Symphia NowForce

Customer-Furnished Equipment (CFE) Guide

For version 6.2 and higher

Contents

Preface

Intellicene NowForce's advanced dispatch and response technology enables the integration of critical data in real-time, to provide comprehensive situational awareness. The NowForce system allows dispatchers, responders and third-party resources to share insights in real time for better understanding and faster response to potential threats and active incidents. Utilizing live and historical event data, coupled with GISmaps, responder positions, reporter inputs, and other external source information, security teams can dispatch the closest, best equipped and most appropriate personnel.

- **Dispatch Features**

  Optimizes situational awareness, minimize incident response times and integrate robust communications.

- **Reporting Features**

  Creates a direct lifeline to your control center to ensure the safety and security of your assigned population.

- **Response Features**

  Enables rapid and accurate response with full situational awareness and interactive communications.

The NowForce Customer Furnished Equipment Guide, provides the recommended hardware and software required to deploy a NowForce environment.

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About this Guide

The *Customer Furnished Equipment Guide* provides hardware and software specifications for NowForce servers. This document is intended to guide customers who will be furnishing their own server hardware platforms for a NowForce deployment.

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Documentation and Firmware

- Download documentation and articles from the [NowForce Help Center](#).

- Send your questions or comments on the current document, or any other Verint user documentation, to our documentation feedback team at documentationfeedback@intellicene.com

Contacting Intellicene Sales and Marketing

About Intellicene

Intellicene's Situational Intelligence Solutions helps enterprises and governments manage complex security operations, fuse information from various sources, analyze vast amounts of data, and gain insight for better incident management, response and investigations. With our solutions, organizations can see what's happening across their operations, make quick and confident decisions for decisive actions. Powered by our Symphia portfolio of solutions, we help our customers orchestrate better outcomes to protect what matters most.

To schedule an online demo today, contact us on:

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Summary of Changes

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This section details updates made to the document.

February 2024

- Updated the mobile specifications in "Mobile Requirements" (page 19)

January 2024

- Updated the table in "Required Hosts in NowForce Server and Dispatcher" (page 27).

Introduction

When furnishing your own workstation and server hardware platforms for a Symphia NowForce deployment, you must purchase hardware with matching or higher specifications as set out in the sections below.

- "Basic Requirements" (page 11)
- "NowForce Workstations" (page 14)
- " Microsoft IIS Web Server Requirements" (page 17)
- "Microsoft SQL Database Server Requirements" (page 17)
- "MongoDB Server Requirements" (page 18)
- "Mobile Requirements" (page 19)

Moreover, you must also obtain an adequate number of licenses for Microsoft software, see "Third-Party Software Licenses" (page 21) and a Google Maps Platform license for the mapping engine, see "Mapping Licenses" (page 22).

> **Note**
> You can use systems that Intellicene has not certified, as long as the specifications adhere to the NowForce minimum and recommended requirements, as described in this guide.

Basic Requirements

Having the correct equipment on hand helps ensure a successful NowForce deployment. Each NowForce platform is comprised of the following platform components:

1. Hardware - Customer-furnished hardware.

   - Operating system - Depending upon your NowForce deployment and NowForce software.

     > **Note**
     > Supported Service Pack levels must be installed on the operating system prior to installing any NowForce components.

2. Drivers - Additional drivers not included with the operating system.

3. Third-party software - Additional third-party applications that are not included with the operating system or with the NowForce installation package, such as network monitoring tools. See "Mapping Licenses" (page 22).

   > **Note**
   > Customers must supply their own Google Map Platform License for the mapping engine.

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Anti-Virus Guidelines

It is the customer's responsibility to install and update the anti-virus software on network servers and other technology-related assets, including Symphia products. The anti-virus software can be installed after installing NowForce.

Anti-virus protection can involve changes to network servers and other technology-related assets, including operating systems. It is the customer's responsibility to update operating systems, service packages, and hotfixes.

The customer is also responsible for updating virus definition files in order to maintain the effectiveness of the anti-virus solution. Customers who are not prepared to perform this work should retain the services of a Microsoft-certified provider or other qualified third-party.

