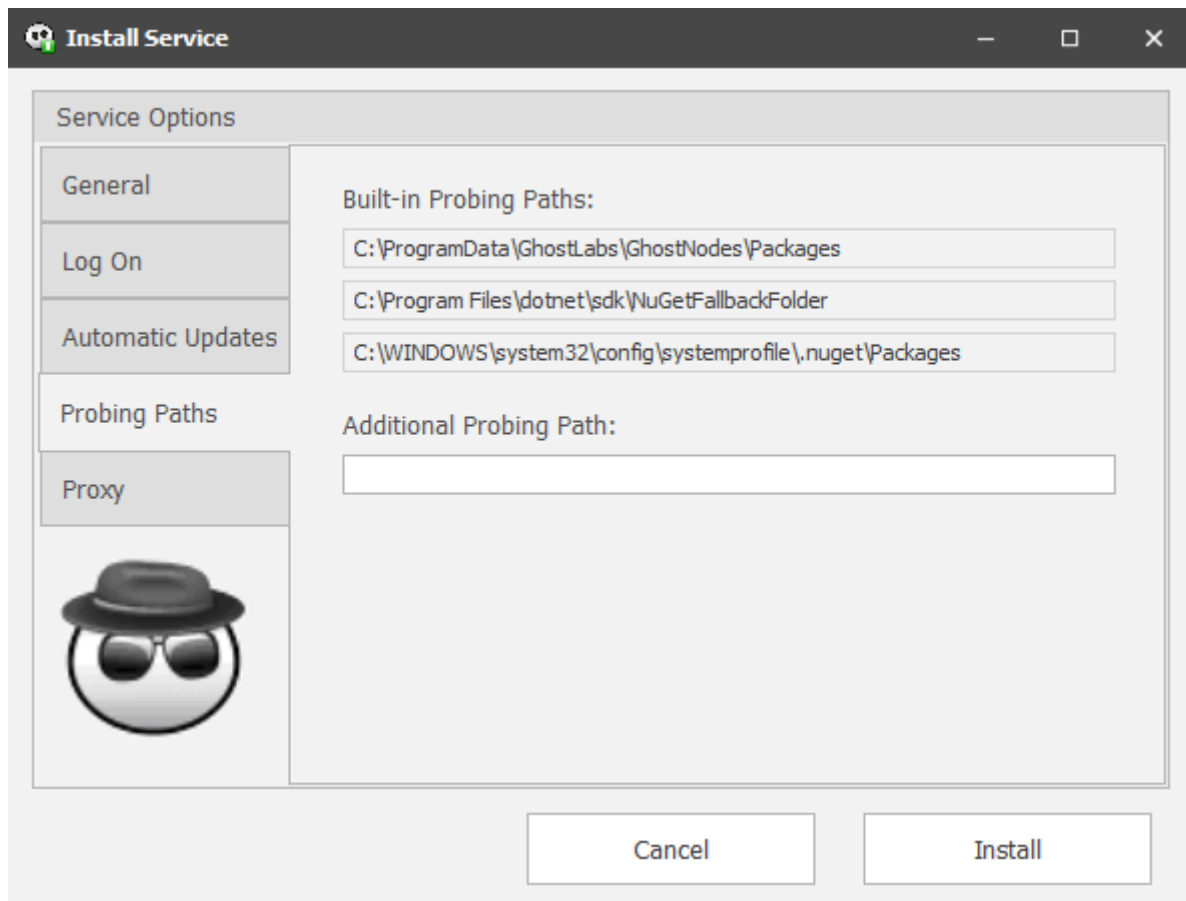In the **Log On** tab, you have the option to change the user account that will be used to run the service, it defaults to Local System. If you change this, make sure the account