

Application Integration Middleware (NCI)

A hand holding a magnifying glass over a globe with the text 'GCF' in the center. The globe is surrounded by concentric white circles. The background is a blue gradient with a blurred image of a hand holding a magnifying glass.

GCF

Bernd Kunrath



Systems

Application Integration Middleware (NCI) Product Description.

Accounting &
Reporting

Backoffice

Communication
Middleware

Database
Management

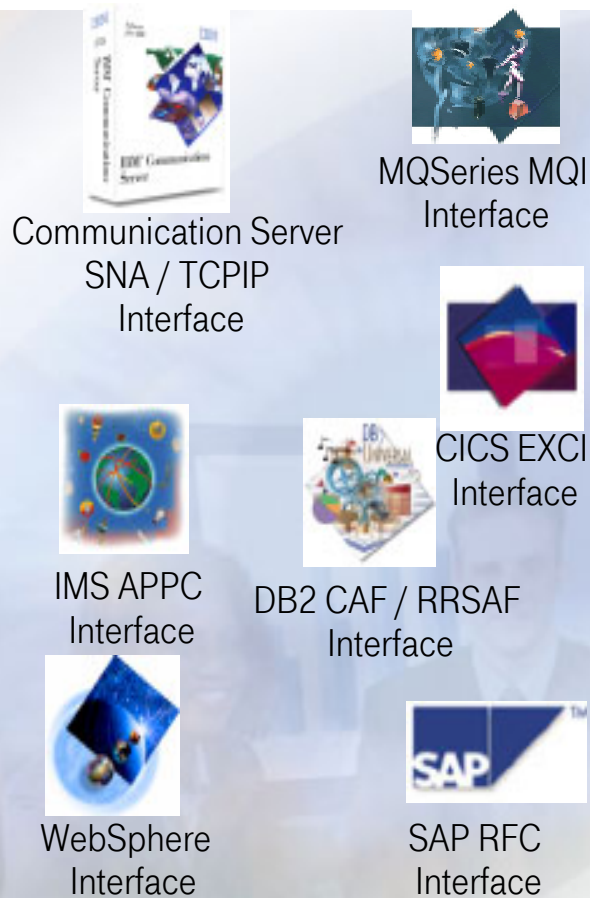
Job & Output
Management

Application Integration Middleware (NCI)

- ... is a middleware product that provides many services for application integration. It combines different communication protocols (TCP/IP, LU 6.2, HTTP, HTTPS) and products (MQSeries, CICS, IMS, DB2, SAP) with a uniform and easy to-use programming interface.
- Communication Manager (NCI/CM) is an application server for various Applications based on traditional programming languages like (C/C++, Cobol, ...) and system platforms.
- MQSeries Utilities (NCI/MQ) are containing extensions for securing an MQSeries Environment and an asynchronous File Transfer on the Basis of MQSeries Message Queueing.



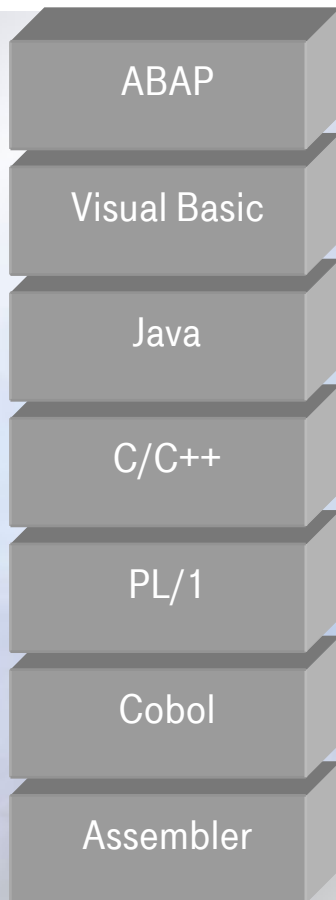
Motivation for developing/using NCI



Simplify the usage of interfaces through an uniform interface

■ for different products

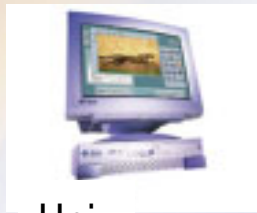
Motivation for developing/using NCI



Simplify the usage of interfaces
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- for different products
- for different programming languages

