

TPS System Implementation Overview

Objective

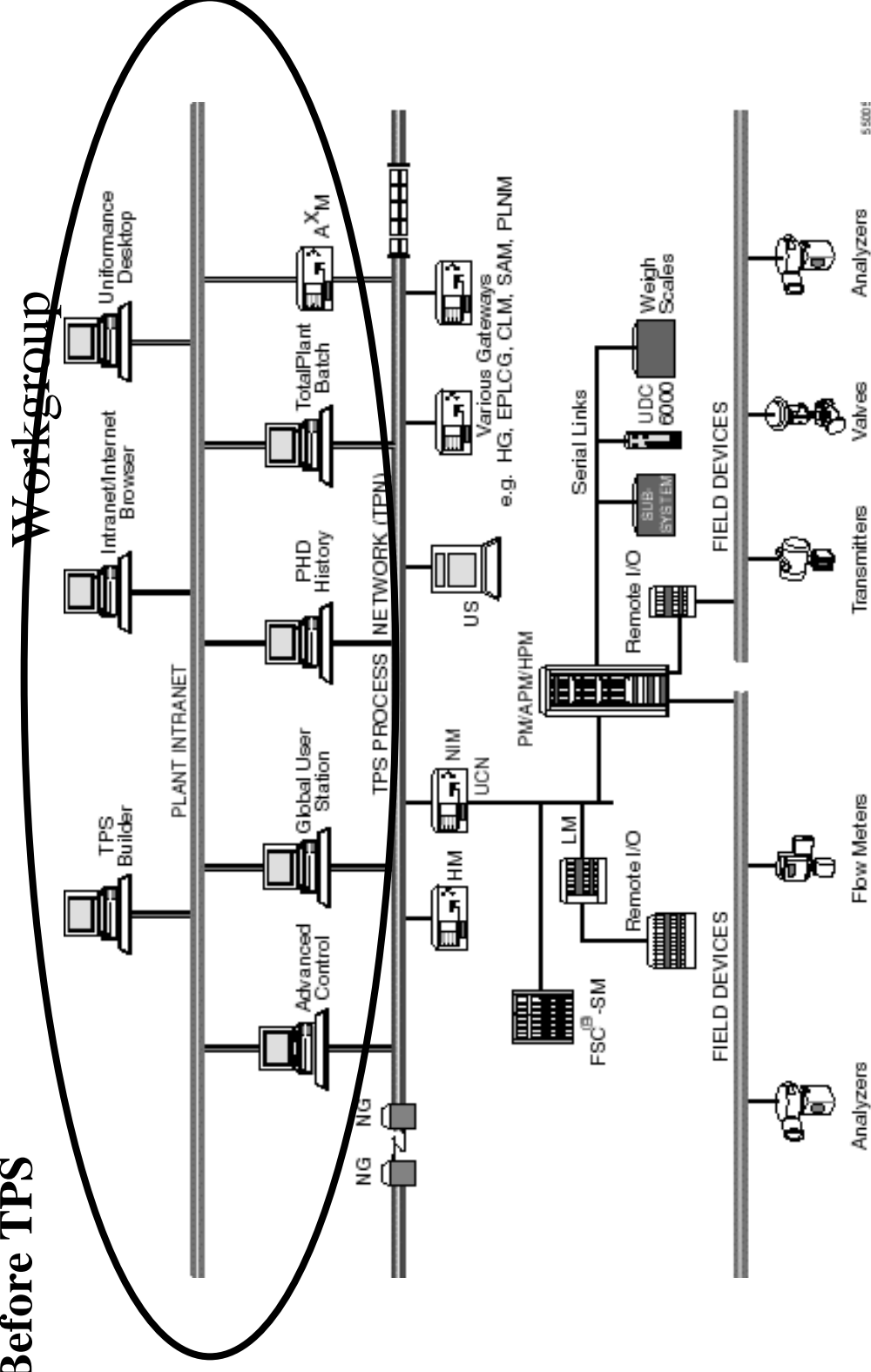
Discuss and review TPS/NT System Architecture and the TPS Node Types.

In This Module

- Overview of the TPS System Architecture
 - Overview of TPS System Components functions and locations
 - Discuss GUS Node Types
 - Discuss APP Node Types
 - Discuss TPS Packaging
 - Discuss and review NT and TPS Domains
 - Overview of Networking Recommendations
 - Overview of Build Tools
-

