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COMMERCE COMMISSION

Decision No. 455

Determination pursuant to the Commerce Act 1986 in the matter of an application for clearance of a business acquisition involving:

HEWLETT-PACKARD COMPANY

and

COMPAQ COMPUTER CORPORATION

The Commission: John Belgrave
Peter JM Taylor
Donal Curtin

Summary of Application: The acquisition by Hewlett-Packard Company (together with its subsidiaries and related companies, "HP") of the whole of the issued share capital of Compaq Computer Corporation (together with its subsidiaries and related companies, "Compaq").

Determination: Pursuant to section 66(3)(a) of the Commerce Act 1986, the Commission determines to give clearance for the proposed acquisition.

Date of Determination: 28 February 2002

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THE PROPOSAL

1. On 14 February 2002 the Commission registered a notice pursuant to section 66(1) of the Commerce Act 1986 ("the Act") from Hewlett-Packard Company, for it (together with its subsidiaries and related companies, "HP" or "the Applicant") to acquire the whole of the issued share capital of Compaq Computer Corporation (together with its subsidiaries and related companies, "Compaq").

2. HP seeks clearance from the Commission on the basis that the transaction will not have the effect of substantially lessening competition in any market in New Zealand.

THE PROCEDURES

3. Section 66(3) of the Act requires the Commission either to clear or to decline to clear a notice given under section 66(1) within 10 working days, unless the Commission and the person who gave notice agree to a longer period. Accordingly, a decision on the application was required by 28 February 2002.

4. The Applicant sought confidentiality for specific aspects of the application. A confidentiality order was made in respect of the information for a period of 20 working days from the Commission's determination notice. When that order expires, the provisions of the Official Information Act 1982 will apply.

5. The Commission's determination is based on an investigation conducted by staff.

6. The Commission's approach is based on principles set out in the Commission's *Practice Note 4*.[1]

THE PARTIES

Hewlett-Packard Company

7. HP was founded in 1939 and incorporated in 1947 in the State of California. It is a global provider of computing and enterprise technology and it operates in more than 120 countries with more than 540 sales and support offices and distributorships worldwide. More than half of HP's revenue is derived from business outside the US.

8. Most international sales made by HP are made by local HP subsidiaries who rely on a mixture of direct sales and channel distribution partners for local sales.

9. HP is a global provider of computing and imaging solutions and services for businesses and the home, focusing on capitalising on the opportunities of the internet and the emergence of next-generation appliances, e-services and infrastructure.

10. Within New Zealand HP offers desktop PCs, portable PCs and workstation products to commercial customers and consumers; handhelds or personal digital assistants ("PDAs"); servers; storage systems; IT services; and printers.

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[1] Commerce Commission, *Practice note 4: The Commission's Approach to Adjudicating on Business Acquisitions Under the Changed Threshold in section 47 – A Test of Substantially Lessening Competition*, May 2001.

Compaq

11. Compaq was founded in 1982. Compaq is a global provider of computing products and services, and has its corporate headquarters in Houston, Texas. As at 31 December 2000, Compaq had approximately 70,100 full-time, regular employees and approximately 24,500 temporary and contract workers engaged in manufacturing operations, engineering, research and development, marketing, sales, service and administrative activities worldwide.

12. Compaq designs, develops, manufactures and markets hardware, software, solutions and services, including industry-leading enterprise storage and computing solutions, fault-tolerant business-critical solutions, communication products, and desktop and notebook personal computers. It provides, on a global basis, computing products and services.

13. Within New Zealand Compaq supplies desktop PCs, portable PCs and workstation products to commercial customers and consumers; handhelds or personal digital assistants ("PDAs"); servers; storage systems; IT services; and printers.

OTHER RELEVANT PARTIES

IBM

14. International Business Machines ("IBM"), a leading US information technology firm, offers leading edge computing products and services in New Zealand. IBM sells a broad range of PC products, handheld computing devices, servers, storage solutions, and printing systems. In addition, IBM offers IT and training services.

Toshiba (Australia) Pty. Limited

15. Toshiba (Australia) Pty Limited ("Toshiba"), operates in New Zealand as a wholly-owned subsidiary of Toshiba Corporation, the Tokyo-based parent company. In New Zealand, Toshiba supplies portable PCs, and copiers and faxes.

SolNet Limited

16. SolNet Limited ("SolNet") is a 100% New Zealand-owned company, and has been in operation since 1993. It acts as the Independent Sales Organisation for Sun Microsystems in New Zealand.

17. SolNet features two functional divisions: SolNet Systems and iSolNet. SolNet Systems specialises in assisting customers to select and deploy Sun hardware and infrastructure solutions, and ensures customers also have ongoing support and training. iSolNet is focused on e-commerce infrastructure and application solutions, with a special expertise in designing, building, implementing and supporting e-commerce solutions.

18. SolNet's customers include many of New Zealand's largest companies and public sector organisations.

EMC Corporation New Zealand Branch

19. EMC Corporation is a world leader in systems that store, protect, move, manage and access information content. EMC Corporation New Zealand Branch is a branch of EMC Australia, a wholly-owned subsidiary of EMC Corporation.

EDS New Zealand

20. EDS (New Zealand) Limited, a wholly owned subsidiary of the global services company EDS, is a major player in the New Zealand global services market. In New Zealand EDS manages mission-critical technological information for a diverse range of major organisations in both the public and private sectors.

Canon New Zealand Limited

21. Canon New Zealand Limited ("Canon NZ") is a wholly-owned subsidiary of Canon Australia, which in turn is owned by Canon Incorporated in Japan ("Canon"). Canon produces high-quality cameras, copiers, printers, scanners, faxes, multi-functional devices, digital diaries, calculators, imaging systems, information management technology, sophisticated software, videoconferencing systems, data projectors, digital document recorders, camcorders, consumables and solar energy technology. Canon NZ competes with HP primarily in its printer range.

Epson New Zealand Limited

22. Epson New Zealand Limited ("Epson"), a wholly-owned subsidiary of Seiko-Epson Corporation, supplies an extensive range of printers and imaging products to the New Zealand market.

INDUSTRY BACKGROUND

23. The IT industry is a dynamic industry that continues to evolve and push innovative boundaries. A number of large and powerful companies participate in the global market, and this is also seen in New Zealand. Whilst the multinational companies have a substantial presence in the IT industry, a myriad of smaller companies (some local) actively compete.

24. The IT industry as a whole is becoming increasingly commoditised. For instance, PCs are increasingly based on industry standards, structured around the Microsoft Windows operating system and Intel compatible microprocessor architecture (Intel and Windows being the most identifiable brands in the PC market). In contrast, some sub-markets continue to exhibit continuous innovation with new products rapidly overtaking any established market positions.

25. In the last few years the IT industry has been faced with a period of rationalisation. For example, HP purchased Computer Sciences Corporation ("CSC") in 2001 to increase presence in the IT services market. Over the past decade margins have tightened as demand for products has increased and as hardware has become increasingly commoditised.

The European Commission Decision

26. The European Commission ("the EC") received notification of the HP/Compaq merger on 20 December 2001.

27. In its decision dated 31 January 2001, the EC concluded that the proposed transaction is not likely to create or strengthen a dominant position as a result of which effective competition would be significantly impede d in the EEA or any substantial part of that area. Despite the EC decision applying a dominance test, it provides useful insights with respect to market definitions.

MARKET DEFINITION

28. The Act defines a **market** as:

> *. . . a market in New Zealand for goods or services as well as other goods or services that, as a matter of fact and commercial common sense, are substitutable for them.*

29. For the purpose of competition analysis, a relevant market is the smallest space within which a hypothetical, profit-maximising, sole supplier of a good or service, not constrained by the threat of entry, could impose at least a small yet significant and non-transitory increase in price, assuming all other terms of sale remain constant (the '*ssnip* test'). For the purpose of determining relevant markets, the Commission will generally consider a *ssnip* to involve a five percent increase in price for a period of one year.

