



GOVERNMENT OF SAMOA

**SAMOA SECOND INFRASTRUCTURE AND ASSET MANAGEMENT
PROJECT (SIAM II)**

COMPONENT 5.01: LAND ADMINISTRATION AND SURVEY

LAND INFORMATION INTEGRATION PROCUREMENTS

TECHNICAL ASSISTANCE REPORT NO. 7

SUBMITTED TO

MINISTRY OF NATURAL RESOURCES, ENVIRONMENT & METEOROLOGY

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1.0	12/03/2005	Initial Draft	Neil Pullar
1.1	15/03/2005	Incorporate feedback from initial draft	Neil Pullar
1.2	01/04/2005	Further feedback – Remove ERDAS software, Add MapInfo Spatialware, Add Norton Ghost	Neil Pullar
1.3	16/04/2005	Add Appendices for suggested procurement packages. Remove Laptop. Change format to +RW for DVD disks.	Neil Pullar

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1. Background

The Samoan Second Infrastructure Asset Management Project (SIAM II), Component 5 'Sustainable Management: - Land Administration and Survey' wishes to purchase various computer equipment and software packages and to convert old microfilm records to digital image files. The equipment and data conversion service will be used to support the upgrade of the land registration system and associated technical and administrative processes within the Ministry of Natural Resources, Environment & Meteorology.

At the time of preparing these specifications, the Component 5 Project Inception Report had identified a significant shortfall in project funds for these procurements and the Ministry was investigating means of securing additional funding so that the Land Information Integration programme as envisaged in the project design and underpinning most activities in Component 5 could proceed.

An appendix has also been added to show the breakdown of the required equipment into separate procurement packages (in addition to the package required for the microfilm record conversion).

2. Technical Specifications for Computer Equipment (including software packages)

All equipment must be new, unused and conform to the following specifications.

2.1 Equipment Description

Description	
Enquiry/Data Entry Workstations	<p>Intel Pentium 4 3.0 GHz processor with 512MB SDRAM, Integrated Intel® Extreme Graphics. 40 GB Hard Drive (7,200RPM), 48 X Max CD-ROM Drive, PS2 Keyboard, 3 button including Wheel USB Mouse & Mat, 10/100 network card and the following ports: 1 serial, 1 VGA, 1 RJ-45(LAN), 1 parallel and 4 USB. 15 inch Colour LCD Monitor. UPS to provide emergency battery backup and surge suppression, have a VA rating of at least 500VA, connection by USB and to include file saving and auto shutdown software. Wireless Ethernet Adaptor PCI card accepting 802.11g protocol and incorporating 128 (or better) – bit industry standard encryption. Card should be compatible with integrated Wireless Access Point device and Windows XP Professional (SP2)</p>
Graphics Workstations	<p>Intel Pentium 4 3.0 GHz processor with 1GB SDRAM, Integrated Intel® Extreme Graphics. 40 GB Hard Drive (7,200RPM), Internal CD-R/W and DVD Writer; supporting DVD+R, CD-R, CD-RW; DVD+RW write speed 4X; CD read speed 48X; Data Buffer 2Mb; IDE connection and software for writing to both DVD and CD formats Drive, PS2 Keyboard, 3 button including Wheel USB Mouse & Mat, 10/100 network card and the following ports: 1 serial, 1 VGA, 1 RJ-45(LAN), 1 parallel and 4 USB. 17 inch Colour LCD Monitor. UPS to provide emergency battery backup and surge suppression, have a VA rating of at least 500VA, connection by USB and to include file saving and auto shutdown software. Wireless Ethernet Adaptor PCI card accepting 802.11g protocol and incorporating 128 (or better) – bit industry standard encryption. Card should be compatible with Integrated Wireless Access Point device and Windows XP Professional (SP2)</p>
Integrated Wireless Access Point	<p>All-in-one Access Point including a high-speed 2.4GHz 802.11g wireless broadband Router and a built-in Fast Ethernet Switch with 4 or more ports (10/100 Mbs switch). Wireless data transfer rate of 54 Mbs should be achievable. Security provisions should include 128 (or better)-bit industry standard encryption. Device should be compatible with wireless card specified with the new PC workstations provided in this order and with Windows XP Professional (SP2 loaded)</p>
Server	<p>Single Intel® Xeon™ Processor, 3.0GHz/1M. 800 MHz Front Side Bus. 1GB RAM 120 Gb Hard Disk Drive 10/100 Mbit NIC 15 inch Colour LCD Monitor.</p>

