



VALUEMATIC



SYDA - Synaptic Autoscaler

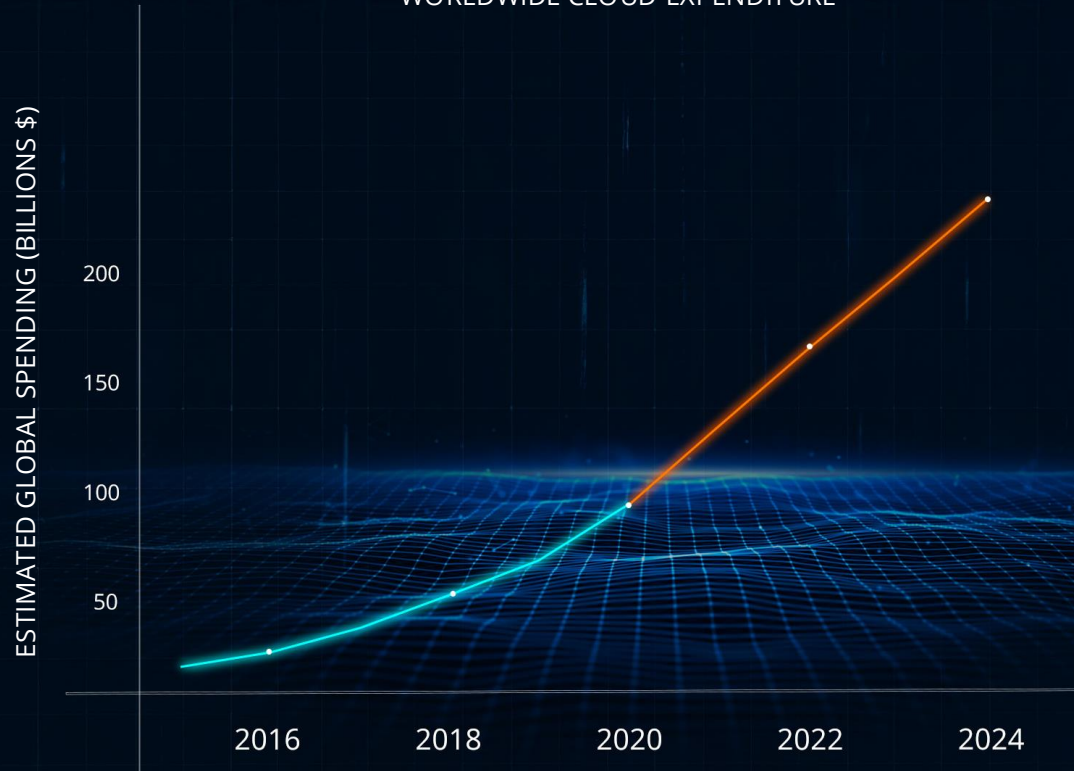
Your Cloud, on Cloud Nine





The need

WORLDWIDE CLOUD EXPENDITURE



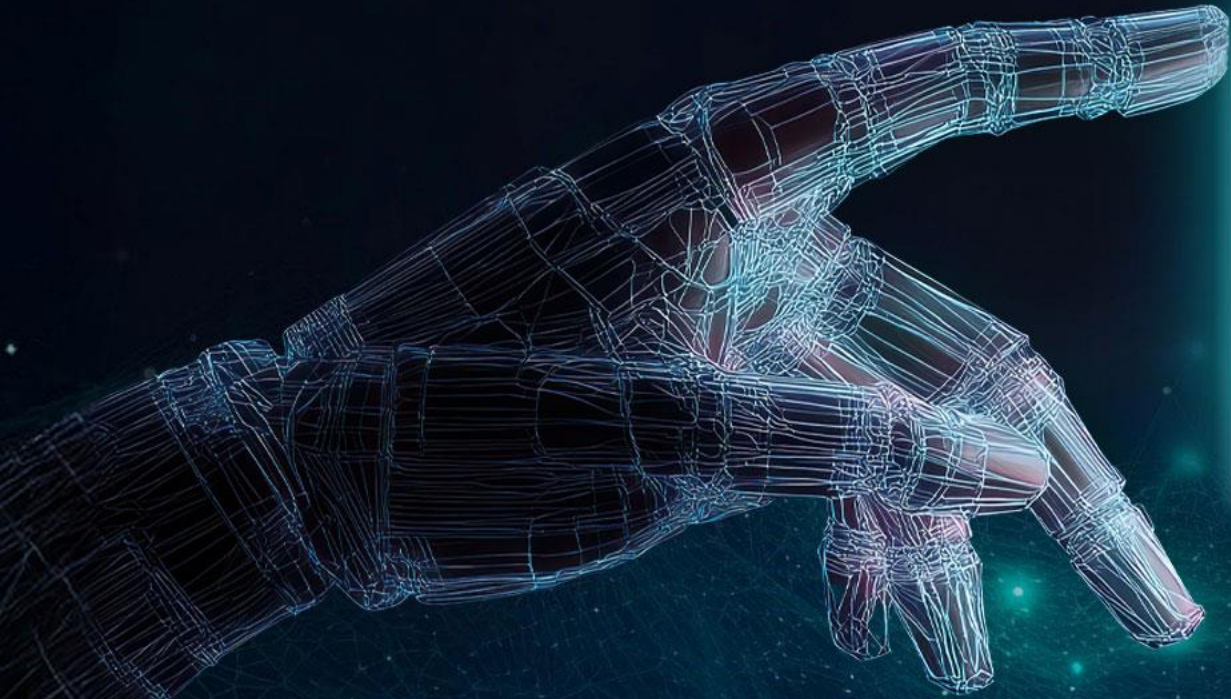
Cloud expenditure is skyrocketing.