you are using have sufficient rights to run the Agent service.
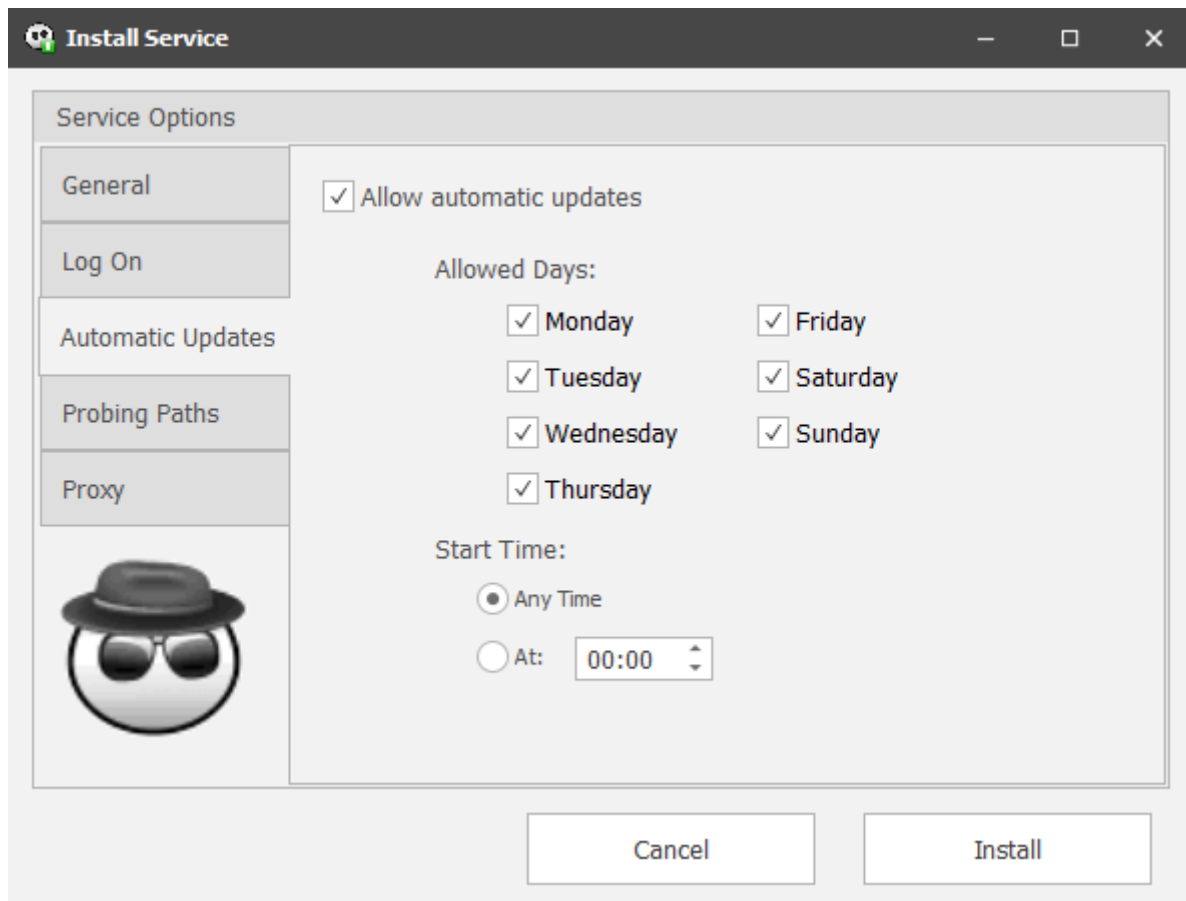
The Ghost Agent will automatically check for updates if the **Allow automatic updates** checkbox is checked.

