To: Distribution

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Subject: Proposed Consolidation of Commands which Deal with Extended Access

Introduction

With the installation of version two message segments, a new type of message segment, the mailbox message segment, will be created. In addition, the facility to create still other types of message segments more easily will be provided. There will exist a type of segment known as the VDS segment.

The above mentioned segments all utilize extended access. Because they utilize this feature, they cannot be manipulated with standard commands. Thus each time a new segment which uses extended access is created, a new set of commands to manipulate them must be created. These commands are needed to perorm the following functions:

.create the segment
.delete the segment
.rename the segment
.add a name to the segment
.delete a name from the segment
.list the acl of the segment
.set the acl of the segment
.delete from the acl of the segment

The implementation of all these commands is time-consuming and has led to the proliferation of commands which perform similar functions. This document outlines the implementation of a single command containing all the above mentioned functions, which will be easily extendable to incorporate any new type of segment which uses extended access.

Definition of an Extended Access Segment

A segment which utilizes extended access must have the following properties:

.It must reside in the administrative ring(ringbrackets = admin_ring, admin_ring, admin_ring)
.It must have a name suffix appended to each of its names which represent its type (e.g. ".ms" for queue message segments)
.It may not be a multisegment file

.Its access must be entirely defined by the administrative ring
procedures which manipulate it. That is, the "modes" field for
all its ACL entries must be "rew".
.It must utilize a defined subset of extended access bits, with each
bit representable by a specific letter. e.g. for queue message
segments; bits 1-5 utilized, bit 1 => "a", bit 2 => "d",....

Implementation Conventions for Extended Access Primitives

The administrative ring procedures which are called by the combined
command to perform the previously mentioned functions for a specific type
of segment which utilizes extended access must:

.Be callable through a single gate
.Be callable by specific names through the gate as defined by the PLM on
message segments
.Have calling sequences as defined by the PLM on message segments

Implementation of a Set of Extended Access Commands

Given the above conventions, one set of extended access commands differs
from another in:

1. The subset of allowable commands
2. The suffix name of the segment type
3. The subset of allowable extended access

This information can be kept in an include file table. When a new type of
extended acess segment is added to the system, the extended access command
must be modified by:

1. Making up a table entry in the include file
2. Inserting the appropriate "entry:" statements in the command