To ensure appropriate resource utilization, most cloud providers offer autoscalers—systems that dynamically adjust cloud resource allocation based on your application's needs.

However, current autoscalers are **not adaptive**, some of them only react after an event.



SYDA



DISCOVER SYDA

The first synaptic autoscaler that saves you
up to 60% in costs



SYDA

Today, major providers have adopted **auto-scalers** to adjust resources based on demand.



However, even when integrated with artificial intelligence, current auto-scaling models can no longer handle the complexity of modern applications, often failing in unexpected scenarios and causing significant delays or severe financial losses.



Current auto-scalers



SCHEDULED SCALING

Based on static thresholds, it does not adapt effectively to unexpected changes in demand.

SYDA is designed to anticipate these changes, preventing waste and delays.



RESPONSIVE SCALING

It is triggered only in response to load variations, causing delays and performance degradation.

SYDA, on the other hand, anticipates fluctuations, ensuring continuity and operational efficiency.



PREDICTIVE SCALING

It relies on past analyses to anticipate workloads, but fails when facing unforeseen events.

SYDA also responds to the unexpected, overcoming the limitations of past-based analyses.



SYDA

This is why Valuematic developed

SYDA

The first synaptic autoscaler



The world's first **synaptic autoscaler** revolutionizing cloud infrastructure management.

A proprietary technology leveraging AI, inspired by adaptive brain synapses, enabling SYDA to **optimize operational costs and performance.**



SYDA: The First Synaptic Autoscaler

1

Plug & Play technology: it integrates with your application in minutes.

2

Immediately begins real-time **predictive tracking**.

3

Automatically sets allocation rules based on **performance targets**.

4

Does not access user code or **data**, only resource telemetry.

5

Employs state-of-the-art **predictive models** for cloud performance and traffic.

6

Compatible with major public and private **cloud providers**.



SYDA

SYDA is a software developed by Mirco Tribastone, co-founder of Valuematic, and his team at the IMT School for Advanced Studies Lucca, where he is a professor of computer science.



Mirco Tribastone has published over 150 publications, many of them in the fields of predictive modeling and cloud computing

Director of the SySMA Research Uni - Systems and Software Modelling and Analysis
Head of the Ph.D. program in Software Quality

He previously earned a Ph.D. in Computer Science from the University of Edinburgh, served as Assistant Professor at Ludwig-Maximilian University in Munich, and as Associate Professor at the School of Electronics and Computer Science, University of Southampton.

From Academic Research to Commercial Innovation

Prof. Tribastone has already demonstrated his ability to translate sophisticated computational problems into practical tools, such as the development of the DiffLQN software. He has now created a new, highly innovative auto-scaling model—the first synaptic auto-scaler—which has attracted the attention of institutional investors such as Cassa Depositi e Prestiti to fund the market launch and commercialization of SYDA.

The foundation of SYDA

SYDA is built on ten years of research and experimentation. In particular, Prof. Tribastone is considered one of the world's leading experts in the «self-adaptation of cloud applications».



SYDA

Prof. Mirco Tribastone incorporated the expertise of Prof. Nicola Lattanzi, co-founder of Valuematic and Professor of Business Administration at the IMT School for Advanced Studies Lucca, into the development of SYDA.



