



# Infor Advanced Planning Hardware and Software Recommendations Guide

version 11.1

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# About this guide

This document describes the technology utilized within Infor Supply Chain Planning (SCP) and the recommended hardware and software configuration for Advanced Planning. Use this document as a guide for budgeting estimates. Do not use this guide to replace a detailed sizing exercise provided at the beginning of the implementation.

## Intended audience

IT professionals and system administrators responsible for the hardware and software that is required to use Infor Advanced Planning.

## Related documents

You can find the documents in the product documentation section of the Infor Xtreme Support portal, at <http://www.infor.com/inforxtreme>.

- *Infor BI Hardware Recommendations Guide*
- *Infor BI Platform Support Guide*
- *Infor ION Installation Guide*
- *Infor Ming.le Installation and Configuration Guide for Active Directory Federation Services*
- *Infor Ming.le Installation and Configuration Guide for Active Directory*
- *Scheduling System Administration Guide*

## Other related information

For more detailed information see:

- Oracle products: [www.oracle.com](http://www.oracle.com)
- Microsoft products: [www.microsoft.com](http://www.microsoft.com)
- Citrix products: [www.citrix.com](http://www.citrix.com)
- VMware products: [www.vmware.com](http://www.vmware.com)

## Disclaimer

Hardware specifications provided in this document are intended as a guideline for budgeting purposes only. Infor strongly recommends that customers work directly with Infor Consulting Services (ICS) which will provide a more detailed and accurate hardware recommendation. Infor does not accept responsibility for poor performance on hardware that is not validated by ICS.

## Contacting Infor

If you have questions about Infor products, go to Infor Concierge at <https://concierge.infor.com/> and create a support incident.

If we update this document after the product release, we will post the new version on the Infor Support Portal. To access documentation, select **Search > Browse Documentation**. We recommend that you check this portal periodically for updated documentation.

If you have comments about Infor documentation, contact [documentation@infor.com](mailto:documentation@infor.com).

The Infor Supply Chain Planning solution is founded on enterprise technology platforms. The underlying technology and required platforms are provided for these solutions:

- Infor Sales & Operations Planning (S&OP)
- Infor Demand+ (D+)
- Infor Supply+ (S+)
- Infor Demand Planning (DP)
- Collaborative Demand Planner (CDP)
- Infor Advanced Planning (AP)
- Infor Advanced Scheduling (AS)
- Web Viewer for Infor Advanced Scheduling (WVAS)
- Infor Planning and Order Promising (PLN)
- Infor Scheduling (SCH)
- Supply Chain Vault (SCV)
- Integration Toolkit (ITK)





Running a production SCP solution in a virtual environment is supported by Infor. It is expected that you run the guest virtual machines and components using the supported Operating Systems defined for the specific release of the SCP solution. The SCP solution will function in a virtual environment as if running on physical native hardware. If Infor Support is unable to reproduce an issue on physical hardware and it is determined to be an issue with the virtualization environment, not the product itself, you must contact your virtualization support provider to resolve the issue.

## Virtualization sizing

With the support of virtual environments for the Infor SCP solutions it is the responsibility of the customer to work directly with the virtualization provider to ensure that the sizing of the host server hardware, versions of virtual servers, configuration, setup and raw device mappings are correct. Hardware sizing for virtualization environments is not provided by Infor due to the number of variables that can be introduced into such an environment. The customer must work closely with a virtualization provider to ensure the correct hardware sizes and configurations are selected that match the customer requirements.

Note that most of the planning apps are CPU and memory intensive. Based on experiences from other customers we recommend allocating dedicated processor, memory and disk resources to all SCP VM environments.

## Notes on certification of virtualization platforms

Infor certifies hardware and software platforms, not virtual platforms. It is the duty of the virtualization provider to certify that their software accurately mimics the hardware of an Infor supported platform.



Running a production SCP solution in a Citrix environment is supported by Infor. It is expected that the components, which are accessed through Citrix, are run on the supported Operating Systems defined for the specific release of the SCP solution. If Infor Support is unable to reproduce an issue in a non-Citrix environment and it is determined to be an issue with the Citrix environment, rather than the product itself, you must contact your Citrix support provider to resolve the issue.

## Citrix configuration

With the support of Citrix environments for the Infor SCP solutions it is the responsibility of the customer to work directly with their Citrix provider to ensure that the configuration, setup and raw device mappings are correct.

Note that some planning apps are graphically intensive. Based on experiences from other customers Infor recommends allocating bandwidth that provides a satisfactory user experience for the end user.

## Notes on certification of Citrix

Infor certifies hardware and software platforms, not Citrix. It is the duty of Citrix to certify that their software accurately mimics the behavior of an Infor supported platform.



For an efficiently performing Infor Advanced Planning 11.1, you must procure the correct system and hardware that suits your business needs. Consider hardware sizing by Infor. Incorrect values can negatively impact performance. The system recommendations provided here are designed to provide a comfortable performance level.

## Architecture

Advanced Planning is an application which is used to optimize supply chain models. It contains a modeling environment in which the user can build a model of his supply chain. Based on this model the user can write different optimization scenarios or solver macros which are solved by the Solver Engine of Advanced Planning.

