

mobile platform as a service

Maximum flexibility with Atos Mobile PaaS datacenter units

Does your organization need a flexible, versatile and reliable IT infrastructure? Atos offers a Mobile Platform as a Service from a MPaaS-datacenter unit which has been developed together with Siemens AG. This innovative solution is ideal for remote sites and extreme conditions. Mobile Platform as a Service (MPaaS) datacenter unit can be used either temporarily or permanently, for instance when building a datacenter is not financially feasible or practical. MPaaS-datacenter unit offers a high performance private cloud anywhere in a ruggedized datacenter unit. Mobile Platform as a Service gives you a turn-key and reliable infrastructure that seamlessly links up with your existing IT landscape, quickly and cost-efficiently.

The need

Atos originally developed a Mobile Platform as a Service because clients in the petrochemical industry expressed a need for low-maintenance, fast deployable, highly reliable and flexible IT facilities at remote sites. Facilities that can be self-supporting in energy, if need be, and can be monitored and controlled remotely. And easily relocated at any given point in time.

The need for a temporary infrastructure can also arise closer to home, however. When existing data and infrastructure need to be safely migrated upon consolidation of datacenters, for example, or when extra capacity is required temporarily at an existing site. Whatever the situation, the temporary facility must be made to fit within the existing company IT infrastructure.

The flexibility that Atos MPaaS-datacenter units provides is a flexible solution to exchange virtual resources (servers, applications and workplaces) between physically different locations in one single mouse click. This is possible by implementing a central management environment combined with Atos MPaaS-datacenter units and with a very short time to deliver anywhere.

Our solution

Mobile Platform as a Service (MPaaS) is a turn-key solution for a high-quality datacenter, housed in an easily transportable, robust TIER II twin datacenter unit. The MPaaS-datacenter unit comprises a complete, standardized IT infrastructure – flexible, secure and supporting server virtualization. Flexible in both location as applicability, highly secured and fully setup to maximize virtualization of servers and workplaces. The IT is fully integrated with the physical accommodation, including power supply, climate control and security. Moreover, the MPaaS-datacenter unit is equipped to withstand extreme conditions and inhospitable environments. In other words, a plug & play solution that can be extended with a wide range of services from VoIP to office automation, from advanced Identity & Access Management to virtualization of workstations, servers and applications.

Mobile Platform as a Service

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Datacenter container - exterior



Mobile Platform as a Service, an overview

Quickly available

It can take up to a year to build a new datacenter. MPaaS-datacenter units are available very quickly. Even at the remotest locations, MPaaS-datacenter units can be delivered. Turn-key, because hardware, software, connectivity and services are all pre-configured. Due to the exclusive cooperation between Atos and Siemens AG we are able to deliver this solution almost anywhere in the world, especially in non-standard locations. Commissioning takes no more than 2 days.

Robust and low maintenance

The MPaaS-datacenter units are designed to function without a hitch, even under the most extreme conditions (from -30 °C to +50 °C). The datacenter, including power supply and satellite connection, can be monitored, controlled and maintained remotely. Apart from an annual maintenance inspection there is no need to physically open the MPaaS-datacenter unit after commissioning.

Standard equipment

MPaaS-datacenter units deliver a standardized IT infrastructure in a secured datacenter unit with all hardware available redundantly. Delivery includes:

- ▶ LAN, WLAN and WAN (VSAT)
- ▶ Firewalls
- ▶ Scalable volumes of High Density Computing
- ▶ Scalable volumes of (Tiered) Storage space
- ▶ Virtualization
- ▶ Active Directory authentication
- ▶ Backup services
- ▶ Incident management
- ▶ Change management

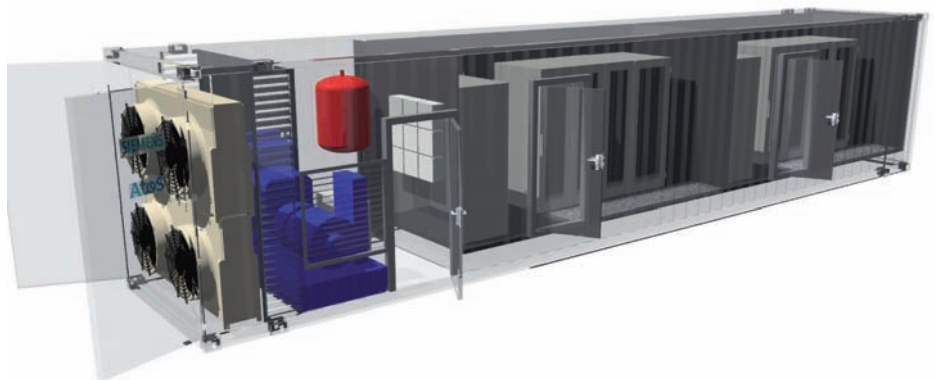
Atos arranges for transport to the desired site, installation and transport at the end of the contract term.

