Savision iQ

RELEASE NOTES

RELEASE 2.9.3

DOCUMENT DATE: JUNE 1, 2020

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Release Notes
Release 2.9.3 - June 1, 2020

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Introduction

Savision iQ is a powerful analytics tool that works in conjunction with your existing IT monitoring and management systems. It collects alerts and health state information from a wide range of different sources and consolidates it under a single pane of glass.

Document Purpose and Intended Audience

This document summarizes the content introduced by Savision iQ release 2.9.3. It also provides information about upgrade and installation requirements. This document is intended for use by trained partners and end users.

Revision History

Document Date	Description
June 1, 2020	Savision iQ Release 2.9.3
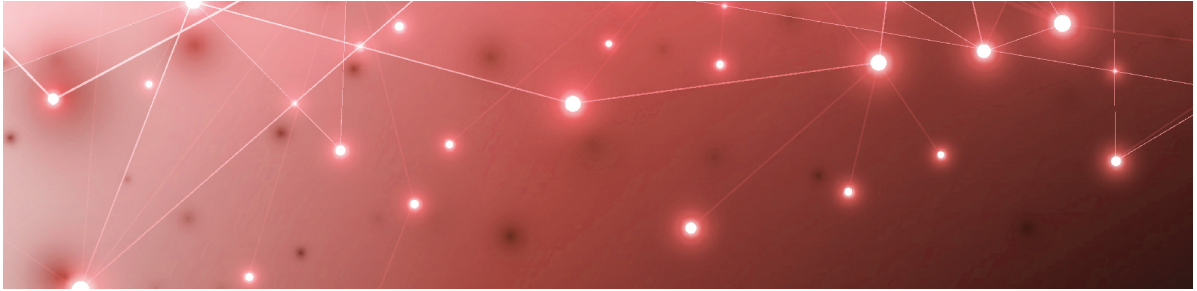
Savision iQ 2.9.3

The information in this document applies to Savision iQ release 2.9.3. It describes the changes in this release and provides the information you need to upgrade or install the software.

New in this Release

Savision iQ release 2.9.3 includes the following new features and enhancements:

-

Amazon Web Services CloudWatch Alarms

Amazon Web Services (AWS) has CloudWatch metrics for the conditions that AWS can monitor. If you have configured an alarm for a CloudWatch metric, Savision iQ creates a component for that alarm, which you can pin to a board or a business service. When the alarm is triggered in AWS, the component health state in Savision iQ is shown as critical until the alarm in AWS is resolved or closed. Savision iQ also creates alerts for CloudWatch alarms when the alarm is triggered in AWS.

Fixed Issues

The following issues were fixed in the 2.9.3 release of Savision iQ.

Issue Type	Issue	Affected Version
Integration	Savision iQ does not display all health states from System Center Operations Manager (SCOM).	2.9.0
Application	When you view components on a board and then navigate to the Alerts tab, Savision iQ may display alerts from other objects.	2.9.0
Integration	Savision iQ is unable to load devices from the latest version of WhatsUp Gold.	2.9.0
Integration	This release resolves two issues with Splunk: • Descriptions of Splunk alerts are not displaying. • Savision iQ shows an error in the Message field of Splunk alerts. • Splunk component pages in Savision iQ do not open when the component name contains special characters.	2.9.1

Known Issues

The following items are known issues in the 2.9.3 release of Savision iQ:

Active Directory Users

Savision iQ uses Active Directory to authenticate users. Savision iQadministrators can choose which users and groups in Active Directory are permitted to access Savision iQ. Built-in groups in Active Directory, such as Domain Admins or Domain Users, cannot access Savision iQ. If a user belongs only to a built-in group, that user cannot access Savision iQ. Ensure that you give the user permission to access Savision iQ, or that you add the user to one of your custom groups.

URL Used for Notifications

When you create a board or business service, Savision iQ creates a URL for the item. The URL is based on how you are connected to Savision iQ at the time that you create the board or business service. For example, if you connect to Savision iQ through localhost, the URL is based on the localhost address. If you configure automatic notifications, this URL is included in the message sent to recipients. Recipients who click the link may see an "unable to connect" or "connection refused" message, or may be redirected to a search engine, depending on the browser.