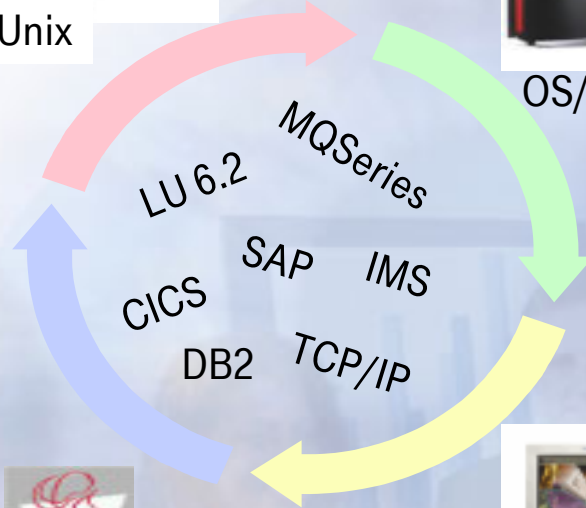
Motivation for developing/using NCI



Unix



OS/390



JVM



Windows

Simplify the usage of interfaces
through an uniform interface

- for different products
- for different programming languages
- for different operating systems

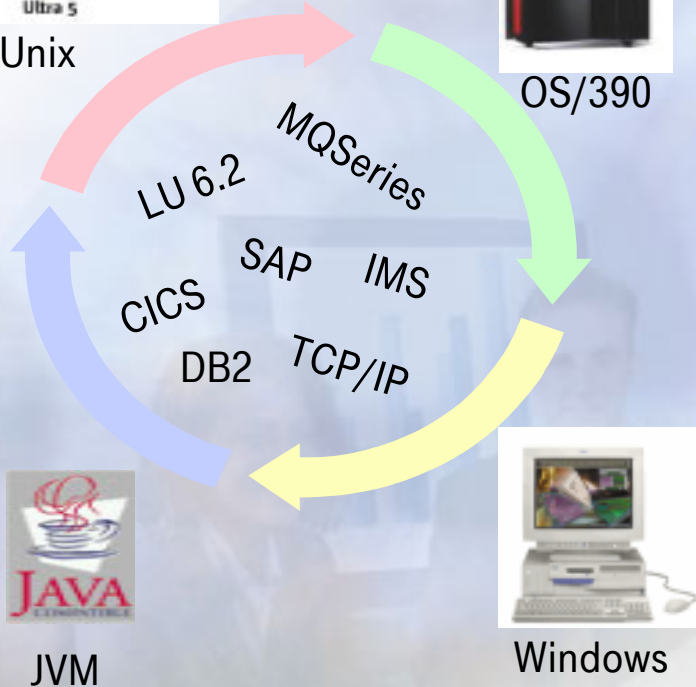
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Simplify the usage of interfaces through an uniform interface

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Enhance product functionality through

- Dynamic Workload Management
- Security services
- Symbolic addressing services
- Data manipulation services
- Error handling / tracing services

