



# WOLFRAM ENTERPRISE PRIVATE CLOUD

Put the world's most advanced computation  
at the heart of your infrastructure.



# Wolfram—The World’s Computation Company

## Leading Multiparadigm Data Science

Wolfram Research is one of the world’s most respected computer software and cloud computing companies—as well as a powerhouse of scientific and technical innovation. We have pursued a long-term vision to develop the science, technology and tools to make computation an ever-more-potent force in today’s and tomorrow’s world.

Our technology stack encompasses a full spectrum of products for applying **multiparadigm data science, AI, modeling and simulation**—all tied together by the intuitive, high-level Wolfram Language—paired with ready-to-compute, curated data through our Wolfram|Alpha project. We offer a variety of consulting services as well as technical solutions, with experts ready to help tackle problems from any domain. With the integration of computation and knowledge, Wolfram consistently anticipates the needs of evolving organizations to keep them at the forefront of their fields.



# WOLFRAM ENTERPRISE PRIVATE CLOUD

Wolfram Enterprise Private Cloud (EPC) takes the unique benefits of the Wolfram technology stack and makes them available in a centralized, private, secure enterprise solution.

EPC uniquely enables organizations to realize an enterprise computation strategy—for example, unleashing vastly increased value from their centralized big data, for analytics, business intelligence and knowledge-driven application development.



# Why Enterprise Computation

Until recently, the use of high-level computation has only been accessible to a small number of specialists in most organizations. If you weren't one of them, you only had three options: use basic computational software, such as Excel, yourself; rely on narrow preassembled models for computation; or seek out a specialist to build something custom or give you a one-off answer.

But computation is now very central to a huge number of organizational functions and the organization itself. It isn't just for the specialist but for everyone, at any level of your organization.

Organizations need an architecture for computation that matches this new reality. That means quality, security, reliability, coherence and consistency of enterprise-level deployments—not individual ad hoc models for each use or by each user.

**Organizations need enterprise computation.**

## Data Science with Enterprise Computation

Today's key driver for enterprise computation is big data analytics. Many organizations find that getting the best answers from their data requires a combination of effective imagination, broad-based analytics and visualizations. Data analytics is a business-strategic issue and a shared enterprise problem—it needs to be matched with a shared enterprise computation solution that can sort out today's data analytics failings.



# Why the Wolfram Ecosystem for Enterprise

EPC enables organizations to realize an enterprise computation strategy.

The Wolfram technology stack is uniquely suitable as an enterprise computation hub, encompassing the world's largest web of algorithms and maintaining interconnectedness across workflows. Underpinning everything is the high-level multiparadigm Wolfram Language, making the Wolfram technology stack a coherent enterprise framework.

EPC is one computation cloud service for all possible computational tasks—stats, reporting, modeling—not a collection of different systems for different tasks. No switching costs between components, no different servers for different tasks, no hunting for disparate libraries and tools. The Wolfram ecosystem is a complete production environment from beginning to end.

EPC delivers computation throughout your entire organization, whether through the ease of advanced access by traditional computational groups or the newfound access outside those groups.

