



1C:Enterprise

Business Application Development Platform



Rapid development platform for custom-built business automation solutions

Scalable, reliable, efficient, cross-platform, cloud, mobile, desktop

1C:Enterprise is a platform that enables the rapid creation of business automation products. Thousands of off-the-shelf applications have already been developed on the platform. Their functionality can be further customized and expanded using the platform's development environment. 1C:Enterprise has a low barrier of entry for new developers and lay users thanks to its simple interfaces and visual editing paradigm. Applications developed on the platform easily scale from one to thousands of users and integrate with other 1C and third-party solutions to meet growing business needs.

An innovative technology platform — the core — and applications developed on that platform — customized and out-of-the-box solutions. That's 1C Enterprise in a nutshell.

This system architecture boasts open, functional, flexible applications, short implementation times, high performance, scalability from one to tens of thousands of users, cloud and mobile capability. All of this has made 1C:Enterprise a tremendously popular platform for developing business process automation software.

The 1C:Enterprise 8 platform has been successfully used by more than 1 500 000 organizations of all sizes — from small enterprises and sole proprietors to the largest corporations and government agencies — to improve their management and accounting efficiency.

1C and its partners have used 1C:Enterprise 8 to create over 1 300 standalone applications, ranging from small business management — 1C:Retail, 1C:Accounting — to large enterprise automation — 1C:ERP, 1C:Holding Management, 1C:Document Management, etc. The platform has also been used to create a large number of custom solutions built to meet the needs of specific customers.

To ensure 1C:Enterprise's competitive advantage and compliance with growing market demands, 1C is developing a future-proof technology platform by continually implementing cutting-edge technology, tools, and innovative features.

RAPID BUSINESS APPLICATION DEVELOPMENT TOOLS

1C:Enterprise's advantages include its high speed of application development and low barrier of entry for developers.

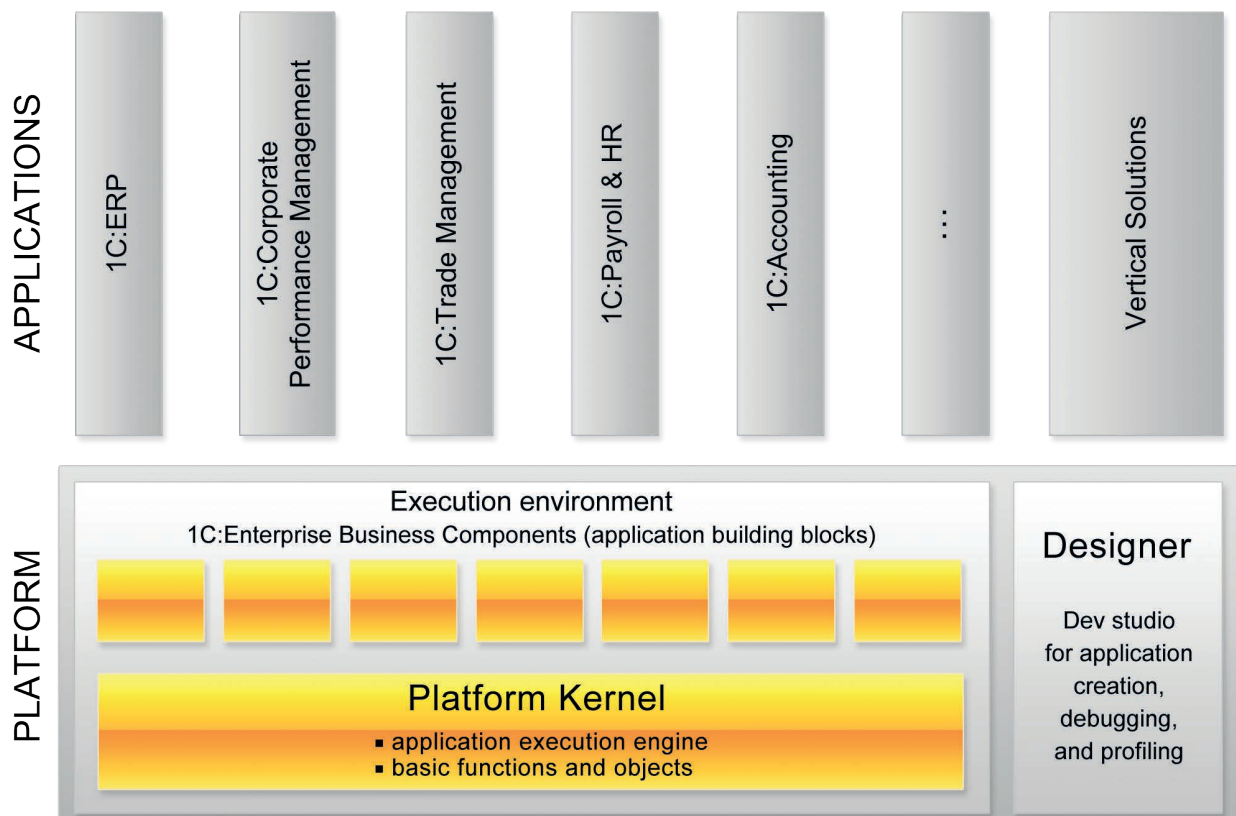
Experience shows that even novice developers need just 1-2 weeks of training to start developing basic business solutions using the 1C:Enterprise platform. A low barrier of entry is assured by the platform's low-code development environment, which uses visual editing for a wide variety of development cases. This allows 1C:Enterprise developers to minimize the amount of programming as such.

1C:Enterprise uses a Domain Driven Design approach to provide the specific tools needed to develop business software. All code-based development is done using a high-level domain-specific language in a conceptual model that approximates business tasks as closely as possible.

