Retail Stores vs. Transversal Contract

Considerations for ICT Procurement

SITA

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Technology Advisory Services (TAS)
February 2020

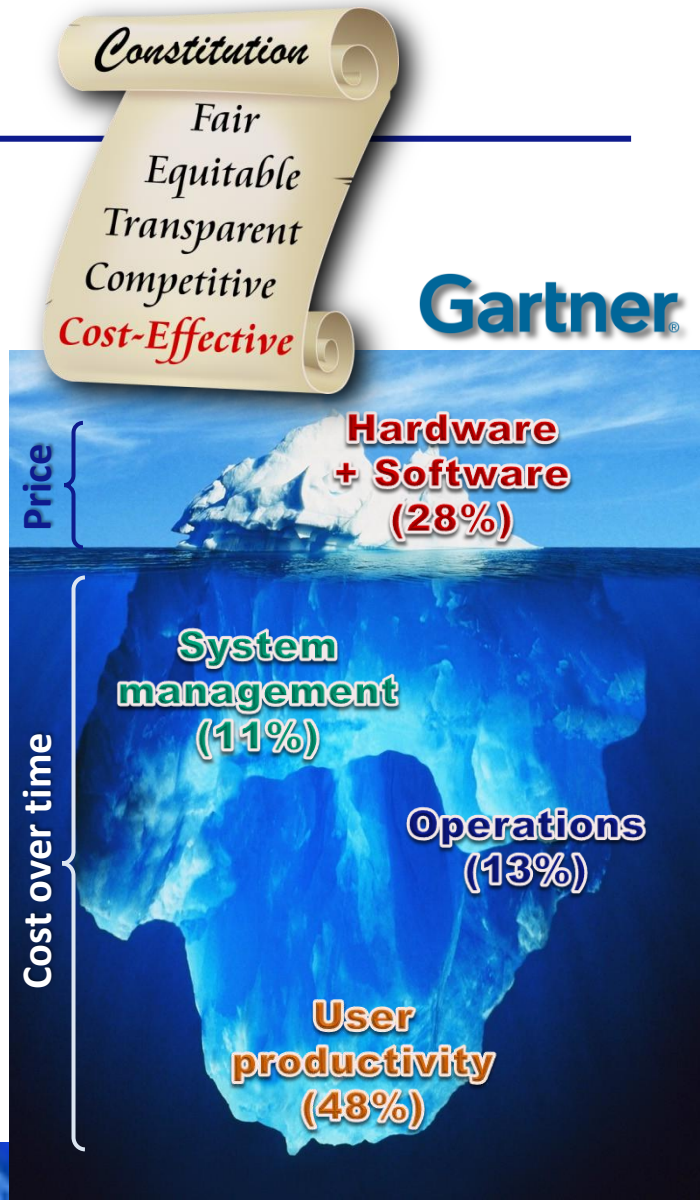
Summary of Research Findings

- Research Report: *Procuring ICT Products from Retail Stores vs. Transversal Contracts*
- Commissioned by GITOC in 2010, revised 2017 and 2020

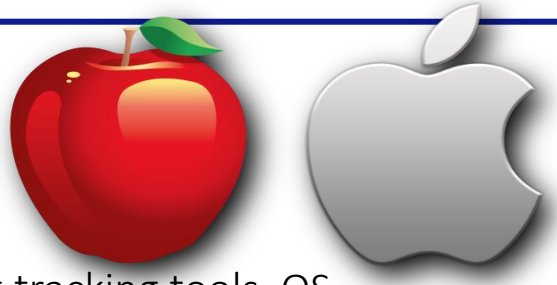
Government requirement / value-add	Retail	Contract
Enterprise-focussed system with Professional OS, system management, asset tracking, built-in security, anti-theft	✗	✓
Stable, reliable, high-quality platform with long lifespan, 3-year on-site SLA and focussed services	✗	✓
Low Total Cost of Ownership	✗	✓
Enterprise software options such as OEM preloads, support for system image roll-outs, encryption and system restore	✗	✓
On-site delivery, installation, support and maintenance, training	✗	✓
Certified OS compatibility and ISO manufacturing quality	✗	✓
Value-added components included in price, including carry bag, security locks, software, cables	✗	✓
SITA certification as per Government regulations (MIOS)	✗	✓
Support for BEE, PPPFA and other SA economic imperatives	✗	✓

Cost factors in ICT procurement

- Constitution mandates **cost-effectiveness**, not cheapness
  - Cost ≠ Price – i.e. **Total Cost of Ownership** focus
- Transversal contract TCO features:
  - Complete solution (Pro OS, carry bag + lock)
  - 3-year on-site SLA with next-business day **repair**
  - Better security (encryption, remote wipe option, security clearance for technicians, no leaks during repair)
  - Stable, manageable platform with asset tracking and data protection options
  - OS options: Windows 10 Pro, Linux
    - Win10 Home cannot connect to Domain (AD)
  - Standard configurations with pre-built disk images for mass roll-out
  - No preloaded trialware/crapware/spyware



Additional considerations



- Windows Pro + minimum accessories bundle = **~R3000 extra**
- 3-year warranty + on-site SLA = **~R1500 extra**
- Stability: products and components do not change for 12–18 months
- Contract products have enterprise-level options: docks, biometrics, asset tracking tools, OS downgrade rights, Linux (open source)
- Support for economic imperatives such as empowerment
- National Treasury blacklist process as last recourse: only on Contract
- There **are** lower-price options on Contract:
  - **PC2** & **Note2** (low-end systems) still meet enterprise requirements
- e-Waste processes supported by enterprise OEMs
- Retail stores often offer one-time specials (typically dumping older products)
- ICT products contain 100s of parts. Even if CPU, RAM and HDD are similar, it doesn't mean the products are the same.
- Retail systems do not comply with Government minimum requirements, cannot be certified

SITA-specified laptops: Comparison

Note1	Note2	Note3	Note4	Note5	Retail
Chromebook / Thin client	Value	Ultrabook	Midrange business	Advanced business	JUST CHEAP
AMD / ARM / Intel 1GHz	Last-gen Celeron/Athlon Dual-core	Latest i5 / Ry5	Latest i5 / Ry3	Latest i5 / Ry5	Various CPUs, Low-cost, low-featured, low-quality
SLA: 3-year on-site, Next Business Day repair					?
Bundle: Windows 10 Pro, Cable lock + Carry bag, Delivery					?