Description	
	<p>UPS to provide emergency battery backup and surge suppression, have a VA rating of at least 500VA, connection by USB and to include file saving and auto shutdown software.</p> <p>Internal DVD Writer; supporting DVD-R, DVD+R, DVD-RW, DVD+RW, CD-R, CD-RW; DVD+RW write speed 4X; Data Buffer 2Mb; IDE connection and software for writing to both DVD and CD formats.</p> <p>Windows Server 2003 (5 CALs) Antivirus software for Server with at least 1 year update service</p> <p>Server to be installed in MNREM File Server Enclosure at Molesi Office. Tenderer should include the cost of installation in their pricing</p> <p>Please provide pricing for a Rack Mounted installation as well as the option of installing the Server within its own Tower box.</p>
DVD+RW Disks (initial supply of Server consumables)	DVD +RW 4.7GB 4X (Rewritable) disks with Jewel Case
Flash Drive	256MB USB2.0 Flash Drive
Uninterrupted Power Supply (UPS)	UPS to provide emergency battery backup and surge suppression, have a VA rating of at least 500VA, connection by USB and to include file saving and auto shutdown software.
A3 B&W Laser Printer (Network Ready)	Ready to connect (ie all cables, accessories and software) A3 B&W Laser Printer, print speed (A4) 20 pages/minute; resolution of 600 X 600; Memory 16MB, A3 and A4 trays (ie 2 separate trays); USB 2 connectivity (plus cable); Network connectivity through 10/100 ethernet port. Maximum paper size A3 but also able to print other smaller formats especially A4.
A4 Colour Laser Printer (Network Ready)	Ready to connect (ie all cables, accessories and software) A4 Colour Laser Printer, print speed (A4) 20 pages/minute (B&W); 7 pages/minute (Colour) resolution of 600 X 600; Memory 8MB, 250 leaf A4 tray; USB 2 connectivity (plus cable); Network connectivity through 10/100 ethernet port.
A4 B & W Laser Printers (Connected to Workstation, not network ready)	Ready to connect (ie all cables, accessories and software) A4 B&W Laser Printer, print speed (A4) 20 pages/minute; resolution of 600 X 600; Memory 8MB, 250 leaf A4 tray; USB 2 connectivity (plus cable);
A3 Scanner	Flatbed colour image scanner, Minimum scanning surface 310mm X 435 mm, Optical Resolution 2400 X 4800, USB2 connectivity (include all cables)
A4 Scanner with ADF	Flatbed colour image scanner, Minimum scanning surface 216 mm X 297 mm, Optical Resolution 2400 X 4800, USB2 connectivity (include all cables) plus Automatic Document Feed attachment for minimum of 25 A4 pages
A4 Scanner (no ADF)	Flatbed colour image scanner, Minimum scanning surface 216 mm X 297 mm, Optical Resolution 2400 X 4800, USB2 connectivity (include all cables)
Large Format Roll Scanner	<p>Quote for both 25 inch and 36 inch Scanner meeting the following minimum specifications:</p> <ul style="list-style-type: none"> • Monochrome scanner • True optical resolution of 400 dpi • Scanning speed 3 inches/sec • Scanning accuracy 0.5% +/- 1 pixel