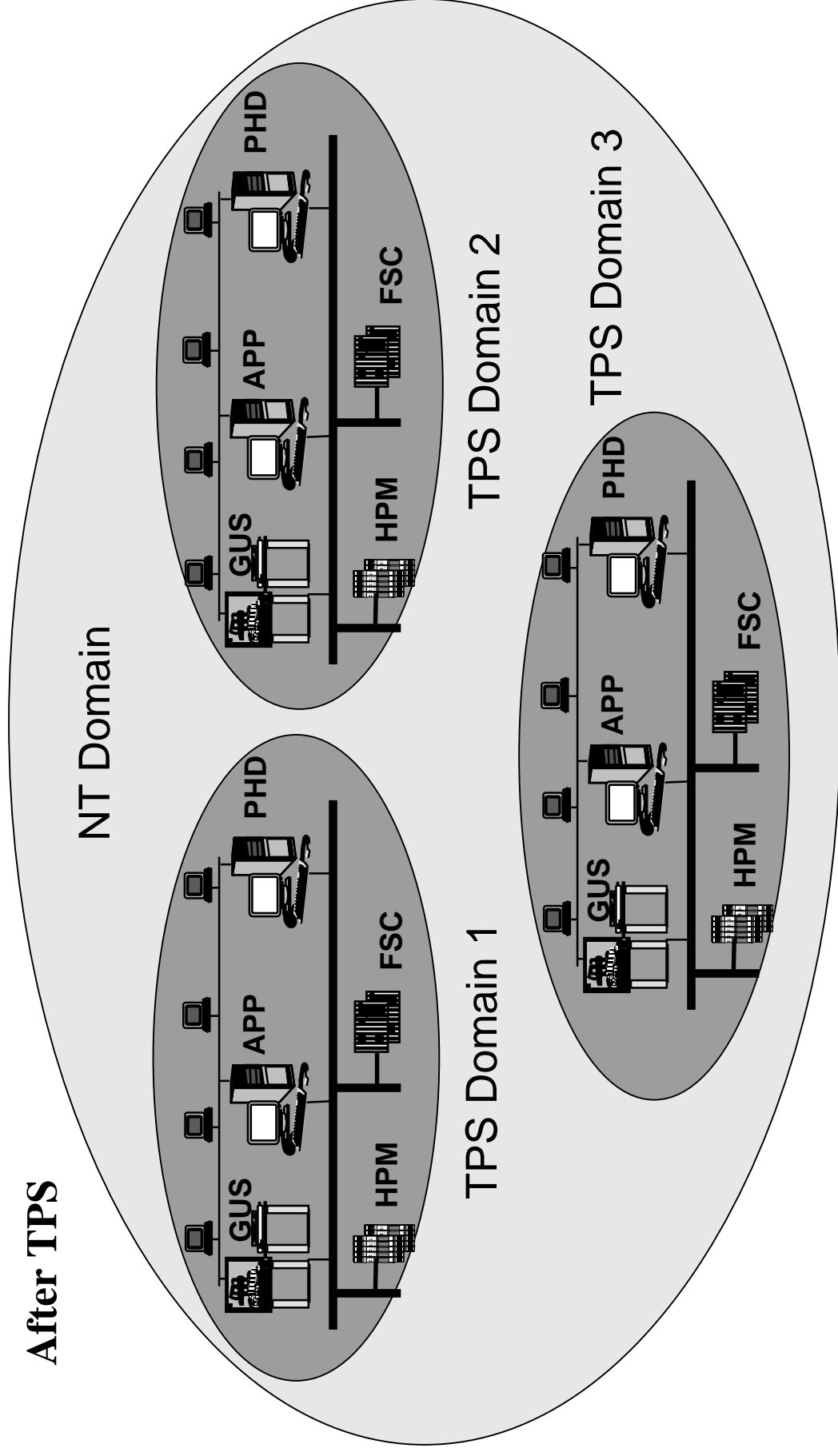
TPS System Implementation Overview

Before TPS

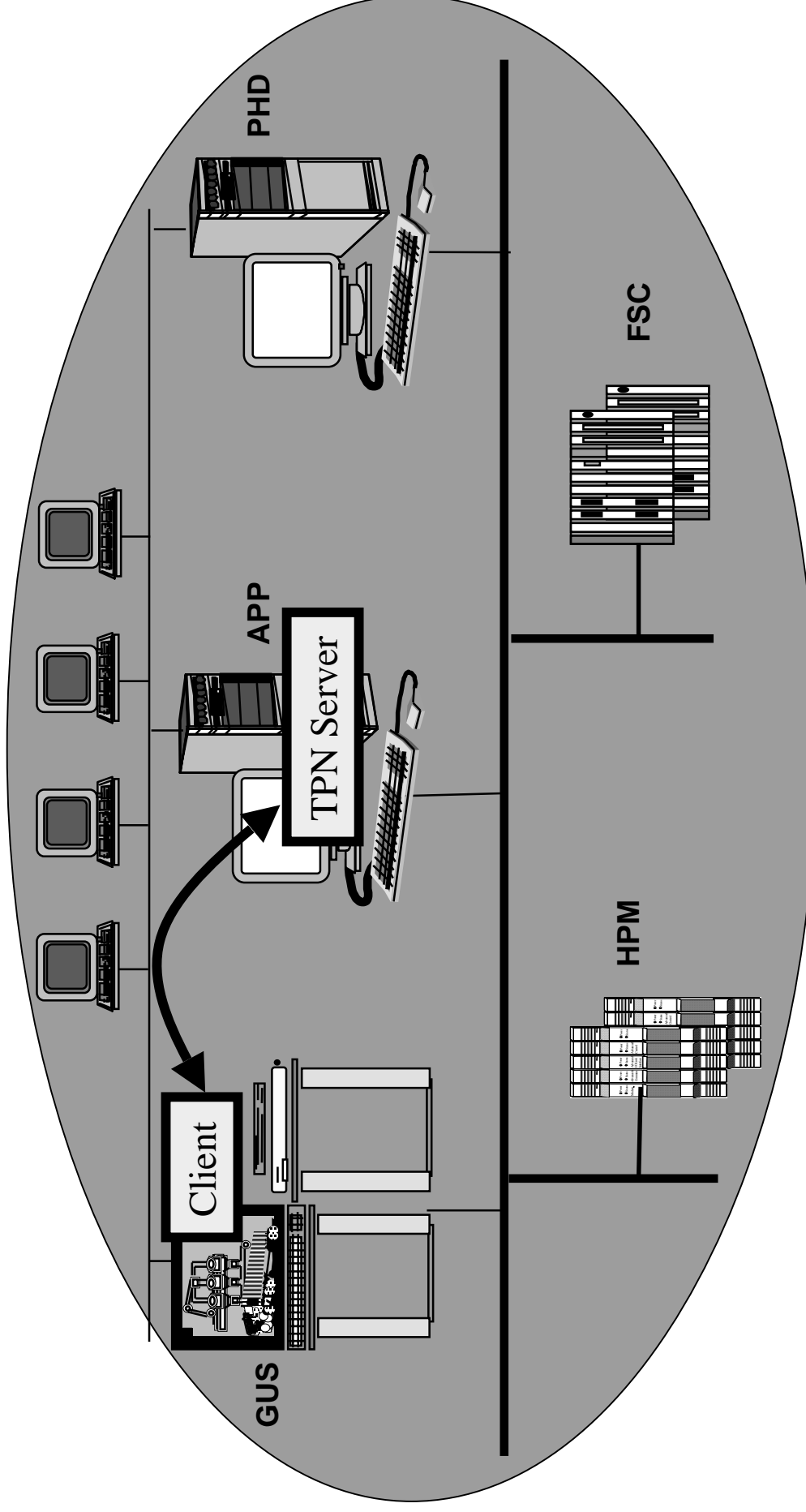


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After TPS

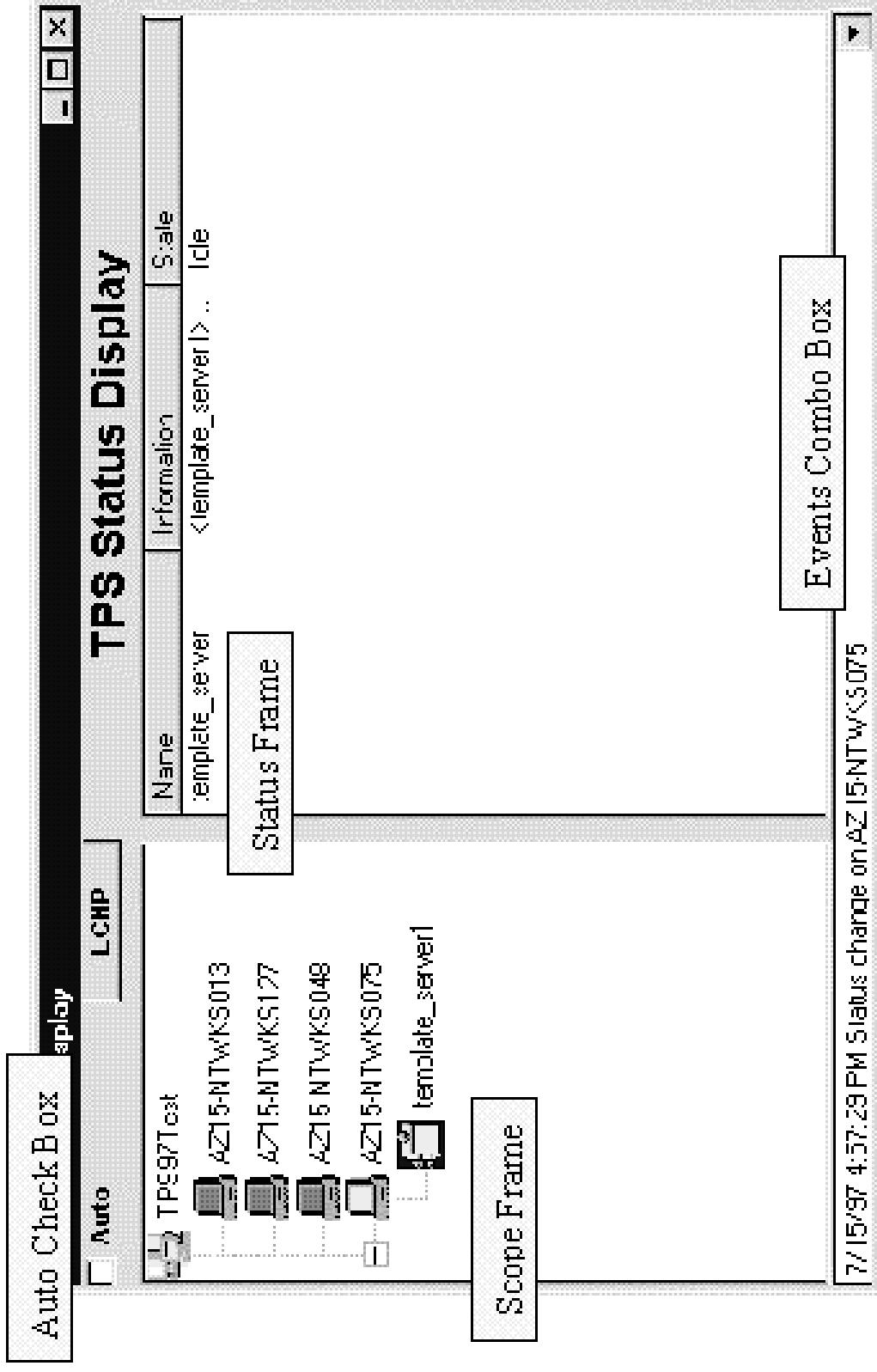


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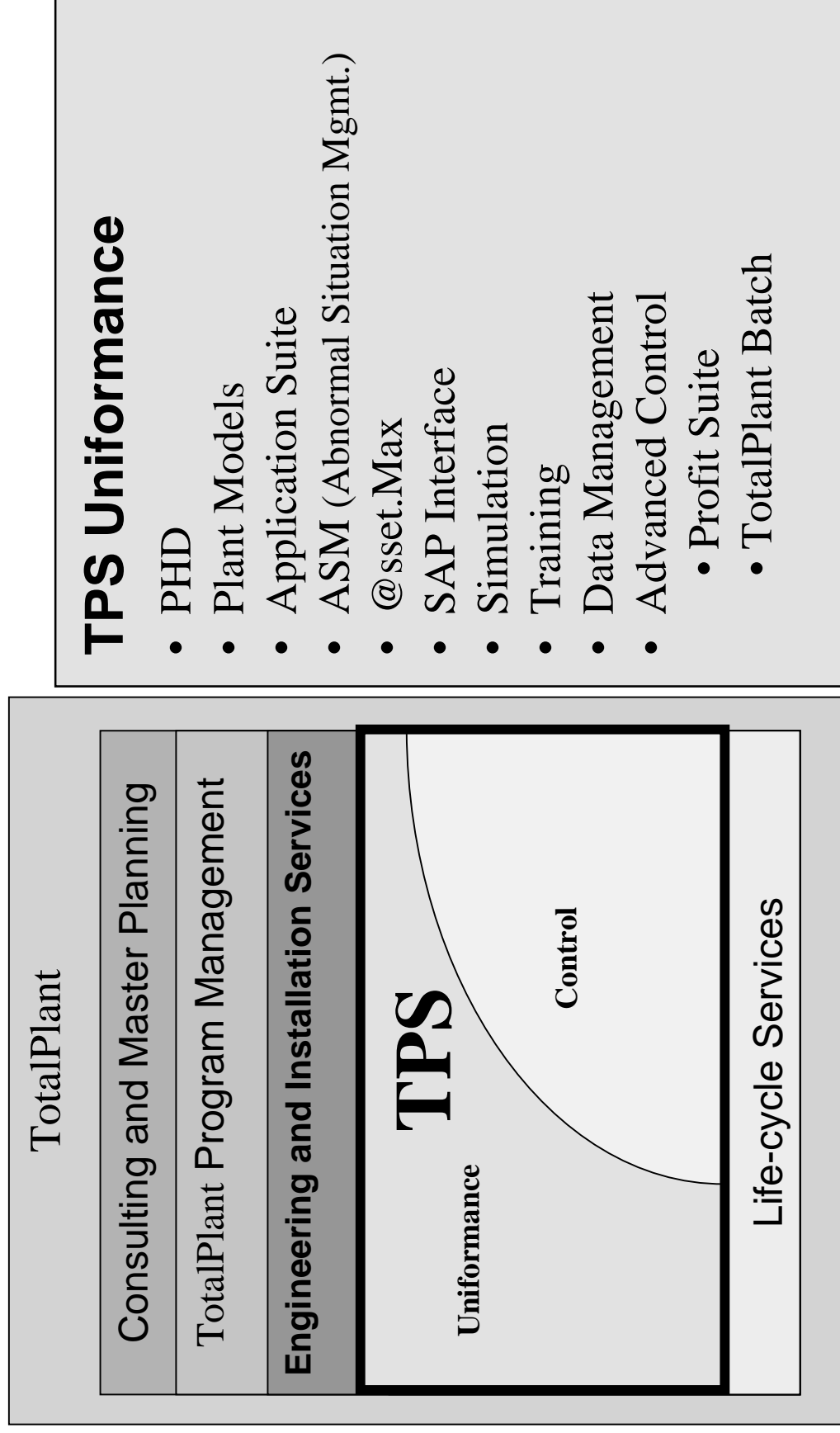


TPS Domain 1

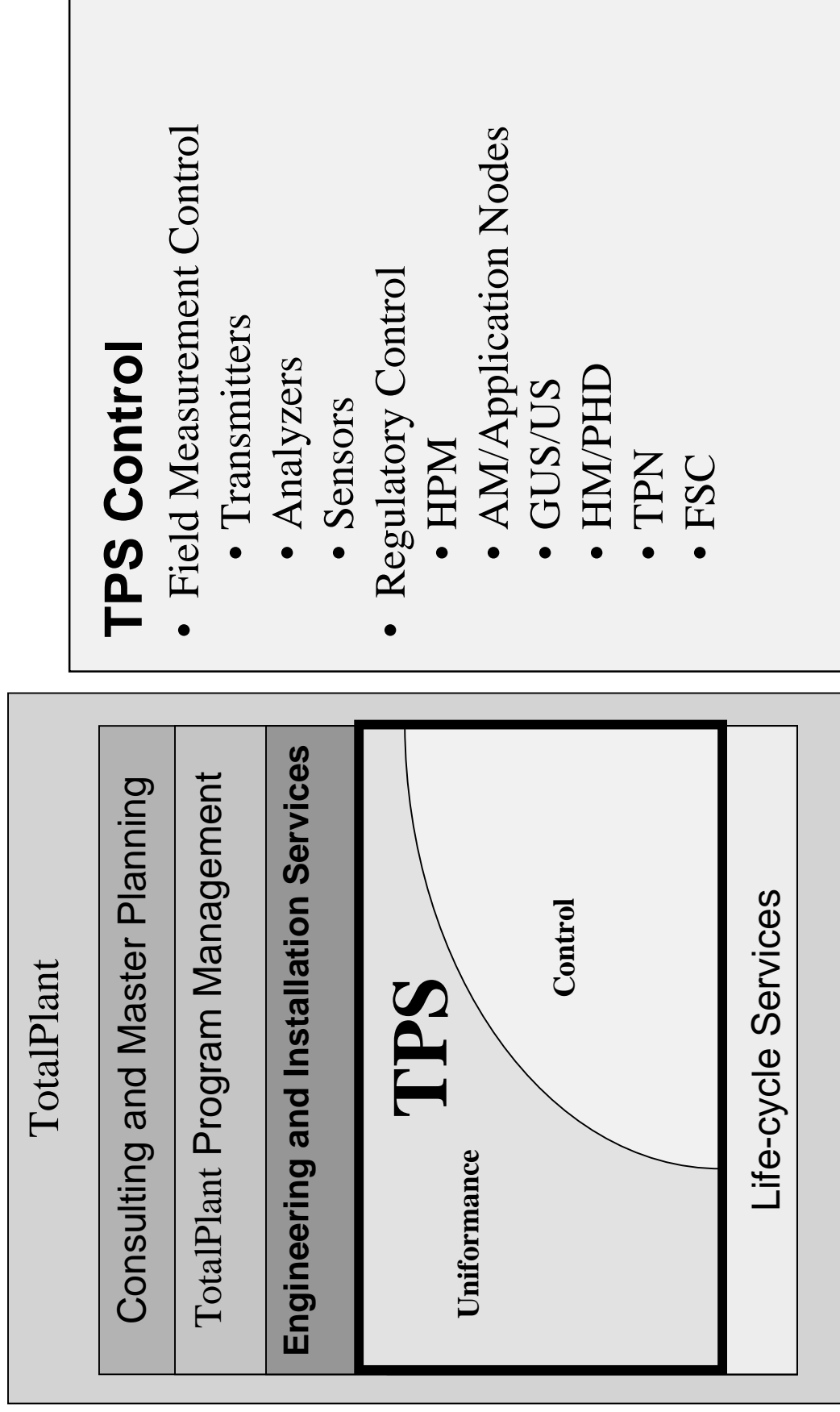
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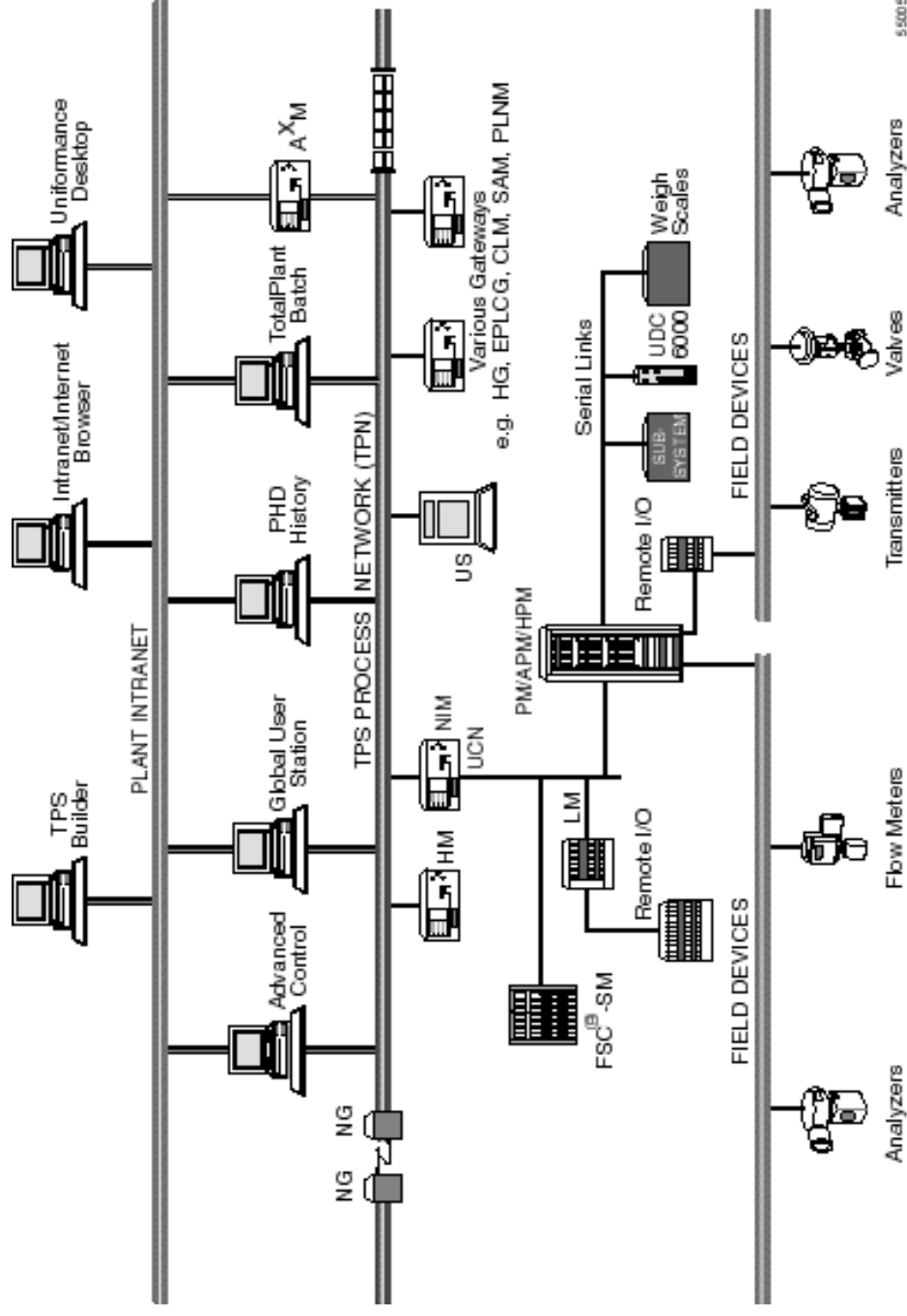


