Shanghai Cloud-Scale Technology Co., Ltd.

SMART WATER PURIFICATION CLOUD CONNECTION AI CONTROL PLATFORM

IOT INTELLIGENT WATER PURIFICATION CONTROLLER (JS-1000C)

CONTENTS

01 Introduction & Core Strengths

02 Product Overview

03 Key Features

04 Architecture & Technical Advantages

05 Application Scenarios

06 Core Value for Customers

07 Smart Water Tomorrow

01

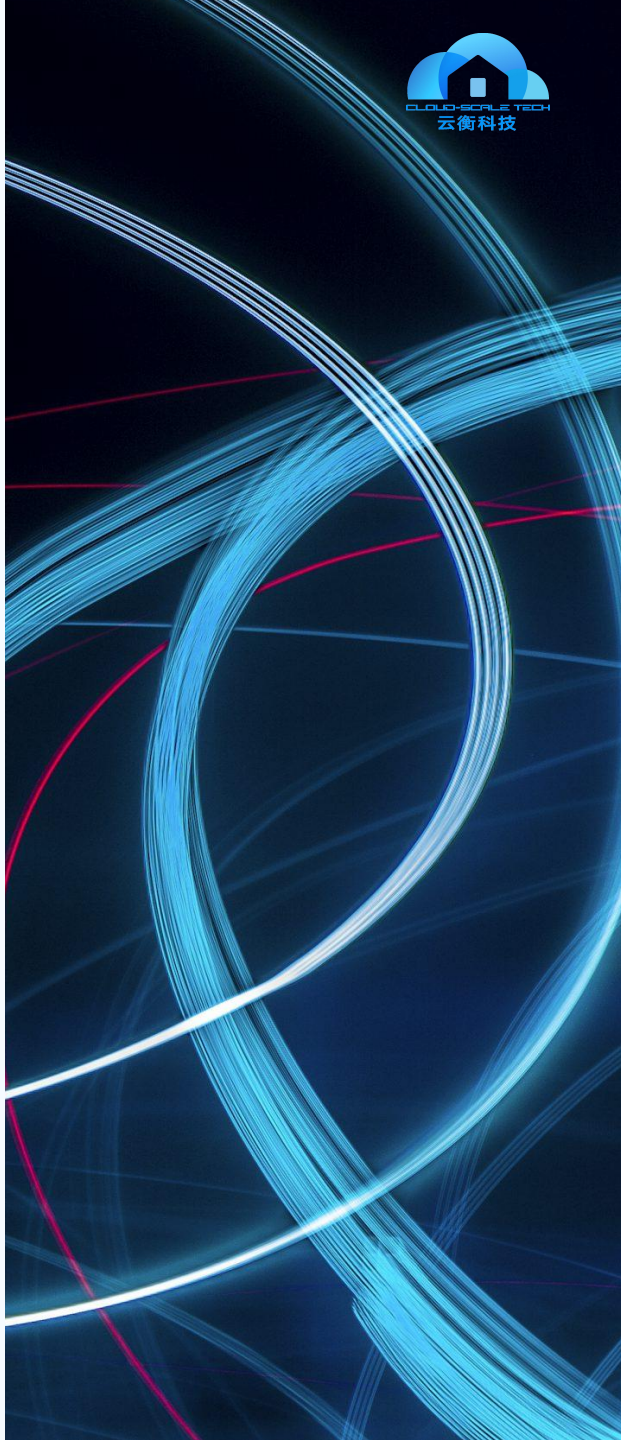
Introduction & Core Strengths

Introduction

Founded in 2016 and headquartered in Shanghai, Shanghai Cloud-Scale Technology Co., Ltd. is a national high-tech enterprise.We serve multiple industrial sectors including public utilities (smart gas & smart water supply) and motor control (smart power systems), delivering all-in-one IoT integrated solutions consisting of intelligent hardware, software, IoT technologies and professional services for global partners.Driven by technological innovation, we keep upgrading our products and supporting services to help clients across industries boost operational efficiency and complete digital & intelligent transformation. We stand as a pioneer and trailblazer in China’s IoT industry.

Supported by our proprietary edge computing algorithms and IoT middleware, we have built an AI cloud control platform for water treatment, covering water quality monitoring, intelligent operation control, energy optimization and full-cycle asset management.

We accelerate digital transformation for domestic drinking water safety and industrial water conservation. Our solutions deliver a better water experience for citizens, reduce energy costs for manufacturers, and back the country’s Dual Carbon strategy with robust technical capabilities.

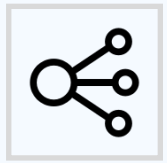


Core Strengths



Technical Strength

We focus on the R&D and design of industrial IoT, core AIoT algorithms and AI system software platforms, and we hold numerous invention patents and utility model patents.