Applications on the 1C:Enterprise platform are open source.

All code-based development is done using a high-level domain-specific language, the source code is genuinely open. Both implementation specialists and everyday users can easily read application code and understand the applied business logic. It thus becomes easy for users to support and improve 1C:Enterprise applications, customizing and expanding their functionality to meet their business needs.

The openness of 1C:Enterprise solutions means that hand-offs between development and support teams are simple and straightforward, with no developmental dead ends resulting from staff changeovers. Any 1C:Enterprise user can read any other 1C developer's code and extend and support it as needed.



SCALABILITY AND PRODUCTIVITY

- 1C:Enterprise solutions grow along with your company's needs: from single-user applications to corporate systems with tens of thousands of simultaneous users.
- The system architecture ensures high performance and reliability even with exponentially growing system loads and processing volumes.
- A scalable, fault-tolerant application server cluster with dynamic load balancing enables high system performance.
- Security profiles provide additional protection — e.g., by prohibiting application access to local files or the internet — which is especially important when working in the cloud.

FLEXIBILITY AND CUSTOMIZABILITY

- Applications on the 1C:Enterprise platform can be customized to meet the needs of a given industry or individual enterprise.
- 1C:Enterprise-based systems can grow and improve as a business develops new needs and processes, implements new management and reporting practices, and complies with changing regulations and corporate standards. Open-source applications mean that the possibilities for modification are both wide-ranging and simple to implement.
- Extensions are a modifications option that enables users to customize applications by modifying an existing function and/or adding a new one — depending on the user's business process needs — without changing the source code of the standard application.
- Extensions are similar to plugins connected to standard applications. Extensions can turn on depending on certain conditions, e.g. only for defined groups of users.
- This provides unique customization options for cloud SaaS-solutions on the 1C:Enterprise platform. By plugging in different customized extensions, standard applications in a public cloud can offer different functions to different groups of users, depending on their needs.
- Extensions also automate the process of updating a customized solution to a new version of its underlying standard application — the extensions simply connect to the new version. Users gets all the functionality of the updated application without losing their own modifications.