Price curve

Ensure that the device suits the user requirement

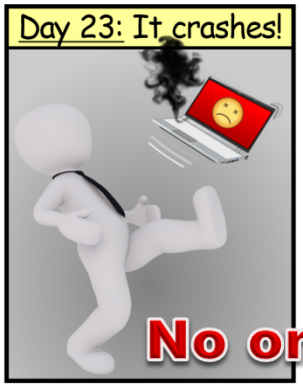
Printing TCO scenario

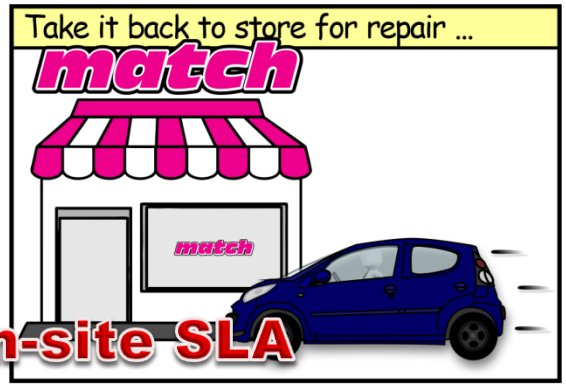
It's too expensive to buy the "cheap" one!

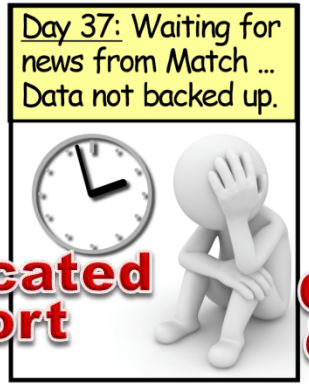
	Retail	Office
The cheapest …		
Price	**R909**	**R 3 799**
Ink prices	Black: **R257** Colour: **R303**	Black: **R790** Colour: **R649**
Ink yield (pages)	Black: **190** Colour: **165**	Black: **3 000** Colour: **2 000**
Monthly volume	**250** pages	**2 000** pages
Print speed	6 pg/min	20 pg/min
The fine print … → Cost / page	**R3.19**	**R1.24**
3-year TCO (200 pages/month)	**R23 439**	**R11 838**
3-year TCO (1000 pages/month)	**R115 282**	**R48 325**

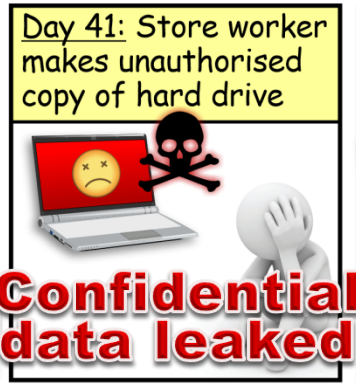
… costs 2.5x more!

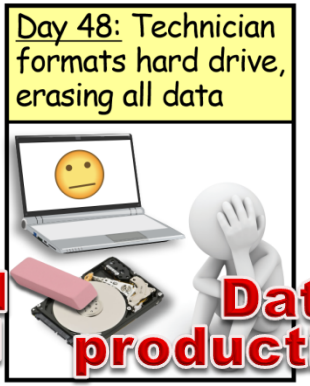
Failure and service risk: Retail store

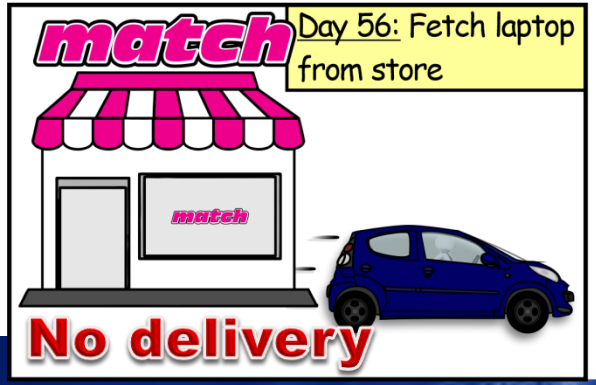






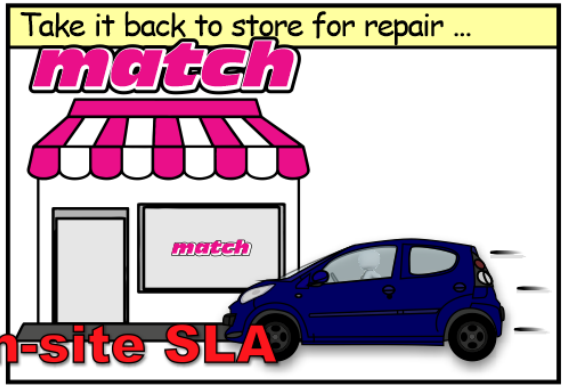


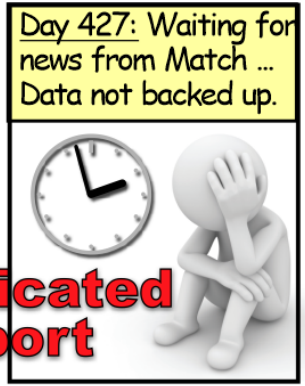


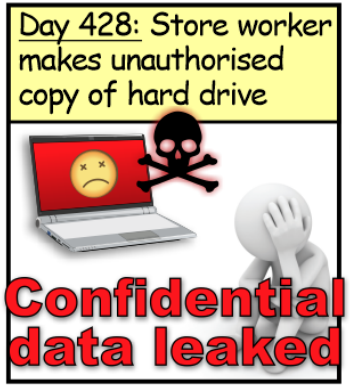


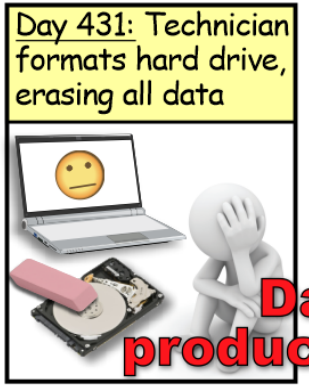
Cost/benefit analysis	
Money saved on cheap laptop	R3000
Hours lost fetching and returning	4
Hours lost waiting in queue @ Match	2
Weeks lost waiting for repair	5
Weeks lost recreating lost work	8
Estimated labour value lost	R7000
Damage to organisation	**Priceless**

Failure and service risk: Retail store (OUT OF WAR-RANTY)









Risk analysis: out of warranty repairs

System registered? Kept receipt?	No	Short system lifecycle: spares not	
Motherboard failure	R 4 000	available, replace system:	R8 000
LCD failure	R 3 000	Time and cost to recreate data:	??
Hard drive failure	R 1 000		
RAM failure	R 1 000	Negative savings from "cheap"	
Labour cost per hour	R 800	laptop:	
3 hours labour	R 2 400	If repaired:	R -3 400
Example repair cost	R 6 400	If replaced:	R -5 000

Failure and service risk: Transversal contract

Cost/benefit analysis	
Higher price laptop	R3000
Hours lost driving to store	0
Hours waiting for repair	10
Hours recreating lost work	0
Est. labour value lost	R500
Value of data lost	R0
Value to organisation	Priceless

Comparing 2 used cars

- 2015 model
- 1.6 litre sedan
- Air-conditioner
- Airbags
- ABS
- Central locking

Looking at just the headline specs, these 2 cars are **exactly** the same. But when we look at the price …

R250 000

R90 000

Obviously the right-hand car is a better deal, since we get the same car for much less money!