30. It is substitutability at competitive market prices that is relevant in defining markets. Where the Commission considers that prices in a given market are significantly different from competitive levels, it may be necessary for it to assess the effect of a *ssnip* imposed upon competitive price levels, rather than upon actual prices, in order to detect relevant substitutes.

31. The Commission will seek to define relevant markets in terms of four characteristics or dimensions:

    - The goods or services supplied and purchased (the product dimension);
    - The level in the production or distribution chain (the functional level);
    - The geographic area from which the goods or services are obtained, or within which the goods or services are supplied (the geographic extent); and
    - The temporal dimension of the market, if relevant (the timeframe).

32. The Commission will seek to define relevant markets in a way that best assists the analysis of the competitive impact of the acquisition under consideration. A relevant market will ultimately be determined, in the words of the Act, as a matter of fact and commercial common sense.

33. Where markets are difficult to define precisely, the Commission will initially take a conservative approach. If the proposed acquisition can be cleared on the basis of a narrow

market definition, it would also be cleared using a broader one. If the Commission is unable to clear the proposed acquisition on the basis of the narrower market, it will be necessary to review the arguments and evidence in relation to broader markets.

Product Dimension

34. The delineation of relevant markets as a basis for assessing the competitive effects of a business acquisition begins with an examination of the goods or services offered by each of the parties to the acquisition. Both demand-side and supply-side factors are generally considered in defining market boundaries. Broadly speaking, a market includes products that are close substitutes in buyers' eyes on the demand-side, and suppliers who produce, or are able easily to substitute to produce, those products on the supply-side.

35. The Commission takes the view that the appropriate time period for assessing substitution possibilities is the longer term, but within the foreseeable future.[2] The Commission considers this to be a period of one year, which is the period customarily used internationally in applying the 'ssnip' test (see below) to determine market boundaries. The Commission will take into account recent, and likely future, changes in products, relative prices and production technology in the process of market definition.

36. The Applicant submits that the relevant product markets are as follows:

- The market for the supply of PCs;
- The market for the supply of handheld information devices ("HIDs");
- The market for the supply of servers;
- The market for the supply of enterprise storage systems;
- The market for the supply of IT services; and
- The market for the supply of printers.

Demand-side substitution

37. Close substitute products on the demand-side are those between which at least a significant proportion of buyers would switch when given an incentive to do so by a small change in their relative prices.

38. Initially, markets are defined for each product supplied by two or more of the parties to an acquisition. Unequivocal substitutes are combined. For each initial market so defined,

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[2] In *Tru Tone Ltd v Festival Records Retail Marketing Ltd* [ ] 2 NZLR 351 Smellie J and the Court of Appeal on appeal approvingly quoted an earlier decision of the Commerce Commission in *Edmonds Food Ind Ltd v W F Tucker & Co Ltd* (Decision 21, June 1984) where the Commission had ruled: "A market has been defined as a field of actual or potential transactions between buyers and sellers amongst whom there can be strong substitution, at least in the long run, if given a sufficient price incentive". See also *News Limited v Australian Rugby Football League Limited &Ors* (1996) ATPR at 41,687, where Burchett J stated: "Long term prospects that can be more or less clearly foreseen are, to that extent, a present reality, from the point of view of identifying the constraints upon commercial action. This fact emphasises the importance of the principle . . . that substitution possibilities in the longer run may be very significant for market delineation." Also *Re Tooth & Co Ltd v Tooheys Ltd* (1979) 39 FLR 1 emphasises longer run substitution possibilities.

the Commission will examine whether the imposition of a ssnip would be likely to be profitable for the hypothetical monopolist. If it were, then all of the relevant substitutes must be incorporated in the market. If not, then the next most likely substitute good or service will be added to the initial market definition and the test repeated. This process continues until a combination of products is found which defines the product dimension of a relevant market, namely, the smallest combination of goods or services for which a ssnip would be profitable.

39. On the demand-side, the technical viability of one good or service as a substitute for another must be assessed. However, even where another product may technically be suitable as an alternative for the product in question, its price may be so much higher that it may be a poor substitute in an economic sense, at least for the great majority of buyers. In judging economic substitutability between products, the Commission will have regard to relative prices, quality and performance when assessing whether they are, in fact, close substitutes in the eyes of buyers.

Supply-side substitution

40. Close substitute products on the supply-side are those between which suppliers can easily shift production, using largely unchanged production facilities and little or no additional investment in sunk costs, when they are given a profit incentive to do so by a small change in their relative prices.

Undifferentiated/Differentiated Products

41. In some instances, market definitional problems arise because of the differentiated nature of the goods or services involved in a business acquisition, caused by differing technical specifications, branding, packaging, warranties, distribution channels and other factors.

42. Where a significant group of buyers within a relevant market is likely to be subject to price discrimination, the Commission will consider defining additional relevant markets based on particular uses for a good or service, particular groups of buyers, or buyers in particular geographic areas. In other cases, the primary focus may switch to the extent to which a business acquisition eliminates competition between the products brought together by the acquisition.

43. The Applicant notes that the following markets are largely differentiated, in that buyers make their purchases on the basis of product characteristics, as well as price:

- The market in New Zealand for the supply of servers;
- The market in New Zealand for the supply of enterprise storage systems; and
- The market in New Zealand for the supply of IT services.

44. The differentiating features of these markets are discussed below under each respective market heading.

The PC Market

45. The Applicant has defined the market as "the market in New Zealand for the supply of PCs". PC's are general purpose, single user computer systems.[3]

46. HP submits that the PC market includes desktop PCs, portable PCs (also known as laptops or notebooks), and workstations.

47. Desktops are stand-alone computers whose use is usually restricted to a fixed place. Laptops are compact computers with an integrated keyboard, a flat screen, a large storage hard disk, and a battery. They are designed for either private or commercial mobile users, and, as such, are highly transportable. Workstations are high performance PCs for use in commercial settings.

48. The Applicant's approach to market definition, which includes all types of PCs, is consistent with that of the European Commission ("EC"). The EC recognised that historically the characteristics of desktops, portables and workstations have differed, in terms of performance and price, but the gap has been steadily closing. Laptops, for example, now offer similar performance levels to desktops, while the price premium paid has substantially decreased. Technological advancements mean internet and remote access are now possible on laptops. Similarly, the gap between high performance desktops and workstations is now minimal. There is therefore likely to be demand substitutability between desktops, portables, and workstations.

49. The European Commission also observed significant supply-side substitution during its investigations, between desktops, portables, and workstations, which is consistent with an all-encompassing PC market. Industry participants have advised the Commission that the components in a high performance desktop PC are 80-90% identical to those in a workstation. The components between competitors' products are also understood to have significant overlap. The Applicant states:

> "PCs from different manufacturers will typically have as much as 90% of their components being identical to those of a rival having a similar configuration. … A large number of PC suppliers, including HP, rely extensively on [ ] and [ ] as their contract manufacturers for their entire range of PCs. …a PC supplier can easily, quickly and cheaply move its levels of production as between portables, desktops and workstations…. This enables opportunistic exit and entry into the PC market and movement into different product categories within the market."

50. The high degree of supply-side substitutability is further evidenced by the fact that a significant proportion of PC suppliers are active in all three product segments.

51. Toshiba has expressed the view that portables are in close competition with desktops, especially in commercial settings. Toshiba confirmed that the premium between

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[3] The vast majority of PCs are Intel-compatible PCs. As such, they are designed to function with an Intel microprocessor or with an Intel-compatible microprocessor produced by another firm. PCs which have a non-Intel-compatible microprocessor– such as the Macintosh or the iMac manufactured by Apple – constitute the remainder of the market.

notebooks and desktops, in terms of price and performance has closed "remarkably". It noted that companies now recognise that the return on investment for notebooks can be higher than desktops, as it allows employees to work from home. Most companies will now purchase a combination of notebooks and desktops.

52. The above analysis is consistent with the applicant's view of the market definition. Therefore, for the purposes of the current application, the Commission will consider the PC market as including desktops, portables, and workstations.