Team

Our team consists of senior professionals from the communications and water treatment industries, with all core R&D staff have over 10 years of specialized experience.



Customized Products & Solutions

We specialize in core IoT hardware modules for public utilities and industry-specific applications of large AI models. We deliver all-in-one AIoT integrated solutions covering hardware products and software services for industrial clients. We have established in-depth partnerships with top-tier domestic manufacturers of metering and water treatment equipment.



Service Guarantee

24/7 online support with real-time response. We complete technical analysis, verification and deliver corresponding reports within 3 working days, and also provide on-site technical support throughout the whole process.

02

Product Overview

Product Overview

Smart Water Purification Cloud Connection AI Control Platform

An all-in-one intelligent control solution developed exclusively for modern RO water treatment systems. Integrated with IoT, cloud computing and big data analysis, it transforms traditional equipment into interconnected smart nodes with autonomous AI decision-making capabilities.

IoT Intelligent Water Purification Controller (JS-1000C)

It enables full intelligent management of pre-treatment, single/double-stage RO, ultrafiltration, EDI ultrapure water, VFD water supply, seawater desalination and pool circulation filtration systems. Real-time data collection and cloud collaboration resolve the key pain points of traditional water treatment systems: low automation and labor-intensive maintenance.



03

Key Features

Key Features



Full-range Intelligent Monitoring

- **Water quality monitoring:** TDS, conductivity, pH, residual chlorine, turbidity, TOC, COD, etc.
- **Pressure & flow monitoring:** Pre/post-membrane pressure, concentrate pressure, raw water & permeate flow
- **Level & consumable management:** Tank level monitoring; reminders for the replacement of filters, filter media, chemicals and RO membranes
- **Fault diagnosis:** Automatic fault detection and instant notification



Cloud-based Remote Operation & Maintenance, Global Interconnection

Global Connectivity: Equipped with dual 4G and Ethernet ports, it supports customized 4G frequency bands for overseas deployment.

Key Features



Multi-terminal Operation

Remote monitoring and control via PC and mobile phone.



Hierarchical Permission Management

Multi-level permission system. Equipment manufacturers hold the top authority to remotely configure and monitor all devices.

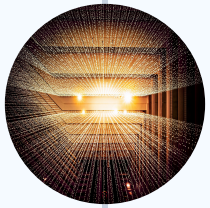
Key Features



Supported workflows (RO=Reverse Osmosis, UF=Ultrafiltration, VF=Variable-Frequency)

Pretreatment(auto valve head) + single/dual RO + VF supply control
Pretreatment(auto valve head) + single/dual RO + EDI + VF supply control
Pretreatment(auto valve head) + UF + single/dual RO + EDI + VF supply control
Pretreatment(auto valve head) + UF + VF supply control
Pretreatment control(electric & pneumatic manifolds)
Pretreatment(electric & pneumatic manifolds) + single/dual RO + VF supply control
Pretreatment(electric & pneumatic manifolds) + single/dual RO + EDI + VF supply control
Pretreatment(electric & pneumatic manifolds) + UF + single/dual RO + EDI + VF supply control
Pretreatment(electric & pneumatic manifolds) + UF + VF supply control
All modules are fully configurable for any simple or complex water treatment process.

Key Features



Active Alarm & Reminder

Beyond basic safety protection, the system sends multi-channel alerts via cloud platform, SMS and voice calls once water quality exceeds limits, equipment malfunctions or consumables expire. Notifications are sent to both equipment manufacturers and on-site staff to guarantee timely troubleshooting.



Data-Driven Intelligent Decision-Making

The system fully archives operational data, alarms and operation logs for historical traceability & statistical analysis. Cloud-based data analytic generates key reports on production capacity, energy consumption and water quality compliance rate, delivering solid data support for management decisions and process optimization.



