



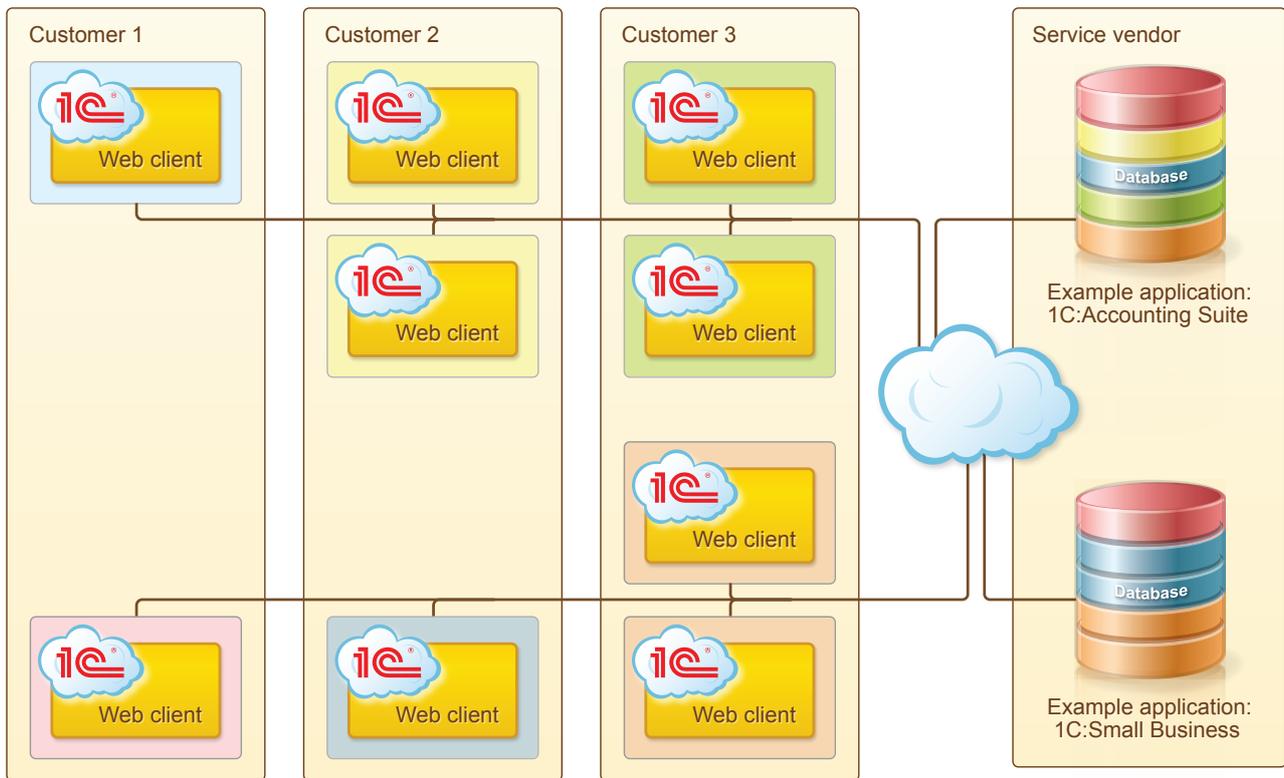
# 1C:Enterprise platform, new version 8.3

 Innovative, cloud, enterprise-oriented,  
mobile, cross-platform,  
and more...



The new 1C:Enterprise platform version 8.3 features significant advances in numerous areas.

## Development of cloud services and Internet-enabled functionality



### **Increased scalability and fault tolerance for server clusters and improved load balancing.**

The new server cluster load balancing architecture provides automatic load balancing between cluster nodes based on server availability, fault-tolerance criteria specified by administrators, and real-time server performance analysis. The option to fine-tune the load on specific cluster nodes is available, as well as the option to perform precise management of the memory used by the server processes, which increases the fault tolerance in the event of user mistakes. Automatic monitoring of the cluster state is implemented through the forced shutdown of corrupted processes.