The HID Market

53. The applicant has defined the market as "the market in New Zealand for the supply of HIDs". This includes:

- handheld computing devices, such as handhelds or PDAs; and,
- mobile phones, including feature phones and smart phones.

54. As noted in the application, HP and Compaq are only active in handheld PDAs, yet consider the relevant market to encompass all handheld information devices. The applicant is of the view that the demand and technical features for these products are converging and they exercise competitive constraints on each other.

55. In terms of market definition the EC noted the following:

> "The market investigation has not provided a clear-cut definition as HIDs are an emerging market in which mobile phones with computing capabilities, PDAs, and PC companions all exist as ultra-portable devices. As the operation only leads to overlaps in the PDA segment for which the market investigation did not reveal any significant competitive concerns, the market definition can be left open."

56. Commission staff enquiries have generally supported the views of the applicant. That is, the technologies governing the manufacture of mobile phones and PDAs are converging, and there are in fact products that already serve both purposes. This includes (among others) the Handspring Treo and Kyocera Smartphone.

57. Notwithstanding, it would appear products incorporating both PDAs and phones are still in their infancy and that, in general, handheld PDAs are a distinct product group from mobile phones. For this reason, the Commission has taken a relatively conservative approach and used a narrow market definition of only PDAs for the purposes of this investigation. Therefore the relevant market is considered to be "the market in New Zealand for the supply of PDAs".

The Server Market

58. The Applicant has identified "the market in New Zealand for the supply of servers". A server is a dedicated computer attached to a network that inter-operates with the network's administrative software to manage the network's various resources, such as PCs and workstations, printers and disk drives.

59. Servers are notably differentiated in that they often have different functional and performance capabilities. For example, servers can vary greatly in terms of:

- the speed and/or volume of their information processing capabilities;
- their scalability, (i.e. the number of users that they can support on the network);
- their reliability or "fault tolerance" (i.e. ability to sustain hardware and software failures); and
- their "high availability" (i.e. the downtime they require for scheduled and unscheduled maintenance).

60. Servers comprise a wide range of technologically different products across a broad spectrum of prices. The Applicant notes that industry analysts tend to report statistics in terms of the following price segments:

(1) entry level servers (<$100,000);
(2) mid-range servers ($100,000 - $999,999); and
(3) high-end servers (>$1 million).

61. Entry level servers are generally used for basic network functions such as files and printer services and authentication. In contrast, medium level and large servers, which offer a significantly higher degree of system availability and fault tolerance, are used for more specific mission-critical applications.

62. The Commission notes there is competition at the margin based on price, functionality and performance between servers at the very top price segment of the entry-level server market and the very bottom price segment of the medium level server market. Thus, the Commission accepts that the "chain of substitutability" applies in this market. The further evolution of technology may alter the price band ranges in the future.

63. For the purposes of the competition analysis the Commission will consider a server market. However, additional consideration will be given to the entry-level server segment of the market, as this is where the merged entity's strength will lie.

64. Therefore, for the purposes of this investigation, the relevant market is "the market in New Zealand for the Supply of Servers".

The Enterprise Storage Systems Market

65. HP has defined the market as "the market in New Zealand for the supply of enterprise storage systems".

66. Computer storage is the holding of data in an electromagnetic form for access by a single or multiple computer processors. Computer storage includes disk, optical and tape storage mediums.

67. The EC stated:

> "Potential separate storage markets can be identified according to the storage media used, as such distinguishing between disk, optical and tape. As the concentration will only lead to important overlaps on the disk storage markets and does not raise competition concerns with

respect to disk storage markets, it is not necessary to conclude whether these would constitute separate markets".

68. Disk storage solutions can take various forms: Direct Attached Storage (DAS), Storage Area Network (SAN) and Network Attached Storage (NAS). DAS is storage directly attached to a mainframe and is the traditional technology for connecting disk storage systems directly to servers. NAS, which is gaining increased patronage, is where the storage is connected to the network and is therefore available to any given PC linked to the network. In comparison, SAN is a separate network that is solely dedicated to storage.

69. The Applicant has drawn a distinction between server storage and enterprise storage systems based on how the purchase is made:

- **Server storage** is disk storage capacity that is purchased as a mere add-on to the server purchase.
- **Enterprise storage** is disk storage capacity regarding which customers make an independent storage purchase decision.

70. The Applicant considers that server storage is correctly viewed as part of the server market and that the relevant market is the market for enterprise storage systems. The distinction between server storage and enterprise storage is largely dependant on the application of a standard enterprise storage definition. On the basis that the definition as suggested is not clear, the Commission proposes to consider all storage within an overall storage market. This is consistent with figures provided by International Data Corporation ("IDC"), an independent analyst for the IT industry.

71. Although there are important technical and price differences, as such limiting both supply- and demand-side substitutability, all storage solutions seek to meet the customers' basic storage needs. All storage systems perform the same function of storing computing information, albeit in different formats.

72. Industry participants confirm that the relevant storage market includes DAS, NAS, and SAN storage topologies. The Commission therefore concludes that for the purpose of assessing the competition implications of the proposed acquisition, the appropriate product market is the wholesale and distribution of storage systems in New Zealand.

The IT Services Market

73. The Applicant submits that the IT services market comprises activities including:

- IT management services;
- Business management services;
- Software development and integration;
- IT and business consulting;
- Software maintenance and support;
- Hardware maintenance and support;
- Personnel education and training;
- Transaction processing; and
- Services relating to e-commerce.

74. Given the increasing convergence of these activities, HP believes it appropriate to regard all IT services as falling into a single market. The Applicant notes that, increasingly, customers require full package services and an ability to cope with the fast technology changes in the IT sector. The Applicants approach to market definition is consistent with that of the EC. In previous decisions, the EC has broken down the market for IT services into 7 different product segments. In its decision, the EC noted:

> "Such delineation can be maintained although both customers and competitors have confirmed that the exact limits of the defined service categories are gradually becoming indistinct as customers are increasingly procuring full package services (one stop shopping)."

75. A broad IT services definition is warranted given the existing high degree of supply side substitutability, and is further facilitated by fast technology changes in the IT sector.

76. Industry participants confirm that the relevant market is the market for IT services, and agree that the activities are increasingly converging. The Commission therefore concludes that for the purpose of assessing the competition implications of the proposed acquisition, the appropriate product market is the supply of IT services in New Zealand.

The Printer Market

77. The Applicant has defined the market as "the market in New Zealand for the supply of printers". This definition includes printers for office, home and professional printing. HP states that the wider printer market includes printing either by desktop or network inkjet and laser printers. Larger inkjet printers used by architects, engineers, graphic designers, quick printers and by commercial printers for proofing purposes are also included within the wider printer category.

78. The Commission notes there is competition at the margin based on price, functionality and performance between different printers. Thus, the chain of substitutability between printing products makes it appropriate to regard printers within a single printers market.

79. For the purposes of the current application, the Commission will consider the wider printer market, including inkjet and laser printers, and specialised printing equipment.

Functional Level

80. The production, distribution and sale of a product typically occur through a series of functional levels – for example, the manufacturing/import level, the wholesale/distribution level and the retail level. It is often useful to identify the relevant functional level in describing a market, as a proposed business acquisition may affect one horizontal level, but not others.[4] Alternatively, some acquisitions, such as those involving businesses at different vertical levels, may raise issues related to vertical integration. Generally, the Commission will seek to identify separate relevant markets at each

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[4] *Telecom Corporation of New Zealand Ltd v Commerce Commission* (1991) 4 TCLR 473, 502 The High Court (Greig J, Shaw WJ, Prof M Brunt) noted: "If we ask what functional divisions are appropriate in any market definition exercise, the answer, …, must be whatever will best expose the play of market forces, actual and potential, upon buyers and sellers. Wherever successive stages of production and distribution can be co-ordinated by market transactions, there is no difficulty: there will be a series of markets linking actual and potential buyers and sellers at each stage. And again, where pronounced efficiencies of vertical integration dictate that successive stages of production and distribution must be co-ordinated by internal managerial processes, there can be no market."

functional level affected by an acquisition and assess the impact of the acquisition on each.

