

Adaptive Computing Controller in SAP NetWeaver 7.1: Frequently Asked Questions



Applies to:

Adaptive Computing Controller in SAP NetWeaver 7.1.

For more information, visit the [Landscape Design and Architecture homepage](#).

Summary

This document answers questions to the Adaptive Computing Controller (ACC) in SAP NetWeaver 7.1 and the Adaptive Computing Controller in SAP NetWeaver 7.1 including Enhancement Package 1 (EHP1).

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Author Bio



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The Adaptive Computing Concept

This chapter answers questions about the Adaptive Computing Concept.

What is Adaptive Computing?

Adaptive Computing is an approach to design hardware, software and system services following the business-driven need to permanent change. It is about empowering the customer to be able to run any service any time on any server. An IT infrastructure is called adaptive, if it allows the dynamic assignment of hardware resources to serve specific application services. In this way, SAP NetWeaver enables an Adaptive Computing landscape and thus ensures that business solutions based on SAP NetWeaver run at peak cost efficiency.

What are the key characteristics of Adaptive Computing?

Adaptive Computing is characterized by the separation of the four building blocks Computing, Network, Storage and Control. By pooling and sharing dedicated resources of this blocks it is possible to assign application services to any servers to reach the goal 'to run any service any time on any server'

Adaptive Computing concept decouples the SAP application from the underlying operating system. This is realized with the help of virtual hostnames with relocate together with the SAP instance across servers and the concept of storing the instance related components on a central storage system. This can be seen as a virtualization layer between the SAP application and the operating system.

What is the current Status?

The Adaptive Computing Controller in SAP NetWeaver 7.1 is available today. The new release Adaptive Computing controller in SAP NetWeaver 7.1 including Enhancement Package 1 is planned to start Ramp-Up in Q1 2009.

How to get the Adaptive Computing Controller?

For organizational reasons the Adaptive Computing Controller in SAP NetWeaver 7.1 is part of the PI 7.1 shipment. To get the Adaptive Computing Controller, download the PI 7.1 SW packages for the required platform. After starting the installation tool choose the installation option Adaptive Computing Controller with the result, that just a pure NW AS Java including the ACC will be installed.

Which customer size are you targeting with that concept?

All customers can take advantage of the Adaptive Computing concept. Experiences have shown that it makes sense when the number of SAP instances is higher than 10-15.

Do I need a minimal landscape setup (e.g. numbers of servers) to start using Adaptive Computing?

Experiences have shown that it makes sense when the number of SAP instances is higher than 10-15.

How to easy start with the Adaptive Computing concept in a traditionally installed SAP landscape?

When a customer plans to start with Adaptive Computing, he does not have to do this in a big bang. An easy start could be to install the Adaptive Computing Controller to just start and stop the traditionally installed SAP instances. During this phase relocation of a SAP instance is not possible, but mass operations, task planner and all the monitoring functionality can already be used in the ACC.

The next step could be to install just the Dialog (DI) Instances as it is required by the Adaptive Computing concept (virtual hostnames, central storage). With the using logon groups in the right way, this is possible without downtime, when the switch from the old DI instances do the new DI instances takes place. This makes a relocation of the DI instances with the ACC possible.

In the following phases all the other SAP instances starting with non-productive instances can be included into the Adaptive Computing landscape.

Are customers forced to use Adaptive Computing to run their future landscapes?

Adaptive Computing already showed high TCO reductions at several customer projects, as part of SAP NetWeaver customers can choose to use it or not.

What are the Benefits of Adaptive Computing?

Lower TCO:

- better server utilization, harmonize customer IT landscapes
- higher service levels with lower costs
- enabling the usage of standardized building blocks.

Productivity:

- faster Response on business driven needs
- it-infrastructure “shared desk” concept
- reduction of operational complexity.

Openness:

- open integration platform
- based on Standards (CIM, XML, SAP J2EE engine)
- ACC - Controller Command Interface 7.1 to call the Adaptive Computing Controller from 3rd party system management tools (in stead of using the GUI).

Flexibility and Scalability

- by increasing flexibility and decreasing TCO, ROI is much more visible
- high flexibility to run new projects
- high flexibility to assign and utilize hardware resources
- easy setup and integration of new components into common infrastructures.

What are Use Cases with Adaptive Computing?

