

## Extracts of the CTO plan containing the information requested under points 1 and 2 of your request for access to documents ATD/36/2019

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### **Desktop**

Windows 10 and Office 2013.

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### **Operating systems**

The two main server operating systems (OSs) are Windows and Red Hat.

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### **Containers**

As part of ECHACS ECHA is using Docker CE containers based on CentOS.

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### **Email**

Current e-mail solution is based on Exchange 2013.

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### **Internal collaboration**

ECHA's current internal collaboration and intranet are based on SharePoint.

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## **Technology solutions in use**

### **Apache Camel**

Apache Camel is an integration framework used in ECHA Interact.

### **Apache Kafka**

Apache Kafka is a distributed streaming system. It is used in the ECHACS to relay event messages between subscribers.

### **Apache ZooKeeper**

Apache ZooKeeper is a centralized service for maintaining configuration information, naming, providing distributed synchronization, and providing group services. It is used by Apache Kafka in ECHACS to store configuration.

**Atlassian BitBucket**

As part of the ECHACS Atlassian BitBucket is used as a git server hosted in the cloud.

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**Atlassian Confluence**

Confluence is a wiki tool that was inherited from the first REACH-IT project.

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**Atlassian Jira**

Jira is an issue tracking tool that was inherited from the first REACH-IT project.

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**Azure DevOps**

ECHA is using Azure DevOps in Microsoft related products and projects. It is a full suite of products to cover all development aspects: planning, CI/CD, code repositories, test plans and artefact repository. Azure DevOps is the cloud offering and ECHA was using previously the Team Foundation Server (TFS) on-premise (now called Azure DevOps Server). Azure DevOps was also known as Visual Studio Team Services previously.

**BMC Remedy Platform**

The BMC Remedy Platform provides a platform for Remedy Action Request System applications that is ECHA's current IT service management (ITSM) tool.

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**Chef**

Chef is a configuration management tool that is used in ECHA to configure Linux operating systems, build environments for custom applications as well as installing widespread solutions like Splunk.

**Cisco WebEx**

Cisco WebEx is used to host webinars up to hundreds of participants. There is also a secure WebEx solution in use for committee meetings.

**ClamAV**

ClamAV is a virus scanning solution deployed as part of ECHACS. The scanning is called from the OpenResty server by a filter called clammit. The virus definitions are periodically updated through Nexus with a process called freshclam.

**ClickDimensions**

ClickDimensions is used as a mass mailing solution for non-confidential communication. It runs on top of Microsoft CRM.

**Cloudia**

Cloudia is a cloud based e-procurement tool.

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**eDelivery**

eDelivery is a secure document exchange platform developed under the ISA<sup>2</sup> programme.

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**Elasticsearch**

Elasticsearch is an indexing and searching tool used in some Java applications.

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**EMC Avamar**

EMC Avamar is the backup solution introduced when migration to EPC took place.

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**FortiSIEM**

FortiSIEM is a security information and event management (SIEM) tool that collects and analyses logs from various network equipment like firewalls, etc.

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**Google analytics**

Google analytics was implemented in a few projects.

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**Jenkins**

Jenkins is a continuous integration (CI) tool for Java applications used to build and deploy applications in ECHA.

**Master Data Services**

Master Data Services (MDS) is the Microsoft SQL Server solution for master data management.

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**Microsoft Active Directory**

ECHA's LDAP solution is based on Microsoft Active Directory.

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**Microsoft Dynamics CRM**

Microsoft Dynamics CRM is a customer relation management tool.

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**Microsoft Identity Manager**

Microsoft Identity Manager (MIM) is the re-branded FIM product.

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**Microsoft Office 365**

ECHA has a license for Microsoft Office 365 and is currently leveraging Skype for Business and SharePoint Online solutions from the portfolio.

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**Microsoft System Center Configuration Manager**

Microsoft System Center Configuration Manager (SCCM) is used to patch all Windows clients and servers in ECHA.

**Nextthink**

Nextthink is an end-user analytics platform.

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**Nexus**

Nexus is a repository management tool that is used as part of the Java application build process.

**OpenResty**

OpenResty is used in the ECHACS as a dynamic reverse proxy. It uses Redis as a proxy configuration store.

**Oracle Data Integrator**

Oracle Data Integrator is a data integration platform.

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**Oracle Enterprise Manager**

Oracle Enterprise Manager (OEM) 12c has been implemented to centrally manage all Oracle database instances.

**Oracle PeopleSoft**

PeopleSoft is a software suite provided by Oracle that has various applications to cover

human resource management processes. PeopleSoft is used as a platform for HRMS, but all instances are managed by the external development, hosting and application management contractor.

### **Oracle Text**

Oracle Text is a text indexing and searching feature in the Oracle database.

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### **Orbeon Forms**

Orbeon Forms is a Liferay plug-in.

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### **Quality Center**

Previously called HP Quality Center and now provided by Micro Focus is a quality management tool.

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### **Red Hat Satellite**

Red Hat Satellite is used in ECHA for managing Red Hat instances. It is used for patching the servers and tracking licenses.

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### **Redis**

Redis is an open source, in-memory data structure store. It is used by OpenResty as a proxy configuration store and as a persistent store for Apache Kafka both in the ECHACS.

### **RSA**

ECHA is using RSA virtual appliances.

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### **S-CIRCABC**

S-CIRCABC is a dedicated collaboration solution offered by the European Commission.

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### **SAP Business Objects BI Suite**

SAP Business Objects (BO) has been used as a business intelligence tool since the beginning of ECHA.

**SCM manager**

SCM manager is a tool used to create and manage git repositories in ECHA.

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**Skype for Business**

Skype for Business was formerly known as Lync and it is a video conferencing and online meeting tool that can also provide instant messaging.

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**Solr**

Solr is a searching and indexing tool.

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**Splunk**

Splunk is a business intelligence tool that can extract business data from log files produced by servers, appliances, middleware platforms, applications etc.

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**Symantec Scan Engine**

Symantec Scan Engine is a virus scanning solution.

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**Thorntail**

Thorntail, previously called Wildfly Swarm, is used as part of the ECHACS as an application server. It minimises the server runtime to only have the necessary libraries running.

**Unified Functional Testing**

Previously known as HP Quick Test Pro (QTP) Micro Focus Unified Functional Testing (UFT) is a test automation tool that is used in conjunction with Quality Center.

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**Vmware Tools**

VMware Tools is a set of services and modules that enable several features in VMware products for better management of, and seamless user interactions with, guest operating systems. VMware tools is installed and kept up-to-date on each VM.