In the **Automatic Updates** tab, you can define your preferred service window, it defaults to **Any Time**, which means that the service window will be set to a random day & time.

If you uncheck **Allow automatic updates**, no updates will be installed.

Probing Paths tab will display the local NuGet repositories that will be searched for packages at runtime. One **Additional Probing Path** can be added if your organization have any special location for stored NuGet packages.

If you are running behind a proxy, you need to check to use either **Default System Proxy** or **Custom Proxy** and add the proxy **Address** and proper **Port**.

If you have a designated proxy user, check **Custom Credentials** and enter the proxy **User** and **Password**.

GHOST LABS

6. Ghost Studio

To install the Ghost Studio, click the **Studio** tab and then the **Install…** button.
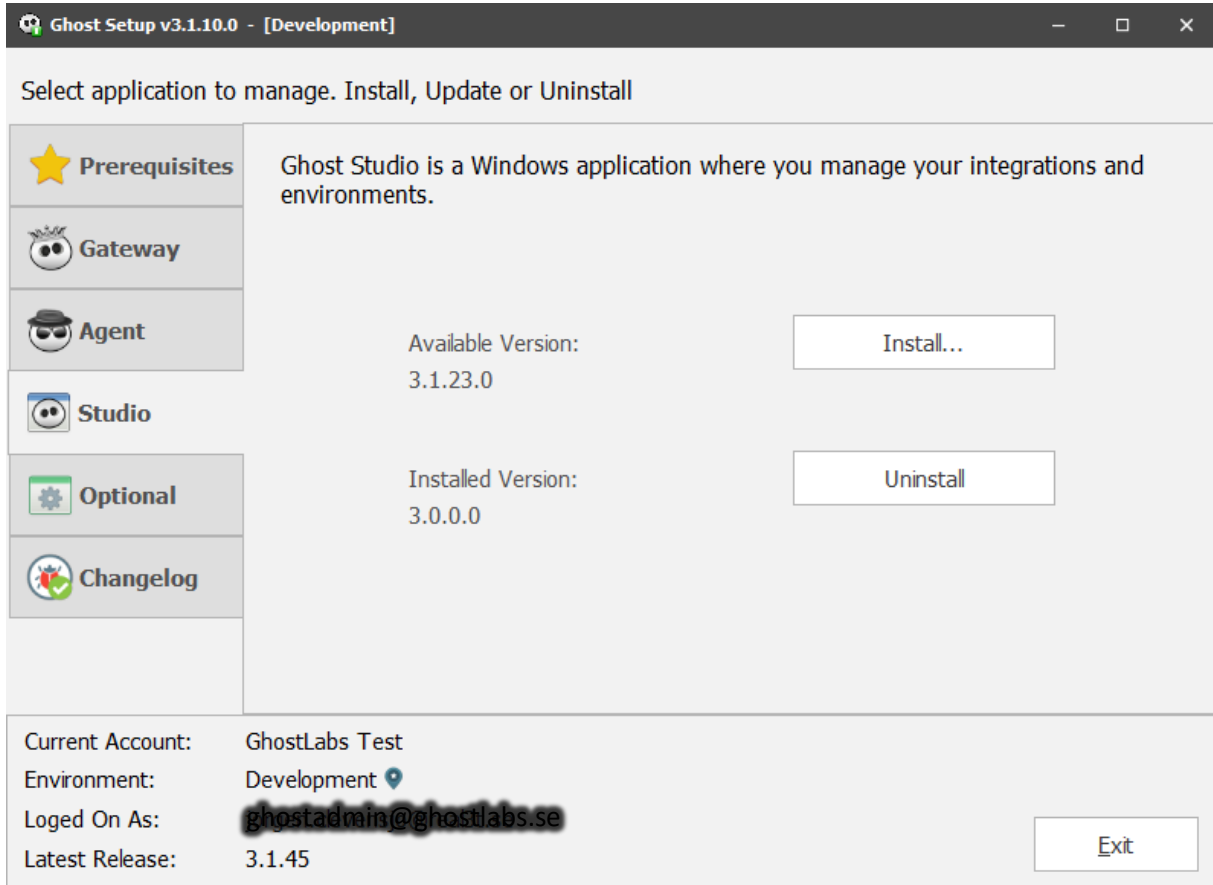
If you would like to uninstall a previously installed Agent you can do so by pushing the **Uninstall** button.