**Licensing service and external session management service.** The licensing service ensures centralized issuing of client and server software licenses, which greatly simplifies server cluster deployments in virtual environments, as well as dynamic changes in resources allocated for specific servers. The external session management service notifies external systems of start session and end session attempts and receives responses that allow or deny these operations. This helps to limit the number of concurrent infobase users, record their total work time, and more. Furthermore, web services are used for interactions with external systems.

**Automatic thin client update over the Internet.** This significantly reduces update costs for remote users. Previously, automatic updates were only available within local networks.

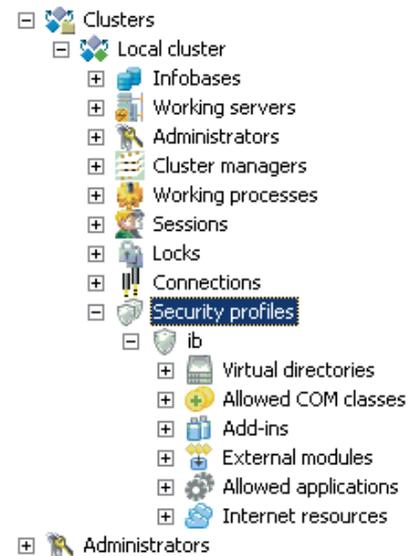
**Protected SSL connection and certificate support** for all Internet protocols and platform features based on those protocols. For example, the web services and the thin client are able to send their data via a protected channel.

**Background infobase restructuring.** This new option minimizes the downtime required for application updates. Previously, all users had to log out for the entire duration of the database restructuring and now most of the work is performed in the background. Meanwhile, all the users have to do is log out for the short final restructuring stage. The total downtime is reduced by an order of magnitude, thus greatly increasing the system's availability, which is especially important for cloud services and large-scale deployments with large infobases.

The background restructuring can be incremental, with pauses at peak-load hours in order to free up the processing power for other tasks and restructuring tasks running during low-load hours, such as nights and weekends.

**Security profiles.** If a service provider is providing Internet access to 1C:Enterprise solutions developed by third parties, the solution's reliability is not always guaranteed. Still, the service provider must ensure the fail-safe functioning of the service in general, as well as the functioning of other applications that are part of the service. This is what 1C:Enterprise 8.3 server cluster security profiles are made for. They prohibit the execution of operations that are potentially harmful to the server cluster and the entire service. Such operations include:

- Accessing the server file system.
- Running COM objects, external reports, external data processors, and applications installed on the server.
- Using 1C:Enterprise add-ins.
- Accessing Internet resources.



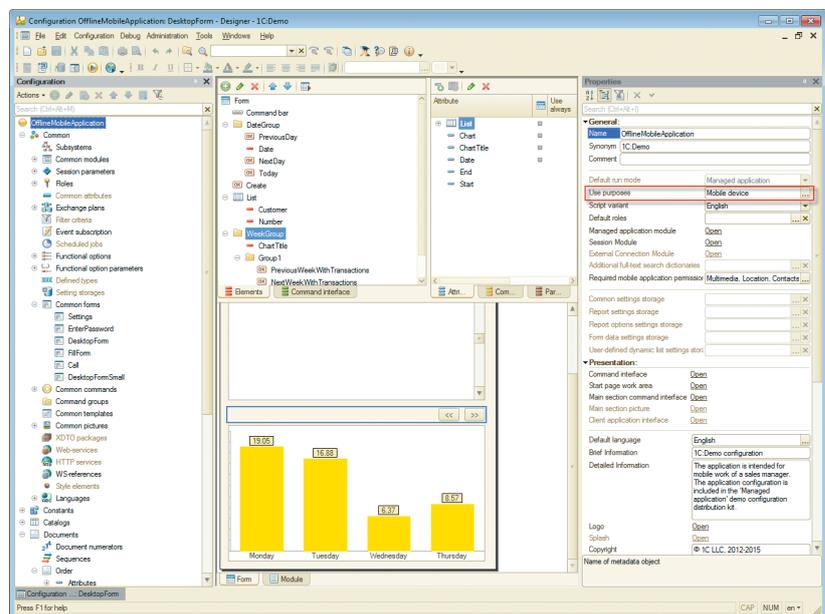
## Mobile platform

The 1C:Enterprise mobile platform is an application development technology for tablets, smartphones, and other Android-, iOS-, and Windows-based mobile devices. It includes the following:

- The mobile platform itself (as a distribution kit), which is capable of running on Android, iOS, and Windows operating systems.
- The mobile application development and publishing technology.

A mobile application installed on a mobile device consists of the mobile platform and the infobase. An infobase comprises a database similar to a 1C:Enterprise file infobase and a mobile application (programming code executed on the mobile device).

Mobile application development is very similar to the development of desktop 1C:Enterprise applications albeit with some added limitations from the mobile platform. The development is performed in 1C:Enterprise Designer, an environment familiar to hundreds of thousands of developers.



*Mobile application development in 1C:Enterprise Designer*

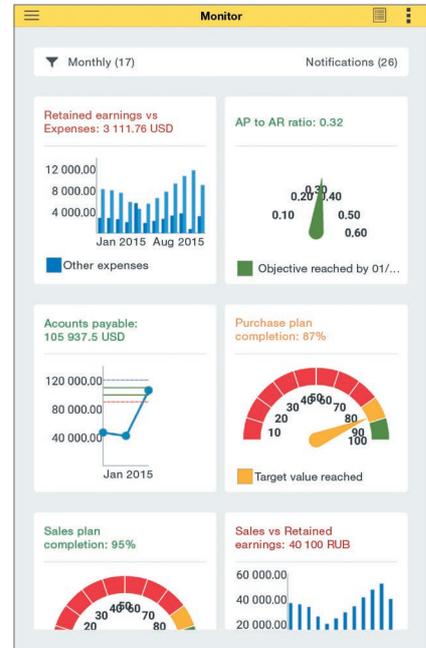
Mobile application development relies on standard 1C:Enterprise tools and the mobile platform's functionality is a subset of 1C:Enterprise platform functionality, which greatly simplifies development and debugging. Mobile application developers can reuse the code and business logic from desktop applications and employ the standard 1C:Enterprise integration options. Mobile applications can also run on desktop computers with Microsoft Windows, Linux, or Mac OS X operating systems.

The mobile platform supports location services and multimedia features. You can determine and use a geographical location and its postal address in a mobile application, as well as take pictures, make video and audio recordings, and store them in the infobase. You can also scan barcodes and QR codes using the built-in camera, decode them, and store them in the infobase (on Android and iOS devices).

Mobile 1C:Enterprise applications can work in standalone mode (all data is stored on a mobile device) and they can work offline as well (without using Internet connection). Advanced 1C:Enterprise integration options provide a means to set up a data exchange with any back-office system, even a third-party one.



For more information on the 1C:Enterprise 8 mobile platform, see [http://1c-dn.com/1c\\_enterprise/mobile\\_platform/](http://1c-dn.com/1c_enterprise/mobile_platform/).



1C:ERP monitor mobile application

## Cross-platform functionality advancement

### Client applications for Linux and Mac OS X

Previously, Linux and Mac OS X users only had the option of running the web client using Internet browsers supported by their operating systems. Now, however, client applications similar to Windows 1C:Enterprise clients are available for Linux and MacOS X:

- Thin client, which supports user operation in managed applications.
- Thick client, which supports user operation in managed and ordinary applications.
- Designer, which is designed for infobase administration and configuration updates.

The client applications support both file and client/server modes. They are available for both x86 and x86-64 architectures. As a result, not only can 1C:Enterprise application end users work on Linux and Mac OS X, but also application developers and infobase administrators.