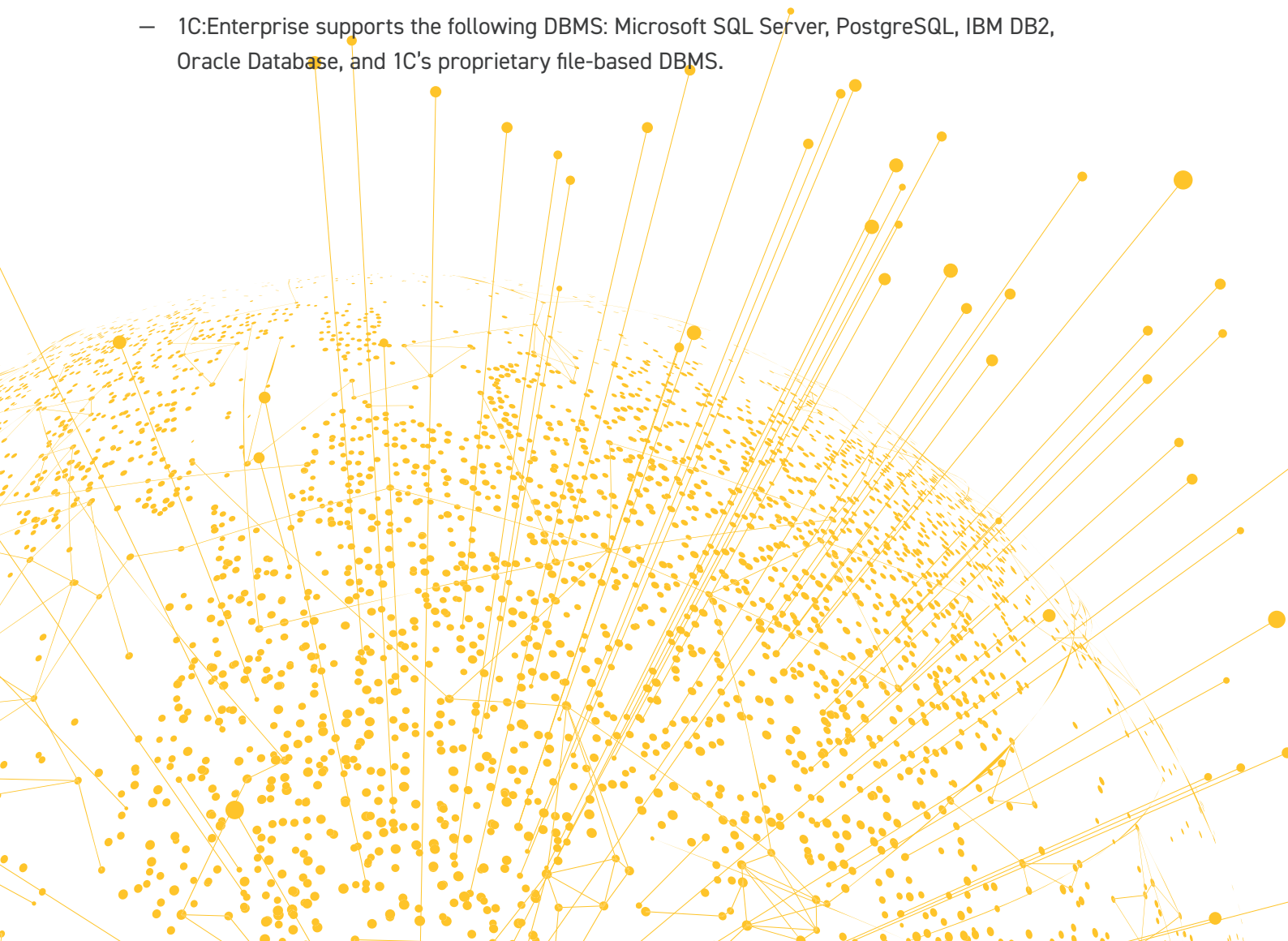


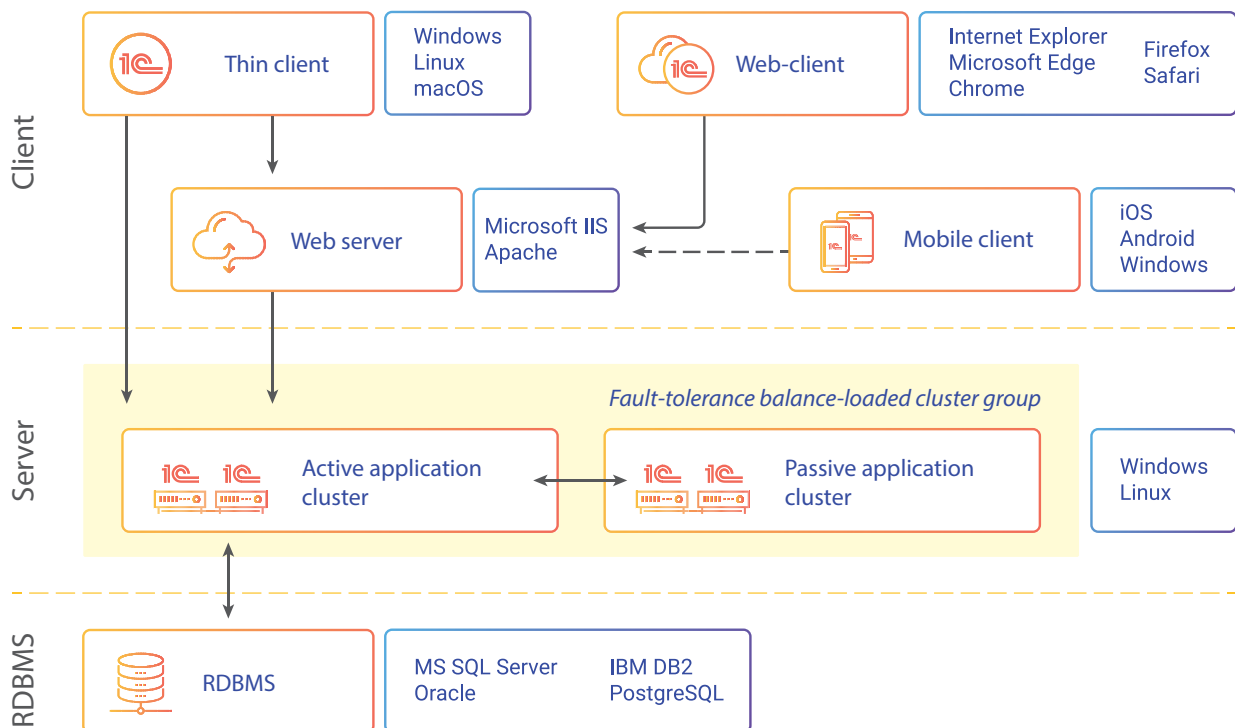
LARGE CORPORATE SYSTEM SUPPORT TOOLS

- 1C:Corporate Toolkit is suite of specialized tools that help evaluate the applicability of standard 1C applications to a client's needs, as well as enhance the operational qualities of a candidate or already-implemented system. 1C:CT carries out simulated multiuser load tests, evaluates system applicability within defined conditions, evaluates system scalability, assists in selecting server infrastructure, software, etc.
- To support the implementation and operation of large-scale projects, 1C Company provides technical monitoring and support. Services are provided by 1C Corporate Technical Support Center (CTSC) staff.

CROSS-PLATFORM DESIGN, SUPPORT FOR MULTIPLE DBMS

- 1C:Enterprise application servers run on Microsoft Windows and Linux OS.
- Thin application client is available for Microsoft Windows, Linux and macOS.
- Mobile client runs on Android, iOS, and Windows devices.
- Web client is compatible with leading browsers: Google Chrome, Firefox, Safari, Microsoft Internet Explorer, Microsoft Edge.
- 1C:Enterprise supports the following DBMS: Microsoft SQL Server, PostgreSQL, IBM DB2, Oracle Database, and 1C's proprietary file-based DBMS.