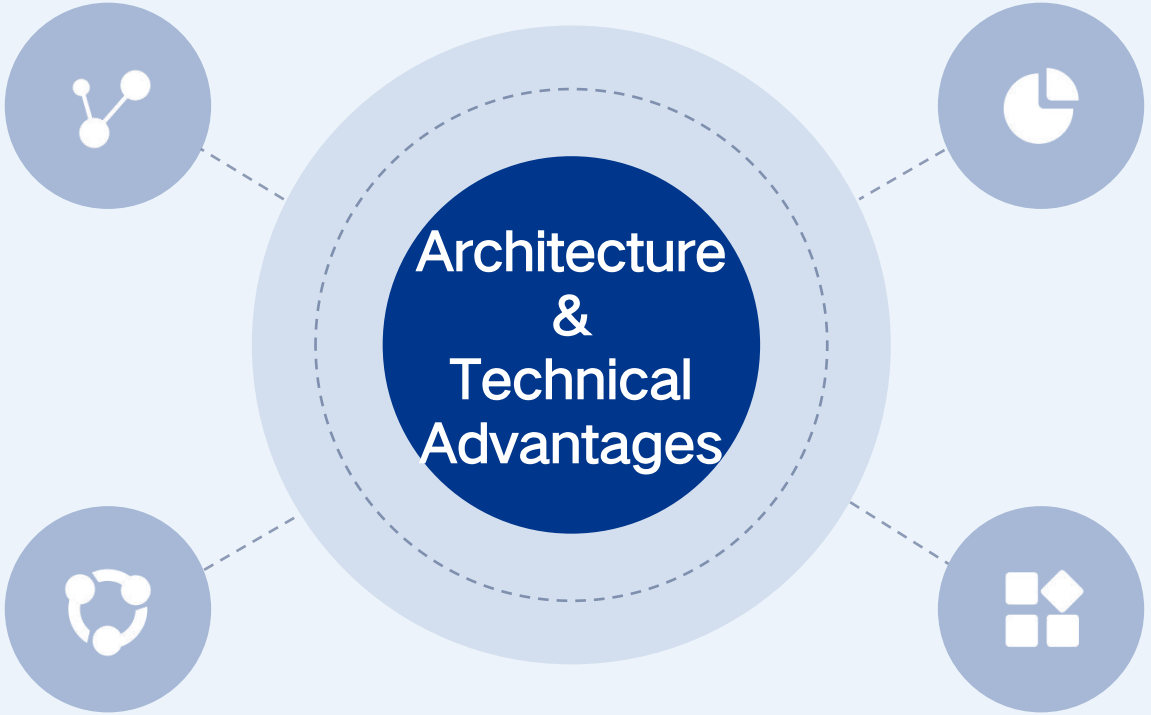
Data Security

Authoritative Security Certification: Our equipment management platform complies with the Classified Cybersecurity Protection Standards issued by China’s Ministry of Public Security (MPS), and has passed assessment by designated MPS testing institutions, delivering robust protection for information & data privacy.

04

Architecture & Technical Advantages

Architecture & Technical Advantages



Stable Architecture

Dual-core MCU architecture with HarmonyOS edge computing. It delivers powerful autonomous control, programmable functions and high scalability.

Industrial-grade Hardware

Supports 7-inch and 10.1-inch high-definition industrial configuration touch screens. The whole machine enjoys a 3-year warranty.

Open & Compatible

Compatible with mainstream industrial communication protocols, and can be easily connected with various instruments and sensors.

Robust Software Platform

It supports customized configuration, enabling flexible customization of remote monitoring interfaces and control functions.
It supports comprehensive equipment monitoring and alarm configurations, delivering real-time alerts for abnormal equipment status via SMS, voice calls and other channels.
It provides full-featured operation & maintenance (O&M) management functions, including on-site inspection records, O&M cost control, and consumable replacement reminders.
Diversified data reports and visual data cockpit are supported, catering to both internal enterprise data management and external brand presentation demands.

05

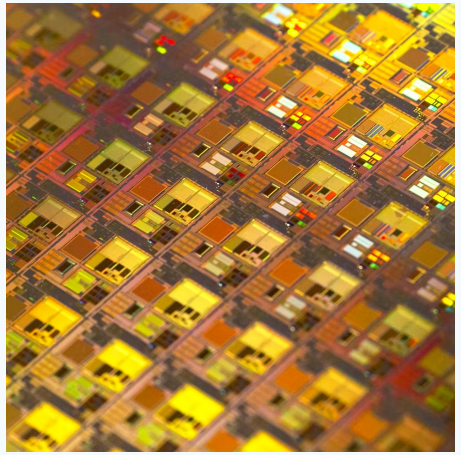
Application Scenarios

Application Scenarios

Our products are widely used for pretreatment, ultrafiltration, reverse osmosis and ultrapure water systems across multiple industries, including pipeline direct drinking water, power generation, electronics & semiconductors, chemical, pharmaceutical and food processing sectors.








06

Core Value for Customers

Core Values We Deliver to Clients

Extended Equipment Service Life

Full monitoring of liquid level, pressure, flow and other key parameters keeps equipment running within efficient ranges and avoids faulty operation, extending the service life of core components.

Full Traceability of Equipment Operating Data

Complete historical data records support compliance audits for pharmaceutical, electronics and other highly regulated industries, and accumulate valuable data assets for process optimization.

Unattended Operation

Automatically monitor equipment operating status to lower failure rates and minimize manual operation.