Description	
	<ul style="list-style-type: none"> • USB 2 connectivity to PC workstation running Windows XP Professional (SP2) • Ready to use (ie complete with stand, cables, interface card (if required) etc)
Digital Camera	5 MB, 3 X Optical Zoom, Flash, rechargeable batteries, USB2 interface & cables.
Adobe Acrobat 7.0 Standard	Single user licence of the latest version of this software package
Microsoft Visual Studio .NET 2003 Professional	Single user licence of the latest version of this software package
Microsoft Visio Professional 2003	Single user licence of the latest version of this software package
Symantec Norton Ghost (Windows Edition)	Single user licence of the latest version of this software package
Autodesk AutoSketch 9.0	Single user licence of the latest version of this software package or CAD package with similar functionality
MapInfo Spatialware	Single CPU licence of the latest version of this software package
MapInfo Professional	Single user licence of the latest version of this software package
Anti Virus Software	Industry recognized antivirus software with 12 month virus definition update subscription
SDRtransfer with QuickMap module	Single user licence of the latest version of this software package
HP 49GPlus	Handheld programmable calculator, model 49Gplus or later model
SurvCalc Software (for HP 49Gplus)	Single user licence of the latest version of this software package
Measuring Wheel	Measuring Wheel with easy to read display, ability to reset device at handle height (or at lower level with foot activation), portable (ie extendable handle with carry case), brake and mud scraper. Accurate to 1% of measured distance

2.2 Schedules of Quantities

The following schedules are ordered with the most critical procurement bundle (Core Computer Equipment and Software) listed first and the least (Auxilliary Equipment) listed last.

2.2.1 Core Computer Equipment and Software

These items are standard items that should be available through a local reseller. Extended warranty will be required over all items of hardware in this schedule.

Quantity	Description
4	Enquiry/Data Entry Workstations
2	Graphics Workstations
1	Integrated Wireless Access Point
1	A3 B&W Laser Printer (Network Ready)
1	A4 Colour Laser Printer (Network Ready)
1	A4 B & W Laser Printers (Connected to Workstation, not directly to the network)
1	A3 Scanner

Quantity	Description
1	A4 Scanner with ADF
1	A4 Scanner (no ADF)
1	Large Format Roll Scanner
6	Adobe Acrobat 7.0 Standard
1	Microsoft Visual Studio .NET 2003 Professional
7	Anti Virus Software
1	Symantec Norton Ghost (Windows Edition)

2.2.2 Core Special Purpose Software

These software packages will need to be purchased directly from the New Zealand or Australian resellers of the software.

Quantity	Description
3	MapInfo Professional
2	SDRtransfer with QuickMap module

2.2.3 Core Consumables

These items can be purchased locally.

Quantity	Description
20	DVD+RW (4.7 Gb) Disks (initial supply of Server consumables)

2.2.4 Non - Core Computer Equipment and Software

These items can be purchased through a local reseller with all hardware items to be covered by an extended warranty.

Quantity	Description
2	Enquiry/Data Entry Workstations
1	Graphics Workstations
1	Server
1	A4 Scanner (no ADF)
3	Adobe Acrobat 7.0 Standard
3	Anti Virus Software

2.2.5 Additional Handheld Calculators

These items will need to be purchased from the New Zealand or Australian reseller with the calculators covered by an extended warranty (if available). It may be possible to purchase the calculators and software (SurvCalc) from Geosystems Ltd (NZ). Otherwise it will be two separate procurements with the NZsurv software available only from Nicklin Surveying & Resource Management (NZ).

Quantity	Description
8	HP 49GPlus
8	SurvCalc Software (for HP 49GPlus) or NZsurv

2.2.6 Auxilliary Software

Each of these software items will need to be procured from a different supplier: ERDAS IMAGINE from the European supplier, Geosystems (Germany); Microsoft Visio Professional 2003 through a

local computer equipment and software distributor; and Autodesk through the Australian or NZ Autodesk distributor (Geosystems Ltd (NZ)).

Quantity	Description
1	MapInfo SpatialWare
1	Microsoft Visio Professional 2003
1	Autodesk AutoSketch 9.0

2.2.7 Auxilliary Equipment

Except for the Measuring Wheel all these items can be procured locally. With the Measuring Wheel it would only be available from an Australian or NZ survey equipment specialist distributor.