## Wolfram Notebooks for Enterprise Computation

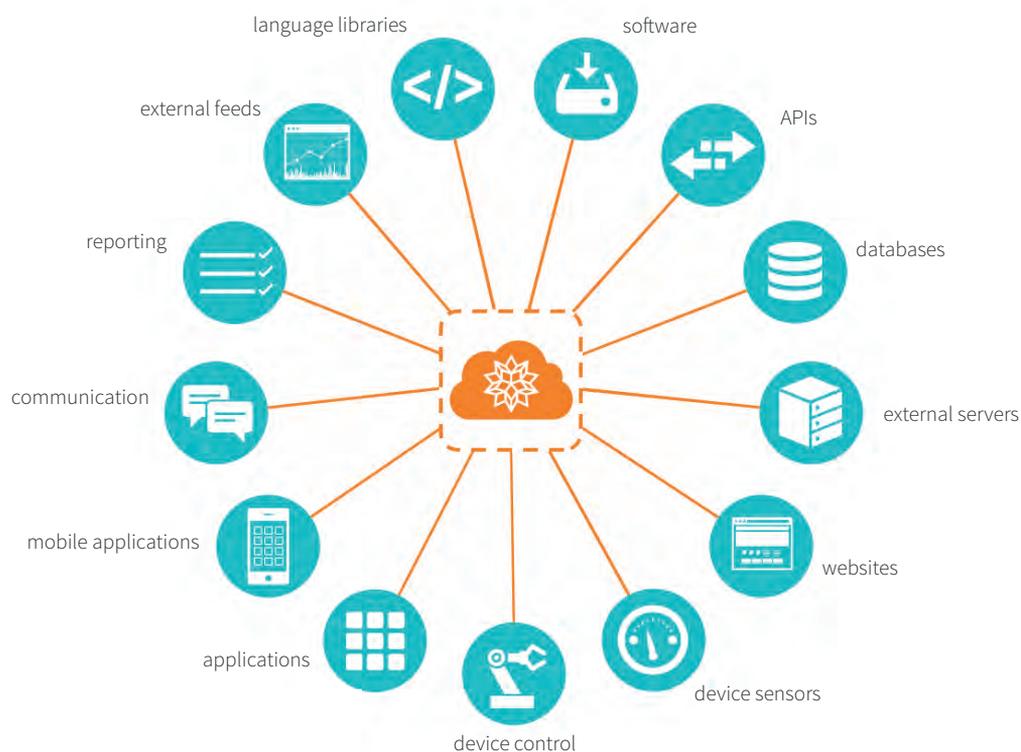
Notebook technology was pioneered by Wolfram Research in 1988 and has undergone continuous improvement—from interactive coding to dynamic visualizations to cross-platform development and deployment—with consistency and ease of use as key principles. An important tool for computational communication, notebooks provide an intuitive, all-in-one environment for research and development at any scale.

**EPC fits right where you need it to**—unifying different systems and interfaces to put computation at the heart of your infrastructure.



# EPC: How It Works

EPC is a virtualized computation server that supports direct interaction with deployments through a browser and automated services at an enterprise level. It both replaces components and enhances workflows in your infrastructure—you can use it to read on-demand or scheduled reports or interact with easy-to-use forms, dashboards and GUIs. Developers can create and test prototypes directly through a browser, or through an offline desktop client, then deploy to the cloud for production use.



EPC acts as a uniquely versatile hub to serve APIs driven by Wolfram Language computations—or libraries in other languages—and allows real-time access to databases. Expose it to the outside world, and it can bring computation to mobile apps or dynamic content on public-facing websites. Anyone dealing with models, data or knowledge in any role—from practitioners to board level—can benefit from the interactivity that Wolfram technology provides.

EPC is the start of a fundamental shift in how organizations see and deliver computation for the enterprise.



### **Rapid application development**

EPC can replace the complete RAD workflow and extend it to instant deployment, particularly for computation or data-rich applications.



### **Computation and data analytics server**

The ultimate replacement for a host of computational and statistical desktop tools or mainframe-era libraries of routines. EPC is also ideal for supplementing existing codebases with its ready-to-use connectivity to a wide range of systems and languages.



### **Code server**

Use EPC as a Wolfram Language development environment and code server. As familiarity in the language is gained, the speed, readability and computational power it offers increasingly enable new projects to be directly delivered through EPC.



### **Notebook documents and user interfaces**

EPC supplements existing interface options as a hub for live-computed interactive notebooks, dashboards and easier-to-build replacements for desktop or app-style software.



### **Scheduled reporting**

EPC offers a replacement to cloud-based or desktop, scheduled, custom-triggered or on-demand reporting, with the unique capability of embedded, live computation.



