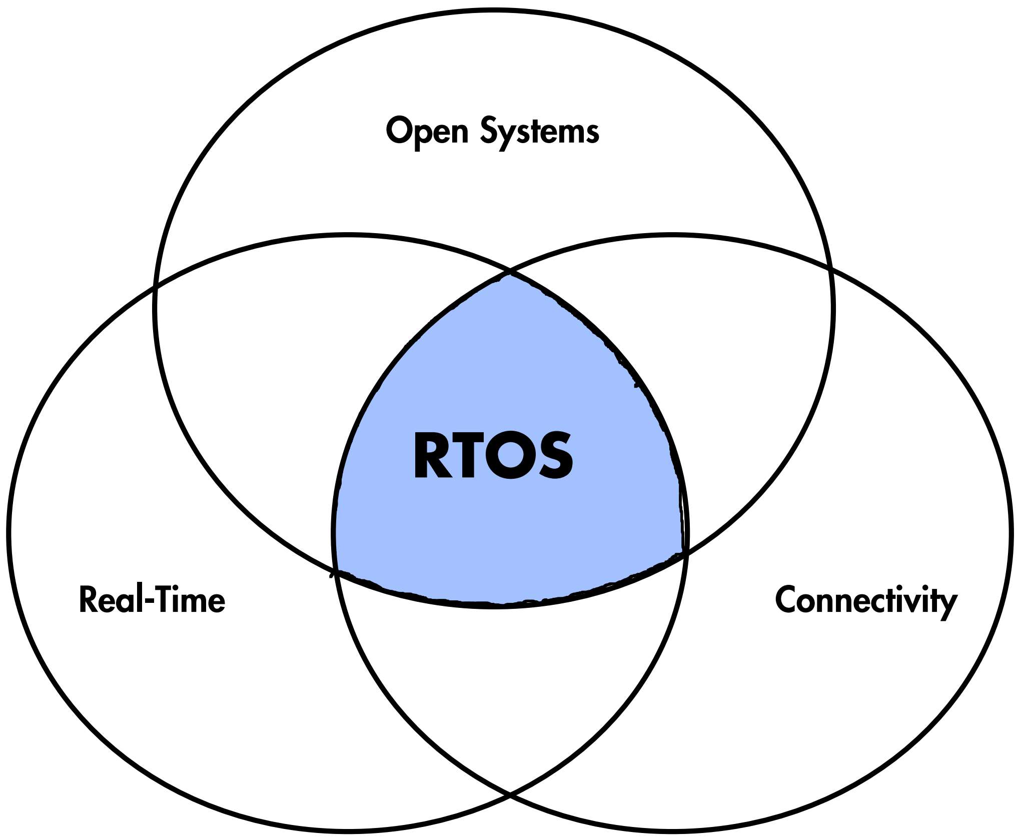
CHORUS/Fusion for SCO Open Systems Software

Chorus and SCO add strengths

- UNIX X86 technology and market
- Major customers
- Strong sales force and channels