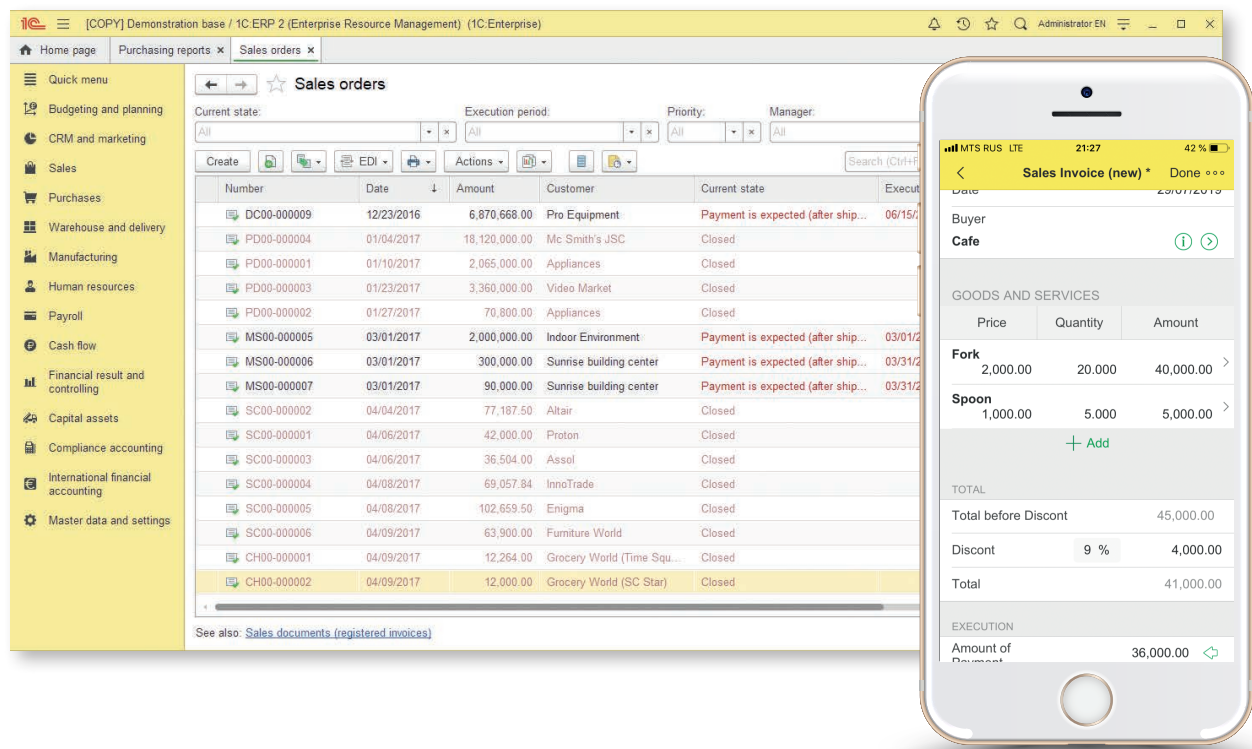
CLOUD SOLUTIONS AND WORKING ONLINE

- The 1C:Enterprise platform offers different options for working online, including web interfaces that work in standard browsers.
- 1cFresh technology enables the creation of cloud services that provide users with online access to 1C:Enterprise applications.
- 1cFresh supports both public clouds for SaaS application services and private cloud solutions for large single-entity customers, such as corporations and government agencies.

MOBILITY

- 1C:Enterprise mobile tech makes it possible to develop applications for tablets, smartphones, and other Android, iOS, and Windows devices.
- Mobile solutions are designed in the 1C:Enterprise development environment, just like regular 1C desktop applications, using the same fundamental principles of application development.
- Mobile application support:
 - Autonomous mobile app, with all data stored on the mobile device. Multiple back-office integration options, including online sync.
 - Mobile client app, with server-side application on the 1C:Enterprise platform.

USER-FRIENDLY INTERFACE



1C:Enterprise complies with the strictest ergonomic requirements.

- 1C:Enterprise features and tools combine an easy learning curve with high performance for experienced users.
- Users can customize application interfaces: accessible commands, displayed data, and more.
- The interface changes automatically to reflect the implemented functionality, user roles, and custom user settings.

ADMINISTRATION

- 1C:Enterprise provides robust system installation, maintenance, update, and administration tools.
- Job scheduling.
- Access rights management and configuration based on user roles.
- User action monitoring and system event logging.
- Platform monitoring tools enable critical situation tracking and resolution — execution of preset actions or alerting system administrators.
- System performance analytics, bottleneck detection, and performance optimization tools.

IMPLEMENTATION OF GEOGRAPHICALLY DISTRIBUTED SYSTEMS

- 1C:Enterprise is an open system, capable of integrating with practically any combination of software and hardware based on widely used open standards and data transfer protocols.
- The platform provides all the tools needed to implement file exchange in a variety of file formats, access all system objects using third-party applications, use a variety of exchange protocols and interactions standards to integrate with third-party systems (XML, JSON, etc), and work online.
- The 1C: Enterprise 8 platform supports the creation of web and HTTP services in applications, as well as integration with external web and HTTP services. External systems can access 1C application data using the OData protocol.
- Applications built on the 1C:Enterprise 8 platform can be integrated with different hardware, including retail and warehouse units (portable data terminals, card readers, hand-held scanners, etc). Integration with popular commercial and industrial equipment is available in many standard, off-the-shelf solutions.
- Distributed database feature streamlines rapid creation and deployment of geographically distributed systems.
- Universal data exchange mechanism enables easy integration with a variety of third-party information systems.

1C:ENTERPRISE DEVELOPMENT TOOLS — A MODERN SCALABLE ENVIRONMENT FOR APPLICATION DEVELOPMENT

- 1C:Enterprise Development Tools (1C:EDT) are based on Eclipse — an open-source integrated environment used all over the world to develop modular cross-platform applications.
- 1C:EDT supports the key principles of application development on the 1C:Enterprise platform. It consists of a set of tools for development automation. These tools allow developers to save time and avoid wasting resources on routine tasks. 1C:EDT also allows users to expand the functionality of existing development tools by using plug-in technology.
- 1C:EDT is available for all major operating systems — Windows, Linux, macOS.
- Built-in Git integration, can be integrated with other version control systems.