If you configure email notifications, or if you use PowerShell to send notifications to other applications, you need to configure the URL used by the notifications. A script is available from our support team to help you change the URL. For more information, see the following Knowledge Base article:

https://support.martellotech.com/knowledgeBase/10320492

Elasticsearch Errors After an Upgrade

Savision iQ typically installs Elasticsearch, however, if your deployment uses its own Elasticsearch cluster or uses a hosted Elasticsearch cluster, you may see errors after an upgrade. Savision iQ requires Elasticsearch indices to be closed, which may not be part of your configuration. For information about how to correct this problem, see the following Knowledge Base article:

https://support.martellotech.com/knowledgeBase/10322935

Elasticsearch Does Not Install

When you install Savision iQ on a computer that does not have Java, the Savision iQ installer prompts you to install it; however, after Java is installed, the installer skips the installation of Elasticsearch.

To resolve this issue, run the Savision iQ installer again.

Editing an Alert Field Causes Buttons to Work Incorrectly

When you view an alert in Savision iQ, some alerts include editable fields from the source system, depending on the integration. In this release, if you enter an address in the editable URL field, the **Go To Related Components** and the **Go To Source** buttons do not work correctly; these buttons open the URL that you added to the editable field.

Savision iQ Launches on the Default Port

By default, Savision iQ uses port 59212. When you launch Savision iQ from the installer or from the shortcut created by the installer, the application always uses port 59212, even if you have changed the default settings and configured the server to use a different port.

Incorrect SLA Calculations

SLA calculations for a business service may be incorrect for a period of up to 15 minutes if the health state of the service changes during that interval. Savision iQ makes SLA calculations every 15 minutes, and if the health state changes in between calculations, the interface continues to display information based on the previous health state until a new calculation is performed. For this reason, information such as the Current SLA value may drop and then revert to a higher number when the status is updated.

Error: Limit of Mapping Depth

You may see an error in the log file that contains the following text: `"Limit of mapping depth [20] in index [<Index Name>] has been exceeded due to object field..."`

If you see this error, increase the limit of the number of inner objects of the Elasticsearch index. You can do so by using curl to execute the following PUT request:

```
curl -u <username:password> -X PUT <Elasticsearch URL>/<Index Name>/_
settings -H "Content-Type: application/json" -d "{
\"index.mapping.depth.limit\" : 50 }"
```

To verify that the limit has been correctly updated, use curl to execute the following GET request:

```
curl -u <username:password> -X GET <Elasticsearch URL>/<Index Name>/_
settings
```

Relationships Not Shown in Cisco Prime Integrations

In Cisco Prime integrations, Savision iQ displays objects and health states, but does not show the relationship between groups. This issue occurs if the group name in Cisco Prime includes a comma. To resolve this issue, ensure that there are no commas in the group names that you configure in Cisco Prime.

Increased Memory Usage in Elasticsearch

Savision iQ release 2.9.3 has a higher data throughput than in previous releases. Because of this, the memory usage of Elasticsearch could increase. Martello recommends that you increase the heap space when the elasticsearch log file contains the following messages:

```
[o.e.m.j.JvmGcMonitorService][UD2zDJd] [gc][215085] overhead, spent
[1.2s] collecting in the last [2s]
```

For information about how to set the maximum Elasticsearch heap space, see the "Configure Elasticsearch" chapter in the *Savision iQ Installation and Upgrade Guide*, available on the Partner Portal at https://partners.martellotech.com/ or on the Downloads page of the Martello website at https://martellotech.com/downloads/.

BMC Remedy Error when Email is the Reported Source

When you create a BMC Remedy incident in Savision iQ and select Email as the option for the **Reported Source** field, BMC Remedy reports an error.

Open Alerts from CA APM

When an alert rule in CA APM triggers an alert, the alert is reported in Savision iQ. If you subsequently disable the alert rule in CA APM while there are still open alerts, the alerts become inactive in CA APM but continue to display as open alerts in Savision iQ.