- Microkernel technology
- Major OEM customers
- Real-time and distribution

Real-Time Open Systems Market



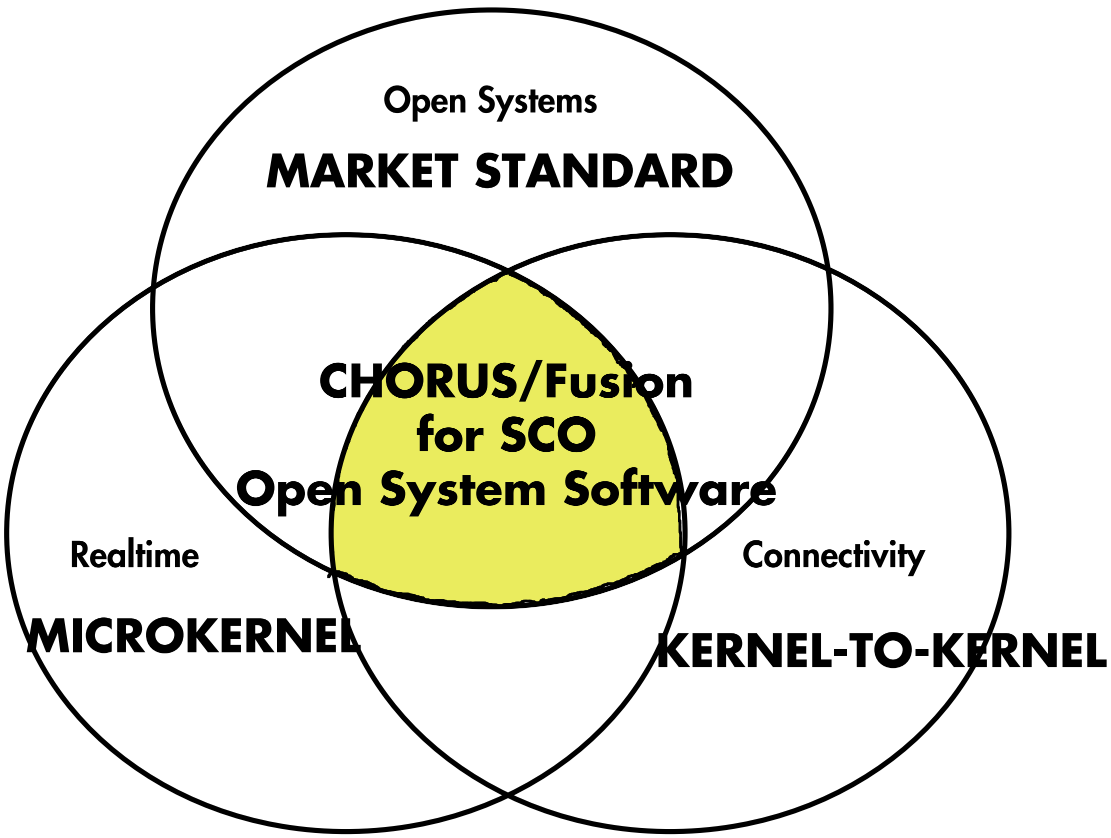
Realtime Open Systems Market

- **Market growth:**
  - More computing power being applied to real world situations
- **A new market combining the advantages of each of the three existing market segments:**
  - Benefits of open systems (UNIX)
  - Distributed technology for clustering all systems
  - Realtime features and tools for developing embedded applications

Why Realtime Open Systems?

- Complete **development environment** available with an open system
- Wide selection of **applications** and **tools** available with an open system
- Easier and faster to develop **large, complex embedded applications** with built-in distributed solutions
- Embedded applications gain **price/performance** by using PC hardware
- Embedded applications gain **time-to-market** advantage by using commodity OS
- Efficient use of **people** and their training by use of a single OS technology across a broad cross-section of a corporation

Real-Time Open Systems Market



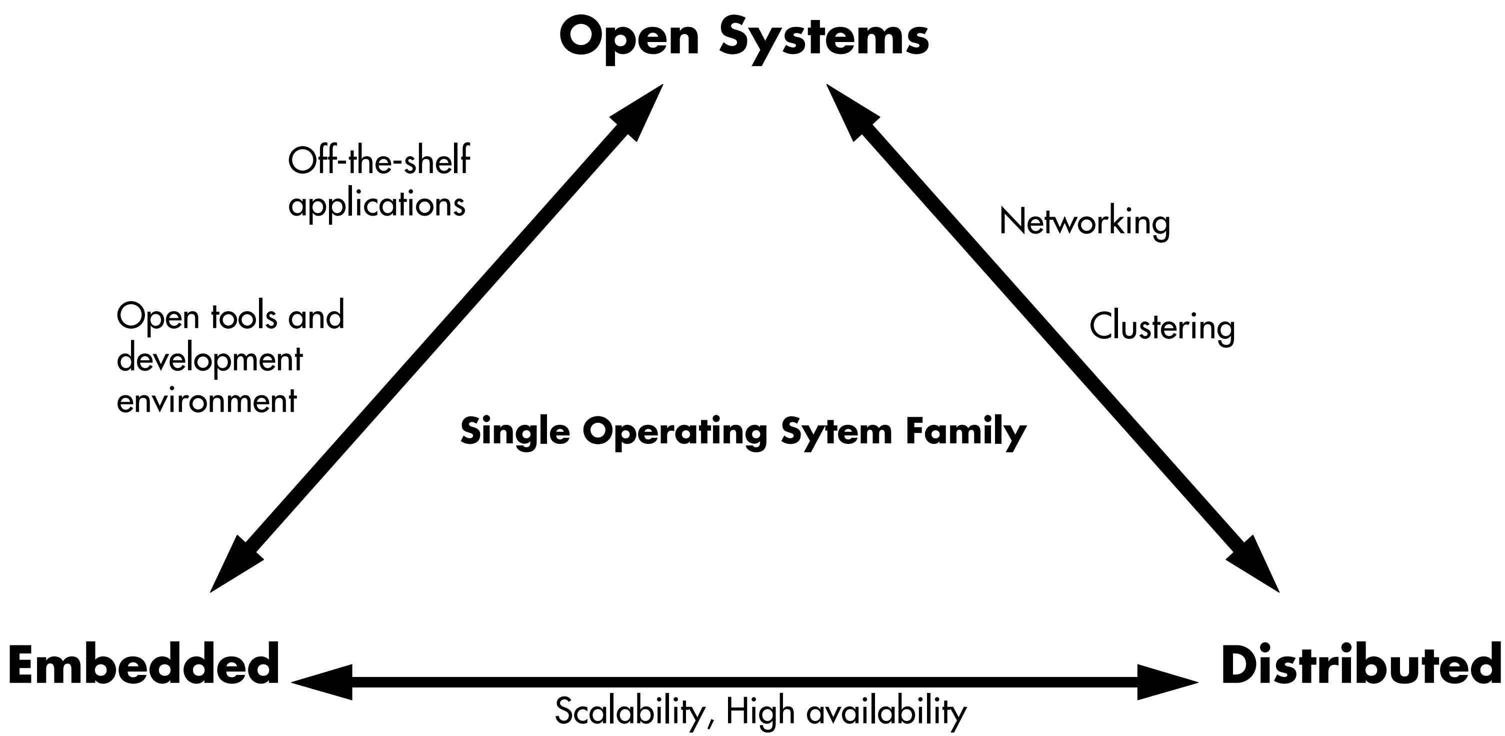
Why Realtime Open Systems?