Real-time detection is recommended. Scheduling a system scan may produce unexpected results, such as server slow down.

> **Note**
> Before you start the installation or upgrade process you must disable any anti-virus applications. Some anti-virus applications can cause the installation to fail or stall.
>
> Additionally it is recommended that you:
>
> - Disable screen savers.
> - Turn off power savers.

Redundancy Solution Guidelines

If you wish to add downtime protection to the solution as part of your business operation objective, you can implement a high-availability redundancy solution for Symphia NowForce, as follows:

- You can implement a high-availability redundancy solution for Symphia NowForce using VMware vSphere 7 Enterprise solution. For more information about using VMware 7.0, refer to the VMware website.

- You can implement a disaster recovery solution using third-party software. You must consider the Recovery Time Objective (RTO) and Recovery Point Objective (RPO) required before implementing a solution.

The server specifications given in the Symphia NowForceCustomer Furnished Equipment Guide are without failover support. An additional configuration with failover support can be implemented with the same specifications.

It is the customer's responsibility to configure and maintain the high-availability and disaster recovery software by following best practices and guidelines.

It is the customer's responsibility to install and update the high-availability and disaster recovery software on network servers and other technology related assets, including Symphia products. The high-availability and disaster recovery software can be installed after installing NowForce. Customers can consult and leverage recommendations from an IT service provider experienced in redundancy design.

NowForce Workstations

NowForce workstations host NowForce Dispatcher's client application:

- NowForce Dispatcher is used to configure the NowForce system and the NowForce Mobile Application system
- NowForce Dispatcher is used to manage all operator functions.
- NowForce Dispatcher is a web based application. It is recommended to run the application on Chrome web browser.

> **Note**
> It is the customer's responsibility to ensure that customer-furnished equipment meets the minimum specifications and requirements listed for each workstation component.

Workstation Requirements

This section details the minimum recommended system specifications for a NowForce workstation.

Component	Specifications
Processor	1 x Intel Core i3 - 12100T, 4C/8T, 12MB Cache, 2.2GHz to 4.1GHz On-board graphics card Intel UHD Graphics 730
Memory	8GB (2x4GB) DDR4
Hard Disk	1 x 256GB, SSD
Network Card	1 x GbE
Operating System	Windows 10 Professional/Enterprise, 64-bit
Web Browser	Chrome updated to latest version

> **Note**
> In the event that your NowForce Workstation will also be required to run Symphia VMS and/or Symphia Control you must refer to the *Symphia VMS CFE* and/or *Symphia Control CFE* for the recommended specifications.

NowForce Servers

Symphia NowForce servers host the following NowForce applications:

- 1 X NowForce IIS Web Server as part of a resilient solution; see " Microsoft IIS Web Server Requirements" (page 17)

- 1 X NowForce SQL Database Server as part of a resilient solution; see "Microsoft SQL Database Server Requirements" (page 17)

- 1 X NowForce Linux Server as part of a resilient solution; see "MongoDB Server Requirements" (page 18)

Note
It is the customer's responsibility to ensure that customer-furnished equipment meets the minimum specifications and requirements listed for each server component.

Server Configuration

Intellicene NowForce supports large-scale deployments comprising up to:

- 75 concurrent dispatchers
- 8000 concurrent active responders
- 1000 concurrent active incidents

Server configuration for Symphia NowForce consists of:

- 1 X Microsoft IIS Web Server
- 1 X Microsoft SQL Database Server
- 1 X Linux Ubuntu Server

