

# Decisyon App Composer (DAC) Technology Overview

Decisyon App Composer is an agnostic Industrial IoT (IIOT) Visual Rapid Development Platform with rich native microservices. Along with services from different PaaS platforms, DAC enables you to quickly and visually compose solutions using the best of breed of each platform.





# Maximize Productivity with a Unified IIoT Development Framework

## Make Better Industrial IoT Apps, Faster

Whatever the data sources—devices, business systems, social channels, and more—DAC delivers the right information to the right people at the right time, fast. It allows you to create your own Industrial app and enables smarter decision making, timely action and more profitable operations.

DAC's drag and drop development environment provides a high degree of flexibility in building business solutions, for developers and business users alike.

Our easy-to-use framework maximizes the productivity of your users throughout the entire application life cycle. It allows multiple designers and developers to work in parallel. The result? Radically faster 'speed to outcome' for both developers and operators. Get more insights, optimize your decisions, proactively take action, manage and modify Industrial IoT apps and solutions quickly.

**Apply for an MVP quote to test our technology**

<https://www.decisyon.com/mvpquotationform/>



CLOUD, ON-PREM, HYBRID



CONTAINER BASED ARCHITECTURE



MICROSERVICE ORCHESTRATION



DATA CONNECTIVITY



USER/ROLE ADMIN



PUSH & PULL APIs



CODE EMPOWERMENT



1-CLICK DEPLOYMENT



DRAG & DROP WIDGET HUB

### @BUSINESS USERS

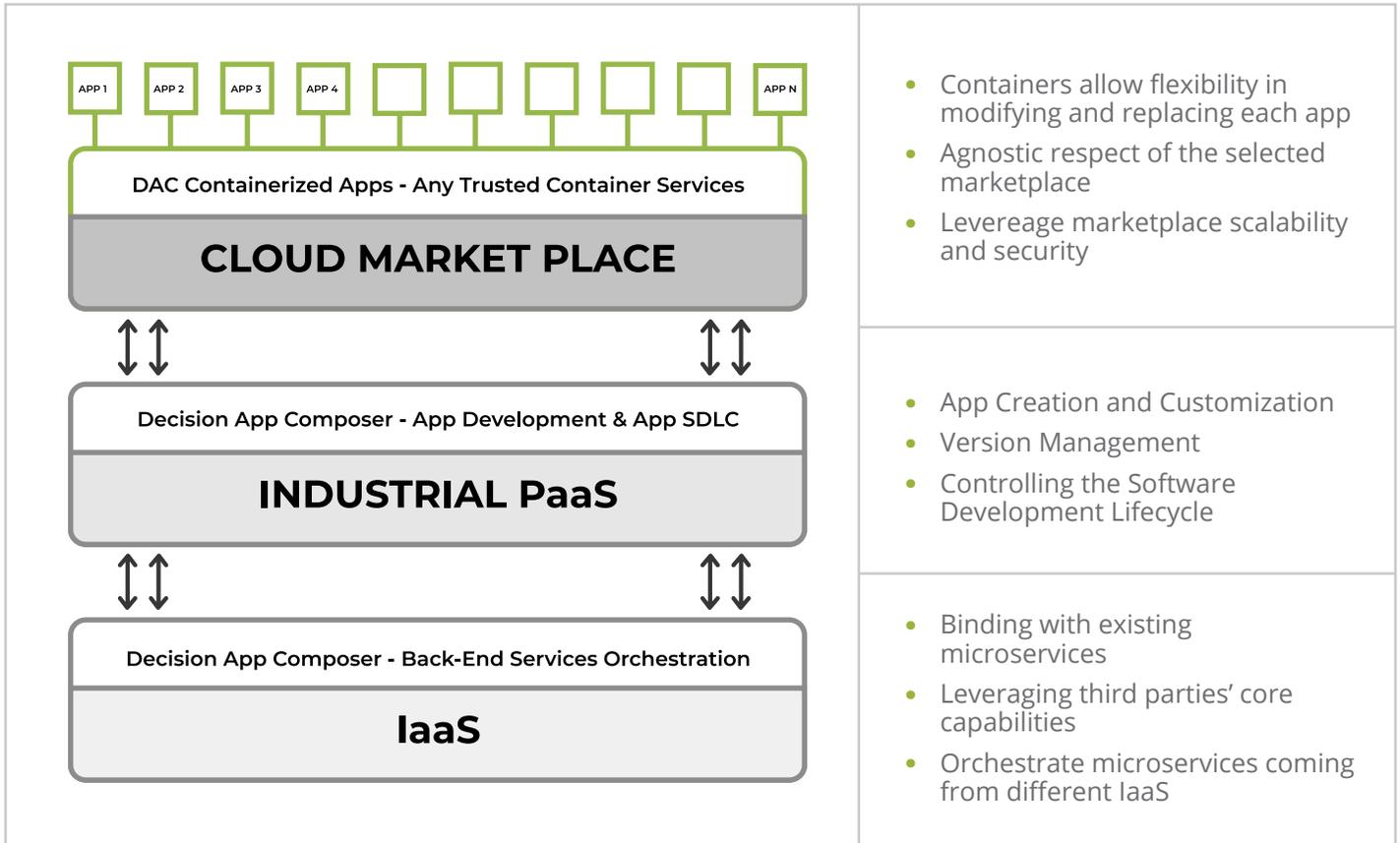
Take advantage of our ready to use Decisyon Digital Factory (DDF) solution. The DDF templates can be applied to any factory's current workflow, or be easily adapted to a company's specific production requirements.

