Microsoft Dynamics AX 2012 Licensing Guide

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Customer Edition

Microsoft Dynamics AX 2012

Using This Guide

Use this guide to improve your understanding of how to license Microsoft Dynamics AX 2012. It is not intended to guide you in choosing Microsoft Dynamics products and services. The examples presented in this guide are illustrative. Microsoft Corporation reserves the right to review and/or update the existing version without previous notice.

For help determining the right technology solution for any given organization, including the license requirements for a specific product or scenario, consult with your Microsoft Dynamics Certified Partner or your Microsoft account team.

PLEASE NOTE THIS GUIDE DOES NOT APPLY TO VOLUME LICENSING PROGRAMS.

This guide does not supersede or replace any of the legal documentation covering use rights for Microsoft products. Specific product license terms are detailed in the Software License Terms document, which is available at http://www.microsoft.com/en-us/dynamics/erp-buy-ax-software.aspx.

License Keys vs. License Entitlements

An important distinction to make is between license keys (activation keys) and license entitlements. License keys are used to activate the Microsoft Dynamics software that you have licensed. License entitlements are what you are entitled to run and use based on the licenses you have acquired. Your license entitlements are stored on the Registered Modules screen in CustomerSource.

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MICROSOFT DYNAMICS AX 2012 PRICING AND LICENSING

OVERVIEW OF MICROSOFT DYNAMICS AX 2012 PRICING AND LICENSING:

Microsoft Dynamics AX 2012 is designed to be Powerful, Agile, and Simple. Consistent with that theme, we are making it available through the familiar Microsoft Server/CAL licensing model. This licensing model provides a revolutionary, yet much simplified, way for your organization to license an ERP solution.

One of the key strengths of Microsoft Dynamics AX 2012 is its focus on individual Roles and their needs. We are connecting our Role-tailored design to a simple licensing model, empowering you to buy the licenses required to meet the needs of your individual users.
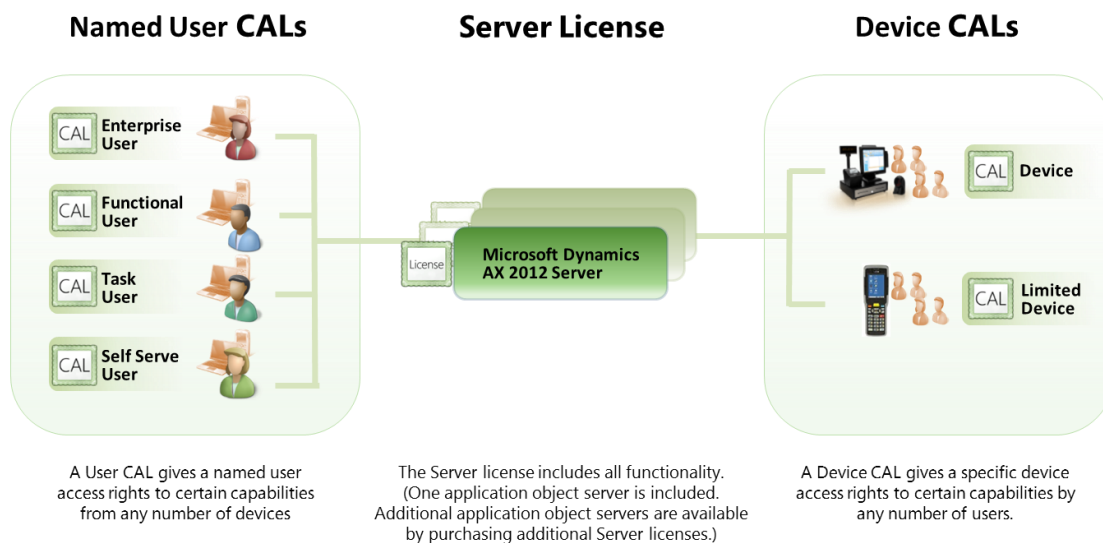
The benefits are simple and clear: It is easy to understand, buy, and pay for what your users need while providing the flexibility to grow or change with the organization as needed.

BASIC LICENSING REQUIREMENTS

All Microsoft Dynamics AX 2012 customers need to license:

- Microsoft Dynamics AX 2012 solution functionality, which is licensed through the Microsoft Dynamics AX 2012 Server license, and

- Access to the ERP solution functionality by users (and in some specific scenarios, devices) is licensed through Client Access Licenses (CALs).

Figure 1: Basic Licensing Requirements

Named User CALs

CAL Enterprise User

CAL Functional User

CAL Task User

CAL Self Serve User

A User CAL gives a named user access rights to certain capabilities from any number of devices

Server License

License

Microsoft Dynamics AX 2012 Server

The Server license includes all functionality. (One application object server is included. Additional application object servers are available by purchasing additional Server licenses.)