If you want to disable an alert rule in CA APM, you can avoid this issue by performing the following steps:

- In CA APM, lower the threshold that triggers the alert.
- Wait for Savision iQ to remove the alerts.
- Disable the alert rule in CA APM.

Unexpected Results in Saved Searches

A search for numeric values may not return all the expected results. For example, if a Component contains the integer property "Parent ID" with the value 123, searching for only the number 123 will not return that component. In order to get the desired results, you must specify the field name in the search: source.prtg.ParentId:123. In this case, all the PRTG components that have the property "Parent ID" equal to 123 are returned.

Connection Error with Splunk

After you upgrade to release 2.9.3, the Splunk integration may show an error message indicating that it is unable to connect to the source system.

To fix this issue, remove the integration and then add it. From the main menu, select **Settings**. Use the **Delete** button to remove the integration, and then click the **Add** button at the bottom of the page and add the integration again.

In Savision iQ release 2.9.3, the Splunk integration is a beta version.

Incorrect Data in Cisco Prime and TOPDesk

After you upgrade to release 2.9.3, Cisco Prime and TopDesk integrations may show an incorrect number of components, and states may display as unknown.

To fix this issue, Martello has created a PowerShell script that clears the data from integration without affecting any of the objects that are discovered and placed in board or services. For instructions on how to use the script, see the following Knowledge Base article: https://support.martellotech.com/knowledgeBase/9528506.
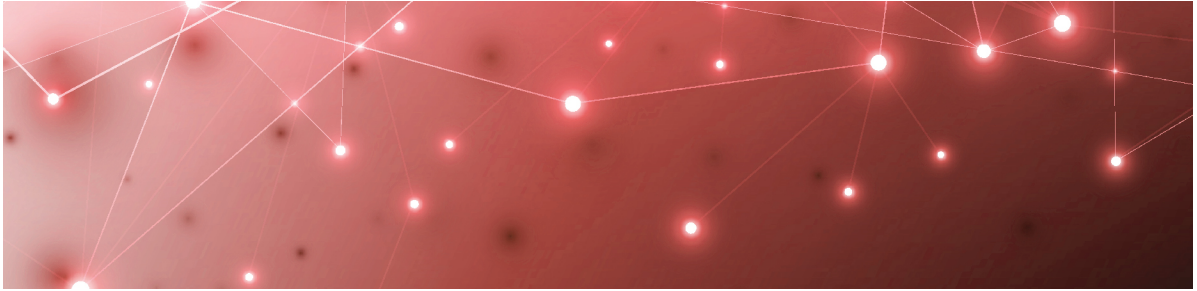
Installation and Upgrade Planning

The following sections provide information about the requirements that your system must meet before you can install or upgrade Savision iQ.

Server Requirements

You can install Savision iQ on a Windows Server 2012 (or higher) running IIS 8.0 (or higher). We recommend that you use the latest available version of Windows Server. The server must be a member of an Active Directory domain, and Savision iQ must be installed by a Domain user with local Admin rights.

We recommend that you install Savision iQ on its own server. The following table lists the minimum requirements and recommendations for the server.

Table 1: Server Requirements and Recommendations

Component	Minimum Requirement	Recommended
Processor	1.4 GHz 2 cores	2 GHz or faster 4 cores
Memory	8 GB RAM; assign 4 GB to Elasticsearch	16 GB or greater, but not greater than 64 GB; assign 8 GB to Elasticsearch
Available Server Disk Space (Program Files Directory)	2 GB per integration	10 GB or greater per integration
Available SQL Server Disk Space	20 MB	100 MB
.NET Framework	4.6.2 or higher	4.6.2 or higher

IIS Roles and Features

The Savision iQ installer can add the roles and features needed for Savision iQ to function properly.

