



Creating VoIP Applications

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Agenda

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- **Business Value of Application Development**
- **Architecture for Innovation**
- **Application Examples**
- **Summary**

The CIO Agenda

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Increase
Business Impact
of IT

Improve
IT Effectiveness

Accelerate
IT Evolution



**An intelligent network investment
can help address all of these priorities**

Business Rationale and Value Proposition

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**Increase
Business Impact
of IT**

- Proven value in enterprise deployments
- Strong enterprise app integration technology
- Flexible platforms that can respond to dynamic and unique business requirements

**Improve
IT Effectiveness**

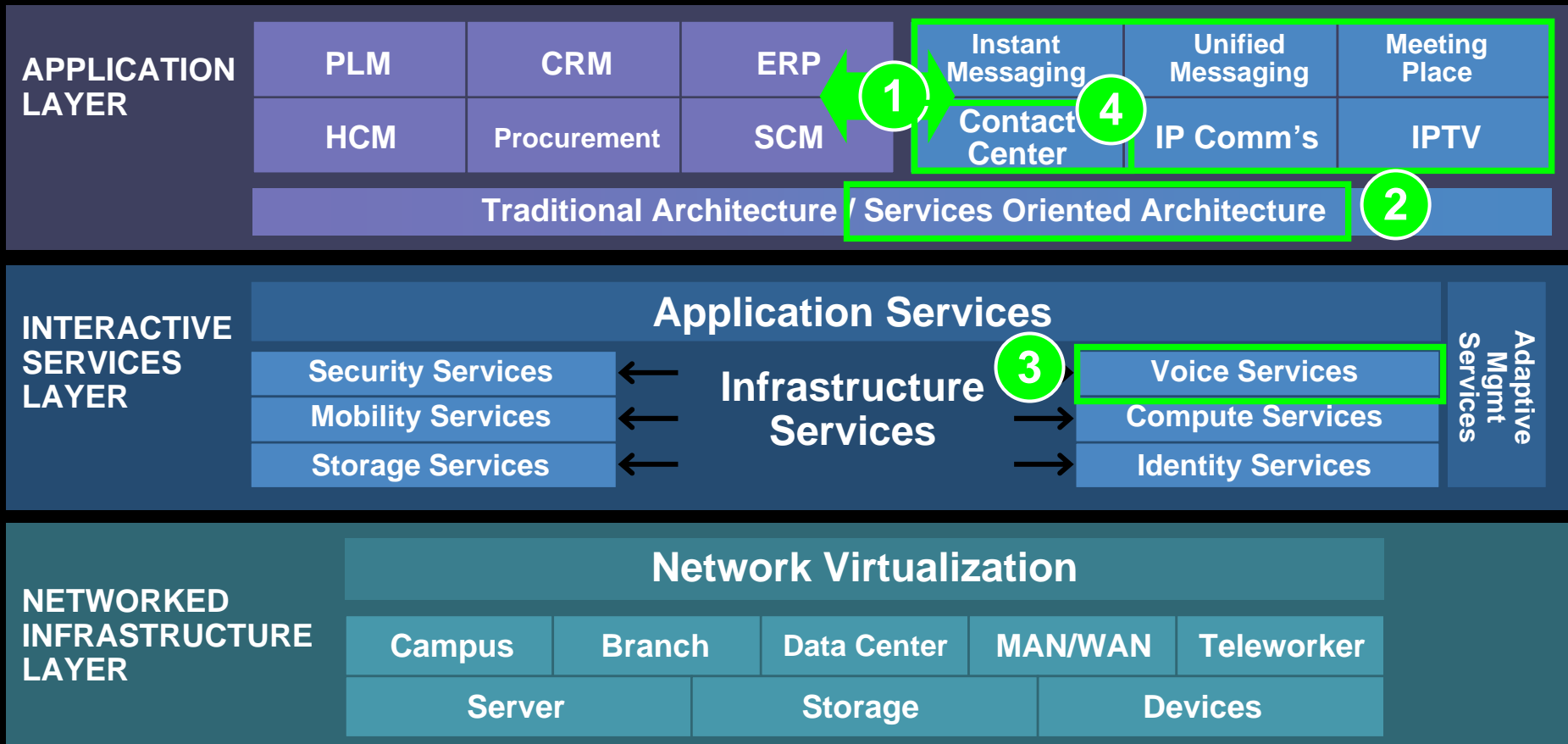
- Rapid, visual app development and integration
- Cost-effective monitoring, sustaining and updates of application flows
- Increased productivity of developers, business analysts, and partners

**Accelerate
IT Evolution**

- Leverage Web Services and Services Oriented Architectures
- Standards-based integration tools
- Intelligence and policy delivered through the power, ubiquity, and security of the converged network