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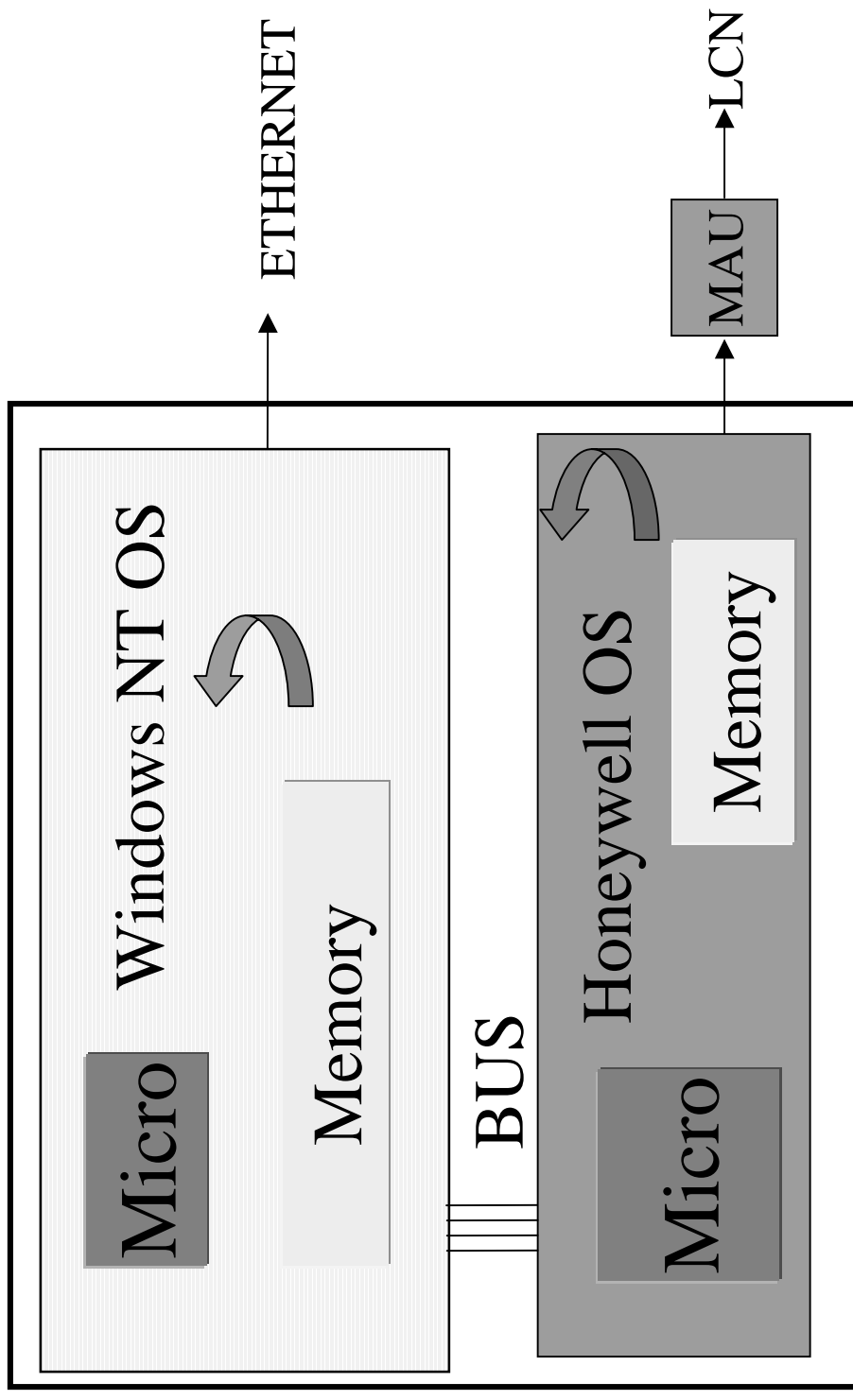
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TPS System Architecture



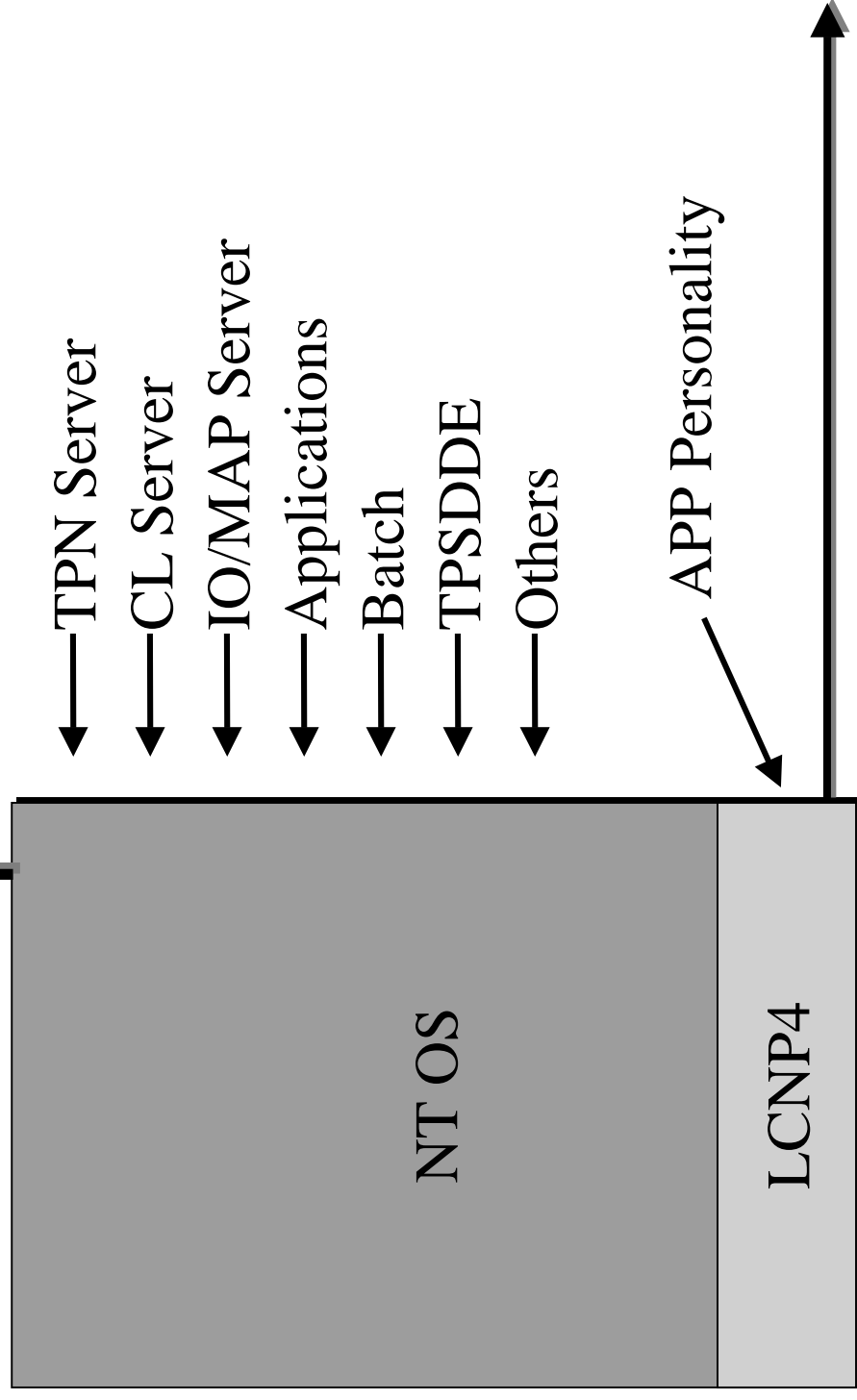
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GUS or APP Nodes



TPS System Implementation Overview

APP Node



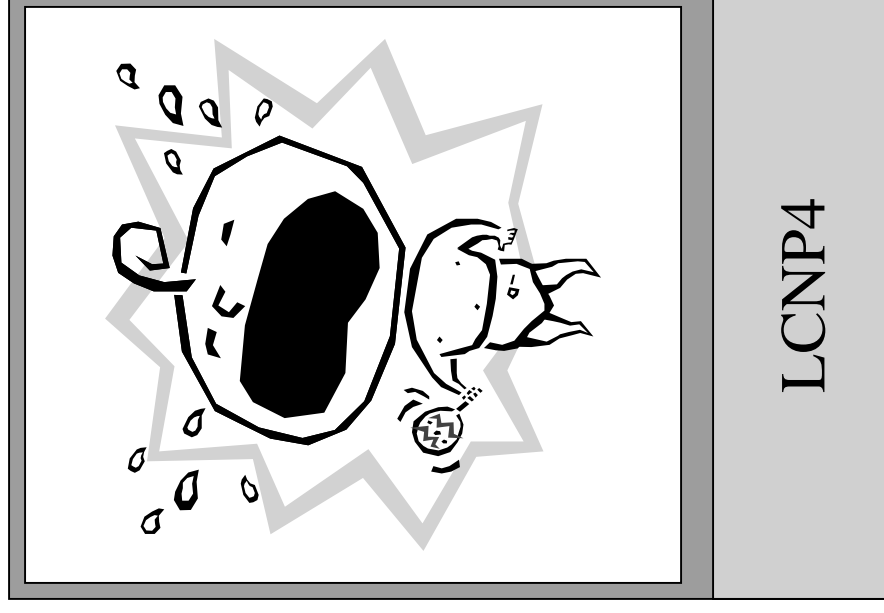
TPS System Implementation Overview

TPN Server on a GUS

- GUS optimized for graphics
- Not recommended
- But a restricted version will run