### **Low-level system tool replacement**

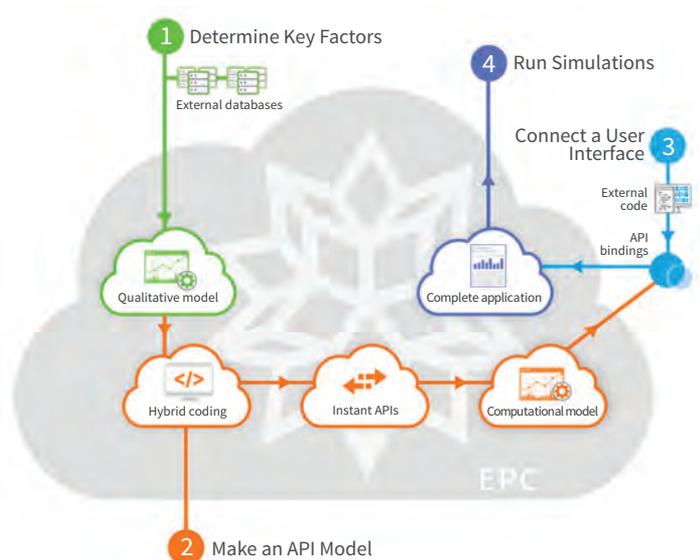
EPC offers a high-level replacement for a variety of low-level system tools in a modern cloud environment.

# EPC Examples in Action

## Direct-to-Client Data Analytics

Deliver rich applications directly to clients, connecting instant cloud APIs to custom interfaces for sophisticated modeling and analysis of business data—securely hosted and powered by your EPC.

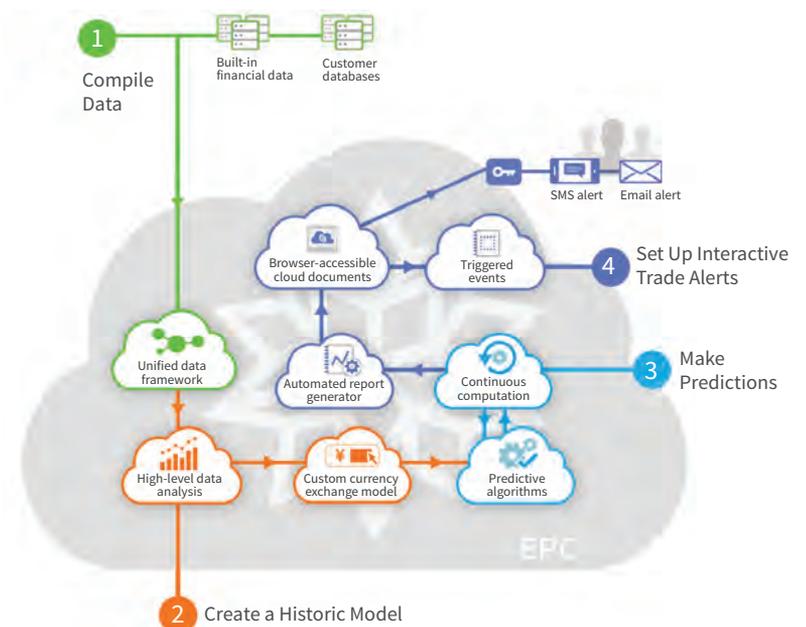
- Instant high-powered APIs
- Rapid prototyping with instant visualizations
- Customer data, immediately computable
- Fully configurable data security



## Centralized Computation and Reporting

Create an automated service to assist with business decisions, using the built-in data, powerful algorithms and process management tools of EPC to generate interactive reports and mobile alerts—for example, a corporate bank helping its customers determine the best times to exchange currency.