Device CALs

CAL Device

CAL Limited Device

A Device CAL gives a specific device access rights to certain capabilities by any number of users.

Notes:

- All functionality is included with the Microsoft Dynamics AX 2012 Server license, so you do not need to choose between functionality and budget. The Server license includes one application object server. If you want additional application object servers, you may license additional Microsoft Dynamics AX 2012 Server licenses.

- A single Microsoft Dynamics AX 2012 solution (referred to as the "ERP solution" in the Software License Terms) is a logical entity that may utilize resources from multiple servers, or processors, or files. Replicas or copies, in compliance with the Software License Terms, of the system database (in full or partial) are considered part of the "ERP solution". Please find the Software License Terms at http://www.microsoft.com/en-us/dynamics/erp-buy-ax-software.aspx

- Licenses for additional software <u>required</u> for the solution, such as Windows Server, Microsoft SQL Server, and Microsoft SharePoint Server and their client access license (corresponding to the users) are <u>not</u> included with the Microsoft Dynamics AX 2012 licenses. See <u>Licensing Additional Software</u> for more information.

- License Keys (Activation Keys) are used to activate the Microsoft Dynamics AX 2012 software, and are not to be confused with license entitlements (what you are entitled to run and use is based on the licenses you have acquired).

LICENSING MICROSOFT DYNAMICS AX 2012 SOLUTION FUNCTIONALITY

Licensing the Microsoft Dynamics AX 2012 solution functionality is simple. One Server license is required for licensing Microsoft Dynamics AX 2012 and includes all product functionality.

Because all functionality is included with the Microsoft Dynamics AX 2012 Server license, you do not need to choose between functionality and budget. The Server license includes one application object server. If you want additional application object servers, you may license additional Microsoft Dynamics AX 2012 Server licenses.

*Licenses for additional software that may be required for the solution are not included with the Microsoft Dynamics AX licenses. See <u>Licensing Additional Software</u> for more information.

LICENSING USER ACCESS TO THE MICROSOFT DYNAMICS AX 2012 SOLUTION FUNCTIONALITY

Access to the Microsoft Dynamics AX 2012 solution's functionality is licensed through Client Access Licenses (CALs). Access by individuals is licensed through User CALs.

Note: Under some scenarios, instead of licensing users, you license devices through Device CALs. See <u>Licensing Device Access to the Solution Functionality</u> for more information.

Any user who directly or indirectly accesses the Microsoft Dynamics AX 2012 solution must be licensed with a User CAL. All users are licensed on a **named user** basis. Named user licenses are specific to an individual user and cannot be shared. Note that if a user leaves the organization, the license may be reassigned to another user.

With named user licensing, you have the control and flexibility to decide on what level of investment is appropriate for each individual in the organization by choosing the right CAL for each individual.
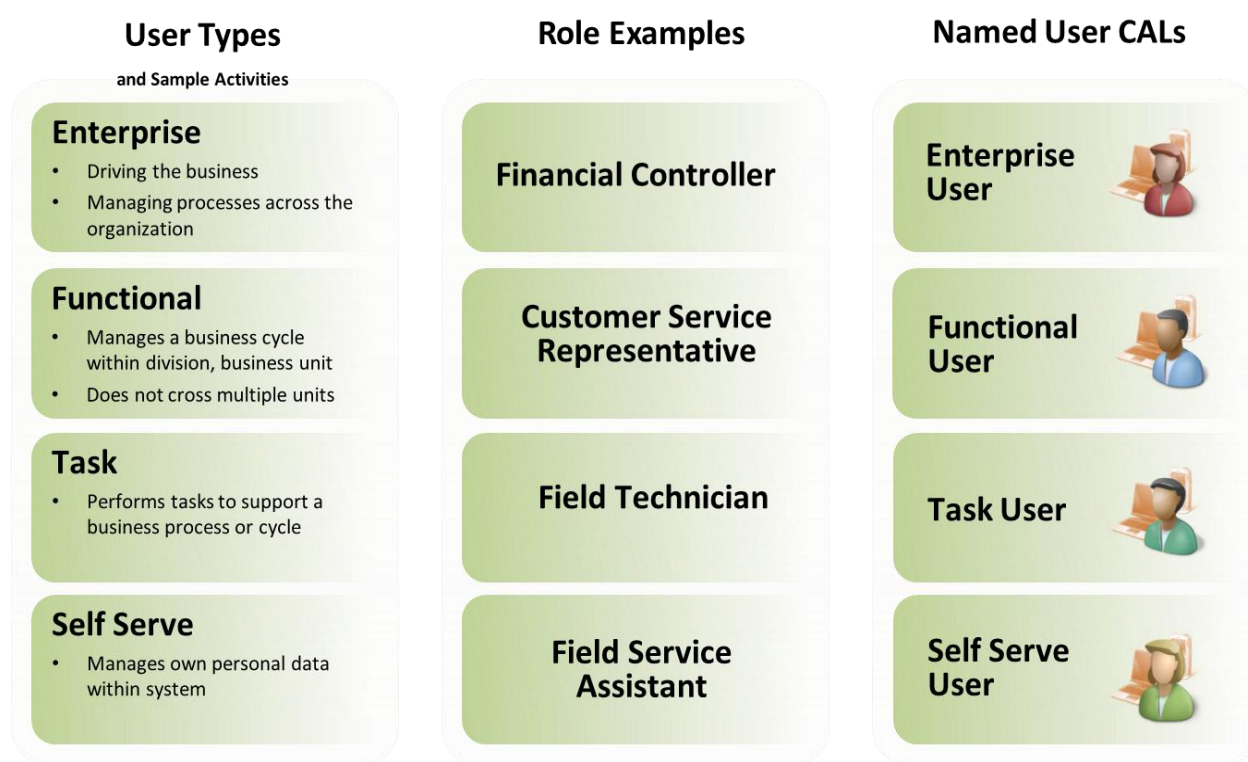
Types of User CALs

