

MCR10169

Remove system dependencies on nit_data_

Revision 1.0

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1 Problem Description

The standard Mutlics mail system (>sss>bound_mail_system_) has a mechanism to check for the existence of the Inter-System Mailer (ISM), which, historically was only shipped as a separately priced product – the TCP/IP software. The mechanism used is a linkage fault protected attempt to access `nit_data_$local_host`. This segment is not provided with the standard system, but only with the TCP/IP software. However, `nit_data_` is now obsolete in the TCP/IP software and will not be included when the networking software is included in the next release of Multics (MR12.9).

Whereas in the MIT/Honeywell TCP/IP software, there were three places where the local host name was defined (`network_site_data_`, `network_local_data_`, and `nit_data_`), the networking software to be included in MR12.9 will only use `network_local_data_` and its subroutine interface, `network_local_info_`. The other two data segments were older versions and in various stages of being made obsolete. The current networking stack will no longer include `network_site_data_` and `nit_data_`, and all references to `network_local_data_` are encapsulated into the `network_local_info_` subroutine.

This MCR proposes to update the standard mail system to use `network_local_info_$get_host_name` rather than `nit_data_$local_host` in both the ISM-presence check, as well as the code in `mlsys_nit_interface_` that attempts to determine the local system host name.

2 Proposed Fix

The proposed fix is to update the two programs `mlsys_psp_.pl1` and `mlsys_nit_interface_.pl1` to no longer reference `nit_data_$local_host` but rather to use `network_local_info_$get_host_name`.

The `compare_ascii` output for `mlsys_psp_.pl1` is shown below:

```
cpa [lpn mlsys_psp_.pl1] ==
```

Inserted in B:

```
B14      2) change(2026-08-24,Swenson), approve(2026-08-24,MCR10169):
B15      ism_not_available's linkage-existence probe no longer snaps a link to
B16      nit_data_$local_host (the Hyperchannel TCP/IP RPQ's legacy CDS
```

```

B17      segment); it snaps network_local_info_$get_host_name instead. This
B18      allows nit_data_ to be retired.
Preceding:
A14                                     END HISTORY COMMENTS */

A39      dcl local_host character (40) varying;
Deleted by B, preceding:
B44      dcl forum_gate_brackets (3) fixed binary (3);

A46      dcl nit_data_$local_host character (40) varying external;
A47
Deleted by B, preceding:
B50      /* format: off */

A75      /* Determine if the site has purchased the TCP/IP and/or Hyperchannel RPQs which
        provide a prototype Network Information
A76      Table (NIT) and an interim Inter-System Mailer */
Changed by B to:
B77      /* Determine if the mail system's network-based addressing/delivery support
        (formerly gated on having purchased the
B78      TCP/IP and/or Hyperchannel RPQs providing a prototype Network Information Table
        (NIT) and an interim Inter-System
B79      Mailer) is available -- now gated on the standard, always-installed network
        configuration infrastructure instead
B80      of the long-retired nit_data_ segment */

A97
A98      local_host = nit_data_$local_host;      /* ... and the single
        external constant */
Changed by B to:
B101     psp_entry = network_local_info_$get_host_name;
B102                                     /* ... in place of the old
        nit_data_$local_host probe */

Comparison finished: 5 differences, 18 lines.

```

The proposed change to `mlsys_nit_interface.pl1`, is shown below. A local procedure (`local_host_name`) is used to retrieve the local host name from `local_host_info_$get_host_name`.

```

Inserted in B:
B25      4) change(2026-08-24,Swenson), approve(2026-08-24,MCR10169):
B26      get_local_system_name, get_fully_qualified_name, is_local_system, and
B27      canonicalize now get the local host's name from
B28      network_local_info_$get_host_name (via a new internal
B29      local_host_name procedure) instead of the nit_data_$local_host
B30      external variable. This allows nit_data_ to be retired.
Preceding:

```

A25

END HISTORY COMMENTS */

A31 actually exist and this module serves as an interface to the MRDS/CDS host
 table and nit_data_ CDS segment furnished a

\cs

A32 part of the Hyperchannel TCP/IP RPQ */

Changed by B to:

B37 actually exist and this module serves as an interface to the MRDS/CDS host
 table and (via network_local_info_) the

B38 network_local_data_ segment that superseded the nit_data_ CDS segment furnished
 as part of the Hyperchannel TCP/IP RPQ

\c */

A71 dcl nit_data_\$local_host character (40) varying external;

A72

Deleted by B, preceding:

B77 /* format: off */

Inserted in B:

B88 dcl network_local_info_\$get_host_name entry (fixed bin (35)) returns (character
 (256) varying);

Preceding:

A84

A85 dcl sub_error_ condition;

Inserted in B:

B94 /* Return the local host's name, per network_local_info_
 (mlsys_psp_\$ism_not_available's

B95 own linkage-existence probe now also uses network_local_info_, not nit_data_) */

B96

B97 local_host_name:

B98 procedure returns (character (256) varying);

B99

B100 dcl code fixed binary (35);

B101 dcl name character (256) varying;

B102

B103 name = network_local_info_\$get_host_name (code);

B104

B105 return (name);

B106

B107 end local_host_name;

B108 %page;

Preceding:

A89 /* Return the host name of the local system */

A97 else return (translate (nit_data_\$local_host, UPPERCASE, LOWERCASE));

Changed by B to:

```

B117             else return (translate (local_host_name ()), UPPERCASE, LOWERCASE));

A112             else if canonicalize (P_system_name) = canonicalize
((nit_data_$local_host)) then
A113             return (translate (nit_data_$local_host, UPPERCASE, LOWERCASE));
Changed by B to:
B132             else if canonicalize (P_system_name) = canonicalize ((local_host_name
())) then
B133             return (translate (local_host_name ()), UPPERCASE, LOWERCASE));

A149             else return (compare_system_names (P_system_name,
(nit_data_$local_host)));
Changed by B to:
B169             else return (compare_system_names (P_system_name, (local_host_name ()))));

A183             reversed_local_name = reverse (translate (nit_data_$local_host,
UPPERCASE, LOWERCASE));
Changed by B to:
B203             reversed_local_name = reverse (translate (local_host_name ()), UPPERCASE,
LOWERCASE));

Comparison finished: 9 differences, 38 lines.

```

3 Documentation

No changes to the documentation are required as none of this is documented now.

4 Test

These changes will be tested on GHM-test and GHM by ensuring the standard system mailer and the ISM mailer continue to work as they do now.

5 Version History

2026-08-25	1.0	Initial version of the MCR.
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