🤔

Could there **possibly** be some other factors at play that dermine the price difference?

Decisionmaking for CIOs

Don’t base ICT buying decisions on what falls out of the newspaper

Engineering principle

**Pick any 2 —
you can't have all 3**

Conclusion

- When comparing **apples to apples**, transversal contracts are cheaper **and** offer lower TCO.
- This is **not** about protecting SITA's business — SITA makes no money from transversal contracts.
- It's about informing Government about "cheap", low-quality consumer-class devices that don't meet user requirements.
- Contact us for more info:
  - tas@sita.co.za
  - www.sita.co.za/prodcert.htm

Thank you

Questions?

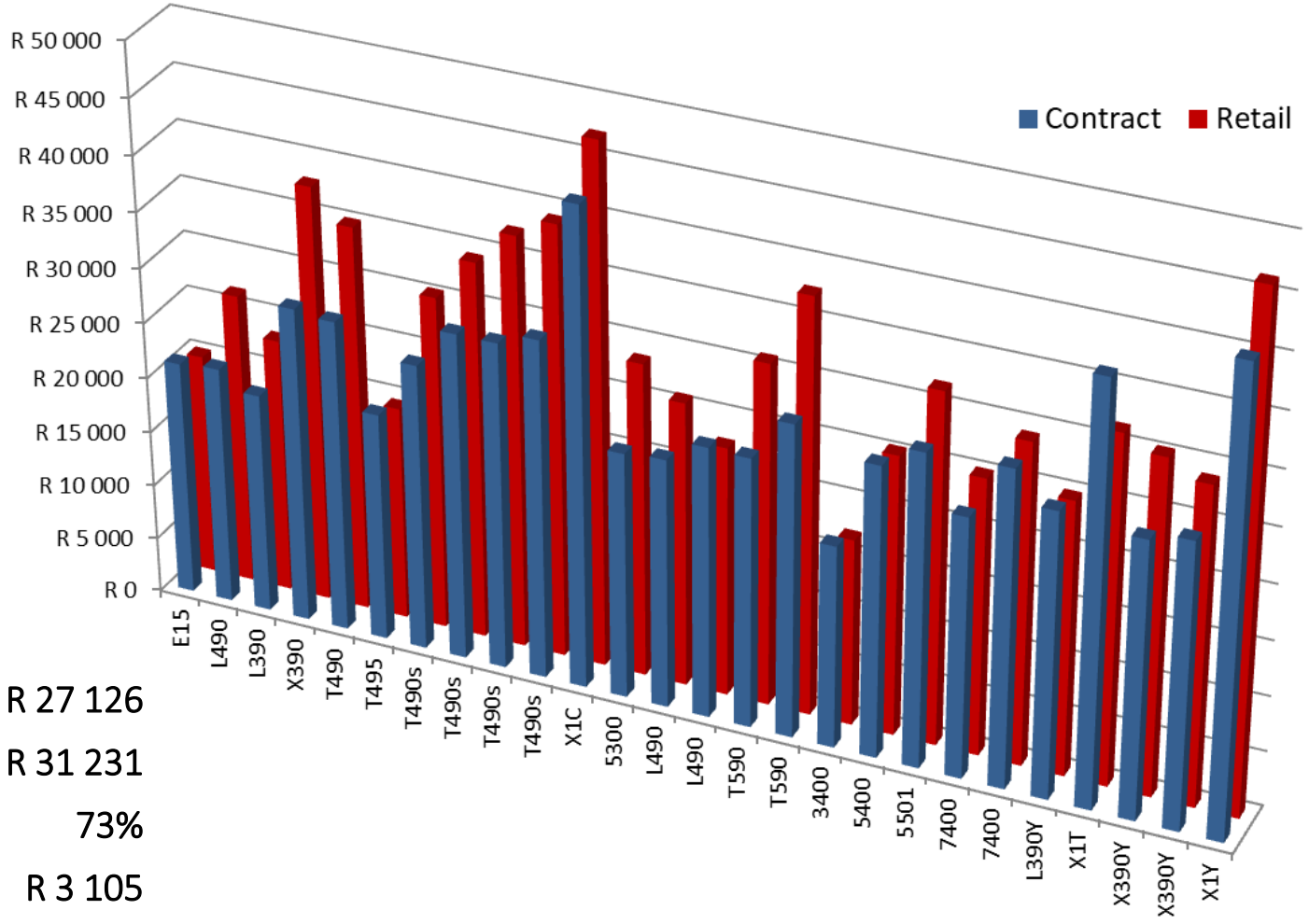
SITA

"In other words standards are being formulated whereby the non-standard parts, which must conform to certain standards of non-standardisation, are also to be handled only in a standardised non-standard way in order to standardise on the overall non-standardisation."

— John Gordon, *The Alice and Bob after-dinner speech*

Backup

Price comparison 2020 – Contract products are cheaper



Average price, Contract	R 27 126
Average price, retail	R 31 231
% of systems cheaper, 2005:	73%
Average price difference:	R 3 105

Discussion

- Cost ≠ Price: Constitution Article 217 requires **cost-effective** procurement.
- "The same" ≠ "the same" – retail systems differ fundamentally i.t.o. design, quality, components, manageability, reliability, longevity, etc.
  - In a **true** apples-to-apples comparison retail systems are usually significantly more expensive.
  - OEMs estimate **~R6000** value-adds for enterprise-class systems.
- Time and Material repairs are costly, ineffective, time-consuming and difficult to manage. Bundled on-site SLA with transversal contracts is hassle-free.
- Research Report available with all the details.
- SITA specifications are drafted with input from Government.
  - Collaborative effort, "open-source" methodology.
  - **Please participate** electronically or via monthly GITOC TTT forum.

Caveat Emptor

- Stores use a **Bait & Switch** tactic – they get you in the store with a leaflet, then **"upsell"** you to something better
- No system management capability
- Low-quality, cheapest possible components
- No asset tracking capability
- No consistency (3–6 months model lifespan)
- Last year's technology
- Compare R15,000 enterprise ultrabook with R25,000 consumer ultrabook. Are they the same?