### Cross-platform administration tools

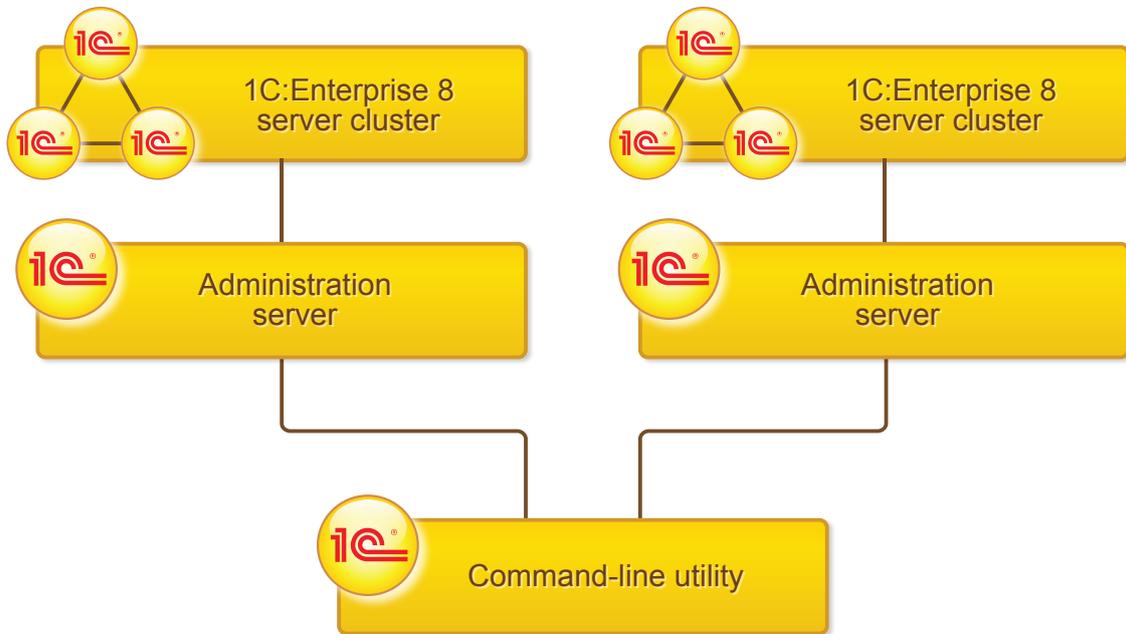
The previous 1C:Enterprise platform versions had only supported cluster administration from computers running Windows operating system.

Now, cluster administration is available on both Windows and Linux computers. The following tools provide this option:

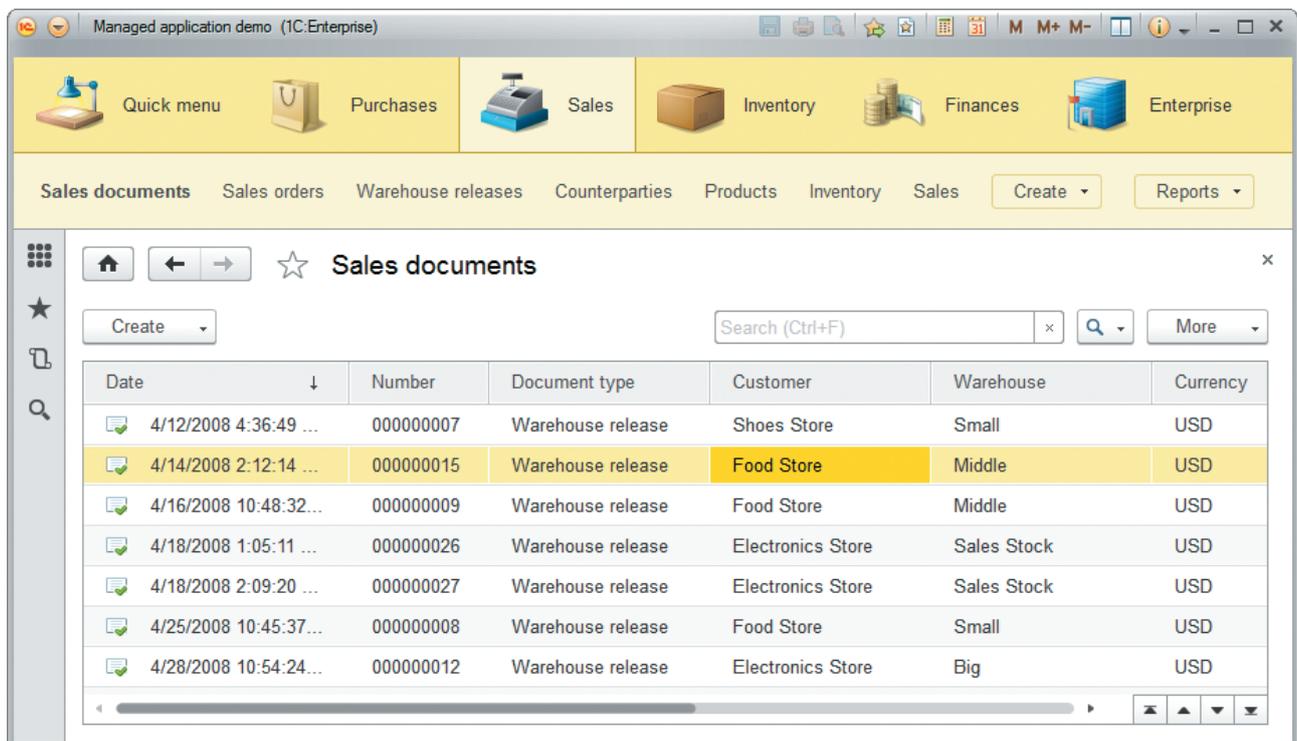
- Administration server.
- Command-line utility.

The administration server is a cross-platform application. It is designed for sending management commands to a single 1C:Enterprise server cluster. The administration server can run as a console application, a Windows service, or a Linux daemon.

The command-line utility generates commands that are sent to the administration server and displays its responses. The utility is also a cross-platform application. It supports all of the commands that the server cluster administration requires.



## New "Taxi" user interface and other usability improvements



The platform version 8.3 features a new "Taxi" application interface, which provides for better usability. It incorporates a number of new design concepts:

- Navigation options are available on several auxiliary panels: tools, favorites, history, and more.
- Application developers can specify the default content and positions of which of these panels they consider optimal for the application's purpose and specifics.
- Users can customize their application's layout by moving the panels. For example, they can create a minimalistic design by hiding almost all of the panels, except a tools panel that still provides all the necessary navigation options. Alternatively, they can also add several panels for a variety of quick navigation options.
- Any section, list, database object, report, data processor, or command can be added to the favorites list for quick access.

For detailed information on the concept and capabilities of the new interface, see [http://1c-dn.com/1c\\_enterprise/user\\_interface\\_concept/](http://1c-dn.com/1c_enterprise/user_interface_concept/).



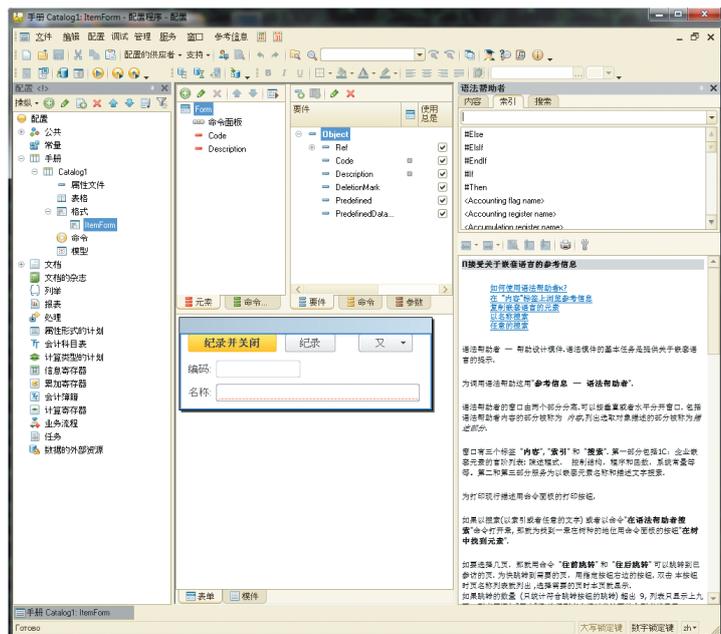
Significant interface improvements of the new platform version include:

- An interface mode that never uses modal windows. This eliminates the need to open up new windows in web browsers, which significantly improves web client usability, stability, and performance. This also ensures the support of browser access to 1C:Enterprise applications from any mobile devices.
- Simplified list customization.
- A new “input by string” feature greatly increasing search performance.

## The 1C:Enterprise interface supports 17 languages with more to come.

### Other significant improvements include:

- **Performance optimization** in the following areas: client workstations (including the web client), server clusters, DMBS interaction, and memory operations. The biggest DBMS interaction optimizations were made for Microsoft SQL Server and PostgreSQL.
- **Improvements in the development tools.** This includes the export and import of 1C:Enterprise configurations (both data and structure) to or from a set of XML files. This also includes better code structuring by marking and grouping custom text fragments in the module editor.
- **A new “configuration extensions” feature designed for customization of standard solutions without disabling their support.** Customers often adapt standard solutions (provided by 1C Company or its partners) to their needs by extending and modifying them. When a new version of a standard solution emerges, a customer then has to merge their modifications to that new version. These modifications disable the standard solution’s support. Extensions allow preservation of all of the changes in separate objects (extensions) and thus simplifying an upgrade to the new versions. A solution with extensions does not require code merging (a simpler upgrade) and it works without disabling vendor support.
- **Automated testing.** This includes automated application testing based on the algorithms described in 1C:Enterprise script as well as the option of recording interactive user actions for further analysis or building an automated test based on those actions.
- **Extended report generation and design functionality,** new visual options for business charts, and new statistic and aggregate functions, such as ABC classification.



Example of a Chinese 1C:Enterprise 8.3 interface: catalog form development

- **External data source operations are now comparable to operations with standard configuration objects in terms of both functionality and convenience.** External source data can be stored in temporary tables for use in complex queries, or they can also be used as separators in cloud applications. Forms used for viewing external source data can be redefined with 1C:Enterprise script. The option to connect to multidimensional data sources, such as Microsoft Analysis Services, Oracle Essbase and IBM InfoSphere Warehouse, is implemented.
- **Infobase backwards compatibility mode is supported.** In this mode you can run applications designed for 1C:Enterprise versions 8.0, 8.1, and 8.2 without any refactoring. You also have the option to downgrade from platform version 8.3 to version 8.2. Only minimal modifications are required to enable the full 1C:Enterprise 8.3 functionality in applications developed on earlier platform versions.

In addition to the features already listed, a large number of other improvements have been implemented as well, many of them originating from user and partner requests.

## 1C:Enterprise 8.3 CORP. New licenses for corporate clients

2 delivery options are available for 1C:Enterprise 8.3: regular and CORP.

A number of new features and improvements mostly demanded by large enterprises and SaaS providers are only implemented in the 64-bit 1C:Enterprise 8.3 CORP server. The 1C:Enterprise 8 CORP Server provides the following additional features, compared to regular 64-bit servers:

- Background database configuration updating.
- Additional load balancing for cluster services and infobase connections across the servers (by infobase, client application type, or background job).
- Flexible cluster load balancing:
  - Safe memory consumption per call.
  - Infobases per process.
  - Maximum process memory to consider server performance sufficient.
  - Maximum memory in processes.
  - Balancing strategies (by memory usage or by performance).
- External session management.
- Security profiles.
- Thin client update from server.
- Publishing infobase list and thin client updates over HTTP.

Using these features also requires CORP-level client licenses.

For detailed information about 1C:Enterprise version 8.3 features, license terms, delivery, support, and application release procedure, see <http://1c-dn.com/>.





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