Quantity	Description
4	Flash Drive
1	Uninterrupted Power Supply (UPS)
3	Digital Camera
1	Measuring Wheel

2.3 Warranty & Maintenance Agreement

Three year warranty and maintenance agreement on all items of computer equipment (as specified in the schedules above) is required. The warranty to cover parts and labour.

Tenderers must indicate where maintenance will be carried out.

Postage, transport and handling charges for the repair or replacement of equipment covered by the maintenance agreement, is to be paid by the supplier.

On items of equipment where a tenderer is unable to offer this level of warranty and maintenance, tenderers should identify such items of equipment and state what warranty and maintenance can be offered.

Tenderers must indicate if replacement units will be made available, on a loan basis, if break downs occur on major items of equipment and the conditions attached to supply of such replacement equipment.

Tenderers must indicate the guaranteed turn around time for repairs.

2.4 Technical Support

Technical support must be available throughout the service life of the equipment. Tenders should indicate how technical support will be provided.

2.5 Specifications

The bidder is to provide a complete set of the manufacturer's published specifications.

3. Technical Specifications for Microfilm Data Conversion

3.1 Digital Format for Converted Data

A single pdf (the Adobe portable document format) file needs to be created for each survey plan or deed. In most cases this will be a single page but where there are multiple microfilm frames these should be combined in a multi-page pdf file.

Microfilm aperture cards are numbered on the image and, generally on the aperture card too.

Sub-standard microfilm images that cannot be satisfactorily converted should be identified.

3.2 Schedule of Quantities

Data Collection	Estimated Number of Aperture Cards
Survey Plan 1 – 6089 (some gaps)	8,000
Scheme Plan 1 - 1841	1,100 – 1,800
Land Claims	8,500
Grund Akten (German Admin Registration Folders – approx 600 folders)	6,000

3.3 Delivery Details

Converted pdf files will be written onto a CD and delivered to the Ministry by airmail or courier.

It will not be necessary to return the microfilm aperture cards to Samoa and these may be disposed of once the Ministry has reviewed the final digital images and found them acceptable.

3.4 Pricing

Potential suppliers are asked to provide a cost per converted aperture card.

A sample of 100 microfilm aperture cards can be made available on the basis that these aperture cards may need to be returned to the Ministry at the expense of the tenderer. No guarantees can be made that this sample is necessarily representative of the total collection of microfilms to be converted.

3.5 Conversion Approach

Tenderers should describe their proposed conversion approach including what steps will be taken to check the quality of the converted digital images.

Any similar experience with converting microfilm land records should be described.

Appendix A - Suggested Procurement Packages

Computer Equipment Suppliers (Contestible)

Schedule of Quantities

Quantity	Description
6	Enquiry/Data Entry Workstations
3	Graphics Workstations
1	Server
1	Integrated Wireless Access Point
1	A3 B&W Laser Printer (Network Ready)
1	A4 Colour Laser Printer (Network Ready)
1	A4 B & W Laser Printers (Connected to Workstation, not directly to the network)
1	A3 Scanner
1	A4 Scanner with ADF
2	A4 Scanner (no ADF)
1	Large Format Roll Scanner
9	Adobe Acrobat 7.0 Standard
1	Microsoft Visual Studio .NET 2003 Professional
10	Anti Virus Software
1	Symantec Norton Ghost (Windows Edition)
20	DVD+RW (8.5 Gb) Disks (initial supply of Server consumables)
1	Microsoft Visio Professional 2003
1	Autodesk AutoSketch 9.0
4	Flash Drive
1	Uninterrupted Power Supply (UPS)
3	Digital Camera

MapInfo Software Supplier (Sole Source)

Schedule of Quantities

Quantity	Description
3	MapInfo Professional
1	MapInfo SpatialWare

SDRtransfer Software Supplier (Sole Source)

Schedule of Quantities

Quantity	Description
2	SDRtransfer with QuickMap module

SurvCalc Software & Survey Equipment Supplier (Sole Source)

Schedule of Quantities

Quantity	Description
8	HP 49GPlus
8	SurvCalc Software (for HP 49GPlus) or NZsurv
1	Measuring Wheel