There are four user types in Microsoft Dynamics AX 2012, each of which has an associated User CAL.

These four user types were developed to encompass typical roles as predefined in Microsoft Dynamics AX 2012, thus giving you the flexibility to license users based on how they are likely to use and derive value from the solution. The four user types are:

- Enterprise User
- Functional User
- Task User
- Self Serve User

Microsoft Dynamics AX 2012 packaging "out of the box" maps a set of actions (called Menu Items in the Security structure of Microsoft Dynamics AX 2012) to predefined Roles. Those Menu Items are also mapped to one of the four user types. Each User CAL type provides the rights to perform actions that only that user type can do. The CAL required for a given user is determined by the highest level Menu Item to which that individual has access. For example, in order to approve customer credit limits (an Enterprise level Menu Item), the employee must be designated as an Enterprise User and, therefore, have an Enterprise User CAL. That employee also has license rights to perform actions that are designated at a lower user level (e.g. Task User).

Figure 2: User Type Overview

User Types and Sample Activities	Role Examples	Named User CALs
Enterprise • Driving the business • Managing processes across the organization	**Financial Controller**	**Enterprise User**
Functional • Manages a business cycle within division, business unit • Does not cross multiple units	**Customer Service Representative**	**Functional User**
Task • Performs tasks to support a business process or cycle	**Field Technician**	**Task User**
Self Serve • Manages own personal data within system	**Field Service Assistant**	**Self Serve User**

As you progress from the lowest level CAL (Self Serve User) to the highest level (Enterprise User), the user is licensed to use the solution in ways that will provide more value. You therefore have the flexibility to decide which level of investment to make for any given individual based upon the functions that user is performing on behalf of the organization.

Figure 3: User CAL Value

As the User CAL level increases, so does the price and the value derived from the solution by the end user, providing better control over your investment.
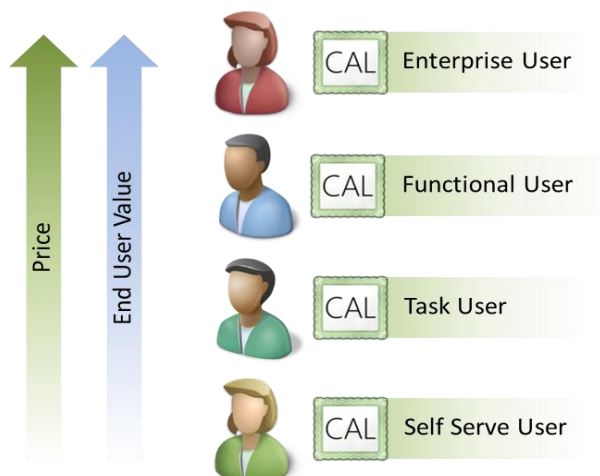
POTENTIAL IMPACT OF CUSTOMIZATION ON LICENSING REQUIREMENTS

Microsoft Dynamics AX 2012 is fully customizable to provide you with the right experience for every user. Microsoft Dynamics AX 2012 has over 10,000 Menu Items which are mapped to the four user types. To make it faster and easier to deploy the solution and determine licensing requirements, these Menu Items are associated with certain Roles.

The required CAL for a given user is determined by the highest User Type classification of the Menu Items to which the user will have access. For example, if you assign an Accountant to a Role that includes access to a Menu Item classified as "Enterprise User", then that person requires an Enterprise User CAL. Menu items that are classified at the "Self Serve User" level are available to all users to which you have assigned a Self Serve User or higher level CAL. Likewise, Menu Items classified at the "Task User" level are available to all users with a Task User or higher level CAL, and so on.

