THE OFFICE OF THE STATE CHIEF INFORMATION OFFICER
ENTERPRISE TECHNOLOGY STRATEGIES

North Carolina Statewide Technical Architecture

Implementation Guidelines:

Groupware Architecture

STATEWIDE TECHNICAL ARCHITECTURE

Implementation Guidelines: Groupware Architecture

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INTRODUCTION **3**

IMPLEMENTATION GUIDELINES **3**

IMPLEMENTATION GUIDELINES FOR CONTENT EXCHANGE 3

Guideline 1: Exchange documents in standard formats: *3*

Avoid new deployment of proprietary document formats. *3*

IMPLEMENTATION GUIDELINES FOR EMAIL GATEWAYS 3

Guideline 1: Implement mail clients and applications that conform to standards (SMTP, MIME, IMAP4, LDAP). *3*

Guideline 2: Implement native MIME compatibility in mail clients and applications. *4*

Guideline 3: Avoid implementation of local email directories that cannot be shared among state agencies. *4*

IMPLEMENTATION GUIDELINES FOR CALENDARING AND SCHEDULING 5

Guideline 1: Implement platform independent group calendaring and scheduling systems allowing coordination of activities in an organization or network. *5*

IMPLEMENTATION GUIDELINES FOR DOCUMENT MANAGEMENT 6

Guideline 1: Implement document filing and collaboration via consistent manual or semi- automated processes using shared storage media and provide simple methods for locating documents. *6*

Introduction

The intent of this document is to provide general implementation guidelines within the groupware technology domain. This will help to ensure that the State of North Carolina adopts uniform and consistent implementations of groupware solutions across the enterprise

The key goal of this document is to outline implementation guidelines that, when followed by the solution developers, will lead to a well-designed groupware solution that has the flexibility to grow with changes in technology and can be maintained in an efficient and effective manner. This is a fundamental principle of the North Carolina Statewide Technical Architecture.

This implementation guild is currently being revised both to better reflect the state of technology and improve upon existing architectural guidelines to better support state agency initiatives.

Implementation Guidelines

Implementation Guidelines for Content Exchange

Guideline 1: Exchange documents in standard formats: Avoid new deployment of proprietary document formats.

Rationale

- Proprietary formats hinder successful content exchange extensibility.

Implementation Approach for Content Exchange

Avoid New Deployment Migrate From Technology	Current Technology Direction	Emerging Technology
Proprietary document formats	Exchanging documents in standard formats	None at this time

Table 1 - Implementation Guideline Summary for Content Exchange

Implementation Guidelines for Email Gateways

Guideline 1: Implement mail clients and applications that conform to standards (SMTP, MIME, IMAP4, LDAP).

Rationale

- Standards compliant mail clients and applications provide flexibility for business units while allowing consistent and leveraged management of core email infrastructure.

Guideline 2: Implement native MIME compatibility in mail clients and applications.

Rationale

- Gateway-based MIME implementations are not as adaptable to changing user needs and creation of new MIME types relative to client implementations.
- Eliminate gateways by making them unnecessary.

Guideline 3: Avoid implementation of local email directories that cannot be shared among state agencies.

Rationale

- Independent directories hinder ease-of-use for enterprise directory lookup and force users to maintain local address books for recipients who are within the state enterprise but use disparate mail systems.

Implementation Approach for Email

Avoid New Deployment Migrate From Technology	Current Technology Direction	Emerging Technology
Proprietary email	Installation of PC clients and email applications adhering to the standards documented in this chapter (SMTP, MIME, IMAP4, LDAP) Discontinue purchase of proprietary products which do not conform to standards	ICAP
Non-MIME compliant email Gateway reliant email	Upgrade to MIME compliance if available Replace with MIME compliant email if	None at this time

	upgrade is not available Eliminate gateways by making them unnecessary	
Multiple local email directories not easily shared between agencies	Transparent email directory service for the entire state. The user will be capable of seamlessly accessing the directory information for all state employees whether or not the employee information resides within the MUA's host directory service	Comprehensive network and organizational directory services. The directory service will provide network addresses as well as employee addresses, allowing the system to look up email addresses and automatically generate notification messages.

Table 2 - Implementation Approach for Email

Implementation Guidelines for Calendaring and Scheduling

Guideline 1: Implement platform independent group calendaring and scheduling systems allowing coordination of activities in an organization or network.

Rationale

- Platform dependent personal calendars and schedulers inhibit collaboration and coordination of group events and resource sharing.

Implementation Approach for Calendaring and Scheduling

Avoid New Deployment Migrate From Technology	Current Technology Direction	Emerging Technology
Proprietary, platform dependent personal organizers that maintain calendar and scheduling information independently of the network	Platform independent Group Calendaring and Scheduling systems allowing coordination of activities in an organization on a	ICAP and iCalendar standards Integration with State Portal

	network	

Table 3 - Implementation Guidelines for Calendaring and Scheduling

Implementation Guidelines for Document Management

Guideline 1: Implement document filing and collaboration via consistent manual or semi- automated processes using shared storage media and provide simple methods for locating documents.

Rationale

- Consistent filing procedures and use of search mechanisms facilitate efficient and effective document retrieval.

Implementation Approach for Migration to Integrated Document Management

Avoid New Deployment Migrate From Technology	Current Technology Direction	Emerging Technology
Fragmented storage of documents in the following mediums: Paper Film Local / network file directories Single agency accessible databases Legacy applications Proprietary imaging systems	Paperwork, manual processes Semi-automated, word processing, spreadsheets Office automation suites Network file services Transaction processing Imaging systems	EDM integration with office automation suites and other applications Component architecture Structured / distributed document repositories Compound / virtual e-docs Knowledge Management Open systems Document/Workflow enabled legacy systems Analytical processing
Document file location by: Card catalog Personal memory Non-universal electronic index File system pathnames	Long file names File search File managers	Universal search mechanisms based on indexing and document content / abstract Automatic delivery (workflow)
Document collaboration via shared directories and manual version control	Workgroup, office automation packages	EDMS, Workflow Shared documents Automated merging and version control

		Compound / virtual e-docs Content management
Documents stored in various databases, file systems, and spreadsheets	Common data storage formats (Refer to Data Architecture chapter)	Object oriented data storage Object management Object distribution Assembly of objects in real time

Table 4 - Implementation Guideline Summary of the Migration to Integrated Document Management