NCI - Network Computing Interface

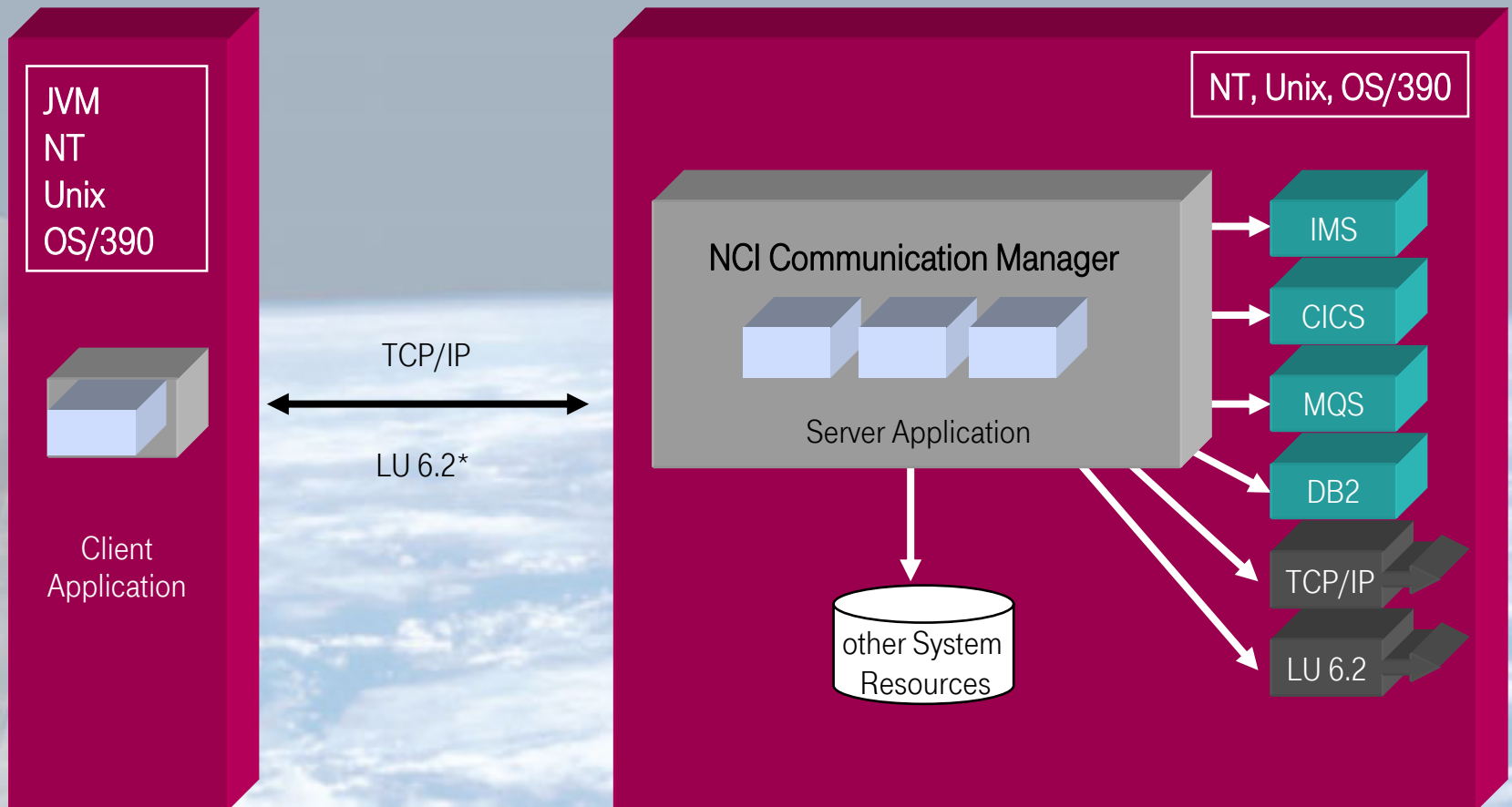
More Value through Effectiveness



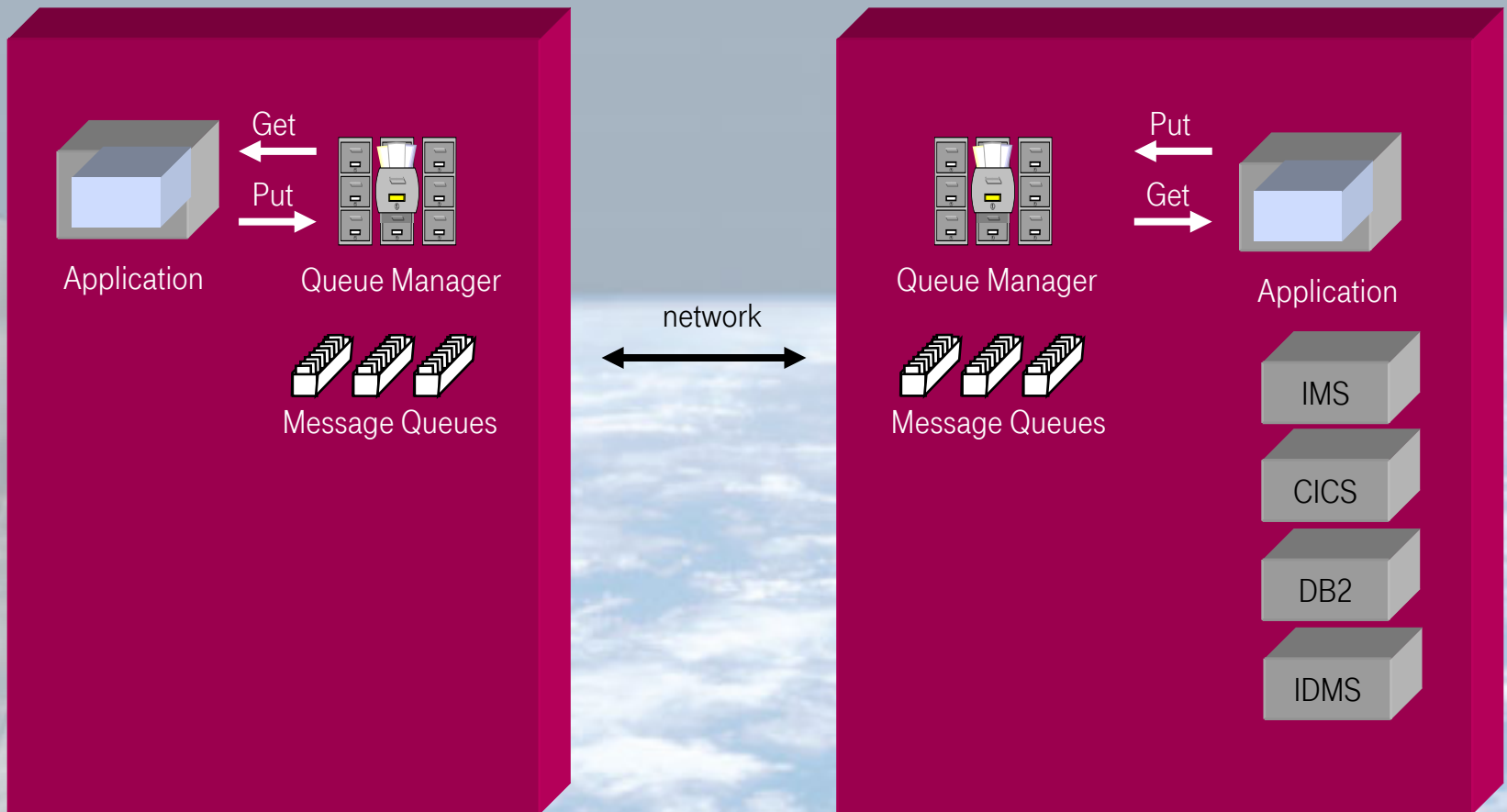
More value through Effectiveness with NCI because of ...

- Faster development, very simple and flexible API; complex interfaces are hidden.
- Uniform and common API, independent from operating system and programming language.
- Enhanced product functionality, i.e. security, compression and pseudo synchronous paradigm based on asynchronous MQSeries protocol.
- Setting standards for development on multiple platforms and languages using a unique syntax.
- Enforce standards and flexibility for operation, due to uniform error handling, symbolic addressing and external configuration.

2-tier Client/Server Architecture (TCP/IP or SNA LU 6.2)



Message Oriented Architecture (asynchronous)



Overview of NCI Components

NCI Application Programming Interface

NCI Common Services (Symbolic Addressing, Data-Conversion /-Compression, Error Handling , Tracing)