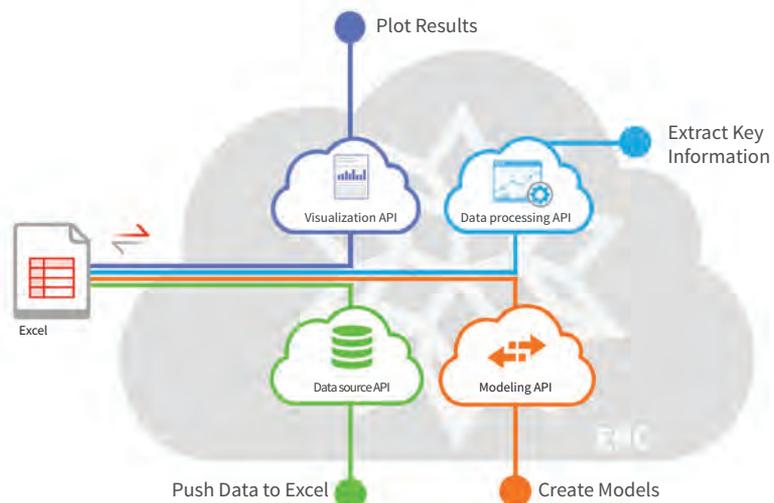
- Self-updating computable documents
- Consistency across all platforms
- Powerful process automation
- Scalable cloud architecture



## Enterprise-Level Analytics in Excel

Get enterprise computation through a familiar interface with CloudConnector for Excel, replacing disparate local installations with high-powered API models centrally hosted in your EPC for easier updating, as well as improved quality, tracking, auditing and security.

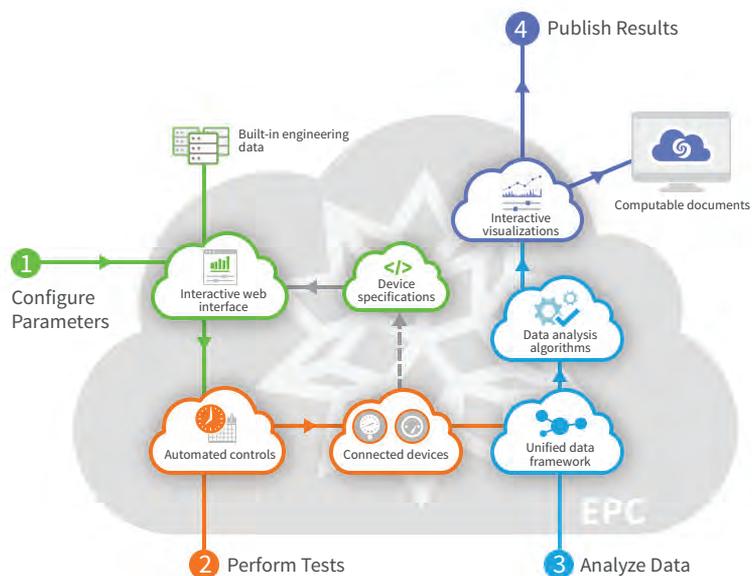
- Your data or ours—ready to use
- One-step code maintenance
- Deploy once and access anywhere
- Automatic load balancing



## Enterprise-Wide Process Automation

Use the symbolic representation of EPC to combine external and built-in data sources, computational models and device automation. Share and deploy results as interactive cloud notebooks to streamline business processes across your organization—like a manufacturer automating its quality testing and reporting.

- Represent everything symbolically
- Sophisticated analysis and visualization
- Curated device framework
- Centralized process control



# Key Benefits of EPC



## High-level multiparadigm language

Compute with the Wolfram Language, which contains the largest assemblage of algorithms and continually curated data available.



## Web-based development

Deploy and distribute Wolfram Language programs and applications directly through a web browser.



## Automatic interactive reporting

Deliver ad hoc, scheduled or triggered interactive reports, either online or through client services.



## Web-based collaboration

Grant computational power, tightly controlled by your permissions, immediately to whomever you choose.



## Interactive notebook documents

Easily create, manage and distribute interactive notebooks with a range of deployment and permissions options.



## Streamlined publishing and sharing

Simplify collaboration using notebooks with permanent links that automatically generate editable copies for recipients.