For an even better fit in their organizations, you can change which actions may be performed by specific individuals or Roles. When customizing, it is important to remember that the license required is determined by the highest level Menu Item to which that individual has access.

Assigning Multiple Roles to a Single User

The most straight forward way to customize which actions a specific employee may perform in Microsoft Dynamics AX 2012 is by assigning multiple Roles to that employee. For example, an employee could be assigned both the Customer Service Rep and the Field Technician Roles, and could therefore perform actions associated with both Roles. In this case, the employee would still only need a single CAL. Since the Customer Service Rep Role is designated at a higher user type level (Functional User) than the Field Technician Role (Task User), the employee would only need the Functional User CAL in order to perform actions associated with both Roles.

Changing Menu Items Associated with a Role

Another way to customize what actions users may perform is by changing which Menu Items are

associated with a Role. For example, if you want everyone who is assigned the Customer Service Rep Role to be able to also approve customer credit limits (which is designated as an Enterprise User level action), then you can customize the Role to include the "Approve customer credit limit" Menu Item. Because the required User CAL is determined by the highest level action the user may perform, all users assigned to the Customer Service Rep Role would then require the Enterprise User CAL.

Changing Menu Items Associated with an Individual through Custom Roles

Further, you may assign specific actions to specific users by creating custom roles. Following the example above, if you have 20 employees assigned to the Customer Service Rep Role and want to allow only five of those employees the ability to approve customer credit limits, you may create a new role that contains all of the actions assigned to the Customer Service Representative Role plus the "Approve customer credit limit" Menu Item. Customers would then assign this new role to those five individuals. Those five individuals would then require the Enterprise User CAL, while the remaining 15 employees assigned to the Customer Service Rep Role would require the Functional User CAL.

Creating Menu Items

You or your Microsoft Dynamics Partner may also create Menu Items to fit specific scenarios. When doing so, those new Menu Items must be mapped to the User CAL type that best matches the type of use. Refer to Appendix A for further details on mapping usage scenarios to User CAL types.

Notes:

- Roles in Microsoft Dynamics AX 2012 are not the same as job titles.

- "Menu Item" means an object that allows users to display or view a form, subform or URL in a browser application; run a task that triggers a system class, function, workflow or web-action initiated by a user; or cause an output in the ERP solution or a separate device. For additional information about the menu items executed by each CAL type please see (Sign-in required.) https://mbs.microsoft.com/customersource/documentation/userguides/MSDYAX2012_SoftwareLicensingTermsAddendum.

- For any given Menu Item, a user may be granted "View" or "Maintain" access. For some Menu Items, "View" access is classified at a different User Type level than "Maintain" access, in which case the required CAL is determined by the specific level of access to the given Menu Item.

Figure 4: Menu Item Access Determines Required User CAL.

Menu Items are classified at one of the User Type levels. Users with a given CAL have access to each Menu Item classified at—or below—that level.
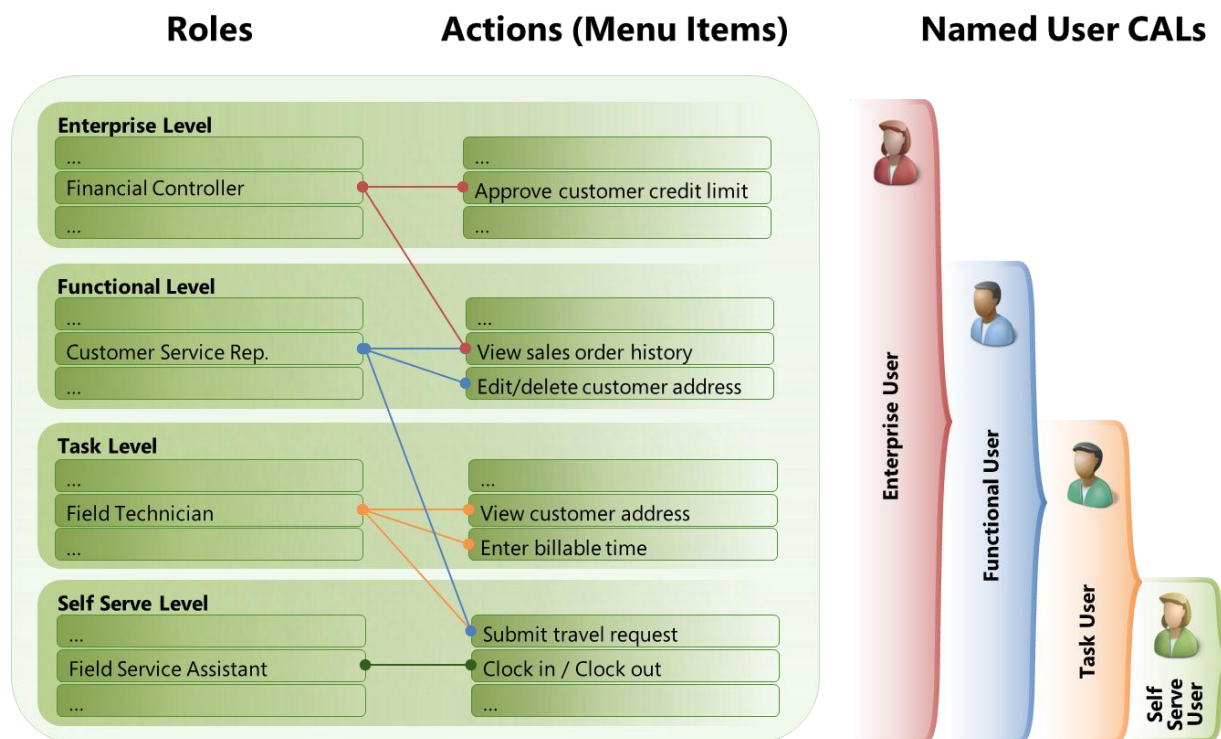
Access to Menu Items that Do Not Require CALs