If you want to install the roles and features manually, add the roles and features listed in the table below to your Windows Server:

Table 2: Server Requirements and Recommendations

Web Server Components	Type
Roles	
Common	Default Document Static Content
Health and Diagnostics	HTTP Logging. Optional, but recommended for troubleshooting.
Security	Request Filtering Windows Authentication

Web Server Components	Type
Application Development	.NET Extensibility 4.5
	NET 4.5
	ISAPI Extensions
	ISAPI Filters
	WebSocket Protocol. Optional, but recommended.
Management Tools	IIS Management Console. We recommend that you install this on all IIS servers so you can manage them from a centralized Microsoft Management Console (MMC).
Features	
.NET Framework 4.6 Features	.NET Framework 4.6
	NET 4.5
	WCF Services:
	• HTTP Activation

In addition, ensure that you enable the following:

- Automatic start-up for the Windows Process Activation (WAS).
- World Wide Web Publishing (W3SVC) services.

> **Note:** Savision iQ is installed as a new website with a self-signed certificate running on port 59212. You can change the port using the IIS Management Console under the bindings for the Savision iQ website.

Java

Savision iQ uses Elasticsearch to store the majority of its data. This allows it to retrieve information quickly. Elasticsearch requires Java JRE V8 (at least u131 or higher), Java JDK version 11, or Java JDK version 12.

We recommend that you use Amazon Corretto, a no-cost, production-ready distribution of the OpenJDK supported by Amazon. Amazon Corretto 11 is available at the following link:

https://docs.aws.amazon.com/corretto/latest/corretto-11-ug/downloads-list.html

Alternatively, you can download and install Oracle Java SE from the following link:

https://www.oracle.com/technetwork/java/javase/downloads/index.html

Please note that you may need a commercial license from Oracle to use Oracle Java SE.

> **Note:** After you install a valid version of Java, ensure that the environment variable "JAVA_HOME" is correctly set.

SQL Database

Savision iQ stores configuration information in a SQL database. We recommend that you use SQL Server 2012 or higher. The server can be a locally running instance or an instance running in a cluster. Savision iQ is also compatible with SQL Express.

If you are evaluating the software or wish to use SQL Express, you can download it using the following link: https://www.microsoft.com/en-us/download/details.aspx?id=55994.

During the installation, you are prompted to enter the SQL instance and user credentials that have permission to create a database. This same user account is used as the app pool account for Savision iQ. After the installation is complete, you can adjust the account to a lower privilege level, as long as the account continues to have read/write permissions to the Savision iQ database.

> **Note:** Savision iQ requires the collation of your SQL instance to be case insensitive.

Elasticsearch

Savision iQ release 2.6 and higher requires Elasticsearch version 6.8. If it is not already installed, a single-node deployment of Elasticsearch is installed with Savision iQ. This single-node deployment is suitable for evaluations and small deployments; however, you may wish or need to move to a larger Elasticsearch environment. For guidelines about sizing please refer to the following link:

https://www.elastic.co/guide/en/elasticsearch/guide/current/hardware.html

Active Directory

By default, Savision iQ queries the Global Catalog for available domain controllers and works with users and groups from all the domains in the forest.

To allow a user to target a specific Active Directory domain controller, you must edit the `Web.config` file. Add the following lines to the <appSettings> section:

```
<add key="ad.dc" value="" />
<add key="ad.user" value="" />
```

```
<add key="ad.password" value="" />
<add key="ad.domains" value="*" />

<add key="ad.scan_trusted_domains" value="false" />

<add key="ad.ignore_token_groups" value="true" />
```

If you use default values, the application reverts to the current Active Directory Forest settings.

```
<add key="ad.dc" value="<empty or Domain Controller>" />
<add key="ad.domains" value="<* or domains to query, separated by comma>" />
```

The parameter `scan_trusted_domains` tells Savision iQ to look for trusted domains in AD and is by default set to false.

The parameter `ignore_token_groups` tells Savision iQ to ignore retrieving AD User groups by token groups. It is true by default.

These two parameters can make Savision iQ slow if they are enabled.

Firewall Access

By default, Savision iQ is installed as a website running under port 59212. You can change the port number if you wish.

