Panel display at the 18th Northeast Asia OSS Promotion Forum in Seoul

Date：November 21, 2019
Venue：Stanford Hotel Seoul, NURITKUM Square Business Tower

What is Exastro ?

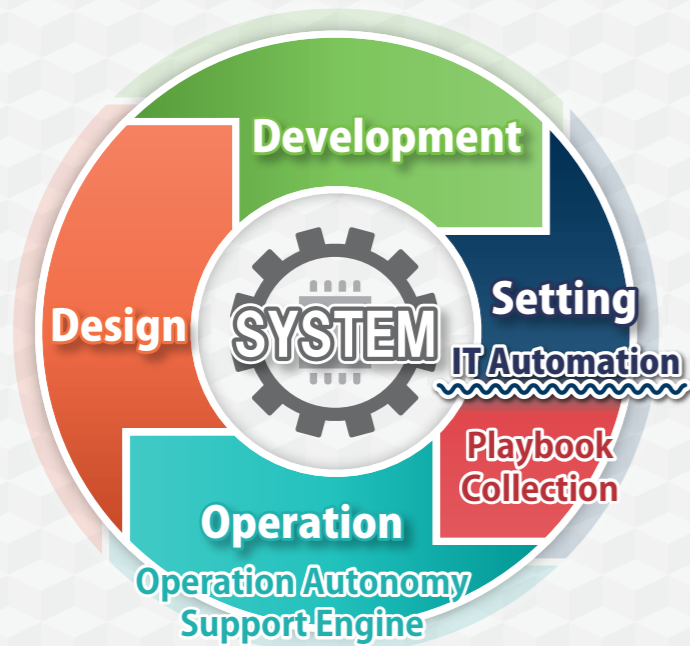**Development**

Design

SYSTEM

Setting

IT Automation
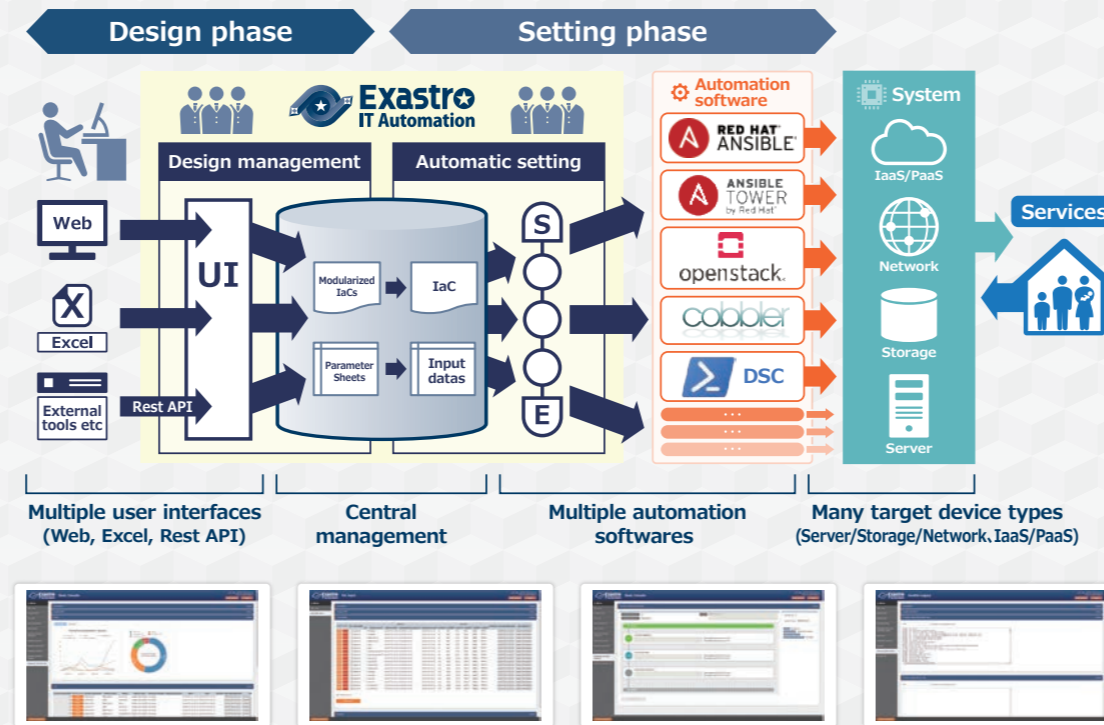
Playbook Collection

Operation

Operation Autonomy Support Engine

Exastro is an open source software suite for digitizing, automating and labor saving the system life cycle.

(design, development, setting and operation)
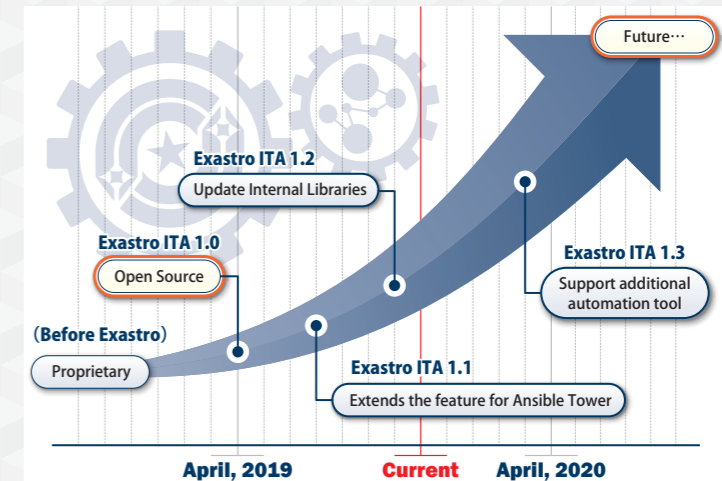
What is Exastro IT Automation ?