Some Menu Items are not mapped to a CAL type. CALs are not required for users who access only these Menu Items.

For example, if you give applicants access to the "Apply for a position" Menu Item (which is not mapped to a Named User CAL), any user accessing that Menu Item – whether internal or external – does not require a CAL for that access.

Note: Partner or customer created Menu Items must be mapped to one of the CAL types (as specified above) and do not qualify for this mapping exception.

ACCESS BY EXTERNAL USERS

External (third party) users do not require licenses. Third party users are users that are not either (i) your or your affiliates' employees, or (ii) your or your affiliates' contractors or agents. In this sense, the definition of third party users does not extend to onsite contractors, vendors and users performing business processes on your behalf.

Figure 5: Internal vs. External Users
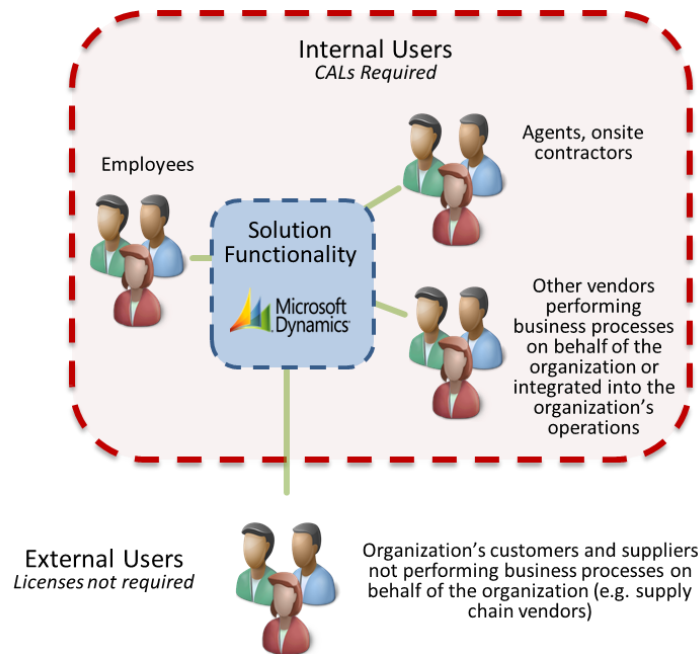
LICENSING DEVICE ACCESS TO THE SOLUTION FUNCTIONALITY FOR SPECIFIC SCENARIOS

For some scenarios you may license access to Microsoft Dynamics AX 2012 on a device basis. In these cases, the device requires either a Device CAL or a Limited Device CAL.

The two types of device CALs are:

- **Device CAL:** Permits a device, used by any user, to directly or indirectly access the ERP solution solely for purposes of managing functions or processes using a warehouse management system or call-center system. Centralized warehouse devices and call center stations are the only two scenarios that may be licensed with a Device CAL. (**Note:** These rights are a subset of the Functional User rights, so a user licensed with a Functional User CAL may perform these activities without requiring an additional Device CAL.)

- **Limited Device CAL:** Permits a single-purpose device, used by any user, to indirectly access the ERP solution to asynchronously feed data utilizing a staging data repository. This includes devices that do not interact with the ERP system directly. RFID devices and barcode readers are examples of devices that would be licensed with the Limited Device CAL.