PBX's
Gas pump point-of-sale
Traffic lights
Tollbooths
Industrial scales
Auto parts
Interactive TV
Pay-per-view movies

Cash registers
Pipelines
Medical instrumentation
Stock exchanges
Brokerage
Bank tellers
Information servers
Communication devices

Why Realtime Open Systems?

From the Developer's Perspective



CHORUS Technology

- **Market standard** microkernel operating system architecture
- Endorsed by **Novell**/USG, **SCO** and **major computer vendors** for new generation UNIX systems
- Chosen by **Telecom** manufacturer **leaders**
- Kernel-to-Kernel Transparent Connectivity allows to take full advantage of **clustering capabilities**

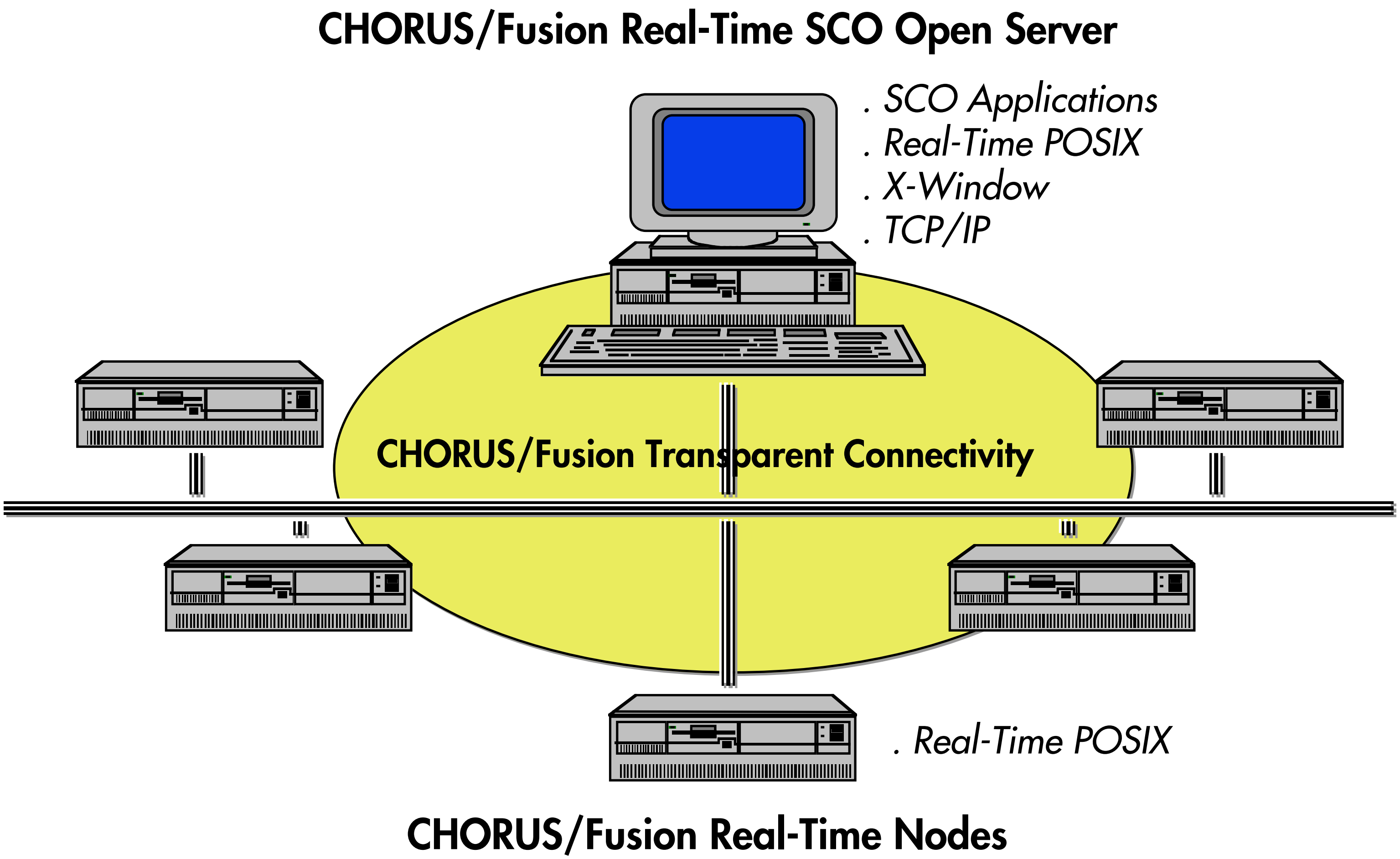
CHORUS Transparent Connectivity

- Same **Communication interface** whether local or remote
- **Group communication** in distributed environment
- Transparent **application migration**
- **Single System Image**
- **Dynamic (re)configuration**
- **Scalability** and **Fault Tolerance** enabler
- **Design** and **development decoupled** from **operation**
- **System integration** and **management** much more **flexible**