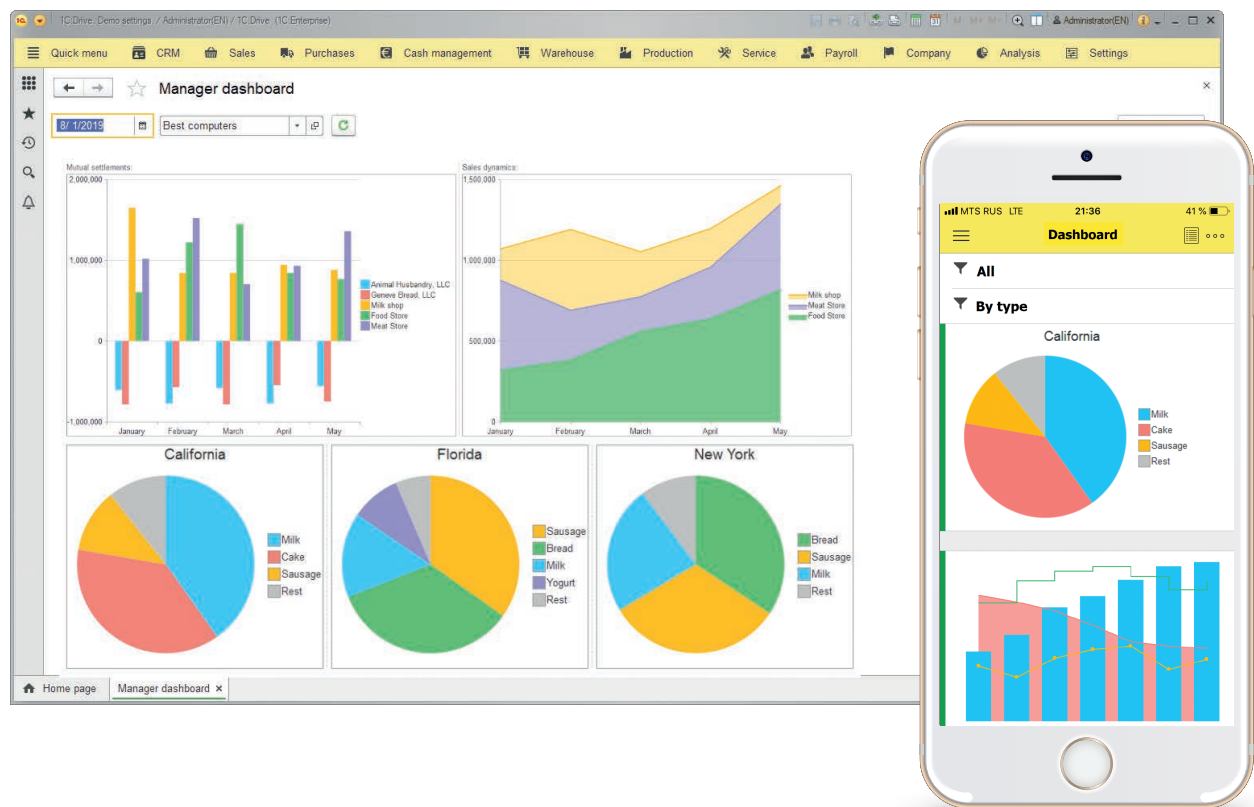
SECURITY

- 1C:Enterprise provides individualized data access management, down to the level of object fields and individual records, and keeps a full changelog.
- Third-party encryption module support. Application data processing can include a cryptographic layer and use third-party encryption modules.
- Various ways of authenticating application users are supported: through the 1C:Enterprise 8 platform, through the operating system, through OpenID and OpenID Connect.
- Two-factor authentication and biometric authentication are also supported.

ADVANCED INSTRUMENTS FOR BUSINESS ANALYTICS

1C:Enterprise business analytics tools do not merely create reports, but rather, generate interactive documents that are tightly integrated into applications. Users can edit report parameters, use elements of existing reports as jumping-off points for additional reports, drill down, etc.

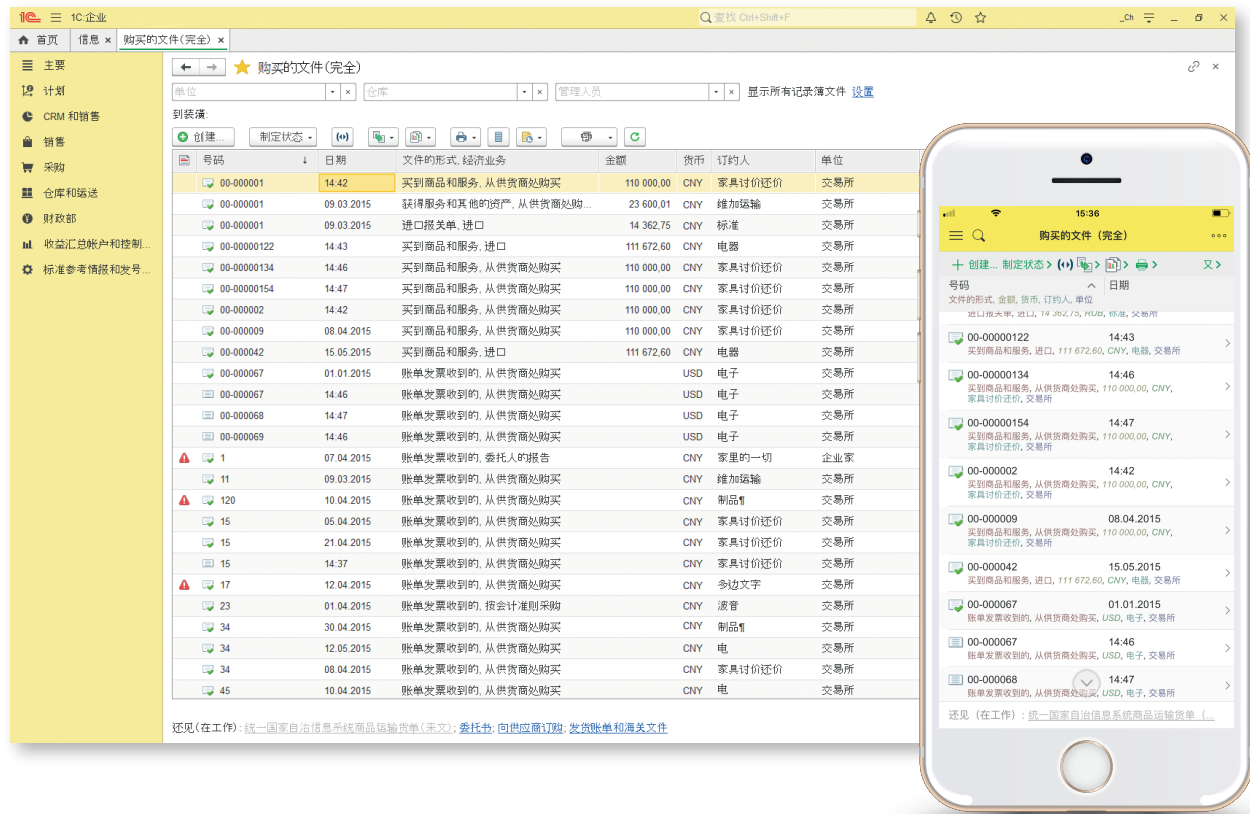
A wide range of charts and diagrams — including Gant, pie, circle, bubble, scatter plots, and interactive charts — allow users to visualize data to aid analysis, and, in the case of interactive charts, to change visual data on the fly.