### @INDUSTRIAL PARTNERS

DAC works as an enabling visual layer that empowers everyone to leverage all underlying PaaS capabilities in conjunction with all Decisyon native services, significantly accelerating time to build and deploy.

# DAC Technology Vision

DAC's agnostic Industrial IoT (IIOT) Visual Rapid Development Platform with rich native microservices, along with services from different PaaS platforms, enables you to compose solutions visually and quickly, using the best of breed of each platform.



DAC's microservices architecture has extensive scalability and superior performance under heavy load. Its back end is Java Spring based, and is developed in HTML5 and Angular on the front-end. It has over 30 built-in data connectors to read and write data for all major business systems and SQL and NoSQL databases. DAC can consume third-party REST services and provides access to its own data and services using the DAC REST API.

DAC can be deployed on different cloud services. You can choose to host DAC solutions on any public or private cloud

or on-premises. DAC apps can be deployed using Docker or Kubernetes services like EKS of AWS or AKS of Azure or on premises.

DAC's unified framework leverages its native microservices as well as all underlying PaaS services allowing the end user to share knowledge and collaborate around real-time data to arrive at faster and smarter decisions. Citizen developers, who desire further customization, have the power to tailor make the code in key areas of DAC.

## Our Technology Partners



GE Digital Alliance Partner



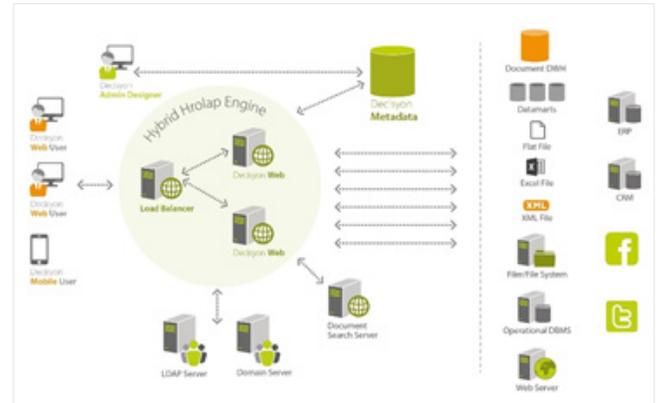
SIEMENS



# DAC Operational Components

## DAC Design Studio (DS):

DAC-DS is a powerful feature-rich environment for the high-speed development, configuration and administration of data-intensive IoT business applications. Written in Java, it is a standalone application that inherits the portability and independence of platform and technology. Simple and intuitive in design, DS enables easy extraction of insight from data via its high-level ROLAP data engine and helps developers build rich user interfaces by using modern front-end frameworks and development methodologies. DS provides the access management (authorization) capabilities necessary to publish and distribute information to users based on their functional roles.



## DAC Runtime (RT):

DAC-RT, the runtime component, offers sophisticated functionality to visualize, analyze, explore and create actions on data. All the analysis generated on the DAC platform is fully navigable: users can leverage drilling, pivoting, slice-and-dice, sorting functions, contextual collaboration and integrated task management by a simple right click anywhere, anytime. They can also reorganize any data view with simple drag-and-drop or by clicking on toolbar icons to obtain visualizations that meet their needs. Data, analyses and actions are easy to share across organizations, out of the box, using our unique collaboration toolset.