Nicola Lattanzi has published over 100 scientific papers and 15 books, including «Digital Sapiens: Deciding with Artificial Intelligence».

Co-founder and Chair of the Scientific Committee at **Neuroscience Lab**, a joint laboratory with Banca Intesa San Paolo Innovation Center
Affiliate Professor at the **Institute of Mechanical Intelligence**, Scuola Superiore Sant'Anna, Pisa
Expert Member of the **Ministry of University and Research**

From Academic Research to Commercial Innovation











Prof. Lattanzi has coordinated over 20 projects within the Neuroscience Lab, whose results have been applied successfully in the market. The foundation of SYDA is based on Prof. Lattanzi's studies on neural synapses and their functioning.

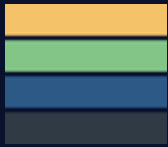
The Foundation of SYDA

SYDA has benefited from Prof. Lattanzi's extensive expertise, incorporating the know-how he developed in the fields of Mechanical Intelligence and Neuroscience.

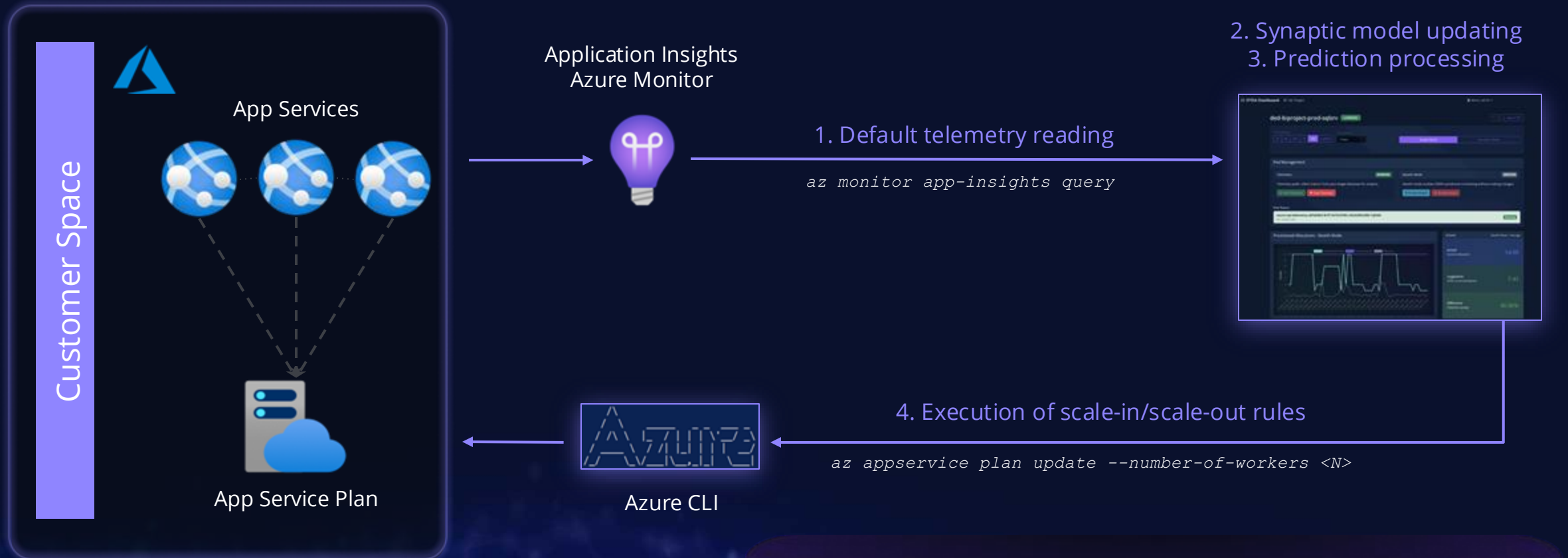


Supported Environments

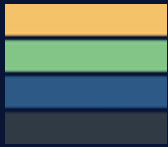
CLOUD PROVIDER			
VMs			
KUBERNETES			
DATABASES			



How SYDA Works: Example with Azure



- Integrates with existing cloud platform.
- Predicts future needs from real-time data.
- Adjusts resources proactively to prevent performance degradation.
- Continuous updates ensure maximum efficiency.



Demo

SYDA Dashboard My Targets demo_admin

ded-biproject-prod-sqlsrv LISTENING

Time Range: 1h 6h 24h 7d 30d Custom Granularity: 1 hour Stealth Mode Simulation Mode

Pod Management

Telemetry **RUNNING** Stealth Mode **INACTIVE**

Telemetry pods collect metrics from your target database for analysis.