TCO factors

Gartner®

Category	Expense	Definition	How to Calculate
Hardware & software	Direct	Includes initial hardware and software purchases or lease costs, along with software licensing, subscriptions, maintenance contracts, extended warranties, set-up fees, supplies, materials and spare parts.	Pull invoices, purchase orders and records related to hardware and software expenses over a three year period. Divide total costs by three to get an accurate annual TCO picture. Depreciation costs should also be included.
Operations	Direct	Includes all labor costs for IT operations, such as tech support, database administration, website, helpdesk, etc. Includes staff salaries (wages and benefits), as well as any outside service providers. Also includes facilities costs used by IT staff (office space, furniture, utilities), along with network costs and internet connectivity.	Many small organizations do not have dedicated IT staff. In that case, responsibilities typically fall to the office manager or person who knows the most about computers. Estimate the # of hours that person (s) spends directly managing IT and multiply by their hourly wages. If you work with an IT service provider, add up all those payments, including hourly fees. If you are locked into a monthly retainer or long-term IT service contract, make sure you factor in those fees as well.
Admini-stration	Direct	Includes finance, HR, administration and procurement costs spent managing internal IT staff or outsourced providers. Also includes training for staff members.	Whether you have an internal IT staff or work with outside service providers, someone still spends time hiring, procuring and managing those relationships. Estimate the # of hours spent on IT oversight and multiply by the appropriate hourly wage. Any employee training expenses should also be calculated.
End-user operations	Indirect	Includes productivity lost to end-user frustration, troubleshooting, “futzing” and providing informal IT assistance to co-workers.	This category is the most difficult to measure, yet represents the highest percentage of TCO. Many employees try to fix problems themselves, rather than pay expensive hourly rates for outside service providers. Estimate the # of hours employees lose dealing with computer issues, along with the # of hours they spend self-training or helping others, and multiply by the average hourly wage.
Downtime	Indirect	Productivity and revenue lost to inoperable or inaccessible computers, servers, software, internet connectivity, etc.	Estimate the # of hours computers are down due to viruses, hardware failure and planned maintenance and multiply by the average hourly wage.

Retail vs. Contract PCs: Details

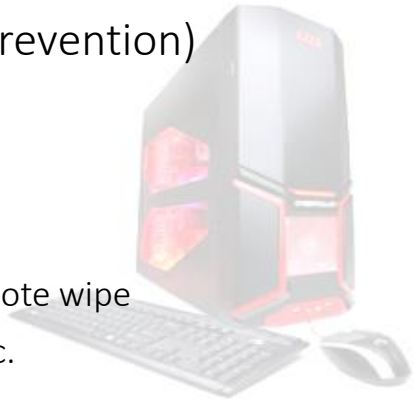
Component / value-add	Retail	Contract
Cheap, special-based prices for limited time	✓	✗
System designed for enterprise use (work focus vs home focus): secure, stable and reliable	✗	✓
Fully secure product with hardware TPM, data encryption, asset tracking & remote wipe, physical lock (e.g. Kensington cable)	✗	✓
Enterprise OS (Windows Pro/Enterprise) — not retail Windows Home/Basic	✗	✓
Enterprise directory integration (AD domain support)	✗	✓
Downgrade rights and alternative OS options (e.g. Linux)	✗	✓
Stable platform: 12-18 months model change cycle with no component changes (retail products change in 3–6 months)	✗	✓
Designed product lifespan >= 3 years: more cost-effective, less wastage	✗	✓
Enterprise-grade, high-quality, durable construction (e.g. laptop hinges, MIL-STD)	✗	✓
Support for enterprise system management (e.g. vPro, DASH, Wake on LAN)	✗	✓
Support for hard drive imaging to save deployment time and labour	✗	✓
Fully-specified, configured and certified system (no missing components such as monitors, bags or software)	✗	✓
High-contrast, anti-glare monitors for office environments	✗	✓
Enterprise-level accessories: docks, WWAN, WiGig, common components, high-quality bags, locks	✗	✓
No trialware, demoware, adware or nagware	✗	✓
Included services: On-site delivery, installation and 3-year on-site support SLA	✗	✓
Environment-friendly with support for Green ICT	✗	✓
SITA certification	✗	✓
Support for SA economy (BEE, PPPFA)	✗	✓