Notes:

- Unlicensed users using a licensed device may use that device only for its designated purpose. For example, an unlicensed user may not use the licensed Device CAL to perform Self Serve or Task level actions.

- The Device CAL does not inherit the properties of the Limited Device CAL.

Figure 6: Device CAL Overview
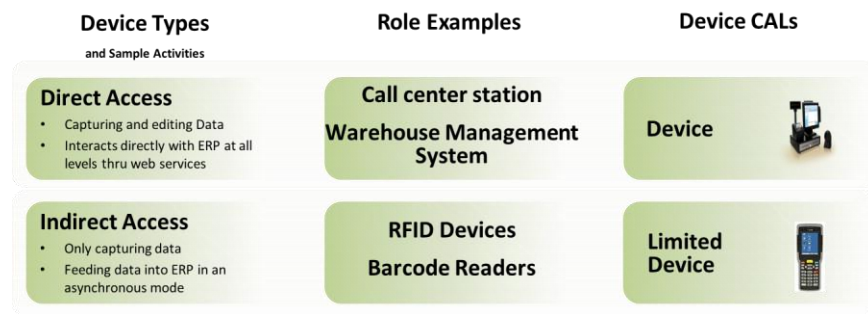
REASSIGNING CALS

You may reassign CALs in the following ways:

- Permanently reassign a device CAL from one device to another, as long as the new device complies with the limitations applicable to the specific device CAL type

- Permanently reassign a user CAL from one user to another

- Temporarily reassign a device CAL to an alternate device while the first device is out of service

- Temporarily reassign a user CAL to a temporary worker while the user is absent

MULTIPLEXING

Multiplexing is the use of hardware or software (including manual procedures) to reduce the number of devices or individuals that access or use the Microsoft Dynamics AX 2012 solution by pooling connections. Multiplexing does not reduce the number of licenses required to access the Microsoft Dynamics AX 2012 solution. Any user that accesses the Microsoft Dynamics AX 2012—whether directly or indirectly—must be properly licensed.

Note: Licensed users may manually rekey information (when coming from non-licensed users) into the Microsoft Dynamics AX 2012 solution. This scenario is not considered to be multiplexing.

Figure 7: Multiplexing Does Not Reduce the Number of CALs Required
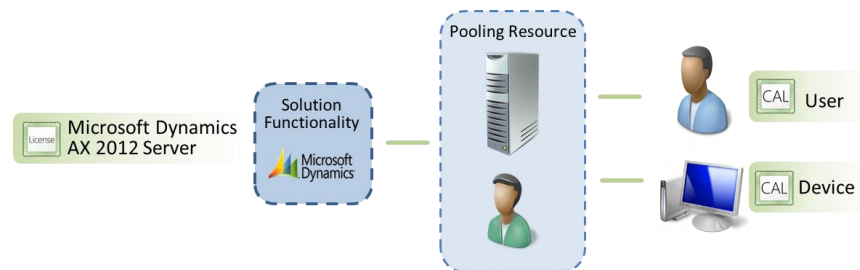
Note: For additional information about Multiplexing please refer to the following Microsoft Volume Licensing Brief: Multiplexing—Client Access License (CAL) Requirements (1.28 MB Microsoft Word file).

BUSINESS READY ENHANCEMENT PLAN

The Microsoft Dynamics Business Ready Enhancement Plan offers multiple features that help to maximize the value of the Microsoft Dynamics solution. These benefits include the ability to upgrade to newer

versions of the software when they become available, as well as to receive fixes, updates, service packs, and tax and regulatory releases. For additional information about the Microsoft Dynamics Business Ready Enhancement Plan, please refer to http://www.microsoft.com/dynamics/customer.

LICENSING ADDITIONAL SOFTWARE

Licenses for additional software that may be required for the solution, such as Windows Server, Microsoft SQL Server, and Microsoft SharePoint Server and their corresponding CALs are not included with the Microsoft Dynamics AX licenses. They must be acquired separately in accordance with licensing models for those products. These licenses may be licensed through traditional volume licensing channels.