Start Telemetry Stop Telemetry Enable Stealth Disable Stealth

Pod Status

azure-sql-telemetry-a6fa8db3-9c7f-4d10-b7d0-c3e3e356c56b-7q5t66 Running IP: 10.42.0.143

Provisioned Allocations - Stealth Mode

Time	SYDA Stealth Mode (vCores)	Actual Allocation (vCores)	Utilization (vCores)
10 Mar 11:00	4	14	0
10 Mar 13:00	4	14	0
10 Mar 15:00	4	14	0
10 Mar 17:00	4	14	0
10 Mar 19:00	4	14	0
11 Mar 01:00	4	14	0
11 Mar 03:00	4	14	0
11 Mar 05:00	4	14	0
11 Mar 07:00	4	14	0
11 Mar 09:00	4	14	0
11 Mar 11:00	4	14	0
11 Mar 13:00	4	14	0
11 Mar 15:00	4	14	0
11 Mar 17:00	4	14	0
11 Mar 19:00	4	14	0
12 Mar 01:00	4	14	0
12 Mar 03:00	4	14	0
12 Mar 05:00	4	14	0
12 Mar 07:00	4	14	0
12 Mar 09:00	4	14	0
12 Mar 11:00	4	14	0
12 Mar 13:00	4	14	0
12 Mar 15:00	4	14	0
12 Mar 17:00	4	14	0
12 Mar 19:00	4	14	0
12 Mar 21:00	4	14	0

vCores Stealth Mode - Average

Actual Current allocation	14.00
Suggestion SYDA recommendation	7.43
Difference Potential savings	46.96%

Dynamic resource allocation (vCores) following predicted application usage

Forecasted **47% savings** compared to fixed customer-defined allocations.



Real-world savings examples

CASE STUDY SaaS



- Corporate performance application
- Azure Kubernetes

CASE STUDY Med-Tech Company



- Application serving ~20M users
- Azure App Service Plan

CASE STUDY SOFTWARE House



- Virtual Machines for Development and Testing
- Resizing Azure VMs



SYDA Implementation Phases



15 DAYS



SYDA onboarding

1

Receive the onboarding script from Valuematic

2

Run the script in your cloud environment

3

Register your cluster with a simple command

4

Receive the credentials for secure connection

5

Access the dashboard and set the parameters

6

Start scaling and monitor your savings at any time



SYDA: parameter setting

Optimizer Settings

Target metric

utilization



response time

throughput

custom metric...

Min vCores

50

Max vCores

14

Apply



Pricing

	PRO	SCALE	ENTERPRISE
Max deployment size (vCPUs)	500	5000	Infinity
Insights and Reports	Basic trends	Scaling diagnostics	Full history, anomaly detection
TARGET METRICS			
CPU utilization	✓	✓	✓
Throughput	✓	✓	✓
Response times	✓	✓	✓
Custom metrics	—	add on (monthly)	✓
Editable setpoints	—	✓	✓
TECHNICAL SUPPORT			
Onboarding	✓	✓	✓
Support availability	Business hours	Business hours	24/7
Support initial response SLA	2 business days	4 hours	30 minutes
Phone support	—	✓	✓
Dedicated support engineer	—	—	✓
PRICING			
Monthly fixed fee	€ 50	€ 300	(quote)
Per-usage fee (vCPU/month)	€ 5	€ 5	(quote, volume discounts)

Prior to plan selection, SYDA will be deployed in your environment for a 15-day evaluation period.

During this phase, the system collects real-time performance and usage metrics to generate a precise, data-backed estimate of achievable cost savings under actual workload conditions.

This assessment is conducted at no cost, with zero commitment required.



VALUEMATIC



Mirco Tribastone

Founder

Chief Technology Officer
Professor of Computer Science
Scuola IMT Lucca



Nicola Lattanzi

Founder

Chief Executive Officer
Professor of Management
Scuola IMT Lucca



Emilio Incerto

Principal Project Developer
Computer Science Researcher
Scuola IMT Lucca



Andrea Ragnetti

Chairman

Former CEO (Philips, Alitalia)
Investor and Advisor on Strategy
and Operations



Lorenzo Farina

Chief Marketing Officer
Former CMO (P&G, Danone)
Entrepreneur



Andrea Basso

Board Member
Managing Director
MITO Technology



2020



2022



CDP Venture Capital Sgr

2024





VALUEMATIC

THANK YOU

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