LOCALIZATION

The 1C:Enterprise platform is localized into 19 languages:

English, Spanish, German, French, Chinese, Turkish, Greek, Russian, Bulgarian, Hungarian, Polish, Romanian, Azerbaijani, Georgian, Kazakh, Latvian, Lithuanian, Vietnamese, Ukrainian.



COMMUNICATION SYSTEM

- The platform includes built-in communication tools with all the functions of modern messengers – users of 1C:Enterprise applications can send text messages, send files, screenshare, and set up tele-/video-conferences right in the application window.
- The 1C Communication System supports discussions “in context,” i.e. linked with specific application objects – documents, catalog elements, reports, etc. All correspondence is saved with the application object and is displayed alongside it.
- By using the Communication System, application developers can implement new, previously unavailable business scenarios, such as chat-bots and AI assistants to facilitate work with applications, inform users about events in the application, etc.
- The Communication System is also available in the 1C:Enterprise 8 mobile client.

AUTOMATED TESTING

The 1C:Enterprise platform includes automated application testing based on algorithms written in the system language, as well as the option of recording user actions for usability analysis or creation of automated test scenarios.

SUPPORT FOR EXTERNAL DATA SOURCES

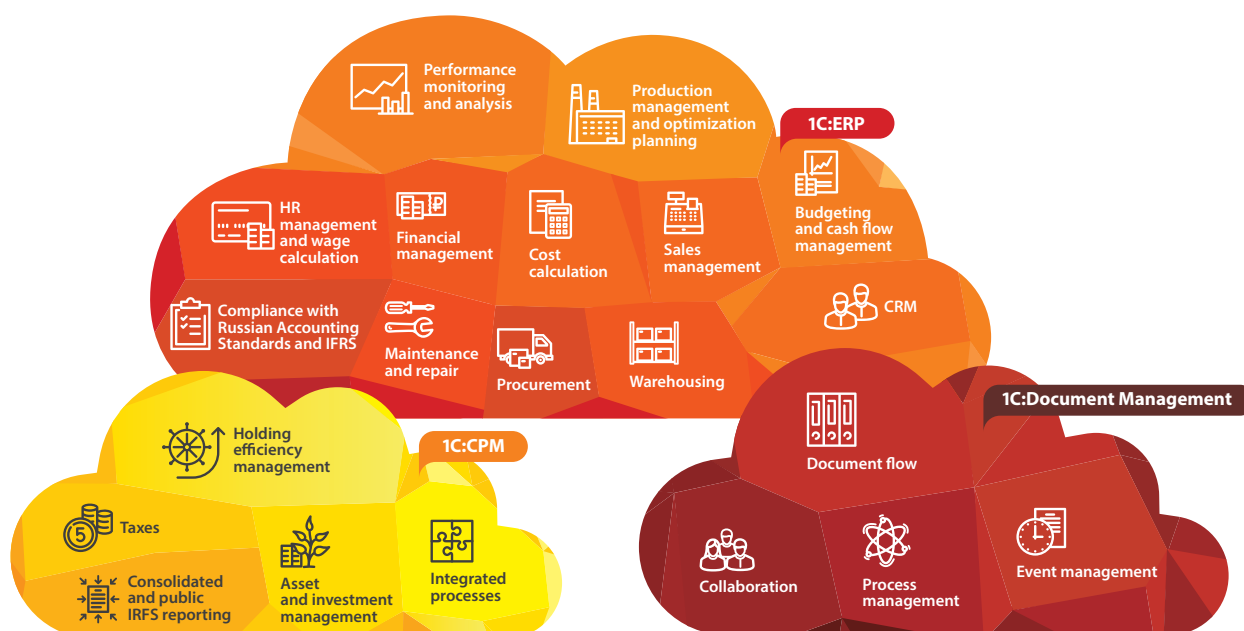
Support for external data sources allows 1C:Enterprise applications to work with data from practically any DBMS. 1C applications can connect to multi-dimensional data sources, such as Microsoft Analysis Services, Oracle Essbase, IBM InfoSphere Warehouse.