Figure 8: Licenses for Additional Software are Not Included with Microsoft Dynamics AX 2012 Licenses
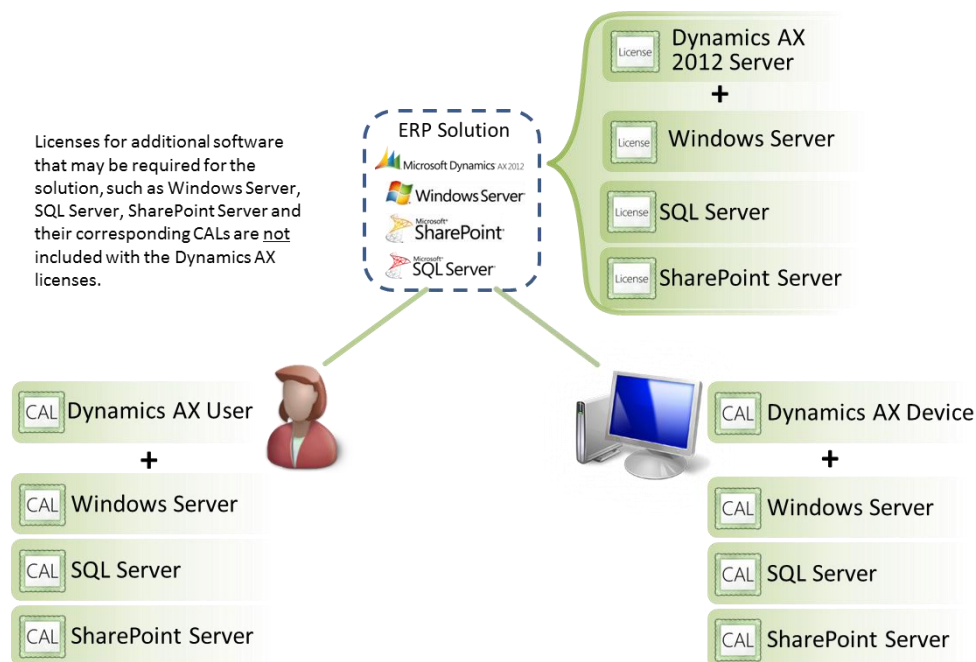
ENSURING ACCURATE LICENSING

Microsoft Dynamics customers have asked for easier ways to implement Software Asset Management (SAM) across their organization, because they realize that SAM can help them:

- streamline IT resources and improve visibility and control of their environment now and in the future,

- increase awareness of the organization's overall software purchasing needs and better work with software vendors to meet those needs, and

- get greater insight into how to manage the organization's assets, helping them to make more informed decisions to reduce risk and plan for the future.

To help you navigate through the product flexibility and its impact on licensing, we have created a report within the application that looks at all of the Menu Items associated to each user directly accessing Microsoft Dynamics AX 2012 and computes the assigned number of users by user type. You are

responsible for determining the number and type of third party users <u>directly</u> accessing Microsoft Dynamics AX 2012 and subtracting these users from the report generated by the system. You are also responsible for determining the number and type of internal users <u>indirectly</u> accessing Microsoft Dynamics AX 2012 and manually adding these users to the report generated by the system. As the actions of indirect users are not associated with Menu Items tracked by Microsoft Dynamics AX 2012, you determine appropriate User CAL types for indirect users according to the access rights detailed in <u>Appendix A</u>.

Note: As Microsoft Dynamics AX 2012 does not track devices, you are also responsible for manually tracking the number of Device CALs and Limited Device CALs.

By comparing this to your license information in CustomerSource, you can identify any discrepancies in your licenses. If you not currently on a plan, you can get your license information by contacting your partner.

You are advised to check licensing by running the report whenever you make a change, but are required to run the report at least annually per the Software License Terms. You may voluntarily share the results of the User Report with Microsoft or any other third party, but are not required to do so. Running the report before and after changing Roles, security, and user permissions will help confirm the impact of changes to the license requirements and provide a chance to undo the changes if they had unintended consequences.

Figure 9: Using the User Report to Verify Accurate Licensing

AX 2012 Built-in User Report

Microsoft Dynamics AX 2012 provides a preset report to help you identify the number of users assigned to the system by user type [Assigned Users].

CustomerSource Licensing Information

Compare the results of the Microsoft Dynamics AX 2012 report against the licensing information from CustomerSource.

Remedying License Discrepancies

The license review may expose discrepancies between the number of licenses required for certain user types and what the customer has licensed. Here are the options for remedying those discrepancies:

Remedying License Discrepancies		
Scenario	Remedy	Example
You have too few User CALs for a certain user type, but has excess User CALs for a lower level user type	Convert the excess lower level User CALs to higher level User CALs through the CAL step-up, which allows you to convert a lower level User CAL to a higher level User CAL by paying the difference in price between the two CAL types. **Note:** Step-ups are not available for Device CALs	A company has 20 users accessing Enterprise level Menu Items, but only 10 Enterprise User CALs. The company also has 20 users accessing Functional level Menu Items (and below), but has licensed 30 Functional User CALs. The company may convert the 10 excess Functional User CALs to Enterprise User CALs by paying the difference in price.
You have too few CALs for a certain user type, but have at least the same number of excess CALs for a higher user type to cover those users.	No action required. The higher level CALs include access to lower level Menu Items, so you are sufficiently licensed.	A company has 40 users accessing Task level Menu Items, but only 32 Task User CALs. They also have 10 excess Functional User CALs. The 8 users that need a Task User CAL are covered by 8 of the excess Functional User CALs.
You have too few CALs for a certain user type an does not have excess licenses.	License the necessary additional User CALs.	A company has 25 users accessing Functional level Menu Items, but only 20 Functional User CALs and no excess CALs. The company must license five additional Functional User CALs.