7. Optional applications

On the **Optional** tab, you will find additional software that will be useful in various scenarios.
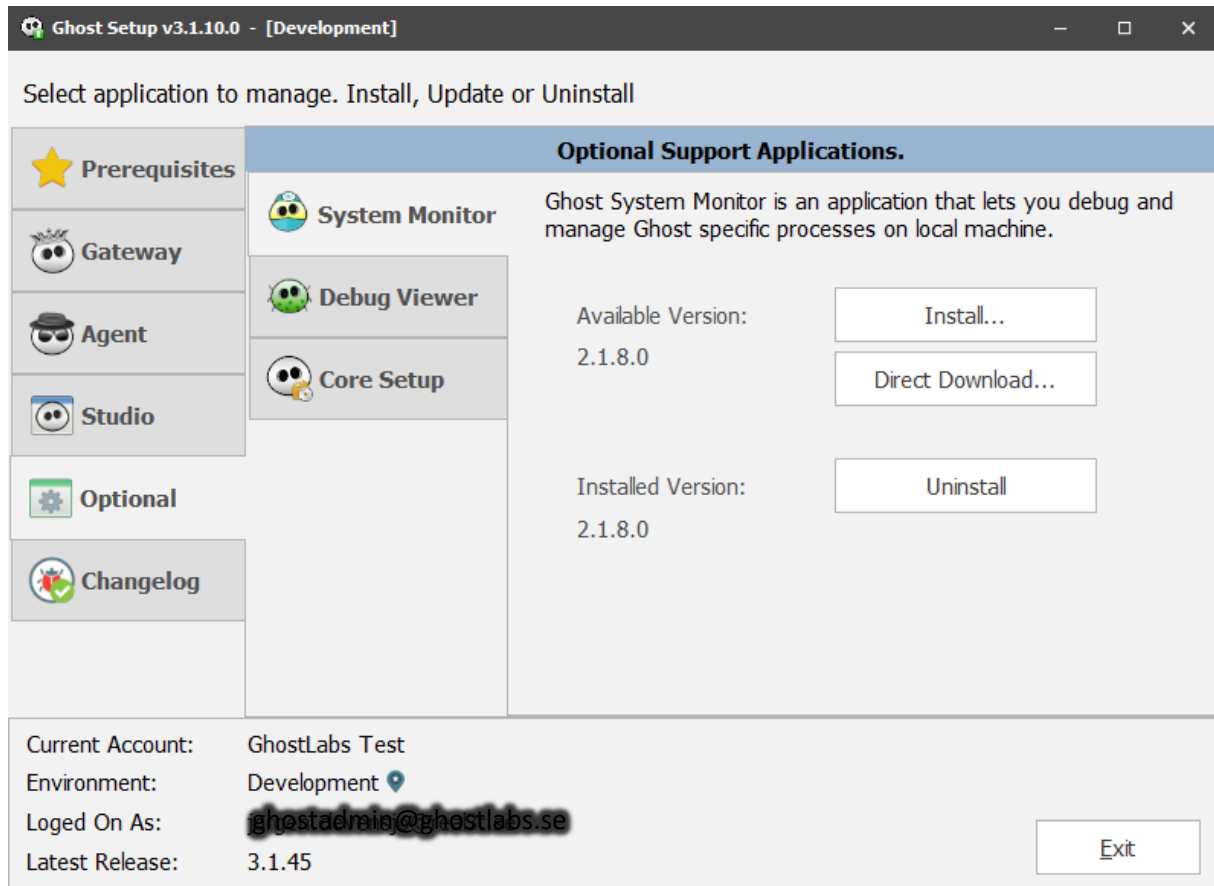
On the **System Monitor** tab, you can **Install…** or **Uninstall** the System Monitor or **Direct Download…** an installer containing the System Monitor.