Exastro IT Automation is an Open Source Framework for digitizing and centrally managing the system configuration.

Design phase → **Setting phase**

Exastro IT Automation

Design management | Automatic setting

Web
Excel
External tools etc
Rest API

UI

Modularized IaCs → IaC
Parameter Sheets → Input datas

S / E

Automation software
- RED HAT ANSIBLE
- ANSIBLE TOWER by Red Hat
- openstack
- Cobbler
- DSC

System
- IaaS/PaaS
- Network
- Storage
- Server

Services

Multiple user interfaces (Web, Excel, Rest API) | Central management | Multiple automation softwares | Many target device types (Server/Storage/Network、IaaS/PaaS)
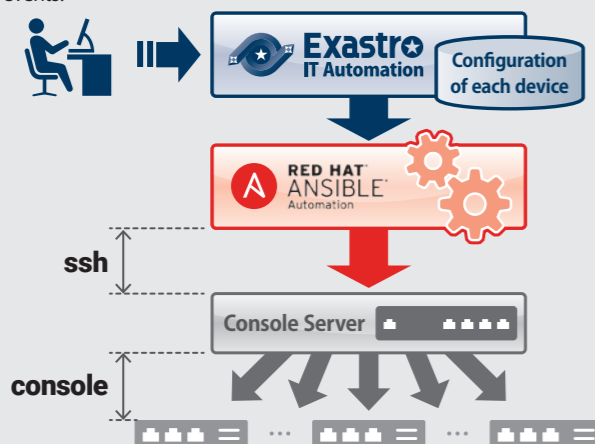
"7 Features" of Exastro IT Automation

1. Multiple user interfaces & Role Base Access Control
2. Function to manage parameters' change history
3. Function to prevent typos of variable names
4. Function to improve the reusability of the IaC
5. Function to control multiple automation tools (incl. Ansible)
6. The last way to continue automation: pioneer mode
7. Real-time monitoring of execution status

Roadmap

Exastro ITA 1.2 Update Internal Libraries

Exastro ITA 1.0 Open Source

Exastro ITA 1.3 Support additional automation tool

(Before Exastro) Proprietary

Exastro ITA 1.1 Extends the feature for Ansible Tower

Future…

April, 2019 | Current | April, 2020

⚙ Case 01

Exastro IT Automation has made it possible to efficiently configure tens of thousands of network devices via the console server for which even management-IP address is not set to use in a big event such as national events.

Exastro IT Automation → Configuration of each device

RED HAT ANSIBLE Automation

ssh
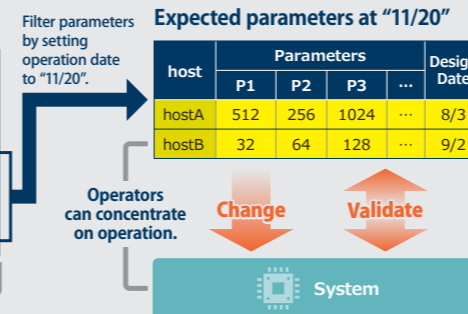
Console Server

console

⚙ Case 02

Exastro IT Automation has automated all the operations of a large-scale carrier system i.e. from "system construction phase" to "operation phase" and made it "One-Stop Operation".

In large-scale systems, things get updated every day and device failure occurs frequently.

Even in such scenario, Exastro IT Automation provides an environment where designers and operators can concentrate on their work by managing the design history of system configuration centrally.

In other words, with the use of Exastro IT Automation, high level of efficiency and quality balance can be achieved easily.

Parameter sheet with history management function provided by Exastro IT Automation

| host | Operation | | Parameters | | | | Design Date |
	date	Name	P1	P2	P3	…	
hostA	12/20	Prepare for Christmas	1024	512	2048	…	10/1
hostA	11/20	Add hostB	512	256	1024	…	8/3
hostA	9/3	First release	256	128	512	…	7/7
hostB	12/20	Prepare for Christmas	16	32	64	…	10/1
hostB	11/20	Add hostB	32	64	128	…	9/2

Designers can concentrate on design.

Filter parameters by setting operation date to "11/20".

Expected parameters at "11/20"

| host | Parameters | | | | Design Date |
	P1	P2	P3	…	
hostA	512	256	1024	…	8/3
hostB	32	64	128	…	9/2

Operators can concentrate on operation.

Change | **Validate**

System

⚙ Case 03

Exastro IT Automation enables "automatic incident recovery" in system operations.

We will soon release an Open Source Software that classifies the incidents occurs in the system's known and unknown events.

We have named the software as "**Exastro Operation Autonomy Support Engine**".

This software in combination with "Exastro IT Automation", enables the automatic execution of countermeasures for known events.

Exastro OASE ← Monitoring Software e.g. ZABBIX

Unknown

Known

System

Exastro IT Automation → RED HAT ANSIBLE Automation