OTHER PLATFORM FEATURES

- Full-text search allows users to quickly find the needed information in an application. Searching for the name of a client will find the client in the client directory, as well as all documents (invoices, contracts, orders, etc.) where the client is mentioned.
- Data history: a mechanism that compactly stores the history of changes made by users in the application data. This mechanism enables flexible analysis of data changes, comparisons between different data versions, and rollbacks to the selected version.
- The database copy mechanism is designed to accelerate work with large amounts of data. It allows developers to configure 1C:Enterprise 8 so that a copy of selected data (all application data or a subset thereof) will be created and auto-updated in different physical databases. Complex analytics can be run on a copy of the application database so as not to create a load or data locks on the primary database.
- Data Accelerator is designed to speed up work with large amounts of data. Data Accelerator places the entire database in-memory on the 1C:Enterprise 8 server cluster. In many cases, this can speed up analytics. Data Accelerator works in conjunction with the database copy mechanism.
- 1C:Enterprise applications can be integrated with programs (external components) in virtually any programming language in Windows, Linux, macOS. External components dynamically connect and closely interact with the 1C:Enterprise 8 system, expanding its capabilities. Among other capabilities, this enables seamless integration with retail and logistics hardware: barcode scanners, RFID readers, label printers, etc.

BUSINESS PRODUCTS BASED ON 1C:ENTERPRISE

Applications based on the 1C:Enterprise platform handle a broad range of corporate accounting and management tasks. Customers can choose the 1C:Enterprise-based applications that best suit their company's needs. 1C applications can be easily reconfigured to support changing business processes, legislative requirements, or economic circumstances, without any downtime whatsoever. This includes adding more workstations, implementing new functionality, modifying business processes, and integrating with other 1C:Enterprise and third-party business applications. Both 1C partners and the customer's IT specialists can implement and support 1C applications.



INDUSTRY- AND BUSINESS-SPECIFIC SOLUTIONS



1C:ERP (Enterprise Resource Management)

An innovative solution for building a 1C:Enterprise-based integrated information system with comprehensive functionality

1C:ERP builds on the experience of 1C:Manufacturing Enterprise Management (the most popular ERP-class system in Russia and the CIS states) implementation and operation in large-scale projects: production management — including sophisticated, multi-stage production cycles; cost calculation; repair and maintenance management; sales management and CRM; procurement management and warehouse management systems; financial management, budgeting, IFRS and Russian Accounting Standards; payroll and HR; performance monitoring and analysis. Mobile workplaces and remote work via the internet are supported.

1C:CPM (Corporate Performance Management)

Planning, accounting, and performance monitoring for holdings of various sizes

Designed for integrated automation of holding management companies. Usage scenarios include:

- Automation of finance management in unified holding service centers and the implementation of a unified InfoBase in a consolidated data processing center
- A back-office corporate template (financial management automation for both the management company and subsidiaries, with the option to merge or seamlessly integrate with real-time enterprise accounting systems)
- A standalone solution implemented in a management company as a CPM-class add-on for accounting systems

1C:Document Management (Enterprise Content Management)

Streamlining your document flow

1C:Document Management fully automates official and internal document flow, both paper and electronic, for businesses and public institutions alike.

Enterprise-wide usage of 1C:Document Management increases collaboration efficiency, improves employee performance, increases document quality, and minimizes document creation time, all while maintaining confidentiality.

1C:Document Management CORP edition is recommended for medium and large businesses with complex documentation procedures.

1C:Trade Management

A modern tool for efficient trade management

1C:Trade Management provides solutions for operations and management accounting, analysis, and planning. It fully automates trade, financial, and warehouse operations, bringing modern enterprise management to wholesale and retail companies.

1C:Accounting

Universal bookkeeping and tax accounting software with Russian Accounting Standards-compliant reporting

1C:Accounting offers efficient, convenient bookkeeping and tax calculation for any industry: wholesale and retail, commission-based sales, services, manufacturing, construction, etc. Accounting is based on charts of accounts in accordance with local legislation. This solution provides standard accounting reports with a wide range of customization and drill-down options, as well as integration with 1C:Payroll and HR Management, 1C:Trade Management, 1C:Retail, and other 1C applications.

1C:Payroll and HR Management

Payroll calculation and HR management

1C:Payroll and HR Management provides extended functionality for HR management, recruitment, and training tasks, as well as tools for automating health and safety departments.

1C:Retail

Retail automation

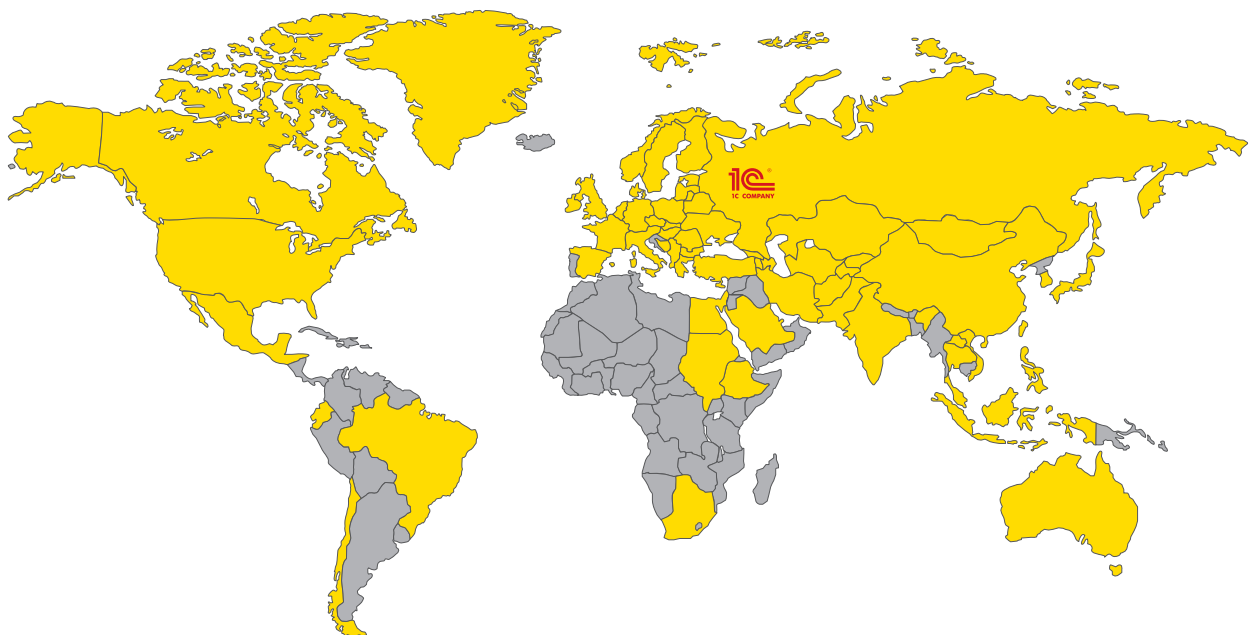
1C:Retail and 1C:Retail-based industry-specific applications automate retail outlet accounting, including retail networks.