On the **Debug Viewer** tab, you can **Install…** or **Uninstall** the Debug Viewer.
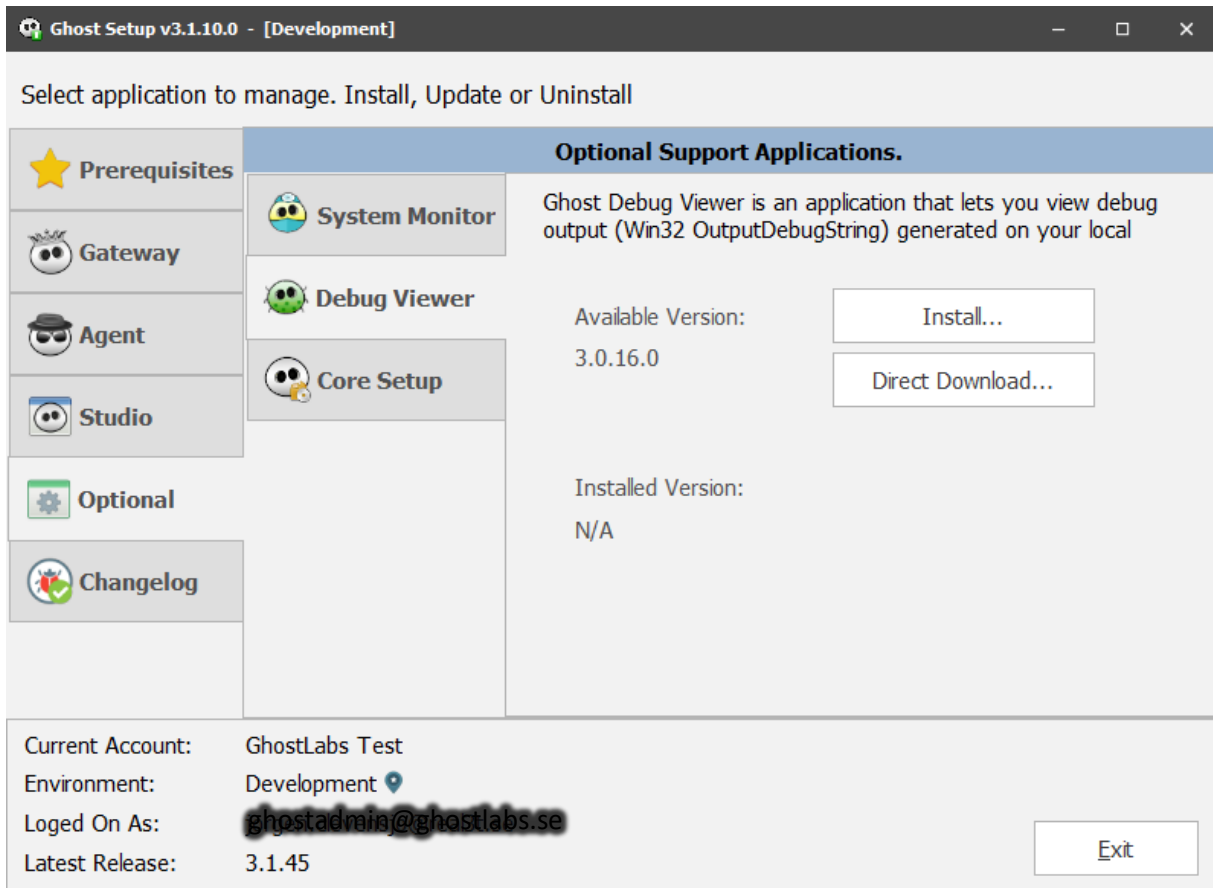
The application is a one file executable so a **Direct Download** is available.

The Debug Viewer application lets you view Trace output from any process (much like SysInternals DbgView). Output is divided in tabs, one tab for each process to make the trace logs easier to read.
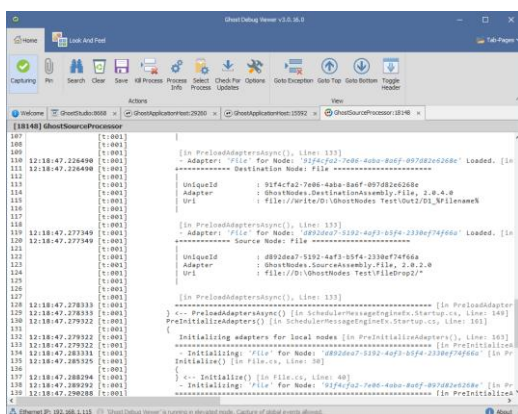
On the **Core Setup** tab, you can download:

- Core Setup application
- Ghost Gateway and Ghost Agent bundle packages.