> **Note**
> It is the customer's responsibility to ensure that customer-furnished equipment meets the minimum specifications and requirements listed for each server component.
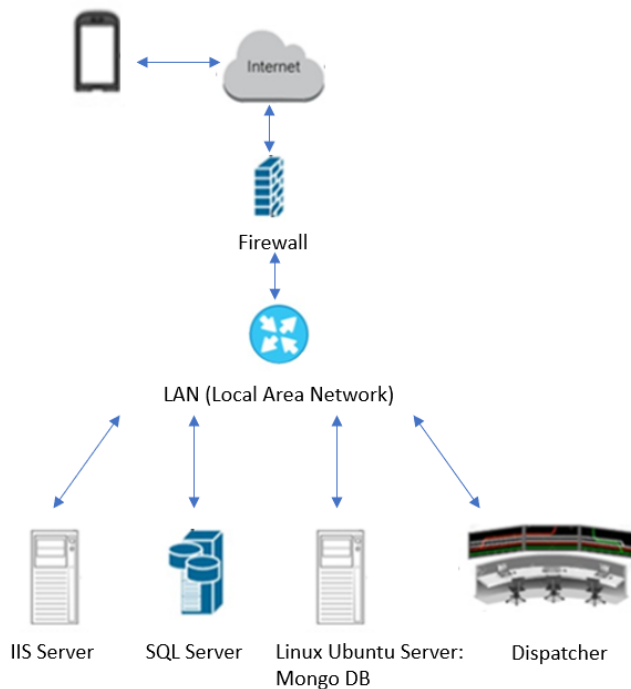
Microsoft IIS Web Server Requirements

Description	Recommended Specifications
Processor	1 x Intel Xeon E-2388G, 3.2GHz, 16M Cache, 8C/16T
Memory	16GB (2 x 8GB) DDR4
Hard Disk	2 x 256GB, SSD in RAID1
Partitions	• C - 100GB for OS • D - 100GB for Application
Network Card	1GbE Dual Port
Software	Microsoft Windows Server 2019 Standard

Microsoft SQL Database Server Requirements

Description	Recommended Specifications
Processor	1 x Intel Xeon E-2374G, 3.7GHz, 8M Cache, 4C/8T
Memory	32GB (2 x 16GB) DDR4
Hard Disk	2 x 1.92TB, SSD in RAID1
Partitions	• C - 100GB for OS • D - 500GB for Database Data • E - 300GB for Database Logs • F - 100GB for Temp DB • G - 700GB for Database Backups • H - 100GB for System DB
Network Card	1GbE Dual Port
Software	• Microsoft Windows Server 2019 Standard • Microsoft SQL Server Standard 2019 Note Per Core licensing is required.

MongoDB Server Requirements

Description	Recommended Specifications
Processor	1 x Intel Xeon E-2388G, 3.2GHz, 16M Cache, 8C/16T
Memory	32GB (2 x 16GB) DDR4
Hard Disk	2 x 480GB, SSD in RAID1
Volumes	• Volume 1 - 100GB for OS • Volume 2 - 300GB for Application and Data
Network Card	1GbE Dual Port
Software	• Linux Ubuntu 20.04 LTS or higher • MongoDB Community Edition version 5.0 and up

Mobile Requirements

This section provides the requirements for mobile devices using the NowForce Responder app.

The NowForce mobile application requirements are as follows.

Supported Platform Versions

- Android OS - Versions 11 and above (must support Google APIs).
- iOS - Versions 14 and above.

Additional Recommended Minimum Device Requirements

Component	Specification
Minimum resolution	320x480
Screen size	5.5 inch and above
Memory (RAM)	• Android devices - 6GB • iOS devices - 4GB **Caution** It is recommended that if the user may be using other phone applications or features that demand substantial internal memory usage to increase to 8GB RAM.
Data/Connectivity	3G or higher (SIM card with sufficient data plan)
Camera	(Recommended) Enabled for pictures and video streaming
Navigation app	(Recommended) Enable to use turn-by-turn navigation. Supported apps include Waze, Google Maps, and Apple Navigation.

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Mobile Bandwidth Consumption

An Android device using the Responder application results in the following consumption:

Component	Consumption
Sending Location using GPS	2.3 MB / 1 hour
Streaming live video and audio **Note** Streaming a static view requires less bandwidth than streaming an active scene.	5 - 10 MB / 5 min
Receiving and responding to 10 incidents, including sending status reports	4 MB / 10 incidents
Sending photos in the Incident Form	1 MB for 4 photos

Note
The above figures are based on lab and live testing. Results vary based on device type, camera resolution, and other factors.

