



## **PYDIO RE-INVENTS OPEN SOURCE FILE SHARING FOR THE ENTERPRISE**

*Pydio Cells delivers ultimate end-user flexibility, alongside a new microservice architecture and GDPR compliance features*

Paris, 16.5.2018 - Pydio, the company behind the popular, open source file sharing solution, announces a radically updated release of the project, named Pydio Cells. The software is now built on a completely new microservice architecture; features fundamental improvements in usability; and a dedicated admin functionality for GDPR auditing and compliance.

Pydio is the first major open source file sharing project to drop outdated PHP technologies. Rewritten in GoLang, Pydio Cells offers a faster, more scalable microservice architecture that is in tune with dynamic modern enterprise environments.

The enterprise data management functionality gives both companies and administrators reassurance, with new controls and reporting that directly answers corporate requirements around GDPR and other tightening data protection regulations.

Pydio's radical new "Cells" concept delivers file sharing as a modern collaborative app. Users are free to create flexible group spaces for sharing, based on their own ways of working, with dedicated in-app messaging for improved collaboration.

"While other file sharing projects have become wrapped up in OSS politics, we have rebuilt Pydio on new technologies that embrace the way enterprise open source has evolved," comments Charles du Jeu, founder and CTO at Pydio. "With our new combination of end user freedom, management control and enterprise architecture, Pydio Cells now delivers an unrivaled solution for corporate end users."

Pydio Cells is immediately available for download from <https://pydio.com> in two flavors: a free community supported version, with contract options, and a commercial version with unlimited Level 3 contract support for enterprise deployments. Pricing is available on the website.

### **About Pydio**

Pydio, a founder's owned company based in Europe, is the largest open source file sharing and synchronization focused project for the enterprise. The solution is adopted by leading brands such as Nikon, Seagate and Credit Agricole, and also

serves education clients such as Cambridge University (UK) and Washington State University (USA), and government bodies. Pydio has over one million downloads, and is available at <https://pydio.com>.

## **BACKGROUND**

### **ENTERPRISE ARCHITECTURE FOR DEVELOPERS**

#### **Pydio Loves Devops**

In tune with modern, enterprise Devops environments, Pydio Cells now runs as its own application server (offering dependency-free binary with no need for external libraries or runtime environments). Re-written in GoLang, the complete application is available as a Docker image, and offers out-of-the-box connectors for containerized-application orchestrators such as Kubernetes.

Alongside the rewrite, the application has been broken-up into series of logical microservices. Within this new architecture, each service is allocated its own storage and persistence, and can be scaled independently. This enables Pydio to be managed and scaled more efficiently, allocating compute resources to each specific service as its load increases.

“Monolithic blocks of PHP don’t fit in a modern enterprise IT infrastructure. Our move to GoLang has delivered ten-fold improvements in performance. At the same time, by breaking the application into logical microservices, larger users can scale the application by targeting greater compute resources only to the services that require it, rather than inefficiently scaling the entire solution,” explains du Jeu.

#### **Built on Standards**

The new Pydio Cells architecture has been built with a renewed focus on the most popular modern open standards:

All files are served through a standard S3 API. This allows any existing client applications built on Amazon Storage to query Pydio directly. It also simplifies architecture choices for future development of new client applications.

Pydio’s own, REST API has been documented through the Linux Foundation’s Open API (Previously Swagger) specification: giving developers the ability to automatically generate clients for the API in a wide variety of different languages.

New native authentication within Pydio has been built on OpenID Connect, providing safe, simple integration with existing enterprise Authentication Servers.

Pydio Cell’s internal microservice architecture uses Devops standards such as GRPC, 12 Factor App methodology and Protobuf, providing compatibility with popular developer tools.

# CONTROL AND COMPLIANCE FOR DATA ADMINISTRATORS

## Policy Control and Enforcement

Functionality around security policies has also been given a major upgrade, with a focus simplicity, practicality and control:

Administrators can now assign rules to groups and individuals based on IP addresses, location, time and other factors. As an example, non-executive staff can have their access to confidential documents, limited to office hours from machines on the company network. Policies are managed from a clear interface built using Google's intuitive Material Design.

Similarly, access to file metadata and API access (for external systems, apps and services) are controlled via the same overarching policies. And with 'deny by default' access rights, administrators can be confident that policies are enforced.

## Dedicated GDPR Logs and Reporting

With the imminent introduction the General Data Protection Regulation (GDPR), the administrator interface in Pydio Enterprise has been extensively redeveloped to deliver clarity and control, and simplify the task of managing data for compliance.

Pydio Cells now features GDPR-compliant logs (separated from the system logs), giving administrators fast, uncluttered access to all the data relevant for data protection regulation and auditing. These logs can be filtered and exported as spreadsheets or CSV files for external reporting.

## Additional Admin Improvements

A powerful new LDAP integration interface allows administrators to filter and map existing LDAP databases to attributes in Pydio, providing clear control for accurate schema matching. This delivers a fast, workable solution at the LDAP data import phase, ensuring that inevitable inconsistencies and corner cases are dealt with at source.

Versioning of documents is now controlled natively within Pydio with intuitive graphic representation to configure retention periods. This allows administrators to define clear policies for keeping files and versions over time, and minimizing unnecessary wastage of storage capacity.

Pydio Cells also offers file encryption within the application, with no need to trust the underlying storage. Administrators can export and import encryption keys through a dedicated password protected function.

As part of the new microservice architecture, the admin interface will include a granular overview of all services running within Pydio. Data administrators can now see the load on each service, monitor application performance, alert devops to impending capacity problems and even takeover simple restart tasks.

The “Workspace” function has been separated from data sources, allowing admins to create workspaces from different branches of the underlying file tree and folders stored different locations in the tree.

Template paths allow the creation of simple rules for storing data from different users on different physical storage (sharding).

## **“CELLS” THE NEW END USER EXPERIENCE**

Pydio Cells delivers file sharing and collaboration, in a way that is more familiar, comfortable and intuitive for users of modern collaborative apps. It lets users decide how to share files and information, based on knowledge of their own teams, workflows and working patterns. This end-user freedom also takes the responsibility for creating effective workspaces away from overburdened administrators.

End-users can now create their own, flexible “Cells”: combining files and folders from any location. Cells provide a space for collaborating on documents, which can be based on teams, projects, or any other user-defined topic. The Cells concept will be familiar to modern workers used to collaborating on “channels” within popular group-chat applications.

Cells can be shared internally or externally to the organisation, with users able to add new individuals and groups to the Cell. In-app, instant messaging within each Cell, then provides a focused channel for group communication around the theme.

“Pydio Cells is the natural evolution of the shared file system, allowing users to collaborate in a more effective, natural way. It enables users to share and work on files, and communicate together based on their own ways of working,” explains du Jeu. “File system structures no longer get in the way of efficient workflow, the users’ work patterns define the Cells.”

Alongside the introduction of Cells, the new release retains Pydio’s familiar user interface, offering these powerful new sharing and communication options as intuitive functions which feel natural for existing Pydio users.

Pydio’s new end-user freedom and flexibility is also tempered by the need for corporate policy enforcement. Cell owners can define their own read and write access for each individual user or groups, even giving access to the cell to users outside of the organization. However, company security policy, defined through the powerful new administration interface, takes precedence, ensuring that overall control of sensitive information is assured at a company level.