Price comparison detail

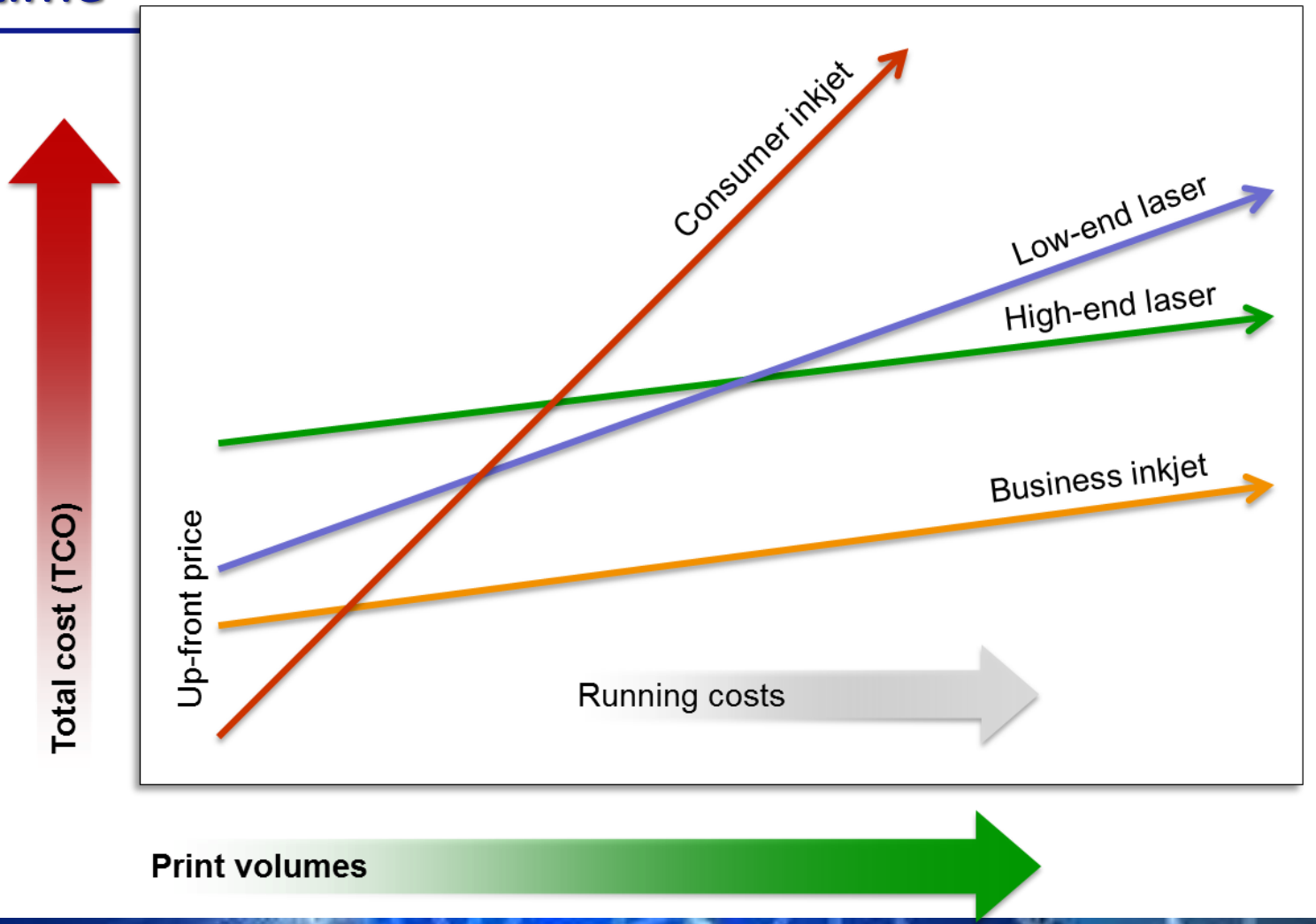
Item	Product	Config	Contract 2005	1STOPSHOP.co.za		loot.co.za	
Note2	ThinkPad E14	14" i5 8GB 512GB	R 19 999			R 17 951	90%
Note2	ThinkPad E15	15" i7 8GB 512GB	R 21 320	R 20 139	94%		
Note2	ThinkPad L490	14" i5 8GB 512GB LTE	R 21 633	R 26 499	122%		
Note3	ThinkPad L390	13" i5 8GB 256GB	R 20 023	R 23 199	116%		
Note3	ThinkPad X390	13" i7 8GB 512GB LTE Touch	R 28 716	R 37 849	132%		
Note3	ThinkPad T490	14" i7 8GB 512GB LTE	R 28 355	R 35 029	124%		
Note3	ThinkPad T495	14" Ry5 8GB 256GB	R 20 769			R 19 461	94%
Note3	ThinkPad T490s	14" i5 8GB 512GB LTE	R 26 067	R 30 329	116%	R 32 999	127%
Note3	ThinkPad T490s	14" i7 8GB 512GB	R 29 679	R 34 219	115%		
Note3	ThinkPad T490s	14" i7 8GB 512GB LTE	R 29 679	R 37 349	126%		
Note3	ThinkPad T490s	14" i7 8GB 512GB LTE Touch	R 30 763	R 39 109	127%		
Note3	ThinkPad X1 Carbon	14" i7 16GB 1TB LTE	R 43 284	R 47 099	109%		
Note3	Latitude 5300	13" i5 8GB 256GB	R 22 334			R 28 457	127%
Note4	ThinkPad L490	14" i5 8GB 512GB	R 22 628	R 25 799	114%		
Note4	ThinkPad L490	14" i7 8GB 512GB LTE	R 24 583	R 22 629	92%		
Note4	ThinkPad T590	15" i5 8GB 512GB	R 24 474			R 30 935	126%
Note4	ThinkPad T590	17" i5 8GB 512GB LTE	R 28 327	R 37 599	133%		
Note4	Latitude 3400	14" i5 8GB 256GB	R 18 380			R 16 950	92%
Note4	Latitude 5400	14" i7 8GB 256GB	R 26 400			R 25 361	96%
Note4	Latitude 5501	14" i7 16GB 512GB LTE	R 28 396	R 31 839	112%	R 25 361	89%
Note4	Latitude 7400	14" i7 8GB 256GB	R 23 603	R 25 069	106%	R 23 764	101%
Note4	Latitude 7400	14" i7 8GB 512GB	R 28 708	R 29 129	101%	R 27 762	97%
Note_Tab1	ThinkPad L390 Yoga	13" i5 8GB 512GB	R 25 903	R 24 839	96%		
Note_Tab1	ThinkPad X1 Tablet	13" i5 8GB 256GB LTE	R 38 176	R 31 579	83%		
Note_Tab1	ThinkPad X390 Yoga	13" i5 8GB 512GB LTE	R 25 177	R 30 329	120%		
Note_Tab1	ThinkPad X390 Yoga	13" i7 8GB 512GB LTE	R 25 958	R 28 829	111%		
Note_Tab1	ThinkPad X1 Yoga	14" i7 16GB 512GB LTE	R 41 932	R 46 379	111%		

Consumer vs. Enterprise computers

- Failure risk – what happens if it breaks?
  - Have to take it back to store — on-site support is a **huge** issue
- OS considerations
  - Pro OS with downgrade rights
  - Domain support
  - Alternative OS options: Linux
- Build quality & reliability
  - Metal/carbon body and hinges, higher duty cycle, more reliable
  - Often ruggedised (MIL-STD 810G), drop/dust/temperature/spill-resistant
- Security designed in (including data loss prevention)
- Long lifecycle
- Enterprise-level accessories
  - Included: bag, lock, 3-year support
  - Support for asset management and tracking, remote wipe
  - Optional: biometrics, docks, service upgrades, etc.