## Security

Operate on a closed network using a self-contained disk image.



## HPC scalability

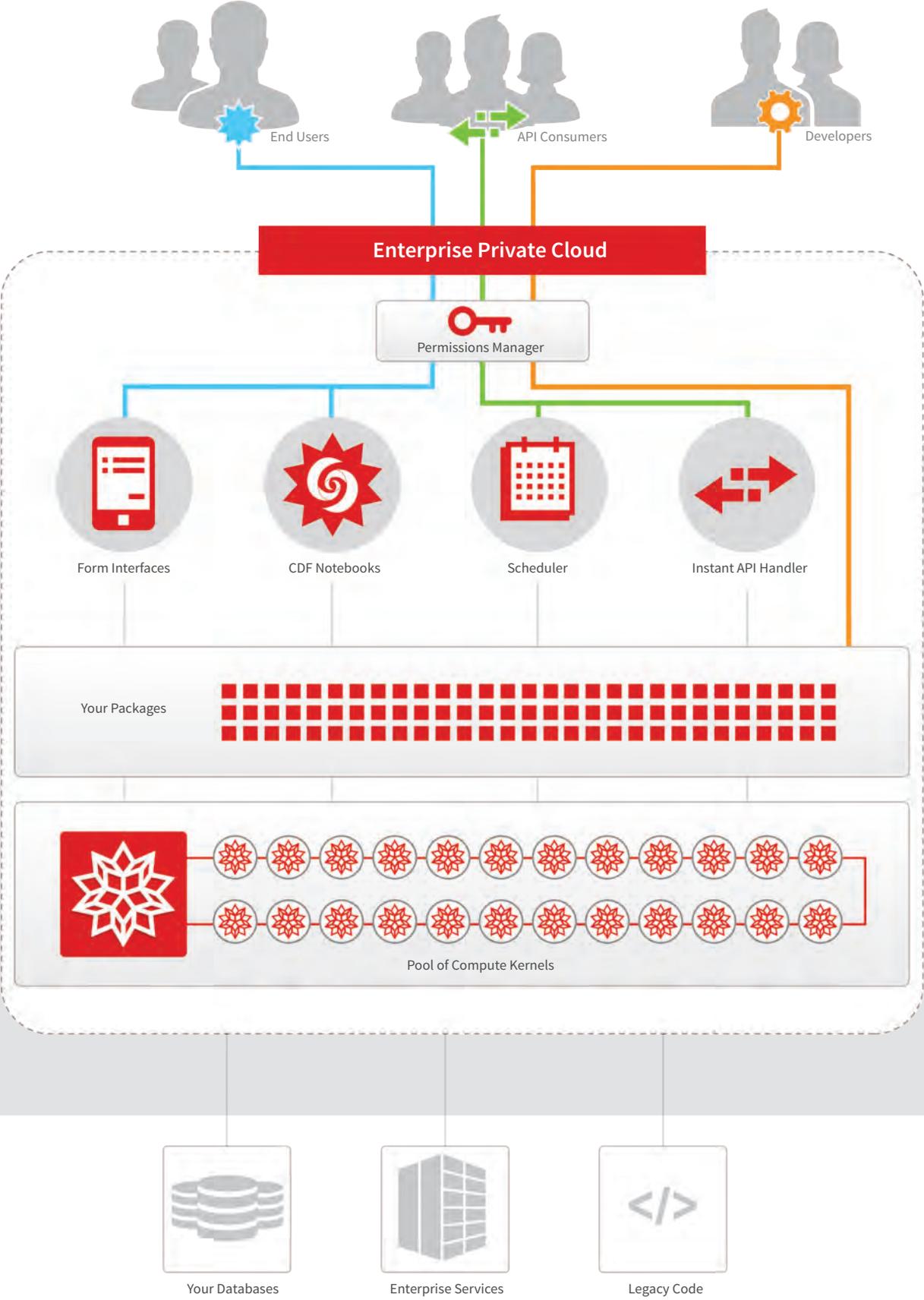
Scale from single users to enterprise-wide deployments to be run in parallel.