81. The Applicant contends that in New Zealand, HP and Compaq are engaged in the wholesale and distribution of PCs, handheld information devices, servers, enterprise storage systems, and printers. Neither party is involved in retail, except to some major customers in the printer and server markets. In addition, the parties provide direct and indirect IT services to commercial customers.

82. The Commission confirms that the relevant functional levels identified by the Applicant are appropriate.

Geographic Extent

83. The Commission will seek to define the geographical extent of a market to include all of the relevant, spatially dispersed, sources of supply to which buyers can turn should the prices of local sources of supply be raised. For each good or service combination, the overlapping geographic areas in which the parties operate are identified. These form initial markets to which a ssnip is applied. Additional geographic regions are added until the smallest area is determined within which the hypothetical monopolist could profitably impose a ssnip.

84. Generally, the higher the value of the product to be purchased, in absolute terms or relative to total buyer expenditure as appropriate, the more likely are buyers to travel and shop around for the best buy, and the wider the geographic extent of the market is likely to be.

85. Where transport costs are high relative to the final value of a product, a narrower geographic market is more likely to be appropriate. Where product perishability and other similar practical considerations limit the distance that a product may be transported, this may limit the geographic extent of the market. The timeliness of delivery from alternative geographic sources is similarly relevant.

86. Although buyers and sellers of a particular good or service may interact in markets that are apparently local or regional in extent, those markets may themselves overlap and interrelate so as to form a market covering a larger geographical area. In these situations, the larger market is likely to be the appropriate one for analysing the competitive effects of a business acquisition.

87. The Commerce Act defines a market to be a "market in New Zealand". However, in many markets New Zealand buyers purchase products from both domestic and from overseas suppliers. Where imported products are close substitutes for domestic products, the overseas suppliers will be part of the relevant market. In such circumstances the Commission, in order to comply with the wording of the Act, is likely to define a national market and then, as discussed later in the competition analysis, to consider the extent to which overseas suppliers exercise a competitive constraint on the participants in the domestic market.

88. The markets in which HP and Compaq are active are global in nature, and are accordingly affected by global competition trends. HP considers that the New Zealand markets are in fact sub-markets of the wider global product markets. However, for the purposes of this

notice, HP has assumed that the relevant geographic area for all product markets listed above is New Zealand.

89. The Commission concludes for the purposes of the current application that the geographical market is New Zealand.

The Timeframe

90. Generally, the Commission will view markets as functioning continuously over time. However, where a market is characterised by, for example, infrequent transactions, the Commission may seek to define a separate time dimension as part of its market definition process. Time considerations are also important where there are long-term contracts, and where there are depletable resources.

91. Time dimension is not relevant to the New Zealand markets listed above as transactions are usually frequent, and the resource is not depletable so long as raw materials and product can be obtained. There are some contracts in place between suppliers and purchasers, particularly in the enterprise storage systems and IT services markets, but they are relatively short-term being between one to five years in duration.

Conclusion on Market Definition

92. The Commission concludes that the relevant markets are:

- The market in New Zealand for the supply of PCs;
- The market in New Zealand for the supply of PDAs;
- The market in New Zealand for the supply of servers;
- The market in New Zealand for the supply of storage systems;
- The market in New Zealand for the supply of IT services; and
- The market in New Zealand for the supply of printers.

COMPETITION ANALYSIS

Substantially Lessening Competition

93. Section 47 of the Act prohibits particular business acquisitions. It provides that:

> A person must not acquire assets of a business or shares if the acquisition would have, or would be likely to have, the effect of substantially lessening competition in a market.

94. Section 2(1A) provides that substantial means “real or of substance”. Substantial is taken as meaning something more than insubstantial or nominal. It is a question of degree.[5]

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[5] *Commerce Commission v Port Nelson Ltd* (1995) 6 TCLR 406, 434; *Mobil Oil Corporation v The Queen in Right of NZ* 4/5/89, International Centre for Settlement of Investment Disputes, Washington DC, International Arbitral Tribunal ARB/87/2 (paras 8.2, 19, 20).

What is required is a real lessening of competition that is not minimal. The lessening needs to be of such size, character and importance to make it worthy of consideration.[6]

95. Section 3(2) provides that references to the lessening of competition include references to the hindering or preventing of competition.[7]

96. While the Act defines the words “substantial” and “lessening” individually it is desirable to consider the phrase as a whole. For each relevant market, the Commission will assess:

- The probable nature and extent of competition that would exist in a significant section of the market, but for the acquisition (the counterfactual);

- The nature and extent of the contemplated lessening; and

- Whether the contemplated lessening is substantial.[8]

97. In considering whether the acquisition would have, or would be likely to have, the effect of substantially lessening competition in a market, the Commission will take account of the scope for the exercise of market power, either unilaterally or through co-ordination between firms.

98. When the impact of enhanced market power is expected predominantly to be upon price, the anticipated price increase relative to what would otherwise have occurred in the market has to be both material, and able to be sustained for a period of at least two years, for the lessening, or likely lessening, of competition to be regarded as substantial. Similarly, when the impact of increased market power is felt in terms of the non-price dimensions of competition, these also have to be both material and able to be sustainable for at least two years for there to be a substantial lessening, or likely substantial lessening, of competition.

The Counterfactual

99. The Commission will continue to use a forward-looking, counterfactual, type of analysis in its assessment of business acquisitions, in which two future scenarios are postulated: that with the acquisition in question, and that in the absence of the acquisition (the counterfactual). The impact of the acquisition on competition can then be viewed as the difference between those two scenarios. It should be noted that the status quo cannot necessarily be assumed to continue in the absence of the acquisition, although that may often be the case. For example, in some instances a clearly developing trend may be evident in the market, in which case the appropriate counterfactual may be based on an extrapolation of that trend.

100. The present state of competition in a market can be referred to in order to illuminate the future state of the market where there is a range of possible scenarios should a merger

[6] *Dandy Power Equipment Ltd v Mercury Marina Pty Ltd* (1982) ATPR 40-315, 43-888; *South Yorkshire Transport Ltd v Monopolies & Mergers Commission* [ ] 1 All ER 289.
[7] For a discussion of the definition see *Commerce Commission v Port Nelson Ltd*, supra n 6, 434.
[8] See *Dandy*, supra n 5, pp 43–887 to 43-888 and adopted in New Zealand: *ARA v Mutual Rental Cars* [ ] 2 NZLR 647; *Tru Tone Ltd v Festival Records Retail Marketing Ltd* [ ] 2 NZLR 352; *Fisher & Paykel Ltd v Commerce Commission* [ ] 2 NZLR 731; *Commerce Commission v Carter Holt Harvey*, unreported, High Court, Auckland, CL 27/95, 18/4/00.

not proceed.[9] The Applicant suggests that HP and Compaq are largely complementary companies. The Applicant submitted that:

> The intention behind the agreement is to create a new generation IT company providing significant value for customers, partners, shareholders and employees through advancing open, market-unifying standards in an effort to deliver a broad portfolio of products, services and solutions to customers globally.

101. In the absence of HP purchasing Compaq, Compaq may be sold to another party although the Commission is not aware of any other interested parties. The Commission considers that the status quo is the most appropriate approximation for the counterfactual as Compaq would continue to operate as a major multinational corporate in the absence of the proposed merger proceeding, and given the fact that the market is currently characterised by effective competition from existing participants. In addition, the Commission anticipates that market participants will continue to utilise alliances with market participants in other IT markets to broaden their product and service range, and IT solutions.

102. The Commission therefore proposes to use the status quo as the counterfactual.

Potential Sources of Market Power

103. Two types of market situation conducive to the exercise of substantial unilateral market power are now considered. These involve making the distinction between undifferentiated and differentiated product markets. That distinction may also have a bearing on the scope for co-ordinated behaviour in a market.