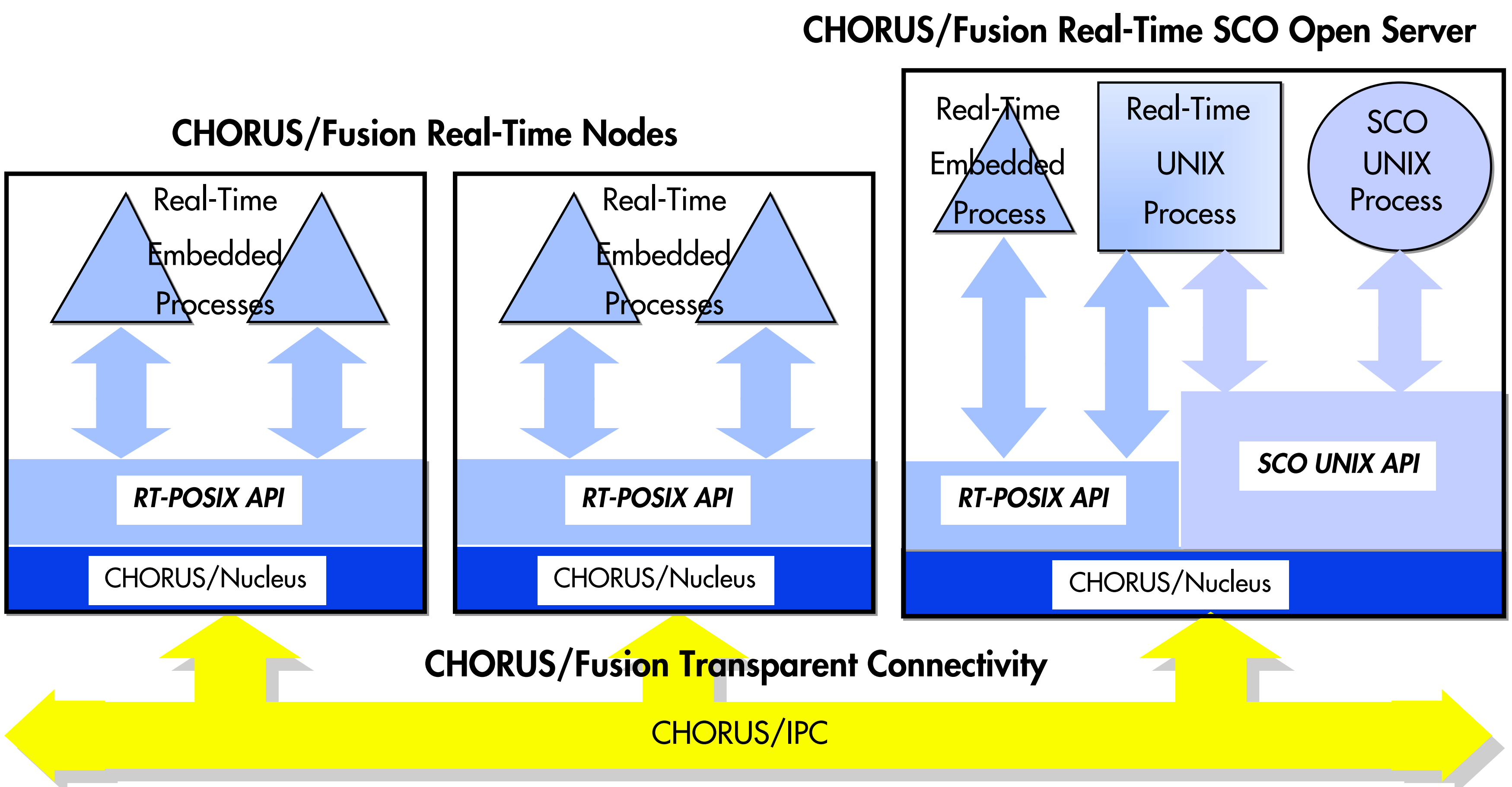
CHORUS/Fusion for SCO

- **CHORUS/Fusion Real-Time SCO Open Servers** provide real-time (POSIX) and full SCO compatibility
- **CHORUS/Fusion Real-Time Nodes** support dedicated real-time (POSIX) applications close to the real-world actions
- CHORUS/Fusion Real-Times Nodes and Servers interact at kernel level via **CHORUS/Fusion Transparent Connectivity**