## Customizability

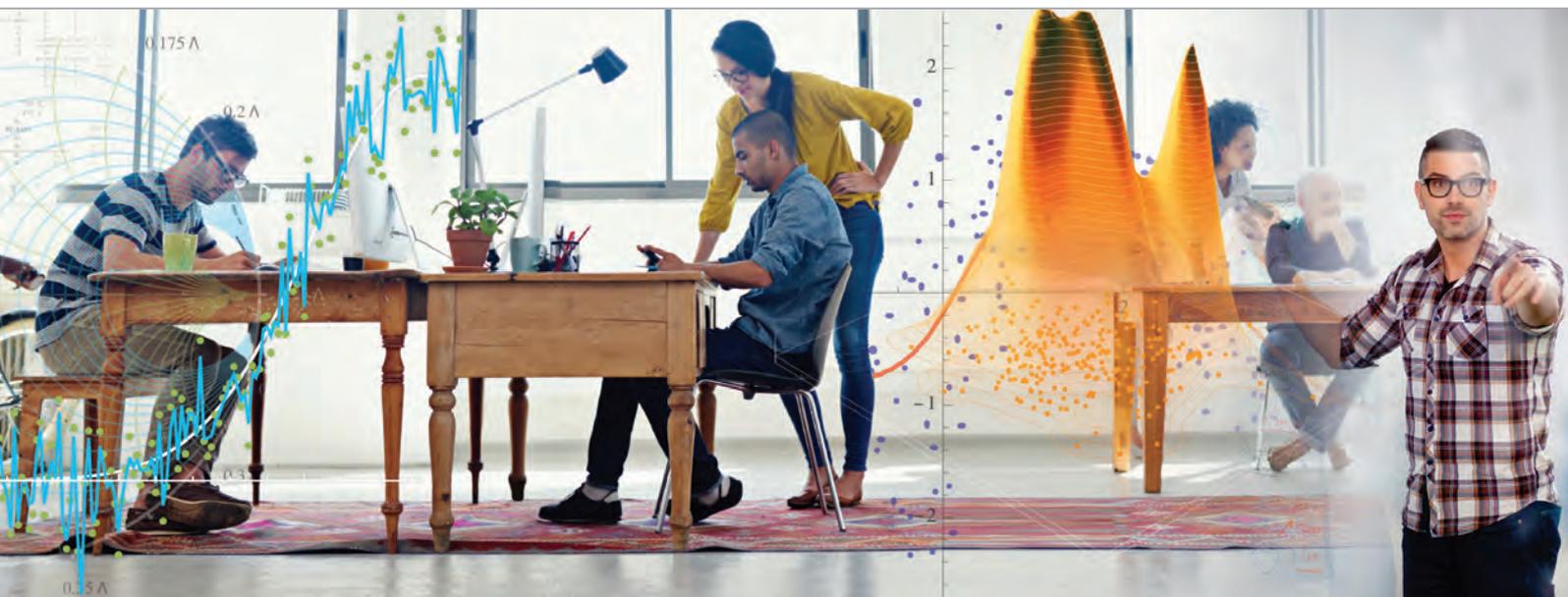
Set up EPC for you and your organization with multiple logins, custom policies and installed components for different levels of users.

EPC fits in at any level, wherever you need it to, with one complete ecosystem.



# Get the Wolfram Edge

Let our team of innovation specialists work with you to find out how EPC fits with your computational needs. With unparalleled expertise in technology development and integration—combined with our diverse backgrounds in business, science and engineering—we can help you achieve your goals with speed and efficiency.



Find out more about Wolfram Enterprise Private Cloud or get a personalized consultation on how enterprise computation can drive progress in your organization. [www.additive-mathematica.de/epc](http://www.additive-mathematica.de/epc)



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