The standard equipment can be extended with several options:

- ▶ Virtualization and management of servers, applications and/or workstations
- ▶ Additional storage space
- ▶ Office automation
- ▶ Business applications
- ▶ Music and video on demand
- ▶ Video conferencing
- ▶ Identity & Access Management
- ▶ Tracking of persons and/or vehicles
- ▶ Telephony (via VoIP or otherwise)

There are many other options, including customer-specific solutions as part of the standard model.

Datacenter container - interior



Extra cooling unit - exterior



MPaaS-datacenter units can be reused elsewhere with minimum effort, even if the new location imposes different requirements. All we have to do in such a case is adjust the configuration. Transport is easy - accommodated in CSC and Lloyd certified container units, the MPaaS-datacenter units can be transported on any ship or truck.

Complete

Both in Greenfield and brownfield situations MPaaS-datacenter unit offers a standardized environment that can be used as part of a private cloud. With virtualized desktops, servers, telecommunication and office automation if you like. Even at remote locations, a satellite connection allows you to fully integrate the datacenter into your own company network.

Reliable

MPaaS-datacenter unit performance can be guaranteed with different guaranties but are in any case a high availability solution, with or without full redundancy. Operational reliability is secured by means of an emergency power supply with its own generator, and the MPaaS-datacenter unit is equipped with high-quality physical security including access control, fire detection & suppression and IPTV. All Online monitored trough a 24/7 control center in the Netherlands.

Flexible

MPaaS-datacenter units can be extended with additional services, such as wireless telecommunication, special application landscapes or virtual workstation support, both before and after commissioning.

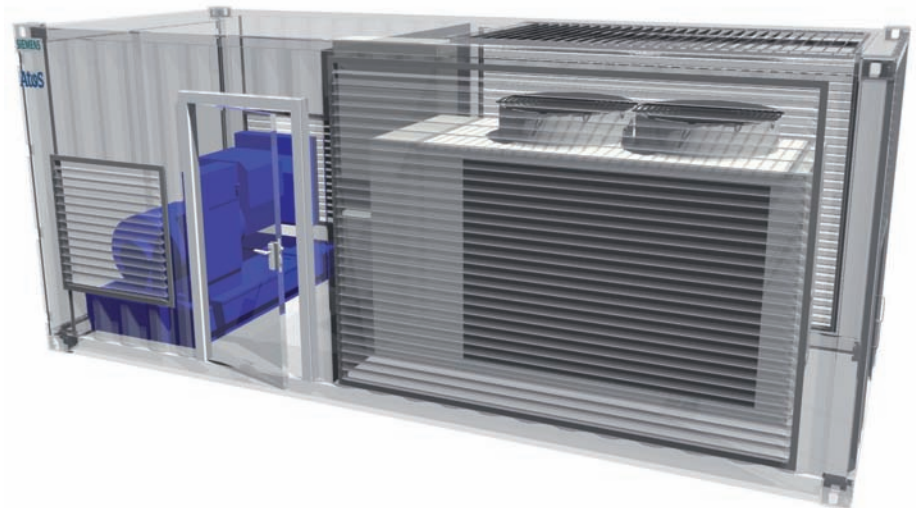
Scalable

Atos MPaaS-datacenter unit is available with variable volumes. Besides, the MPaaS-datacenter units are stackable, so if you need more storage space or computing capacity we can link several MPaaS-datacenter units. You can also add MPaaS-datacenter units to an existing datacenter, as an extension.

Transparent

MPaaS-datacenter units are delivered as a product or on the basis of pay per use, with a term of four years. At a fixed price, in accordance with specifications determined in advance, with a fixed delivery term, and including transport and the corresponding costs. If need be, the MPaaS-datacenter units can be moved to other sites during the term of the contract, and used there.