Third-Party Software Licenses

Customers must buy the following licenses:

- MongoDB Enterprise On Premise version 5.0 and up

- Microsoft Windows operating systems

- Microsoft SQL Server Standard

SQL Server Standard per Core License

The Per Core licensing model requires licenses to be purchased for each physical core on the Microsoft SQL Server machine. Therefore, if you decide to use the Per Core model for the Symphia NowForce Database Server, you will need to count the total number of physical cores in the server hosting the database.

The Per Core model allows access for an unlimited number of clients, such as servers and workstations, to the SQL Server software without requiring client access licenses (CALs). Core licenses are sold in packs of 2, so, for instance, if your SQL Server machine has 8 Cores, you would buy 4 core license packs.

> **Note**
> The above information is provided solely as a service for the convenience of Intellicene's customers and is based on the Microsoft SQL Server Licensing Guide. Intellicene has no control over Microsoft's licenses and their included terms, which may change from time-to-time. Customers are required to search for the latest Microsoft SQL Server Licensing Guide to verify the information. Intellicene takes no responsibility for the timeliness, accuracy, completeness or quality of the information provided herein. In no event will Intellicene be liable for cost and/or damages of any kind incurred or suffered as a result of the use, non-use or reliance upon the information presented in this document.

Mapping Licenses

All customers, regardless of scale of their deployment , must also buy the following license:

• Google Maps Platform License for the mapping Engine.

> **Note**
> The customer is required as a prerequisite to provide a Google Maps Platform License for the mapping Engine.

Virtual Machine Requirements

Symphia NowForce is certified with VMware version 6.7 U3.

This section presents the requirements for the virtual resources for Symphia NowForce virtual machines.

Server Configurations

The table below assumes that each of the physical servers complies to the minimum hardware specifications for the VMware Host presented in this document for that server. Your configuration should be the same as or better than the ones below.

Virtual Server	vCPU	Memory (GB)	Disk Capacity (GB)	Network
Web Server	8	16	200	1 Gigabit (VMXNET3 Network Adaptor)
SQL Server	4	32	1800	1 Gigabit (VMXNET3 Network Adaptor)
Mongo Server	8	32	400	1 Gigabit (VMXNET3 Network Adaptor)

Note
- vCPU numbers may vary according to physical core frequency and minimum required is 2.5GHz.
- Physical storage must be SSD with dedicated data stores and resource allocations.
- It is highly recommended to create a virtual disk (vmdk) for each partition/volume.
- Partitions/volumes should be the same as listed above for physical servers.

Port Usage in NowForce

For NowForce system components to function behind a firewall, you must open designated ports on the Windows server firewall and on any external firewall. Consider which applications are used on each workstation, and open the relevant ports.

> **Note**
> The network and communication between internal servers must be open on all ports.

Ports in NowForce Server

Required and optional ports used on the SymphiaNowForce server are listed in the following table.

Port	Protocol	Source	Destination	Use
443	HTTPS, TCP, and WebSockets	NowForce Web Server IP address and Dispatcher workstation	apiv3.voicelayer.io *.opentok.com *.tokbox.com *.googleapis.com	(Required) Enables outbound communication for use of PTT, video streaming, and location updates.
443	HTTPS, TCP, and WebSockets	All IP addresses Set the IP range to 0.0.0.0/0.	NowForce Web Server IP address	(Required) Enables inbound communication for app users, dispatchers, and integration systems secure access to the NowForce API.
5228, 5229, and 5230	TCP	NowForce Web Server IP address	fcm.googleapis.com *.firebaseio.com	(Optional best practice) Enables outbound communication for sending push notifications to NowForce app users, using Firebase, a Google Push Notification Service. If this port is not used, there is a fallback that is used.
4200	HTTPS, TCP, and WebSockets	All IP addresses Set the IP range to 0.0.0.0/0.	NowForce Web Server IP address and Dispatcher workstation	(Required) Enables inbound secure connection for chat between the mobile app and the dispatcher. **Note** The port number is defined in the API configuration and can be changed.
4200	HTTPS, TCP, and WebSockets	NowForce Web Server IP address	All IP addresses Set the IP range to 0.0.0.0/0.	(Required) Enables outbound secure connection for chat between the mobile app and

Port	Protocol	Source	Destination	Use
		and Dispatcher workstation		the dispatcher. Note The port number is defined in the API configuration and can be changed.