Each integration has its own requirements for access. Your firewall rules for outbound traffic must allow Savision iQ to communicate with the integrated system.

The following table lists the ports used by each monitoring system or ITSM that integrates with Savision iQ. Some systems allow you to customize the port.

Table 3: Ports Required by Integrated Systems

Monitoring System Or ITSM	Port
Amazon Web Services (AWS)	80 and 443
AppDynamics	443
CA APM	8081
Cherwell	80 or 443
Cisco Prime	80 or 443
Derdack Enterprise Alert	80 (default) configurable by the Savision iQ administrator using the following format: <server>:<port>

Monitoring System Or ITSM	Port
Ivanti Service Management (Powered by HEAT)	Service Management: 443 Cloud instance: 443 On-Premises: 80 or 443
Jira Software	443 (Default)
Microsoft Azure	443
Microsoft Office 365	443
Nagios Core and XI	443 or configured in the URL
PowerShell	No ports are needed. The PowerShell integration runs on the Savision iQ web server or on the Windows Server that a Savision iQ Remote Agent is running on.
PRTG	Customizable port
ServiceNow	443
SolarWinds	17778
Splunk	8000 and 8089
System Center Operations Manager	5724
TopDesk	443
VMware vCenter	443
WhatsUp Gold	1433 (Default SQL server port)
Zabbix	80 (Default)

Supported Upgrade Paths

You can upgrade to Savision iQ 2.9.3 from Release 2.6.1.

If your currently installed version is Release 2.5.x, you must upgrade to Release 2.6.1 before upgrading to Release 2.9.3. Please contact itops-support@martellotech.com for more information.
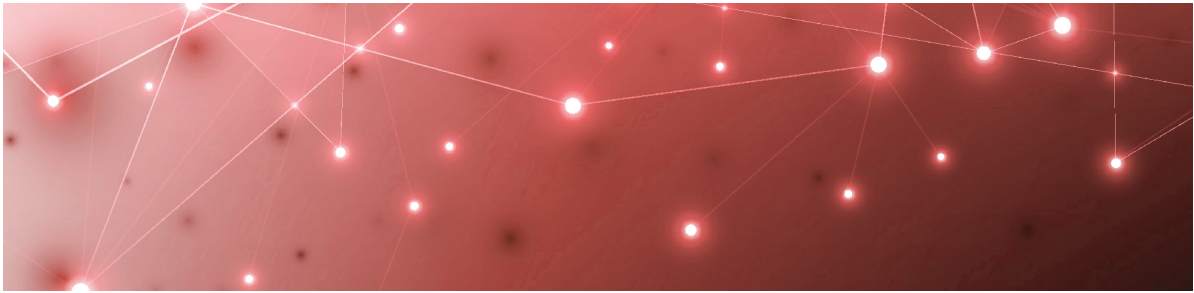
Install or Upgrade Savision iQ

Use the procedures in this section to install or upgrade Savision iQ.

Before you Begin

- Ensure that your system meets all the prerequisites listed in "Installation and Upgrade Planning" on page 12.
- Download the installation package from our website at: https://www.martellotech.com/downloads

The installation package contains the following installers:

- Savision iQ-2.9.3.exe
- Savision iQ Agent-2.9.3.exe
- Elasticsearch-6.8.1.exe—This file is included in the installation package but is not required if you are upgrading from Release 2.6.2 or higher.

After you download the installation package, complete the following tasks:

Task	Description
Choose one of the following options: - "Install Savision iQ" on page 18 - "Upgrade Savision iQ" on page 20	Install a new instance of Savision iQ, or upgrade an existing instance.
"Install Remote Agents" on page 21	Optional. Install a remote agent only if the source system is not accessible from the Savision iQ web server.
"Add a License Key" on page 22	Activate the license.

Install Savision iQ

Use the following procedure to install Savision iQ. You must be a domain administrator with local administration privileges to complete this procedure.

Before you Begin

Savision iQ needs to access information that is stored on the SQL server. You can use a full SQL server, or you can use SQL Server Express. Before you begin, ensure that you have the server instance and the credentials for the SQL server that is used to store this metadata.