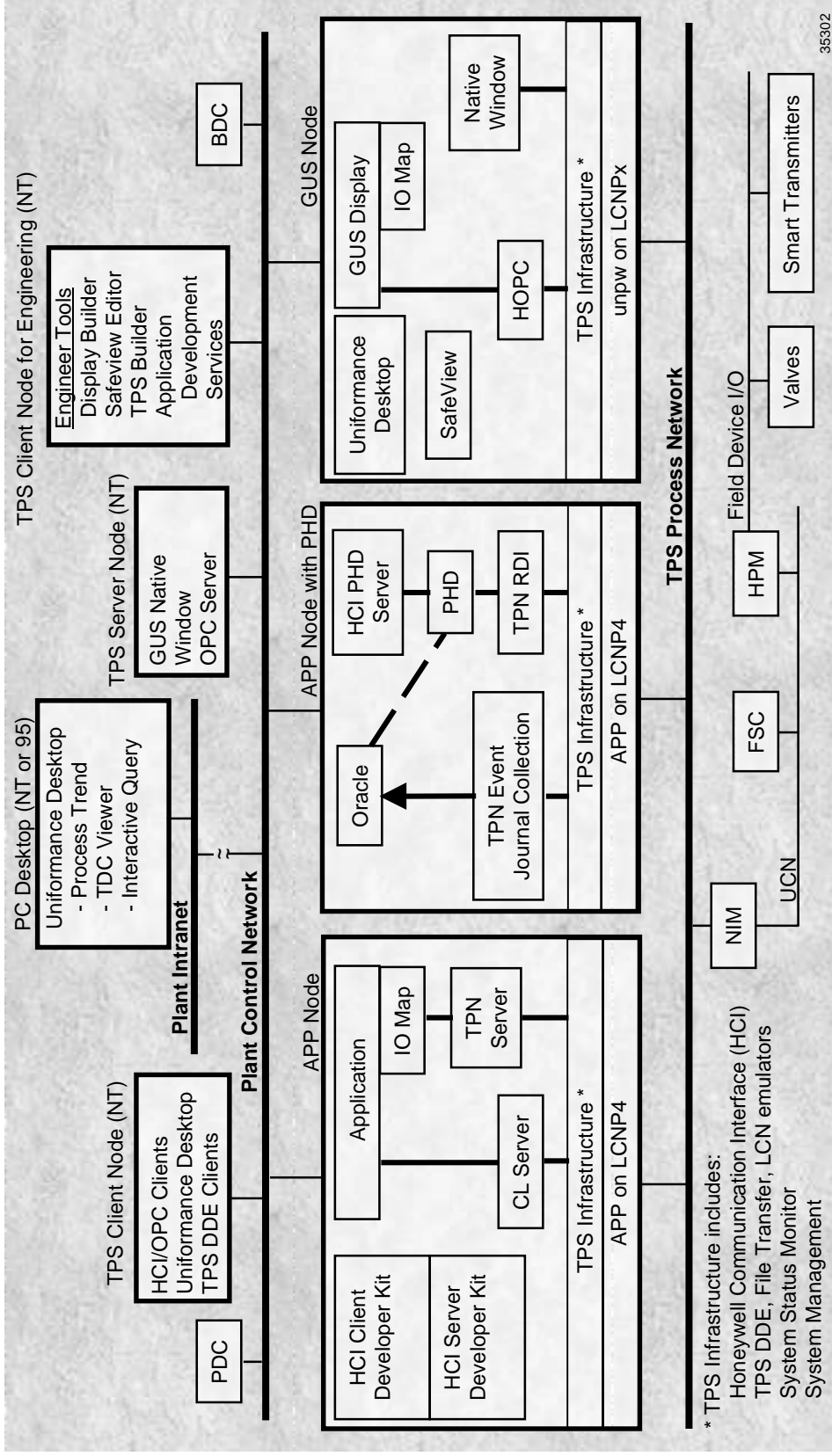
TPN Server ➡

GUS



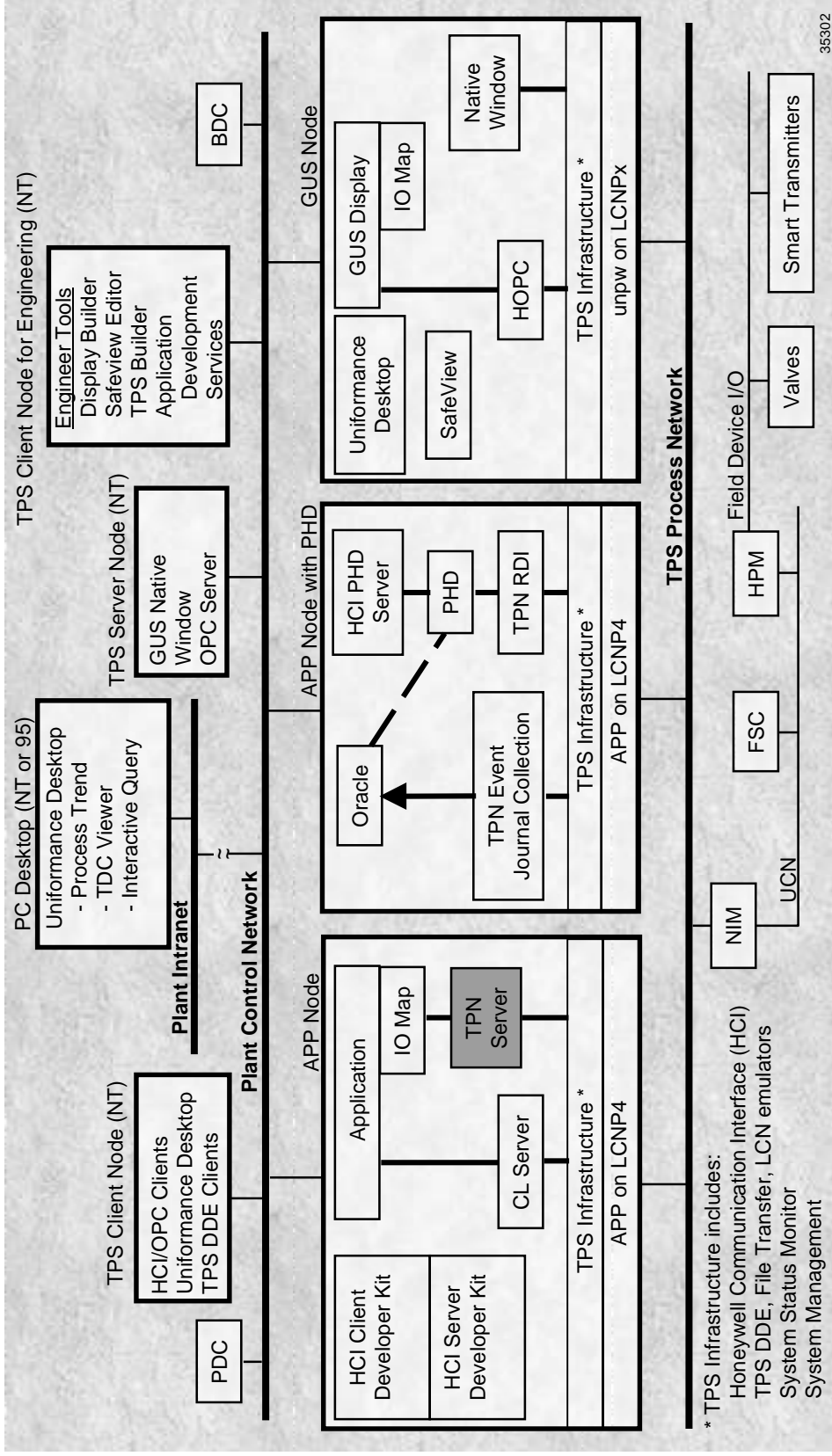
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TPS System Components



TPS System Implementation Overview

TPS System Components



TPS System Implementation Overview

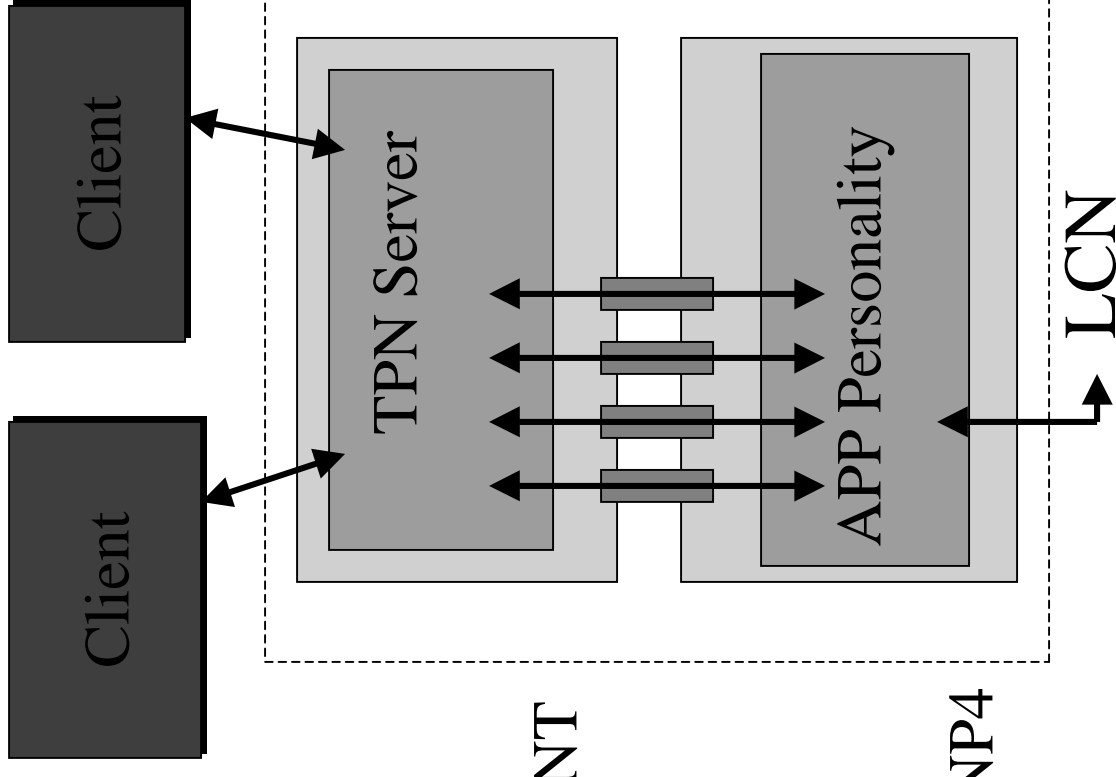
Provides access to TPN
data for HCI/OPC clients