## Advanced Planning

The application is highly interactive, data and computing intensive. For these reasons Advanced Planning is a workstation application. Usually there are one or two users in the organization or plant who are using Advanced Planning to plan the supply chain and use its computing capabilities to optimize the supply chain.

The data of Advanced Planning resides in the Supply Chain Vault. The various plans calculated by Advanced Planning are stored in this database. These plans can be communicated and shared with the rest of the organization, for example using Infor Sales and Operations Planning (licensed separately) or the standard reporting infrastructure that typically already exists in your environment.

## Model Sizing

Advanced Planning is a workstation application. The workstation configuration depends on the size and complexity of the planning model.

The model size for Advanced Planning depends upon both scale and complexity. To determine the size of a specific model we recommend to discuss with an Infor consultant, the answers to the questions about the model scale and model complexity.

### Model scale

What is the Advanced Planning model scope? What type of planning problem is to be resolved? MRP, MPS, DRP, etc.

How many resources? A resource could be a product, location, BOM, BOM line item, warehouse, transportation lane, etc.

How many resource combinations? Examples of resource combination are product / warehouse combination; product / factory / line combination; product/ transportation lane combination.

How many planning time buckets? Days, Weeks, Months.

A site running one factory with 50 products, 200 materials, 12 months, 5 lines, 1 BOM per FG would be considered a small to standard model.

Add to this 40 warehouse, with 200 transportation lanes with 3 transportation modes and 10000 product transportation lane combinations and now you have a large model.

### Model complexity

How many unknowns in the problem does the solver must determine values for?

Is the problem continuous or discontinuous (discrete)? This has a huge bearing on the solve times.

If the problem is discrete then how many discrete variables (unknown values) are expected? For example: Number of shifts, Number of Trucks, etc.

What is the nature of the discrete unknowns? For example: Overtime OFF/ON value (Boolean), Minimum Order Quantity (Threshold), Number of Shifts (Multiple)

Is the problem one large monolith, or can it be broken up naturally into independent sub problems?

## System requirements

This table shows the system requirements for Windows 64-bit:

| Item      | Specification                           |
|-----------|---|
| Processor | x86-64 compatible processor (2-8 cores) |
| Memory    | 2-64 GB RAM2                            |

| Item             | Specification   |
|------------------|---|
| Disk             | 50-300 GB of free space   |
| Monitor          | 1280 x1024 true color or better   |
| Network          | TCP/IP Network Interface Card (100 Mbps or higher)  |
| System Type      | 64-bit Operating System   |
| Operating System | Microsoft Windows Server 2012 R2<br>Microsoft Windows Server 2016<br>Microsoft Windows Server 2019<br>Microsoft Windows 8.1<br>Microsoft Windows 10 |

**Note:** (Not applicable for Supply Planning)

Data Execution Prevention (DEP) must be disabled for this binary:

```
{AP installation
  folder}
\Resources\GNUstep\System\Tools\Resources\PhapServer\ODBCBridgeServer.
bundle\ODBCBridgeServer.exe
```

You can check and change the Data Execution Prevention settings. Select **Control panel > System > Remote settings > Advanced > Performance**. Click **Settings** and select the **Data Execution Prevention** tab. If Data Execution Prevention is enabled only for essential Windows programs and services, adding this binary to the exception list is not required.

**Note:** (Not applicable for Supply Planning)

AP is not compatible with the Chinese dictionary application Youdao. On systems where Youdao is installed and active, some of the AP modules, such as Plansheets, do not function correctly.

**Note:** We recommend that you only open data model files located on local physical hard drives. Avoid opening data files located for example, on network drives or on virtual disk drives (.VHD files). Although AP can open data files from any file system location, use of network drives or virtual drives increases the chance of I/O errors and data inconsistencies.

## Database connectivity

Not applicable for Supply Planning.

Advanced Planning supports importing data from and exporting data to SQL Server and Oracle using ODBC.

For Excel, only the data import process using ODBC is supported.

This table shows the database versions that are certified to work with Advanced Planning:

## Advanced Planning (AP)

---

| Database             | Version |
|----------------------|---------|
| Oracle               | 11.2    |
| Oracle               | 12.1    |
| Microsoft SQL Server | 2012    |
| Microsoft SQL Server | 2014    |
| Microsoft SQL Server | 2016    |
| Microsoft Excel      | 2013    |

All connections are made using 64-bit ODBC except for Microsoft Excel that uses 32-bit ODBC through ODBC Bridge. This table shows the certified 64-bit ODBC drivers to work with Advanced Planning:

| Driver                        | Version        |
|-------------------------------|----------------|
| Oracle instantclient_11_2     | 11.02.00.04    |
| Oracle in OraClient12Home1    | 12.01.00.02    |
| ODBC Driver 17 for SQL Server | 2017.173.01.01 |

This table shows the 32-bit ODBC drivers certified to work with Advanced Planning:

| Driver                 | Version         |
|------------------------|-----------------|
| Microsoft Excel Driver | 14.00.7180.5000 |

**Note:** Microsoft ODBC Excel Driver is not included in the MS Excel 2013 installation. It is included in [Microsoft Access Database Engine 2010 Redistributable](#).

You must download 32-bit or 64-bit driver version that matches your Excel version. For 32-bit Excel download and install `AccessDatabaseEngine.exe`. For 64-bit Excel download and install `AccessDatabaseEngine_x64.exe`