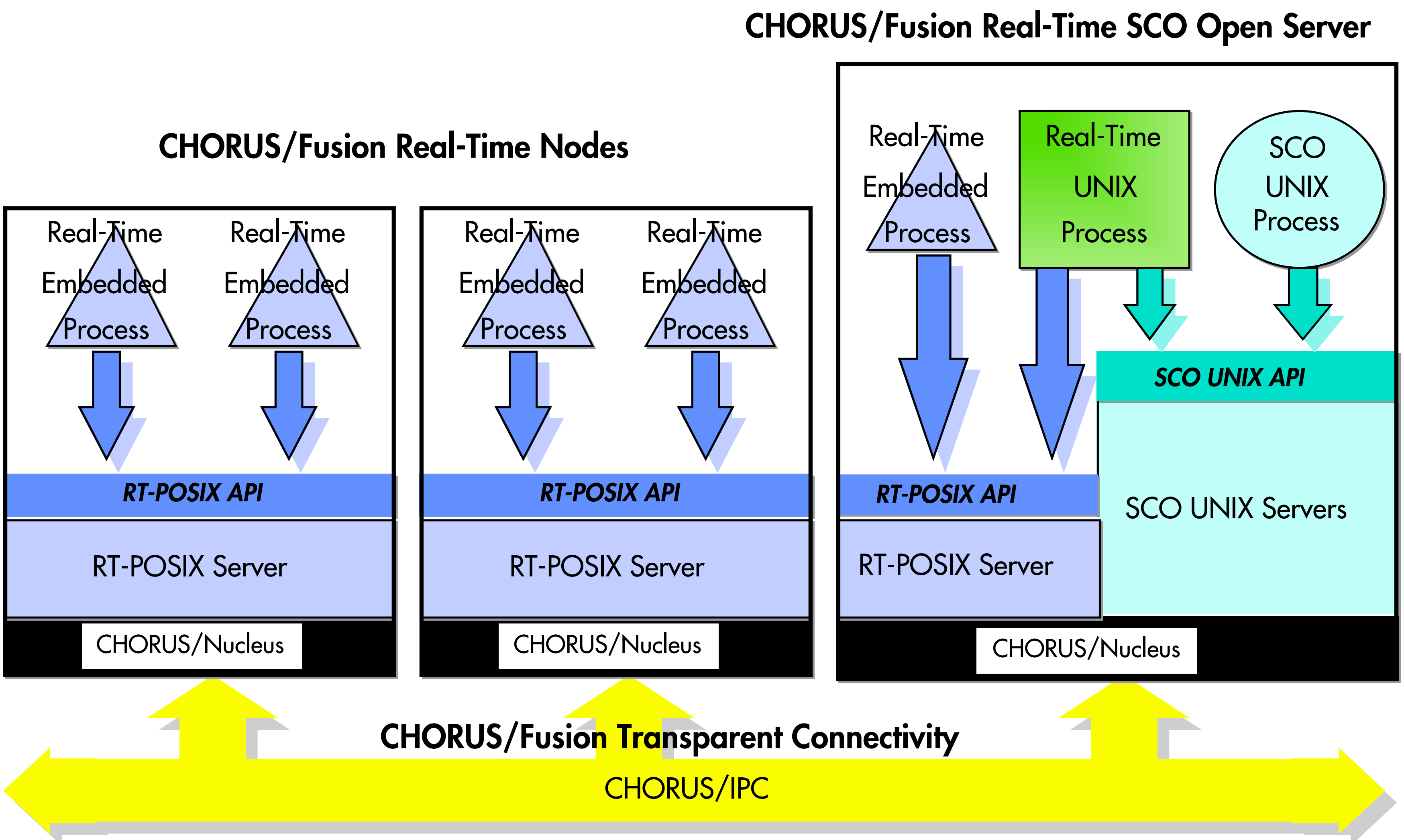
CHORUS/Fusion configurations



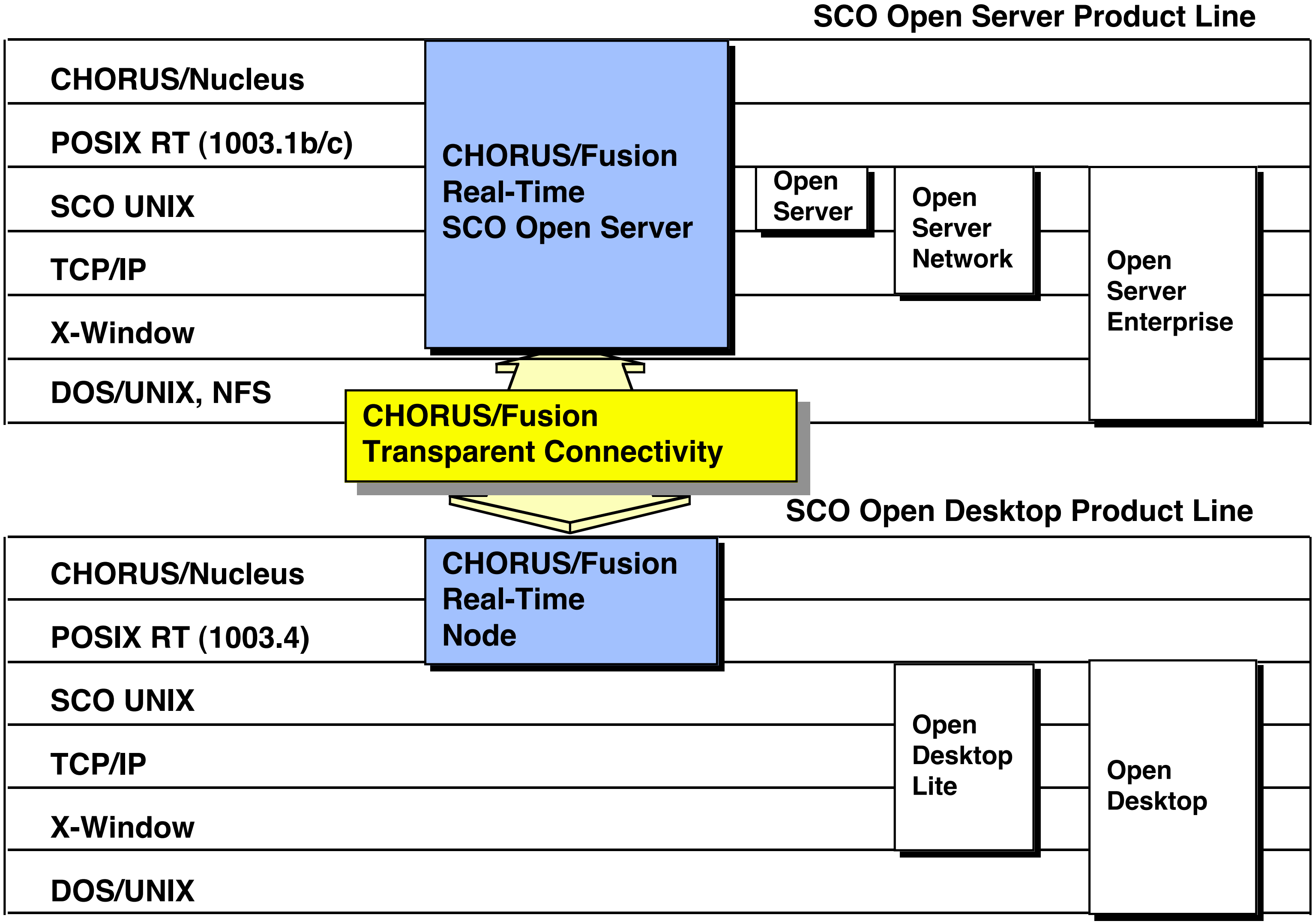
CHORUS/Fusion API's



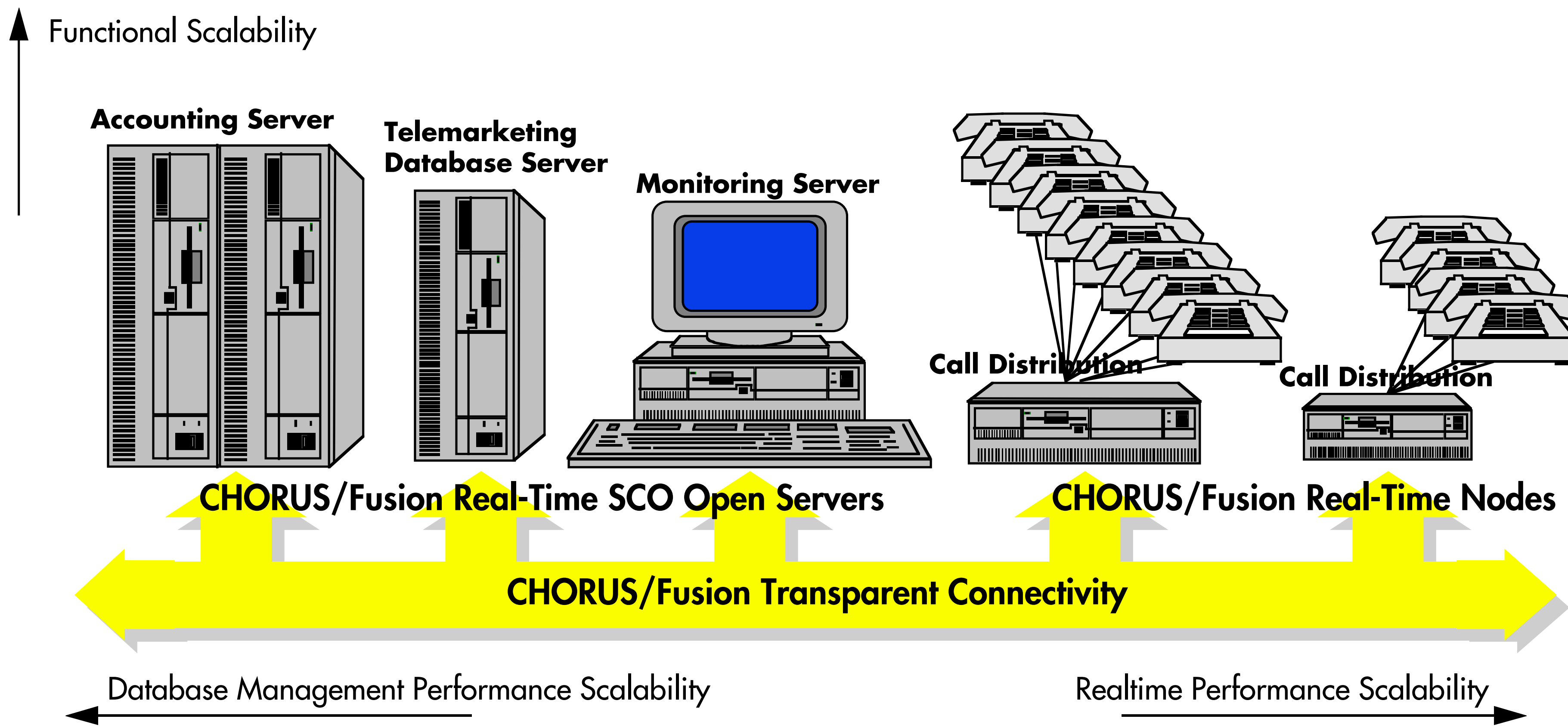
CHORUS/Fusion Architecture



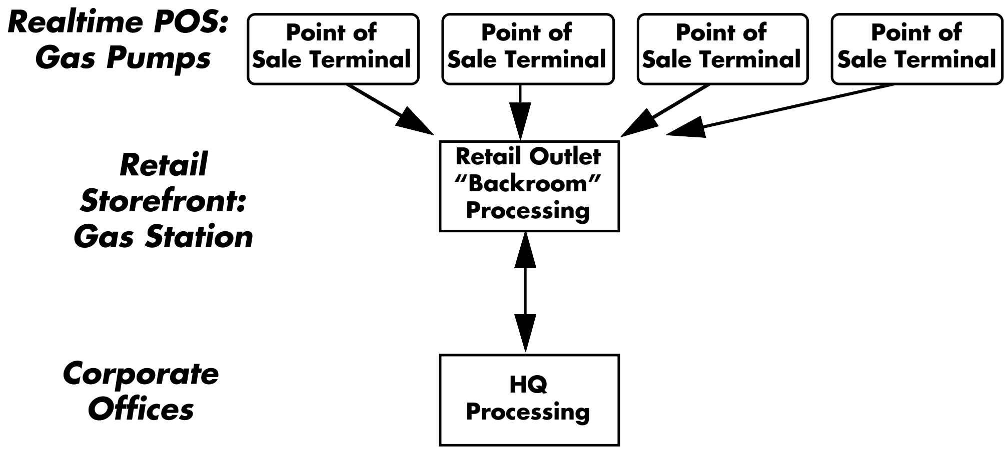
Extending SCO product line



Example: A Scalable ACD System



A Retail Gas Station POS System



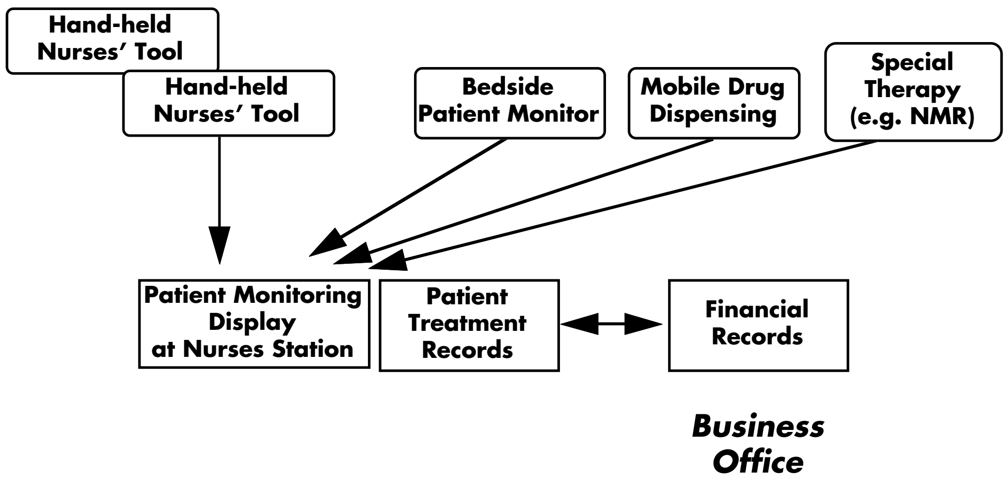
- Embedded PC hardware
- *CHORUS/Fusion Realtime Node*
- Proprietary POS software

- PCs and PC server hardware
- *CHORUS/Fusion Realtime Server*
- Off the shelf database, finance software (e.g. Oracle)

- Intel-based servers, VAX, Pyramid, or Sequent-class hardware
- SCO Open Server or UNIX
- Off the shelf database, finance software (e.g. Oracle)

- **Purpose**
  - Up-to-the-minute accounting of inventory and financials
  - In-store computing capabilities and network feed to corporate offices
- **Benefits**
  - Development, maintenance, and improvements are simplified by the use of the same operating system technology at every level of computing
  - Uptime improved through reduced complexity
  - Efficiency in use improved by the use of only one technology

Medical Instrumentation...