Ports in NowForce Dispatcher

Required and recommended ports used for Dispatcher are listed in the following table.

Port	Protocol	Source	Destination	Use
443	HTTPS, TCP, and WebSockets	NowForce Web Server IP address and Dispatcher workstation	apiv3.voicelayer.io *.opentok.com *.tokbox.com *.googleapis.com	(Required) Enables outbound communication for use of PTT, video streaming, and location updates.
4200	HTTPS, TCP, and WebSockets	All IP addresses Set the IP range to 0.0.0.0/0.	NowForce Web Server IP address and Dispatcher workstation	(Required) Enables inbound secure connection for chat between the mobile app and the dispatcher. Note The port number is defined in the API configuration and can be changed.
4200	HTTPS, TCP, and WebSockets	NowForce Web Server IP address and Dispatcher workstation	All IP addresses Set the IP range to 0.0.0.0/0.	(Required) Enables outbound secure connection for chat between the mobile app and the dispatcher. Note The port number is defined in the API configuration and can be changed.
3478	UDP	*.opentok.com *.tokbox.com	NowForce Web Server IP address	(Recommended) Enables inbound communication so the

Port	Protocol	Source	Destination	Use
				client can accept incoming video streaming. Using this port enhances video streaming.

Required Hosts in NowForce Server and Dispatcher

In the event that your company security policy does not allow opening ports to all hosts, enable traffic on port 443 for all of the following hosts.

Host	Protocol	Inbound/ Outbound	Use
*.nowforce.com	TCP + WebSockets	Inbound / Outbound	Connection to the server's web application for Dispatchers and Mobile App
maxcdn.bootstrapcdn.com	TCP	Inbound	Required resources
*.opentok.com	TCP	Inbound	Video Streaming
*.tokbox.com	TCP	Inbound	Video Streaming
*.gstatic.com	TCP	Inbound	Google Maps GIS service
*.googleapis.com	TCP	Inbound	Google Maps GIS service
*.salesiq.zohopublic.com	TCP	Outbound	Zoho Customer Support Widget
*.zohocdn.com	TCP	Outbound	Zoho Customer Support Widget
*.zohostatic.com	TCP	Outbound	Zoho Customer Support Widget
salesiq.zoho.com	TCP	Outbound	Zoho Customer Support Widget
wss://vts.zohopublic.com	TCP +	Outbound	Zoho Customer

Host	Protocol	Inbound/ Outbound	Use
	Websockets		Support Widget
*.voicelayer.io	TCP	Inbound and Outbound	The Push To Talk VOIP provider used by the NowForce app

Required Outbound Hosts in Mobile Devices

Some mobile operators provide specific data plans requiring an allowlist. Enable outbound traffic on port TCP 443 for all of the following hosts.

Host	Usage
*.googleapis.com	Enables Google Maps GIS Service
*.applanga.com	Enables UI localization (Required for languages other than English)
*.opentok.com	Enables Video Streaming
*.tokbox.com	Enables Video Streaming
*.nowforce.com or . [white_label_URL]	Enables connection to the server's web application for Dispatchers and Mobile App. If a white-labeled application is used instead of the NowForce application - make sure to list the dedicated white-labeled URL.
Navigation applications	If users would like to use a turn-by-turn navigation app, enable the app and its data elements, for example, Waze, Google Maps, or Apple Maps.
*.firebaseio.com	Enables you to send push notifications to NowForce app users, using Firebase, a Google Push Notification Service.
*.voicelayer.io	Enables the Push To Talk VOIP provider used by the NowForce app.
*.widebridgecloud.com	Enables the Push To Talk VOIP provider used by the NowForce app from versions 6.2 and later.