Open interface as defined
by OLE for Process Control
(OPC) committee

NT

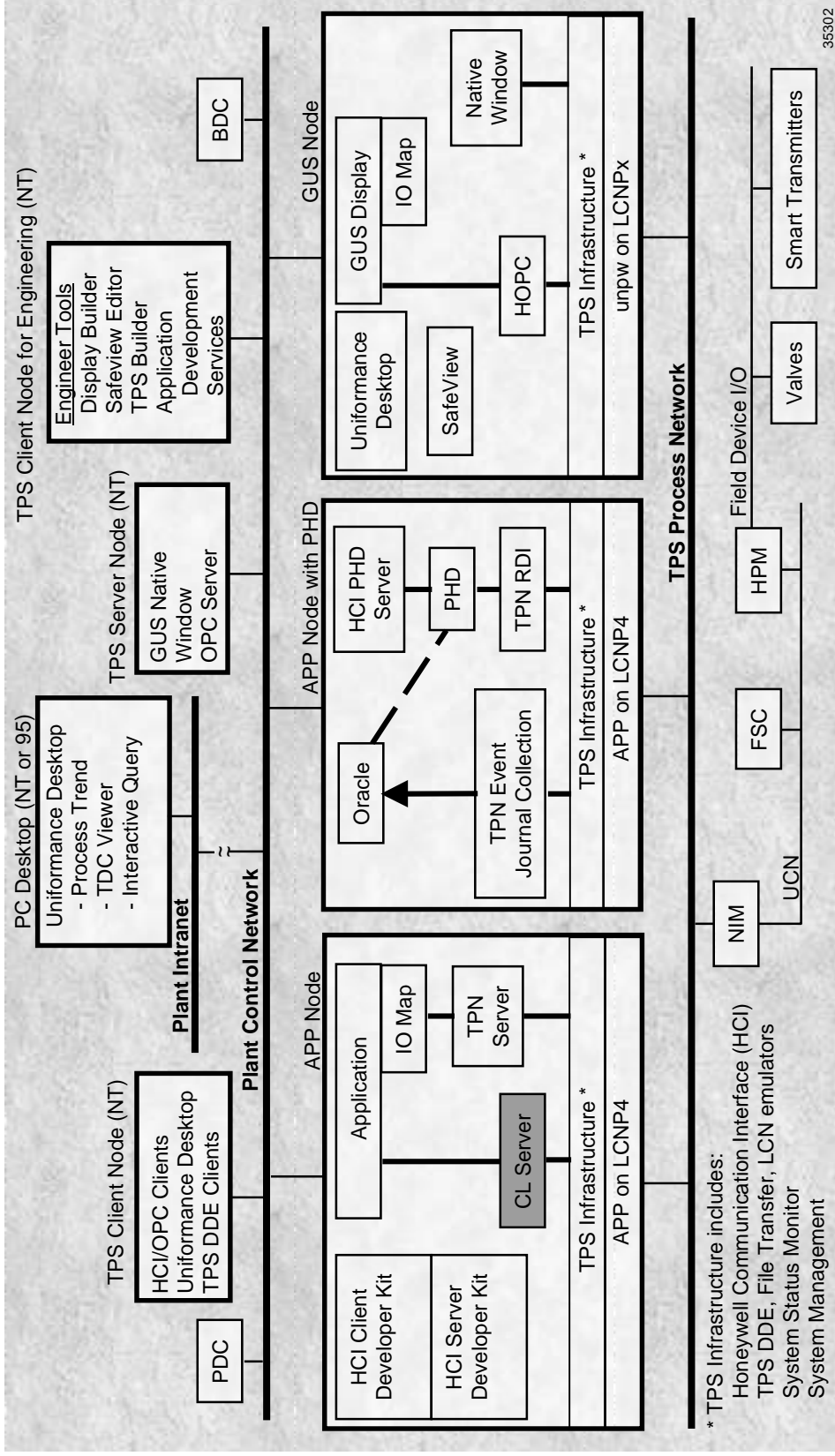
Additional features for
Honeywell Communication
Interface (HCI) Clients

LCNP4



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TPS System Components



TPS System Implementation Overview

Application Must Be Local

Up to 10 NT Applications
can be initiated from CL

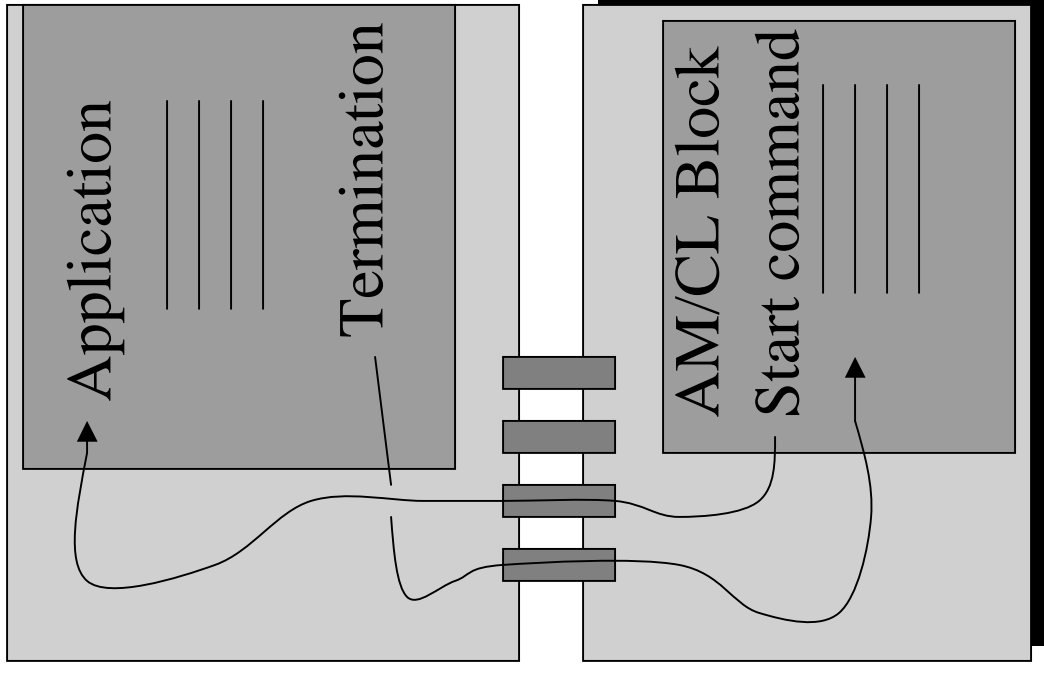
Only application termination
is returned to CL Block
NOT Data