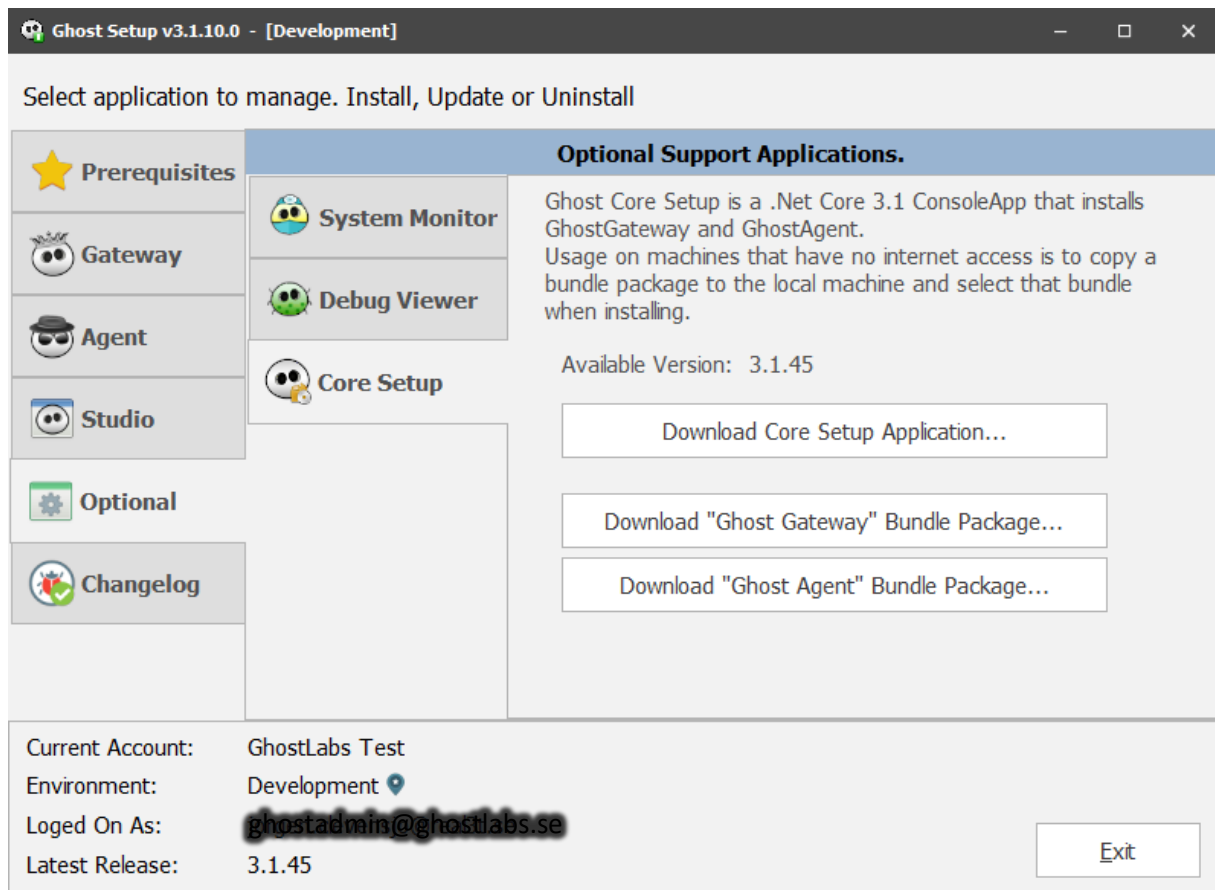The "Core Setup" application is a console installer with which you can install both Gateways and Agents. It can be run with or without internet connection. If running with an internet connection the latest core version will be downloaded and installed. If running without internet connection a bundle package must be specified. This bundle package contains all needed packages to be able to install. Please note that there are different packages for Gateways and Agents. Also note that the packages contain a specific Ghost core version, so make sure you always use that latest bundle when installing.

Ghost-Setup Changelog

All notable changes to this application will be documented in this file.

3.1.10 - 2020-10-15

- ☑ Gateways and Agents will be auto approved when installed.