Printing TCO over time



Detail comparison

	game / Incredible Connection / makro	SITA
Configuration	**Core i5 CPU, 8GB RAM, 240GB SSD** Identical basic system configuration – but this is not important in terms of TCO and long-term use	
Storage	**240GB SSD**	**240GB SSD**
Display	**Low-resolution, glossy coating TN** Low definition, best suited to dark environments where reflections do not distract, poor viewing angles	**High-resolution, anti-glare IPS** High definition, good viewing quality in all environments (specifically office with bright lights), good viewing angles
Physical size and weight	**Average: 2.5kg, 2.17dm^3** Relatively large and heavy due to consumer design and non-optimised materials, DVD drive	**Excellent: 1.35kg, 1.16dm^3** Best-in-class size and weight for enterprise: almost **half** the size and weight of the retail system
Mobility and battery life	**Mediocre** Mobility is not a primary mandate	**Good** System design and components optimised for mobility
Product focus	**Up-front price – short-term** Lure the buyer with a "**CHEAP!**" sticker	**TCO – long-term** Lower cost with fewer failures over long-term use
Operating system	**Windows 10 Home** Unmanaged consumer OS, no domain integration or enterprise features.	**Windows 10 Pro** Managed and domain-integrated, enterprise OS. Allows deferment of updates until tested.
Security	**No specific provision** Limited built-in security capabilities; cable lock not bundled, TPM, encryption not available	**TPM, AD login, Encryption, Fingerprint, Tracking, Cable lock** Secure storage of crypto keys, Departmental login, support for encryption, asset tracking built-in, remote wipe, physical cable lock
Data security in case of failure	**Data is at the mercy of retail store** No guarantee of breach or data loss	**Data does not leave office** Cannot be lost or compromised
SSA guidelines for data security	**No provision for hard drive security** Hard drive with data has to be returned to OEM	**Keep your drive** OEM allows hard drive to remain at client, or securely wiped in line with SSA guidelines
Installed software	**No control – OEM marketing** Several types of scareware, trialware and ransomware – even spyware	**Full control – Gov software image** Built by Department, loaded @ factory
On-site delivery and installation	**User responsibility** User has to fetch the product and install it	**Included in price** Delivered and installed in office by reseller
Support and warranty	**1-year carry-in** No on-site service, user must return to store, typical 6-week turn-around time, no 3-year SLA. Other repairs will be on a time-and-material basis, which is slow, costly and difficult to manage.	**3-year on-site** Guaranteed 8x5, next business day repair SLA.

Why use transversals?

- “Computers acquired from contract come with an on-site three year warranty which includes maintenance, while product acquired from retail comes with a one year warranty which requires the customer to carry the equipment in for any repair.”
- “All the IT equipment acquired from contract are quality checked by SITA LAB and OEMs have signed an agreement with SITA to ensure that they supply the equipment according to government standards.”
- Well-informed, objective advice from SITA Lab, tested, vetted and benchmarked

Technology Certification Process (TCP)

- SITA is mandated i.t.o. SITA Act and NT Regulations certify ICT goods and services
- 8 Technology Domains:


Personal Computing Devices (PCD)


Peripherals


Assistive Technologies (AT)


Education Solutions


Servers & Storage

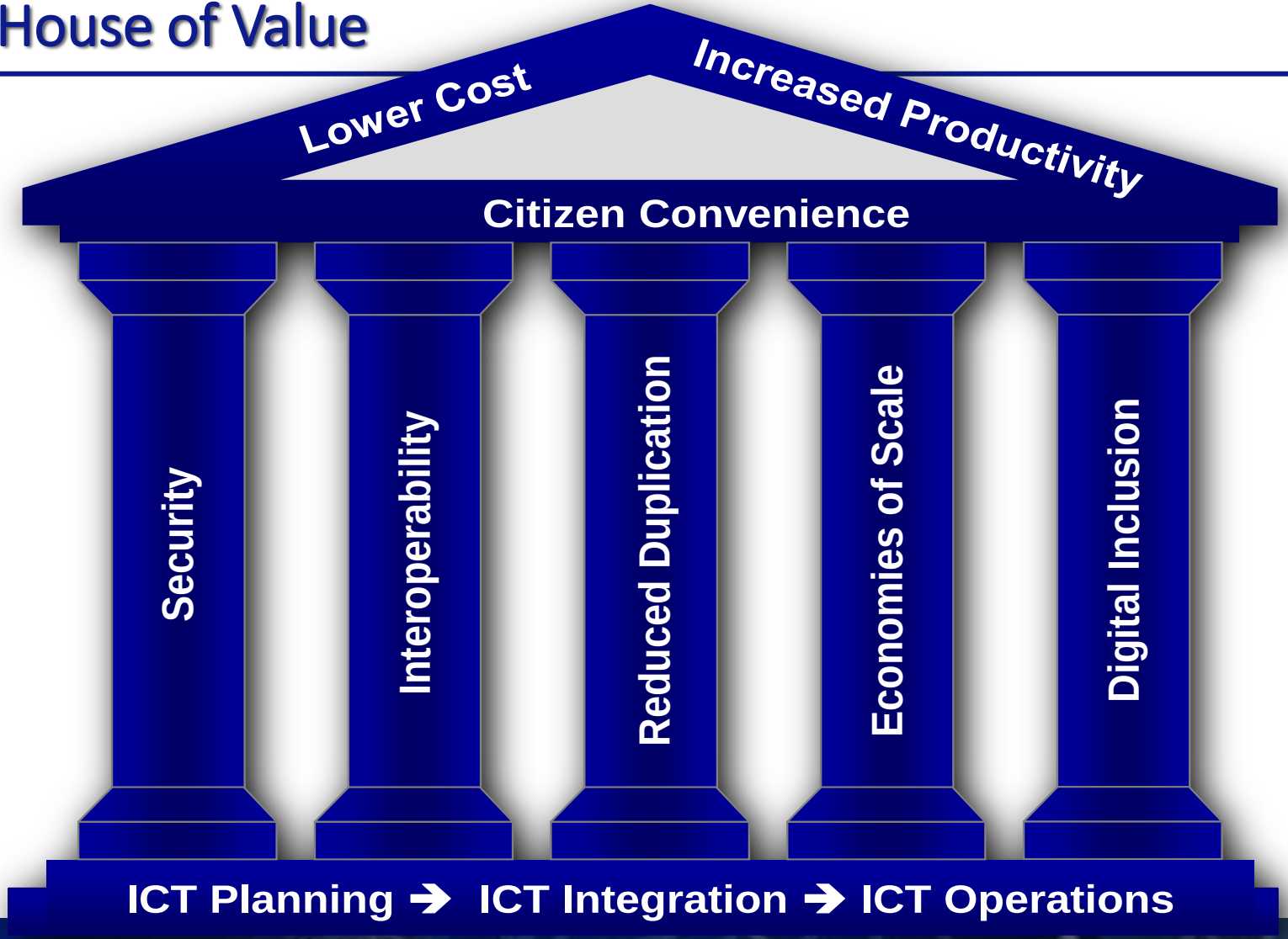

Audiovisual Communications Technologies (AVCT)