Background CL program

Windowless applications

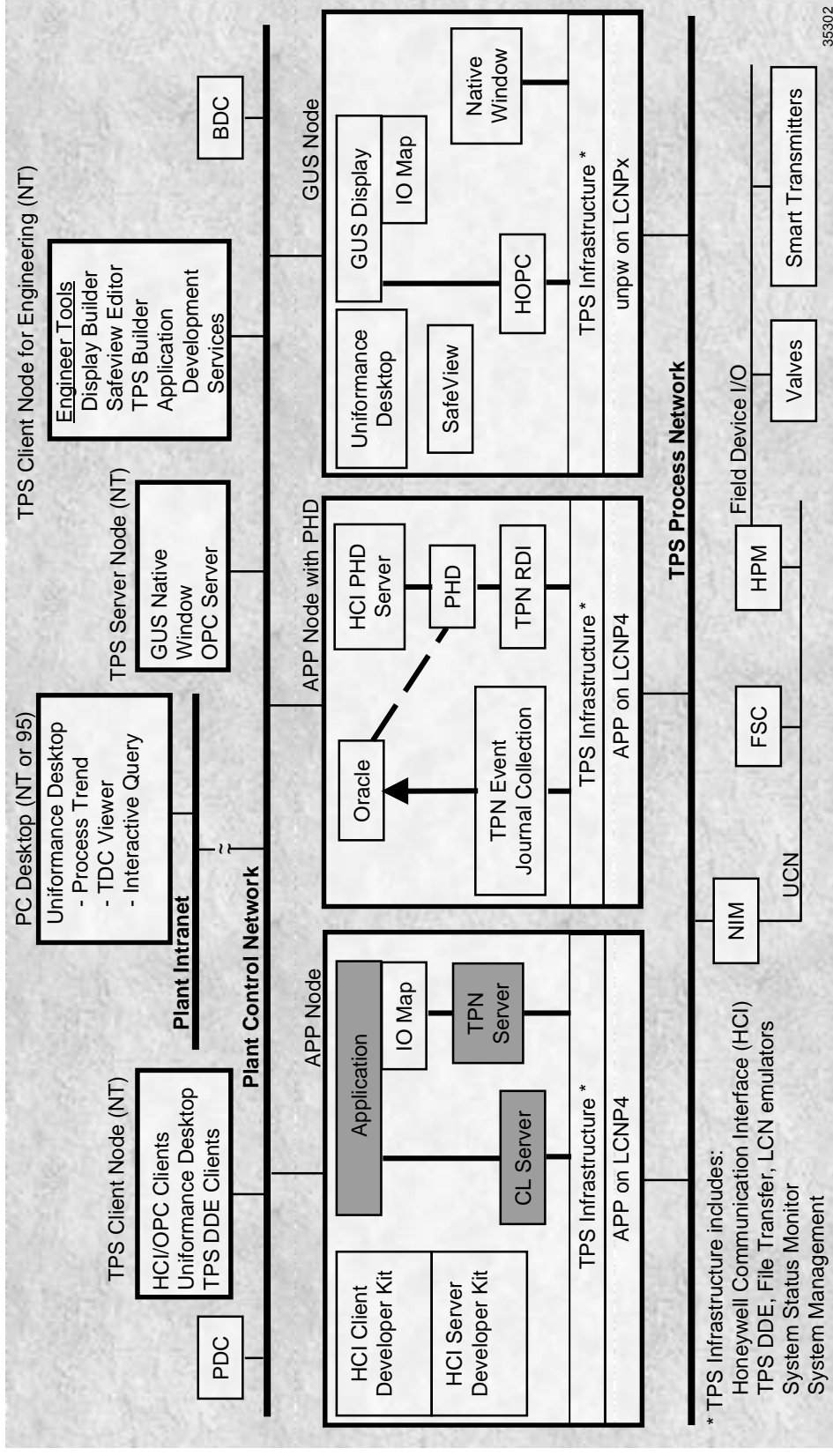
LCNP4

NT

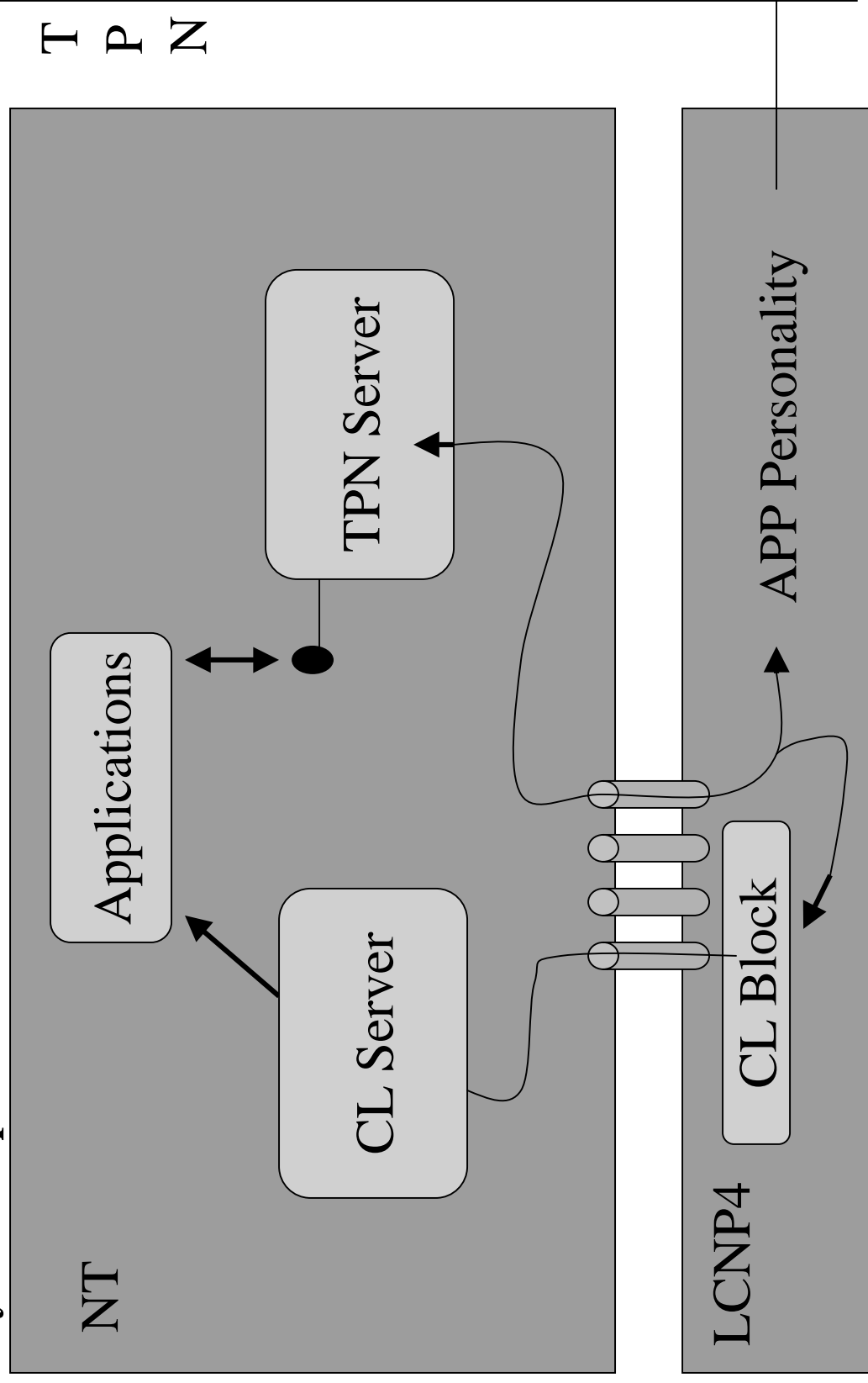


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TPS System Components

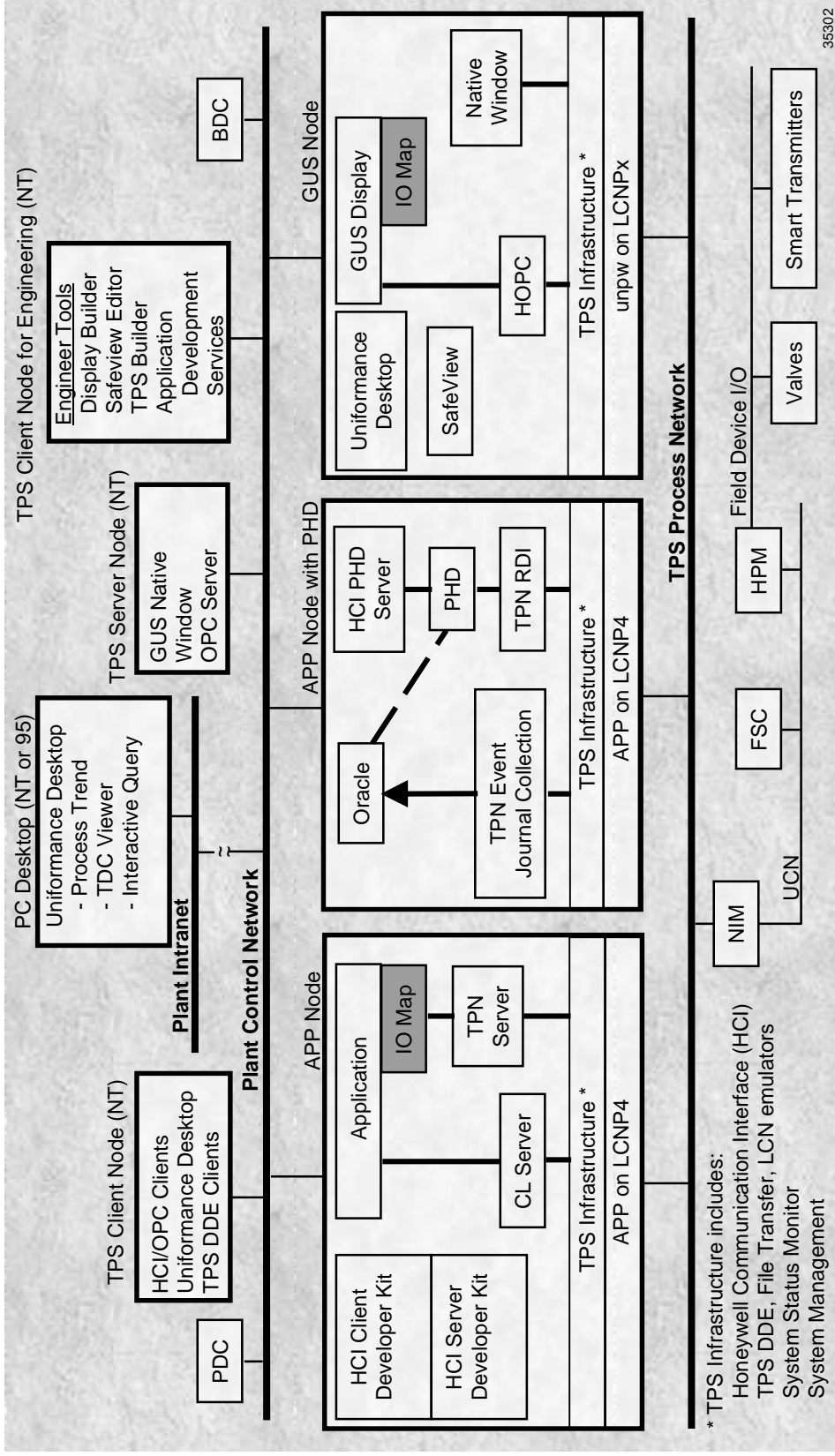


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TPS System Implementation Overview

TPS System Components



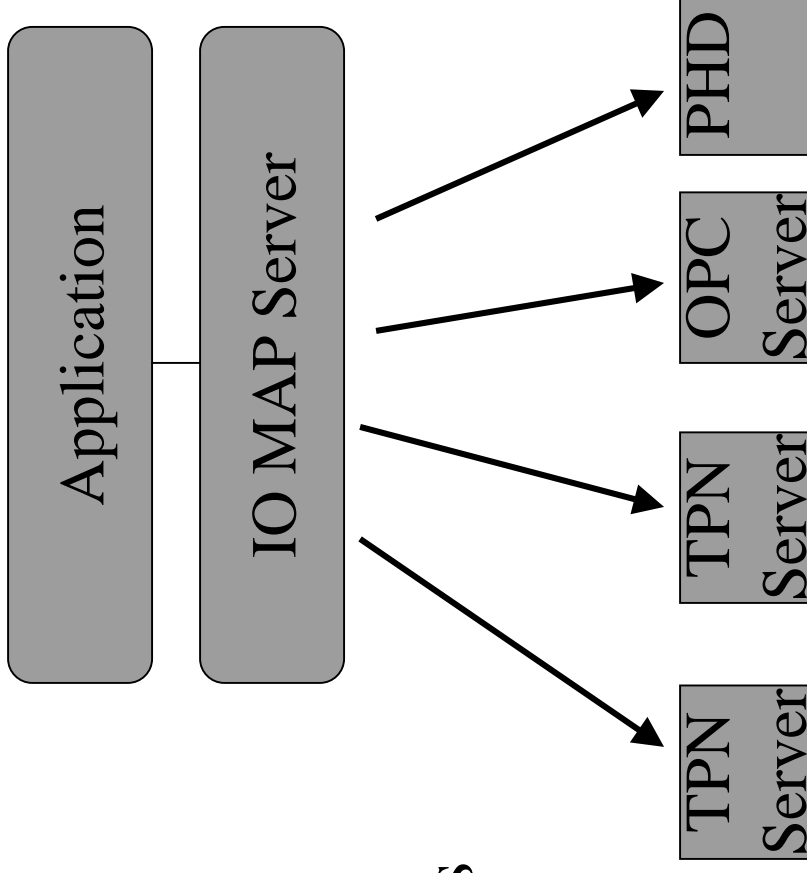
TPS System Implementation Overview

Indirection - Write Client Applications against a virtual device

Aliasing - use generic names

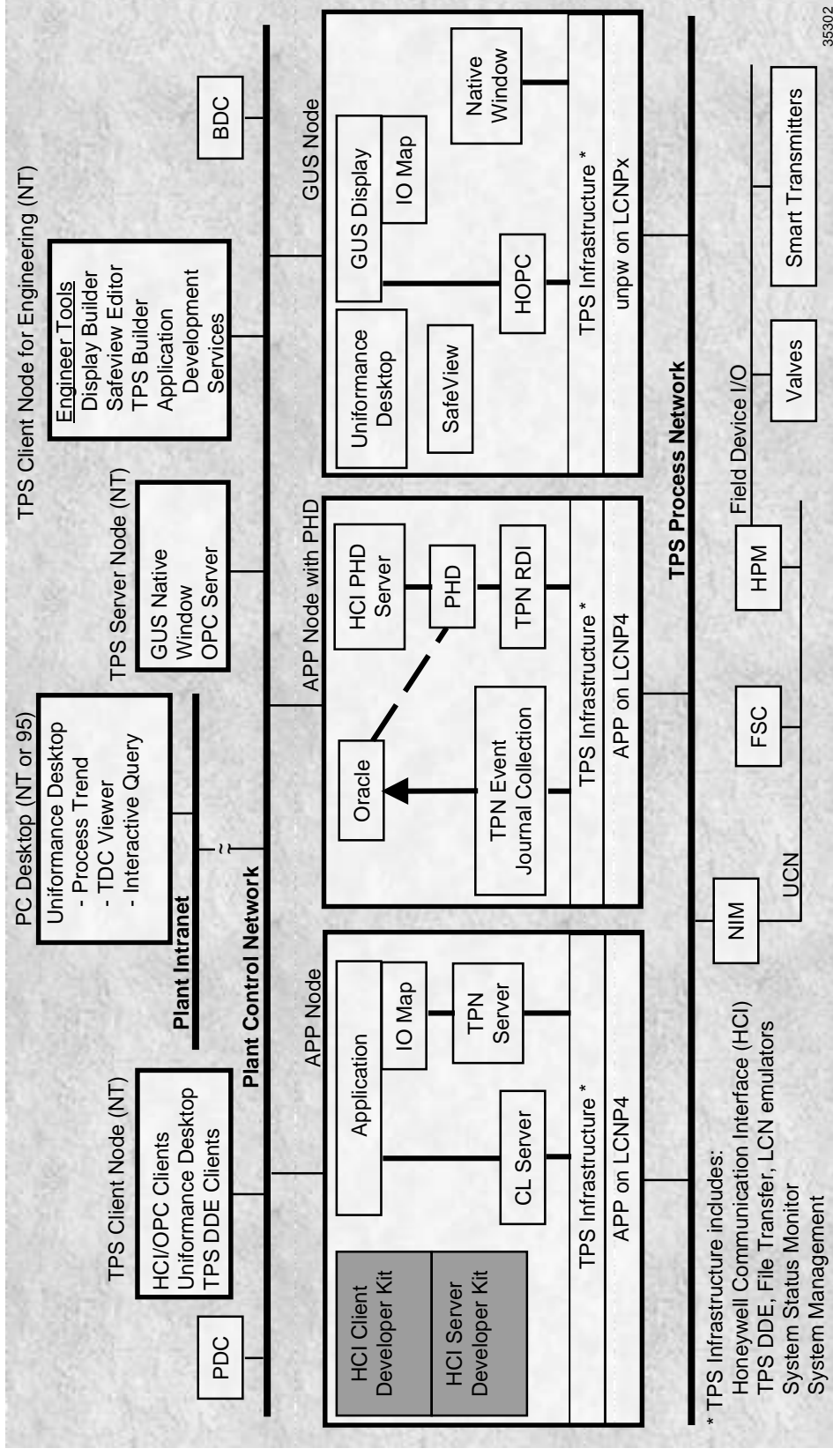
Scatter/Gather - a single virtual device

Application Testing - substitute test values



TPS System Implementation Overview

TPS System Components



TPS System Implementation Overview

HCI Client Toolkit

Guidelines

Header files

Libraries

Examples for VB and C++

HCI Server Toolkit

Guidelines

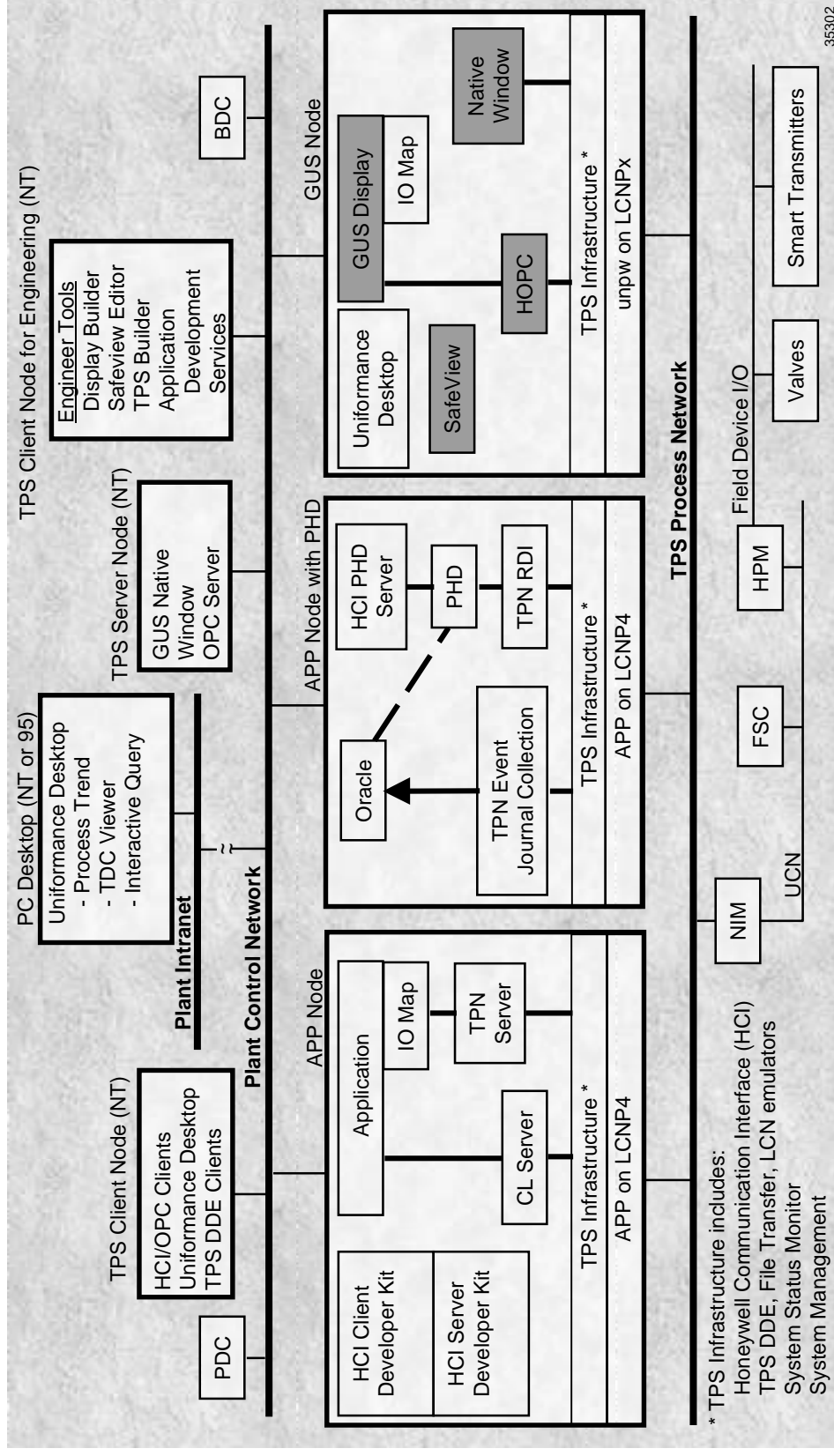
HCI VC++ Wizards

Template

Server code etc.