TCP/IP

SNA
LU 6.2

MQSeries
Interface

IMS
Interface

CICS
Interface

SAP
Interface

NCI Communication Manager
Dynamic Process and Thread Management

Gateway

Program
Call Interface

DB2
Interface

Control
Center

MQSeries
Trigger

NCI Security Services

Data
Encryption

Application
Security

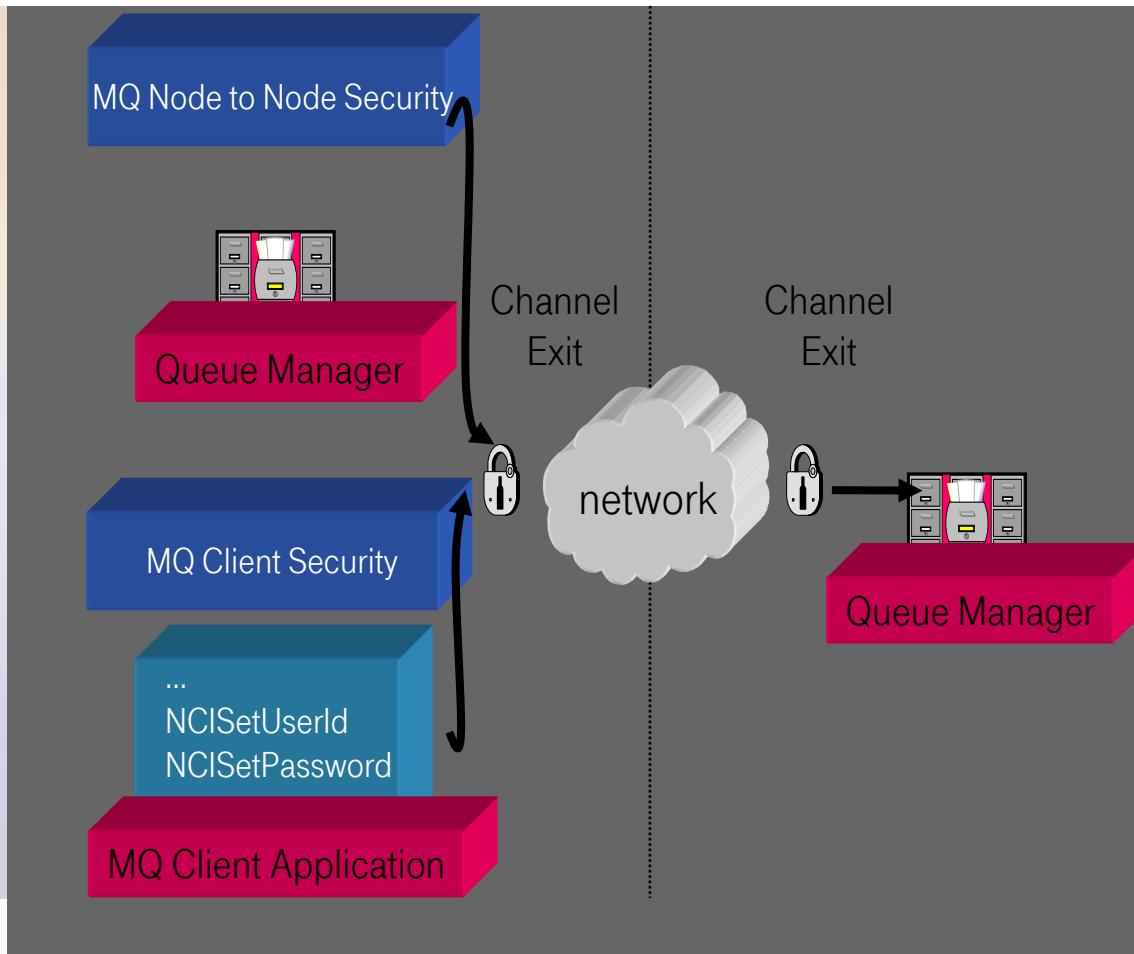
MQSeries
Security

NCI Web
Services

Pure Java
Interface

NCI Security Services

NCI MQSeries Security Suite



Secures complex MQSeries environments

- Allows node to node security
- Allows client to server security
- Supports authentication
- Supports encryption
- Works with MQSeries 5.1 and up

NCI MQ File Transfer Utilities

Overview

- The NCI MQ File transfer utilities allow a file transfer between loosely coupled systems in an asynchronous manner.
- They are based on IBM WebSphere MQSeries as transport layer.
- Support of the MQSeries infrastructure and operations
- Two Utilities work together to perform the actual file transfer
 - NCIF2Q splits a given file into MQ messages and puts them on a remote queue.
 - NCIQ2F re-assembles the file from the messages
- The Utilities are supported by RFTS/MVS using the RFTS/MVS MQ connector.

NCI - Network Computing Interface

What's coming next ...

Security and encryption ...

- Secure Socket Layer (SSL) support for NCI TCP/IP communications in addition to existing DES and 3DES implementation.
- Supports encryption and authentication.
- Allows for integration in existing „public key infrastructures“ (PKI)
- Available in second half of 2004



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