Industry- and business-specific applications

Industry- and business-specific 1C:Enterprise applications are customized for specific spheres, thus minimizing costs and implementation time. 1C Company and its partners develop and maintain a wide range of solutions, ranging from small business accounting to corporate ERP-class systems.



1C:Enterprise application platform is used in more than 95 countries in Asia, the Middle East, Europe, Africa and the Americas



PROJECTS



Russian Post, Russia

An automated 1C:Enterprise system for over 47 000 workstations. Provides a unified methodology for all accounting methods, along with real-time inventory management, monitoring, and business activity analysis. A unified enterprise document management system based on 1C:Document Management at headquarters, 86 regional branches, and over 1000 offices.



Transmash Holding Inc., Russia

The 1C solution suite is the corporate automation standard, featuring the ERP, CPM, WMS, and ECM applications. About 20 000 workplaces are automated using the suite. Deployment of the unified corporate system generated a confirmed economic effect of over US \$147 000 000.



Moscow City Government, Russia

A unified cloud system for financial management. Deployed by more than 2300 city institutions with a total of 18 000 automated workstations and 350 000 employees. Based on SaaS technology, provides over US \$18 000 000 annual cost savings.



KAMAZ Group, Russia

More than 8000 KAMAZ Group workstations are automated with the 1C:Enterprise platform. This provides cost reduction, streamlines accounting and management, and ensures real-time consolidated reporting and financial analysis over all subsidiaries.



Rosatom Corporation, Russia

1C ERP Rosatom unified corporate system is deployed in more than 100 companies within the nuclear power industry, enabling seamless management processes throughout. Over 7000 workstations have been automated. Corporate Performance Management, a centralized holding management system, covers more than 1500 workstations.

PROJECTS



Sollers Group, Russia

More than 6000 automated workplaces. 1C applications have been instrumental in cutting back manufacturing expenses, optimizing stock, improving the reliability of component supplies, and reducing production downtime.



Ministry of Agriculture, Russia

State agency information systems on the 1C Platform automate processes dealing with food security, managing agricultural development, preferential agri-business loans, and industry monitoring. Over 15 000 users, over 300 000 objects tracked, more than 20 000 indicators.



Bang&Bonsomer Group, Finland

Implementing 1C:Enterprise ERP allowed the company to automate business processes, optimize information exchange within the corporate group, and redirect employee time away from routine operations. Flexible integration of 1C:Enterprise with other systems further increased the precision and efficiency of the company's operations.



Komatsu group, Russian branch

The company has successfully increased field employee sales and efficiency using a CRM system and mobile applications based on the 1C:Enterprise business application development platform.



Independent Distribution Collective, USA

The company tracks all its sales and accounting, and prepares reports, in the AccountingSuite cloud service, created for the US market on the 1C:Enterprise business application development platform.

PROJECTS



D-wine restaurants, Spain

The company has built a custom business management and accounting system based on 1C:Enterprise business applications.



XPO Logistics, Russia and USA

XPO Logistics reduces vehicle downtime and increases freight traffic volume with 1C:Transport Logistics, Shipping, and Vehicle Management CORP.

The system enables the company to calculate over 3000 complex billing operations simultaneously for a wide range of transportation services.

Improved route planning and optimized loading. Vehicle downtime reduced by 13%, idling decreased by 8%, orders increased by 12%, number of trips increased by 27%.



ACM Meat Factory Ltd, UK

Implemented 1C:Drive, a powerful yet flexible ERP system for automating small and medium-size businesses, to quickly increase market share and profitability.



Citigroup, Russia

The company successfully transitioned and automated its processes in accordance with industry accounting standards and the XBRL format using a 1C:Enterprise-based business solution.

Clients that have successfully implemented 1C applications and integrated solutions include:





Application merging

In-app messenger with voice and video calls

Business components

Automated REST API

System analytics log

Flexible user interface management

User settings

Data visualization

Debugging and performance analytics

Distributed databases

Seamless cross-platform capability

Mobile platform

HTTP services

Object-based data processing model

External data sources

Multitenancy

Data access control for individual records

Thin client

JSON

Web services

Multi-language localization

Event alerts

Data changelog

Git integration

Web client

Role-based access restrictions

HTTP, REST, FTP, SMTP, POP3, IMAP, OData

Auto-generated user interfaces

Intelligent reporting system

Cloud applications

Business logic composer

Business processes

Data aggregation

Translation tools

Query builder

Installation and update tools

Full-text search



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