TPS System Implementation Overview

TPS System Components

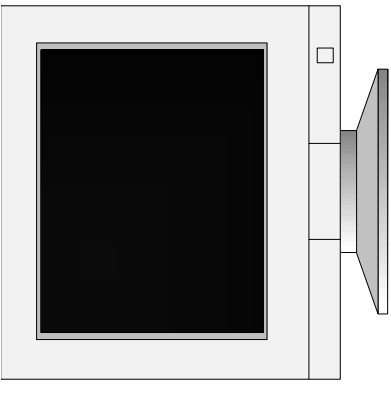


TPS System Implementation Overview

GUS

SafeView - no change in operation

Native Window - no change in operation



GUS Displays

can access data through a TPN Server

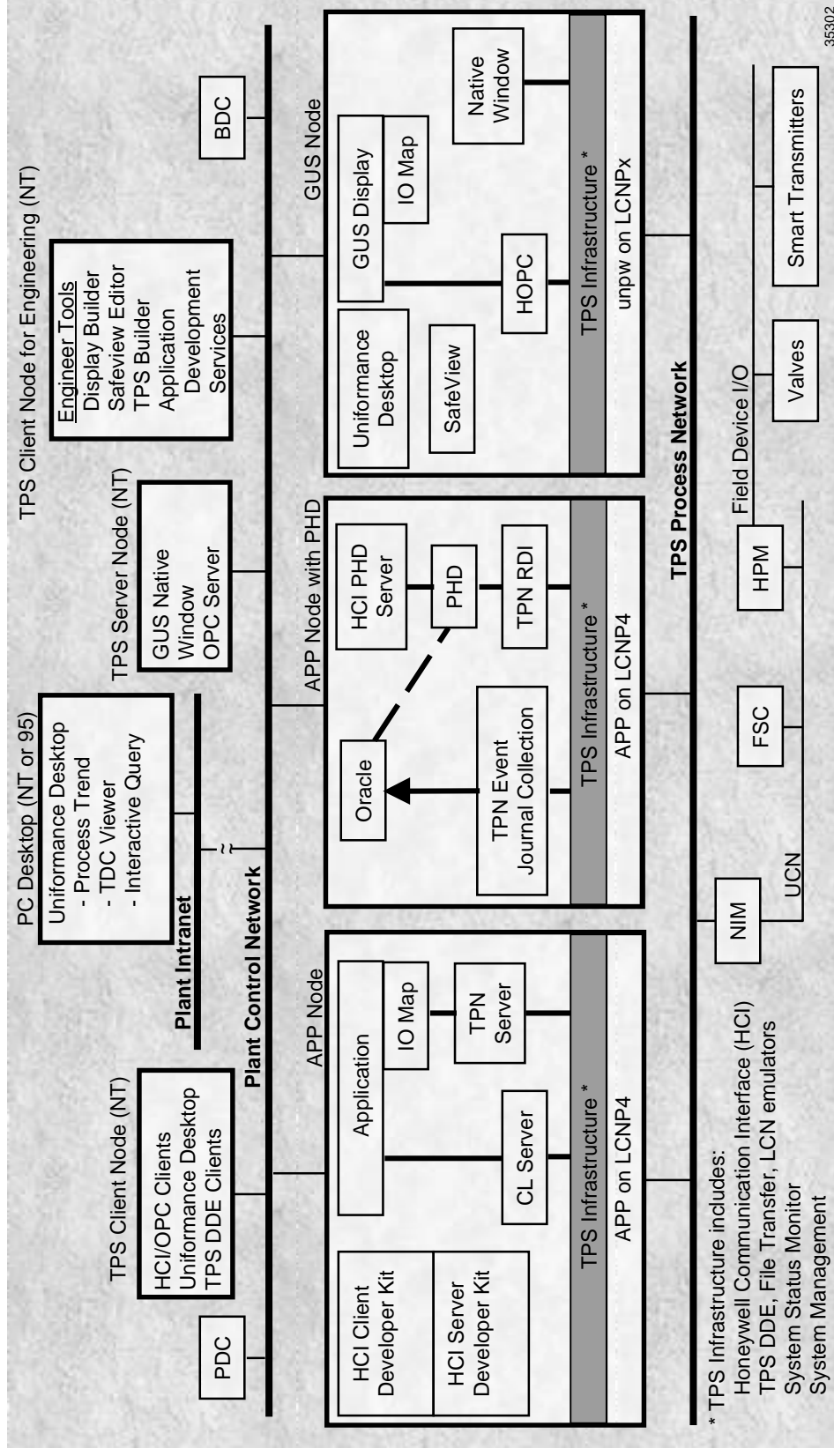
HCI.server1.bind “TPNserver1”

“text11.text = HCI.server1.tag.param”

Local TPN access - HOPC is still
the best choice - a few exceptions

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TPS System Components



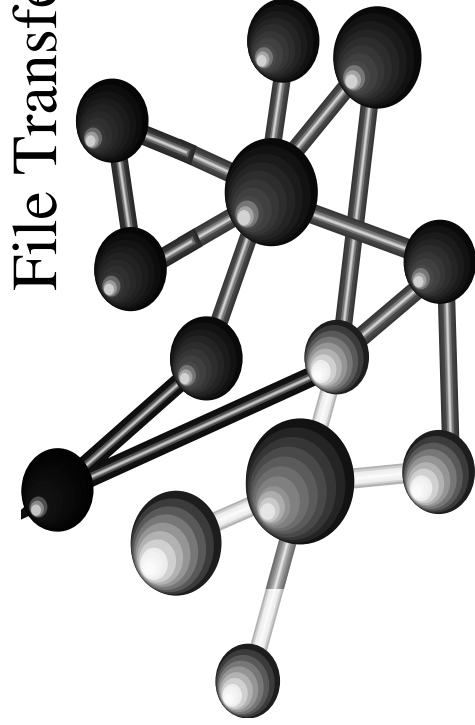
TPS System Implementation Overview

TPS Infrastructure:

Honeywell Communication Interface (HCI)

TPS Status Display

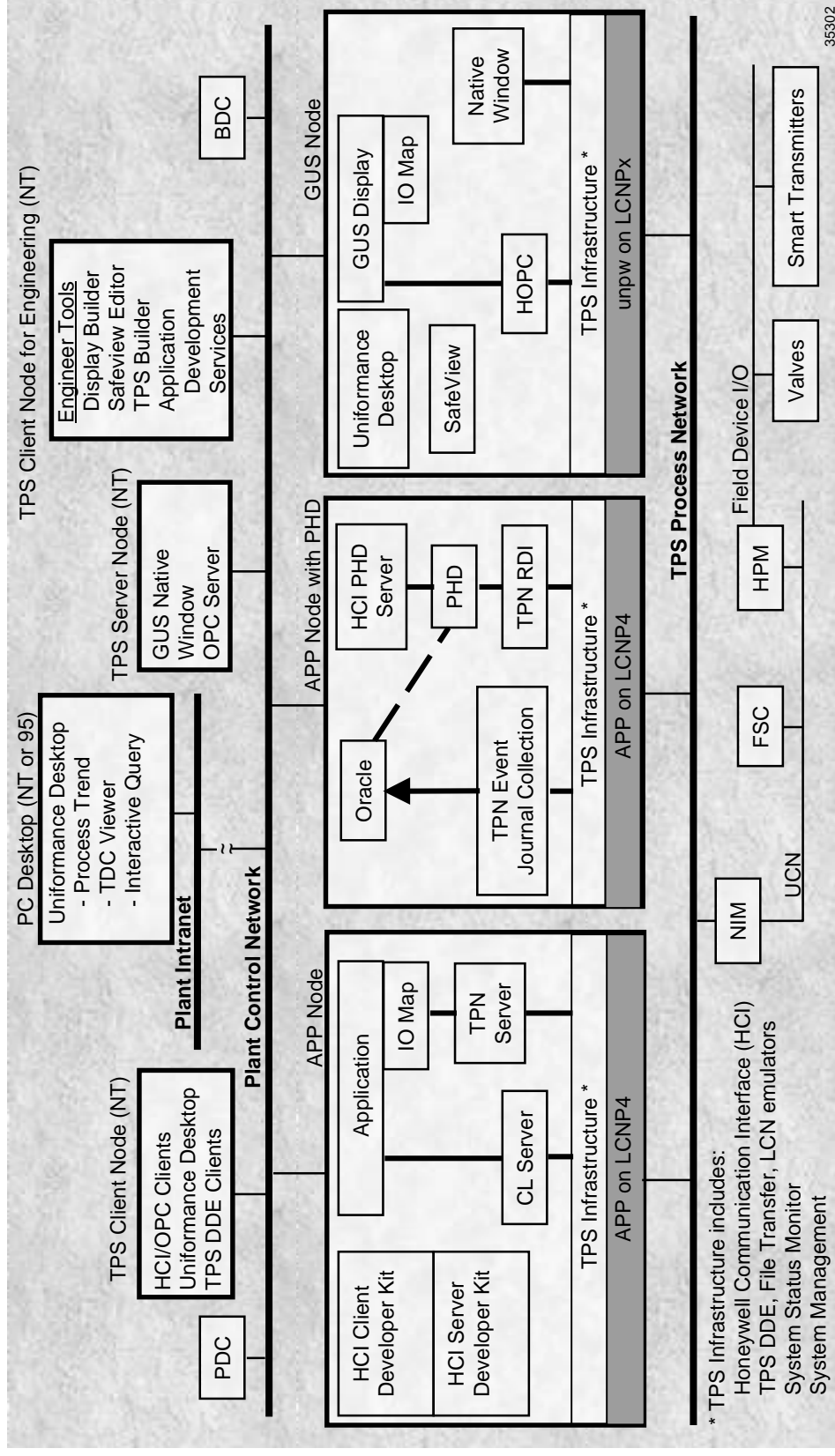
System Status Monitor (SSM)



File Transfer, LCN Emulators, TPS DDE

TPS System Implementation Overview

TPS System Components



TPS System Implementation Overview

GUS Node Types

- Universal Station Replacement
- Stand Alone GUS
- Networked GUS (in an NT Domain)
- TPS GUS (in a TPS Domain)



TPS System Implementation Overview

APP Node Types

- AM Replacement
- TPS APP Node
 - NT Applications
 - PHD...