Licensing for Existing Customers

UPGRADING TO MICROSOFT DYNAMICS AX 2012

If you are upgrading to Microsoft Dynamics AX 2012, you will need to transition from your current license model to the Server/CAL model used for Microsoft Dynamics AX 2012. For details on how to do so, please contact your Microsoft Dynamics Certified Partner.

Additional Resources

Microsoft Dynamics Website
Learn about what Microsoft Dynamics solutions can do for your organization and how to get started.
http://www.microsoft.com/dynamics

CustomerSource
Microsoft Dynamics CustomerSource is a password-protected site for customers who use Microsoft Dynamics products. Included as a benefit of your service plan, CustomerSource allows you to search a powerful Knowledge Base for Microsoft Dynamics, view online training for Microsoft Dynamics, download updates, and find other timely information and resources virtually 24 hours a day. (Sign-in required.)
https://mbs.microsoft.com/customersource

Product Availability
For Microsoft Dynamics AX country-specific functionality and languages for currently supported versions, go to http://www.microsoft.com/en-us/dynamics/erp-buy-ax-software.aspx

Statement of Direction for Microsoft Dynamics AX
For information on our vision, product strategy and roadmap, go to (Sign-in required.)
https://mbs.microsoft.com/customersource/documentation/whitepapers/statementofdirection.htm

Appendix A: Use Rights by User and Device Type

Use Rights by User and Device Type		
User Type	**Use Rights**	**Examples**
Enterprise User	• Unrestrictive access to setup, administer all parameters and functional processes across the enterprise. Key Roles whose work impacts multiple users' activities or tasks such as budgeting, forecasting, planning or scheduling • Manage complete cross organizational activities and business including: Legal, Financial, Payroll, Compensation & Benefits and IT • Setting up and Defining Organizations, Business Unit, departments, divisions, Positions, and employee Jobs • Access to all Manufacturing Roles and functions excluding Shop Floor Control and Quality Management • Managing cross organizational processes • Approving professional user processes	• Any system administrator • AX system developer • Any project manager that manages cross organizational projects • Financial controller • Accounts receiver clerk/manager • Legal team • Human resource manager and payroll administrator

| **Functional User** | • Manage a set of activities in the process to create, fabricate, sell, deliver, or support the product or the service sold by their company

• Manage a shop floor within a production or manufacturing cycle

• Manage a set of projects and related services incl. the management of relevant resources

• Manage HR cycles: Recruitment, Trainings, and On/Off boarding of employees

• Manage budget transfers and requests pertaining to his / her operational department, , division, or unit

• Create applicants / employee master data records, create a job or a position requisition within the organization

• Raise invoices pertaining to their clients

• Approve Vendor invoices or voucher for rendered services

• Create and Manage master data records pertaining to their Customers, Vendors, as well as their product inventory or catalog

• Approver of Self Serve or Task Users.

Functional Users do not and cannot perform (*these are completed by Enterprise Users*):

• ERP system setup, Data base setup or reports customizations

• functions related to setting up (System Configuration) projects, productions, services or financial parameters (Product, Inventory, projects, production, route, service grouping, etc.)

• financial Transactions related to Employee Payroll, Customer and vendor settlements, payments, credits, checks, cash dispenses, all Accounting functions & activities

• transaction spanning cross Business Units or Legal entities processes: Budgeting and Resourcing | • Recruiter, Training and HR personnel

• All Project Managers, Service managers, Quality assurance supervisors

• Warehouse managers, Shop floor supervisors, Retail store managers

• All Employee managers |

Task User	Users access the system to: • Enter billable time (Project Activities, Production card, etc.) • Billable expenses (project and other types) • Performance management and goal setting, annual reviews, etc.	• Machine operator • Field technician • Consultant • Project team members • Service team members • Employees who manage their own performance and goals
Self Serve User	Employee Self Serve Discrete Scenarios (Payroll Clock In/Out, Expense Report, Personal Data, Time & Attendance, Personal Service Requisitions	All employees not using ERP to perform their job like laborers (e.g. clock-in/clock-out, creating travel requests, viewing W2s)

Device Type	Use Rights	Examples
Device	Directly or indirectly access the ERP solution solely for purposes of managing functions or processes using a warehouse management system or call-center system	• Centralized warehouse device • Call center station
Limited Device	Indirectly access the ERP solution to asynchronously feed data utilizing a staging data repository	• RFID devices • Barcode readers

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