104. In undifferentiated product markets, where buyers make their purchases largely on the basis of price, and the production capacities of firms are an important element in competition, a business acquisition may have the potential to substantially lessen competition when the combined entity has acquired a market share below that required for dominance. This is especially likely in circumstances where the rivals of the combined entity cannot easily expand production to offset its output contraction within a one-year time frame.[10] The inability of rivals to expand may result either from their facing binding capacity constraints, or because additional capacity is significantly more expensive to operate.

105. In differentiated products markets, where the product offerings of different firms vary, and in which buyers make their purchase decisions on the basis of product characteristics as well as of price, the products of firms are by definition not perfect substitutes for each other. The substitutability between products will vary depending upon differences in their various characteristics, which may include their physical specifications, brand image, associated services and location of sale. In simple terms, differentiated products can be thought of as being arranged in a "chain of substitutes", where those in adjacent positions in the chain tend to be close substitutes, and those positioned further apart are less close substitutes.

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[9] *Stirling Harbour Services Pty Ltd v Bunbury Port Authority* (2000) ATPR 41 at paras 113 & 114.

[10] See, for example, Roger D Blair and Amanda K Esquibel, "The Roles of Areeda, Turner and Economic Theory in Measuring Monopoly Power" (1996) *Antitrust Bulletin*, 781, especially pp 791-95.

106. The supply-side characteristics of differentiated products markets are important, as the potential market power of the combined entity may be offset by the actions of rivals. However, rivals may not be able to offer a competitive constraint where they are unable either to re-position their products closer to that of the combined entity to replace the lost localised competition, or to strengthen the promotion of existing products. A further possible constraint would be lost if it were not possible for new products to be added through new entry.

107. In the context of the servers, enterprise storage systems, and the IT services markets as defined, where price, and other factors are taken into account by purchasers in choosing between suppliers, the products and services are differentiated to a degree, and this has to be incorporated into the market analysis. However, the Commission considers that the respective products and services are not so differentiated as either to cast doubt on there being single, well-defined, markets as described above, or to warrant the special analysis associated with fully differentiated product and service markets.

Conclusion – Competition Analysis Principles

108. The Act prohibits business acquisitions that would be likely to have the effect of substantially lessening competition in a market. The Commission makes this assessment against a counterfactual of what it considers would be likely to happen in the absence of the acquisition. In the present case the counterfactual is considered to be the status quo. A substantial lessening of competition is taken to be equivalent to a substantial increase in market power. A business acquisition can lead to an increase in market power by providing scope either for the combined entity to exercise such power unilaterally, or for the firms remaining in the market to co-ordinate their behaviour so as to exercise such power.

109. In broad terms, a substantial lessening of competition cannot arise from a business acquisition where there are sufficient competitive constraints upon the combined entity. The balance of this Decision considers and evaluates the constraints that might apply in the defined markets in relation to existing competition.

ANALYSIS OF EXISTING COMPETITION

Introduction

110. One consequence of a merger between competitors is that the number of firms competing in a market is reduced or, put another way, concentration is increased. This raises the possibility that competition in the market may be substantially lessened through the exercise of unilateral or coordinated market power. These are the subject of the analysis in this section.

Scope for Unilateral Market Power

Introduction

111. An examination of concentration in a market post-acquisition can provide a useful guide to the constraints that market participants may place upon each other, including the combined entity. Both structural and behavioural factors have to be considered.

However, concentration is only one of a number of factors to be considered in the assessment of competition in a market. Those other factors are considered in later sections, as noted above.

112. Market shares can be measured in terms of revenues, volumes of goods sold, production capacities or inputs (such as labour or capital) used. All measures may yield similar results in some cases. Where they do not, the Commission may, for the purposes of its assessment, adopt the measure that yields the highest level of market share for the combined entity. The Commission considers that this will lead to an appropriately conservative assessment of concentration, and that the factors which lead to the other different market share results are more appropriately considered elsewhere during the assessment of the acquisition.[11]

113. In determining market shares, the Commission will take into account the existing participants (including 'near entrants'), inter-firm relationships, and the level of imports. This is followed by a specification of the Commission's 'safe harbours', an estimation of market shares, and an evaluation of existing competition in the market. Each of these aspects is now considered in turn.

The Market in New Zealand for the Supply of PCs

Existing Participants

114. There are a large number of existing suppliers in the PC market. The suppliers include multinational companies such as IBM and Dell, and a number of smaller competitors, such as white box manufacturers ("WBMs"[12] or clones), which tend to supply to small-to-medium sized businesses. The PC Company is the largest WBM in New Zealand.

115. With the exception of Dell, PC suppliers mostly sell their products to distributors or value-added resellers. The retail functional level is quite concentrated, and retailers such as Harvey Norman and Dick Smith are understood to exercise significant power.

116. Pacific Retail Group ("PRG") is another major reseller of PC products. PRG own the chains Bond & Bond, Noel Leemings, Computer City, and Big Byte. It estimates it accounts for around 25% of the retail market for PCs with clones, Farmers, Dick Smith, Harvey Norman and others making up the remainder.

Inter-firm Relationships

117. Companies that are part of the same corporate grouping, or that have similar strong relationships, cannot be relied upon to provide an effective competitive constraint to one another. Other less formal relationships between companies may also give rise to

[11] For example, where market share measured in terms of capacity produces a significantly lower share of the market in the hands of participants than a measure in terms of sales volumes, the constraint on a combined entity from that unemployed capacity might be taken into account when identifying near entrants or the constraint from new market entry. In some cases, the model of market power being used may influence the choice as to which market share measure is used.

[12] White Box Manufacturers (WBMs) are companies that manufacture computers from other companies' components and attach their own brand name to the final product.

limitations on the extent of rivalry between them. Relationships between persons in the relevant market and other businesses may also affect rivalry in a market.

118. The Commission understands that some alliance relationships exist between participants in the IT industry. For instance, alliances are used to bundle products such as PCs and printers together and are a vehicle to compete effectively against the larger PC and printer suppliers who are able to supply their own branded bundle of products.

119. Industry competitors noted that these alliances are relatively open arrangements. They are not exclusive supply agreements, and industry participants informed staff that they preferred to keep their supply options open. For example, in the past Compaq has used Canon and Lexmark printers to bundle with its Compaq PCs. Furthermore, alliances are formed across different IT markets so as to create complementarity for competition purposes.

Imports

120. In markets where imports are present, the Commission will consider whether actual competition from imported products is the equivalent to that from domestic supply. In undertaking this evaluation, the Commission will take into account the existence of any limits on quantities of imported product (the price elasticity of supply), and the effects on trade of various factors. Imports channelled through the parties to an acquisition, or persons associated with them, will be added to their domestic production in assessing market share, rather than being treated as independent sources of supply.

121. Potential imports may also provide a constraint on domestic suppliers. This is considered as part of the assessment of the constraint from market entry below.

122. The Applicant notes that all PCs sold in New Zealand are manufactured outside New Zealand. Whilst WBMs assemble their own PC lines, the PC comprises externally manufactured components.

123. Industry competitors spoken to advise that competing product is readily available from overseas suppliers. There are no barriers to importing PC product componentry into New Zealand.

124. The above analysis applies to all defined markets (whilst IT services are not imported to a large extent, if at all, the potential to import IT services does exist). The Commission accepts that an expansion in imports from other existing suppliers, if prices rise, is highly likely in all the defined markets, which rely almost exclusively on imported product. Excess capacity is readily available and will therefore act as a constraint on the merged entity.

Safe Harbours

125. Once the relevant market has been defined, the participants have been identified, and their market shares estimated, the Commission's 'safe harbours' can be applied. Under these safe harbours, a business acquisition is considered unlikely to substantially lessen competition in a market where, after the proposed acquisition, either of the following situations exist:

- where the three-firm concentration ratio (with individual firms' market shares including any interconnected or associated persons) in the relevant market is below 70%, the combined entity (including any interconnected or associated persons) has less than in the order of a 40% share; or

- where the three-firm concentration ratio (with individual firms' market shares including any interconnected or associated persons) in the relevant market is above 70%, the market share of the combined entity is less than in the order of 20%.

