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# 1 Introduction

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## 1.1 Purpose of specification

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### 1 Objectives

2 This specification is the complete description of CoreConnect R2.0 for the purpose  
3 of:

- 4 · system development
- 5 · system testing
- 6 · product marketing.

7 This is the intellectual property for CoreConnect function. If required, it may be  
8 made available under NDA to customers or potential customers, subject to a  
9 commercial risk assessment.

10 The specification is a detailed statement, intended for readers with sufficient  
11 background understanding.

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### 2 Non-objectives

12 This specification does not include the following material:

- 13 · design information
- 14 · tracing or reference to business functions—see “Functional Specification”
- 15 · production application—see the Connection Manager “White Papers”
- 16 · definitions of external interfaces—see “Gnm IDL”.

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### 3 Phasing

17 The R2.0 implementation will be released in full in third quarter 1999.

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## 1.2 Scope of the product

18 CoreIP is Astracon’s initial release of an IP management common functionality.  
19 IOverPVC is Astracon’s first network technology module for CoreIP. It supports  
20 IP VPNs implemented by routers connected by PVC technology such as ATM or  
21 SDH.

- 17 Consult the document, “Product Positioning”, for a complete description of product scope.

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## 1.3 Relationship between CoreIP and IOverPVC

- 18 There are many current, and will be more future, ways of building a network to implement an IP VPN. However the customer’s view of their VPN is largely unaffected by the implementation technology (except to the extent that some technologies cannot deliver all desirable VPN functions).
- 19 As a result, Astracon is planning a suite of IP management products. The nucleus of them all is *CoreIP*. CoreIP functions includes:
- 20 . managing the interaction with the SML
  - 21 . managing routers
  - 22 . managing alarm generation
  - 23 . managing delegation to routers and other NMS services
  - 24 . selecting between the available network modules
  - 25 . managing the telco-customer link
  - 26 . managing infrastructure, such as configuration, plug-ins and process control.
- 27 This specification also includes one of the planned technology models, namely *IOverPVC*. A technology model’s functions (for technology X) include:
- 28 . determining how to configure the routers and the X network
  - 29 . determining the feasibility of the proposed VPN, with respect to implementing using the X network
  - 30 . managing any adaption between IP and X.

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## 1.4 Specification process

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### 31 Relationship to CoreConnect specification

- 32 This specification is a complete specification of CoreIP and IOverPVC. There are some overlaps between the IP functions and the CoreConnect functions. These are:
- 33 . the Gnm interface
  - 34 . VisualConnect
  - 35 . various intrastructural components, such as configuration, adaptor shell
  - 36 . non functional requireents, such as platform, reliability, maintainability and the like.

37 At some time on the future, each overlapped area will have its own indeendant  
specifiation. However, as an expediency, and as a reflection of the incompleteness  
of the formal specification for many of these components, this specification will  
not exploit any such overlap. As a result, this specification states alone, apart from  
explicit referenced documents.

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### 38 **Relationship to CoreConnect software**

39 There is a requirement on the IP products to use three software components that are  
currently under the control of the CoreConnect developemnt process:

- 40 . VisualConnect
- 41 . the Gnm interface
- 42 . adaptor shell.

43 This leads to interdepndancies that must be managed to the mutual satisfaction of  
both product lines.

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### 44 **Clarrification and interpretation**

45 Any issues of interpretation or change to this specification, or the R2.0 functions  
that are inherited from R1.2 must be addressed to [spec.issues@astracon.com.au](mailto:spec.issues@astracon.com.au).

46 If you require urgent resolution preferably leave voice mail at +61 419798599,  
failing that, note your decision or interpretation to [spec.issues@astracon.com.au](mailto:spec.issues@astracon.com.au).

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## 2 General description

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### 2.1 Product functions

47 CoreIP provides life-cycle and fault management capabilites for IP VPNs.  
IOverPVC specializes those functions for network impelemntatiosn havign edge  
routers connected by PVCs.

48 A greater depth of overview material is availabel in “Functional Specification”.

## 2.2 Structure of functions

### 2.2.1 Classification

- 49        This specification uses four levels of granularity to describe and classify what the product does:
- 50        *function*        *Function* decomposes the product into about a dozen partitions. Each partition relates to a business process, or to infrastructural support for a business goal.
- 51        *feature*        *Functions* are composed of a set of *features*. Each feature has a unique name, and is a customer-understandable atom of product behavior.
- 52        *sub-feature*        *Sub-features* are introduced to augment a feature made available in a previous release. The name of a sub-feature is qualified by the name of the feature.
- 53        *requirement*        *Features* are described in detail by a set of *requirements*. A requirement has a identifier unique to the featur. It is a testable statement describing the product’s behavior. The complete set of requirements is alone the formal definition of the product.
- 54        Typically, a major release will introduce new functions, minor releases will introduce features or subfeatures, maintenance releases will clarify requirements.

### 2.2.2 Relationship of CoreIP to IOverX requirements.

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