- Easy management of SAP system growth:
Start with small server and relocate with growing requirement to server which fit best.
- System parking lot:
Stop idle SAP systems and “wake up” if needed.
- Easy and fast hardware replacement:
Easy and fast replacement of servers in the AC landscape.
- Mass Operation for HW maintenance weekend:
Shutdown and startup of all systems with one click in the ACC.
- Maintenance Window for Upgrade/Conversion to short:
Use the most powerful server for upgrade or conversion procedures.
- Task Planner:
Schedule planned SAP system start/stop, move systems.
- Balance Performance Peaks:
Provide for dedicated systems the required performance.

Does Adaptive Computing replace or support high availability or fail over solutions?

Due to the capability of running any service on any server at any time availability is improved but does not replace any high availability solutions.

How does the pricing model of Adaptive Computing look like?

SAP NetWeaver customers may use the Adaptive Computing capability without extra license fee.

Customers with an R/3 contract will pay a license fee of 50,000 EUR per installation of the Adaptive Computing Controller. Standard database and maintenance fees as well as standard regional uplifts apply.

Can I run Adaptive computing on any server or storage hardware?

In order to ensure that SAP's Adaptive Computing capability is able to run on various infrastructures, SAP offers to technology partners a so called Adaptive Computing compliance test. Currently most of the major OS and storage platforms are covered already (see the full list of compliance tests).

The Adaptive Computing Controller (ACC)**What is the relationship between Adaptive Computing resp. the Adaptive Computing Controller, the SAP Solution Manager and SAP's monitoring architecture CCMS?**

The ACC from a technical point of view not integrated into SAP Solution Manager, since ACC requires SAP NetWeaver 7.1. But from a logical point of view ACC is part of the Solution Manager Work Centers which call via link the ACC when it is required.

CCMS can be used for monitoring adaptive computing landscapes in the same way as in traditional landscapes.

Which SAP Systems and/or releases can be managed by the Adaptive Computing Controller?

Currently all SAP applications based on the application server ABAP and Java from 4.6C (4.6D kernel) up to the most current SAP NetWeaver releases can be managed in an Adaptive Computing landscape. (for details please check the current SAP Notes and the PAM).

Are productive SAP systems supported in an Adaptive Computing Landscape?

Productive systems are supported.

How does Adaptive Computing Controller recognize a hardware upgrade (CPU, Memory)?

The Adaptive Computing Controller gets information about the available hw-resources from the integrated agents.

Is pooling of servers possible? Does Adaptive Computing Controller support multiple pools.

Adaptive Computing Controller supports multiple pools.

Can I use one single System Landscape Directory for different solutions (XI, Adaptive Computing Controller...)?

Customers can decide if they use one or several SLD for different applications.

Is Adaptive Computing Controller open for dependent non-SAP services (does Adaptive Computing Controller support user exits)?

A user exit can call external functionality on a single computing node, directly before or after an application service has been started or stopped.

Can Adaptive Computing Controller run on a cluster?

Adaptive Computing Controller is based on the SAP NetWeaver AS Java. There are no special rules for the Adaptive Computing Controller

Supported Platforms in Managed Landscape

Can I manage a heterogeneous environment?

Yes, the Adaptive Computing Controller supports different server platforms within one AC landscape.

Which databases can be used?

Please refer to the Product Availability Matrix (PAM), service.sap.com/pam and the related SAP Notes for Adaptive Computing.

Which storage environment does AC support?

Adaptive Computing can manage NAS, FC and ISCSI storage technologies in the landscape. Details are available from the various Adaptive Computing Compliance Tests. Even specific cluster filesystem technologies are available to be used in the AC landscape.

Partners

How the collaboration is organized between SAP and the technology/hardware partners?

SAP works in close cooperation with all Technology Partners through a well-defined engagement model. Customer will still receive their hardware and network from our technology partner and a complete solution from SAP.

Is there a partner where I can buy a solution (based on this concept) from?

All platform and technology partners are working together with SAP in the Adaptive Computing Council. Many partners have successfully passed the Adaptive Computing Compliance test. For partner product availability with Adaptive Computing functionality please contact your local partner sales account and check the list of compliance tests.

How does SAPs Adaptive Computing relate to Partner Offerings?

The Adaptive Computing Controller provides a web service interface (ACC – Controller Command Interface 7.1) enabling third party system management software components to communicate with the ACC. SAP offers an Interface Certification Program.

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