Networking


Infrastructure

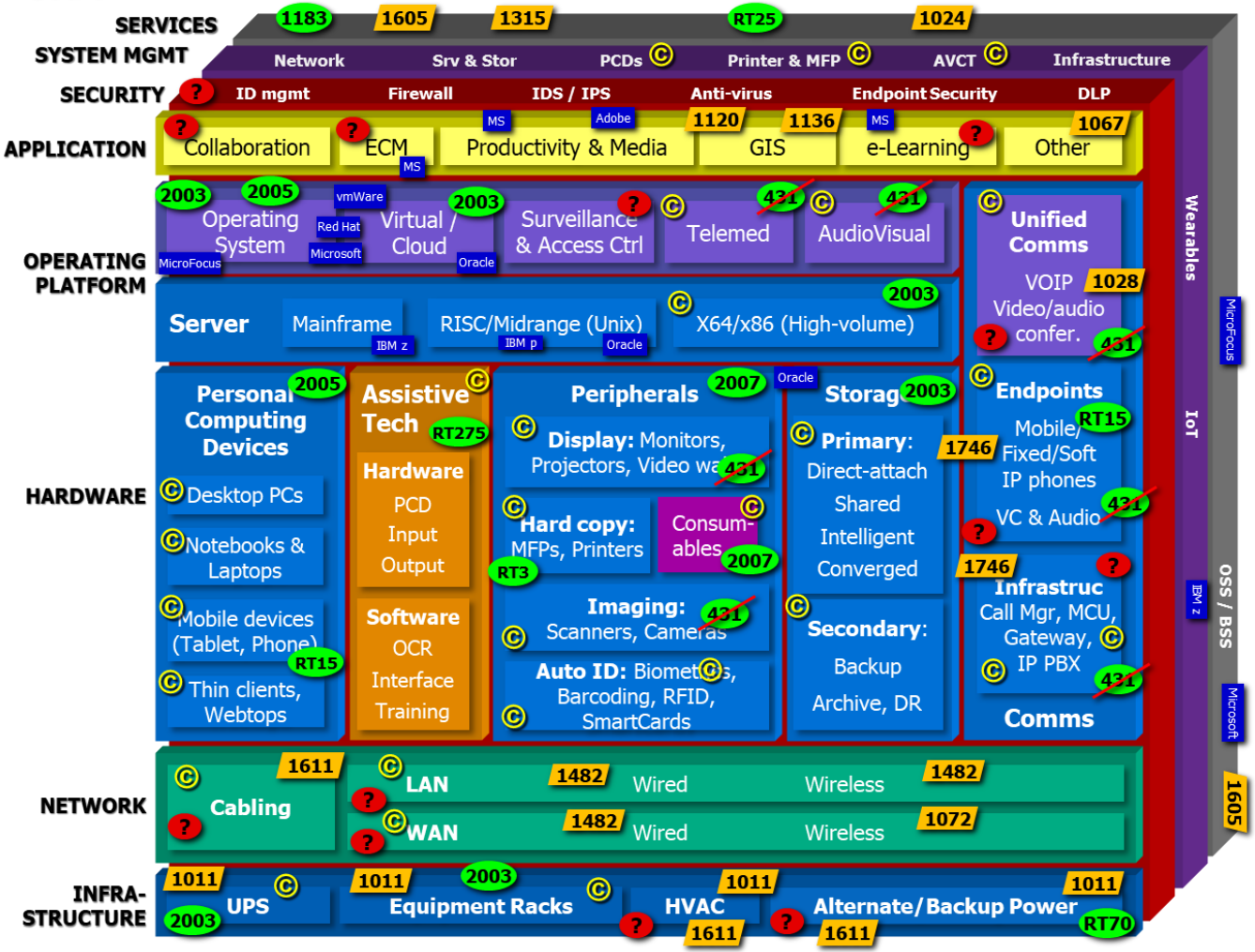
- GITOC-approved specifications with input from all role players, including Departments, suppliers. >170 OEM participants