Digital Visualization

The visual data dashboard serves internal management, and it also serves as a showcase of your technical and digital capabilities to enhance brand influence.

Enhanced Global Deployment Capacity

Supports 4G network with customized overseas frequency bands to solve the offline pain point of domestic equipment exported abroad and facilitate clients' global business expansion.

All-Round Protection

Automatic alerts for excess water quality indicators and auto-handling of equipment faults fully secure water quality and equipment operation safety

Elevated After-Sales Service Capacity

Enable equipment manufacturers to deliver predictive maintenance, strengthen client control & stickiness, and create new profit streams from after-sales services.

Authoritative Certification

The platform has passed China MPS cyber security Classified Protection Certification, delivering reliable data and information security protection for clients.

Flexible Business Models

Hierarchical access management perfectly fits the "Manufacturer – Distributor – End User" distribution system to meet multi-level business collaboration demands.

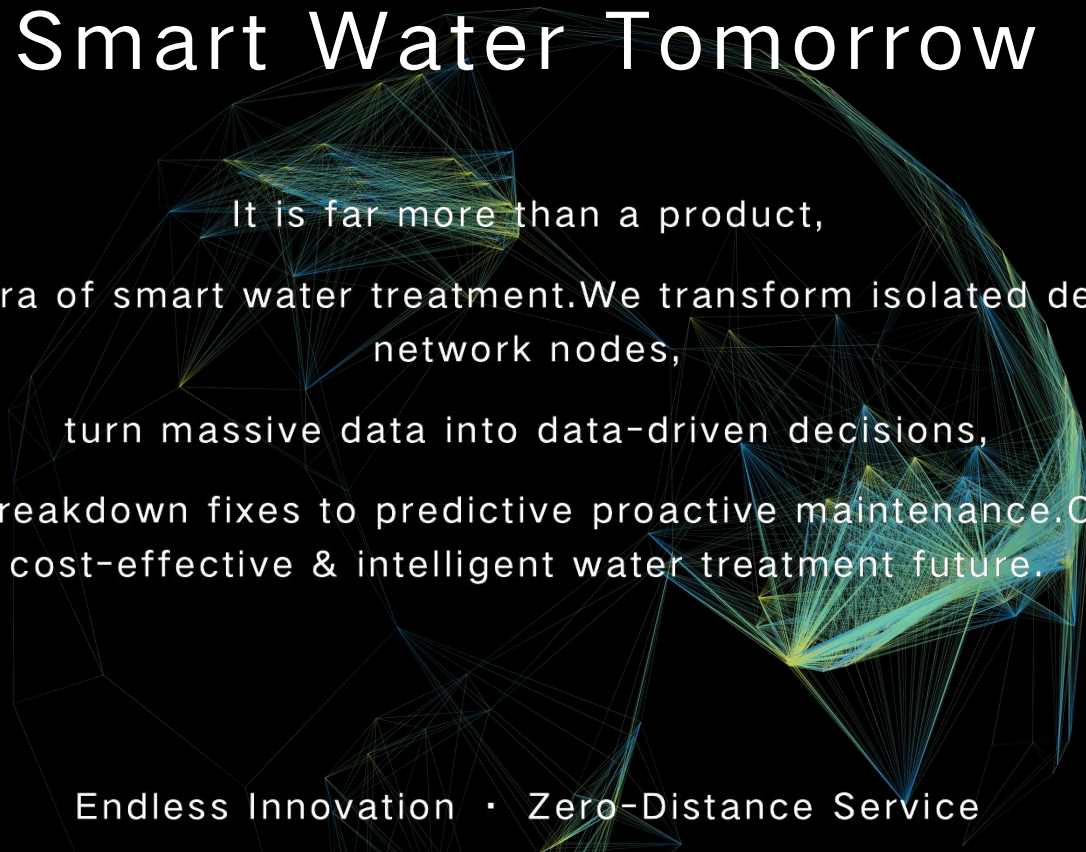
Stable System Performance

Adopts dual-core MCU architecture and industrial touch screens, with a 3-year full machine warranty to ensure long-term stable operation under harsh industrial environments.

07

Smart Water Tomorrow

Smart Water Tomorrow



It is far more than a product,

but the key to a new era of smart water treatment.We transform isolated devices into connected network nodes,

turn massive data into data-driven decisions,

and upgrade passive breakdown fixes to predictive proactive maintenance.Choose us for a safer, cost-effective & intelligent water treatment future.

Endless Innovation · Zero-Distance Service

Let's join hands to pioneer the fully AI intelligent management era for water purification systems!

Shanghai Cloud-Scale Technology Co., Ltd.

Thanks for watching

18621805260 yukun@cloud-scale.cn