3.1.9 - 2020-09-09

- ☑ Added validation callback for untrusted ssl server certificates which would fail when called from behind a http proxy.
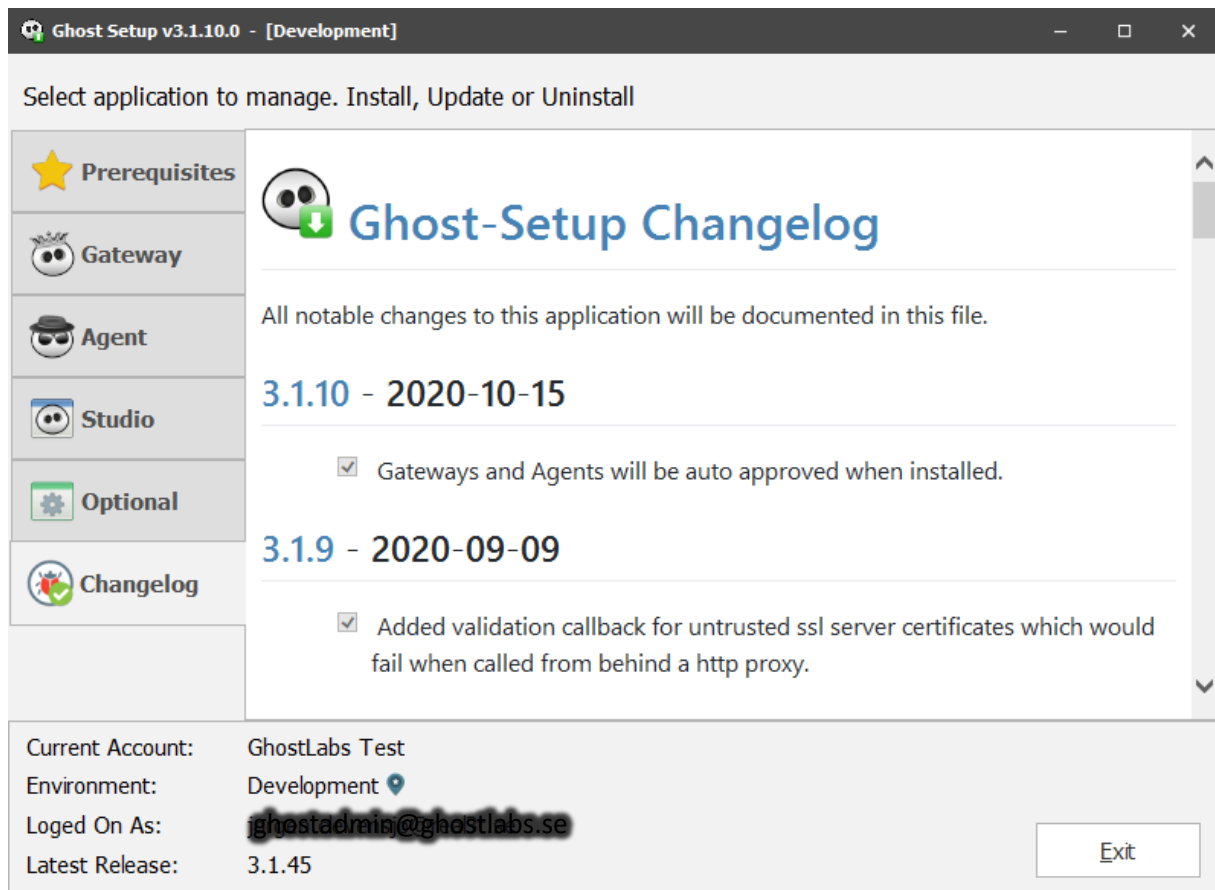
On the **Changelog** tab, you can view the historical changes connected to the various releases of the Ghost-Setup application.

8. Designing a Ghost System Landscape – best practice

When you set up a Ghost landscape there are a few things to keep in mind:

1. Always aim at having as few ghost gateways as possible in direct contact with the cloud gateway (*https://gwp.ghostnodes.com*). A good practice is to have one gateway per physical site with direct connection to the cloud gateway. Below this gateway you can install as many gateways that you require, typically at least one gateway per subdomain, dmz, etc.
   This will reduce the traffic going in and out of your local network, and make the integrations run faster.
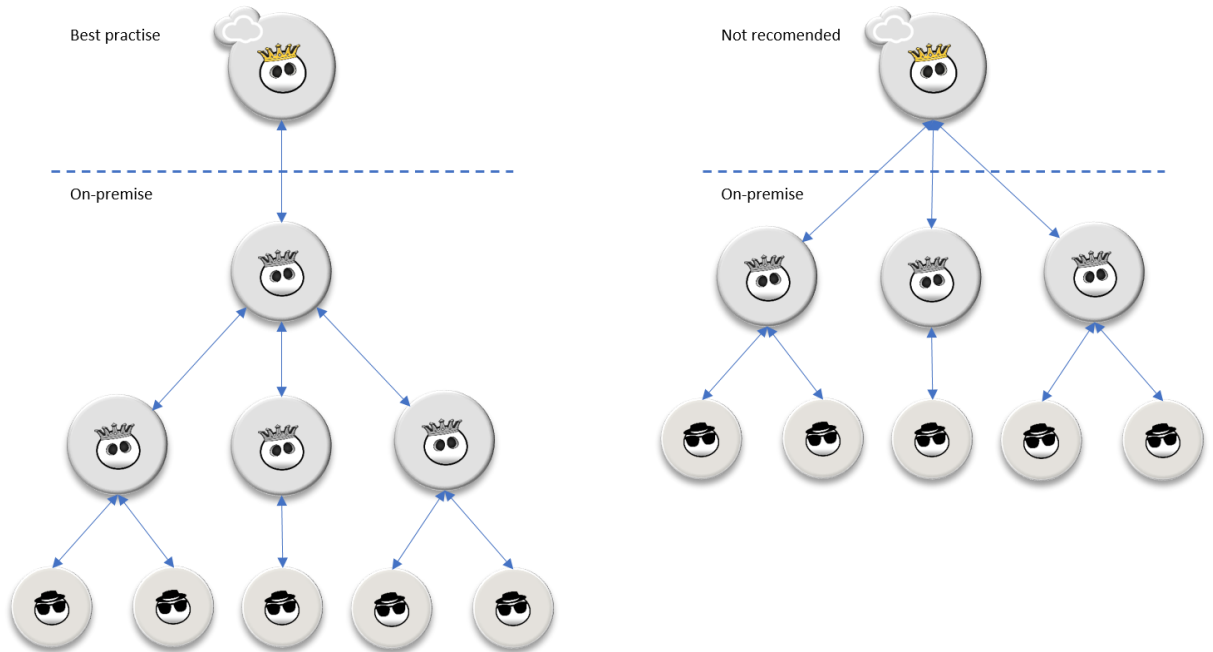
This will allow for connectivity between all agents without leaving your local network. If the 3 gateways on the same horizontal level represents 3 different subnets, an integration between agents would get the following effect:
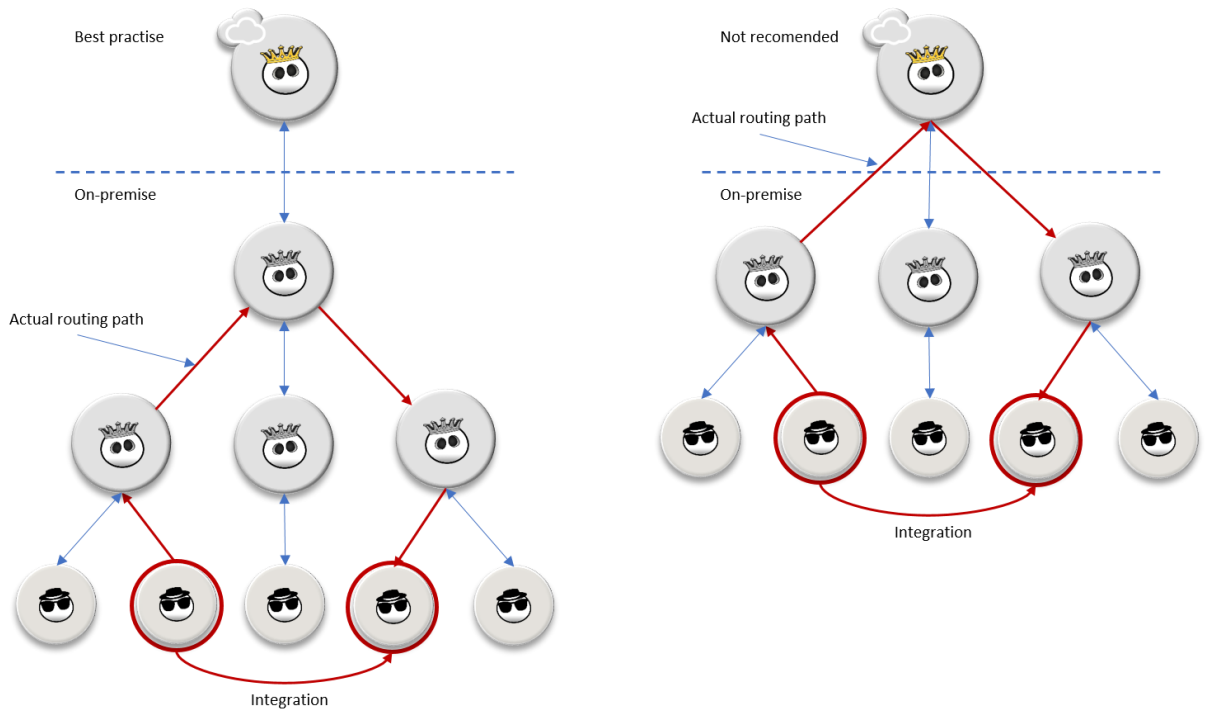
2. Always aim at having direct connection between any agents used in an integration. If you are setting up integrations between agents located on different subnets or behind firewalls, try to make sure that they have line of sight (*i.e. they can ping each other),* by opening ports in the firewall. This will allow the integrations to execute more efficiently with direct connection.

3. If you choose to uncheck automatic updates on agents and gateways, please make sure to have routines in place to update agents and gateways, or they will stand the risk of stop working at some point in time.