TPS System Implementation Overview

TPS Packaging

TPS System Software Release 100.9

- GUS 210
- APP 120
- TPS Builder 120
- IOMap 110

Media Received includes:

- TPS CD (with License Key)
- TPS Network Software CDs
- TPS Initialization CD
- Documentation CD
- 3rd Party CDs

TPS System Implementation Overview

NT Domain and TPS Domain

NT Domain

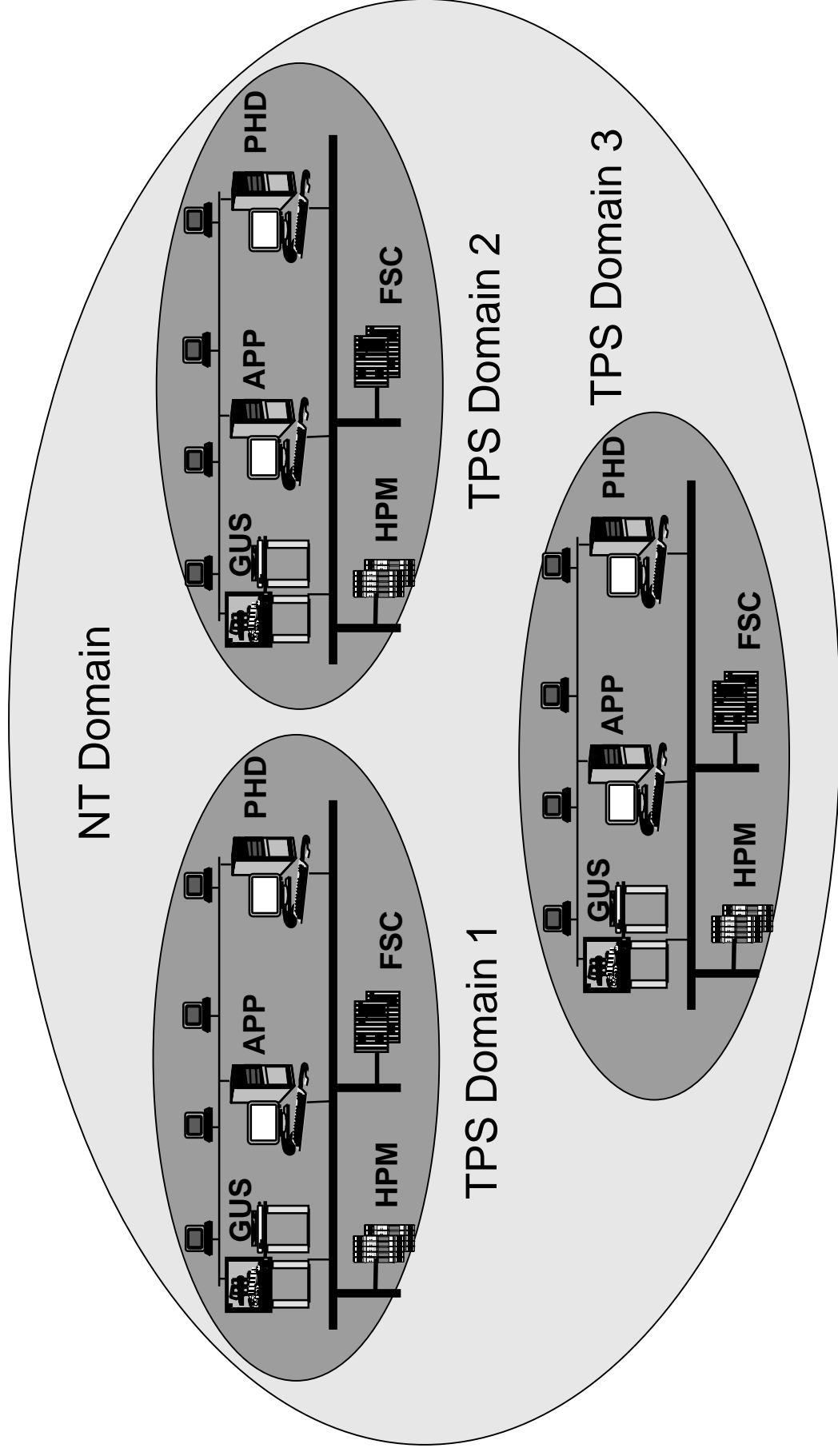
- Collection of computers administered as a Unit
- Contains user Accounts, Groups and Security Information
- Managed Through Primary and Backup Domain Controllers

TPS Domain

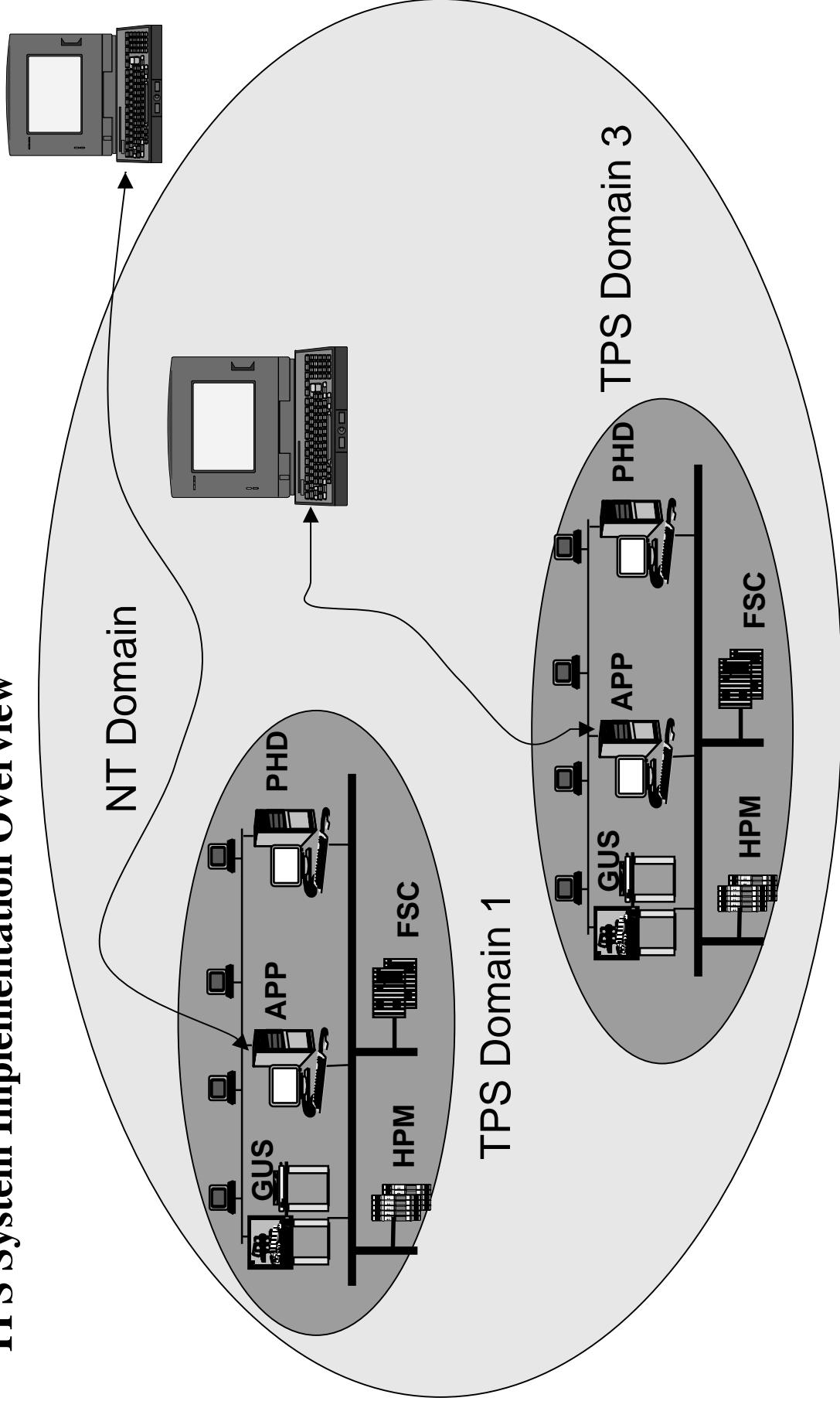
- Collection of TPS Nodes within an NT Domain
- Common Namespace and Communication needs
- A TPS Node can be in only one TPS Domain

Clients of a TPS Node server can exist outside of a TPS Domain or an NT Domain

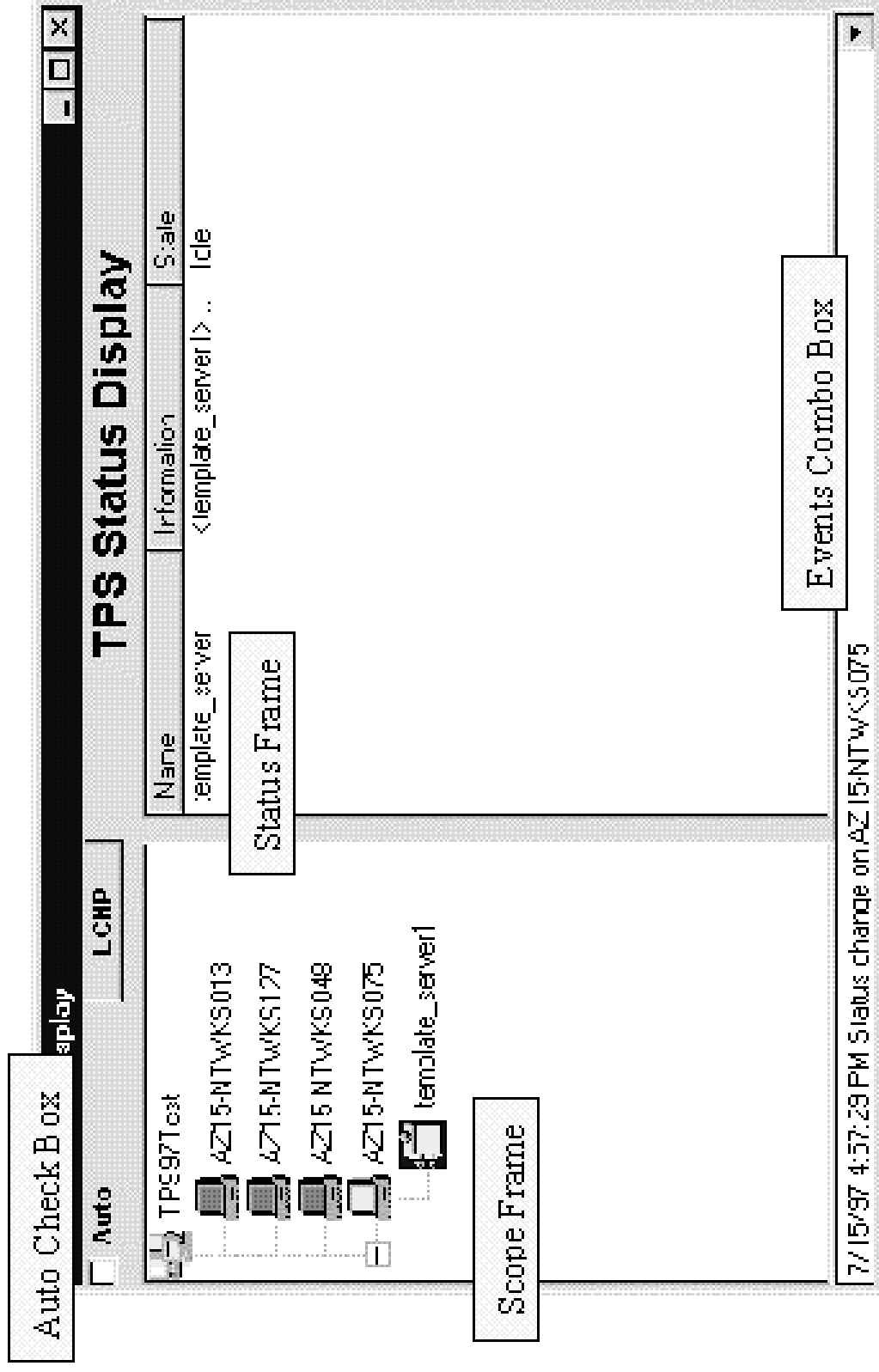
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TPS System Implementation Overview

Networking Recommendations

- Isolate TPS nodes on a subnet whenever possible
- Use firewalls for across site access
- Follow TPS standard (as shipped) security recommendations
- 10MB LAN
 - Up to 20 Nodes per TPS Domain
 - Up to 2 TPS Domains per NT Domain
- 100MB LAN
 - Up to 50 Nodes per TPS Domain
 - Up to 5 TPS Domains per NT Domain
- Read *TPS System Planning Guide*
- Contact Honeywell Network Services