126. As noted below, market shares by themselves are insufficient to establish whether competition in a market has been lessened.

Market Shares

127. Market shares have been provided by IDC[13].

Table 1:
Estimated New Zealand Market Shares for the Supply of PCs

Firm	**Market Share (%)**
HP	[ ]
Compaq	[ ]
Sub-Total	[ ]
Dell IBM	[ ] [ ]
Toshiba	[ ]
Others	[ ]
Total	[ ]

* Figures for 2001 calendar year. Figures are calculated by number of units although share by value yields the same figure for the merged entity.

128. Table 1 indicates that the current three firm concentration ratio is [ ]. Post-merger, the three firm concentration ratio would be [ ] with the merged entity having a [ ] share. These figures are within the Commission's prescribed safe harbours.

129. The table shows the next tier of competitors includes IBM, Dell, and Toshiba all with market shares [ ]. "Others", which include brands such as Apple, Packard Bell, the PC Company, and Acer, and WBMs (or clones), then occupy [ ] of the PC market.

130. As already noted, market shares are insufficient in themselves to establish whether competition in a market has been lessened. It is the interplay between a number of competition factors, of which seller concentration is only one, that has to be assessed in determining the impact of a business acquisition on competition. Other competition factors include entry conditions; the presence of an aggressive, innovative or maverick firm; countervailing power of buyers or suppliers; rapid innovation in the market; and others.

[13] IDC provides reports on industry analysis, industry intelligence and market share data though numerous reports on the various segments within the technology industry.

State of Existing Competition

131. The acquisition would result in the merged entity becoming the largest PC supplier within the PC market. However, the merged entity would continue to face strong competition from current competitors. Below is a description of the sources of competition faced by the merged entity.

Global Brands

132. IBM has around [ ]% market share in PCs. Its main strength is in supply to commercial customers. It has recently announced a global strategy to withdraw from the retail sector. IBM has advised this is because retail has largely become a commodity business, and margins have correspondingly become very thin. IBM has noted that it will still sell some computers to consumers via direct sales (for example, orders through its internet site), but these are likely to be negligible.

133. Dell has around [ ]% of the market. It operates a different business model to most suppliers, involving a large component of direct sales. It maintains low inventory levels, and imports as required. It is recognised as being a low cost supplier. It has limited presence in New Zealand (in terms of staff), and mainly supplies to commercial customers.

134. Toshiba has around [ ]% market share. Within the PC market it concentrates on notebooks.

135. Other global brands include Apple and Packard Bell.

136. The above firms all import their products. New Zealand is a very small market and as such there is no capacity constraint if a firm wished to increase supply.

Local Brands

137. Local brands are normally referred to as "white-box manufacturers" (WBMs) or clones. WBMs compete on price, although the components of their computers are often very similar to better-known brands. Components are imported then assembled in New Zealand. Despite the negative connotations associated with the terms "WBM" and "clone", the general view of the market is that they do offer significant constraint in the market, especially at the consumer level.

138. Some of the larger local brands compete very closely with the global brands. For example, the PC Company is the largest local brand with around [ ]% market share. The PC Company has a market share similar to IBM, Dell, and Toshiba. It has been in the market for around 20 years, mainly supplying through its retail stores to consumers. It has advised that [ ].

139. While WBMs have historically been seen as mainly competing for consumer purchases, WBMs have recently made "significant" inroads into supply to small businesses.[14] In particular, The PC Company is a vigorous WBM in the PC market.

[14] *See* "The Battle for the Small Business PC Increases", IDC, <www.idcresearch.co.nz/idcpulse/archives/20021302_smallbus.htm>, available 27 February 2002.

Countervailing Power

140. [ ] has raised concerns that the combined brand strength of HP and Compaq could leave the merged entity with significant market power in the retail segment of the market. The Commission recognises that the merged entity's share of the retail channels would be higher than other participants in the market.

141. However, enquiries by Commission staff suggest that retailers do have other options. For example, [ ] was of the view that other brands exist in the market that could be promoted in place of HP or Compaq. This includes Packard Bell and Apple. Retailers may also seek to promote more local brands, or a clone under its own name.

142. Other industry parties have expressed the view that retailers hold a considerable amount of power over suppliers.

Conclusions – Unilateral Market Power

143. Participants at all levels advised Commission staff that the PC market in New Zealand is aggressively contested. The merged entity will be constrained by current competition.

The Market in New Zealand for the Supply of PDAs

Existing Participants

144. There are a number of existing suppliers in the PDA market. The global market is dominated by Palm, with Handspring also having a considerable share of the market. Other market participants include IBM, Sony, and Casio.

145. As in the PC market, this market is characterised by many well-funded competitors from many different industry backgrounds (including PC, phone and PDA specialists).

Market Shares

146. PDAs are a relatively new technology in NZ and as such the Applicant and IDC have been unable to provide national market share figures.

147. The Applicant has provided global market share figures. Market participants have advised that the same market conditions exist in New Zealand.

Table 2:
Estimated Global Market Shares for the Supply of PDAs

Company	**Market Share (%)**
HP	[ ]
Compaq	[ ]
SubTotal	[ ]
Palm	[ ]
Handspring	[ ]
Symbol	[ ]
Psion	[ ]
Hi-Tech Wealth	[ ]
Sharp	[ ]
Casio	[ ]
Others	[ ]
Total	[ ]

* Figures for 2001 calendar year. Figures are calculated by number of shipment units.

148. Table 2 indicates the merged entity's market share is likely to be small (around [ ]%). This market share range falls well within the Commission's safe harbours. The leading participants in the global market are Palm and Handspring with [ ] and [ ] respectively.

149. Adopting a conservative approach on latest global shipment figures from Gartner Dataquest for Quarter 2 and Quarter 3 of 2002, the merged entity will have approximately [ ] of the market post-merger with Compaq holding [ ] and HP [ ]. Again, this falls within the Commission's safe harbours.

150. The Commission notes that strictly speaking safe harbours are applied only to national market shares as opposed to global market share figures, which have been applied in this instance.

State of Existing Competition

151. The acquisition would result in the merged entity having a greater combined market share of the PDA market. However, the merged entity would continue to face strong competition from other participants in the market, in particular, from Palm (who is currently the global market leader) and Handspring.

152. Barriers to this market would appear to be relatively low. Products supplied by HP and Compaq use a Microsoft operating system, which is used, and is available, to other competitors in the market. Other global competitors such as Toshiba, NEC, and Acer have announced future launches of PDAs.

Conclusions – Unilateral Market Power

153. The merged entity will be constrained by current competition in the PDA market.

The Market in New Zealand for the Supply of Servers

Existing Participants

154. There are a number of existing suppliers in the server market. The major global companies including IBM, Dell, and SunMicrosystems represent a large portion of the New Zealand server market.

Market Shares

155. Market shares for the merged entity are as follows:

Table 3:
Estimated New Zealand Market Shares for the Supply of Servers

Firm	**Market Share (%)**
HP	[ ]
Compaq	[ ]
Sub-Total	[ ]
Sun Microsystems	[ ]
IBM	[ ]
Dell	[ ]
Others	[ ]
Total	[ ]

* Figures for 2001 calendar year. Figures are calculated by value.

156. The current three firm concentration ratio is [ ]. Post-merger, the three firm concentration ratio would be [ ] with the merged entity having a [ ] share in the wider server market.

157. In New Zealand, HP and Compaq have [ ] in the high-end segment, where [ ] appears to be the only participant. In the mid-level range, the aggregation of HP and Compaq falls within safe harbour guidelines, with SunMicrosystems demonstrating market leadership, and IBM also having a relatively strong market presence.

158. The merged entity's main strength will be in "entry servers" (low value servers). Table 4 below shows the merged entity's market share in entry-level servers.

Table 4:
Estimated New Zealand Market Shares for the Supply of Entry-Level Servers

Firm	Market Share (%)
HP	[ ]
Compaq	[ ]
Sub-Total	[ ]
IBM	[ ]
Sun Microsystems	[ ]
Dell	[ ]
SGI	[ ]
Others	[ ]
Total	[ ]

*For the 2001 calendar year. Figures calculated by value.