- For an SQL server, the default instance name is `<SQL Server host name or IP Address>`. The non-default instance name is `<SQL Server host name or IP Address>\<instance name>`.
- For SQL Server Express, the default instance name is `<SQL Server host name or IP Address>\SQLExpress`. The non-default instance name is `<SQL Server host name or IP Address>\<instance name>`.

If you do not have a full SQL server, the Savision iQ installer provides a link to SQL Server Express. If you are using this option, ensure that you record the connection string that SQL Express generates; you will need this connection string during the installation process. The connection string uses the following format: `<machine_name>\SQLExpress`. Ensure that Windows updates are installed and there are no pending reboots.

1. Right-click the `Savision iQ-2.9.3.exe` file and select **Run As Administrator**.
2. Click **Next** at the welcome screen.
3. Click on **I accept the agreement** and then click **Next**.
4. On the **Connect to SQL Server** page, enter the SQL server instance as well as the credentials of a user that has rights to create the database.

> **Note:** If you do not have a SQL Server, you can click on **Install SQL Server Express** to install the express version of SQL Server. This option is useful if you have a small environment or would like to use Savision iQ for demonstration or evaluation purposes. When you choose this option, you can de-select the following features: SQL Server Replication and SQL Client Connectivity SDK.

5. Click **Verify**. When the credentials are verified, click **Next**.
6. Select the destination where you want to install Savision iQ and click **Next**.
7. Optional. Click on **Create a desktop shortcut** and click **Next**.
8. If Elasticsearch is not already installed on this server, the Elasticsearch installer launches. When the Welcome to the Elasticsearch Setup Wizard displays, click **Next** .
9. Click **I accept the agreement** and click **Next**.
10. Select the destination where you want to install Elasticsearch and click **Next**.
11. When the Elasticsearch installation is complete, click **Finish**.
    Savision iQ continues its installation. It verifies the IIS Roles and Features and adds any requirements that are missing.
12. When the installation is complete, click **Finish**.

Savision iQ launches.

Next Steps

To complete the installation, perform the following procedures:

- Optional. Perform the procedure "Install Remote Agents" on page 21 only if the source system is not accessible from the Savision iQ web server.
- To activate the installation, perform the procedure "Add a License Key" on page 22

Upgrade Savision iQ

Use the information in this section to perform the following tasks:

- "Understand the Upgrade Process" on page 20
- "Upgrade the Software" on page 20

Understand the Upgrade Process

The Savision iQ installer supports an in-place upgrade. If you made manual changes to the `web.config` file, those changes are preserved during an in-place upgrade. If you choose to uninstall and reinstall the software, instead of performing an in-place upgrade, any manual changes that you made in the `web.config` file are lost when you install the new version. In addition, uninstalling and reinstalling the software will not remove any data from the SQL server and Elasticsearch data stores.

This release of Savision iQ requires Elasticsearch version 6.8. The Savision iQ installer package contains an installer for Elasticsearch that upgrades an Elasticsearch node from 5.6. or 6.5 to 6.8. If Elasticsearch is installed on the same machine as Savision iQ, the Savision iQ installer executes the Elasticsearch installer automatically. In the case of an Elasticsearch cluster, you must execute the Elasticsearch installer on all Elasticsearch nodes before you install Savision iQ.

If you are upgrading from release 2.5.x to 2.9.3, Savision iQ reindexes all savisioniq_* indices in Elasticsearch after the installation. This process can take several hours. During that time, the indices being processed are not accessible and no data from those indices is visible in Savision iQ.

Upgrade the Software

Use the following procedure to upgrade Savision iQ.

Before you Begin

- Backup any PowerShell scripts from the PSScripts folder.
- Stop the app pool. The app pool automatically restarts after the upgrade is complete.
- View the current binding information on the Savision iQ website, making note of ports, SSL certificates, and host name information. You may need to restore some of these settings after the upgrade.