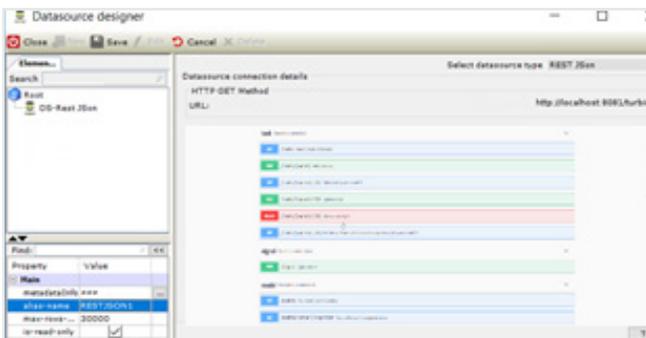
## Platform Extensions

### Push and Pull API GUI

Natively call any REST or SOAP API straight from DAC data sources, without needing complex software development tasks to retrieve data: it allows you to connect and integrate your app with external ones. DAC Connector Kit offers powerful integration options with native REST support and advanced mapping of XML and JSON messages. Connectors that leverage a third-party SDK can be included easily as native drag-and-drop elements in the DAC Page Designer and Workflow. DAC API allows you to feed your application data into your BI and Analytics tools and all other downstream applications.

### Push and Pull A Widget Designer PI GUI

Widget Designer is a powerful online development environment that provides a feature-rich toolset to build complex applications with complex user interfaces. The development environment is based on Angular and can be extended with any third-party services and front-end libraries. Using Widget Designer, you can create custom widgets with complex workflows that meet your requirements. Once created and published, your custom widgets will be available in the palette for designing pages using Page Designer. You can also create and share libraries that can be reused on multiple widgets.



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## DAC Key Features

### Data Connectivity

Use DAC's extensive collection of out-of-the-box connectors and API libraries to simplify integrating with third-party databases or applications.

### Data ROLAP Virtualization

Connect to relational databases, no-SQL databases, and enterprise applications in real time without having to replicate data.

### Self-Service Analytics

Empower you to perform BI anywhere, anytime, with a simple right-click. Create your analytical models and ingest 3rd party AI/ML algorithms.

### In Context Collaboration

Communicate with your key stakeholders in a unique, social and collaborative environment. Create taskboards starting from a single KPI.

### Device Data Management

Ingest data from a variety of protocols and streaming platforms (e.g., HTTPS, MQTT, SFTP, AWS Kinesis, Historian, etc.).

### Alerting and Workflow

Unify and automate your business rules. Extensive library to easily define temporal, geospatial or comparative rules for alert generation.

### Users & Roles Management

Apply a consistent governance and security model (SAML, OAuth) to your data using a flexible, role-based access control security framework.

### White Labelling

We provide a set of beautiful and contemporary themes that you can easily customize, or you can create your own (logo, app name, icons, palette, etc.).

### Multi-Language App

Set the language and time zones associated with each app and import the KPI dictionary. Segregate each configuration by user or team.

### Widget Hub

Use Assemblies of pre-configured building blocks that you can drag and drop into pages. Create and publish your custom widgets in the hub.

### API & SDK Management

REST/JSON data source interface to map any 3rd party service or API. Use DAC REST API to access DAC data and services.

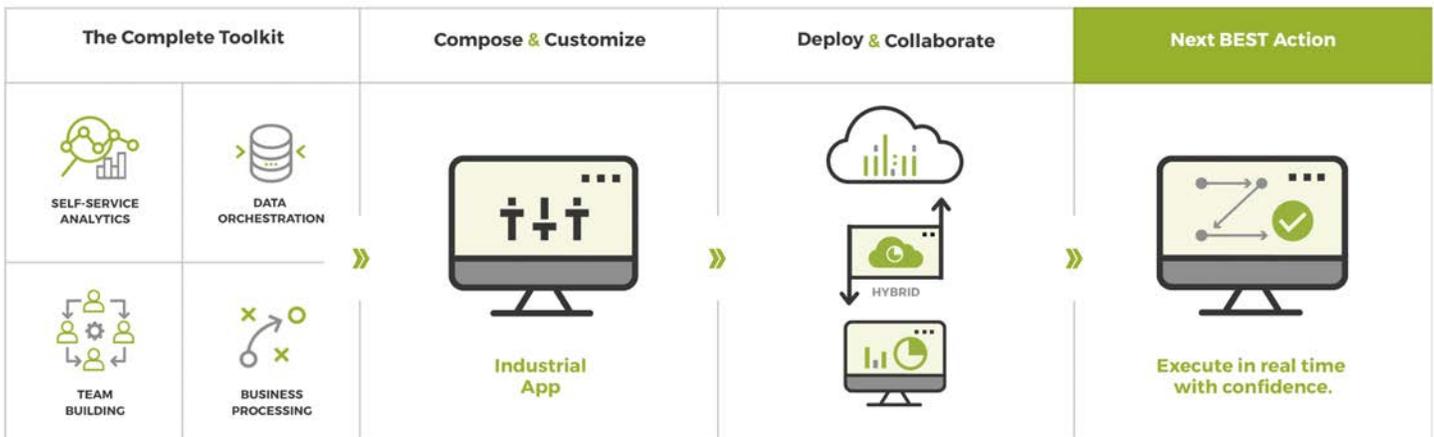
### Multi-App Console

Leverage the multi-tenant environment to segregate and control app usage rights. Administer all your apps from a unique web point of access.