159. The three firm concentration ratio for the entry-level server market is [ ]. Post-merger, the three firm concentration ratio would be [ ] with the merged entity having a [ ] share in the entry level server market.

160. Thus, the merged entity will have around [ ]% in the wider server market, and around [ ]% in the entry-level market segment. This places the merged entity just outside the safe harbours for unilateral market power.

161. The Applicant has advised that given the nature of the market (that is, sales are "lumpy") shares can be quite volatile. Industry parties have agreed with this view, noting that capturing large contracts can significantly change market shares. IDC market share information provided by the applicant also indicates fluctuating market share. For example, in the entry-level segment Compaq market share went from [ ]% in the first quarter (2001) to [ ]% in the third quarter. Similarly, HP went from [ ]% to [ ]%. Volatility of this nature generally lessens the importance of market share information.

State of Existing Competition

162. Following the acquisition, the merged entity will continue to face strong competition from global players such as Sun Microsystems, Dell, and IBM. Industry parties were of the view that the acquisition would not significantly change competition. HP is not considered a particularly strong competitor in the server market. HP is seen as a "follower" rather than a "leader". The strongest players have historically been Compaq, Sun Microsystems, and IBM. Therefore, this would not be a merger of two close rivals.

163. Sun Microsystems has around [ ]% of the server market, concentrating on the mid-range and high-level servers (although its products cover the full range). Its systems are sold through SolNet, a New Zealand-owned business that acts as the Independent Sales Organisation for Sun Microsystems in New Zealand. SolNet has advised the Commission that the only impediment to expanding its operation would be hiring appropriately skilled staff. SolNet did not believe the merged entity would have the ability to raise prices or lessen service in the market.

164. IBM is also a significant player in the New Zealand server market. It was also of the view that the merged entity would not be in a position to raise prices or lessen service.

165. Both IBM and Sun Microsystems are strong global players. There are few impediments to expansion for these firms and as such they will provide strong constraint against the exercise of market power by the merged entity.

Conclusions – Unilateral Market Power

166. The Commission recognises that the server market is characterised by a large number of strong global competitors, rapid, low-cost, technological innovation, and high substitutability of products. For these reasons, the Commission accepts that the merged entity will be constrained by current competition.

The Market in New Zealand for the Supply of Storage Systems

Existing Participants

167. There are a number of existing suppliers in the storage systems market. The major global companies including IBM, Dell, and SunMicrosystems are represented in the New Zealand storage systems market.

Market Shares

168. Market shares for the merged entity are as follows:

Table 5:
Estimated New Zealand Market Shares for the Supply of Storage Systems

Firm	**Market Share (%)**
HP	[ ]
Compaq	[ ]
Sub-Total	[ ]
Sun Microsystems	[ ]
EMC	[ ]
HDS	[ ]
Others	[ ]
Total	[ ]

*For 2001 YTD. Figures calculated by value.

169. Included within "others" are NEC Corporation, Hitachi Limited, Fujitsu Limited, and Unisys to note a few.

170. The current three firm concentration ratio is [ ]. Post-merger, the three firm concentration ratio would be [ ] with the merged entity having a [ ] share. These figures are just on the Commission's safe harbour threshold.

State of Existing Competition

171. The acquisition would result in the merged entity becoming the largest provider of storage systems in the New Zealand market. However, the merged entity would continue to face strong competition from other storage vendors.

172. In particular, EMC is a strong competitor in the storage market, particularly in the "enterprise" segment. EMC suggested that nearly all enterprise storage is SAN. EMC suggested its focus is on "intelligent" storage solutions, which includes SAN and NAS technologies, whereas HP and Compaq tend to focus more on DAS and server storage (or "unintelligent" storage). EMC noted that HP and Compaq both have relatively limited strengths in NAS and SAN.

173. Industry participants suggest that aside from technological know-how and initial set up costs, there are no real barriers to entry. The storage system market continues to evolve and grow creating opportunity for increased competition.

174. EMC suggested that HP and Compaq aimed to sell storage in conjunction with their server sales. This has some impact on EMC's ability to sell storage as EMC does not deal in servers. However EMC confirmed it has an open alliance with Dell to the effect that EMC will supply storage with Dell computer systems and servers. This understanding is in its infancy but is described as "encouraging". Such alliances, not uncommon, counter the effect of HP and Compaq cross-selling into the storage market.

Conclusions – Unilateral Market Power

175. The Commission considers that the merged entity will be constrained by current competition in the storage market.

The Market in New Zealand for the Supply of IT Services

Existing Participants

176. Whilst EDS currently has a strong presence in the IT services market, the market is highly fragmented with a number of consulting firms (such as Cap Gemini Ernst & Young, and Accenture among others), and smaller players competing against the global IT companies.

177. Other major global IT services companies including IBM, Datacom, and Unisys are represented in the New Zealand IT services market.

Market Shares

178. Market shares for the merged entity are as follows:

Table 6:
Estimated New Zealand Market Shares for the Supply of IT Services

Firm	Market Share (%)
HP	[ ]
Compaq	[ ]
Sub-Total	[ ]
EDS	[ ]
IBM	[ ]
Datacom	[ ]
Unisys	[ ]
Gen-I	[ ]
Computerland	[ ]
Oracle	[ ]
Total	[ ]

*For 2000 Calendar Year. Figures calculated by value.

179. The current three firm concentration ratio is [ ]. Post-merger, the three firm concentration ratio would remain [ ] with the merged entity having an [ ] share. These figures are within the Commission's safe harbours.

180. CSC's market share is included in HP's market share as HP purchased CSC in 2001.

State of Existing Competition

181. The IT services market is generally described as very competitive. Whilst the acquisition would result in the merged entity increasing its presence in the IT services market, its combined market share is marginal compared to other market participants. In particular, EDS will continue to be a strong competitor at least in the next 7-8 years whilst it holds the Telecom account.

182. EDS suggested that post-merger, HP will be able to leverage itself more strongly into the IT services market via its other market activities. However, market participants note that working alliances between different service providers are not uncommon in the IT industry. In some instances, an IT provider can be a supplier and partner to a competitor firm.

183. Currently, the IT services market is characterised by a number of large-scale contracts. A large proportion of EMC's customers are on contract, and most of EDS's business is contract related. The larger multi-national competitors tend to secure the contracts on the basis of their ability to fully service the client. A global industry knowledge base allows the multinationals to provide advanced technology and high quality product. In comparison, the smaller competitors tend to target small-to-medium businesses.

184. The length of contracts ranges between one to five years in most cases, depending on the type of equipment or services provided and the life of the technology employed. In

1999, EDS was awarded New Zealand's largest ever IT outsourcing contract with Telecom New Zealand. This 10-year agreement represents about half of EDS's business. A contract of this length is not the industry norm.

185. The contracts are not overly restrictive and are performance based. Customers can switch between suppliers at the expiration of a contract, and the contract provides for pricing changes during the term of the contract. Such contracts are therefore not considered to restrict competition in the IT services market.

186. The IT services market is dynamic with relatively low barriers to entry. Entry at the low-end of the market can at least be facilitated with the technological know-how. Significant customer purchasing power is likely to act as a further constraint on the behaviour of the merged entity.

Conclusions – Unilateral Market Power

187. The merged entity will be constrained by current competition in the IT services market.

The Market in New Zealand for the Supply of Printers

Existing Participants

188. The printer market is represented by a large number of competitors. The major global printer manufacturers including Canon, Seiko-Epson, Brother, Oki and Xerox all have a presence in New Zealand.

Market Shares

189. Market shares for the merged entity are as follows:

Table 7:
Estimated New Zealand Market Shares for Supply of Printers

Firm	**Market Share (%)**
HP	[ ]
Compaq	[ ]
Sub-Total	[ ]
Epson	[ ]
Canon	[ ]
Lexmark	[ ]
Oki	[ ]
Xerox	[ ]
Kyocera	[ ]
Brother	[ ]
Others	[ ]
Total	[ ]

190. Panasonic, Minolta-QMS and Ricoh are included within “Others”.

191. The current three firm concentration ratio is [ ]. Post-merger, the three firm concentration ratio would be [ ] with the merged entity having a [ ] share. These figures are outside the Commission’s safe harbours.