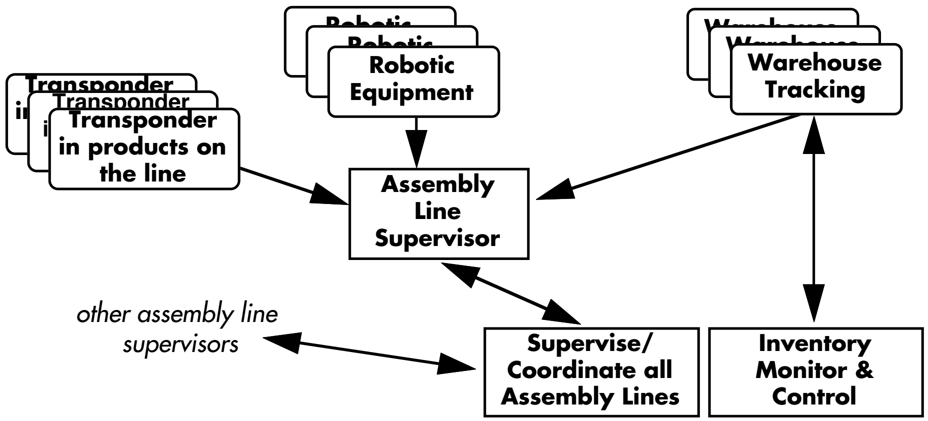
- Embedded PC hardware
- *CHORUS/Fusion Realtime Node*
- Proprietary measuring software

- PCs and PC server hardware
- *CHORUS/Fusion Realtime Server*
- Off-the-shelf database, finance software (e.g. Oracle)

- Intel-based server, VAX, Pyramid, Sequent-class hardware
- SCO Open Server or UNIX OS
- Off-the-shelf database, finance software (e.g. Oracle)

- **Purpose**
  - Patient charts and financial records updated with each therapy
  - Realtime patient monitoring
  - Computing capabilities at the nurses' station and in the business office
- **Benefits**
  - Development, maintenance, and improvements are simplified by the use of the same operating system technology at every level of computing
  - Uptime improved through reduced complexity
  - Efficiency in use improved by the use of only one technology

Factory Automation...



- Embedded PC hardware
- *CHORUS/Fusion Realtime Node*
- Proprietary control software

- PCs, PC server, & workstation hardware
- *CHORUS/Fusion Realtime Server*
- Proprietary supervisory software
- Off- the-shelf factory automation software

- High-end servers
- SCO Open Server or UNIX
- Off- the-shelf factory automation software
- Off-the-shelf database software

- **Purpose**
  - Integrate existing control of individual assembly lines with overall control of the factory for higher efficiency / more effective scheduling
  - Link corporate inventory monitor & control with assembly line management
- **Benefits**
  - Development, maintenance, and improvements are simplified by the use of the same operating system technology at every level of computing
  - Uptime improved through reduced complexity
  - Efficiency in use improved by the use of only one technology

CHORUS/Fusion Product Family

- **The CHORUS/Fusion for SCO Open Systems Software product family has 3 components:**
  - CHORUS/Fusion Development System
  - CHORUS/Fusion Realtime SCO Open Server
  - CHORUS/Fusion Realtime Node

CHORUS/Fusion Product Family

- **CHORUS/Fusion Development System:**
  - **Server**: CHORUS/Fusion Realtime SCO Open Desktop Lite
    - » SCO Open Desktop Lite (2-user UNIX, TCP/IP, X-Window, Motif)
    - » CHORUS/Fusion Realtime Server
  - **Nodes**: 2 CHORUS/Fusion Realtime Nodes for remote debugging
  - **Tools**: CHORUS/Fusion Development Tools
    - » SCO Open Desktop Development System
    - » SCO C++ Language System
    - » CHORUS/Fusion multithread and remote debugging extensions to GDB
    - » CHORUS/Fusion header files and development libraries

CHORUS/Fusion Product Family

- **CHORUS/Fusion Realtime SCO Open Server:**
  - SCO Open DeskTop Lite, SCO Open Server Enterprise, or SCO UNIX, including commands, utilities and libraries
  - Sockets, TCP/IP, X-Window support
  - extended with real-time POSIX and multi-threading
  - extended with transparent kernel-to-kernel connectivity
- **CHORUS/Fusion Realtime Node:**
  - Real-time POSIX
  - Transparent kernel-to-kernel connectivity

CHORUS/Fusion Summary

- **CHORUS/Fusion is a single OS platform for running off-the-shelf SCO tools and applications**
  - while **developing** real-time applications
  - **and** while **running** real-time applications
  - that all can run simultaneously on the same machine or on multiple interconnected machines
- **That provides**
  - lower cost to develop and debug mixed realtime and UNIX applications
  - in the well-known SCO Open Systems environment
  - in an integrated distributed framework

CHORUS/Fusion Summary