## There are many advantages in using DAC to accelerate your solution development:

- Provides an intuitive Visual App Dev Environment for rapid development: simply drag & drop, test and deploy
- Leverage the underlying PaaS services to build IIoT solutions
- Ingests real-time structured and unstructured data and runs on all major SQL databases
- Use a catalog of Decisyon native and PaaS-specific microservices and widgets
- Features built-in Data Orchestration, BI, Analytics, Rules Engine, Collaboration, Decision & Action
- Multi-Cloud 1-Click Deployment
- Provides unique in-context collaboration features around the data to run what-if scenarios in real time
- Already in production in over 200 clients in numerous industries such as Aviation, Renewable Energy, Transportation, Manufacturing, Pharma, Retail, Healthcare, and Supply Chain.

## All in the Box: From Data Aggregation, Insight to Decision and Action



## Decisyon Enriches the Industrial IoT with Launch of Decisyon 6.0

SAN FRANCISCO – December 1st 2018. In our effort to continuously improve our technology and enhance the usability of Decisyon for both partners and end users we are constantly upgrading our software with new back end and front end relevant features. The key highlights of Decisyon 6.0 include:

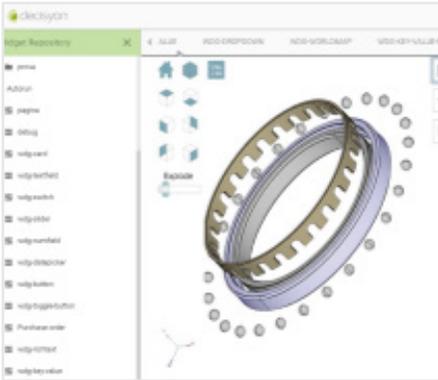
- UI/UX based on Google Material Design Framework
- Web Application Organizer to manage and share any content available in your application
- Advanced users and role management directly on the web app console admin section
- Kanban drag & drop task-board to manage tasks and action in a clear and easy way
- New web GUI theme customization and white labeling
- REST / JSON data source interface was added to map any third party service or API
- The Decisyon API has been extended to download API definitions and quickly import them in Postman.
- Compatibility with Java 10, PostgreSQL 9.6, Angular, Microsoft SQL
- Support to OpenID Connect as authentication layers other than LDAP, Active Directory, etc.
- Widget Designer improvements with SDK documentation and support for shared libraries.

The **Widget Hub** is now released and allows system administrator and application developers to:

- Explore the dedicated catalog of widgets
- Read the documentation of each with details such as required data sources, in & out parameters etc.
- Easily download widgets
- Get notified about new versions
- Restore an old version of an upgraded widget
- Download widgets compatible with its own installed DAC version
- Upgrade widgets version without losing customizations



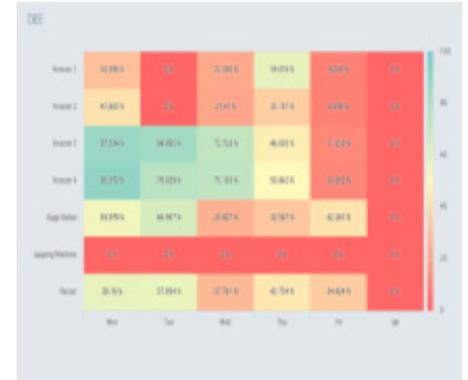
Using the Widget Hub the widget lifecycle will be separated by the App Composer lifecycle, helping you to build applications faster and use new features or bug fixing specific to widgets. Below you can see the 3 most relevant new widgets available:



**3D CAD Navigation Model**



**Supervised Decision Tree Workflow**



**Heat Map**

## About Decisyon

Decisyon enables business users to rapidly build solutions using a code-free visual software development environment. Our products accelerate your data journey from aggregation to visualization, insight, analysis and decision thru action. Decisyon offers the leading code-free visual software development environment for mission critical enterprise operations requiring real-time awareness and adaptability to their business operations and processes. We have developed and deployed many vertical solutions for the manufacturing, renewable energy, aviation, pharmaceutical, financial services, transportation and automotive industries. With built-in microservices such as data management, BI, mashboarding, rules engine, collaboration and execution, Decisyon offers a dramatic increase in speed to outcome for building and modifying vertical solutions. Decisyon's products and software solutions, ideally suited for IIoT applications running on any PaaS, are used in over 200 companies globally. Decisyon is headquartered in San Francisco, California.

## Corporate HQ

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