192. However, IDC suggests, and the Commission agrees, that the acquisition will not result in any notable change in the printer market given the negligible role of Compaq in selling printers. The combined effect of HP and Compaq in the printer market is negligible.

State of Existing Competition

193. The acquisition would not change HP’s position as the largest supplier of printers in New Zealand.

194. Retailers mostly provide “bundled” computer packages. A “bundle” typically includes a PC, printer, and may also include scanning equipment. Compaq does not operate in printers or scanners but sources printers from Lexmark or Canon to “bundle” with its own products in a branded package deal. [ ] has raised concerns that post-merger, it is likely Lexmark will lose its existing supply agreement with Compaq to the extent that Compaq will use HP printers to bundle with PCs instead. This will leave the merged entity with significant market power in the printer market, particularly at retail level.

195. The retail level appears relatively concentrated, with Canon noting that the top three retailers account for over [ ] of its sales. HP and Compaq combined currently make up around [ ] of PRG’s printer sales. Other brands include Packard Bell, Epson, Canon, and Lexmark. [

].

196. [

]

197. [

].

198. Other industry parties have expressed the view that retailers hold a considerable amount of power over suppliers.

199. Staff were informed that the ability to secure shelf space in order to get brand presence is a barrier to entry in the printer market. In addition, the printer market has reached a higher maturity than in other IT markets and the barriers to entry are not as low. However, the counterveiling power of the retailers suggests that these barriers are not significant in the broader scheme of the printer market.

200. As in the EC decision, the results of the investigation in New Zealand indicate that the merged entity's moderate share of the relevant PC market and the limited impact that joint PC/printer sales could have on the new HP's printer market share, is not likely to give HP the ability to foreclose competition from the market for printers.

Conclusions – Unilateral Market Power

201. The merged entity will thus be constrained by current competition in the printer market.

Scope for the Exercise of Coordinated Market Power

Introduction

202. A business acquisition may lead to a change in market circumstances such that coordination between the remaining firms either is made more likely, or the effectiveness of pre-acquisition coordination is enhanced. Firms that would otherwise compete may attempt to coordinate their behaviour in order to exercise market power by restricting their joint output and raising price. In extreme cases, where all firms in the market are involved and coordination is particularly effective, they may be able to behave like a collective monopolist. Where not all firms are involved, and market share in the hands of the collaborators is reduced, coordinated market power becomes more difficult to exercise because of competition from the independent firms in the market.

203. In broad terms, successful coordination can be thought of as requiring two ingredients: 'collusion' and 'discipline'. 'Collusion' involves the firms individually coming to a mutually profitable expectation or agreement over coordination; 'discipline' requires that firms that would deviate from the understanding are detected and punished (thereby eliminating the short-term profit to be gained by the firm from deviating).

204. When assessing the scope for coordination in the market during the consideration of a business acquisition, the Commission will evaluate the likely post-acquisition structural and behavioural characteristics of the relevant market or markets to test whether the potential for coordination would be materially enhanced by the acquisition. The intention is to assess the likelihood of certain types of behaviour occurring, and whether these would be likely to lead to a substantial lessening of competition.

Collusion

205. "Collusion" involves firms in a market individually coming to a mutually profitable expectation or agreement over coordination. Both explicit and tacit forms of such behaviour between firms are included.

206. The structural and behavioural factors that are usually considered to be conducive to collusion are set out in the left-hand column in Table 8. The significance of these is explained more fully in the Commission's *Practice Note 4*. The right-hand column of the Table then assesses the extent to which those factors are present, or are likely to be enhanced post-merger, in the PC market. A high proportion of 'yes' responses would suggest that the market was particularly favourable to 'collusion'; a high proportion of 'no' responses the reverse.

Table 8:
Testing the Potential for 'Collusion' in the Defined Markets

Factors conducive to collusion	Presence of factors in the market
High seller concentration	No – three firm concentration within safe harbours in the PC, HID, Enterprise Storage Systems and IT services markets. Yes – three firm concentration outside safe harbours in the server and printer markets.
Undifferentiated product	No. While computer products are becoming more commoditised, the range of computing products and services are differentiated to some extent. For example, in the PC market the options range from desktops and workstations to portable PCs, and different operating systems are available.
New entry slow	No.
Lack of fringe competitors	No.
Price inelastic demand curve	Unclear – while computing products and services are considered an essential business tool, they are likely to have elastic demand curve features.
Industry's poor competition record Presence of excess capacity	No - no problems apparent. Yes - competitors could increase capacity if they desired.
Presence of industry associations/fora	Yes - but no influence.

207. The assessment of the relevant structural and behavioural conditions in Table 8 suggests that the defined markets are not likely to facilitate collusion.

208. There are low levels of concentration in the PC, HID, storage systems, and IT services markets. Despite the server and printer markets having high concentration levels, other collusive factors suggest that the acquisition is not likely to materially enhance the potential for coordinated market power.

209. In all the defined markets, there is no lack of fringe competitors, and significant excess capacity is available. Furthermore, new entry is not likely to be slow, particularly in the PDA market. A lack of maturity is also evidenced in the defined markets, with the server market experiencing significant fluctuations in market share. Markets are generally dynamic being subject to continued innovation. Lastly, sales by tender are relatively common in the IT industry. These sales are not small and frequent, nor transparent.

210. The Commission is satisfied that the defined markets are unlikely to facilitate collusion. As such, the Commission has found it unnecessary in this case to go on to determine the potential for discipline in each of the defined markets.

Conclusions – Co-ordinated Market Power

211. The Commission has determined that the scope for the exercise of co-ordinated market power in the defined markets would not be enhanced by the acquisition.

Conclusions – Existing Competition

212. The Commission considers that existing competition in the defined markets will alleviate any concerns of unilateral power being exercised by the merged entity.

213. Furthermore, the Commission considers that the scope for the exercise of co-ordinated market power would not be enhanced in any defined market by the acquisition.

CONSTRAINTS FROM MARKET ENTRY

214. The constraint from existing competition in each of the defined markets is sufficient to satisfy the Commission that the proposed merger would not have, nor would be likely to have, the effect of substantially lessening competition in the defined markets. It is therefore unnecessary in this case to discuss in detail the issue of potential competition, and other competition factors.

OVERALL CONCLUSION

215. The Commission has considered the probable nature and extent of competition that would exist in the defined markets. The Commission considers that the appropriate benchmark for comparison is the status quo, in which the market is characterised by effective competition from existing participants.

216. The Commission has considered the nature and extent of the contemplated lessening of competition. The proposed acquisition would not result in the merged entity obtaining a market share that falls outside the Commission's safe harbour guidelines in the PC, HID, enterprise storage systems and IT services market.

217. Whilst the proposed acquisition would result in the merged entity obtaining a market share that falls outside the Commission's safe harbour guidelines in the servers and printer markets, the Commission considers that the existing competition in those markets is sufficiently robust to counter the effect of the merged entity's increased market share. Furthermore, the aggregation effect in the printer market will be negligible based on Compaq's minimal market share.

218. The Commission has also considered the nature and extent of the contemplated lessening of competition, in terms of the competitive constraints that would exist following the merger from existing competition.

219. The Commission is satisfied that the proposed acquisition would not have, nor would be likely to have, the effect of substantially lessening competition in New Zealand in the defined markets.

DETERMINATION ON NOTICE OF CLEARANCE

220. Accordingly, pursuant to section 66(3)(a) of the Commerce Act 1986, the Commission determines to give clearance for Hewlett-Packard Company (together with its subsidiaries and related companies, "HP") of the whole of the issued share capital of Compaq Computer Corporation (together with its subsidiaries and related companies, "Compaq").

Dated this 28th day of February 2002

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MJ Belgrave
Chair