Application Architecture Framework

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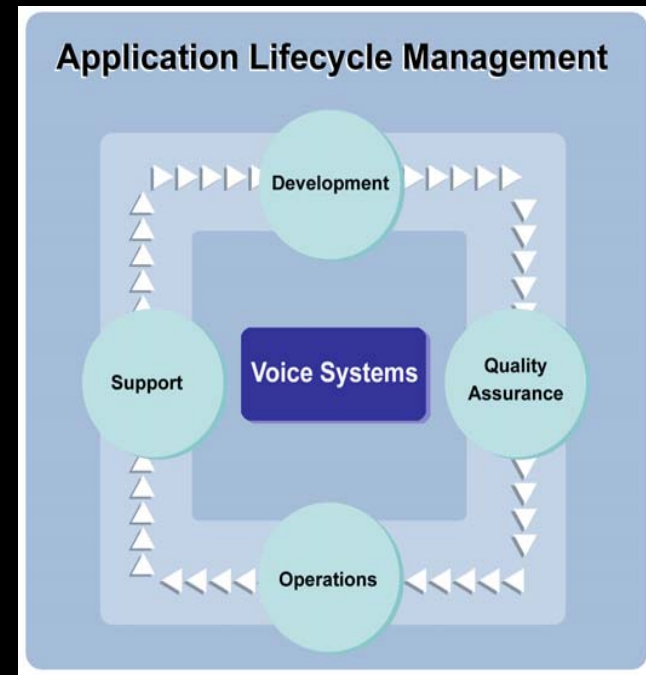


- 1) Application integration platform
- 2) SOA middleware for Unified Communications
- 3) Policy services for horizontal feature sets
- 4) Voice XML and Speech (ASR/TTS) services

Accelerating Innovation: Integrated Development Environment

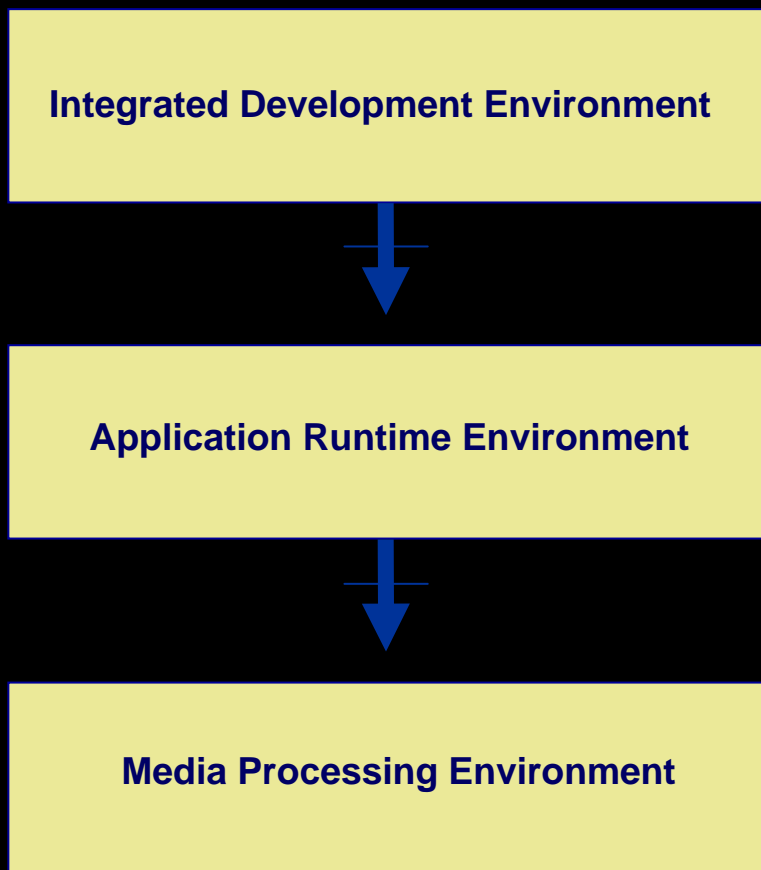
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- **Life cycle management of apps**
Develop → de-bug → test → deploy
→ maintain
- **Clear abstraction layer for connectors**
Abstract API variances from release to release
- **Extensible architecture**
Add new component connectors quickly
Presence, location, mobility services!!
- **Intuitive visual, drag & drop UI for developers**
Reduced level of programming skills required



Generic Representation of Application Architecture

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- Environment for creating, integrating, testing, and maintaining applications
- Can be visual (aka 'drag and drop'), script-based, or source code
- Creates or emits application description
- Can be proprietary or open
- Compiles the application (pre-processed or at runtime)
- Executes the application
- Integrates with other applications / databases in the enterprise
- Invokes media processing and call control functions (performed elsewhere)
- Terminates a call leg (IP, TDM, or either)
- Plays prompts (wave files or text-to-speech)
- Recognizes input (DTMF or speech)
- Processes media (conferencing streams, speaker recognition, ...)

Enterprise Solutions & Examples

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- **Ease of application integration w/ choice of applications (e.g. Oracle, SAP, IBM)**
- **Interoperability with various middleware:**

IBM WebSphere, Oracle AppServer, SAP NetWeaver, BEA WebLogic, MS .NET Framework (IIS/.ASP)



Vertical and Horizontal Solution Examples

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Retail

- **In-store customer assistance, workforce scheduling, order ready notification, inventory management**

Horizontal

- **Facilities Management**

Employee hoteling with departmental charge back

- **Systems Management**

Time critical alerting and resolution workflows w/ Tivoli, BMC, CA, NetIQ, OpenView

CRM and ERP Extensions

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- **Strategic, repeatable apps for SI partner practices**

SAP Workflow integration

Streamline “order to cash”, saving valuable days

Supply Chain Management ← accelerate resolution to mission critical supply issue



Summary

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- **Accelerating business process integration**
- **Web services and Applications Framework**
- **Network is the Platform:**
 - Platform for customers, integrators, VARs
 - ...to deliver profitable value-added solutions