Extra cooling unit - interior



Mobile Platform as a Service

Container	
Dimensions (L x W x H)	Standard 45 feet x 8'5" x 9'6" shipping container (L 13,716 x B 2,500 x H 2896mm)
Compartments	2x IT Suites, 1x Utility room
Number	Unlimited
Supplier	Siemens AG
Certification	CSC/Lloyds certified
Operational Environment	
Operating temperature	-30°C to +50°C
Ambient Humidity	Closed circuits with humidity control
Outdoor usage	Extreme environmental conditions
Availability	>99%
Mobile Platform as a Service(MPaaS)	
Integrator	Atos
Cloud	Private cloud based on Mobile Platform as a Service connected to centralized Atos & Customer environment
IT equipment	Integrated standardized High density computing, Storage and Networking
Number of Datacenters (MPaaS)	Unlimited
Availability	>99% High Available environment
High density computing	8x 2 SIX Core blades with 128 Gb memory Scalable
Storage	20 TB First class & 60 TB Economy class storage Scalable
Networking General	Full virtualized network with logical separation
Networking LAN Internal	8x 10 GbE End2End
Networking WAN VSAT	1x K-Band connection, 1x L-Band connection
Networking WAN Data Traffic security	Connection to enterprise networks by use of redundant encrypted VPN
Networking LAN Security	Firewall protected environment
Backup	Disk2Disk cross backup from IT-Suite A-B and vice versa, when multiple datacenters cross backup between datacenters
Datacenter Reliability	
Service Life	15 Years on Utility, 4 years on IT equipment, Yearly onsite maintenance required
Availability	>99%
Onsite IT Service	No onsite IT management required Highly standardized MPaaS datacenter, maximized remote management
Hardware policy	No hardware replacement policy
Hardware equipment	Spares onboard
Hardware availability	Full hardware redundancy
Fire resistance (Suites)	30 min
Ambient Weather protection	3 layer coating by Siemens
Ambient Temperature	-30°C to +50°C
Datacenter Integration	Datacenter can be integrated with multiple (incl. disaster recovery) datacenters (MPaaS)
Maintenance	Year
Cabinets	
Quantity	8x moveable cabinets
Dimensions (L x W x H)	6x 42U standard cabinet, 2,000 mm x 600 mm x 1,200 mm, 2x 42U standard cabinet, 2,000 mm x 800 mm x 1,200 mm
Cooling equipment	
Cooling type	High Performance Airconditioning (closed circuit), Water/Glycol based cooling
Cooling capacity	2x 36 kW
Heating capacity	2x 15 kW
Humidity control	Yes
Security	
Video surveillance	2 video IP cameras Accessed trough network
Fire	Gas based fire extinguishing, smoke, flame and temperature sensors
Access Control	Access control Snapshot IPTV on entry and remote control
Intrusion Detection	Intruder detection system Alarms to central Tooling & Monitoring system
Power Distribution System (Cabinets)	
Power Supply	2x 3 fase 16A PDU
Redundancy	2x Power feed per IT suite
Power Distribution Unit (per Cabinet)	Remote sensing/control 2x RJ45 databus, 1x RJ45 Ethernet, 1x USB & 1x RS232 connection
Power Distribution System (UPS)	
Uninterruptible Power Supply (UPS)	2x 60 kVA / 54kW
Availability	Redundant setup for both IT suites
Battery uptime	4 min
Recovery	Automated switch on/off generator set
Power system (Main)	
Power range	400VAC or 208VAC
Voltage output	3 phase 400/230 Volts
Frequency	50 Hertz
Maximum IT load	60 kVA Customizable
Power feed adaptivity to Global regions	Transformer
Power system (Backup Generator set)	
Power generated	108 Kw /135 kVA @ 1500 rpm
Fuel	Diesel
Fuel Tank Capacity	Approx. 300 liters
Fuel consumption	Approx. 30,7 liters per hour @ maximum load
Voltage output	3 phase 400/230 Volts
Frequency	50 Hertz
Power range	Transformer
Remote Management System	
Utility equipment	Remote control and sensing on all utility equipment (Generator, Cooling, Power, Heating, Access control etc.)
IT equipment	Remote control and sensing on all IT equipment (Server, Storage, Networking, Firewall, Satellite etc.)
Remote control & Monitoring	Integrated Tooling & Monitoring Network access to control and readout all Utility & IT equipment

Developed in partnership with **SIEMENS**