1. Right-click the `Savision iQ-2.9.3.exe` file and select **Run As Administrator**.
2. Click **Next** at the welcome screen.
3. Click on **I accept the agreement** and then click **Next**.
4. On the **Connect to SQL Server** page, enter the SQL server instance as well as the credentials of a user that has rights to create the database. You must enter the same SQL Server instance that you entered in the initial installation of Savision iQ.

> **Note:** If you do not have a SQL Server, you can click on **Install SQL Server Express** to install the express version of SQL Server. This option is useful if you have a small environment or would like to use Savision iQ for demonstration or evaluation purposes.

5. Click **Verify**. When the credentials are verified, click **Next**.
6. Select the destination where you want to install Savision iQ and click **Next**.
7. Optional. Click on **Create a desktop shortcut** and click **Next**.
    Savision iQ continues its installation. It verifies the IIS Roles and Features and adds any requirements that are missing.
8. When the installation is complete, click **Finish**.
    Savision iQ launches.

Next Steps

To complete the upgrade, perform the following procedures:

- Optional. Perform the procedure "Install Remote Agents" on page 21 only if the source system is not accessible from the Savision iQ web server.
- To activate the installation, perform the procedure "Add a License Key" on page 22

Install Remote Agents

When you install Savision iQ, it will install an agent locally on the server. For most installations the local agent is all that is needed. In some cases, you may need to install a remote agent to access certain systems you want Savision iQ to integrate with. For example, you need to install a remote agent when the source system is not accessible from the Savision iQ web server.

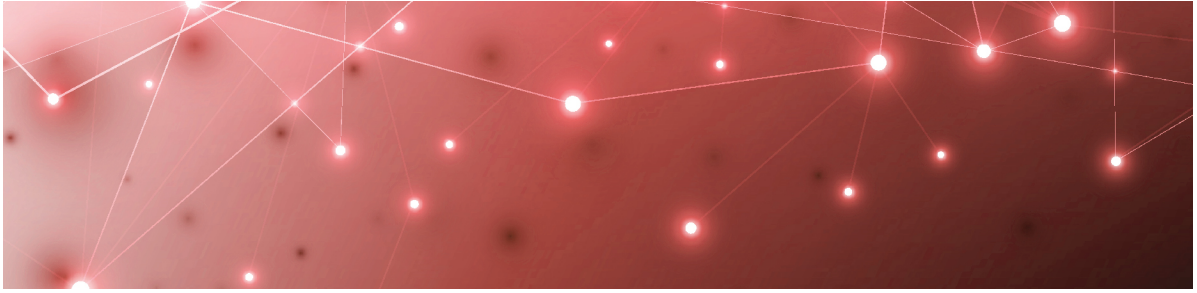The remote agent installs as a Windows service.

1. From the remote computer, open your browser and log into Savision iQ.
2. From the main menu, select **Settings >Agents**.
3. Click the **Download Agent** icon in the bottom corner of the page.
    The AgentInstaller.zip file downloads.
4. Extract the files.
    There are two files: `Savision iQ Agent-2.9.3.exe` and `Setup.cmd`.

5. Choose one of the following options:
   - Double-click the `Setup.cmd` to launch the installer with the Savision iQ web server URL pre-populated.
   - Right-click on `Savision iQ Agent-2.9.3.exe` and select **Run As Administrator**.
6. Click **Next** on the welcome screen.
7. Select **I accept the agreement** and click **Next**.
8. Enter the URL of the Savision iQ web server, as well as your Savision iQ Administrator credentials; click **Verify**.
9. Enter the destination where you want to install the agent and click **Next**.
10. Click **Finish** when the installation is complete.
    After a few moments, the remote agent is listed as an available agent in Savision iQ.

Add a License Key

After you purchase a license, the support team sends you an email with the license key attached in a text file. Use this procedure to activate the license.

1. From the main menu, select **Settings**.
2. Click the **Licensing** tab.
3. Click the **Add License** button.
4. Paste your license key in the dialog box and click **Activate**.

Contact

For additional information, please visit our support page at https://support.martellotech.com, or email our IT-Ops Support Team at itops-support@martellotech.com.