e-Government House of Value



Government Transversal Technology Domains

Platform Diagram v5.9, © SITA, November 2019
www.sita.co.za/prodcert.htm

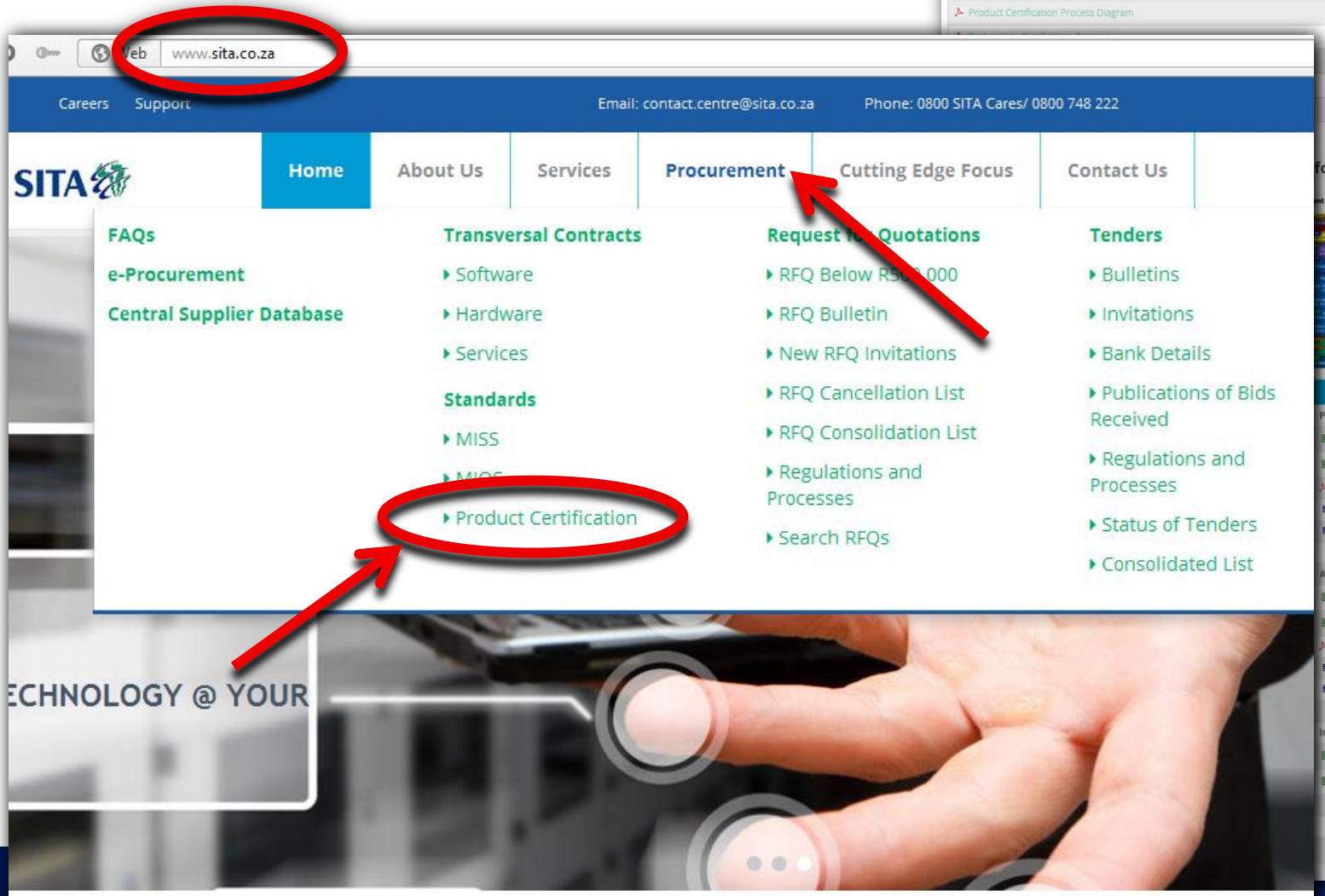


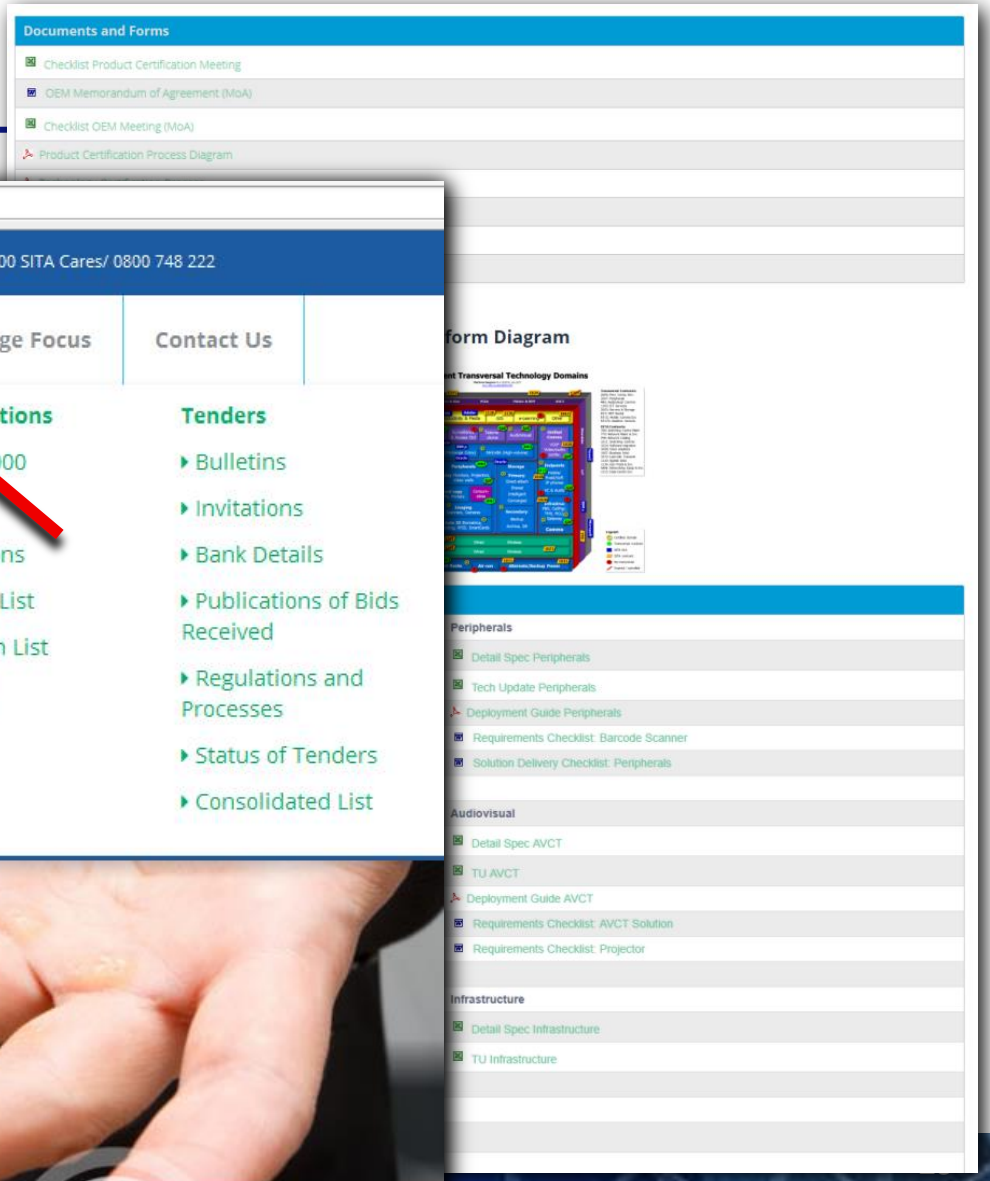
Transversal Contracts:
1183: ICT Services
2003: Servers & Storage
2005: Pers. Comp. Dev.
2007: Peripherals
~~431~~: Audiovisual Comms
RT3: MFPs, Shredders
RT15: Mobile Comms Svc
RT25: MSCOA (IFMIS)
RT70: Diesel for generators
RT275: Assistive Solutions

SITA Contracts:
768: Switching Centre Maint
1011: Switching Centres
1024: Software migration
1067: Business Intel.
1072: Last-mile Transmit
1081: LAN Hardware Maint
1120: Spatial Data
1136: GIS Prods & Svc
1315: Data Centre Svc
1482: Network Equipment
1605: Network Maint & Suppt (incl LDS)
1611: Cabling
1746: Voice solutions

Legend:
- Certified domain
- Transversal contract
- Transversal required
- SITA ELA
- SITA contract
- Lapsed

Product Certification website

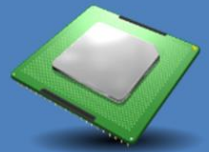




Office vs Home

Office vs Home

Specs

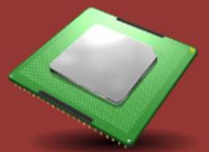

Core i5 CPU


8GB RAM


240GB SSD


240GB SSD


8GB RAM


Core i5 CPU

Services

On-site delivery ✓
3-year SLA ✓
Next-day repair ✓

× No delivery
× 1-year carry-in, no SLA
× 3 weeks wait time

Security


Domain join


TPM


Encryption


Virus


Ransomware


Nagware


Spyware


Data loss

Office vs Home

Price

70%+ of systems **cheaper** on Contract 2005 ✓
Lower TCO ✓

× Average **R3000** more expensive in retail shops
× Higher TCO

Bundle


Cable lock


Carry bag


Win10 Pro


Win10 Home

No accessories bundled

Conclusion

Meets Government standards

Take a chance – YMMV